

09-22-2017 LETTING ITEM 044

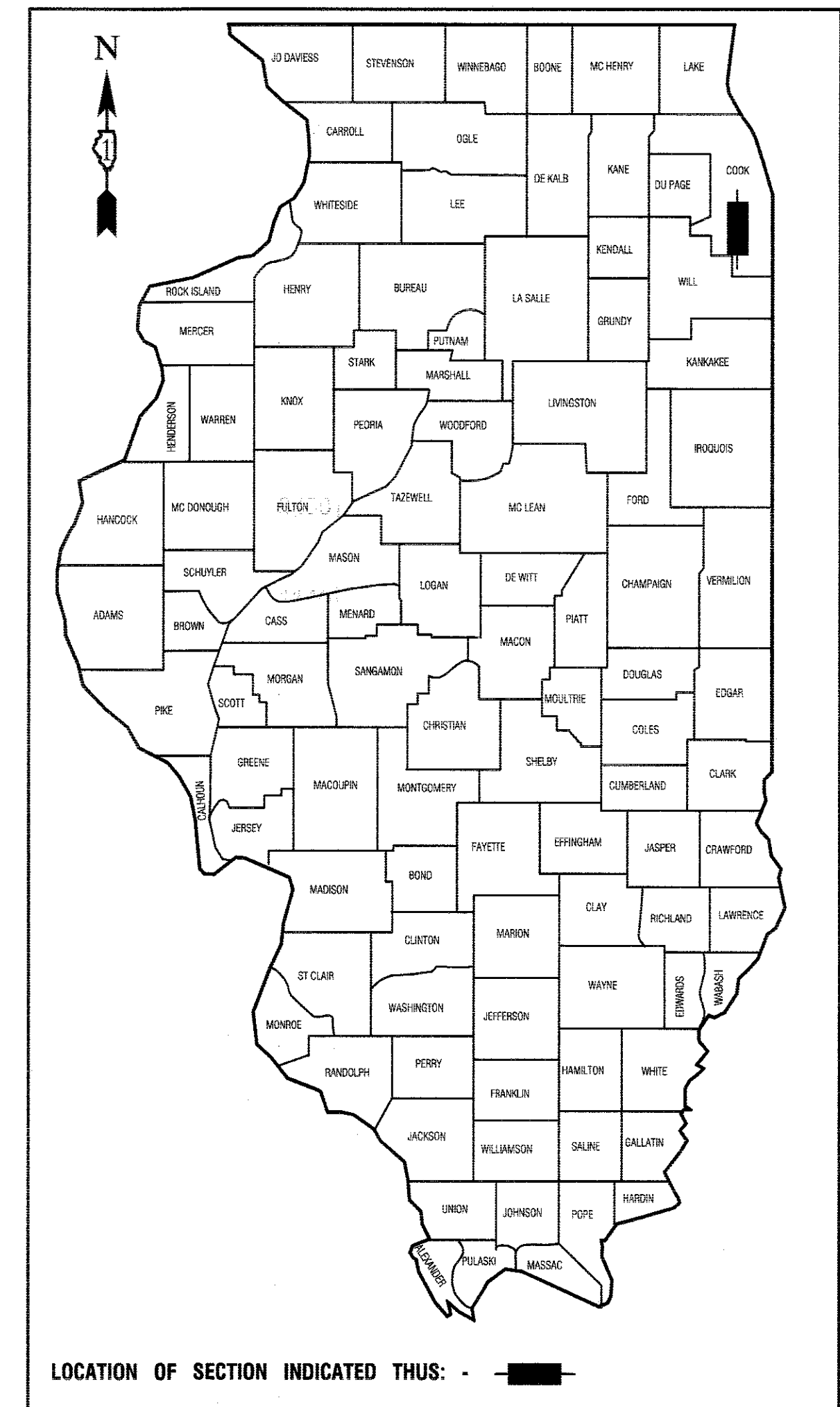
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F. A. I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1619	17-00119-00-RS	COOK	18	1
STA.	TO: STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT #61E08

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

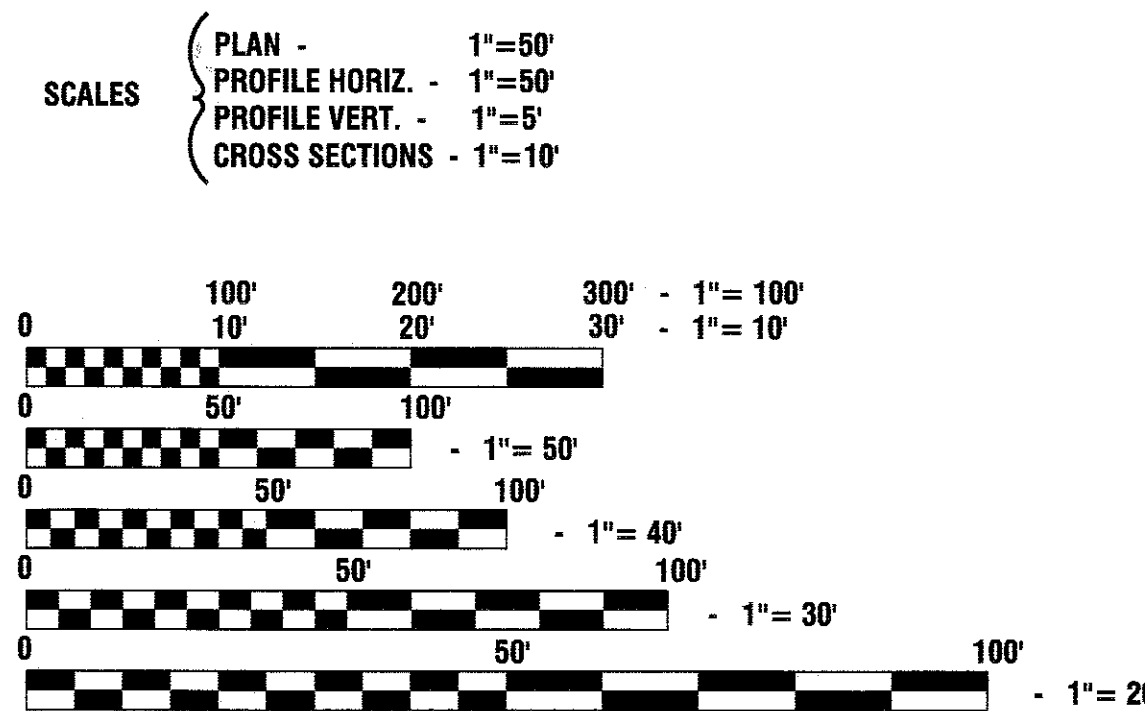
FAU 1619 (84TH AVENUE)
171ST STREET (FAU 1612) TO 159TH STREET (FAP 0351)
RESURFACING
PROJECT NO.: MU65 (437)
SECTION NO.: 17-00119-00-RS
VILLAGE of TINLEY PARK
COOK COUNTY
C-91-257-17



INDEX OF SHEETS
SEE SHEET NO. 2

HIGHWAY STANDARDS
SEE SHEET NO. 2

84TH AVENUE	
2017 ADT -	5,800
2030 ADT -	5,800
POSTED SPEED LIMIT -	25 mph
DESIGN PERIOD -	20 YEARS
DESIGN SPEED LIMIT -	35 mph
STREET CLASSIFICATION -	MAJOR COLLECTOR

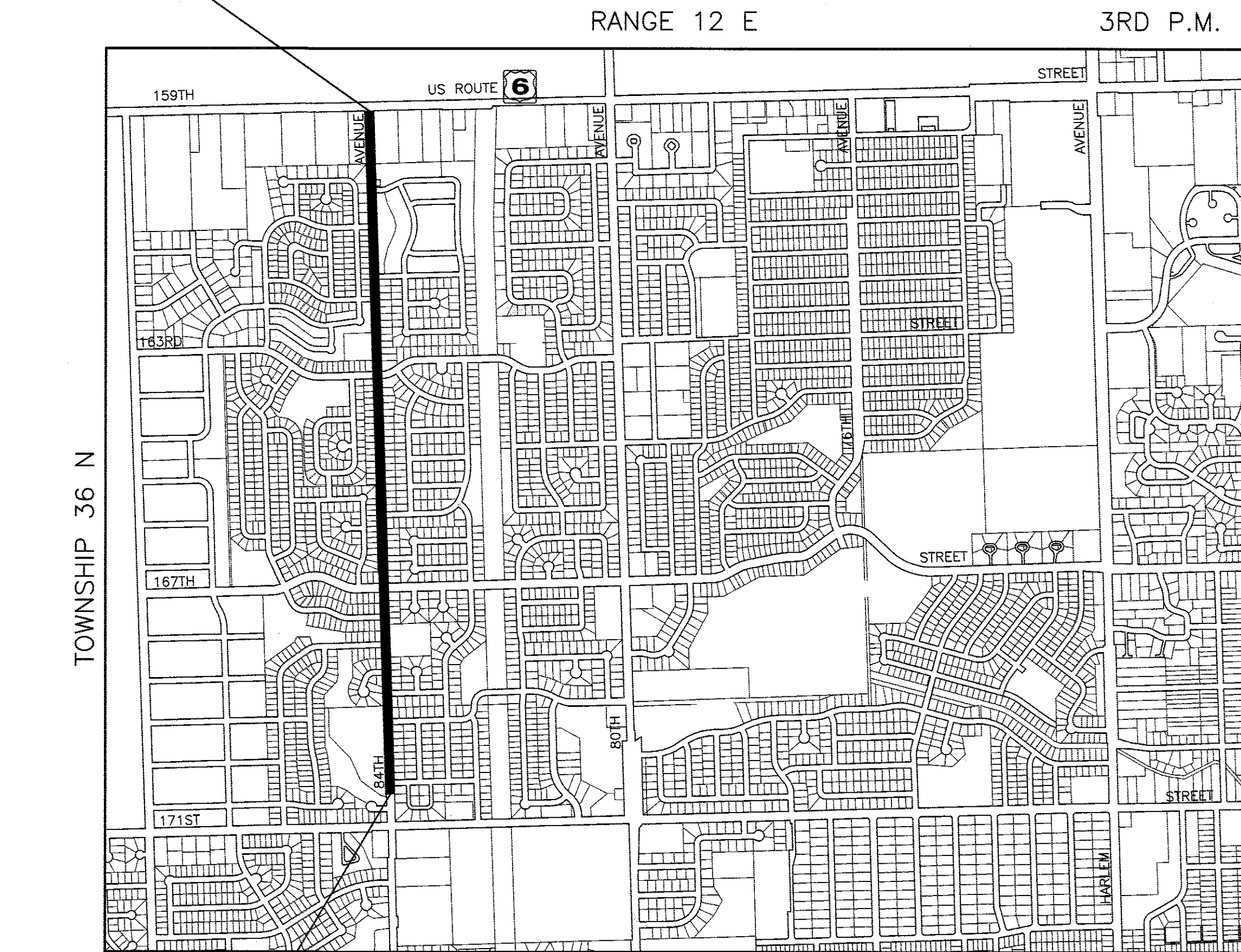


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

CONTRACT NO. 61E08

END OF IMPROVEMENTS
84TH AVENUE STA 279+00



LOCATION MAP

BEGINNING OF IMPROVEMENTS
84TH AVENUE STA 203+46.90

GROSS LENGTH=7,553.10 FEET=1.43 MILES
NET LENGTH=7,553.10 FEET=1.43 MILES

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

Approved: June 9, 2017
[Signature]
PUBLIC WORKS, Village of TINLEY PARK

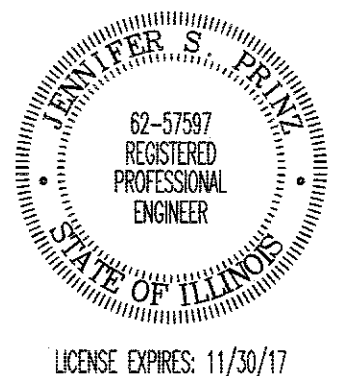
Passed: JULY 5, 2017
[Signature]
District 1 Engineer of Local Roads & Streets

Released for Bid Based on Limited Review: July 6, 2017
[Signature]
Region One Engineer

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PREPARED BY OR UNDER THE
DIRECT SUPERVISION OF:

[Signature]
6.9.17



PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, PE 847-705-4406 SCHAUMBURG, IL
CONSULTANTS: ROBINSON ENGINEERING, LTD. 708-331-6700

INDEX OF SHEETS

- 1. COVER SHEET
- 2. INDEX OF SHEETS, HIGHWAY STANDARDS AND GENERAL NOTES
- 3. SUMMARY OF QUANTITIES
- 4. TYPICAL CROSS SECTIONS
- 5.-6. PAVEMENT PLAN
- 7.-8. PAVEMENT MARKING PLAN
- 9.-18. IDOT DISTRICT 1 STANDARD DETAILS

HIGHWAY STANDARDS

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 424001-09 PERPENDICULAR CURB RAMPS
- 442101-07 CLASS B PATCHES
- 442201-03 CLASS C AND D PATCHES
- 604001-04 FRAMES AND LIDS TYPE 1
- 606001-06 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
- 701006-05 OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
- 701101-05 OFF-RD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701311-03 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY
- 701427-05 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS FOR SPEEDS LESS THAN 40MPH
- 701501-06 URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
- 701606-10 URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
- 701611-01 URBAN HALF ROAD CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
- 701701-10 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701801-06 SIDEWALK, CORNER OR CROSSWALK CLOSURE
- 701901-06 TRAFFIC CONTROL DEVICES
- 780001-05 TYPICAL PAVEMENT MARKINGS
- 886001-01 DETECTOR LOOP INSTALLATIONS

GENERAL NOTES

- 1. THE ROBINSON ENGINEERING, LTD. FIELD OFFICE (708-331-6700), AND THE PUBLIC WORKS DIRECTOR, AT THE VILLAGE OF TINLEY PARK, SHALL BE NOTIFIED TWO (2) WORKING DAYS BEFORE CONSTRUCTION BEGINS.
- 2. BEFORE STARTING ANY EXCAVATION THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 AND (312) 744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. (48 HOUR NOTIFICATION REQUIRED)
- 3. UTILITIES INDICATED ON THE PLANS ARE PROVIDED FOR THE CONTRACTOR'S USE AND ARE BASED UPON INFORMATION AVAILABLE AT THE TIME OF THE ADVERTISEMENT FOR BIDS. THE OWNER AND ENGINEER DO NOT GUARANTEE THE ACCURACY OF UTILITY INFORMATION.
- 4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- 5. THE THICKNESS OF HMA MIXTURE STATED IN THE SPECIFICATIONS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA SURFACE IS PLACED.
- 6. ANY LOOSE MATERIAL DEPOSITED IN THE FLOW LINE OF DITCHES, GUTTERS OR OTHER DRAINAGE STRUCTURES SHALL BE REMOVED BY THE END OF EACH DAY BY THE CONTRACTOR AT THEIR EXPENSE.
- 7. CLASS D PATCHING QUANTITIES FOR THIS CONTRACT SHALL BE PERFORMED AT THE DIRECTION OF THE ENGINEER AFTER PAVEMENT MILLING.
- 8. EXISTING TREES ARE NOT AFFECTED BY THE LIMITS OF CONSTRUCTION. CONTRACTOR SHALL BE CAUTIOUS ON TREE PROTECTION DURING THE CONSTRUCTION. IF ANY DAMAGE OCCURS, CONTRACTOR SHALL REPLACE ANY TREES AT THEIR OWN EXPENSE.

COMMITMENTS

- 1. NO PAVEMENT PATCHING SHALL BE PERMITTED AFTER FRIDAY AT 3:00PM OF EACH AND EVERY WEEK AND NO HOLES WILL BE ALLOWED TO REMAIN OPEN OVERNIGHT OR OVER THE WEEKEND.
- 2. ALL EQUIPMENT SHALL BE REMOVED OFF THE VILLAGE STREETS DURING ALL HOLIDAY WEEKENDS AS COORDINATED WITH THE VILLAGE.

