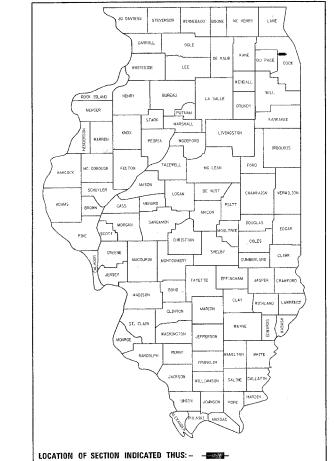
F.A.U. SECTION COUNTY TOTAL SHEET NO. 1374 0406 WRS COOK 43 1

D-91-106-07



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

SUBMITTED April 10 20 07

Dione O' Kuga / G./
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINE

May 11, 20 07 True & Harry D Ontown Engineer of Design and Environ

May 11, 2007
Mutan A See, F.E. 100
DIRECTOR OF HIGHWAY, CHIEF ENGINE

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

F.A.U. 1374: BELMONT AVENUE AT PLAINFIELD AVENUE SECTION: 0406 WRS

WIDENING, RESURFACING &
TRAFFIC SIGNAL INSTALLATION
COOK COUNTY
C-91-106-07

IMPROVEMENT BEGINS
STA. 94+70

Z

AND
STA. 94+75

IMPROVEMENT ENDS
STA. 104+75

FOR INDEX OF SHEETS, SEE SHEET NO. 2

4240

705

(847)

TRAN

LONG

ENG

ENGINEER

PREPARATION

ONE-PLAN

DISTRIC

IMPROVEMENT IS LOCATED IN THE CITY OF CHICAGO AND THE VILLAGE OF RIVER GROVE

100° 200° 300° — 1" = 100° 0 10° 20° 30° — 1" = 10° 0 50° 100° 1" = 50° 0 50° 100° 1" = 40° 0 50° 100° — 1" = 30° 0 50° 100° — 1" = 20°

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

CONTRACT NO. 60C03

GROSS & NET LENGTH OF IMPROVEMENT = 1,005 FEET (0.2 MILE)

I FYDEN TOWNSHIP

SHEE NO.	L <u>DESCRIPTION</u>
1	TITLE SHEET
2	INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES
3-	5 SUMMARY OF QUANTITIES
6	SCHEDULE OF QUANTITIES (EARTHWORK) & DRAINAGE DETAILS
7	TYPICAL SECTIONS
8	ALIGNMENT AND TIES
9-	9A. SUE INVESTIGATION (FOR INFORMATION ONLY)
10	PLAT OF HIGHWAYS (FOR INFORMATION ONLY)
11	EXISTING AND PROPOSED ROADWAY PLANS
12	EXISTING AND PROPOSED DRAINAGE AND UTILITIES PLANS
13	PAVEMENT MARKING PLANS
12	LANDSCAPING PLANS
15	DETECTOR LOOP REPLACEMENT PLANS
16	DISTRICT 1 DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING
17	7-21 PROPOSED TRAFFIC SIGNAL PLANS
2	2-25 DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAIL
2	6 CITY OF CHICAGO CATCH BASINS, INLET AND MANHOLE DETAILS
2	7 CITY OF CHICAGO DETAILS FOR P.C. CONCRETE DRIVEWAY, ALLEY RETURN AND SIDEWALK
. 2	8 DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING
2	9 PAVEMENT PATCHING FOR HOT-MIX ASPHALT SURFACED PAVEMENT
. 3	O CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT
3	1 BUTT JOINT AND HOT-MIX ASPHALT TAPER DETAILS
3	2 TRAFFIC CONTROL AND PROTECTION FOR SIDES ROADS, INTERSECTIONS AND DRIVEWAYS
. 3	3 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)
. 3	4-35 CITY OF CHICAGO TYPICAL PAVEMENT MARKINGS
3	6 TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
3	ARTERIAL ROAD INFORMATION SIGNING
. 3	8-43 CROSS SECTIONS

STATE	STANDARDS	

	STATE STANDARDS
000001 - 04	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
424001 - 04	CURB RAMPS FOR SIDEWALKS
442201 - 02	CLASS C AND D PATCHES
604086-01	FRAME AND GRATE TYPE 23
606001- 03	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB & GUTTER
701311- 02	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701326- 02	LANE CLOSURE, 2L , 2W, PAVEMENT WIDENING, FOR SPEEDS > 45MPH
701426 -02	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS, FOR SPEEDS > 45MPH
701606-04	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-04	URBAN LANE CLOSURE, MULTILANE INTERSECTION
702001-06	TRAFFIC CONTROL DEVICES
814001-01	CONCRETE HANDHOLES

DOUBLE HANDHOLES 814006-01

STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES 857001

STEEL MAST ARM ASSEMBLY AND POLE 877001-**02**

STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 877011-02

878001~ **05** CONCRETE FOUNDATION DETAILS

SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION 880001

TRAFFIC SIGNAL MOUNTING DETAILS 880006

886001 DETECTOR LOOP INSTALLATIONS

TYPICAL LAYOUT FOR DETECTION LOOPS 886006

GENERAL NOTES:

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 300-892-0123 FOR FIELD LOCATIONS OR BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. (48 HOUR NOTIFICATION REQUIRED)

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE CITY OF CHICAGO AND THE VILLAGE OF RIVER GROVE.

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

BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT). IN ACCORDANCE WITH THE "BUTT JOINT AND HOT MIX ASPHALT TAPER DETAILS" SHEET INCLUDED IN THE PLANS UNLESS OTHERWISE SPECIFIED.

THE RESIDENT ENGINEER SHALL CONTACT MS. PATRICE HARRIS, AT (708) 597-9800 A MINIMUM OF 72 HOURS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

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

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES WHERE THE SPEED LIMIT IS 45 MPH OR LESS, AND 1 INCH WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH. WITH WRITTEN APPROVAL FROM THE RESIDENT ENGINEER. A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM OF 1:3

THE UNIT WEIGHT (CONVERSION FACTOR) QUOTED IS FOR THE ESTIMATING PLAN QUANTITIES ONLY, ACTUAL QUANTITIES TO FULFILL CONTRACT REQUIREMENTS WILL BE DETERMINED BASED ON UNIT WEIGHT OF APPROVED MIX DESIGN, PLAN DIMENSIONS, AND DENSITY LIMITATIONS. MAXIMUM PAYMENT WILL BE COMPUTED BASED ON WEIGHT AVERAGE DENSITIES OF THE IN-PLACE MIXTURE.

THE RESIDENT ENGINEER SHALL VERIFY THE LOCATIONS OF ALL EXISTING PAVEMENT MARKINGS PRIOR TO MILLING OR RESURFACING.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE ARTERIAL TRAFFIC CONTROL SUPERVISOR A MINIMUM OF 72 HOURS PRIOR TO BEGINNING WORK.

CONSTRUCTION OF A BANK AT THE NORTHEAST CORNER OF PLAINFIELD AVENUE AND BELMONT AVENUE IS ANTICIPATED IN THE YEAR 2007. THE CONTRACTOR SHALL ENSURE THAT CONSTRUCTION ACCESS IS MAINTAINED.

CONTRACT NO. 60C03 TOTAL SHEET SHEETS NO. SECTION COUNTY 1374 0406 WRS COOK 42 2 TO STA. FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

GENERAL NOTES CONTINUED:

THE GENERAL CONTRACTOR IS REQUIRED TO HIRE AN ENVIRONMENTAL FIRM TO CONTINUOUSLY MONITOR FOR WORKER SAFETY AND SOIL CONTAMINATION AT SEVERAL AREAS. SEE SPECIAL PROVISION AND SUPPLEMENTAL SPECIFICATIONS FOR

CHICAGO NOTES:

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.

IN CASE OF DAMAGE TO CITY OF CHICAGO SEWERS, PRIVATE AND PUBLIC DRAINS, SEWERS STRUCTURES AND / OR BENCH MONUMENTS, THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE DEPARTMENT OF SEWERS AT (312) 747-7892 OR

CLOSED LIDS SHALL BE PLACED ON ALL MANHOLES EXCEPT AT INTERSECTIONS. PERFORATED LIDS SHALL BE PLACED ON ALL CATCH BASINS.

BENCH MONUMENT LOCATIONS WITHIN THE LIMITS OF THE IMPROVEMENT CAN BE OBTAINED FROM THE DEPARTMENT OF SEWERS AT SUITE 400, 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.

SIDEWALK ACCESSIBILITY RAMPS SHALL NOT BE CONSTRUCTED DIRECTLY OVER EXISTING OR PROPOSED DRAINAGE STRUCTURES. 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 AVE.

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

CURB AND GUTTER CONSTRUCTION SHALL PROVIDE A MINIMUM CURB HEIGHT OF 3 IN. ($75~\mbox{MM}\mbox{.}$

BACKFILL MATERIAL UNDER SIDEWALKS SHALL BE FA-2 (2").
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.

ALL CATCH BASINS IN THE CITY OF CHICAGO MUST MEET THE DEPARTMENT OF SEWERS STANDARDS.

TITINOIS DEPARTME	NT OF TRANSPORTATION					
BELMONT AVENUE						
	TS STATE STANDARDS ENERAL NOTES					
SCALE: VERT.	DRAWN BY AA					
DATE 4/19/2007	CHECKED BY					
	BELMO INDEX OF SHEE AND G					

CONTRACT NO. 60C03
COUNTY TOTAL SHEET NO.
COOK 43 3 F.A.U. SECTION 1374 0406 WRS FED. ROAD DIST. NO. 1 ILLINOIS HIGHWAY PROJECT

	SUMMARY OF QUANTITIES	URBAN 1001.STATE			CONSTRUCT	ION TYPE (CODE		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	IOOO ROADWAY	Y031 <i>-IF</i> SIGNAL				
XX045934	REOPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL	EACH	1		1				
20101100	TREE TRUNK PROTECTION	EACH	9.	9					
20101200	TREE ROOT PRUNING	EACH	4	4					
20101300	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	2	2					
20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	2	2					
20200100	EARTH EXCAVATION	CU YD	191	191					
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE	CU YD	91	-91					
20800150	TRENCH BACKFILL	CU YD	38.1	38,1	\triangleright \triangle				
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	795	795					
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	10	10					
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	10	10					
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	10	10					
25200110	SODDING, SALT TOLERANT	SQ YD	795	795					
25200200	SUPPLEMENTAL WATERING	UNIT	8	8	!				
28000400	PERIMETER EROSION BARRIER	FOOT	1150	1150					
28000500	INLET AND PIPE PROTECTION	EACH	2	2					
31101200	SUB-BASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	231	231					
35401100	PORTLAND CEMENT CONCRETE BASE COURSE) A WIDENING (VARIABLE DEPTH)	SQ YD	231	231					
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	5	5					
40600300	AGGREGATE (PRIME COAT)	TON	25	25					
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	4	4					
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	419	419			-		
40600895	CONSTRUCTING TEST STRIP	EACH	1	1					
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	114	114					
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	28	28					
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	536	536					
42001300	PROTECTIVE COAT	SQ YD	1124	1124					

		D-91-106-07										
	SUMMARY OF QUANTITIES		URBAN 1001.STATE		r	CONSTRUCT	ION TYPE	CODE	1			
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	IOOO ROADWAY	Y031-# SIGNAL							
42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	SQ YD	44	44								
42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SQ YD	294	294								
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5	SQ FT	2658	2658								
42400800	DETECTABLE WARNINGS	SQ FT	36	36		•						
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2	SQ YD	5964	5964								
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	388	388					-			
44000300	CURB REMOVAL	FOOT	152	152								
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	934	934								
44000600	SIDEWALK REMOVAL	SQ FT	2384	2384				i.				
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	189	189					The state of the s			
44002222	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 5 1/2"	SQ YD	91	91			C		AND			
44201745	CLASS D PATCHES, TYPE III, 8 INCH	SQ YD	57	57								
44201747	CLASS D PATCHES, TYPE IV, 8 INCH	SQ YD	34	34								
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	4020	4020								
55039700	STORM SEWERS TO BE CLEANED	FOOT	500	500								
550A0030	STORM SEWERS, CLASS A, TYPE 1 8"	FOOT	22	2.2	34							
550A0040	STORM SEWERS, CLASS A, TYPE 1 10"	FOOT	64	84	V							
55100400	STORM SEWER REMOVAL 10"	FOOT	52	52								
60202505	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID (CITY OF CHICAGO)	EACH					No. of the Control of		-			
60235200	INLETS, TYPE A, TYPE 1 FRAME, OPEN LID (CITY OF CHICAGO)	EACH	1	1								
60237460	INLETS, TYPE A, TYPE 23 FRAME AND GRATE	EACH	1	1								
60260100	INLETS TO BE ADJUSTED	EACH	2	2								
60261530	INLETS TO BE ADJUSTED WITH NEW TYPE 23 FRAME AND GRATE	EACH	2	2								
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	5	5								
60500050	REMOVING CATCH BASINS	EACH		1								

* SPECIALTY ITEM

** NON PARTICIPATING ITEM

REVISIONS NAME

A Rev. 5-30-07

ILLINOIS DEPARTMENT OF TRANSPORTATION SUMMARY OF QUANTITIES BELMONT AVENUE

CONTRACT NO. 60CO3

RTE.	SECTION		COUNT	1	SHEETS	NO.	
1374	0406 WRS		соок		43	4	
FED.	ROAD DIST. NO. 1	ILL	INOIS	HIG	HWAY PRO	DJECT	

D-91-106-07

														D-91-106	507
	SUMMARY OF QUANTITIES		URBAH			CONSTRUCTION TYPE	CODE			SUMMARY OF QUANTITIES		URBAN 1001. STATE		CON	STRUCTION TYPE CODE
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	IOOO ROADWAY	Y031-IF SIGNAL				CODE NO	ITEM	UNIT	TOTAL QUANTITIES	IOOO ROADWAY	Y031-1F SIGNAL	
60600605	CONCRETE CURB, TYPE B	FOOT	135	135	-				* 78000650	THERMOPLASTIC PAVEMENT MARKING	FOOT	76	76		
60603800	COMBINATION CONCRETE CURB AND GUTTER,	FOOT	1011	1011	and the second				78100100		EACH	110	110		
60604200	COMBINATION CONCRETE CURB AND GUTTER,	FOOT	<u> </u>	30	and the state of t										
66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	7	7					78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	. 60	60		
66900450	SPECIAL WASTE PLANS AND REPORT	L SUM	. 1	1					* 81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED	FOOT	1065		1065	
66900530	SOIL DISPOSAL ANALYSIS	EACH	. 1	1						STEEL					
66900665	TCL SOIL ANALYSIS	EACH	1	1					* 81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	6		6	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6					* 81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED	FOOT	25		25	
67100100	MOBILIZATION	L SUM	1	1				-		STEEL					
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1					* 81001000	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	10		10	
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1					* 81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	466		466	
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1					* 81018600	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT	14		14	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	4	4			,		* 81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	223		223	
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	2	2					¥ 81400100	HANDHOLF	FACH	7		7	
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	846	846								2		2	
70300210	TEMPORARY PAVEMENT MARKING	SQ FT	135.5	135.5								1		_	
	- LETTERS AND SYMBOLS								* 81400300						
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	F00T	3107	3107					* 81900200 * 85000200		FOOT	1210		1210	
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	F00T	438	438 .						INSTALLATION	EACU		-	1	
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	F00T	41	41	-				* 85700205	TYPE IV CABINET, SPECIAL					
70300280	TEMPORARY PAVEMENT MARKING	FOOT	76	76					* 86400100	TRANSCEIVER - FIBER OPTIC	EACH	1		1	
	- LINE 24"								* 87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	496		496	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	94	94					* 87301225	ELECTRIC CABLE IN CONDUIT. SIGNAL	FOOT	910		910	
72000100	SIGN PANEL - TYPE 1	SQ FT	34.5		34.5	•				NO. 14 3C					
78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	135.5	135.5				·	* 87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1280		1280	
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	3107	3107					* 87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	592		592	
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	438	438					* 87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1557		1557	
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	41 .	41					* 87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1		1	
	60600605 60603800 60604200 66900200 66900450 66900530 66900665 67000400 67100100 70102625 70102635 70102635 70103815 70106800 70300210 70300220 70300240 70300240 70300260 70300280 70301000 72000100 78000100 78000200 78000400	CODE NO CONCRETE CURB, TYPE B COMMONITOR CONCRETE CURB AND GUTTER, TYPE B-6.12 COMMONITOR CONCRETE CURB AND REPORT COMMONITOR CONTROL AND REPORT TOUGHOUS TO THE CONTROL AND PROTECTION, STANDARD 701326 TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 TO103615 TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 TO103615 TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 TO103615 TRAFFIC CONTROL SURVEILLANCE CHANGEABLE MESSAGE SIGN TO300100 SHORT-TERM PAVEMENT MARKING - LETTERS AND SYMBOLS TO300210 TEMPORARY PAVEMENT MARKING - LINE 4" TO300220 TEMPORARY PAVEMENT MARKING - LINE 12" TO300240 TEMPORARY PAVEMENT MARKING - LINE 12" TO300260 TEMPORARY PAVEMENT MARKING - LINE 24" TO3001000 WORK ZONE PAVEMENT MARKING - LINE 24" TO300100 THERMOPLASTIC PAVEMENT MARKING - LINE 4" THERMOPLASTIC PAVEMENT MARKING - LINE 6" THERMOPLASTIC PAVEMENT MARKING - LINE 6" THERMOPLASTIC PAVEMENT MARKING - LINE 6"	CODE NO ITEM UNIT CODE NO ITEM UNIT COMOCOGO CONCRETE CURB, TYPE B FOOT COGOUGO COMBINATION CONCRETE CURB AND GUTTER, FOOT TYPE B-6 12 COMBINATION CONCRETE CURB AND GUTTER, FOOT COMOCOGO NON-SPECIAL WASTE OIS FOSAL CU YD COSOUCO NON-SPECIAL WASTE OIS FOSAL CU YD COU YD	CODE NO ITEM UNIT OTAL OUANTITIES CODE NO ITEM UNIT OTAL OUANTITIES COOCOCCO CONCRETE CURB, TYPE B FOOT 135 COOCOCCO CONCRETE CURB, TYPE B FOOT 1011 TYPE B B B 12 COMBINATION CONCRETE CURB AND GUTTER, FOOT 1011 TYPE B B B 12 COMBINATION CONCRETE CURB AND GUTTER, FOOT 1011 TYPE B B B 12 COMBINATION CONCRETE CURB AND GUTTER, FOOT 1011 TYPE B B B 12 COMBINATION CONCRETE CURB AND GUTTER, FOOT 1011 TYPE B B B 12 COMBINATION CONCRETE CURB AND GUTTER, FOOT 1011 TYPE B B B 12 COMBINATION CONCRETE CURB AND GUTTER, FOOT 1011 TYPE B B B 12 COMBINATION CONCRETE CURB AND GUTTER, FOOT 1011 TO COMBINATION CONCRETE CURB AND GUTTER, FOOT 1011 TO COMBINATION CONCRETE CURB AND GUTTER, FOOT 1011 TO COOCOCCO CURB CONCRETE CURB AND GUTTER, FOOT 1011 TO COOCOCCO CURB CONCRETE CURB AND REPORT CONCRETE CURB CURB CURB CURB CURB CURB CURB CURB	CODE NO	CODE NO	CODE NO	CODE NO	CODE NO	CODE_NO	COMMAND COMM	Common C	CONTROL CONT	18 18 18 18 18 18 18 18	Submodify Co QUANTITIES

