

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	(530 & 531) RS-4	COOK	31	1
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 62079		

31+8-39

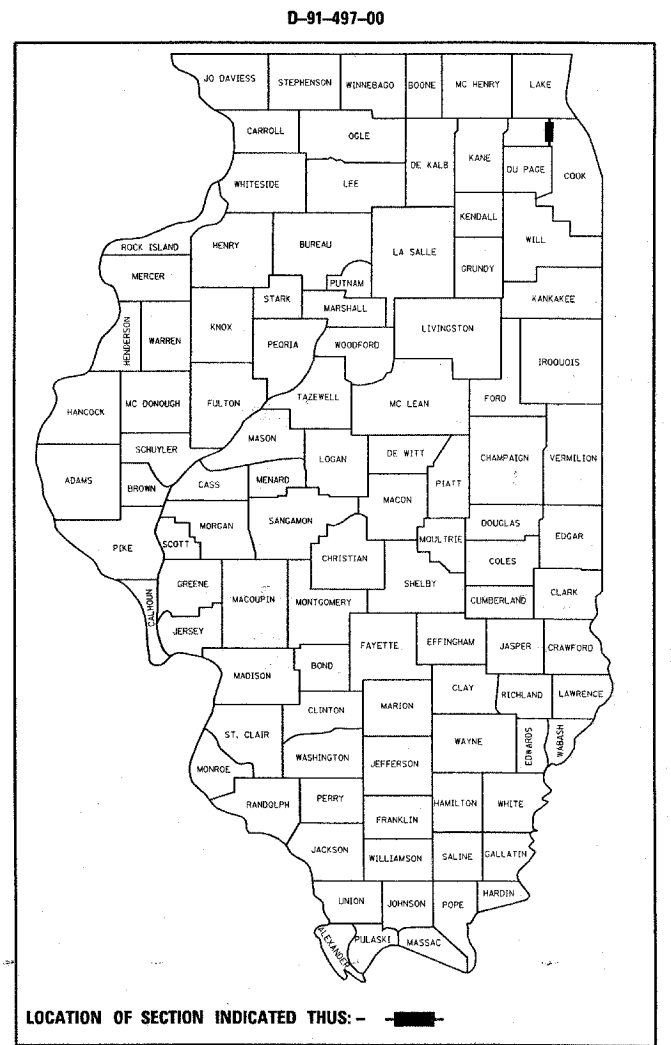
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

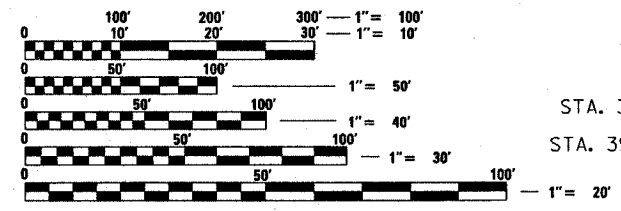
FAP RTE. 342: IL RTE. 53 (EXTENSION)  
LAKE-COOK RD. TO US 12 (RAND ROAD)  
AND RAMPS AT LAKE-COOK RD.  
SECTION: (530 & 531) RS-4  
PROJECT NO. *ACF-0342(008)*  
RESURFACING (MAINTENANCE)  
COOK COUNTY  
C-91-497-00

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THE IMPROVEMENT IS LOCATED  
IN THE VILLAGES OF PALATINE,  
ARLINGTON HEIGHTS, AND  
UNINCORPORATED COOK COUNTY



LOCATION OF SECTION INDICATED THUS: - -

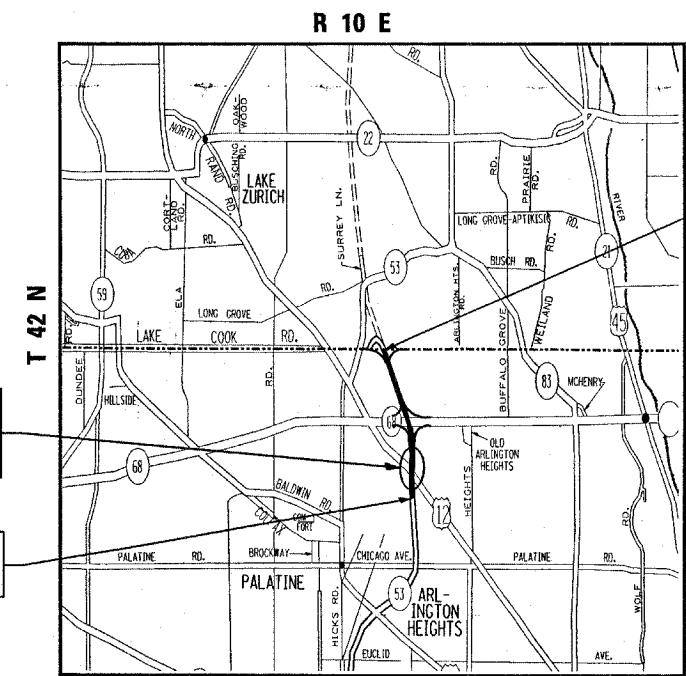


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER ROBERT BORO (847) 705-4178  
PROJECT MANAGER KEN ENG

CONTRACT NO. 62079



PALATINE TOWNSHIP

GROSS LENGTH OF IMPROVEMENT = 12,050 LF = 2.282 MILES  
NET LENGTH OF IMPROVEMENT = 11,771.63 LF = 2.229 MILES

BRIDGE OMISSION  
SN 016-0973 (NB)  
STA. 398+94.24 TO STA. 401+22.67  
SN 016-0371 (SB)  
STA. 399+24.90 TO STA. 402+53+33

PROJECT BEGINS  
STA. 398+54 (NB) AND  
STA. 399+09 (SB)

PROJECT ENDS  
STA. 504+00=STA. 0+00 (NB) AND  
STA. 503+45.63=STA. 20+00 (SB)

TRAFFIC DATA  
2006 ADT= 98,800  
POSTED SPEED LIMIT 55 TO 45 mph



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED APRIL 16, 2008

*Diana M. O'Keefe*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 9, 2008  
*Eric E. Harms*  
INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

May 9, 2008  
*Christine M. Reed*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

**GENERAL NOTES**

**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES
3	SUMMARY OF QUANTITIES
4-6	TYPICAL SECTIONS
7-9	SEQUENCE OF OPERATIONS
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18-20H.	INDUCTION LOOP PLANS
21	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING
22	PAVEMENT PATCHING FOR HMS SURFACED PAVEMENT
23	BUTT JOINTS AND HMA TAPER DETAILS
24	HMS TAPER AT EDGE OF PCC PAVEMENT
25	FREEWAY ENTRANCE AND EXIT RAMP CLOSURE DETAILS
26	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES
27-28	MULTI-LANE FREEWAY PAVEMENT MARKING
29	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
30	TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE AND MULTI-LANE WEAVE
31	SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

**STANDARDS**

420001-07	PAVEMENT JOINTS
442201-03	CLASS C AND D PATCHES
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
642001	SHOULDER RUMBLE STRIPS
701101-01	OFF-ROAD OPERATIONS, MULTILANE LESS THAT 4.5m (15') AWAY FOR SPEED ≥ 45 MPH
701400-02	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-04	LANE CLOSURE, FREEWAY/EXPRESSWAY
701411-04	LANE CLOSURE, MULTILANE AT ENTRANCE OR EXIT RAMP FOR SPEEDS ≥ 45 MPH
701422-01	LANE CLOSURE, MULTILANE, FOR SPEEDS ≥ 45 MPH TO 55 MPH
701426-02	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS FOR SPEEDS ≥ 45 MPH
701446	TWO LANE CLOSURE, FREEWAY/EXPRESSWAY
701901	TRAFFIC CONTROL DEVICES
780001-01	TYPICAL PAVEMENT MARKINGS
781001-02	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

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

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, AND OTHER LOCAL INVOLVED COMMUNITIES.

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

STRIP REFLECTIVE CRACK CONTROL TREATMENT SHALL BE INSTALLED IMMEDIATELY IN FRONT OF THE BITUMINOUS SURFACING OPERATION IN SUCH A MANNER SO THAT TRAFFIC WILL NOT DISTURB IT PRIOR TO BEING COVERED BY SMA SURFACING. ANY CRACK TREATMENT DISTURBED BY TRAFFIC WILL BE REPLACED AT THE CONTRACTORS EXPENSE.

THE CONTRACTOR MUST PROPERLY MARK AND RECORD THE EXACT LOCATION OF EACH TRAFFIC SYSTEMS CENTER DETECTOR LOOPS COREHOLE PRIOR TO RESURFACING SO THAT THE COREHOLE CAN BE EASILY FOUND WHEN CUTTING THE DETECTOR LOOPS.

PRIOR TO THE CONTRACTOR DIGGING OR EXCAVATING NEAR TRAFFIC SYSTEMS CENTER LOOPS, CABINETS AND TYPE C SERVICE INSTALLATIONS, THE CONTRACTOR MUST CALL THE ELECTRICAL MAINTENANCE CONTRACTOR (CONTRACTING AND MATERIALS AT 773-287-7600) FOR FIELD LAYOUT OF EXISTING FACILITIES.

ALL DRAINAGE STRUCTURES CLEANED AS PART OF THE CONTRACT MUST BE CLEAN AT THE COMPLETION OF THE CONTRACT.

THE RESIDENT ENGINEER SHALL CONTACT DEBBIE HANLON, AREA TRAFFIC ENGINEER, AT (847) 438-2300 A MINIMUM OF (2) WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

~~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 OVER 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 SLOPES A MINIMUM OF 1:3 (V:H).~~

WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

DRAINAGE ADJUSTMENT OR RECONSTRUCTION LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

~~PAVEMENT MARKING TAPE, TYPE III SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES. THE COST OF THE PAVEMENT MARKING TAPE, TYPE III AND ITS REMOVAL SHALL BE INCLUDED IN THE COST OF SHORT TERM PAVEMENT MARKING.~~

THE ENGINEER SHALL REPORT CLEARANCES UNDER BRIDGE AFTER RESURFACING AT STA. 498+67.97 ILL RTE. 53 = STA. 100+00 LAKE COOK ROAD, SN 016-0973 (NB) AND SN 016-0371 (SB)

THE CONTRACTOR SHALL TAKE PRECAUTIONS NOT TO DAMAGE THE UNDERLYING OPEN GRADED LAYER. BEFORE PATCHING AN AREA, THE CONTRACTOR SHALL PLACE "GEOTECHNICAL FABRIC FOR GROUND STABILIZATION", OF THE SAME DIMENSIONS AS THE PATCH, BETWEEN THE PATCH AND THE OPEN GRADED LAYER ACCORDING TO SECTION 210 OF THE STANDARD SPECIFICATIONS. THE COST OF THIS FABRIC AND ITS PLACEMENT IS INCLUDED IN THE COST OF THE PATCH.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE TYPE	AC TYPE	AIR VOIDS
<b>PAVEMENT RESURFACING</b>		
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, N80	SBS PG 76-28/-22	4% @ 80 GYR
POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, N80	SBS PG 76-28/-22	4% @ 80 GYR
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	SBS/SBR PG 76-28/-22	4% @ 50 GYR.
<b>SHOULDER / RAMP</b>		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 mm)	PG 64-22	4% @ 70 GYR
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	PG 64-22 *	4% @ 70 GYR.
<b>PATCHING</b>		
CLASS D PATCHES, (HMA BINDER IL-19 mm)	PG 64-22	4% @ 105 GYR.
HOT-MIX ASPHALT REPLACEMENT OVER PATCHES, (HMA BINDER IL-19 mm)	PG 64-22 *	4% @ 70 GYR.

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIX QUANTITIES IS 112 LBS/SQ YD/IN FOR HMA AND 135 LBS/SQ YD/IN FOR SMA  
\* WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER SHALL BE PG 58-22

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PLOT SCALE = 52.948 ' / IN.	CHECKED -	REVISED -	342			(530 & 531) RS-4	COOK	31	2		
PLOT DATE = 4/18/2008	DATE -	REVISED -	SCALE: N.T.S.			SHEET NO. 1 OF 3 SHEETS		STA. TO STA.		CONTRACT NO. 62079	
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT											

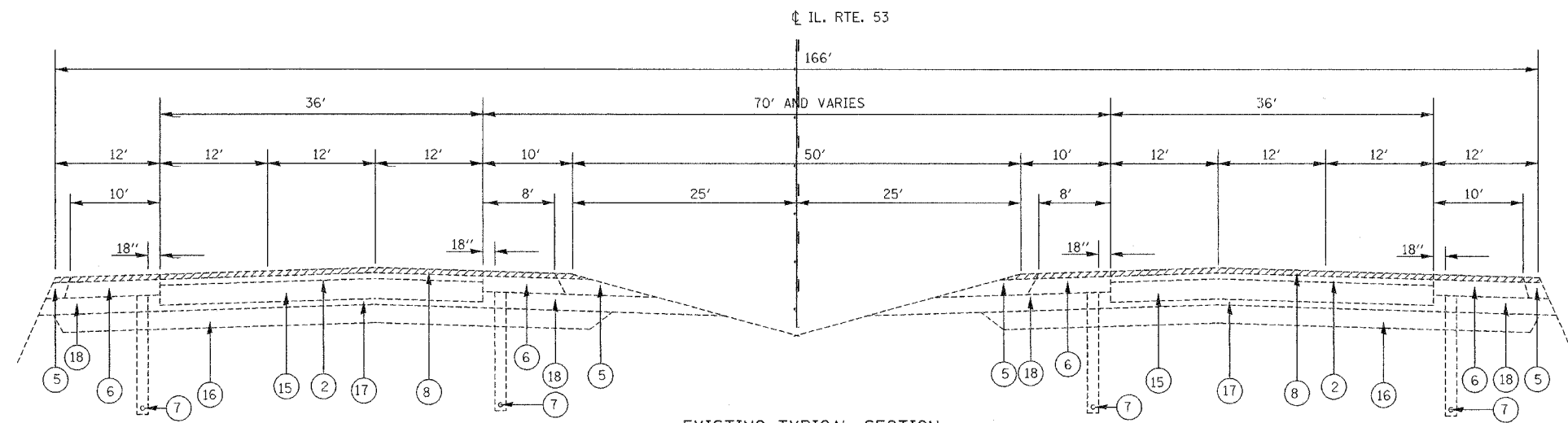
SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	URBAN ILL-53 1000-2A			
			<i>80% FED / 20% STATE</i>				
20201006	GRADING AND SHAPING SHOULDERS	UINT	197	197			
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	57	57			
40600300	AGGREGATE (PRIME COAT)	TON	285	285			
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	42.7	42.7			
40600895	CONSTRUCTING TEST STRIP	EACH	3	3			
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	3382	3382			
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	871	871			
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	10179	10179			
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	5953	5953			
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SO YD	49182	49182			
44002214	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 3 1/2"	SO YD	4443	4443			
44201773	CLASS D PATCHES, TYPE I, 11 INCH	SO YD	4	4			
44201777	CLASS D PATCHES, TYPE II, 11 INCH	SO YD	24	24			
44201783	CLASS D PATCHES, TYPE IV, 11 INCH	SO YD	74	74			
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	788.2	788.2			
60255600	MANHOLES TO BE ADJUSTED (SPECIAL)	EACH	10	10			
64200105	SHOULDER RUMBLE STRIP	FOOT	14408	14408			
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6			
67100100	MOBILIZATION	L SUM	1	1			
70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	109,155	109,155			
70300530	PAVEMENT MARKING TAPE, TYPE III 5"	FOOT	18,895	18,895			
70300540	PAVEMENT MARKING TAPE, TYPE III 6"	FOOT	2060	2060			
70300550	PAVEMENT MARKING TAPE, TYPE III 8"	FOOT	16,620	16,620			
70300560	PAVEMENT MARKING TAPE, TYPE III 12"	FOOT	2020	2020			
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	58400	58400			

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	URBAN ILL-53 1000-2A			
			<i>80% FED / 20% STATE</i>				
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1030	1030			
* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	8310	8310			
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1014	1014			
* 78003120	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 5"	FOOT	10460	10460			
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	1200	1200			
* 78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	1200	1200			
* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	496	496			
X0324685	TEST STRIP (STONE MATRIX ASPHALT)	EACH	2	2			
X4066580	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, N80	TON	11,736.3	11,736.3			
X4066685	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, N80	TON	4102	4102			
X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	1276	1276			
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	1			
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	2	2			
X4420076	CLASS D PATCHES, TYPE I, 9 1/4 INCH	SO YD	244	244			
X4420077	CLASS D PATCHES, TYPE II, 9 1/4 INCH	SO YD	509	509			
X4420078	CLASS D PATCHES, TYPE III, 9 1/4 INCH	SO YD	555	555			
X4420079	CLASS D PATCHES, TYPE IV, 9 1/4 INCH	SO YD	1921	1921			
X4420092	CLASS D PATCHES, TYPE II, 9 1/2 INCH	SO YD	1777	1777			
X4420093	CLASS D PATCHES, TYPE III, 9 1/2 INCH	SO YD	1777	1777			
X4420099	CLASS D PATCHES, TYPE IV, 9 1/2 INCH	SO YD	889	889			
* X8850102	INDUCTION LOOP	FOOT	318	318			
⊙ 20076600	TRAINEES	HOURL	4000	4000			
X0322300	ELECTRIC CABLE IN CONDUIT NO. 18 4/C, TWISTED, SHIELDED	FOOT	1395	1395			
21900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	130	130			
X0322728	POLYETHYLENE DUCT 2"	FOOT	130	130			
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2284	2284			
X0326122	ELECTRIC CABLE ASSEMBLY IN CONDUIT, 400V (EPR-TYPE TC) 2/C NO. 6 AND NO. 8 GROUND	FOOT	422	422			
X0323364	ELECTRIC CABLE IN CONDUIT, NO. 19 6/C	FOOT	422	422			
81400200	HEAVY-DUTY HANDHOLE	EACH	2	2			
X0322729	MATERIAL TRANSFER DEVICE	TON	15,456	15,456			
20018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	10	10			

\* Specialty Items  
© Y880

REVISIONS	
NAME	DATE

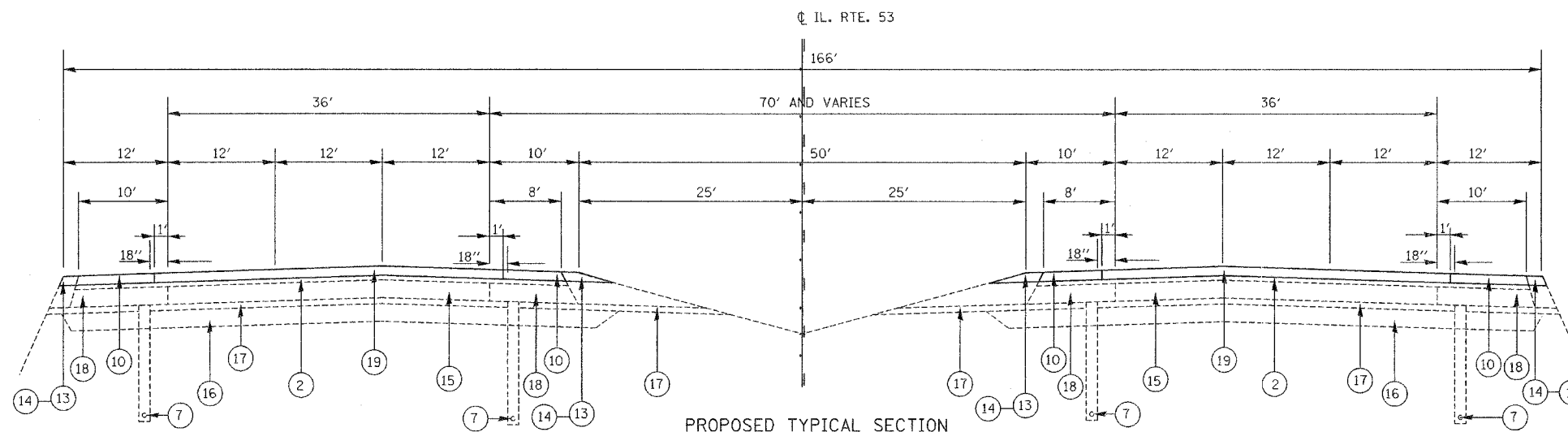
ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 53 (EXTENSION)  
LAKE-COOK ROAD TO U. S. 12 (RAND RD.)  
SUMMARY OF QUANTITIES



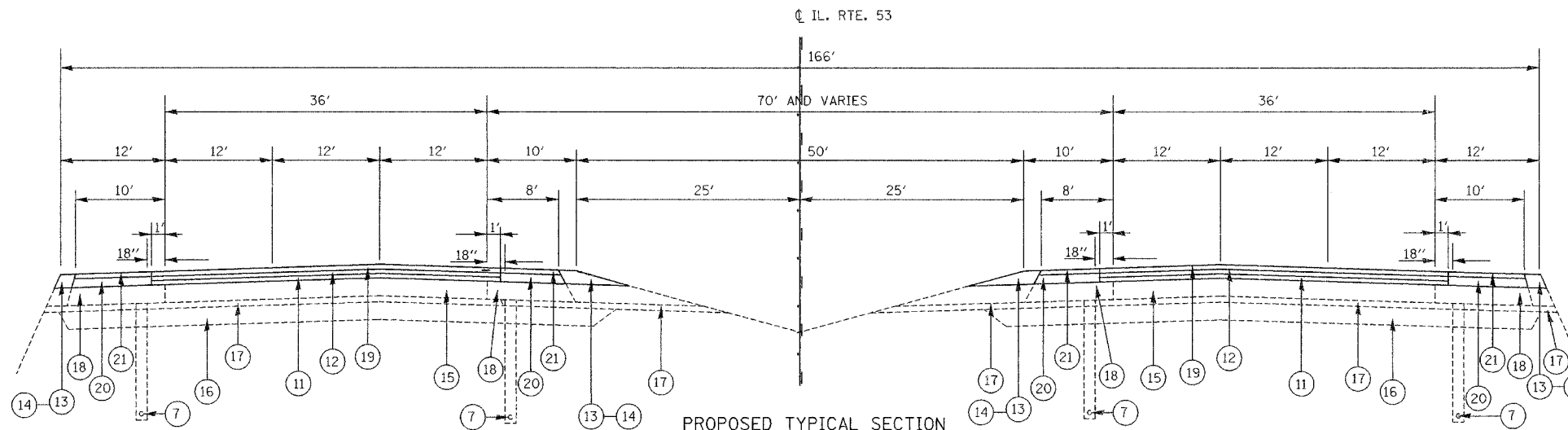
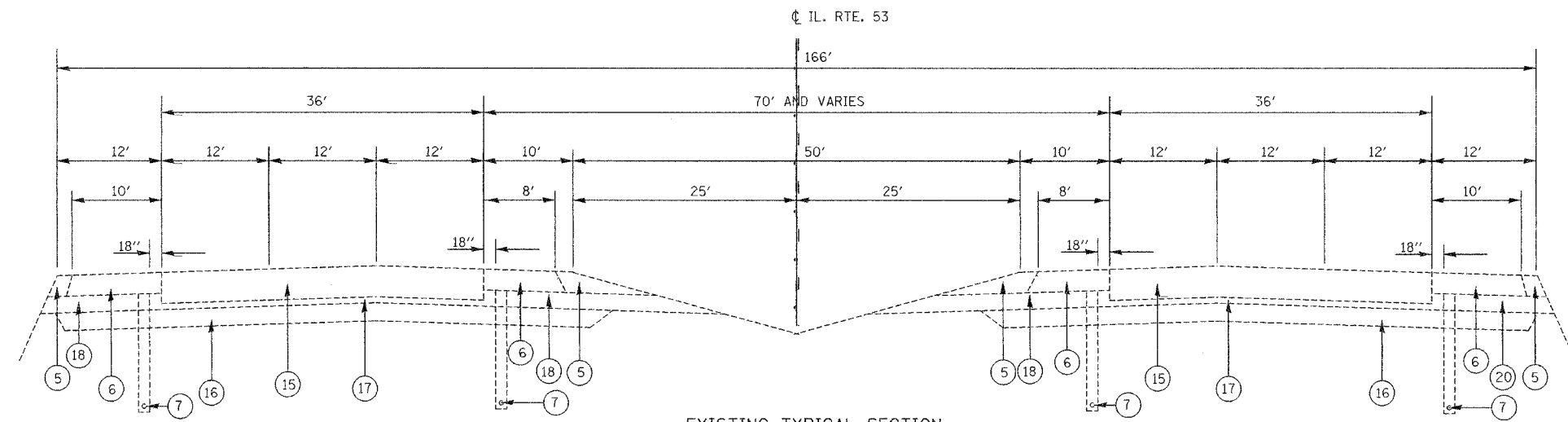
**LEGEND:**

- ① - EXISTING P.C. CONCRETE PAVEMENT, 8" AND 9 1/4"
- ② - EXISTING HMA CONCRETE SURFACE, ± 1 1/2"
- ③ - EXISTING SUB-BASE GRANULAR MATERIAL
- ④ - EXISTING P.C.C. SHOULDERS
- ⑤ - EXISTING AGGREGATE SHOULDER
- ⑥ - EXISTING HMA SHOULDER, 8"
- ⑦ - EXISTING PIPE UNDERDRAIN, 6"
- ⑧ - PROPOSED HMA SURFACE REMOVAL, 2"
- ⑨ - DELETED
- ⑩ - PROPOSED HMA SURFACE COURSE, MIX "D", N70, 2"
- ⑪ - PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- ⑫ - PROPOSED POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, N80, 2"
- ⑬ - PROPOSED GRADING AND SHAPING SHOULDERS
- ⑭ - PROPOSED AGGREGATE SHOULDER, TYPE B
- ⑮ - EXISTING P.C. CONCRETE PAVEMENT, 11"
- ⑯ - EXISTING POROUS GRANULAR EMBANKMENT 2'
- ⑰ - EXISTING STABILIZED SUB-BASE (B.A.M.)
- ⑱ - EXISTING STABILIZED SHOULDERS (B.A.M.) 8"
- ⑲ - PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE, COURSE, STONE MATRIX ASPHALT, N80, 2"
- ⑳ - PROPOSED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70, 3 1/4"
- ㉑ - PROPOSED HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70, 1 1/2"

HMA PAVEMENT SURFACE REMOVAL

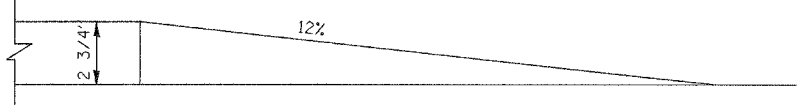


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	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED -			342	(530 & 531) RS-4	COOK	31	4		
	PLOT DATE = 5/19/2008	DATE -	REVISED -			SCALE: N.T.S.    SHEET NO. 1 OF 3 SHEETS    STA.    TO STA.		CONTRACT NO. 62079				
							FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT					



**LEGEND:**

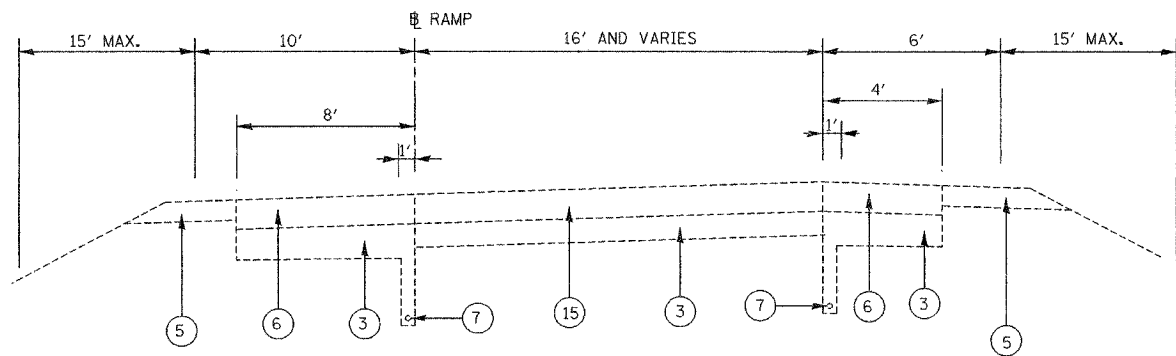
- ① - EXISTING P.C. CONCRETE PAVEMENT, 8" AND 9 1/4"
- ② - EXISTING HMA CONCRETE SURFACE, ± 1 1/2"
- ③ - EXISTING SUB-BASE GRANULAR MATERIAL
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- ⑪ - PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- ⑫ - PROPOSED POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, N80, 2"
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- ㉑ - PROPOSED HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70, 1 1/2"



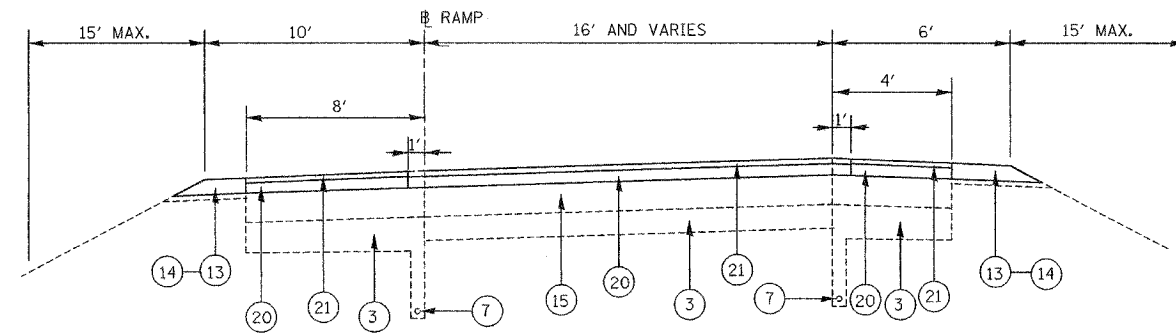
COST OF HMA WEDGE IS INCLUDED IN COST OF POLYMERIZED HMA BINDER COURSE, SMA, N80.

REMOVAL OF HMA WEDGE IS INCLUDED IN THE COST OF "HMA SURFACE REMOVAL BUTT JOINT".

