

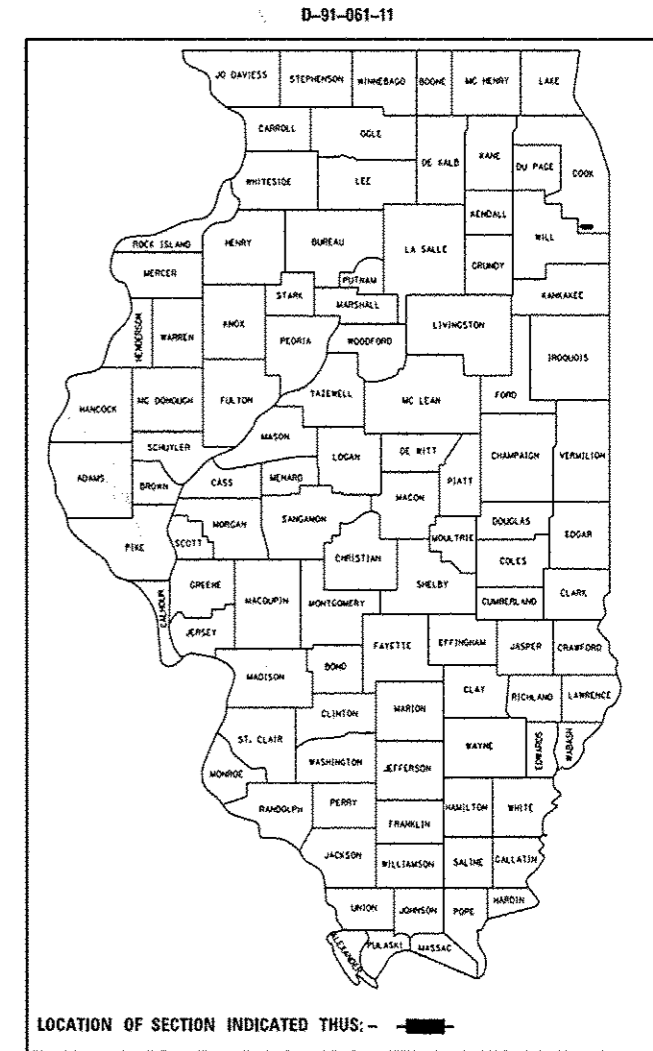
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	23R-RS	COOK	66	1
ILLINOIS			CONTRACT NO. 60L94	

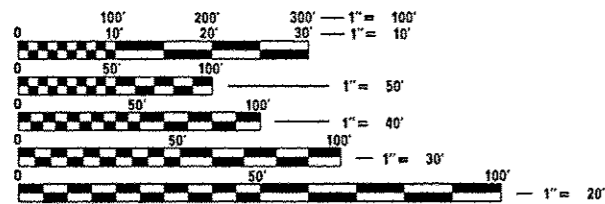
FOR INDEX OF SHEETS, SEE SHEET NO. 2

**PROPOSED  
HIGHWAY PLANS**

FAP RTE. 353: US RTE. 30 (LINCOLN HIGHWAY)  
IL RTE. 50 (CICERO AVE.) TO WESTERN AVE.  
SECTION 23R-RS  
PAVEMENT PATCHING, DIAMOND GRINDING, AND RESURFACING (3P)  
COOK COUNTY  
C-91-061-11



THE PROJECT IS LOCATED IN THE VILLAGE OF MATTESSON, VILLAGE OF OLYMPIA FIELDS, VILLAGE OF PARK FOREST AND THE CITY OF CHICAGO HEIGHTS IN COOK COUNTY.

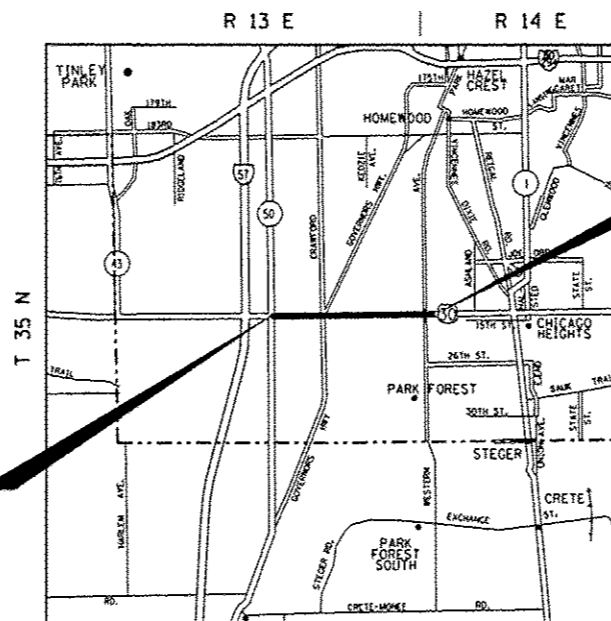


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: KARI SMITH (847) 705-4437  
PROJECT MANAGER: KEN ENG (847) 705-4247

CONTRACT NO. 60L94



**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	INDEX OF SHEETS, HIGHWAY STANDARDS, AND GENERAL NOTES
3-6	SUMMARY OF QUANTITIES
7-10	TYPICAL SECTIONS
11-14	SCHEDULE OF QUANTITIES (PATCHING)
15-21	ROADWAY AND PAVEMENT MARKING PLANS
22-32	DETECTOR LOOP REPLACEMENT PLANS
33	DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 M) (BD-01)
34	DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W. AND FACE OF CURB < 15' (4.5 M) (BD-02)
35	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING (BD-08)
36	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT (BD-24)
37	BUTT JOINT AND HMA TAPER DETAILS (BD-32)
38	HMA TAPER AT EDGE OF PCC PAVEMENT (BD-33)
39	DETAILS FOR DEPRESSED CURB & GUTTER AND SHOULDER TREATMENT AT TYPICAL SPL (BD-34)
40-58	PRECAST CONCRETE SLABS (BD-57)
59	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)
60	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT) (TC-11)
61	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)
62	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) (TC-14)
63	PAVEMENT MARKING LETTERS & SYMBOLS FOR TRAFFIC STAGING (TC-16)
64	ARTERIAL ROAD INFORMATION SIGN (TC-22)
65	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAIL, SHEET 1 OF 6 (TS-05)
66	DISTRICT ONE DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING (TS-07)

**HIGHWAY STANDARDS**

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
420001-07	PAVEMENT JOINTS
420701-02	PAVEMENT FABRIC
442101-07	CLASS B PATCHES
442201-03	CLASS C AND D PATCHES
606001-05	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606301-04	PC CONCRETE ISLANDS AND MEDIANS
606306-03	CORRUGATED PC CONCRETE MEDIANS
604001-03	FRAME AND LIDS, TYPE 1
630001-10	STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631011-09	TRAFFIC BARRIER TERMINAL, TYPE 2
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
701427-02	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≤ 40 MPH
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701602-07	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701606-09	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-09	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-05	LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-03	TRAFFIC CONTROL DEVICES
814001-02	HANDHOLES

**GENERAL NOTES**

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.

TEN (10) FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS AND GUTTER AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, THE VILLAGE OF MATTESON, VILLAGE OF OLYMPIA FIELDS, VILLAGE OF PARK FOREST AND THE CITY OF CHICAGO HEIGHTS.

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

ANY PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS OBLITERATED BY MILLING AND RESURFACING OPERATIONS ON SIDE STREETS AND ENTRANCES SHALL BE REPLACED AND PAID FOR IN KIND.

ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE DEPARTMENT.

BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.

ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

LOCATION OF COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (OR COMBINATION CURB AND GUTTER (THE TYPE SPECIFIED ON THE PLANS), WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

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

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

FRAMES AND GRATES ADJUSTMENT OF PRIVATE UTILITIES WITHIN THE LIMITS OF THE IMPROVEMENTS SHALL BE DONE BY THEIR RESPECTIVE OWNERS AND ARE NOT PART OF THIS CONTRACT.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

THE ENGINEER SHALL CONTACT MR. JOE ECKERT, AREA TRAFFIC FIELD ENGINEER, AT (224)-217-8632 A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM THE BUREAU OF CONSTRUCTION.

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

FOR FRAMES AND LIDS ADJUSTMENT WITHOUT MILLING, REUSE EXISTING FRAME AND LID UNLESS OTHERWISE SPECIFIED IN THE PLANS.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL "TYPICAL APPLICATIONS - RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" SHOWN IN THE PLANS.

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.

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

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

FILE NAME: c:\pwork\psidot\dettmann\022306\022306.dgn	USER NAME: edettmann	DESIGNED: -	REVISED: -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US RTE. 30 (LINCOLN HWY.) (CICERO AVE. TO WESTERN AVE.) INDEX OF SHEETS, HIGHWAY STANDARDS, AND GENERAL NOTES</b>	F.A.P. RTE.:	SECTION:	COUNTY:	TOTAL SHEETS:	SHEET NO.:	
		DRAWN: -	REVISED: -			353	23R-RS	COOK	66	2	
		CHECKED: -	REVISED: -			CONTRACT NO. 60L94					
		DATE: -	REVISED: -			ILLINOIS FED. AID PROJECT					
PLOT SCALE: 1/8" = 1'-0"		PLOT DATE: 6/13/2014		SCALE: NONE		SHEET NO. OF SHEETS		STA. TO STA.			

SUMMARY OF QUANTITIES			TOTAL QUANTITIES		CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		0005 100% STATE					
X0321772	PRECAST CONCRETE PAVEMENT SLABS 10"	SO FT	14016	14016					
21101615	TOPSOIL FURNISH AND PLACE, 4"	SO YD	390	390					
25200110	SODDING, SALT TOLERANT	SO YD	390	390					
35501316	HOT-MIX ASPHALT BASE COURSE, 8"	SO YD	125	125					
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	131	131					
40600827	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	2798	2798					
40600895	CONSTRUCTING TEST STRIP	EACH	1	1					
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	393	393					
40600985	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	SO YD	1158	1158					
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	502	502					
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	15	15					
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	7731	7731					* SPECIALTY ITEM

SUMMARY OF QUANTITIES			TOTAL QUANTITIES		CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		0005 100% STATE					
42101300	PROTECTIVE COAT	SO YD	1649	1649					
42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SO YD	125	125					
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SO FT	225	225					
42400800	DETECTABLE WARNINGS	SO FT	75	75					
44000200	DRIVEWAY PAVEMENT REMOVAL	SO YD	250	250					
44000600	SIDEWALK REMOVAL	SO FT	225	225					
44003100	MEDIAN REMOVAL	SO FT	230	230					
44003510	MEDIAN REMOVAL PARTIAL DEPTH	SO FT	70326	70326					
<del>X440</del>	<del>PARTIAL DEPTH REMOVAL 3"</del>	<del>SO YD</del>	<del>2985</del>	<del>2985</del>					
44200970	CLASS B PATCHES, TYPE II, 10 INCH	SO YD	1509	1509					
44200974	CLASS B PATCHES, TYPE III, 10 INCH	SO YD	344	344					
44200976	CLASS B PATCHES, TYPE IV, 10 INCH	SO YD	1347	1347					
44201299	DOWEL BARS 1 1/2"	EACH	4210	4210					
44213204	TIE BARS 3/4"	EACH	466	466					
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SO YD	2129	2129					* SPECIALTY ITEM
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SO YD	1713	1713					

FILE NAME :	USER NAME : dellmann	DESIGNED -	REVISED -
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		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**US RTE. 30 (LINCOLN HWY.) (CICERO AVE. TO WESTERN AVE.)  
SUMMARY OF QUANTITIES**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	23R-RS	COOK	66	3
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

Rev.

60L94

SUMMARY OF QUANTITIES			TOTAL QUANTITIES		CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	0005 100% STATE						
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SO YD	4964	4964						
44213100	PAVEMENT FABRIC	SO YD	1691	1691						
44213200	SAW CUTS	FOOT	17964	17964						
60252800	CATCH BASINS TO BE RECONSTRUCTED	EACH	5	5						
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	150	150						
60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	5	5						
60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	29	29						
60618300	CONCRETE MEDIAN SURFACE, 4 INCH	SO FT	2158	2158						
60622000	CONCRETE MEDIAN, TYPE SM-2.12	SO FT	60	60						
60624600	CORRUGATED MEDIAN	SO FT	230	230						
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	150	150						
* 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2	2						
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2	2						
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	12						
67100100	MOBILIZATION	L SUM	1	1					* SPECIALTY ITEM	

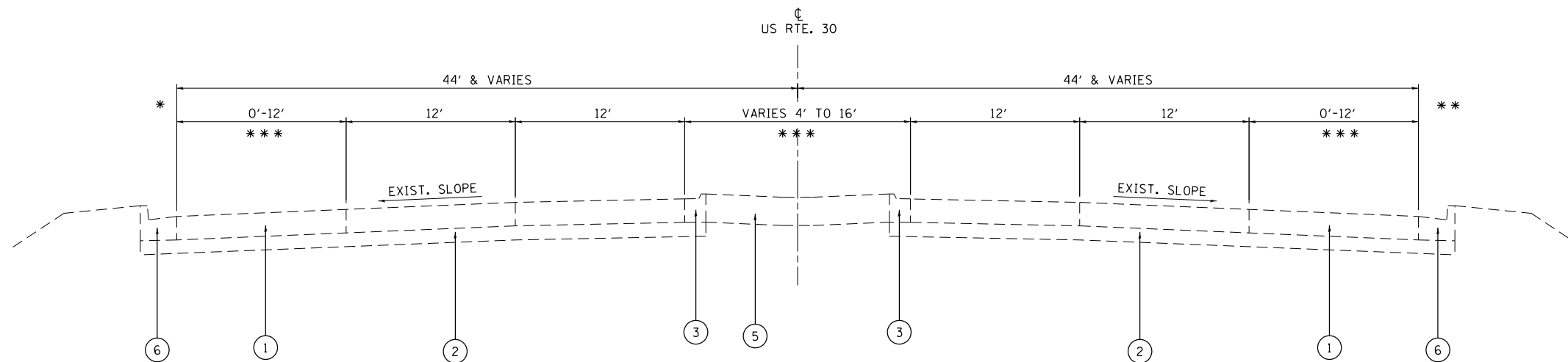
SUMMARY OF QUANTITIES			TOTAL QUANTITIES		CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	0005 100% STATE						
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1						
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1						
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1	1						
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1						
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1						
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	80201	80201						
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	1858	1858						
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	64880	64880						
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	8695	8695						
70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	356	356						
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	2670	2670					* SPECIALTY ITEM	

FILE NAME :	USER NAME = getimarra	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US RTE. 30 (LINCOLN HWY.) (CICERO AVE. TO WESTERN AVE.) SUMMARY OF QUANTITIES</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C:\pwwork\pwwork\getimarra\0230696\0230696.dwg	DRAWN -	REVISED -	353			23R-RS	COOK	66	4	
PLOT SCALE = 100.0000' / 1"	CHECKED -	REVISED -	FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT							
PLOT DATE = 6/13/2009	DATE -	REVISED -	SCALE:			SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 60L94

Rev.



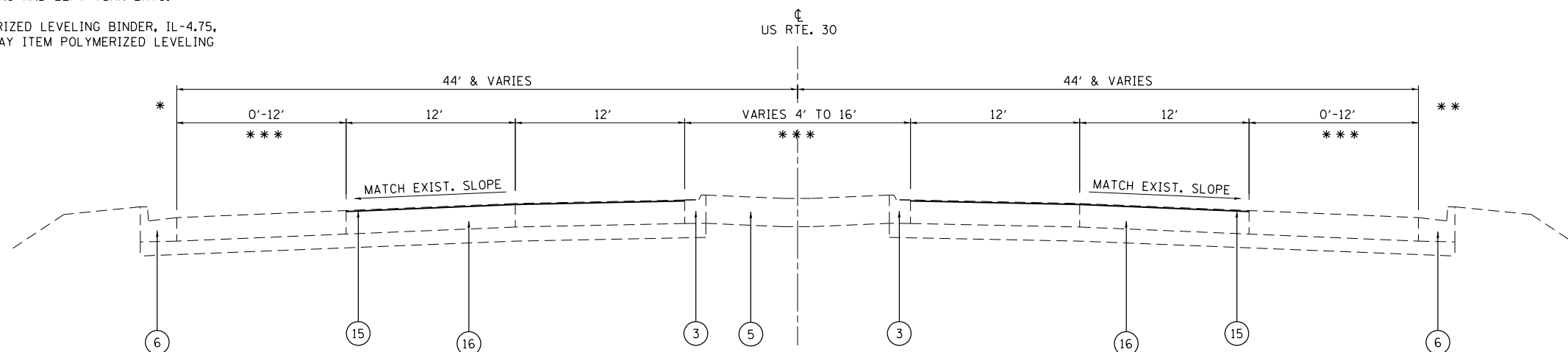




**EXISTING TYPICAL CROSS SECTION  
US RTE. 30 (IL RTE. 50 TO HILLTOP AVE.)**

STA. 11+67 TO STA. 101+44  
STA. 108+87 TO STA. 110+73

- \* RIGHT TURN LANE FROM APPROX. STA. 63+25 TO STA. 68+00 & STA. 101+00 TO STA. 106+50
- \*\* RIGHT TURN LANE FROM APPROX. STA. 58+00 TO STA. 62+25.
- \*\*\* SEE ROADWAY AND PAVEMENT MARKING PLAN SHEETS FOR LOCATIONS OF THE PAINTED MEDIANS AND LEFT TURN BAYS.
- \*\*\*\* COST OF VARIABLE DEPTH POLYMERIZED LEVELING BINDER, IL-4.75, N50 SHALL BE INCLUDED IN THE PAY ITEM POLYMERIZED LEVELING BINDER, IL-4.75, N50.



**PROPOSED TYPICAL CROSS SECTION  
US RTE. 30 (IL RTE. 50 TO HILLTOP AVE.)**

STA. 11+67 TO STA. 101+44  
STA. 108+87 TO STA. 110+73

**LEGEND**

- ① EXISTING P.C.C. PAVEMENT, 10"
- ② EXISTING SUB-BASE GRANULAR MATERIAL, TYPE A, 6"
- ③ EXISTING COMB. CONCRETE CURB & GUTTER, TYPE M-2.12
- ④ EXISTING CONCRETE MEDIAN TYPE SM-2.12
- ⑤ EXISTING STABILIZED MEDIAN SURFACE, 12"
- ⑥ EXISTING COMB. CONCRETE CURB & GUTTER, TYPE B-6.24
- ⑦ EXISTING CONCRETE MEDIAN SURFACE, 4"
- ⑧ EXISTING SAND FILL
- ⑨ EXISTING COMB. CONCRETE CURB & GUTTER, TYPE SB-9.12
- ⑩ P.C.C. SURFACE REMOVAL (VAR. DEPTH)
- ⑪ MEDIAN REMOVAL, PARTIAL DEPTH
- ⑫ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 (VAR. DEPTH)
- ⑬ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- ⑭ PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"
- ⑮ PROPOSED PROFILE DIAMOND GRINDING CONCRETE PAVEMENT, 3/8" TO 1/4"
- ⑯ PROPOSED PRECAST PANELS OR CLASS B PATCHING (SEE PATCHING SCHEDULE)

**NOTES**

1. COST OF REMOVAL OF PORTION OF P.C.C. CURB ABOVE GUTTER TO BE INCLUDED WITH MEDIAN REMOVAL, PARTIAL DEPTH. THE CONTRACTOR SHALL MATCH THE EXIST. ADJACENT PAVEMENT CROSS SLOPE FOR MEDIAN REMOVAL, PARTIAL DEPTH.
2. EXIST. SAND FILL AND 4" CONCRETE MEDIAN SURFACE FROM STA. 101+44 TO STA. 108+87
3. EXIST. CONCRETE MEDIAN TYPE SB-9.12 FROM STA. 100+44 TO STA. 101+44 SHALL NOT BE REMOVED.
4. CONTRACTOR SHALL PATCH FIRST.

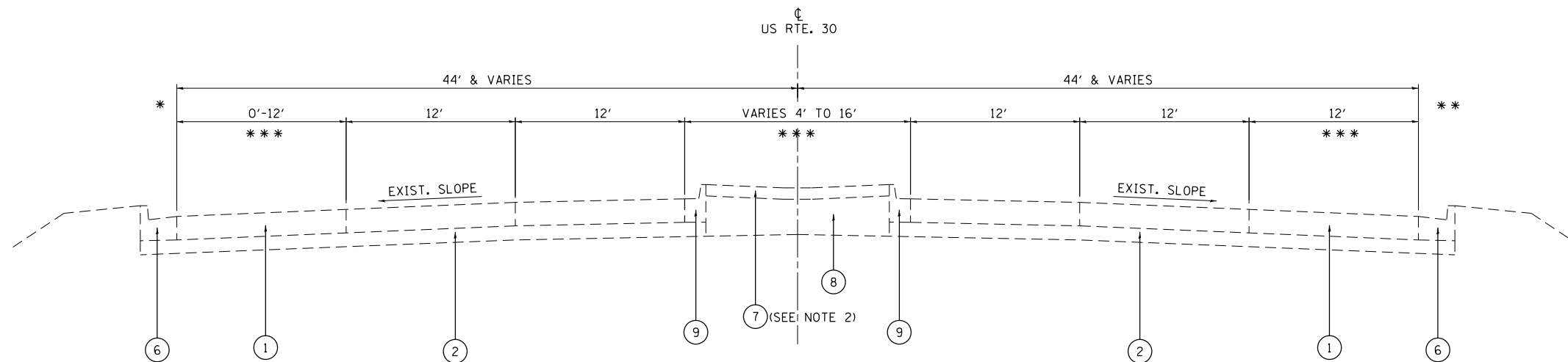
**HOT-MIX ASPHALT MIXTURE REQUIREMENTS**

MIXTURE TYPE	AIR VOIDS @ Ndes	QUALITY MANAGEMENT PROGRAM (QMP)
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL-9.5 mm)	4% @ 90 GYR.	OCP
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	3.5% @ 50 GYR.	OCP
CLASS D PATCHES (HMA BINDER IL-19 mm), 10"	4% @ 70 GYR.	QC/OA
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	4% @ 70 GYR.	QC/OA
HMA SURFACE COURSE, MIX "D", N50 (IL-9.5mm)	4% @ 50 GYR.	QC/OA
HMA BASE COURSE, 8" (HMA BINDER IL-19.0)	4% @ 50 GYR.	QC/OA

QMP DESIGNATION: QUALITY CONTROL/ QUALITY ASSURANCE (QC/OA); QUALITY CONTROL FOR PERFORMANCE (OCP)

THE UNIT WEIGHT TO BE USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

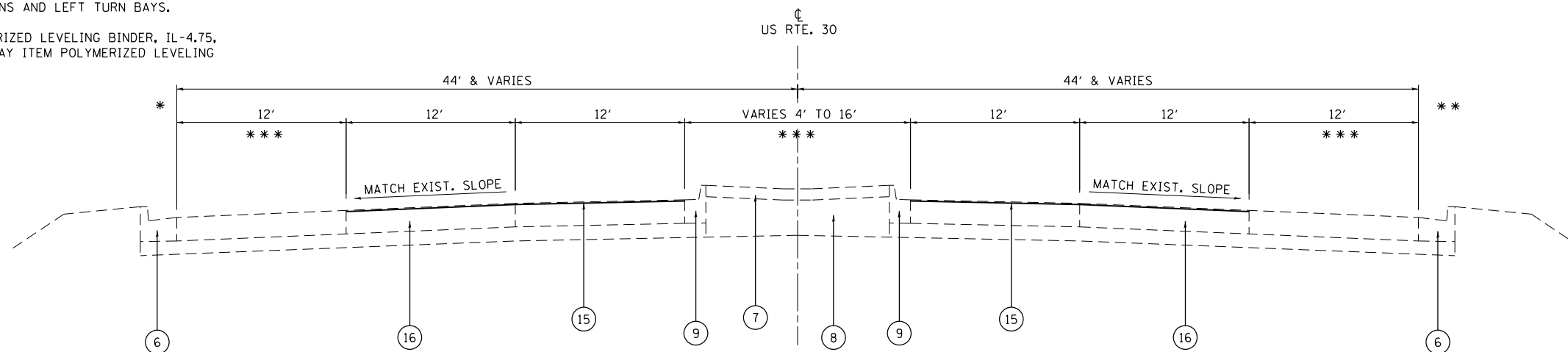
THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS. QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.



**EXISTING TYPICAL CROSS SECTION  
US RTE. 30 (IL RTE. 50 TO HILLTOP AVE.)**

STA. 101+44 TO STA. 108+87

- \* RIGHT TURN LANE FROM APPROX. STA. 63+25 TO STA. 68+00 & STA. 101+00 TO STA. 106+50
- \*\* RIGHT TURN LANE FROM APPROX. STA. 58+00 TO STA. 62+25.
- \*\*\* SEE ROADWAY AND PAVEMENT MARKING PLAN SHEETS FOR LOCATIONS OF THE PAINTED MEDIANS AND LEFT TURN BAYS.
- \*\*\*\* COST OF VARIABLE DEPTH POLYMERIZED LEVELING BINDER, IL-4.75, N50 SHALL BE INCLUDED IN THE PAY ITEM POLYMERIZED LEVELING BINDER, IL-4.75, N50.



**PROPOSED TYPICAL CROSS SECTION  
US RTE. 30 (IL RTE. 50 TO HILLTOP AVE.)**

STA. 101+44 TO STA. 108+87

**LEGEND**

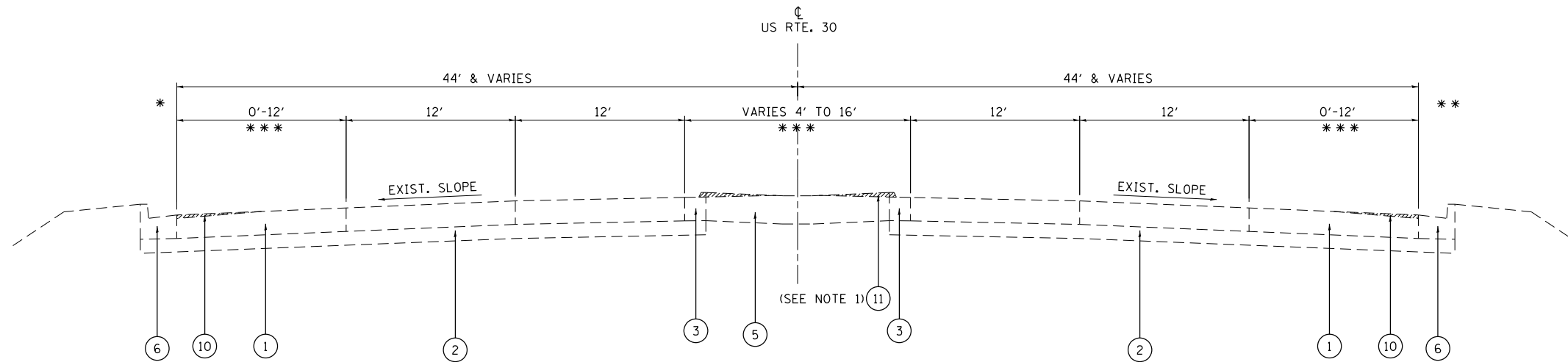
- ① EXISTING P.C.C. PAVEMENT, 10"
- ② EXISTING SUB-BASE GRANULAR MATERIAL, TYPE A, 6"
- ③ EXISTING COMB. CONCRETE CURB & GUTTER, TYPE M-2.12
- ④ EXISTING CONCRETE MEDIAN TYPE SM-2.12
- ⑤ EXISTING STABILIZED MEDIAN SURFACE, 12"
- ⑥ EXISTING COMB. CONCRETE CURB & GUTTER, TYPE B-6.24
- ⑦ EXISTING CONCRETE MEDIAN SURFACE, 4"
- ⑧ EXISTING SAND FILL
- ⑨ EXISTING COMB. CONCRETE CURB & GUTTER, TYPE SB-9.12
- ⑩ P.C.C. SURFACE REMOVAL (VAR. DEPTH)
- ⑪ MEDIAN REMOVAL, PARTIAL DEPTH
- ⑫ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 (VAR. DEPTH)
- ⑬ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- ⑭ PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"
- ⑮ PROPOSED PROFILE DIAMOND GRINDING CONCRETE PAVEMENT, 3/8" TO 1/4"
- ⑯ PROPOSED PRECAST PANELS OR CLASS B PATCHING (SEE PATCHING SCHEDULE)

**NOTES**

1. COST OF REMOVAL OF PORTION OF P.C.C. CURB ABOVE GUTTER TO BE INCLUDED WITH MEDIAN REMOVAL, PARTIAL DEPTH. THE CONTRACTOR SHALL MATCH THE EXIST. ADJACENT PAVEMENT CROSS SLOPE FOR MEDIAN REMOVAL, PARTIAL DEPTH.
2. EXIST. SAND FILL AND 4" CONCRETE MEDIAN SURFACE FROM STA. 101+44 TO STA. 108+87
3. EXIST. CONCRETE MEDIAN TYPE SB-9.12 FROM STA. 100+44 TO STA. 101+44 SHALL NOT BE REMOVED.
4. CONTRACTOR SHALL PATCH FIRST.

FILE NAME =	USER NAME = dettmnra	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US RTE. 30 (LINCOLN HWY.) (CICERO AVE. TO WESTERN AVE.) TYPICAL SECTIONS</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pwork\pwork\dettmnra\d0230696\006111-sh-t-plan.dgn	DRAWN -	REVISED -	353			23R-R5	COOK	66	8	
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -	CONTRACT NO. 60L94							
PLOT DATE = 6/19/2014	DATE -	REVISED -	ILLINOIS FED. AID PROJECT							
					SCALE: NONE	SHEET NO.	OF SHEETS	STA.	TO STA.	

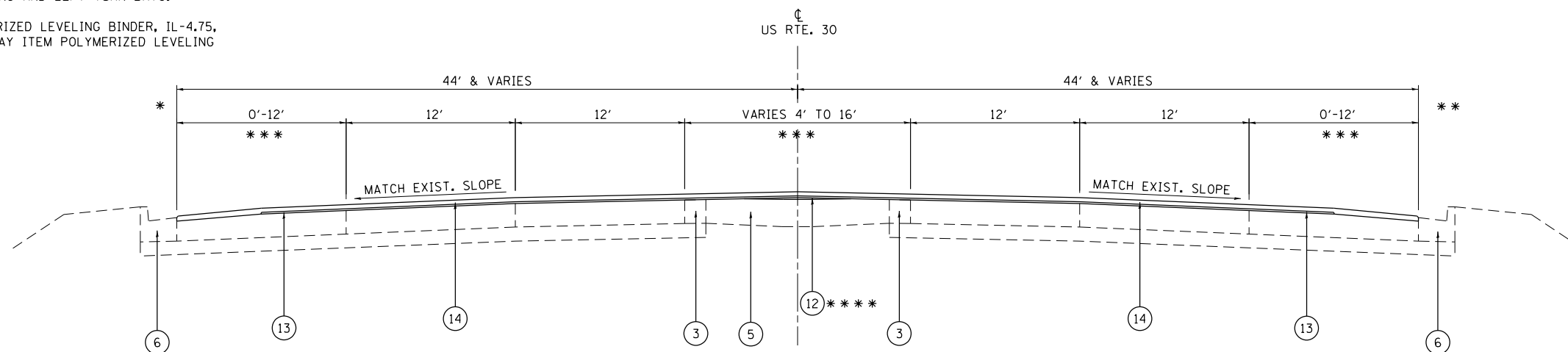




**EXISTING TYPICAL CROSS SECTION  
US RTE. 30 (IL RTE. 50 TO HILLTOP AVE.)**

STA. 110+73 TO STA. 181+86

- \* RIGHT TURN LANE FROM APPROX. STA. 63+25 TO STA. 68+00 & STA. 101+00 TO STA. 106+50
- \*\* RIGHT TURN LANE FROM APPROX. STA. 58+00 TO STA. 62+25.
- \*\*\* SEE ROADWAY AND PAVEMENT MARKING PLAN SHEETS FOR LOCATIONS OF THE PAINTED MEDIANS AND LEFT TURN BAYS.
- \*\*\*\* COST OF VARIABLE DEPTH POLYMERIZED LEVELING BINDER, IL-4.75, N50 SHALL BE INCLUDED IN THE PAY ITEM POLYMERIZED LEVELING BINDER, IL-4.75, N50.



**PROPOSED TYPICAL CROSS SECTION  
US RTE. 30 (IL RTE. 50 TO HILLTOP AVE.)**

STA. 110+73 TO STA. 181+86

**LEGEND**

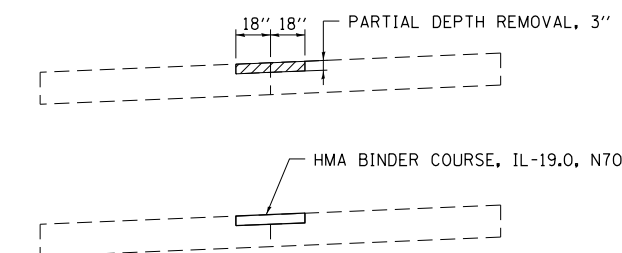
- ① EXISTING P.C.C. PAVEMENT, 10"
- ② EXISTING SUB-BASE GRANULAR MATERIAL, TYPE A, 6"
- ③ EXISTING COMB. CONCRETE CURB & GUTTER, TYPE M-2.12
- ④ EXISTING CONCRETE MEDIAN TYPE SM-2.12
- ⑤ EXISTING STABILIZED MEDIAN SURFACE, 12"
- ⑥ EXISTING COMB. CONCRETE CURB & GUTTER, TYPE B-6.24
- ⑦ EXISTING CONCRETE MEDIAN SURFACE, 4"
- ⑧ EXISTING SAND FILL
- ⑨ EXISTING COMB. CONCRETE CURB & GUTTER, TYPE SB-9.12
- ⑩ P.C.C. SURFACE REMOVAL (VAR. DEPTH)
- ⑪ MEDIAN REMOVAL, PARTIAL DEPTH
- ⑫ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 (VAR. DEPTH)
- ⑬ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- ⑭ PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"
- ⑮ PROPOSED PROFILE DIAMOND GRINDING CONCRETE PAVEMENT, 3/16" TO 1/4"
- ⑯ PROPOSED PRECAST PANELS OR CLASS B PATCHING (SEE PATCHING SCHEDULE)

**NOTES**

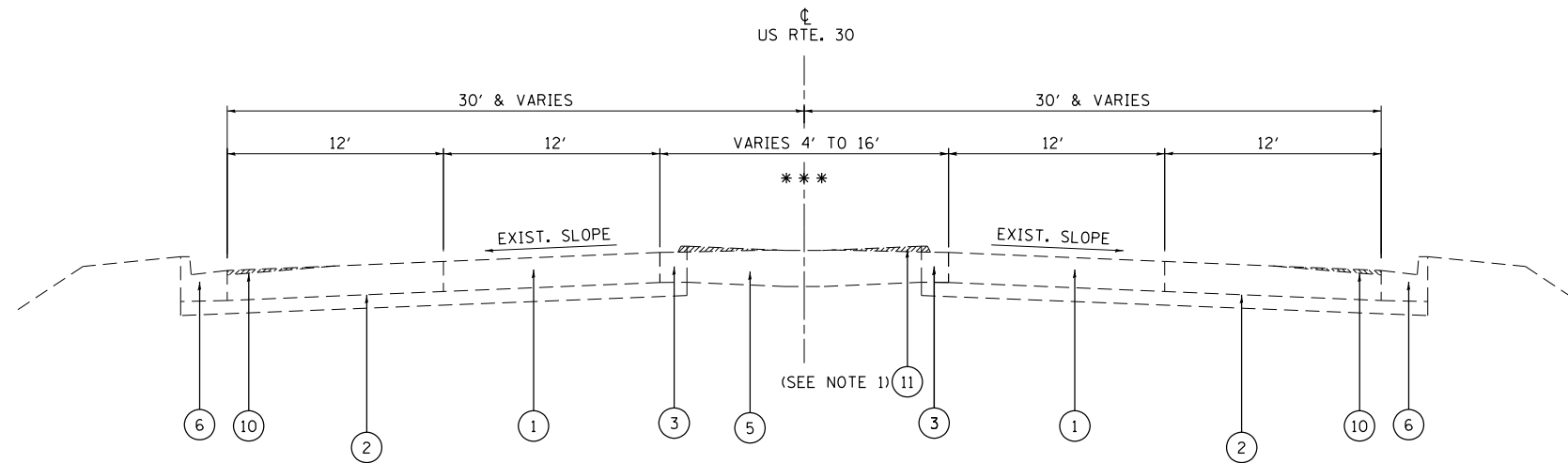
1. COST OF REMOVAL OF PORTION OF P.C.C. CURB ABOVE GUTTER TO BE INCLUDED WITH MEDIAN REMOVAL, PARTIAL DEPTH. THE CONTRACTOR SHALL MATCH THE EXIST. ADJACENT PAVEMENT CROSS SLOPE FOR MEDIAN REMOVAL, PARTIAL DEPTH.
2. EXIST. SAND FILL AND 4" CONCRETE MEDIAN SURFACE FROM STA. 101+44 TO STA. 108+87
3. EXIST. CONCRETE MEDIAN TYPE SB-9.12 FROM STA. 100+44 TO STA. 101+44 SHALL NOT BE REMOVED.
4. CONTRACTOR SHALL PATCH FIRST.

**DETAIL A  
LONGITUDINAL JOINT REPAIR (TYP.)**

(LOCATIONS TO BE DETERMINED BY ENGINEER)



FILE NAME =	USER NAME = dettmnra	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US RTE. 30 (LINCOLN HWY.) (CICERO AVE. TO WESTERN AVE.) TYPICAL SECTIONS</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pw\work\p\midot\dettmnra\d0230696\006111-sh-t-plan.dgn		DRAWN -	REVISED -					353	23R-R5	COOK	66	9
		CHECKED -	REVISED -					CONTRACT NO. 60L94				
		DATE -	REVISED -					ILLINOIS FED. AID PROJECT				
	PLOT SCALE = 100.0000' / 1" /			SCALE: NONE	SHEET NO.	OF	SHEETS	STA.	TO STA.			
	PLOT DATE = 6/19/2014											



**EXISTING TYPICAL CROSS SECTION  
WESTERN AVE**

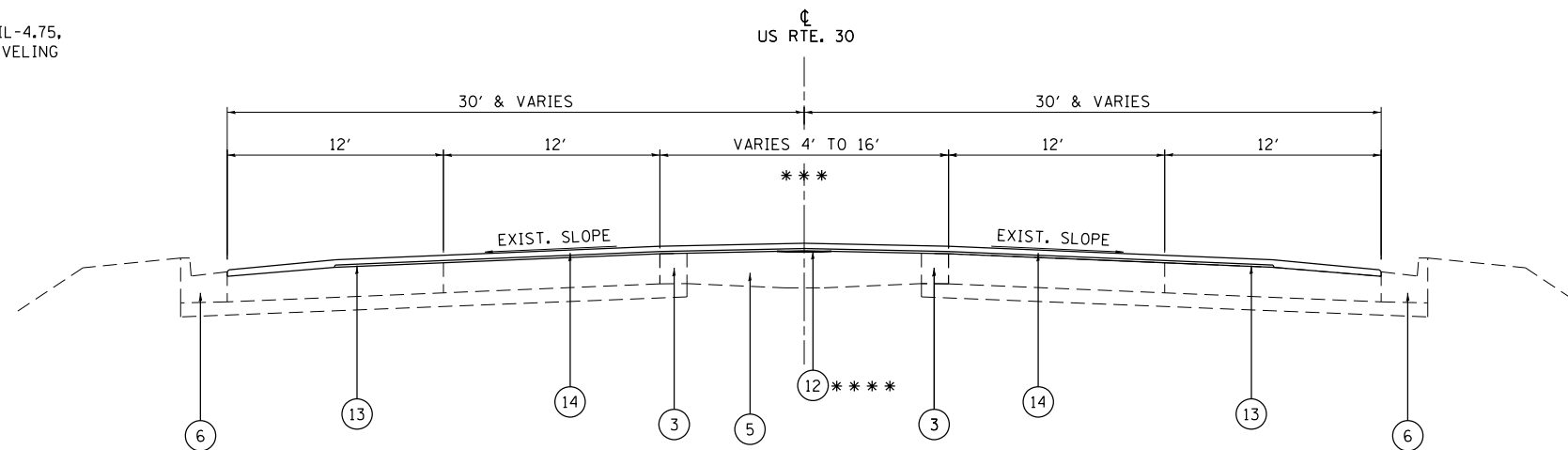
STA. 2+17 TO STA. 13+93

\* RIGHT TURN LANE FROM APPROX. STA. 63+25 TO STA. 68+00 & STA. 101+00 TO STA. 106+50

\*\* RIGHT TURN LANE FROM APPROX. STA. 58+00 TO STA. 62+25.

\*\*\* SEE ROADWAY AND PAVEMENT MARKING PLAN SHEETS FOR LOCATIONS OF THE PAINTED MEDIANS AND LEFT TURN BAYS.

\*\*\*\* COST OF VARIABLE DEPTH POLYMERIZED LEVELING BINDER, IL-4.75, N50 SHALL BE INCLUDED IN THE PAY ITEM POLYMERIZED LEVELING BINDER, IL-4.75, N50.



**EXISTING TYPICAL CROSS SECTION  
WESTERN AVE**

STA. 2+17 TO STA. 13+93

**LEGEND**

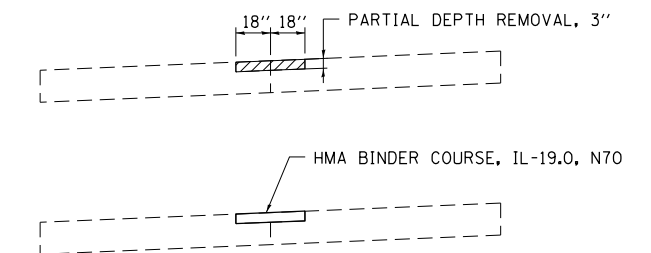
- ① EXISTING P.C.C. PAVEMENT, 10"
- ② EXISTING SUB-BASE GRANULAR MATERIAL, TYPE A, 6"
- ③ EXISTING COMB. CONCRETE CURB & GUTTER, TYPE M-2.12
- ④ EXISTING CONCRETE MEDIAN TYPE SM-2.12
- ⑤ EXISTING STABILIZED MEDIAN SURFACE, 12"
- ⑥ EXISTING COMB. CONCRETE CURB & GUTTER, TYPE B-6.24
- ⑦ EXISTING CONCRETE MEDIAN SURFACE, 4"
- ⑧ EXISTING SAND FILL
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- ⑩ P.C.C. SURFACE REMOVAL (VAR. DEPTH)
- ⑪ MEDIAN REMOVAL, PARTIAL DEPTH
- ⑫ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 (VAR. DEPTH)
- ⑬ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- ⑭ PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"
- ⑮ PROPOSED PROFILE DIAMOND GRINDING CONCRETE PAVEMENT, 3/8" TO 1/4"
- ⑯ PROPOSED PRECAST PANELS OR CLASS B PATCHING (SEE PATCHING SCHEDULE)

**NOTES**

1. COST OF REMOVAL OF PORTION OF P.C.C. CURB ABOVE GUTTER TO BE INCLUDED WITH MEDIAN REMOVAL, PARTIAL DEPTH. THE CONTRACTOR SHALL MATCH THE EXIST. ADJACENT PAVEMENT CROSS SLOPE FOR MEDIAN REMOVAL, PARTIAL DEPTH.
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4. CONTRACTOR SHALL PATCH FIRST.