^{*} SPECIALTY ITEM

REVISIONS
NAME DATE

A Rev. 5-30-07

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
BELMONT AVENUE

^{**} NON-PARTICIPATING ITEM

CONTRACT NO. 60C03

F.A.U. RTE.	SECTION	COUNT	Υ	TOTAL SHEETS	SHEET NO.	
1374	0406 WRS		соок		43	5
FED.	ROAD DIST. NO. 1	ILL	INOIS	HIG	HWAY PRO	DJECT

	~~~~~		
D-9	110	160	7

	SUMMARY OF QUANTITIES		URBAN			CONSTRUC	TION TYPE	CODE			SUMMARY OF QUANTITIES		URBAN			CONSTRUCTIO	N TYPE CODE	
CODE NO .	ITEM	UNIT	IOC'LSTATE TOTAL QUANTITIES	IOOO ROADWAY	Y031-IF SIGNAL					CODE NO	ITEM	TINU	TOTAL QUANTITIES	IOOO ROADWAY	Y031- <i>IF</i> SIGNAL			
87700150	STEEL MAST ARM ASSEMBLY AND POLE, 22	EACH	. 1		1				~	* X8050015	SERVICE INSTALLATION - POLE MOUNTED	EACH	1		1	-		
	FT.									* X8620020	UNINTERRUPTIBLE POWER SUPPLY	EACH	1		1			
87700190	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1		1					* X8710020	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	793		793			
87700240	STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1		1			Land of the state		* X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	842		842			
87702870	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 28 FT.	EACH	1.	٠.	1			THE CONTRACT OF THE CONTRACT O		* XX003418	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 4, 2/C	FOOT	398		398		nimakenin edik i cente.	
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	.4		4					* XX005723	VIDEO DETECTION SYSTEM COMPLETE	EACH	1		1			
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	1		1					* * * * * * * * * * * * * * * * * * * *	INTERSECTION							
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	30		30		-			Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	23	23				
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	. 15		15													
87900200	DRILL EXISTING HANDHOLE	EACH	1		1		-											
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6		6								No. 00 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2		2													A CANADA PARA PARA PARA PARA PARA PARA PARA P
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2		2						*							
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2		2													
88102710	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED	EACH	2		2	. *												
88102740	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED	EACH	2		2	3												
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8		8 .	,	The state of the s											
88500100	INDUCTIVE LOOP DETECTOR	EACH	6		6													
88600100	DETECTOR LOOP, TYPE I	FOOT	623	66	557						· •							
88800100	PEDESTRIAN PUSH-BUTTON	EACH	4		4												The second secon	
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	51. 4	51. 4														
X0322925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	793		793		-										- '	
X4021000	TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	1	1				-										
X4022000	TEMPORARY ACCESS (COMMERCIAL ENTRANCE)	EACH	4	4														
X6040220	FRAMES AND LIDS, TYPE 1, OPEN LID (CITY OF CHICAGO)	EACH	2	2		-		,			·							

* SPECIALTY ITEM

-** NON-PARTICIPATING ITEM

REVISIONS
NAME DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
BELMONT AVENUE

RTE.	3LC110N	COUNTY	SHEETS	NO.
1374	0406 WRS	COOK	43	6
STA.		TO STA.		
FED. ROA	D DIST. NO. 1 ILLI	NOIS FED. AID	PROJECT	

	EA	RTHWORK				
. 1	2	3	4	5	6	7
BELMONT AVE & PLAINFIELD AVE.	EARTH EXCAVATION (CU YD)	UNSUITABLE MATERIAL (CU YD)	EMBANKMENT (CU YD)	ADJUSTMENT FOR SHRINKAGE (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)	TOP SOIL FURNISH AND PLACE (SQ YD)
BELMONT AVE. (STA. 95+00 TO STA. 100+00)	22	41	12	19	+7	
BELMONT AVE. (STA. 100+00 TO STA. 103+68)	169	. 50	. 0	144	+144	
TOTAL	191	91	12	163	+151	795

COLUMN 1: LOCATION FROM PLANS

COLUMN 2: CUT QUANTITIES FROM CROSS SECTIONS, WHICH DOES NOT INCLUDE UNSUITABLE MATERIAL

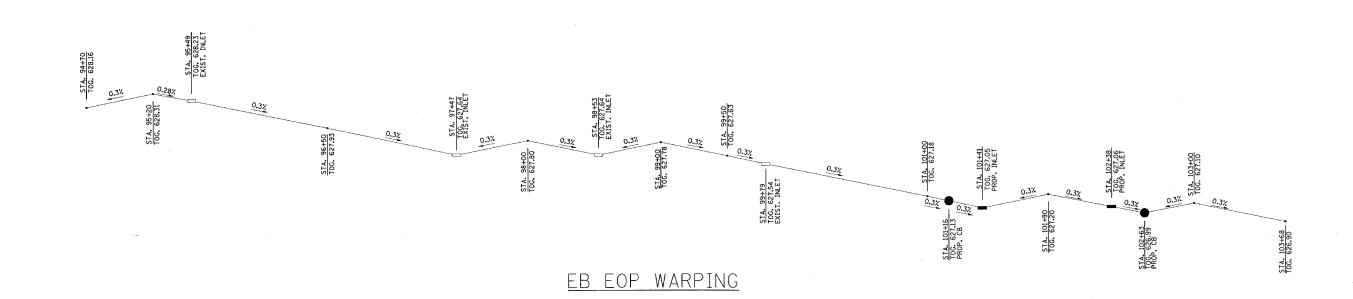
COLUMN 3: CUT MATERIAL THAT IS DETERMINED TO BE EITHER UNSTABLE OR UNSUITABLE FOR USE IN EMBANKMENT (TOP SOIL EXCAVATED AT 4" AVERAGE DEPTH)

COLUMN 4: QUANTITIES FROM CROSS SECTIONS (FILL)

COLUMN 5: EARTH EXCAVATION THAT IS TO BE USED AS FILL MATERIAL IN THE EMBANKMENT, SHRINKAGE FACTOR WAS DETERMINED TO BE 15%

COLUMN 6: COLUMN 5 - COLUMN 4, POSITIVE QUANTITY= EXTRA EXCAVATION, NEGETIVE QUANTITY= FURNISHED EXCAVATION NEEDED

COLUMN 7: TOPSOIL FURNISH AND PLACE= AREA OF SEEDING AND SODDING



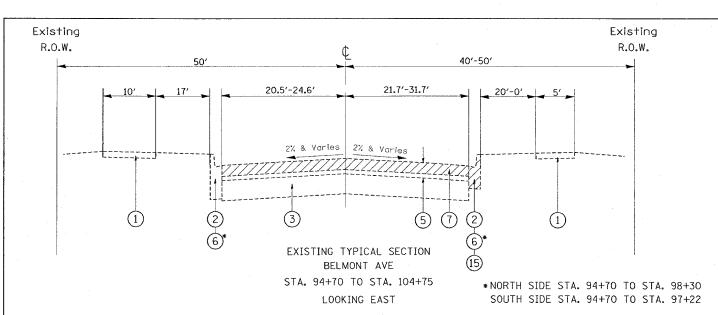
ILLINOIS DEPARTMENT OF TRANSPORTATION

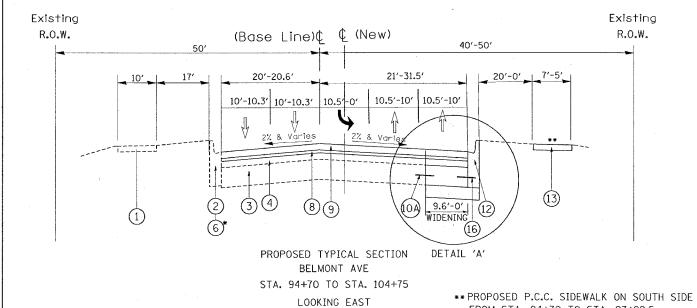
**BELMONT AVENUE** 

SCHEDULE OF QUANTITIES & DRAINAGE DETAILS

SCALE: VERT. HORIZ. DATE

DRAWN BY CHECKED BY





HOT-MIX ASPHALT MIXTURE REQUIREMENTS								
MIXTURE TYPE	AC TYPE	AIR VOIDS						
PAVEMENT RESURFACING								
LEVELING BINDER (MACHINE METHOD), N70 (IL-9.5 MM)	PG 64-22 *	4.0% @ 70 GYR						
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL-9.5MM)	PG 64-22	4.0% @ 70 GYR						