FILE NAME = 16R0398_02-INDX-01 - IDOT P01	USER NAME =	DESIGNED -- SK	REVISED --	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FAU 1619 (RESURFACING) RESURFACING INDEX OF SHEETS & STATE STANDARDS, HIGHWAY STANDARDS AND GENERAL NOTES				F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -- WD	REVISED --		1619	17-00119-00-RS	COOK	18	2				
	PLOT SCALE =	DRAWN -- RG	REVISED --		SCALE: NONE SHEET NO. 2 OF 18 SHEETS STA. TO STA.				CONTRACT NO. 61E08				
	PLOT DATE = 06-12-17	CHECKED -- LTL	REVISED --		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT --								

SUMMARY OF QUANTITIES				ROADWAY	SAFETY	
S.I.	CODE NO.	ITEM	UNIT	QUANTITY	CONSTRUCTION	
					TYPE CODE	
					0005	0021
	20200100	EARTH EXCAVATION	CU YD	40		40
	35101600	AGGREGATE BASE COURSE, TYPE B 4"	SQ YD	900		900
	35800100	PREPARATION OF BASE	SQ YD	100	100	
	35800200	AGGREGATE BASE REPAIR	TON	70	70	
	40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	75	75	
	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	28200	28200	
	40600827	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	1850	1850	
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	450	450	
	40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	3690	3690	
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	3000		3000
	42400800	DETECTABLE WARNINGS	SQ FT	400		400
	44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	42000	42000	
	44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	430	430	
	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	2400	2400	
	44000600	SIDEWALK REMOVAL	SQ FT	4000		4000
	44200970	CLASS B PATCHES, TYPE II, 10 INCH	SQ YD	15	15	
	44201299	DOWEL BARS 1 1/2"	EACH	24	24	
	44201737	CLASS D PATCHES, TYPE I, 8 INCH	SQ YD	50	50	
	44201741	CLASS D PATCHES, TYPE II, 8 INCH	SQ YD	75	75	
	44201745	CLASS D PATCHES, TYPE III, 8 INCH	SQ YD	75	75	
	44201747	CLASS D PATCHES, TYPE IV, 8 INCH	SQ YD	100	100	
	44213204	TIE BARS 3/4"	EACH	18	18	
	60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	3	3	
	60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	2	2	
	60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	1650	1650	
	60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	750	750	

* - SPECIALTY ITEMS

SUMMARY OF QUANTITIES				ROADWAY	SAFETY	
S.I.	CODE NO.	ITEM	UNIT	QUANTITY	CONSTRUCTION	
					TYPE CODE	
					0005	0021
	67100100	MOBILIZATION	LSUM	1		1
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	LSUM	1		1
	70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	LSUM	1		1
	70102634	TRAFFIC CONTROL AND PROTECTION, STANDARD 701611	LSUM	1		1
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	1		1
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1		1
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	3400		3400
	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	1140		1140
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	260		260
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	26300		26300
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	2000		2000
*	78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	800		800
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1760		1760
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	280		280
*	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	260		260
*	88600600	DETECTOR LOOP REPLACEMENT	FOOT	200		200
	X2110104	TOPSOIL FURNISH AND PLACE, 4" (SPECIAL)	SQ YD	1400	1400	
	X2520700	SODDING, SPECIAL	SQ YD	1400	1400	
	X4230720	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 7 INCH, SPECIAL	SQ YD	200	200	
	X6026624	VALVE BOXES TO BE ADJUSTED (SPECIAL)	EACH	2	2	
	Z0004522	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 6"	SQ YD	200	200	
	Z0004530	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 8"	SQ YD	30	30	
	Z0018400	DRAINAGE STRUCTURES TO BE ADJUSTED	EACH	80	80	
	Z0018600	DRAINAGE STRUCTURES TO BE RECONSTRUCTED	EACH	5	5	
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	52		52

FILE NAME = 16R0398_02-QUAN-01 - IDOT-001

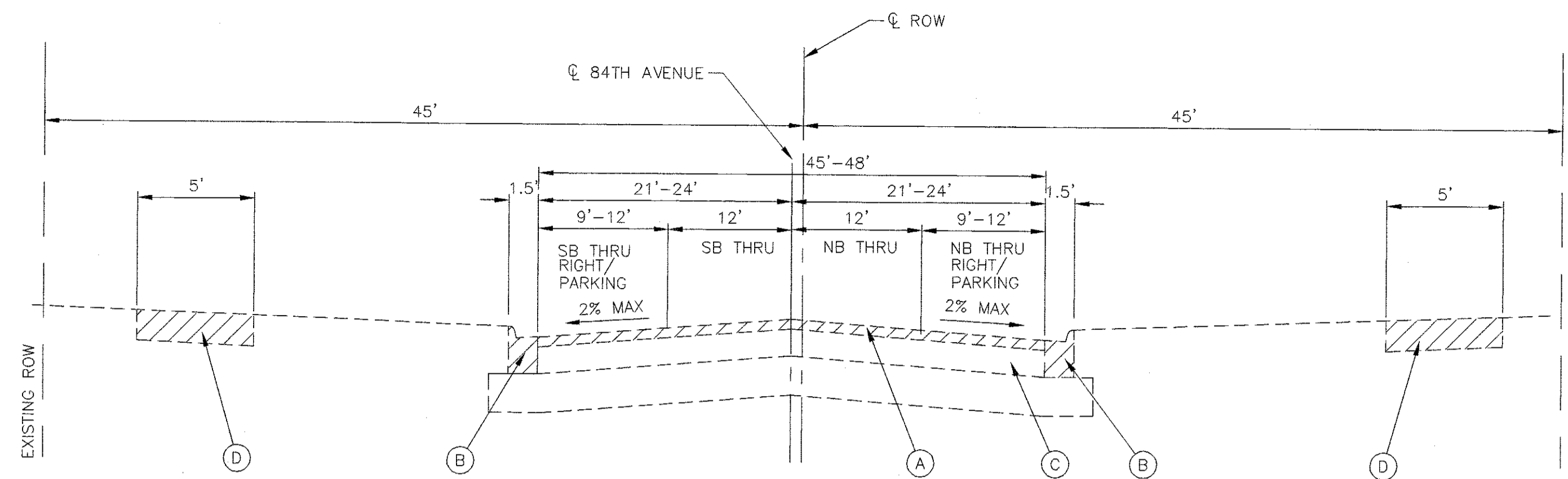
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PLOT DATE = 06-12-17	CHECKED -- ACAD	REVISED --

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

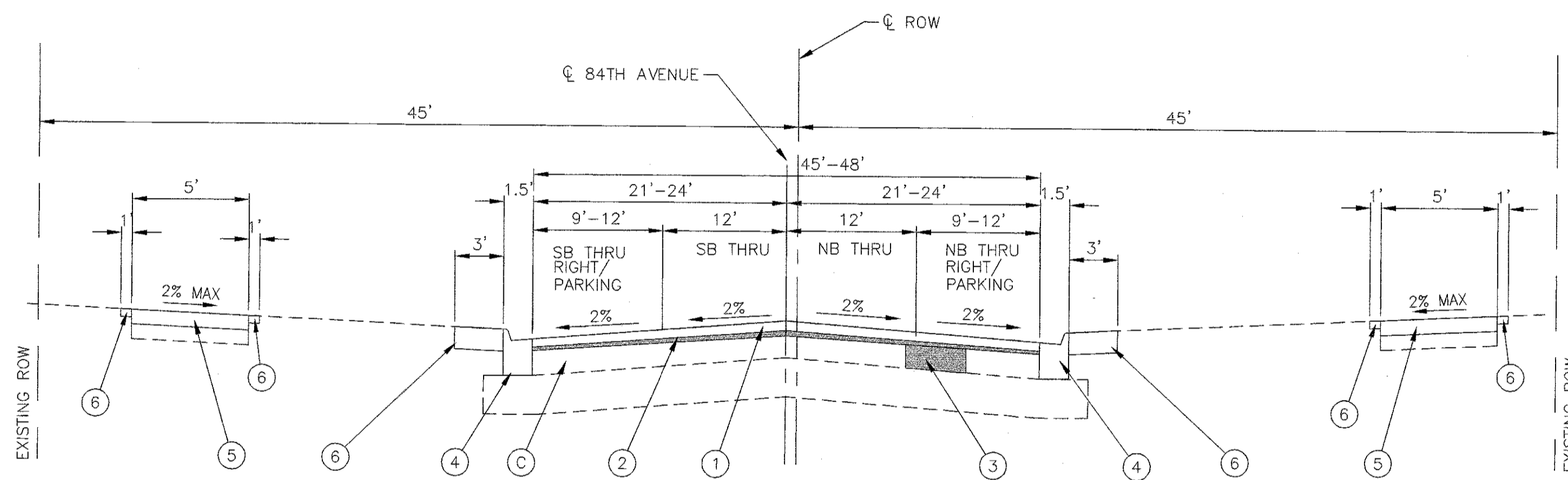
FAU 1619 (84TH AVENUE)
RESURFACING
SUMMARY OF QUANTITIES

SCALE: SHEET NO. 3 OF 18 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1619	17-00119-00-RS	COOK	18	3
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61E08	



EXISTING TYPICAL SECTION
 STA 203+46.70 TO STA 279+00.00
 84TH AVENUE
 171ST STREET TO 159TH STREET



PROPOSED TYPICAL SECTION
 STA 203+46.70 TO STA 279+00.00
 84TH AVENUE
 171ST STREET TO 159TH STREET

- NOTES:
- HMA PATCHING SHALL BE DONE AFTER MILLING THE PAVEMENT.
 - 171ST STREET TO STA 203+46.90 IS CONCRETE AND SHALL NOT BE RESURFACED.

EXISTING LEGEND

- (A) HOT MIX ASPHALT SURFACE REMOVAL, 2"
- (B) EXISTING CURB & GUTTER REMOVAL AT LOCATIONS SHOWN ON PLANS OR DIRECTED BY ENGINEER
- (C) EXISTING HOT-MIX ASPHALT PAVEMENT, ±8"
- (D) EXISTING PCC SIDEWALK TO BE REMOVED AT LOCATIONS SHOWN ON PLANS OR DIRECTED BY ENGINEER

PROPOSED LEGEND

- (1) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1 1/2"
- (2) POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- (3) CLASS D PATCH, 8", AT LOCATIONS SHOWN ON PLANS OR DIRECTED BY ENGINEER
- (4) PROPOSED CURB AND GUTTER, TYPE B-6.12, OR TYPE B-6.24 TO BE INSTALLED AT LOCATIONS SHOWN ON PLAN OR DIRECTED BY ENGINEER
- (5) PROPOSED PORTLAND CEMENT CONCRETE SIDEWALK 5" (REPLACEMENT AT LOCATIONS DIRECTED BY THE ENGINEER OR AS INDICATED ON THE PLANS)
- (6) TOPSOIL FURNISH AND PLACE, 4" (SPECIAL) AND SODDING, SPECIAL INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE	AIR VOIDS
ROADWAY RESURFACING	
HOT MIX ASPHALT SURFACE COURSE, N50, 1-1/2"	4% @ 50 Gyr.
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"	3.5% @ 50 Gyr.
HOT-MX ASPHALT DRIVEWAY PAVEMENT, 6" OR 8"	
HOT MIX ASPHALT SURFACE COURSE, MIX "D", N50, (IL-9.5mm); 2"	4% @ 50 Gyr.
HOT MIX ASPHALT BINDER COURSE, IL-19.0, N50; PE-4", CE-6"	4% @ 50 Gyr.
PATCHING	
CLASS D PATCHES, (HMA BINDER, IL-19.0mm): 8" (IN 2 LIFTS)	4% @ 70 Gyr.

NOTE:
 THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SY/IN.
 THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC-TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS, FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.

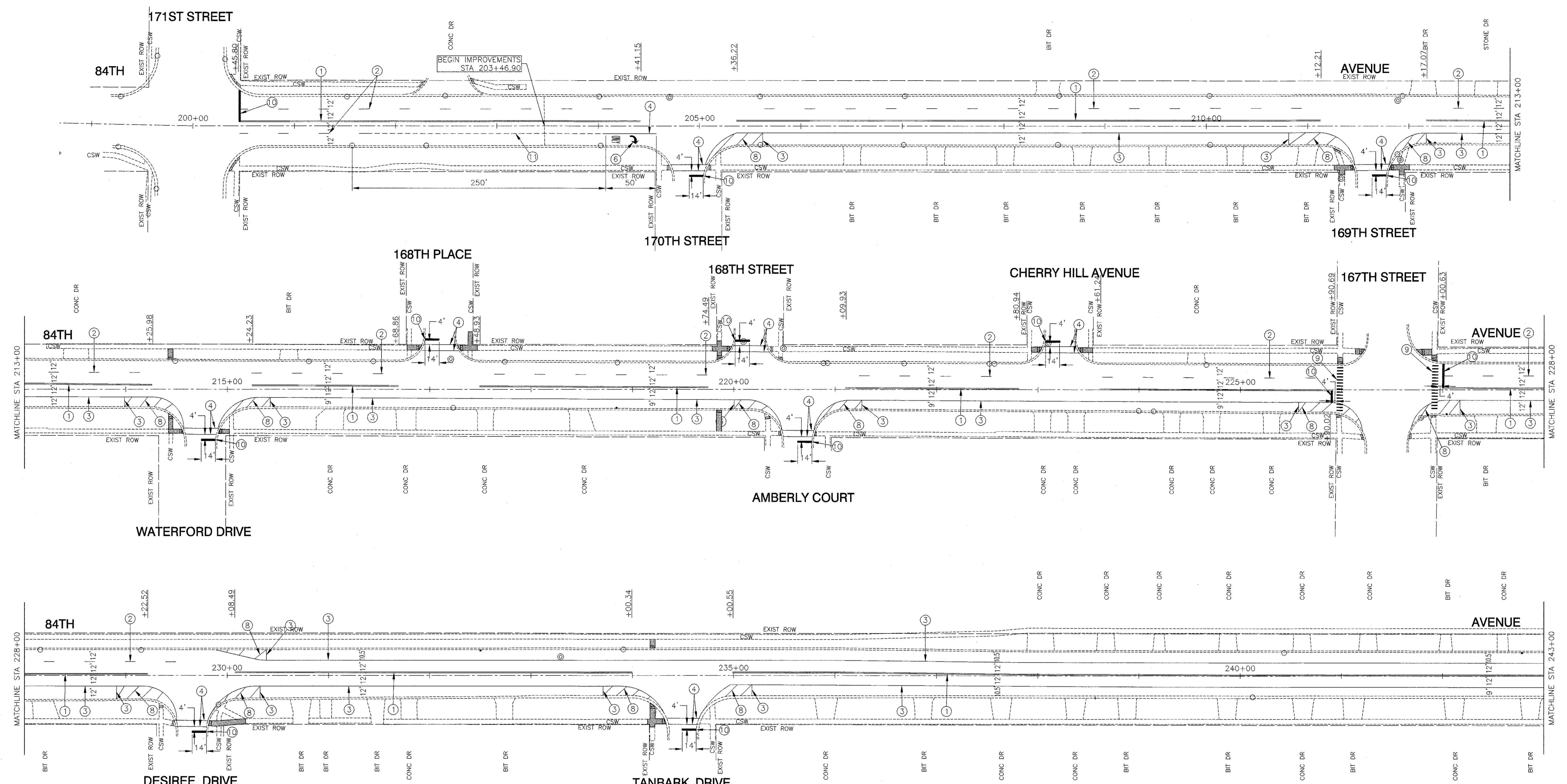
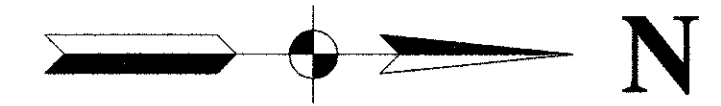
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

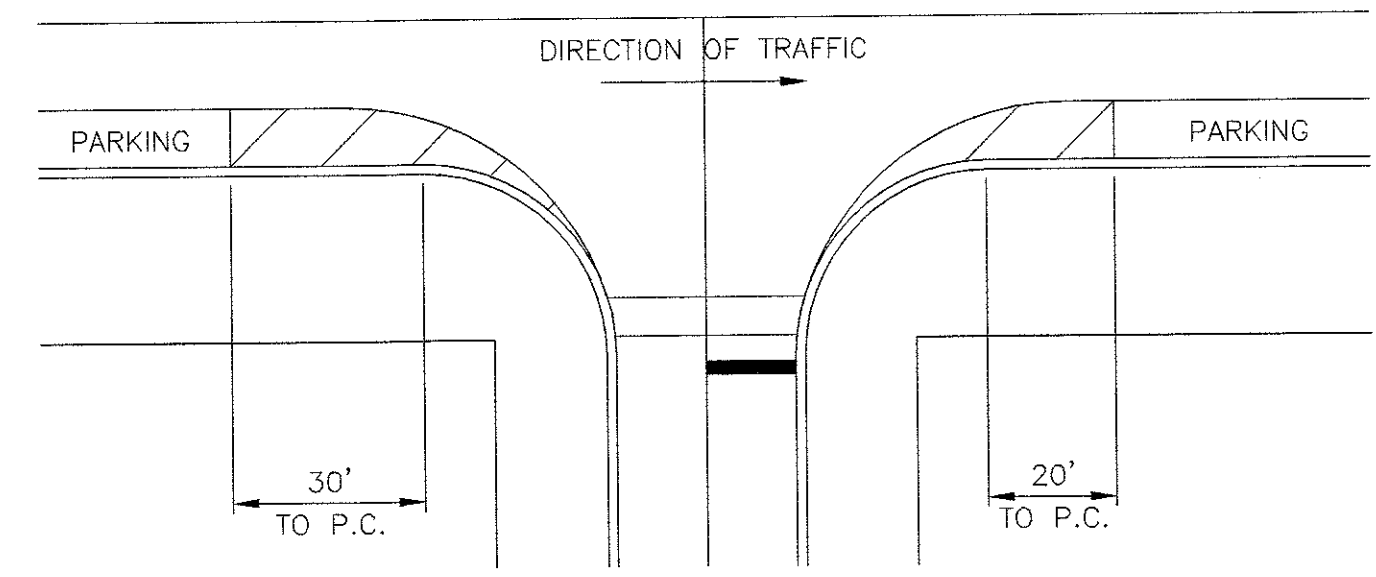
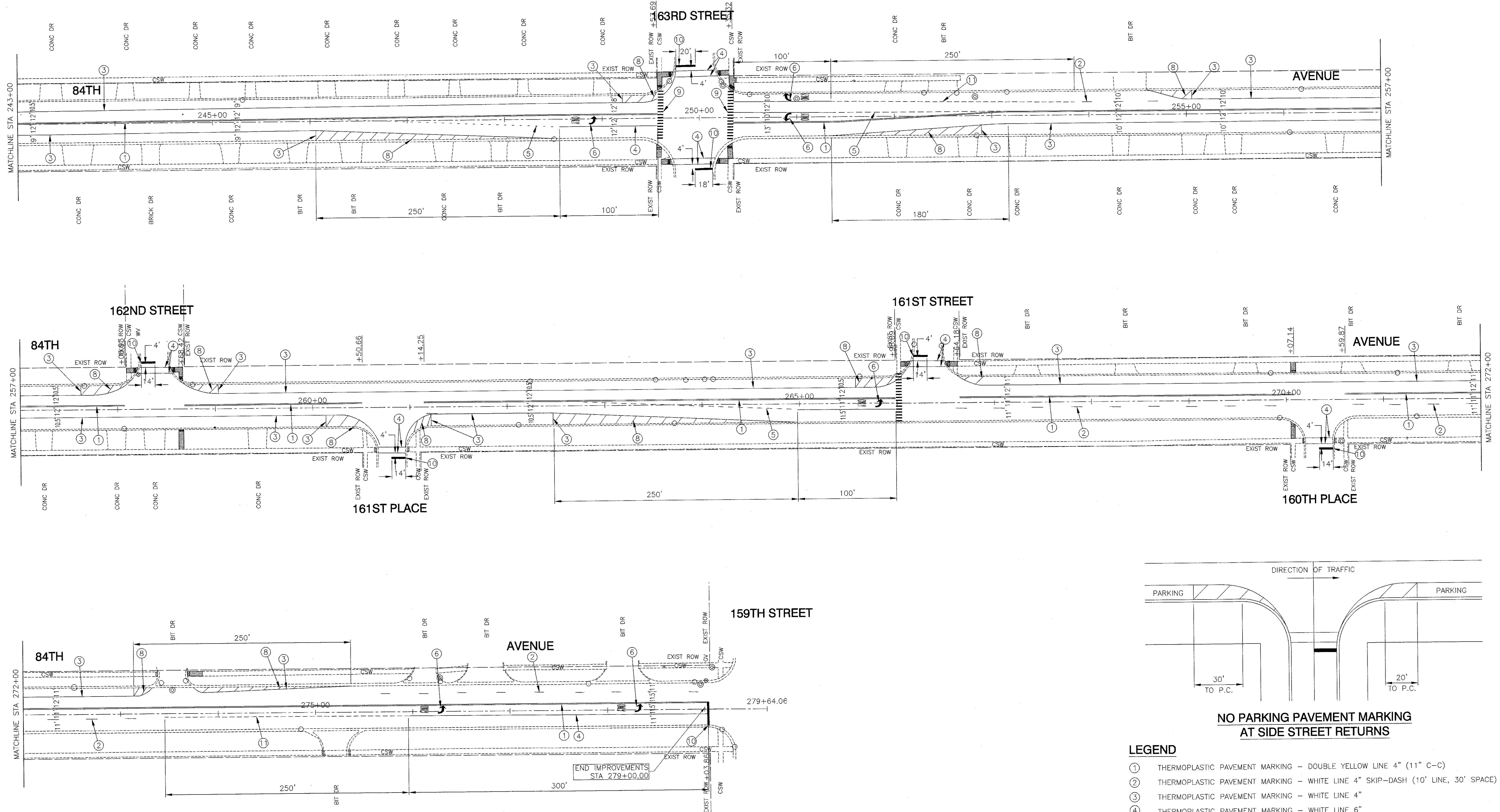
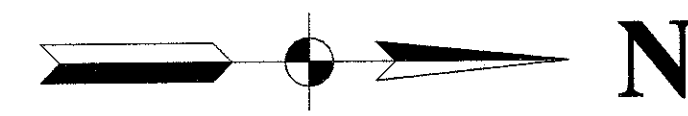
FAU 1619 (RESURFACING) RESURFACING TYPICAL CROSS SECTIONS		F.A.U. RTE. 1619	SECTION 17-00119-00-RS	COUNTY COOK	TOTAL SHEETS 18	SHEET NO. 4
SCALE: NONE	SHEET NO. 4 OF 18 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT

