

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

# PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FAU 1708 (OKETO AVENUE)  
FAU 1558 (87TH STREET) TO FAU 1537 (71ST STREET)  
RESURFACING  
SECTION NO.: 11-00064-00-RS  
PROJECT NO.: M-9003(778)  
VILLAGE of BRIDGEVIEW  
COOK COUNTY  
JOB NO. C-91-371-11

F. A. I. L. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1708	11-00064-00-RS	COOK	20	1
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT M-9003(778)	

CONTRACT #63572

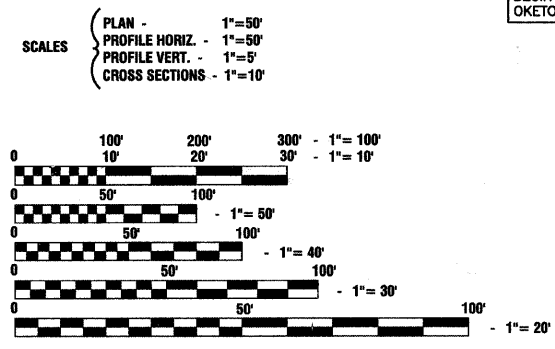
**INDEX OF SHEETS**

1. COVER SHEET, INDEX OF SHEETS & STATE STANDARDS
2. SUMMARY OF QUANTITIES & GENERAL NOTES
3. TYPICAL CROSS SECTIONS
- 4.-8. PAVEMENT PLAN
- 9.-13. STRIPING PLAN
- 14.-20. IDOT DISTRICT 1 STANDARD DETAILS

**HIGHWAY STANDARDS**

- |           |  |
|-----------|--|
| 000001-06 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS                   |
| 424001-05 | CURB RAMPS FOR SIDEWALKS                                       |
| 442201-03 | CLASS C AND D PATCHES  |
| 606001-04 | CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER  |
| 701501-06 | URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED                          |
| 701801-04 | LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE |
| 701901-01 | TRAFFIC CONTROL DEVICES  |
| 780001-02 | TYPICAL PAVEMENT MARKINGS                                      |
| 886001-01 | DETECTOR LOOP INSTALLATIONS                                    |
| 886006-01 | TYPICAL LAYOUTS FOR DETECTION LOOPS                            |

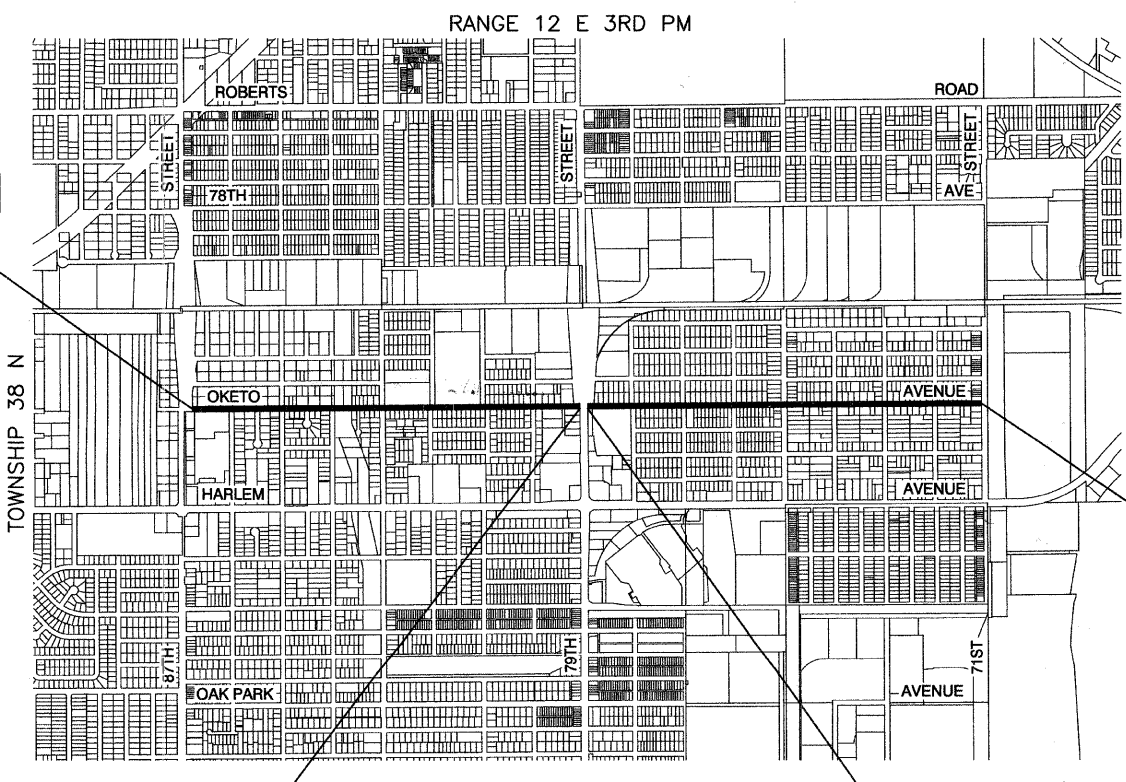
**OKETO AVENUE**  
ADT = 6,200 (2009)  
= 6,300 (2030)  
DESIGN SPEED = 25 MPH  
POSTED SPEED LIMIT = 20 MPH  
DESIGN DESIGNATION = LOCAL STREET



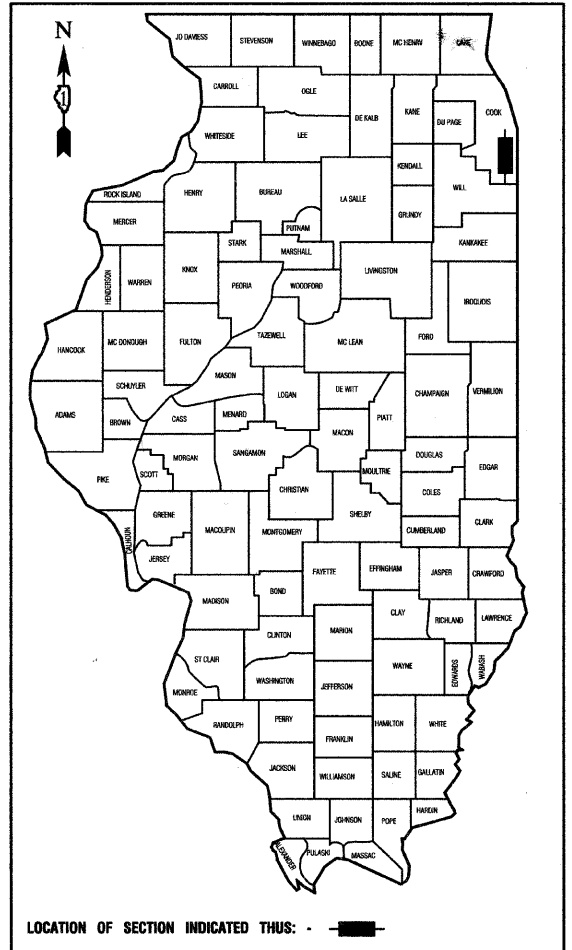
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

**CONTRACT NO. 63572**



**LOCATION MAP**  
NOT TO SCALE  
GROSS LENGTH = 10,429.27 FEET (1.98 MILES)  
NET LENGTH = 10,233.81 FEET (1.94 MILES)



PROJECT LOCATED  
IN VILLAGE OF  
BRIDGEVIEW

END IMPROVEMENT  
OKETO AVENUE STA. 115+80.67

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

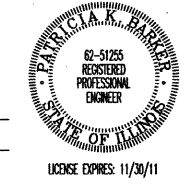
Approved: 3/18/2011  
*[Signature]*  
President, Village of Bridgeview

Passed: APRIL 11, 2011  
*[Signature]*  
District 1 Engineer of Local Roads & Streets

Released for Bid  
Based on Limited  
Review: APRIL 11, 2011  
*[Signature]*  
Deputy Director of Highways, Region 1 Engineer

PRINTED BY THE AUTHORITY OF  
THE STATE OF ILLINOIS

PREPARED BY OR UNDER THE  
DIRECT SUPERVISION OF:  
*[Signature]*  
3/18/2011



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

SUMMARY OF QUANTITIES					PAVEMENT		TRAINING	
S.I.	CODE NO.	PAY ITEM	UNIT	QUAN	CONSTRUCTION TYPE CODE			
					0005		042	
	20101700	SUPPLEMENTAL WATERING	UNIT	7	7			
	21101615	TOPSOIL, FURNISH AND PLACE, 4"	SQ YD	895	895			
	25200110	SODDING, SALT TOLERANT	SQ YD	895	895			
	40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	6678	6678			
	40600300	AGGREGATE (PRIME COAT)	TON	67	67			
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	868	868			
	40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	2946	2946			
	42300300	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 7 INCH	SQ YD	182	182			
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	1749	1749			
	42400800	DETECTABLE WARNINGS	SQ FT	504	504			
	44000158	HOT-MIX ASPHALT SURFACE REMOVAL 2 1/4"	SQ YD	33389	33389			
	44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	366	366			
	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	4951	4951			
	44000600	SIDEWALK REMOVAL	SQ FT	1665	1665			
	44201725	CLASS D PATCHES, TYPE I, 7 INCH	SQ YD	34	34			
	44201729	CLASS D PATCHES, TYPE II, 7 INCH	SQ YD	260	260			
	44201733	CLASS D PATCHES, TYPE III, 7 INCH	SQ YD	216	216			
	44201735	CLASS D PATCHES, TYPE IV, 7 INCH	SQ YD	657	657			
	60250200	CATCH BASINS TO BE ADJUSTED	EACH	39	39			
	60252800	CATCH BASINS TO BE RECONSTRUCTED	EACH	3	3			
	60255500	MANHOLES TO BE ADJUSTED	EACH	7	7			
	60266600	VALVE BOXES TO BE ADJUSTED	EACH	4	4			
	60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	4951	4951			
	67100100	MOBILIZATION	L SUM	1	1			
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1			
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1			
	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	2600	2600			
	72000100	SIGN PANEL - TYPE 1	SQ FT	100				
	72400310	REMOVE SIGN PANEL - TYPE 1	SQ FT	100				
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	2196	2196			
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1321	1321			
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	666	666			
	88600600	DETECTOR LOOP REPLACEMENT	FOOT	80	80			
	X4060826	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	1474	1474			
	X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	42	42			
	XX006591	PAVEMENT TEXTURING	SQ FT	959	959			
	Z0004518	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 5"	SQ YD	244	244			
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	210	210			
	Z0076600	TRAINEES	HOUR	500			500	

**GENERAL NOTES**

- BEFORE STARTING ANY EXCAVATION THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 AND (312) 744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. (48 HOUR NOTIFICATION REQUIRED)
- UTILITIES INDICATED ON THE PLANS ARE PROVIDED FOR THE CONTRACTORS 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.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- SCHEDULES INCLUDED IN THE PLANS HAVE BEEN PREPARED FROM FIELD NOTES. EXACT LOCATIONS FOR PATCHING SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 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.
- ACCESS TO DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES BY LIMITING CURB AND GUTTER REPAIR TO ONE-HALF THE DRIVEWAY WIDTH AT ONE TIME AS WELL AS TEMPORARY AGGREGATE.
- THE REMOVAL AND/OR REPLACEMENT OF ANY DRIVEWAYS, PAVEMENT, CURB, SIDEWALK, ECT. SHALL BE ACCOMPLISHED BY MEANS OF A SAW CUT JOINT, AT THE DIRECTION OF THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE UNIT PRICE FOR THE VARIOUS ITEMS.
- 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.