PATCHING								
CLASS D PATCHES (BINDER IL-19MM)	PG 64-22 *	4.0% @ 70 GYR						
HOT-MIX ASPHALT REPLACEMENT OVER PATCHES (BINDER IL-19MM)	PG 64-22 *	4.0% @ 70 GYR						

FROM STA. 94+70 TO STA. 97+22.5

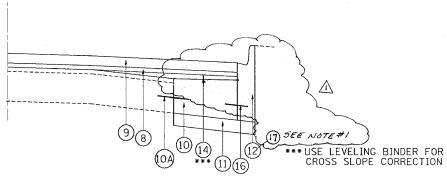
LEGEND

CONTRACT NO. 60CO F.A.U. SECTION COUNTY TOTAL SHEE 1374 0406 WRS COOK FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

- EXISTING P.C. CONCRETE SIDEWALK
- EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE B6.12
- EXISTING PC CONC. BASE COURSE ±8"
- EXISTING HOT-MIX ASPHALT OVERLAY AFTER MILLING
- EXISTING HOT-MIX ASPHALT OVERLAY ±5 1/2"
- EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE B6.24
- PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"
- PROPOSED LEVELING BINDER (MACHINE METHOD), N70, 1"
- PROPOSED HOT-MIX ASPHALT SURFACE COURSE, (9) MIX "D", N70, 1 1/2"
- (VARIABLE DEPTH) (10)PROPOSED PC CONC. BASE COURSE WIDENING
- (10A) PROPOSED NO. 8 EPOXY COATED TIE BAR, DEFORMED, (DRILL AND GROUT), 24" LONG AT 24" SPACING. (INCLUDED IN THE COST OF THE PAVEMENT WIDENING)
- PROPOSED SUB-BASE GRANULAR MATERIAL, TYP B 4"
- (12) PROPOSED COMBINATION CONCRETE CURB AND GUTTER, TYPE B 6.12
- (13)PROPOSED PC CONCRETE SIDEWALK, 5"
- PROPOSED LEVELING BINDER (MACHINE METHOD) N70
- PROPOSED CURB & GUTTER REMOVAL (SAW CUT SHALL BE INCLUDED [15] IN THE PRICE OF REMOVAL)
- PROPOSED NO. 6 EPOXY COATED TIE BAR, DEFORMED, (DRILL AND GROUT), 16 24" LONG AT 24" SPACING. (INCLUDED IN THE COST OF COMBINATION CURB AND GUTTER)

(1) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (SPECIAL)

# DETAIL A



RESURFACING AT PROPOSED WIDENING (STA. 101+00 TO STA. 103+25)

NOTE #1 WHERE PCC WIDENING IS LESS THAN 3 FEET USE COMBINATION CONCRETE CURB AND GUTTER TYPE B 6.12 (SPECIAL) FOR PROPOSED CURB. THE COMBINATION CONCRETE CURB AND GUTTER TYPE B 6.12 (SPECIAL) SHALL BE POURED MONOLITHICALLY WITH THE PCC WIDENING THE COMBINATION CONCRETE CURB AND GUTTER, TYPE B 6.12 (SPECIAL) SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER

ILLINOIS DEPARTMENT OF TRANSPORTATION

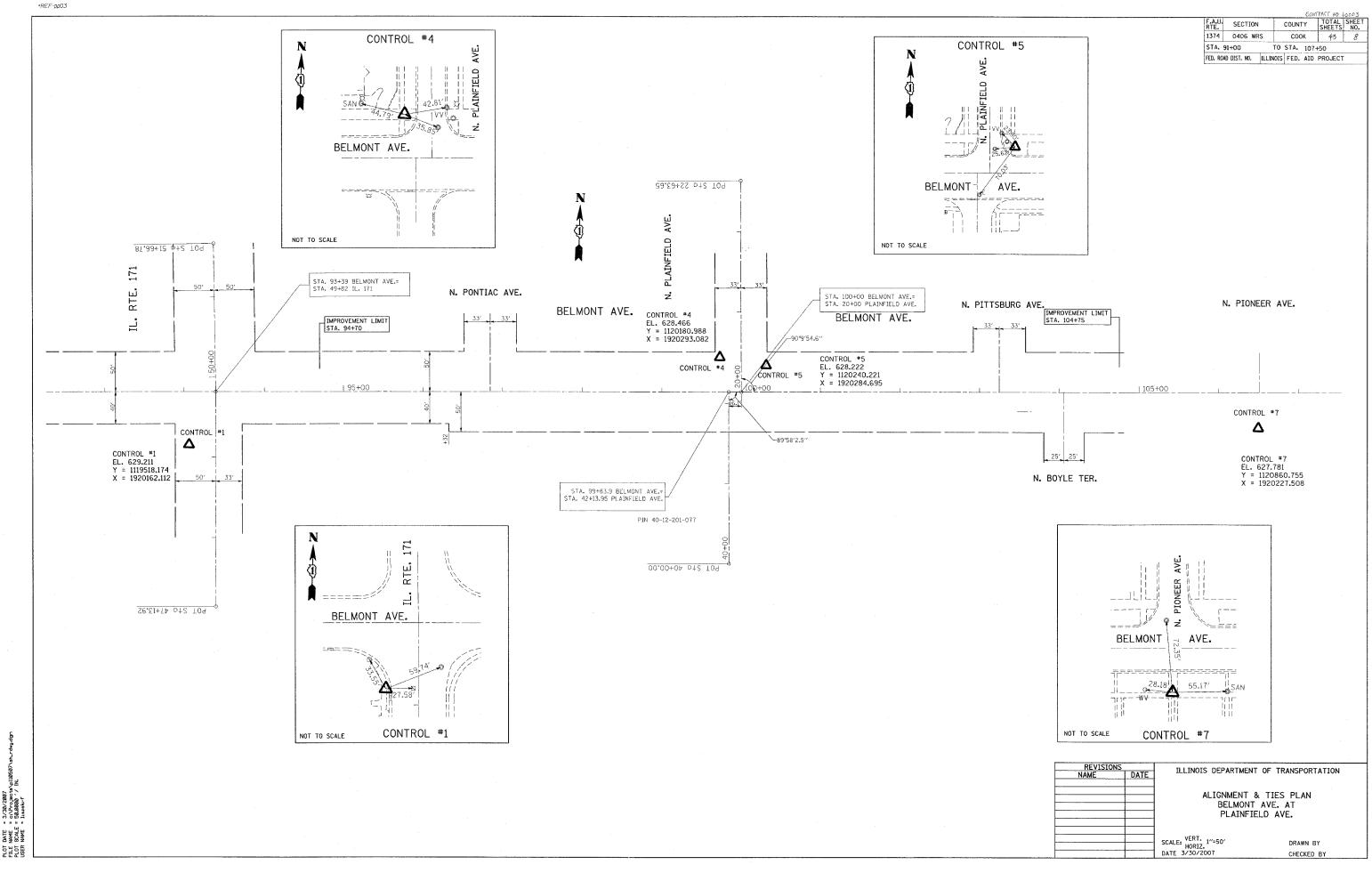
BELMONT AVENUE AT PLAINFIELD AVENUE TYPICAL CROSS SECTIONS

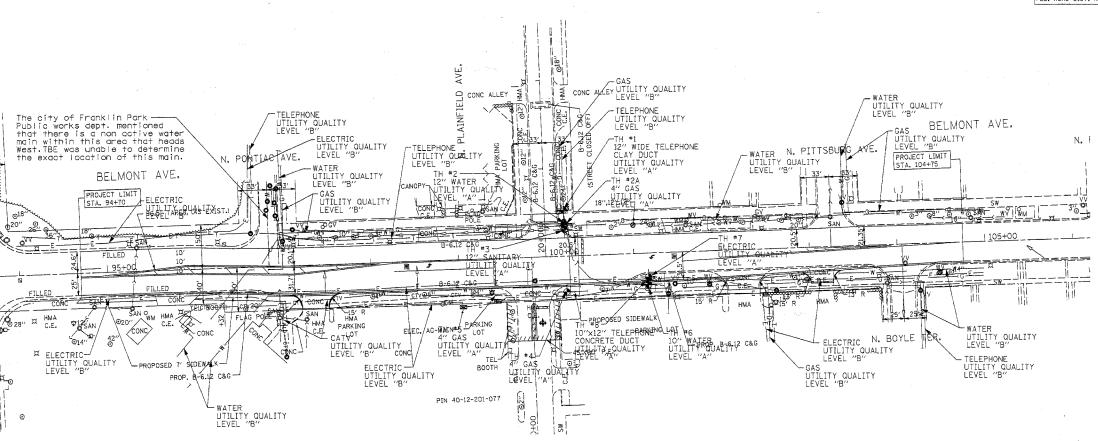
SCALE: N.T.S.

CHECKED BY

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIX QUANTITIES IS 112 LBS/SQYD/IN *WHEN RAP EXCEEDS 20% THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22

△ Rev. 5-30-07





FOR INFORMATION ONLY

The SBC locations depicted have been obtained through the application of geophysical methods to determine the existence and approximate horizontal position of these facilities. However, SBC will not provide TBE Group, Inc. with utility records to help verify the locations of their existing underground facilities. Therefore, TBE is unable to verify the completeness of the SBC locations depicted in accordance with the CI/ASCE Standard 38-02.



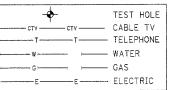
TBE GROUP, INC.

CIVIL ENGINEERING * TRANSPORTATION * ENVIRONMENTAL

* PLANNING * UTILITY ENGINEERING/LOCATING

IL09500268, 275
TBE SUE PAGE NO: 1 of 1

Utility Quality Level "A": Test Holes Utility Quality Level "B": Designating



Utilities shown in color on these plans as depicted in the legend have been investigated by TBE Group, Inc in accordance with SUE Industry Standards. All other information shown has been provided to TBE Group, Inc by others. TBE's SUE field investigation was performed during the period 2-01-07 through 2-23-07. Test holes were performed during the period 4-18-07 through 4-23-07. Changes to utilities after these dates may have been made and therefore may result in variances from this plan. Consideration should be given to updating this plan if deemed advisable prior to final design and construction.

205 W. WACKER DRIVE SUITE 1020 CHICAGO, IL 60606 (312) 704-1970

NAME

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUE Investigation

Belmont Avenue at Plainfield Avenue River Grove, Cook Co. IL Section No. 0406WRS Contract No. 60C03

> DRAWN BY : KLC SCALE : 1" = 50'

CONTRACT, NO. SHEE

60003

					VERI	FIED U	TILIT	Y INFOR	MATION	Section 1	7 4				V.E.R.]	IFIED I	JTILIT	Y INFOR	MATION		
TEST HOLE #	¢ S	SIZE & TYPE	:	NORTHING	EASTING	STATION	OFFSET	TOP OF UTILITY ELEVATION	EXISTING CUT	REFERENCE GROUND ELEVATION	COMMENTS	TEST HOLE #	SIZE & TYPE	NORTHING	EASTING	STATION	OFFSET	TOP OF UTILITY ELEVATION	EXISTING CUT	REFERENCE GROUND ELEVATION	COMMENTS
1	12	" Wide Bi	15	920303.68	1120229.32	100+21.396	52.32 LT		4.31'	627.99′	UTILITY QUALITY LEVEL "A"								2		
2	12	" W	19	920287.79	1120230.38	100+21.938	36.41 LT	623.64'	4.45'	628.09"	UTILITY QUALITY LEVEL "A"			-							
2 A	4"	G	19	920286.52	1120230.49	100+22.002	35.13 LT	624,98′	3.10'	628.08′	UTILITY QUALITY LEVEL "A"				1						,
3	12	" SA	N 19	920281.67	1120230.50				10.56'	628.13′	UTILITY QUALITY LEVEL "A"										
