

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANS FOR PROPOSED FEDERAL AID PROJECT LOCAL AGENCY PAVEMENT PRESERVATION (LAPP) FAU ROUTE 2733 (9TH AVENUE) ROOSEVELT ROAD TO BATAAN DRIVE SECTION NO. 09-00131-00-RS PROJECT NO. ARA-9003(319) VILLAGE OF MAYWOOD COOK COUNTY JOB NO. 91-626-09

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	09-00131-00-RS	COOK	17	1
ILLINOIS PROJECT ARA-9003(319)				
VILLAGE SECTION 09-00131-00-RS				
CONTRACT NO. 63255				



LOCATION OF SECTION INDICATED THUS:

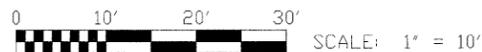
**TRAFFIC DATA**

2030 ADT = 10,800 vpd  
POSTED SPEED LIMIT = 20 M.P.H.  
DESIGN SPEED = 30 M.P.H.

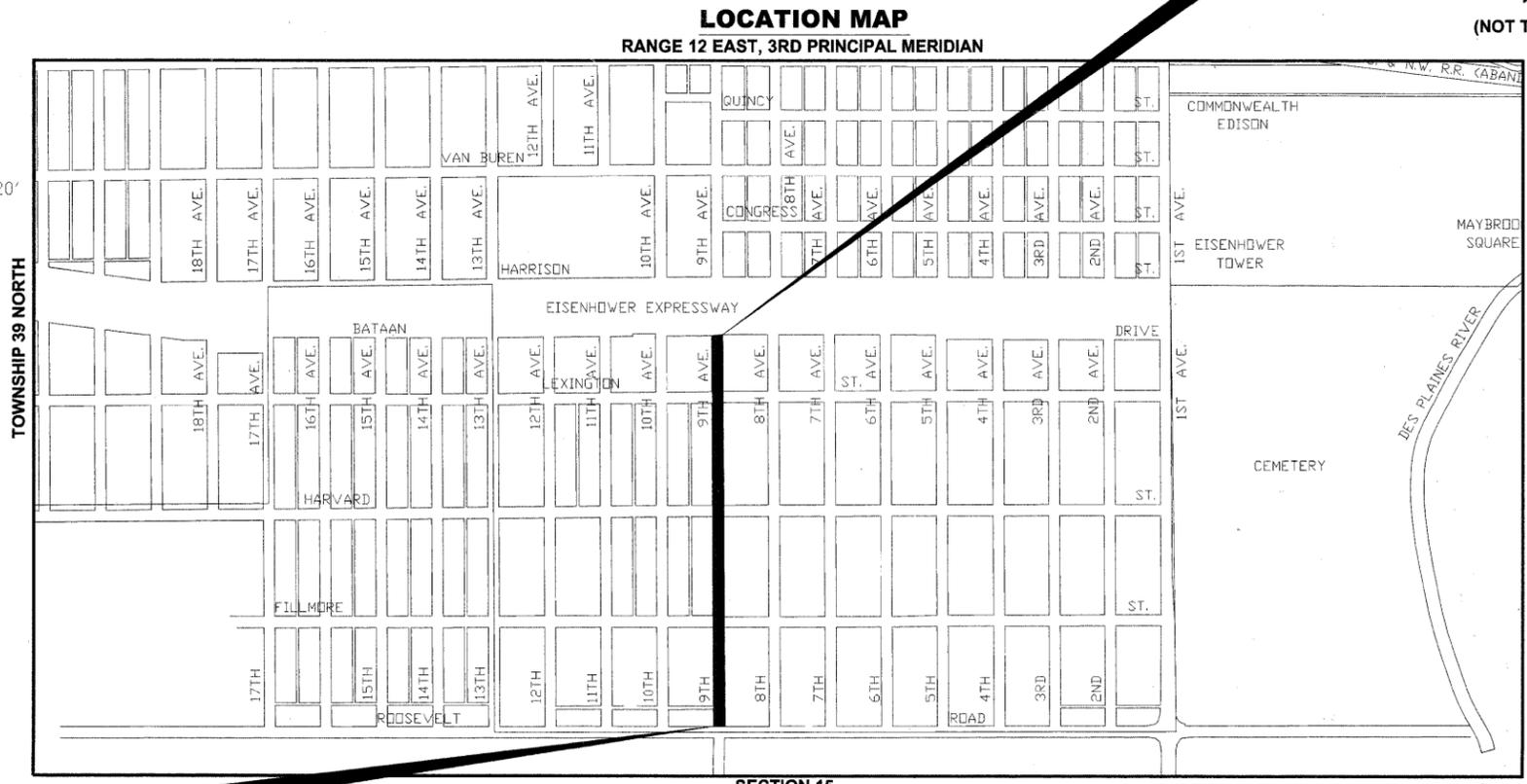
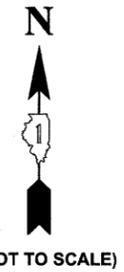
**DESIGN DESIGNATION**

COLLECTOR

PROJECT LOCATED IN THE VILLAGE OF MAYWOOD



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.



PROJECT ENDS STATION 23+44 9TH AVENUE

PROJECT BEGINS STATION 0+00 9TH AVENUE

SECTION 15  
- AREA OF IMPROVEMENT  
NOT TO SCALE  
GROSS LENGTH OF IMPROVEMENT = 2,344 FT. = 0.44 MI.  
NET LENGTH OF IMPROVEMENT = 2,344 FT. = 0.44 MI.

STATE OF ILLINOIS  
ILLINOIS DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

APPROVED: *William Yarbrough* 20  
JULY 14, 2009  
VILLAGE OF MAYWOOD, PRESIDENT

PASSED: *Christopher Holt* 20  
JULY 22, 2009  
DISTRICT ENGINEER OF LOCAL ROADS & STREETS

RELEASED FOR BID BASED ON LIMITED REVIEW: *Diana M. O'Keefe* 20  
JULY 22, 2009  
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

PRINTED BY AUTHORITY OF THE STATE OF ILLINOIS



*Mark D. Lucas*

DATE SIGNED: JULY 14, 2009  
LICENSE EXPIRES: 11-30-09

EDWIN HANCOCK ENGINEERING COMPANY  
9933 ROOSEVELT ROAD PHONE: (708) 865-0300  
WESTCHESTER, ILLINOIS 60154



Know what's below.  
Call before you dig.

CONTRACT NO. 63255

FIELD ENGINEER: MARILYN SOLOMON, (847)705-4407  
Drawing file: W:\Projects\56509072 - 9TH Avenue\_LAPP-COVER.dwg Jul 16, 2009 - 8:49am

# INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET, LOCATION MAP
2	INDEX OF SHEETS AND I.D.O.T. STANDARD DRAWINGS
3	GENERAL NOTES
4	SUMMARY OF QUANTITIES
5	EXISTING TYPICAL CROSS SECTIONS AND PROPOSED TYPICAL CROSS SECTIONS
6	DETAILS & NOTES
7-10	PAVING PLAN
11	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING (BD 08)
12	CURB AND GUTTER REMOVAL AND REPLACEMENT (BD 24)
13	BUTT JOINT AND HMA TAPER DETAILS (BD 32)
14	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC 10)
15	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC 13)
16	TRAFFIC CONTROL AND PROTECTIONS AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) (TC 14)
17	DISTRICT ONE - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING (TS 07)

## I.D.O.T. STANDARD DRAWINGS

STANDARD NO.	TITLE OR DESCRIPTION
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
424001-05	CURB RAMPS FOR SIDEWALKS
442201-03	CLASS C AND D PATCHES
604001-03	FRAMES AND LIDS, TYPE 1
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701501-05	URBAN LANE CLOSURE, 2-LANE, 2-WAY, UNDIVIDED
701606-06	URBAN LANE CLOSURE, MULTILANE, 2-WAY, WITH MOUNTABLE MEDIAN
701701-06	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-04	LANE CLOSURE, MULTILANE, 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-01	TRAFFIC CONTROL DEVICES
780001-02	TYPICAL PAVEMENT MARKINGS

Drawing file: W:\Projects\5659072 - 9TH Avenue\_AEA-LAPP\INDEX.dwg Jul 16, 2009 - 3:13pm



USER NAME	DESIGNED <b>CH</b>	REVISED
	DRAWN <b>MK</b>	REVISED
PLOT SCALE	CHECKED <b>CH</b>	REVISED
PLOT DATE	DATE <b>4-21-09</b>	REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS AND I.D.O.T.  
STANDARD DRAWINGS**

SCALE: **NONE** SHEET NO. **02** OF **17** SHEETS STA. **0+00** TO STA. **0+00**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2733	09-00131-00-RS	COOK	17	2
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. <b>63255</b>	
			ARA-9003(319)	

FILE PROJECT NO. 63255-02

# GENERAL NOTES

## STANDARDS

ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARD OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION AS SHOWN ON THE INDEX OF SHEETS IN THE PLANS. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 1, 2007, THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" ADOPTED JANUARY 1, 2009, THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS," "THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" MAY 1996 FIFTH EDITION, AND THE "DETAILS" IN THE PLANS AND THE "SPECIAL PROVISIONS" INCLUDED IN THE CONTRACT DOCUMENTS.

## UNDERGROUND UTILITIES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 811 FOR FIELD LOCATIONS OF BURIED ELECTRICAL, TELEPHONE AND GAS FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED).

THE LOCATIONS OF THE UNDERGROUND UTILITIES IF SHOWN ON THE PLANS HAVE BEEN OBTAINED BY FIELD SURVEYS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT DATA IS ESSENTIALLY CORRECT, BUT THE VILLAGE OF MAYWOOD, THE ILLINOIS DEPARTMENT OF TRANSPORTATION AND/OR OTHER OFFICES AND AGENCIES ASSOCIATED WITH THE DEVELOPMENT OF THESE PLANS DO NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS. THE CONTRACTOR WILL BE REQUIRED TO VERIFY THE EXACT LOCATION OF EACH FACILITY WITH THE UTILITY COMPANY, AND SHALL TAKE DUE CARE IN ALL PHASES OF THE CONSTRUCTION TO PROTECT ANY SUCH FACILITIES WHICH MAY BE AFFECTED BY THE WORK. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

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

## FRAMES AND LIDS

THE TYPE OF FRAMES AND LIDS REQUIRED FOR ALL MANHOLES AND VALVE VAULTS LISTED IN THE SUMMARY OF QUANTITIES MAY BE FOUND ON THE PLANS AT THEIR RESPECTIVE LOCATIONS. WHERE LIDS ARE CALLED FOR ON THE PLANS, THEY SHALL BE IN ACCORDANCE WITH ARTICLE 604.04 OF THE STANDARD SPECIFICATIONS AND THE TERM LID IS USED IN LIEU OF GRATE. ALL LIDS ON SANITARY MANHOLES, COMBINED SEWER MANHOLES, AND VALVE VAULTS SHALL BE OF THE SELF SEALING TYPE.

ON ALL IMPROVEMENTS, THE FRAMES AND LIDS OF EXISTING CATCH BASINS, INLETS, MANHOLES, AND VALVE VAULTS WHICH ARE TO BE ABANDONED DUE TO CONSTRUCTION OF THIS IMPROVEMENT ARE TO REMAIN THE PROPERTY OF THE VILLAGE OF MAYWOOD AND BE SALVAGED. THESE ITEMS SHALL BE DELIVERED TO THE VILLAGE OF MAYWOOD PUBLIC WORKS DEPARTMENT LOCATED AT 40 MADISON STREET.

## MANHOLE OR VALVE COVERS

THE WORD "WATER", "SANITARY", OR "STORM" SHALL BE CAST INTO THE LID OF EACH RESPECTIVE MANHOLE OR VALVE VAULT.

## MAINTENANCE OF SEWER FLOWS

THE CONTRACTOR SHALL CONDUCT HIS/HER OPERATIONS AS TO MAINTAIN AT ALL TIMES FLOW THROUGH EXISTING STORM AND SANITARY SEWER SYSTEMS. HE/SHE SHALL ALSO PROVIDE AND MAINTAIN AN EFFICIENT PUMPING PLANT IF NECESSARY AND A TEMPORARY OUTLET AND BE PREPARED AT ALL TIMES TO DISPOSE OF THE WATER COLLECTED IN A SAFE MANNER WITHOUT DAMAGE OF ANY KIND TO ADJACENT PROPERTIES. THE ENDS OF EXISTING DRAINAGE LINES WHICH ARE NOT TO BE INCORPORATED INTO THE PROJECT ARE TO BE SEALED AS SPECIFIED IN THE SPECIAL PROVISIONS. EXISTING STRUCTURES ARE TO BE INSPECTED BEFORE CONSTRUCTION STARTS - ANY ACCUMULATION OF MATERIAL IN THE STRUCTURE DUE TO CONSTRUCTION OPERATIONS SHALL BE REMOVED BY THE CONTRACTOR AT HIS EXPENSE.