\* - INDICATES SPECIALTY ITEMS

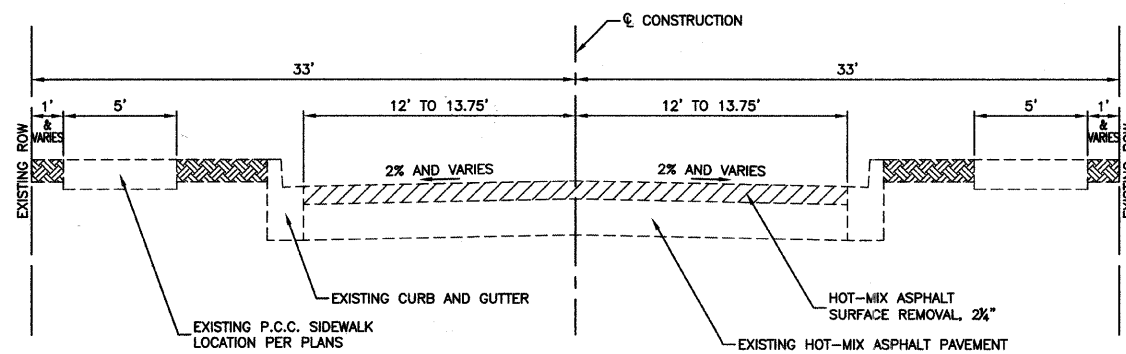
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USER NAME =	DESIGNED -- JH	REVISED --
	CHECKED -- PKB	REVISED --
PLOT SCALE =	DRAWN -- RG	REVISED --
PLOT DATE = 03-18-11	CHECKED -- AG	REVISED --

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

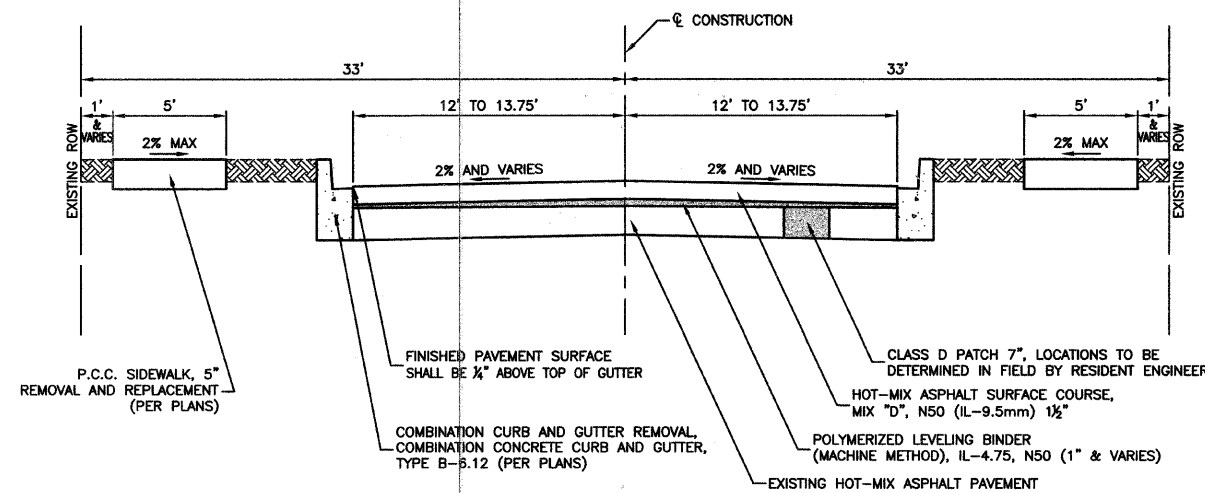
OKETO AVENUE RESURFACING  
87TH STREET TO 71ST STREET  
SUMMARY OF QUANTITIES AND GENERAL NOTES

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1708	11-00064-00-RS	COOK	20	2
CONTRACT NO. 63572				
SCALE: NA SHEET NO. 2 OF 20 SHEETS STA. TO STA. FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003(778)				



**EXISTING TYPICAL SECTION**

OKETO AVENUE  
87TH STREET TO 71ST STREET  
STA 11+51.40 TO STA 115+80.67



**PROPOSED TYPICAL SECTION**

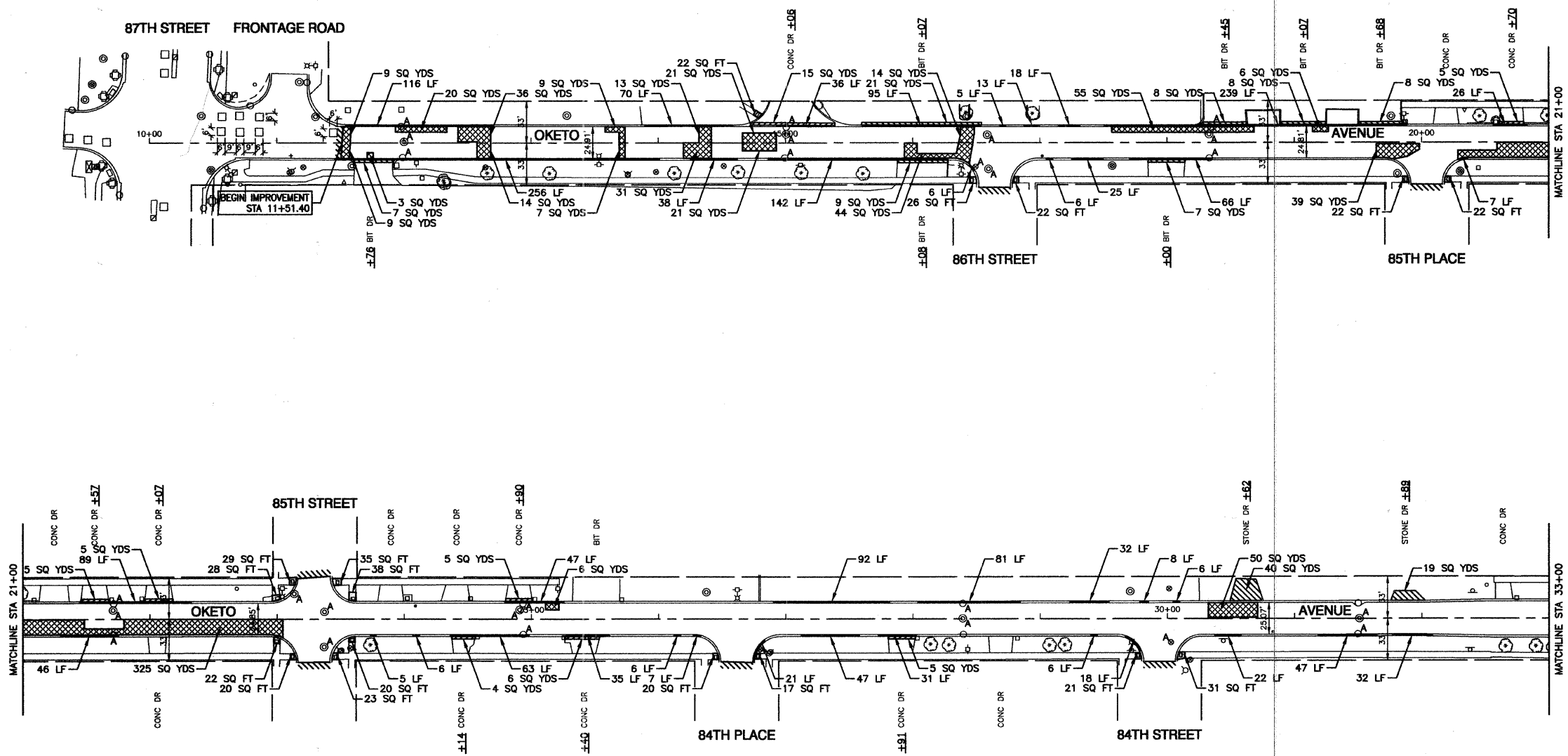
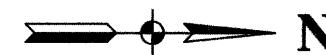
OKETO AVENUE  
87TH STREET TO 71ST STREET  
STA 11+51.40 TO STA 115+80.67

NOTE: CONTRACTOR SHALL MILL BEFORE PATCHING

**HOT-MIX ASPHALT MIXTURE REQUIREMENTS**

MIXTURE TYPE	AIR VOIDS
<b>RESURFACING</b>	
HOT MIX ASPHALT SURFACE COURSE, MIX "D", N50(IL-9.5mm); 1 1/2"	4% @ 50 Gyr.
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, (1")	4% @ 50 Gyr.
<b>DRIVEWAYS</b>	
HOT MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL-9.5mm); 2"	4% @ 50 Gyr.
HOT MIX ASPHALT BASE COURSE, (HMA BINDER IL-19.0mm); 3"	4% @ 50 Gyr.
<b>PATCHING</b>	
CLASS D PATCHES, TYPE I, II, III, IV (HMA BINDER IL-19.0mm), 7" (IN 3 LIFTS)	4% @ 70 Gyr.

- NOTES:
- 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 70-22" AND FOR NON-POLYMERIZED HMA THE "AC" TYPE SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.



**NOTES:**

1. DETECTABLE WARNINGS ARE TO BE INSTALLED AT LOCATIONS OF SIDEWALK REMOVAL AND REPLACEMENT. CONTRACTOR TO POSITION AND PLACE DETECTABLE WARNINGS AT THE DIRECTION OF THE ENGINEER IN ACCORDANCE WITH ADA REQUIREMENTS.
2. LIMIT OF CONSTRUCTION ON ALL SIDE STREETS IS THE RADIUS RETURN PLUS 10' BUTT JOINT OR ROW AS NOTED.
3. ACCESS TO ALL DRIVEWAYS SHALL BE MAINTAINED UPON COMPLETION OF EACH WORKDAY. RESIDENTS SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF WHEN DRIVEWAY REPLACEMENT WILL TAKE PLACE.