4	4"	G			1120233.34		1		2.84'	628.26′	UTILITY QUALITY LEVEL "A"										
5	4"	G			1120152.85				3.08'	628.23′	UTILITY QUALITY LEVEL "A"										
6	10			920218.46	1120326.59	~~~	1	1	4.88′	628.16'	UTILITY QUALITY LEVEL "A"										
7	Se	e Notes E			1120326.48		1		4.74'	627.52′	UTILITY QUALITY LEVEL "A"										
8		"x12" B							2.60′	627.74	UTILITY QUALITY LEVEL "A"										
	1																				
	1																				
						1~7															
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NOTES

Test Hole #7 - TBE found (2) 4" steel, rubber coated pipes. Within test hole a third line was found in between the (2) 4" pipes that appears to be larger, but was unable to measured due to configuration of the pipes. It was also coated in unknown material.

 $\bigcirc$ 

Illinois Department of Transportation

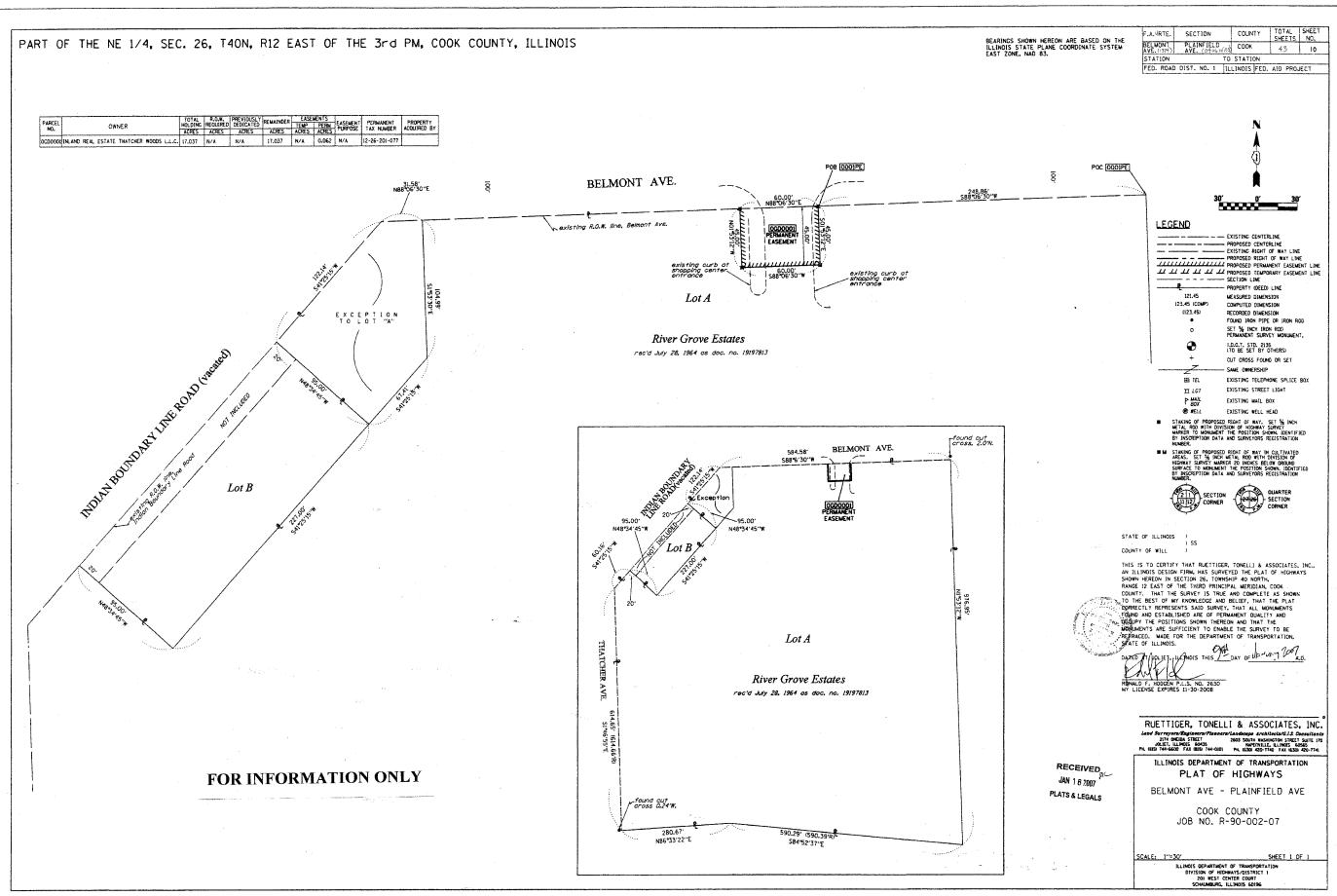
ALL INFORMATION SHOWN WAS OBTAINED FROM A LOCATION SURVEY. OFFSETS AND STATIONS ARE IN RELATION TO THE BASELINE OF SURVEY.

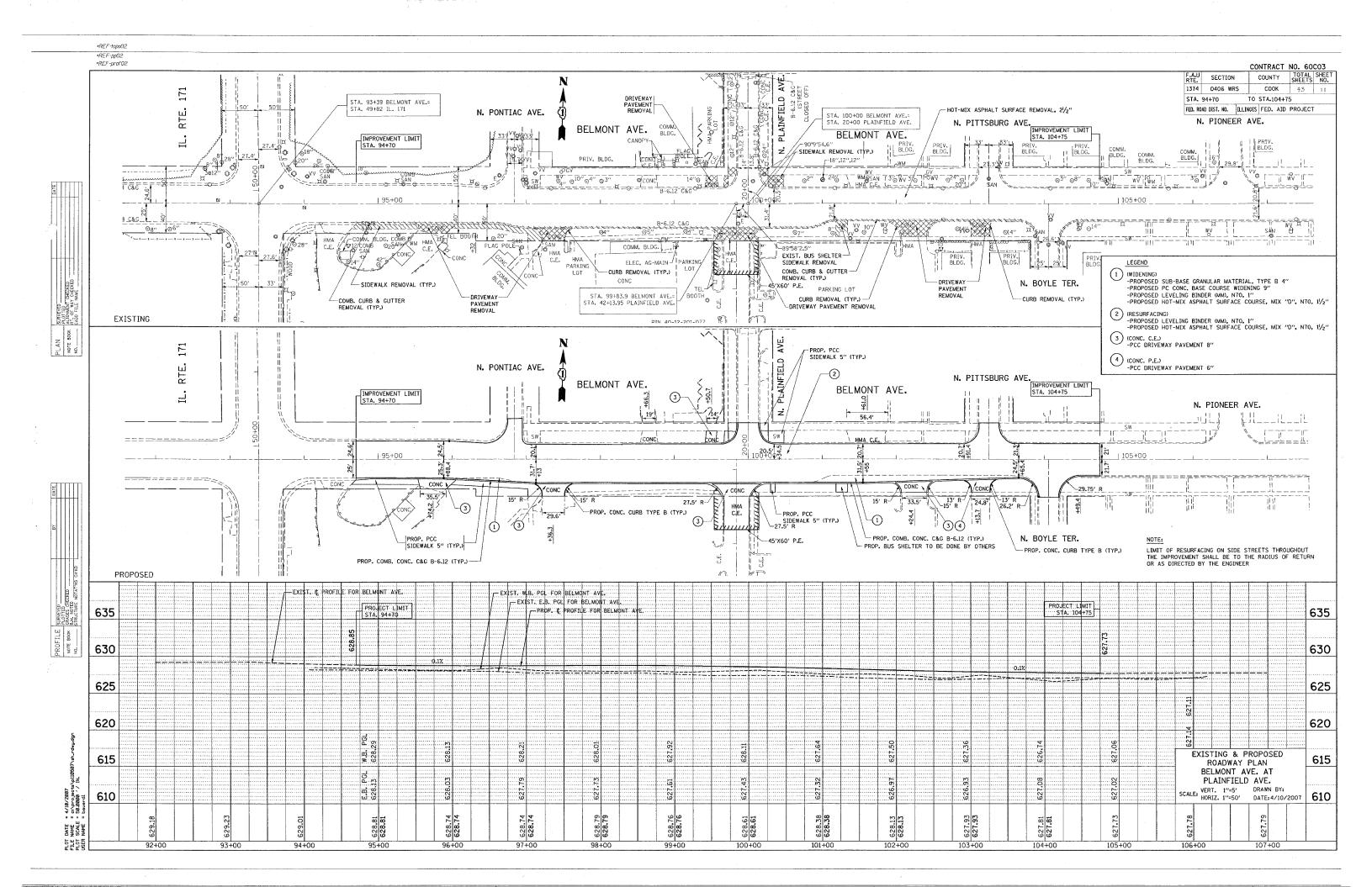
River Grove, Cook Co. IL Section No. 0406WRS Contract No. 60C03

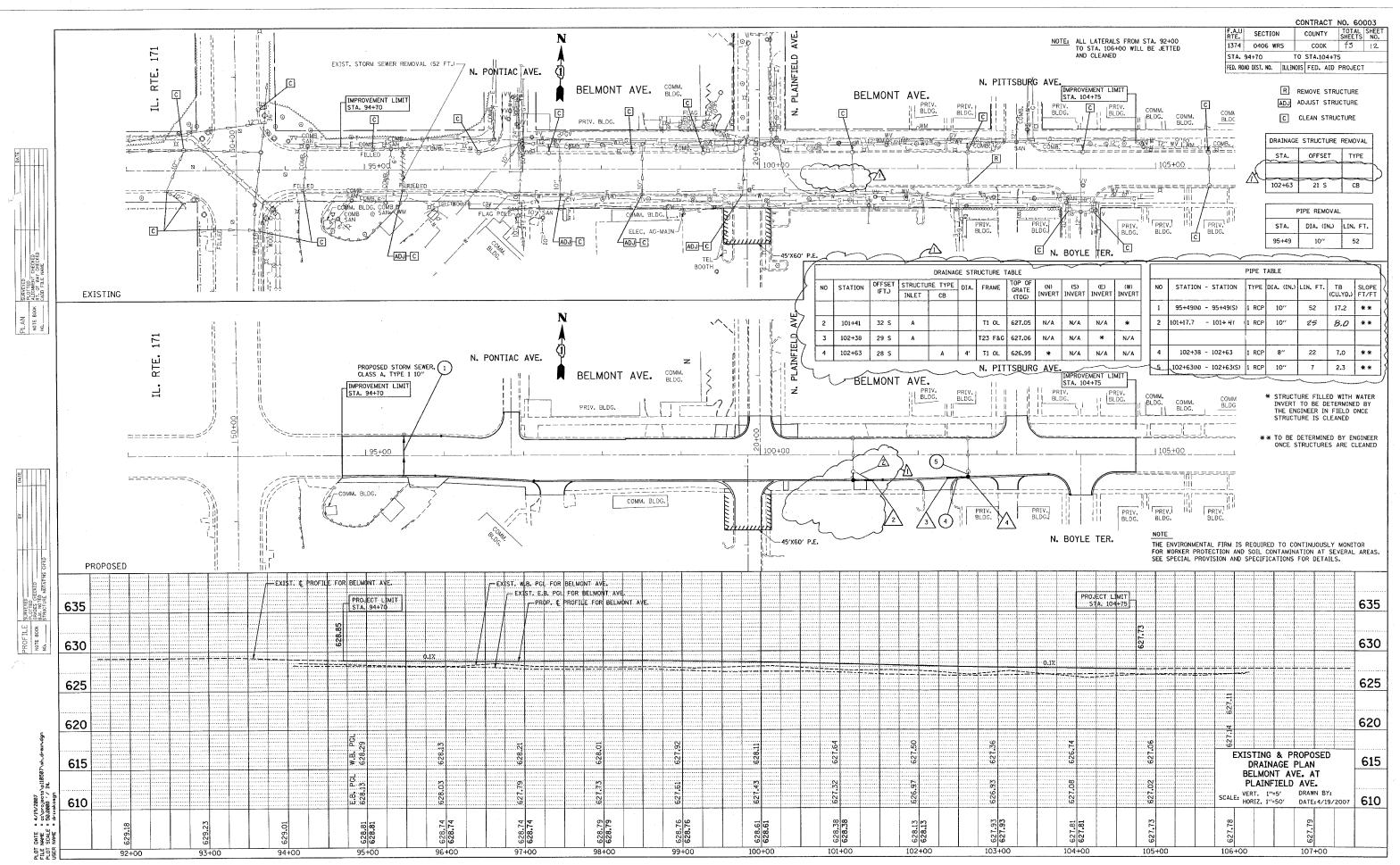
Belmont Avenue at Plainfield Avenue

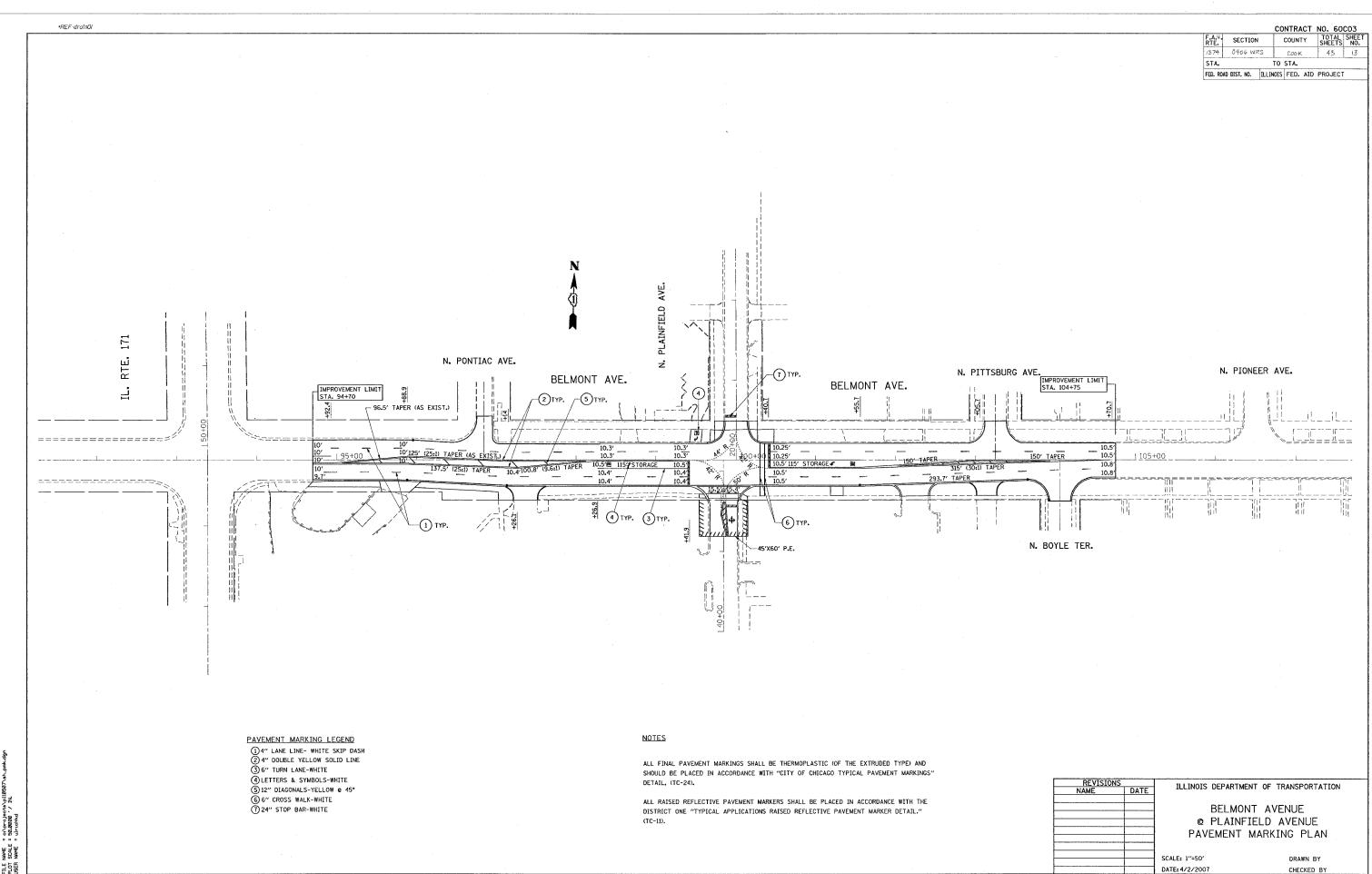
TBE Project No.: IL09500268, 275

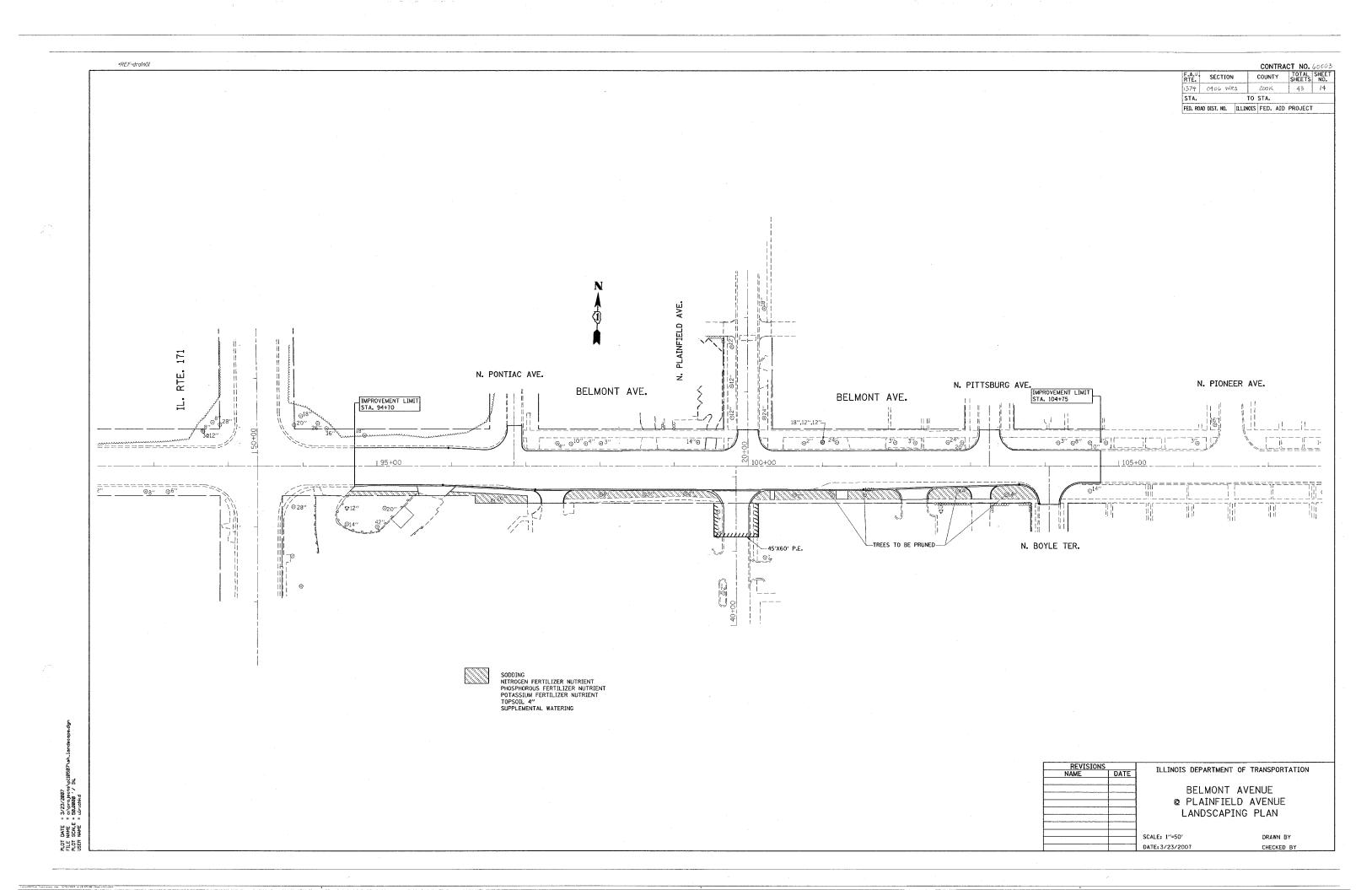
	REVISIONS	TO DECODISTION DATE BY DECODISTION	THE GROUP, INC.	VERIFIED
DATELBY DESCRIPTION DATE BY DESCRIPTION	DATE BY DESCRIPTION DATE BY DESCRIPTION DATE	BI DESCRIPTION DATE BY DESCRIPTION	CIVIL ENGINEERING * TRANSPORTATION * ENVIRONMENTAL	UTILITY
			* PLANNING * UTILITY ENGINEERING/LOCATING	OIILIII.
				LOCATIONS -
				Key

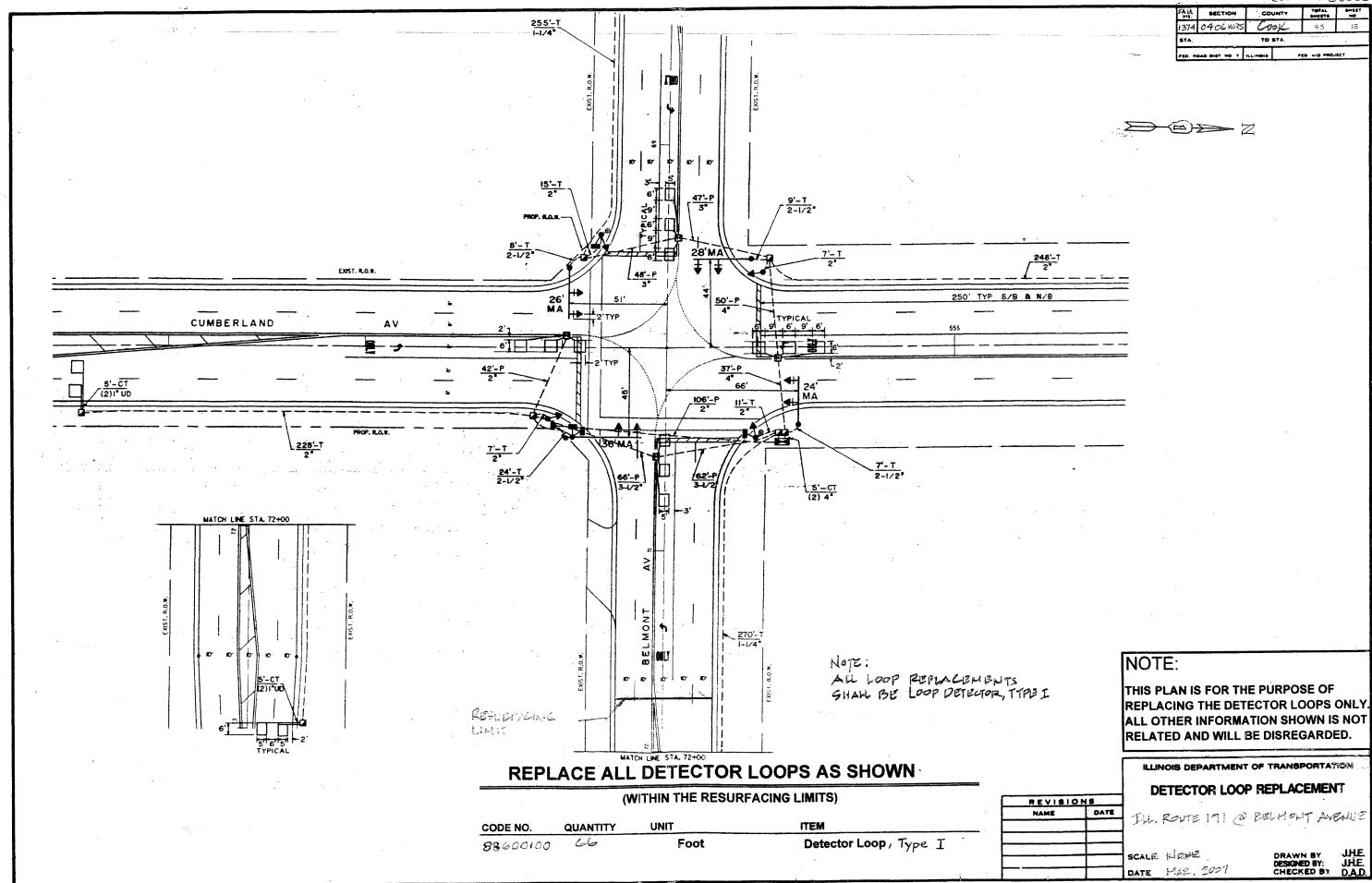












#### COUNTY TOTAL SHEET SHEETS NO. SECTION 0406 WRS (00K 43 16 STA. TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

#### NOTES:

LEFT TURN LANES WITHOUT MEDIANS

VOLUME DENSITY ("FAR OUT" DETECTION)

ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)

(1.8 m)

NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

STRAIGHT SAW CUT TO HEAVY DUTY HANDHOLE (TYP.) PLACE HEAVY DUTY HANDHOLE BETWEEN FIRST AND

SECOND LOOP AS SHOWN.

(900 mr

* = (600 mm)

#### VEHICLES LOOP DETECTORS

- * ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED,
- * 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 ALL DETECTOR LOOPS SHALL BE SIX FEET
- * 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

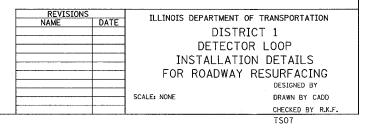
THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES, ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

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.

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

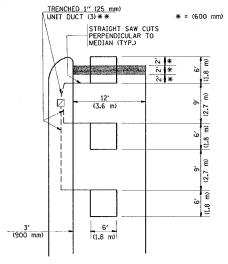
THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.



#### 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
BI4001 TO ENSURE THAT HANDHOLE
FITS IN MEDIAN.



BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

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

** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS

BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

* * UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS

(1.5 m) (1.8 m) (1.5 m)

(3.0 m)

(3.0 m)

* = (600 mm)

LOOPS NEXT TO SHOULDERS

900 NIN

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

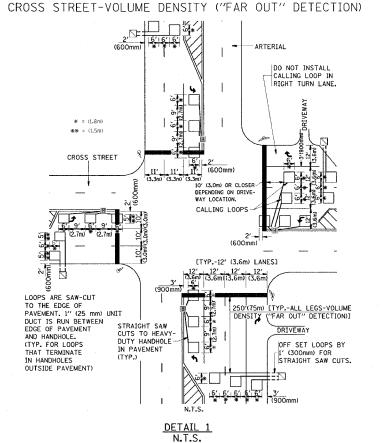
ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)

NON-PAVED

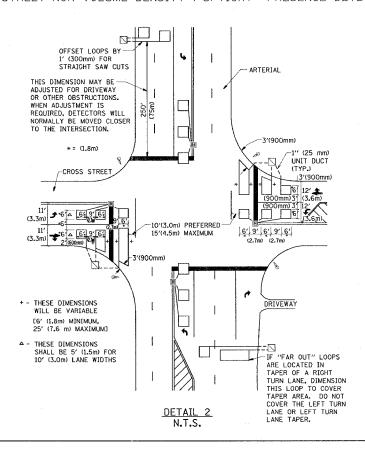
SHOULDER

- H

1" (25 mm) UNIT DUCT-TRENCHED TO E/P **



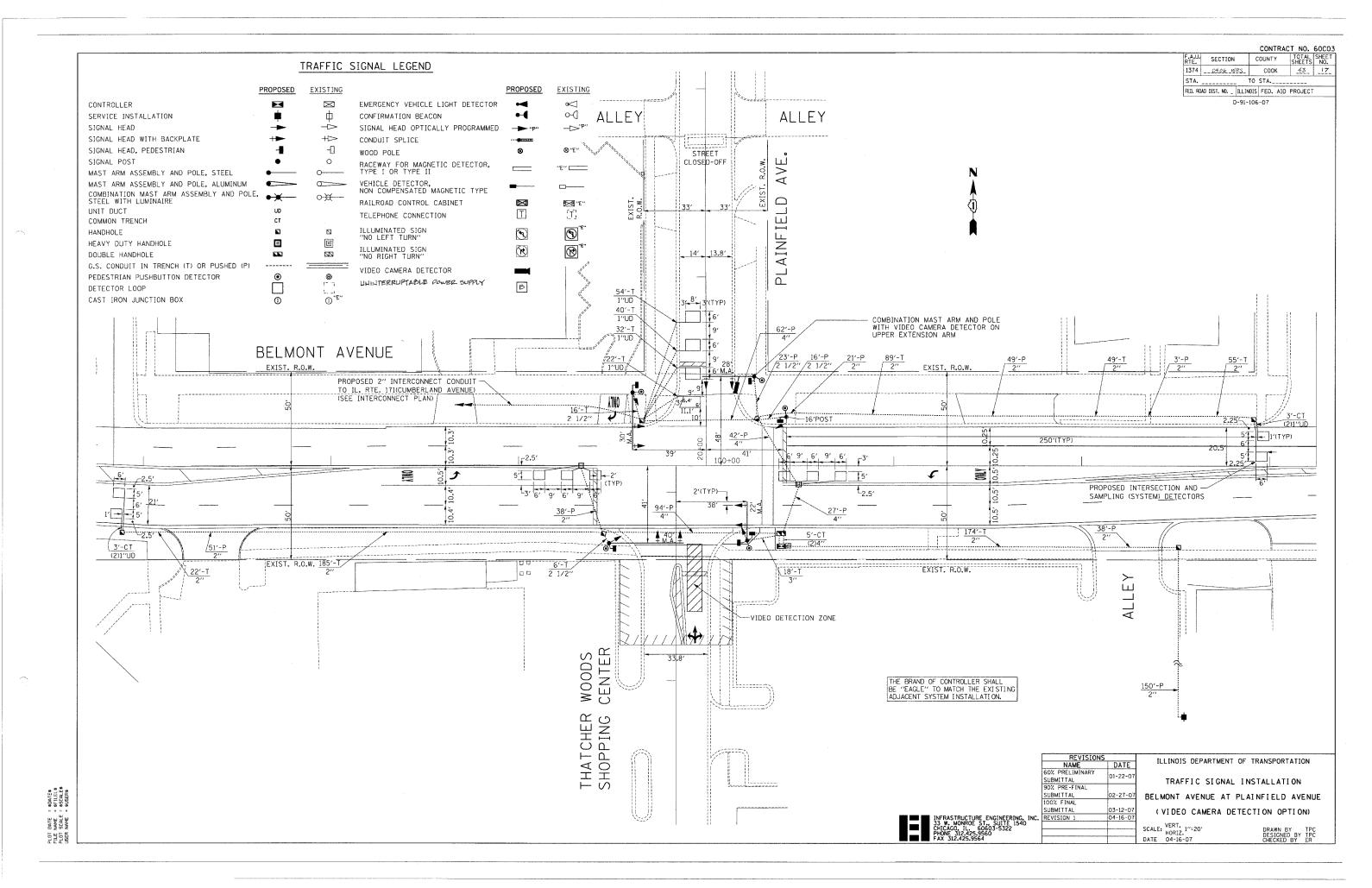
ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION) CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)

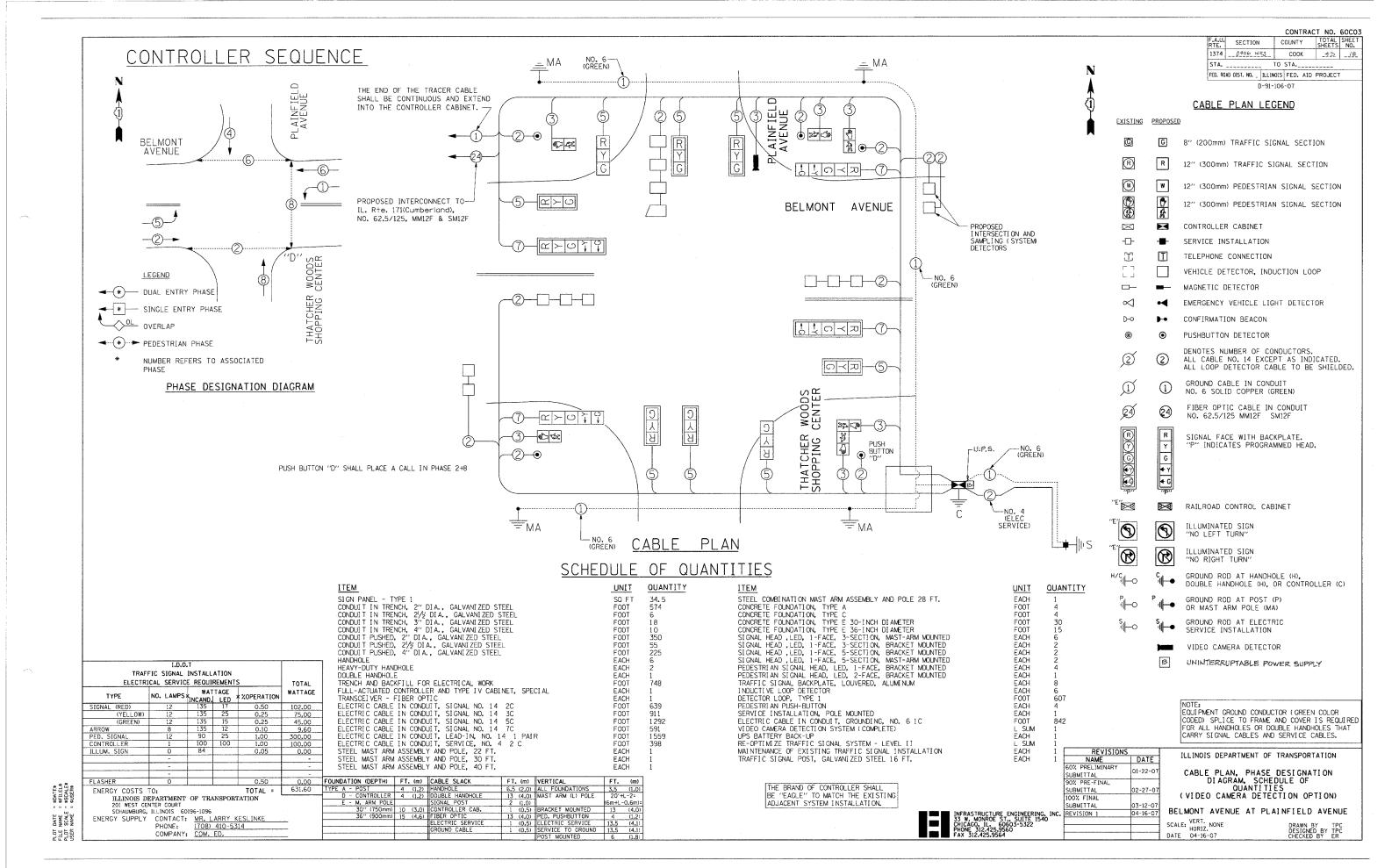


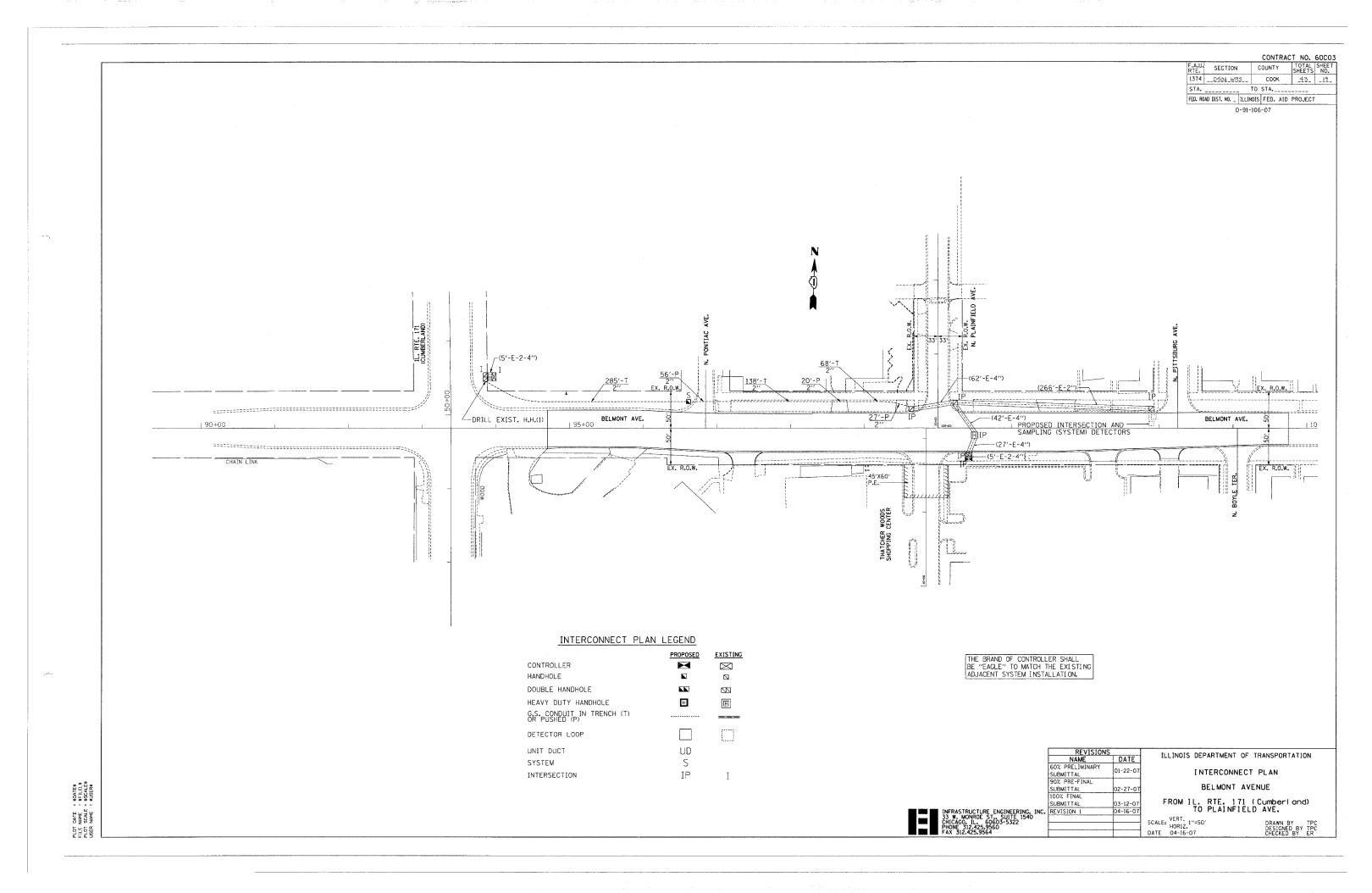
DATE NAME SCALE NAME

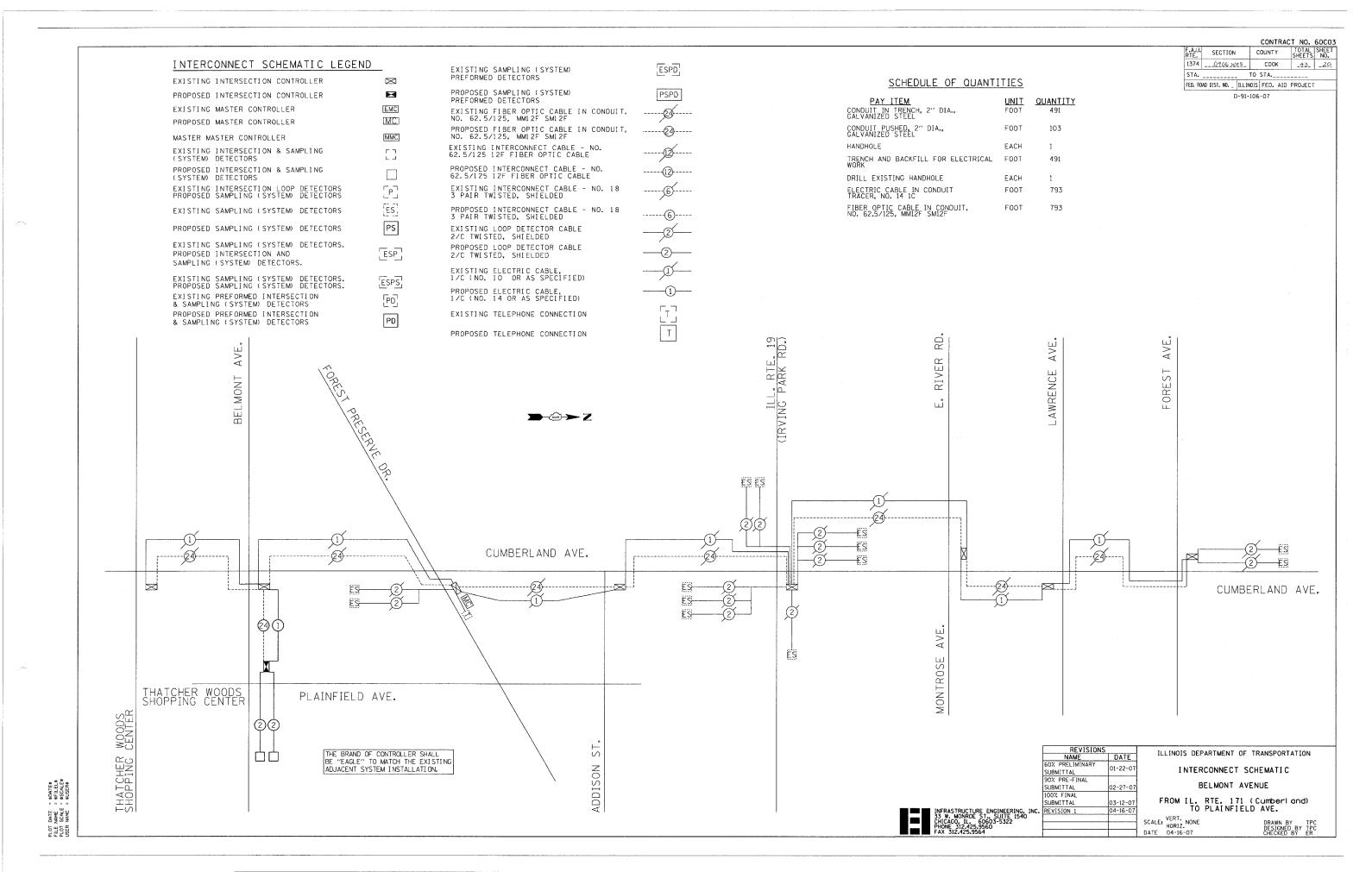
2.07 2.07 2.07 3.55R

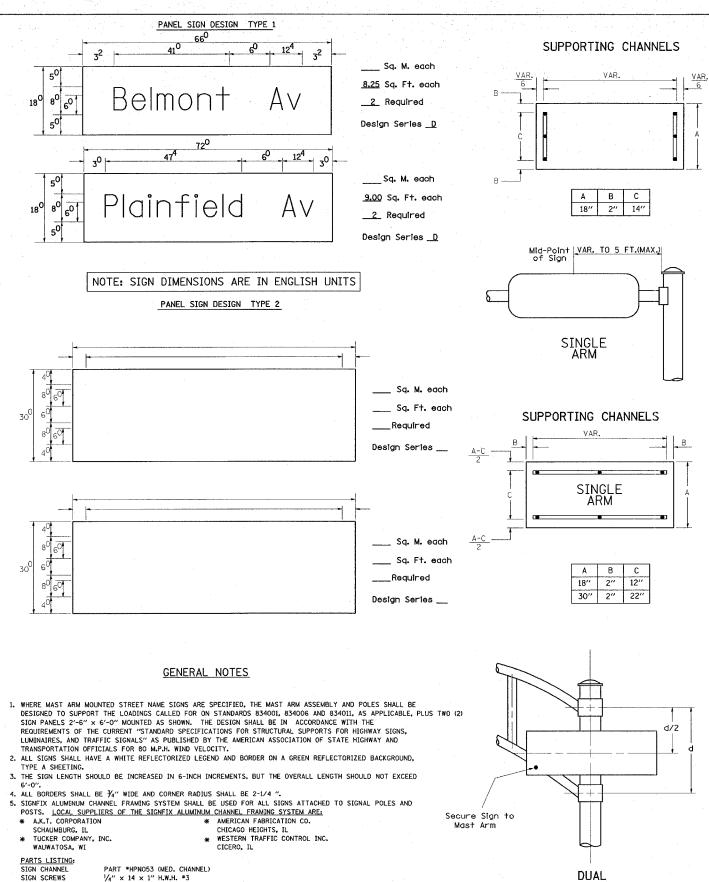
\UistatG\ts77.dgm 3/15/2007 IC 39 t4 AM Eservabremah











Upper Case To Lower Case Spacing Chart 8-6 Inch Series "C & D"

EXAMPLE,	23	DENOTES	-

L_

	F.A.U. RTE.	SECTION .	COUNTY	TOTAL SHEETS	SHEET NO.
1	1374	0406 WRS	соок	43	21
	STA.		TO STA.		
	FED. ROAD	DIST. NO. II	LINOIS FED. AI	D PROJECT	

UPPER AND LOWER CASE CONTRACT NO. 60CO3 LETTER WIDTHS

6 INCH LOWER

			SECOND LETTER															
		goq		bhiki mnpru		f	fw		1		†	\ \	У	٠,	Κ	1	2	
	SERIES	С	D	С	D.	C.	D	С	D	С	D	С	D	С	D	С	D	
	AWX	1 ²	14	14	1 ⁵	12	14	06	10	11	14	06	10	1 ¹	12	12	14	
Ī	В	14	15	20	21	14	1 ⁵	11	1 ²	14	1 ⁵	12	14	12	14	16	17	
Γ	CEG	14	15	20	21	12	14	06	10	12	14	12	14	14	1 ⁵	14	15	
Ti	D O Q R	14	15	20	21	14	1 ⁵	06	10	12	14	12	14	14	1 ⁵	14	1 ⁵	
П	F	05	06	14	1 ⁵	06	10	05	06	06	10	06	10	06	10	11	12	
	HIMN	20	21	22	24	20	2 ¹	14	1 ⁵	16	17	16	17	20	2 ¹	20	21	
Į.	JU	2 0	2 1	20	21	16	17	14	1 ⁵	16	17	16	17	1 ⁶	17	20	2 ¹	
Г	K L	11	12	16	17	11	12	05	06	11	1 ²	11	12	1 ¹	12	1 ²	14	
П	Р .	12	14	14	15	12	14	05	06	11	12	1 ¹	12	12	14	12	14	