## MAINTENANCE OF EXISTING DRAINAGE STRUCTURES

WHEN DURING THE CONSTRUCTION OPERATIONS, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF ANY GUTTERS AND DRAINAGE STRUCTURE SO THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF THE CONSTRUCTION OPERATIONS, ALL DRAINAGE FACILITIES SHALL BE CLEAN AND FREE OF ALL OBSTRUCTIONS DUE TO CONSTRUCTION OPERATIONS. THE COST OF THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT.

## SAW CUTTING

THE CONTRACTOR SHALL SAW CUT ASPHALT PAVEMENT AS INDICATED ON THE PLANS TO SEPARATE THE EXISTING PAVEMENT TO BE REMOVED BY APPROVED MEANS OR AN APPROVED CONCRETE SAW TO A DEPTH AS DIRECTED BY THE ENGINEER. SUITABLE GUIDELINES OR DEVICES SHALL BE USED TO ASSURE CUTTING A NEAT, STRAIGHT LINE AS SHOWN ON THE PLANS. CARE SHALL BE TAKEN BY THE CONTRACTOR NOT TO DAMAGE THE REMAINING PAVEMENT DIRECTLY ADJACENT TO THE PAVEMENT TO BE REMOVED. ANY DAMAGE TO THE EXISTING PAVEMENT RESULTING FROM PAVEMENT REMOVAL OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE COST OF SAW CUTTING DESCRIBED ABOVE SHALL BE INCLUDED IN THE ITEM BEING REMOVED. SAW CUTS FOR PAVEMENT PATCHING WILL BE INCLUDED IN THE COST OF PATCHING.

## FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)

THIS ITEM ONLY PERTAINS TO STRUCTURES LOCATED IN THE CONCRETE OR HOT-MIX ASPHALT ROADWAY PAVEMENT AREAS THAT WILL REQUIRE CONCRETE OR HOT-MIX SURFACE REMOVAL. THE ENGINEER WILL MARK IN THE FIELD ALL STRUCTURES TO BE DONE UNDER THIS ITEM. SEE DETAIL SHEET FOR "FRAMES AND LIDS ADJUSTMENT WITH MILLING."

## PRIME COAT

PRIME COAT MUST BE INSTALLED NO EARLIER THAN TWENTY-FOUR (24) HOURS PRIOR TO PLACEMENT OF HOT-MIX ASPHALT. NOTIFICATION SHALL BE GIVEN TO THE ENGINEER 48 HOURS PRIOR TO PLACEMENT.

## FIELD OFFICE

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

## BARRICADES

THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SANDBAGS ON EACH TYPE I OR TYPE II BARRICADE USED, ONE (1) WEIGHTED SANDBAG ACROSS EACH BOTTOM RAIL.

## BUTT JOINTS

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

## MILLED PAVEMENT OPEN TO TRAFFIC

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

## PAVEMENT PATCHING

LOCATIONS OF PATCHES WILL BE DETERMINED IN FIELD BY ENGINEER.

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	DRAWN	MK	REVISED
PLOT SCALE	CHECKED	CH	REVISED
PLOT DATE	DATE	4-21-09	REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2733	09-00131-00-RS	COOK	17	3
CONTRACT NO.			63255	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(319)				

E.H.E. PROJECT NO. 565-09-07201

# SUMMARY OF QUANTITIES

	CODE	PAY ITEM DESCRIPTION	UNIT	1000 TOTAL QUANTITY	1000 100% FEDERAL 0% LOCAL
⊗	20800150	TRENCH BACKFILL	CU YD	40	40
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	700	700
	25200100	SODDING	SQ YD	700	700
	40600100	BITUMINOUS MATERIALS (PRIME COAT)	GAL	2,040	2,040
	40600300	AGGREGATE (PRIME COAT)	TON	30	30
	40600895	CONSTRUCTING TEST STRIP	EACH	2	2
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	275	275
	40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	1,200	1,200
	42101300	PROTECTIVE COAT	SQ YD	770	770
	42300300	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 7 INCH	SQ YD	150	150
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	4,180	4,180
⊗	42400800	DETECTABLE WARNINGS	SQ FT	75	75
⊗	44000198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	10,160	10,160
⊗	44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	150	150
⊗	44000600	SIDEWALK REMOVAL	SQ FT	4,180	4,180
⊗	44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	710	710
⊗	44201353	CLASS C PATCHES, TYPE II, 10 INCH	SQ YD	560	560
⊗	44201359	CLASS C PATCHES, TYPE IV, 10 INCH	SQ YD	580	580
⊗	60213900	RESTRICTED DEPTH CATCH BASINS, 4' DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	3	3
	60234200	INLETS, TYPE A, TYPE 1 FRAME, OPEN LID	EACH	6	6
⊗	60257900	MANHOLES TO BE RECONSTRUCTED	EACH	3	3
⊗	60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	18	18
⊗	60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	11	11
	67100100	MOBILIZATION	L SUM	1	1
⊗	70101700	TRAFFIC CONTROL AND PROTECTION	L SUM	1	1
	70106800	CHANGEABLE MESSAGE SIGN	CAL MO	1	1
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	500	500
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	50	50
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	4,750	4,750
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	280	280
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	220	220
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	220	220
*⊗	88600600	DETECTOR LOOP REPLACEMENT	FOOT	100	100
⊗	X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL 4.75, N50	TON	790	790
⊗	XX003424	CONNECTION TO EXISTING STRUCTURE	EACH	1	1
⊗	XX005688	STORM SEWERS, DUCTILE IRON PIPE, CLASS 52 8"	FOOT	29	29
⊗	XX005689	STORM SEWERS, DUCTILE IRON PIPE, CLASS 52 10"	FOOT	26	26
⊗	XX005770	STRUCTURE TO BE ABANDONED	EACH	5	5

\* SPECIALTY ITEMS

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913 Riverside Road  
Waukegan, Illinois 60087-1700  
Phone: 815-496-4300  
Fax: 815-496-1232

USER NAME	DESIGNED <b>CH</b>	REVISED	
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PLOT DATE	DATE <b>4-21-09</b>	REVISED	

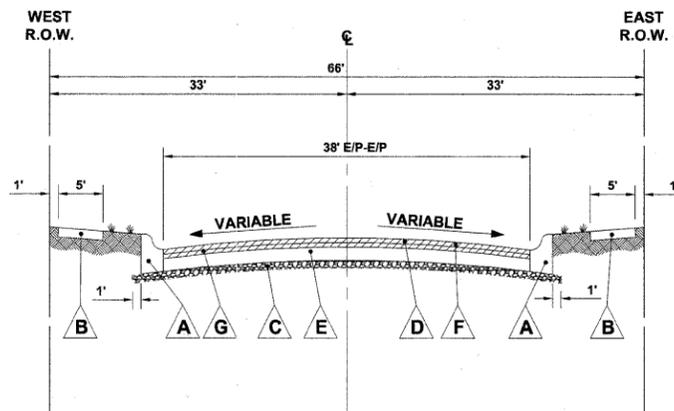
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

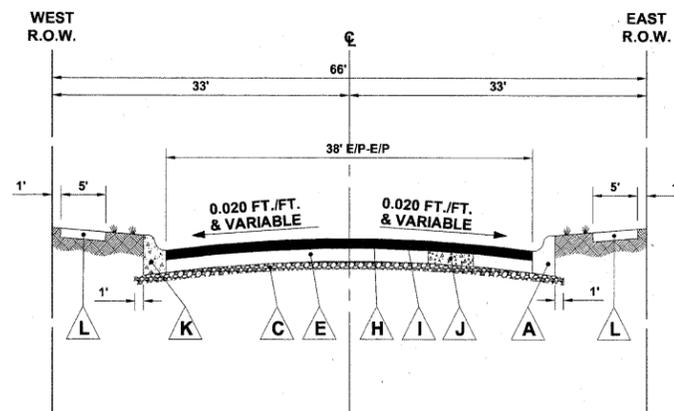
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2733	09-00131-00-RS	COOK	17	4
CONTRACT NO. 63255			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(319)	

E.H.E. PROJECT NO. 565-09-07201



**EXISTING TYPICAL CROSS SECTION**  
**9TH AVENUE**  
(STATION 0+00 TO STATION 23+44)



**PROPOSED TYPICAL CROSS SECTION**  
**9TH AVENUE**  
(STATION 0+00 TO STATION 23+44)

**LEGEND OF SYMBOLS**

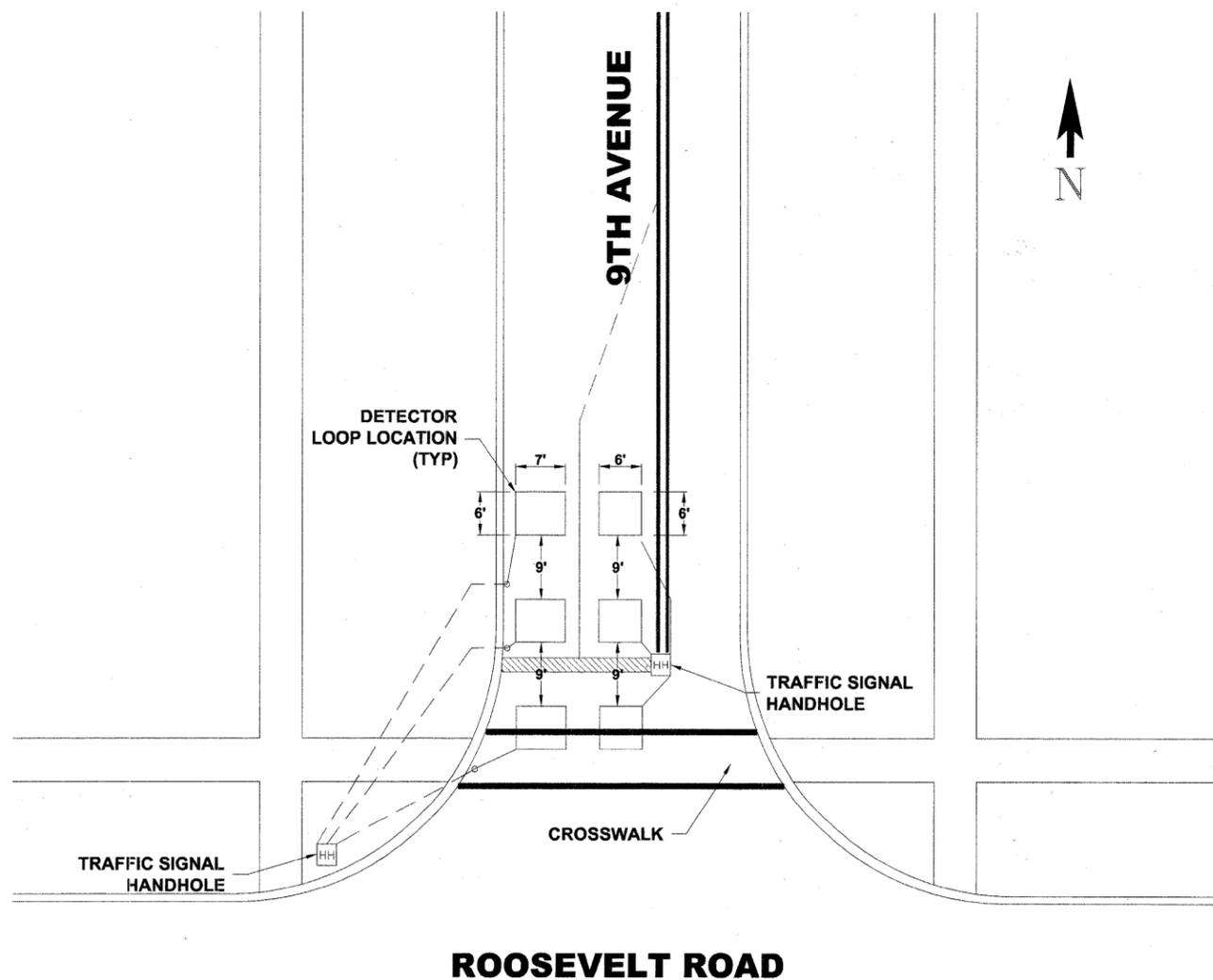
SYMBOL	DESCRIPTION
A	EXISTING COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12
B	EXISTING PORTLAND CEMENT CONCRETE SIDEWALK
C	EXISTING SUB-BASE GRANULAR MATERIAL, 4" AND VARIABLE
D	EXISTING HOT-MIX ASPHALT SURFACE COURSE, Variable
E	EXISTING CONCRETE BASE COURSE
F	PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 2 3/4"
G	EXISTING HOT-MIX ASPHALT BINDER COURSE, 1" & VARIABLE
H	PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), N50, 1"
I	PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX D, N70, 2"
J	PROPOSED CLASS C PATCHES, 10"
K	PROPOSED INTERMITTENT COMBINATION CONCRETE CURB & GUTTER REMOVAL & REPLACEMENT
L	PROPOSED INTERMITTENT NEW PORTLAND CEMENT CONCRETE SIDEWALK

CONTRACTOR SHALL MILL BEFORE PATCHING

**HOT-MIX ASPHALT (HMA) MIXTURE REQUIREMENTS**

ITEM	A C TYPE	VOIDS
HOT-MIX ASPHALT SURFACE COURSE, MIX D, N70, (IL - 9.5 mm)	PG 64-22	4% @ 70 GYR.
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL 4.75, N50	SBS/SBR PG 76-28/-22	4% @ 50 GYR.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE COURSE IS 112 LBS/SQYD/IN.  
\* WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58.