**LEGEND**

- HMA PAVEMENT REPAIR
- HMA DRIVEWAY REMOVAL AND REPLACEMENT
- CONCRETE DRIVEWAY REMOVAL AND REPLACEMENT
- CONCRETE SIDEWALK REMOVAL AND REPLACEMENT
- BUTT JOINTS
- CURB REMOVAL
- CATCH BASIN TO BE ADJUSTED, MANHOLE TO BE ADJUSTED, VALVE BOX TO BE ADJUSTED, FRAME & LID TO BE ADJUSTED (SPECIAL)
- DETECTOR LOOP TO BE REPLACED

FILE NAME = 10189-PLAN-01 - IDOT P01  
DATE PLOTTED: 03-18-11 10:00 AM  
 PLOT SCALE: 1"=50'

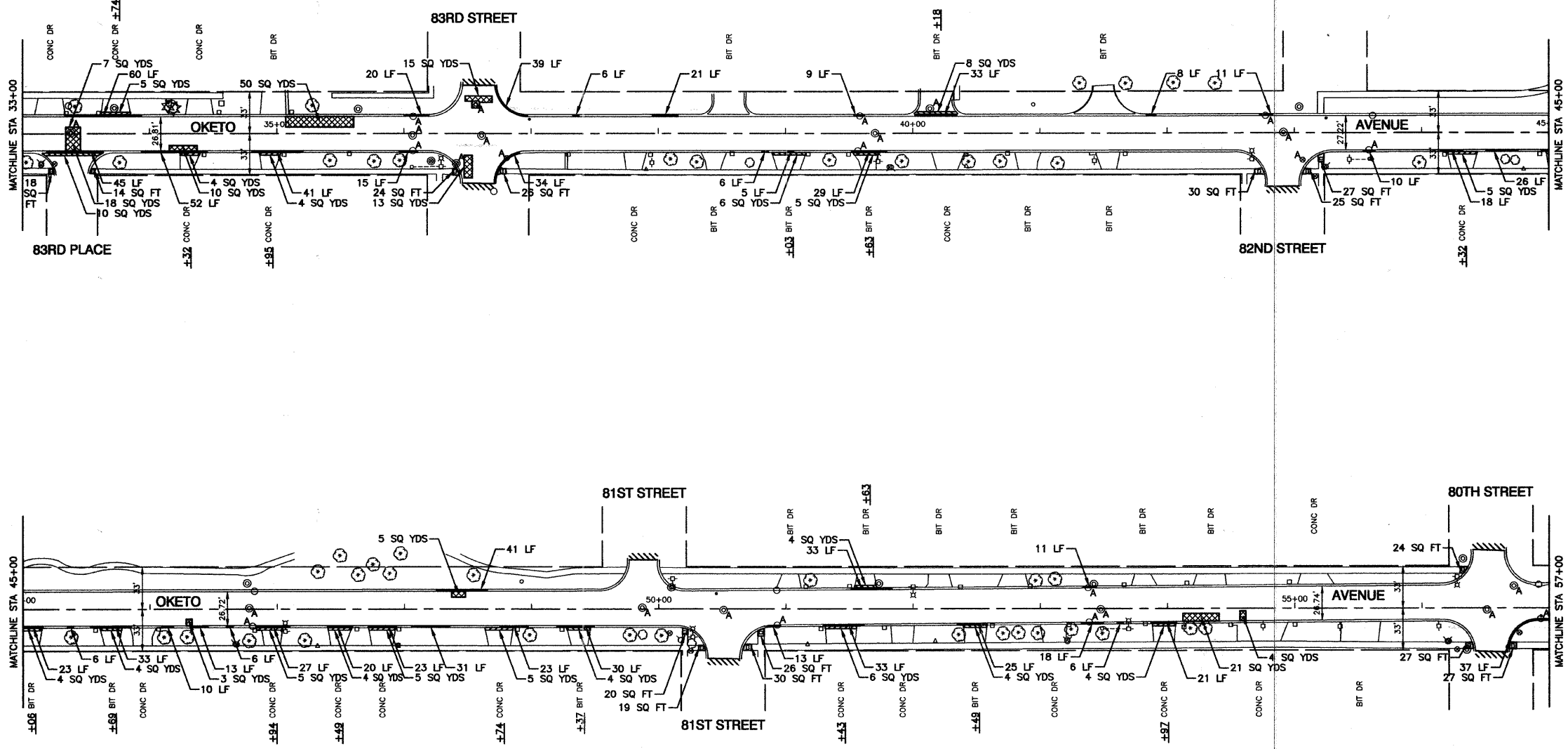
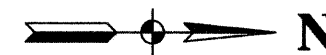
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PLOT SCALE =	CHECKED -- PKB	REVISED --
PLOT DATE = 03-18-11	DRAWN -- RG	REVISED --
	CHECKED -- AG	REVISED --

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**OKETO AVENUE RESURFACING  
 87TH STREET TO 71ST STREET  
 PAVEMENT PLAN**

SCALE: 1"=50'    SHEET NO. 4 OF 20 SHEETS    STA. 11+51.40 TO STA. 33+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1708	11-00064-00-RS	COOK	20	4
CONTRACT NO. 63572				
FED. ROAD DIST. NO. 1    ILLINOIS    FED. AID PROJECT M-9003(778)				



**NOTES:**

1. DETECTABLE WARNINGS ARE TO BE INSTALLED AT LOCATIONS OF SIDEWALK REMOVAL AND REPLACEMENT. CONTRACTOR TO POSITION AND PLACE DETECTABLE WARNINGS AT THE DIRECTION OF THE ENGINEER IN ACCORDANCE WITH ADA REQUIREMENTS.
2. LIMIT OF CONSTRUCTION ON ALL SIDE STREETS IS THE RADIUS RETURN PLUS 10' BUTT JOINT OR ROW AS NOTED.
3. ACCESS TO ALL DRIVEWAYS SHALL BE MAINTAINED UPON COMPLETION OF EACH WORKDAY. RESIDENTS SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF WHEN DRIVEWAY REPLACEMENT WILL TAKE PLACE.

**LEGEND**

- HMA PAVEMENT REPAIR
- HMA DRIVEWAY REMOVAL AND REPLACEMENT
- CONCRETE DRIVEWAY REMOVAL AND REPLACEMENT
- CONCRETE SIDEWALK REMOVAL AND REPLACEMENT
- BUTT JOINTS
- CURB REMOVAL
- CATCH BASIN TO BE ADJUSTED, MANHOLE TO BE ADJUSTED, VALVE BOX TO BE ADJUSTED, FRAME & LID TO BE ADJUSTED (SPECIAL)
- DETECTOR LOOP TO BE REPLACED

FILE NAME = 10189-PLAN-01 - 100T P02

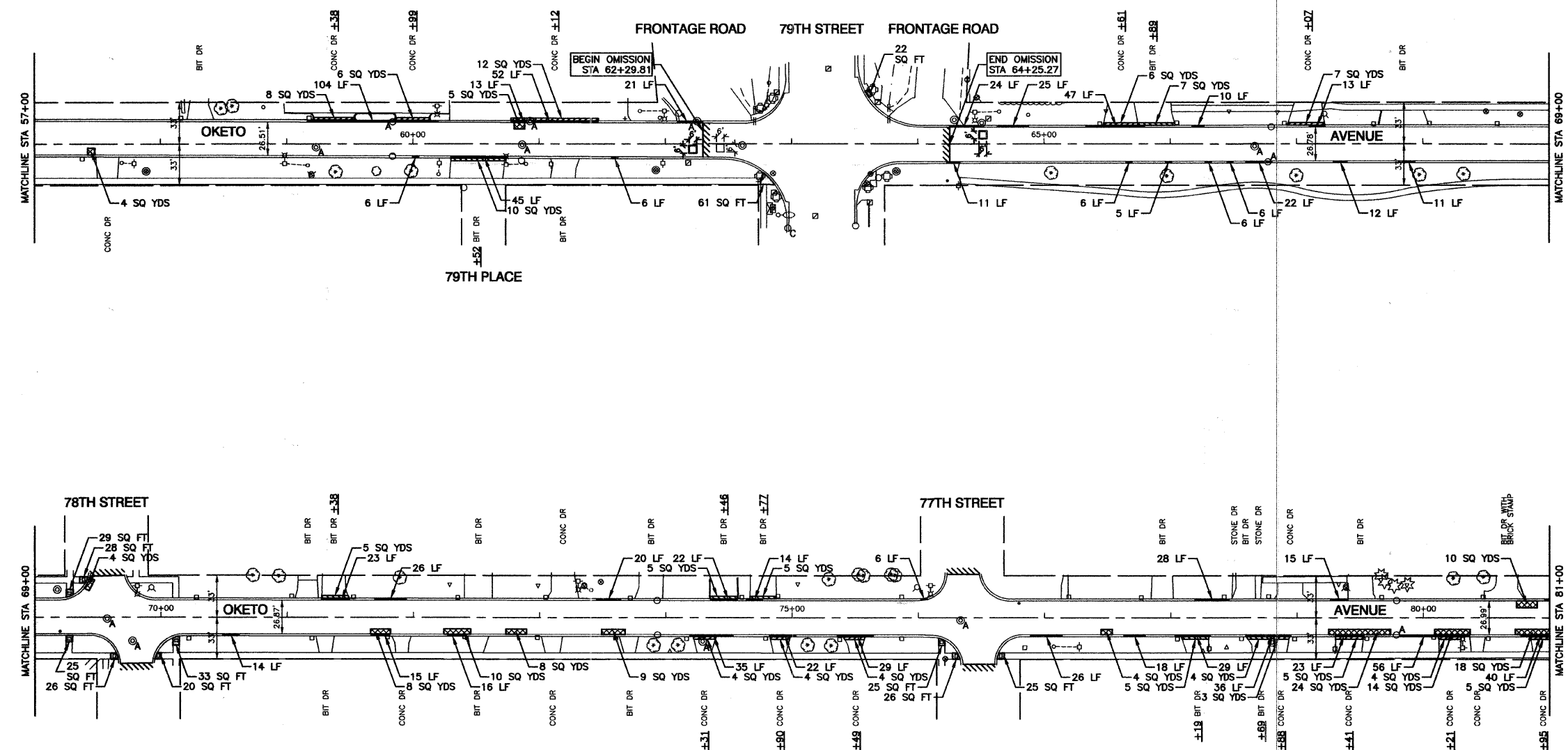
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PLOT SCALE =	DRAWN — RG	REVISED —
PLOT DATE = 03-18-11	CHECKED — AG	REVISED —

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**OKETO AVENUE RESURFACING  
87TH STREET TO 71ST STREET  
PAVEMENT PLAN**

SCALE: 1"=50'      SHEET NO. 5 OF 20 SHEETS      STA. 33+00 TO STA. 57+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1708	11-00064-00-RS	COOK	20	5
CONTRACT NO. 63572				
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT M-6003(778)				



**NOTES:**

1. DETECTABLE WARNINGS ARE TO BE INSTALLED AT LOCATIONS OF SIDEWALK REMOVAL AND REPLACEMENT. CONTRACTOR TO POSITION AND PLACE DETECTABLE WARNINGS AT THE DIRECTION OF THE ENGINEER IN ACCORDANCE WITH ADA REQUIREMENTS.
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**LEGEND**

- HMA PAVEMENT REPAIR
- HMA DRIVEWAY REMOVAL AND REPLACEMENT
- CONCRETE DRIVEWAY REMOVAL AND REPLACEMENT
- CONCRETE SIDEWALK REMOVAL AND REPLACEMENT
- BUTT JOINTS
- CURB REMOVAL
- CATCH BASIN TO BE ADJUSTED, MANHOLE TO BE ADJUSTED, VALVE BOX TO BE ADJUSTED, FRAME & LID TO BE ADJUSTED (SPECIAL)
- DETECTOR LOOP TO BE REPLACED