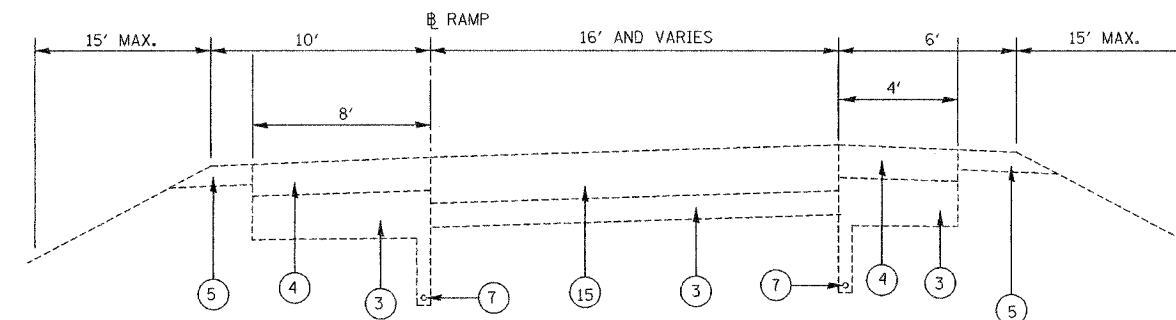
FILE NAME = c:\projects\p101694\design-bb.dgn	USER NAME = hmdonah	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ILLINOIS ROUTE 53 (EXTENSION) LAKE-COOK ROAD TO U. S. 12 (RAND ROAD) EXISTING AND PROPOSED TYPICAL SECTION</b>	F.A.P. RTE. 342	SECTION (530 & 531) RS-4	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 5	
PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED -	SCALE: N.T.S.			SHEET NO. 2 OF 3 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
PLOT DATE = 5/19/2008	DATE -	REVISED -									
CONTRACT NO. 62079											



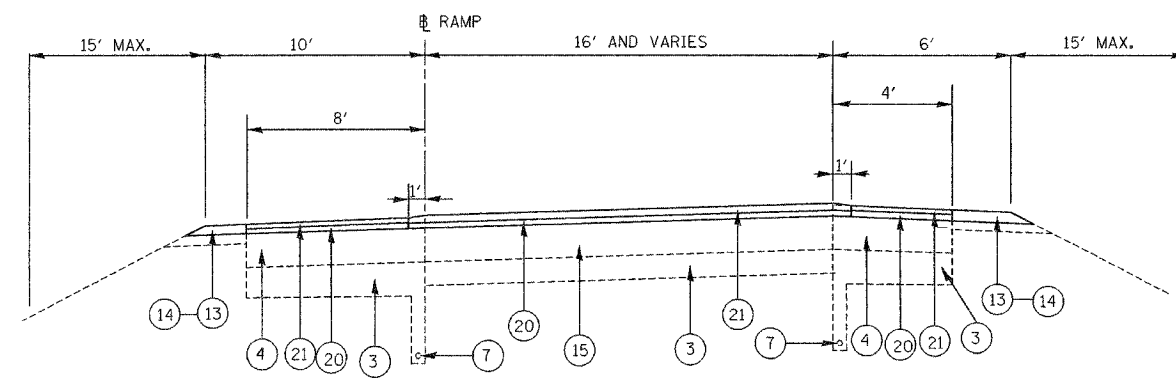
EXISTING TYPICAL SECTION  
ENTRANCE AND EXIT RAMP (C & D)



PROPOSED TYPICAL SECTION  
ENTRANCE AND EXIT RAMP (C, D AND B)



EXISTING TYPICAL SECTION  
ENTRANCE AND EXIT RAMP (A & A-1)



PROPOSED TYPICAL SECTION  
ENTRANCE AND EXIT RAMP (A & B)

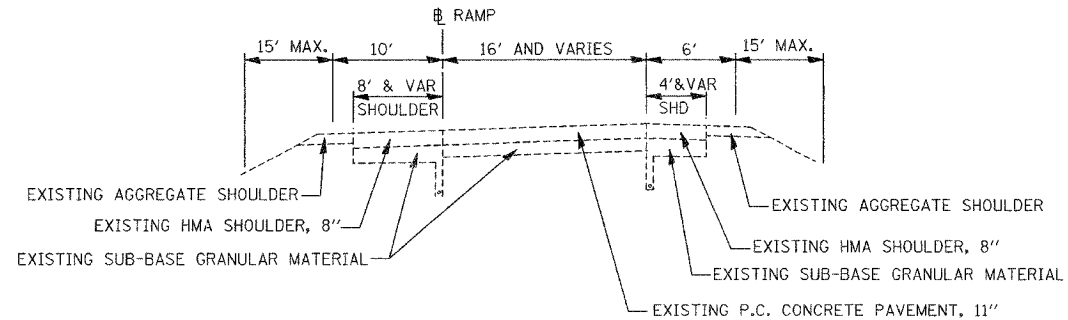
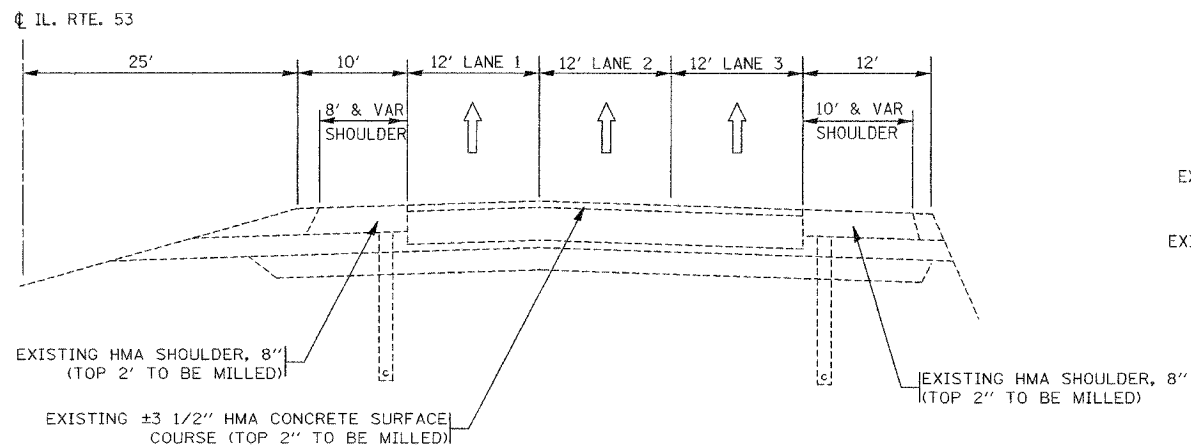
**LEGEND:**

- ① - EXISTING P.C. CONCRETE PAVEMENT, 8" AND 9/4"
- ② - EXISTING HMA CONCRETE SURFACE, ± 1 1/2"
- ③ - EXISTING SUB-BASE GRANULAR MATERIAL
- ④ - EXISTING P.C.C. SHOULDERS
- ⑤ - EXISTING AGGREGATE SHOULDER
- ⑥ - EXISTING HMA SHOULDER, 8"
- ⑦ - EXISTING PIPE UNDERDRAIN, 6"
- ⑧ - PROPOSED HMA SURFACE REMOVAL, 2"
- ⑨ - DELETED
- ⑩ - PROPOSED HMA SURFACE COURSE, MIX "D", N70, 2"
- ⑪ - PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- ⑫ - PROPOSED POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, N80, 2"
- ⑬ - PROPOSED GRADING AND SHAPING SHOULDERS
- ⑭ - PROPOSED AGGREGATE SHOULDER, TYPE B
- ⑮ - EXISTING P.C. CONCRETE PAVEMENT, 11"
- ⑯ - EXISTING POROUS GRANULAR EMBANKMENT 2'
- ⑰ - EXISTING STABILIZED SUB-BASE (B.A.M.)
- ⑱ - EXISTING STABILIZED SHOULDERS (B.A.M.) 8"
- ⑲ - PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE, COURSE, STONE MATRIX ASPHALT, N80, 2"
- ⑳ - PROPOSED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70, 3 1/4"
- ㉑ - PROPOSED HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70, 1 1/2"

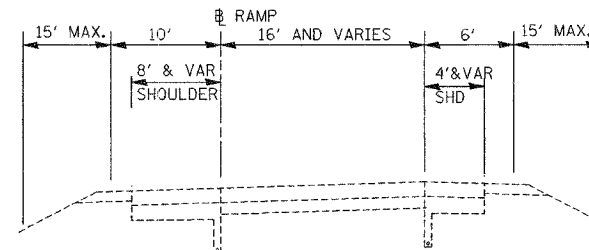
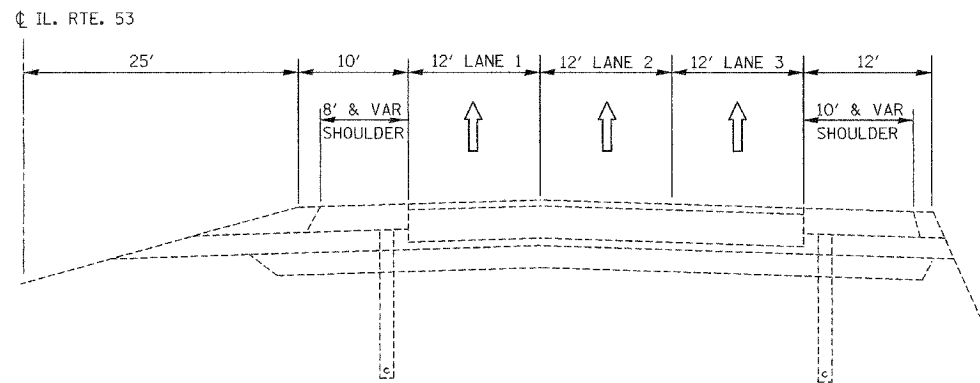


HMA PAVEMENT SURFACE REMOVAL

FILE NAME = c:\projects\p181694\design-bb.dgn	USER NAME = hamdanah	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ILLINOIS ROUTE 53 (EXTENSION) LAKE-COOK ROAD TO U. S. 12 (RAND ROAD) EXISTING AND PROPOSED TYPICAL SECTION</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50,000' / 1" IN.	CHECKED -	REVISED -			342	(530 & 531) RS-4	COOK	31	6
	PLOT DATE = 5/19/2008	DATE -	REVISED -			CONTRACT NO. 62079				
					SCALE: N.T.S.	SHEET NO. 3 OF 3 SHEETS		STA.	TO STA.	
					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



**EXISTING CONDITION**



**OPERATION ONE**

**NOTES:**

1. GRADE DIFFERENTIAL BETWEEN LANES SHALL NOT EXCEED 1 1/2"
2. SEE DETAIL TC-12 FOR PAVEMENT MARKING AT GORE AREAS.
3. REMOVAL OF TEMPORARY PAVEMENT MARKING WHEN REQUIRED SHALL BE PAID FOR AS WORK ZONE PAVEMENT MARKING REMOVAL.
4. INSTALL PERMANENT PAVEMENT MARKINGS (LANE LINES) PRIOR TO OPENING LANES TO TRAFFIC.
5. UNEVEN LANE SIGNS. THE CONTRACTOR SHALL FURNISH AND ERECT GRAPHICAL "UNEVEN LANE" SIGNS (W8-11) ON BOTH SIDES OF THE EXPRESSWAY, AT ANY TIME WHEN A DROP-OFF EXISTS BETWEEN ADJACENT LANES OPEN TO TRAFFIC DUE TO PAVING OPERATIONS. SIGNS SHALL BE PLACED 500 FEET IN ADVANCE OF THE DROP-OFF, WITHIN 500 FEET OF EVERY ENTRANCE, AND A MINIMUM OF EVERY MILE.

**SEQUENCE OF OPERATION**

**OPERATION ONE**  
PATCH LANES (NB, SB AND RAMPS)

**OPERATION TWO**

FOR NB AND SB ON EXISTING HMA PAVEMENT AREA:  
1- MILL AND RESURFACE 2" THE INSIDE SHOULDER AND LANE 1 AT THE SAME TIME BEFORE MILLING ANY OTHER LANES WITHOUT WEDGE (SEE DETAIL A). PLACE PERMANENT PAVEMENT MARKINGS.  
2- MILL AND RESURFACE 2" OF LANE 2 ONLY WITHOUT WEDGE (SEE DETAIL A). PLACE PERMANENT PAVEMENT MARKINGS.  
3- MILL AND RESURFACE 2" OF LANE 3 AND OUTSIDE SHOULDER WITHOUT WEDGE (SEE DETAIL A). PLACE PERMANENT PAVEMENT MARKINGS.

**OPERATION THREE**

MAINLINE (EXISTING CONCRETE PAVEMENT AREA):  
OVERLAY 3/4 " POLYMERIZED LEVELING BINDER AND 2" POLYMERIZED SMA BINDER COURSE.

NO TRAFFIC IS ALLOWED OVER LEVELING BINDER.

SHOULDERS / RAMPS:  
OVERLAY 3 1/4 " HMA BINDER COURSE  
PLACE TEMPORARY PAVEMENT MARKING

**OPERATION FOUR**

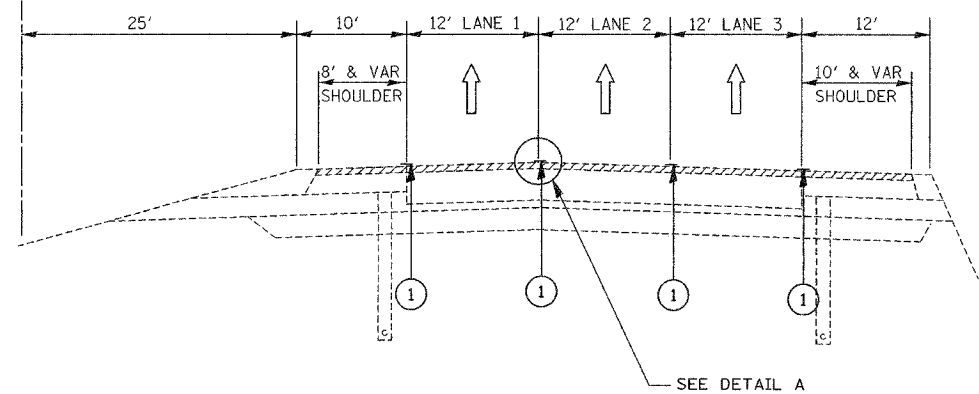
MAINLINE (EXISTING CONCRETE AND TAPER OVER HMA PAVEMENT AREA):  
OVERLAY 2" POLYMERIZED SMA SURFACE COURSE.  
SHOULDERS / RAMPS:  
OVERLAY 1 1/2 " HMA SURFACE COURSE  
PLACE PERMANENT PAVEMENT MARKINGS  
GRADING AND SHAPING SHOULDERS

**LEGEND**

- ① EXISTING PAVEMENT MARKING
- ② PAVEMENT MARKING TAPE, TYPE III
- ③ PERMANENT PAVEMENT MARKING (FINAL STAGE)
- ④ DELETED
- ⑤ PROPOSED POLYMERIZED HMA SURFACE COURSE, 2"
- ⑥ PROPOSED HMA SURFACE COURSE, 2"
- ⑦ PROPOSED POLYMERIZED LEVELING BINDER, 3/4"
- ⑧ PROPOSED POLYMERIZED HMA BINDER COURSE, 2"
- ⑨ PROPOSED HMA BINDER COURSE, 3 1/4"
- ⑩ PROPOSED HMA SURFACE COURSE, 1 1/2"
- ▨ - HMA SURFACE REMOVAL
- - LEVELING BINDER
- ▩ - BINDER COURSE
- ▧ - SURFACE COURSE

FILE NAME = c:\proj\jct\p10189\design-bb.dgn	USER NAME = hmdanah	DESIGNED - DRAWN -	REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ILLINOIS ROUTE 53 (EXTENSION) LAKE-COOK ROAD TO U. S. 12 (RAND ROAD) SEQUENCE OF OPERATIONS</b>	F.A.P. RTE. 342	SECTION (530 & 531) RS-4	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 7	
PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED -	SCALE: N.T.S.			SHEET NO. 1 OF 3 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
PLOT DATE = 5/19/2008	DATE -	REVISED -	CONTRACT NO. 62079								

IL. RTE. 53

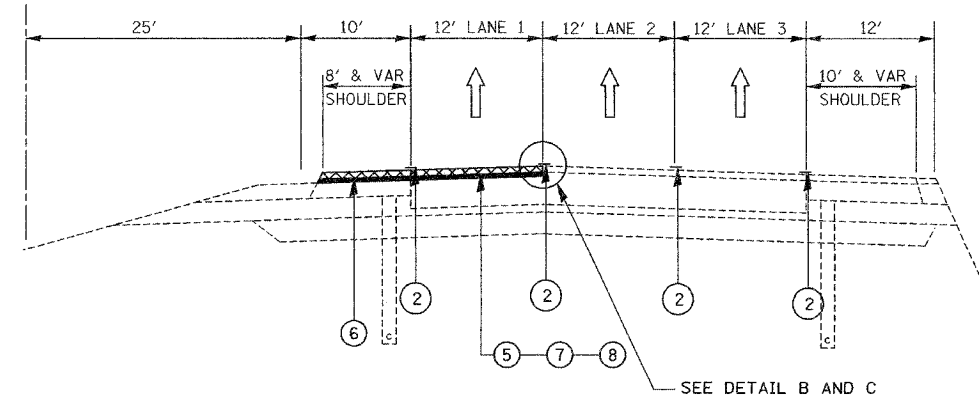


**\* NOTE:**

IT IS INTENDED THAT MILLING OPERATION SHALL NOT ENCROACH OR IMPACT THE EXISTING LANE LINE MARKING. SHOULD THE CONTRACTOR DAMAGE THE EXISTING LANE LINE MARKING, THE CONTRACTOR SHALL REPLACE THE DAMAGED LANE LINE MARKING WITH TYPE III TAPE AT NO ADDITIONAL COST TO THE DEPARTMENT.

**OPERATION TWO**

IL. RTE. 53

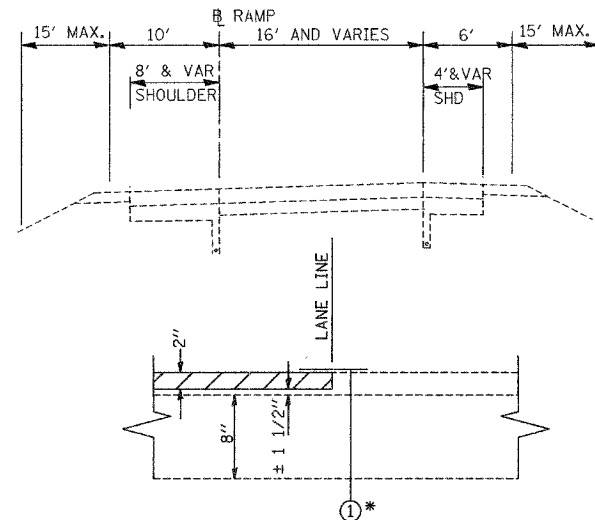


DETAIL C (EXISTING CONCRETE PAVEMENT AREA)

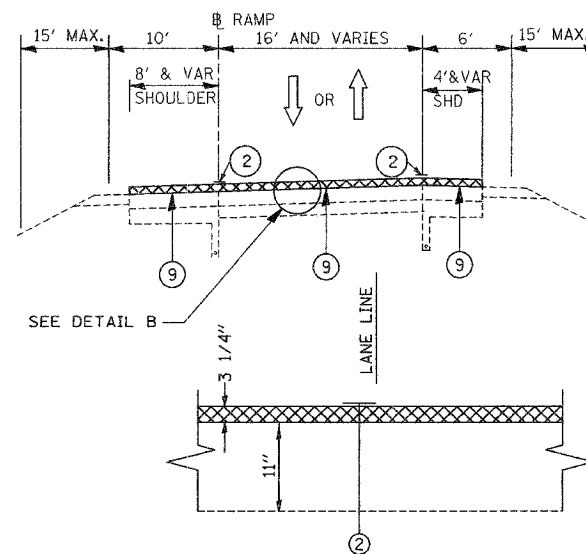
**NOTES:**

- GRADE DIFFERENTIAL BETWEEN LANES SHALL NOT EXCEED 1 1/2 "
- SEE DETAIL TC-12 FOR PAVEMENT MARKING AT GORE AREAS.
- REMOVAL OF TEMPORARY PAVEMENT MARKING WHEN REQUIRED SHALL BE PAID FOR AS WORK ZONE PAVEMENT MARKING REMOVAL.
- INSTALL PERMANENT PAVEMENT MARKINGS (LANE LINES) PRIOR TO OPENING LANES TO TRAFFIC.
- UNEVEN LANE SIGNS. THE CONTRACTOR SHALL FURNISH AND ERECT GRAPHICAL "UNEVEN LANE" SIGNS (W8-11) ON BOTH SIDES OF THE EXPRESSWAY, AT ANY TIME WHEN A DROP-OFF EXISTS BETWEEN ADJACENT LANES OPEN TO TRAFFIC DUE TO PAVING OPERATIONS. SIGNS SHALL BE PLACED 500 FEET IN ADVANCE OF THE DROP-OFF, WITHIN 500 FEET OF EVERY ENTRANCE, AND A MINIMUM OF EVERY MILE.

**OPERATION THREE**



DETAIL A (2") MILLING (EXISTING HMA PAVEMENT AREA)



DETAIL B (RAMP AREA)

**SEQUENCE OF OPERATION**

**OPERATION ONE**  
PATCH LANES (NB, SB AND RAMPS)

**OPERATION TWO**

FOR NB AND SB ON EXISTING HMA PAVEMENT AREA:  
1- MILL AND RESURFACE 2" THE INSIDE SHOULDER AND LANE 1 AT THE SAME TIME BEFORE MILLING ANY OTHER LANES WITHOUT WEDGE (SEE DETAIL A). PLACE PERMANENT PAVEMENT MARKINGS.  
2- MILL AND RESURFACE 2" OF LANE 2 ONLY WITHOUT WEDGE (SEE DETAIL A). PLACE PERMANENT PAVEMENT MARKINGS.  
3- MILL AND RESURFACE 2" OF LANE 3 AND OUTSIDE SHOULDER WITHOUT WEDGE (SEE DETAIL A). PLACE PERMANENT PAVEMENT MARKINGS.

**OPERATION THREE**

MAINLINE (EXISTING CONCRETE PAVEMENT AREA):  
OVERLAY 3/4 " POLYMERIZED LEVELING BINDER AND 2" POLYMERIZED SMA BINDER COURSE.

NO TRAFFIC IS ALLOWED OVER LEVELING BINDER.

SHOULDERS / RAMPS:  
OVERLAY 3 1/4 " HMA BINDER COURSE  
PLACE TEMPORARY PAVEMENT MARKING

**OPERATION FOUR**

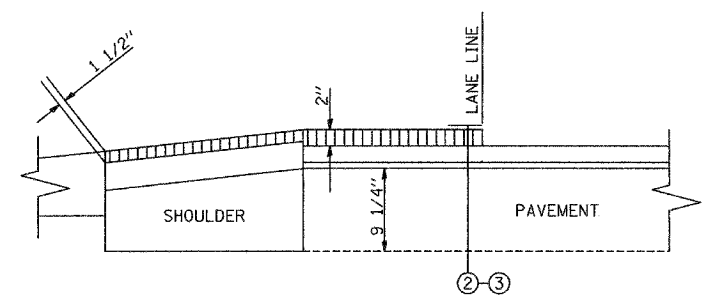
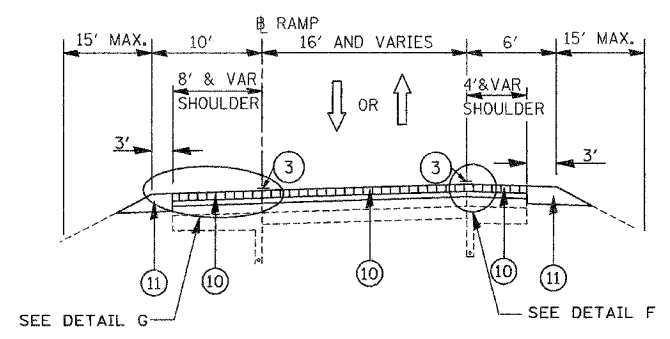
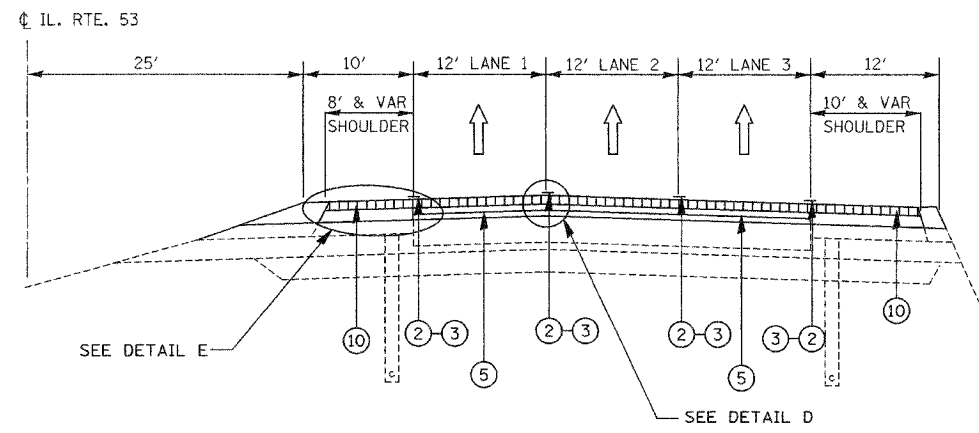
MAINLINE (EXISTING CONCRETE AND TAPER OVER HMA PAVEMENT AREA):  
OVERLAY 2" POLYMERIZED SMA SURFACE COURSE.  
SHOULDERS / RAMPS:  
OVERLAY 1 1/2 " HMA SURFACE COURSE  
PLACE PERMANENT PAVEMENT MARKINGS  
GRADING AND SHAPING SHOULDERS

**LEGEND**

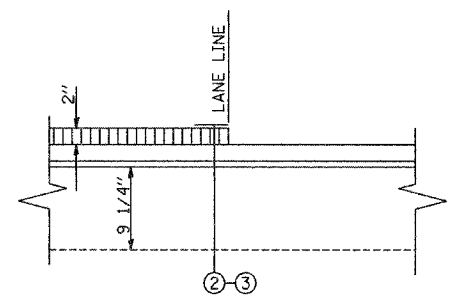
- ① EXISTING PAVEMENT MARKING
- ② TEMPORARY PAVEMENT MARKING
- ③ PERMANENT PAVEMENT MARKING (FINAL STAGE)
- ④ DELETED
- ⑤ PROPOSED POLYMERIZED HMA SURFACE COURSE, 2"
- ⑥ PROPOSED HMA SURFACE COURSE, 2"
- ⑦ PROPOSED POLYMERIZED LEVELING BINDER, 3/4"
- ⑧ PROPOSED POLYMERIZED HMA BINDER COURSE, 2"
- ⑨ PROPOSED HMA BINDER COURSE, 3 1/4"
- ⑩ PROPOSED HMA SURFACE COURSE, 1 1/2"
- ▨ - HMA SURFACE REMOVAL
- - LEVELING BINDER
- ▩ - BINDER COURSE
- ▤ - SURFACE COURSE

FILE NAME = c:\projects\p181694\design\bb.dgn	USER NAME = hamdaneh	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ILLINOIS ROUTE 53 (EXTENSION) LAKE-COOK ROAD TO U. S. 12 (RAND ROAD) SEQUENCE OF OPERATIONS</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 50,000 ' / IN.	CHECKED -	REVISED -	342			(530 & 531) RS-4	COOK	31	8	
PLOT DATE = 5/19/2008	DATE -	REVISED -	SCALE: N.T.S. SHEET NO. 2 OF 3 SHEETS STA. TO STA.			CONTRACT NO. 62079		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		

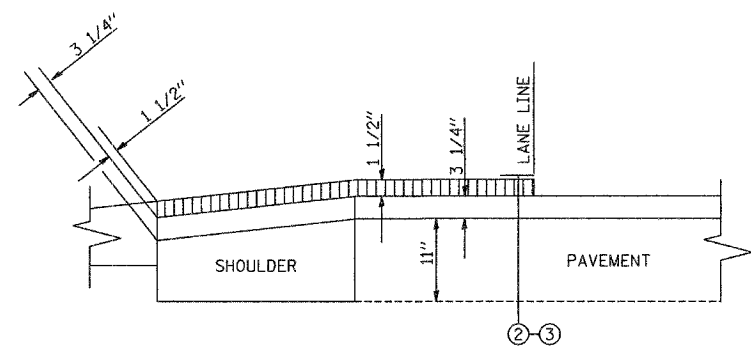




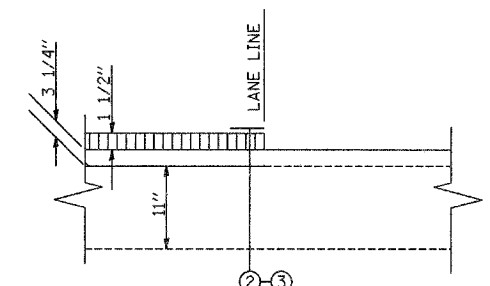
DETAIL E (EXISTING CONCRETE PAVEMENT AREA)



DETAIL D (EXISTING CONCRETE PAVEMENT AREA)



DETAIL E (RAMP AREA)



DETAIL F (RAMP AREA)

### OPERATION FOUR

#### SEQUENCE OF OPERATION

OPERATION ONE  
PATCH LANES (NB, SB AND RAMPS)

OPERATION TWO

FOR NB AND SB ON EXISTING HMA PAVEMENT AREA:  
1- MILL AND RESURFACE 2" THE INSIDE SHOULDER AND LANE 1 AT THE SAME TIME BEFORE MILLING ANY OTHER LANES WITHOUT WEDGE (SEE DETAIL A). PLACE PERMANENT PAVEMENT MARKINGS.  
2- MILL AND RESURFACE 2" OF LANE 2 ONLY WITHOUT WEDGE (SEE DETAIL A). PLACE PERMANENT PAVEMENT MARKINGS.  
3- MILL AND RESURFACE 2" OF LANE 3 AND OUTSIDE SHOULDER WITHOUT WEDGE (SEE DETAIL A). PLACE PERMANENT PAVEMENT MARKINGS.

OPERATION THREE

MAINLINE (EXISTING CONCRETE PAVEMENT AREA):  
OVERLAY 3/4" POLYMERIZED LEVELING BINDER AND 2" POLYMERIZED SMA BINDER COURSE.

NO TRAFFIC IS ALLOWED OVER LEVELING BINDER.