	S	1 ²	14	16	17	1 ²	14	06	10	1 ²	14	12	14	12	14	1 ²	14	
Γ	Т	1 ¹	12	16	17	06	10	06	10	11	12	11	1 ²	1 ¹	12	12	14	
1	٧	O e	10	14	15	11	12	06	10	12	14	1 ²	14	1 ²	14	12	14	
[	Y	05	06	14	15	06	10	05	06	05	07	05	06	06	10	1 ¹	12	
_[:	Z	16	17	2 ²	24	16	17	1 ²	14	16	17	1 ⁶	17	16	17	20	2 ¹	

Lower Case To Lower Case Spacing Chart 6 Inch Series "C & D"

							SE	CON	4D	LET	TEF	₹					
		a c g c	d e o q	b h m n p	iki	f	w		J	s	†	٧	У	,	<	2	Z
	SERIES	C	D	С	D	С	D	С	D	С	D	С	D	С	D	С	D
FIRST	adhgij Imnqu	1 ⁶	17	22	24	16	17	12	14	14	15	14	15	1 ⁶	17	16	17
S	bfkops	12	14	16	17	11	12	05	06	11	12	11	12	12	14	12	14
T	се	12	14	16	17	12	14	06	10	12	14	12	14	12	14	12	14
L	r	06	10	12	14	06	10	03	03	05	06	05	06	06	<u>1</u> 0	06	10
Ė	† z	12	14	16	17	12	14	0e	10	11	12	11	12	12	14	12	14
Ė	νу	11	12	14	15	11	12	05	06	06	10	06	10	11	12	11	12
"	w	11	12	14	15	11	12	05	06	11	12	11	12	11	12	12	14
	×	12	14	16	17	11	12	05	Oe	11	12	11	12	1 ¹	12	12	14

#### Number To Number Spacing Chart 8 Inch Series "C & D"

												SE	CO	ΝD	NU	MB	ER							
					(	)		i	2	2	1.5	3	4	ļ	5	5	6	ò	-	7	. 8	3		9
ı		SE	RI	ΞS	С	D	С	D	С	D	С	D	С	D	С	D	С	D	С	D	С	D	С	D
	F I	0	9		16	17	16	17	14	1 ⁵	1 ²	1 ⁴	14	1 ⁵	14	1 ⁵	16	17	1 ²	14	16	17	16	17
ŀ	R	1			2 ⁰	2 ¹	20	21	20	2 ¹	1 ⁶	17	14	15	20	2 ¹	2 ⁰	2 ¹	14	1 ⁵	20	2 ¹	20	2 ¹
	T	2	3	4	14	1 ⁵	14	1 ⁵	14	1 ⁵	1 ²	14	1 ²	14	14	15	14	1 ⁵	1 ¹	1 ²	16	17	14	1 ⁵
	N	5			14	15	14	15	14	1 ⁵	1 ¹	1 ²	1 ¹	12	14	1 ⁵	14	1 ⁵	11	12	14	15	14	1 ⁵
	M B	6			1 ⁶	17	14	1 ⁵	14	1 ⁵	1 ²	1 ⁵	1 ²	14	14	15	14	1 ⁵	1 ¹	1 ²	14	1 ⁵	14	1 ⁵
	E R	7			1 ²	14	1 ²	14	14	1 ⁵	1 ²	1 ⁵	05	06	1 ²	14	14	1 ⁵	11	12	14	1 ⁵	1 ²	14
	.,	8			16	17	16	17	14	1 ⁵	1 ²	1 ⁵	1 ²	14	14	15	1 ⁶	17	1 ²	14	16	17	14	1 ⁵

T E R S	CASE L	ETTERS	CASE LETTERS		T T E R	CASE LETTERS		
T E	SEF	RIES	SE	RIES	T E	SEI	RIES	
R S	С	D	С	D	R S	C.	D .	
Α	36	50	50	6 ⁵	а	35	42	
В	32	40	43	5 ³	ь	35	42	
С	32	40	43	5 ³	С	35	41	
- D	3 ²	40	43	5 ³	d	35	42	
E	30	3 ⁵	40	47	е	35	42	
F	30	35	40	47	f	23	26	
G	3 ²	40	43	53	g	3 ⁵	42	
Н	3 ²	40	43	5 ³	h .	35	42	
I	07	07	11	12	ī	1 ¹	1 1	
J	30	36	40	50	J	20	22	
K	32	41	43	5 4	k	35	42	
L	30	35	40	47	1	1 1	1 ¹	
М	37	45	51	6 ¹	m	6°	70	
N	32	40	43	53	n	3 ⁵	42	
0	34	42	45	5 ⁵	0	36	43	
Р	32	40	43	53	P	35	42	
Q	3 ⁴	4 ²	45	55	q	35	42	
R	32	40	43	53	r	26	3 ²	
s	32	40	43	5 ³	s	36	42	
Т	30	35	40	47	+	27	3 ²	
U	32	40	43	53	c	35	42	
V	3 ⁵	44	47	6°	٧	4 ²	47	
· W	44	52	60	70	w	5 ⁵	64	
Х	34	40	45	53	×	44	5 ¹	
Υ	36	50	50	66	У	46	53	
Z	3 ²	40	43	53	z	36	43	

6 INCH UPPER | 8 INCH UPPER | L_

NU	6 INCH	SERIES	8 INCH SERIES					
NU _{MBER}	С	D	С	D				
1	12	14	15	20				
2	32	40	43	53				
3	. 32	40	43	53				
4	35	43	47	57				
5	32	40	43	53				
6	32	40	43	53				
7	32	40	43	53				
8	32	40	43	53				
9	3 ²	40	43	53				
0	34	42	45	55				

REVISIONS		
NAME	DATE	ILLINOIS DEPARTMENT OF TRANSPORTATION
		MAST ARM MOUNTED
		STREET NAME SIGNS

DRAWN BY TPC DESIGNED BY TPC CHECKED BY ER

DATE NAME SCALE NAME PLOT FILE PLOT USER

SELF TAPPING WITH NEOPRENE WASHER

PART *HPNO34 (UNIVERSAL) BRACKETS

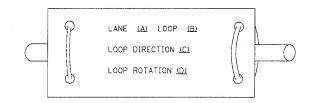
OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

ARM SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM

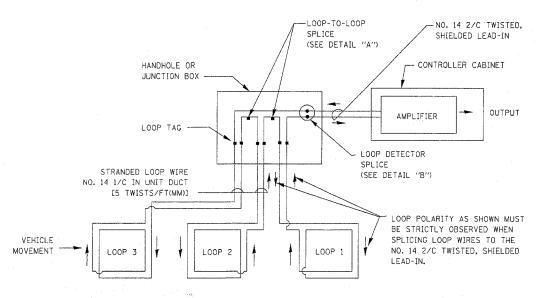
03-21-07

- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE, SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT 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



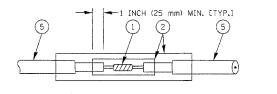
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



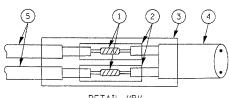
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### DETECTOR LOOP WIRING SCHEMATIC

- 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

#### LOOP DETECTOR SPLICE

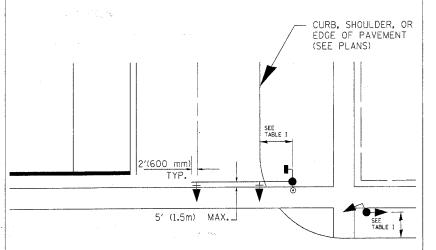
- (1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- 2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- (3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.
- (4) NO. 14 2/C TWISTED, SHIELDED CABLE.
- (5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

REVISIONS DATE	ILLINOIS DEPARTMENT	T OF TRANSPORTATION
	DISTRI	CT ONE
	STANDARD TR	AFFIC SIGNAL
	DESIGN	DETAILS
	SCALE: VERT. NONE HORIZ. DATE 01-31-2006	DRAWN BY: RWP DESIGNED BY: DAD CHECKED BY: DAZ SHEET I OF 4

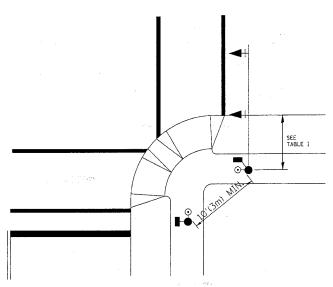
*DATE-TIME *DGN-SPEC*

## TRAFFIC SIGNAL MAST ARM AND POST

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



#### PEDESTRIAN SIGNAL PUSHBUTTON



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCO (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

## NOTES:

		CONTRAC	T NO.	60C03
F.A.U. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
1374	0406 - WRS	соок	43	23
STA.		TO STA.		
FED BOX	D DIST NO 1 TLLT	VOIS FED AID	PROJECT	

D-91-106-07

AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION. EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.

AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE ADDROCRATE DISTRIBUTIONS APPROPRIATE PUSHBUTTON.

PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:

- A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
- B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
- C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
- E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK
- 2. PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK
- 3. THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- 4. THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

#### PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

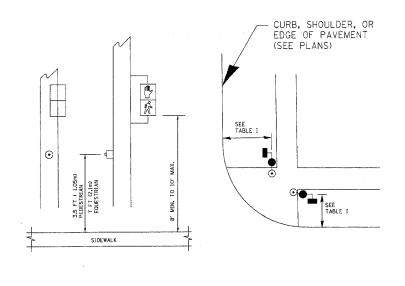


TABLE I

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS SCALE: VERT. NONE DATE 01-31-2006

RTE. SECTION COUNTY TOTAL SHEETS NO.

1374 0406-WRS COOK 43 24

NOTES:

#### GROUNDING SYSTEM

STA. TO STA.

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

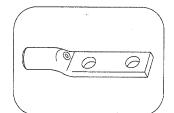
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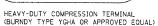
CONTRACT NO. 60CO3

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR
TYPE KLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN
RACEWAYS, THE GROUNDING CABLE SHALL BE INSTALLED
IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED.
ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE
(HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.), GROUND ROD SHALL BE
3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD
SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS,
CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION
AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS
SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT
ENGINEER SHALL BE NOTIFIED OR CONTACT THE BURREAU OF TRAFFIC,
ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT

2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.

- ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
- 4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



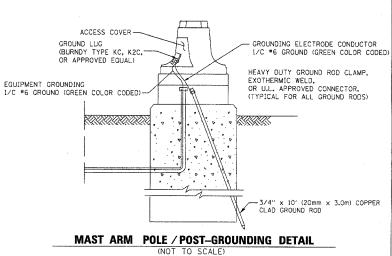




3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EUAL)

#### NOTES:

• ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
• GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES
6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES
13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES.
5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



DISTRICT 1
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

DRAWN BY: RWP

ILLINOIS DEPARTMENT OF TRANSPORTATION

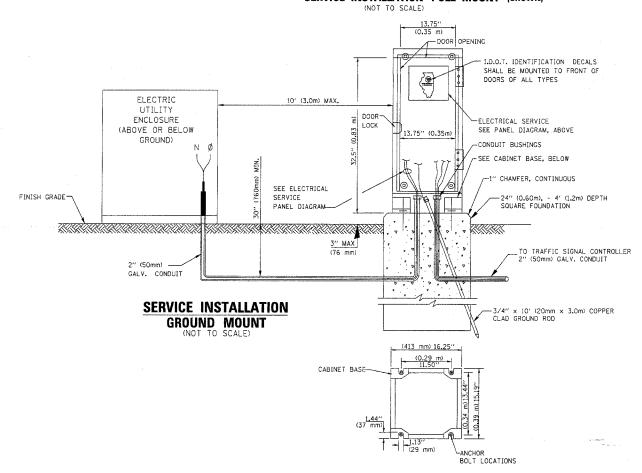
SCALE: VERT. NONE HORIZ. DATE 01-31-2006 DRAWN BY: RWP DESIGNED BY: DAD CHECKED BY: DAZ SHEET 3 OF 4

 $^{\prime}$ TOP & BOTTOM AS PER-NOTES: MANUFACTURER -STANDOFF 1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, (B) CABINET, SHEET ALUMINUM -SURGE ARRESTOR -PANELBOARD INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL. FABRICATION -PRESSURE 2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED. GRD. LINE CONNECTOR, TYP. CONTINUOUS PIANO HINGE-DISCONNECT ___15A, MAIN FUSE, KLKR 1/4 A TRAFFIC SIGNAL CONTROLLER CABINET POLE MOUNTED SERVICE PADLOCK, FURNISHED BY CABINET OUTSIDE CONTRACTOR, KEYED TO DIMENSIONS L 6" x W 12" x H 14" DISTRICT 1 REQUIREMENTS CIRCUIT BREAKER , NEUTRAL GROUND BUS BUS POWER INDICATOR LIGHT
-INTERNALLY MOUNTED FOR—
GROUND MOUNTED SERVICE -COMPRESSION LATCH, TYP. (2 MIN, REQ'D) -1 1/4" (30mm) DIA, COUPLING -STRAIN RELIEF COUPLING TO GROUND ROD---- SECONDARY ELECTRICAL 1/C =6 (GREEN) SERVICE BY UTILITY CO. 3/4" (20mm) GALV, CONDUIT (NEUTRAL-WHITE, PHASE-BLACK) ELECTRICAL SERVICE TO TRAFFIC SIGNAL CONTROLLER -

(SEE ALL CABLE PLAN, FOR ALL CABLE SIZES)

# ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN)

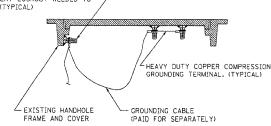
-1/C GROUND (GREEN COLOR CODED)



CABINET - BASE BOLT PATTERN

NOT TO SCALE)





MANDHOLE COVER

DETAIL "A"

DETAIL "B"

RECESSED COVER

-U.L. LISTED

SPLICE KIT

DIRECT BURIAL

GROUND CABLES

TO CONTROLLER

DOUBLE HANDHOLE

TO POLE OR

POST AS REQ'D.

-SEE DETAIL "B"

-HANDHOLE COVER HANDLE

CAST CORNER FRAME WEB-

STEEL WASHERS

CABLE HOOKS

HANDHOLES

REQUIRED, ALL

-STAINLESS STEEL NUT AND 2 STAINLESS

SEE DETAIL "A"

COMPRESSION CONNECTOR

UL LISTED GROUND -

UL LISTED GROUND COMPRESSION CONNECTOR — WITH STAINLESS STEEL NUT

(GREEN)

HANDHOLE COVER & FRAME - GROUNDING DETAIL

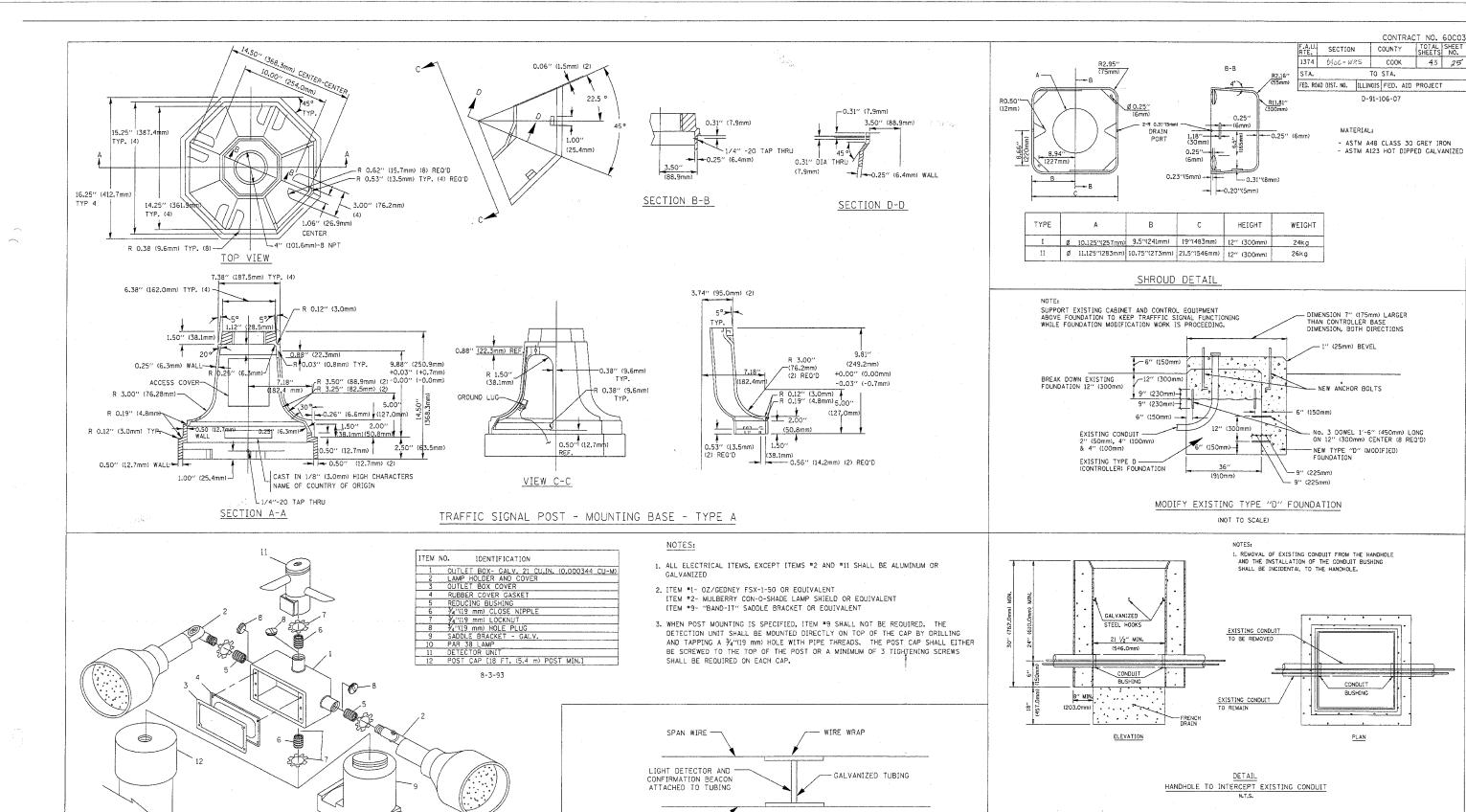
(NOT TO SCALE)

EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL

(NOT TO SCALE)

•DATE-TIME•

TS05



TETHER CABLE

POST CAP MOUNT

MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

LIGHT DETECTOR AND CONFIRMATION BEACON MOUNTING FOR TEMPORARY TRAFFIC SIGNALS (NOT TO SCALE) SCALE: VERT. NONE

REVISIONS NAME

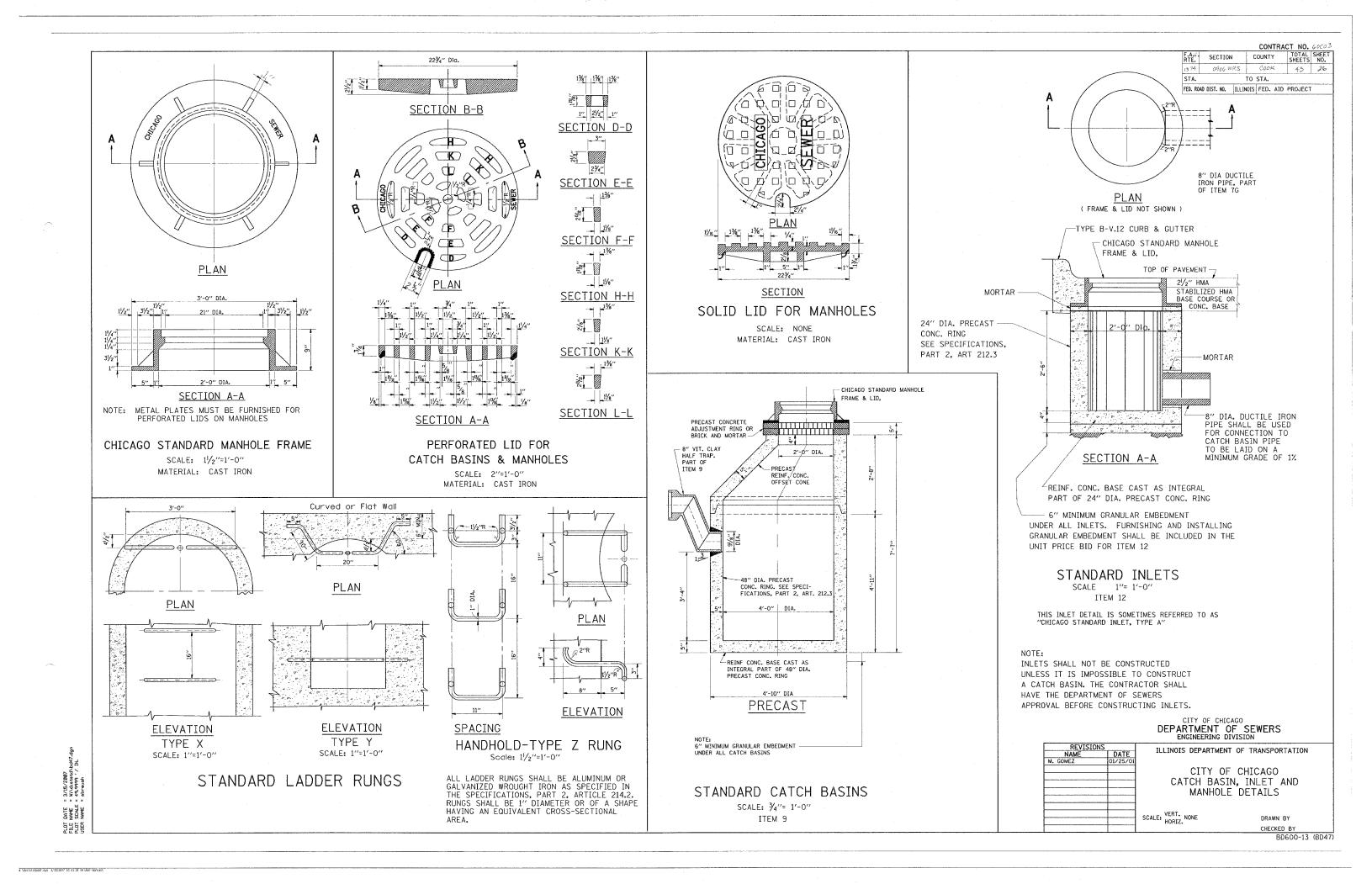
STANDARD TRAFFIC SIGNAL DESIGN DETAILS DRAWN BY: RWP DESIGNED BY: DAD CHECKED BY: DAZ SHEET 4 OF 4

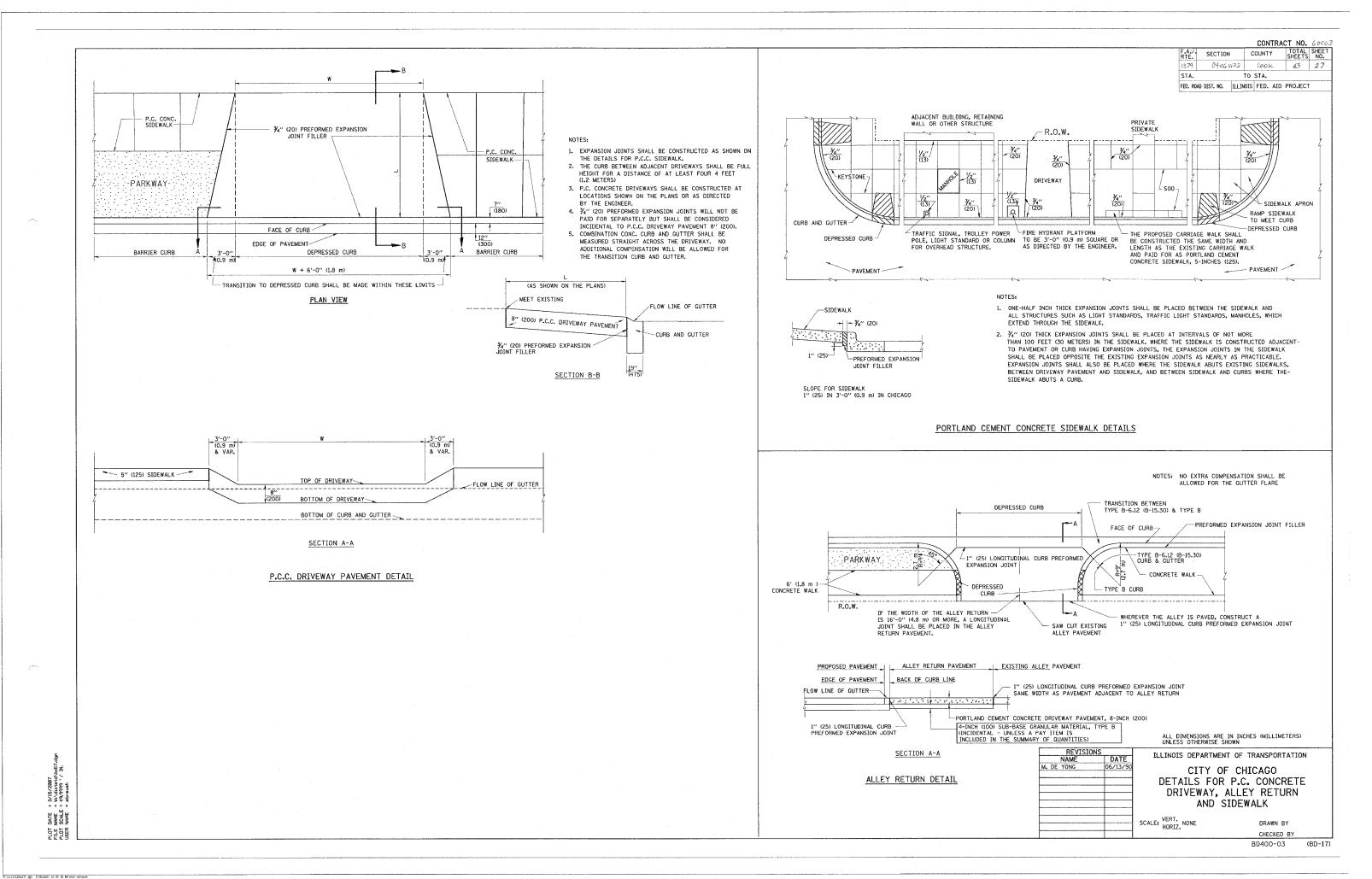
ILLINOIS DEPARTMENT OF TRANSPORTATION