FILE NAME = 10199-PLAN-01 - IDOT P03

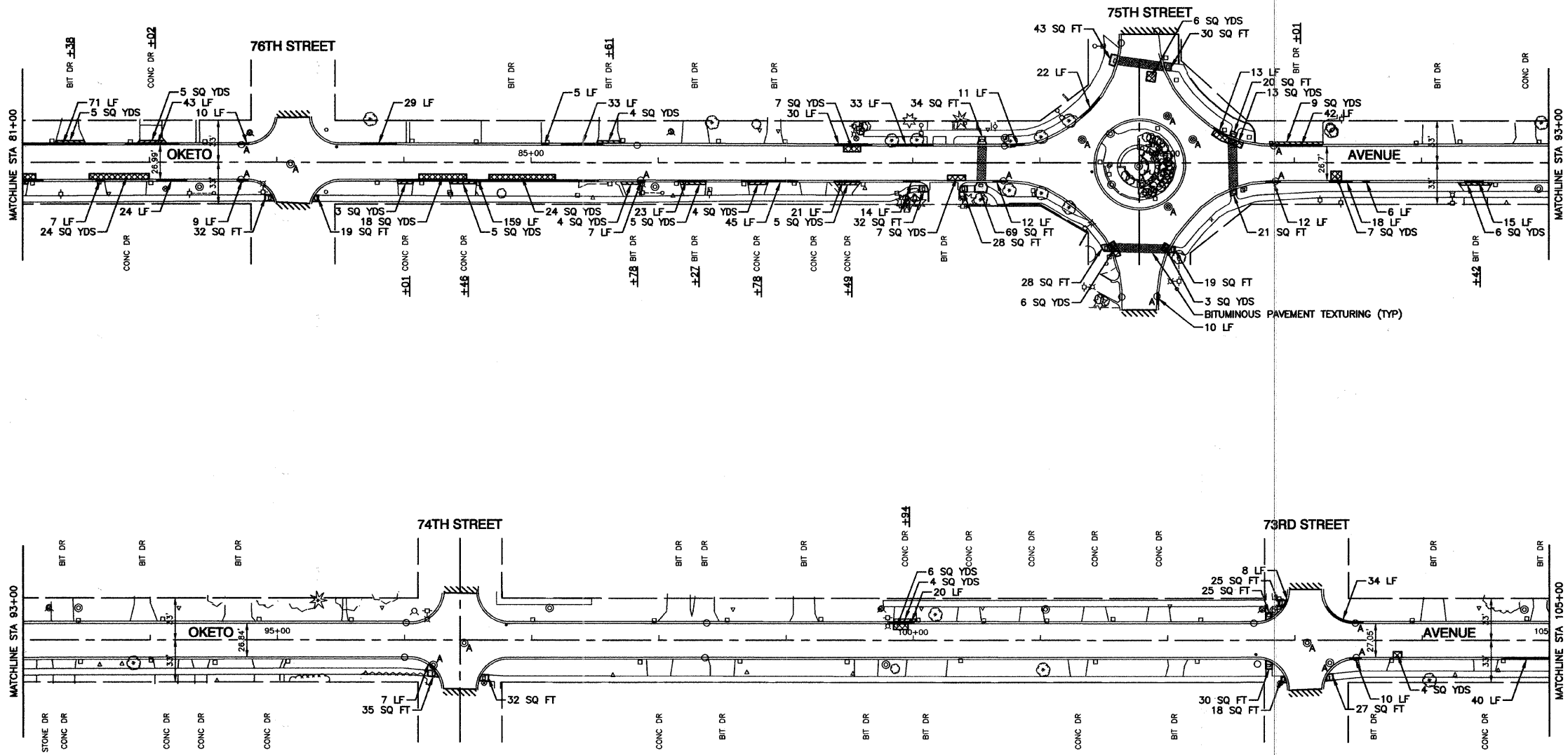
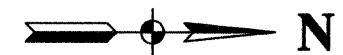
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PLOT DATE = 03-18-11	CHECKED — AG	REVISED —

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**OKETO AVENUE RESURFACING  
87TH STREET TO 71ST STREET  
PAVEMENT PLAN**

SCALE: 1"=50' SHEET NO. 6 OF 20 SHEETS STA. 57+00 TO STA. 81+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1708	11-00064-00-RS	COOK	20	6
CONTRACT NO. 63572				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-6003(778)				



**NOTES:**

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**LEGEND**

- HMA PAVEMENT REPAIR
- HMA DRIVEWAY REMOVAL AND REPLACEMENT
- CONCRETE DRIVEWAY REMOVAL AND REPLACEMENT
- CONCRETE SIDEWALK REMOVAL AND REPLACEMENT
- BUTT JOINTS
- CURB REMOVAL
- CATCH BASIN TO BE ADJUSTED, MANHOLE TO BE ADJUSTED, VALVE BOX TO BE ADJUSTED, FRAME & LID TO BE ADJUSTED (SPECIAL)
- DETECTOR LOOP TO BE REPLACED

FILE NAME = 10185-PLAN-01 - IDOT P04	USER NAME =	DESIGNED — JH	REVISED —
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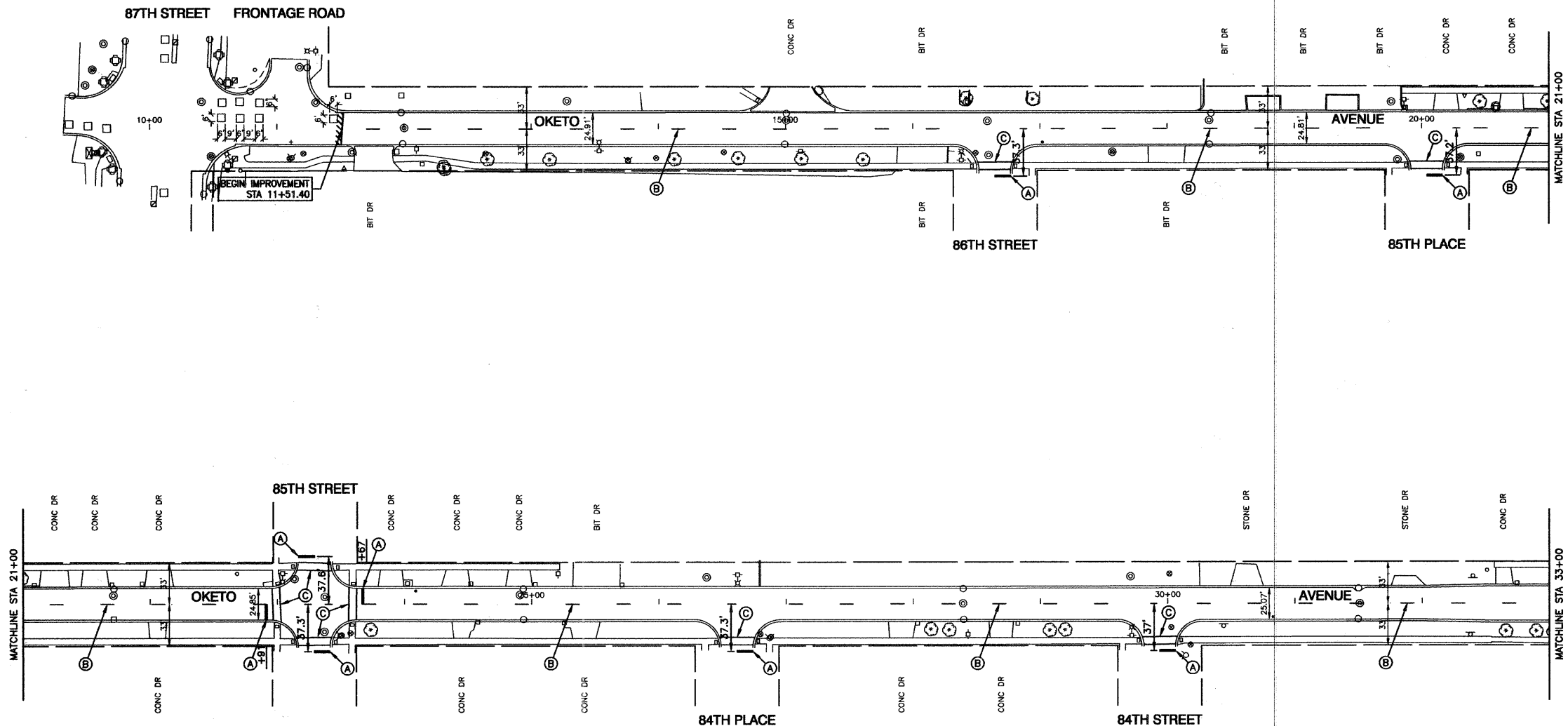
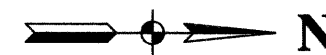
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>OKETO AVENUE RESURFACING 87TH STREET TO 71ST STREET PAVEMENT PLAN</b>	
SCALE: 1"=50'	SHEET NO. 7 OF 20 SHEETS
STA. 81+00	TO STA. 105+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1708	11-00064-00-RS	COOK	20	7
CONTRACT NO. 63572				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-8003(778)				



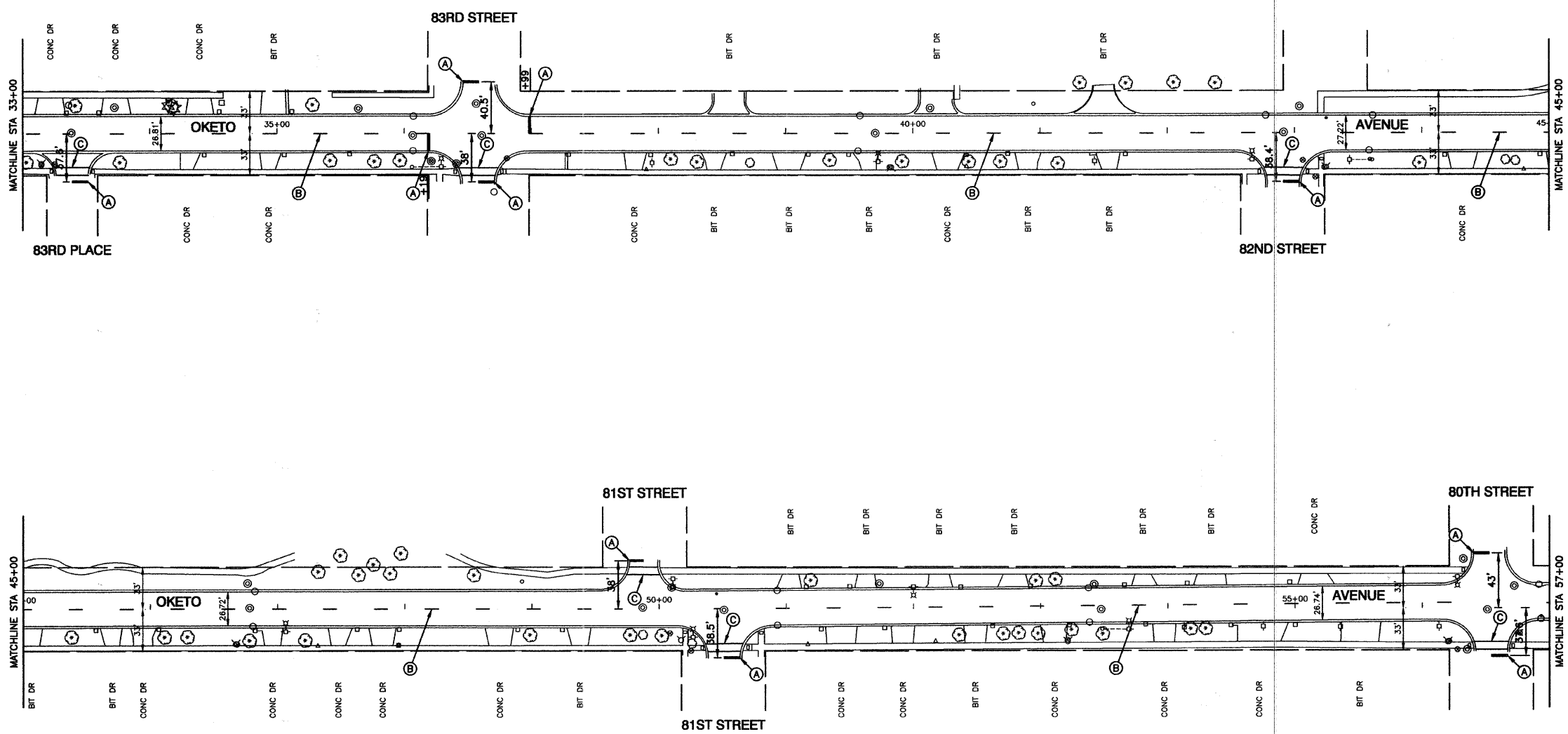




**LEGEND**

- (A) THERMOPLASTIC PAVEMENT MARKING  
WHITE, 24"
- (B) THERMOPLASTIC PAVEMENT MARKING  
YELLOW, LINE, 4", SKIP DASH (10' LINE--30' SPACE)
- (C) THERMOPLASTIC PAVEMENT MARKING  
WHITE, LINE, 6"