SHOULDERS / RAMPS:  
OVERLAY 3 1/4" HMA BINDER COURSE  
PLACE TEMPORARY PAVEMENT MARKING

OPERATION FOUR

MAINLINE (EXISTING CONCRETE AND TAPER OVER HMA PAVEMENT AREA):  
OVERLAY 2" POLYMERIZED SMA SURFACE COURSE.

SHOULDERS / RAMPS:  
OVERLAY 1 1/2" HMA SURFACE COURSE  
PLACE PERMANENT PAVEMENT MARKINGS  
GRADING AND SHAPING SHOULDERS

#### LEGEND

- ① EXISTING PAVEMENT MARKING
- ② TEMPORARY PAVEMENT MARKING
- ③ PERMANENT PAVEMENT MARKING (FINAL STAGE)
- ④ DELETED
- ⑤ PROPOSED POLYMERIZED HMA SURFACE COURSE, 2"
- ⑥ PROPOSED HMA SURFACE COURSE, 2"
- ⑦ PROPOSED POLYMERIZED LEVELING BINDER, 3/4"
- ⑧ PROPOSED POLYMERIZED HMA BINDER COURSE, 2"
- ⑨ PROPOSED HMA BINDER COURSE, 3 1/4"
- ⑩ PROPOSED HMA SURFACE COURSE, 1 1/2"
- ▨ - HMA SURFACE REMOVAL
- - LEVELING BINDER
- ▩ - BINDER COURSE
- ▧ - SURFACE COURSE

#### NOTES:

1. GRADE DIFFERENTIAL BETWEEN LANES SHALL NOT EXCEED 1 1/2"
2. SEE DETAIL TC-12 FOR PAVEMENT MARKING AT GORE AREAS.
3. REMOVAL OF TEMPORARY PAVEMENT MARKING WHEN REQUIRED SHALL BE PAID FOR AS WORK ZONE PAVEMENT MARKING REMOVAL.
4. INSTALL PERMANENT PAVEMENT MARKINGS (LANE LINES) PRIOR TO OPENING LANES TO TRAFFIC.
5. UNEVEN LANE SIGNS. THE CONTRACTOR SHALL FURNISH AND ERECT GRAPHICAL "UNEVEN LANE" SIGNS (W8-11) ON BOTH SIDES OF THE EXPRESSWAY, AT ANY TIME WHEN A DROP-OFF EXISTS BETWEEN ADJACENT LANES OPEN TO TRAFFIC DUE TO PAVING OPERATIONS. SIGNS SHALL BE PLACED 500 FEET IN ADVANCE OF THE DROP-OFF, WITHIN 500 FEET OF EVERY ENTRANCE, AND A MINIMUM OF EVERY MILE.

FILE NAME = c:\projects\p101694\design-bb\dgn	USER NAME = hamdanah	DESIGNED - DRAWN -	REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ILLINOIS ROUTE 53 (EXTENSION) LAKE-COOK ROAD TO U.S. 12 (RAND ROAD) SEQUENCE OF OPERATIONS</b>	F.A.P. RTE. 342	SECTION (530 & 531) RS-4	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 9		
PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED -	SCALE: N.T.S.			SHEET NO. 3 OF 3 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
PLOT DATE = 5/19/2000	DATE -	REVISED -	CONTRACT NO. 62079									



ILL. RTE. 53

5" WHITE SKIP DASH  
(10' DASH - 30' SKIP) (TYP.)  
PREFORMED PLASTIC  
PAVEMENT MARKING, TYPE B

6" WHITE SKIP DASH  
(2' DASH - 6' SKIP) (TYP.)

4" YELLOW EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

8" WHITE EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT  
MARKING

4" WHITE EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

4" YELLOW EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

MATCHLINE STA. 385 + 00

MATCHLINE STA. 399 + 00

NOTE 1

MAINLINE (HOT-MIX ASPHALT SECTION):  
MILL 2", RESURFACE 2" POLYMERIZED HOT-MIX ASPHALT SURFACE, COURSE, STONE MATRIX ASPHALT, N80

SHOULDER:  
MILL 2", RESURFACE 2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70

NOTE 2

MAINLINE (CONCRETE SECTION):  
OVERLAY 4 3/4", RESURFACE 3/4" POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50,  
2" POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, N80, AND 2" POLYMERIZED  
HOT-MIX ASPHALT SURFACE, COURSE, STONE MATRIX ASPHALT, N80

SHOULDER:  
OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70  
AND 1 1/2" HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70

PATCHING:  
CLASS "D" PAVEMENT PATCHING, 9 1/4"

NOTE 3

RAMPS:  
OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 AND 1 1/2"  
HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70

SHOULDER:  
OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70  
AND 1 1/2" HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70

RAISED REFLECTIVE PAVEMENT  
MARKER (ONE WAY CRYSTAL)  
SPACED AS SHOWN (TYP.)

4" WHITE EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

4" YELLOW EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

RE-SRTIPE PAVEMENT MARKING SEE NOTE 1  
AFTER CONSTRUCTION (HOT-MIX  
ASPHALT SECTION)

PROJECT BEGINS  
STA. 398+54

RAND ROAD



ILL. RTE. 53

5" WHITE SKIP DASH  
(10' DASH - 30' SKIP) (TYP.)  
PREFORMED PLASTIC  
PAVEMENT MARKING, TYPE B

4" YELLOW EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

MATCHLINE STA. 399 + 00

MATCHLINE STA. 413 + 00

NOTE 1

MAINLINE (HOT-MIX ASPHALT SECTION):  
MILL 2", RESURFACE 2" POLYMERIZED HOT-MIX ASPHALT SURFACE, COURSE, STONE MATRIX ASPHALT, N80

SHOULDER:  
MILL 2", RESURFACE 2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70

NOTE 2

MAINLINE (CONCRETE SECTION):  
OVERLAY 4 3/4", RESURFACE 3/4" POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50,  
2" POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, N80, AND 2" POLYMERIZED  
HOT-MIX ASPHALT SURFACE, COURSE, STONE MATRIX ASPHALT, N80

SHOULDER:  
OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70  
AND 1 1/2" HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70

PATCHING:  
CLASS "D" PAVEMENT PATCHING, 9 1/4"

NOTE 3

RAMPS:  
OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 AND 1 1/2"  
HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70

SHOULDER:  
OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70  
AND 1 1/2" HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70

12" WHITE DIAGONAL LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

4" YELLOW EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

RAISED REFLECTIVE PAVEMENT  
MARKER (ONE WAY CRYSTAL) (TYP.)

PROJECT BEGINS  
STA. 399+09

SEE NOTE 1

400+00

OMISSION

RAND ROAD

FILE NAME =  
c:\projects\p101694\design-bb.dgn

USER NAME = hamdenah

DESIGNED -

DRAWN -

CHECKED -

DATE -

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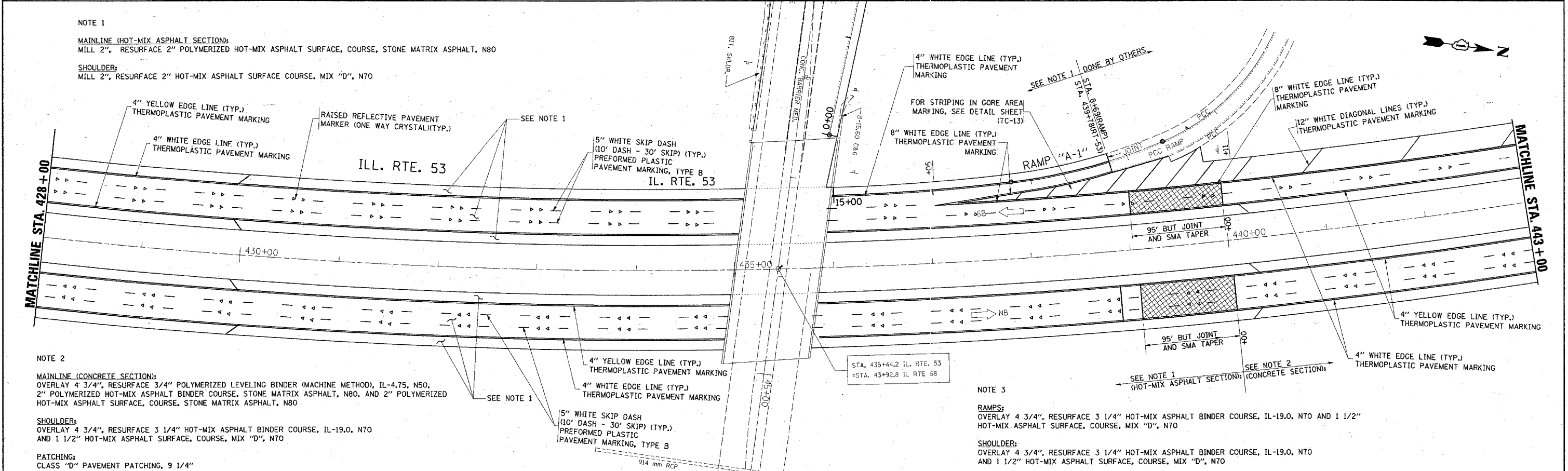
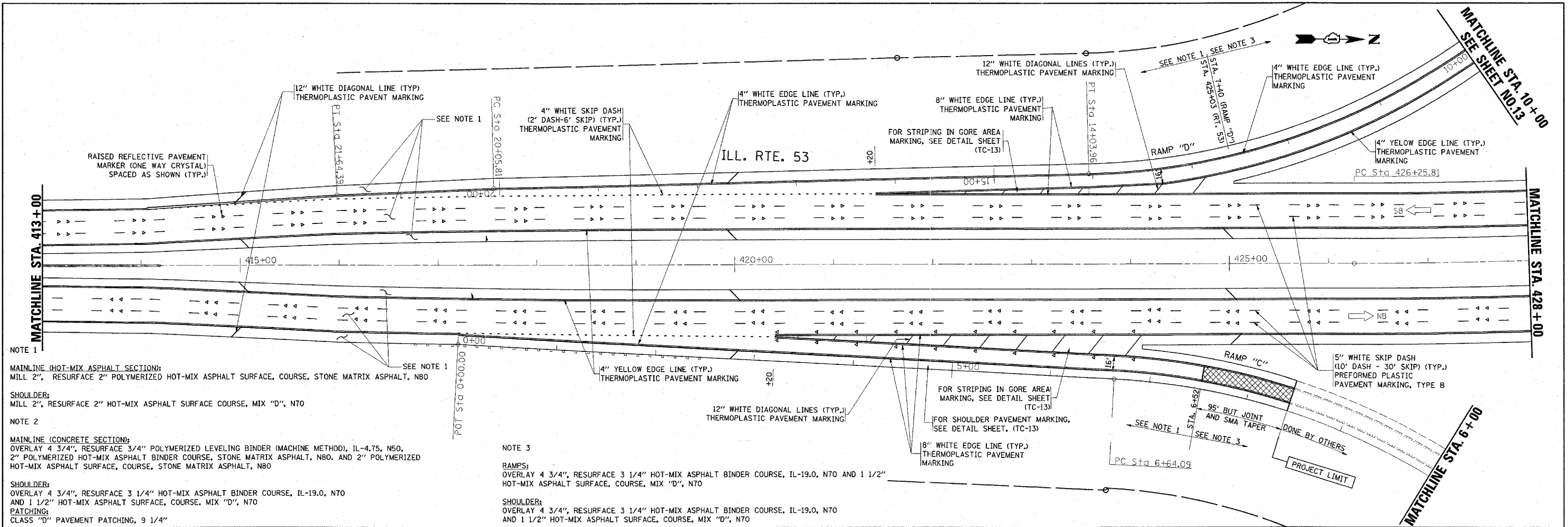
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 53 (EXTENSION)  
LAKE-COOK ROAD TO U. S. 12 (RAND ROAD)  
PROPOSED PLANS AND PAVEMENT MARKING PLANS

SCALE: 1" = 50' SHEET NO. 1 OF 8 SHEETS STA. 385+00 TO STA. 413+00

F.A.P. SECTION COUNTY TOTAL SHEETS SHEET NO.  
RTE. 342 (530 & 531) RS-4 COOK 31 10

FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT CONTRACT NO. 62079



FILE NAME = c:\projects\p101694\design-bb.dgn	USER NAME = hamdanah	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ILLINOIS ROUTE 53 (EXTENSION) LAKE-COOK ROAD TO U. S. 12 (RAND ROAD) PROPOSED PLANS AND PAVEMENT MARKING PLANS</b>			F.A.P. RTE. 342	SECTION (530 & 531) RS-4	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 11
	PLOT SCALE = 50.000' / IN.	DRAWN -	REVISED -		SCALE: 1" = 50'	SHEET NO. 2 OF 8 SHEETS	STA. 413+00 TO STA. 443+00	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
	PLOT DATE = 4/18/2008	CHECKED -	REVISED -									
		DATE -	REVISED -									

NOTE 1  
 MAINLINE (HOT-MIX ASPHALT SECTION):  
 MILL 2", RESURFACE 2" POLYMERIZED HOT-MIX ASPHALT SURFACE, COURSE, STONE MATRIX ASPHALT, N80

SHOULDER:  
 MILL 2", RESURFACE 2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70

NOTE 2  
 MAINLINE (CONCRETE SECTION):  
 OVERLAY 4 3/4", RESURFACE 3/4" POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50,  
 2" POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, N80, AND 2" POLYMERIZED  
 HOT-MIX ASPHALT SURFACE, COURSE, STONE MATRIX ASPHALT, N80

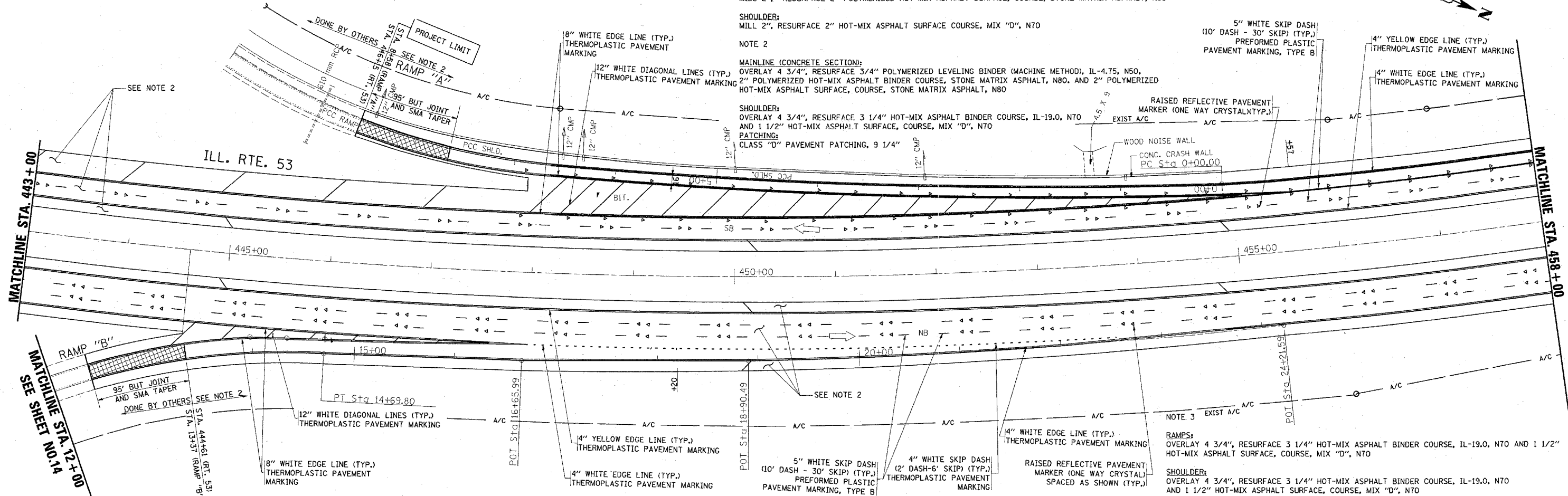
SHOULDER:  
 OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70  
 AND 1 1/2" HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70

PATCHING:  
 CLASS "D" PAVEMENT PATCHING, 9 1/4"

5" WHITE SKIP DASH  
 (10' DASH - 30' SKIP) (TYP.)  
 PREFORMED PLASTIC  
 PAVEMENT MARKING, TYPE B

4" YELLOW EDGE LINE (TYP.)  
 THERMOPLASTIC PAVEMENT MARKING

4" WHITE EDGE LINE (TYP.)  
 THERMOPLASTIC PAVEMENT MARKING

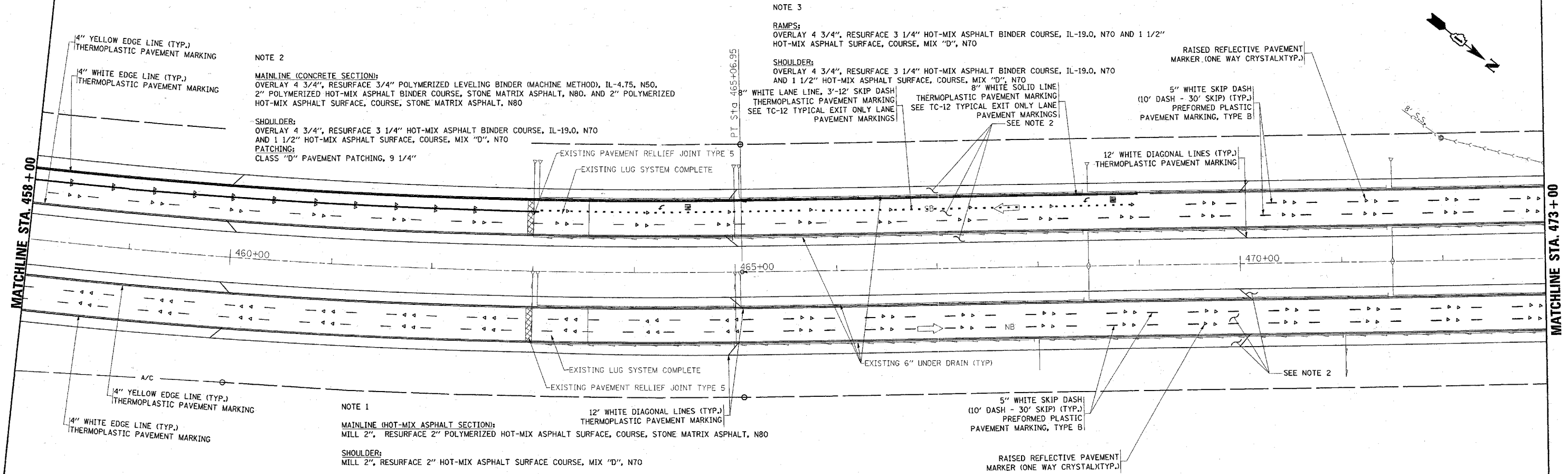


NOTE 3  
 RAMPS:  
 OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 AND 1 1/2"  
 HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70

SHOULDER:  
 OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70  
 AND 1 1/2" HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70

RAISED REFLECTIVE PAVEMENT  
 MARKER (ONE WAY CRYSTAL)(TYP.)

5" WHITE SKIP DASH  
 (10' DASH - 30' SKIP) (TYP.)  
 PREFORMED PLASTIC  
 PAVEMENT MARKING, TYPE B



NOTE 1  
 MAINLINE (HOT-MIX ASPHALT SECTION):  
 MILL 2", RESURFACE 2" POLYMERIZED HOT-MIX ASPHALT SURFACE, COURSE, STONE MATRIX ASPHALT, N80

SHOULDER:  
 MILL 2", RESURFACE 2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 53 (EXTENSION)  
 LAKE-COOK ROAD TO U. S. 12 (RAND ROAD)  
 PROPOSED PLANS AND PAVEMENT MARKING PLANS

F.A.P. RTE. 342	SECTION (530 & 531) RS-4	COUNTY	TOTAL SHEETS 31	SHEET NO. 12
CONTRACT NO.				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SCALE: SHEET NO. 3 OF 8 SHEETS STA. TO STA.

NOTE 3

RAMPS:  
OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 AND 1 1/2" HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70

SHOULDER:  
OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 AND 1 1/2" HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70

SEE NOTE 2

4" YELLOW EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

4" WHITE EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

RAISED REFLECTIVE PAVEMENT MARKER (ONE WAY CRYSTAL)(TYP.)

5" WHITE SKIP DASH (10' DASH - 30' SKIP) (TYP.)  
PERFORMED PLASTIC PAVEMENT MARKING, TYPE B

POT Sta 25+86.27

RAISED REFLECTIVE PAVEMENT MARKER (ONE WAY CRYSTAL)(TYP.)

5" WHITE SKIP DASH (10' DASH - 30' SKIP) (TYP.)  
PERFORMED PLASTIC PAVEMENT MARKING, TYPE B

8" WHITE EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

12" WHITE DIAGONAL LINES (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

MATCHLINE STA. 473+00

MATCHLINE STA. 488+00

NOTE 1

EXISTING 6" UNDER DRAIN (TYP.)  
MAINLINE (HOT-MIX ASPHALT SECTION):  
MILL 2", RESURFACE 2" POLYMERIZED HOT-MIX ASPHALT SURFACE, COURSE, STONE MATRIX ASPHALT, N80

SHOULDER:  
MILL 2", RESURFACE 2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70

NOTE 2

MAINLINE (CONCRETE SECTION):  
OVERLAY 4 3/4", RESURFACE 3/4" POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 2" POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, N80, AND 2" POLYMERIZED HOT-MIX ASPHALT SURFACE, COURSE, STONE MATRIX ASPHALT, N80

SHOULDER:  
OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 AND 1 1/2" HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70

PATCHING:  
CLASS "D" PAVEMENT PATCHING, 9 1/4"

12" WHITE DIAGONAL LINES (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

4" YELLOW EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

4" WHITE EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

POT Sta 0+00.00

5" WHITE SKIP DASH (10' DASH - 30' SKIP) (TYP.)  
PERFORMED PLASTIC PAVEMENT MARKING, TYPE B

RAISED REFLECTIVE PAVEMENT MARKER (ONE WAY CRYSTAL)(TYP.)

SEE NOTE 2

43.044 m R FOR STRIPING GORE AREA MARKING, SEE DETAIL SHEET

12" WHITE DIAGONAL LINES (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

8" WHITE EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

SEE NOTE 2 | SEE NOTE 3

FOR STRIPING GORE AREA MARKING, SEE DETAIL SHEET

RAISED REFLECTIVE PAVEMENT MARKER (ONE WAY CRYSTAL)(TYP.)

5" WHITE SKIP DASH (10' DASH - 30' SKIP) (TYP.)  
PERFORMED PLASTIC PAVEMENT MARKING, TYPE B

8" WHITE EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

12" WHITE DIAGONAL LINES (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

IL. RTE. 53

RAMP "D2"

493+35.78  
38.136 m L

STA. 493+94 (RT. 53)  
STA. 15+14 (RAMP "D2")

SEE NOTE 2

4" WHITE EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

4" YELLOW EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

MATCHLINE STA 11+00  
SEE SHEET NO.15

NOTE 1

MAINLINE (HOT-MIX ASPHALT SECTION):  
MILL 2", RESURFACE 2" POLYMERIZED HOT-MIX ASPHALT SURFACE, COURSE, STONE MATRIX ASPHALT, N80  
SHOULDER:  
MILL 2", RESURFACE 2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70

NOTE 2

MAINLINE (CONCRETE SECTION):  
OVERLAY 4 3/4", RESURFACE 3/4" POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 2" POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, N80, AND 2" POLYMERIZED HOT-MIX ASPHALT SURFACE, COURSE, STONE MATRIX ASPHALT, N80

SHOULDER:  
OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 AND 1 1/2" HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70

PATCHING:  
CLASS "D" PAVEMENT PATCHING, 9 1/4"

MATCHLINE STA. 488+00

MATCHLINE STA. 503+00

POT Sta 489+41.29

488+00

495+00

500+00

EXISTING LUG SYSTEM COMPLETE

EXISTING 6" UNDER DRAIN (TYP.)

4" YELLOW EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

4" WHITE EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

SEE NOTE 2

FOR STRIPING GORE AREA MARKING, SEE DETAIL SHEET

RAISED REFLECTIVE PAVEMENT MARKER (ONE WAY CRYSTAL)(TYP.)

12" WHITE DIAGONAL LINES (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

RAMP "A2"

5" WHITE SKIP DASH (10' DASH - 30' SKIP) (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

4" WHITE EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

SEE NOTE 2 | SEE NOTE 3

4" WHITE EDGE LINE (TYP.)  
THERMOPLASTIC PAVEMENT MARKING

MATCHLINE STA. 12+00  
SEE SHEET NO.15

LAKE COOK ROAD

STA 498+67.97 IL. RTE. 53  
STA 100+00 LAKE COOK ROAD

POT Sta 23+44.47

NOTE 3

RAMPS:  
OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 AND 1 1/2" HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70

SHOULDER:  
OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 AND 1 1/2" HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70

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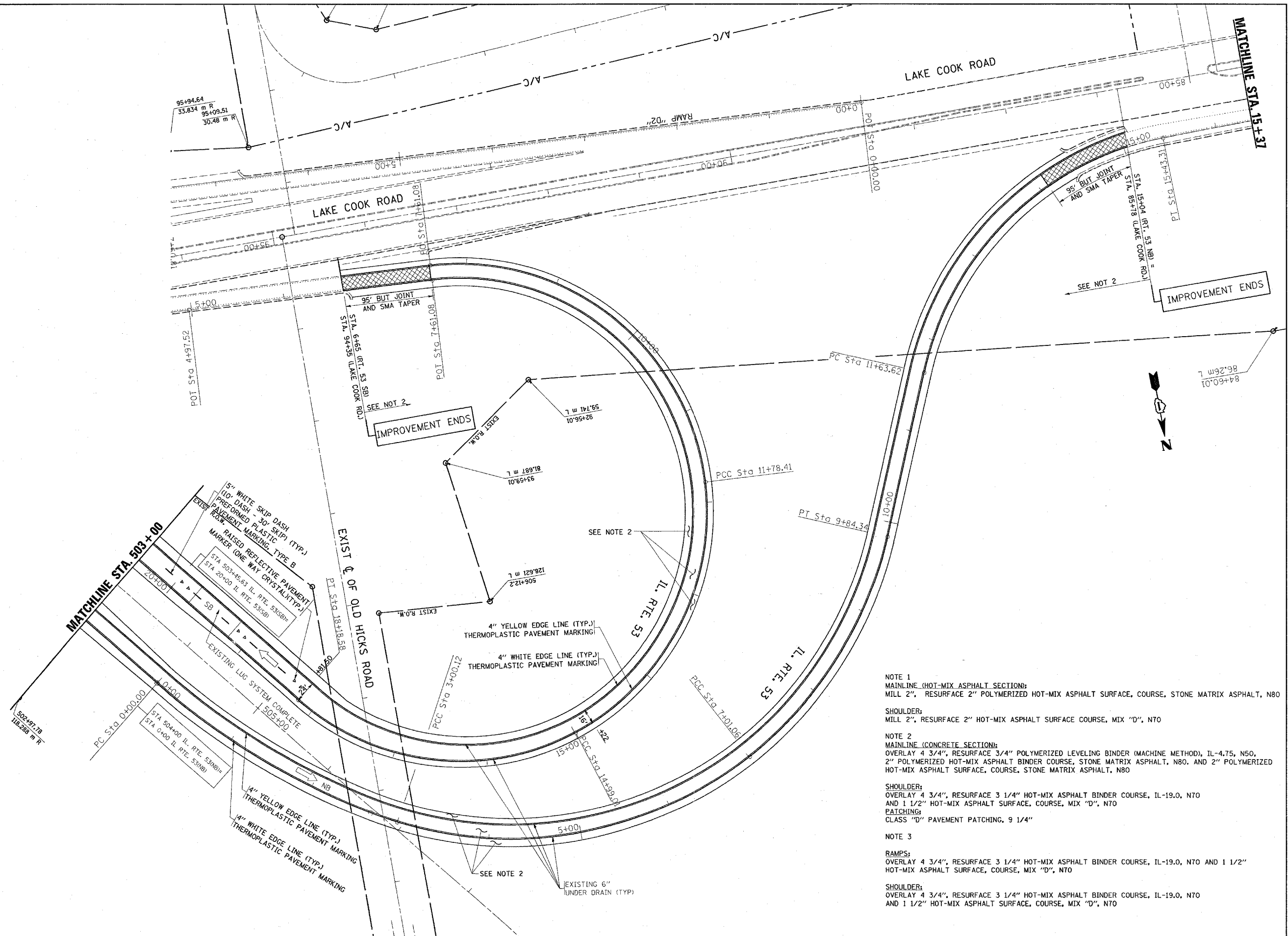
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 53 (EXTENSION)  
LAKE-COOK ROAD TO U. S. 12 (RAND ROAD)  
PROPOSED PLANS AND PAVEMENT MARKING PLANS

SCALE: SHEET NO. 4 OF 8 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	(530 & 531) RS-4	COOK	31	13
CONTRACT NO. 62079				

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



**NOTE 1**  
**MAINLINE (HOT-MIX ASPHALT SECTION):**  
 MILL 2", RESURFACE 2" POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, N80

**SHOULDER:**  
 MILL 2", RESURFACE 2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70

**NOTE 2**  
**MAINLINE (CONCRETE SECTION):**  
 OVERLAY 4 3/4", RESURFACE 3/4" POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50,  
 2" POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, N80, AND 2" POLYMERIZED  
 HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, N80

**SHOULDER:**  
 OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70  
 AND 1 1/2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70

**PATCHING:**  
 CLASS "D" PAVEMENT PATCHING, 9 1/4"

**NOTE 3**

**RAMPS:**  
 OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 AND 1 1/2"  
 HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70

**SHOULDER:**  
 OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70  
 AND 1 1/2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70