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PLOT DATE	CHECKED CH	REVISED
	DATE 4-21-09	REVISED

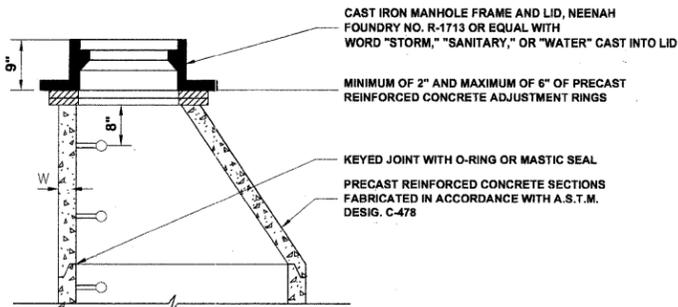
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**EXISTING AND PROPOSED**  
**TYPICAL CROSS SECTIONS**

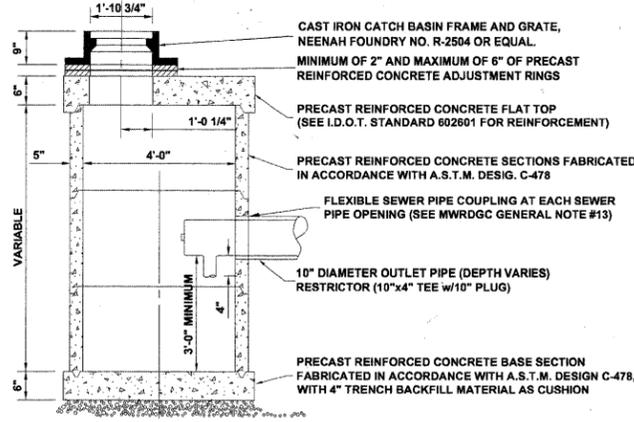
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2733	09-00131-00-RS	COOK	17	5
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(319)			CONTRACT NO. 63255	

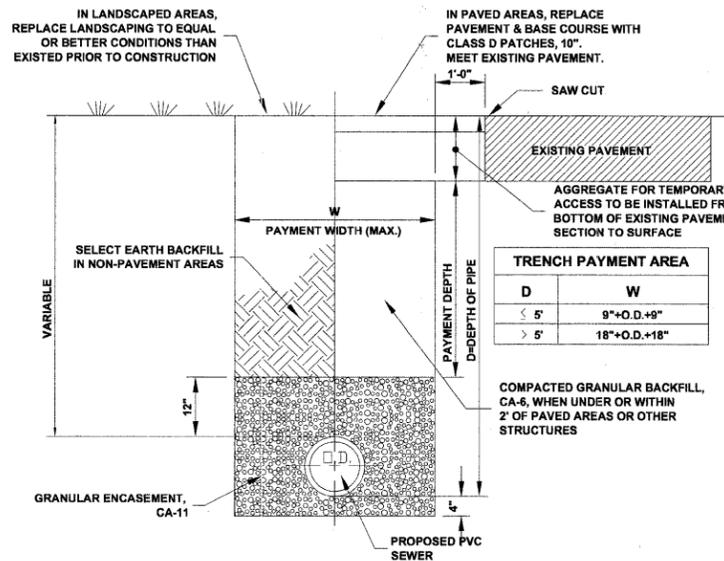
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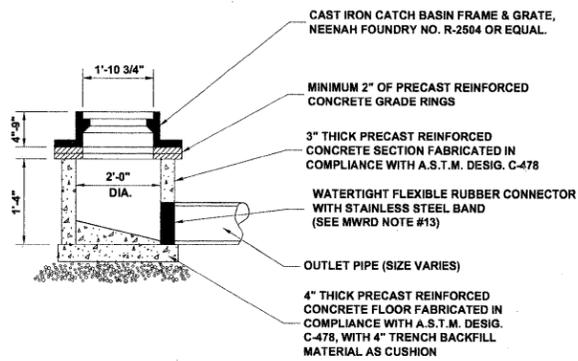
**MANHOLE RECONSTRUCTION DETAIL**