FILE NAME = 10188-PLAN-01 - PVMK01	USER NAME =	DESIGNED -- JH	REVISED --	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>OKETO AVENUE RESURFACING 87TH STREET TO 71ST STREET STRIPING PLAN</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED -- PKB	REVISED --					1708	11-00084-00-RS	COOK	20	9
PLOT DATE = 09-18-11	DRAWN -- RG	REVISED --	SCALE: 1"=50'				SHEET NO. 9 OF 20 SHEETS STA. 11+51.40 TO STA. 33+00			CONTRACT NO. 63572		
	CHECKED -- AG	REVISED --	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-8003(778)									



**LEGEND**

- (A) THERMOPLASTIC PAVEMENT MARKING  
WHITE, 2"
- (B) THERMOPLASTIC PAVEMENT MARKING  
YELLOW, LINE, 4", SKIP DASH (10' LINE-30' SPACE)
- (C) THERMOPLASTIC PAVEMENT MARKING  
WHITE, LINE, 6"

FILE NAME = 10198-PLAN-01 - PVMK02  
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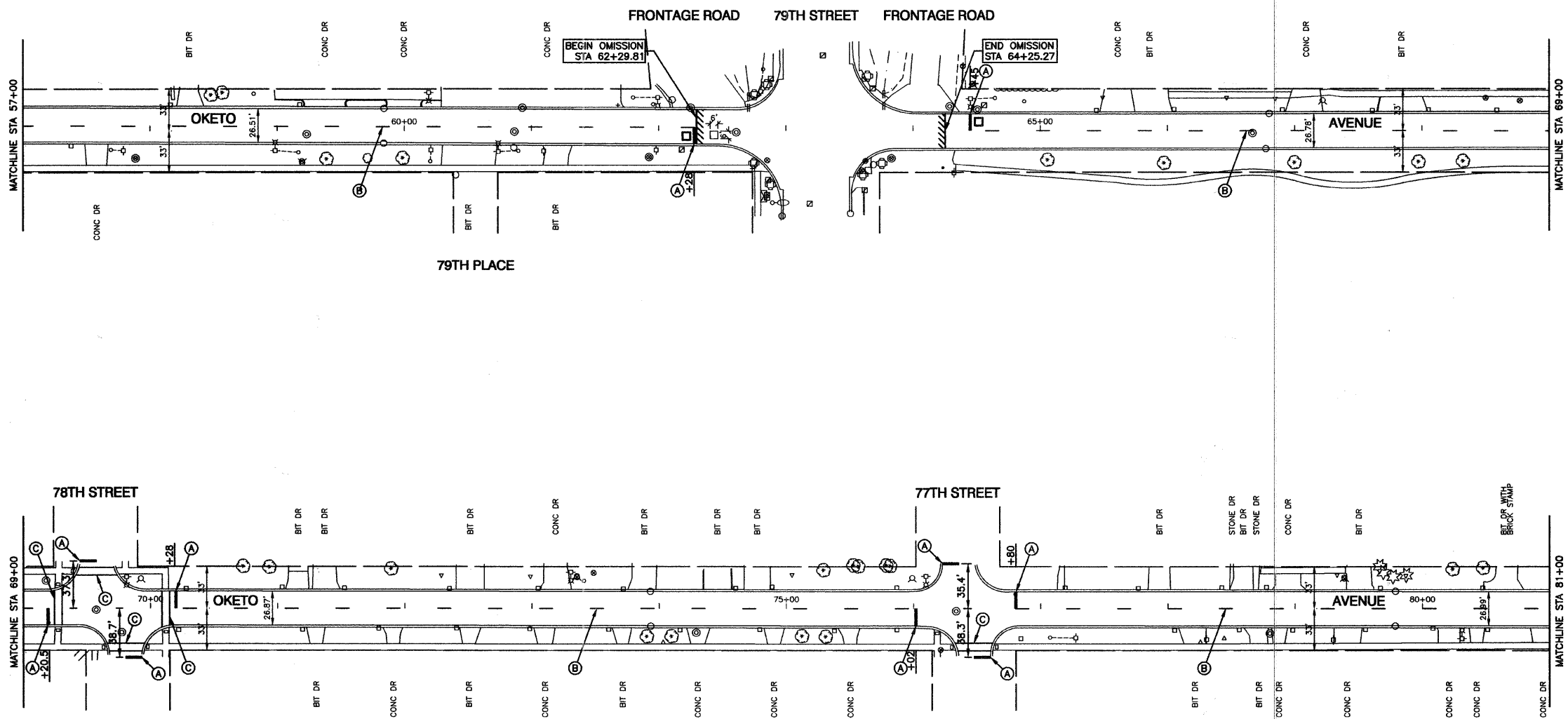
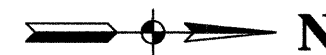
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PLOT SCALE =	DRAWN — RG	REVISED —
PLOT DATE = 03-18-11	CHECKED — AG	REVISED —

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**OKETO AVENUE RESURFACING  
87TH STREET TO 71ST STREET  
STRIPING PLAN**

SCALE: 1"=50' SHEET NO. 10 OF 20 SHEETS STA. 33+00 TO STA. 57+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1708	11-00084-00-RS	COOK	20	10
CONTRACT NO. 63572				
<small>FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT N-9003(778)</small>				



**LEGEND**

- (A) THERMOPLASTIC PAVEMENT MARKING  
WHITE, 24"
- (B) THERMOPLASTIC PAVEMENT MARKING  
YELLOW, LINE, 4", SKIP DASH (10' LINE--30' SPACE)
- (C) THERMOPLASTIC PAVEMENT MARKING  
WHITE, LINE, 6"

FILE NAME = 10189-PLAN-01 - PVMK03  
LAST DRAWN BY: JH/ST/07/01/01  
 PLOT DATE: 03-18-11

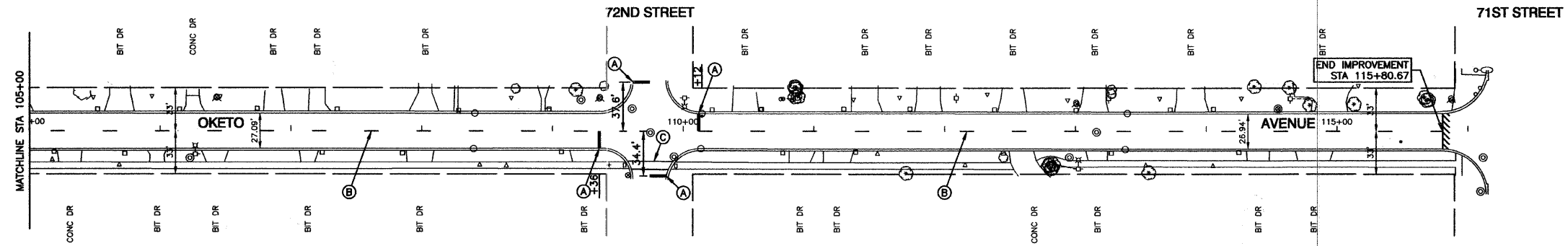
USER NAME =	DESIGNED — JH	REVISED —
	CHECKED — PKB	REVISED —
PLOT SCALE =	DRAWN — RG	REVISED —
PLOT DATE = 03-18-11	CHECKED — AG	REVISED —

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**OKETO AVENUE RESURFACING  
 87TH STREET TO 71ST STREET  
 STRIPING PLAN**  
 SCALE: 1"=50' SHEET NO. 11 OF 20 SHEETS STA. 57+00 TO STA. 81+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1708	11-00084-00-RS	COOK	20	11
CONTRACT NO. 63572				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003(778)				





**LEGEND**

- (A) THERMOPLASTIC PAVEMENT MARKING  
WHITE, 24"
- (B) THERMOPLASTIC PAVEMENT MARKING  
YELLOW, LINE, 4", SKIP DASH (10' LINE-30' SPACE)
- (C) THERMOPLASTIC PAVEMENT MARKING  
WHITE, LINE, 6"

FILE NAME = 10188-PLAN-01 - PVMK08

USER NAME =

DESIGNED -- JH

REVISED --

CHECKED -- PKB

REVISED --

PLOT SCALE =

DRAWN -- RG

REVISED --

PLOT DATE = 03-18-11

CHECKED -- AG

REVISED --

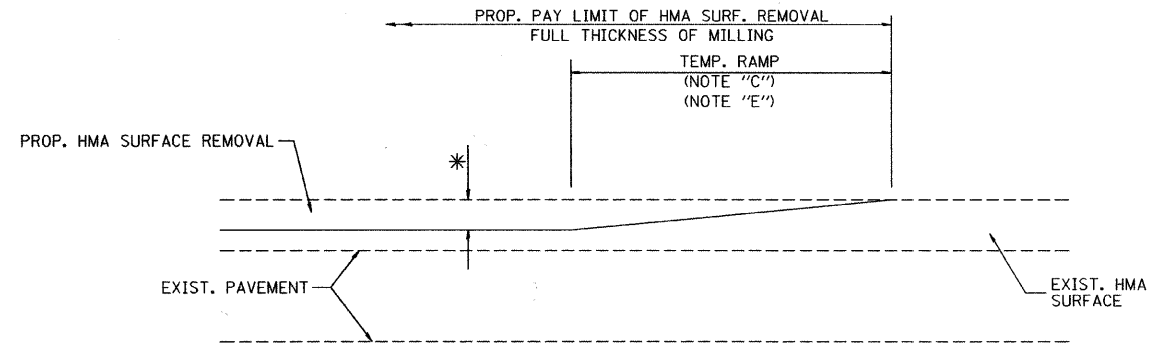
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

OKETO AVENUE RESURFACING  
87TH STREET TO 71ST STREET  
STRIPING PLAN

SCALE: 1"=50'

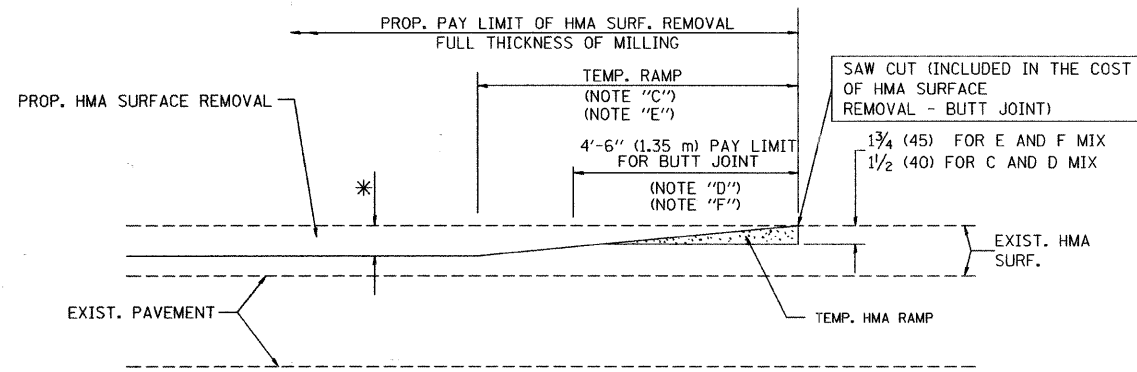
SHEET NO. 13 OF 20 SHEETS STA. 105+00 TO STA. 115+80.67