**DETAIL A  
LONGITUDINAL JOINT REPAIR (TYP.)**

(LOCATIONS TO BE DETERMINED BY ENGINEER)



FILE NAME =	USER NAME = dettmnra	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US RTE. 30 (LINCOLN HWY.) (CICERO AVE. TO WESTERN AVE.) TYPICAL SECTIONS</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pwork\pwork\dettmnra\d0230696\006111-sh-t-plan.dgn	PLOT SCALE = 100.0000' / 1"	DRAWN -	REVISED -					353	23R-R5	COOK	66	10
	PLOT DATE = 6/19/2014	CHECKED -	REVISED -		SCALE: NONE			SHEET NO.	OF SHEETS	STA. TO STA.	CONTRACT NO. 60L94	
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

PRECAST PATCHES						
CROSS STREET						
FROM	TO	DIRECTION	LANE	WIDTH (FT)	LENGTH (FT)	AREA (SQ FT)
at Kostner	Intersection	EB	LTL	12	8	96
at Governor's	Intersection	EB	3	12	8	96
at Governor's	Intersection	EB	3	12	16	192
at Governor's	Intersection	EB	3	12	16	192
at Governor's	Intersection	EB	3	12	16	192
Resurfacing Limit	Olympian Way	WB	2	12	8	96
Resurfacing Limit	Olympian Way	WB	2	12	8	96
Resurfacing Limit	Olympian Way	WB	2	12	8	96
Olympian Way	Main	WB	2	12	8	96
Olympian Way	Main	WB	2	12	8	96
Olympian Way	Main	WB	2	12	16	192
Olympian Way	Main	WB	2	12	16	192
Olympian Way	Main	WB	2	12	8	96
Main	Governor's	WB	2	12	16	192
Main	Governor's	WB	2	12	16	192
Main	Governor's	WB	2	12	8	96
Main	Governor's	WB	2	12	8	96
Main	Governor's	WB	2	12	16	192
Main	Governor's	WB	2	12	8	96
Main	Governor's	WB	2	12	16	192
Main	Governor's	WB	2	12	16	192
Main	Governor's	WB	2	12	40	480
Main	Governor's	WB	2	12	8	96
Main	Governor's	WB	2	12	8	96
Main	Governor's	WB	2	12	8	96
Main	Governor's	WB	2	12	8	96
Main	Governor's	WB	2	12	8	96
Governor's	Shopping Center	WB	2	12	8	96
Governor's	Shopping Center	WB	2	12	16	192
Governor's	Shopping Center	WB	2	12	24	288
Governor's	Shopping Center	WB	2	12	8	96
Shopping Center	Kostner	WB	2	12	8	96
Shopping Center	Kostner	WB	2	12	8	96
Shopping Center	Kostner	WB	2	12	8	96
Shopping Center	Kostner	WB	2	12	8	96
Shopping Center	Kostner	WB	2	12	8	96
Shopping Center	Kostner	WB	2	12	16	192
Shopping Center	Kostner	WB	2	12	16	192
Shopping Center	Kostner	WB	2	12	16	192
Shopping Center	Kostner	WB	2	12	8	96
Shopping Center	Kostner	WB	2	12	8	96
Kostner	Lindenwood	WB	2	12	8	96
Kostner	Lindenwood	WB	2	12	8	96
Lindenwood	Cicero	WB	2	12	8	96
Lindenwood	Cicero	WB	2	12	8	96
Lindenwood	Cicero	WB	2	12	8	96
Lindenwood	Cicero	WB	2	12	8	96
Lindenwood	Cicero	WB	2	12	8	96

PRECAST PATCHES (CONTINUED)						
CROSS STREET						
FROM	TO	DIRECTION	LANE	WIDTH (FT)	LENGTH (FT)	AREA (SQ FT)
Cicero	Lindenwood	EB	2	12	8	96
Cicero	Lindenwood	EB	2	12	8	96
Cicero	Lindenwood	EB	2	12	16	192
Cicero	Lindenwood	EB	2	12	16	192
Cicero	Lindenwood	EB	2	12	16	192
Cicero	Lindenwood	EB	2	12	48	576
Cicero	Lindenwood	EB	2	12	40	480
Cicero	Lindenwood	EB	2	12	16	192
Cicero	Lindenwood	EB	2	12	16	192
Cicero	Lindenwood	EB	2	12	8	96
Lindenwood	Kostner	EB	2	12	16	192
Lindenwood	Kostner	EB	2	12	16	192
Lindenwood	Kostner	EB	2	12	8	96
Lindenwood	Kostner	EB	2	12	8	96
Lindenwood	Kostner	EB	2	12	8	96
Lindenwood	Kostner	EB	2	12	8	96
Lindenwood	Kostner	EB	2	12	16	192
Kostner	Shopping Center	EB	2	12	8	96
Kostner	Shopping Center	EB	2	12	8	96
Kostner	Shopping Center	EB	2	12	16	192
Kostner	Shopping Center	EB	2	12	72	864
Kostner	Shopping Center	EB	2	12	8	96
Kostner	Shopping Center	EB	2	12	16	192
Kostner	Shopping Center	EB	2	12	8	96
Kostner	Shopping Center	EB	2	12	16	192
Kostner	Shopping Center	EB	2	12	8	96
Kostner	Shopping Center	EB	2	12	8	96
Shopping Center	Governor's	EB	2	12	16	192
Shopping Center	Governor's	EB	2	12	16	192
Shopping Center	Governor's	EB	2	12	16	192
Shopping Center	Governor's	EB	2	12	8	96
Governor's	Main	EB	2	12	16	192
Governor's	Main	EB	2	12	16	192
Governor's	Main	EB	2	12	8	96
Governor's	Main	EB	2	12	8	96
Governor's	Main	EB	2	12	8	96
Governor's	Main	EB	2	12	8	96
Governor's	Main	EB	2	12	8	96
Governor's	Main	EB	2	12	8	96
Governor's	Main	EB	2	12	8	96
Main	Olympian Way	EB	2	12	8	96
Main	Olympian Way	EB	2	12	8	96
Main	Olympian Way	EB	2	12	8	96
Main	Olympian Way	EB	2	12	8	96
Olympian Way	Resurfacing Way	EB	2	12	8	96
Olympian Way	Resurfacing Way	EB	2	12	8	96
Olympian Way	Resurfacing Way	EB	2	12	8	96
<b>TOTAL =</b>						<b>14016</b>
						<b>SQ FT</b>

**CLASS B PATCHES**

CROSS STREET		DIRECTION	LANE	WIDTH (FT)	LENGTH (FT)	TYPE II AREA (SQ YD)	TYPE III AREA (SQ YD)	TYPE IV AREA (SQ YD)
FROM	TO							
Resurfacing Limit	Olympian Way	WB	3	12	6	8.00		
Resurfacing Limit	Olympian Way	WB	3	12	15		20.00	
Resurfacing Limit	Olympian Way	WB	3	12	10	13.33		
Resurfacing Limit	Olympian Way	WB	3	12	6	8.00		
Olympian Way	Main	WB	3	12	6	8.00		
Olympian Way	Main	WB	3	12	6	8.00		
Olympian Way	Main	WB	3	12	6	8.00		
Olympian Way	Main	WB	3	12	10	13.33		
Olympian Way	Main	WB	3	12	6	8.00		
Olympian Way	Main	WB	3	12	6	8.00		
Olympian Way	Main	WB	3	12	6	8.00		
Main	Governor's	WB	3	12	15		20.00	
Main	Governor's	WB	3	12	6	8.00		
Main	Governor's	WB	3	12	6	8.00		
Main	Governor's	WB	3	12	6	8.00		
Main	Governor's	WB	3	12	10	13.33		
Main	Governor's	WB	3	12	6	8.00		
Main	Governor's	WB	3	12	6	8.00		
Main	Governor's	WB	3	12	6	8.00		
Governor's	Shopping Center	WB	3	12	35			46.67
Governor's	Shopping Center	WB	3	12	80			106.67
Shopping Center	Kostner	WB	3	12	30			40.00
Shopping Center	Kostner	WB	3	12	6	8.00		
Shopping Center	Kostner	WB	3	12	10	13.33		
Shopping Center	Kostner	WB	3	12	6	8.00		
Shopping Center	Kostner	WB	3	12	35			46.67
Shopping Center	Kostner	WB	3	12	15		20.00	
Shopping Center	Kostner	WB	3	12	6	8.00		
Kostner	Lindenwood	WB	3	12	6	8.00		
Kostner	Lindenwood	WB	3	12	6	8.00		
Kostner	Lindenwood	WB	3	12	15		20.00	
Lindenwood	Cicero	WB	3	12	6	8.00		
Lindenwood	Cicero	WB	3	12	6	8.00		
Lindenwood	Cicero	WB	3	12	6	8.00		
Lindenwood	Cicero	WB	3	12	10	13.33		
Lindenwood	Cicero	WB	3	12	6	8.00		
Cicero	Lindenwood	EB	3	12	6	8.00		
Cicero	Lindenwood	EB	3	12	6	8.00		
Cicero	Lindenwood	EB	3	12	6	8.00		
Cicero	Lindenwood	EB	3	12	6	8.00		
Cicero	Lindenwood	EB	3	12	20			26.67
Cicero	Lindenwood	EB	3	12	6	8.00		
Cicero	Lindenwood	EB	3	12	15		20.00	
Lindenwood	Kostner	EB	3	12	6	8.00		
Lindenwood	Kostner	EB	3	12	10	13.33		
Lindenwood	Kostner	EB	3	12	6	8.00		
Lindenwood	Kostner	EB	3	12	6	8.00		

**CLASS B PATCHES (CONTINUED)**

CROSS STREET		DIRECTION	LANE	WIDTH (FT)	LENGTH (FT)	TYPE II AREA (SQ YD)	TYPE III AREA (SQ YD)	TYPE IV AREA (SQ YD)
FROM	TO							
Lindenwood	Kostner	EB	3	12	6	8.00		
Lindenwood	Kostner	EB	3	12	6	8.00		
Lindenwood	Kostner	EB	3	12	8	10.67		
Lindenwood	Kostner	EB	3	12	6	8.00		
Kostner	Shopping Center	EB	3	12	20			26.67
Kostner	Shopping Center	EB	3	12	6	8.00		
Kostner	Shopping Center	EB	3	12	125			166.67
Kostner	Shopping Center	EB	3	12	10	13.33		
Kostner	Shopping Center	EB	3	12	6	8.00		
Kostner	Shopping Center	EB	3	12	6	8.00		
Kostner	Shopping Center	EB	3	12	10	13.33		
Shopping Center	Governor's	EB	3	12	10	13.33		
Shopping Center	Governor's	EB	3	12	20			26.67
Shopping Center	Governor's	EB	3	12	6	8.00		
At Governor's		EB	RTL	12	10	13.33		
At Governor's		EB	RTL	12	6	8.00		
At Governor's		EB	RTL	12	15		20.00	
At Governor's		EB	RTL	12	6	8.00		
At Governor's		EB	RTL	12	10	13.33		
Governor's	Main	EB	3	12	10	13.33		
Governor's	Main	EB	3	12	15		20.00	
Governor's	Main	EB	3	12	6	8.00		
Governor's	Main	EB	3	12	6	8.00		
Governor's	Main	EB	3	12	6	8.00		
Governor's	Main	EB	3	12	6	8.00		
Main	Olympian Way	EB	3	12	10	13.33		
Main	Olympian Way	EB	3	12	6	8.00		
Main	Olympian Way	EB	3	12	20			26.67
Main	Olympian Way	EB	3	12	15		20.00	
Olympian Way	Resurfacing Limit	EB	3	12	6	8.00		
Olympian Way	Resurfacing Limit	EB	3	12	6	8.00		
Olympian Way	Resurfacing Limit	EB	3	12	45			60.00
Olympian Way	Resurfacing Limit	EB	3	12	30			40.00
Olympian Way	Resurfacing Limit	EB	3	12	25			33.33
Resurfacing Limit	Olympian Way	WB	1	12	10	13.33		
Resurfacing Limit	Olympian Way	WB	1	12	6	8.00		
Resurfacing Limit	Olympian Way	WB	1	12	10	13.33		
Olympian Way	Main	WB	1	12	6	8.00		
Olympian Way	Main	WB	1	12	8	10.67		
Olympian Way	Main	WB	1	12	8	10.67		
Olympian Way	Main	WB	1	12	6	8.00		
Olympian Way	Main	WB	1	12	6	8.00		
Main	Governor's	WB	1	12	6	8.00		
Main	Governor's	WB	1	12	6	8.00		
Main	Governor's	WB	1	12	20			26.67
Main	Governor's	WB	1	12	6	8.00		
Main	Governor's	WB	1	12	6	8.00		
Governor's	Shopping Center	WB	1	12	6	8.00		
Governor's	Shopping Center	WB	1	12	6	8.00		

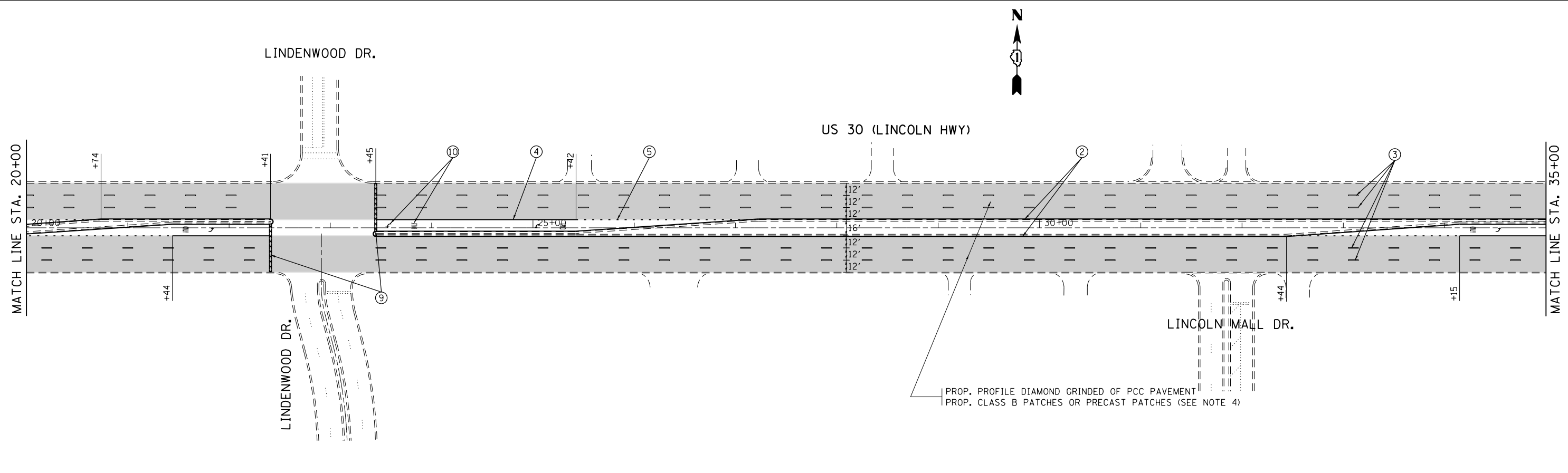
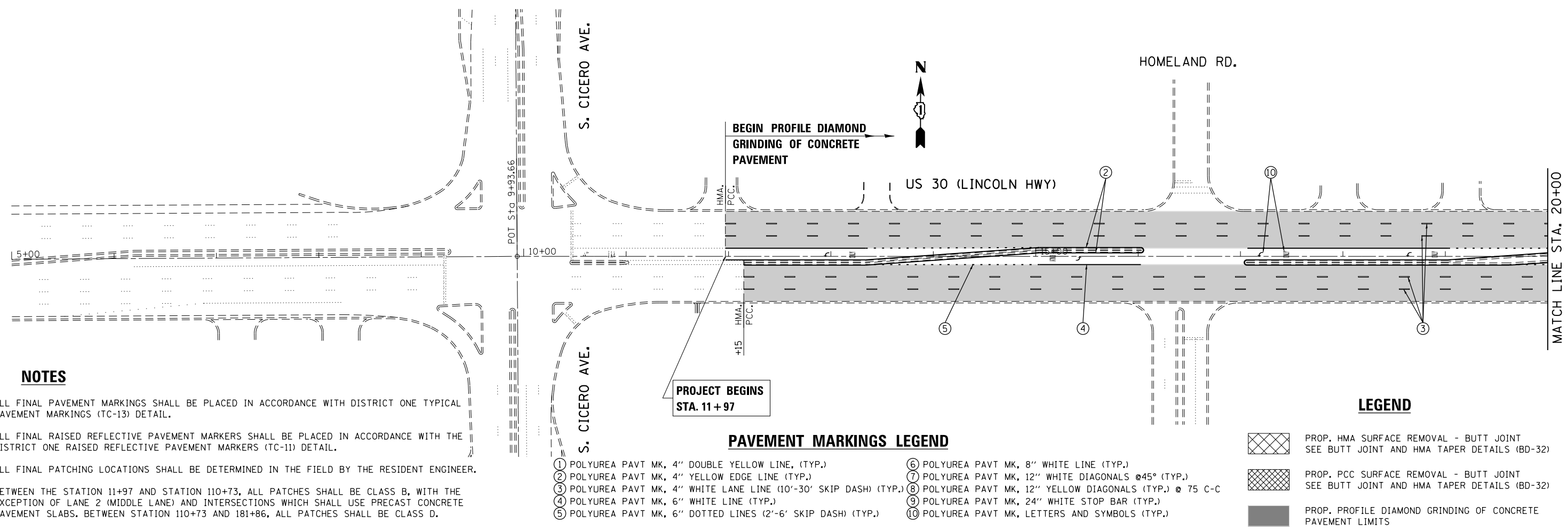
**CLASS B PATCHES (CONTINUED)**

CROSS STREET		DIRECTION	LANE	WIDTH (FT)	LENGTH (FT)	TYPE II AREA (SQ YD)	TYPE III AREA (SQ YD)	TYPE IV AREA (SQ YD)
FROM	TO							
Governor's	Shopping Center	WB	1	12	6	8.00		
Governor's	Shopping Center	WB	1	12	6	8.00		
Governor's	Shopping Center	WB	1	12	6	8.00		
Shopping Center	Kostner	WB	1	12	6	8.00		
Shopping Center	Kostner	WB	1	12	10	13.33		
Shopping Center	Kostner	WB	1	12	6	8.00		
Shopping Center	Kostner	WB	1	12	6	8.00		
Shopping Center	Kostner	WB	1	12	6	8.00		
Shopping Center	Kostner	WB	1	12	12		16.00	
Shopping Center	Kostner	WB	1	12	6	8.00		
Shopping Center	Kostner	WB	1	12	6	8.00		
Shopping Center	Kostner	WB	1	12	10	13.33		
Shopping Center	Kostner	WB	1	12	15		20.00	
Shopping Center	Kostner	WB	1	12	20			26.67
Shopping Center	Kostner	WB	1	12	6	8.00		
Kostner	Lindenwood	WB	1	12	6	8.00		
Kostner	Lindenwood	WB	1	12	6	8.00		
Kostner	Lindenwood	WB	1	12	10	13.33		
Kostner	Lindenwood	WB	1	12	6	8.00		
Kostner	Lindenwood	WB	1	12	15		20.00	
Kostner	Lindenwood	WB	1	12	15		20.00	
Kostner	Lindenwood	WB	1	12	10	13.33		
Kostner	Lindenwood	WB	1	12	6	8.00		
Kostner	Lindenwood	WB	1	12	6	8.00		
Kostner	Lindenwood	WB	1	12	6	8.00		
Kostner	Lindenwood	WB	1	12	6	8.00		
Kostner	Lindenwood	WB	1	12	6	8.00		
Lindenwood	Cicero	WB	1	12	6	8.00		
Lindenwood	Cicero	WB	1	12	10	13.33		
Lindenwood	Cicero	WB	1	12	6	8.00		
Lindenwood	Cicero	WB	1	12	10	13.33		
Lindenwood	Cicero	WB	1	12	6	8.00		
Lindenwood	Cicero	WB	1	12	6	8.00		
Lindenwood	Cicero	WB	1	12	6	8.00		
Cicero	Lindenwood	EB	1	12	6	8.00		
Cicero	Lindenwood	EB	1	12	6	8.00		
Cicero	Lindenwood	EB	1	12	6	8.00		
Cicero	Lindenwood	EB	1	12	6	8.00		
Lindenwood	Kostner	EB	1	12	6	8.00		
Lindenwood	Kostner	EB	1	12	6	8.00		
Lindenwood	Kostner	EB	1	12	6	8.00		
Lindenwood	Kostner	EB	1	12	10	13.33		
Kostner	Shopping Center	EB	1	12	70			93.33
Kostner	Shopping Center	EB	1	12	20			26.67
Kostner	Shopping Center	EB	1	12	6	8.00		
Kostner	Shopping Center	EB	1	12	6	8.00		
Kostner	Shopping Center	EB	1	12	6	8.00		
Shopping Center	Governor's	EB	1	12	6	8.00		
Shopping Center	Governor's	EB	1	12	6	8.00		

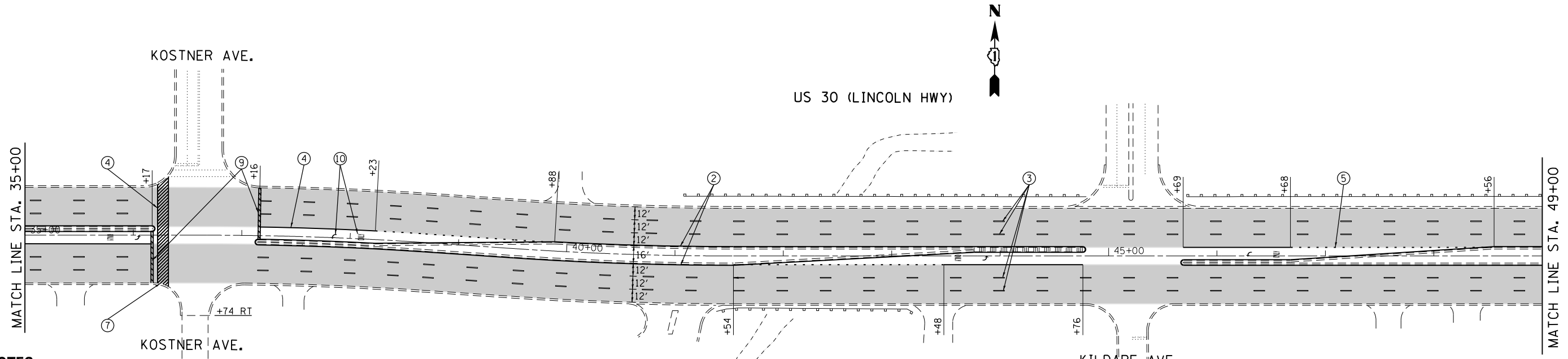
**CLASS B PATCHES (CONTINUED)**

CROSS STREET		DIRECTION	LANE	WIDTH (FT)	LENGTH (FT)	TYPE II AREA (SQ YD)	TYPE III AREA (SQ YD)	TYPE IV AREA (SQ YD)
FROM	TO							
Shopping Center	Governor's	EB	1	12	6	8.00		
Shopping Center	Governor's	EB	1	12	12		16.00	
Governor's	Main	EB	1	12	6	8.00		
Governor's	Main	EB	1	12	6	8.00		
Governor's	Main	EB	1	12	6	8.00		
Governor's	Main	EB	1	12	6	8.00		
Governor's	Main	EB	1	12	6	8.00		
Governor's	Main	EB	1	12	6	8.00		
Governor's	Main	EB	1	12	6	8.00		
Governor's	Main	EB	1	12	12		16.00	
Governor's	Main	EB	1	12	8	10.67		
Governor's	Main	EB	1	12	6	8.00		
Governor's	Main	EB	1	12	8	10.67		
Governor's	Main	EB	1	12	6	8.00		
Main	Olympian Way	EB	1	12	6	8.00		
Main	Olympian Way	EB	1	12	6	8.00		
Main	Olympian Way	EB	1	12	6	8.00		
Main	Olympian Way	EB	1	12	6	8.00		
Olympian Way	Resurfacing Limit	EB	1	12	6	8.00		
Olympian Way	Resurfacing Limit	EB	1	12	6	8.00		
Olympian Way	Resurfacing Limit	EB	1	12	6	8.00		
Olympian Way	Resurfacing Limit	EB	1	12	6	8.00		
Olympian Way	Resurfacing Limit	EB	1	12	15		20.00	
at Olympian Way		WB	LTL	12	6	8.00		
at Governor's		WB	LTL	12	6	8.00		
at Governor's		WB	LTL	12	6	8.00		
at Shopping Center		WB	LTL	12	6	8.00		
at Kostner		WB	LTL	6	20	13.33		
at Kostner		WB	LTL	12	10	13.33		
at Lindenwood		WB	LTL	12	6	8.00		
at Lindenwood		WB	LTL	12	6	8.00		
at Homeland		WB	LTL	12	6	8.00		
at Homeland		WB	LTL	12	6	8.00		
at Cicero		WB	LTL	12	6	8.00		
at Homeland		EB	LTL	12	6	8.00		
at Homeland		EB	LTL	12	6	8.00		
at Lindenwood		EB	LTL	12	6	8.00		
at Lindenwood		EB	LTL	12	6	8.00		
at Kostner		EB	LTL	12	6	8.00		
at Kildare		EB	LTL	12	6	8.00		
at Kildare		EB	LTL	12	10	13.33		
at Kildare		EB	LTL	12	6	8.00		
at Shopping Center		EB	LTL	12	6	8.00		
at Governor's		EB	LTL	12	10	13.33		
at Governor's		EB	LTL	12	6	8.00		
at Governor's		EB	LTL	12	6	8.00		
at Roseland		EB	LTL	12	6	8.00		
at Roseland		EB	LTL	12	6	8.00		





FILE NAME =	USER NAME = dettmanna	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US RTE. 30 (LINCOLN HWY.) (CICERO AVE. TO WESTERN AVE.) ROADWAY AND PAVEMENT MARKING PLAN</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
es:\pwork\pwork\dettmanna\d0230696\006111-sh-t-plan.dgn		DRAWN -	REVISED -			353	23R-R5	COOK	66	15
PLOT SCALE = 100.0000' / in.		CHECKED -	REVISED -			CONTRACT NO. 60L94				
PLOT DATE = 6/13/2014		DATE -	REVISED -			ILLINOIS FED. AID PROJECT				
					SCALE: 1"=50'	SHEET NO. 1 OF 8 SHEETS	STA. 11+67 TO STA. 35+00			



**NOTES**

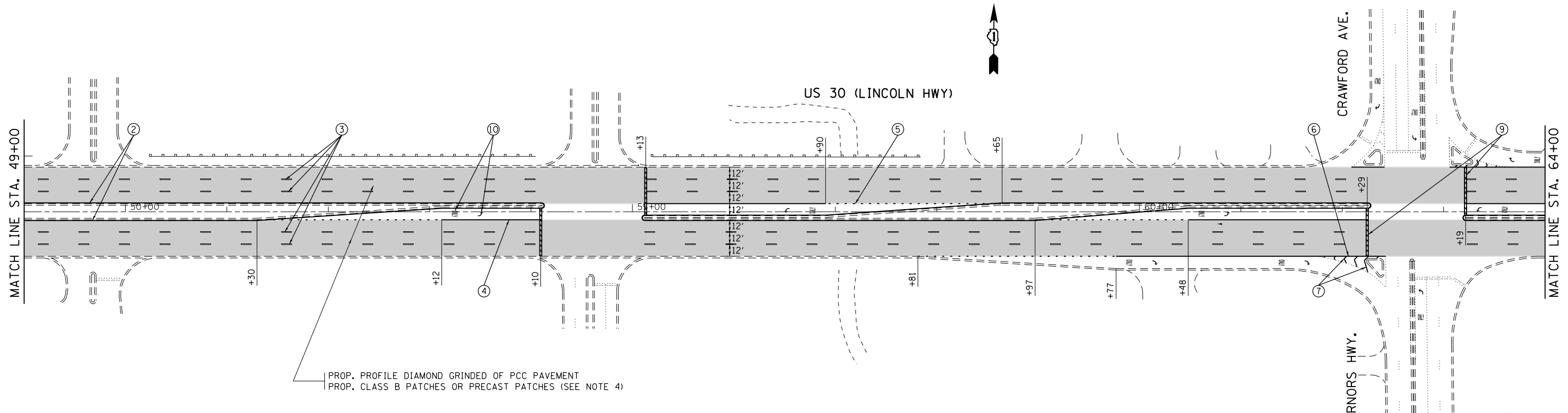
1. ALL FINAL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13) DETAIL.
2. ALL FINAL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH THE DISTRICT ONE RAISED REFLECTIVE PAVEMENT MARKERS (TC-11) DETAIL.
3. ALL FINAL PATCHING LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.
4. BETWEEN THE STATION 11+97 AND STATION 110+73, ALL PATCHES SHALL BE CLASS B, WITH THE EXCEPTION OF LANE 2 (MIDDLE LANE) AND INTERSECTIONS WHICH SHALL USE PRECAST CONCRETE PAVEMENT SLABS. BETWEEN STATION 110+73 AND 181+86, ALL PATCHES SHALL BE CLASS D.

**PAVEMENT MARKINGS LEGEND**

- |   |  |
|---|--|
| ① POLYUREA PAVT MK, 4" DOUBLE YELLOW LINE (TYP.)                  | ⑥ POLYUREA PAVT MK, 8" WHITE LINE (TYP.)                 |
| ② POLYUREA PAVT MK, 4" YELLOW EDGE LINE (TYP.)                    | ⑦ POLYUREA PAVT MK, 12" WHITE DIAGONALS @45° (TYP.)      |
| ③ POLYUREA PAVT MK, 4" WHITE LANE LINE (10'-30' SKIP DASH) (TYP.) | ⑧ POLYUREA PAVT MK, 12" YELLOW DIAGONALS (TYP.) @ 75 C-C |
| ④ POLYUREA PAVT MK, 6" WHITE LINE (TYP.)                          | ⑨ POLYUREA PAVT MK, 24" WHITE STOP BAR (TYP.)            |
| ⑤ POLYUREA PAVT MK, 6" DOTTED LINES (2'-6' SKIP DASH) (TYP.)      | ⑩ POLYUREA PAVT MK, LETTERS AND SYMBOLS (TYP.)           |

**LEGEND**

- |  |  |
|--|--|
|  | PROP. HMA SURFACE REMOVAL - BUTT JOINT<br>SEE BUTT JOINT AND HMA TAPER DETAILS (BD-32) |
|  | PROP. PCC SURFACE REMOVAL - BUTT JOINT<br>SEE BUTT JOINT AND HMA TAPER DETAILS (BD-32) |
|  | PROP. PROFILE DIAMOND GRINDING OF CONCRETE<br>PAVEMENT LIMITS                          |



PROP. PROFILE DIAMOND GRINDED OF PCC PAVEMENT  
PROP. CLASS B PATCHES OR PRECAST PATCHES (SEE NOTE 4)

MATCH LINE A-A  
SEE SHEET 14

FILE NAME =	USER NAME = dettmnra	DESIGNED -	REVISED -
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	PLOT DATE = 6/13/2014	DATE -	REVISED -

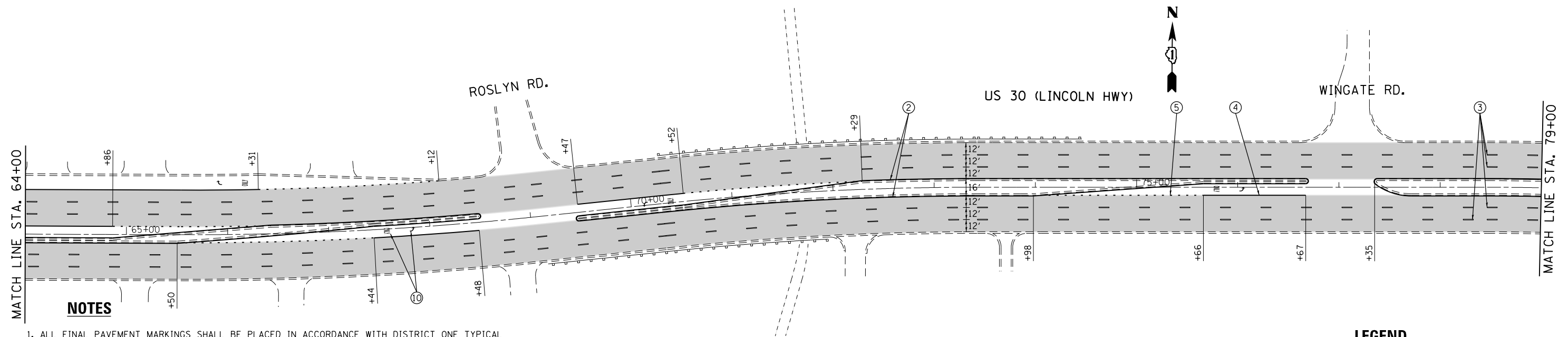
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**US RTE. 30 (LINCOLN HWY.) (CICERO AVE. TO WESTERN AVE.)  
ROADWAY AND PAVEMENT MARKING PLAN**

SCALE: 1"=50'    SHEET NO. 2 OF 8 SHEETS    STA. 35+00 TO STA. 64+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	23R-R5	COOK	66	16
CONTRACT NO. 60L94				
ILLINOIS FED. AID PROJECT				





**NOTES**

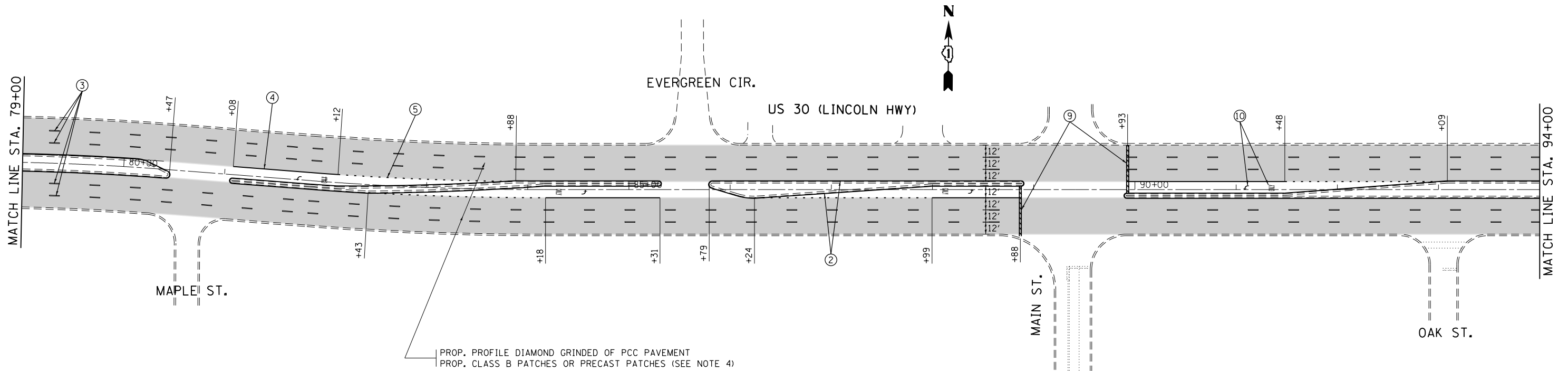
1. ALL FINAL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13) DETAIL.
2. ALL FINAL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH THE DISTRICT ONE RAISED REFLECTIVE PAVEMENT MARKERS (TC-11) DETAIL.
3. ALL FINAL PATCHING LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.
4. BETWEEN THE STATION 11+97 AND STATION 110+73, ALL PATCHES SHALL BE CLASS B, WITH THE EXCEPTION OF LANE 2 (MIDDLE LANE) AND INTERSECTIONS WHICH SHALL USE PRECAST CONCRETE PAVEMENT SLABS. BETWEEN STATION 110+73 AND 181+86, ALL PATCHES SHALL BE CLASS D.

**PAVEMENT MARKINGS LEGEND**

- |   |  |
|---|--|
| ① POLYUREA PAVT MK, 4" DOUBLE YELLOW LINE (TYP.)                  | ⑥ POLYUREA PAVT MK, 8" WHITE LINE (TYP.)                 |
| ② POLYUREA PAVT MK, 4" YELLOW EDGE LINE (TYP.)                    | ⑦ POLYUREA PAVT MK, 12" WHITE DIAGONALS @45° (TYP.)      |
| ③ POLYUREA PAVT MK, 4" WHITE LANE LINE (10'-30' SKIP DASH) (TYP.) | ⑧ POLYUREA PAVT MK, 12" YELLOW DIAGONALS (TYP.) @ 75 C-C |
| ④ POLYUREA PAVT MK, 6" WHITE LINE (TYP.)                          | ⑨ POLYUREA PAVT MK, 24" WHITE STOP BAR (TYP.)            |
| ⑤ POLYUREA PAVT MK, 6" DOTTED LINES (2'-6' SKIP DASH) (TYP.)      | ⑩ POLYUREA PAVT MK, LETTERS AND SYMBOLS (TYP.)           |

**LEGEND**

- |  |  |
|--|--|
|  | PROP. HMA SURFACE REMOVAL - BUTT JOINT<br>SEE BUTT JOINT AND HMA TAPER DETAILS (BD-29) |
|  | PROP. PCC SURFACE REMOVAL - BUTT JOINT<br>SEE BUTT JOINT AND HMA TAPER DETAILS (BD-32) |
|  | PROP. PROFILE DIAMOND GRINDING OF CONCRETE PAVEMENT LIMITS                             |



PROP. PROFILE DIAMOND GRINDING OF PCC PAVEMENT  
PROP. CLASS B PATCHES OR PRECAST PATCHES (SEE NOTE 4)

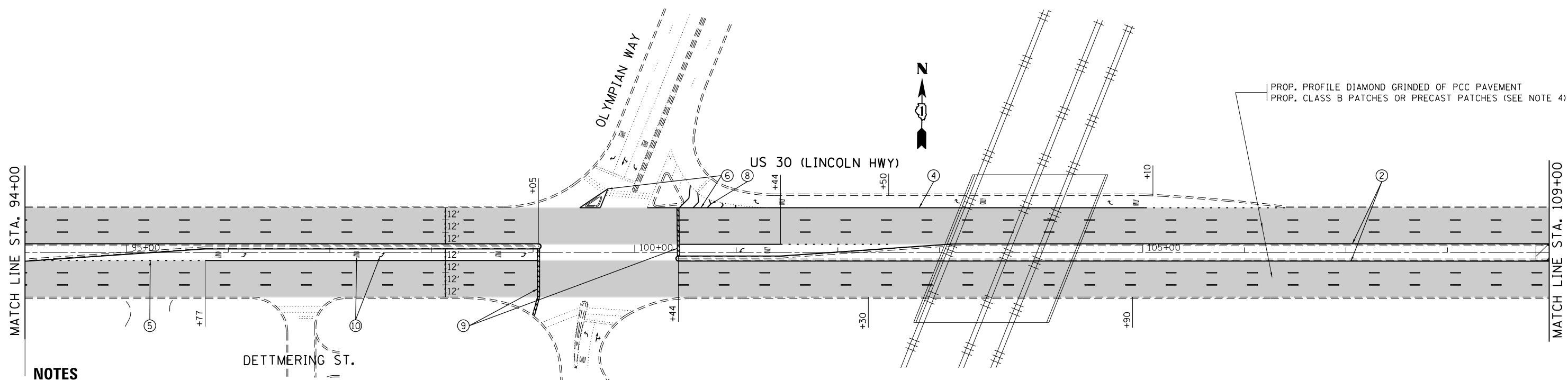
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		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**US RTE. 30 (LINCOLN HWY.) (CICERO AVE. TO WESTERN AVE.)  
ROADWAY AND PAVEMENT MARKING PLAN**

SCALE: 1"=50'      SHEET NO. 3 OF 8 SHEETS      STA. 64+00 TO STA. 94+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	23R-R5	COOK	66	17
CONTRACT NO. 60L94				
ILLINOIS FED. AID PROJECT				



**NOTES**

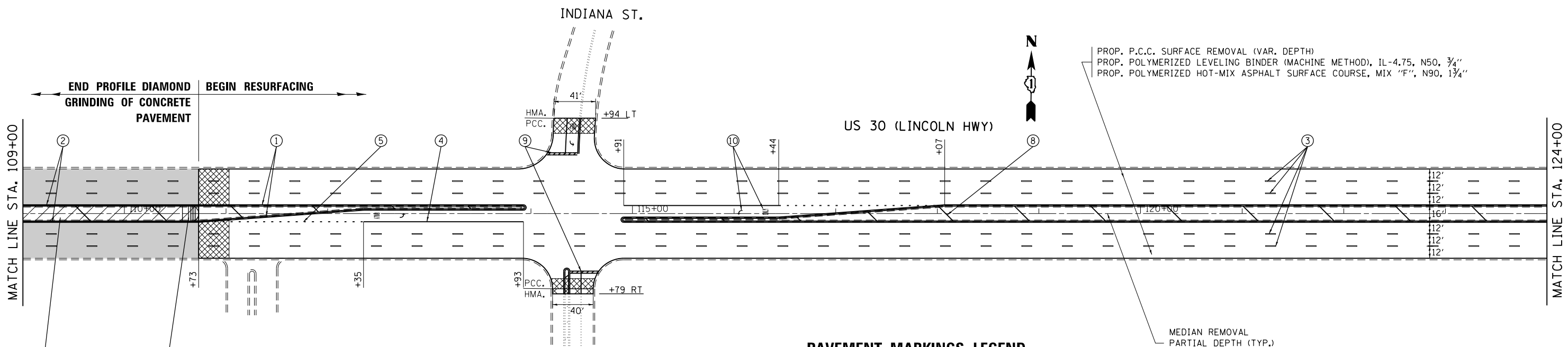
1. ALL FINAL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13) DETAIL.
2. ALL FINAL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH THE DISTRICT ONE RAISED REFLECTIVE PAVEMENT MARKERS (TC-11) DETAIL.
3. ALL FINAL PATCHING LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.
4. BETWEEN THE STATION 11+97 AND STATION 110+73, ALL PATCHES SHALL BE CLASS B, WITH THE EXCEPTION OF LANE 2 (MIDDLE LANE) AND INTERSECTIONS WHICH SHALL USE PRECAST CONCRETE PAVEMENT SLABS. BETWEEN STATION 110+73 AND 181+86, ALL PATCHES SHALL BE CLASS D.

**PAVEMENT MARKINGS LEGEND**

- |   |  |
|---|--|
| ① POLYUREA PAVT MK, 4" DOUBLE YELLOW LINE (TYP.)                  | ⑥ POLYUREA PAVT MK, 8" WHITE LINE (TYP.)                 |
| ② POLYUREA PAVT MK, 4" YELLOW EDGE LINE (TYP.)                    | ⑦ POLYUREA PAVT MK, 12" WHITE DIAGONALS @45° (TYP.)      |
| ③ POLYUREA PAVT MK, 4" WHITE LANE LINE (10'-30' SKIP DASH) (TYP.) | ⑧ POLYUREA PAVT MK, 12" YELLOW DIAGONALS (TYP.) @ 75 C-C |
| ④ POLYUREA PAVT MK, 6" WHITE LINE (TYP.)                          | ⑨ POLYUREA PAVT MK, 24" WHITE STOP BAR (TYP.)            |
| ⑤ POLYUREA PAVT MK, 6" DOTTED LINES (2'-6' SKIP DASH) (TYP.)      | ⑩ POLYUREA PAVT MK, LETTERS AND SYMBOLS (TYP.)           |

**LEGEND**

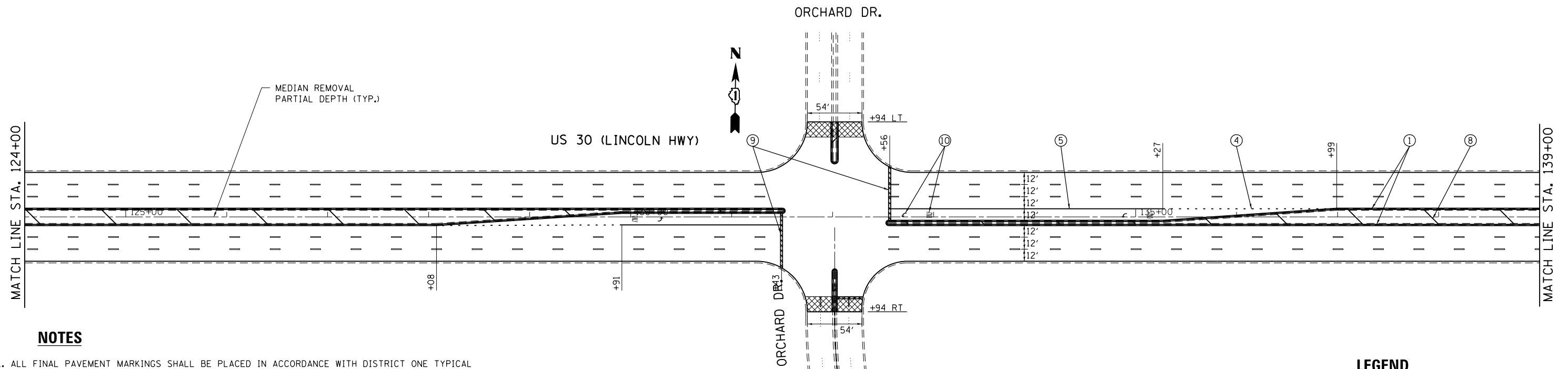
- |  |  |
|--|--|
|  | PROP. HMA SURFACE REMOVAL - BUTT JOINT<br>SEE BUTT JOINT AND HMA TAPER DETAILS (BD-32) |
|  | PROP. PCC SURFACE REMOVAL - BUTT JOINT<br>SEE BUTT JOINT AND HMA TAPER DETAILS (BD-32) |
|  | PROP. PROFILE DIAMOND GRINDING OF CONCRETE PAVEMENT LIMITS                             |



**PAVEMENT MARKINGS LEGEND**

- |   |  |
|---|--|
| ① THPL PAVT MK, 4" DOUBLE YELLOW LINE (TYP.)                  | ⑥ THPL PAVT MK, 8" WHITE LINE (TYP.)                 |
| ② THPL PAVT MK, 4" YELLOW EDGE LINE (TYP.)                    | ⑦ THPL PAVT MK, 12" WHITE DIAGONALS @45° (TYP.)      |
| ③ THPL PAVT MK, 4" WHITE LANE LINE (10'-30' SKIP DASH) (TYP.) | ⑧ THPL PAVT MK, 12" YELLOW DIAGONALS (TYP.) @ 75 C-C |
| ④ THPL PAVT MK, 6" WHITE LINE (TYP.)                          | ⑨ THPL PAVT MK, 24" WHITE STOP BAR (TYP.)            |
| ⑤ THPL PAVT MK, 6" DOTTED LINES (2'-6' SKIP DASH) (TYP.)      | ⑩ THPL PAVT MK, LETTERS AND SYMBOLS (TYP.)           |
| ⑪ THPL PAVT MK, 12" WHITE (TYP.)                              |  |

FILE NAME =	USER NAME = dettmanna	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US RTE. 30 (LINCOLN HWY.) (CICERO AVE. TO WESTERN AVE.) ROADWAY AND PAVEMENT MARKING PLAN</b>	F.A.P. RTE. =	SECTION =	COUNTY =	TOTAL SHEETS =	SHEET NO. =
c:\pwork\pwork\dettmanna\d0230696\0006111-sh1-plan.dgn		DRAWN -	REVISED -			353	23R-RS	COOK	66	18
PLOT SCALE = 100.0000' / in.		CHECKED -	REVISED -			CONTRACT NO. 60L94				
PLOT DATE = 6/13/2014		DATE -	REVISED -			ILLINOIS FED. AID PROJECT				
				SCALE: 1"=50'	SHEET NO. 4 OF 8 SHEETS	STA. 94+00 TO STA. 124+00				



**NOTES**

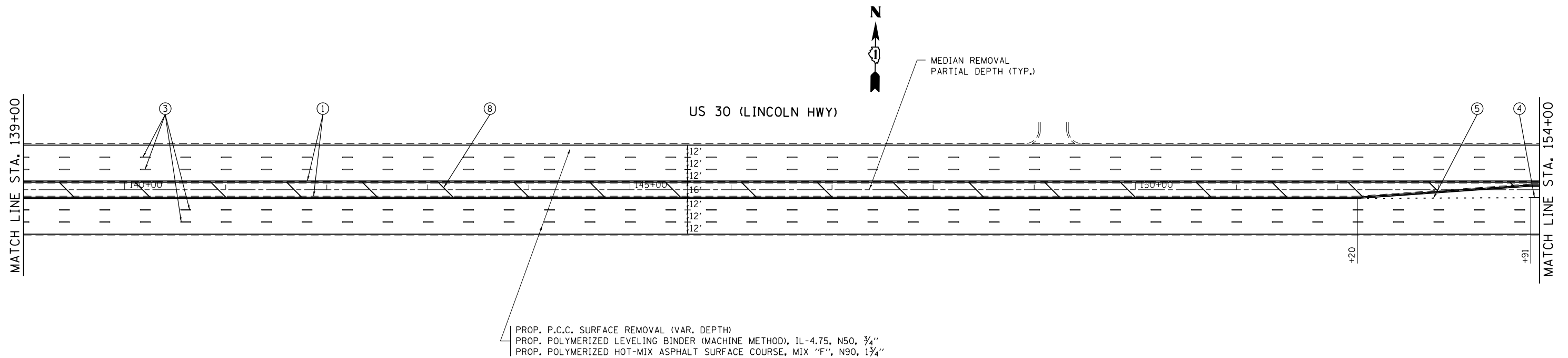
1. ALL FINAL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13) DETAIL.
2. ALL FINAL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH THE DISTRICT ONE RAISED REFLECTIVE PAVEMENT MARKERS (TC-11) DETAIL.
3. ALL FINAL PATCHING LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.
4. BETWEEN THE STATION 11+97 AND STATION 110+73, ALL PATCHES SHALL BE CLASS B, WITH THE EXCEPTION OF LANE 2 (MIDDLE LANE) AND INTERSECTIONS WHICH SHALL USE PRECAST CONCRETE PAVEMENT SLABS. BETWEEN STATION 110+73 AND 181+86, ALL PATCHES SHALL BE CLASS D.