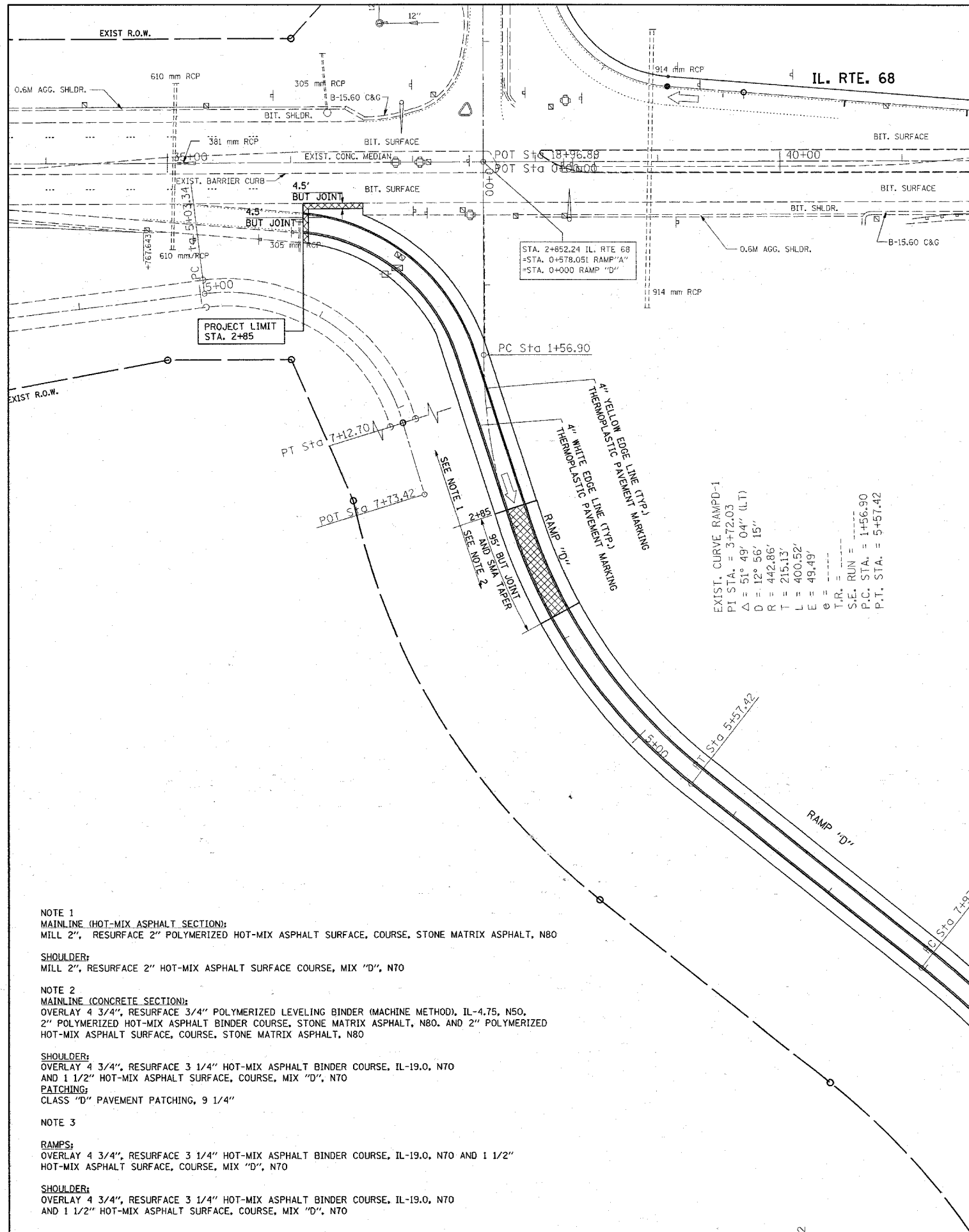
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PLOT DATE = 4/30/2008			

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 53 (EXTENSION)  
 LAKE-COOK ROAD TO U. S. 12 (RAND ROAD)  
 PROPOSED PLANS AND PAVEMENT MARKING PLANS**

SCALE: SHEET NO. 5 OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	(530 & 531) RS-4	COOK	31	14
CONTRACT NO. 62079				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



EXIST. CURVE RAMPD-1  
 PI STA. = 3+72.03  
 $\Delta = 51^\circ 49' 04''$  (LT)  
 $D = 12^\circ 56' 15''$   
 $R = 442.86'$   
 $T = 215.13'$   
 $L = 400.52'$   
 $E = 49.49'$   
 $\theta =$   
 T.R. =  
 S.E. RUN = 1+56.90  
 P.C. STA. = 1+56.90  
 P.T. STA. = 5+57.42

- NOTE 1**  
 MAINLINE (HOT-MIX ASPHALT SECTION):  
 MILL 2", RESURFACE 2" POLYMERIZED HOT-MIX ASPHALT SURFACE, COURSE, STONE MATRIX ASPHALT, N80
- SHOULDER:**  
 MILL 2", RESURFACE 2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70
- NOTE 2**  
 MAINLINE (CONCRETE SECTION):  
 OVERLAY 4 3/4", RESURFACE 3/4" POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50,  
 2" POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, N80, AND 2" POLYMERIZED  
 HOT-MIX ASPHALT SURFACE, COURSE, STONE MATRIX ASPHALT, N80
- SHOULDER:**  
 OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70  
 AND 1 1/2" HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70
- PATCHING:**  
 CLASS "D" PAVEMENT PATCHING, 9 1/4"
- NOTE 3**
- RAMPS:**  
 OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 AND 1 1/2"  
 HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70
- SHOULDER:**  
 OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70  
 AND 1 1/2" HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

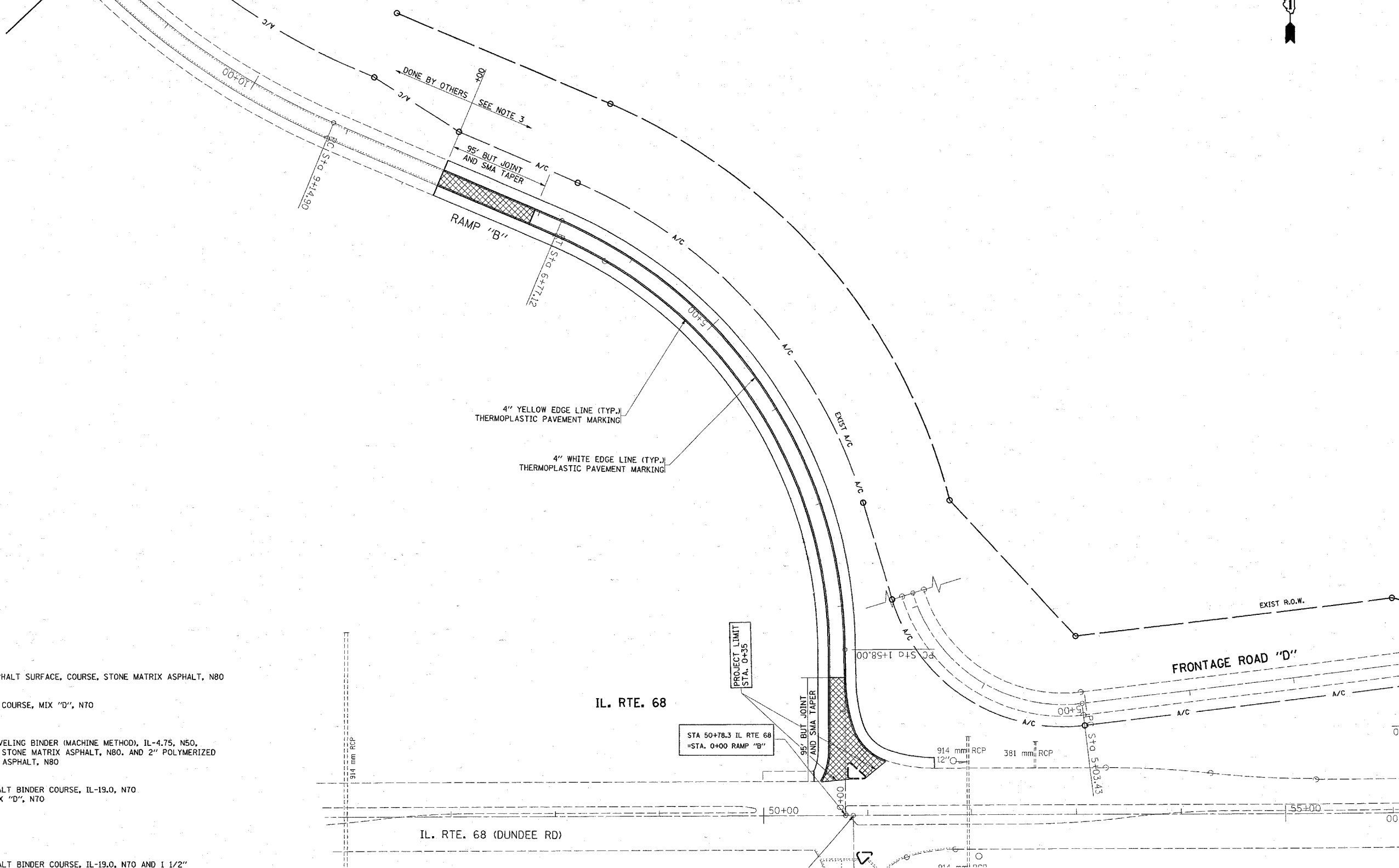
**ILLINOIS ROUTE 53 (EXTENSION)  
 LAKE-COOK ROAD TO U. S. 12 (RAND ROAD)  
 PROPOSED PLANS AND PAVEMENT MARKING PLANS**  
 SCALE: 1" = 50' SHEET NO. 6 OF 8 SHEETS STA. 413+00 TO STA. 443+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	(530 & 531) RS-4	COOK	31	15

CONTRACT NO. 62079  
 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



MATCHLINE STA. 12+00  
SEE SHEET NO. 10



**NOTE 1**  
**MAINLINE (HOT-MIX ASPHALT SECTION):**  
 MILL 2", RESURFACE 2" POLYMERIZED HOT-MIX ASPHALT SURFACE, COURSE, STONE MATRIX ASPHALT, N80  
**SHOULDER:**  
 MILL 2", RESURFACE 2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70

**NOTE 2**  
**MAINLINE (CONCRETE SECTION):**  
 OVERLAY 4 3/4", RESURFACE 3/4" POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50,  
 2" POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, N80, AND 2" POLYMERIZED  
 HOT-MIX ASPHALT SURFACE, COURSE, STONE MATRIX ASPHALT, N80  
**SHOULDER:**  
 OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70  
 AND 1 1/2" HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70  
**PATCHING:**  
 CLASS "D" PAVEMENT PATCHING, 9 1/4"

**NOTE 3**  
**RAMPS:**  
 OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 AND 1 1/2"  
 HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70  
**SHOULDER:**  
 OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70  
 AND 1 1/2" HOT-MIX ASPHALT SURFACE, COURSE, MIX "D", N70

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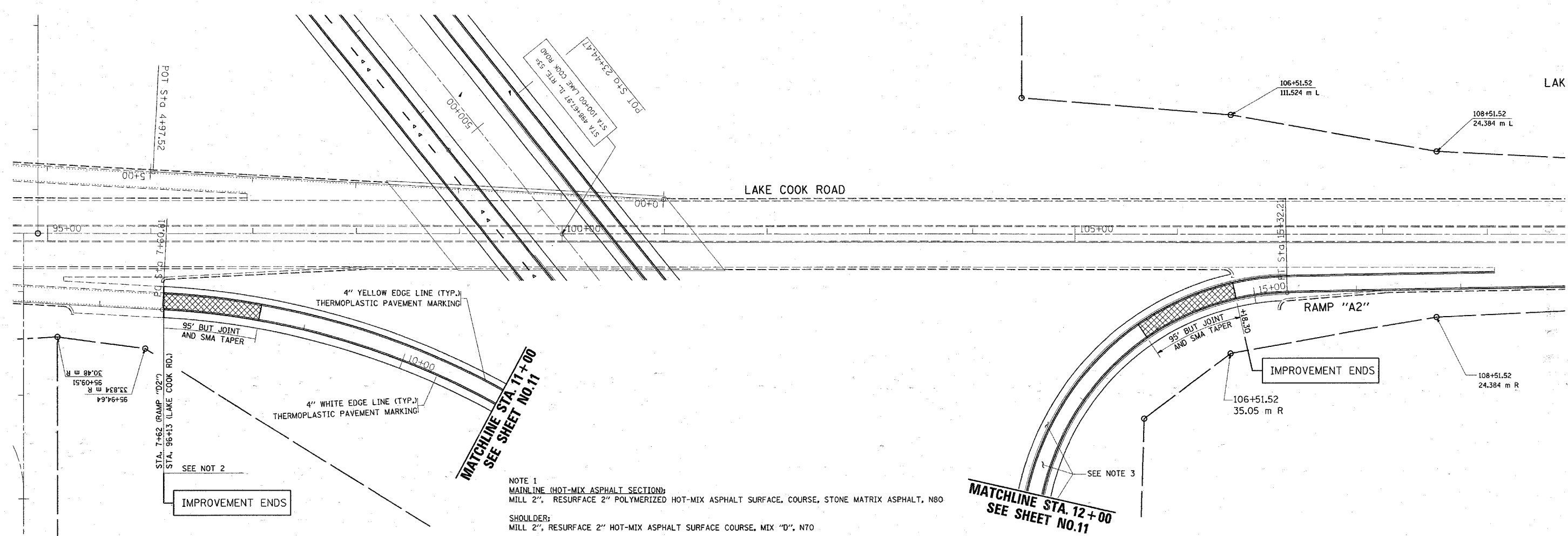
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 53 (EXTENSION)  
 LAKE-COOK ROAD TO U. S. 12 (RAND ROAD)  
 PROPOSED PLANS AND PAVEMENT MARKING PLANS**

SCALE: 1" = 50' SHEET NO. 7 OF 8 SHEETS STA. 413+00 TO STA. 443+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	(530 & 531) RS-4	COOK	31	16
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 62079	





NOTE 1  
**MAINLINE (HOT-MIX ASPHALT SECTION):**  
 MILL 2", RESURFACE 2" POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, N80

**SHOULDER:**  
 MILL 2", RESURFACE 2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70

NOTE 2  
**MAINLINE (CONCRETE SECTION):**  
 OVERLAY 4 3/4", RESURFACE 3/4" POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50,  
 2" POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, N80, AND 2" POLYMERIZED  
 HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, N80

**SHOULDER:**  
 OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70  
 AND 1 1/2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70  
**PATCHING:**  
 CLASS "D" PAVEMENT PATCHING, 9 1/4"

NOTE 3

**RAMPS:**  
 OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 AND 1 1/2"  
 HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70

**SHOULDER:**  
 OVERLAY 4 3/4", RESURFACE 3 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70  
 AND 1 1/2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70

IMPROVEMENT ENDS

IMPROVEMENT ENDS

MATCHLINE STA. 11+00  
 SEE SHEET NO. 11

MATCHLINE STA. 12+00  
 SEE SHEET NO. 11

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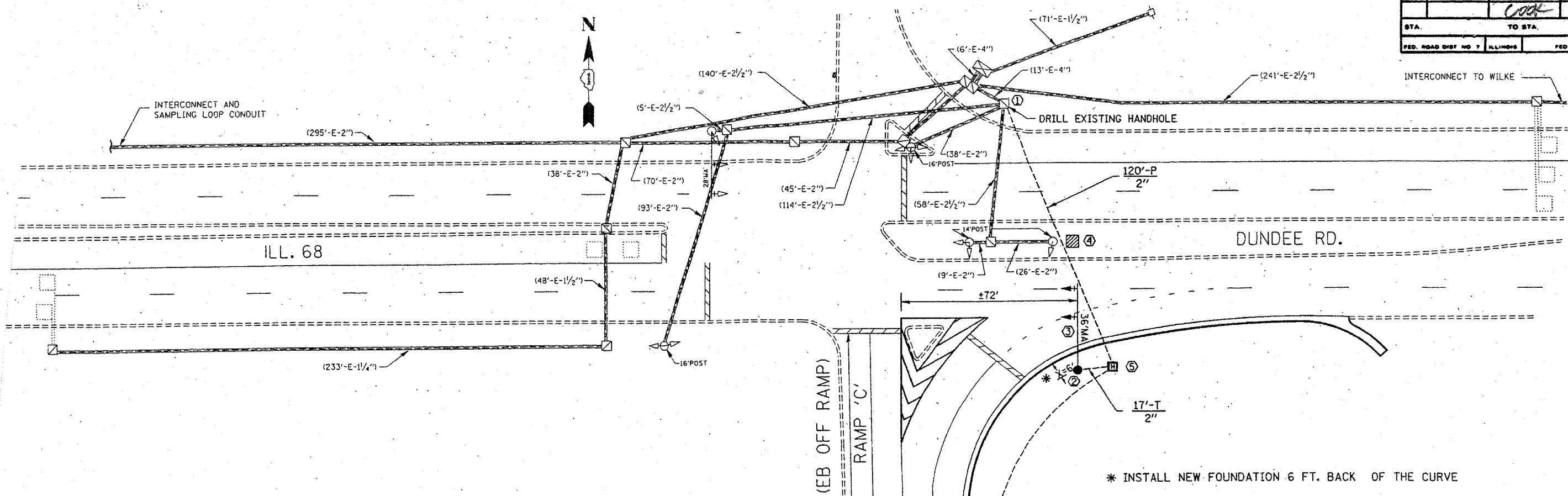
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 53 (EXTENSION)  
 LAKE-COOK ROAD TO U. S. 12 (RAND ROAD)  
 PROPOSED PLANS AND PAVEMENT MARKING PLANS  
 SCALE: 1" = 50'  
 SHEET NO. 8 OF 8 SHEETS  
 STA. 413+00 TO STA. 443+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	(530 & 531) RS-4	COOK	31	17
CONTRACT NO. 62079			FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT	



**CONSTRUCTION NOTES:**

- ① DRILL EXISTING HANDHOLE
- ② INSTALL CONCRETE FOUNDATION, TYPE "E" 30-INCH DIAMETER
- ③ INSTALL STEEL MAST ARM ASSEMBLY & POLE, 36 FT
- ④ REPLACE 25 SF. OF CONCRETE FROM THE MEDIAN AFTER REMOVE TEMP. WOOD POLE
- ⑤ INSTALL HEAVY-DUTY HANDHOLE (2)

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING	
CONTROLLER CABINET			SIGNAL HEAD WITH LOUVERS
RAILROAD CONTROL CABINET			JUNCTION BOX
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			HANDHOLE
TELEPHONE CONNECTION			HEAVY DUTY HANDHOLE
SIGNAL HEAD			DOUBLE HANDHOLE
SIGNAL HEAD WITH BACKPLATE			G.S. CONDUIT IN TRENCH OR PUSHED
SIGNAL HEAD OPTICALLY PROGRAMMED			COMMON TRENCH
SIGNAL HEAD PEDESTRIAN			UNIT DUCT
ILLUMINATED SIGN "NO LEFT TURN"			PEDESTRIAN PUSHBUTTON DETECTOR
ILLUMINATED SIGN "NO RIGHT TURN"			DETECTOR LOOP, TYPE 1
			PERFORMED DETECTOR LOOP

	PROPOSED	EXISTING
CT		
US		

**FOR INFORMATION ONLY**

**NOTE:**  
THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.

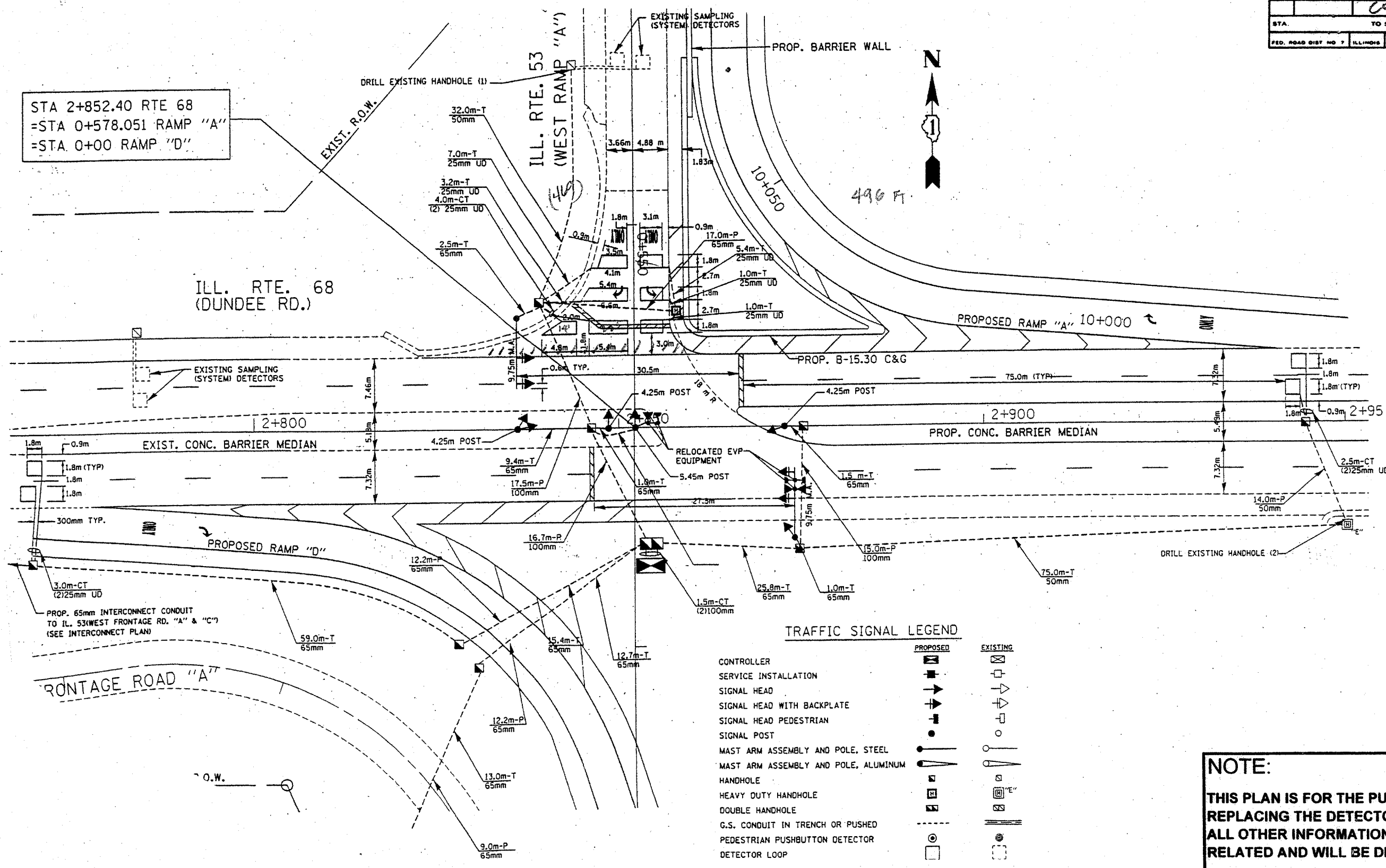
**REPLACE ALL DETECTOR LOOPS AS SHOWN**  
(WITHIN THE RESURFACING LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
86600600		Foot	Detector Loop Replacement

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DETECTOR LOOP REPLACEMENT**  
ILL. RFB. 68 @ Ill. 53 (E. RAMP)  
SCALE: 1" = 20'  
DATE: \_\_\_\_\_  
DRAWN BY: JHE.  
DESIGNED BY: JHE.  
CHECKED BY: DAD.

F. & S. STA.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		COOK	31	19
STA. TO STA.		ILLINOIS		
FED. ROAD DIST. NO. 7		FED. AID PROJECT		



STA 2+852.40 RTE 68  
 =STA 0+578.051 RAMP "A"  
 =STA 0+00 RAMP "D"

ILL. RTE. 68  
 (DUNDEE RD.)

ILL. RTE. 53  
 (WEST RAMP "A")



496 FT.

**REPLACE ALL DETECTOR LOOPS AS SHOWN**

(WITHIN THE RESURFACING LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
86600600	496	Foot	Detector Loop Replacement

REVISIONS	
NAME	DATE

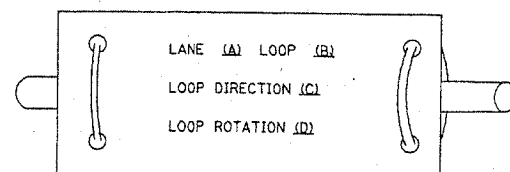
**NOTE:**  
 THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DETECTOR LOOP REPLACEMENT**  
 ILL. RTE. 68 @ ILL. 53 (W. RAMP)  
 SCALE: 1" = 40'  
 DATE: \_\_\_\_\_  
 DRAWN BY: JHE  
 DESIGNED BY: JHE  
 CHECKED BY: D.A.D.

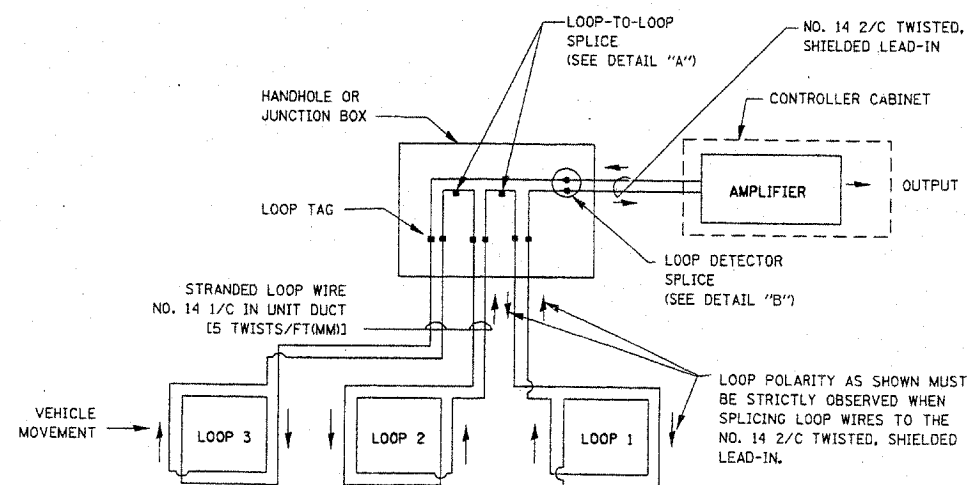
### LOOP DETECTOR NOTES

- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- 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.
- 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.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- 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.
- 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.
- 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

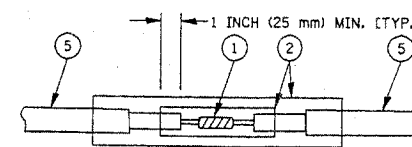


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

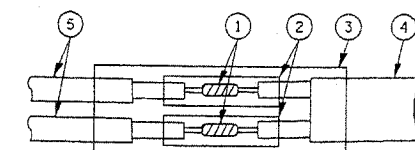


DETECTOR LOOP WIRING SCHEMATIC

- 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

#### LOOP DETECTOR SPLICE

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

REVISIONS	
NAME	DATE

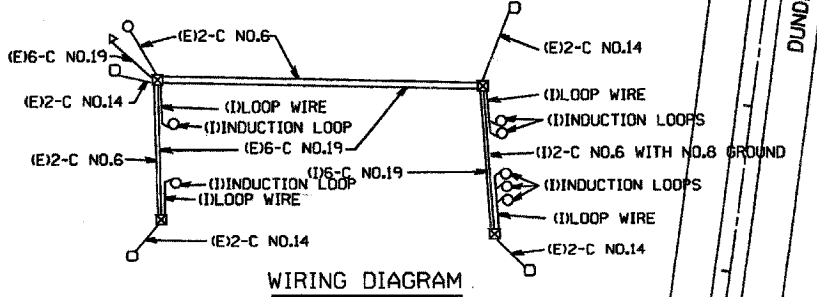
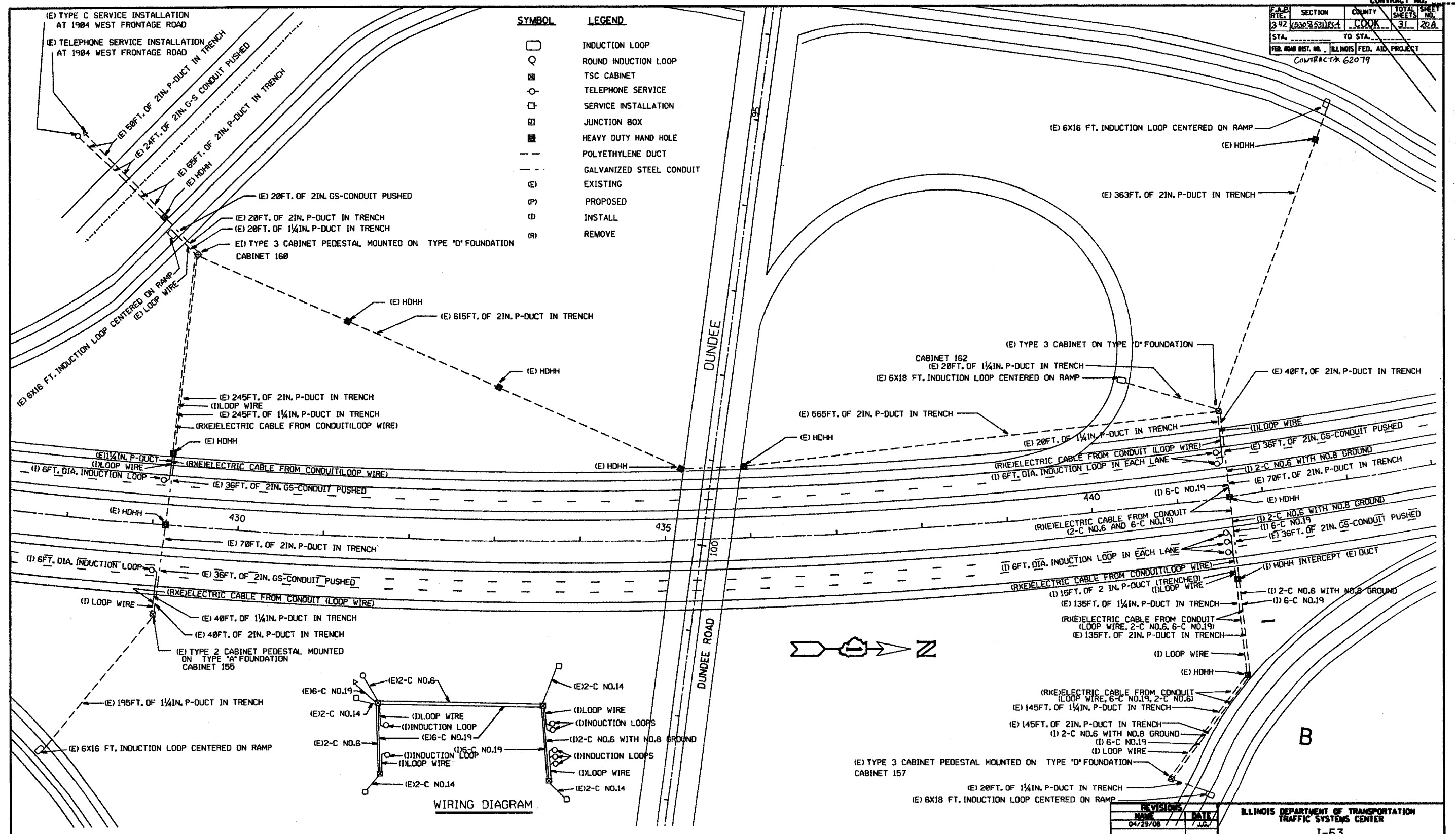
ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT ONE  
STANDARD TRAFFIC SIGNAL  
DESIGN DETAILS

SCALE: VERT. NONE  
HORIZ. NONE  
DATE 1-01-02

DRAWN BY: RWP  
DESIGNED BY: DAZ  
CHECKED BY: DAZ  
SHEET 1 OF 4

F.A.B. RATE		SECTION	COUNTY	TOTAL SHEETS
3.42		(630853)R-1	COOK	31 208
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 62079		

SYMBOL	LEGEND
□	INDUCTION LOOP
○	ROUND INDUCTION LOOP
⊠	TSC CABINET
○	TELEPHONE SERVICE
□	SERVICE INSTALLATION
⊠	JUNCTION BOX
⊠	HEAVY DUTY HAND HOLE
---	POLYETHYLENE DUCT
---	GALVANIZED STEEL CONDUIT
(E)	EXISTING
(P)	PROPOSED
(I)	INSTALL
(R)	REMOVE



NOTE: LEAD-IN FROM SAW-CUT TO CABINET IS PAID FOR USING PAY ITEM FOR 4-C #18 TWISTED SHIELDED.