LAST SAVED BY: RICHARDSON, C.S. 6/19/17
 PLOTTED BY: RICHARDSON, C.S. 6/12/17



- LEGEND**
- ① THERMOPLASTIC PAVEMENT MARKING - DOUBLE YELLOW LINE 4" (11" C-C)
 - ② THERMOPLASTIC PAVEMENT MARKING - WHITE LINE 4" SKIP-DASH (10' LINE, 30' SPACE)
 - ③ THERMOPLASTIC PAVEMENT MARKING - WHITE LINE 4"
 - ④ THERMOPLASTIC PAVEMENT MARKING - WHITE LINE 6"
 - ⑤ THERMOPLASTIC PAVEMENT MARKING - WHITE LINE 6" SKIP-DASH (2' LINE, 6' SPACE)
 - ⑥ THERMOPLASTIC PAVEMENT MARKING - WHITE LETTERS AND SYMBOLS
 - ⑦ THERMOPLASTIC PAVEMENT MARKING - WHITE LINE 12"
 - ⑧ THERMOPLASTIC PAVEMENT MARKING - WHITE LINE 12" (AT 45')
 - ⑨ THERMOPLASTIC PAVEMENT MARKING - WHITE LINE 12" (3' C-C)
 - ⑩ THERMOPLASTIC PAVEMENT MARKING - WHITE LINE 24"
 - ⑪ THERMOPLASTIC PAVEMENT MARKING - WHITE LINE 8" SKIP-DASH (3' LINE, 9' SPACE)

FILE NAME = 16R0398_02-PMKG-01 - IDOT P01	USER NAME =	DESIGNED - SK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FAU 1619 (84TH AVENUE) RESURFACING PAVEMENT MARKING PLAN			FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED - WD	REVISED -					1619	17-00119-00-RS	COOK	18	7
	PLOT DATE = 06-12-17	DRAWN - ACAD	REVISED -					CONTRACT NO. 61E08				
		CHECKED - ACAD	REVISED -					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
					SCALE: 1"=50'	SHEET NO. 7	OF 18 SHEETS	STA.	TO STA.			

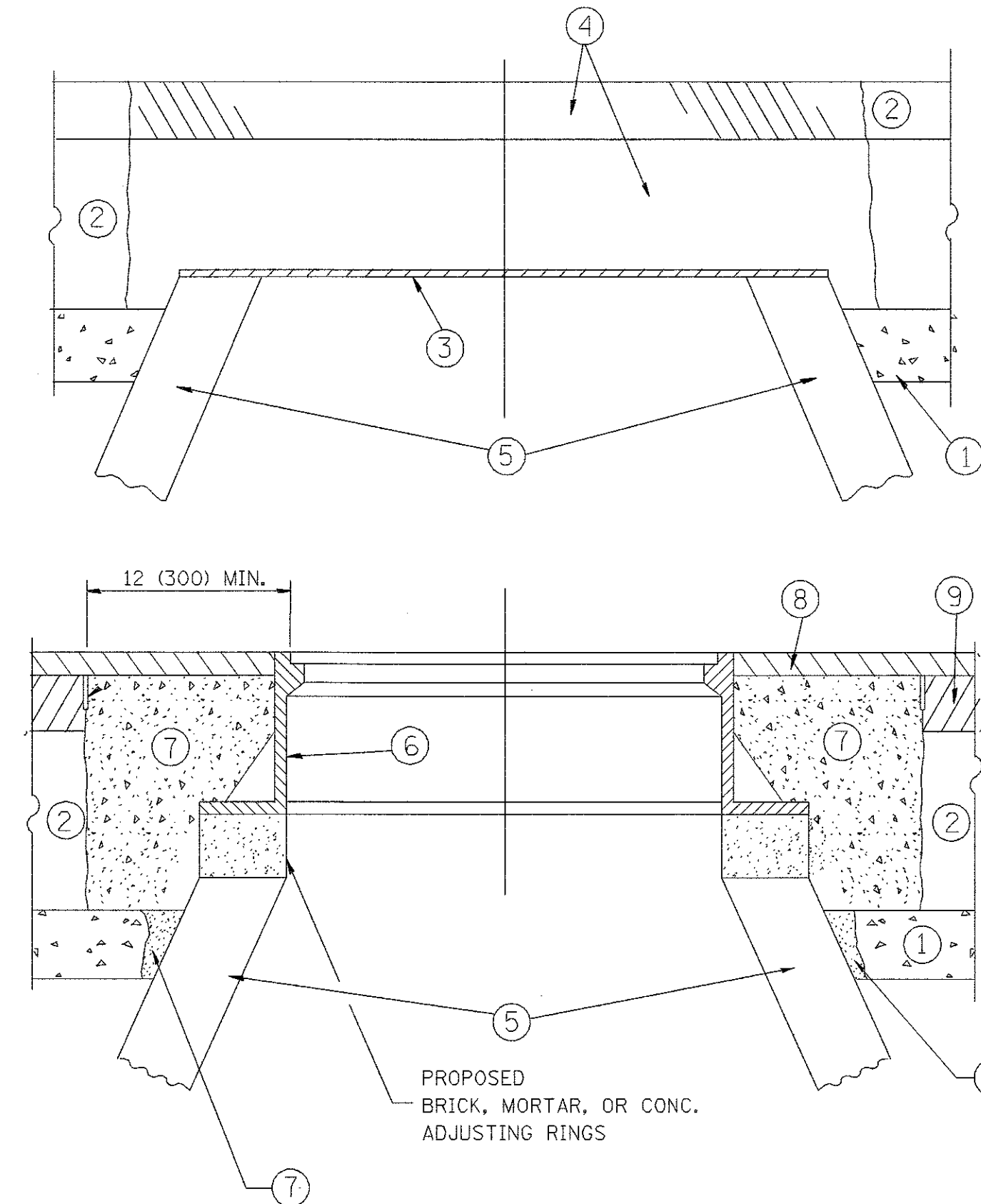


**NO PARKING PAVEMENT MARKING
AT SIDE STREET RETURNS**

LEGEND

- ① THERMOPLASTIC PAVEMENT MARKING - DOUBLE YELLOW LINE 4" (11" C-C)
- ② THERMOPLASTIC PAVEMENT MARKING - WHITE LINE 4" SKIP-DASH (10' LINE, 30' SPACE)
- ③ THERMOPLASTIC PAVEMENT MARKING - WHITE LINE 4"
- ④ THERMOPLASTIC PAVEMENT MARKING - WHITE LINE 6"
- ⑤ THERMOPLASTIC PAVEMENT MARKING - WHITE LINE 6" SKIP-DASH (2' LINE, 6' SPACE)
- ⑥ THERMOPLASTIC PAVEMENT MARKING - WHITE LETTERS AND SYMBOLS
- ⑦ THERMOPLASTIC PAVEMENT MARKING - WHITE LINE 12"
- ⑧ THERMOPLASTIC PAVEMENT MARKING - WHITE LINE 12" (AT 45°)
- ⑨ THERMOPLASTIC PAVEMENT MARKING - WHITE LINE 12" (3' C-C)
- ⑩ THERMOPLASTIC PAVEMENT MARKING - WHITE LINE 24"
- ⑪ THERMOPLASTIC PAVEMENT MARKING - WHITE LINE 8" SKIP-DASH (3' LINE, 9' SPACE)

FILE NAME = 16R0398_02-PMKG-01 - IDOT P02	USER NAME =	DESIGNED - SK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FAU 1619 (84TH AVENUE) RESURFACING PAVEMENT MARKING PLAN			F.A.U. RTE. 1619	SECTION 17-00119-00-RS	COUNTY COOK	TOTAL SHEETS 18	SHEET NO. 8
	PLOT SCALE =	DRAWN - ACAD	REVISED -		SCALE: 1"=50'	SHEET NO. 8	OF 18 SHEETS	STA. TO STA.	CONTRACT NO. 61E08			
PLOT DATE = 06-12-17	CHECKED - ACAD	REVISED -						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1/2 (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 ENGINEER."

LEGEND

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS PP-1* CONCRETE
- 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:

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.

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.

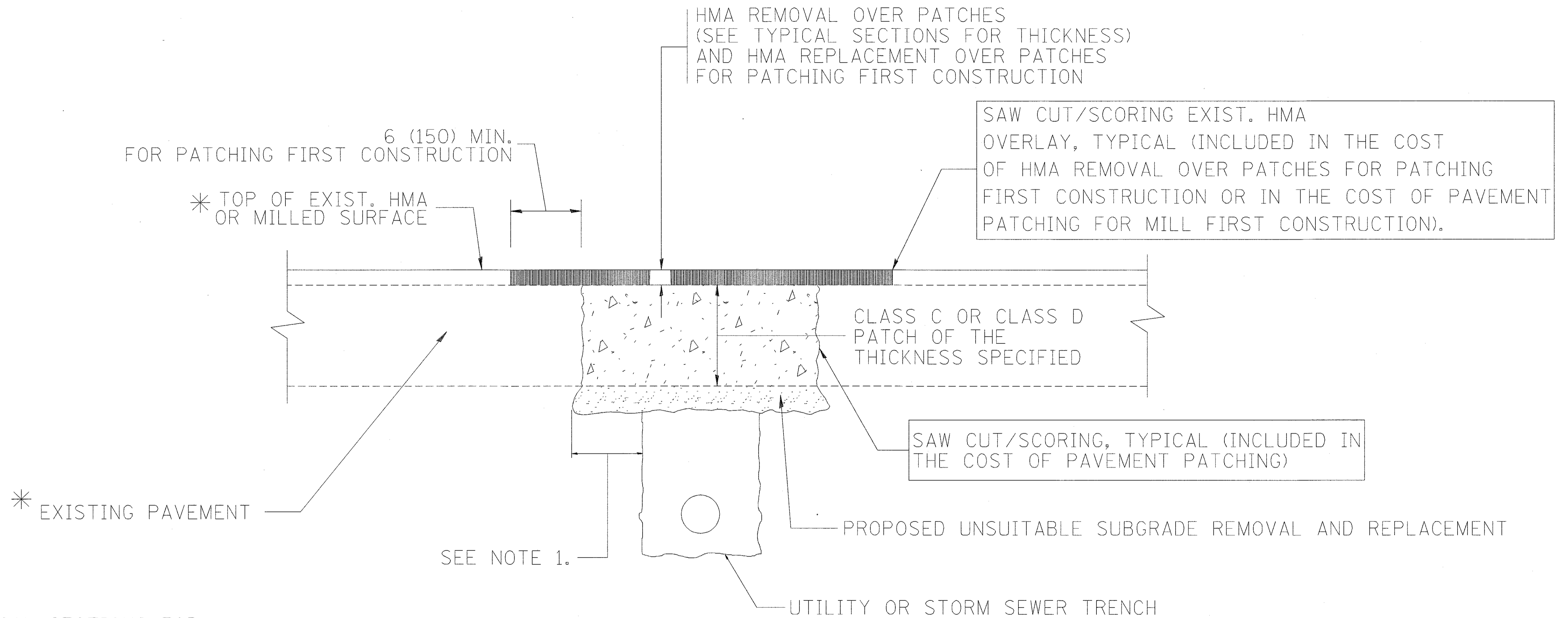
THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

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.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME = 16R0398_02-DTLS-01 - BD08	USER NAME = bauerd1	DESIGNED -- R. SHAH	REVISED -- R. WIEDEMAN 05-14-04	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED --	REVISOR -- R. BORO 01-01-07	1619			17-00119-00-RS	COOK	18	9	
	PLOT SCALE = 1/8" = 1'-0"	DRAWN --	REVISOR -- R. BORO 03-09-11			BD600-03 (BD-8)		CONTRACT NO. 61E08		
	PLOT DATE = 12/6/2011	CHECKED -- 10-25-94	REVISOR -- R. BORO 12-06-11			FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
						SCALE: NONE	SHEET NO. 9 OF 18 SHEETS	STA. TO STA.		



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

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 4 1/2 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 = 16R0398_02-DTLS-01 - BD22	USER NAME = bauerdl	DESIGNED -- R. SHAH	REVISED -- A. ABBAS 04-27-98
		CHECKED --	REVISED -- R. BORO 01-01-07
	PLOT SCALE = 50.000' / IN.	DRAWN --	REVISED -- R. BORO 09-04-07
	PLOT DATE = 10/27/2008	CHECKED -- 10-25-94	REVISED -- K. ENG 10-27-08

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT PATCHING FOR
HMA SURFACED PAVEMENT

SCALE: NONE SHEET NO. 10 OF 18 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1619	17-00119-00-RS	COOK	18	10
BD400-04 (BD-22)		CONTRACT NO. 61E08		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

VARIABLE - TO MEET EXISTING DIMENSIONS AND FIELD CONDITIONS (SEE NOTE ②)

PROP. CONC. CURB OR CURB AND GUTTER REPLACEMENT IN ACCORDANCE WITH STATE STANDARD 606001. (SEE NOTE ②)

SAW CUT FULL DEPTH - INCLUDED IN THE COST OF SIDEWALK, DRIVEWAY OR MEDIAN SURFACE REMOVAL PAY ITEM.

SEE STATE STANDARD 606001
EXISTING OR PROPOSED HMA SURFACE (IF APPLICABLE)

18" (450) MAX.

1/4" (5) **

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE, SOD OR GROUND.

PROPOSED SIDEWALK, DRIVEWAY PAVEMENT, MEDIAN SURFACE OR SODDING SALT TOLERANT WITH TOP SOIL, 4" (100) SOD RESTORATION (SEE NOTE ①).

EXISTING CONCRETE PAVEMENT, CONCRETE BASE COURSE OR FLEXIBLE PAVEMENT

SUITABLE BACKFILL MATERIAL (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT)

3" (75) MIN.

PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

** IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SODDING, SALT TOLERANT AND TOP SOIL, FURNISH AND PLACE 4" WILL BE PAID FOR SEPARATELY,

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

② FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED

③ CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

④ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USUABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

⑤ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑥ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.

BASIS OF PAYMENT:

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

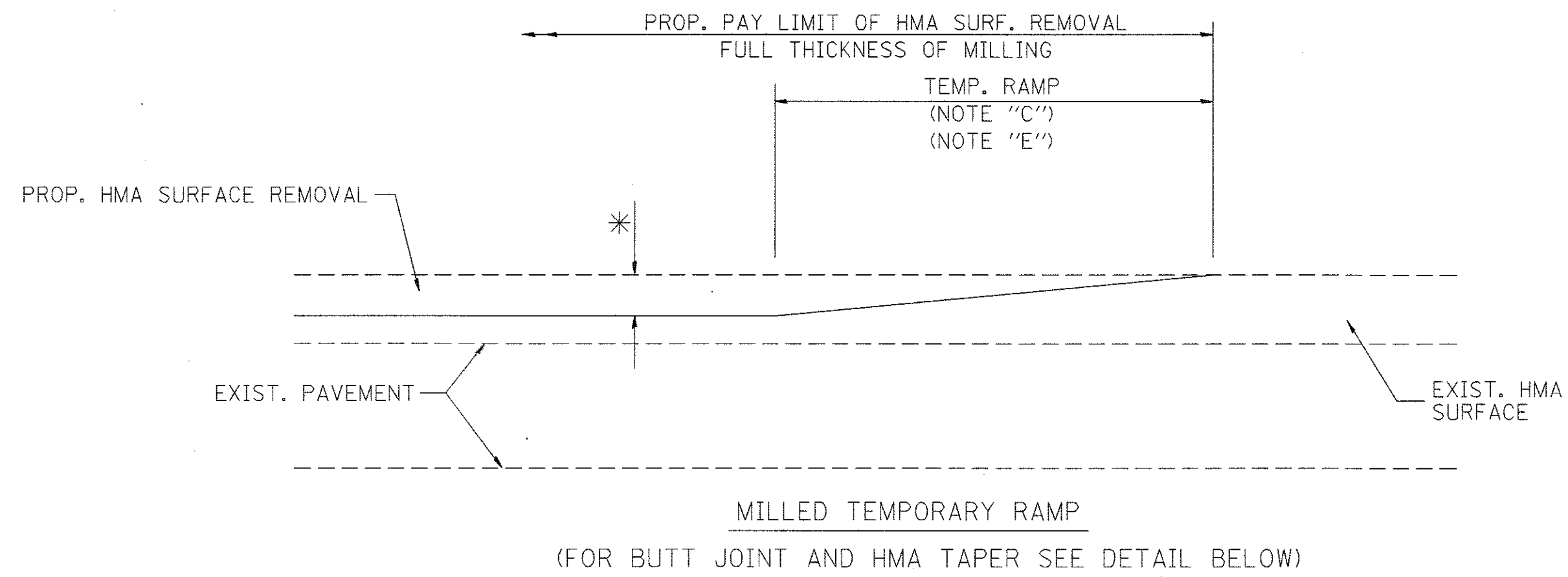
⑦ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