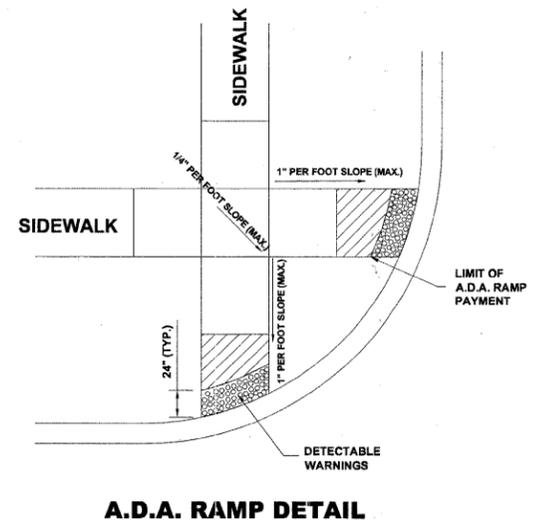
**RESTRICTED DEPTH CATCH BASIN DETAIL**



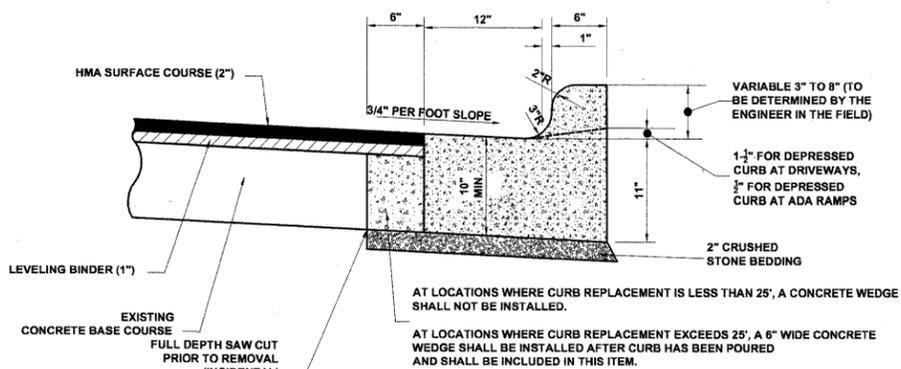
**TYPICAL PVC SEWER TRENCH DETAIL**



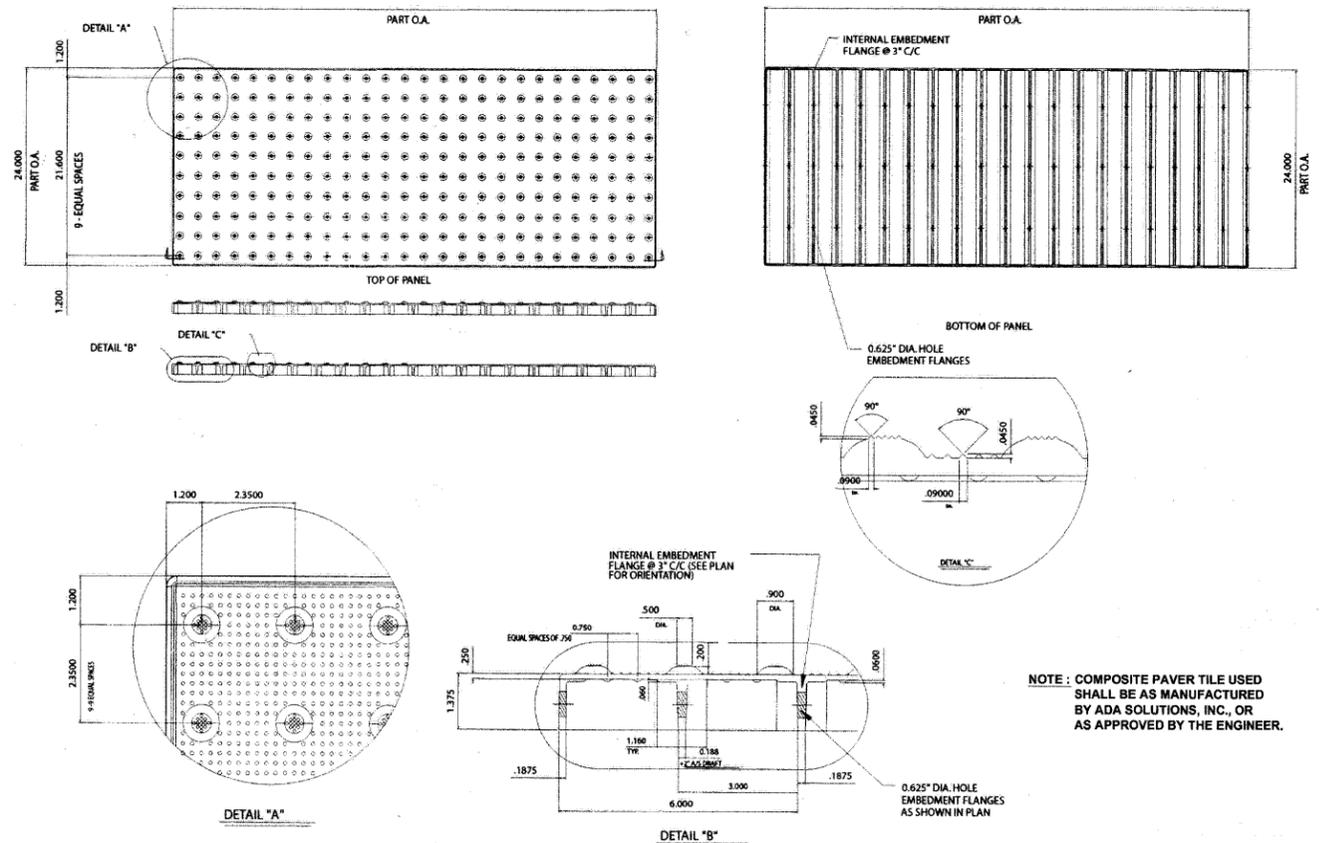
**INLET, TYPE "A"**



**A.D.A. RAMP DETAIL**



**COMBINATION CONCRETE CURB & GUTTER TYPE B-6.12 (MODIFIED)**



**CAST-IN-PLACE DETECTABLE WARNINGS**

**M.W.R.D.G.C. GENERAL NOTES**

- THE MWRD SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORK AT (708) 588-4055.
- ELEVATION DATUM IS U.S.G.S.
- ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.
- ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE INTO THE STORM SEWER SYSTEM.
- ALL PVC SEWER PIPE SHALL BE SDR 26. ALL PVC SEWER PIPE JOINTS SHALL CONFORM TO ASTM D-3139 FOR PVC PIPE 12" IN DIAMETER OR LESS. ALL PVC SEWER PIPE JOINTS SHALL CONFORM TO ASTM D-3212 FOR PVC PIPE 15" IN DIAMETER OR MORE. ALL PVC SEWER PIPE 12" IN DIAMETER OR LESS SHALL CONFORM TO ASTM D-2241 (WATER QUALITY PIPE). ALL PVC SEWER PIPE 15" IN DIAMETER OR MORE SHALL CONFORM TO ASTM D-3034.
- ALL D.I.P. STORM, COMBINED AND SANITARY SEWER PIPE JOINTS SHALL CONFORM TO ANSI A-21.11. ALL D.I.P. SEWER PIPE SHALL CONFORM TO ASTM A-21.51. ALL D.I.P. SEWER PIPE SHALL BE CLASS 52.
- ALL SANITARY, COMBINED, AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS, REQUIRES STONE BEDDING 1/4" TO 1" IN SIZE, WITH A MINIMUM THICKNESS EQUAL TO 1/4 THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR INCHES (4") NOR MORE THAN EIGHT INCHES (8"). MATERIAL SHALL BE CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE.
- "BAND SEAL" OR SIMILAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPE OF DISSIMILAR MATERIALS.
- WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
  - CIRCULAR SAW-CUT OF SEWER MAIN BY MECHANICAL CORING MACHINE, AND PROPER INSTALLATION OF HUB-WYE SADDLE OR HUB-TEE SADDLE, IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
  - REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION. AFTER THE WYE OR TEE BRANCH IS INSERTED, CONCRETE SHALL BE PLACED OVER THE BROKEN AREA TO A MINIMUM THICKNESS OF 4" AND TO A DIMENSION OF 8" IN ALL DIRECTIONS.
  - USING PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING. USE "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD FIRMLY IN PLACE. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR THE INSTALLATION.
- WHEREVER A SEWER CROSSES UNDER A WATER MAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATER MAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATER MAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATER MAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED ABOVE CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS.
- ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE PRE-CAST REINFORCED CONCRETE.
- ALL ABANDONED SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH A MINIMUM OF TWO (2) FEET LONG, NON-SHRINK CONCRETE/MORTAR PLUG.
- ALL INLET AND OUTLET PIPES OF SANITARY SEWER MANHOLES AND OTHER UNDERGROUND STRUCTURES (AND IN COMBINED SEWER AREAS, ALSO ALL COMBINED/STORM SEWER MANHOLES, CATCH BASINS, INLETS, AND UNDERGROUND DETENTION STORAGE STRUCTURES) SHALL BE JOINED WITH WATERTIGHT FLEXIBLE RUBBER CONNECTORS CONFORMING TO A.S.T.M. C-443 & C-823 WITH STAINLESS STEEL BANDS.
- THE MAXIMUM ALLOWABLE INFILTRATION OR EXFILTRATION IS 100 GAL/DAY/MILE/INCH DIA OF THE SEWER PIPE.

Drawing file: W:\Projects\65509072 - 9TH Avenue\_ARA\_LAPP\_Detail.dwg Jul 17, 2009 - 10:08am



9933 Riverport Blvd  
Wood Dale, IL 60191-2708  
Phone: 708.965.0306  
Fax: 708.965.0312

USER NAME	DESIGNED	CH	REVISED
	DRAWN	MK	REVISED
PLOT SCALE	CHECKED	CH	REVISED
PLOT DATE	DATE	4-21-09	REVISED

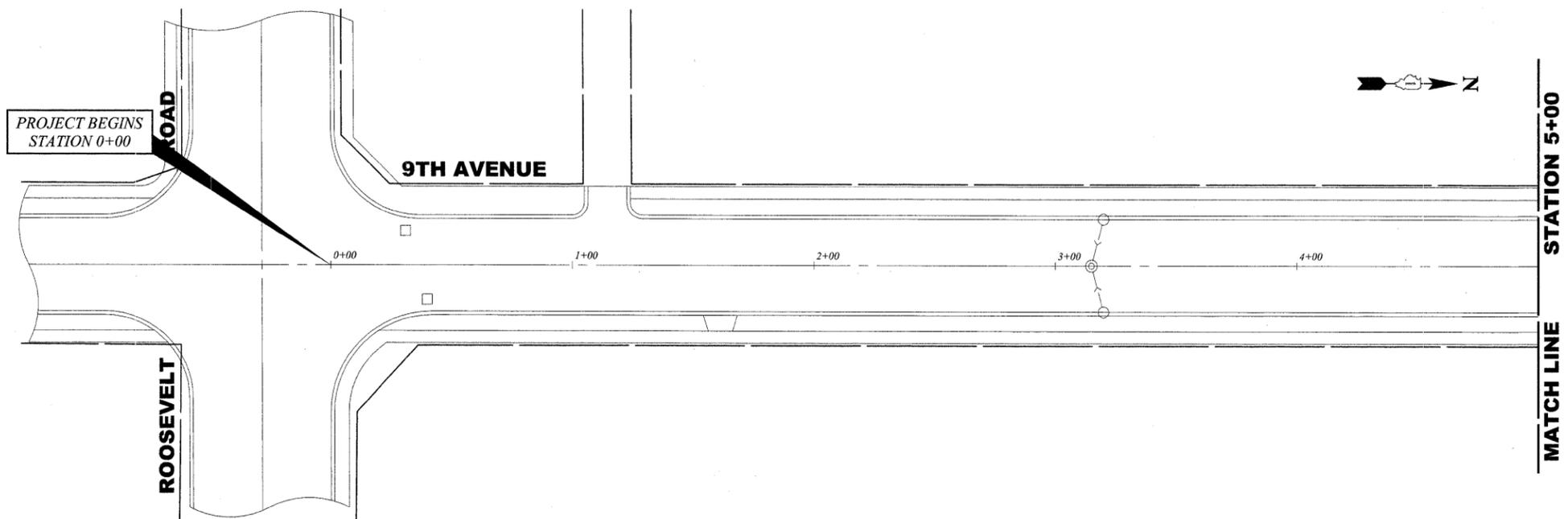
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETAILS AND NOTES

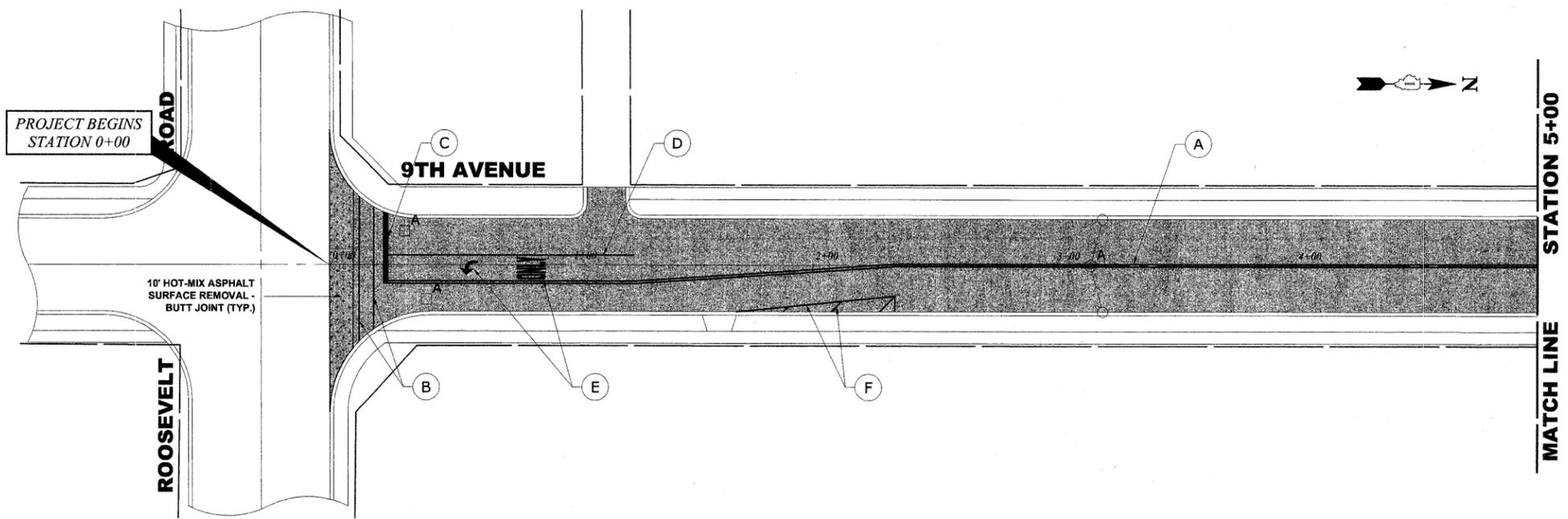
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2733	09-00131-00-RS	COOK	17	6
CONTRACT NO. 63255			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(319)	

E.H.E. PROJECT NO. 565-09-07201



**EXISTING TOPOGRAPHY**



PAVEMENT MARKING LEGEND	
ITEM DESCRIPTION	SYMBOL
THERMOPLASTIC PAVEMENT MARKING LINE 4", DOUBLE @ 11" C-C, YELLOW	(A)
THERMOPLASTIC PAVEMENT MARKING LINE 6", CROSS WALK, WHITE	(B)
THERMOPLASTIC PAVEMENT MARKING LINE 24", STOP BAR, WHITE	(C)
THERMOPLASTIC PAVEMENT MARKING LINE 6", TURN LANE LINE, WHITE	(D)
THERMOPLASTIC PAVEMENT MARKING, LETTERS AND SYMBOLS, WHITE	(E)
THERMOPLASTIC PAVEMENT MARKING LINE 4", PARKING LINE, YELLOW	(F)

**PROPOSED IMPROVEMENTS**

Drawing file: W:\Projects\56509072 - 9TH Avenue\_ARA-LAPP\9thAvenue\_w\_utilties.dwg Jul 20, 2009 - 9:05am

**HANCOCK ENGINEERING**  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9813 Elmwood Road  
 Westchester, Illinois 60152-2780  
 Phone: 708-662-0300  
 Fax: 708-662-0312

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PLOT SCALE	DRAWN	MK	REVISED
PLOT DATE	CHECKED	CH	REVISED
	DATE	4-21-09	REVISED

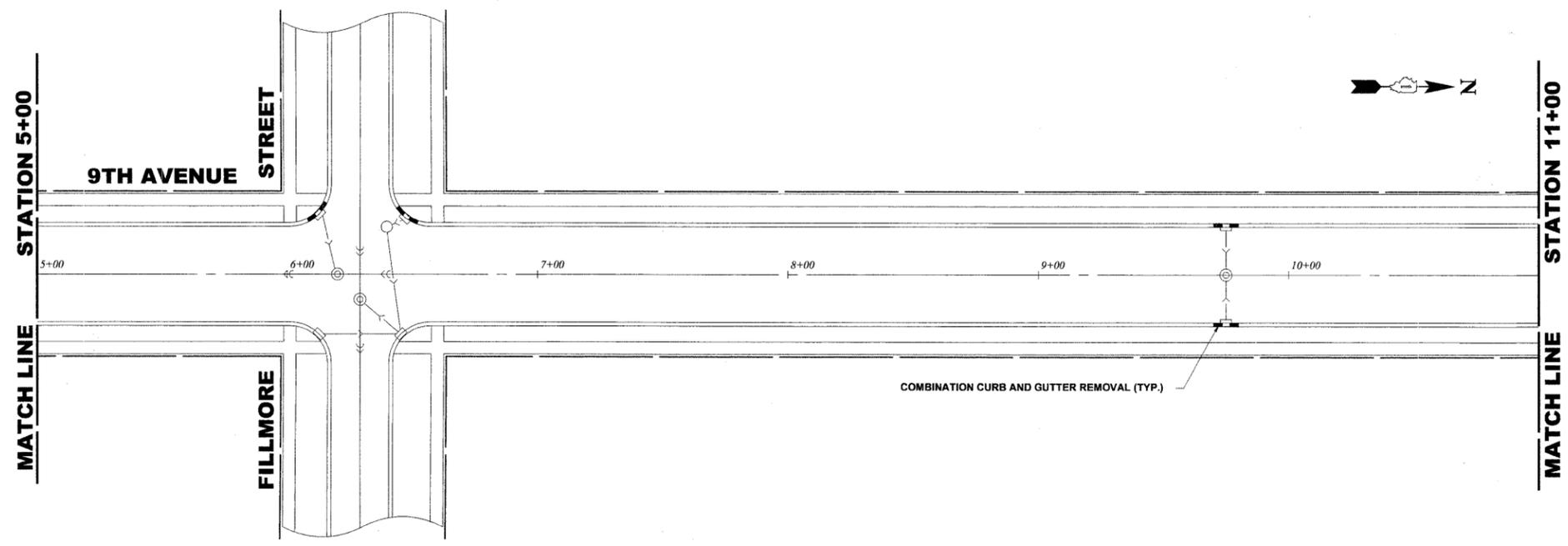
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PAVING PLAN**