**PAVEMENT MARKINGS LEGEND**

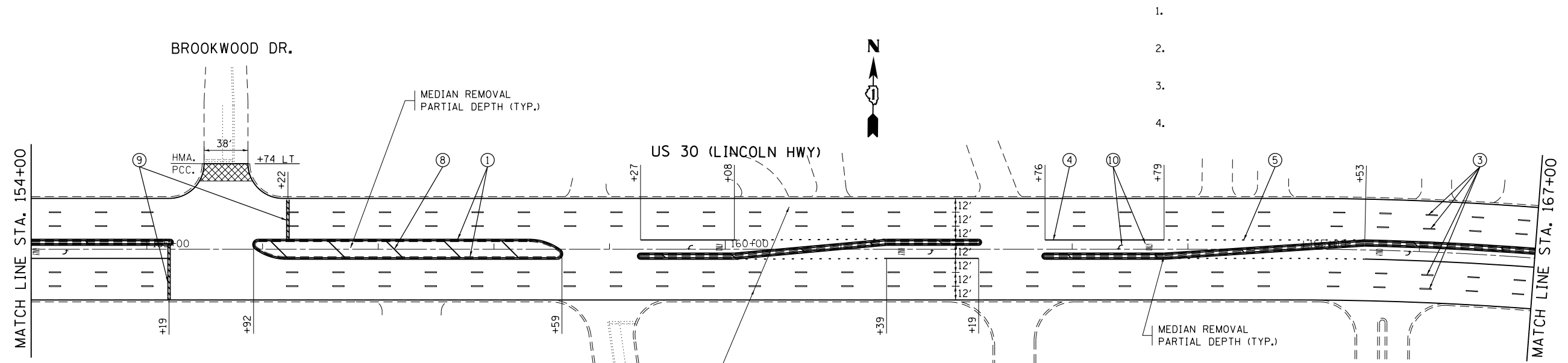
- |   |  |
|---|--|
| ① THPL PAVT MK, 4" DOUBLE YELLOW LINE (TYP.)                  | ⑥ THPL PAVT MK, 8" WHITE LINE (TYP.)                 |
| ② THPL PAVT MK, 4" YELLOW EDGE LINE (TYP.)                    | ⑦ THPL PAVT MK, 12" WHITE DIAGONALS @45° (TYP.)      |
| ③ THPL PAVT MK, 4" WHITE LANE LINE (10'-30' SKIP DASH) (TYP.) | ⑧ THPL PAVT MK, 12" YELLOW DIAGONALS (TYP.) @ 75 C-C |
| ④ THPL PAVT MK, 6" WHITE LINE (TYP.)                          | ⑨ THPL PAVT MK, 24" WHITE STOP BAR (TYP.)            |
| ⑤ THPL PAVT MK, 6" DOTTED LINES (2'-6' SKIP DASH) (TYP.)      | ⑩ THPL PAVT MK, LETTERS AND SYMBOLS (TYP.)           |

**LEGEND**

- |  |  |
|--|--|
|  | PROP. HMA SURFACE REMOVAL - BUTT JOINT<br>SEE BUTT JOINT AND HMA TAPER DETAILS (BD-32) |
|  | PROP. PCC SURFACE REMOVAL - BUTT JOINT<br>SEE BUTT JOINT AND HMA TAPER DETAILS (BD-32) |
|  | PROP. PROFILE DIAMOND GRINDING OF CONCRETE PAVEMENT LIMITS                             |



FILE NAME =	USER NAME = dettmanna	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US RTE. 30 (LINCOLN HWY.) (CICERO AVE. TO WESTERN AVE.) ROADWAY AND PAVEMENT MARKING PLAN</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ci:\pwork\pwork\dettmanna\d0230696\006111-sh1-plan.dgn		DRAWN -	REVISED -			353	23R-RS	COOK	66	19
PLOT SCALE = 100.0000' / in.		CHECKED -	REVISED -			CONTRACT NO. 60L94				
PLOT DATE = 6/13/2014		DATE -	REVISED -			ILLINOIS FED. AID PROJECT				
					SCALE: 1"=50'	SHEET NO. 5 OF 8 SHEETS	STA. 124+00 TO STA. 154+00			



- 1.
- 2.
- 3.
- 4.



PROP. P.C.C. SURFACE REMOVAL (VAR. DEPTH)  
 PROP. POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"  
 PROP. POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"

**LEGEND**

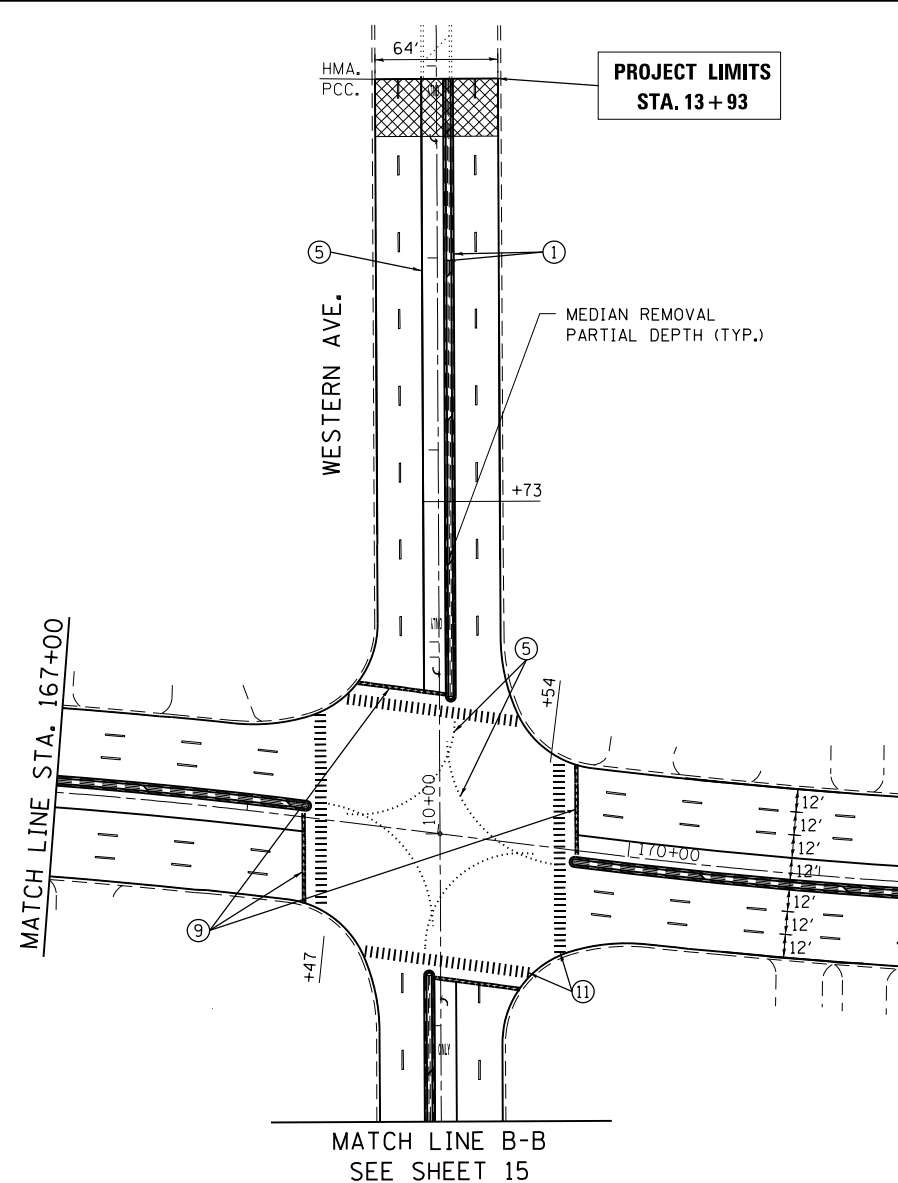
- PROP. HMA SURFACE REMOVAL - BUTT JOINT  
SEE BUTT JOINT AND HMA TAPER DETAILS (BD-32)
- PROP. PCC SURFACE REMOVAL - BUTT JOINT  
SEE BUTT JOINT AND HMA TAPER DETAILS (BD-32)
- PROP. PROFILE DIAMOND GRINDING OF CONCRETE  
PAVEMENT LIMITS

**PAVEMENT MARKINGS LEGEND**

- ① THPL PAVT MK, 4" DOUBLE YELLOW LINE (TYP.)
- ② THPL PAVT MK, 4" YELLOW EDGE LINE (TYP.)
- ③ THPL PAVT MK, 4" WHITE LANE LINE (10'-30' SKIP DASH) (TYP.)
- ④ THPL PAVT MK, 6" WHITE LINE (TYP.)
- ⑤ THPL PAVT MK, 6" DOTTED LINES (2'-6' SKIP DASH) (TYP.)
- ⑥ THPL PAVT MK, 8" WHITE LINE (TYP.)
- ⑦ THPL PAVT MK, 12" WHITE DIAGONALS @45° (TYP.)
- ⑧ THPL PAVT MK, 12" YELLOW DIAGONALS (TYP.) @ 75 C-C
- ⑨ THPL PAVT MK, 24" WHITE STOP BAR (TYP.)
- ⑩ THPL PAVT MK, LETTERS AND SYMBOLS (TYP.)
- ⑪ THPL PAVT MK, 12" WHITE (TYP.)

**NOTES**

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2. ALL FINAL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH THE DISTRICT ONE RAISED REFLECTIVE PAVEMENT MARKERS (TC-11) DETAIL.
3. ALL FINAL PATCHING LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.
4. BETWEEN THE STATION 11+97 AND STATION 110+73, ALL PATCHES SHALL BE CLASS B, WITH THE EXCEPTION OF LANE 2 (MIDDLE LANE) AND INTERSECTIONS WHICH SHALL USE PRECAST CONCRETE PAVEMENT SLABS. BETWEEN STATION 110+73 AND 181+86, ALL PATCHES SHALL BE CLASS D.



MATCH LINE STA. 167+00

MATCH LINE STA. 180+00

MATCH LINE B-B  
SEE SHEET 15

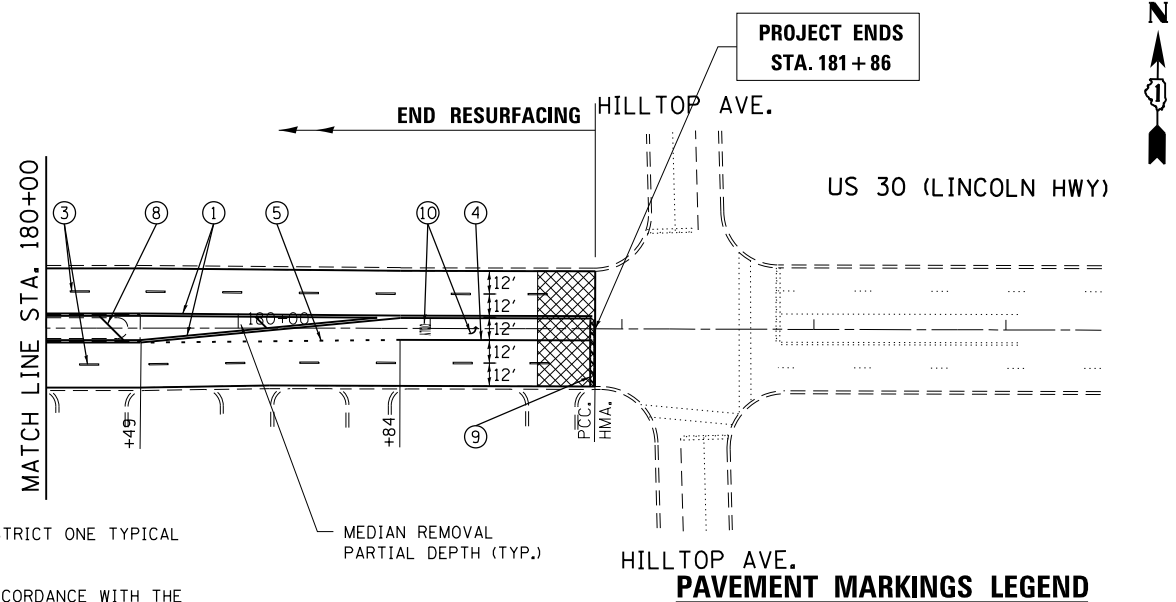
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		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**US RTE. 30 (LINCOLN HWY.) (CICERO AVE. TO WESTERN AVE.)  
ROADWAY AND PAVEMENT MARKING PLAN**

SCALE: 1"=50'      SHEET NO. 6 OF 8 SHEETS      STA. 154+00 TO STA. 180+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	23R-R5	COOK	66	20
CONTRACT NO. 60L94				
ILLINOIS FED. AID PROJECT				



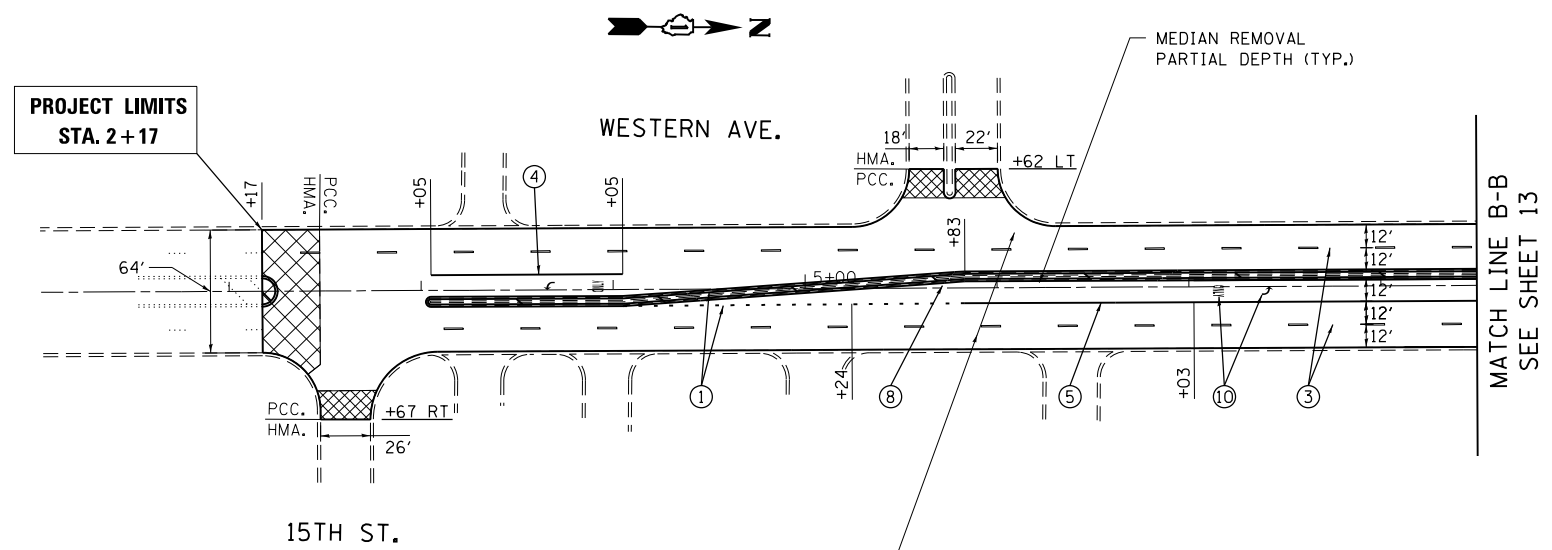
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2. ALL FINAL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH THE DISTRICT ONE RAISED REFLECTIVE PAVEMENT MARKERS (TC-11) DETAIL.
3. ALL FINAL PATCHING LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.
4. BETWEEN THE STATION 11+97 AND STATION 110+73, ALL PATCHES SHALL BE CLASS B, WITH THE EXCEPTION OF LANE 2 (MIDDLE LANE) AND INTERSECTIONS WHICH SHALL USE PRECAST CONCRETE PAVEMENT SLABS. BETWEEN STATION 110+73 AND 181+86, ALL PATCHES SHALL BE CLASS D.

- PAVEMENT MARKINGS LEGEND**
- ① THPL PAVT MK, 4" DOUBLE YELLOW LINE (TYP.)
  - ② THPL PAVT MK, 4" YELLOW EDGE LINE (TYP.)
  - ③ THPL PAVT MK, 4" WHITE LANE LINE (10'-30' SKIP DASH) (TYP.)
  - ④ THPL PAVT MK, 6" WHITE LINE (TYP.)
  - ⑤ THPL PAVT MK, 6" DOTTED LINES (2'-6' SKIP DASH) (TYP.)
  - ⑥ THPL PAVT MK, 8" WHITE LINE (TYP.)
  - ⑦ THPL PAVT MK, 12" WHITE DIAGONALS @45° (TYP.)
  - ⑧ THPL PAVT MK, 12" YELLOW DIAGONALS (TYP.) @ 75 C-C
  - ⑨ THPL PAVT MK, 24" WHITE STOP BAR (TYP.)
  - ⑩ THPL PAVT MK, LETTERS AND SYMBOLS (TYP.)
  - ⑪ THPL PAVT MK, 12" WHITE (TYP.)

**LEGEND**

- PROP. HMA SURFACE REMOVAL - BUTT JOINT  
SEE BUTT JOINT AND HMA TAPER DETAILS (BD-32)
- PROP. PCC SURFACE REMOVAL - BUTT JOINT  
SEE BUTT JOINT AND HMA TAPER DETAILS (BD-32)
- PROP. PROFILE DIAMOND GRINDING OF CONCRETE PAVEMENT LIMITS



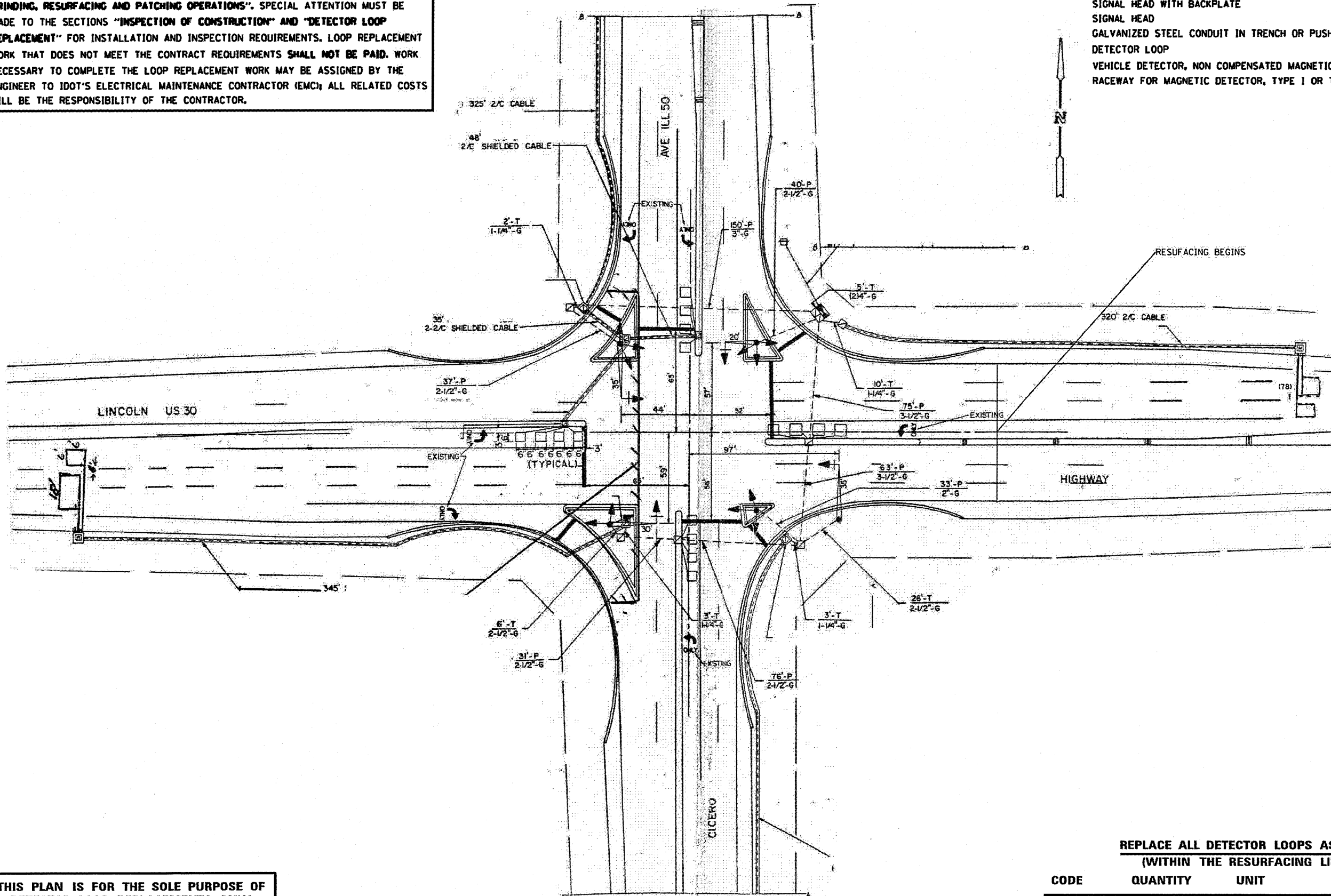
PROP. P.C.C. SURFACE REMOVAL (VAR. DEPTH)  
 PROP. POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"  
 PROP. POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"

FILE NAME =	USER NAME = dettmanna	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US RTE. 30 (LINCOLN HWY.) (CICERO AVE. TO WESTERN AVE.) ROADWAY AND PAVEMENT MARKING PLAN</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ci:\pwork\pwork\dettmanna\d0230696\0006111-sh1-plan.dgn		DRAWN -	REVISED -			353	23R-RS	COOK	66	21
PLOT SCALE = 100.0000' / 1in.		CHECKED -	REVISED -			<b>CONTRACT NO. 60L94</b>				
PLOT DATE = 6/13/2014		DATE -	REVISED -			ILLINOIS FED. AID PROJECT				
					SCALE: 1"=50'	SHEET NO. 7 OF 8 SHEETS	STA. 180+00 TO STA. 181+86			

WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD		
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		



**THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY**

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

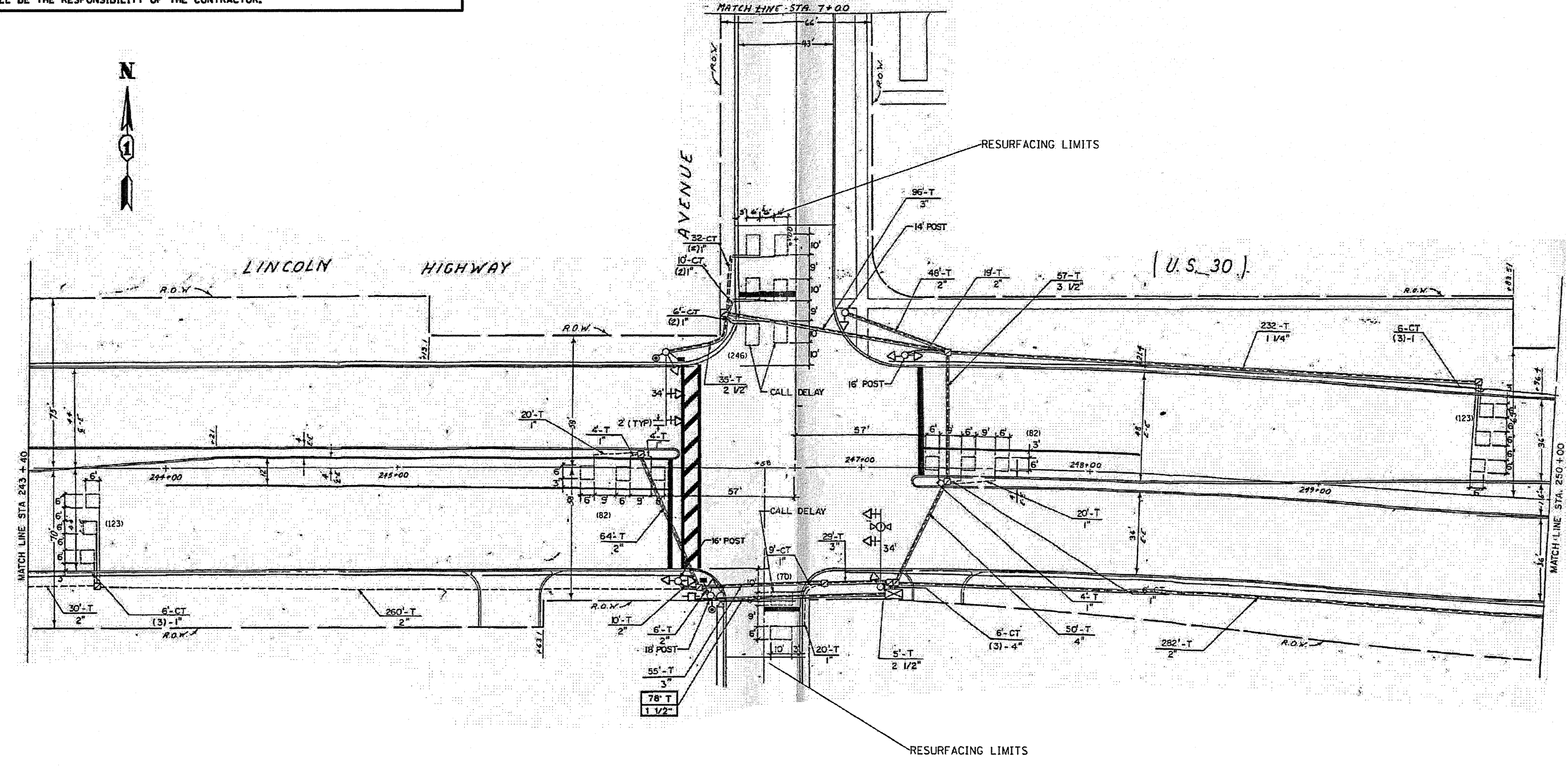
CODE	QUANTITY	UNIT	ITEM
88600600		FOOT	DETECTOR LOOP REPLACEMENT

FILE NAME =	USER NAME = curryjo	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE - DETECTOR LOOP REPLACEMENT U.S. ROUTE 30 AT IL ROUTE 50	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SI:\WP\Design\Detector Loops Replacement	Resurfacing Project\Cook\ITS 1395 - US	BRANN 58\Detector Loop.dgn	REVISED -			353	23R-RS	COOK	66	22
	PLOT SCALE = 1/8" = 1' / in.	CHECKED -	REVISED -			CONTRACT NO. 60L94				
	PLOT DATE = 6/18/2014	DATE -	REVISED -			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
SIGNAL HEAD WITH BACKPLATE	⊕	⊕
SIGNAL HEAD	⊕	⊕
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED	---	---
DETECTOR LOOP	□	□
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	⊕	⊕
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	⊕	⊕



**THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY**

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

CODE	QUANTITY	UNIT	ITEM
88600600		FOOT	DETECTOR LOOP REPLACEMENT

FILE NAME =	USER NAME = curryja	DESIGNED -	REVISED -
S:\MPL\Design\Detector Loops Replacement	Resurfacing Project\Cook\151450 - US	DRAWN\STNER\Detector Loop.dgn	REVISED -
	PLOT SCALE = 1/8" = 1'-0"	CHECKED -	REVISED -
	PLOT DATE = 6/10/2014	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE - DETECTOR LOOP REPLACEMENT  
U.S. ROUTE 30 AT KOSTNER AVE  
SCALE: NTS SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	23R-RS	COOK	66	23
FED. ROAD DIST. NO. (ILLINOIS) FED. AID PROJECT			CONTRACT NO. 60L94	

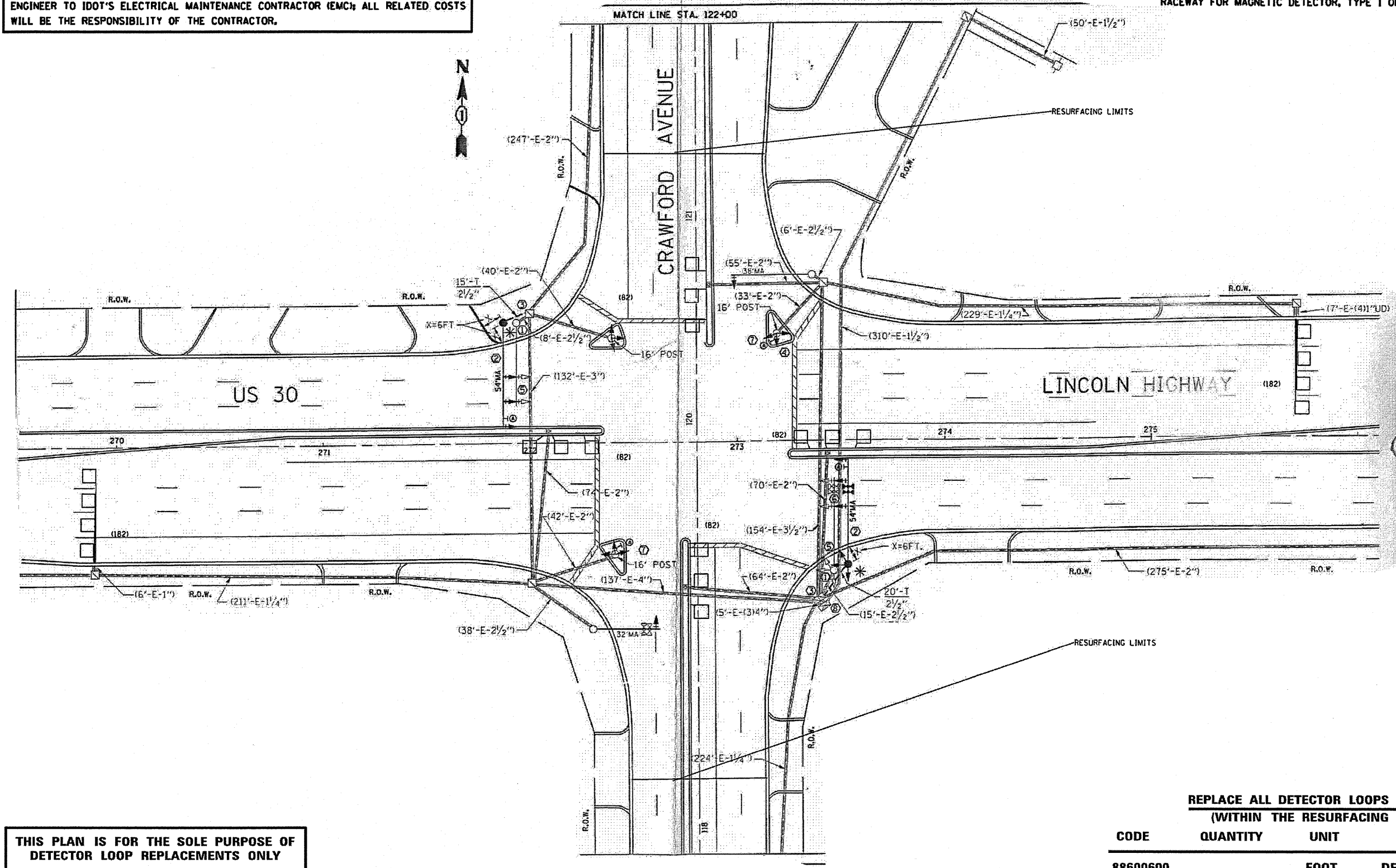




WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD		
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		



**THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY**

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

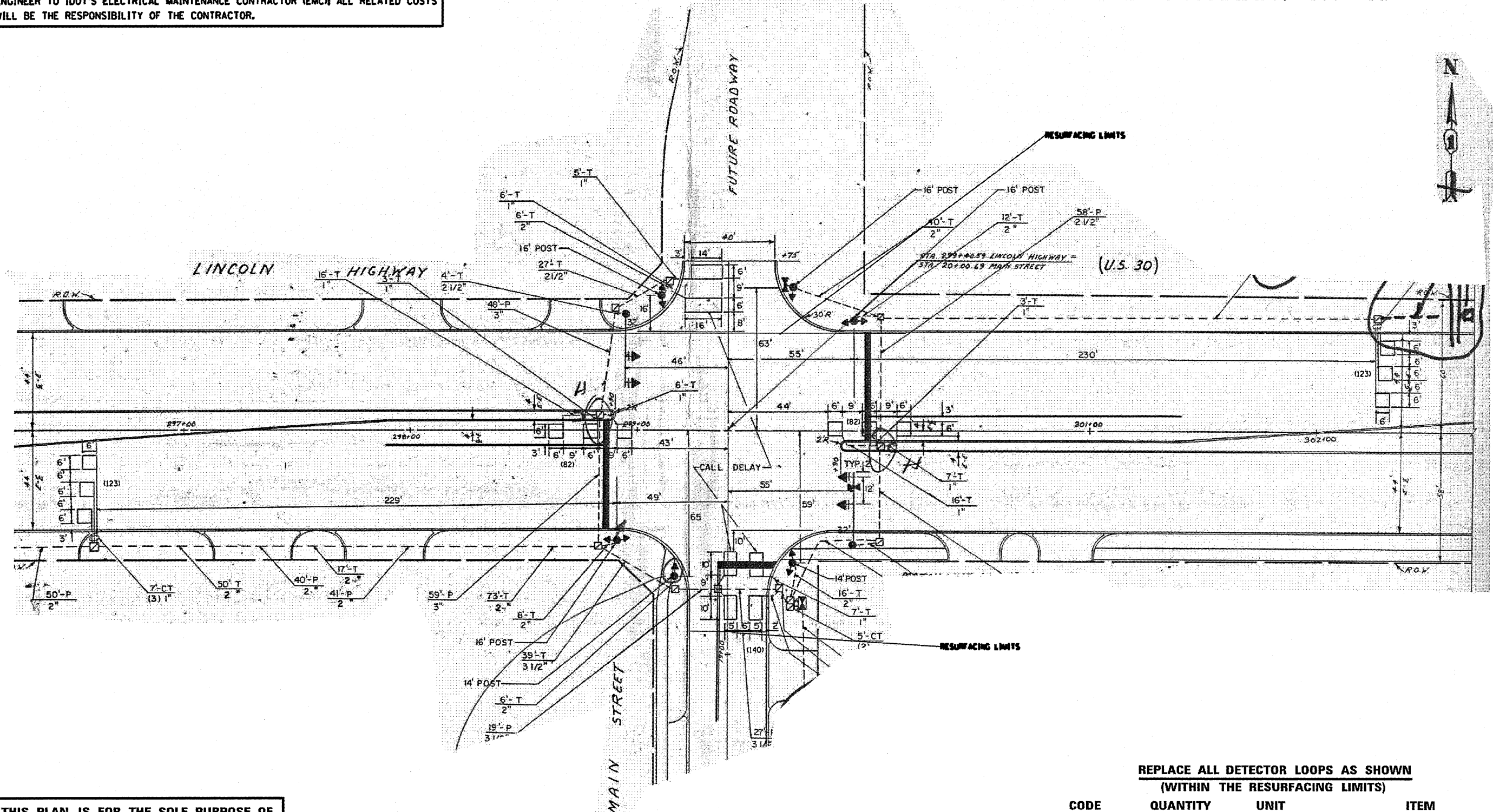
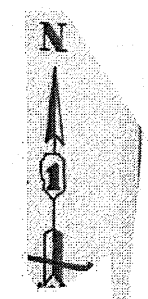
CODE	QUANTITY	UNIT	ITEM
88600600		FOOT	DETECTOR LOOP REPLACEMENT

FILE NAME = S:\WP\Design\Detector Loops Replacement	USER NAME = curryjs	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE - DETECTOR LOOP REPLACEMENT U.S. ROUTE 30 AT CRAWFORD AVE.</b>	F.A. RTE. = 353	SECTION = 23R-RS	COUNTY = COOK	TOTAL SHEETS = 66	SHEET NO. = 25	
	Resurfacing Project-Cook\TS 1375 US 30	DRAWN/FORD\Batescor Loop.dgn	REVISED -			SCALE: NTS	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. = ILLINOIS FED. AID PROJECT	CONTRACT NO. 60L94	
	PLOT SCALE = 1/8" = 1' / in.	CHECKED -	REVISED -								
	PLOT DATE = 6/10/2014	DATE -	REVISED -								

WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD		
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		



**THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY**

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

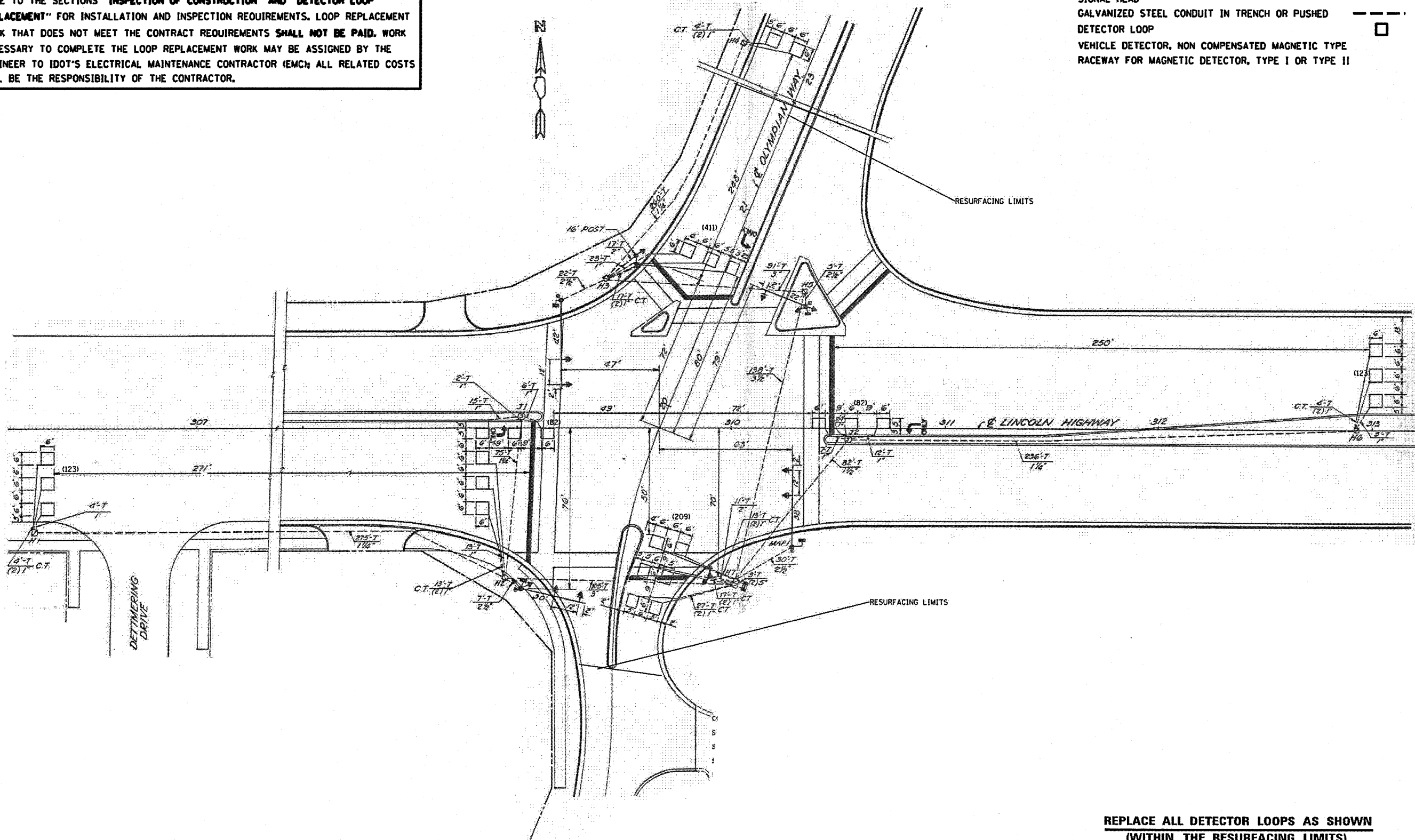
CODE	QUANTITY	UNIT	ITEM
88600600		FOOT	DETECTOR LOOP REPLACEMENT

FILE NAME =	USER NAME = curryja	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE - DETECTOR LOOP REPLACEMENT U.S. ROUTE 30 AT MAIN STREET	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
S:\NP\Design\Detector Loops Replacement	- Resurfacing Project\VC_Cook\ITS 1385 US 30	DRAWN ST\Detector Loop.dgn	REVISED -			353	23R-RS	COOK	66	26	
	PLOT SCALE = 1/8" = 1' / in.	CHECKED -	REVISED -			CONTRACT NO. 60L94					
	PLOT DATE = 6/18/2014	DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
				SCALE: NTS	SHEET NO. OF SHEETS	STA.	TO STA.				

WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD		
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		



**THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY**

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

CODE	QUANTITY	UNIT	ITEM
88600600		FOOT	DETECTOR LOOP REPLACEMENT

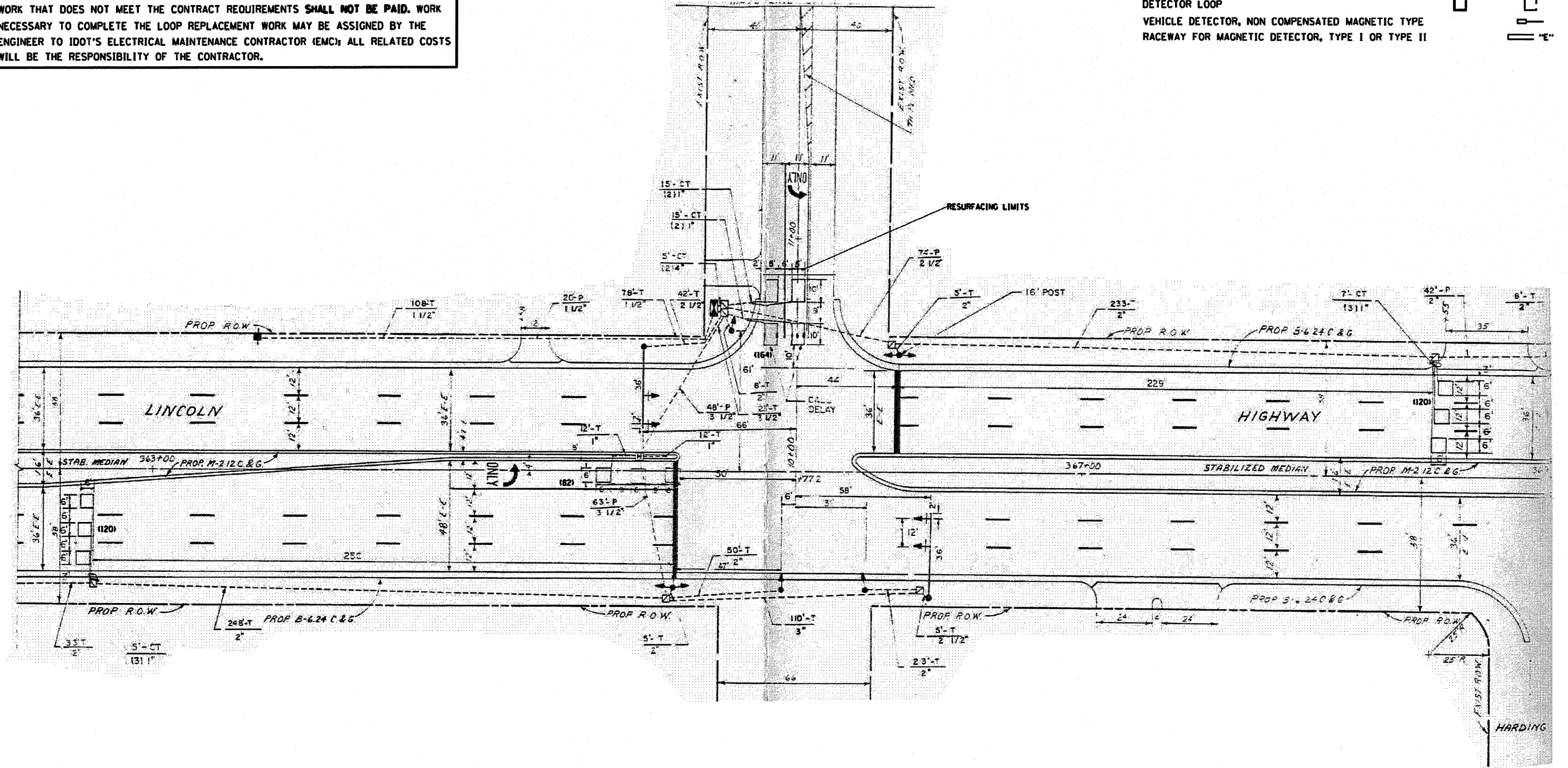
FILE NAME * S:\VFP\Design\Detector Loops Replacement	USER NAME * carrigo	DESIGNED - DRAWN PIAN WY\Detector Loop.dgn	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE - DETECTOR LOOP REPLACEMENT U.S. ROUTE 30 AT OLYMPIAN WAY	F.A. RTE. 353	SECTION 23R-RS	COUNTY COOK	TOTAL SHEETS 66	SHEET NO. 27	
	PLOT SCALE = 1/8" = 1' - 0"	CHECKED -	REVISED -			SCALE: NTS	SHEET NO. OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
	PLOT DATE = 6/10/2014	DATE -	REVISED -								
CONTRACT NO. 60L94											



WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD		
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAWEAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		



**THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY**

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

CODE	QUANTITY	UNIT	ITEM
88600600	486	FOOT	DETECTOR LOOP REPLACEMENT

FILE NAME =	USER NAME = curryja	DESIGNED -	REVISED -
S:\WP\Design\Detector Loops Replacement	- Resurfacing Project\IC_Cook\ITS 1448- US	DRAWN\000\060 DR\Detector Loop.dgn	REVISED -
	PLOT SCALE = 1/8" = 1' in.	CHECKED -	REVISED -
	PLOT DATE = 6/10/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE - DETECTOR LOOP REPLACEMENT  
U.S. ROUTE 30 AT BROOKWOOD DR.**

F.A. RTE. 353	SECTION 23R-RS	COUNTY COOK	TOTAL SHEETS 66	SHEET NO. 29
SCALE: NTS		SHEET NO. OF SHEETS		STA. TO STA.
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

**CONTRACT NO. 60L94**

**TRAFFIC SIGNAL NOTES**

- THE PROPOSED SUPER R, TYPE V CONTROLLER CABINET SHALL HOUSE A NEW LOCAL CONTROLLER AND TWO NEW MASTER CONTROLLERS, ONE FOR THE U.S. ROUTE 30 SYSTEM (IDOT SYSTEM #53) AND ONE FOR THE WESTERN AVENUE SYSTEM (IDOT SYSTEM #124).
- THE EXISTING DETECTOR LOOPS SHALL BE CONNECTED TO THE PROPOSED CONTROLLER WITH NEW LEAD-IN CABLES. THE OPERATION OF THE EXISTING LOOPS SHALL BE TESTED ONCE THIS IS COMPLETED. SHOULD ANY OF THE LOOPS BE FOUND TO BE NON-OPERATIONAL, NEW LOOPS SHALL BE INSTALLED AND PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR "LOOP DETECTOR, TYPE 1".