⑧ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

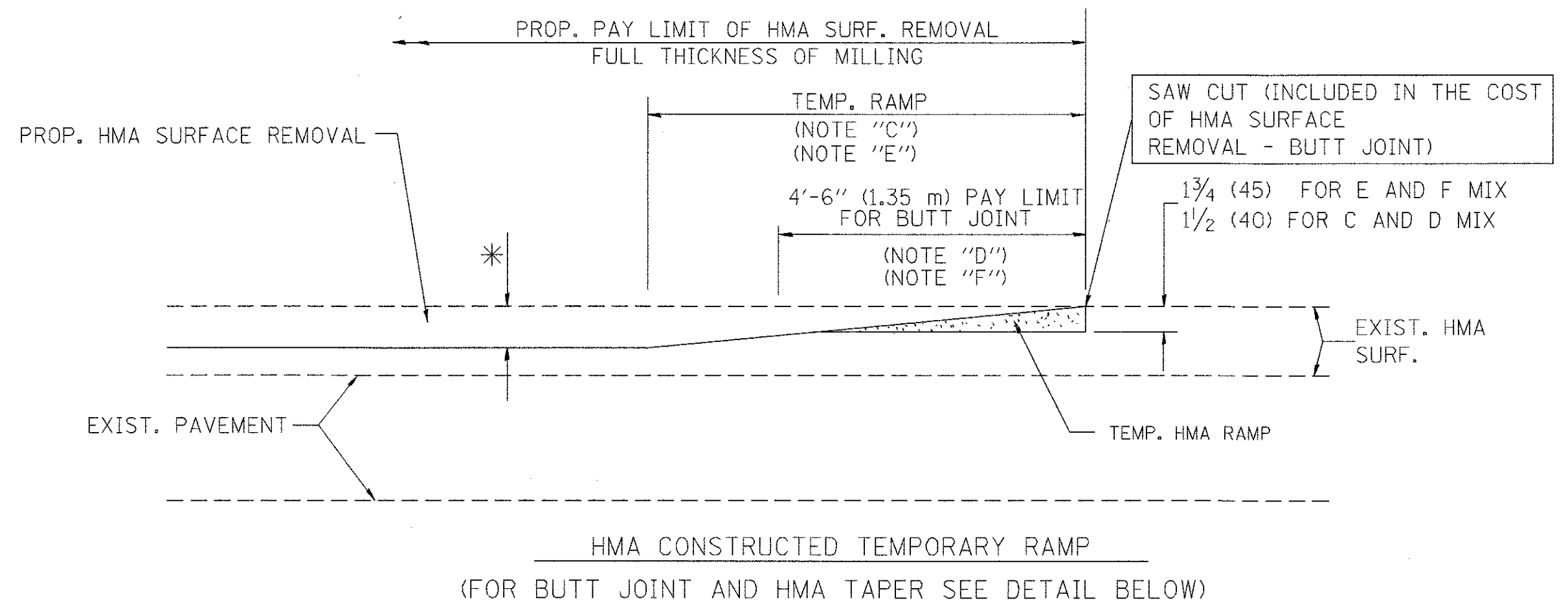
CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

FILE NAME = 16R0388_02-DTIS-01 - BD24	USER NAME = bauerdl	DESIGNED -- R. SHAH	REVISED -- A. ABBAS 04-27-98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED --	DESIGNED -- R. BORO 01-01-07	REVISED -- R. BORO 01-01-07			1619	17-00119-00-RS	COOK	18	11	
	PLOT SCALE = 50.000' / IN.	DRAWN --	REVISED -- R. BORO 09-04-07			BD600-06 (BD-24)		CONTRACT NO. 61E08			
	PLOT DATE = 10/27/2008	CHECKED -- 10-25-94	REVISED -- K. ENG 10-27-08			FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT			
						SCALE: NONE	SHEET NO. 11 OF 18 SHEETS	STA.	TO STA.		

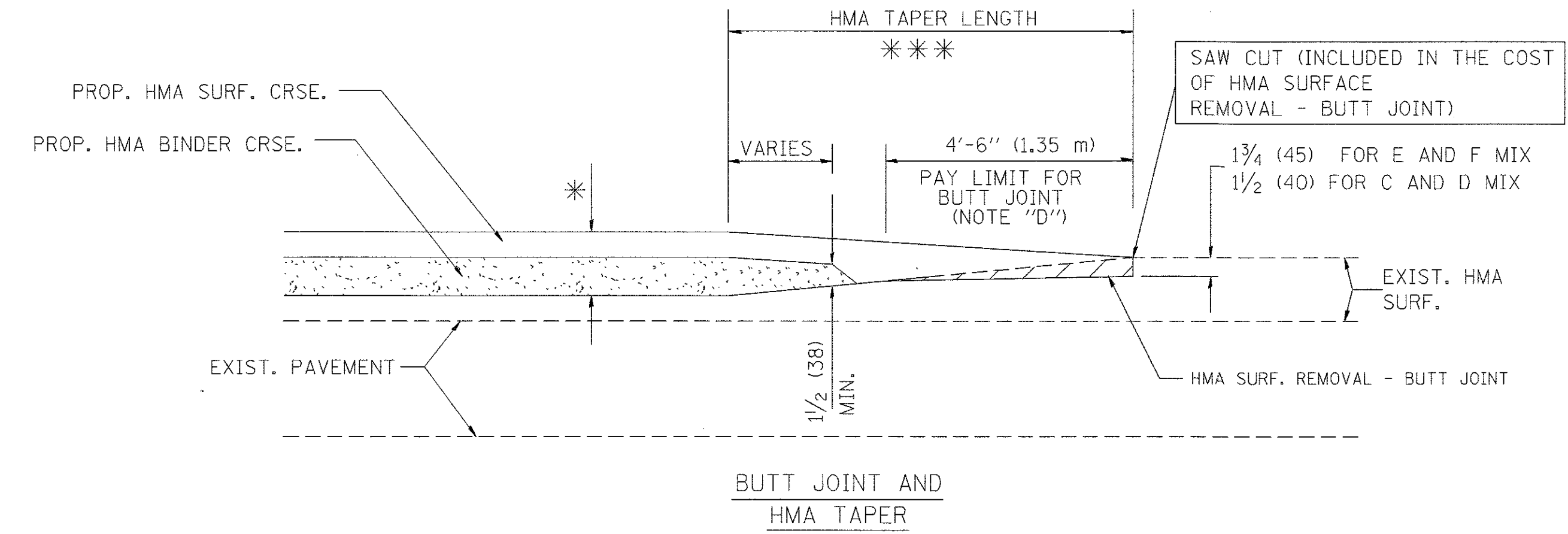


OPTION 1

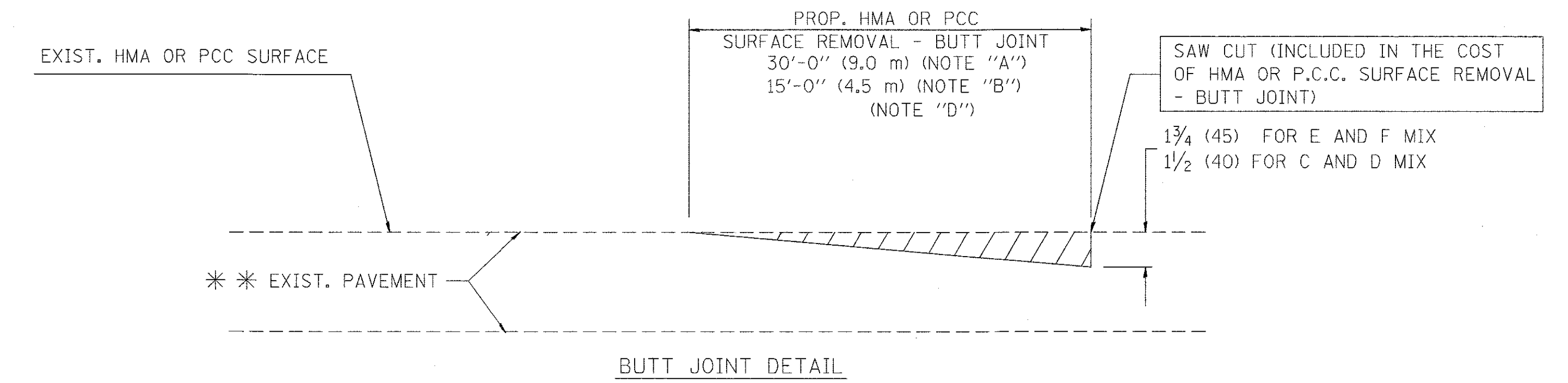


OPTION 2

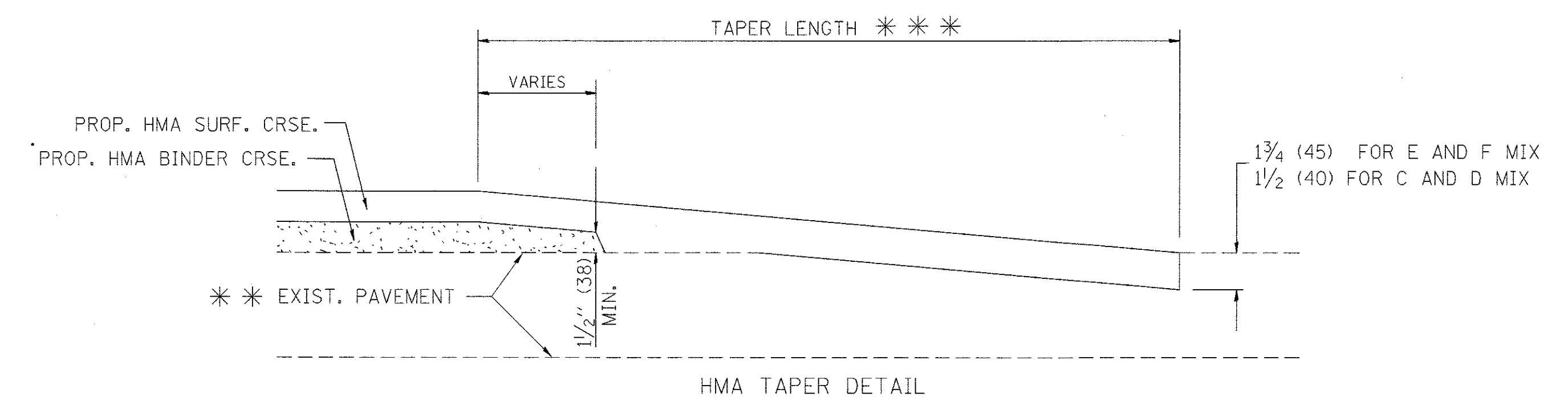
TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

NOTES

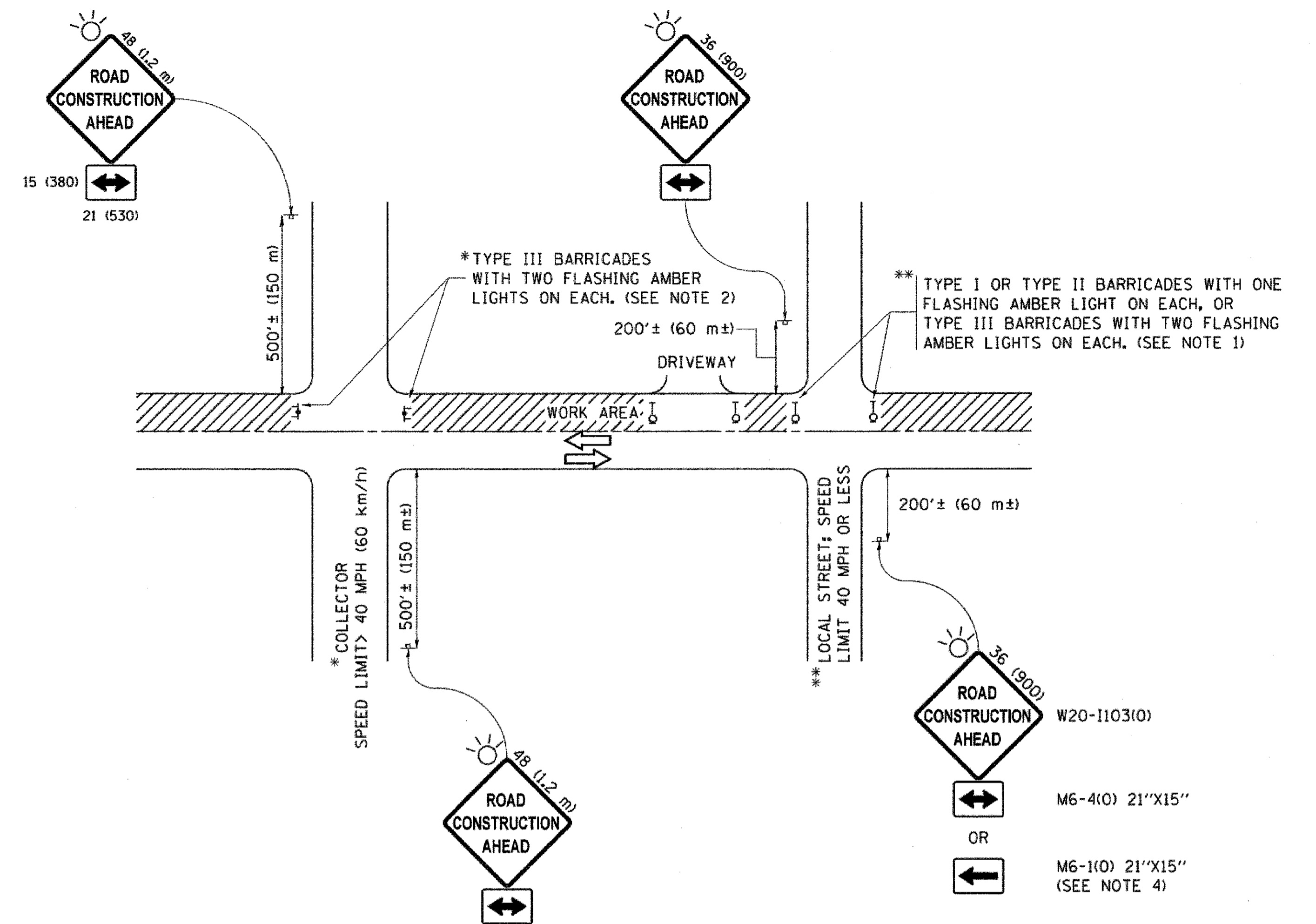
- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 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 = 16R0398_02-DTLS-01 - BD32	USER NAME = geglianobt	DESIGNED -- M. DE YONG	REVISED -- R. SHAH 10-25-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BUTT JOINT AND HMA TAPER DETAILS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED --	REVISED -- A. ABBAS 03-21-97			1619	17-00119-00-RS	COOK	18	12	
		PLOT SCALE = 50.0000' / 1" IN.	REVISED -- M. GOMEZ 04-06-01			BD400-05 BD32		CONTRACT NO. 61E08			
		PLOT DATE = 1/4/2008	REVISED -- R. BORO 01-01-07			SCALE: NONE	SHEET NO. 12 OF 18 SHEETS	STA.	TO STA.		



NOTES:

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER 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 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. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. 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).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

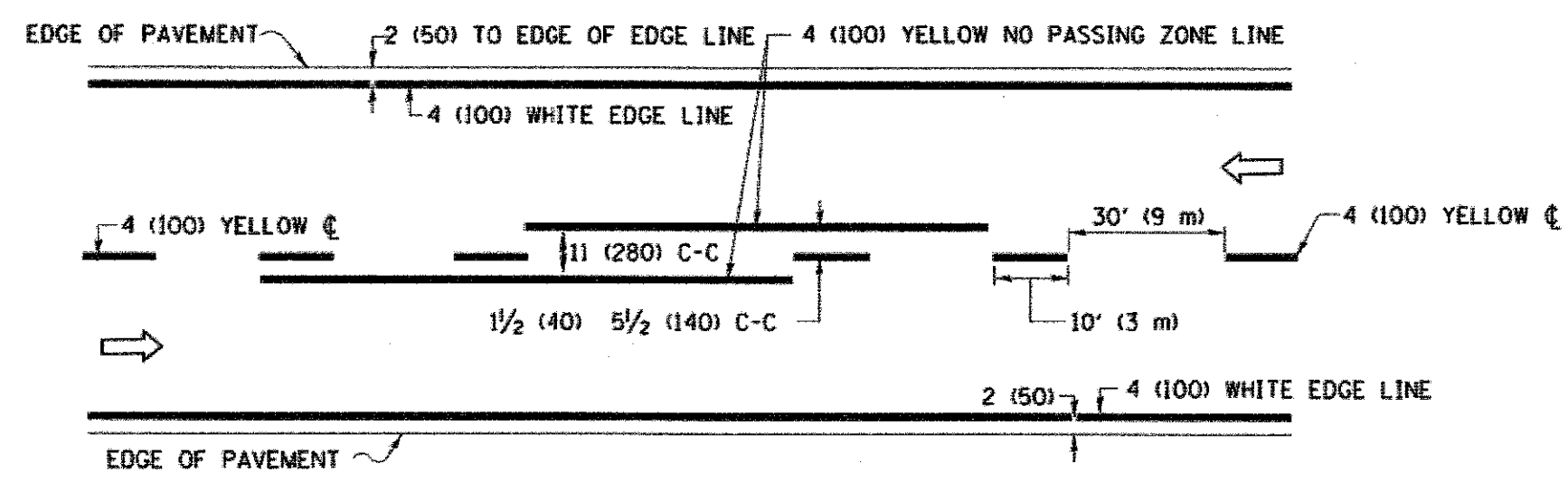
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	'ices\District 1\Projects\Di	CHECKED = \CADsheets\c10.dgn	REVISED = . RAMMACHER 01-06-00
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

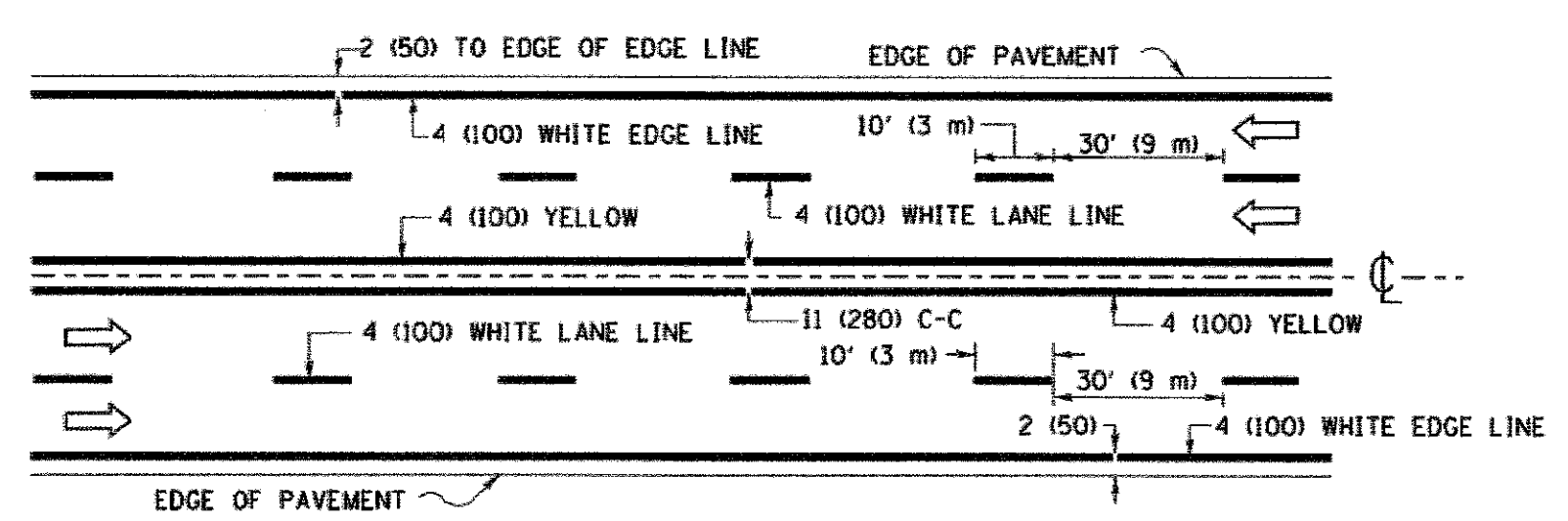
TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE SHEET NO. 13 OF 18 SHEETS STA. TO STA.