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1708	11-00064-00-RS	COOK	20	13
CONTRACT NO. 63572				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003(778)				



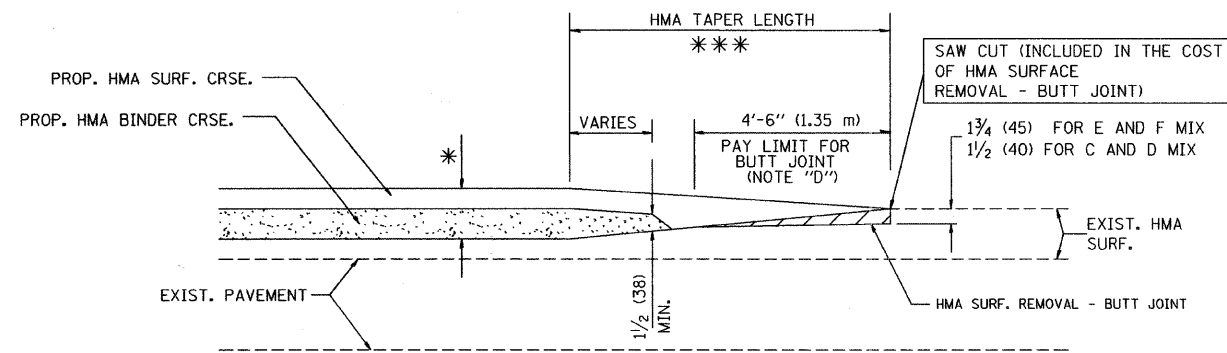
MILLED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

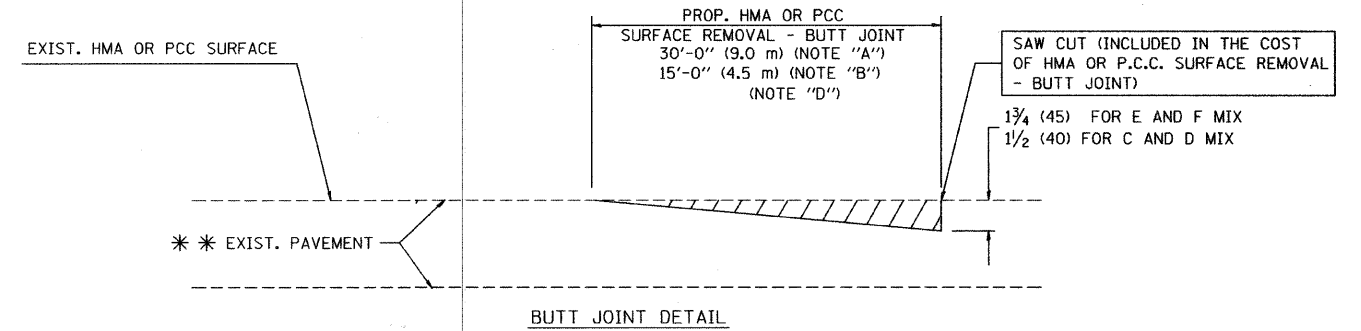


HMA CONSTRUCTED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

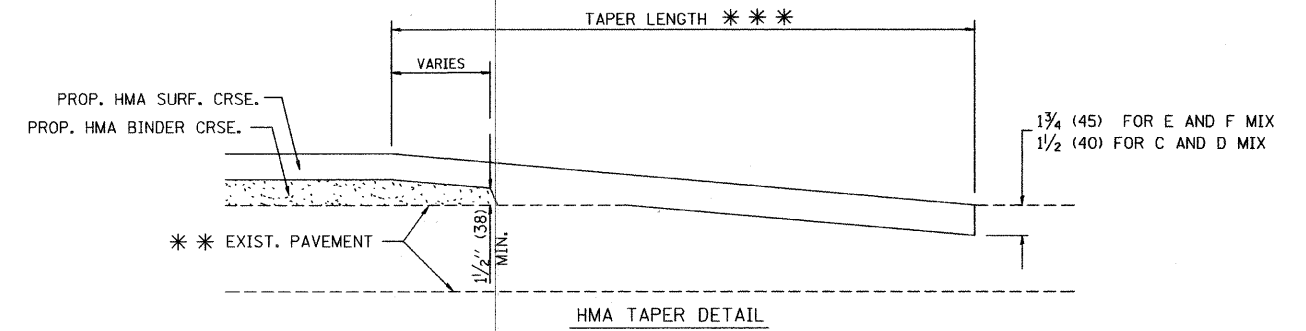
OPTION 2  
TYPICAL TEMPORARY RAMP



BUTT JOINT AND HMA TAPER  
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.

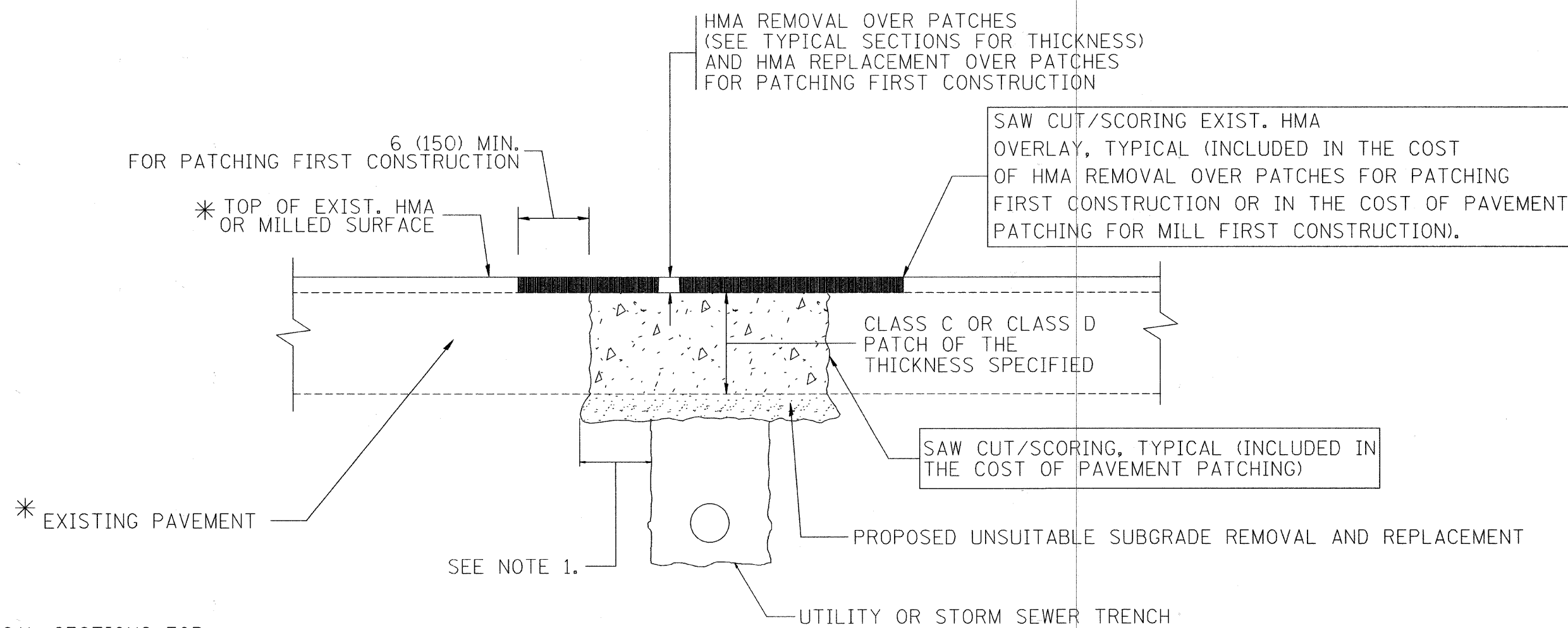
FILE NAME = 10185-07LS-01-8022 - BD-32	USER NAME = geg:ianobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
		CHECKED -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	CHECKED - 06-13-90	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND  
HMA TAPER DETAILS

SCALE: SHEET NO. 14 OF 20 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1708	11-00084-00-RS	COOK	20	14
BD400-05 BD32		CONTRACT NO. 63572		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT M-9003(778)		



\* 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)

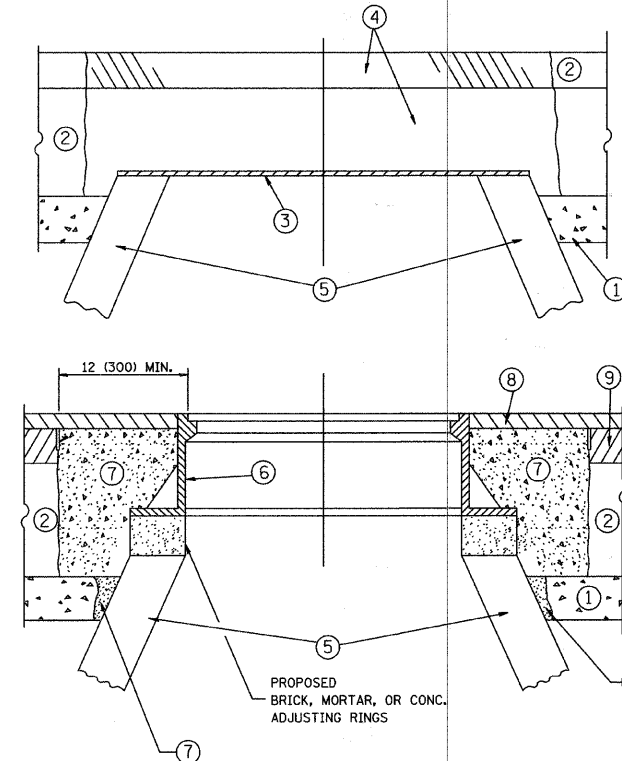
1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

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 = 10189-DT15-02-8022 - 80-22	USER NAME = bauerdt	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED -	REVISED - R. BORO 01-01-07			1708	11-00064-00-RS	COOK	20	15	
		PLOT SCALE = 50.000 / IN.	REVISED - R. BORO 09-04-07			<b>80400-04 (80-22)</b>		CONTRACT NO. 63572			
		PLOT DATE = 10/27/2008	REVISED - K. ENG 10-27-08			SCALE:	SHEET NO. 15 OF 20 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003(778)	