RED LIGHT ENFORCEMENT CAMERAS ARE IN OPERATION AT THIS LOCATION. INQUIRIES REGARDING THE ENFORCEMENT CAMERAS SHOULD BE DIRECTED TO THE FOLLOWING:

**EASTBOUND U.S. ROUTE 30**

MUNICIPALITY - LES DELYA  
VILLAGE OF OLYMPIA FIELDS  
POLICE DEPARTMENT  
(708) 503-8100

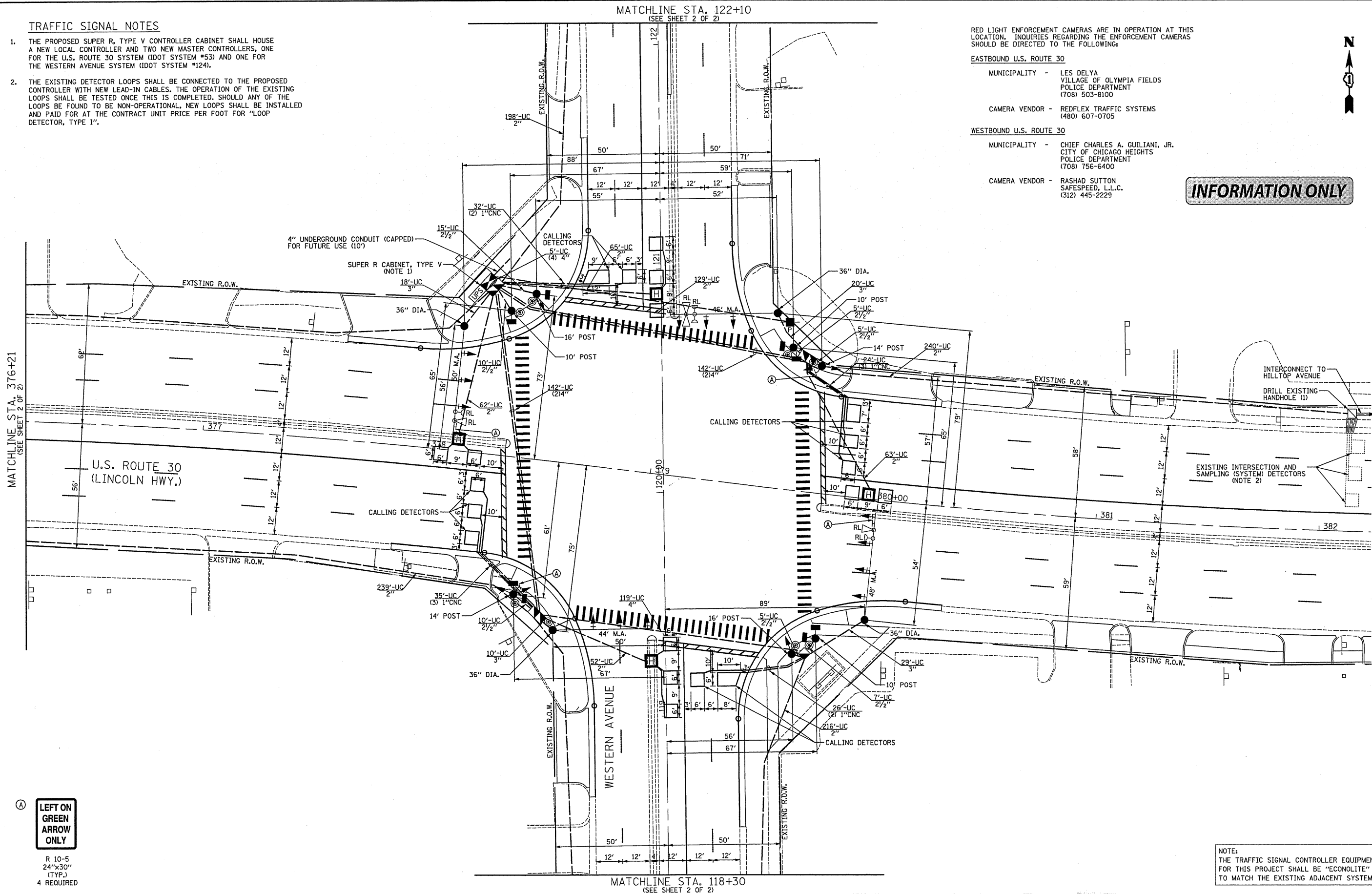
CAMERA VENDOR - REDFLEX TRAFFIC SYSTEMS  
(480) 607-0705

**WESTBOUND U.S. ROUTE 30**

MUNICIPALITY - CHIEF CHARLES A. GUILIANI, JR.  
CITY OF CHICAGO HEIGHTS  
POLICE DEPARTMENT  
(708) 756-6400

CAMERA VENDOR - RASHAD SUTTON  
SAFESPEED, L.L.C.  
(312) 445-2229

**INFORMATION ONLY**



**LEFT ON GREEN ARROW ONLY**

R 10-5  
24"x30"  
(TYP.)  
4 REQUIRED

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



USER NAME = JJW	DESIGNED - BRD	REVISED -
PLOT SCALE = 20,0000' / 1"	DRAWN - JRT	REVISED -
PLOT DATE = 9/27/2013	CHECKED - JJE	REVISED -
	DATE - 09/27/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE - DETECTOR LOOP REPLACEMENT  
U.S. ROUTE 30 (LINCOLN HWY.) & WESTERN AVENUE**

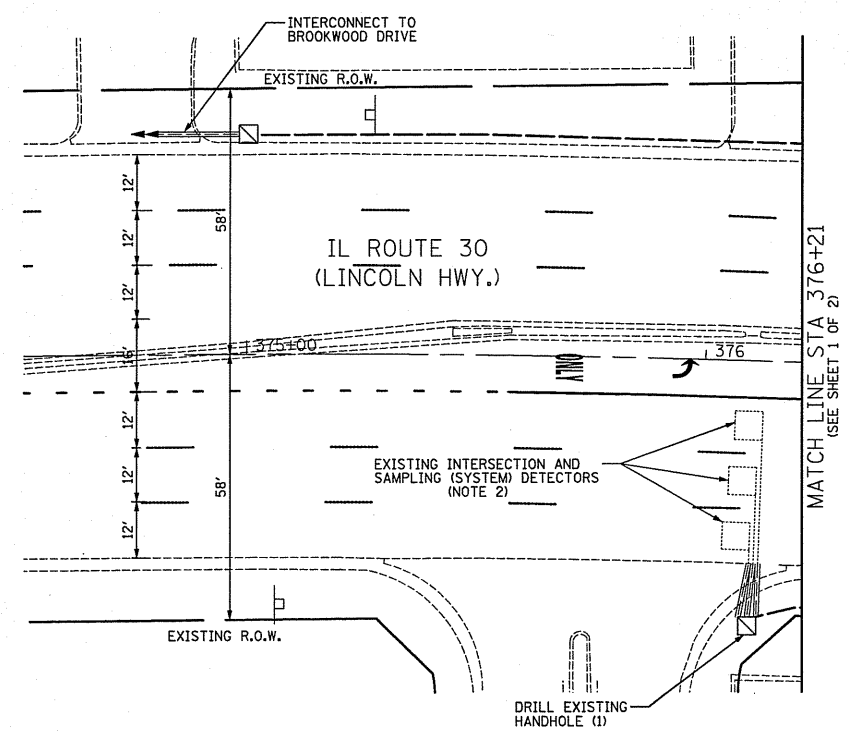
SCALE: 1" = 20'    SHEET NO. 1 OF 2 SHEETS    STA.    TO STA.

F.A.P. RTE. 0353	SECTION 23R-RS	COUNTY COOK	TOTAL SHEETS 66	SHEET NO. 30
			CONTRACT NO. 60494	
ILLINOIS FED. AID PROJECT				

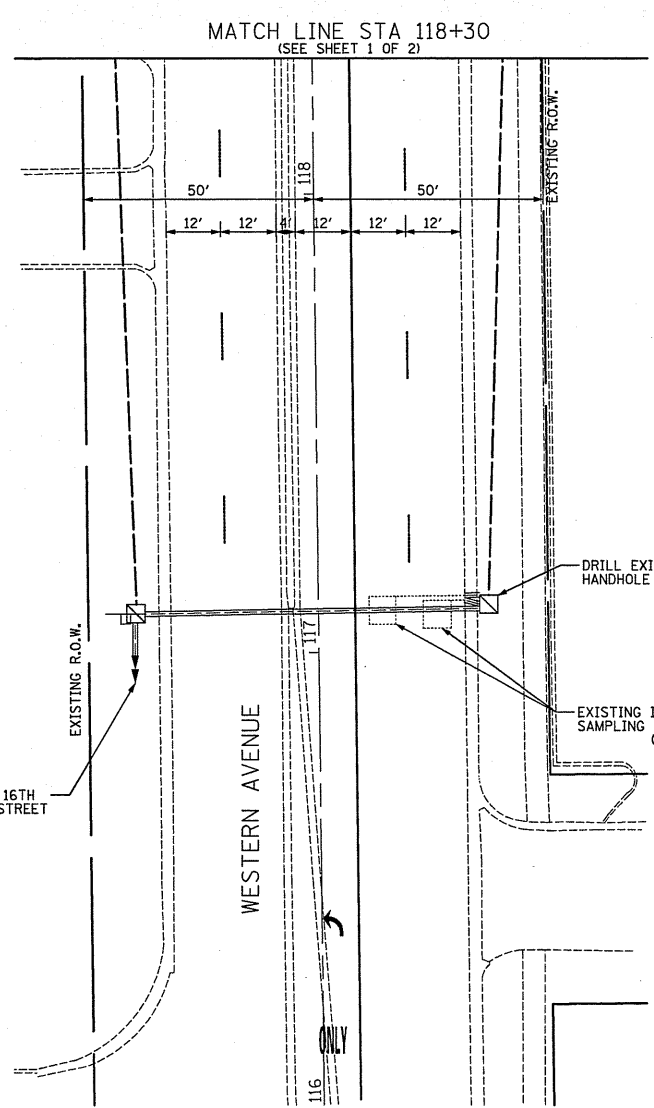


**TRAFFIC SIGNAL NOTES**

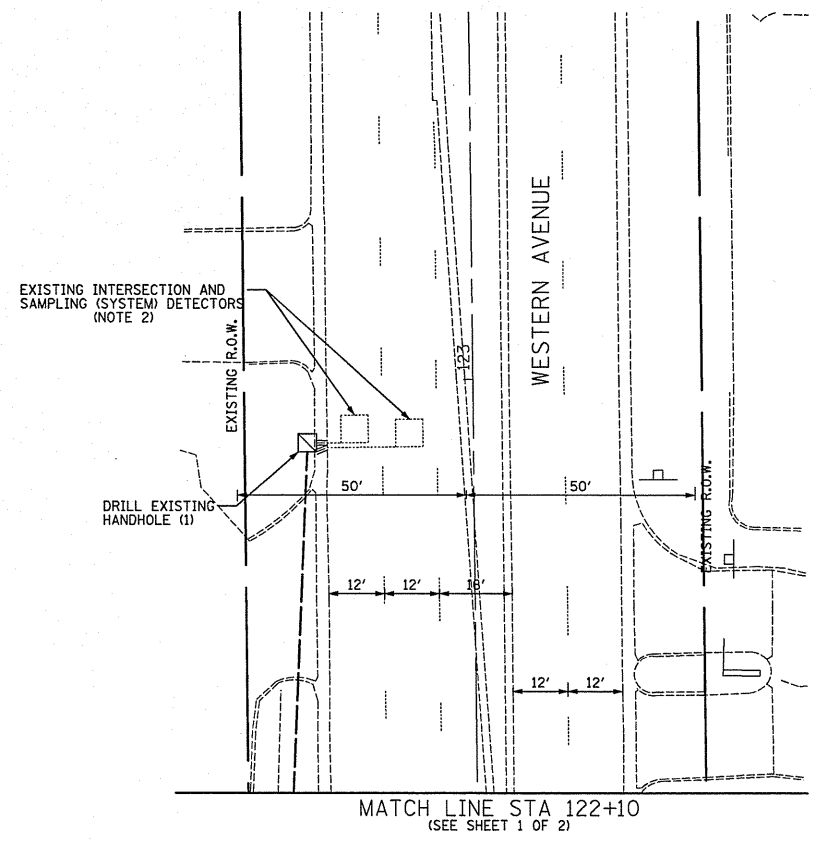
1. THE PROPOSED SUPER R, TYPE V CONTROLLER CABINET SHALL HOUSE A NEW LOCAL CONTROLLER AND TWO NEW MASTER CONTROLLERS, ONE FOR THE U.S. ROUTE 30 SYSTEM (IDOT SYSTEM #53) AND ONE FOR THE WESTERN AVENUE SYSTEM (IDOT SYSTEM #124).
2. THE EXISTING DETECTOR LOOPS SHALL BE CONNECTED TO THE PROPOSED CONTROLLER WITH INSTALLATION OF NEW LEAD-IN CABLES. THE OPERATION OF THE EXISTING LOOPS SHALL THEN BE TESTED. SHOULD ANY OF THE LOOPS BE FOUND TO BE NON-OPERATIONAL, NEW LOOPS SHALL BE INSTALLED AND PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR "LOOP DETECTOR, TYPE I".



MATCH LINE STA 376+21  
(SEE SHEET 1 OF 2)



INTERCONNECT TO 16TH STREET/ILLINOIS STREET



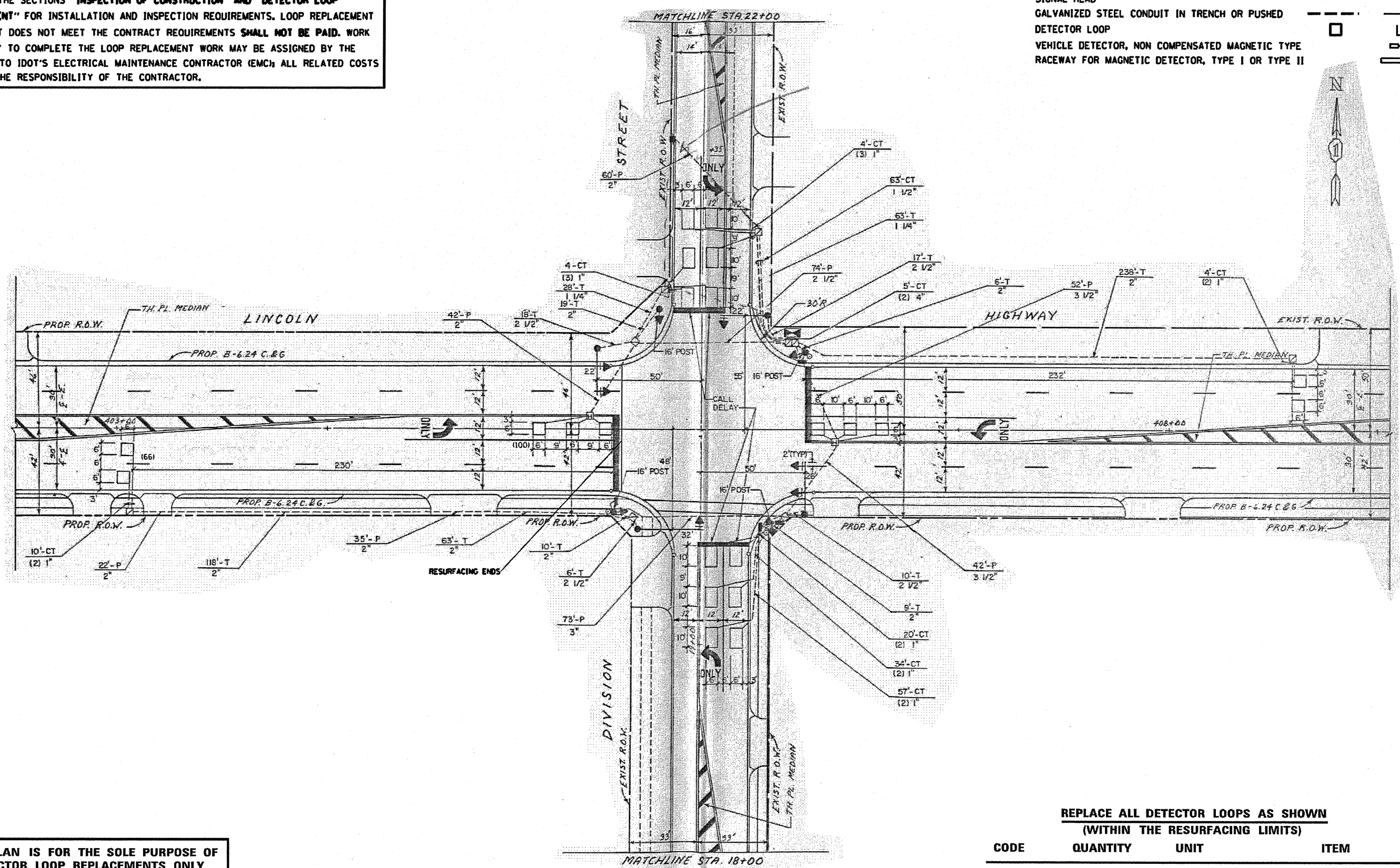
NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

	USER NAME = JJJ	DESIGNED - BRD	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE - DETECTOR LOOP REPLACEMENT</b> <b>U.S. ROUTE 30 (LINCOLN HWY.) &amp; WESTERN AVENUE</b>	F.A.P. RTE. 0353	SECTION 23R-R5	COUNTY COOK	TOTAL SHEETS 66	SHEET NO. 31			
	PLOT SCALE = 20.0000' / 1"	DRAWN - JRT	REVISED -			SCALE: 1" = 20'	SHEET NO. 2 OF 2 SHEETS	STA. TO STA.	[ILLINOIS] FED. AID PROJECT				
	PLOT DATE = 9/27/2013	CHECKED - JJE	REVISED -										
		DATE - 09/27/2013	REVISED -										

WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD		
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		



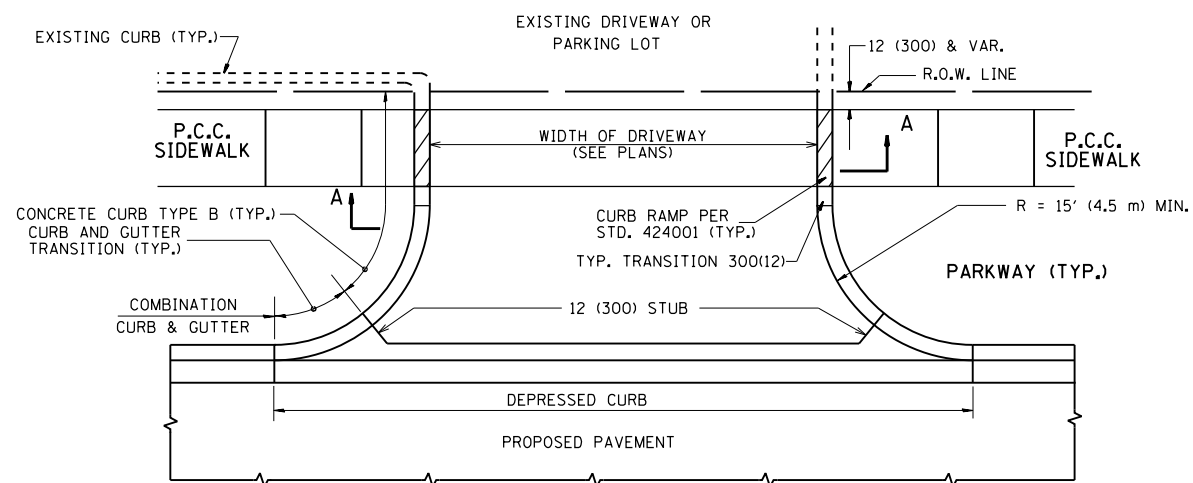
**THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY**

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

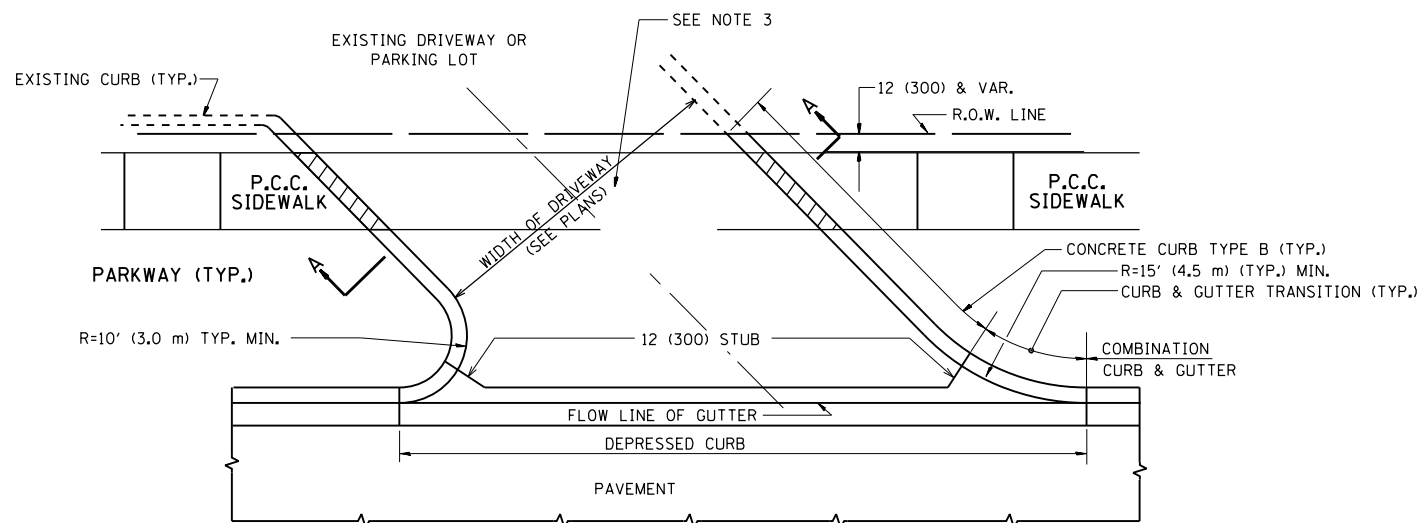
CODE	QUANTITY	UNIT	ITEM
88600600	166	FOOT	DETECTOR LOOP REPLACEMENT

FILE NAME =	USER NAME = curryjs	DESIGNED -	REVISOR -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE - DETECTOR LOOP REPLACEMENT U.S. 30 AT HILLTOP AVE	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S:\WP\Design\Detector Loops Replacement	Resurfacing Project\Cook\TS 1445 U.S.	DRAWN TOP\Detector Loop.dgn	REVISOR -			353	23R-RS	COOK	66	32
	PLOT SCALE = 1/55,8952' / in.	CHECKED -	REVISOR -			CONTRACT NO. 60L94				
	PLOT DATE = 6/18/2014	DATE -	REVISOR -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

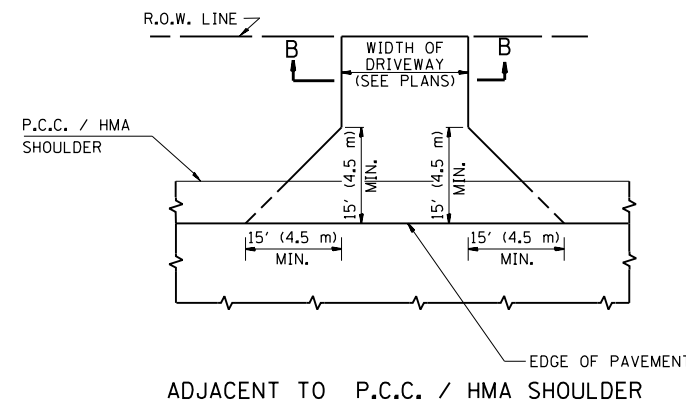
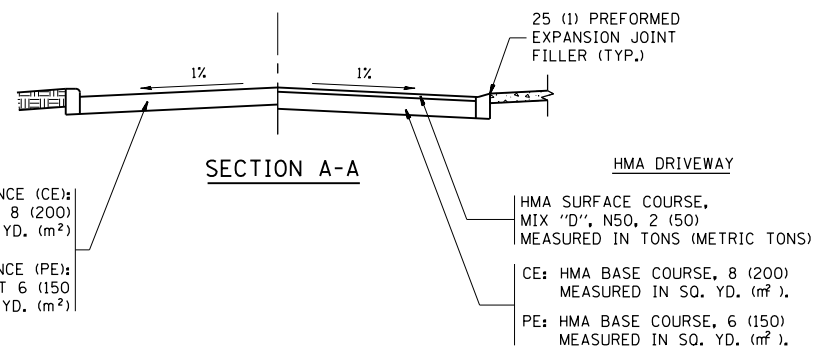




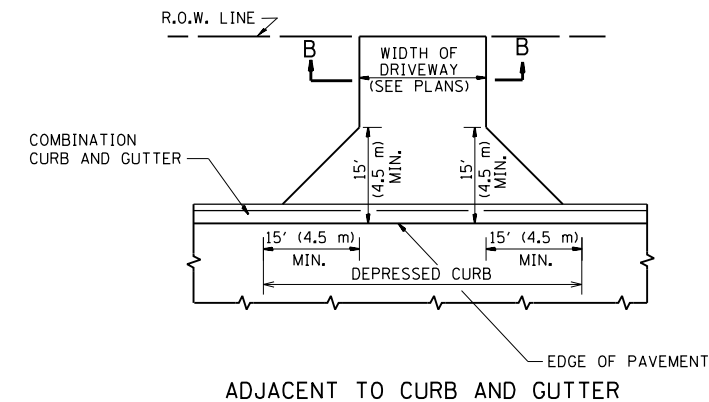
WITH CONCRETE CURB, TYPE B



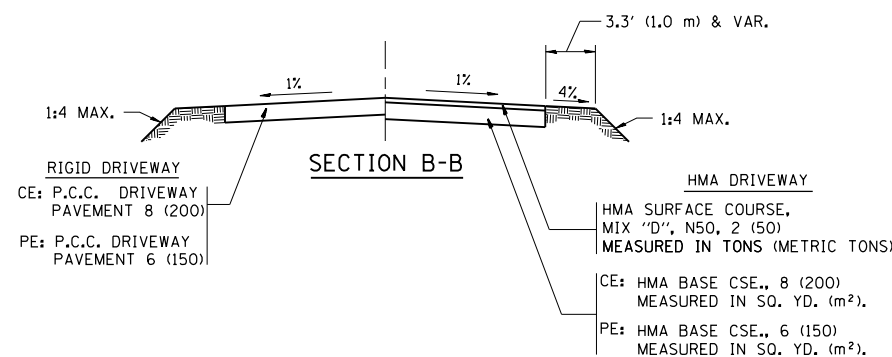
WITH CONCRETE CURB, TYPE B



ADJACENT TO P.C.C. / HMA SHOULDER



ADJACENT TO CURB AND GUTTER



RURAL FIELD ENTRANCE (FE)

HMA SURFACE COURSE, MIX "D", N50, 2 (50) MEASURED IN TONS (METRIC TONS)

AGGREGATE BASE CSE., TYPE B, 8 (200) MEASURED IN SQ. YD. (m²).

**GENERAL NOTES:**

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

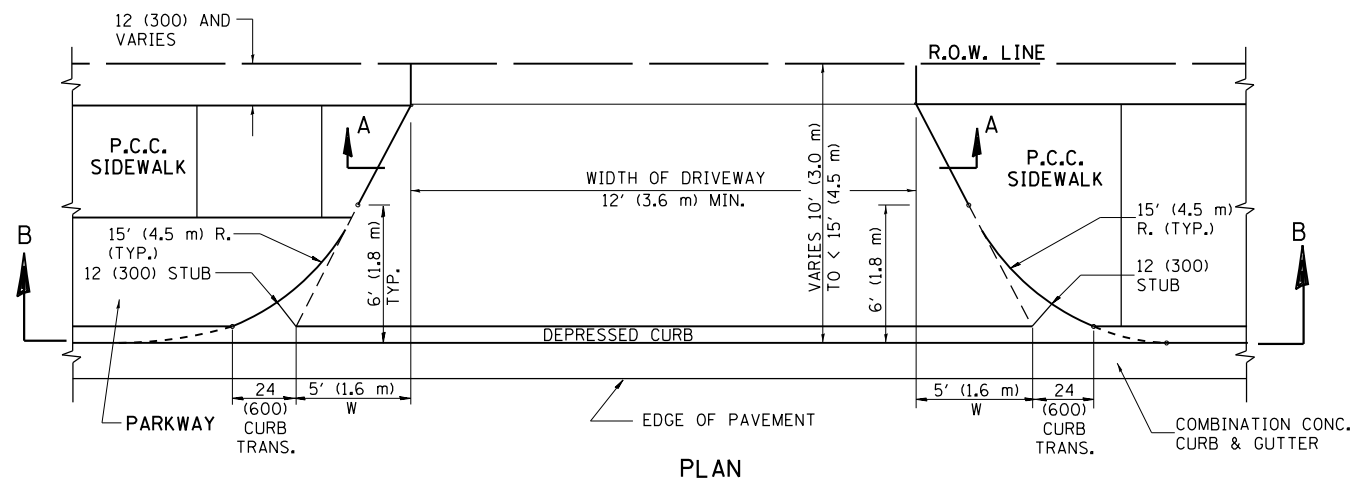
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

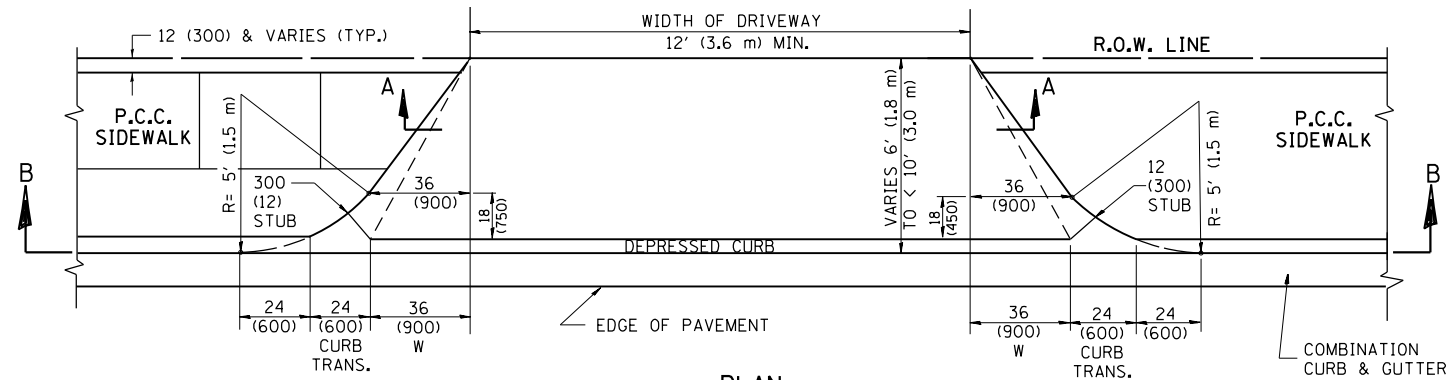
DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W.  
AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m)

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

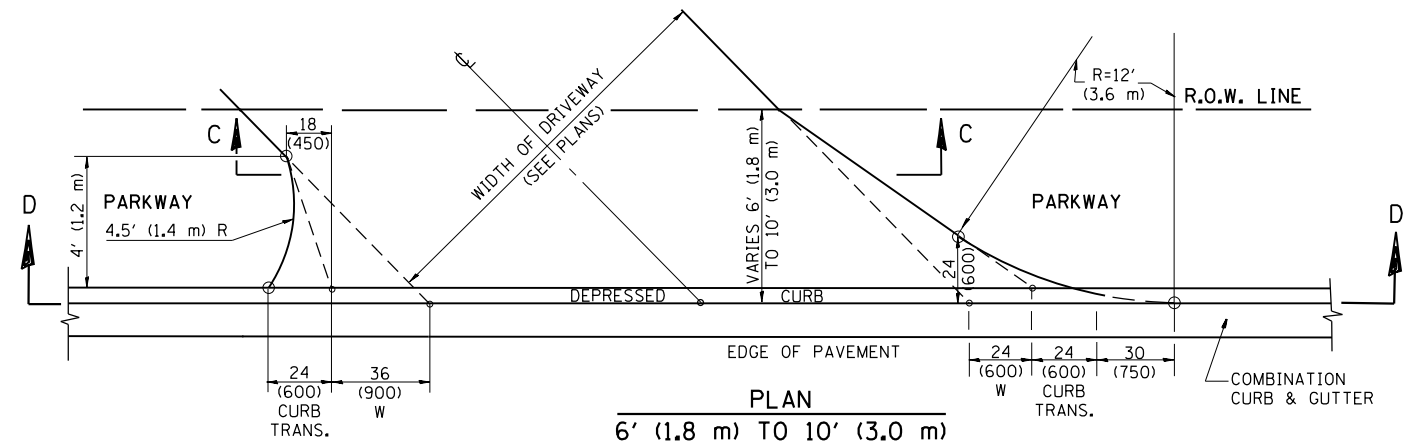
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	23R-R5	COOK	66	33
BD0156-07 (BD-01)		CONTRACT NO. 60L94		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



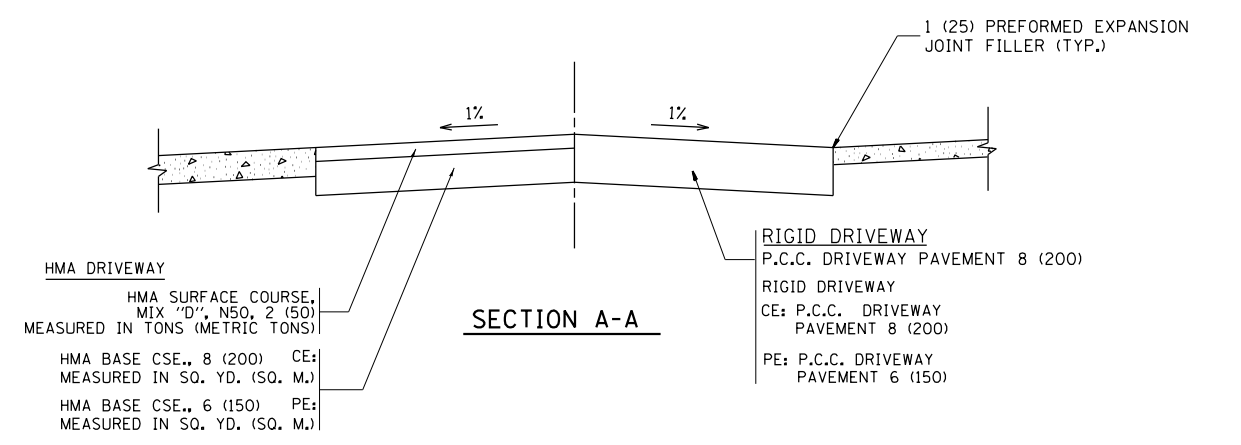
PLAN  
10' (3.0 m) TO < 15' (4.5 m)



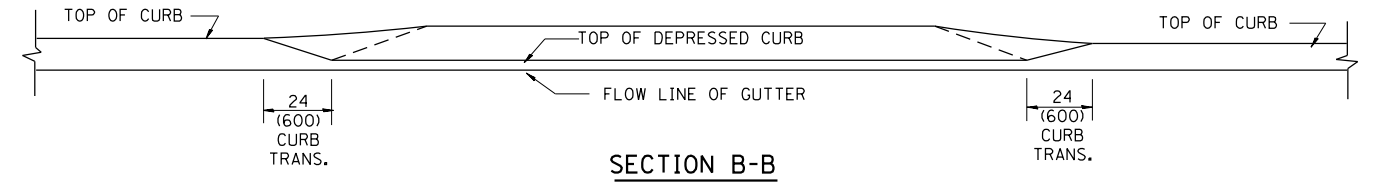
PLAN  
6' (1.8 m) TO < 10' (3.0 m)



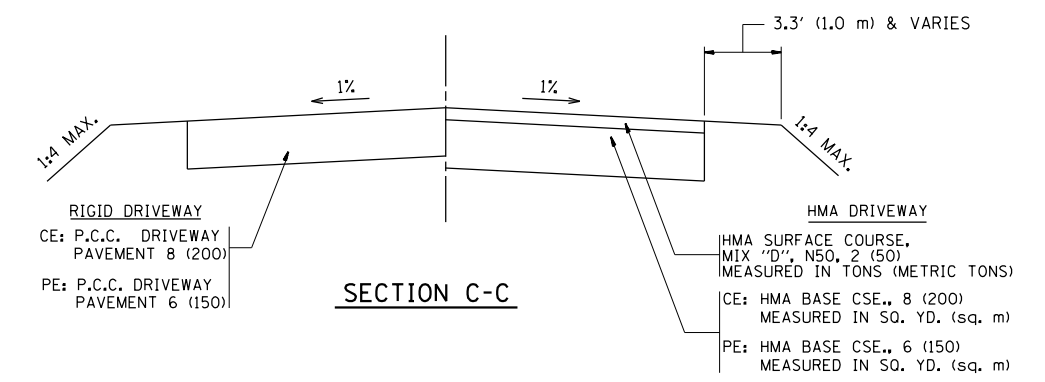
PLAN  
6' (1.8 m) TO 10' (3.0 m)



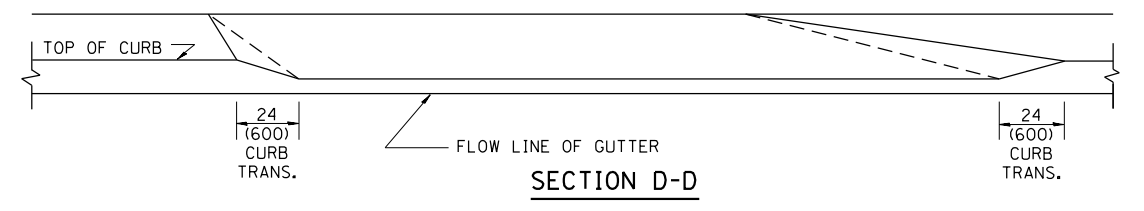
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

GENERAL NOTES

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATION 10 IN THE PERMIT HANDBOOK. WHERE SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED WITH RIGID PAVEMENT. WHERE NO SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED IN KIND. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

WHEN THE DISTANCE BETWEEN R.O.W. AND THE BACK OF CURB IS EQUAL TO OR LESS THAN 8' (2.4 m), THE P.C.C. SIDEWALK SHALL EXTEND TO THE BACK OF CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

THE 1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

"W" VARIES FROM 36 (900) TO 5' (1.5 m) PROPORTIONAL TO THE LENGTH (L), FROM 6' (1.8 m) TO 10' (3 m).

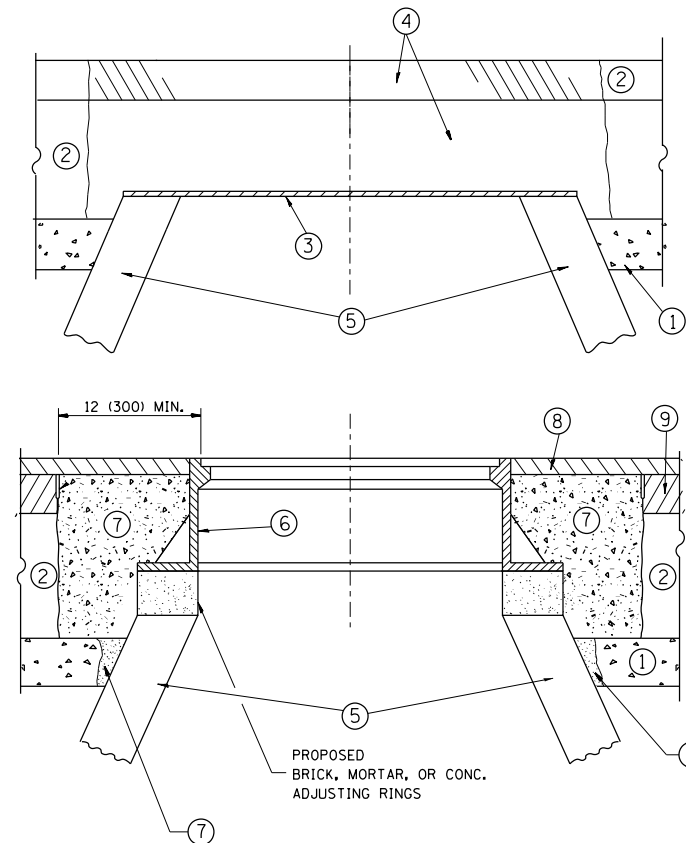
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE NOTED.

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	PLOT SCALE = 100.0002' / in.	CHECKED -	REVISED - R. BORO 01-01-07
	PLOT DATE = 6/13/2014	DATE - 11-06-95	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS			
DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5 m)			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	23R-R5	COOK	66	34
BD400-02 (BD-02)			CONTRACT NO. 60L94	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**CONSTRUCTION PROCEDURES**

**STAGE 1 (BEFORE PAVEMENT MILLING)**

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

**STAGE 2 (AFTER PAVEMENT MILLING)**

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1\* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

\* UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

**LEGEND**

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

**LOCATION OF STRUCTURES:**

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

**BASIS OF PAYMENT:**

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

**NOTES:**

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

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

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

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

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

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

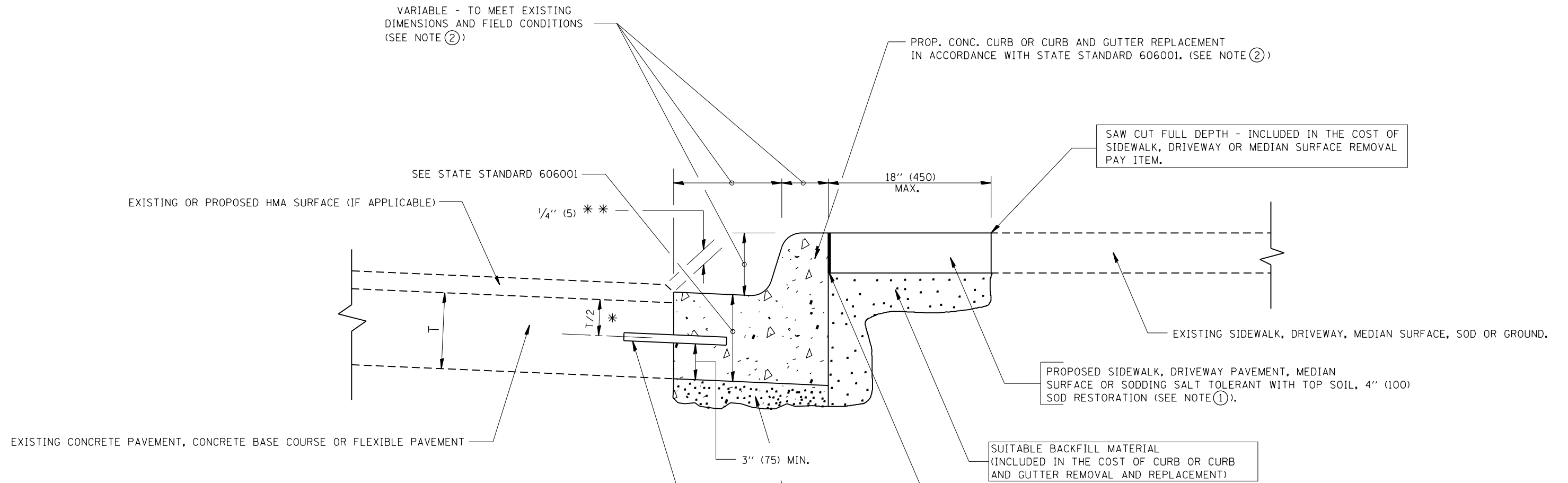
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

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	PLOT DATE = 6/13/2014	DATE - 10-25-94	REVISED - R. BORO 12-06-11

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	23R-R5	COOK	66	35
<b>BD600-03 (BD-8)</b>		<b>CONTRACT NO. 60L94</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



- \* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
  - \*\* IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.
- NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.
- SODDING, SALT TOLERANT AND TOP SOIL, FURNISH AND PLACE 4" WILL BE PAID FOR SEPARATELY.
- ② FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED
  - ③ CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.
  - ④ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.
  - ⑤ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
  - ⑥ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.
  - ⑦ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.
  - ⑧ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

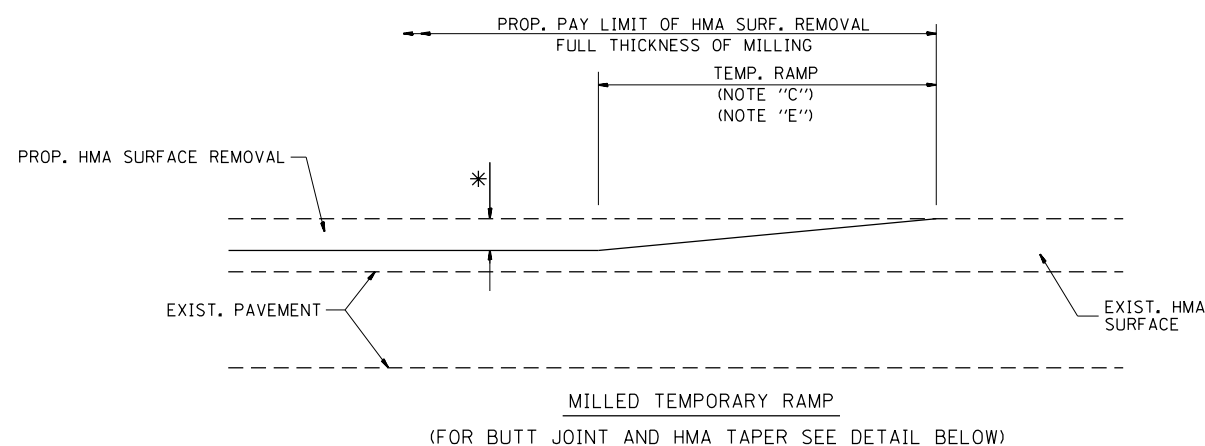
- PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)
- UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.
- REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
- REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.
- PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USUABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

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

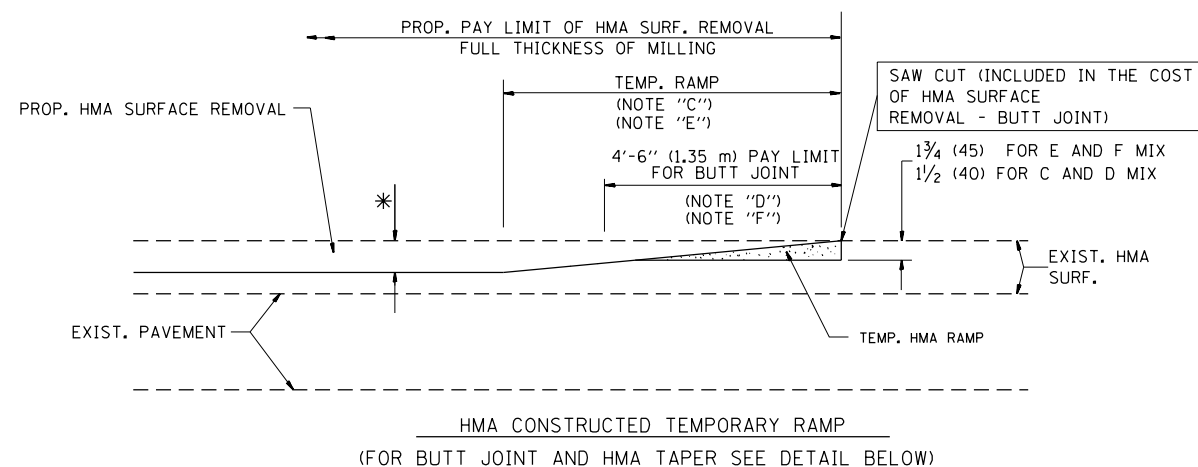
# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

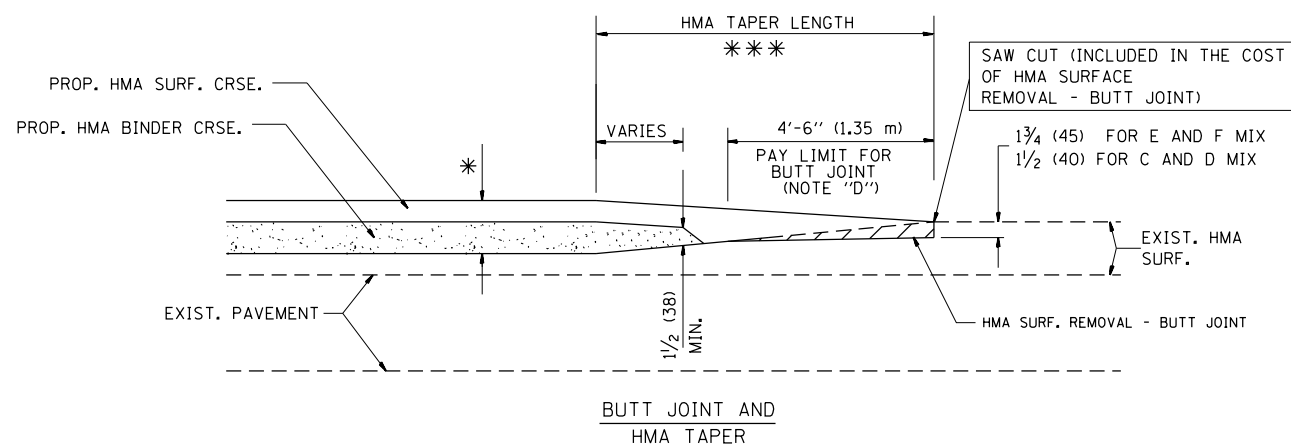
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		DRAWN -	REVISED - A. ABBAS 03-21-97			353	23R-RS	COOK	66	36
		PLOT SCALE = 100.0000' / in.	REVISED - M. GOMEZ 01-22-01			<b>BD600-06 (BD-24)</b>		<b>CONTRACT NO. 60L94</b>		
		PLOT DATE = 6/13/2014	DATE - 03-11-94			REVISED - R. BORO 12-15-09	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