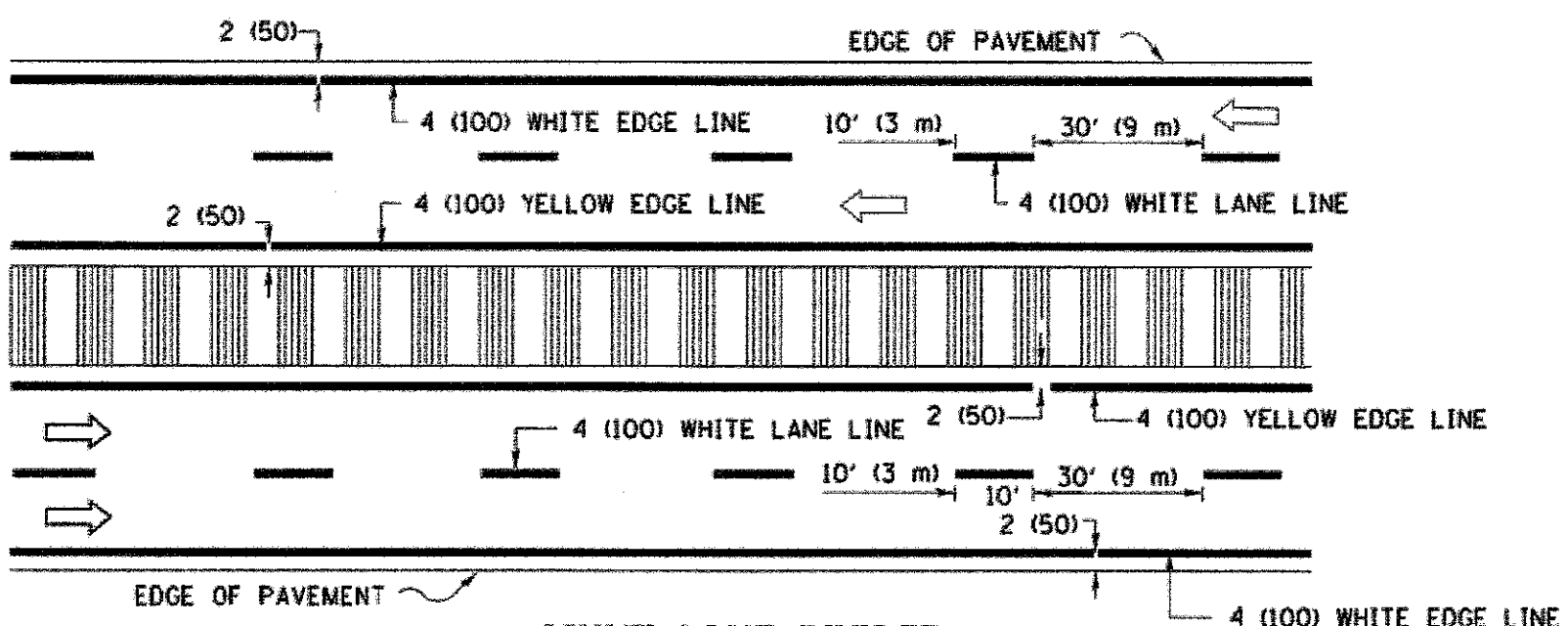
FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1619	17-00119-00-RS	COOK	18	13
TC-10		CONTRACT NO. 61E08		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



2-LANE ROADWAY

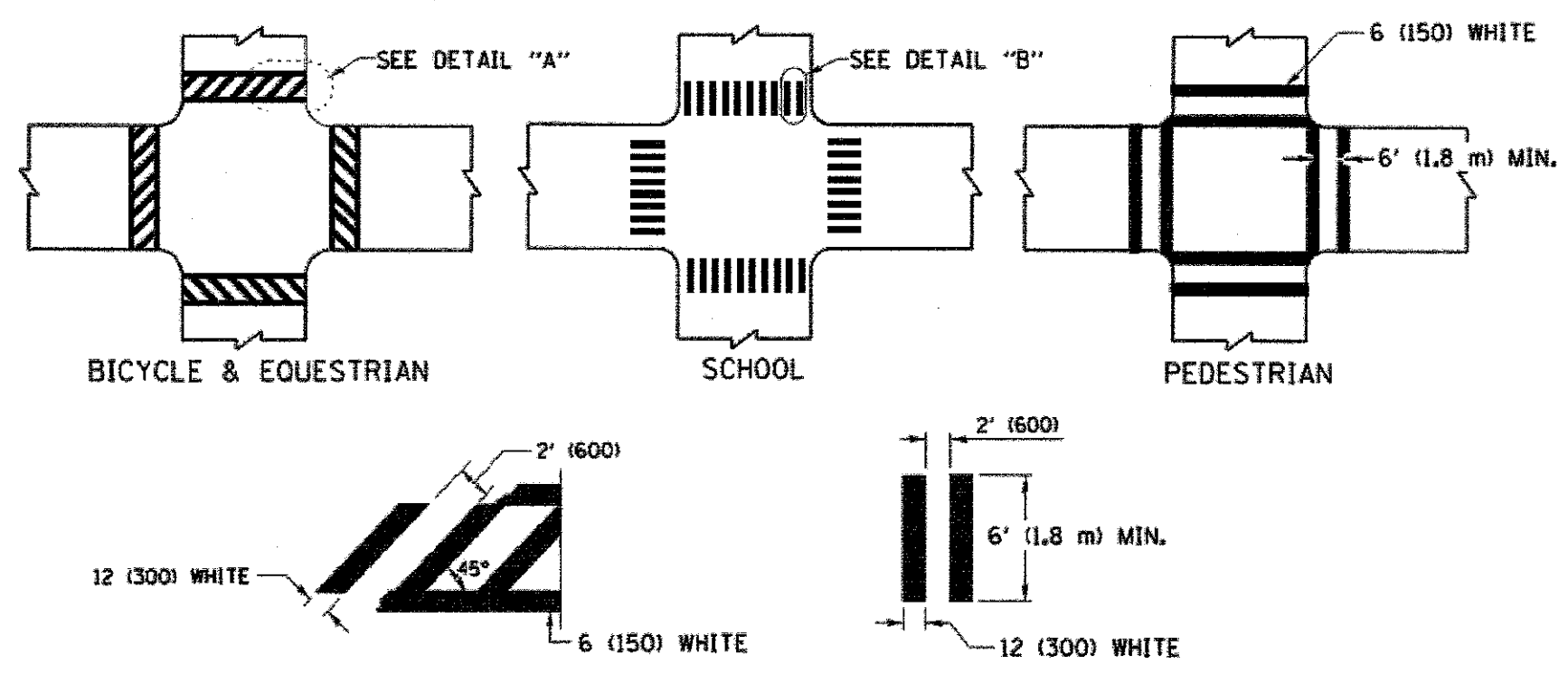


MULTI-LANE UNDIVIDED



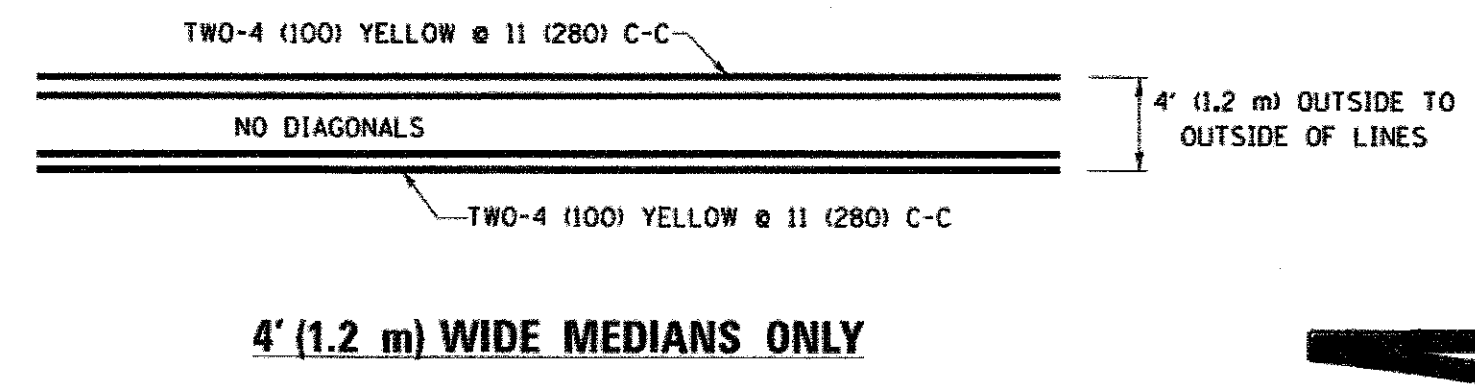
MULTI-LANE DIVIDED WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

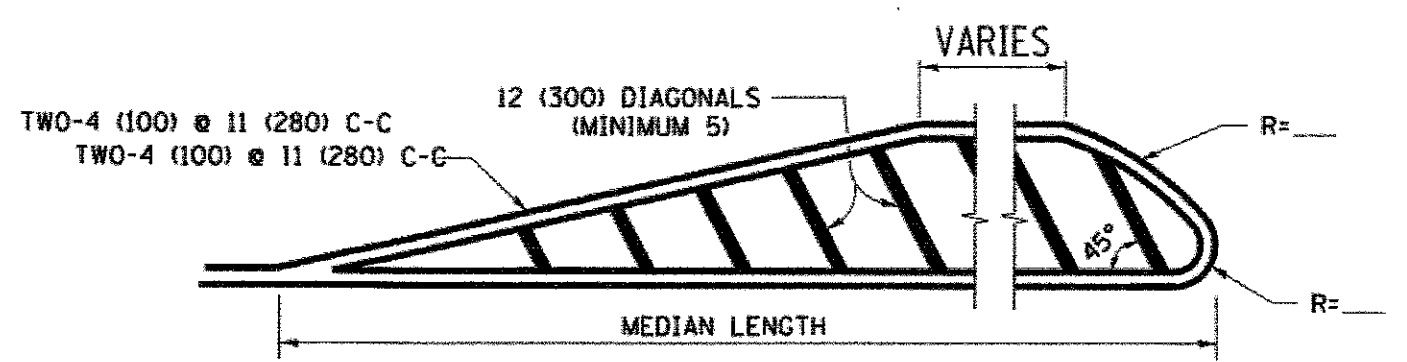


DETAIL "A" TYPICAL CROSSWALK MARKING

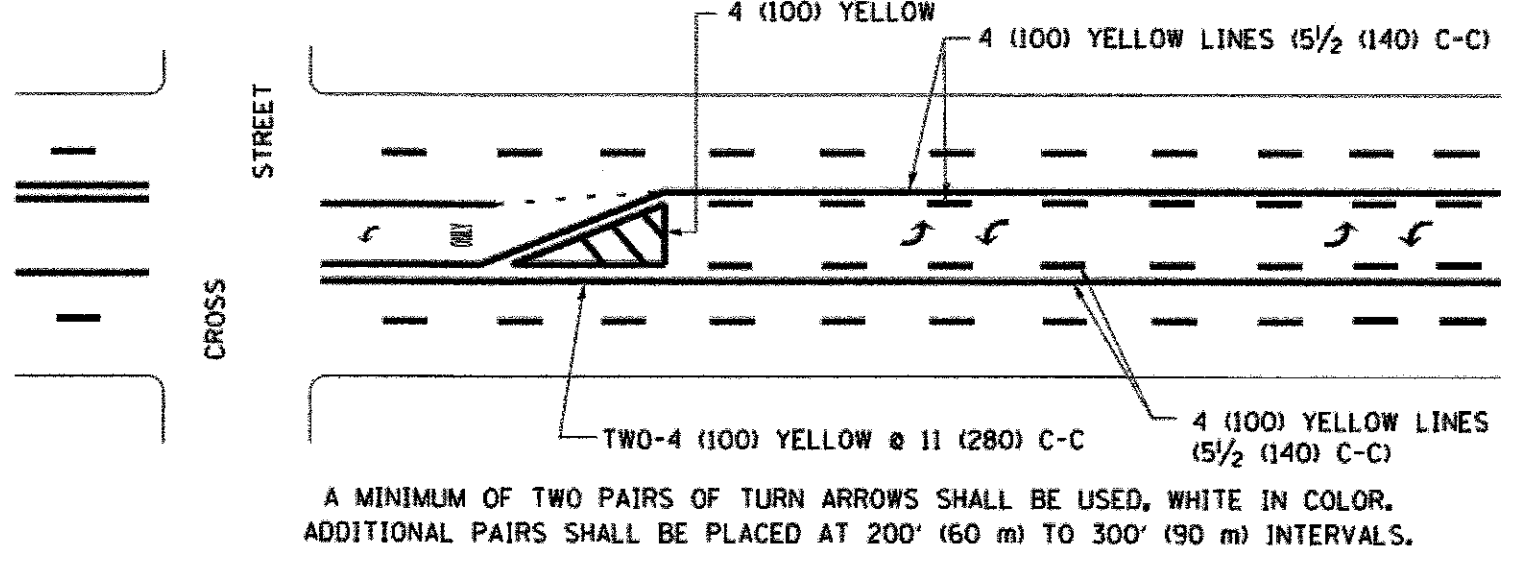
* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