REVISIONS	NAME	DATE
1	J.C.	04/29/08

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 TRAFFIC SYSTEMS CENTER  
 I-53  
 DUNDEE ROAD  
 INSTALLATION  
 SCALE: VERT. 50d  
 HORIZ. 50d  
 DATE 12/21/90  
 DRAWN BY GW  
 CHECKED BY

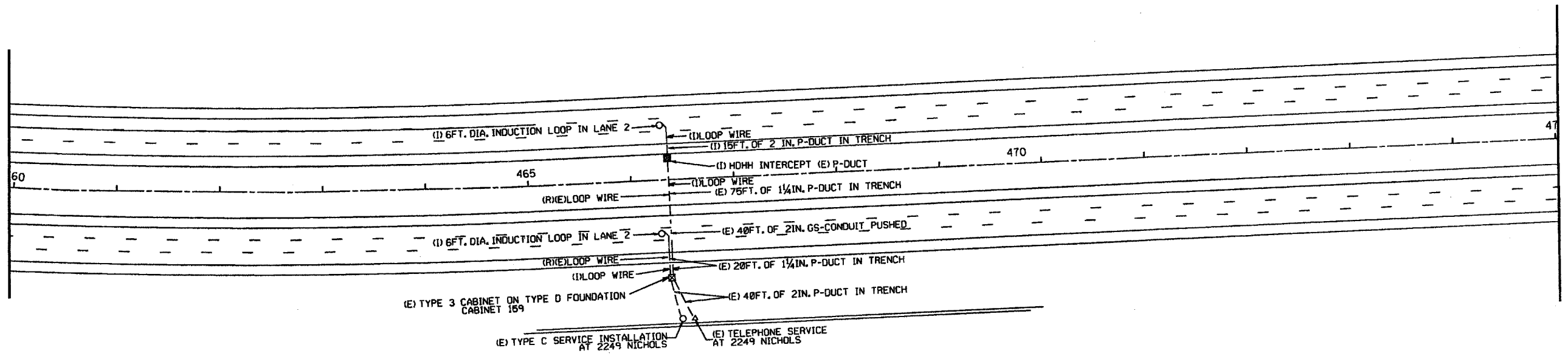
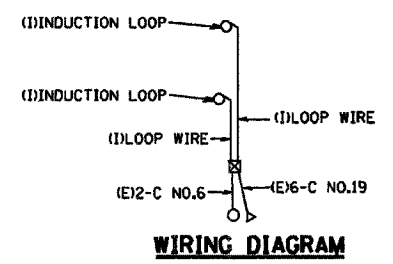
TRAFFIC SYSTEMS CENTER

PLOT DATE 1 5/8/2008  
 PLOT BY J. J. HARRIS  
 PLOT SCALE 1/8" = 1'-0"  
 PLOT SHEETS 31 OF 31

VI-DUNDEE

CONTRACT NO.			
F.A.D. RTE.	SECTION	COUNTY	TOTAL SHEETS
342	(R20259)RS-4	COOK	31 20 B
STA. 460+00		TO STA. 475+00	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			
CONTRACT # 62079			

SYMBOL	LEGEND
□	INDUCTION LOOP
○	ROUND INDUCTION LOOP
⊠	TSC CABINET
○	TELEPHONE SERVICE
□	SERVICE INSTALLATION
⊠	JUNCTION BOX
■	HEAVY DUTY HAND HOLE
---	POLYETHYLENE DUCT
- - -	GALVANIZED STEEL CONDUIT
(E)	EXISTING
(P)	PROPOSED
(I)	INSTALL
(R)	REMOVE



NOTE: LEAD-IN FROM SAW-CUT TO CABINET IS PAID FOR USING PAY ITEM FOR 4-C #18 TWISTED SHIELDED.

REVISIONS	
NAME	DATE
J.G.	04/23/08

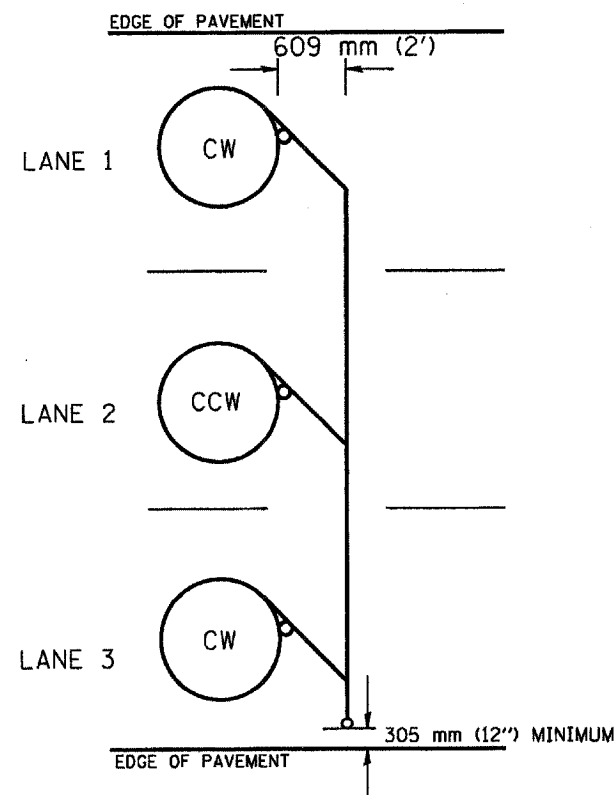
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 TRAFFIC SYSTEMS CENTER  
 I-53  
 1/2 MILE SOUTH OF  
 LAKE COOK INSTALLATION  
 SCALE: VERT. 50ft  
 HORIZ. 50ft  
 DATE 12/27/90  
 DRAWN BY CM  
 CHECKED BY

PLOT DATE: 1/28/08  
 FILE NAME: I:\PROJECTS\TSC\DRAWING\I53\I53.DWG  
 PLOT SCALE: 1/8" = 1'-0"  
 PLOT SHEETS: 31

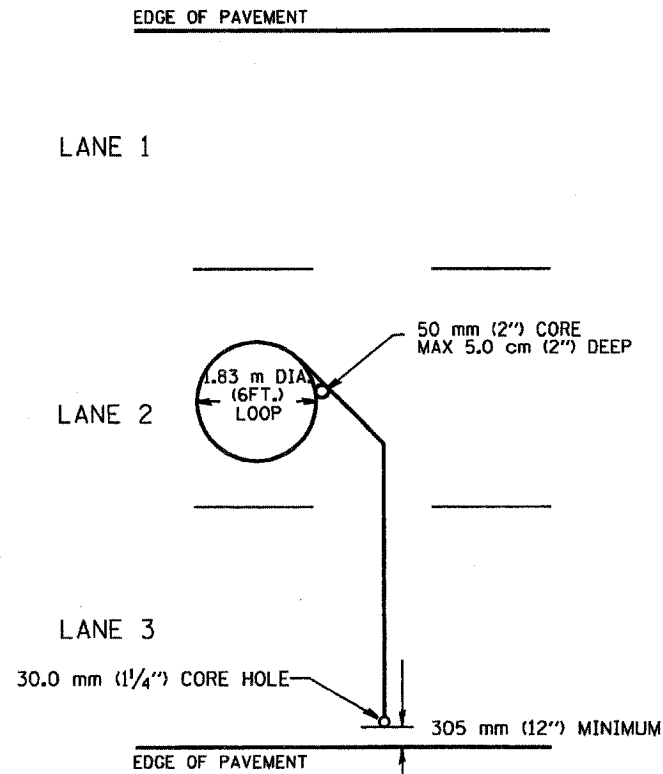
VI-SOLACK

TRAFFIC SYSTEMS CENTER

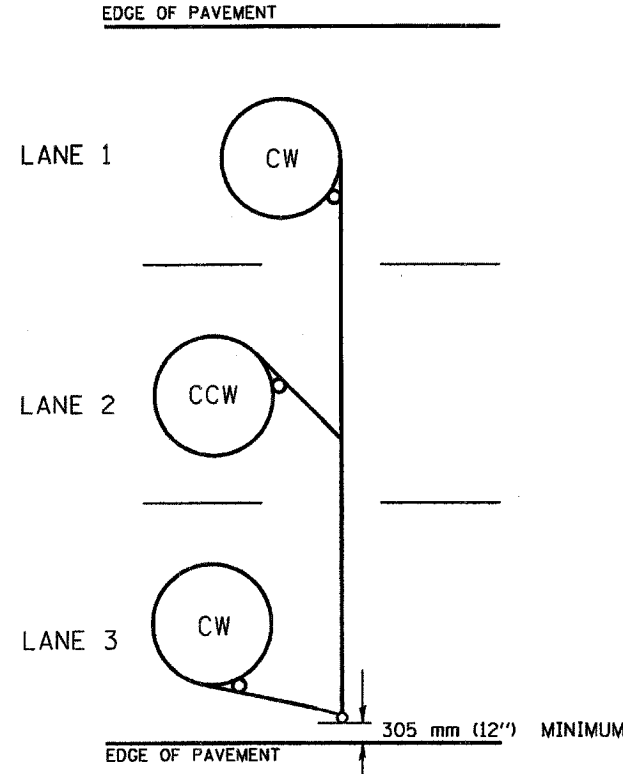
F.A.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	(6308.53) 8-4	COOK	31	20C
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT # 62079				



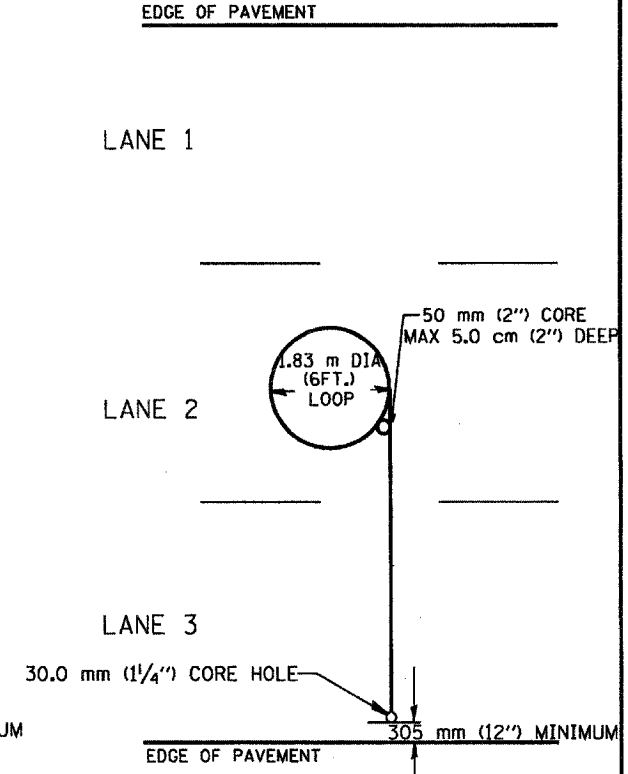
TYPICAL 1.83 m (6FT.) DIA. INDUCTION LOOP CORE DRILL  
LAYOUT FOR MULTIPLE LANE ROADWAY



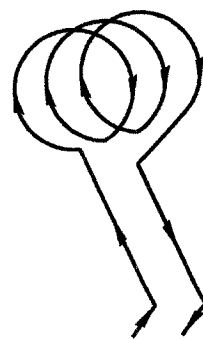
TYPICAL 1.83 m (6') DIA. INDUCTION LOOP  
LAYOUT FOR LANE 2



TYPICAL 1.83 m (6') DIA. INDUCTION LOOP CORE DRILL  
LAYOUT FOR MULTIPLE LANE ROADWAY



TYPICAL 1.83 m (6') DIA. INDUCTION LOOP  
LAYOUT FOR LANE 2



WIRING DETAILS

NOTES

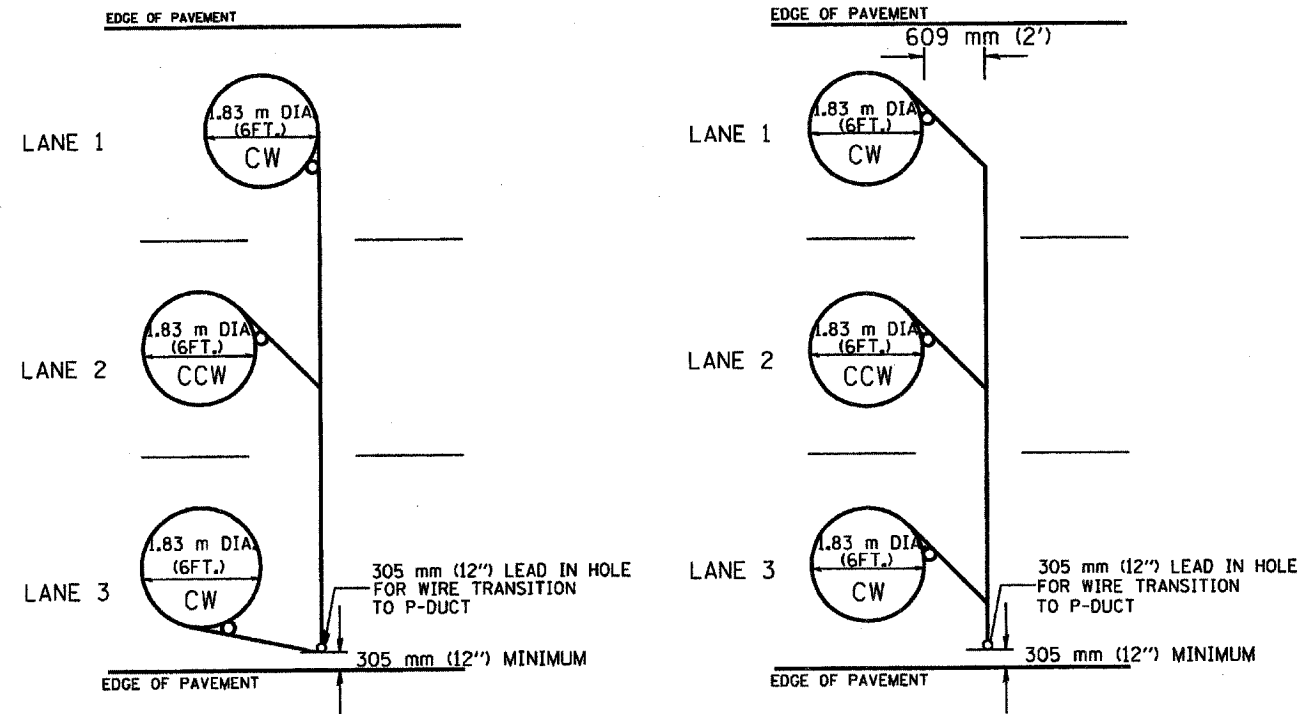
1. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 45 m (150FT.) OR MORE FROM CABINET.
2. LOOPS SHALL BE SPLICED IN HANDHOLES ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
3. LOOPS SHALL NOT BE SPLICED IN SERIES.
4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.

REVISIONS	
NAME	DATE
R.L.	6/94
T.C.	9/96

ILLINOIS DEPARTMENT OF TRANSPORTATION  
TRAFFIC SYSTEMS CENTER  
EXISTING ROUND LOOP  
INSTALLATION

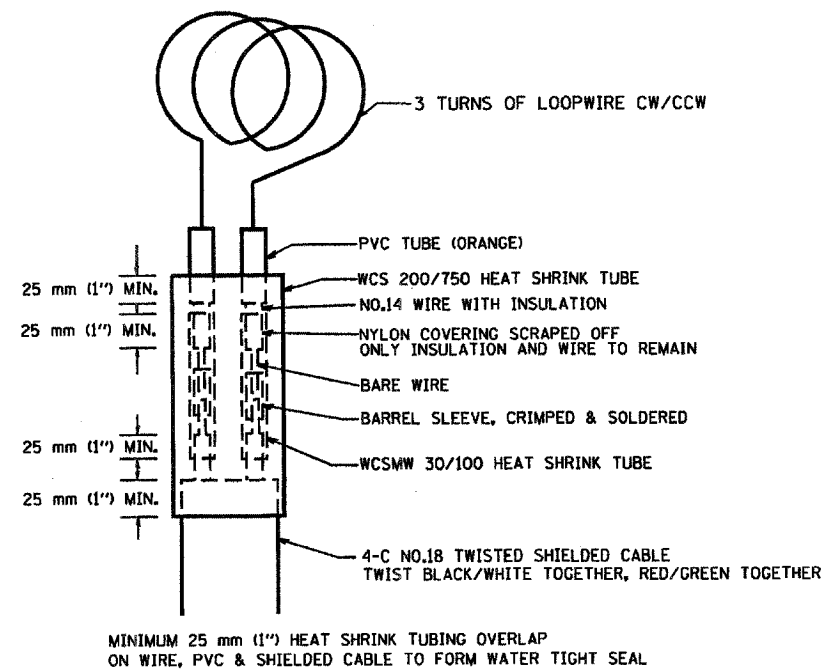
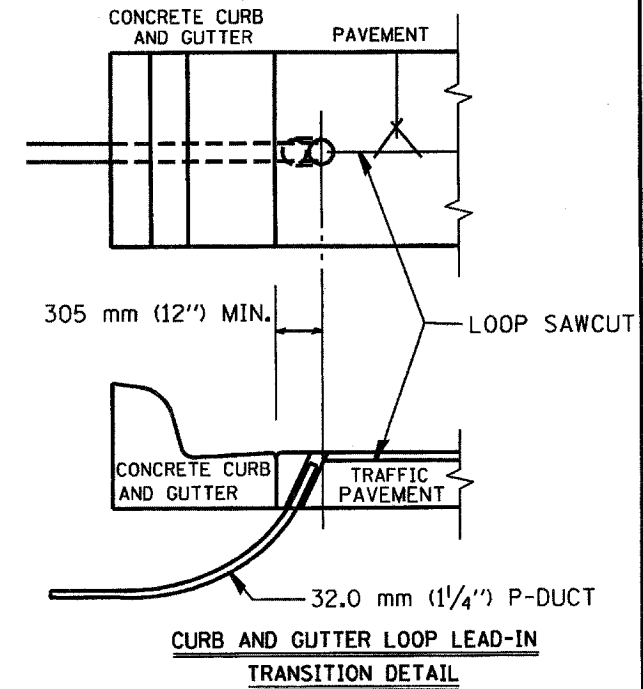
SCALE: VERT. NONE  
HORIZ. DATE 6-22-94  
DRAWN BY G.M.  
CHECKED BY R.L.

F.A.E. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	(520-853)R-4	Cook	31	201
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT # 62079				



**TYPICAL 1.83 m (6FT.) DIA. INDUCTION LOOP CORE DRILL LAYOUT FOR MULTIPLE LANE ROADWAY**

**TYPICAL 1.83 m (6') DIA. INDUCTION LOOP CORE DRILL LAYOUT FOR MULTIPLE LANE ROADWAY**



**LOOP SPLICING REQUIREMENTS**

**NOTES**

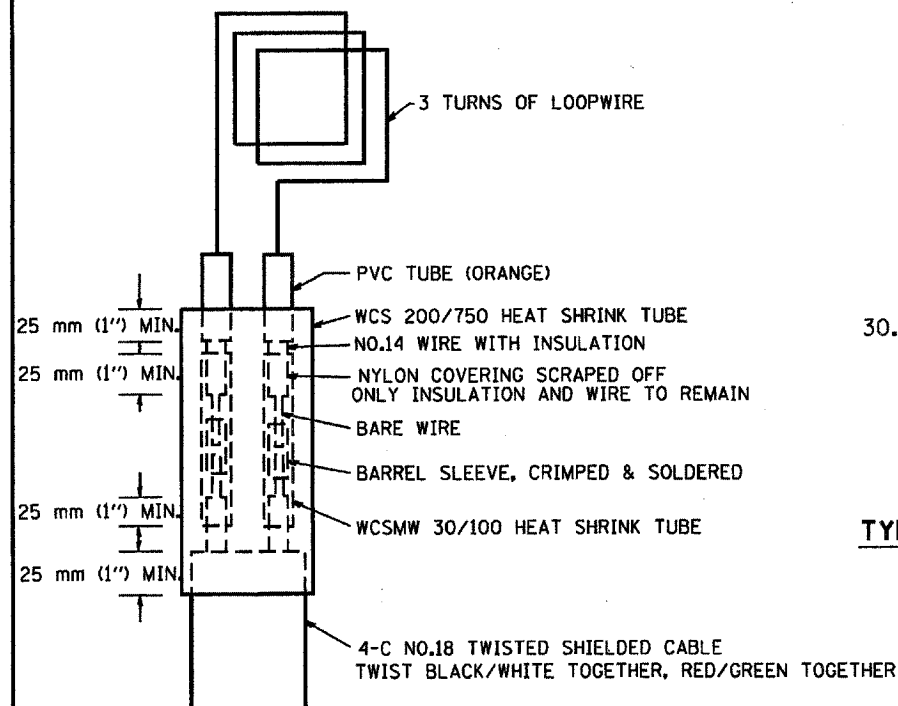
1. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 45 m (150FT.) OR MORE FROM CABINET.
2. LOOPS SHALL BE SPLICED IN HANDHOLES ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
3. LOOPS SHALL NOT BE SPLICED IN SERIES.
4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.

REVISIONS	
NAME	DATE
R.L.	6/94
T.C.	10/96

ILLINOIS DEPARTMENT OF TRANSPORTATION  
TRAFFIC SYSTEMS CENTER  
**EXISTING ROUND INDUCTION LOOP TYPICALS**  
SCALE: VERT. NONE  
DATE 6-22-94  
DRAWN BY G.M.  
CHECKED BY R.L.



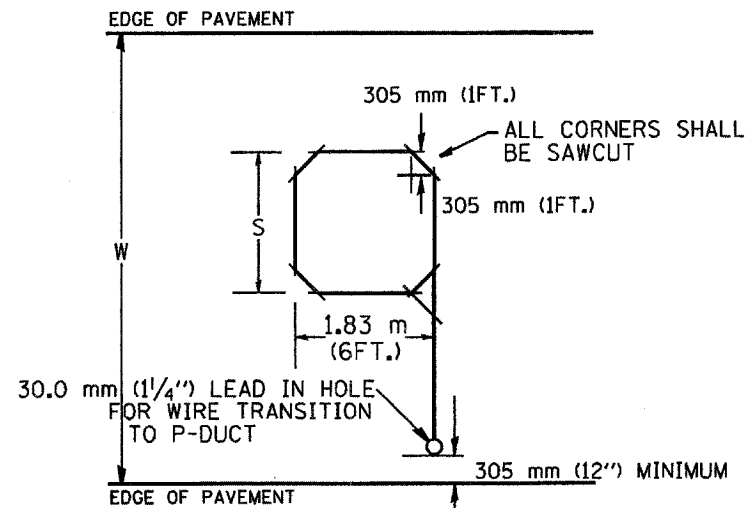
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS NO.
342	(620-833)R-4	COOK	31 / 20E
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		
CONTRACT # 62019			



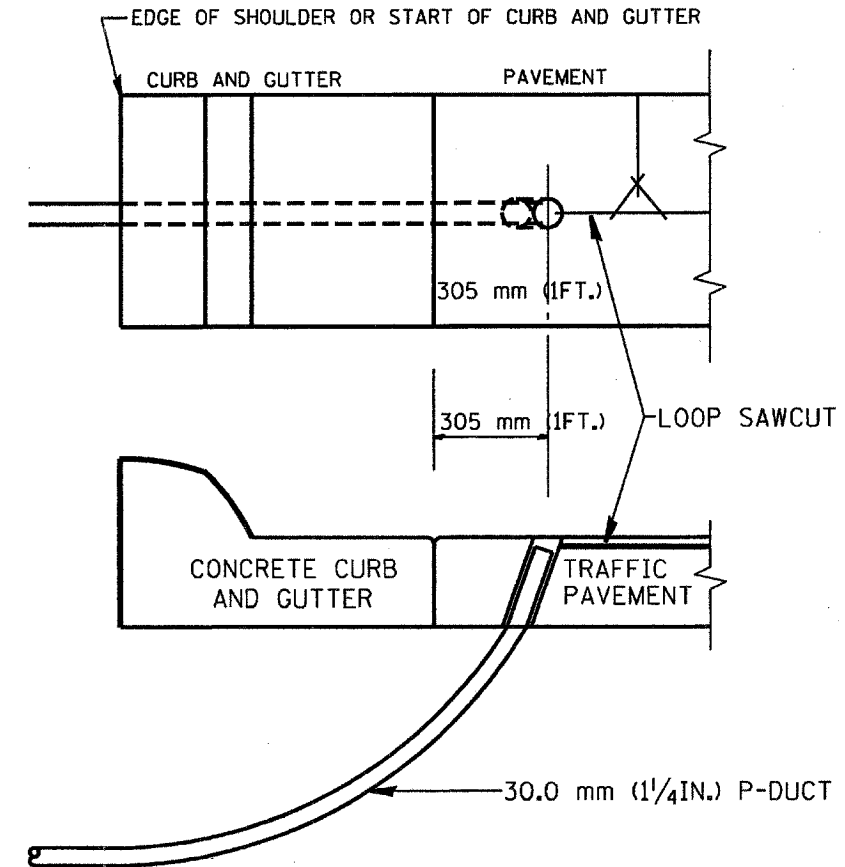
MINIMUM 25 mm (1") HEAT SHRINK TUBING OVERLAP ON WIRE, PVC & SHIELDED CABLE TO FORM WATER TIGHT SEAL

**LOOP SPLICING REQUIREMENTS**

WIDTH (W)	WIDTH (S)
3.7 m (12')	2.5 m (8')
4.0 m (13')	2.8 m (9')
4.3 m (14')	3.1 m (10')
4.6 m (15')	3.4 m (11')
4.9 m (16')	3.7 m (12')
5.2 m (17')	4.0 m (13')
5.5 m (18')	4.3 m (14')
5.8 m (19')	4.6 m (15')
6.1 m (20')	4.9 m (16')
6.4 m (21')	5.2 m (17')
6.7 m (22')	5.5 m (18')
7.0 m (23')	5.8 m (19')
7.3 m (24')	6.1 m (20')
7.6 m (25')	6.4 m (21')



**TYPICAL "S" FT. BY 1.83 m (6FT.) INDUCTION LOOP SAWCUT LAYOUT FOR RAMP**



**CURB AND GUTTER LOOP LEAD-IN TRANSITION DETAIL**

**NOTES**

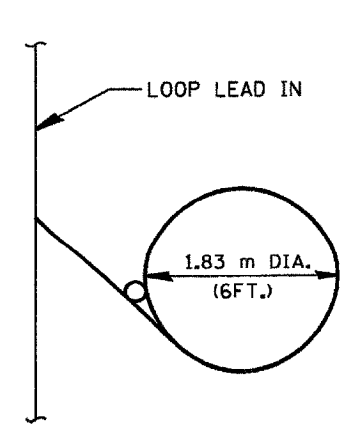
1. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 45 m (150FT.) OR MORE FROM CABINET.
2. LOOPS SHALL BE SPLICED IN HANDHOLES ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
3. LOOPS SHALL NOT BE SPLICED IN SERIES.
4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.