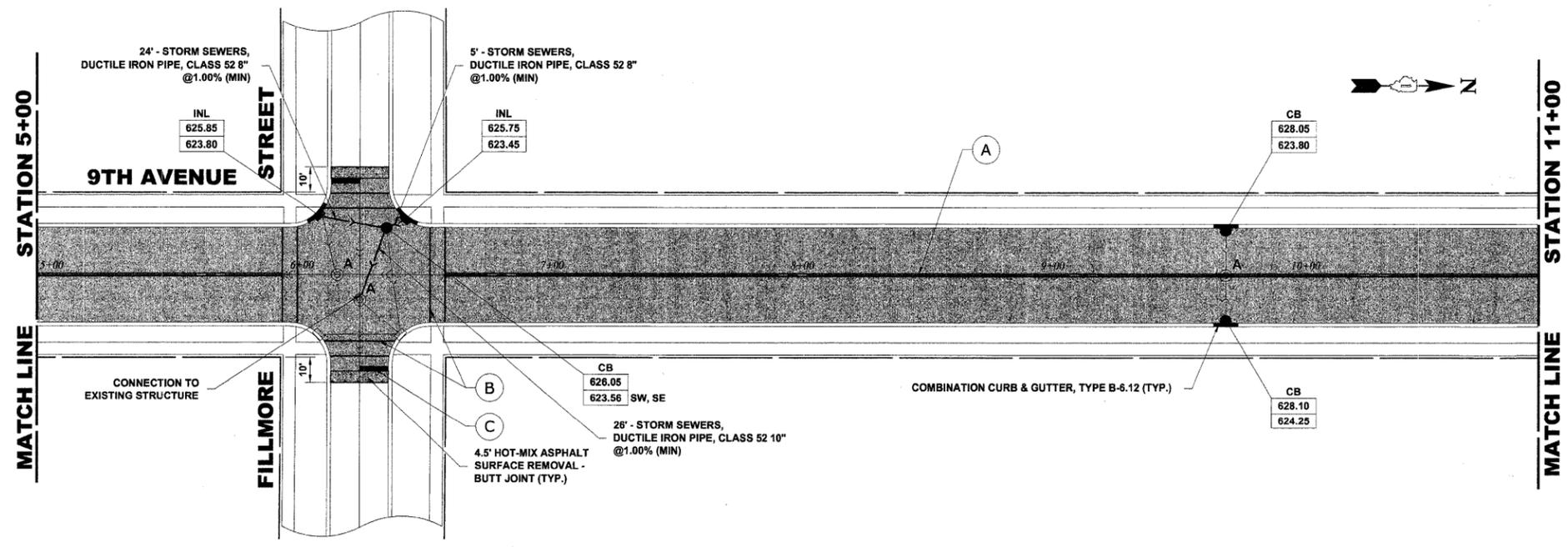
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2733	09-00131-00-RS	COOK	17	7
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(319)			CONTRACT NO. 63255	

E.H.E. PROJECT NO. 565-09-07201



**EXISTING TOPOGRAPHY**



PAVEMENT MARKING LEGEND	
ITEM DESCRIPTION	SYMBOL
THERMOPLASTIC PAVEMENT MARKING LINE 4", DOUBLE @ 11" C-C, YELLOW	(A)
THERMOPLASTIC PAVEMENT MARKING LINE 6", CROSS WALK, WHITE	(B)
THERMOPLASTIC PAVEMENT MARKING LINE 24", STOP BAR, WHITE	(C)
THERMOPLASTIC PAVEMENT MARKING LINE 6", TURN LANE LINE, WHITE	(D)
THERMOPLASTIC PAVEMENT MARKING, LETTERS AND SYMBOLS, WHITE	(E)
THERMOPLASTIC PAVEMENT MARKING LINE 4", PARKING LINE, YELLOW	(F)

**PROPOSED IMPROVEMENTS**

Drawing file: W:\Projects\65509072 - 9TH Avenue\_ABA-LAPP\9thAvenue\_w\_utilities.dwg Jul 20, 2009 - 9:05am

**HANCOCK ENGINEERING**  
 Civil Engineers  
 Municipal Consultants  
 Established 1911

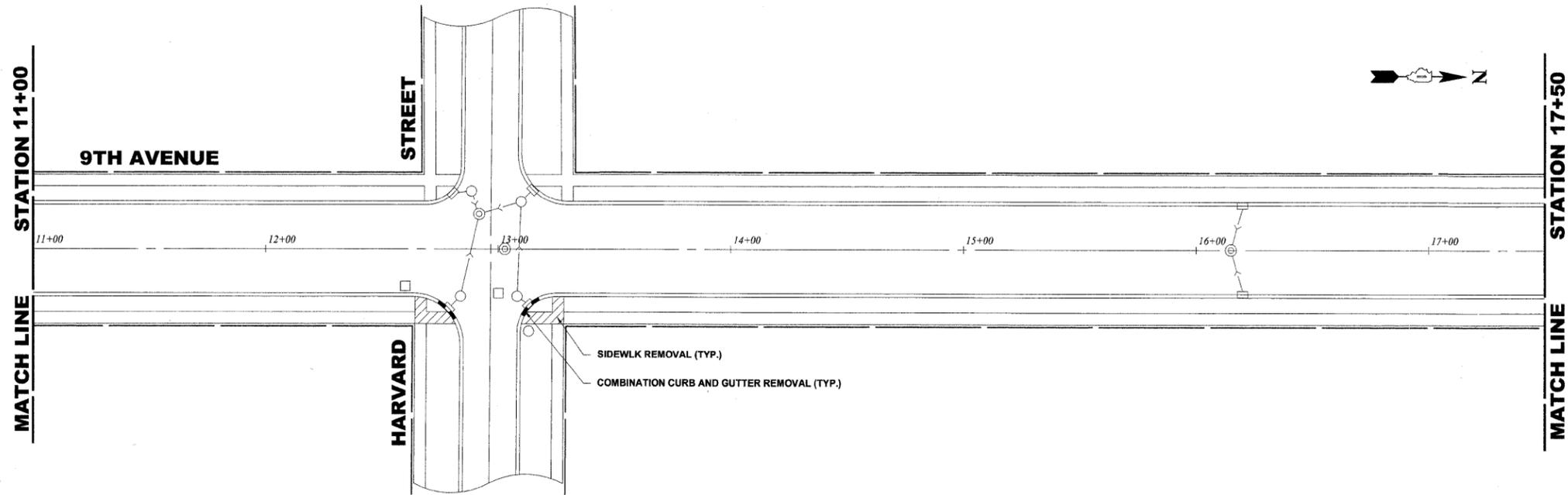
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	DRAWN <b>MK</b>	REVISED
PLOT SCALE	CHECKED <b>CH</b>	REVISED
PLOT DATE	DATE <b>4-21-09</b>	REVISED

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

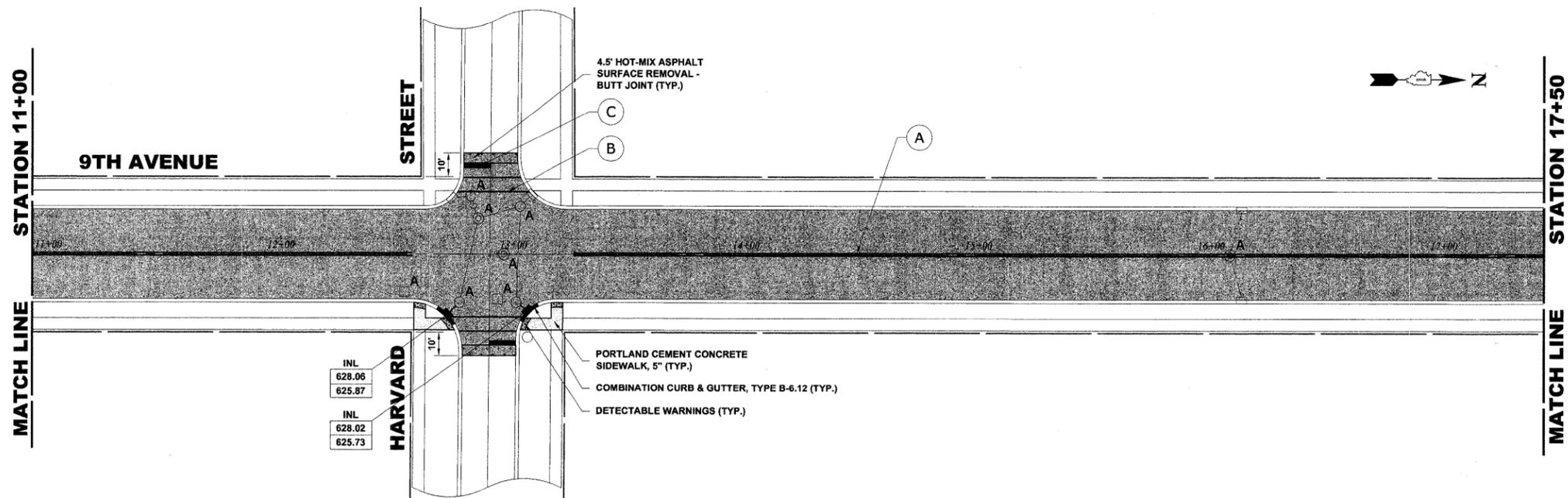
**PAVING PLAN**

SCALE: 1"=30" SHEET NO. 2 OF 4 SHEETS STA. 5+00 TO STA. 11+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2733	09-00131-00-RS	COOK	17	8
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 63255	
ARA-9003(319)			E.H.E. PROJECT NO. 565-09-07201	



**EXISTING TOPOGRAPHY**



**PAVEMENT MARKING LEGEND**

ITEM DESCRIPTION	SYMBOL
THERMOPLASTIC PAVEMENT MARKING LINE 4", DOUBLE @ 11" C-C, YELLOW	(A)
THERMOPLASTIC PAVEMENT MARKING LINE 6", CROSS WALK, WHITE	(B)
THERMOPLASTIC PAVEMENT MARKING LINE 24", STOP BAR, WHITE	(C)
THERMOPLASTIC PAVEMENT MARKING LINE 6", TURN LANE LINE, WHITE	(D)
THERMOPLASTIC PAVEMENT MARKING, LETTERS AND SYMBOLS, WHITE	(E)
THERMOPLASTIC PAVEMENT MARKING LINE 4", PARKING LINE, YELLOW	(F)

**PROPOSED IMPROVEMENTS**

Drawing file: W:\Projects\56509072 - 9TH Avenue\_ARA-APP\9thAvenue\_ark\_utilities.dwg Jul 20, 2009 - 9:04:00



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PLOT DATE	DATE	4-21-09	REVISED

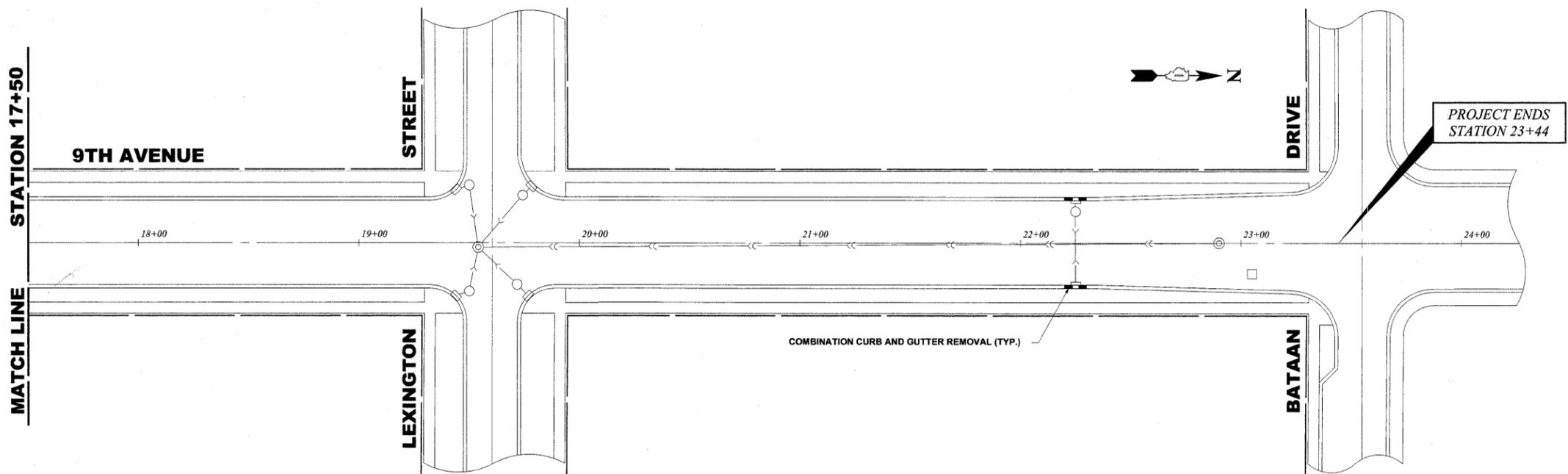
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PAVING PLAN**