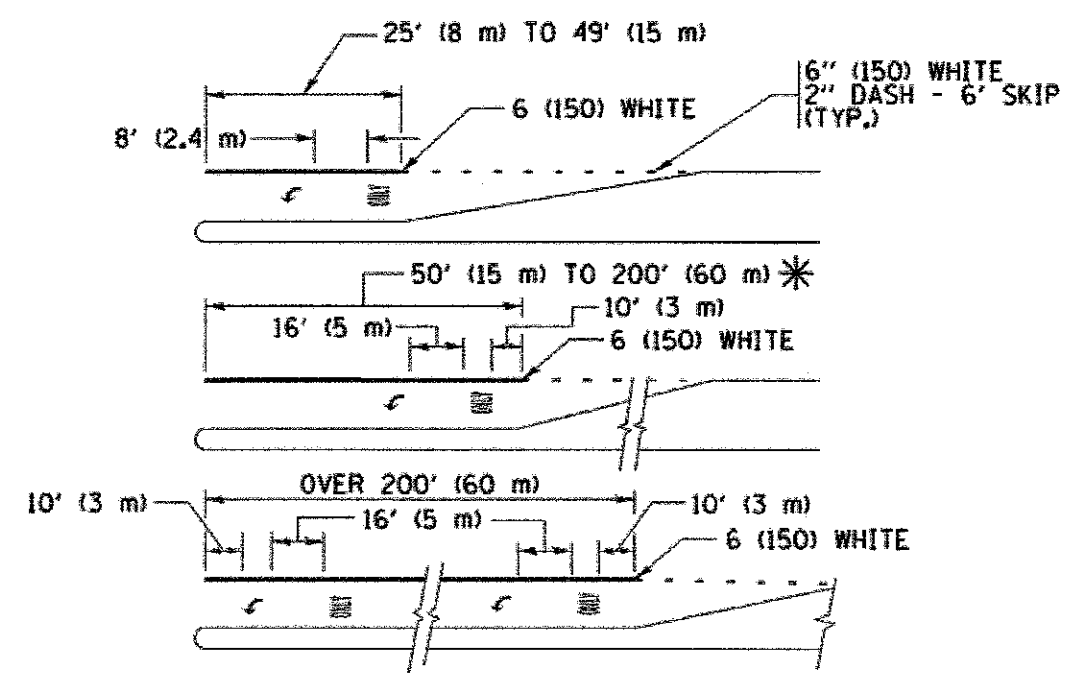
4' (1.2 m) WIDE MEDIANS ONLY



MEDIANS OVER 4' (1.2 m) WIDE



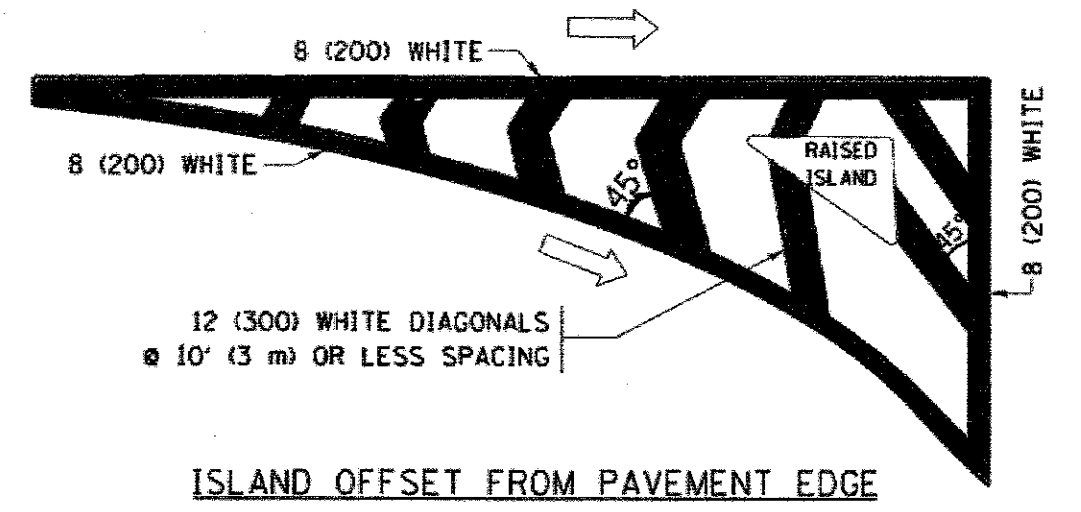
MEDIAN WITH TWO-WAY LEFT TURN LANE TYPICAL PAINTED MEDIAN MARKING



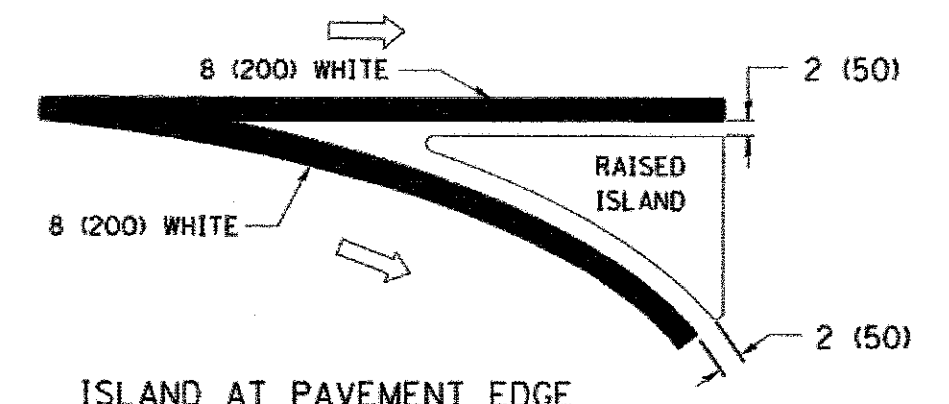
TYPICAL LEFT (OR RIGHT) TURN LANE TYPICAL TURN LANE MARKING

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

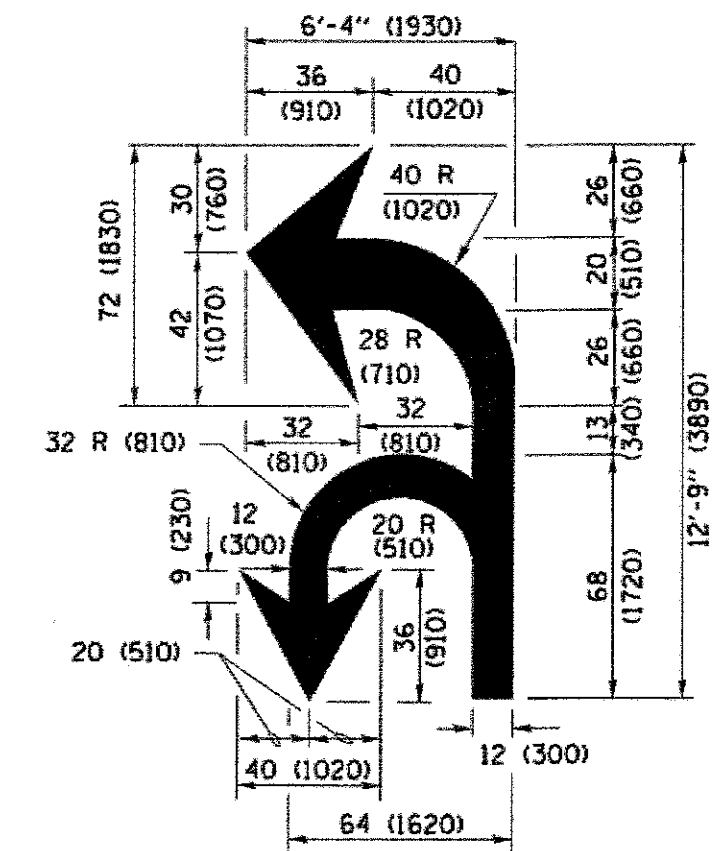
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".



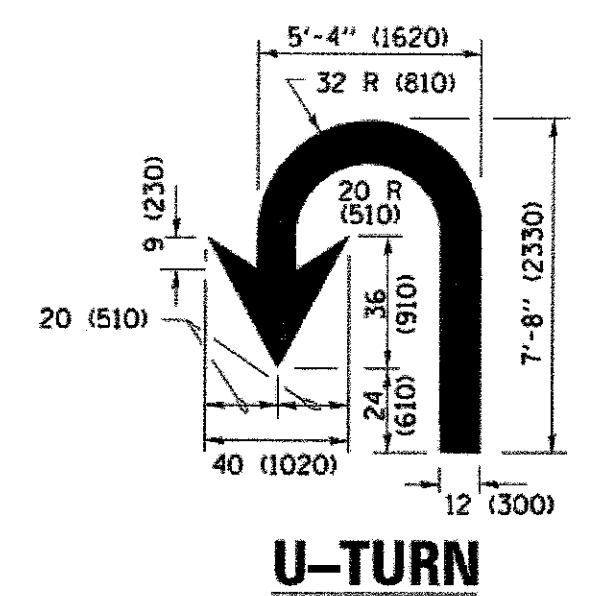
ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE TYPICAL ISLAND MARKING



COMBINATION LEFT AND U-TURN



U-TURN

LANE REDUCTION TRANSITION
* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

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	5 1/2 (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 MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8" (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART 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° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
CORE 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" 15 6" (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF "RR" = 3.6 SQ. FT. (0.33 m ²) EACH "X" = 54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	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))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

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

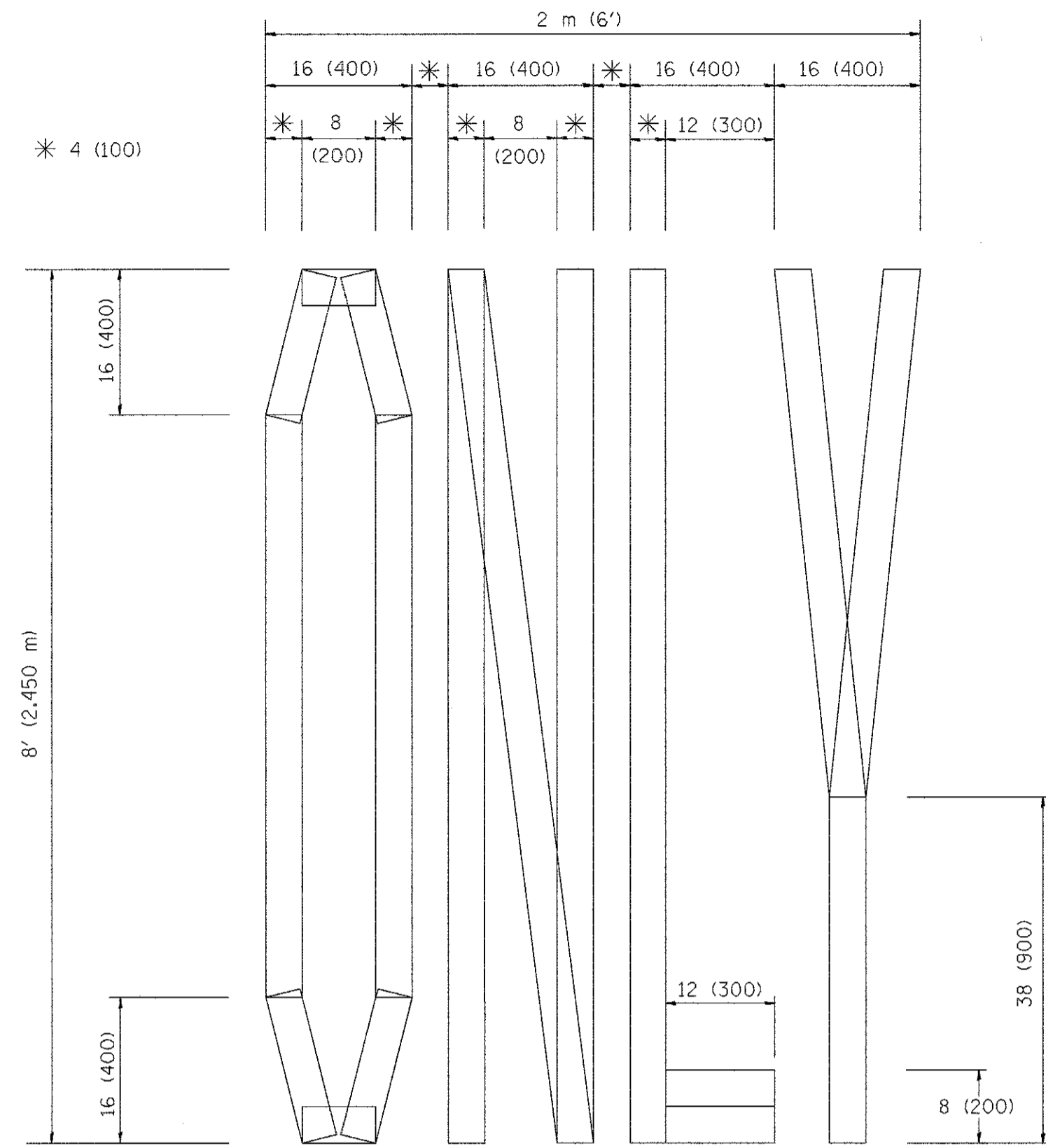
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = 16R0398-02-DLS-01 - TC13	USER NAME = footemj	DESIGNED = EVERS	REVISED = C. JUCIUS 09-09-09
	FILES\District 1\Projects\04	CHECKED = CADsheets\lcl3.dgn	REVISED = C. JUCIUS 07-01-13
	PLOT SCALE = 50,000 / 1 in.	DRAWN =	REVISED = C. JUCIUS 12-21-15
	PLOT DATE = 4/13/2016	CHECKED = 03-19-90	REVISED = C. JUCIUS 04-12-16

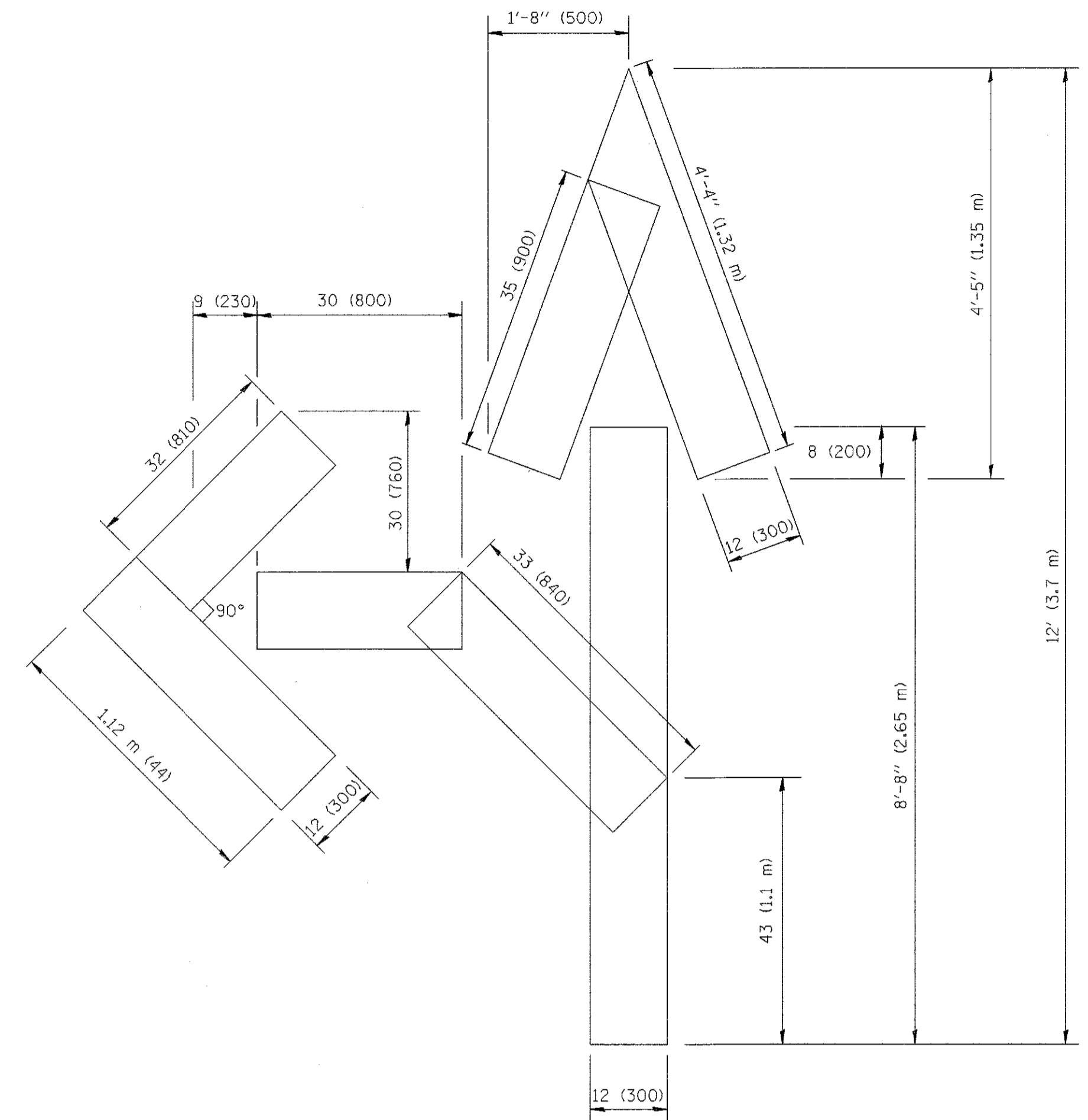
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE TYPICAL PAVEMENT MARKINGS	
SCALE: NONE	SHEET NO. 14 OF 18 SHEETS STA. TO STA.

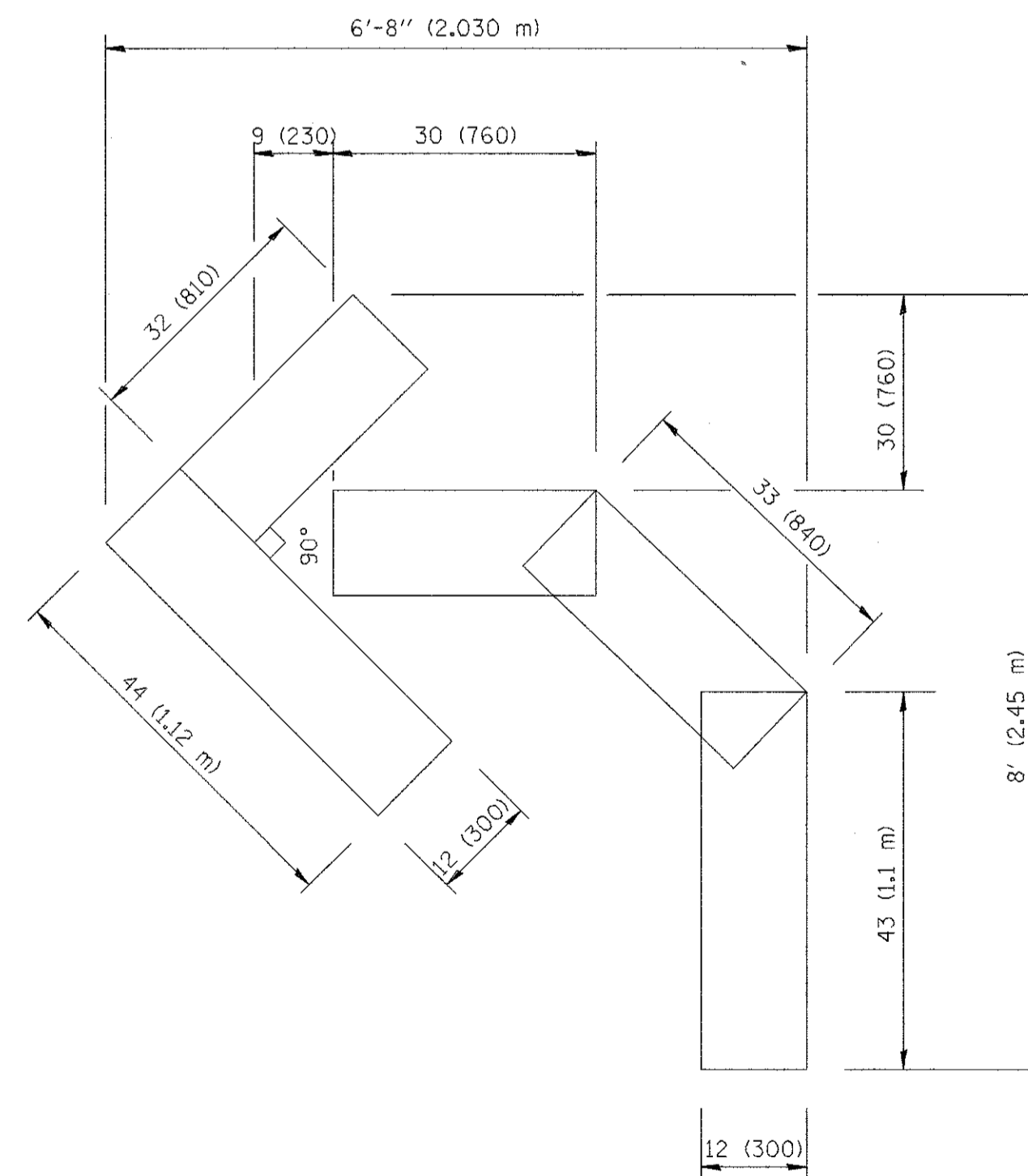
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1619	17-00119-00-RS	COOK	18	14
TC-13		CONTRACT NO. 61E08		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



QUANTITY
 4 (100) LINE = 64.1 ft. (19.7 m)
 21.1 sq. ft. (1.97 sq. m)