REVISIONS	
NAME	DATE
R.L.	6/94
T.C.	11/95
R.L.	05/96
T.C.	10/96

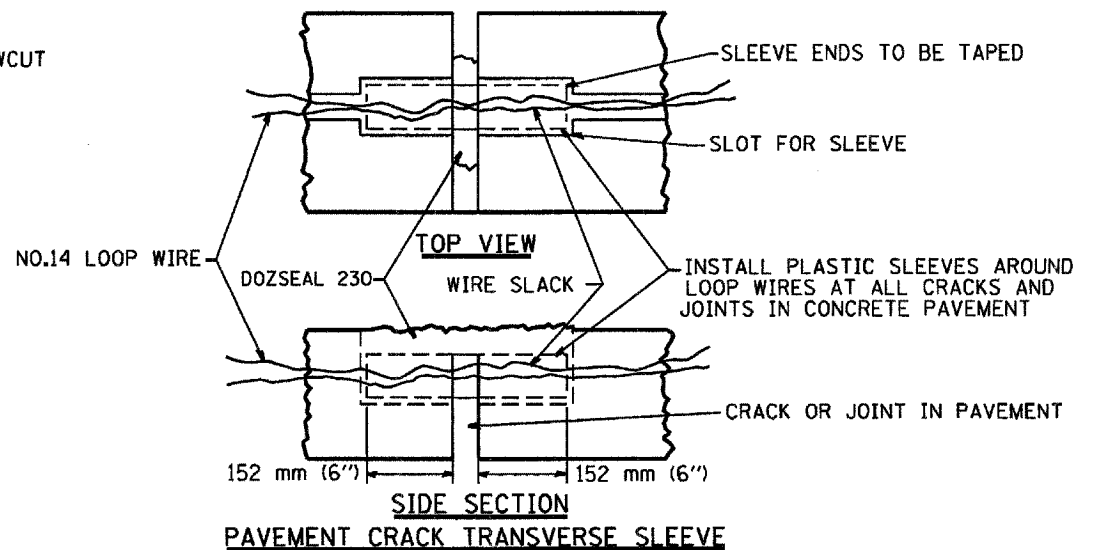
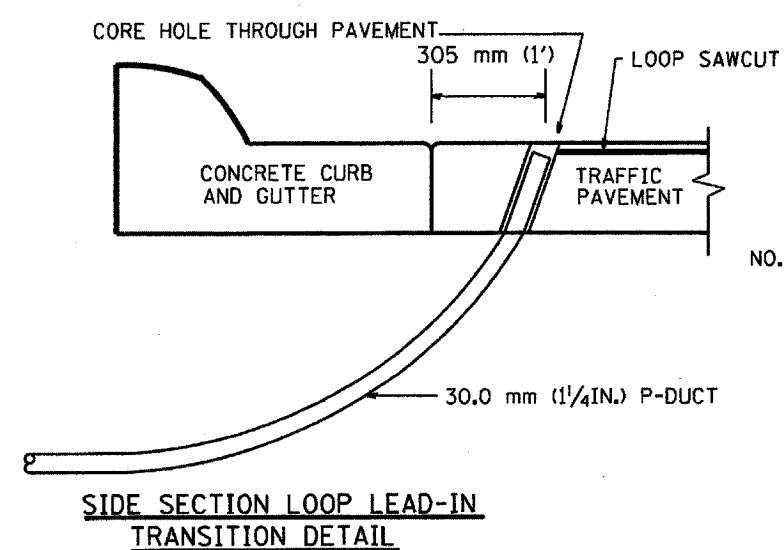
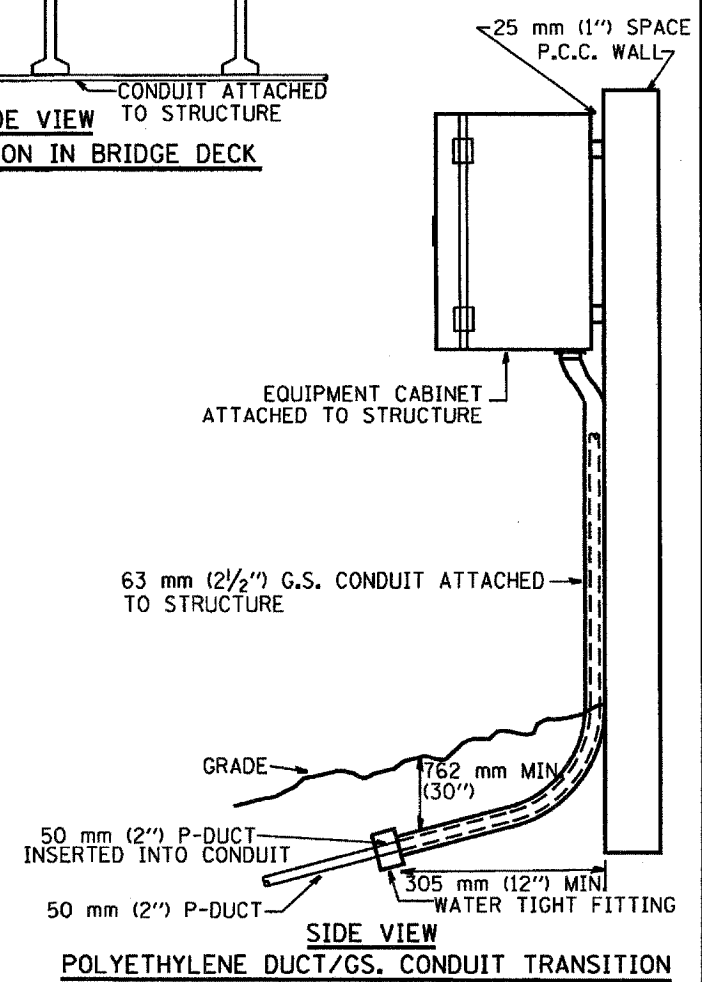
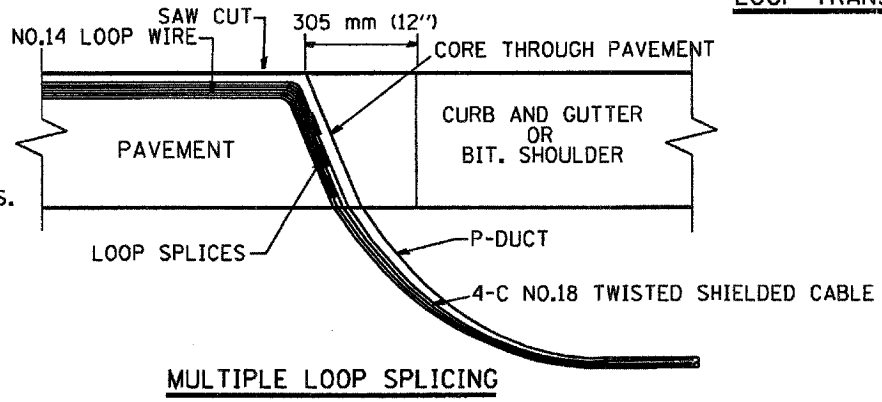
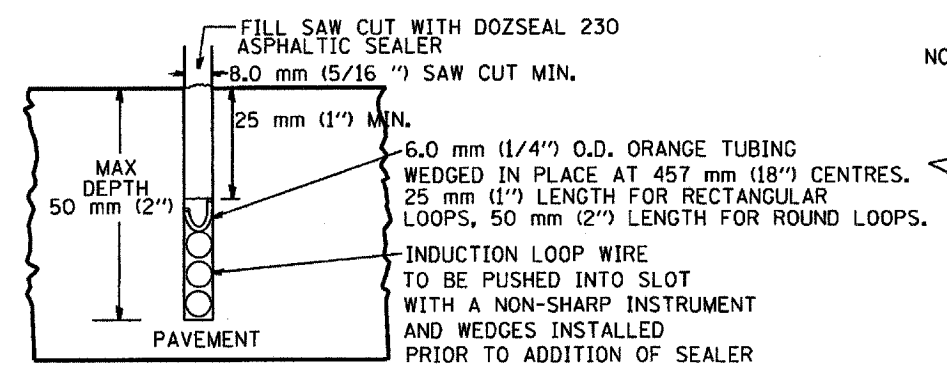
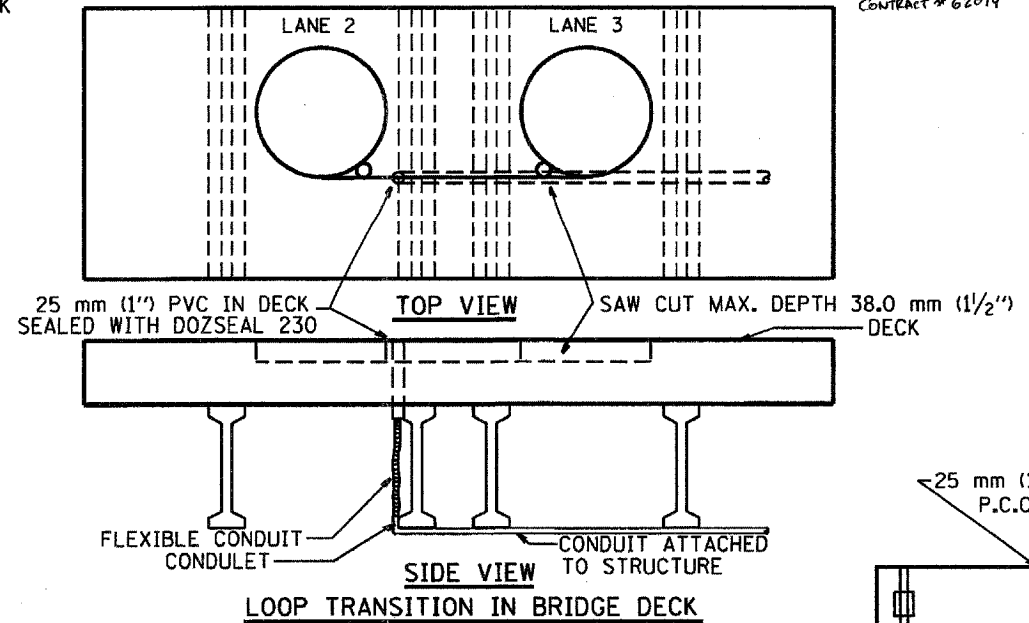
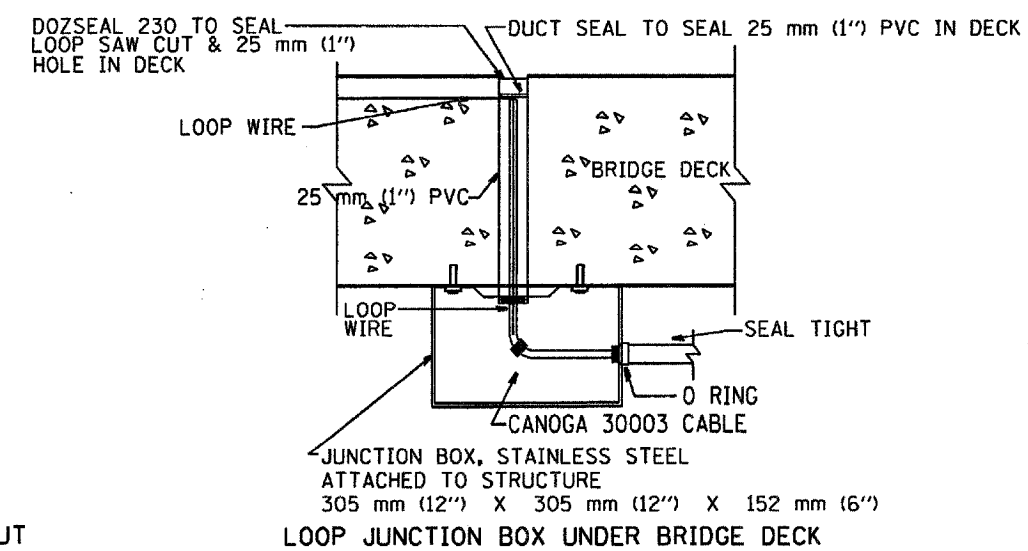
ILLINOIS DEPARTMENT OF TRANSPORTATION  
TRAFFIC SYSTEMS CENTER  
**RECTANGULAR INDUCTION LOOP TYPICAL**

SCALE: VERT. NONE  
HORIZ. DATE 6-22-94  
DRAWN BY G.M.  
CHECKED BY R.L.

F.A.D. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	(630.853)A54	COOK	31	20E
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT # 62019				



TYPICAL LOOP SAWCUT LAYOUT



REVISIONS	
NAME	DATE
R.L.	6/94
R.L.	3/96
T.C.	11/96
R.L.	05/96
T.C.	10/96

ILLINOIS DEPARTMENT OF TRANSPORTATION  
TRAFFIC SYSTEMS CENTER

**LOOP, CONDUIT & DUCT  
INSTALLATION DETAILS**

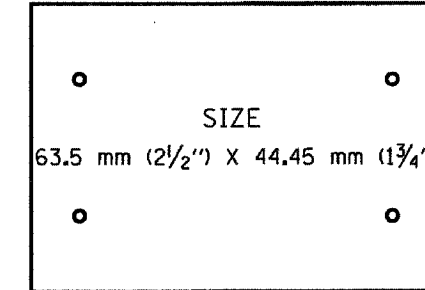
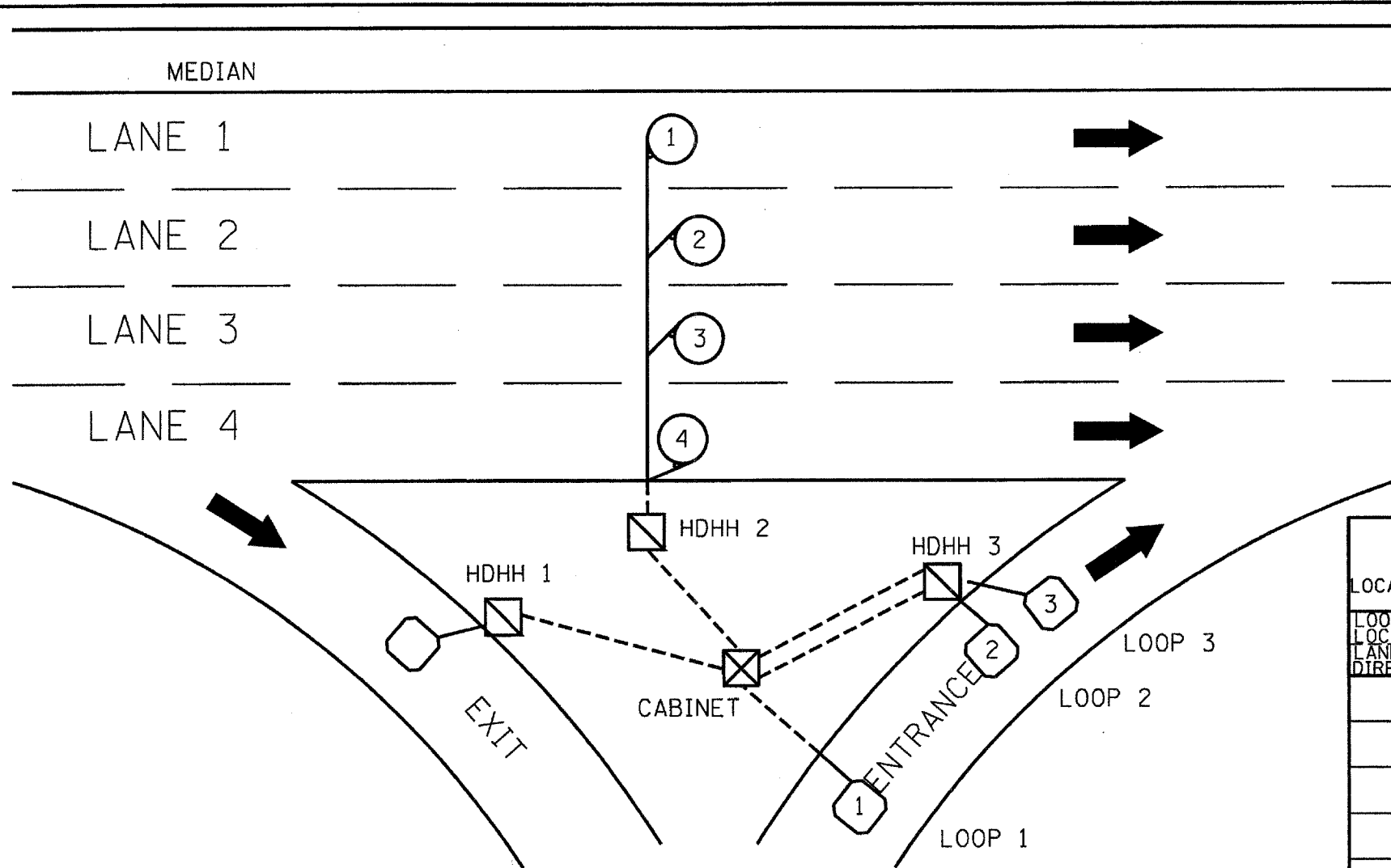
SCALE: VERT. NONE  
DATE 6-22-94

DRAWN BY G.M.  
CHECKED BY R.L.

RD-TYPNET.DGN  
RF

VI-4184

F.A.B. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	(530352)R-4	Cook	31	206
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT				
CONTRACT # 62079				



SUGGESTED TAG  
 PANDUIT  
 \*MP250W175-C  
 OR EQUIVALENT

LOOP ANALYZER					
LOCATION _____			DATE _____		
LOOP LOCATION LANE DIRECTION	LOOP WIRE MARKED AND CODED	LOOP SIZE	FREQ. INDUCTANCE	INSULATION	LOOP RESISTANCE

HDHH 1 EXAMPLE

IB-EB EXIT  
 CCW IN/  
 TO CABINET # \_\_\_

HDHH 2 EXAMPLE

IB (OB) LANE # \_\_\_  
 CCW /OUT  
 TO CABINET # \_\_\_

HDHH 3 EXAMPLE

IB-EB ENT.  
 LOOP #2  
 CW IN/

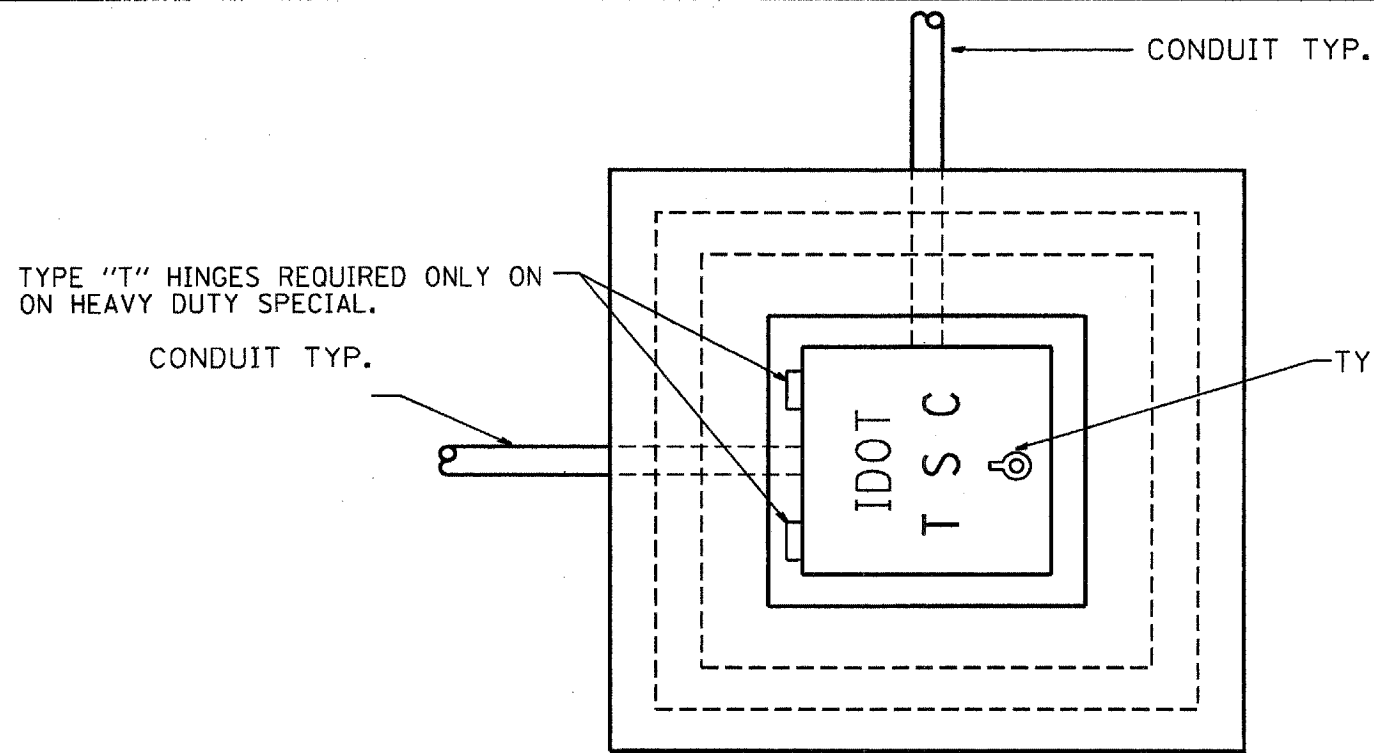
NOTE:  
 EACH LOOP WIRE SHALL BE TAGGED AS "IN" OR "OUT" AND "CW" OR "CCW". SHIELDED CABLE WILL BE TAGGED IN EACH HANDHOLE AND CABINET TO MATCH THE CABLE LOG.

REVISIONS	
NAME	DATE
R.L.	6/94
T.C.	10/96

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 TRAFFIC SYSTEMS CENTER  
**LOOP STATUS REPORT**  
 SCALE: VERT. NONE  
 DATE 6-27-94  
 DRAWN BY G.M.  
 CHECKED BY R.L.

RD-TYPNET.DGN  
 VI-4187

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	(520852)K-4	Cook	31	204
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT # 62079				



TYPE "T" HINGES REQUIRED ONLY ON HEAVY DUTY SPECIAL.

CONDUIT TYP.

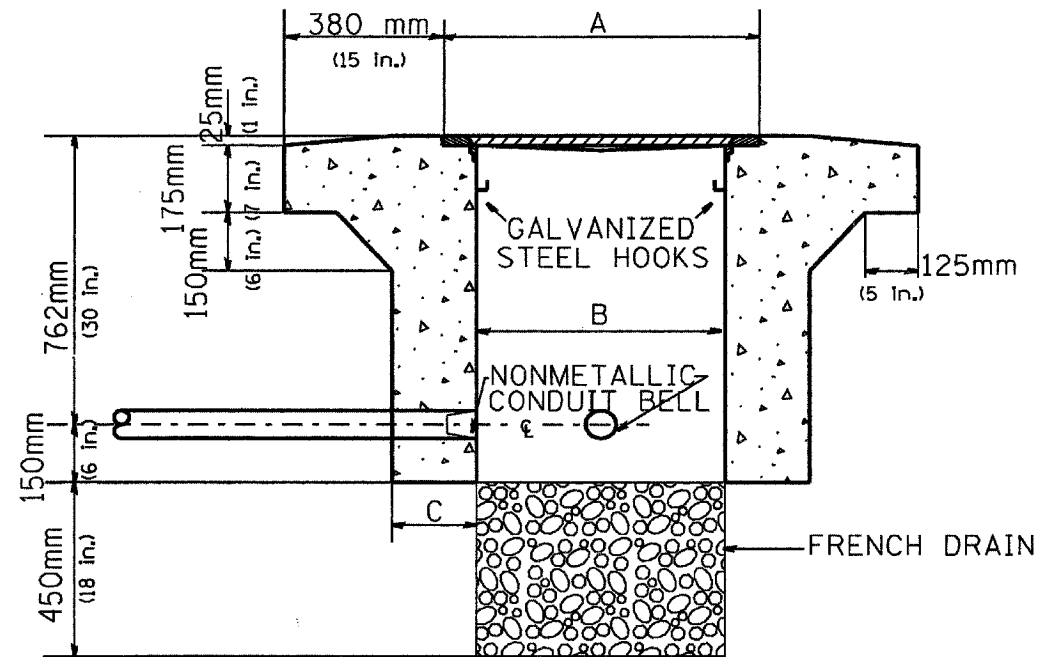
TYPE "G" HANDLE FOR BOTH HDHH AND HDHH SPECIAL

PLAN

HEAVY DUTY HANDHOLE MINIMUM DIMENSIONS (UNHINGED)

A	711 mm (28")
B	559 mm (22")
C	200 mm (8")

(FRAME AND COVER 118 Kg. (260 LBS.) MIN.)



ELEVATION

HEAVY DUTY HANDHOLE SPECIAL MINIMUM DIMENSIONS

A	800 mm (31.5")
B	762 mm (30")
C	250 mm (10")

(FRAME AND COVER 184 Kg. (405 LBS.))

PC CONCRETE - HEAVY DUTY HAND HOLE

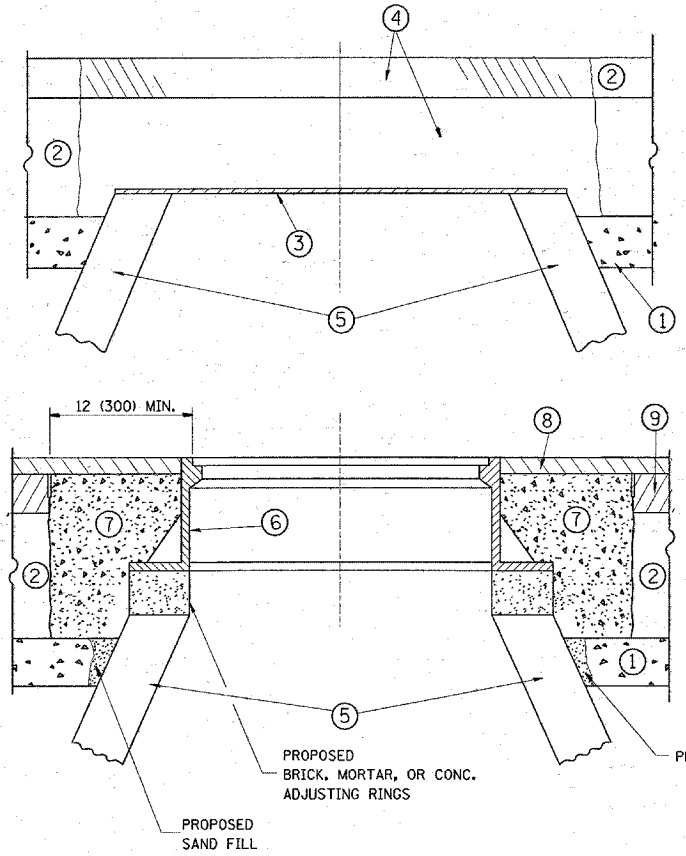
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC SYSTEMS CENTER
NAME	DATE	
R.L.	4-97	PC CONCRETE - HEAVY DUTY HAND HOLE

SCALE: VERT. NONE  
HORIZ. DATE 9-11-96

DRAWN BY G.M.  
CHECKED BY R.L.

RD-TYPMET.DGN  
RF

VI-40015



**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:**

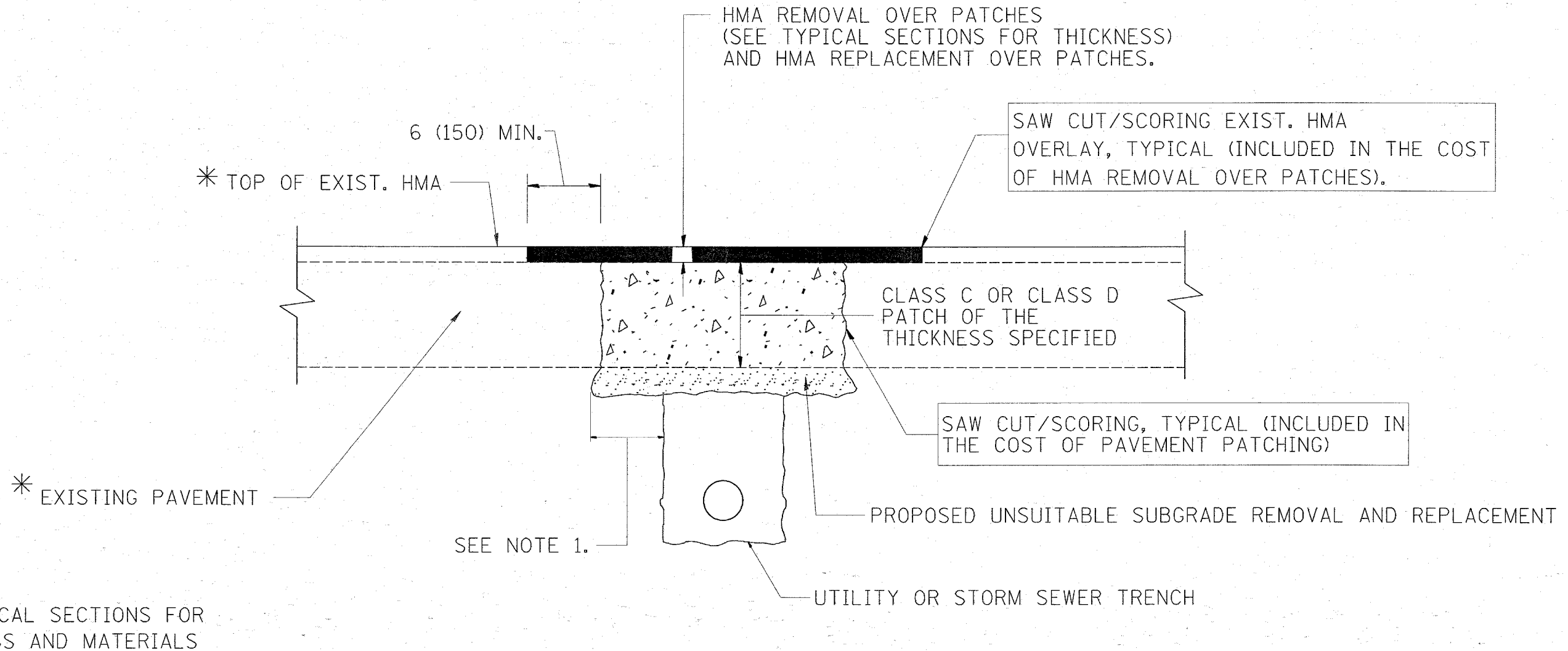
THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

**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

FILE NAME = W:\diststd\22x34\bd08.dgn	USER NAME = hamdanah	DESIGNED - R. SHAH	REVISED - R. SHAH 03-10-95	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING</b>		F.A.P. RTE. 342	SECTION (530 & 531) RS-4	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 21
	PLOT SCALE = 49.9999 1 / IN.	DRAWN -	REVISED - A. ABBAS 03-21-97		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	BD600-03 (BD-8)		CONTRACT NO. 62079	
	PLOT DATE = 4/18/2008	CHECKED -	REVISED - R. WIEDEMAN 05-14-04					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
		DATE - 10-25-94	REVISED - R. BORO 01-01-07								



**NOTES:**

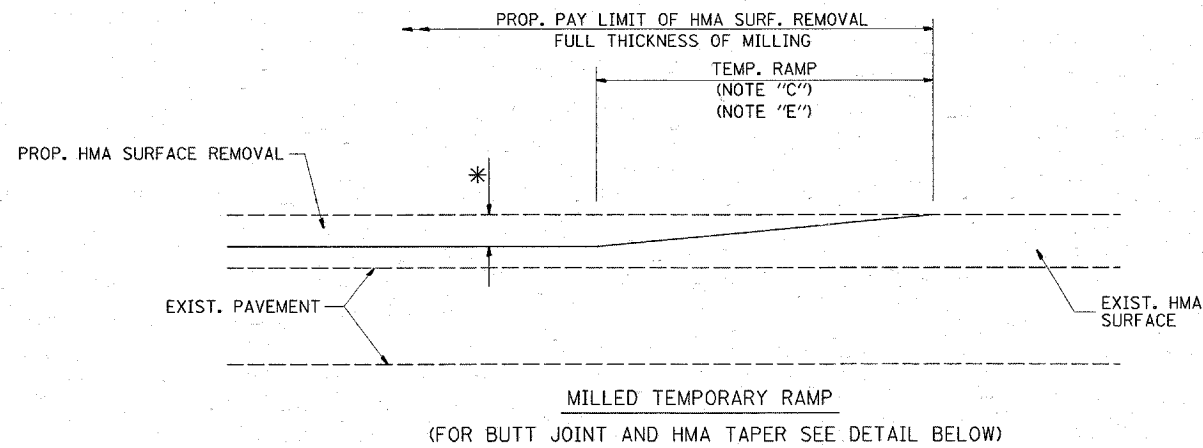
1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