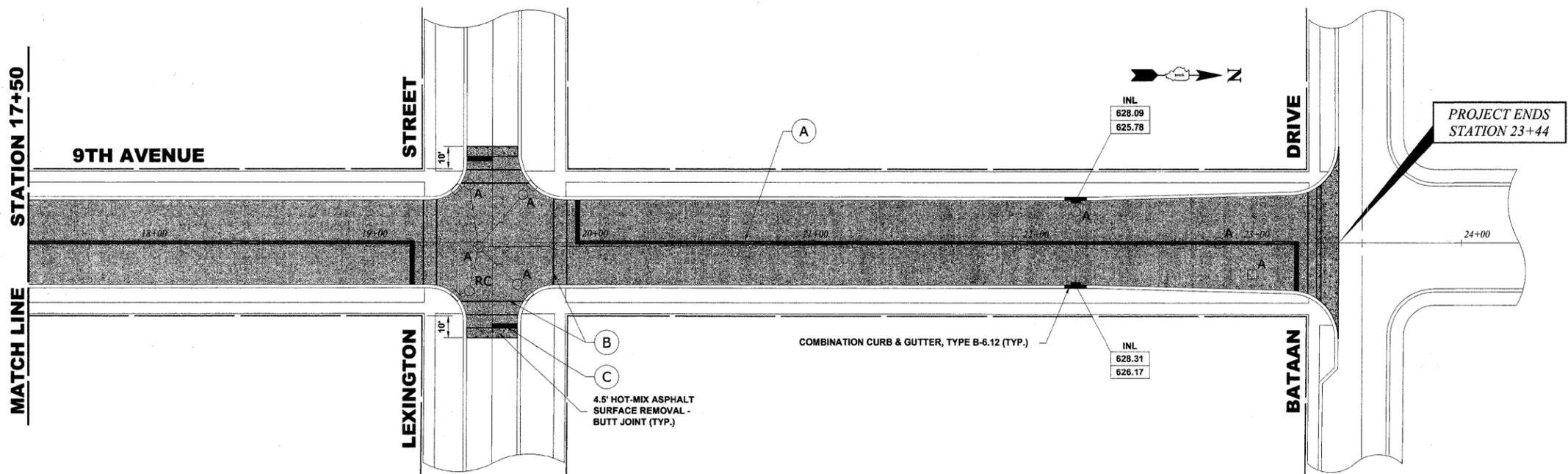
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2733	09-00131-00-RS	COOK	17	9
CONTRACT NO. 63255			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(319)	

E.H.E. PROJECT NO. 565-09-07201



**EXISTING TOPOGRAPHY**



PAVEMENT MARKING LEGEND	
ITEM DESCRIPTION	SYMBOL
THERMOPLASTIC PAVEMENT MARKING LINE 4", DOUBLE @ 11" C-C, YELLOW	(A)
THERMOPLASTIC PAVEMENT MARKING LINE 6", CROSS WALK, WHITE	(B)
THERMOPLASTIC PAVEMENT MARKING LINE 24", STOP BAR, WHITE	(C)
THERMOPLASTIC PAVEMENT MARKING LINE 6", TURN LANE LINE, WHITE	(D)
THERMOPLASTIC PAVEMENT MARKING, LETTERS AND SYMBOLS, WHITE	(E)
THERMOPLASTIC PAVEMENT MARKING LINE 4", PARKING LINE, YELLOW	(F)

**PROPOSED IMPROVEMENTS**

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**HANCOCK ENGINEERING**  
 Civil Engineers  
 Municipal Consultants  
 Established 1911

9033 Danvers Road  
 Danvers, Illinois 61832-7180  
 Phone: 708-962-8900  
 Fax: 708-962-8222

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	DRAWN MK	REVISED
PLOT SCALE	CHECKED CH	REVISED
PLOT DATE	DATE 4-21-09	REVISED

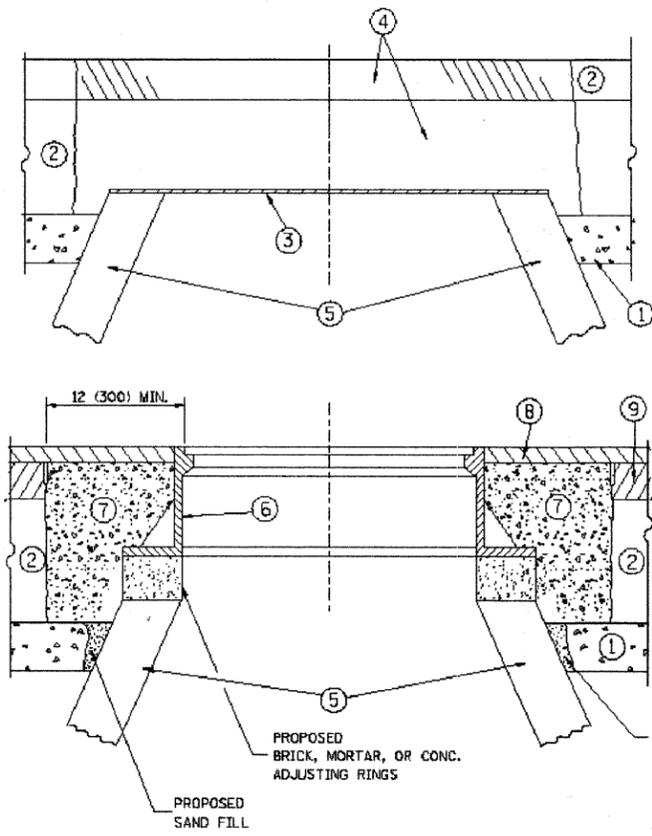
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PAVING PLAN**

SCALE: 1"=30" SHEET NO. 4 OF 4 SHEETS STA. 17+50 TO STA. 23+44

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2733	09-00131-00-RS	COOK	17	10
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(319)			CONTRACT NO. 63255	

E.H.E. PROJECT NO. 655-09-07201



**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 SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

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

**LEGEND**

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

**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.

**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

Drawing file: W:\Projects\56509072 - 9TH Avenue\_AFA-LAPP MARKINGS.dwg Jul 16, 2009 - 9:26am

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		DRAWN -	REVISED - A. ABBAS 03-21-97
		CHECKED -	REVISED - R. WIEDEMAN 05-14-04
		DATE - 10-25-94	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE. 2733	SECTION 09-00131-00-RS	COUNTY COOK	TOTAL SHEETS 17	SHEET NO. 11
BD00-03 (BD-8)			CONTRACT NO. 63255	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003 (319)				

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

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

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

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

18" (450) MAX.

1/4" (5) \*\*

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE OR GROUND.

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

EXISTING CONCRETE PAVEMENT, CONCRETE BASE COURSE OR FLEXIBLE PAVEMENT

3" (75) MIN.

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

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

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

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

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.

⑦ 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.

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" (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:**

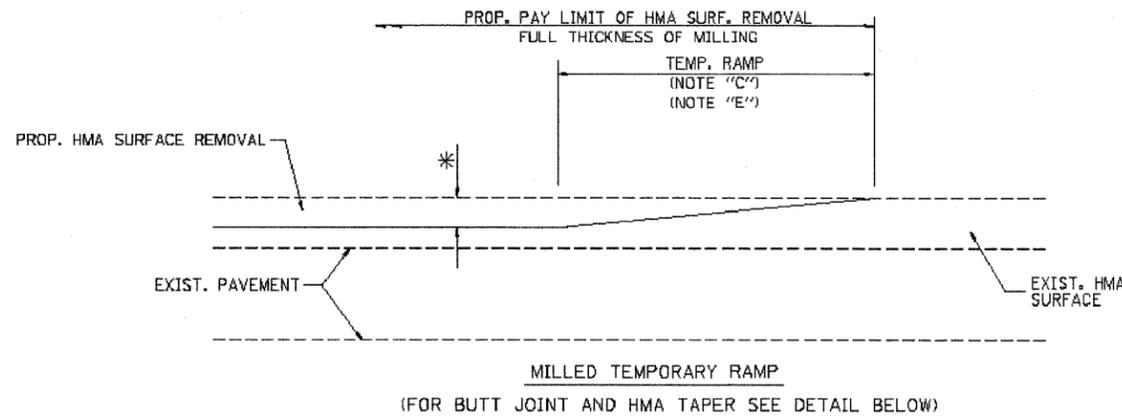
THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

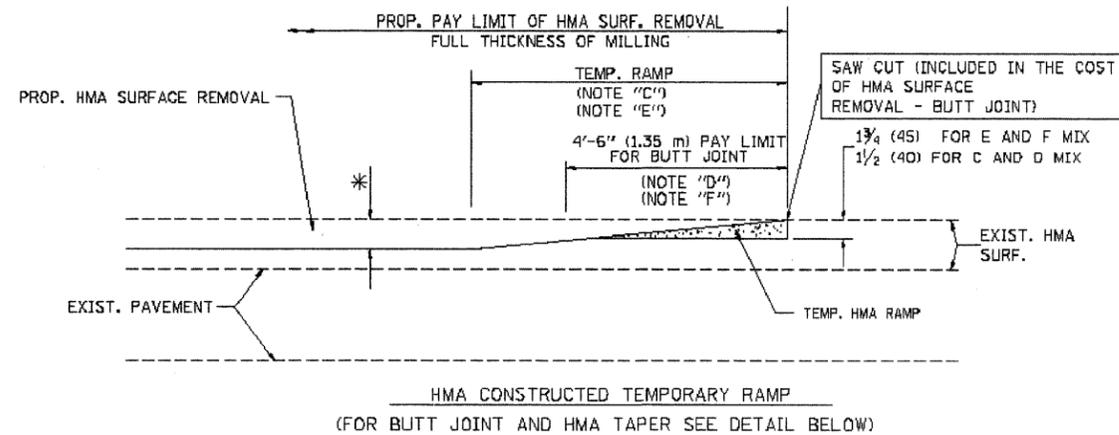
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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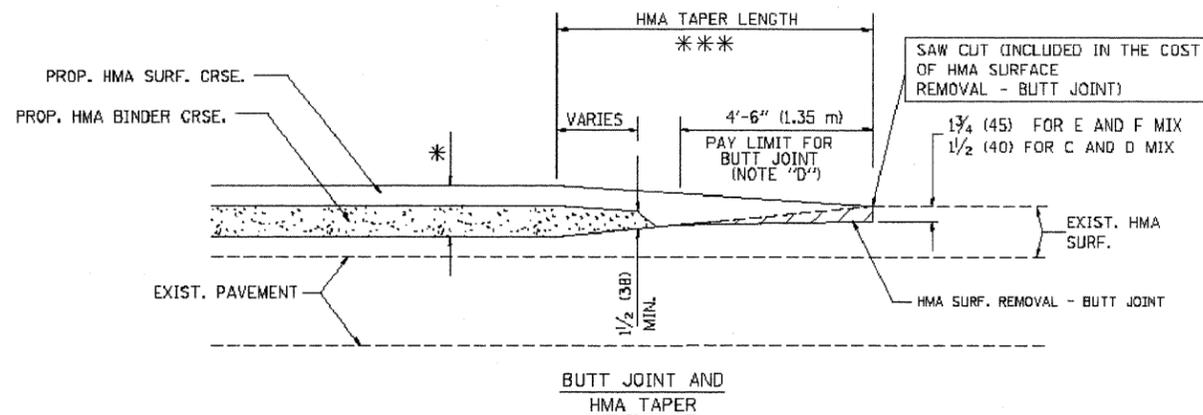
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PLOT SCALE = 60,000 1/4 IN.	CHECKED -	REVISED - A. ABBAS 03-21-97	REVISED - M. GOMEZ 01-22-01			<b>BD00-08 (BD-24)</b>		CONTRACT NO. 63255		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003 (319)	
PLOT DATE = 1/4/2008	DATE - 03-11-94	REVISED - R. BORO 01-01-07	SCALE: NONE			SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	E.H.E. PROJECT NO. 565-09-07201			