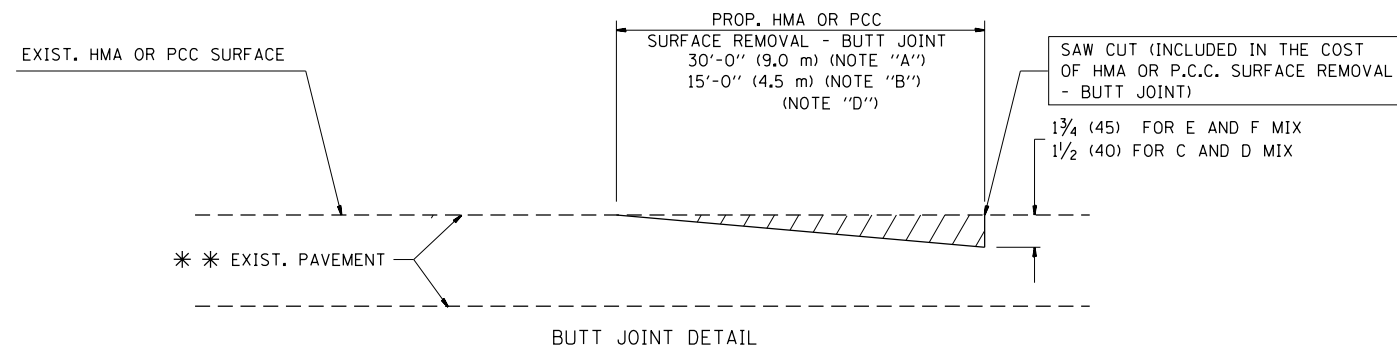
**OPTION 1**



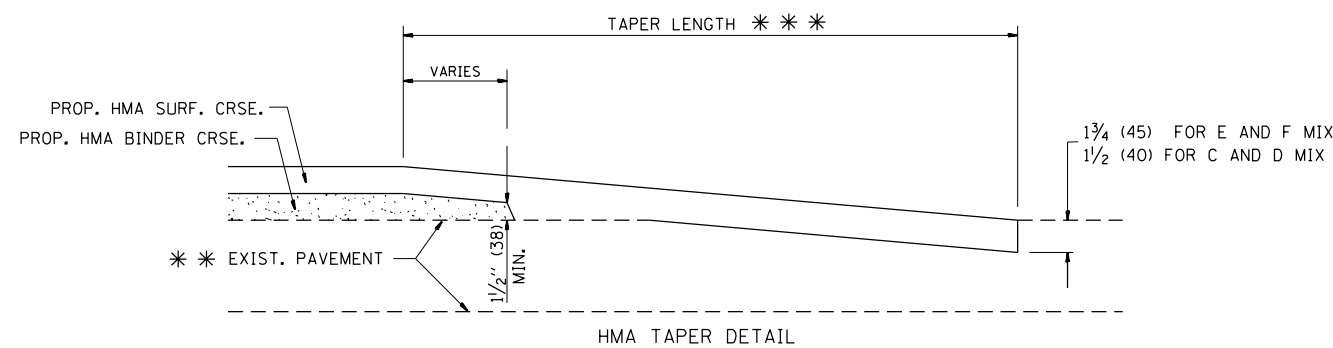
**OPTION 2  
TYPICAL TEMPORARY RAMP**



**TYPICAL BUTT JOINT AND HMA TAPER  
FOR MILLING AND RESURFACING**



**BUTT JOINT DETAIL**



**HMA TAPER DETAIL**

**TYPICAL BUTT JOINT AND HMA TAPER  
FOR RESURFACING ONLY**

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

**NOTES**

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

\* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

\*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

**BASIS OF PAYMENT:**

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

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

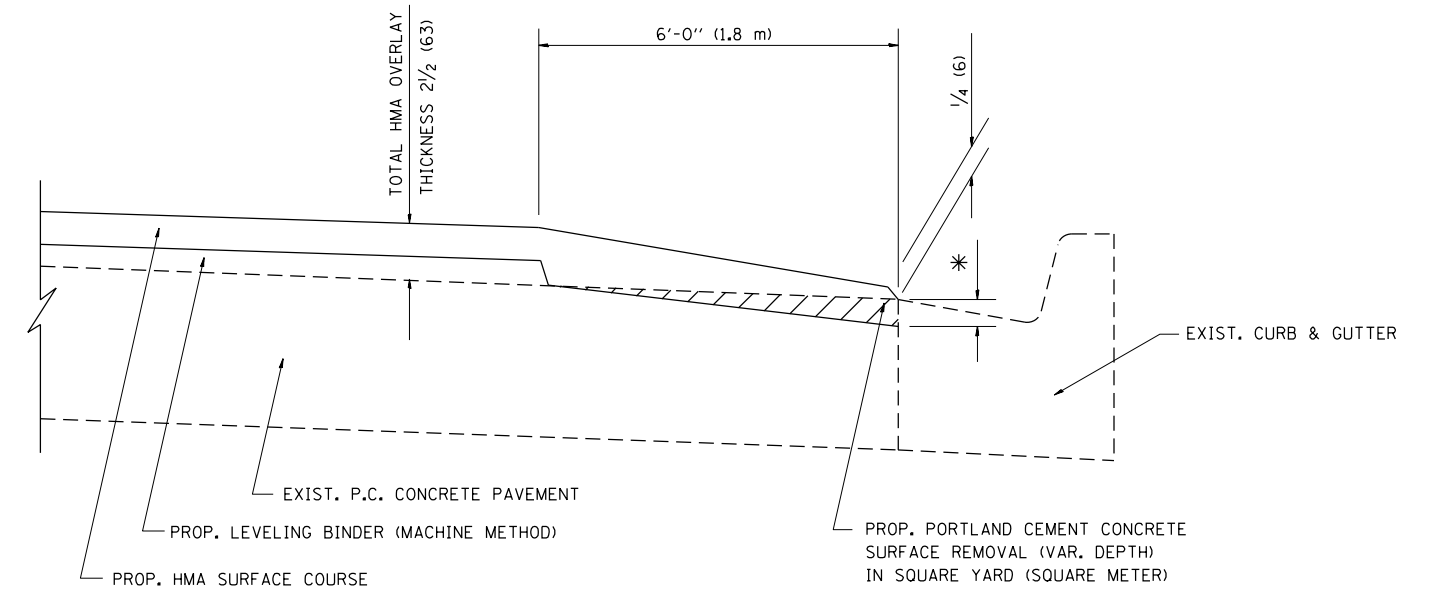
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	PLOT DATE = 6/13/2014	DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BUTT JOINT AND  
HMA TAPER DETAILS**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	23R-R5	COOK	66	37
BD400-05 BD32		CONTRACT NO. 60L94		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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

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

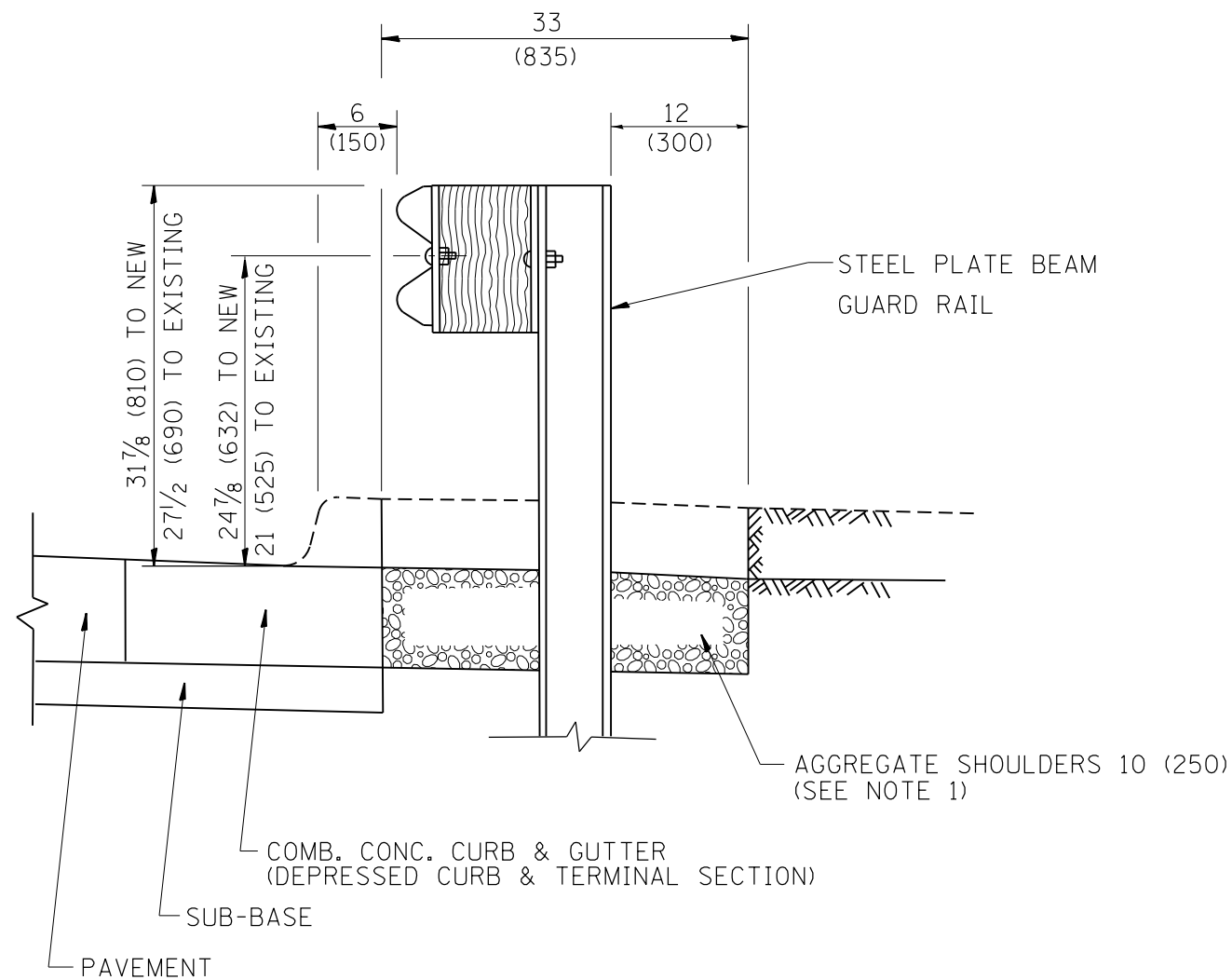
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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	PLOT SCALE = 100.0000' / in.	CHECKED - A. ABBAS	REVISED - E. GOMEZ 12-21-00
	PLOT DATE = 6/13/2014	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>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

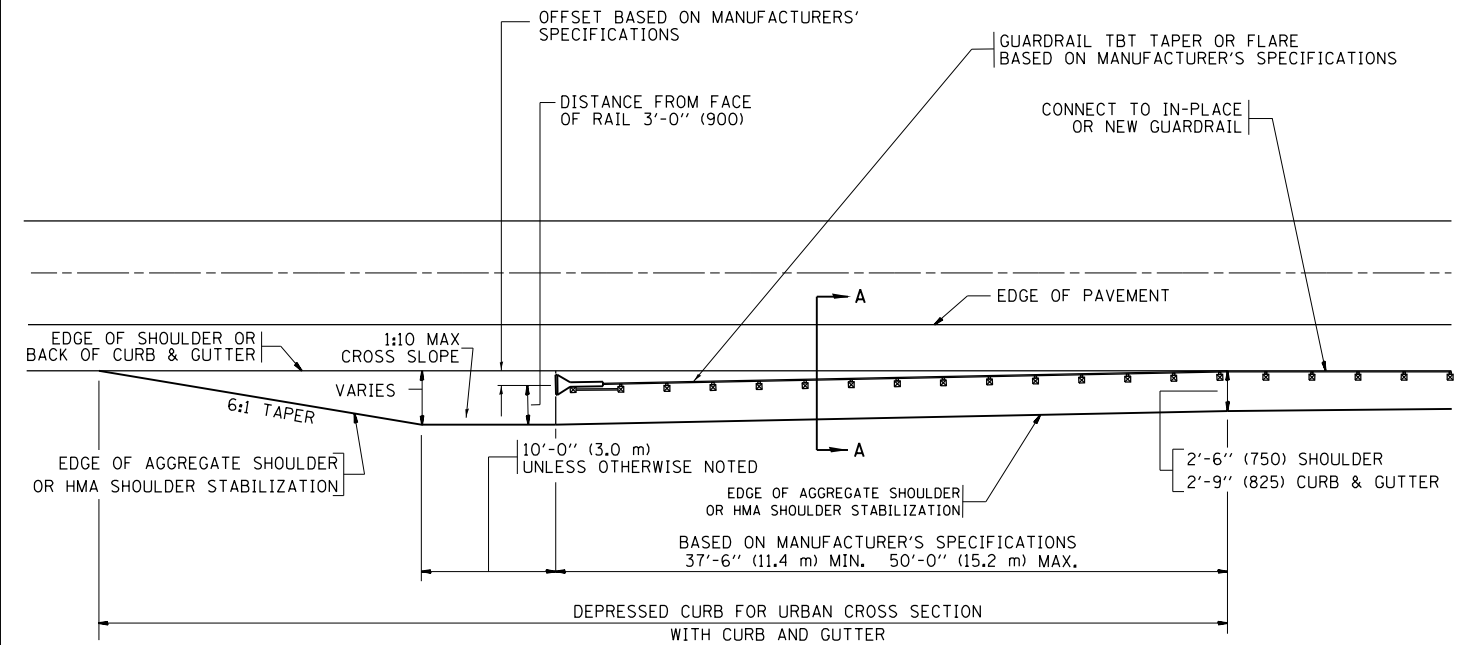
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353	23R-RS	COOK	66	38
BD400-06 (BD33)		CONTRACT NO. 60L94		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**SECTION A-A**

- NOTES:
1. THE AGGREGATE SHOULDER, 10" OR HMA SHOULDER, 6" (IF REQUIRED) SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL.
  2. "EXISTING" GUARDRAIL REFERS TO CONNECTING TERMINAL SECTION TO GUARD RAILING PRIOR TO THE MIDWEST GUARDRAIL SYSTEM.
  3. THE CONTRACTOR SHALL VERIFY THE TYPE/HEIGHT OF GUARDRAIL IN-PLACE BEFORE ORDERING THE NEW TERMINAL SECTION. COST INCLUDED WITH THE COST OF THE TERMINAL. THE TERMINAL SECTION HEIGHT TO BE PLACED MUST MATCH THE HEIGHT OF THE IN-PLACE GUARDRAIL.

**DETAILS FOR STEEL PLATE BEAM  
GUARD RAIL ADJACENT TO CURB AND GUTTER  
[FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]**



**DEPRESSED CURB AND GUTTER AND  
SHOULDER TREATMENT AT TBT TY. 1 SPL.**

BASIS OF PAYMENT: HMA SHOULDERS 6 (150) (IF REQUIRED) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SHOULDERS 6" (150 mm)".

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

TBT = TRAFFIC BARRIER TERMINAL  
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = dettmanna	DESIGNED - M. DE YONG	REVISED - E. GOMEZ 08-28-00
et:\pw\work\p\dot\dettmanna\d0230696\DetStd.dgn		DRAWN -	REVISED - R. BORO 01-01-07
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - R. BORO 12-08-2008
	PLOT DATE = 6/13/2014	DATE - 09-22-90	REVISED - R. BORO 09-14-2009

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DETAILS FOR DEPRESSED CURB & GUTTER AND  
SHOULDER TREATMENT AT TBT TY 1 SPL.**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	23R-R5	COOK	66	39
BD600-10 (BD 34)			CONTRACT NO. 60L94	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

# FABRICATION GENERAL NOTES

**MATERIALS:**

1. EPOXY COATED DOWEL BARS USED SHALL COMPLY WITH ASTM A 615 GRADE 60.
2. ALL EMBEDDED LIFTING HARDWARE USED SHALL BE GALVANIZED.
  - A. FOR LIFTING INSERTS, INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION INCLUDING MINIMUM EDGE DISTANCE AND SPACING REQUIREMENTS. UNLESS THE CONTRACTOR AND FABRICATOR WILL BE USING A LIFTING BEAM OR ROLLING SHEAVE TO ENSURE THAT EACH OF THE FOUR INSERTS WILL SHARE THE LOAD EQUALLY, TWO OF THE FOUR INSERTS MUST BE CAPABLE OF CARRYING THE TOTAL LOAD WITH A 4:1 SAFETY FACTOR WHILE ADJUSTING FOR THE ANGLE OF THE CABLES AND THE STRENGTH OF THE CONCRETE OVER TIME. THE INSERT SHOULD BE RECESSED A MINIMUM OF 1/2" UNLESS THE SLAB IS TO BE OVERLAID IMMEDIATELY AFTER PLACEMENT. THE INSERT SHALL LEAVE A MAXIMUM 1/4" DIAMETER THREADED HOLE TO BE GROUTED AFTER SLAB INSTALLATION. IF THE INSERT IS INSTALLED WITH A FULL SLAB PENETRATION, THE LIFTING INSERT CAN BE USED AS A BEDDING GROUT PORT AT THE CONTRACTOR'S DISCRETION.
  - B. FOR LIFTING PLATES, INSTALLATION MUST BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND HAVE A STANDARD 5:1 SAFETY FACTOR FOR LIFTING HARDWARE. UNLESS A LIFTING BEAM IS USED TO SPACE THE FOUR PICK POINTS DIRECTLY ABOVE THE INSERTS, THE LIFTING HARDWARE MUST BE RATED FOR USE WITH CABLES AT AN ANGLE AND TWO OF THE FOUR DEVICES MUST BE CAPABLE OF LIFTING THE FULL LOAD AS WITH THE INSERTS REFERENCED IN THE PREVIOUS NOTE.
3. REINFORCEMENT USED SHALL BE EPOXY COATED, IN ACCORDANCE WITH ASTM A706 GRADE 60 AND IN COMPLIANCE WITH ARTICLE 1006.10 OF THE STANDARD SPECIFICATIONS.
4. CONCRETE COVER OVER REINFORCEMENT TO BE MAINTAINED USING WIRE OR THERMOPLASTIC CHAIRS OR SPACERS OR AN APPROVED EQUIVALENT.
5. CONCRETE USED SHALL MEET THE FOLLOWING REQUIREMENTS:
  - A. CONCRETE USED SHALL BE CLASS PC (F'C = 4,500 PSI @ 28 DAYS) IN ACCORDANCE WITH SECTION 1020 OF THE STANDARD SPECIFICATIONS.
  - B. MINIMUM STRIPPING STRENGTH OF CONCRETE SHALL BE 3,000 PSI.
  - C. CONCRETE MIX DESIGN TO BE SUBMITTED AND APPROVED PRIOR TO FABRICATION.
  - D. CURING OF CONCRETE SLABS TO BE IN ACCORDANCE WITH THE SPECIFIED METHODS OF SECTION 1020 OF THE STANDARD SPECIFICATIONS. THE CURING PROCEDURE TO BE USED SHALL BE SUBMITTED AND APPROVED PRIOR TO FABRICATION.

**SLAB DESIGN:**

6. FOR STANDARD SLABS:
  - A. USE SLAB DIMENSIONS SHOWN ON THE DISTRICT STANDARD DRAWINGS FOR DESIGN SLAB THICKNESS, WIDTH, AND LENGTH. ACTUAL WIDTH TO BE MODIFIED WITH ON-SITE SAW CUTS TO FIT THE OPENING.
  - B. SIZE ANY PREFORMED SLOTS THAT ARE DESIGNED FOR CONSECUTIVE STANDARD SLABS CONSISTENT WITH THE THICKNESS OF THE SLAB SUCH THAT THE BOTTOM OF THE OPENING IS AT LEAST 2 1/2" (±1/4") WIDE AND AT LEAST 1/2" OF GROUT COVER IS PROVIDED UNDER THE DOWEL.

- C. FOR STANDARD SLABS WITH WIDE OPEN SLOTS AND/OR EMBEDDED DOWEL BARS, IT SHALL BE THE CONTRACTOR'S OPTION TO EITHER PRE-INSTALL/EMBED THE DOWEL BARS INTO THE SLABS AT THE PRECAST PLANT AND PARTIALLY RETROFIT THE EMBEDDED DOWELS INTO ADJACENT PAVEMENT SLABS IN THE FIELD, OR TO FULLY RETROFIT THE DOWEL BARS INTO BOTH THE INSTALLED PRECAST SLAB AND ANY ADJACENT SLAB IN THE FIELD DURING PLACEMENT IN ACCORDANCE WITH CONTRACT SPECIFICATIONS AND THE GENERAL NOTES FOR INSTALLATION. THE LOCATIONS AND SPACING OF THE DOWEL BARS IN THE STANDARD SLABS SHALL BE SHOWN ON THE DISTRICT STANDARD DRAWINGS AND WITHIN THE SPECIFIED TOLERANCES FOR ALIGNMENT. FOR DOWEL BAR RETROFITTING WITH STANDARD SLAB INSTALLATION, A STANDARD TEMPLATE SHALL BE USED TO LOCATE THE CUTS AND POSITION THE DOWEL SLOTS CONSISTENTLY.
- D. FOR STANDARD ISOLATED SLABS WITH NARROW ELONGATED PREFORMED DOWEL SLOTS, THE CENTERPOINT BETWEEN THE WHEEL PATH SLOTS SHALL BE MARKED.

7. FOR CUSTOM SLABS:

- A. USE SLAB DIMENSIONS SHOWN ON THE DISTRICT STANDARD DRAWINGS FOR DESIGN SLAB THICKNESS. LENGTHS AND WIDTHS OF EACH CUSTOM SLAB SHALL BE ACCURATE DIMENSIONS BASED ON FIELD SURVEY DATA COLLECTED BY THE CONTRACTOR TO DEVELOP WORKING DRAWINGS FOR THE SLAB. MINIMUM AND MAXIMUM DIMENSIONS FOR LENGTHS AND WIDTHS ARE NOTED ON THE STANDARD DRAWINGS.
- B. FOR ANY CUSTOM SLAB FABRICATED TO REPLACE EXISTING WARPED PAVEMENT AT AN ISOLATED LOCATION, THE CUSTOM SLAB SHALL BE FABRICATED ON A SINGLE PLANE. THE SLAB THICKNESS OR BEDDING MATERIAL SHALL BE ADJUSTED TO ALLOW FOR THE ELEVATION OF ALL FOUR (4) CORNERS OF THE CUSTOM SLAB TO BE FLUSH OR HIGHER THAN THE EXISTING OR ADJOINING PAVEMENT WHEN INSTALLED. THE SURFACE OF ALL CUSTOM SLABS REPLACING WARPED PAVEMENT SHALL RECEIVE A COMPLETE PROFILE DIAMOND GRIND AFTER INSTALLATION AND GROUTING TO PROVIDE A SMOOTH SURFACE AND LEAVE ALL EDGES FLUSH WITH THE ADJOINING PAVEMENTS. THE PROFILE GRINDING OPERATION FOR CUSTOM SLABS REPLACING ANY WARPED PAVEMENTS, ON CURVED RAMPS OR SUPERELEVATED MAINLINE SECTIONS, SHALL BE IN ACCORDANCE WITH CONTRACT SPECIAL PROVISIONS FOR PROFILE DIAMOND GRINDING PRECAST CONCRETE PAVEMENT SLABS AND PAID FOR SEPARATELY. FOR CONSECUTIVELY PLACED CUSTOM SLABS FABRICATED TO REPLACE EXISTING WARPED PAVEMENT, FULL SURVEYS FOR X, Y, AND Z DIMENSIONS SHALL BE TAKEN BY THE CONTRACTOR BEFORE FABRICATION IN ORDER TO MATCH EXISTING GRADES AT ALL CORNERS DURING INSTALLATION.
- C. FOR ALL CUSTOM SLABS WITH WIDE OPEN SLOTS, THE DOWEL BARS SHALL BE FULLY RETROFITTED INTO ADJACENT PAVEMENT SLABS DURING FIELD INSTALLATION OF THE PRECAST SLAB IN ACCORDANCE WITH CONTRACT SPECIFICATIONS AND GENERAL NOTES FOR INSTALLATION.
- D. FOR ALL CUSTOM SLABS WITH NARROW ELONGATED PREFORMED DOWEL SLOTS, THE DOWEL BARS SHALL BE SLID INTO PREDRILLED HOLES IN THE ADJACENT PAVEMENT SLABS DURING FIELD INSTALLATION OF THE PRECAST SLAB IN ACCORDANCE WITH CONTRACT SPECIFICATIONS AND GENERAL NOTES FOR INSTALLATION.

8. ALL FABRICATED SLABS:

- A. THE MAXIMUM ALLOWABLE JOINT WIDTH CAN NOT BE LESS THAN THE TOTAL OF THE ALLOWABLE SLAB FABRICATION TOLERANCES.
- B. BEDDING GROUT PORT HOLES SHALL BE LOCATED ON TRANSVERSE LINES ACROSS THE SLAB THAT ARE PARALLEL WITH EXISTING TRANSVERSE JOINTS. EACH PORT HOLE SHALL BE EVENLY DISTRIBUTED ON EACH LINE. THE DISTANCE BETWEEN BEDDING GROUT PORT HOLES SHALL NOT EXCEED 4'-0", WITH THE PORT HOLES AT THE END OF THE TRANSVERSE LINES TO BE NO LESS THAN 1'-8" AND NO MORE THAN 3'-0" OFF A LONGITUDINAL JOINT. THE TRANSVERSE LINES FOR PORT HOLES SHALL BE NO MORE THAN 4'-0" APART, AND NO LESS THAN 1'-8" AND NO MORE THAN 2'-6" OFF OF A TRANSVERSE JOINT.
- C. RECESS LIFTING DEVICES 1" MINIMUM BELOW THE SURFACE OF THE SLAB TO ALLOW FOR A MINIMUM GROUT COVER OF 1" ON SLABS THAT WILL NOT BE OVERLAID.

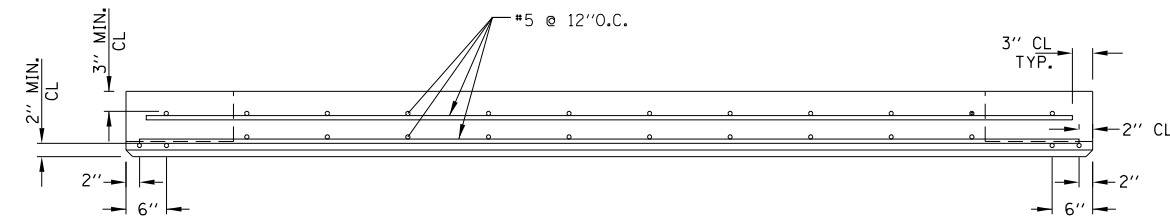
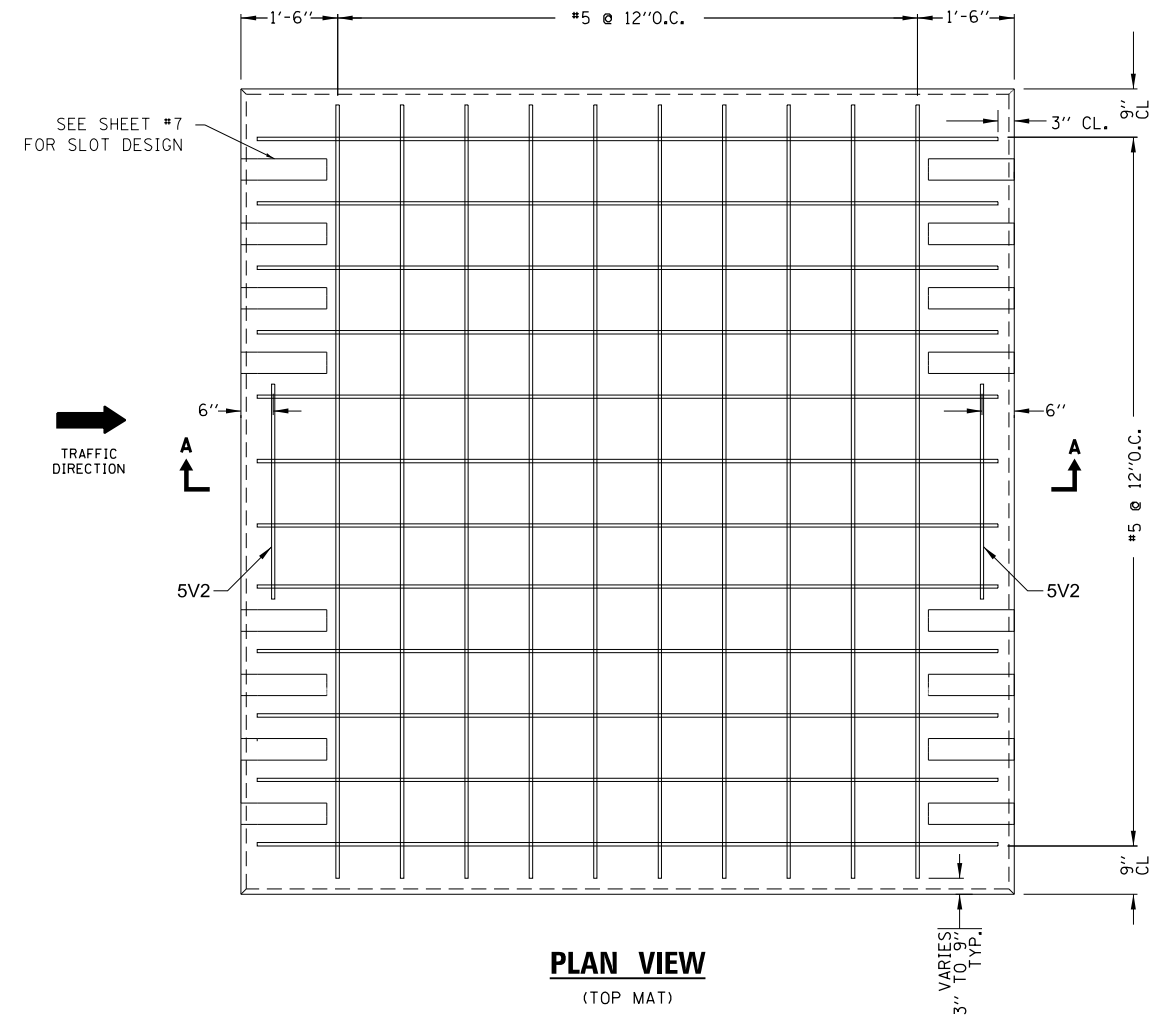
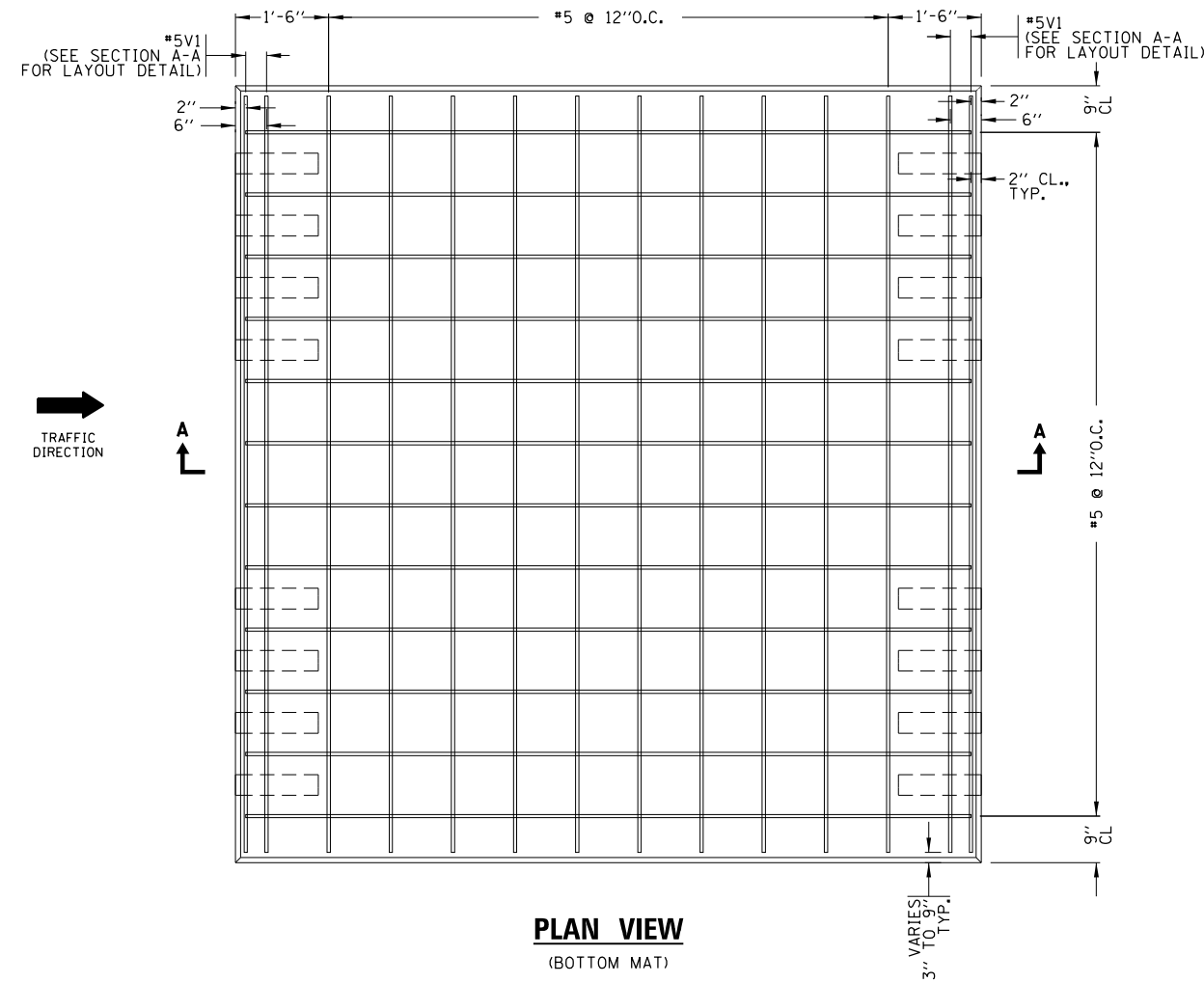
**FABRICATION:**

9. PREPARE WORKING DRAWINGS THAT SHALL INCLUDE THE FOLLOWING INFORMATION:
  - A. SLAB LAYOUT DRAWING FOR TYPICAL STANDARD SLABS AND FOR EACH CUSTOM SLAB TO BE FABRICATED, WITH ACCURATE DIMENSIONS CITED.
  - B. REINFORCEMENT SIZES, SPACING, NUMBER OF MATS, AND METHOD OF MAINTAINING CONCRETE COVER.
  - C. SIZES AND LOCATIONS FOR EMBEDDED DOWELS, OF DOWEL BARS TO BE RETROFITTED AFTER PLACEMENT OF THE SLAB, AND OF PREFORMED SLOTS AT THE FEMALE END OF STANDARD SLABS FOR CONSECUTIVE PLACEMENT.
  - D. SIZE AND LOCATION OF GROUT PORTS, LIFTING ANCHORS, AND GROUT SEAL GASKETS.
  - E. COMPRESSIVE STRENGTH AND AIR CONTENT OF CONCRETE.
  - F. CONCRETE CURING METHOD TO BE USED.
  - G. MARKING LEGEND FOR EACH SLAB TO INDICATE PRECAST MANUFACTURER, AND DATE OF PRODUCTION; AND FOR EACH CUSTOM SLAB TO INCLUDE CONTRACT NUMBER AND MARK NUMBER OF THE SLAB.
  - H. WEIGHT OF EACH SLAB.
10. PERFORM A PRE-POUR INSPECTION OF THE FORMS TO CONFIRM THAT THEY ARE ASSEMBLED IN ACCORDANCE WITH THE FOLLOWING TOLERANCES:
 

LENGTH AND WIDTH	± 1"8"
DIAGONALS	± 3"16"
DOWEL VARIANCE FROM LEVEL, SQUARENESS TO EDGE OF SLAB, AND LOCATION.	± 1"8"
EDGE SQUARENESS - 1"8" IN 10" (IN RELATION TO TOP AND BOTTOM SURFACES).	
11. INCLUDE A 1 INCH CHAMFER ALONG ALL BOTTOM EDGES OF SLABS, AND A STONED EDGE TO ALL TOP EDGES OF THE SLAB.
12. THE EXPOSED SURFACES OF ALL PREFORMED SLOTS FOR DOWEL BARS SHALL BE SANDBLASTED.
13. ACCURATELY SCREED TOP OF SLAB TO MEET SURFACE AND THICKNESS TOLERANCES.
14. APPLY EITHER AN ARTIFICIAL TURF DRAG FINISH TO TOP OF SLAB IN ACCORDANCE WITH ARTICLE 420.09(e)(2) OF THE STANDARD SPECIFICATIONS, OR A TINED FINISH IN ACCORDANCE WITH ARTICLE 420.09(e)(1) OF THE STANDARD SPECIFICATIONS AS INDICATED IN THE SLAB DESIGN SCHEDULE ON CONTRACT DRAWINGS.
15. AFTER REMOVAL OF FORMS AND ANY BLOCKOUTS, NO SPALLS OF THE FINISHED SURFACE WILL BE ALLOWED.

FILE NAME =	USER NAME = dettmnna	DESIGNED - O. PATEL	REVISED - D.G. 6-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PRECAST CONCRETE PAVEMENT SLABS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
Default	et:\pw\work\p\dot\dettmnna\d0230696\dstStd.dgn	DRAWN -	REVISED -		SCALE: NONE	SHEET 1	OF 19	SHEETS	STA.	TO STA.	353	23R-R5	COOK	66	40
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -		BD 57			CONTRACT NO. 60L94							
	PLOT DATE = 6/19/2014	DATE - 10-25-2013	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT										



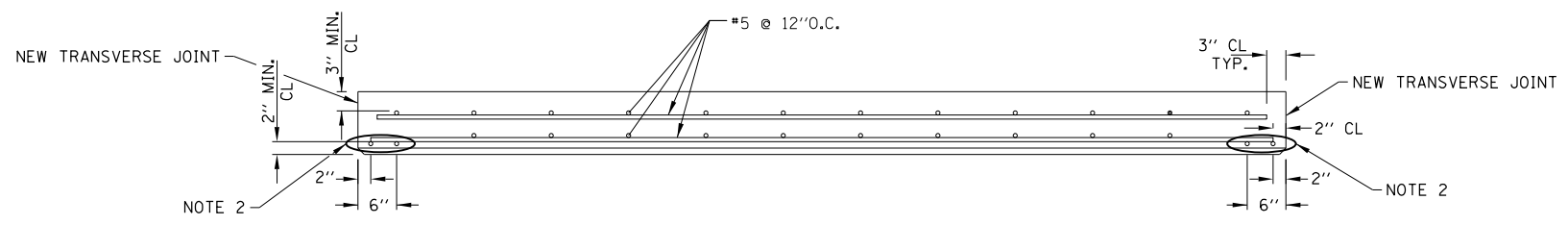
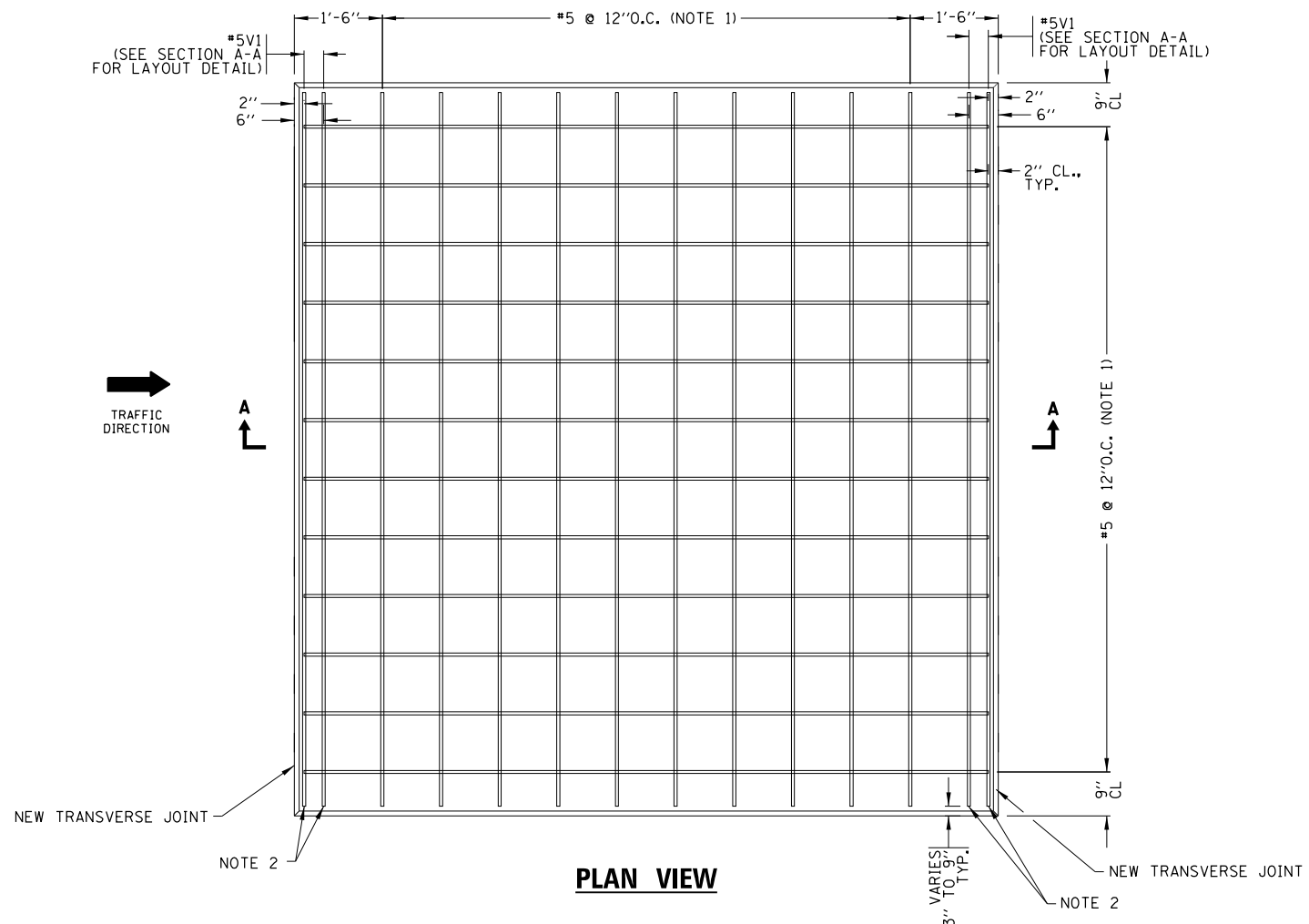


**REINFORCEMENT SECTION A-A**

ALL BARS ARE TRIM TO FIT #5 BAR  
SAW CUTS OFF LONGITUDINAL EDGES SHALL BE NO MORE THAN 6" OFF THE EDGES

# STANDARD SLAB TYPICAL REINFORCEMENT DETAIL

FILE NAME =	USER NAME = dettmnra	DESIGNED - O. PATEL	REVISED - D.G. 6-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PRECAST CONCRETE PAVEMENT SLABS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default	Plot Scale = 100.0000' / in.	CHECKED -	REVISED -					353	23R-R5	COOK	66	41
	PLOT DATE = 6/19/2014	DATE - 10-25-2013	REVISED -		SCALE: NONE SHEET 2 OF 19 SHEETS STA. TO STA.			<b>BD 57</b>		CONTRACT NO. 60L94		
ILLINOIS FED. AID PROJECT												

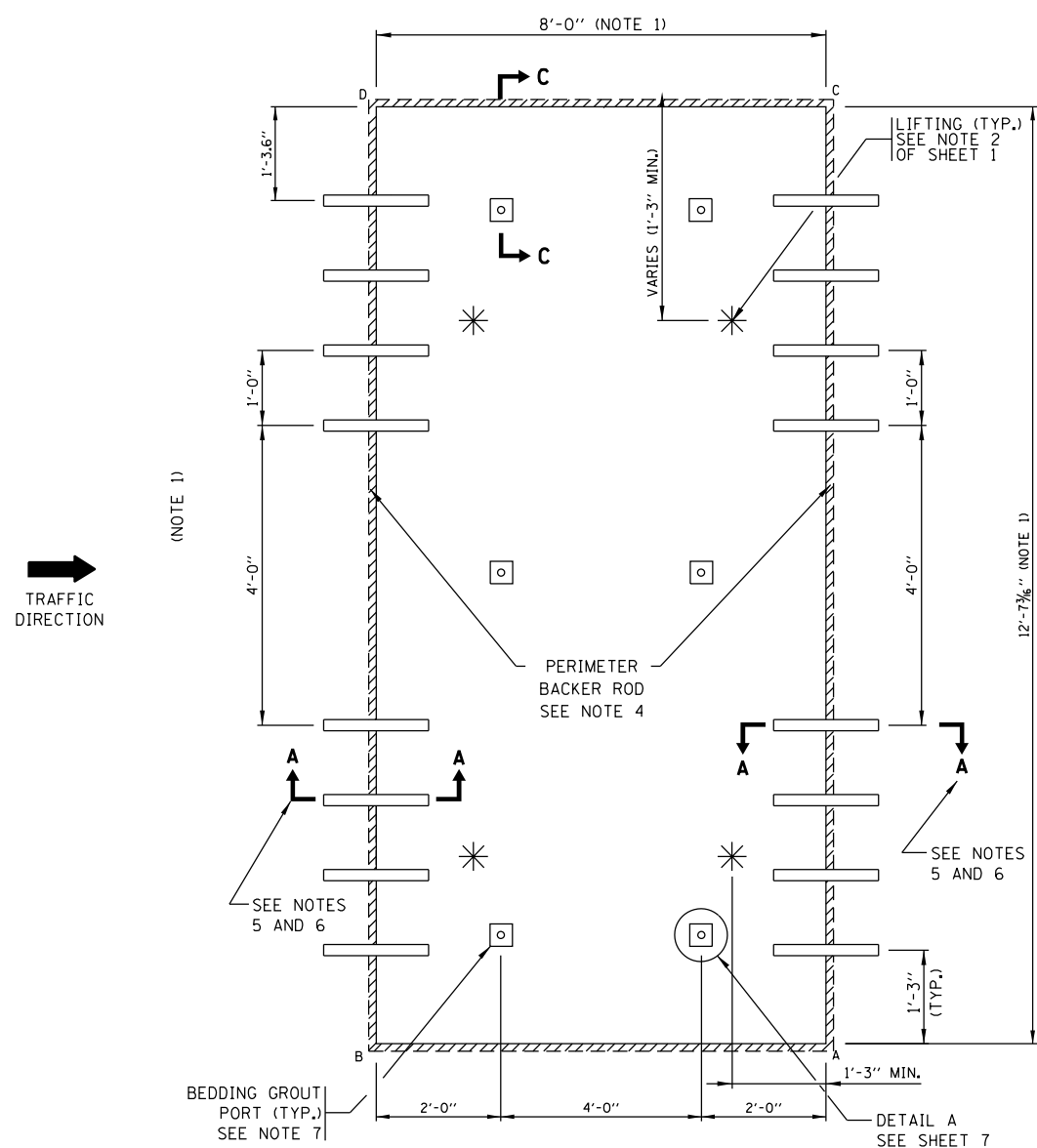


ALL BARS ARE TRIM TO FIT #5 BAR  
 SAW CUTS OFF LONGITUDINAL EDGES SHALL BE NO MORE THAN 6" OFF THE EDGES

- NOTES:**
1. FOR ALL CUSTOM SLABS OF TRAPEZOID SHAPES, THIS REINFORCEMENT SHALL BE LAID OUT IN A PERPENDICULAR GRID PATTERN, NOT SKEWED.
  2. THIS REINFORCEMENT SHALL BE PARALLEL TO THE NEW TRANSVERSE JOINT.