**SEQUENCE OF CONSTRUCTION**

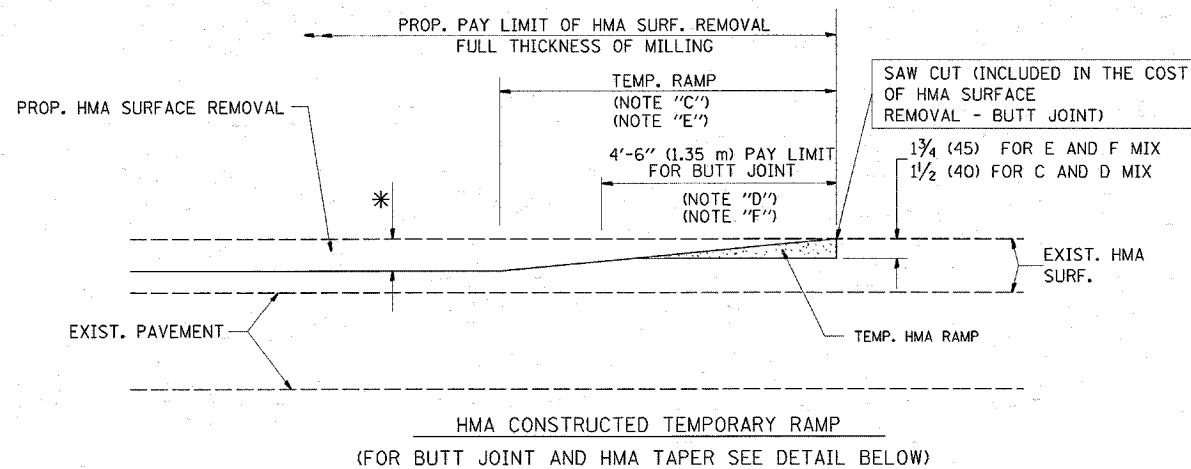
1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE FULL DEPTH PATCHES
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

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

FILE NAME = W:\d\st\td\22x34\bd22.dgn	USER NAME = hamdanih	DESIGNED - R. SHAH	REVISED - A. ABBAS 01-20-98	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED - A. ABBAS 04-27-98		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	342	(530 S 531) RS-4	Cook	31	22
		PLOT SCALE = 50.000' / IN.	REVISED - R. BORO 01-01-07						<b>BD400-04 (BD-22)</b>		CONTRACT NO.		
		PLOT DATE = 4/16/2008	REVISED - R. BORO 09-04-07						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

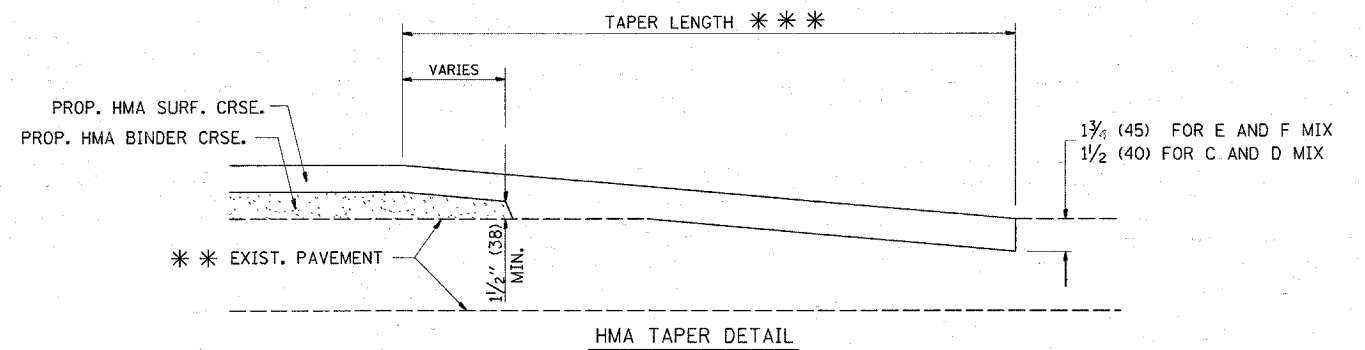
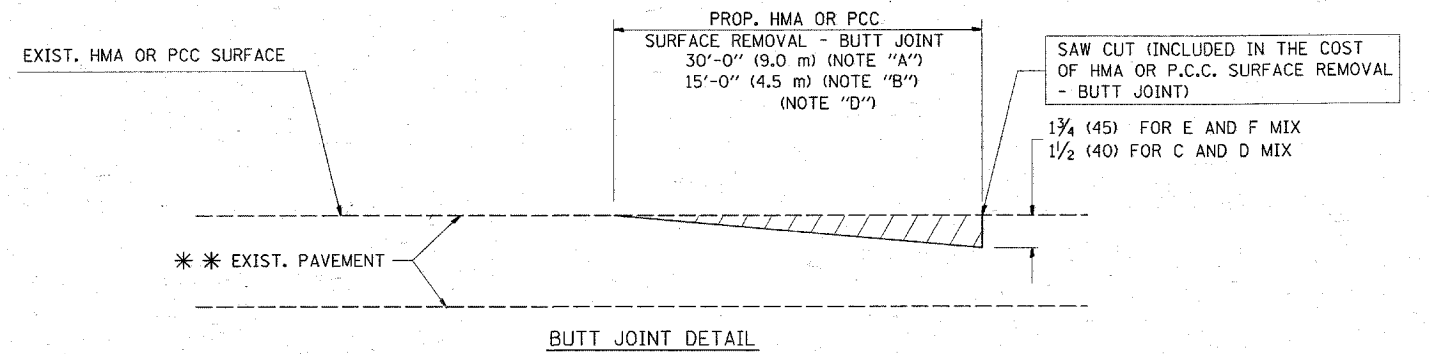


OPTION 1



OPTION 2

TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

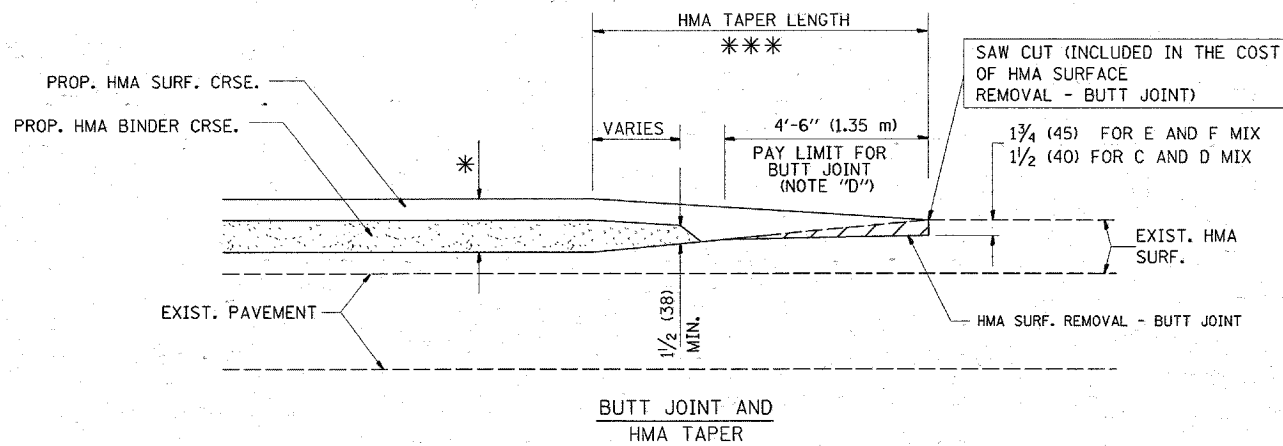
NOTES

- 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.



TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

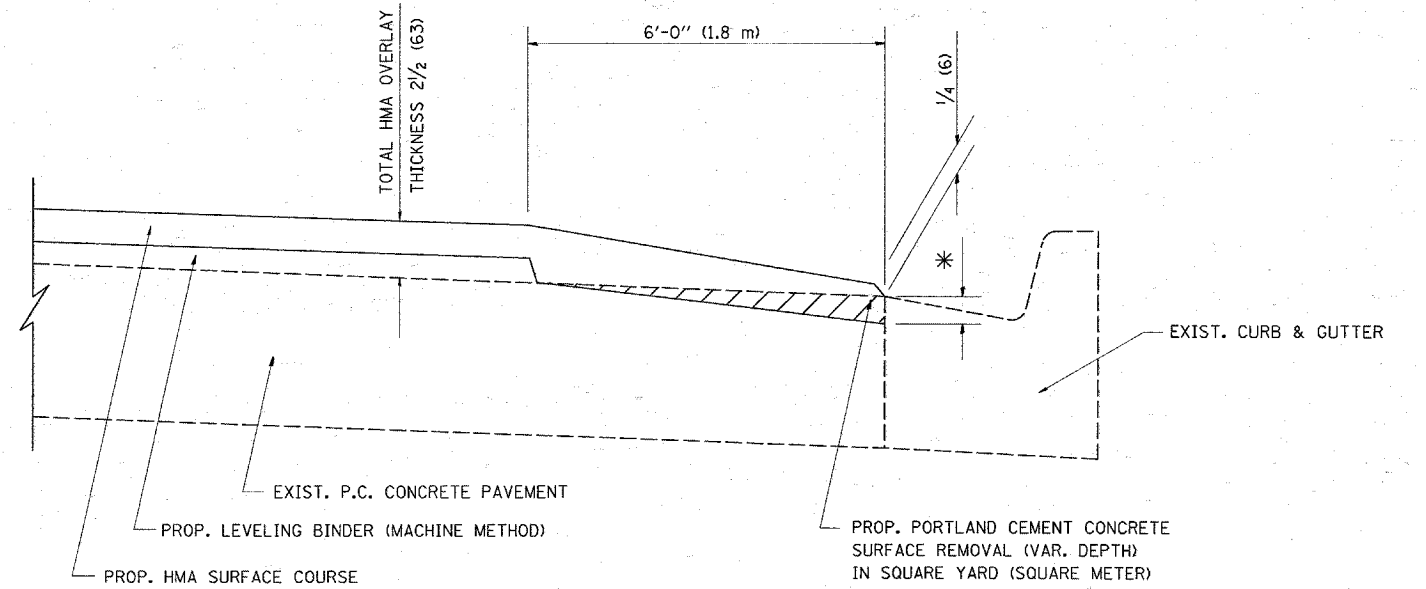
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND  
HMA TAPER DETAILS

F.A.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	(530 & 531) RS-4	COOK	31	23
BD400-05 BD32			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FILE NAME =	USER NAME = hawdonah	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
W:\diststd\22x34\bd32.dgn		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 49.9999' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 4/16/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

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



HMA TAPER AT  
EDGE OF P.C.C. PAVEMENT

HMA SURFACE MIX	THICKNESS	LEVELING BINDER THICKNESS	* MILLING AT GUTTER FLAG
C OR D	1/2 (38)	1 (25)	1/4 (33)
F	1 3/4 (44)	3/4 (19)	1/2 (38)

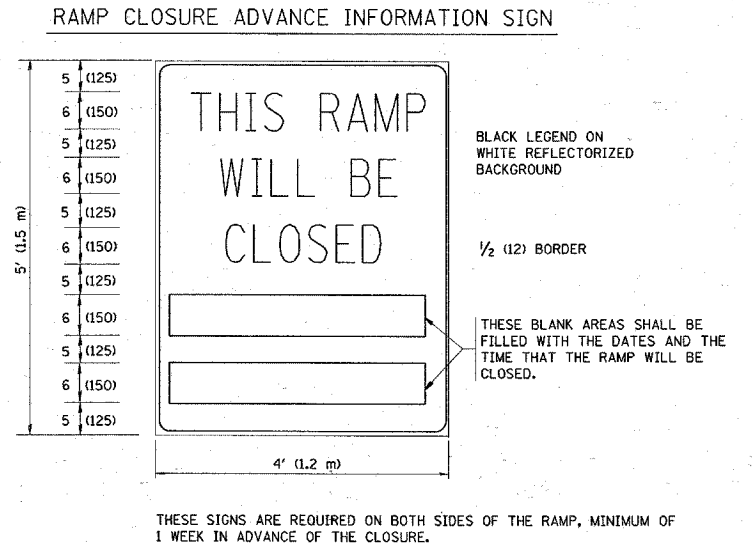
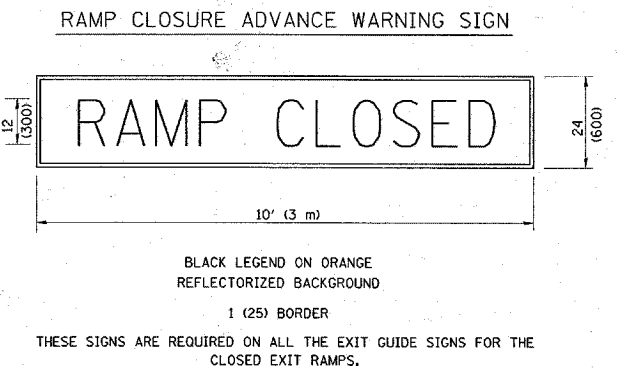
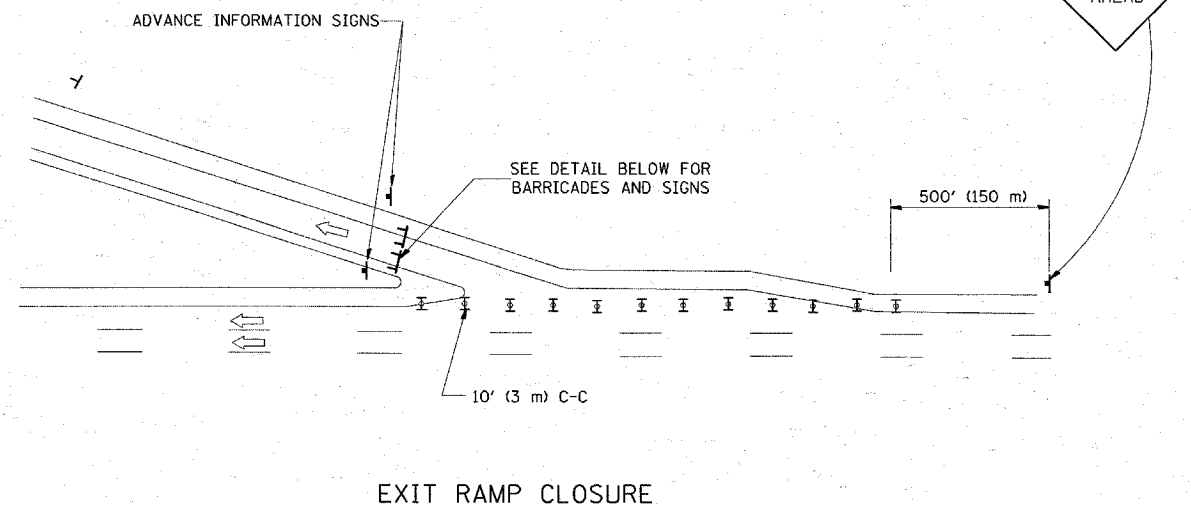
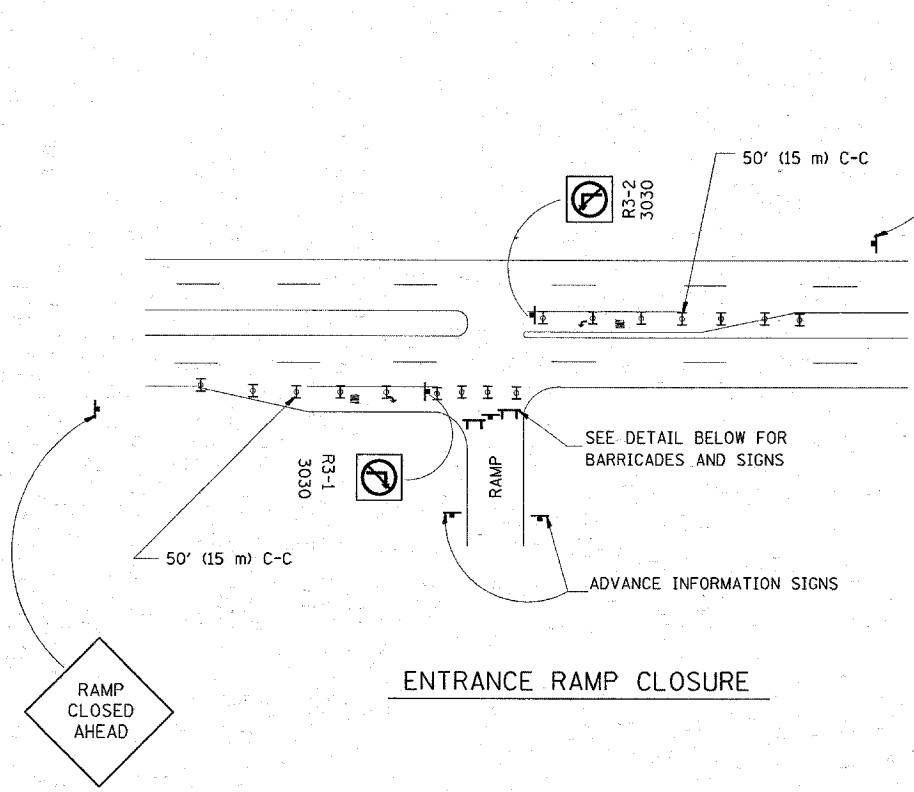
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\diststd\22x34\bd33.dgn	USER NAME = hamdanah	DESIGNED - R. SHAH	REVISED - R. SHAH 10-25-94
		DRAWN - JIS	REVISED - A. ABBAS 05-05-99
		CHECKED - A. ABBAS	REVISED - E. GOMEZ 12-21-00
		DATE - 09-10-94	REVISED - R. BORO 01-01-07

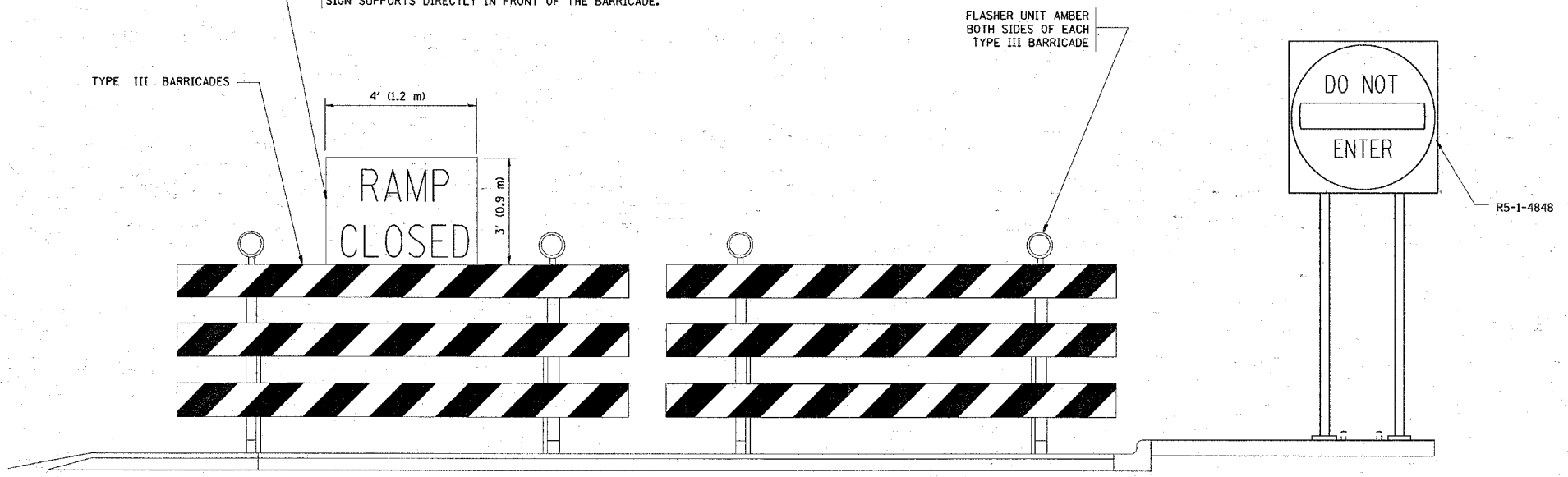
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>HMA TAPER AT EDGE OF P.C.C. PAVEMENT</b>		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	342	(530 & 531) RS-4	COOK	31	24
STA.	TO STA.	BD400-06 (BD33)		CONTRACT NO. 62079		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						





THE "RAMP CLOSED" SIGN SHALL BE B/W WITH 8 (200) CAPS. IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON NCHRP 350 TEMPORARY SIGN SUPPORTS DIRECTLY IN FRONT OF THE BARRICADE.



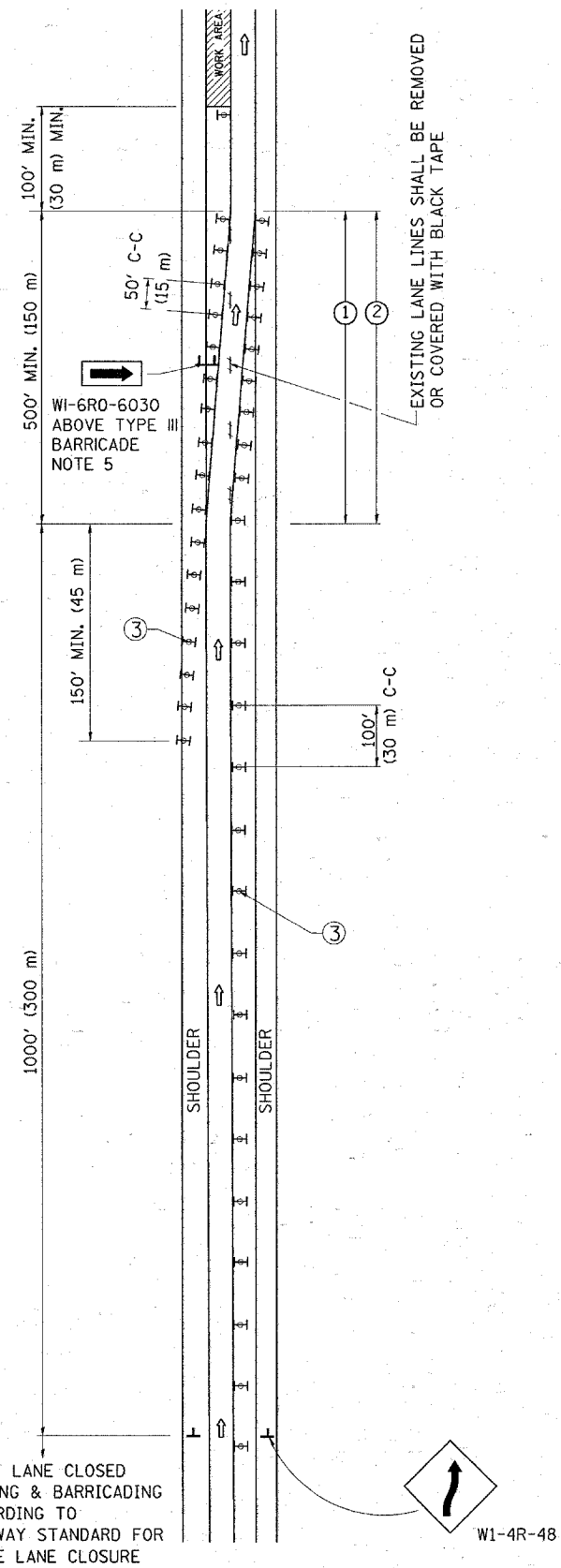
- GENERAL NOTES:
- CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
  - STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
  - A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES.
  - ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED.
  - THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
  - AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
  - THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED TWENTY FOUR (24) HOURS IN LENGTH.

- SYMBOLS
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
  - TYPE III BARRICADE WITH FLASHING LIGHT

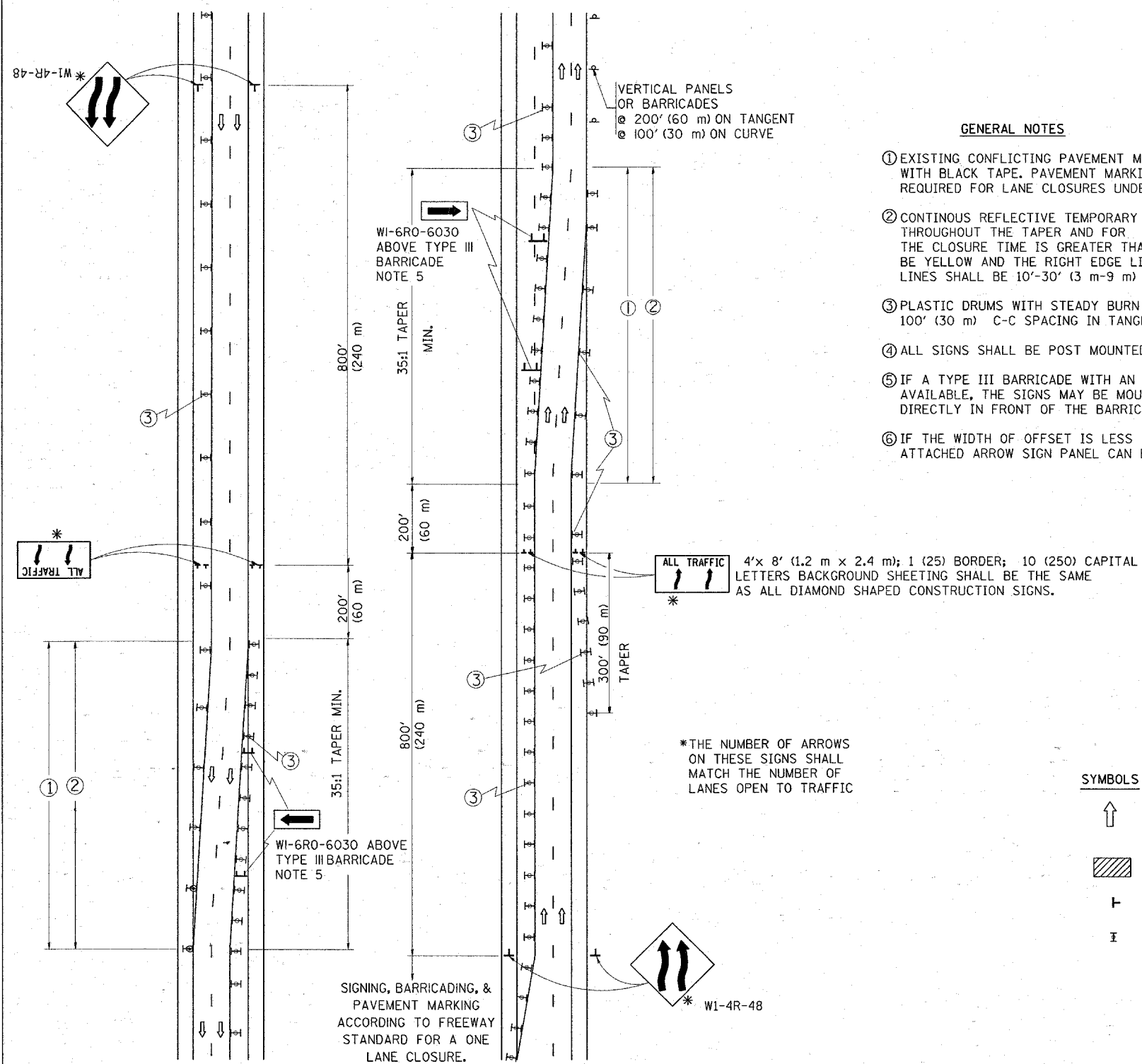
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\distatd\22x34\to08.dgn	USER NAME = hamdanah	DESIGNED - DWS	REVISED - DWS 12-94	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>FREEWAY ENTRANCE AND EXIST RAMP CLOSURE DETAILS</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED - DWS/JAF 12-02		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	342	(530 & 531) RS-4	Cook	31	25
		PLOT SCALE = 50.000 1 / IN.	CHECKED - JAF 02-06						<b>TC-08</b>		CONTRACT NO. 62079		
		PLOT DATE = 4/16/2008	DATE - 02-83		REVISED - SPB 01-07				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

# SINGLE LANE WEAVE



# MULTI-LANE WEAVE



### GENERAL NOTES

- ① EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED OR COVERED WITH BLACK TAPE. PAVEMENT MARKING REMOVAL OR BLACK TAPE SHALL NOT BE REQUIRED FOR LANE CLOSURES UNDER 24 HOURS IN DURATION.
- ② CONTINUOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVE LANE LINES SHALL BE 10'-30' (3 m-9 m) SKIP DASH, WHITE.
- ③ PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.
- ④ ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- ⑤ IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON NCHRP 350 TEMPORARY SIGN SUPPORTS DIRECTLY IN FRONT OF THE BARRICADE.
- ⑥ IF THE WIDTH OF OFFSET IS LESS THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE ELIMINATED IN THE TAPER AREAS.