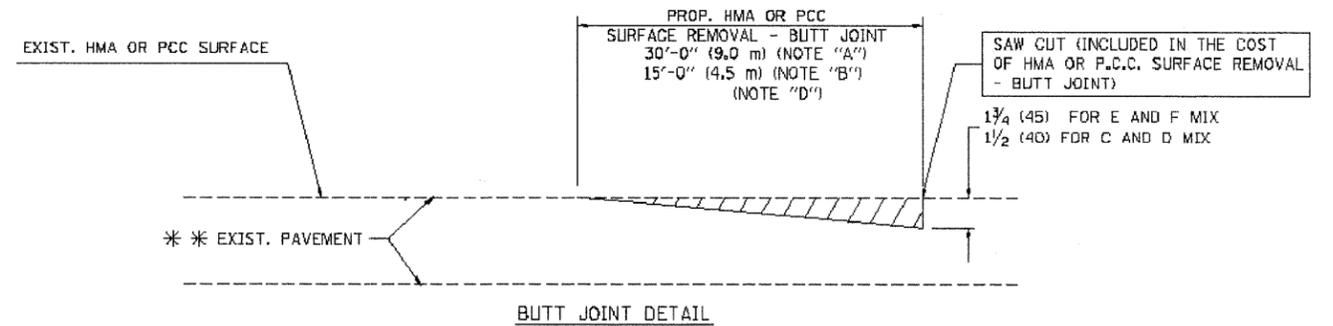
OPTION 1



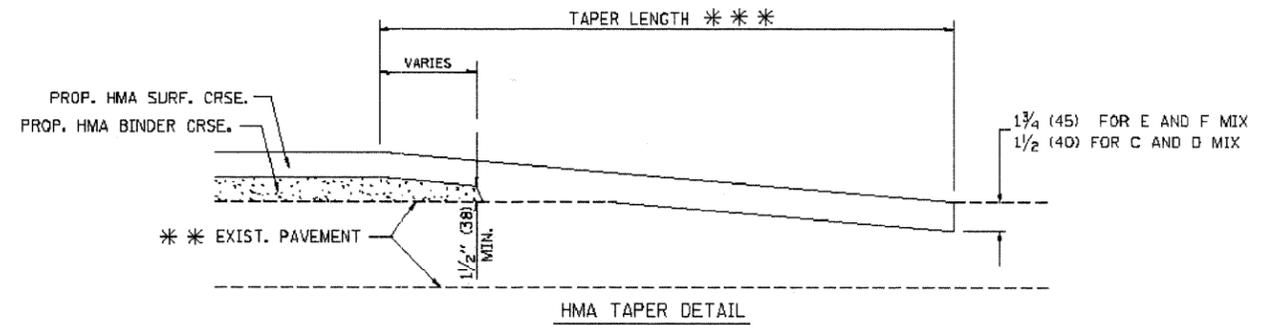
OPTION 2  
TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER  
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



TYPICAL BUTT JOINT AND HMA TAPER  
FOR RESURFACING ONLY

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

NOTES

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

BASIS OF PAYMENT:

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

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

Drawing file: W:\Projects\56509072 - 9TH Avenue\_Alt-LAPP\MARKINGS.dwg Jul 16, 2009 - 9:34am

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		REVISED - R. BORO 01-01-07

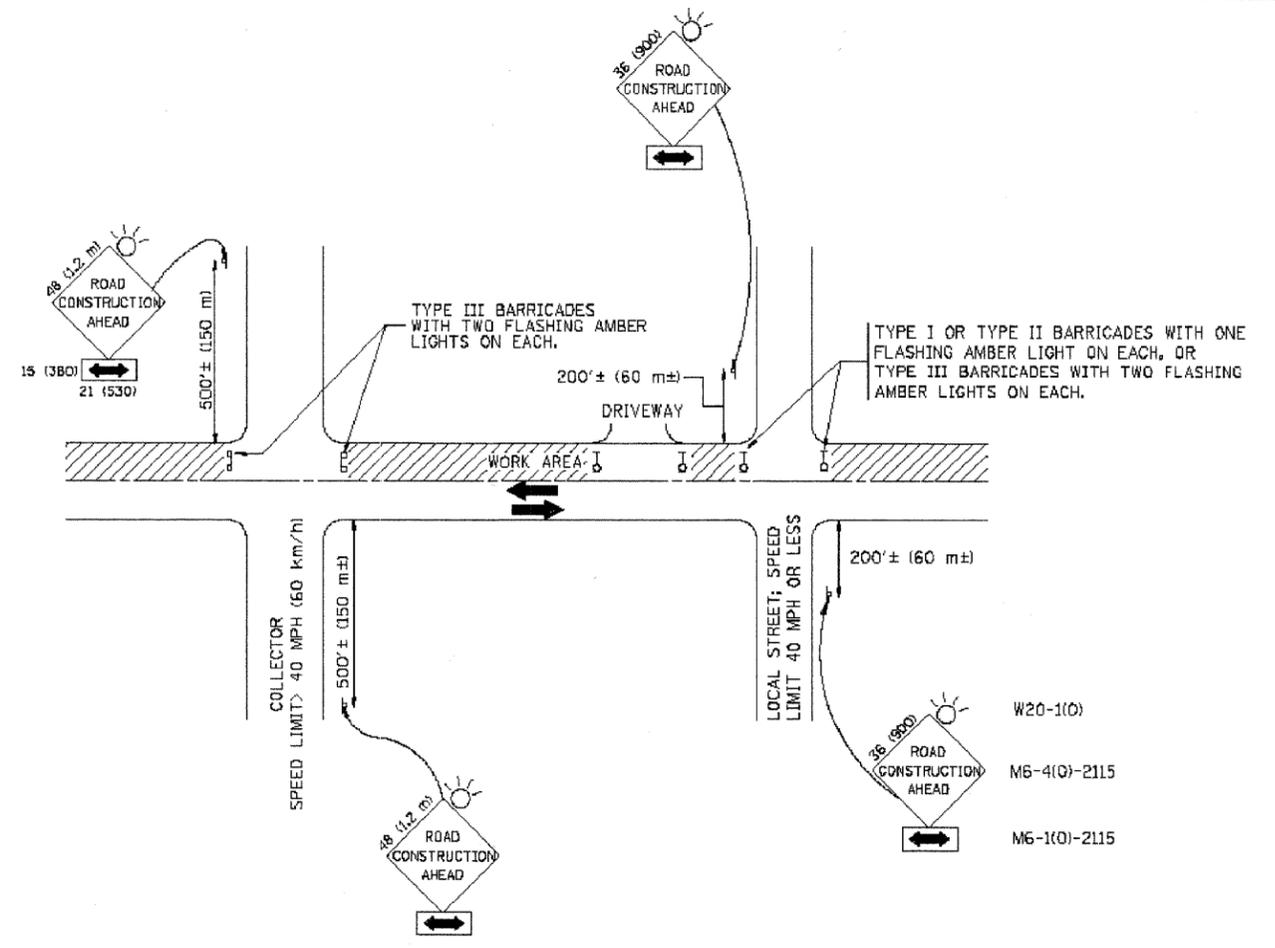
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND  
HMA TAPER DETAILS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2733	09-00131-00-RS	COOK	17	13
RD400-05 RD32		CONTRACT NO. 63255		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003 (319)				

E.H.E. PROJECT NO. 565-09-07201



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.

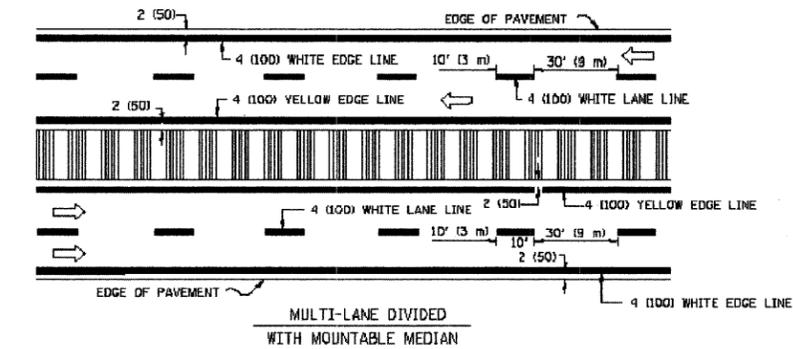
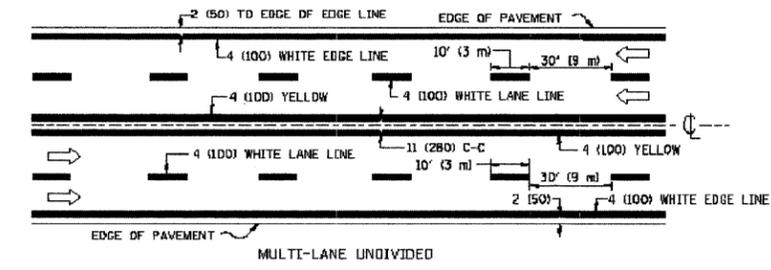
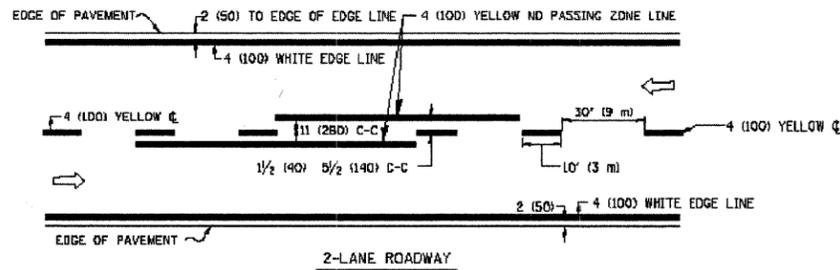
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	PLOT SCALE = 88,000 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

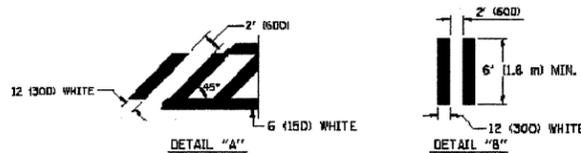
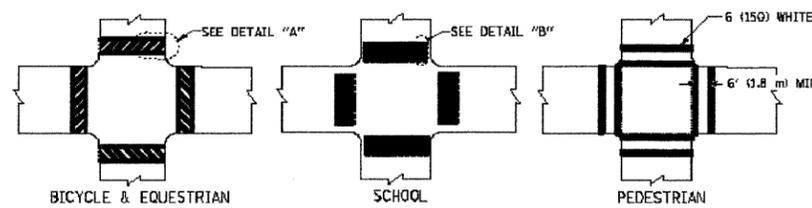
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2733	09-00131-00-RS	COOK	17	14
<b>TC-10</b>			CONTRACT NO. 63255	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003 (319)				

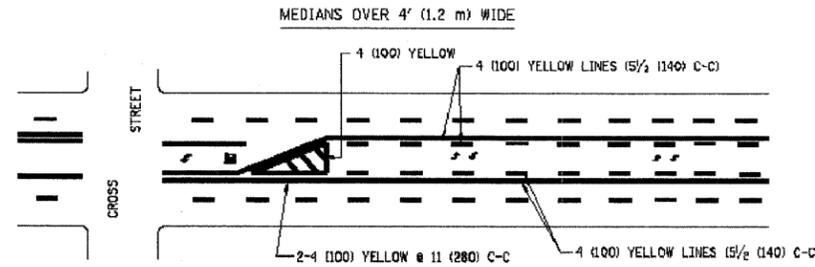
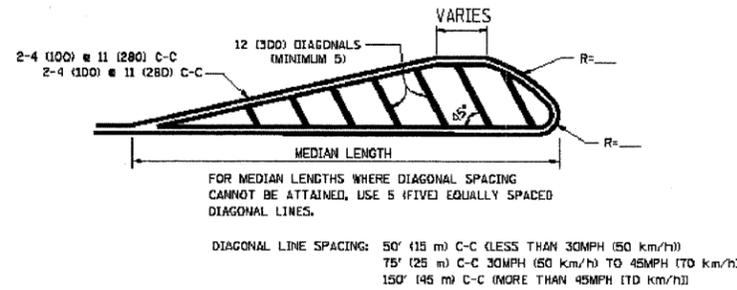
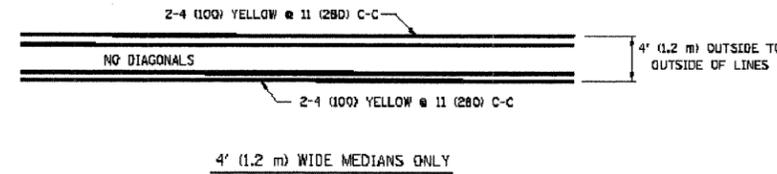


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

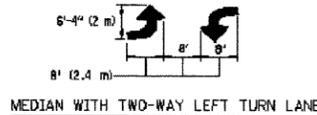
### TYPICAL LANE AND EDGE LINE MARKING



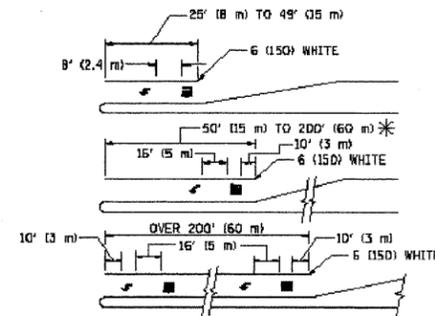
### TYPICAL CROSSWALK MARKING



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.