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



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

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

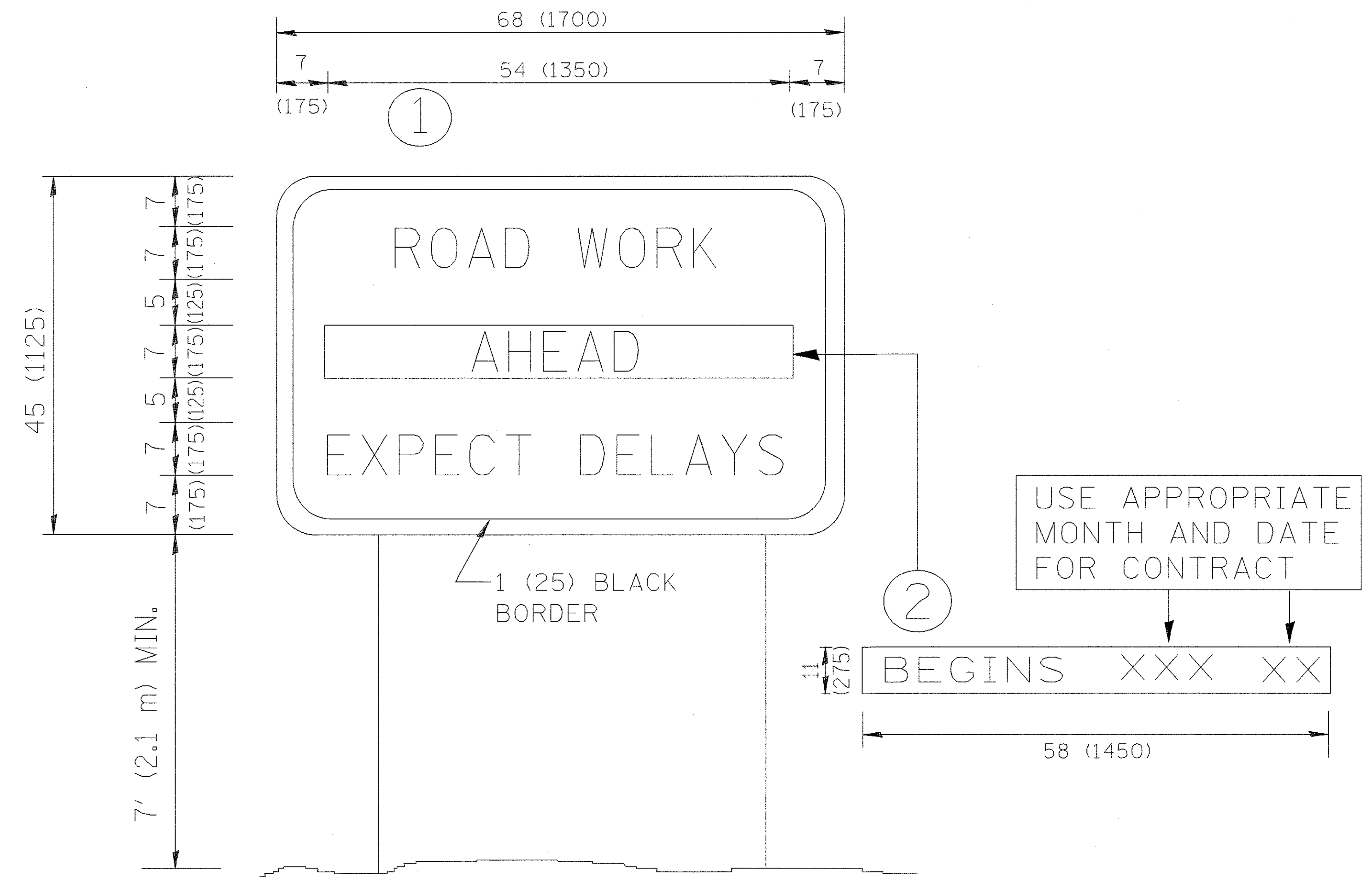
FILE NAME = 16R0398_02-DTLS-01 - TC16	USER NAME = goglianobt	DESIGNED --	REVISED --T. RAMMACHER 06-05-96
		CHECKED --	REVISED --T. RAMMACHER 11-04-97
	PLOT SCALE = 50.0000' / IN.	DRAWN --	REVISED --T. RAMMACHER 03-02-98
	PLOT DATE = 1/4/2008	CHECKED -- 09-18-94	REVISED --E. GOMEZ 08-28-00

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING LETTERS AND SYMBOLS
 FOR TRAFFIC STAGING

SCALE: NONE SHEET NO. 15 OF 18 SHEETS STA. TO STA.

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1619	17-00119-00-RS	COOK	18	15
TC-16		CONTRACT NO. 61E08		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID 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 = 16R0398_02-DTLS-01 - TC22	USER NAME = geglennobt	DESIGNED --	REVISED -- R. MIRS 09-15-97
		CHECKED --	REVISED -- R. MIRS 12-11-97
	PLOT SCALE = 50.000' / IN.	DRAWN --	REVISED -- T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	CHECKED --	REVISED -- C. JUCIUS 01-31-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD
INFORMATION SIGN

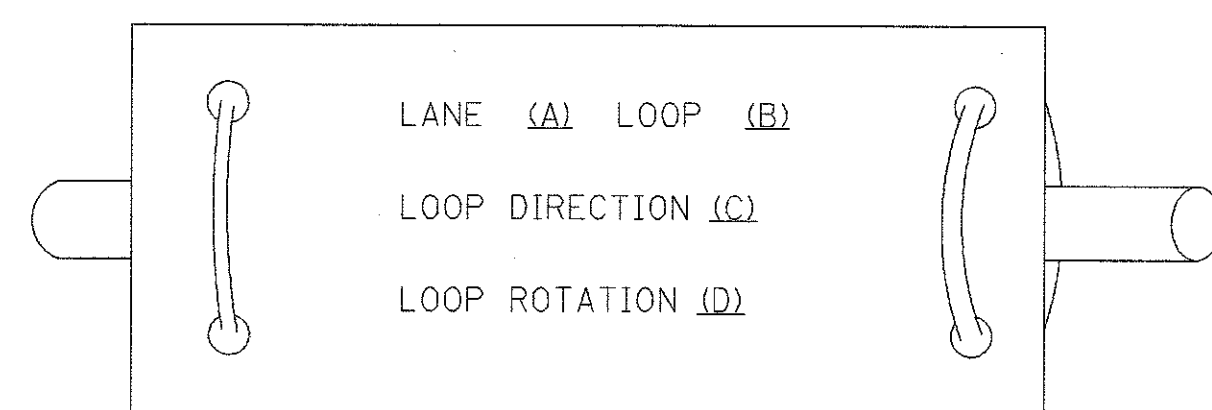
SCALE: NONE SHEET NO. 16 OF 18 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1619	17-00119-00-RS	COOK	18	16
TC-22		CONTRACT NO. 61E08		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT --				

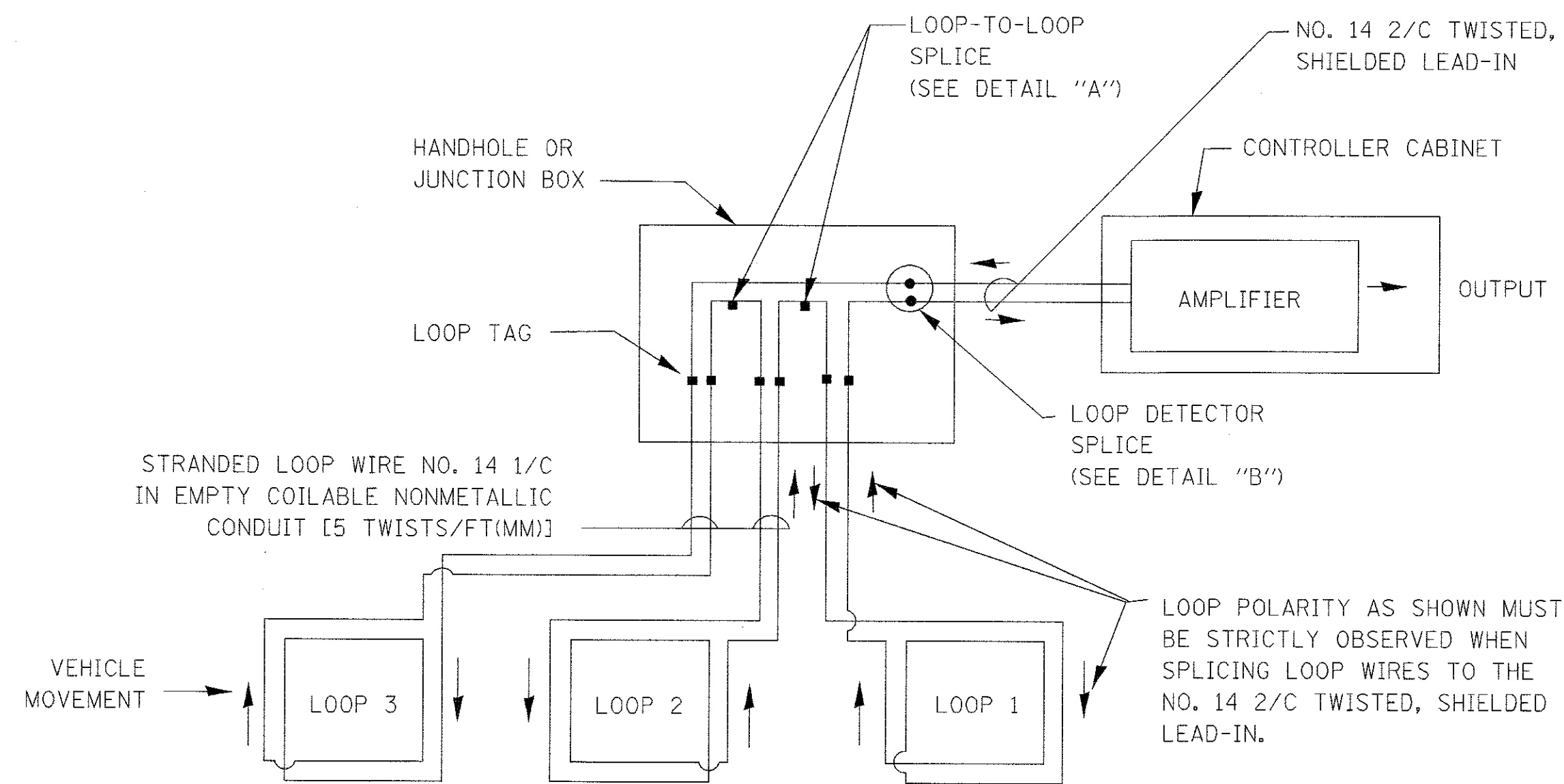
LOOP DETECTOR NOTES

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

LOOP LEAD-IN CABLE TAG

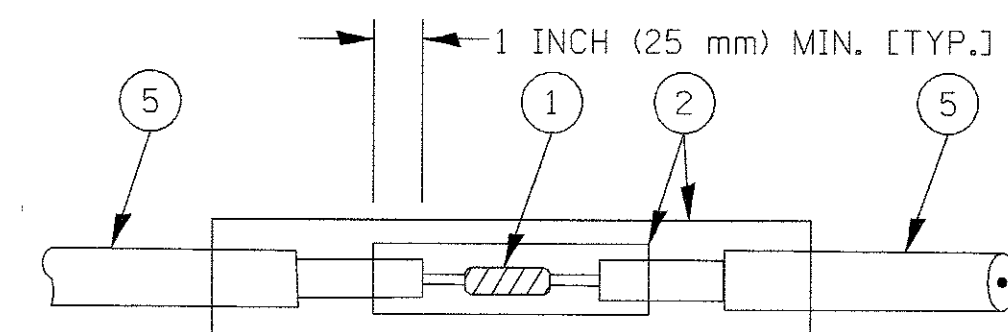


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

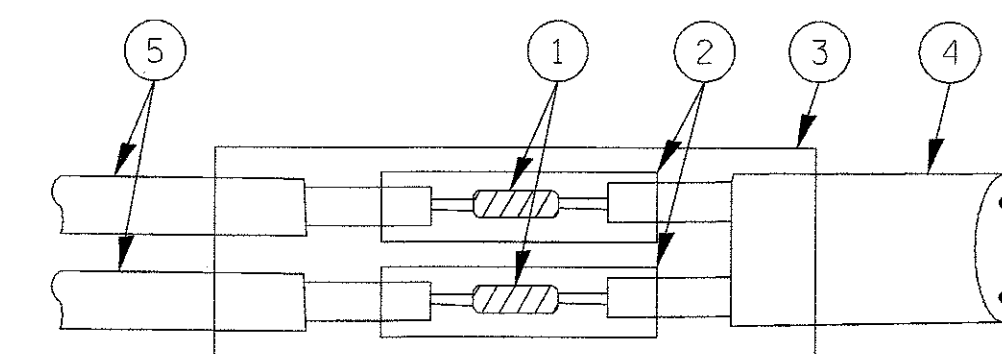


DETECTOR LOOP WIRING SCHEMATIC

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

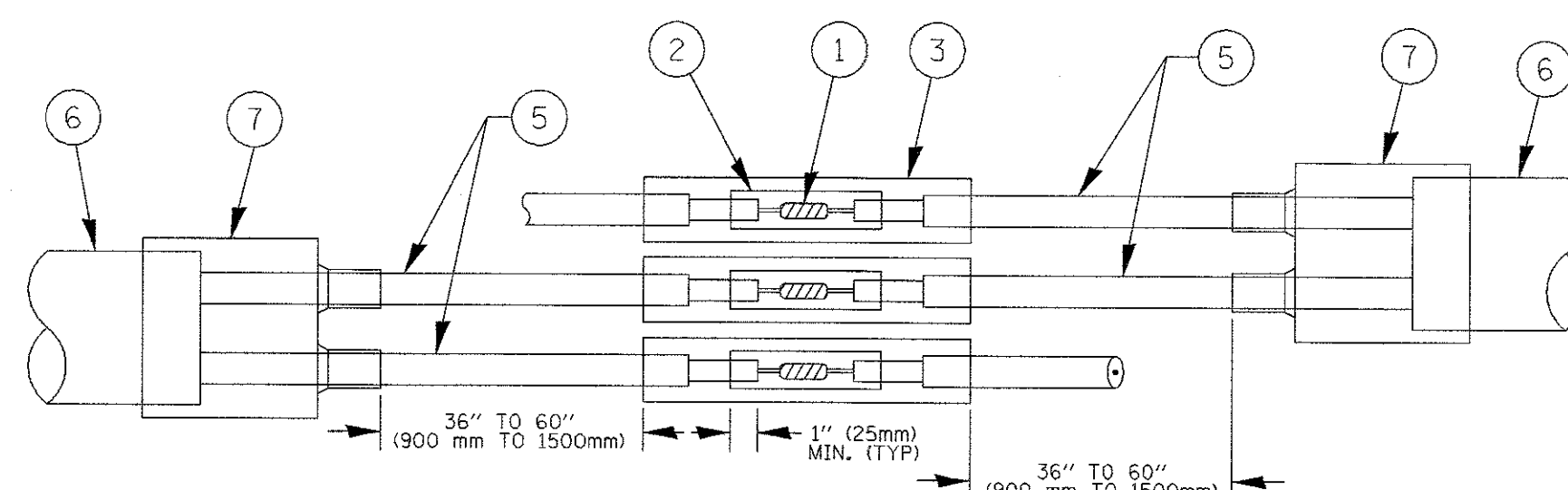


DETAIL "A"
LOOP-TO-LOOP SPLICE

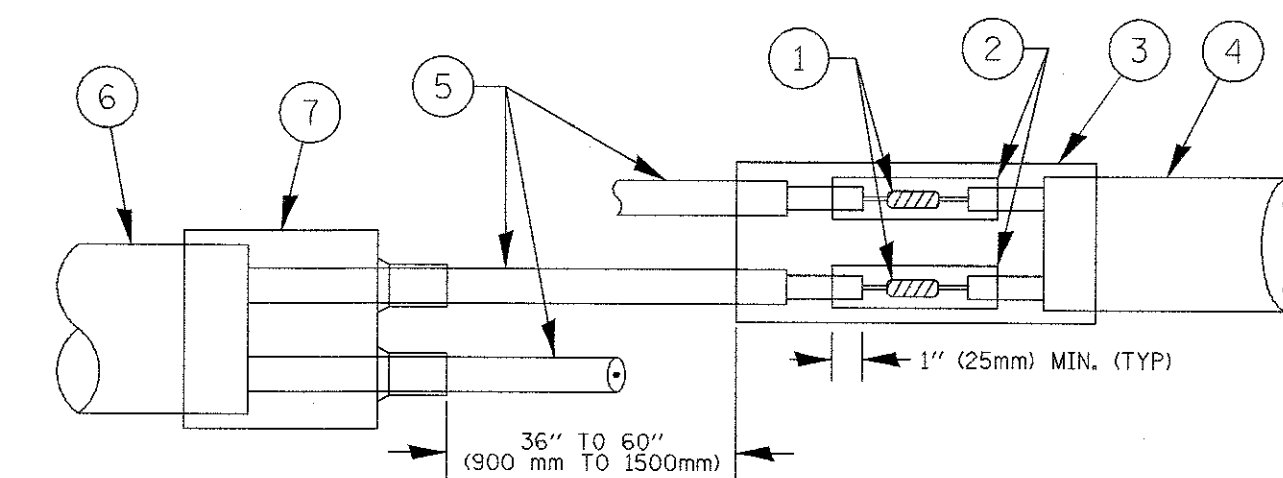


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

PRE-FORMED LOOP

LOOP DETECTOR SPLICE

- ① WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- ② WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- ③ WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- ④ NO. 14 2/C TWISTED, SHIELDED CABLE.
- ⑤ LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- ⑥ PRE-FORMED LOOP
- ⑦ XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

FILE NAME = 16R0396_02-DTIS-01 - TS05 (2)

USER NAME =	DESIGNED --	REVISED --
	CHECKED --	REVISED --
PLOT SCALE =	DRAWN --	REVISED --
PLOT DATE =	CHECKED --	REVISED --

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

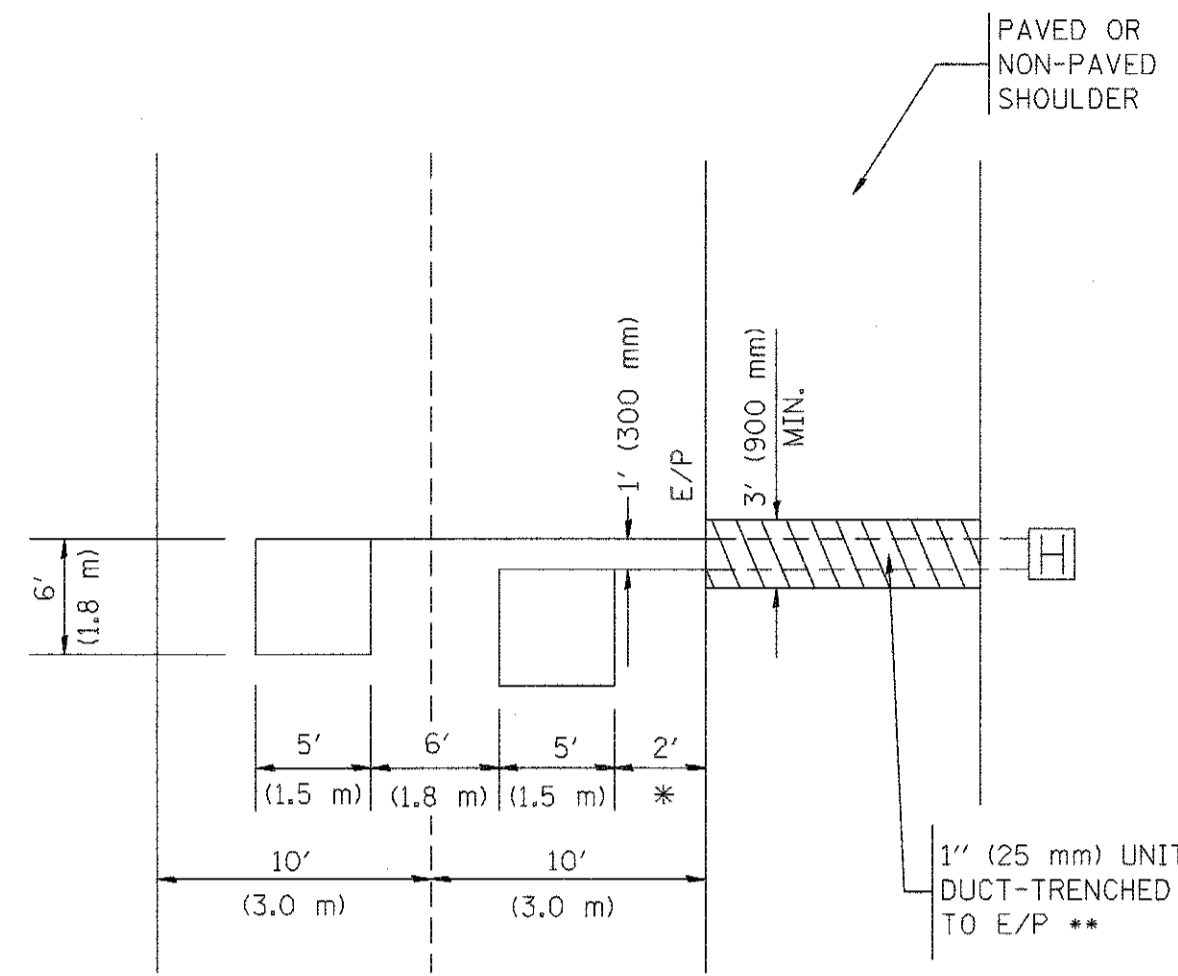
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE SHEET NO. 17 OF 18 SHEETS STA. TO STA.