## CUSTOM SLAB TYPICAL REINFORCEMENT DETAIL

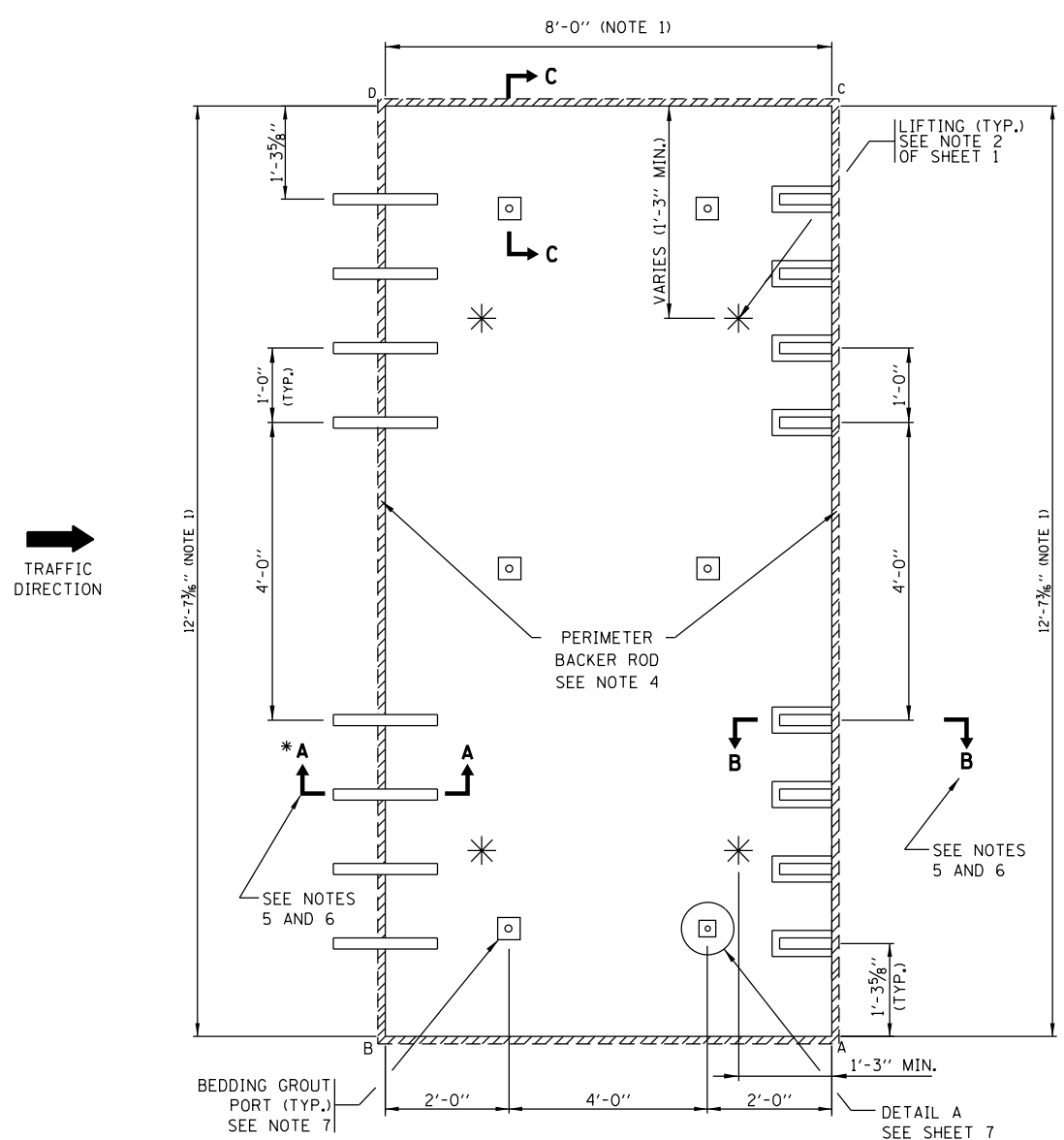
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Default	et:\pw\work\p\dot\dettmnra\d0230696\DetStd.dgn	DRAWN -	REVISED -					353	23R-R5	COOK	66	42
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	PLOT DATE = 6/19/2014	DATE - 10-25-2013	REVISED -		SCALE: NONE	SHEET 3	OF 19 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		



**STANDARD 12'-6" WIDE PANEL LAYOUT FOR ISOLATED PLACEMENT  
WITH EMBEDDED DOWELS FOR PRECAST WIDE MOUTH  
SLOTS IN ADJACENT PAVEMENT**

**NOTES:**

1. THE WIDTH AND LENGTH OF PRODUCED SLABS SHALL BE THE INDICATED DIMENSIONS  $\pm 1/8"$ .
2. FOR MIDDLE LANE SLAB OPENINGS/PATCHES LESS THAN 12'-6" IN WIDTH AND GREATER THAN 11'-6" IN WIDTH, THE STANDARD PERCAST SLAB CAN BE SAW CUT ON-SITE TO FIT THE OPENING AND TO MAINTAIN ALIGNMENT WITH EXISTING LONGITUDINAL JOINTS. OTHERWISE, THE SLAB PATCH LOCATION MUST BE PRESURVEYED BY THE CONTRACTOR AND THE SLAB FABRICATED AS A CUSTOM SLAB.
3. SLAB THICKNESS SHALL BE AS INDICATED IN THE PLANS.
4. A FOAM BACKER ROD SHALL BE PLACED AROUND THE OUTSIDE PERIMETER OF THE SLAB AT THE BOTTOM OF THE JOINTS BEFORE THE SLAB HAS BEEN SET AND BEFORE BEDDING GROUT OR POLYURETHANE LEVELING FILL IS APPLIED. THE BACKER ROD SHALL NOT BE REQUIRED WHEN ANY SLAB IS LEVELLED WITH FLOWABLE FILL.
5. SEE SHEET 7 FOR SECTION DETAILS.
6. IT SHALL BE THE CONTRACTOR'S OPTION TO REPLACE ANY EMBEDDED DOWEL BARS OR PREFORMED SLOTS AS SHOWN ON THESE DRAWINGS WITH FULLY RETROFITTED DOWEL BARS FIELD INSTALLED IN ACCORDANCE WITH "DETAIL C" OF SHEET 13. THE CONTRACTOR SHALL USE AN APPROVED TEMPLATE TO LOCATE THE SAW CUTS REQUIRED FOR PROPER SPACING AND RETROFITTING OF THE DOWEL BARS IN ACCORDANCE WITH THESE DRAWINGS. DIAMOND BLADED GANG SAWS SHALL BE USED TO MAKE SAW CUTS PERPENDICULAR TO THE TRANSVERSE (NON-SKEWED) JOINT LINE TO ALLOW FOR DOWEL BAR PLACEMENTS WITHIN THE SPECIFIED TOLERANCES.
7. SEE NOTE 8 ON SHEET 1 FOR LOCATING UNDERSEALING GROUT PORTS.



**STANDARD 12'-6" WIDE PANEL LAYOUT FOR CONSECUTIVE PLACEMENT**

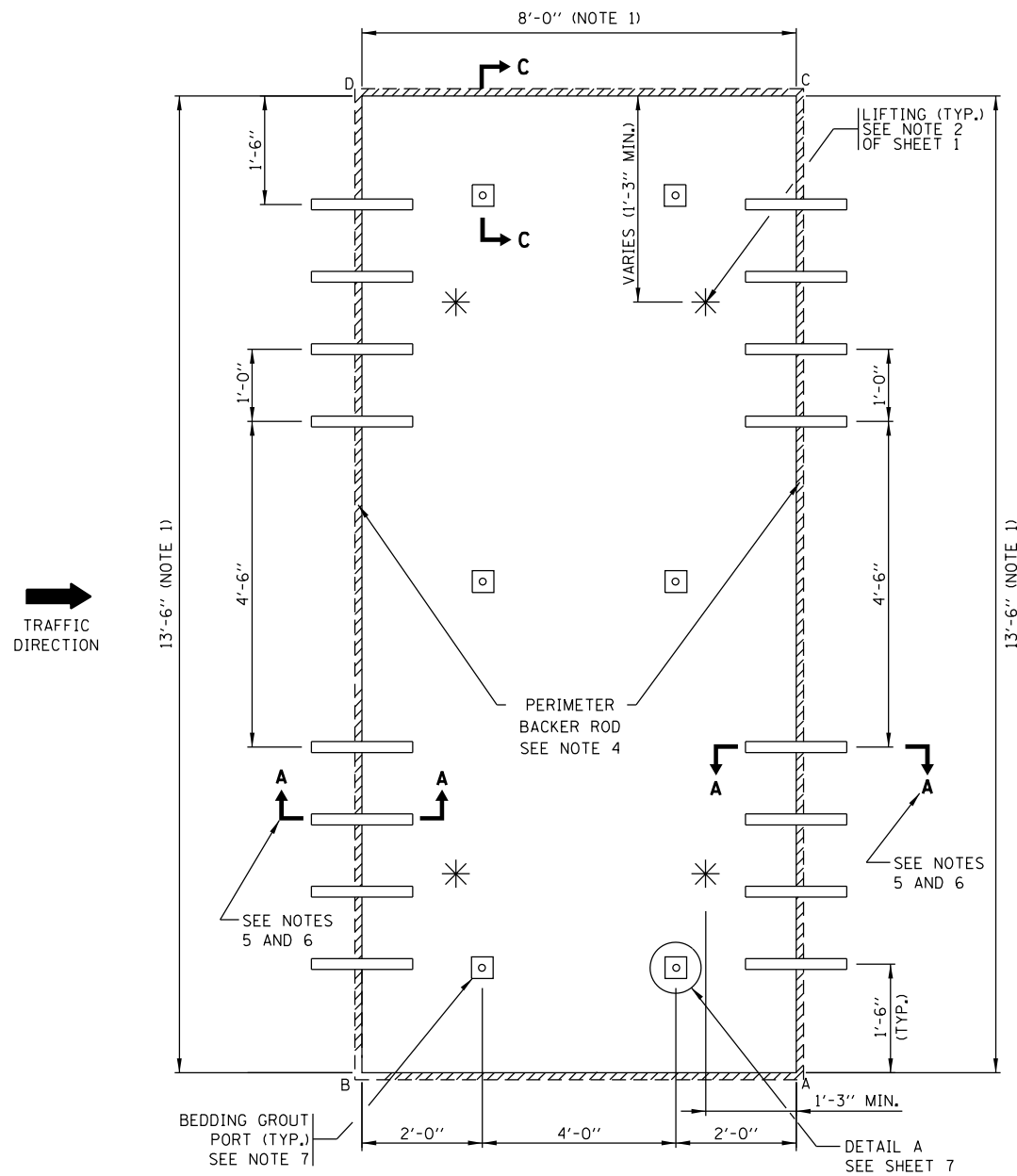
\* FOR INTERNAL CONSECUTIVE SLABS, PREFORMED SLOTS IN ACCORDANCE WITH SECTION B-B OF SHEET 4 MAY BE USED IN-PLACE OF EMBEDDED DOWELS OR OF FIELD RETROFITTED DOWEL BARS WITH SAWCUT SLOTS. ALL PREFORMED SLOTS MUST BE FILLED BEFORE BEING OPENED TO TRAFFIC.

FILE NAME =	USER NAME = dettmanna	DESIGNED - 0. PATEL	REVISED - D.G. 6-14
Default	Plot Scale = 100.0000' / in.	CHECKED -	REVISIED -
	PLOT DATE = 6/19/2014	DATE - 10-25-2013	REVISIED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>PRECAST CONCRETE PAVEMENT SLABS</b>			
SCALE: NONE	SHEET 4 OF 19 SHEETS	STA.	TO STA.

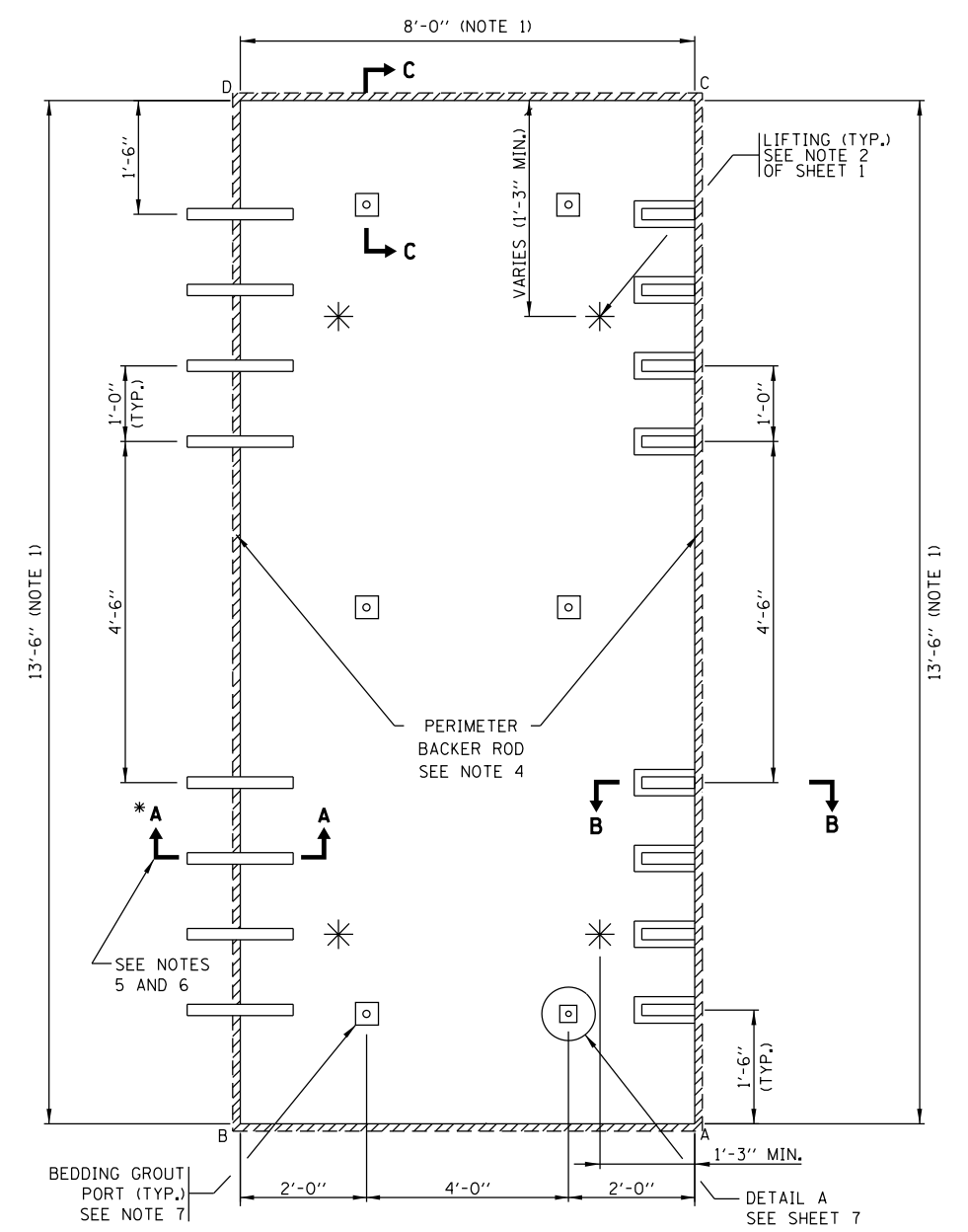
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	23R-R5	COOK	66	43
<b>BD 57</b>		<b>CONTRACT NO. 60L94</b>		
ILLINOIS FED. AID PROJECT				



**STANDARD 13'-6" WIDE PANEL LAYOUT FOR ISOLATED PLACEMENT WITH EMBEDDED DOWELS FOR PRECUT WIDE MOUTH SLOTS IN ADJACENT PAVEMENT.**

**NOTES:**

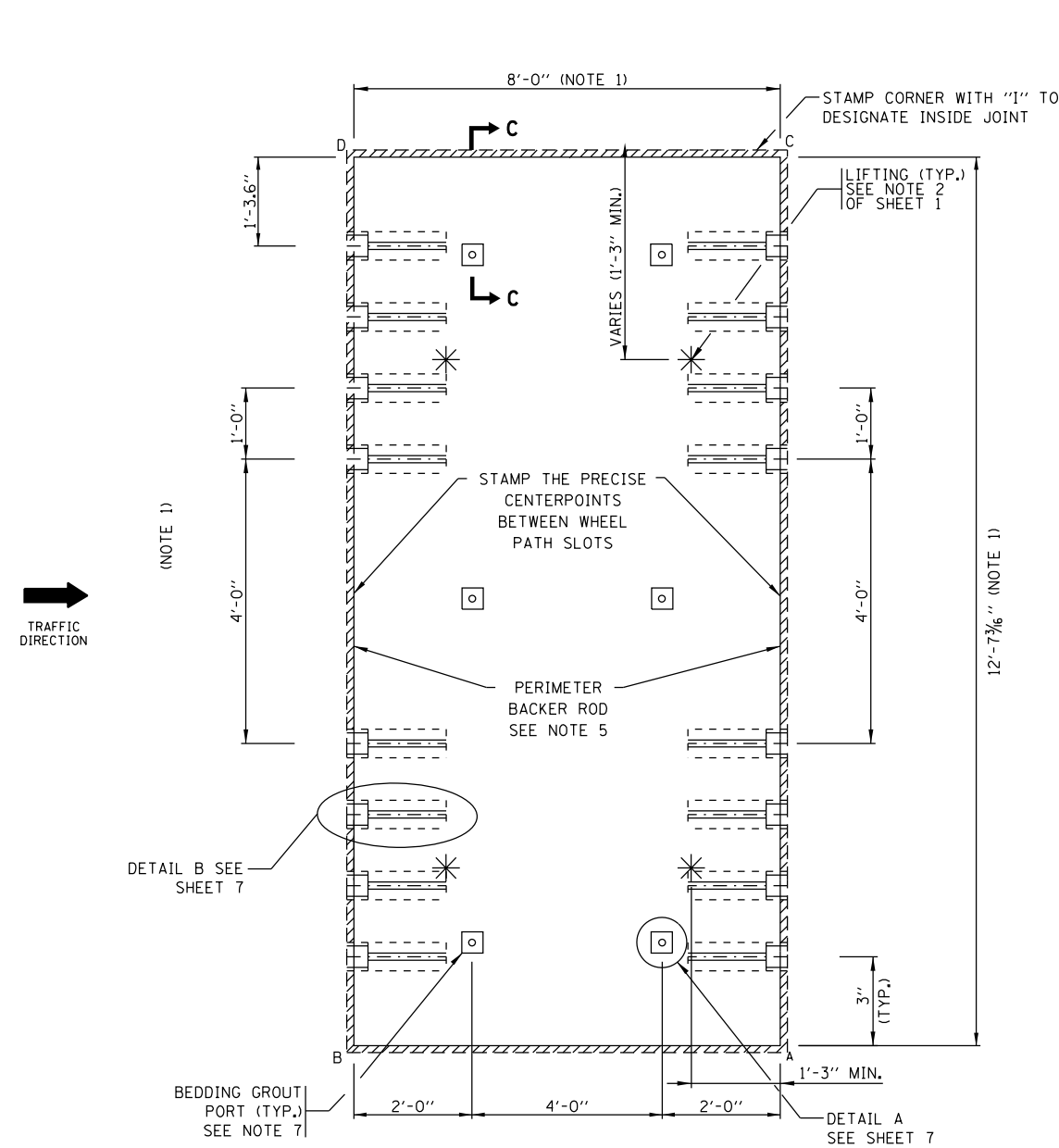
1. THE WIDTH AND LENGTH OF PRODUCED SLABS SHALL BE THE INDICATED DIMENSIONS  $\pm 1/8"$ .
2. FOR MIDDLE LANE SLAB OPENINGS/PATCHES LESS THAN 13'-6" IN WIDTH AND GREATER THAN 12'-6" IN WIDTH, THE STANDARD PERCAST SLAB CAN BE SAW CUT ON-SITE TO FIT THE OPENING AND TO MAINTAIN ALIGNMENT WITH EXISTING LONGITUDINAL JOINTS. OTHERWISE, THE SLAB PATCH LOCATION MUST BE PRESURVEYED BY THE CONTRACTOR AND THE SLAB FABRICATED AS A CUSTOM SLAB.
3. SLAB THICKNESS SHALL BE AS INDICATED IN THE PLANS.
4. A FOAM BACKER ROD SHALL BE PLACED AROUND THE OUTSIDE PERIMETER OF THE SLAB AT THE BOTTOM OF THE JOINTS BEFORE THE SLAB HAS BEEN SET AND BEFORE BEDDING GROUT OR POLYURETHANE LEVELING FILL IS APPLIED. THE BACKER ROD SHALL NOT BE REQUIRED WHEN ANY SLAB IS LEVELED WITH FLOWABLE FILL.
5. SEE SHEET 7 FOR SECTION DETAILS.
6. IT SHALL BE THE CONTRACTOR'S OPTION TO REPLACE ANY EMBEDDED DOWEL BARS OR PREFORMED SLOTS AS SHOWN ON THESE DRAWINGS WITH FULLY RETROFITTED DOWEL BARS FIELD INSTALLED IN ACCORDANCE WITH "DETAIL C" OF SHEET 13. THE CONTRACTOR SHALL USE AN APPROVED TEMPLATE TO LOCATE THE SAW CUTS REQUIRED FOR PROPER SPACING AND RETROFITTING OF THE DOWEL BARS IN ACCORDANCE WITH THESE DRAWINGS. DIAMOND BLADED GANG SAWS SHALL BE USED TO MAKE SAW CUTS PERPENDICULAR TO THE TRANSVERSE (NONSKewed) JOINT LINE TO ALLOW FOR DOWEL BAR PLACEMENTS WITHIN THE SPECIFIED TOLERANCES.
7. SEE NOTE 8 ON SHEET 1 FOR LOCATING UNDERSEALING GROUT PORTS.



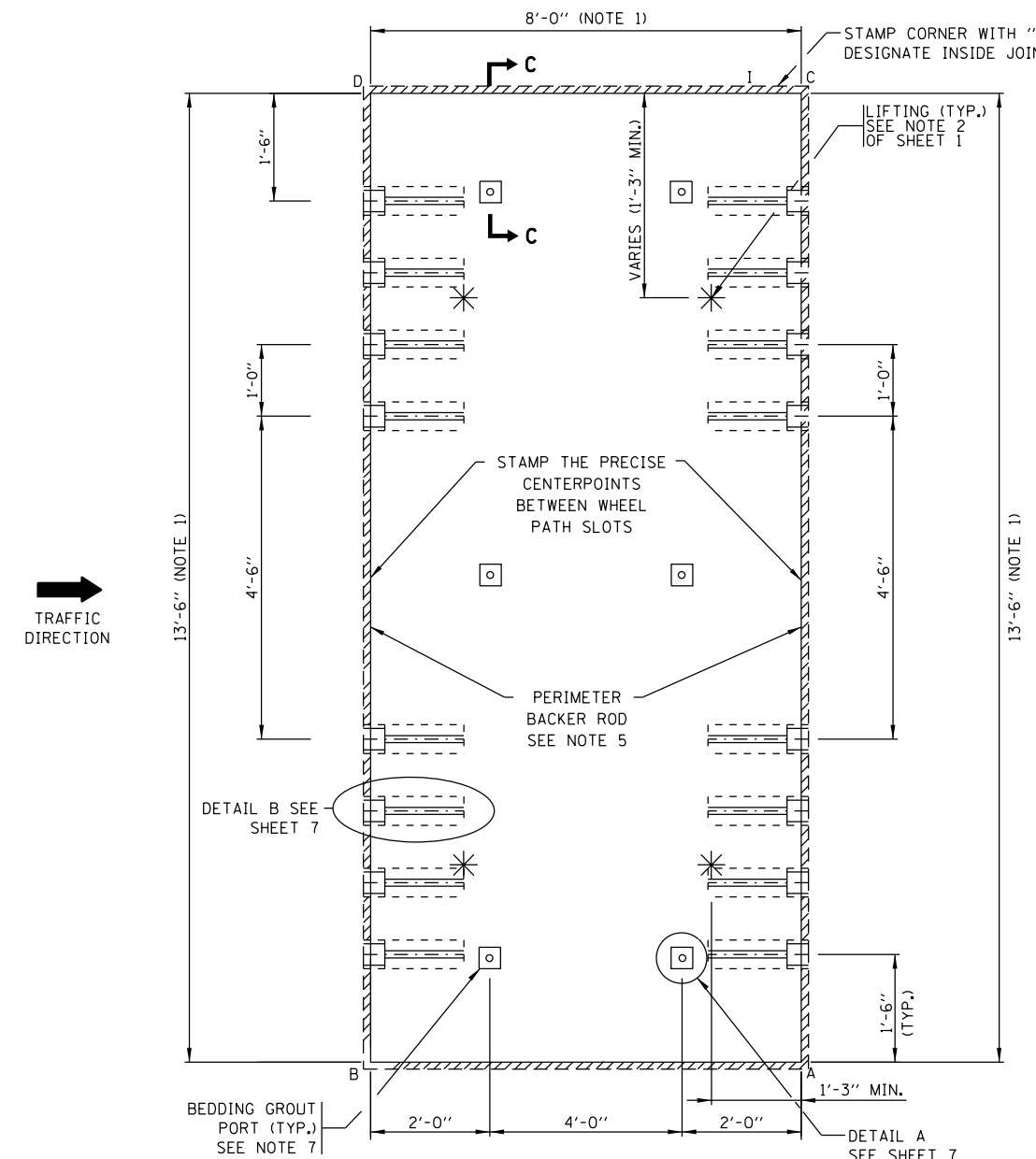
**STANDARD 13'-6" WIDE PANEL LAYOUT FOR CONSECUTIVE PLACEMENT**

\* FOR INTERNAL CONSECUTIVE SLABS, PREFORMED SLOTS IN ACCORDANCE WITH SECTION B-B OF SHEET 4 MAY BE USED IN-PLACE OF EMBEDDED DOWELS OR OF FIELD RETROFITTED DOWEL BARS WITH SAWCUT SLOTS. ALL PREFORMED SLOTS MUST BE FILLED BEFORE BEING OPENED TO TRAFFIC.

FILE NAME =	USER NAME = dettmanna	DESIGNED - 0. PATEL	REVISED - D.G. 6-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PRECAST CONCRETE PAVEMENT SLABS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
Default	Plot Scale = 100.0000' / in.	CHECKED -	REVISED -		SCALE: NONE	SHEET 5 OF 19 SHEETS	STA.	TO STA.	353	23R-R5	COOK	66	44
	PLOT DATE = 6/19/2014	DATE - 10-25-2013	REVISED -						<b>BD 57</b>		<b>CONTRACT NO. 60L94</b>		
									ILLINOIS FED. AID PROJECT				



**STANDARD 12'-6" WIDE PANEL LAYOUT FOR ISOLATED PLACEMENT WITH NARROW MOUTH PREFORMED DOWEL SLOTS TO ALIGN WITH PREDRILLED HOLES IN ADJACENT PAVEMENT.**

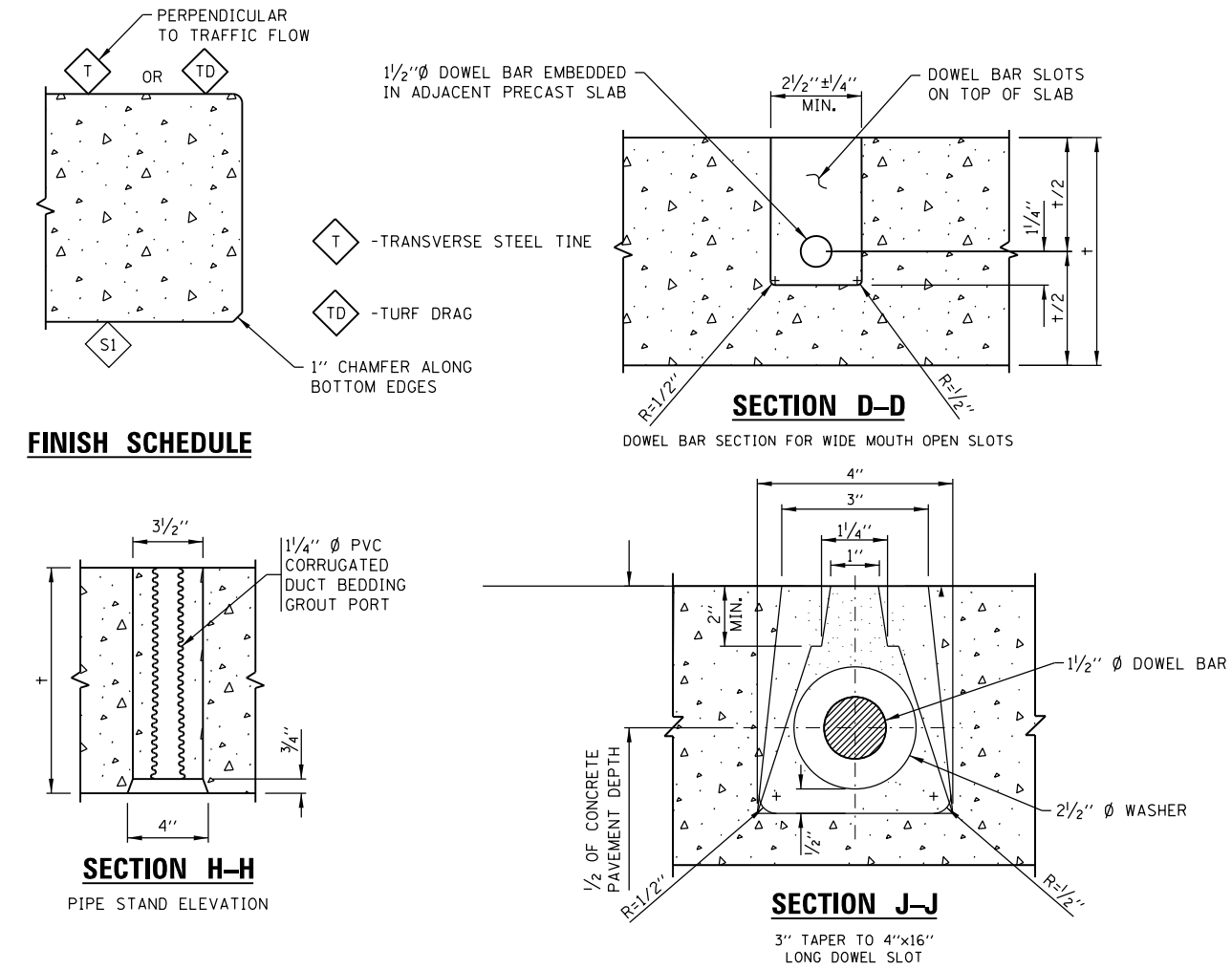
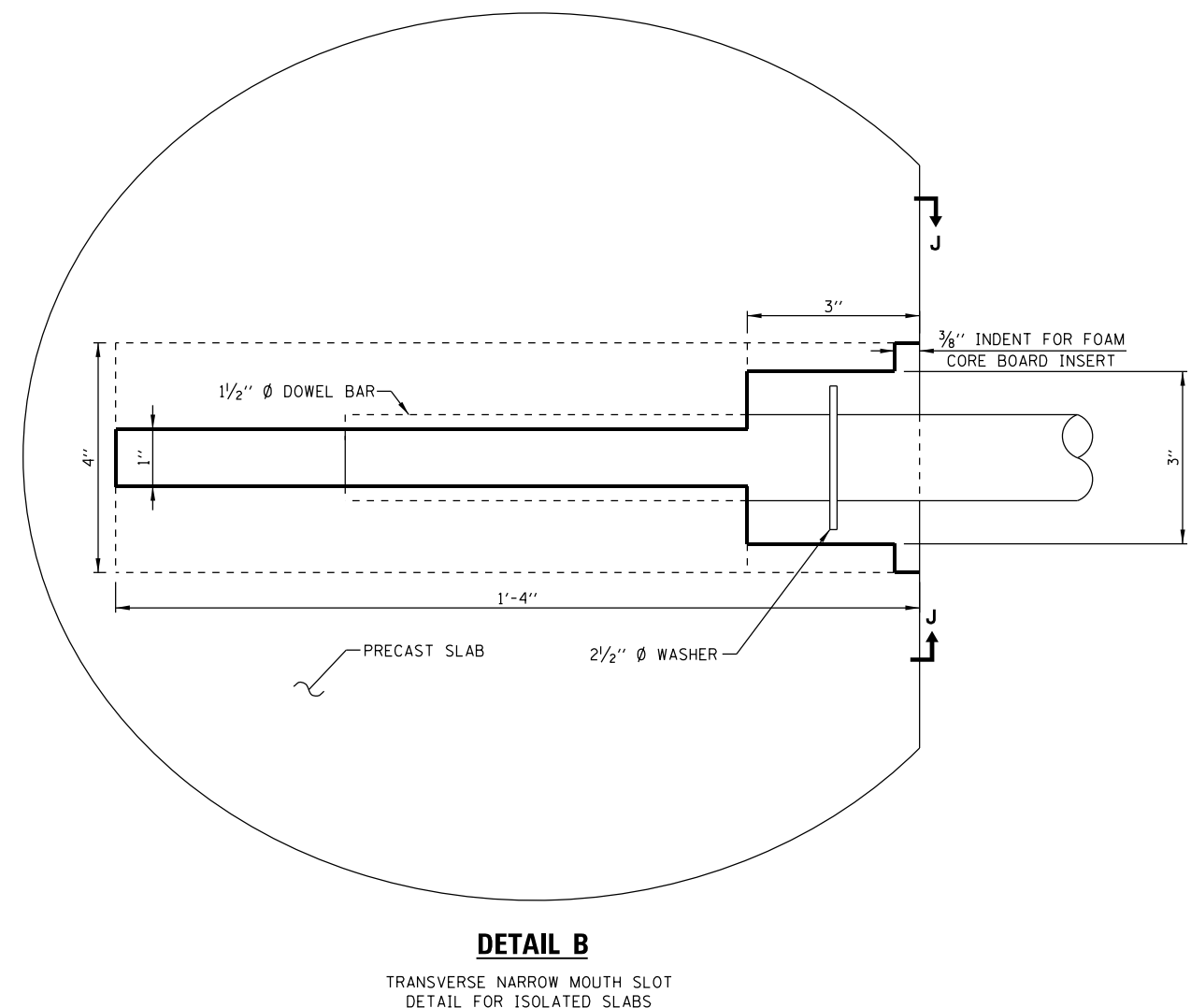
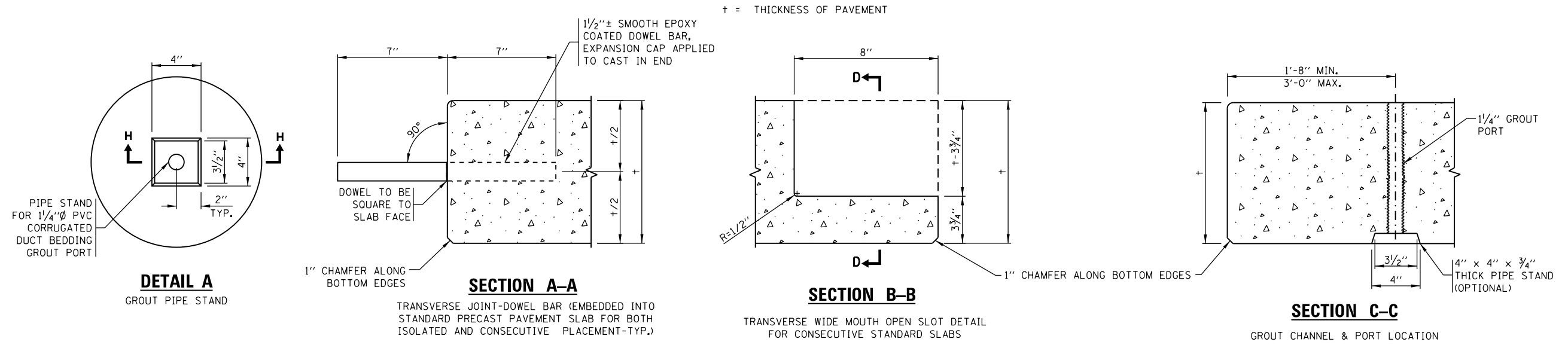


**STANDARD 13'-6" WIDE PANEL LAYOUT FOR ISOLATED PLACEMENT WITH NARROW MOUTH PREFORMED DOWEL SLOTS TO ALIGN WITH PREDRILLED HOLES IN ADJACENT PAVEMENT.**

**NOTES:**

1. THE WIDTH AND LENGTH OF PRODUCED SLABS SHALL BE THE INDICATED DIMENSIONS  $\pm 1/8"$ .
2. FOR MIDDLE LANE SLAB OPENINGS/PATCHES LESS THAN 12'-6" IN WIDTH AND GREATER THAN 11'-6" IN WIDTH, THE 12'-6" WIDE STANDARD PERCAST SLAB CAN BE SAW CUT ON-SITE TO FIT THE OPENING AND TO MAINTAIN ALIGNMENT WITH EXISTING LONGITUDINAL JOINTS. OTHERWISE, THE SLAB PATCH LOCATION MUST BE PRESURVEYED BY THE CONTRACTOR AND THE SLAB FABRICATED AS A CUSTOM SLAB.
3. FOR MIDDLE LANE SLAB OPENINGS/PATCHES LESS THAN 13'-6" IN WIDTH AND GREATER THAN 12'-6" IN WIDTH, THE 13'-6" WIDE STANDARD PERCAST SLAB CAN BE SAW CUT ON-SITE TO FIT THE OPENING AND TO MAINTAIN ALIGNMENT WITH EXISTING LONGITUDINAL JOINTS. OTHERWISE, THE SLAB PATCH LOCATION MUST BE PRESURVEYED BY THE CONTRACTOR AND THE SLAB FABRICATED AS A CUSTOM SLAB.
4. SLAB THICKNESS SHALL BE AS INDICATED IN THE PLANS.
5. A FOAM BACKER ROD SHALL BE PLACED AROUND THE OUTSIDE PERIMETER OF THE SLAB AT THE BOTTOM OF THE JOINTS BEFORE THE SLAB HAS BEEN SET AND BEFORE BEDDING GROUT OR POLYURETHANE LEVELING FILL IS APPLIED. THE BACKER ROD SHALL NOT BE REQUIRED WHEN ANY SLAB IS LEVELLED WITH FLOWABLE FILL.
6. SEE SHEET 7 FOR SECTION DETAILS.
7. SEE NOTE 8 ON SHEET 1 FOR LOCATING UNDERSEALING GROUT PORTS.

FILE NAME =	USER NAME = dettmanna	DESIGNED - O. PATEL	REVISED - D.G. 6-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PRECAST CONCRETE PAVEMENT SLABS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default	Plot Scale = 100.0000' / in.	CHECKED -	REVISED -					353	23R-R5	COOK	66	45
	PLOT DATE = 6/19/2014	DATE - 10-25-2013	REVISED -		SCALE: NONE    SHEET 6 OF 19 SHEETS    STA.    TO STA.			<b>BD 57</b>		<b>CONTRACT NO. 60L94</b>		
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# FABRICATION DETAILS

FILE NAME =	USER NAME = dettmanna	DESIGNED - O. PATEL	REVISED - D.G. 6-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PRECAST CONCRETE PAVEMENT SLABS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default	Plot Scale = 100.0000' / in.	CHECKED -	REVISED -					353	23R-R5	COOK	66	46
	PLOT DATE = 6/19/2014	DATE - 10-25-2013	REVISED -					<b>BD 57</b>		<b>CONTRACT NO. 60L94</b>		
								ILLINOIS FED. AID PROJECT				

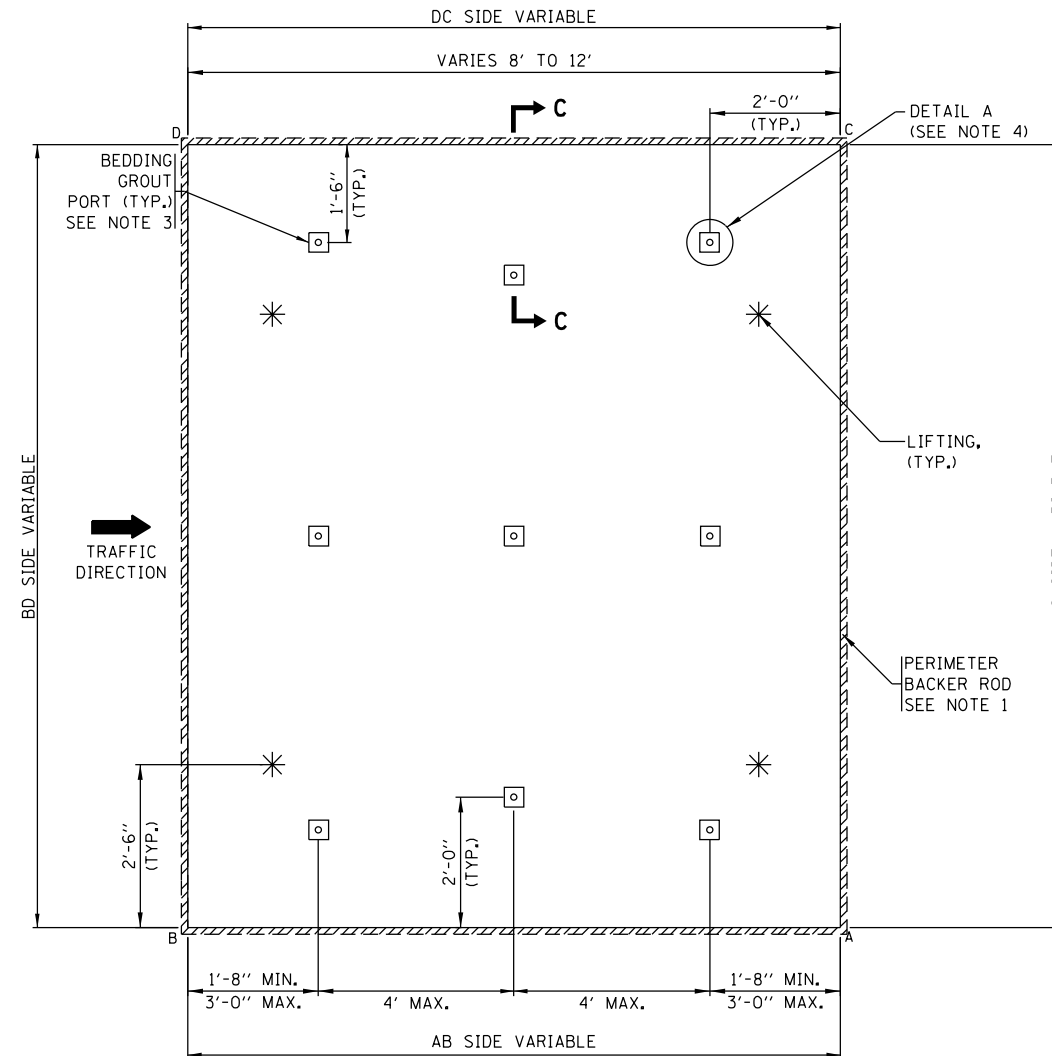
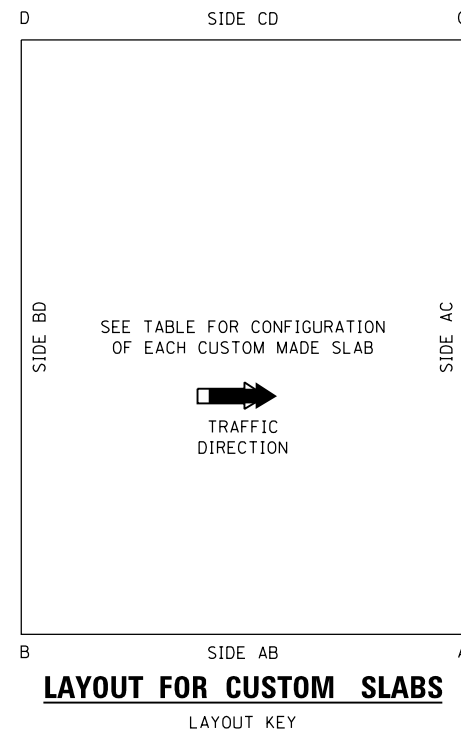
FOR NON STANDARD SLABS, UPON COMPLETION BY THE CONTRACTOR A SLAB LAYOUT WILL BE ADDED WITH SLAB DIMENSIONS TO INCLUDE BUT NOT BE LIMITED TO THE TABLE SHOWN BELOW.

EXAMPLE	ROUTE	STATION NUMBER	MAINLINE LANE NO.	RAMP ID.	RAMP LANE NO.	MARK NO.	LANE TYPE	VARIABLES (FT.)				AB* SIDE	BD* SIDE	CD* SIDE	AC* SIDE	AREA (SQ.FT.)	VOLUME (CU. FT.)	WEIGHT (TONS)	DIAGONALS (FT.)	
								AB (FT.)	AC (FT.)	BD (FT.)	CD (FT.)								AD	BC

MAINLINE LANE NO.: LANE NO. 1 IS ADJACENT TO MEDIAN SHOULDER.  
 RAMP LANE NO.: LANE NO. 1 IS ADJACENT TO THE BUILDING  
 MARK NO.: EACH PANEL SHALL BE INDIVIDUALLY MARKED FOR CORRECT PLACEMENT.  
 LANE TYPE: "OUT" IN THIS COLUMN INDICATES OUTSIDE LANE.  
 "MID" IN THIS COLUMN INDICATES MIDDLE LANE.  
 "IN" IN THIS COLUMN INDICATES INSIDE LANE

**\*LEGEND**

DB= DOWEL BAR EMBEDDED  
 DS= DOWEL SLOT  
 ST= SLOT OR HOLE FOR STITCHED TIE BAR  
 RD= FIELD RETROFITTED DOWEL BARS



**LAYOUT DETAIL FOR CUSTOM SLABS 8'-12' IN LENGTH (VARIED WIDTH)\*\***

\*\*FOR TRAPEZOID SLABS MINIMUM WIDTH IS 2 FT. WITH MAXIMUM WIDTH OF 16 FT.

**NOTES:**

1. A FOAM BACKER ROD SHALL BE PLACED AROUND THE OUTSIDE PERIMETER OF THE SLAB AT THE BOTTOM OF THE JOINTS BEFORE THE SLAB HAS BEEN SET AND BEFORE BEDDING GROUT OR POLYURETHANE LEVELING FILL IS APPLIED. THE BACKER ROD SHALL NOT BE REQUIRED WHEN ANY SLAB IS LEVELED WITH A FLOWABLE FILL.
2. EITHER SINGLE DIAMOND BLADED SAWS OR DIAMOND BLADED GANG SAWS SHALL BE USED TO MAKE THE SAW CUTS PERPENDICULAR TO THE TRANSVERSE (NONSKEWED) JOINT LINE TO ALLOW FOR DOWEL BAR PLACEMENTS WITHIN THE SPECIFIED TOLERANCES.
3. SEE NOTE 8 ON SHEET 1 FOR LOCATING BEDDING GROUT PORTS.
4. SEE SHEET 7 FOR SECTION DETAILS.