### SYMBOLS

- ↑ DIRECTION OF TRAFFIC
- ▨ WORK AREA
- ┆ SIGN ON PORTABLE OR PERMANENT SUPPORT
- ⊥ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH MONO-DIRECTIONAL STEADY BURNING LIGHT

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =  
W:\dist\std\22x34\to09.dgn

USER NAME = hamdanah  
PLOT SCALE = 5/8" = 1' IN.  
PLOT DATE = 4/16/2008

DESIGNED - DWS  
DRAWN -  
CHECKED -  
DATE - 02-87

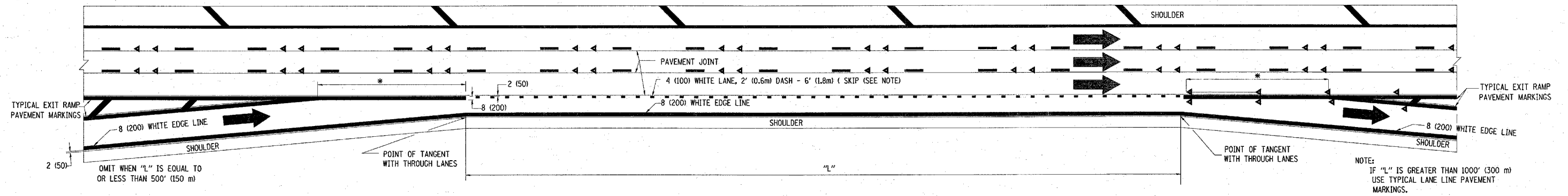
REVISED - DWS 11-96  
REVISED - JAF 01-03  
REVISED - JAF 02-06  
REVISED - SPB 01-07

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

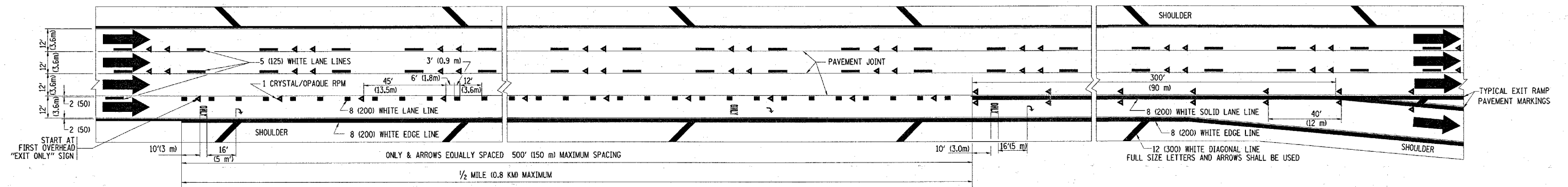
TRAFFIC CONTROL DETAILS FOR  
FREEWAY SINGLE & MULTI-LANE WEAVE

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

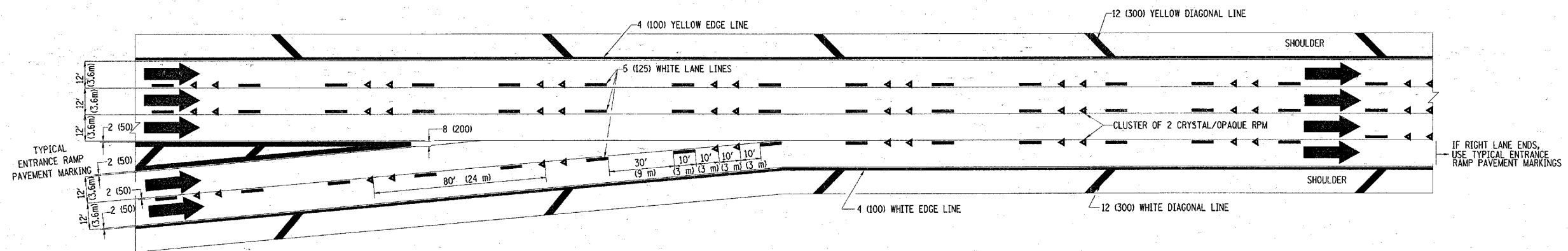
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	(530 & 531) RS-4	Cook	31	26
TC-09			CONTRACT NO. 62079	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**TYPICAL ENTRANCE/EXIT RAMP COMBINATION PAVEMENT MARKINGS**

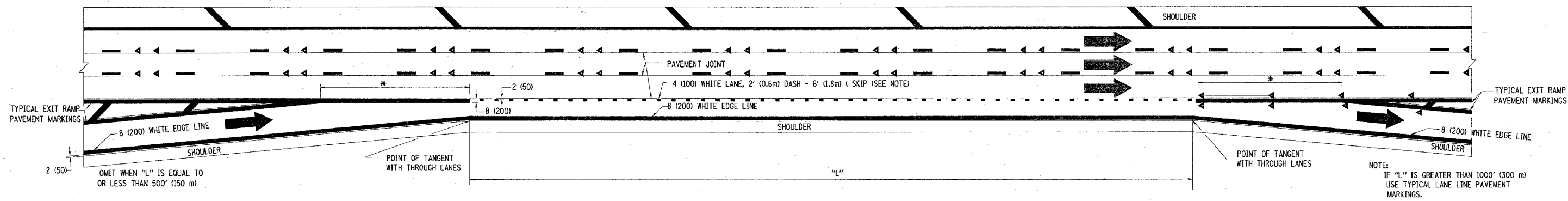


**TYPICAL EXIT ONLY LANE PAVEMENT MARKINGS**

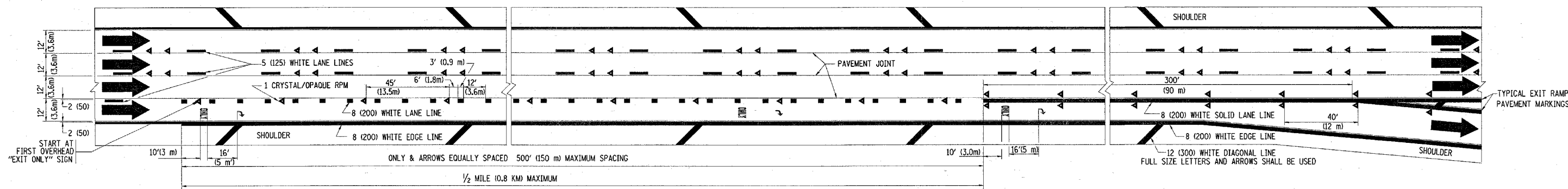


**TYPICAL TWO LANE ENTRANCE RAMP PAVEMENT MARKINGS**

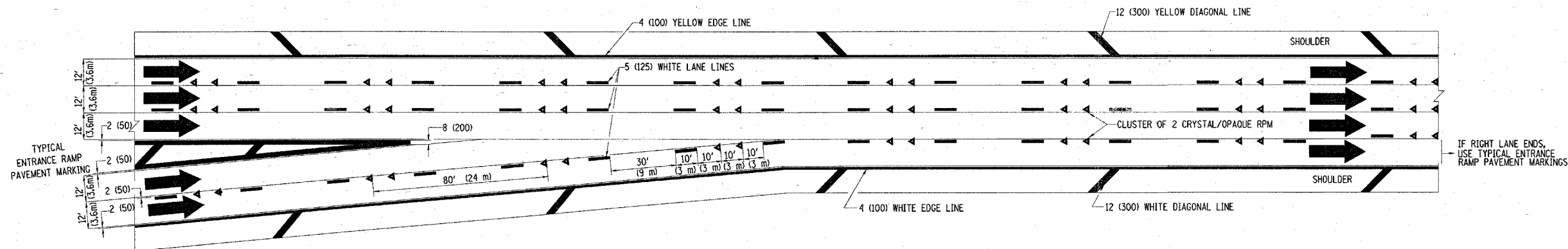
FILE NAME = W:\dts\std\22x34\tot2.dgn	USER NAME = hamdanah	DESIGNED - D.W.S.	REVISED - A.H. 03-96	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS</b>		F.A.P. RTE. 342	SECTION (530 & 531)RS-4	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 27	
	PLOT SCALE = 50,000 1/4 IN.	DRAWN -	REVISED - D.W.S. 07-96		SCALE: NONE	SHEET NO. 1 OF 2 SHEETS	STA.	TO STA.	CONTRACT NO. 62079			
	PLOT DATE = 4/16/2008	CHECKED -	REVISED - J.A.F. 02-06						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
		DATE - 01-90	REVISED - S.P.B. 01-07									



**TYPICAL ENTRANCE/EXIT RAMP COMBINATION PAVEMENT MARKINGS**

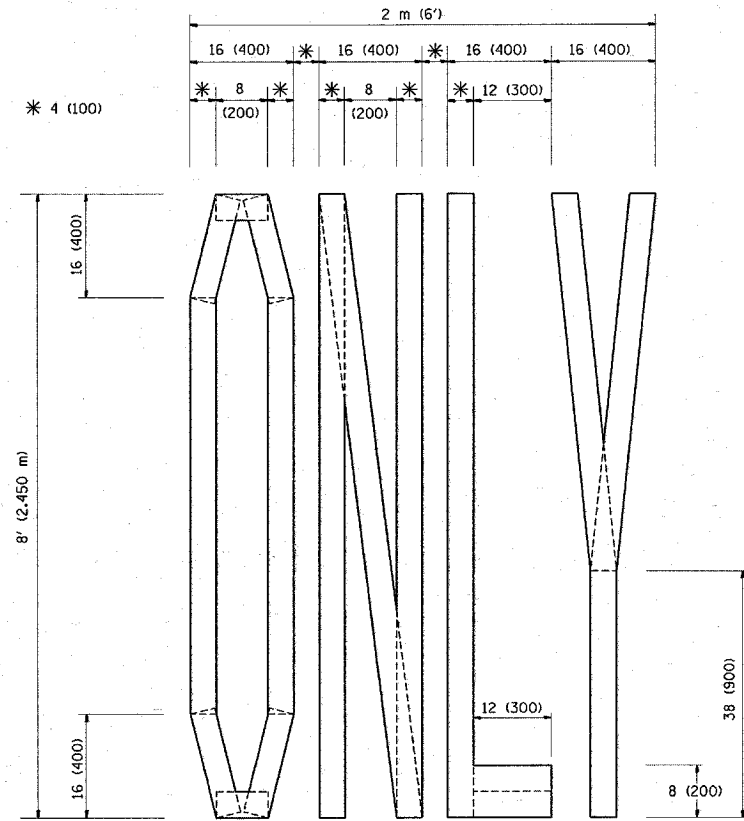


**TYPICAL EXIT ONLY LANE PAVEMENT MARKINGS**

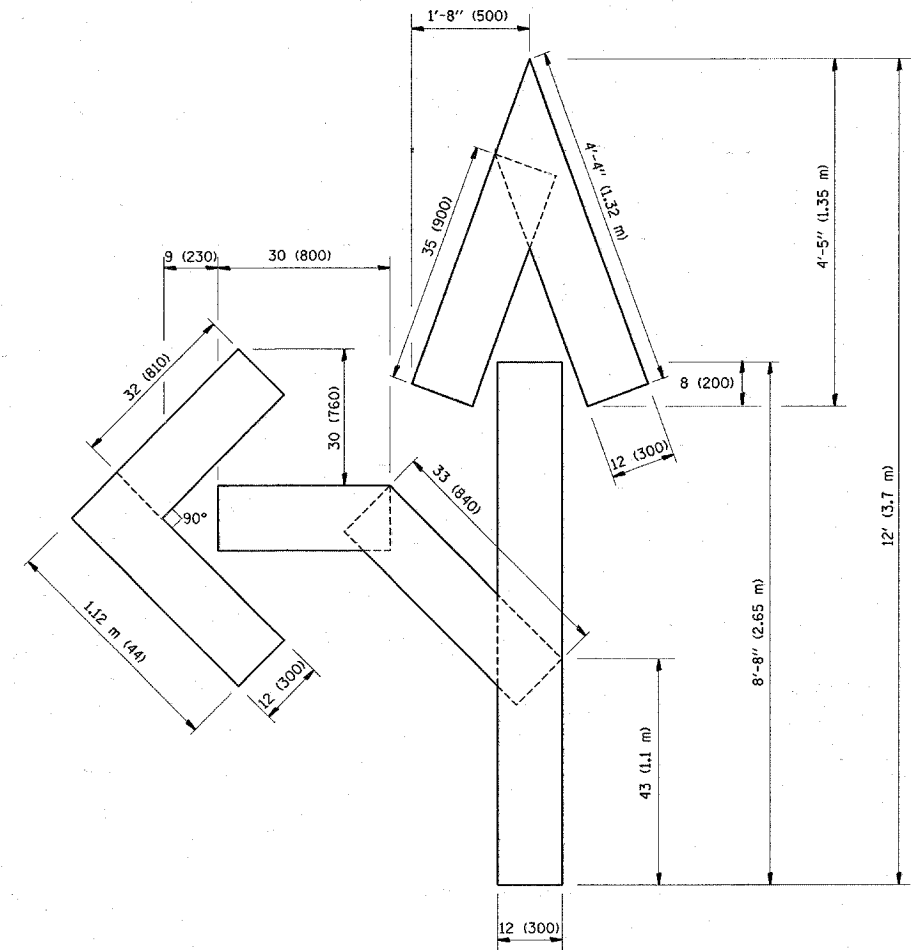


**TYPICAL TWO LANE ENTRANCE RAMP PAVEMENT MARKINGS**

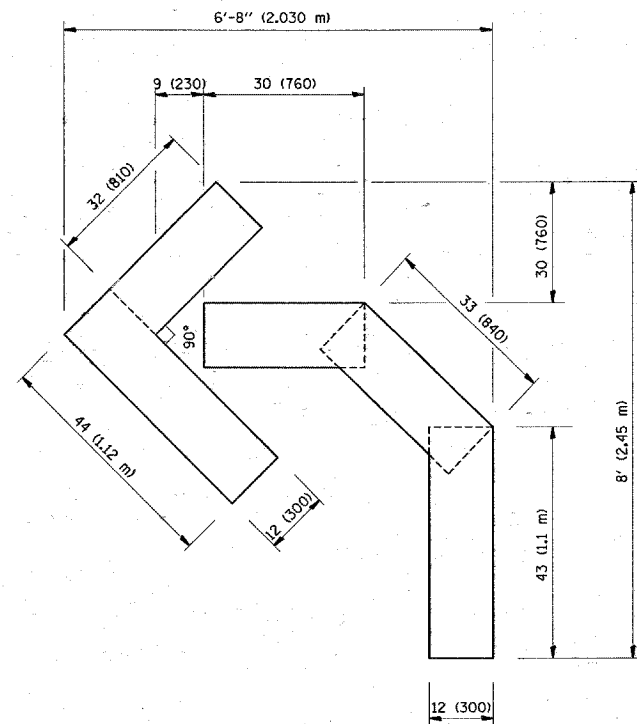
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	PLOT SCALE = 50.000' / IN.	DRAWN -	REVISED - D.W.S. 07-96		SCALE: NONE	SHEET NO. 1 OF 2 SHEETS	STA.	<b>TC-12</b>		CONTRACT NO. 62079	
	PLOT DATE = 4/18/2008	CHECKED -	REVISED - J.A.F. 02-06					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
		DATE - 01-90	REVISED - S.P.B. 01-07								



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



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



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

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

FILE NAME = W:\drtstd\22x34\to16.dgn	USER NAME = hamdenah	DESIGNED -	REVISED -T. RAMMACHER 06-05-96
		DRAWN -	REVISED -T. RAMMACHER 11-04-97
	PLOT SCALE = 49.9999 / IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98
	PLOT DATE = 4/18/2008	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00

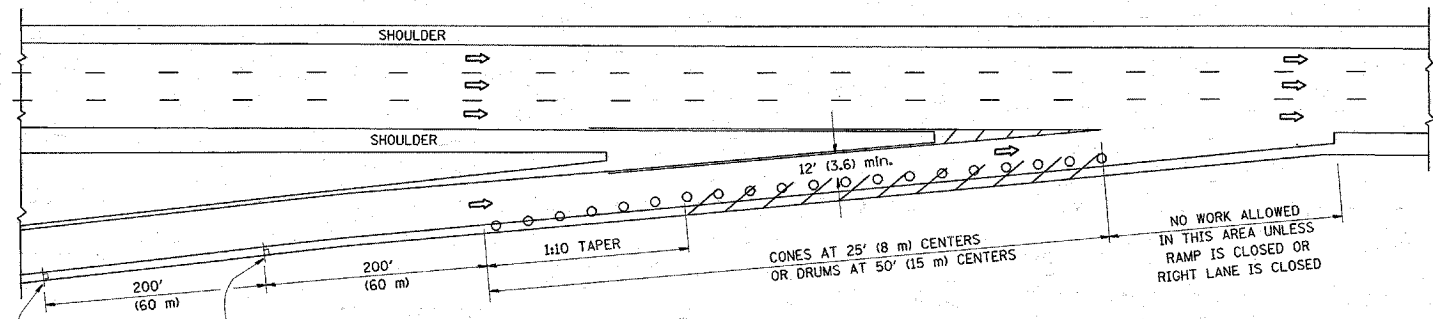
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING LETTERS AND SYMBOLS  
 FOR TRAFFIC STAGING

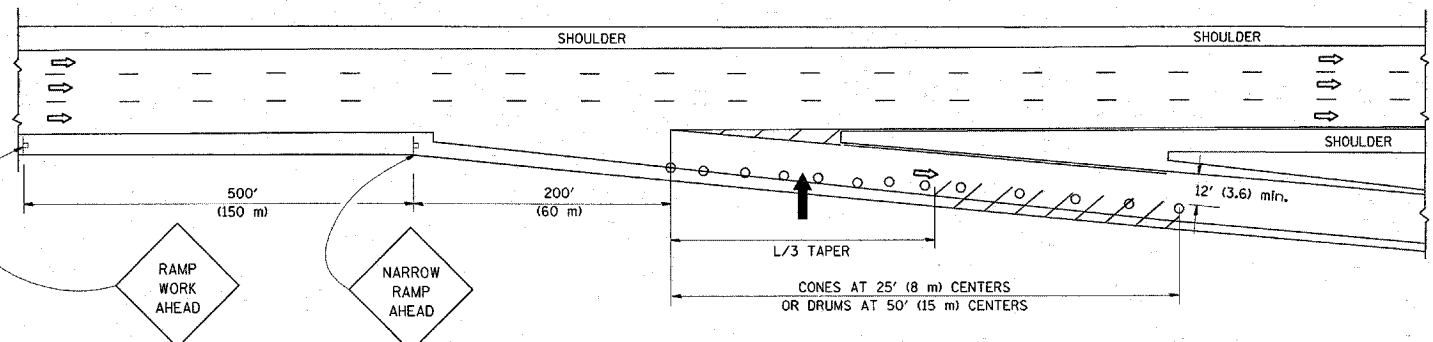
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 342	SECTION (530-8531)RS-4	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 29
TC-16			CONTRACT NO. 62079	
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				

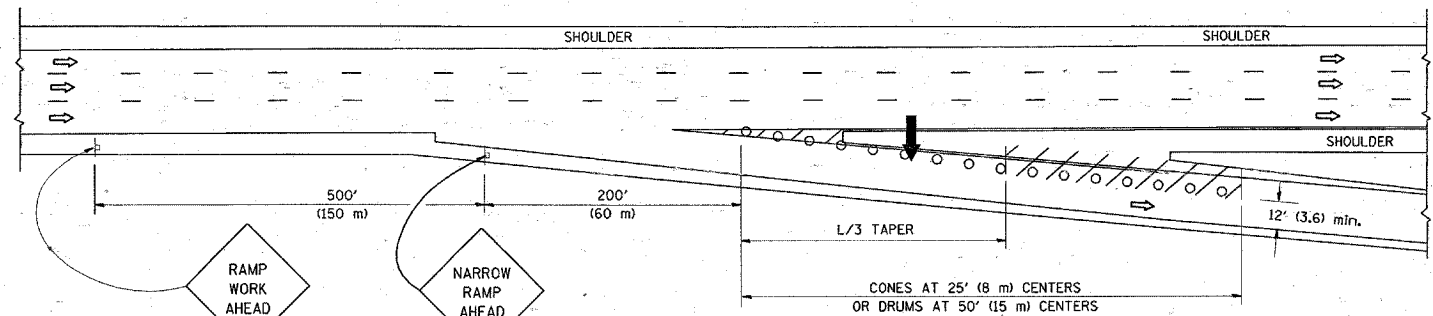
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

SYMBOLS

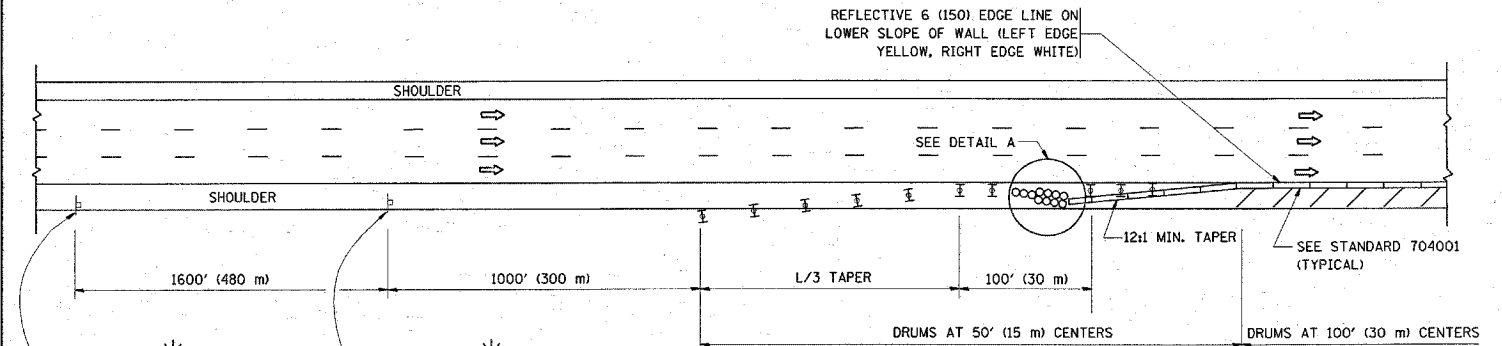
- ➔ ARROWBOARD
- ▨ WORK AREA
- ┆ SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- ⊥ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

GENERAL NOTES

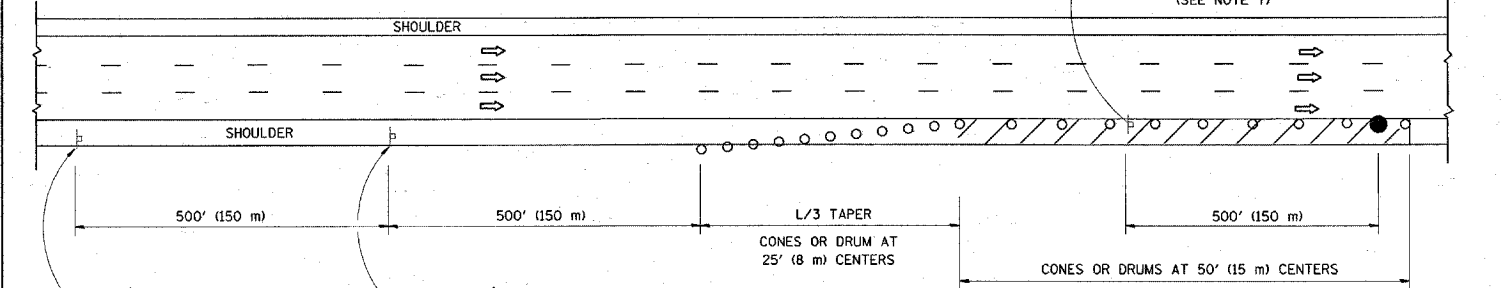
1. THE "L" DISTANCE EQUALS:
 

SPEED LIMIT	FORMULAS
45 mph (80 km/h) OR GREATER:	METRIC ENGLISH
	$L=0.65(W/S)$ $L=(W/S)$
W = WIDTH OF OFFSET IN FEET (METERS)	
S = NORMAL POSTED SPEED MPH (KM/H)	
2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

SHOULDER CLOSURE DETAILS



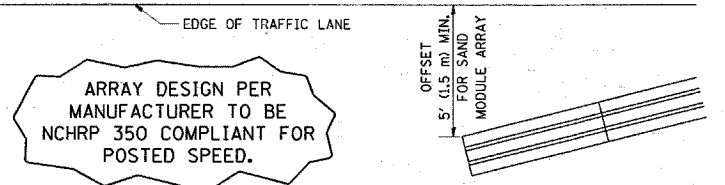
PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

THIS DETAIL IS USED WHERE:

1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCR OACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.



DETAIL "A" IMPACT ATTENUATOR, TEMPORARY (SEE NOTE 5)

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

W 20-1101-48

W 20-1101(0)-48 OR W 20-7at(0)-48 (SEE NOTE 7)

W 20-1101-48

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	(530 & 531) RS-4	Cook	31	30
TC-17		CONTRACT NO. 62079		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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USER NAME = hamdanah  
 PLOT SCALE = 50.0000' / IN.  
 PLOT DATE = 4/16/2009

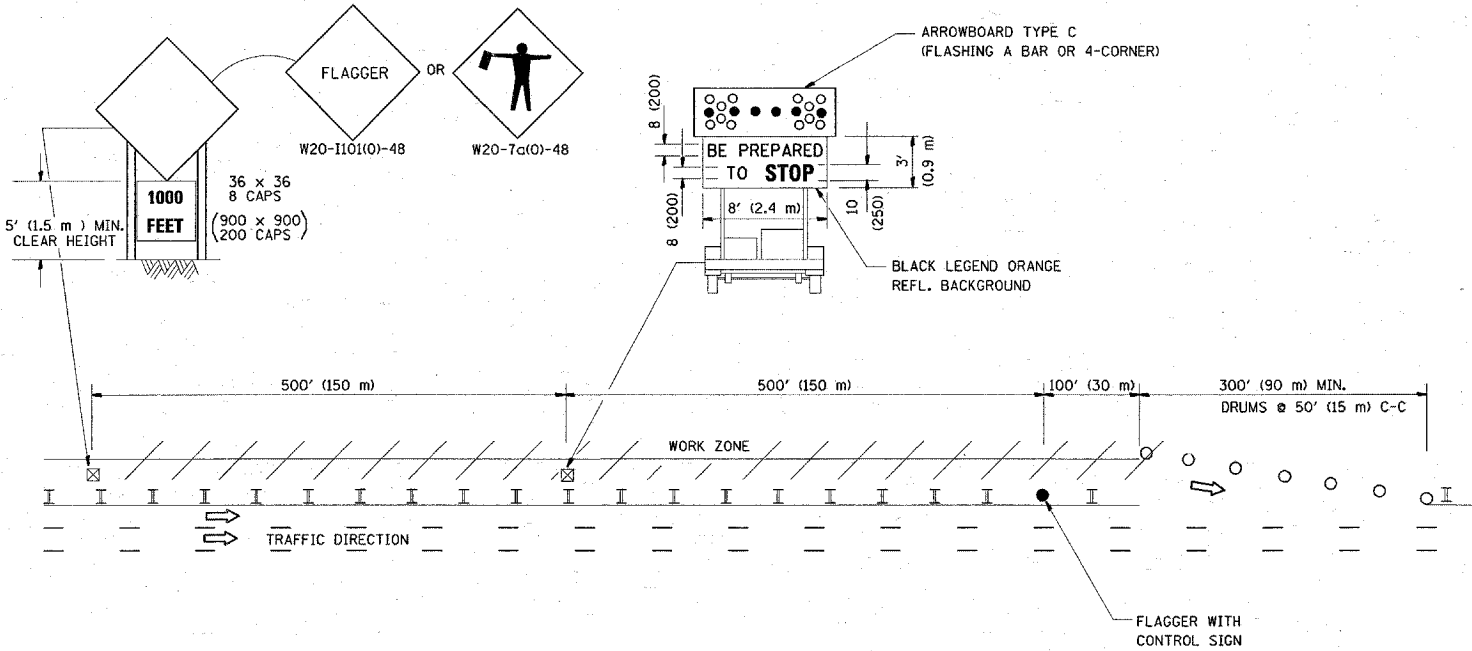
DESIGNED -  
 DRAWN - D.W.S.  
 CHECKED -  
 DATE - 11-96

REVISED - J.A.F. 12-02  
 REVISED - 04-03  
 REVISED - J.A.F. 12-06  
 REVISED - S.P.B. 01-07

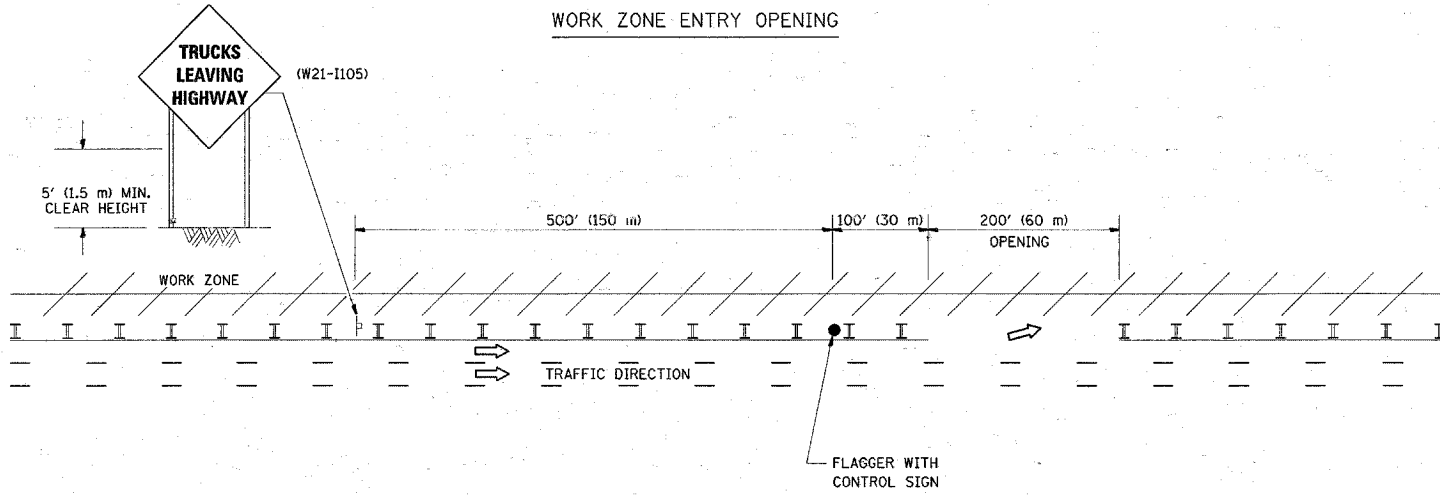
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. The Arrowboard, the Flagger Ahead trailer mounted sign, and the Trucks Leaving Highway sign shall be removed or turned away from traffic and the exit and entry openings shall be closed when the flagging operation ceases.
2. Work Zone Exit Openings should be a minimum of one half mile apart.
3. Exiting the work zone at any place other than at a Work Zone Exit Opening will be prohibited.
4. All vehicles shall enter the work zone at entry openings, using their turn signals to warn motorists

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SIGNING FOR FLAGGING OPERATIONS  
AT WORK ZONE OPENINGS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	(530 & 531) RS-4	COOK	31	31
TC-18			CONTRACT NO. 62079	
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				

FILE NAME =	USER NAME = hamdanah	DESIGNED -	REVISED - D.W.S. 08-98
W:\diststd\22x34\to18.dgn		DRAWN -	REVISED - J.A.F. 04-03
	PLOT SCALE = 50,000 / IN.	CHECKED -	REVISED - J.A.F. 02-06
	PLOT DATE = 4/16/2008	DATE -	REVISED - S.P.B. 01-07

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