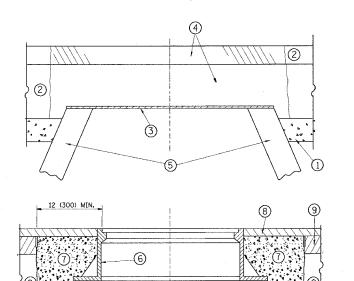
DISTRICT 1

TOTAL SHEET SHEETS NO.

43 25







BRICK, MORTAR, OR CONC. ADJUSTING RINGS

SAND FILL

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 WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS

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.

UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

NOTES:

#### CONSTRUCTION PROCEDURES

#### STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 11/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

#### STAGE 2 (AFTER PAVEMENT MILLING)

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

SUB-BASE GRANULAR MATERIAL

PROPOSED SAND FILL

- 6 FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT
- CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- 3 36 (900) DIAMETER METAL PLATE
- 8 PROPOSED HMA SURFACE COURSE
- PROPOSED CRUSHED STONE AND HMA SURFACE MIX S EXISTING STRUCTURE
- 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 RICHT 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

ILLINOIS DEPARTMENT OF TRANSPORTATION R. SHAH 03/21/ R. WIEDEMAN R. BORO

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

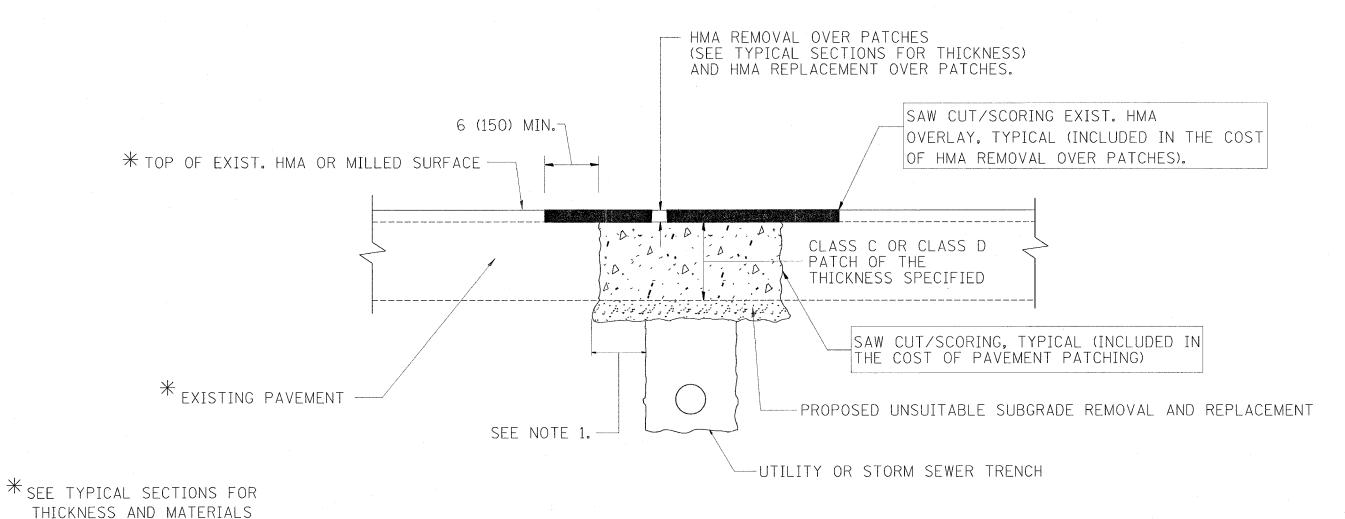
SCALE: VERT. NONE

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BD600-03 (BD-8)

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TO STA. FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



## NOTES:

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

## SEQUENCE OF CONSTRUCTION

- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE FULL DEPTH PATCHES
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

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

KEATZIONZ		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	TELINOIS DEFARTMENT OF TRANSPORTATION
R. SHAH	10/25/94	
R. SHAH	01/14/95	
R. SHAH	03/23/95	PAVEMENT PATCHING FOR
R. SHAH	04/24/95	HMA SURFACED
A. HOUSEH	03/15/96	
A. ABBAS	03/21/97	PAVEMENT
A. ABBAS	01/20/98	
ART ABBAS	04/27/98	SCALE: VERT. NONE DRAWN BY
R. BORO	01/01/07	RORIZ.

Eliciststellod22 don: 3715/2057 SC 21:19 AF Describe each

STA. VARIABLE - TO MEET EXISTING FED. ROAD DIST, NO. 1 ILLINOIS FED. AID PROJECT 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 18" (450) MAX. EXISTING OR PROPOSED HMA SURFACE (IF APPLICABLE) 1/4" (5) *  $I_{i}$  . . .

EXISTING CONCRETE PAVEMENT, CONCRETE BASE COURSE OR FLEXIBLE PAVEMENT

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

SALT TOLERANT SOD AND TOP SOIL, 4" (100) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

- (2) CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.
- (3) FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.
- (4) 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.
- (5) 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.
- (6) 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.
- 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.

SURFACE OR SALT TOLERANT SOD AND TOP SOIL, 4" (100) SOD RESTORATION (SEE NOTE(1)).

PROPOSED SIDEWALK, DRIVEWAY PAVEMENT, MEDIAN

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

PROPOSED 34" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

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.

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

REMOVAL AND REPLACEMENT IN EXCESS OF  $4^{\prime\prime}$  (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

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)).

#### 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".

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

REVISIONS	
NAME	DATE
A. HOUSEH	03/11/94
R. SHAH	02/24/9
R. SHAH	03/02/9
R. SHAH	08/19/96
R. SHAH	09/12/96
R. SHAH	09/19/96
R. SHAH	10/03/98
A. ABBAS	03/21/97
M. GOMEZ	01/22/0
R. BORO	01/01/07

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE OR GROUND.

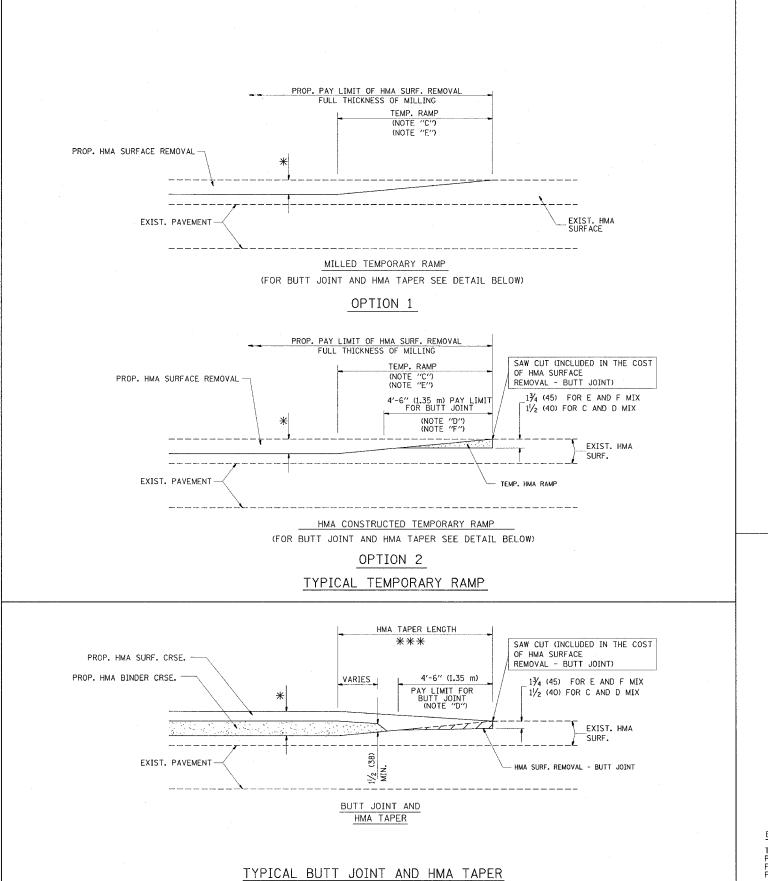
CURB AND GUTTER REMOVAL AND REPLACEMENT

SCALE: VERT. NONE

CHECKED BY
BD600-06 (BD-24)

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

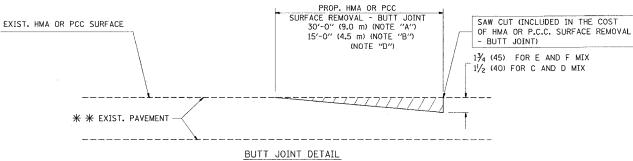
3" (75) MIN.

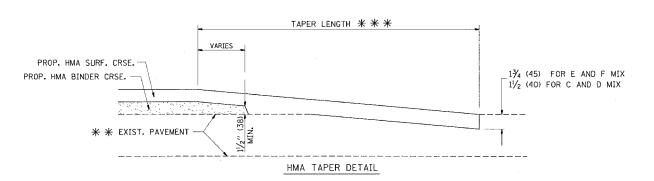


FOR MILLING AND RESURFACING

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COUNTY TOTAL SHEET NO. RTE. SECTION Cook 0406 WRS 43 31 TO STA. FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT





## 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")

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

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".

M. DE YONG	6-12-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	09/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. GOMEZ	04/06/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS

SCALE: VERT. NONE

CHECKED BY

BD400-05 (VI=BD32)

CONTRACT NO. 60Co3