FILE NAME =	USER NAME = dettmnra	DESIGNED - O. PATEL	REVISED - D.G. 6-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PRECAST CONCRETE PAVEMENT SLABS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pw\work\p\dot\dettmnra\d0230696\0	estStd.dgn	DRAWN -	REVISED -					353	23R-RS	COOK	66	47
Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -					<b>BD 57</b>		<b>CONTRACT NO. 60L94</b>		
	PLOT DATE = 6/19/2014	DATE - 10-25-2013	REVISED -					SCALE: NONE	SHEET 8 OF 19 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT	

# INSTALLATION GENERAL NOTES

## ALIGNMENT:

1. WHEN THE TRANSVERSE JOINTS OF ANY PRECAST SLAB CAN NOT BE ALIGNED WITH TRANSVERSE JOINTS IN ADJACENT LANES, A MINIMUM 2'-0" OFFSET BETWEEN JOINTS SHALL BE PROVIDED.
2. THE LONGITUDINAL JOINT OF ANY ISOLATED OR CONSECUTIVE STANDARD PRECAST SLAB MUST BE ALIGNED TO BE PARALLEL WITH EXISTING LONGITUDINAL JOINTS. NO LONGITUDINAL OFFSETS SHALL BE ALLOWED. THE WIDTH OF ANY OF THE STANDARD PRECAST SLABS SHALL BE SAW CUT ON-SITE TO BE ALIGNED WITH THE EXISTING LONGITUDINAL JOINTS IN ADJACENT LANES OF EXISTING CONCRETE PAVEMENTS. THE WIDTH OF THE PRECAST SLAB SHALL BE NO MORE THAN 1/2 INCH LESS THAN THE WIDTH OF THE EXISTING SLAB BEING REPLACED. IF A STANDARD SLAB DOES NOT COMPLY WITH TOLERANCES FOR MAXIMUM AND MINIMUM WIDTHS FOR A DESIGNATED LOCATION, THEN A CUSTOM SLAB SHALL BE REQUIRED TO BE PRODUCED AND PLACED.
3. THE TRANSVERSE JOINT OF ANY PRECAST SLAB SHALL BE NO LESS THAN 4'-0" DISTANCE FROM AN EXISTING TRANSVERSE JOINT THAT REMAINS, OR NO LESS THAN 2'-0" DISTANCE PAST ANY EXISTING TRANSVERSE JOINT THAT IS REMOVED AND REPLACED WITH A PRECAST SLAB.
4. PRIOR TO THE PLACEMENT OF AN ISOLATED STANDARD PRECAST SLAB IN A MIDDLE LANE, THE WIDTH BETWEEN EXISTING LONGITUDINAL CONCRETE PAVEMENT JOINTS SHALL BE MEASURED BY THE CONTRACTOR UNDER MAINTENANCE OF TRAFFIC PROVIDED BY THE CONTRACTOR. ONLY APPROXIMATE WIDTHS SHALL BE MEASURED BY AND PROVIDED BY THE DESIGNER FOR BIDDING PURPOSES. THE CONTRACTOR'S WIDTH MEASUREMENTS SHALL BE USED TO DETERMINE THE NEED FOR ANY ON-SITE SAWCUTS OF THE LONGITUDINAL EDGES TO FIT THE OPENING AND TO ALIGN THE SAW CUT EDGE(S) WITH ANY EXISTING LONGITUDINAL JOINTS. THE LONGITUDINAL EDGES OF ANY STANDARD SLAB SHALL NOT BE SAW CUT MORE THAN 6 INCHES OFF THE ORIGINAL EDGE. NO NEW LONGITUDINAL JOINT SHALL BE ALLOWED INSIDE THE EXISTING JOINT BY MORE THAN 3/8 INCH. IF THESE TOLERANCES CAN NOT BE MET, THEN A CUSTOM SLAB SHALL BE REQUIRED. FOR ISOLATED STANDARDS SLABS PLACED IN THE OUTSIDE OR INSIDE LANES, THE NEW CONCRETE LONGITUDINAL JOINT SHALL MATCH THE EXISTING JOINT. THE STANDARD PRECAST SLAB MAY EXTEND INTO THE EXISTING HMA SHOULDERS NO MORE THAN 6 INCHES TO ALLOW FOR PROPER ALIGNMENT OF THE CONCRETE JOINTS. THE ONLY ALTERNATIVE TO ON-SITE SAW CUTTING OF ISOLATED STANDARD SIZES PRE-FABRICATED SLABS IS TO DESIGN AND FABRICATE EACH SLAB, TAKING WIDTH MEASUREMENTS AT THE BEGINNING OF A PROJECT AND THEN FABRICATING THE SLAB TO FIT THE SPECIFIC OPENING DIMENSIONS.
5. FOR STANDARD SLAB PLACEMENTS, A TEMPLATE SUPPLIED BY THE PRECAST FABRICATOR SHALL BE USED TO LOCATE THE PERIMETER SAW CUTS FOR THE SLAB. THE TEMPLATE MAY BE USED TO MARK LONGITUDINAL EDGE SAW CUT LOCATIONS ON A PRECAST SLAB TO FIT THE SAME PATCH OPENING THAT THE TEMPLATE WAS USED FOR TO LOCATE A PERIMETER SAW CUT. IF THE SLAB DOWEL BAR IS RETROFITTED OR FABRICATED FOR INSERTED DOWELS, THE TEMPLATE MAY ALSO BE USED FOR THE EMBEDDED /SLOTTED DOWEL BAR LOCATIONS TO BE RETROFITTED OR INSERTED INTO EXISTING PAVEMENT.

## LOAD TRANSFER:

6. ACROSS STANDARD SLABS
  - A. THE EMBEDDED DOWEL BARS OF ISOLATED STANDARD PRECAST SLABS SHALL BE RETROFITTED INTO EXISTING CONCRETE PAVEMENT IN ACCORDANCE WITH DETAIL D (SEE SHEET 14).
  - B. THE EMBEDDED DOWEL BARS OF CONSECUTIVE STANDARD SLABS SHALL BE:
    - i) RETROFITTED INTO THE EXISTING CONCRETE PAVEMENT AT THE LOCATION OF THE FIRST SLAB PLACEMENT IN ACCORDANCE WITH DETAIL D (SEE SHEET 14).
    - ii) RETROFITTED INTO THE PREFORMED SLOTS OF ADJACENT PRECAST SLABS IN ACCORDANCE WITH DETAIL E (SEE SHEET 15).
    - iii) EITHER FULLY RETROFITTED INTO THE PREFORMED SLOT OF THE LAST INSTALLED CONSECUTIVE PRECAST SLAB AND THE ADJACENT CONCRETE PAVEMENT IN ACCORDANCE WITH DETAIL F (SEE SHEET 16), OR PARTIALLY RETROFIT AN EMBEDDED DOWEL BAR OF A STANDARD ISOLATED SLAB INTO ADJACENT PAVEMENT AS THE LAST INSTALLED CONSECUTIVE PRECAST SLAB IN ACCORDANCE WITH DETAIL D (SEE SHEET 14).
  - C. FOR PRECAST STANDARD SLABS WITH NO EMBEDDED DOWEL BARS AND WITH NO NARROW MOUTH PREFORMED SLOTS FOR DOWEL INSERTIONS, THE DOWEL BARS SHALL BE FULLY RETROFITTED ACROSS ALL TRANSVERSE JOINTS IN THE FIELD IN ACCORDANCE WITH DETAIL C (SEE SHEET 13). THE LOCATIONS AND SPACING OF ALL FIELD RETROFITTED DOWEL BARS SHALL COMPLY WITH THE SPECIFIED TOLERANCES AS SHOWN ON SHEETS 4 AND 5.
  - D. FOR PRECAST STANDARD SLABS WITH LONG AND NARROW MOUTH PREFORMED SLOTS AS SHOWN ON SHEET 6, THE LOCATIONS FOR PREDRILLED HOLES FOR DOWEL BAR INSERTIONS SHALL BE ALIGNED WITH THE PREFORMED SLOTS IN THE SPECIFIC PANEL BEING PLACED. ONLY GANG DRILLS WILL BE USED TO DRILL THE HOLES. THE HOLES SHALL BE PARALLEL TO THE GRADE AND CENTERLINE OF THE PAVEMENT WITH A TOLERANCE OF 1/8 INCH IN 12 INCHES. THE DRILLING OPERATION SHALL NOT CRACK OR SPALL THE PAVEMENT. BEFORE SLAB PLACEMENT, THE DOWEL BARS SHALL BE PLACED WITHIN THE ELONGATED SLOTS AND THE PREDRILLED HOLES THOROUGHLY CLEANED OF DRILLING DEBRIS. AFTER SLAB PLACEMENT, THE DOWEL BARS WILL BE SLID INTO THE PREDRILLED HOLES AND EPOXIED IN ACCORDANCE WITH ARTICLE 442.06(g)(2) OF THE STANDARD SPECIFICATIONS WITH RETENTION DISKS OR WASHERS PLACED AGAINST THE FACE OF THE SLAB. SEE DETAIL G OF SHEET 17. IMMEDIATELY PRIOR TO FILLING THE PREFORMED SLOT WITH BACKFILL GROUT, THE EXPOSED ENDS OF THE DOWEL BARS SHALL BE CLEANED AND LIGHTLY OILED IN SUCH A MANNER AS TO NOT CONTAMINATE THE SURFACE OF ANY CLEANED SLOT AND THE FOAM CORE BOARD SHALL BE INSERTED AT THE FACE OF THE ADJACENT SLAB.

7. ACROSS CUSTOM MADE SLABS
  - A. THE DOWEL BARS OF CUSTOM DESIGNED PRECAST SLABS PLACED CONSECUTIVELY, PLACED ON WARPED GRADES, OR PLACED ON RAMPS SHALL BE FULLY RETROFITTED ACROSS THE JOINT IN THE FIELD IN ACCORDANCE WITH DETAIL C (SEE SHEET 13). FOR ALL SUCH CUSTOM SLABS, THE DOWELS BETWEEN ANY EXISTING CONCRETE PAVEMENT AND ANY ADJACENT PRECAST SLABS, AND BETWEEN CONSECUTIVELY PLACED CUSTOM PRECAST SLABS SHALL BE 1'-0" ON CENTER ACROSS THE ENTIRE JOINT.
  - B. THE DOWEL BARS OF CUSTOM DESIGNED ISOLATED PRECAST SLABS PLACED ON TANGENT MAINLINE PAVEMENT FOR MID SLAB CRACK REPAIR OR FOR JOINT REPLACEMENT CAN BE EITHER RETROFITTED ACROSS THE JOINT IN ACCORDANCE WITH DETAIL C (SEE SHEET 13), OR FULLY INSERTED INTO THE ADJACENT PAVEMENT IN ACCORDANCE WITH DETAIL G (SEE SHEET 17). THE LOCATIONS AND SPACING OF ALL FIELD RETROFITTED OR FIELD INSERTED DOWEL BARS SHALL COMPLY WITH THE SPECIFIED TOLERANCES AS SHOWN ON SHEETS 4 AND 5. FIELD INSERTION OF DOWEL BARS SHALL BE IN ACCORDANCE WITH NOTE 6(D) ABOVE.
  - C. NO END DOWEL BARS SHALL BE RETROFITTED OR INSERTED WITHIN 8" OR NO MORE THAN 1'-7" FROM THE CORNER OF THE PRECAST SLAB OR ADJOINING CONCRETE PAVEMENT SLAB THAT EXISTS.

## LONGITUDINAL TIE BAR STITCHING:

8. THE LOCATIONS OF LONGITUDINAL TIE BARS SHALL BE DETERMINED BASED ON THE CRITERIA THAT LONGITUDINAL TIES SHALL BE REQUIRED FOR ANY CLASS B FULL DEPTH REPAIR AND PRECAST REPAIR GREATER THAN 20 FT. IN LENGTH OR WITH ANY PRECAST REPAIR THAT REQUIRES MORE THAN 3 CONSECUTIVE PRECAST SLABS.
9. THE SPACING BETWEEN TIE BARS SHALL BE NO LESS THAN 24 INCHES. TIE BAR INSERTIONS SHALL BE NO LESS THAN 24 INCHES FROM ANY EXISTING TRANSVERSE JOINT OR FROM THE LOAD TRANSFER JOINTS OF ANY PLACED PRECAST SLAB OR CAST-IN-PLACE CONCRETE PATCH IN EITHER LANE ADJACENT TO THE LONGITUDINAL JOINT. THE PROCEDURE AND LOCATIONS FOR TIE BAR STITCHING SHALL BE IN ACCORDANCE WITH DETAIL H (SEE SHEET 19).

## MATERIALS:

10. FOR GRADE SUPPORTED PRECAST SLABS, THE BEDDING AND UNDERSEALING MATERIAL FOR LEVELING AND SUPPORT SHALL CONSIST OF:
  - A. LEVELING SAND SHALL BE 100% CRUSHED FINE AGGREGATE OF AN FA-6, FA-20, OR FA-21 GRADATION AS SPECIFIED IN SECTION 1003 OF THE STANDARD SPECIFICATIONS. THE FINE AGGREGATE SHALL BE REASONABLY FREE FROM AN EXCESS OF SOFT AND UNSOUND PARTICLES AND OTHER OBJECTIONABLE MATTER. THE TYPICAL THICKNESS OF THE LEVELING SAND LAYER SHALL BE APPROXIMATELY 1/4 INCH WITH A MAXIMUM THICKNESS OF 1 INCH.
  - B. FOR GRADE SUPPORTED SLABS, UNDERSEALING GROUT SHALL BE USED AFTER SLAB INSTALLATION TO FILL ALL VOIDS BENEATH THE PRECAST PANELS. THE MIXTURE USED FOR UNDERSEALING GROUT SHALL CONSIST OF PORTLAND CEMENT, FLY ASH, GROUND GRANULATED BLAST FURNACE SLAG (OPTIONAL), A SUPERPLASTICIZER, AND WATER ALL IN ACCORDANCE WITH DIVISION 1000 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL SUBMIT THE PROPOSED MIX DESIGN FOR UNDERSEALING GROUT TO THE ENGINEER FOR DEPARTMENT APPROVAL PRIOR TO PLACEMENT. THE UNDERSEALING GROUT PRODUCED SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
    - i) THE UNDERSEALING GROUT SHALL REMAIN FLUID AND NOT EXHIBIT A RESISTANCE TO FLOW FOR A MINIMUM OF ONE HOUR. THE GROUT MIXTURE SHALL HAVE A FLOW RATE OF 15 TO 25 SECONDS AS MEASURED BY ASTM C 939 TO ENSURE FLUIDITY.
    - ii) THE UNDERSEALING GROUT SHALL ACHIEVE AN INITIAL SET IN LESS THAN 4 HOURS AND A COMPRESSIVE STRENGTH AS MEASURED BY ASTM C 942 OF 300 PSI BEFORE OPENING THE SLAB TO TRAFFIC AND A COMPRESSIVE STRENGTH OF 500 PSI IN 12 HOURS.
11. FOR PRECAST SLABS SUPPORTED AND LEVELED BY FLOWABLE FILL PLACED BEFORE SLAB INSTALLATION, THE FLOWABLE FILL SHALL CONSIST OF PORTLAND CEMENT, FLY ASH, COARSE AND/OR FINE AGGREGATES, WATER, AND AIR ENTRAINING ADMIXTURE (OPTIONAL). THE CONTRACTOR SHALL SUBMIT THE PROPOSED MIX DESIGN FOR FLOWABLE FILL TO THE ENGINEER FOR DEPARTMENT APPROVAL PRIOR TO PLACEMENT. THE FLOWABLE FILL PRODUCED SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
  - i) PORTLAND CEMENT SHALL BE TYPE 1 CEMENT IN ACCORDANCE WITH SECTION 1001 OF THE STANDARD SPECIFICATIONS.
  - ii) FLY ASH SHALL BE IN ACCORDANCE WITH SECTION 1010 OF THE STANDARD SPECIFICATIONS.
  - iii) FINE AGGREGATE SHALL BE IN ACCORDANCE WITH SECTION 1003 OF THE STANDARD SPECIFICATIONS.
  - iv) COARSE AGGREGATE, IF USED, SHALL BE IN ACCORDANCE WITH SECTION 1004 OF THE STANDARD SPECIFICATIONS WITH A MAXIMUM AGGREGATE SIZE OF 12.5 MM.
  - v) IF AN AIR ENTRAINMENT ADMIXTURE IS USED, THE AIR CONTENT OF THE FLOWABLE FILL SHALL NOT EXCEED 35% OF THE FLOWABLE FILL VOLUME.
  - vi) THE COMPRESSIVE STRENGTH OF THE FLOWABLE FILL MIXTURE SHALL NOT BE LESS THAN 50 PSI AT 3 DAYS, NOR LESS THAN 75 PSI OR GREATER THAN 150 PSI AT 28 DAYS.
  - vii) THE FINAL SET TIME SHALL BE DETERMINED IN ACCORDANCE WITH ASTM C403 ON A TRIAL BATCH SPECIMEN.
  - viii) THE MAXIMUM THICKNESS OF THE LEVELING FILL SHALL BE 1 INCH.

12. FOR PRECAST SLABS SUPPORTED AND LEVELED BY HIGH-DENSITY FOAM PLACED AFTER SLAB INSTALLATION, THE HIGH-DENSITY FOAM SHALL BE EXPANDING POLYURETHANE FOAM HAVING A WATER INSOLUBLE DILUENT AND SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
 

DENSITY (LBS./CU. FT.)-AIR RISE	6.0 MIN.
TENSILE STRENGTH (PSI) ASTM D 1623	100 MIN.
ELONGATION (%)	5.1
COMPRESSIVE STRENGTH (PSI) ASTM D 1621 (AT YIELD)	100 MIN.
VOLUME CHANGE (% OF ORIGINAL)	0

THE MANUFACTURER SHALL PROVIDE DOCUMENTATION THAT THE LOT(S) OF FOAM MEETS THE SPECIFIED PROPERTIES. MANUFACTURER'S CERTIFICATION SHALL LIST LOT NUMBER(S) AND DOCUMENTATION OF COMPLIANCE WITH THE SPECIFICATION.

  - ii) THE MAXIMUM THICKNESS OF THE HIGH DENSITY FOAM SHALL BE 1 INCH.
13. HARDWARE GROUT/ADHESIVES
  - A. FOR DOWEL BAR RETROFITS OR INSERTIONS, FOR THE FILLING OF ANY GROUT PORT HOLES USED FOR HIGH DENSITY FOAM INJECTIONS, FOR THE FILLING OF DOWEL SLOTS AND FOR THE FILLING OF RECESSED LIFTING DEVICES, THE BACKFILL MATERIAL SHALL BE:
    - 1) FIVE STAR HIGHWAY PATCH AS MANUFACTURED BY FIVE STAR PRODUCTS INC. FAIRFIELD, CONNECTICUT.
    - 2) HIGHWAY DB RETROFIT MORTAR AS MANUFACTURED BY DAYTON SUPERIOR, MIAMISBURG, OHIO.
    - 3) A DEPARTMENT APPROVED EQUIVALENT THAT HAS BEEN TESTED AS A RAPID SET CONCRETE PATCHING MATERIAL PER THE AASHTO NATIONAL TRANSPORTATION PRODUCT EVALUATION PROGRAM (NTP), WHICH CONFORMS TO ASTM C 928. THE GROUT MATERIAL IS REQUIRED TO PROVIDE A COMPRESSIVE STRENGTH OF 4,000 PSI IN 24 HOURS (OPENING TO TRAFFIC AFTER 3,000 PSI) PER ASTM C 39. EXHIBITS EXPANSION OF LESS THAN 0.10 PERCENT PER ASTM C 531, AND HAS A CALCULATED DURABILITY FACTOR OF 90.0 PERCENT MINIMUM AT THE END OF 300 FREEZE-THAW CYCLES PER ASTM C 666. THE PROPOSED MATERIAL SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO ANY PLACEMENT.
  - B. FOR TIE BAR STITCHING AN APPROVED CHEMICAL ADHESIVE IN ACCORDANCE WITH ARTICLE 1027.01 OF THE STANDARD SPECIFICATIONS SHALL BE USED AS THE ANCHORING MATERIAL FOR STITCHED TIE BARS.
  - C. FOR DOWEL BAR INSERTIONS, AN APPROVED CHEMICAL ADHESIVE OR EPOXY IN ACCORDANCE WITH ARTICLE 1027.01 OF THE STANDARD SPECIFICATIONS SHALL BE USED WITH PLACEMENT IN ACCORDANCE WITH ARTICLE 442.06 (g)(2) OF THE STANDARD SPECIFICATIONS WITH RETENTION DISCS OR WASHERS PLACED AGAINST THE FACE OF THE SLAB.

14. EPOXY COATED DOWEL BARS SHALL COMPLY WITH THE REQUIREMENTS OF ARTICLE 1006.06 (b) OF THE STANDARD SPECIFICATIONS. ANY ADDITIONAL MATERIAL REQUIRED FOR DOWEL BAR RETROFITTING SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISION FOR "DOWEL BAR RETROFIT".
15. EPOXY COATED TIE BARS FOR STITCHING SHALL COMPLY WITH THE REQUIREMENTS OF ARTICLE 1006.10 OF THE STANDARD SPECIFICATIONS.
16. A CLOSED CELL PLASTIC FOAM BACKER ROD OF 3/8" DIAMETER SHALL BE PINNED OR NAILED TO THE FINISHED BASE AROUND THE PERIMETER OF EACH OPENING BEFORE THE PANELS ARE SET.

## EQUIPMENT:

17. FOR BASE PREPARATION, A MECHANICALLY-CONTROLLED SCREEDING DEVICE OR STRAIGHTEDGE DEVICE CAPABLE OF GRADING FULLY COMPACTED FINE AGGREGATE USED AS THE LEVELING SAND TO A TOLERANCE OF 1/8 INCH PER 6 FT. LENGTHS OF PLACEMENT.
18. CHIPPING HAMMERS SHALL BE HAND HELD AND HAVE A MAXIMUM WEIGHT OF 30 LBS. PRIOR TO ANY HANDLE MODIFICATION WHERE APPLICABLE.
19. WITH ANY FIELD RETROFITTING OF DOWEL BARS, A TEMPLATE SHALL BE ROUTINELY USED FOR ALL STANDARD SLABS IN ORDER TO LOCATE AND ALIGN THE SAWCUTS CONSISTENTLY. EITHER SINGLE DIAMOND BLADED SAWS OR DIAMOND BLADED GANG SAWS SHALL BE USED TO MAKE SAW CUTS PERPENDICULAR TO THE TRANSVERSE (NONSKewed) JOINT LINE TO ALLOW FOR DOWEL BAR PLACEMENTS WITHIN THE FOLLOWING TOLERANCES:
 

± 1/2 INCH OF THE MIDDLE OF THE CONCRETE SLAB DEPTH.
± 1/2 INCH OF BEING CENTERED OVER THE TRANSVERSE JOINT
± 1/4" FROM PARALLEL TO THE CENTERLINE OVER 12 INCHES OF THE BAR
± 1/4" FROM PARALLEL TO THE ROADWAY SURFACE OVER 12 INCHES OF THE BAR

SAWCUTS SAWED ACROSS SKEWED JOINTS SHOULD ALLOW EQUAL LENGTH OF THE DOWEL BAR TO BE PLACED ACROSS THE TRANSVERSE JOINT. THE ALIGNMENT OF SAWCUTS MUST BE PARALLEL TO THE ROADWAY CENTERLINE, REGARDLESS OF TRANSVERSE JOINT SKEW.

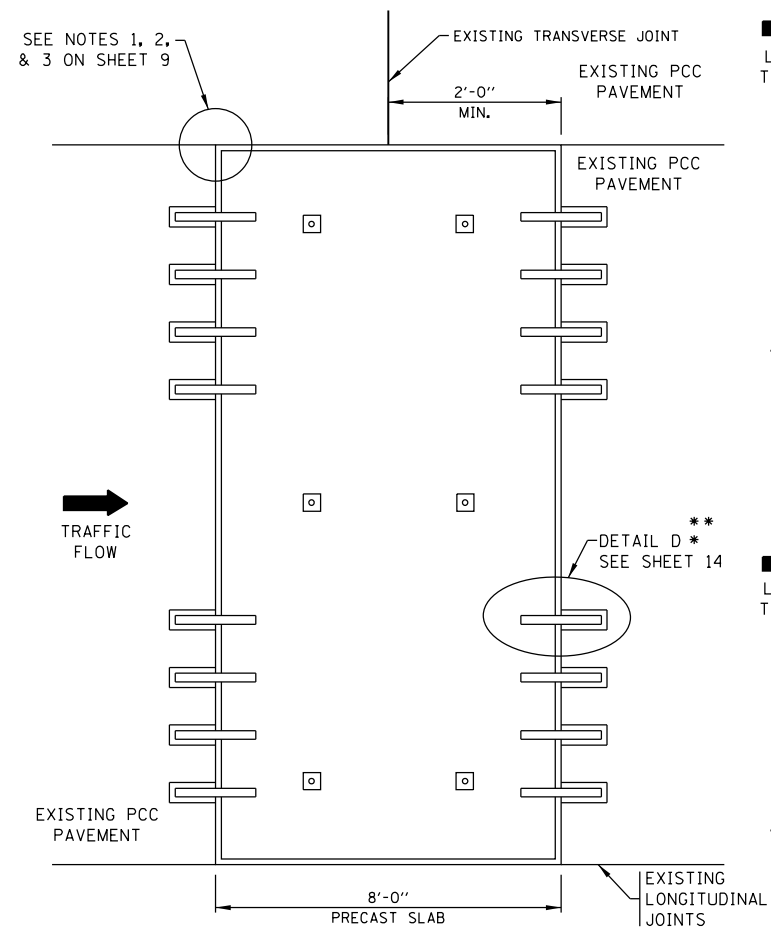
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# INSTALLATION GENERAL NOTES

20. WITH ANY FIELD INSERTIONS OF DOWEL BARS INTO PREDRILLED HOLES, THE DRILLING MACHINE SHALL BE IN ACCORDANCE WITH ARTICLE 442.03(g) OF THE STANDARD SPECIFICATIONS. HAND HELD DRILLING TOOLS WILL NOT BE ALLOWED.
  21. THE COMPRESSOR FOR AIR BLASTING SHALL HAVE A MINIMUM CAPACITY OF 120 CFM. THE COMPRESSED AIR SHALL BE FREE FROM OIL AND OTHER CONTAMINANTS.
  22. CONSOLIDATION EQUIPMENT USED TO CONSOLIDATE THE CONCRETE REPAIR MATERIAL IN THE RETROFITTED DOWEL BAR SLOTS SHALL BE INTERNAL VIBRATORS WITH A MAXIMUM DIAMETER OF 1 INCH AND SHALL HAVE A RESILIENT COVERING THAT WILL NOT DAMAGE THE EPOXY COATED REINFORCEMENT DURING USE. ANY VIBRATORS OR RODS USED FOR CONSOLIDATION OF THE REPAIR MATERIAL FOR NARROW MOUTH SLOTS SHALL HAVE A DIAMETER OF LESS THAN 1 INCH.
  23. BATCHING EQUIPMENT FOR FLOWABLE FILL SHALL HAVE DEVICES DESIGNED TO MEASURE THE SPECIFIED QUANTITIES OF EACH COMPONENT MATERIAL, AND MIXING SHALL BE OF SUFFICIENT DURATION TO INSURE UNIFORM CONSISTENCY OF THE MIXTURE. NO WATER WILL BE ADDED TO THE FLOWABLE FILL MIXTURE AFTER BATCHING. WATER CONTENT SHALL BE MAINTAINED SUCH THAT COMPRESSIVE STRENGTHS ARE ACHIEVED AND A UNIFORM, FLOWABLE MIXTURE IS DEVELOPED THAT IS ESSENTIALLY SELF-LEVELLING WHEN PLACED.
  24. EQUIPMENT FOR HIGH-DENSITY FOAM INJECTION SHALL INCLUDE A TRUCK MOUNTED PUMPING UNIT CAPABLE OF INJECTING THE POLYURETHANE BETWEEN THE CONCRETE AND THE SLAB SUBBASE. THE PUMP SHALL BE CAPABLE OF CONTROLLING THE RATE OF RISE OF THE PAVEMENT SLAB. A LEVELING UNIT SHALL BE PROVIDED TO ENSURE THE SLABS ARE RAISED TO AN EVEN PLANE, WITH VERTICAL ELEVATION DIFFERENCE ACROSS ANY CORNER NOT TO EXCEED 1/4 INCH.
  25. EQUIPMENT FOR MIXING AND PUMPING ANY GROUT/ADHESIVE MATERIALS FOR BEDDING THE SLABS, RETROFITTING DOWEL BARS, OR CROSS STITCHING TIE BARS SHALL BE IN ACCORDANCE WITH THE MATERIAL MANUFACTURER'S INSTRUCTIONS AND THE SPECIFICATIONS.
- REMOVAL /INSTALLATION:**
26. PERIMETER SAWCUTTING OF THE REMOVAL AREA AND SAWCUTTING OF THE DOWEL BAR SLOTS SHALL NOT BE CARRIED OUT MORE THAN (1) WEEK IN ADVANCE OF THE EXPECTED DATE OF REPAIR. THE CONTRACTOR SHALL USE A TEMPLATE TO PRECISELY DELINEATE THE LIMITS OF THE AREAS TO BE REPAIRED AS DEFINED ON THE CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS. WITHIN A TOLERANCE OF 1/2 INCH, REPAIRS SHALL BE NO LESS THAN THE FULL WIDTH OF A LANE AND THE FULL DEPTH OF CONCRETE.
  27. REMOVAL OF EXISTING PAVEMENT SHALL BE IN ACCORDANCE WITH SECTION 440 OF THE STANDARD SPECIFICATIONS EXCEPT AS FOLLOWS:
    - A. THE OUTER LIMITS OF THE REPAIR AREA WILL BE SAWCUT FULL DEPTH AND SHALL NOT EXTEND (OVERCUT) BY MORE THAN 10 INCHES INTO THE ADJACENT CONCRETE THAT IS TO REMAIN IN PLACE. OVERCUTS SHALL BE FILLED WITH A PRODUCT ACCEPTABLE TO THE DEPARTMENT. THE OUTER LIMITS FOR REPAIR SHALL BE MARKED OUT BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO ANY SAWCUTTING.
    - B. REMOVAL OF CONCRETE WITHIN THE PERIMETER SAWCUTS SHALL BE BY THE LIFT-OUT METHOD, AND CONCRETE BETWEEN SAWCUTS FOR DOWEL BAR RETROFITS SHALL BE REMOVED USING JACKHAMMER AND HAND TOOLS. THE CONTRACTOR SHALL ENSURE THAT REMOVALS ARE CARRIED OUT WITHOUT DAMAGING THE ADJACENT CONCRETE PAVEMENT OR ASPHALT SHOULDER OR DISTURBING THE UNDERLYING BASE. HEAVY BREAKING EQUIPMENT SUCH AS HOE RAMS SHALL NOT BE USED IN THE REMOVAL OPERATION. THE CONCRETE PAVEMENT SHALL NOT BE BROKEN IN PLACE.
    - C. IF DURING THE REMOVAL PROCESS THE ADJACENT CONCRETE IN THE SAME LANE OR IN AN ADJACENT LANE THAT CAN ONLY BE REPAIRED DURING NIGHT TIME LANE CLOSURES, IS DAMAGED OR CRACKED DUE TO THE CONTRACTOR'S REMOVAL PROCEDURE, THE DAMAGED AREA SHALL BE CUT BACK FULL DEPTH TO SOUND CONCRETE AND REPLACED WITH PRECAST SLABS AT THE CONTRACTOR'S EXPENSE. IF CONCRETE IN THE ADJOINING LANE IS DAMAGED DURING THE REMOVAL PROCESS AND WEEKEND REPAIRS ARE POSSIBLE, THE DAMAGED CONCRETE SHALL BE REPAIRED IN ACCORDANCE SECTION 442 OF THE STANDARD SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE. ASPHALT SHOULDER DAMAGED DURING THE REMOVAL PROCESS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL PROVIDE A PROPOSAL FOR REPAIRS TO THE ENGINEER FOR DEPARTMENT APPROVAL.
    - D. DISPOSAL OF EXCAVATED MATERIALS FROM THE REMOVAL OF CONCRETE SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.
    - E. ALL SLURRY FROM SAW CUTTING OPERATIONS SHALL BE THOROUGHLY SCRAPPED AND REMOVED FROM THE PAVEMENT SURFACE BEFORE THE PAVEMENT IS OPENED TO TRAFFIC. DISPOSAL OF SLURRY SHALL BE IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AT THE CONTRACTORS EXPENSE.
  28. ANY AREAS OF SUBBASE WHICH ARE BELOW THE REQUIRED ELEVATION OF THE FINISHED SUBBASE, SHALL BE BUILT UP TO GRADE WITH SATISFACTORY COMPACTED GRANULAR MATERIAL.
  29. LEVELING MATERIAL PLACED BEFORE SLAB INSTALLATION SHALL BE EITHER A FLOWABLE FILL OR A FINE AGGREGATE MEETING THE REQUIREMENTS OF THIS CONTRACT DOCUMENT. FLOWABLE FILL SHALL BE USED AS A LEVELING MATERIAL ONLY ON TANGENT PAVEMENT SECTIONS. GRADE CONTROL SHALL BE ESTABLISHED FOR ALL LEVELING MATERIAL USING STRINGLINES, LASER GUIDANCE, OR OTHER APPROVED METHODS. THE TEMPERATURE OF THE FLOWABLE FILL MIXTURE AS MANUFACTURED AND DELIVERED SHALL BE AT LEAST 50<sup>3</sup>/<sub>4</sub> F. NO FLOWABLE FILL WILL BE ALLOWED IF THE ANTICIPATED AIR TEMPERATURE WILL BE 36<sup>3</sup>/<sub>4</sub> F OR LESS WITHIN 24 HOURS OF SLAB PLACEMENT. THE FLOWABLE FILL MUST OBTAIN FINAL SET BEFORE THE PAVEMENT MAY BE OPENED TO TRAFFIC.
  30. WHEN FLOWABLE FILL IS USED AS THE LEVELING MATERIAL WITH SLAB INSTALLATION, A PERIMETER BACKER ROD WILL NOT BE REQUIRED AROUND THE PERIMETER OF THE SLAB.
  31. LEVELING MATERIAL PLACED IMMEDIATELY AFTER SLAB INSTALLATION SHALL ONLY BE A HIGH-DENSITY POLYURETHANE FOAM MEETING THE REQUIREMENTS OF THIS CONTRACT DOCUMENT. PLACEMENT OF POLYURETHANE FOAM SHALL FILL ALL VOIDS BENEATH THE PRECAST PANELS THAT MAY BE PRESENT AFTER PLACING THE PANELS OVER THE PREPARED SUBBASE AND LEVELING AGGREGATE. PLACEMENT OF THE POLYURETHANE SHALL UTILIZE THE UNDERSLAB GROUT PORT HOLES AS SHOWN ON THE PLANS. THE PORT HOLES ARE TO BE FILLED WITH THE DOWEL BAR BACKFILLING MATERIAL.
  32. FOLLOWING PROPER REMOVAL OF EXISTING PAVEMENTS AND ACCEPTABLE BASE PREPARATION/LEVELING, THE CONTRACTOR SHALL HAVE ALL EQUIPMENT REQUIRED FOR PANEL INSTALLATION ON-SITE PRIOR TO BEGINNING PANEL INSTALLATION. LIFTING AND TRANSPORTING EQUIPMENT SHALL NOT DAMAGE THE PREPARED SUBBASE/LEVELING MATERIALS PRIOR TO OR DURING PANEL INSTALLATION. PRIOR TO SLAB INSTALLATION, ALL VERTICAL SURFACES OF SURROUNDING PAVEMENT SHALL BE COATED WITH A BOND BREAKER SUCH AS FORM OIL OR A CURING COMPOUND.
  33. PANELS SHALL BE INSTALLED ONE AT A TIME, AND SHALL BE INSTALLED IN SUCH A MANNER THAT THE SUBBASE/LEVELING MATERIAL OR ANY REMAINING PAVEMENT IS NOT DAMAGED DURING INSTALLATION. DURING PLACEMENT OF THE SLABS, USE TIE OFF ROPES TO AVOID CHIPPING OR SPALLING EDGES OF THE PRECAST UNITS. USE WOOD SHIMS OR WEDGES TO GUIDE THE SLAB INTO THE CORRECT POSITION. THE USE OF STEEL PRY BARS THAT CHIP EDGES SHOULD BE AVOIDED.
  34. IMMEDIATELY AFTER THE SLAB HAS BEEN SET AND LEVELED, SURVEY THE VERTICAL ELEVATION ACROSS ALL CORNERS TO VERIFY THAT THE VERTICAL DIFFERENCE BETWEEN ADJACENT SLABS ACROSS ANY CORNER DOES NOT EXCEED 1/4 INCH. IF THE DIFFERENCE EXCEEDS 1/4 INCH, THAN THE SLAB SHALL BE REMOVED AND RESET OR THE SURFACE SHALL RECEIVE A CORRECTIVE DIAMOND GRIND AT THE CONTRACTORS EXPENSE AFTER ANY REQUIRED BEDDING GROUT OR LEVELING MATERIAL HAS BEEN PLACED UNLESS COMPLETE PROFILE DIAMOND GRINDING OF THE ENTIRE PAVEMENT IS INCLUDED IN THE CONTRACT.
  35. IF A SET PRECAST SLAB IS OPENED TO TRAFFIC BEFORE ANY GROUTING OPERATIONS, THE CONTRACTOR SHALL MEET THE FOLLOWING REQUIREMENTS:
    - i) DURING INSTALLATION, INCOMPRESSIBLE SHIMS APPROVED BY THE ENGINEER SHALL BE PLACED IN EACH TRANSVERSE AND LONGITUDINAL JOINT TO CORRECT AND MAINTAIN HORIZONTAL ALIGNMENT OF THE SLAB. THE TOTAL THICKNESS OF SHIMS USED IN ANY JOINT SHALL BE EQUAL TO OR LESS THAN 3/8".
    - ii) ASPHALT SHOULDERS SHALL BE BACKFILLED TO MAINTAIN HORIZONTAL ALIGNMENT.
    - iii) WIDE MOUTH DOWEL SLOTS LEFT OPEN SHALL BE TEMPORARILY FILLED WITH A COMPRESSION SEAL APPROVED BY THE ENGINEER TO WITHIN 1 INCH FLUSH WITH THE PAVEMENT SURFACE.
    - iv) NARROW MOUTH DOWEL SLOTS MAY BE LEFT OPEN.
    - v) ALL GROUTING MEETING THE REQUIREMENTS OF THIS CONTRACT SHALL BE COMPLETED WITHIN 48 HOURS OF EACH SLAB'S PLACEMENT.
  36. PRIOR TO DOWEL BAR PLACEMENT, THE TRANSVERSE JOINT SHALL BE CAULKED WITH A SILICONE SEALANT AT THE BOTTOM AND SIDES OF THE SLOT. THE CAULKING FILLER SHOULD NOT BE PLACED ANY FARTHER THAN 1/2 INCH OUTSIDE EITHER SIDE OF THE JOINT, AND APPLIED SUFFICIENTLY TO PREVENT ANY PATCHING MATERIAL FROM ENTERING THE JOINT AT THE BOTTOM OR SIDES OF THE SLOT. EXCESSIVE SEALANT AROUND THE SLOT DOES NOT ALLOW THE CONCRETE PATCHING MATERIAL TO BOND TO THE SIDES OF THE SLOT. BEFORE PLACEMENT, THE DOWEL BARS SHOULD BE LIGHTLY COATED WITH PARTING COMPOUND AND FULLY RETROFITTED DOWEL BARS PLACED ON A CHAIR THAT WILL PROVIDE A MINIMUM 1/2 INCH CLEARANCE BETWEEN THE BOTTOM OF THE DOWEL AND THE BOTTOM OF THE SLOT. FOR ANY DOWEL BARS INSERTED INTO PREDRILLED EPOXIED HOLES, AN APPURATUS CAPABLE OF MAINTAINING VERTICAL ALIGNMENT OF THE DOWEL AND TO PROVIDE A MINIMUM 1/2 INCH CLEARANCE BETWEEN THE BOTTOM OF THE DOWEL AND THE BOTTOM OF THE SLOT SHALL BE PROVIDED BY THE CONTRCTOR. A 3/8 INCH THICK FOAM INSERT SHOULD BE PLACED AT THE MDDLE OF THE DOWEL TO MAINTAIN THE TRANSVERSE JOINT. THE FOAM INSERT SHOULD FIT TIGHTLY AROUND THE DOWEL, THE BOTTOM, AND THE EDGES OF THE SLOT, AND BE UP TO THE SURFACE OF THE EXISTING CONCRETE SURFACE. THE FOAM INSERT SHOULD BE CAPABLE OF REMAINING IN A VERTICAL POSITION AND HELD TIGHTLY TO ALL EDGES DURING PLACEMENT OF THE PATCH. IF FOR ANY REASON THE FOAM INSERT SHIFTS DURING PLACEMENT OF THE CONCRETE PATCHING MATERIAL, THE WORK SHALL BE REJECTED AND REDONE AT THE CONTRACTOR'S EXPENSE.
  37. PLACEMENT OF HARDWARE GROUT/ADHESIVES
    - A. DOWEL BARS - THE PLACEMENT OF ANY APPROVED BACKFILL MATERIAL FOR DOWEL BAR RETROFITTING OR FOR DOWEL BAR INSERTIONS SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISION FOR "DOWEL BAR RETROFIT". THE PAVEMENT WILL NOT BE OPENED TO TRAFFIC UNTIL THE BACKFILL MATERIAL AROUND THE PAVEMENT HARDWARE OBTAINS 3,000 PSI COMPRESSIVE STRENGTH. ALL CONCRETE SURFACES WITHIN THE SLOT SHALL BE SOLID, FREE FROM LOOSE OR UNSOUND FRAGMENTS. BEFORE GROUTING, SANDBLAST ALL EXPOSED SURFACES IN THE DOWEL BAR SLOT FOLLOWED BY AIR BLASTING TO REMOVE ANY DUST, RESIDUE OR DEBRIS LEFT IN THE SLOT. UPON COMPLETION OF THE RETROFITTING WORK, THE GROUT OR CONCRETE PATCH MATERIAL SHALL FILL ALL SLOTS TO THE SURFACE OF THE EXISTING PAVEMENTS. ANY SLOTS INSUFFICIENTLY FILLED BELOW EXISTING PAVEMENT SURFACES SHALL BE REDONE AT THE CONTRACTOR'S EXPENSE.
    - B. TIE BARS - A FOAM BOARD GASKET SHALL BE INSERTED INTO THE LONGITUDINAL JOINT AT THE STITCHING LOCATION AND THE TIEBAR HOLE PREDRILLED THROUGH THE GASKET. AFTER PREDRILLED HOLES ARE AIR BLASTED, PRESSURE INJECT THE APPROVED ADHESIVE INTO THE PREDRILLED HOLES, LEAVING SOME VOLUME FOR THE BAR TO OCCUPY THE HOLE. INSERT THE TIEBAR INTO THE HOLE, LEAVING ABOUT 1 INCH FROM THE TOP OF THE TIE BAR TO THE PAVEMENT SURFACE. REMOVE EXCESS ADHESIVE AND FINISH FLUSH WITH THE PAVEMENT SURFACE.
    - C. FILL LIFTING INSERT HOLES AND GROUT PORTS WITH THE APPROVED GROUT USED FOR DOWEL BAR RETROFITTING.
  38. PLACEMENT OF UNDERSEALING GROUT SHALL FILL ALL VOIDS BENEATH THE PRECAST PANELS AND GROUT PORT HOLES THAT MAY BE PRESENT AFTER PLACING THE PANELS OVER THE PREPARED SUBBASE AND LEVELING AGGREGATE. PLACEMENT OF THE UNDERSEALING GROUT SHALL UTILIZE THE UNDERSLAB GROUT PORT HOLES AS SHOWN ON THE PLANS. PLACEMENT OF UNDERSEALING GROUT SHALL NOT OCCUR UNTIL AFTER ALL HARDWARE DEVICES ARE PLACED AND GROUTED. IF UNDERSEALING GROUT FILLS ANY LONGITUDINAL JOINT TO WITHIN 9" OF THE SLAB SURFACE, A 9" SAW CUT OF THE JOINT SHALL BE REQUIRED DURING INSTALLATION. IF UNDERSEALING GROUT FILLS ANY TRANSVERSE JOINT TO WITHIN 9" OF THE SLABE SURFACE, THEN A 9" SAW CUT OF THE JOINT SHALL BE REQUIRED FOLLOWED BY REMOVAL AND FULL RETROFITTING OF ALL SEVERED DOWEL BARS ACROSS THE JOINT.
  39. AFTER INSTALLATION AND GROUTING IS COMPLETED ALL LONGITUDINAL AND TRANSVERSE JOINTS SHALL BE SEALED IN ACCORDANCE WITH ARTICLE 420.12.

FILE NAME =	USER NAME = dettmnna	DESIGNED - O. PATEL	REVISED - D.G. 6-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PRECAST CONCRETE PAVEMENT SLABS</b>				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	es:\pw_work\p1dot\dettmnna\d0230696\DetStd.dgn	DRAWN -	REVISED -			353	23R-R5	COOK	66	49			
Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -			<b>BD 57</b>		<b>CONTRACT NO. 60L94</b>		ILLINOIS FED. AID PROJECT			
	PLOT DATE = 6/19/2014	DATE - 10-25-2013	REVISED -		SCALE: NONE	SHEET 10 OF 19 SHEETS	STA.	TO STA.					