**NOTES:**

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

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

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

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

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

**CONSTRUCTION PROCEDURES**

**STAGE 1 (BEFORE PAVEMENT MILLING)**

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

**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.

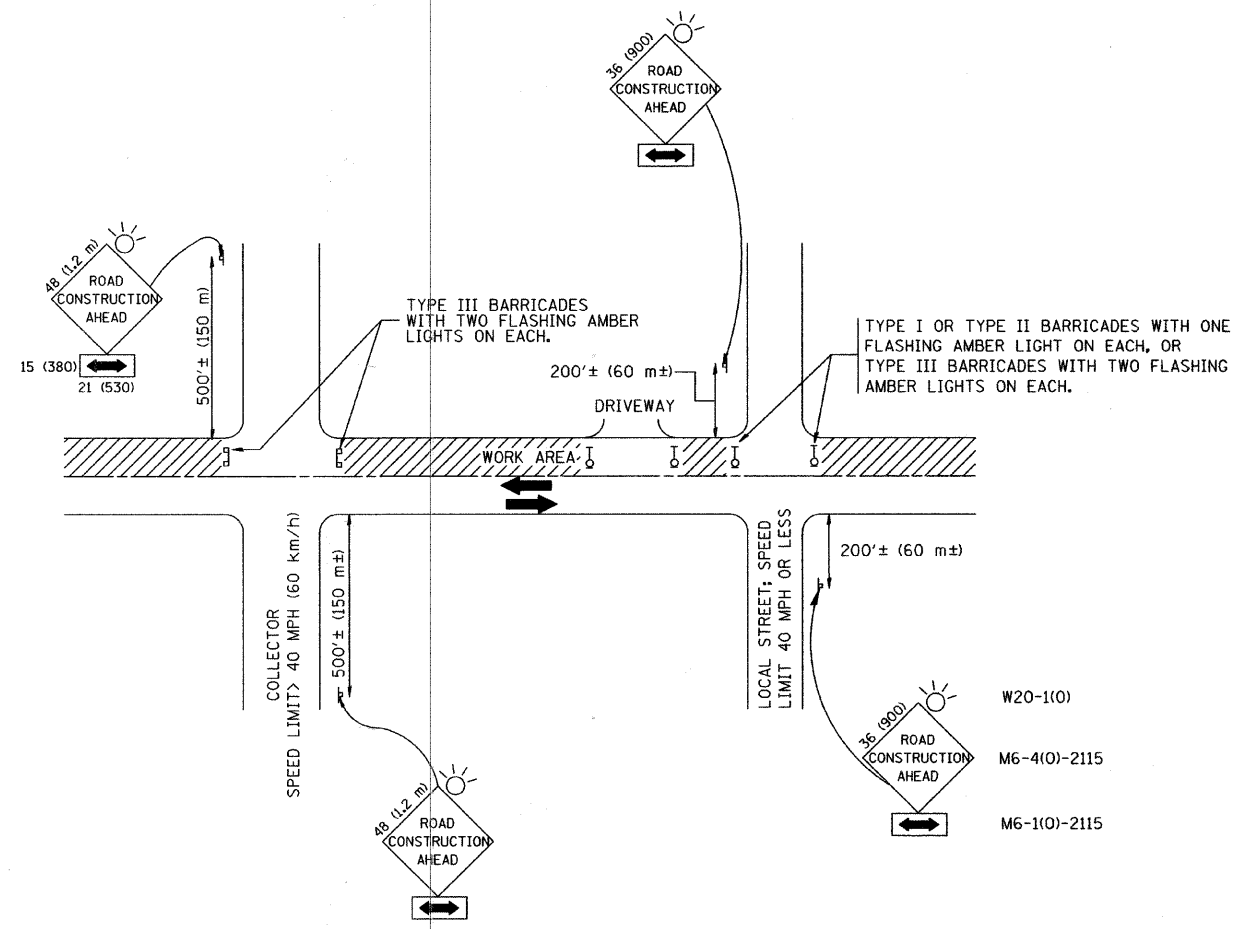
**BASIS OF PAYMENT:** THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL" NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

**DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING**

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME = 10193-DTIS-03-B008 - B0-08	USER NAME = geglianobt	DESIGNED — R. SHAH	REVISED —A. ABBAS 03-21-97	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING</b>	F.A.U. RTE. 1708	SECTION 11-00064-00-RS	COUNTY COOK	TOTAL SHEETS 20	SHEET NO. 16		
	PLOT SCALE = 50.0000' / IN.	DRAWN —	REVISED —R. WIEDEMAN 05-14-04			SCALE:	SHEET NO. 16 OF 20 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003(778)			
	PLOT DATE = 1/4/2008	CHECKED — 10-25-94	REVISED —R. BORO 01-01-07									
						CONTRACT NO. 63572						





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

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE 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. 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).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

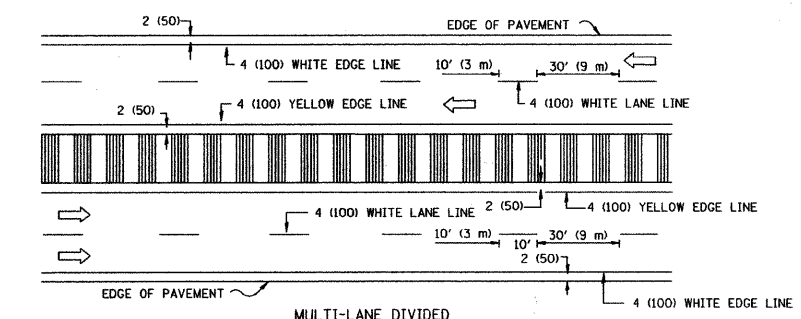
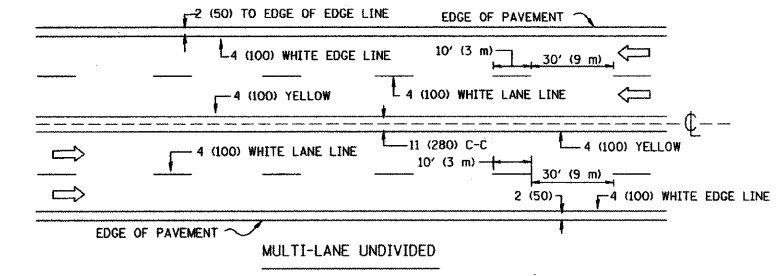
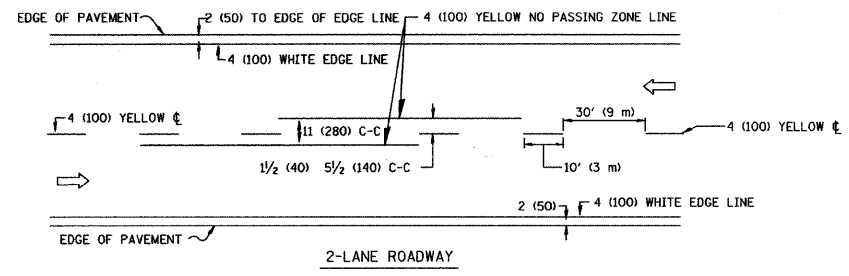
FILE NAME = 10199-DT15-05-TC10 - TC-10	USER NAME = geglienobt	DESIGNED -- LHA	REVISED -- J. OBERLE 10-18-95
		CHECKED --	REVISED -- A. HOUSEH 03-06-96
	PLOT SCALE = 50,000' / IN.	DRAWN --	REVISED -- A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	CHECKED -- 06-89	REVISED -- T. RAMMACHER 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

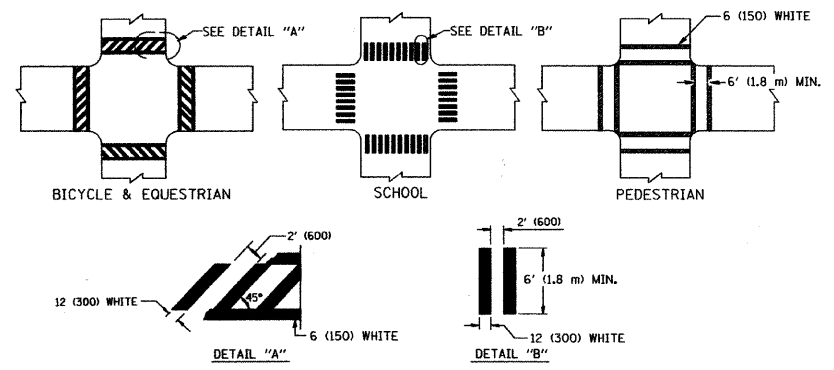
SCALE: SHEET NO. 17 OF 20 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1708	11-00064-00-RS	COOK	20	17
<b>TC-10</b>			CONTRACT NO. 63572	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003(778)				

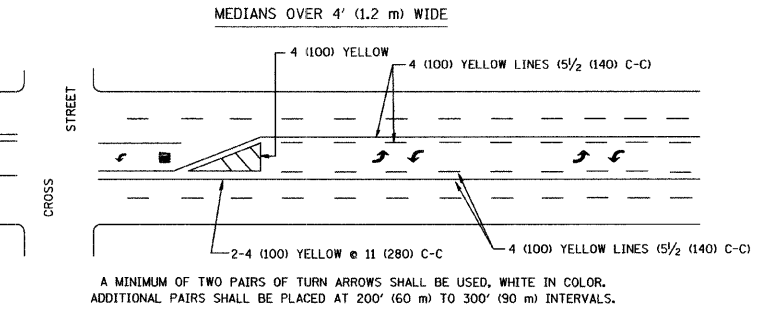
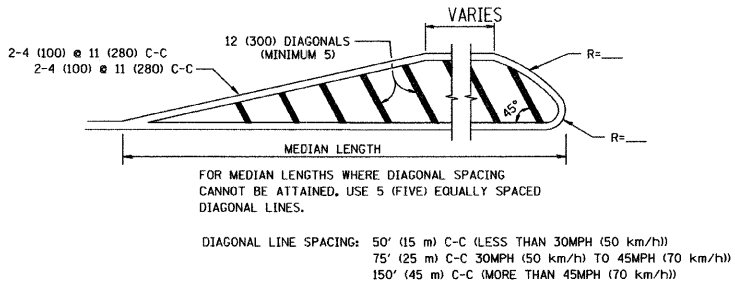
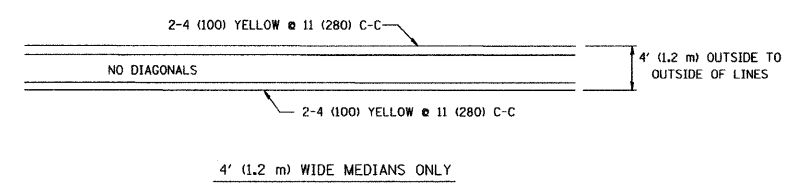


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

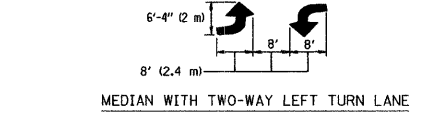
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



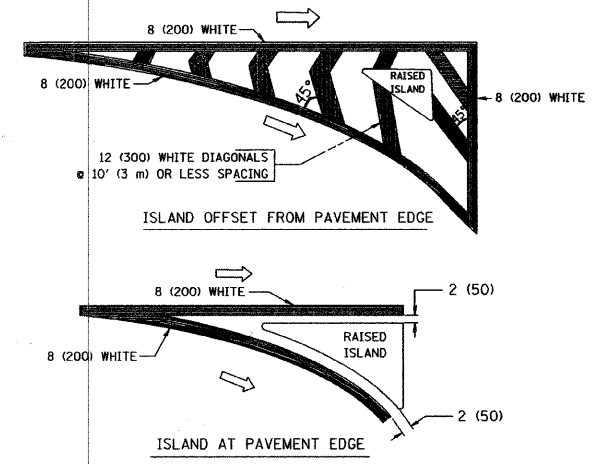
TYPICAL PAINTED MEDIAN MARKING



TYPICAL LEFT (OR RIGHT) TURN LANE

FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
 \* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (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 MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 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; 5/2 (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.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

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 = 10198-DTBS-06-TC13 - TC-13	USER NAME = drivkoagn	DESIGNED = EVERS	REVISED = T. RAMMACHER 10-27-94
		CHECKED =	REVISED = C. JUCIUS 09-09-09
	PLOT SCALE = 50,000' / IN.	DRAWN =	REVISED =
	PLOT DATE = 9/9/2009	CHECKED = 03-19-90	REVISED =