### TYPICAL PAINTED MEDIAN MARKING

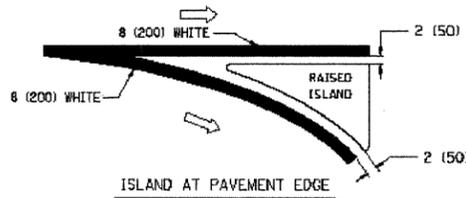
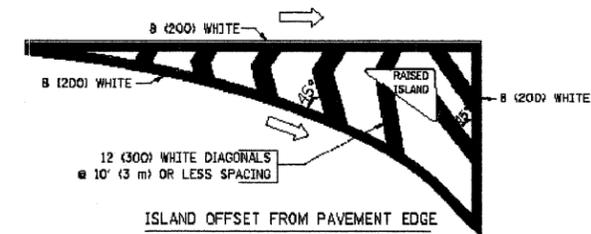


FULL SIZE LETTERS 8" (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

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

### TYPICAL LEFT (OR RIGHT) TURN LANE

### TYPICAL TURN LANE MARKING



### TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	30' (9 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.
CDRE 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 5' (1.5 m) LETTERS: 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 78000L 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 78000L.

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

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		DRAWN -	REVISED - A. HOUSEH 10-09-96
	PLOT SCALE = 58.000 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-17-96
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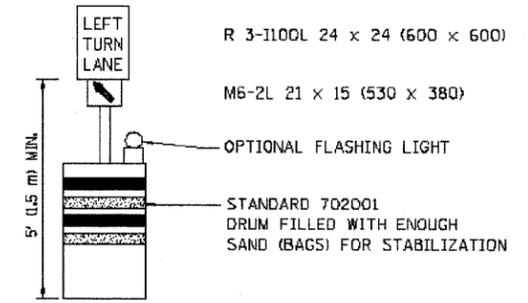
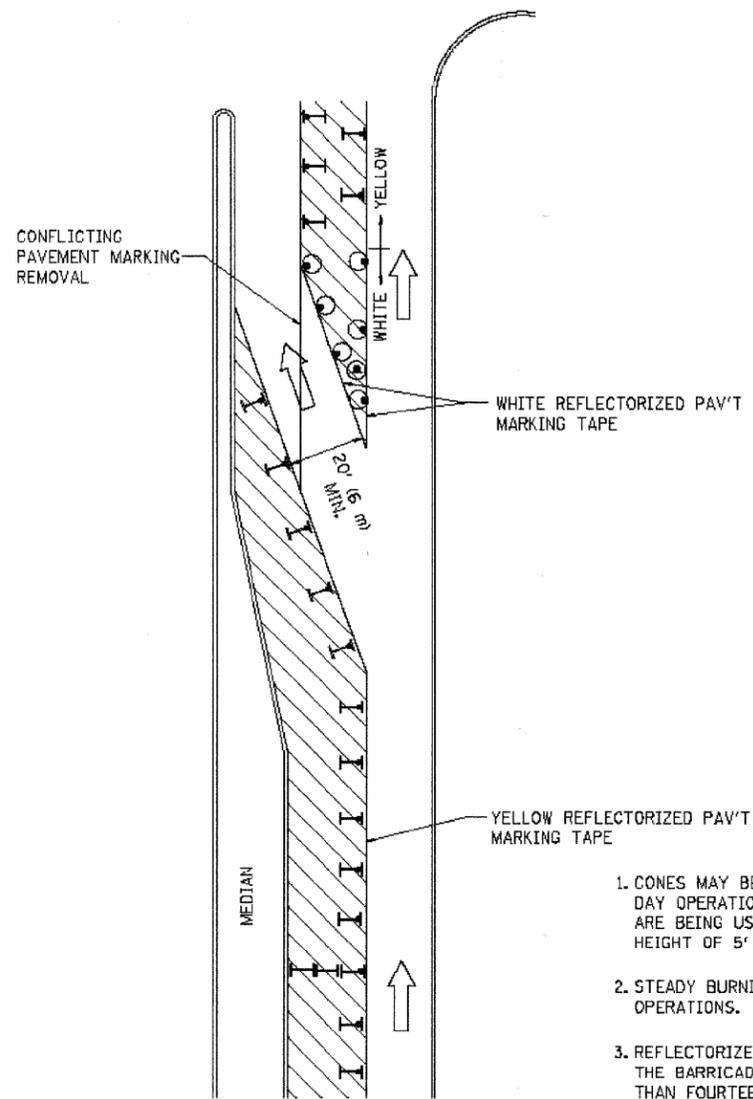
## STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

### DISTRICT ONE TYPICAL PAVEMENT MARKINGS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. R.T.E. 2733	SECTION 09-00131-00-RS	COUNTY COOK	TOTAL SHEETS 17	SHEET NO. 15
TC-18			CONTRACT NO. 63255	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003 (319)				

Drawing file: W:\Projects\55500072 - 9TH Avenue\_MB-LAPP\MARKINGS.dwg Jul 16, 2009 - 9:31am



**GENERAL NOTES**

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM BT 725 IS REQUIRED.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

**LEGEND**

- WORK AREA
- LANE OPEN TO TRAFFIC
- TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

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

FILE NAME = W:\startd\22c34\te14.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED -T. RAMMACHER 09-08-94
		DRAWN -	REVISED - A. HOUSEH 11-07-95
	PLOT SCALE = 50.0000' / IN	CHECKED -	REVISED - A. HOUSEH 10-12-96
	PLOT DATE = 1/4/2008	DATE -	REVISED -T. RAMMACHER 01-06-00

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

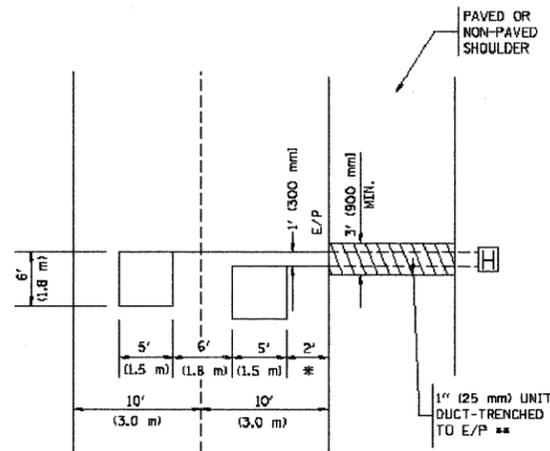
**TRAFFIC CONTROL AND PROTECTION AT TURN BAYS  
(TO REMAIN OPEN TO TRAFFIC)**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2733	09-00131-00-RS	COOK	17	16
<b>TC-14</b>			CONTRACT NO. 63255	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003 (319)				

**LOOPS NEXT TO SHOULDERS**

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

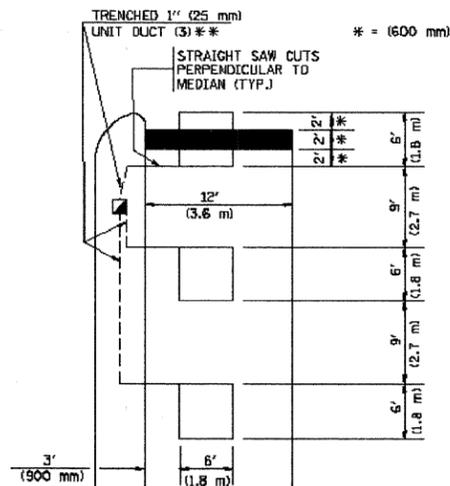


\* = (600 mm)

\*\* 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)**

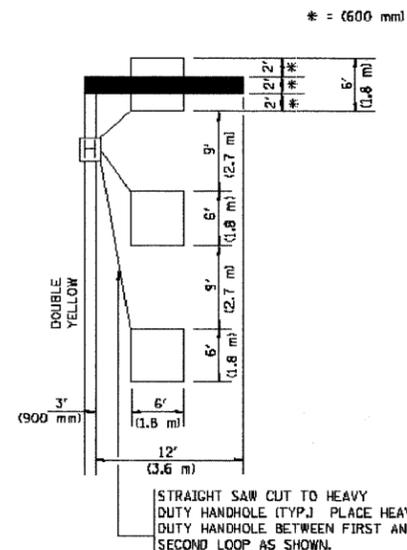
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD B1400L TO ENSURE THAT HANDHOLE FITS IN MEDIAN.



\*\* 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)**



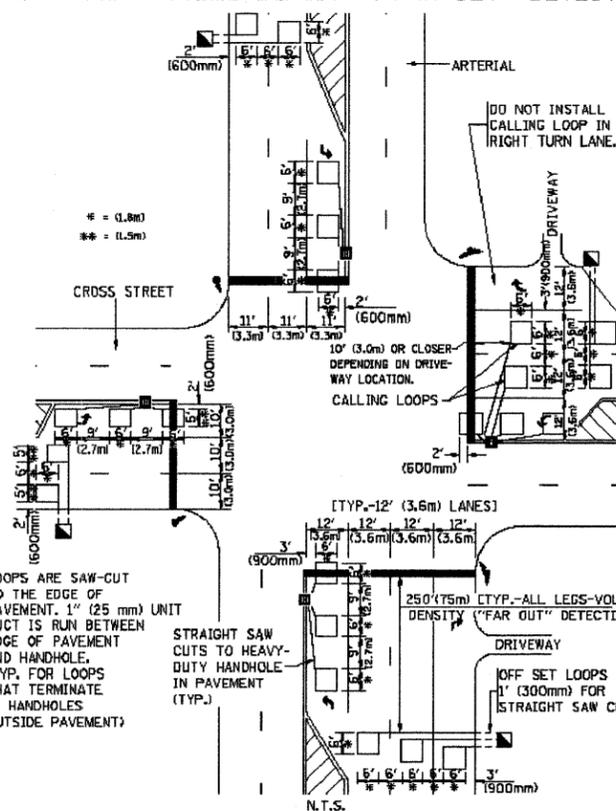
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**NOTES:**

**VEHICLES LOOP DETECTORS**

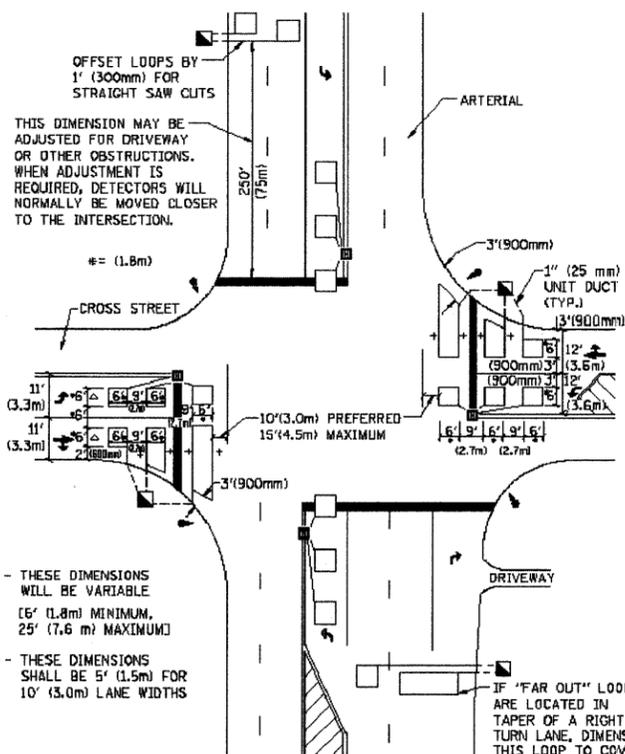
- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- \* EACH DETECTOR LOOP SHALL HAVE ITS DOWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- \* EACH DETECTOR LOOP SHALL HAVE ITS DOWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE 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.

**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.

**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 DIMENSIONS 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.

Drawing file: W:\Projects\36509072 - 8TH Avenue\_ARA-LAPP\MARKINGS.dwg Jul 16, 2009 - 9:28am

FILE NAME =  
W:\startof\22x34\ts87.dgn

USER NAME = goglianob	DESIGNED -	REVISED -
PLOT SCALE = 50.0000' / 1"	DRAWN -	REVISED -
PLOT DATE = 1/4/2008	CHECKED - R.K.F.	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1 - DETECTOR LOOP INSTALLATION  
DETAILS FOR ROADWAY RESURFACING**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2704	09-00068-00-RS	COOK	17	17
TS-07		CONTRACT NO. 63255		
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT ARA-9003 (303)				

E.H.E. PROJECT NO. 565-09-07201