F.A.U. RTE. 1619	SECTION 17-00119-00-RS	COUNTY COOK	TOTAL SHEETS 18	SHEET NO. 17
TS-05		CONTRACT NO. 61E08		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT --				

LOOPS NEXT TO SHOULDERS

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



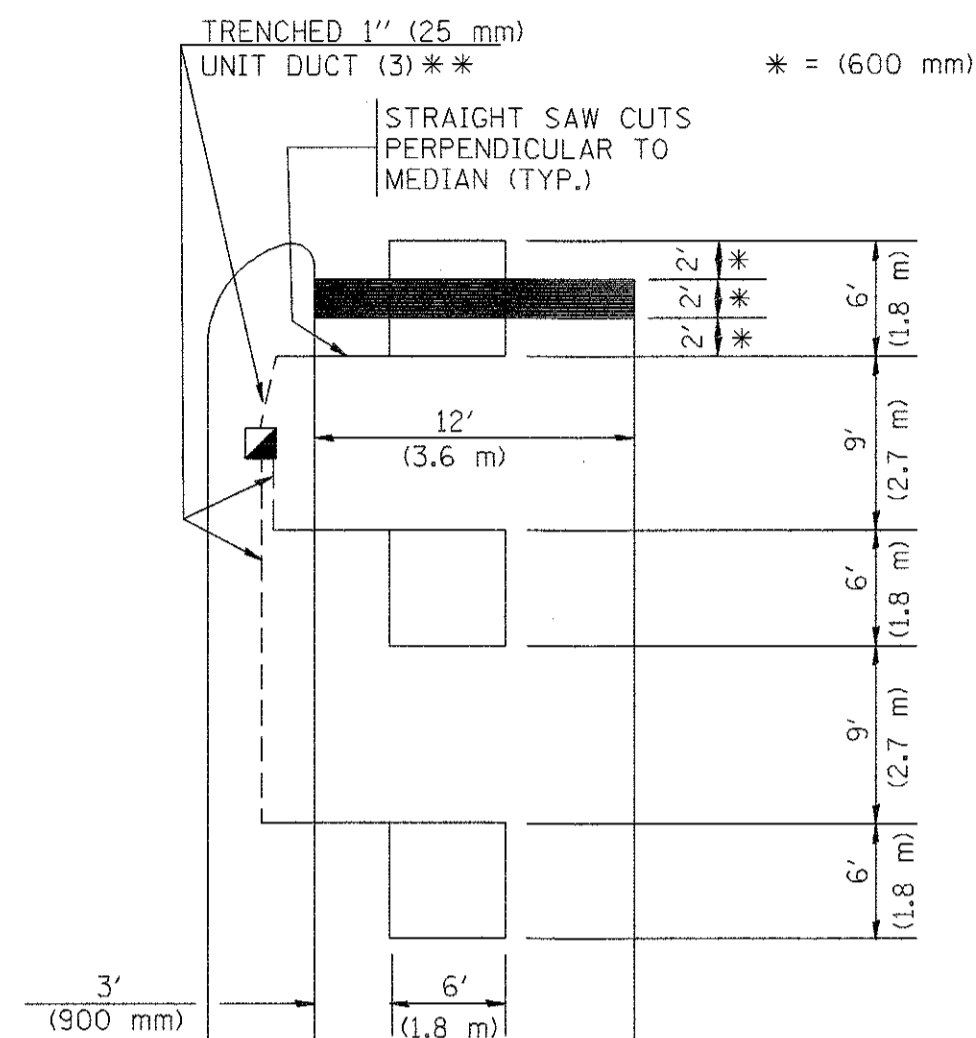
* = (600 mm)

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

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

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



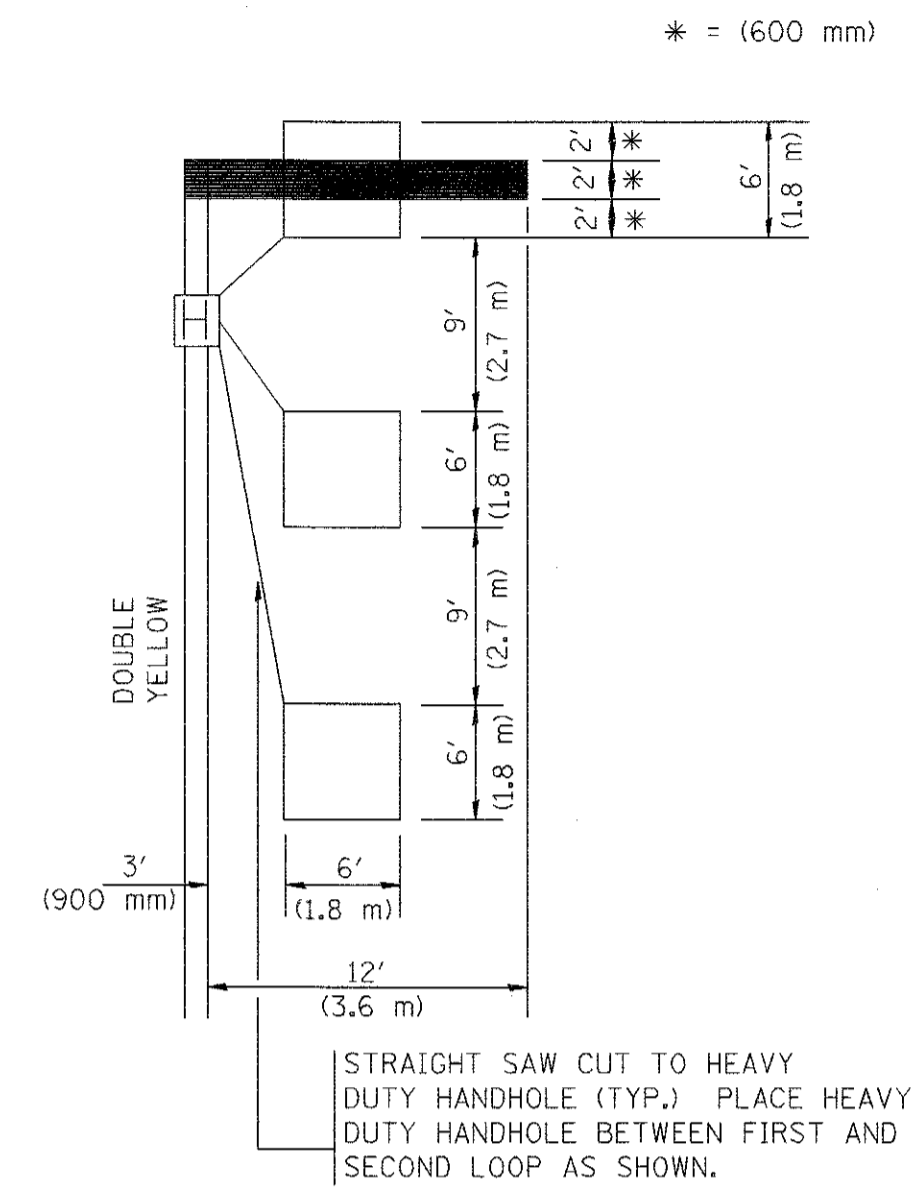
* = (600 mm)

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

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

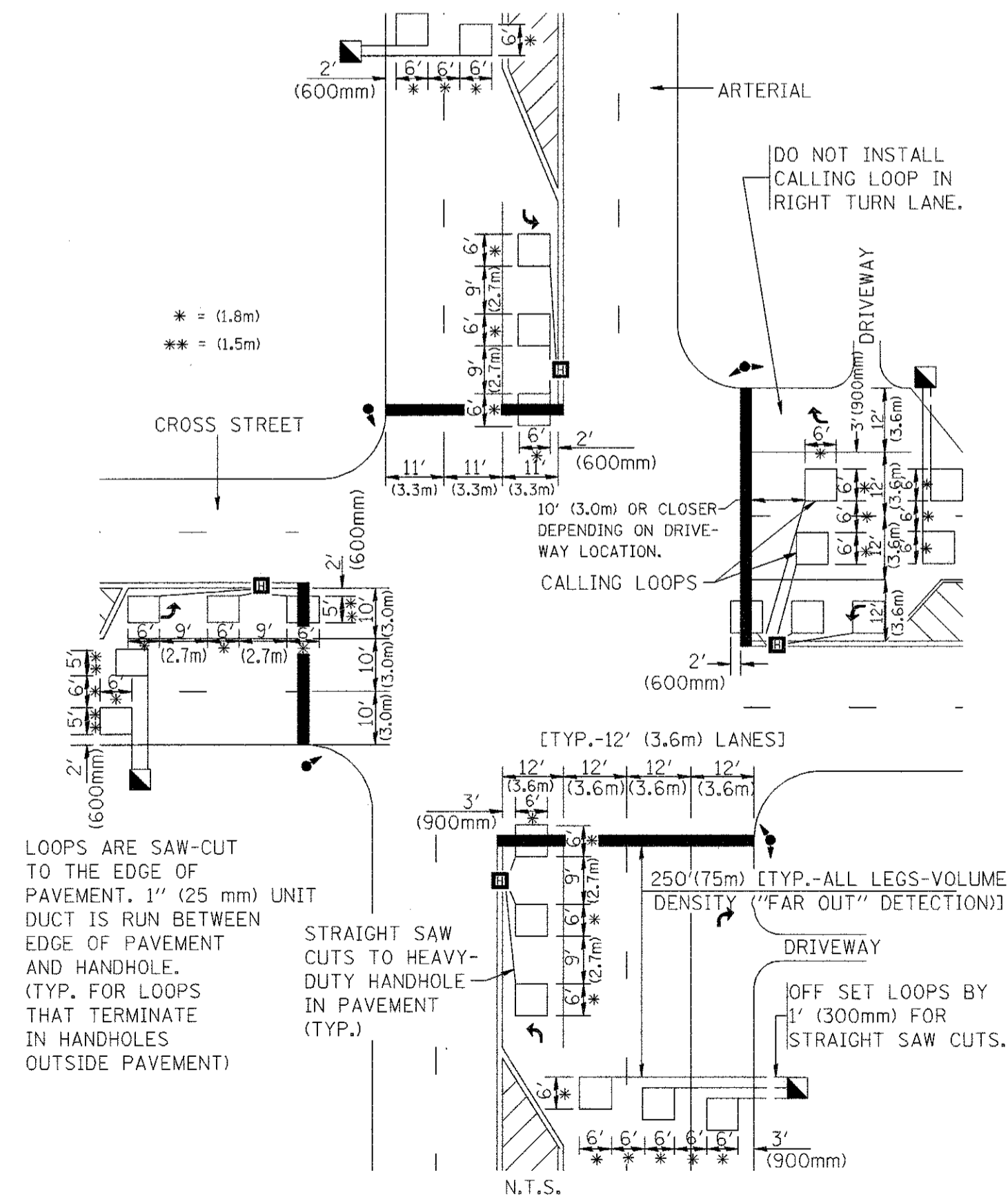
(PROTECTED / PERMITTED LEFT TURN PHASING)



* = (600 mm)

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

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



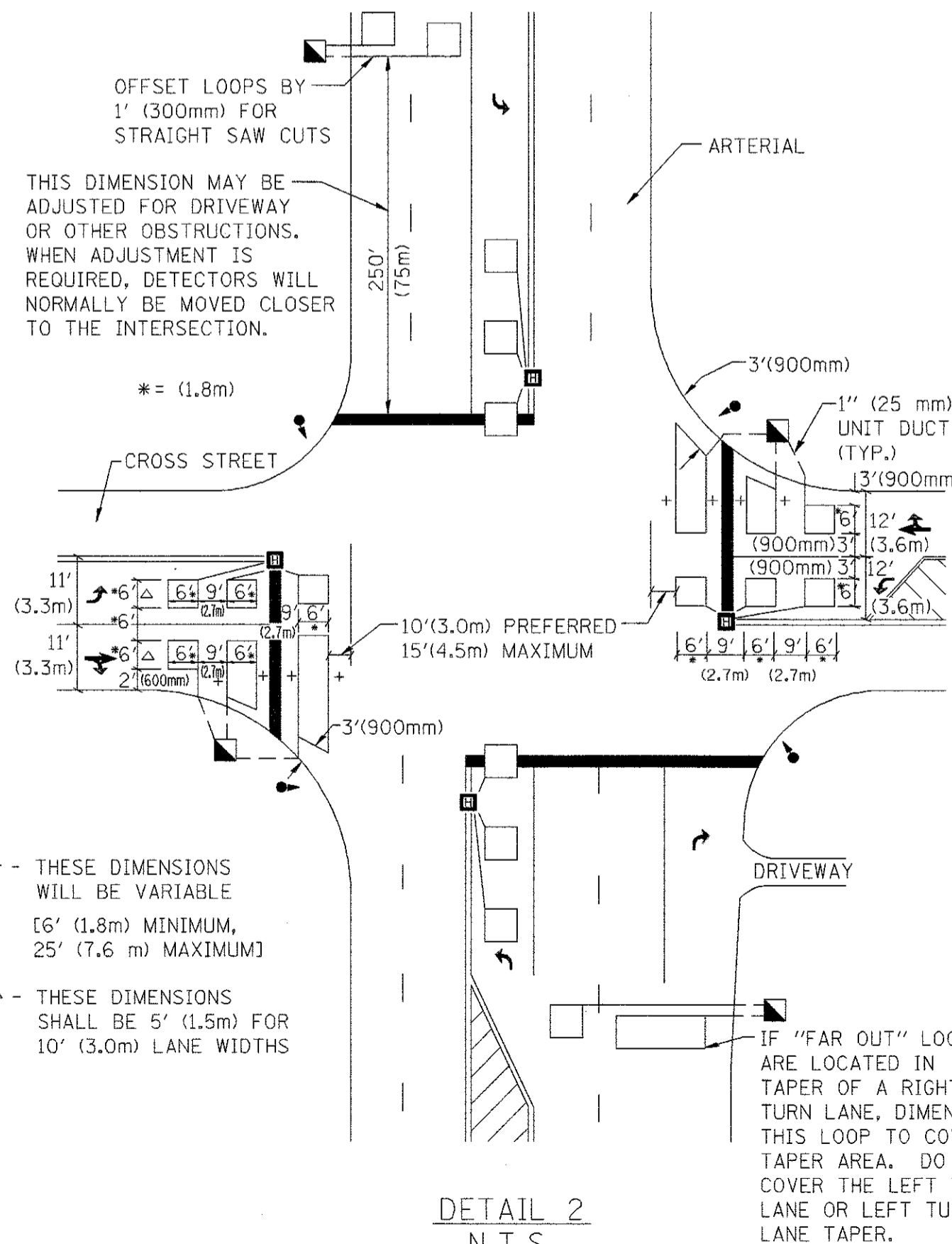
* = (1.8m)
** = (1.5m)

LOOPS ARE SAW-CUT TO THE EDGE OF PAVEMENT. 1" (25 mm) UNIT DUCT IS RUN BETWEEN EDGE OF PAVEMENT AND HANDHOLE. (TYP. FOR LOOPS THAT TERMINATE IN HANDHOLES OUTSIDE PAVEMENT)

STRAIGHT SAW CUTS TO HEAVY-DUTY HANDHOLE IN PAVEMENT (TYP.)

DETAIL 1
N.T.S.

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



+- THESE DIMENSIONS WILL BE VARIABLE [6' (1.8m) MINIMUM, 25' (7.6 m) MAXIMUM]

- THESE DIMENSIONS SHALL BE 5' (1.5m) FOR 10' (3.0m) LANE WIDTHS

IF "FAR OUT" LOOPS ARE LOCATED IN TAPER OF A RIGHT TURN LANE, DIMENSION THIS LOOP TO COVER TAPER AREA. DO NOT COVER THE LEFT TURN LANE OR LEFT TURN LANE TAPER.

DETAIL 2
N.T.S.

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 SEPARATELY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- * ONE DIMENSION OF ALL 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 = 16R0398_02-DTSL-01 - TS07

USER NAME = gegljanobt
PLOT SCALE = 50.0000' / IN.
PLOT DATE = 1/4/2008

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 - DETECTOR LOOP INSTALLATION
DETAILS FOR ROADWAY RESURFACING

SCALE: NONE SHEET NO. 18 OF 18 SHEETS STA. TO STA.

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1619	17-00119-00-RS	COOK	18	18
TS-07		CONTRACT NO. 61E08		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		