COUNTY TOTAL SHEET NO. SECTION COOK 43 32 STA. TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT CONSTRUCTION TYPE III BARRICADES WITH TWO FLASHING AMBER LIGHTS ON EACH. AHEAD TYPE I OR TYPE II BARRICADES WITH ONE FLASHING AMBER LIGHT ON EACH, OR TYPE III BARRICADES WITH TWO FLASHING 15 (380) 200'± (60 m±)-AMBER LIGHTS ON EACH. DRIVEWAY WORK AREA J STREET; SPEED 40 MPH OR LESS 200'± (60 m±) (60 COLLECTOR LIMIT> 40 MPH (4 LOCAL W20-1(0) ROAD CONSTRUCTION M6-4(0)-2115 M6-1(0)-2115  $\rightarrow$ CONSTRUCTION AHEAD

## 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 × 36 (900×900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- o) ONE ROAD CONSTRUCTION AHEAD SIGN 48  $\times$  48 (1.2 m  $\times$  1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (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.

REVISIO		THE THOT'S DEPART	TMENT OF TRANSPORTATION
NAME	DATE	ILLINOIS DEFAIL	IMICIAL OF THRIBS ON LATION
L.HA	6/89	TRAFFIC CONT	ROL AND PROTECTION
T. RAMMACHER	09/08/94	INALITE CONT	
J. OBERLE	10/18/95		FOR
A. HOUSEH	03/06/96	SIDE BOADS	INTERSECTIONS. AND
A. HOUSEH	10/15/96		
T. RAMMACHER	01/06/00	DI	RIVEWAYS
		SCALE: NONE	DRAWN BY
	i	JUNEL NONE	DUAMIA DI

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CONTRACT NO. 60003

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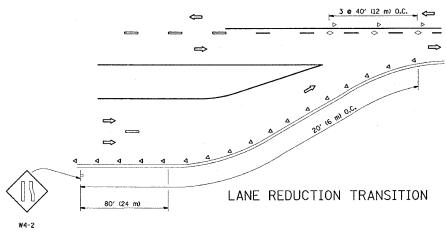
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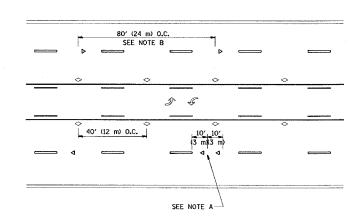
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F.A.U. SECTION 1374 0406 W STA. FED. ROAD DIST. NO.	1 0	COUNTY	ſ	TOTAL	SHE	

80′ (24 m) 0.C. *** ****  $\Rightarrow$ 

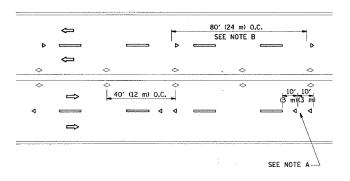
*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO-LANE/TWO-WAY



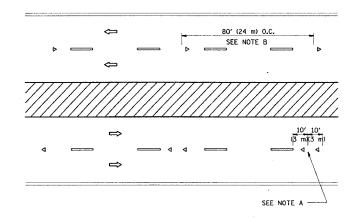


TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED

40' (12 m) 0.C.



MULTI-LANE/DIVIDED

## GENERAL NOTES

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

#### LANE MARKER NOTES

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

### SYMBOLS

---- YELLOW STRIPE

WHITE STRIPE

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

#### DESIGN NOTES

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

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

REVISIO	NS	ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	TELINOIS DEPARTMENT OF TRANSPORTATION
. RAMMACHER	09-19-94	TVDION IDDITIONS
F. RAMMACHER	03-12-99	TYPICAL APPLICATIONS
T. RAMMACHER	01-06-00	RAISED REFLECTIVE PAVEMENT
	1 1	
		MARKERS (SNOW-PLOW RESISTANT)
		504.5 11045

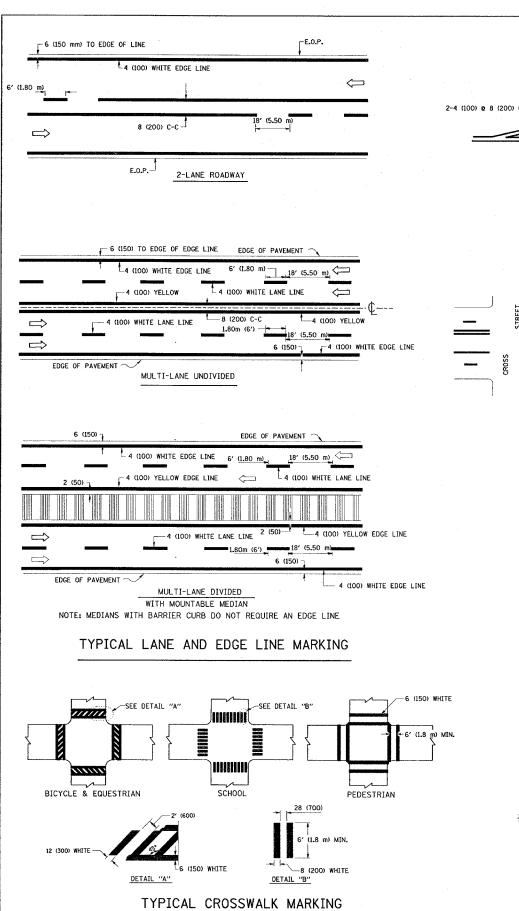
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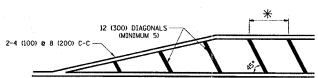
-- 3 **©** 80′ (24 m) 0.C. EQUALLY SPACED 40' (12 m) O.C. * SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

3 @ 80' (24 m) O.C.

 $\Rightarrow$ 

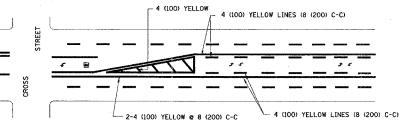




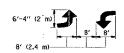
*FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

#### PAINTED MEDIANS

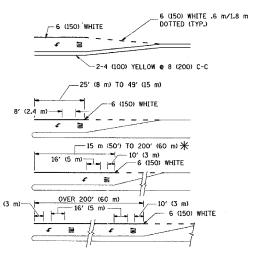


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

#### TYPICAL PAINTED MEDIAN MARKING



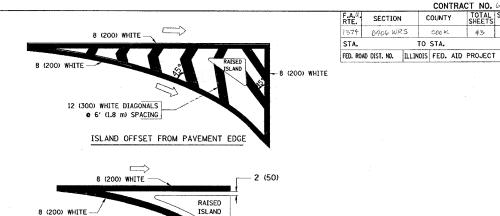
FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.

\$\frac{1}{2} \text{ AREA} = 15.8 SQ. FT. (1.47 m²) \text{ MIV} AREA = 22.9 SQ. 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

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>a</b> 4 (100)	SOLID SOLID	YELLOW 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' (1.8 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 & EQUESTRIAN) 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' (L2 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 OF: "R"=3.6 SQ. FT. (0,33m ² ) EACH "X"=54.0 SQ. FT. (5.0 m ² )

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.

1 OF 2 ILLINOIS DEPARTMENT OF TRANSPORTATION CITY OF CHICAGO TYPICAL PAVEMENT MARKINGS SCALE: NONE DRAWN BY CADD CHECKED BY

TC-24

CONTRACT NO. 60003 TOTAL SHEET SHEETS NO.

43 34

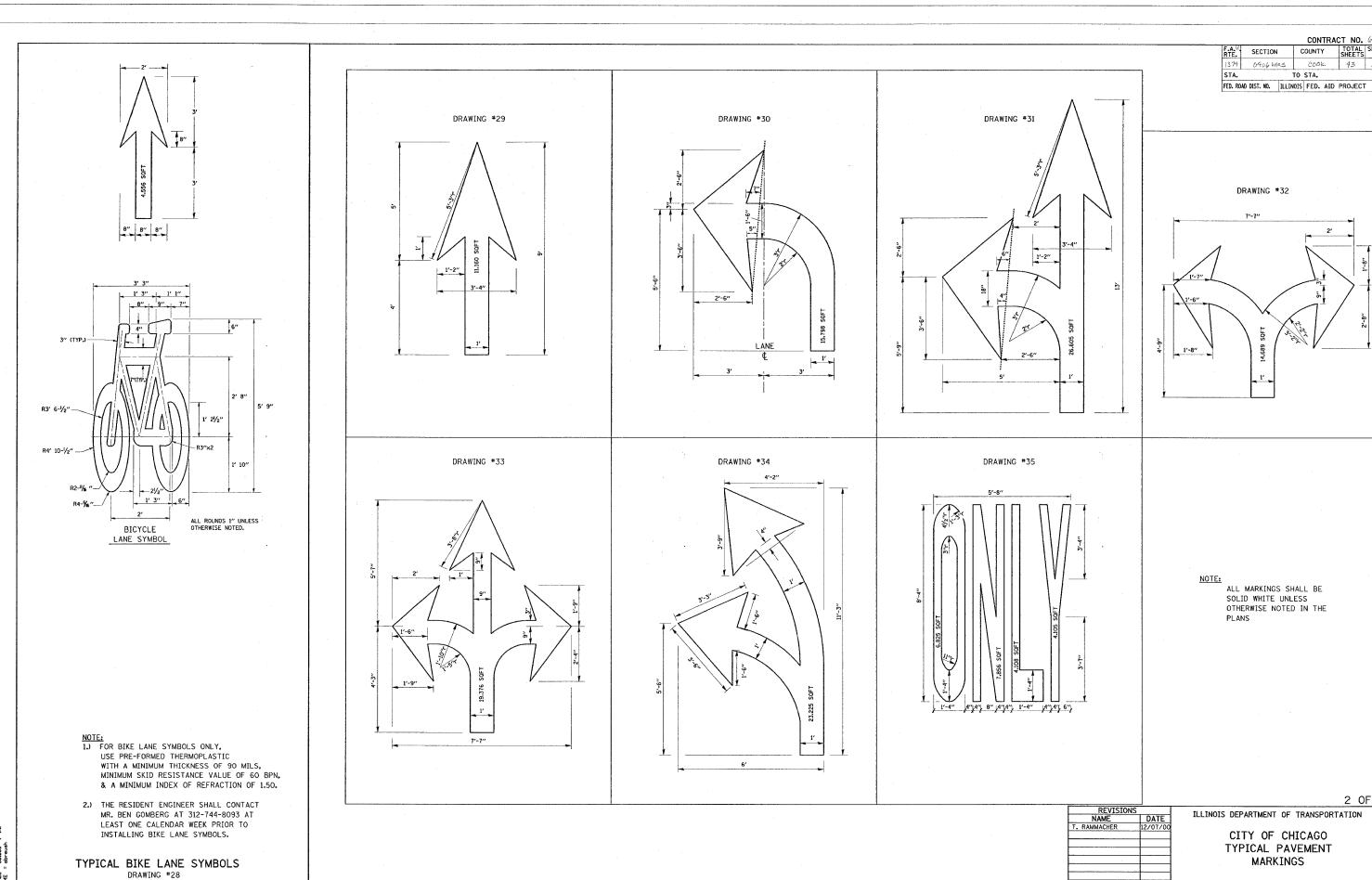
COUNTY

000 K

TO STA.

SECTION

DATE NAME SCALE



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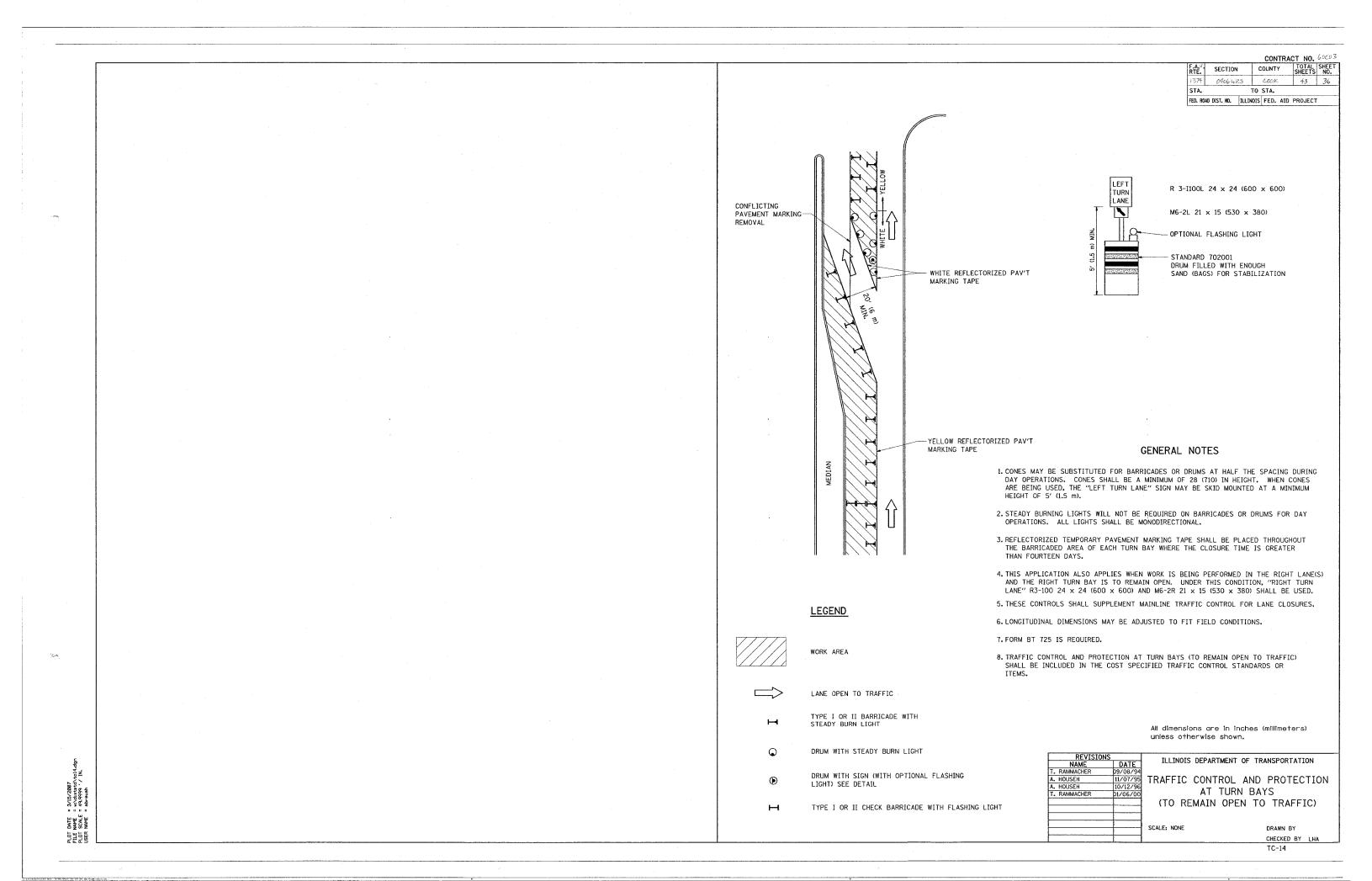
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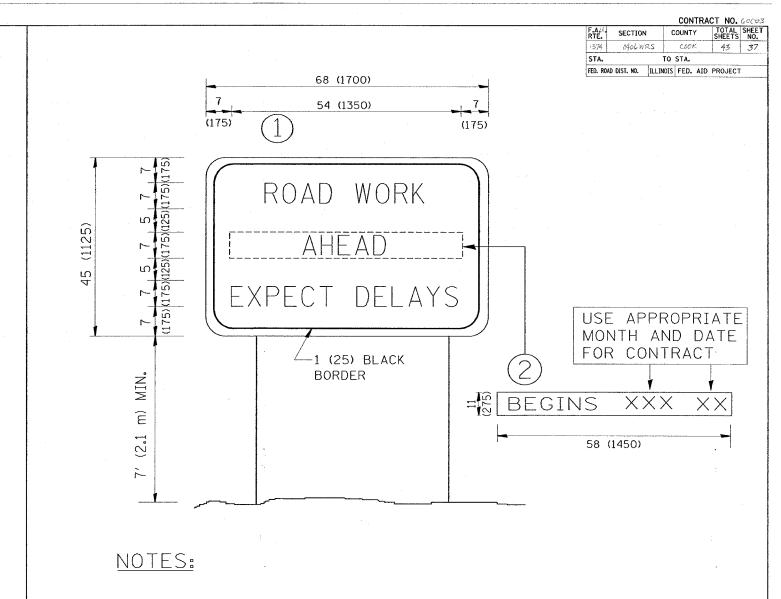
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CONTRACT NO. 60003 COUNTY TOTAL SHEET NO.

COOK TO STA.

TC-24





- 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.

| REVISIONS | NAME | DATE | R. MIRS | 9-15-97 | R. MIRS | 12-11-97 | T. RAMMACHER | 2-2-99 | C. JUCIUS | 1-31-07 |

ILLINOIS DEPARTMENT OF TRANSPORTATION

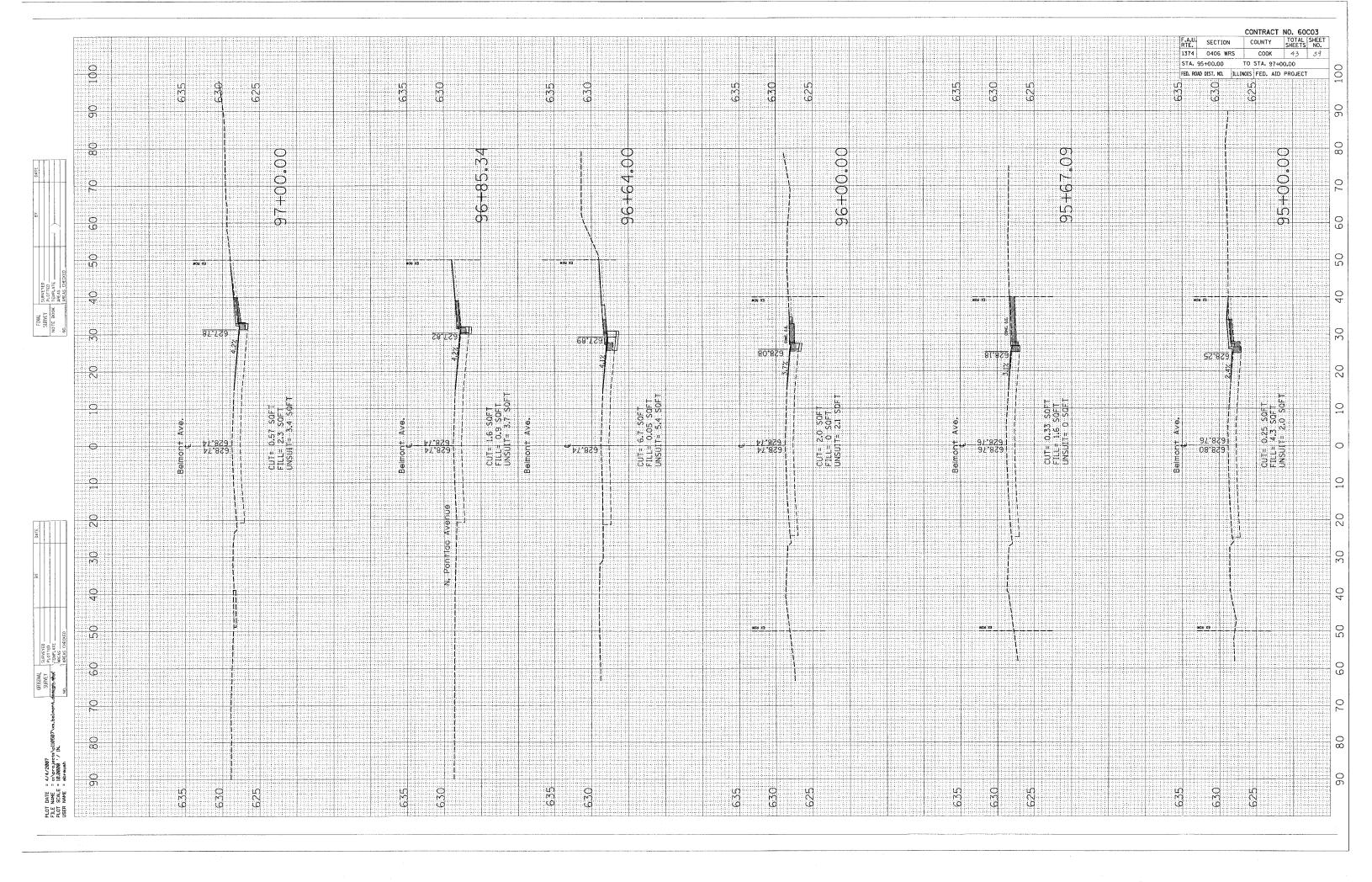
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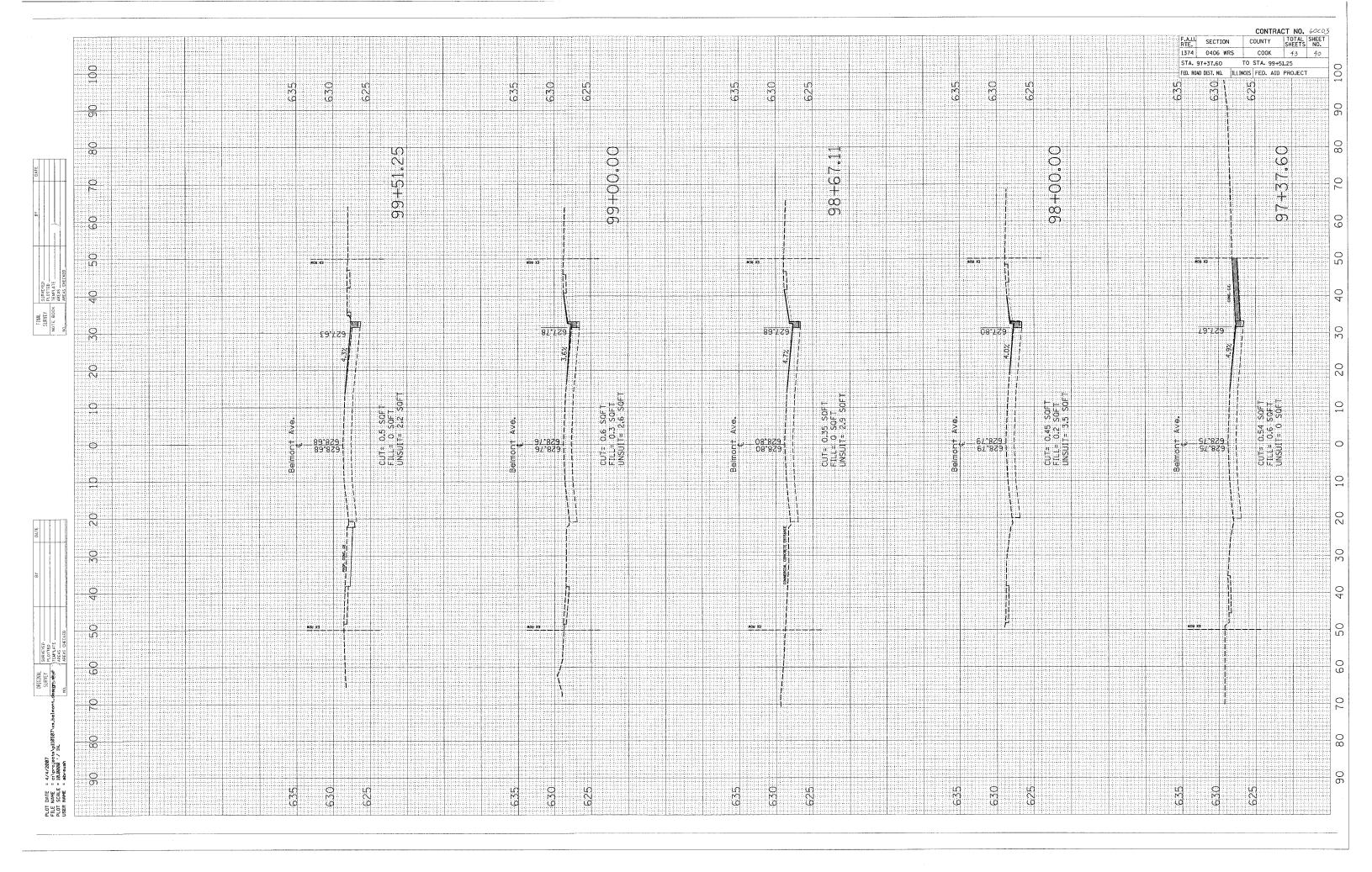
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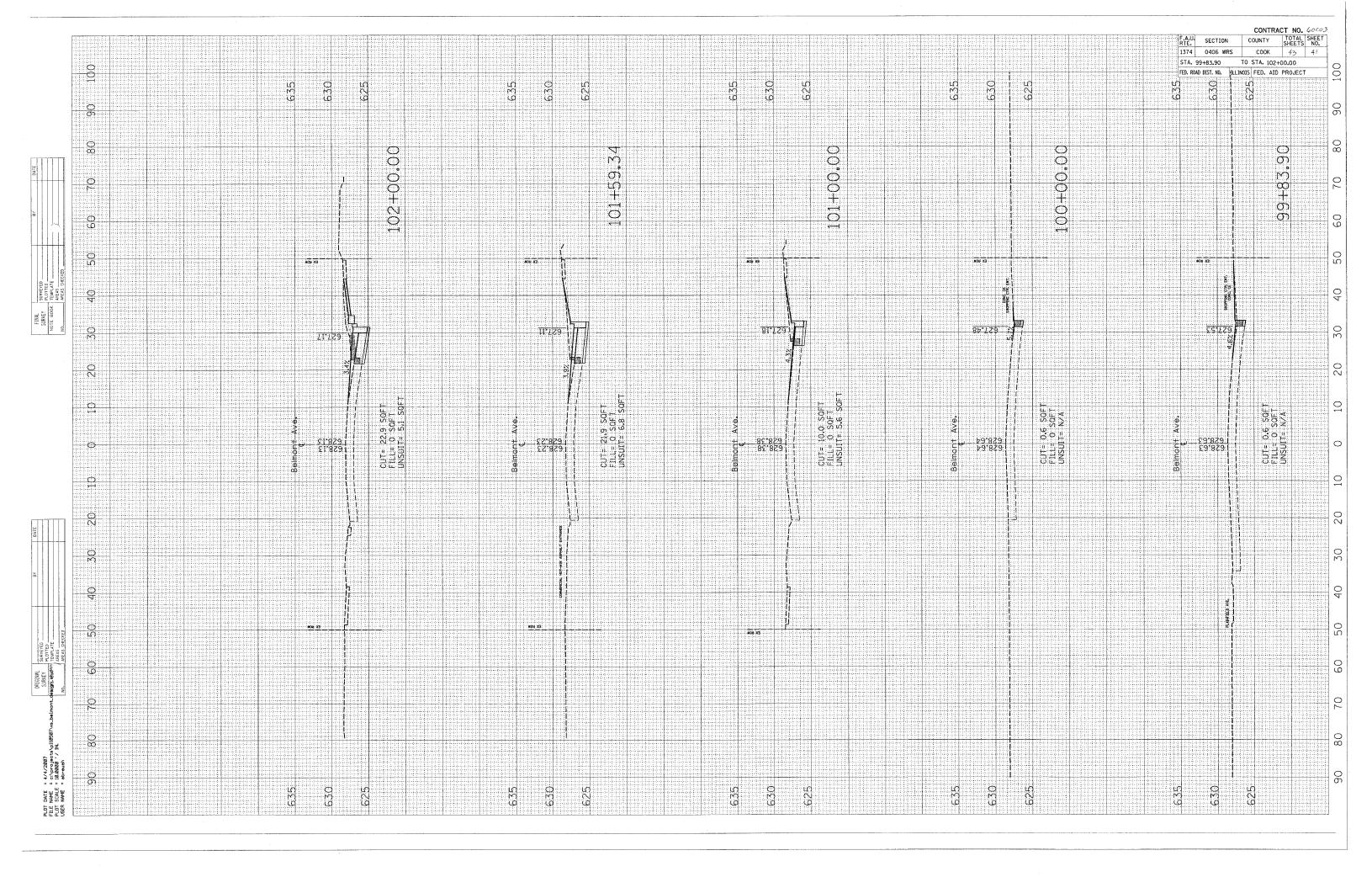
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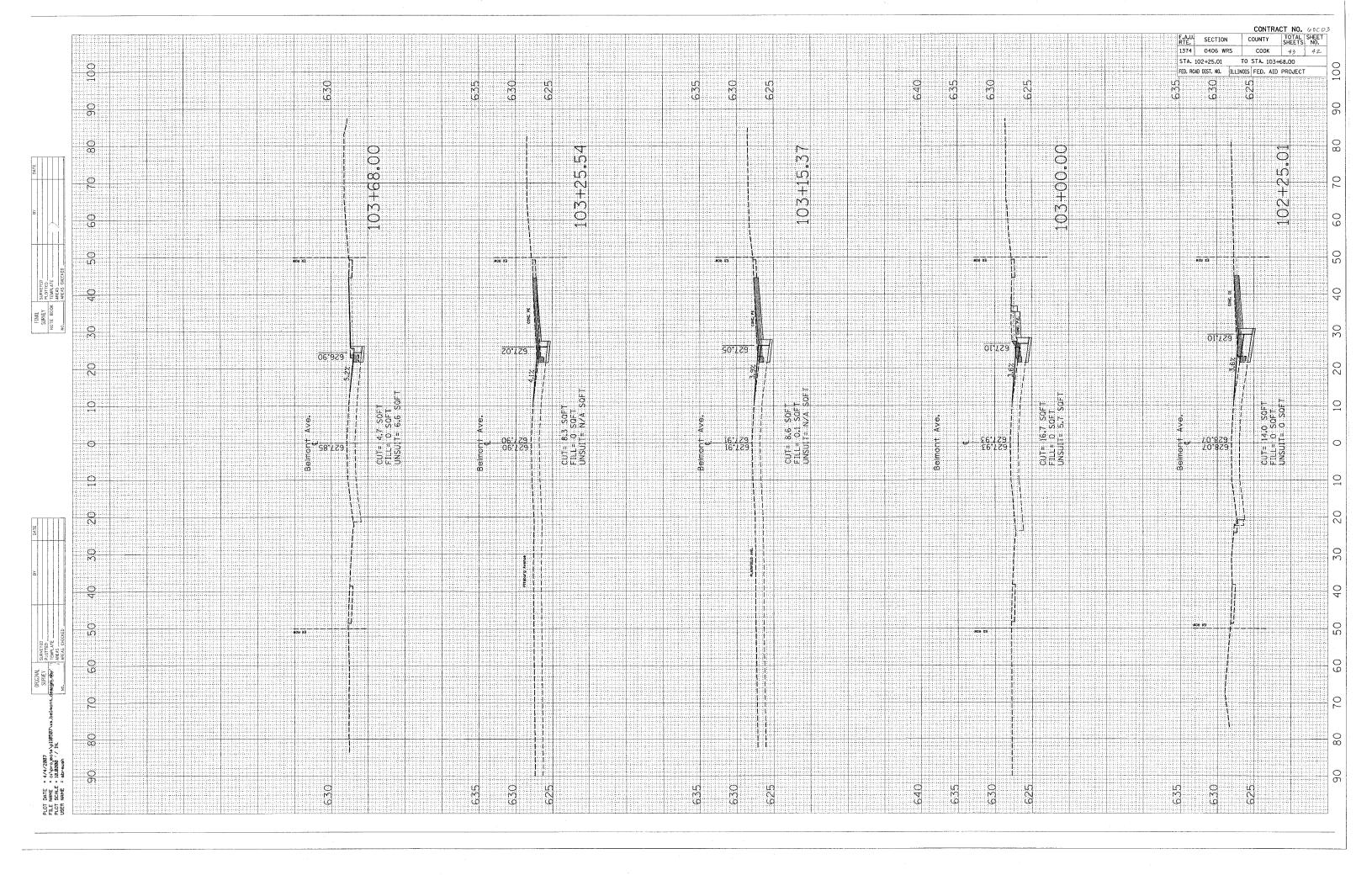
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