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

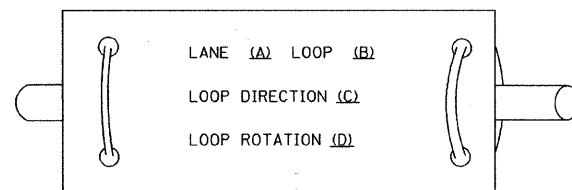
DISTRICT ONE			
TYPICAL PAVEMENT MARKINGS			
SCALE:	SHEET NO. 18	OF 20 SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1708	11-00064-00-RS	COOK	20	18
TC-13			CONTRACT NO. 63572	
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT M-8003(778)	

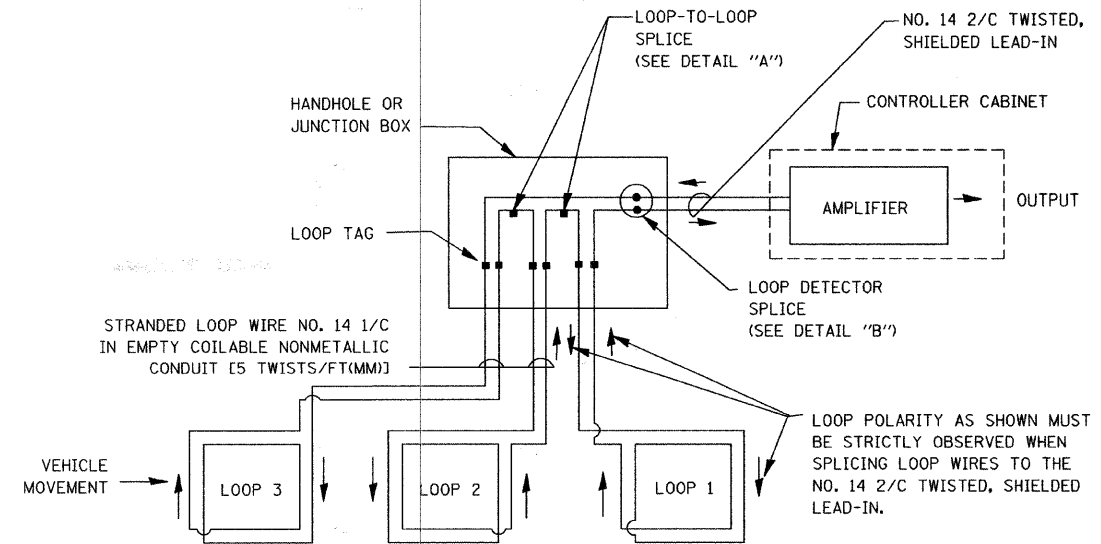
## LOOP DETECTOR NOTES

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

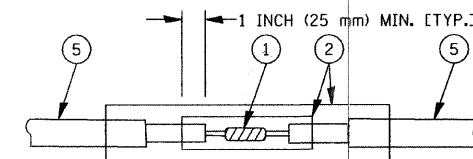


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

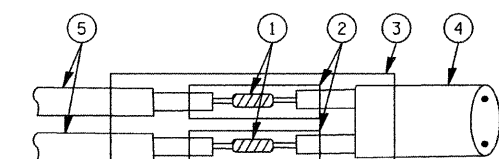


DETECTOR LOOP WIRING SCHEMATIC

- 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.

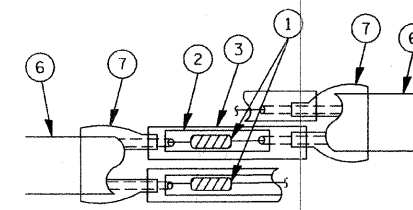


DETAIL "A"  
LOOP-TO-LOOP SPLICE

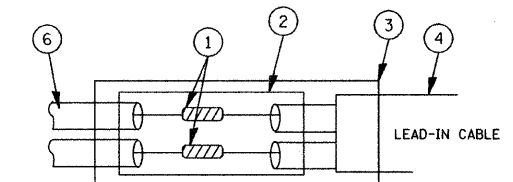


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"  
LOOP-TO-LOOP SPLICE



PRE-FORMED LOOP  
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 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 = 10195-DT15-07-1905 - TS-05A

USER NAME = bauerdl

DESIGNED -- DAD

REVISED --

CHECKED --

REVISED --

PLOT SCALE = 50.0000 / IN.

DRAWN --

REVISED --

PLOT DATE = 11/4/2009

CHECKED -- 10-28-09

REVISED --

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

F.A.U.  
RTE.  
1708

SECTION  
11-00064-00-RS

COUNTY  
COOK

TOTAL SHEETS  
20

SHEET NO.  
19

TS-05

CONTRACT NO. 63572

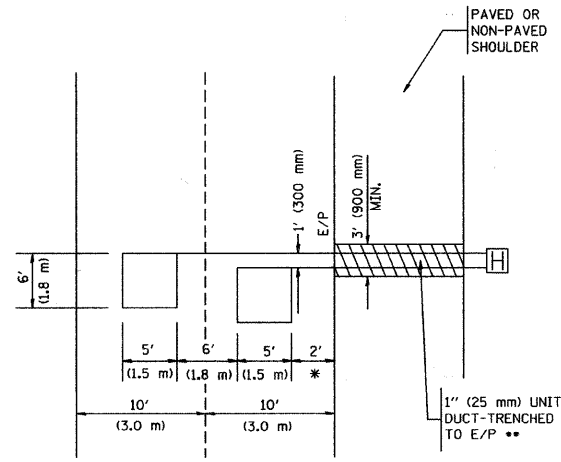
SCALE:

SHEET NO. 19 OF 20 SHEETS STA. TO STA.

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-8003(778)

**LOOPS NEXT TO SHOULDERS**

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

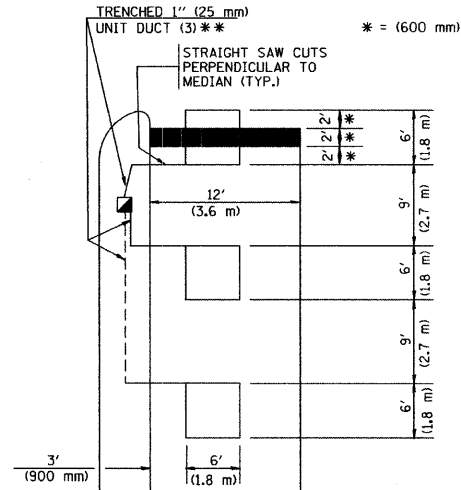


\* = (600 mm)

\*\* 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 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.

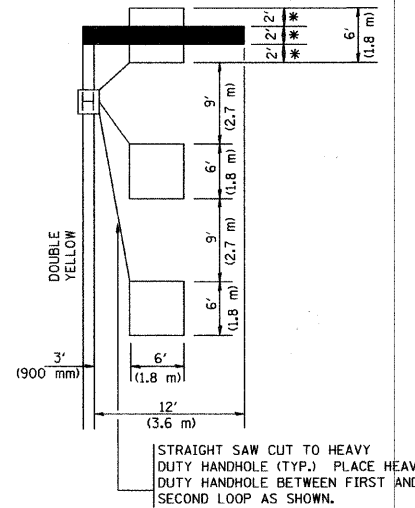


\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

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

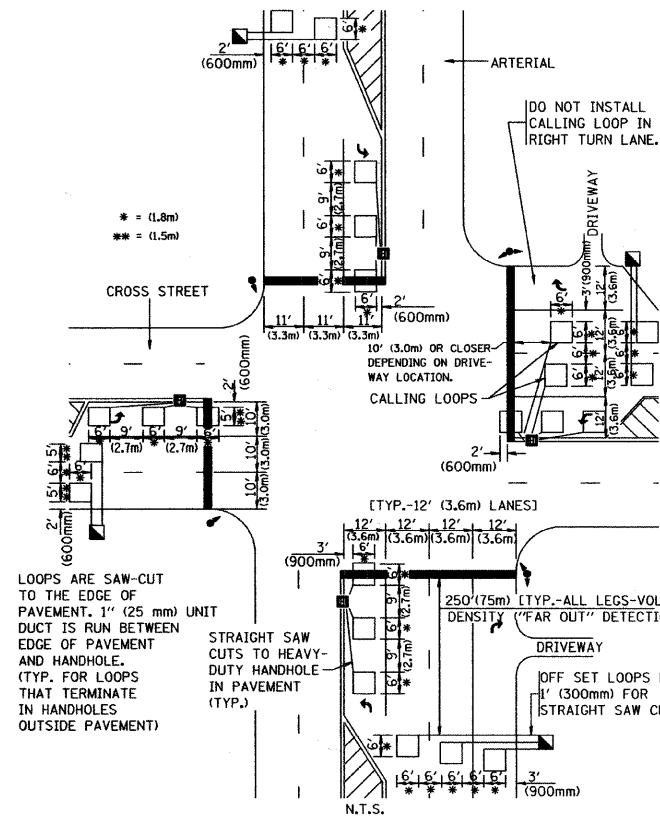
**LEFT TURN LANES WITHOUT MEDIANS  
VOLUME DENSITY ("FAR OUT" DETECTION)  
ON SAME APPROACH  
(PROTECTED / PERMITTED LEFT TURN PHASING)**

\* = (600 mm)



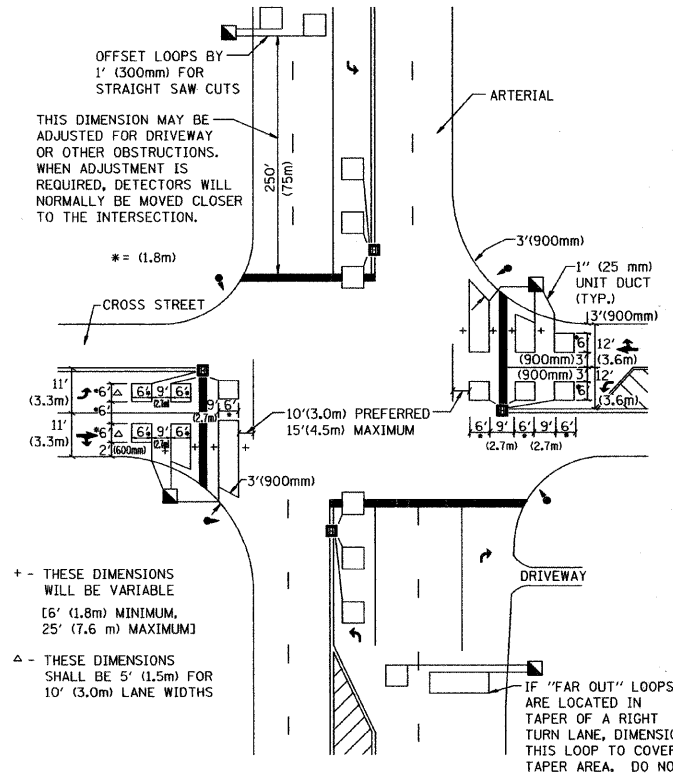
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



DETAIL 1  
N.T.S.

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



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 = 10189-DTL8-09-1507 - 15-07

USER NAME = geglianobt  
PLOT SCALE = 50,0000 / IN.  
PLOT DATE = 1/4/2008

DESIGNED —  
CHECKED —  
DRAWN — R.K.F.  
CHECKED —

REVISED —  
REVISED —  
REVISED —  
REVISED —

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 - DETECTOR LOOP INSTALLATION  
DETAILS FOR ROADWAY RESURFACING

SCALE: SHEET NO. 20 OF 20 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1708	11-00084-00-RS	COOK	20	20
<b>TS-07</b>			CONTRACT NO. 63572	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003(778)				