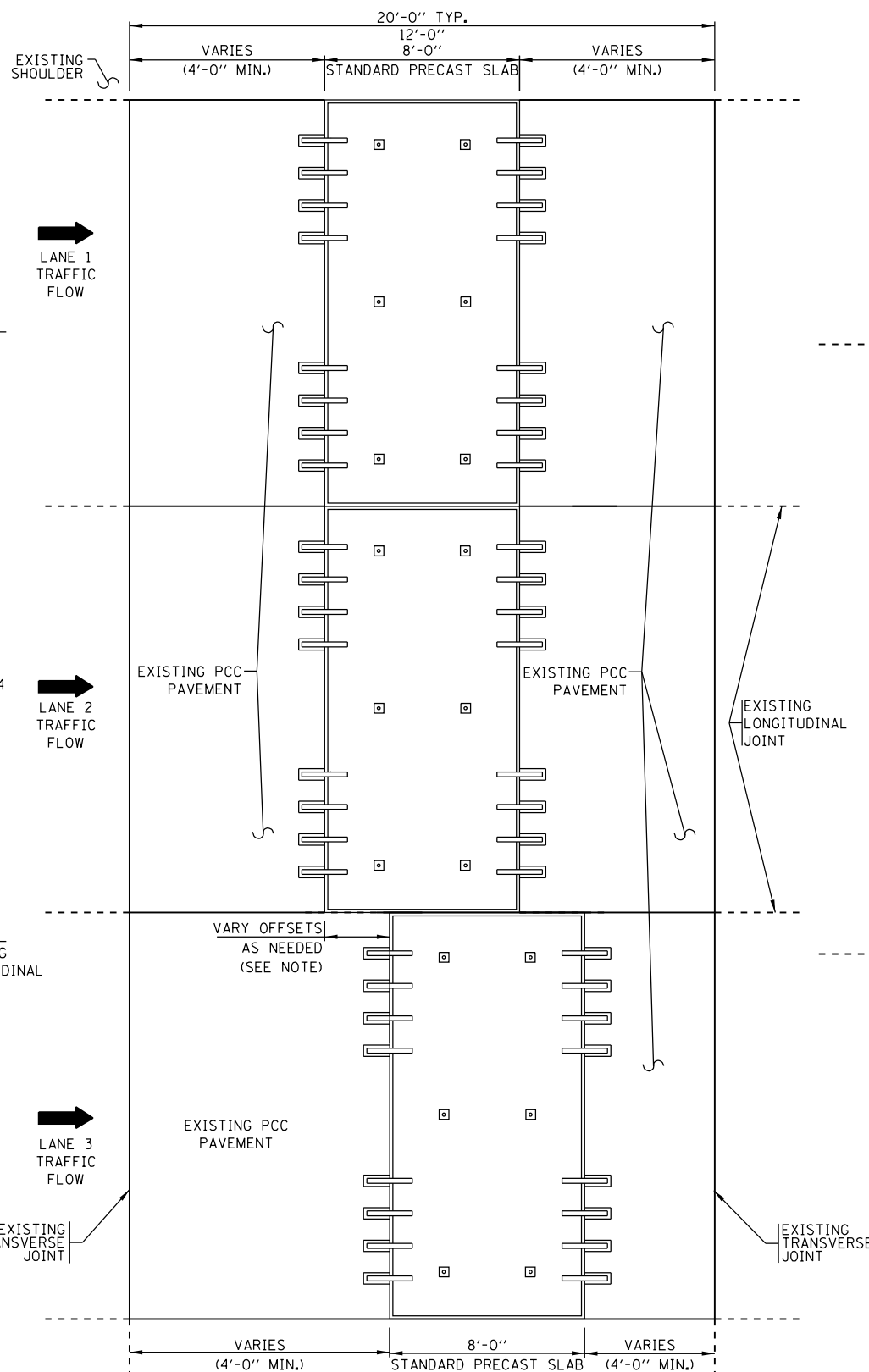
**SINGLE LANE JOINT REPLACEMENT  
DROP IN PANEL FOR STANDARD  
PRECAST SLABS**

**NOTE:**

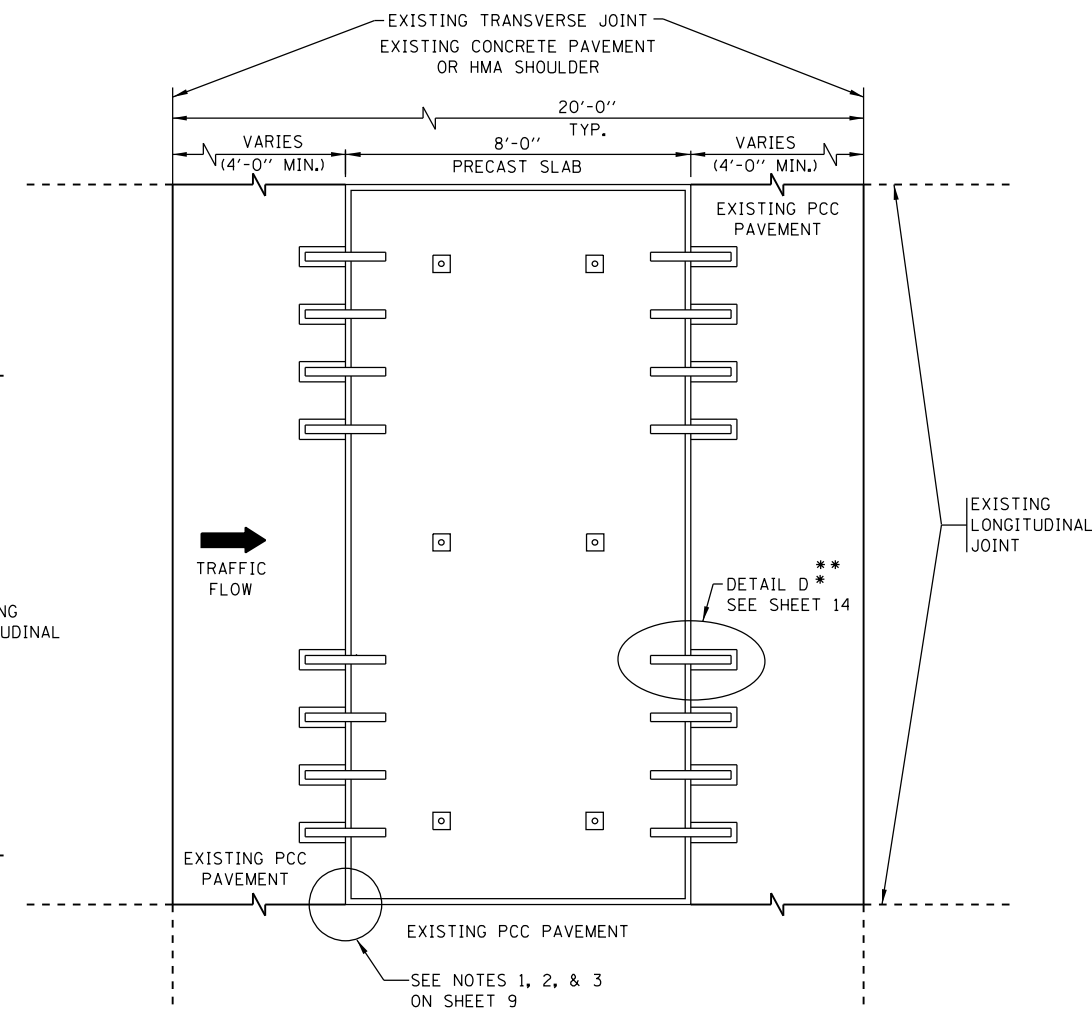
WHEN THE TRANSVERSE JOINTS OF ANY PRECAST SLAB CANNOT BE ALIGNED WITH TRANSVERSE JOINTS IN ADJACENT LANES, A MAXIMUM 2'-0" OFFSET BETWEEN JOINTS SHALL BE PROVIDED.

\* FOR DOWEL BARS FULLY RETROFITTED IN THE FIELD, REFER TO DETAIL C ON SHEET 13.

\*\* FOR DOWEL BARS TO BE SLID INTO PRE-DRILLED HOLES IN THE FIELD, REFER TO DETAIL G ON SHEET 17.



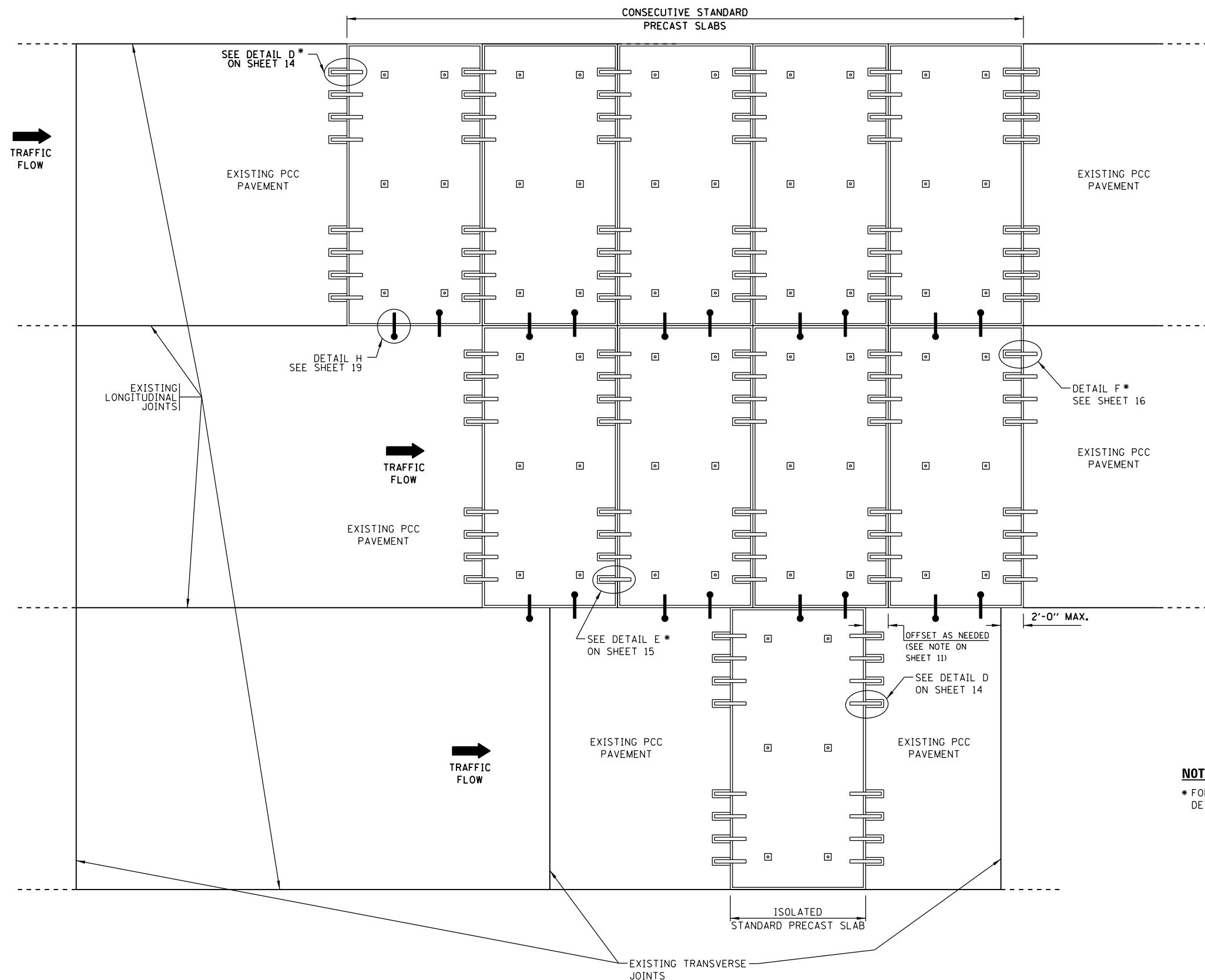
**MULTIPLE LANE MID SLAB DROP IN PANEL  
FOR STANDARD PRECAST PANELS**



**SINGLE LANE MID SLAB DROP  
IN PANEL FOR STANDARD  
PRECAST PANELS**

# INSTALLATION OF ISOLATED STANDARD PRECAST SLABS

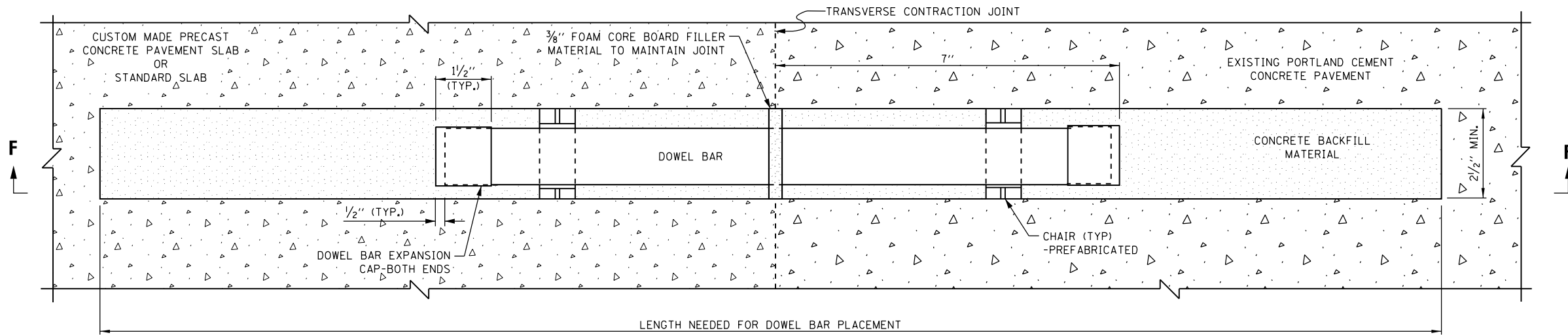
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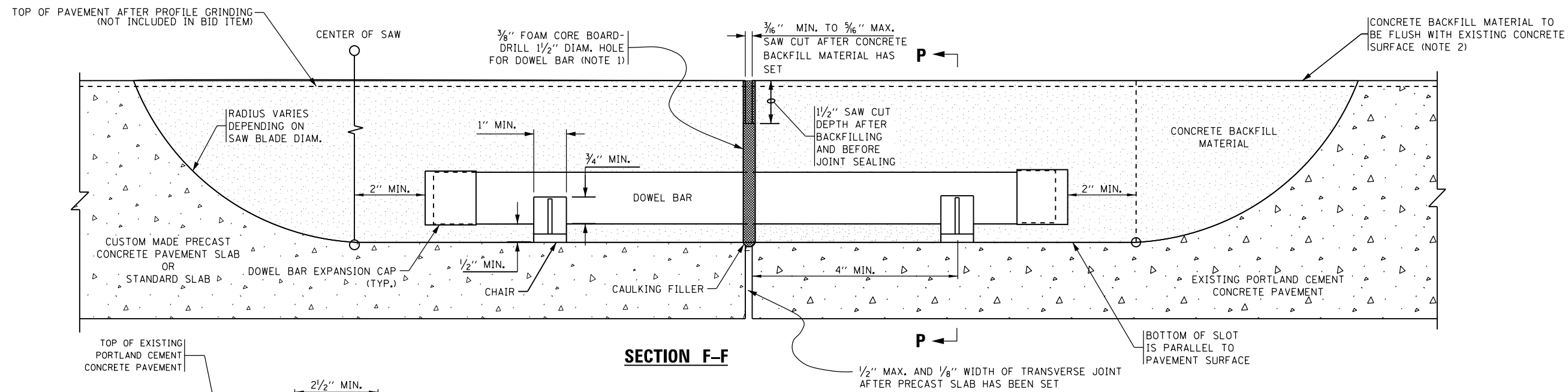
**NOTE:**  
\* FOR DOWEL BARS FULLY RETROFITTED IN THE FIELD, REFER TO  
DETAIL C ON SHEET 13.

## INSTALLATION OF CONSECUTIVE STANDARD PRECAST SLABS

FILE NAME =	USER NAME = dettmnra	DESIGNED - O. PATEL	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PRECAST CONCRETE PAVEMENT SLABS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
Default	et:\pw\work\p\dot\dettmnra\d0230696\DetStd.dgn	DRAWN -	REVISED -		SCALE: NONE	SHEET 12	OF 19	SHEETS	STA.	TO STA.	353	23R-RS	COOK	66	51
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	PLOT DATE = 6/19/2014	DATE - 10-25-2013	REVISED -												

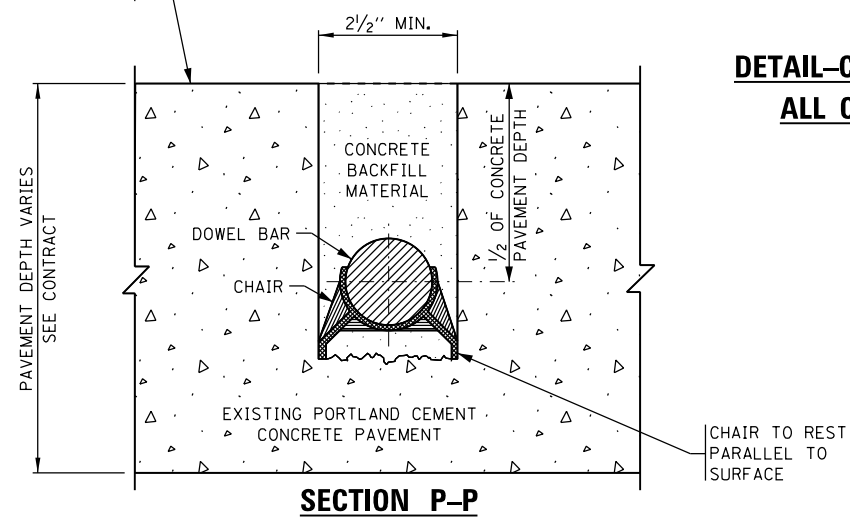


**PLAN VIEW**

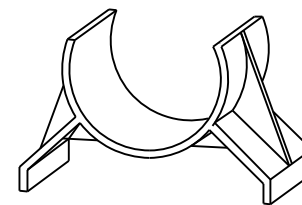


**SECTION F-F**

**DETAIL-C, WIDE MOUTH DOWEL BAR PLACEMENT DETAIL FOR ALL CUSTOM MADE PRECAST PANELS AND OPTIONAL FOR STANDARD SLABS**



**SECTION P-P**



**CHAIR DETAIL**

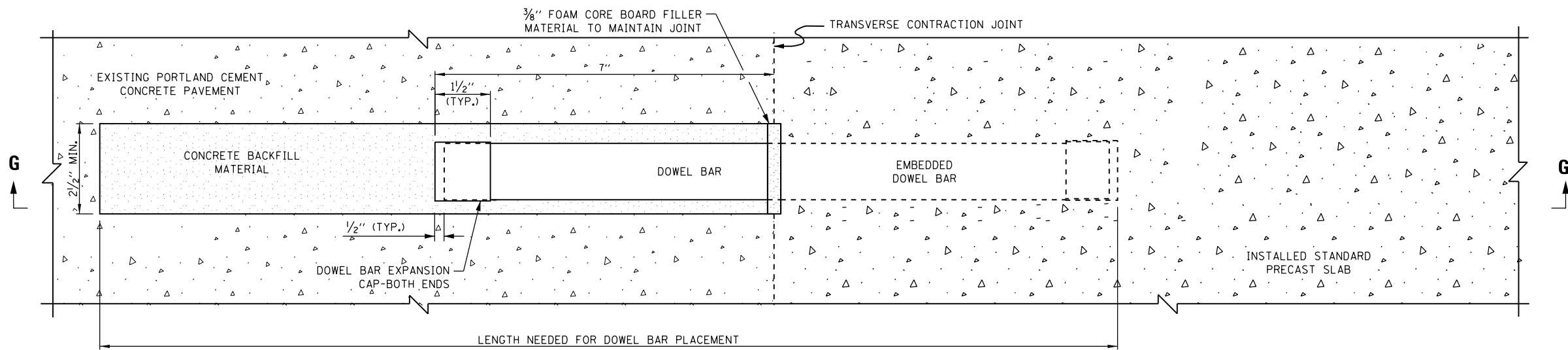
- NOTES:**
1. PLACE FOAM CORE BOARDS TO THE TOP OF PATCH.
  2. UPON COMPLETION, THE FINISHED SURFACE OF THE CONCRETE BACKFILL MATERIAL SHALL NOT BE BELOW EXISTING CONCRETE SURFACE.

FILE NAME =	USER NAME = dettmnra	DESIGNED - O. PATEL	REVISED -
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	PLOT DATE = 6/19/2014	DATE - 10-25-2013	REVISED -

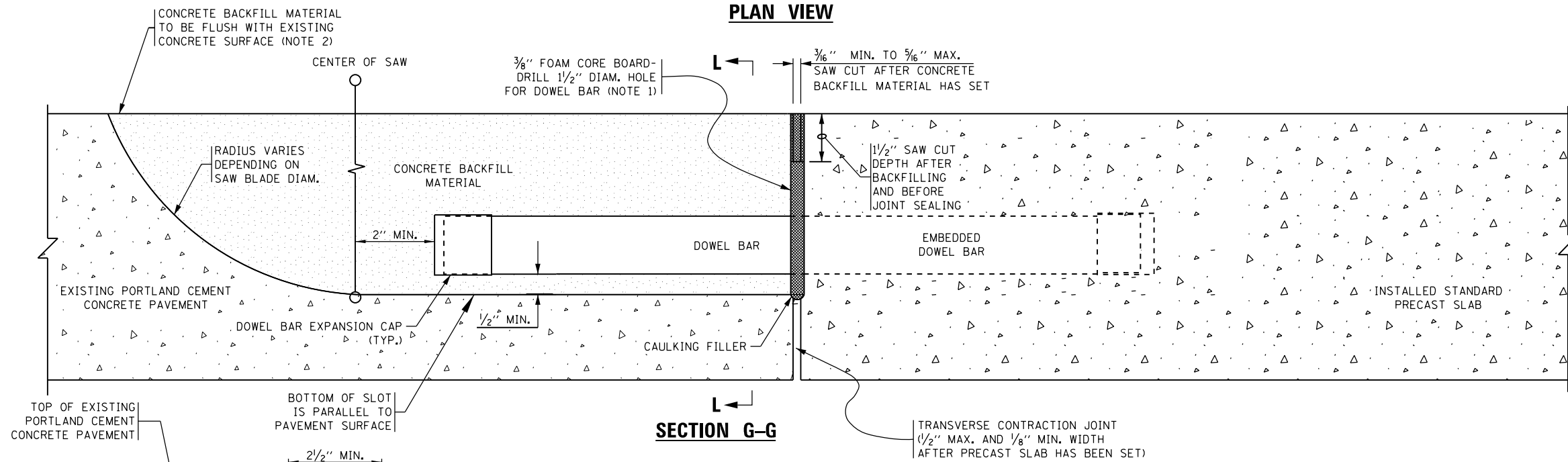
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>PRECAST CONCRETE PAVEMENT SLABS</b>			
SCALE: NONE	SHEET 13 OF 19 SHEETS	STA.	TO STA.

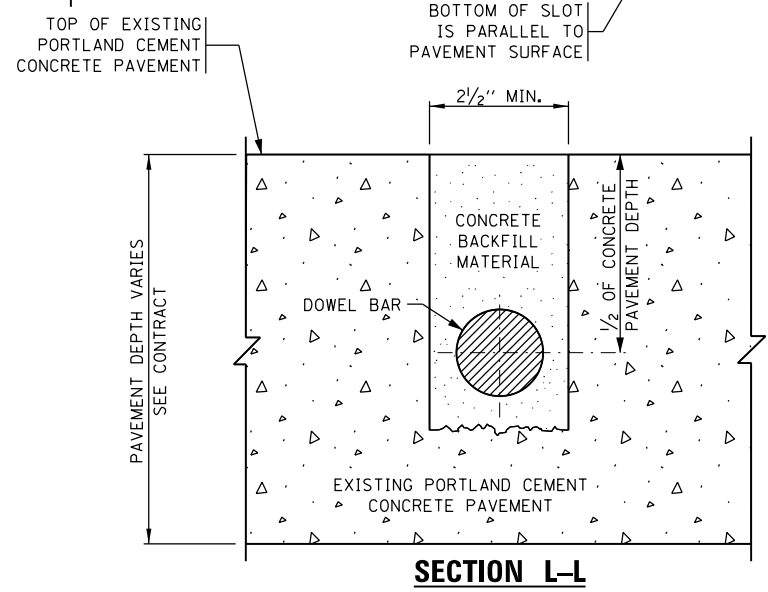
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	23R-R5	COOK	66	52
<b>BD 57</b>		<b>CONTRACT NO. 60L94</b>		
ILLINOIS FED. AID PROJECT				



**PLAN VIEW**



**SECTION G-G**



**SECTION L-L**

**DETAIL D - WIDE MOUTH DOWEL BAR PLACEMENT**

**DETAIL FOR STANDARD PRECAST PANELS**

(FOR APPLICATION WITH ALL ISOLATED STANDARD SLABS AND WITH INITIAL PLACEMENT OF CONSECUTIVE STANDARD SLABS)

**NOTES:**

1. PLACE FOAM CORE BOARDS TO THE TOP OF PATCH.
2. UPON COMPLETION, THE FINISHED SURFACE OF THE CONCRETE BACKFILL MATERIAL SHALL NOT BE BELOW EXISTING CONCRETE SURFACE.

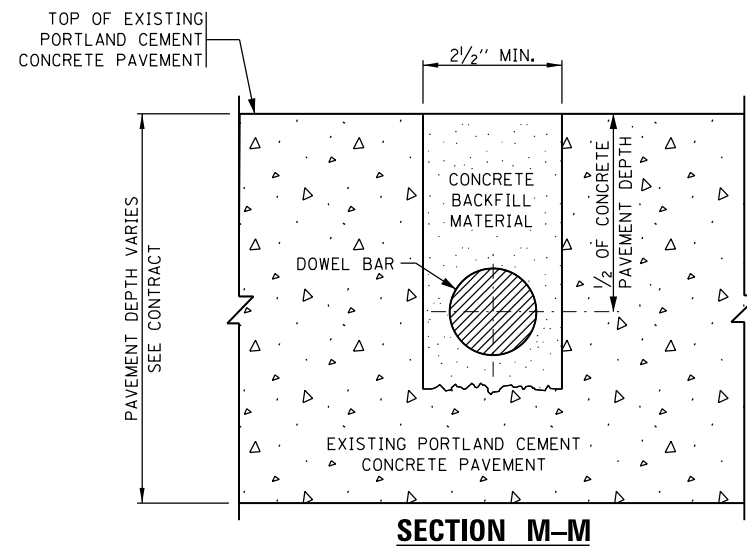
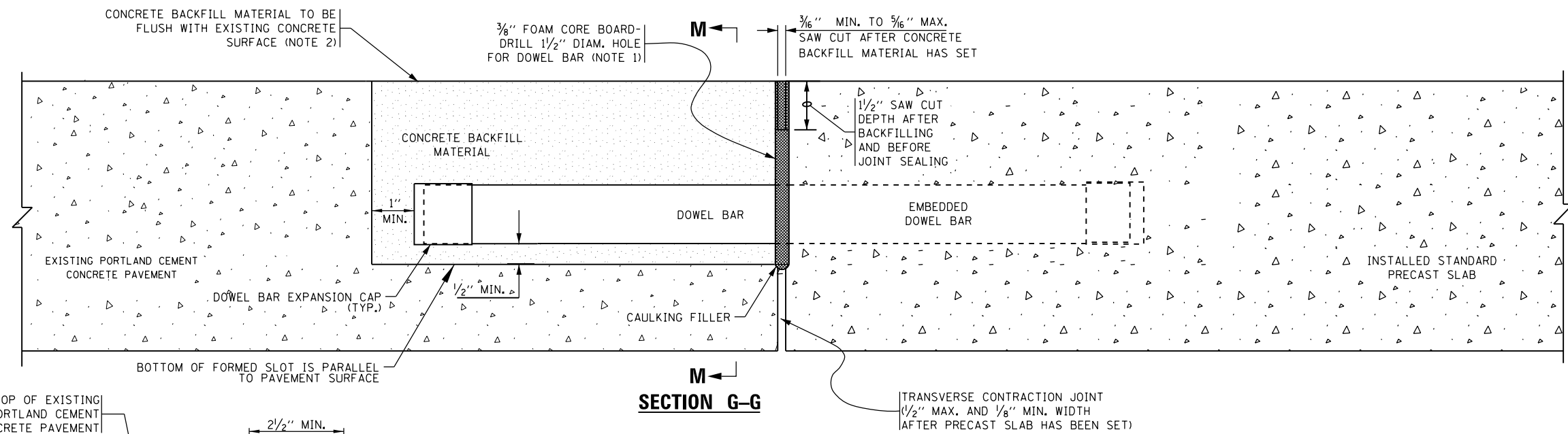
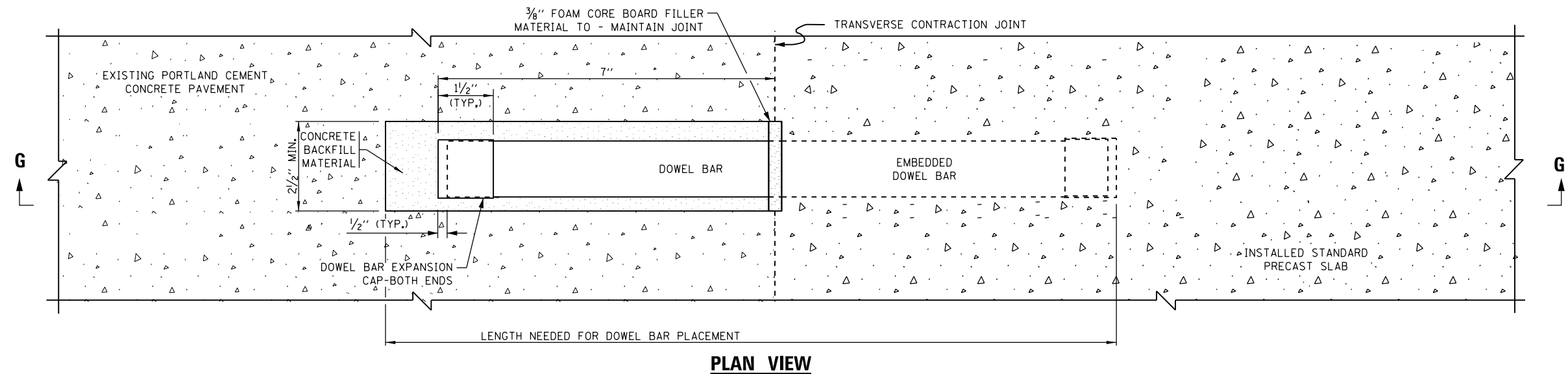
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	PLOT DATE = 6/19/2014	DATE - 10-25-2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PRECAST CONCRETE PAVEMENT SLABS**

SCALE: NONE SHEET 14 OF 19 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	23R-R5	COOK	66	53
<b>BD 57</b>			<b>CONTRACT NO. 60L94</b>	
ILLINOIS FED. AID PROJECT				

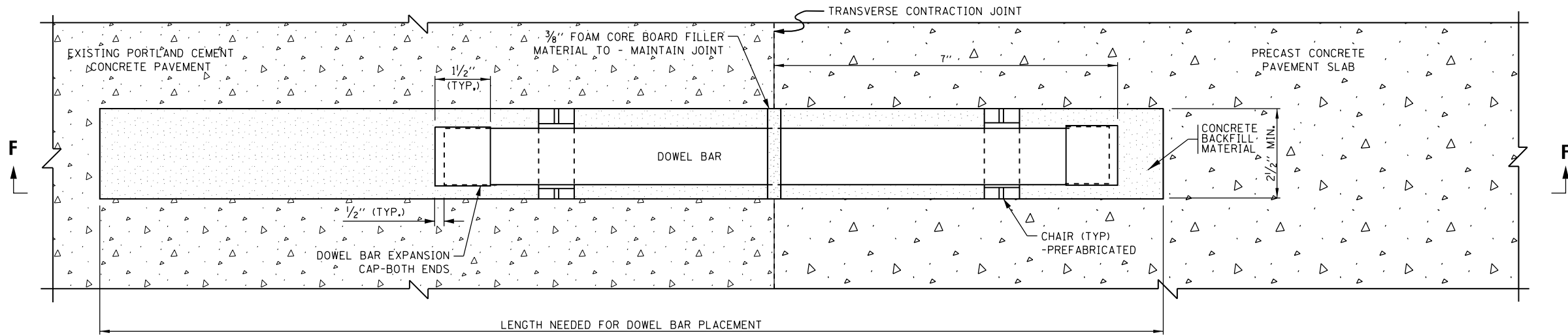


**DETAIL E – WIDE MOUTH DOWEL BAR PLACEMENT DETAIL FOR CONSECUTIVE STANDARD PRECAST PANELS**

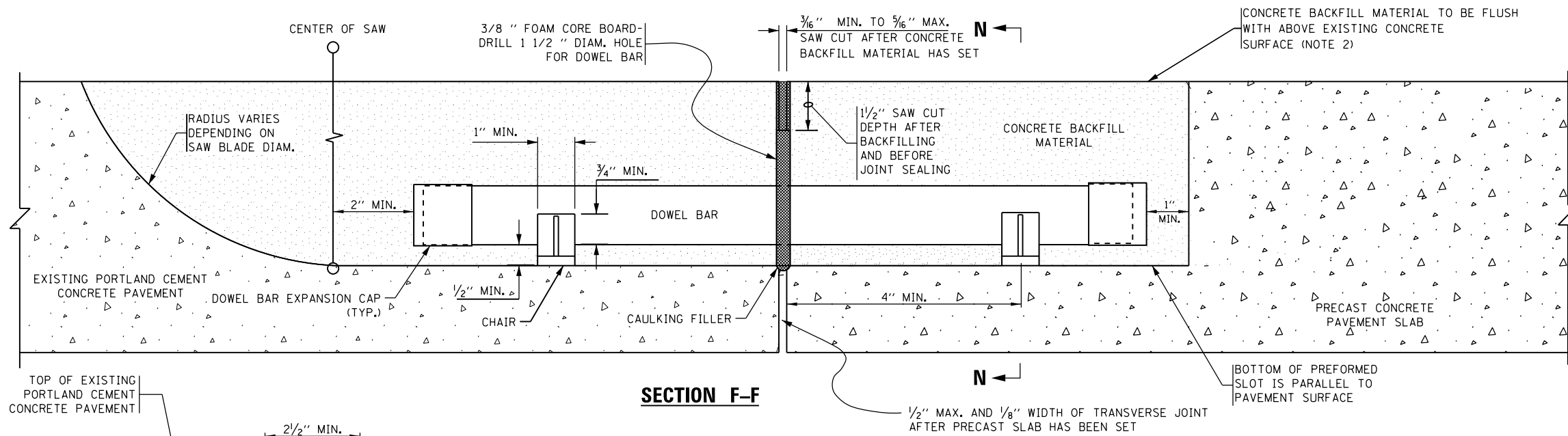
**NOTES:**

1. PLACE FOAM CORE BOARDS TO THE TOP OF PATCH.
2. UPON COMPLETION, THE FINISHED SURFACE OF THE CONCRETE BACKFILL MATERIAL SHALL NOT BE BELOW THE EXISTING CONCRETE SURFACE.

FILE NAME =	USER NAME = dettmanna	DESIGNED - O. PATEL	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PRECAST CONCRETE PAVEMENT SLABS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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					ILLINOIS FED. AID PROJECT							

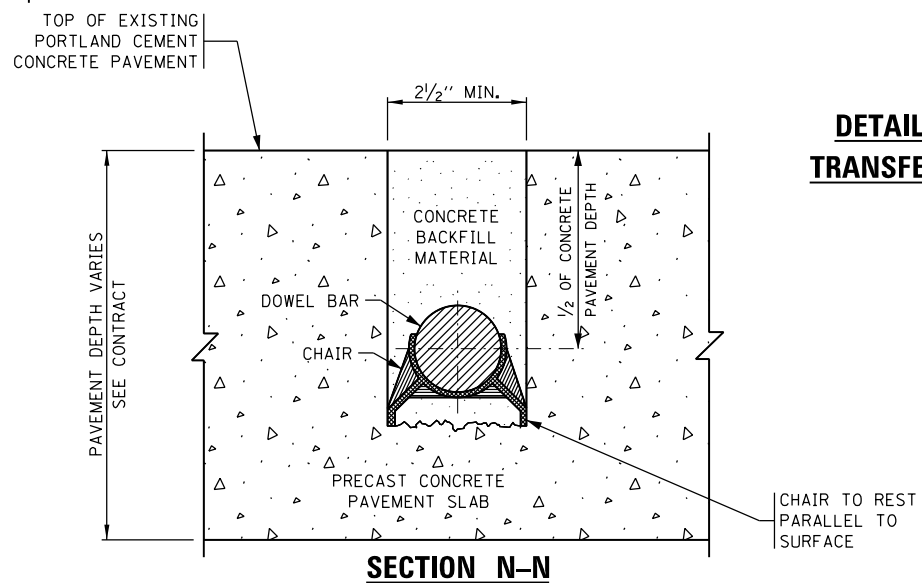


**PLAN VIEW**

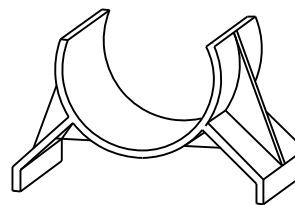


**SECTION F-F**

**DETAIL-F, WIDE MOUTH DOWEL BAR PLACEMENT DETAIL FOR THE LAST TRANSFER JOINT OF CONSECUTIVELY PLACED STANDARD PRECAST PANELS**



**SECTION N-N**



**CHAIR DETAIL**

**NOTES:**

1. PLACE FOAM CORE BOARDS TO THE TOP OF PATCH.
2. UPON COMPLETION, THE FINISHED SURFACE OF THE CONCRETE BACKFILL MATERIAL SHALL NOT BE BELOW THE EXISTING CONCRETE SURFACE.

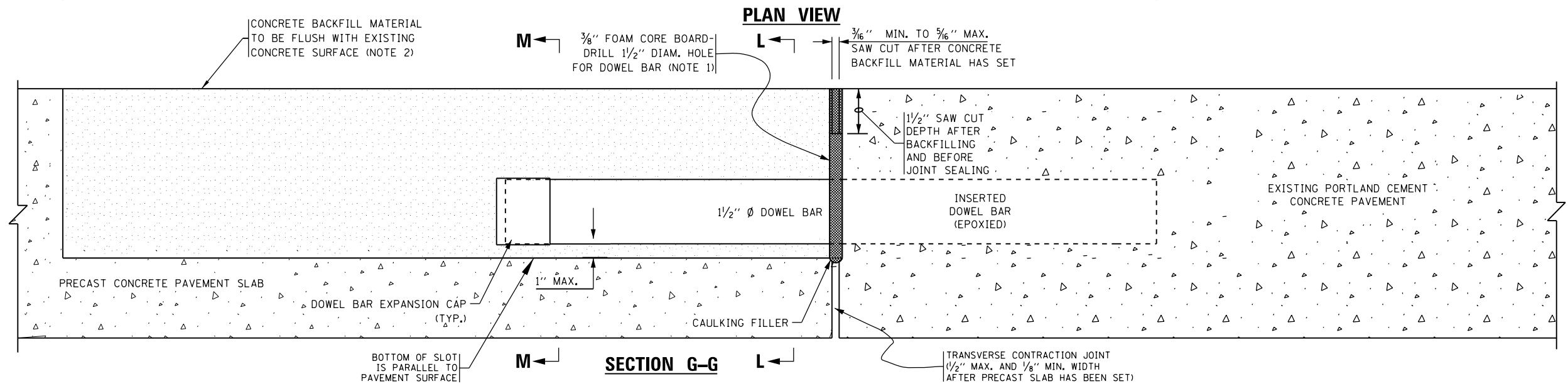
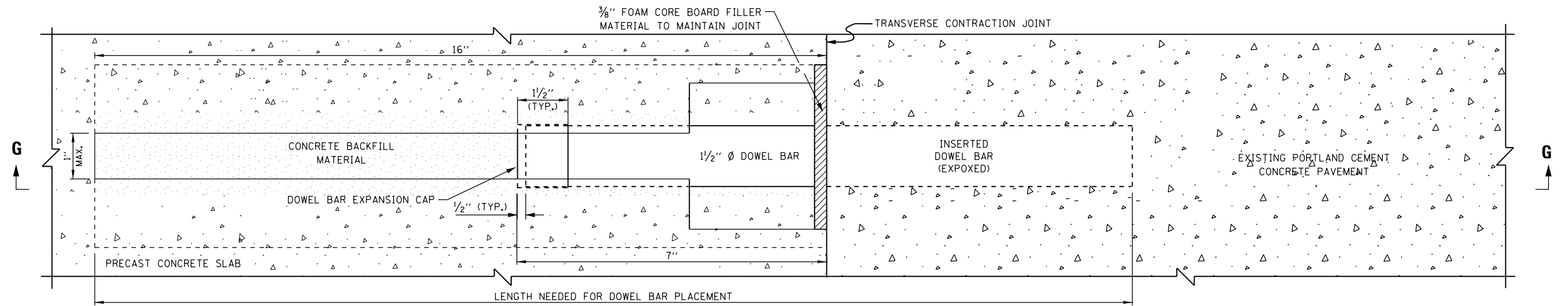
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Default	Plot Scale = 100.0000' / in.	CHECKED -	REVISOR -
	PLOT DATE = 6/19/2014	DATE - 10-25-2013	REVISOR -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PRECAST CONCRETE PAVEMENT SLABS**

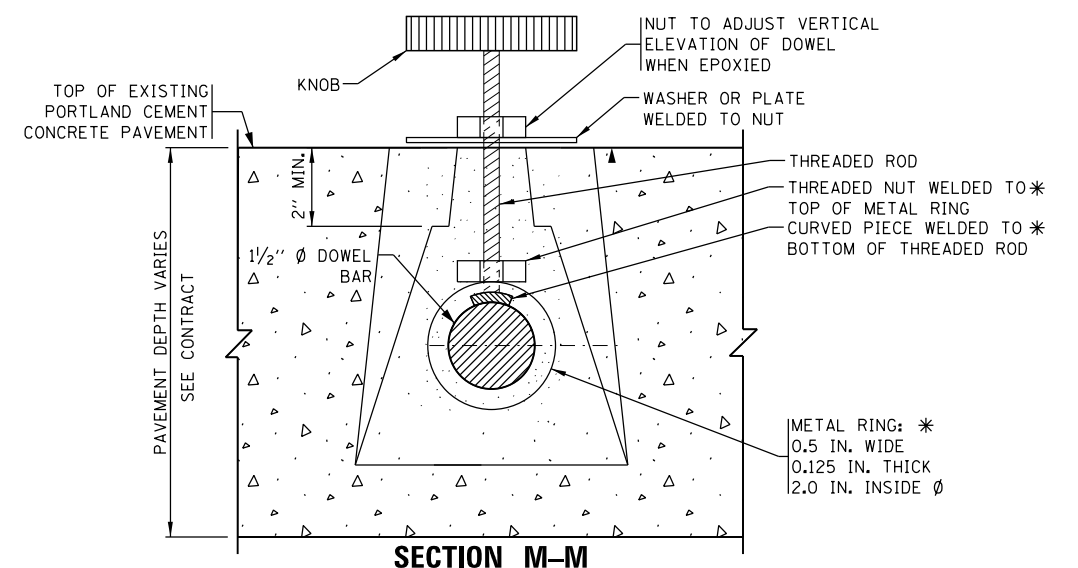
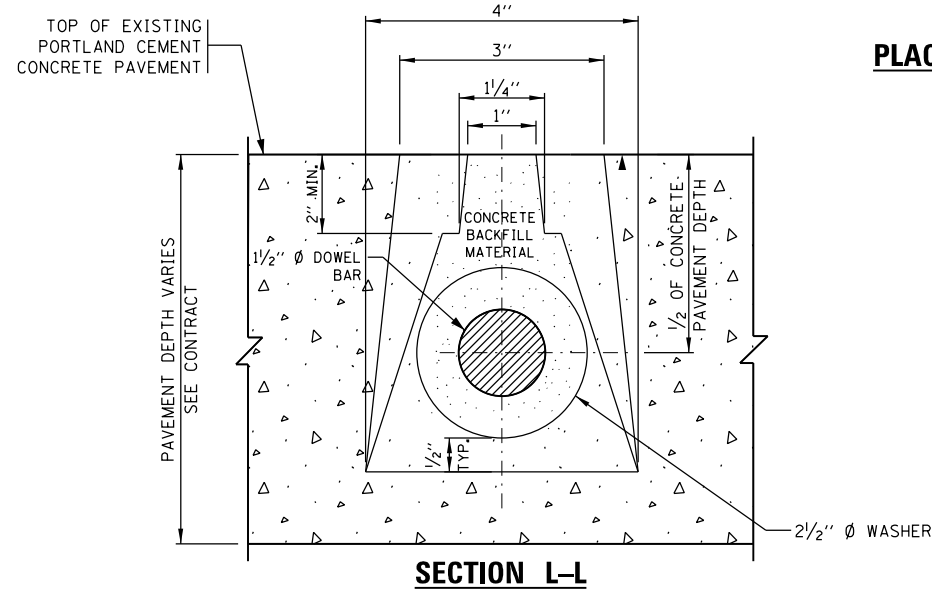
SCALE: NONE SHEET 16 OF 19 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	23R-R5	COOK	66	55
<b>BD 57</b>			<b>CONTRACT NO. 60L94</b>	
<small>ILLINOIS FED. AID PROJECT</small>				



**DETAIL G - NARROW MOUTH DOWEL BAR  
PLACEMENT DETAIL FOR ISOLATED PRECAST PANELS**  
(FOR OPTIONAL APPLICATION WITH ALL ISOLATED  
SLABS IN PLACE OF FULL RETROFITS)

- NOTES:**
1. PLACE FOAM CORE BOARDS TO THE TOP OF PATCH.
  2. UPON COMPLETION, THE FINISHED SURFACE OF THE CONCRETE BACKFILL MATERIAL SHALL NOT BE BELOW EXISTING CONCRETE SURFACE.



**CLAMP DETAIL FOR SLIDING DOWEL BAR SLOTS**

\* METAL RING MAY BE REPLACED WITH A STRONG MAGNET WELDED TO THE THREADED ROD. AT LEAST ONE CLAMP WILL BE NEEDED FOR EACH INSERTED DOWEL BAR TO MAINTAIN ALIGNMENT.

FILE NAME =	USER NAME = dettmanna	DESIGNED - O. PATEL	REVISED - D.G. 6-14
Default	Plot Scale = 100.0000' / in.	CHECKED -	REVISED -
	Plot Date = 6/19/2014	DATE - 10-25-2013	REVISED -

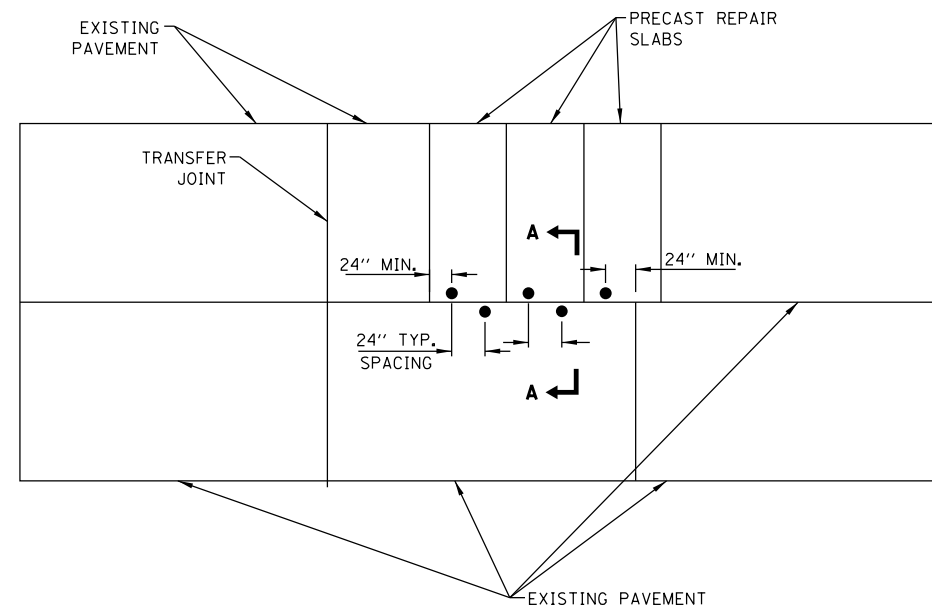
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>PRECAST CONCRETE PAVEMENT SLABS</b>			
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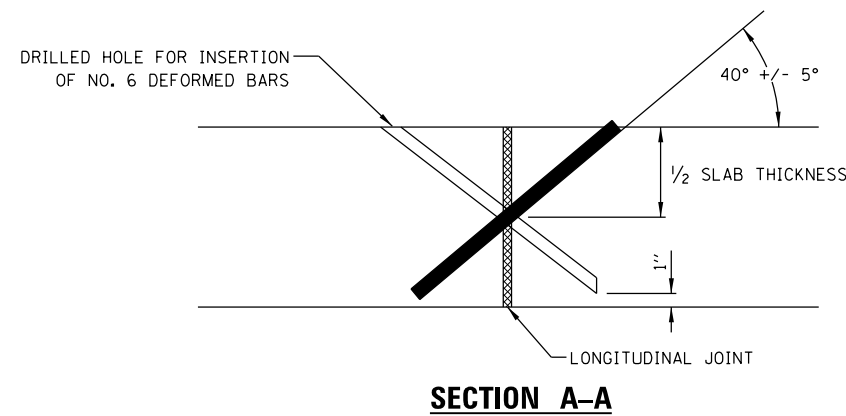
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	23R-R5	COOK	66	56
<b>BD 57</b>			<b>CONTRACT NO. 60L94</b>	
ILLINOIS FED. AID PROJECT				







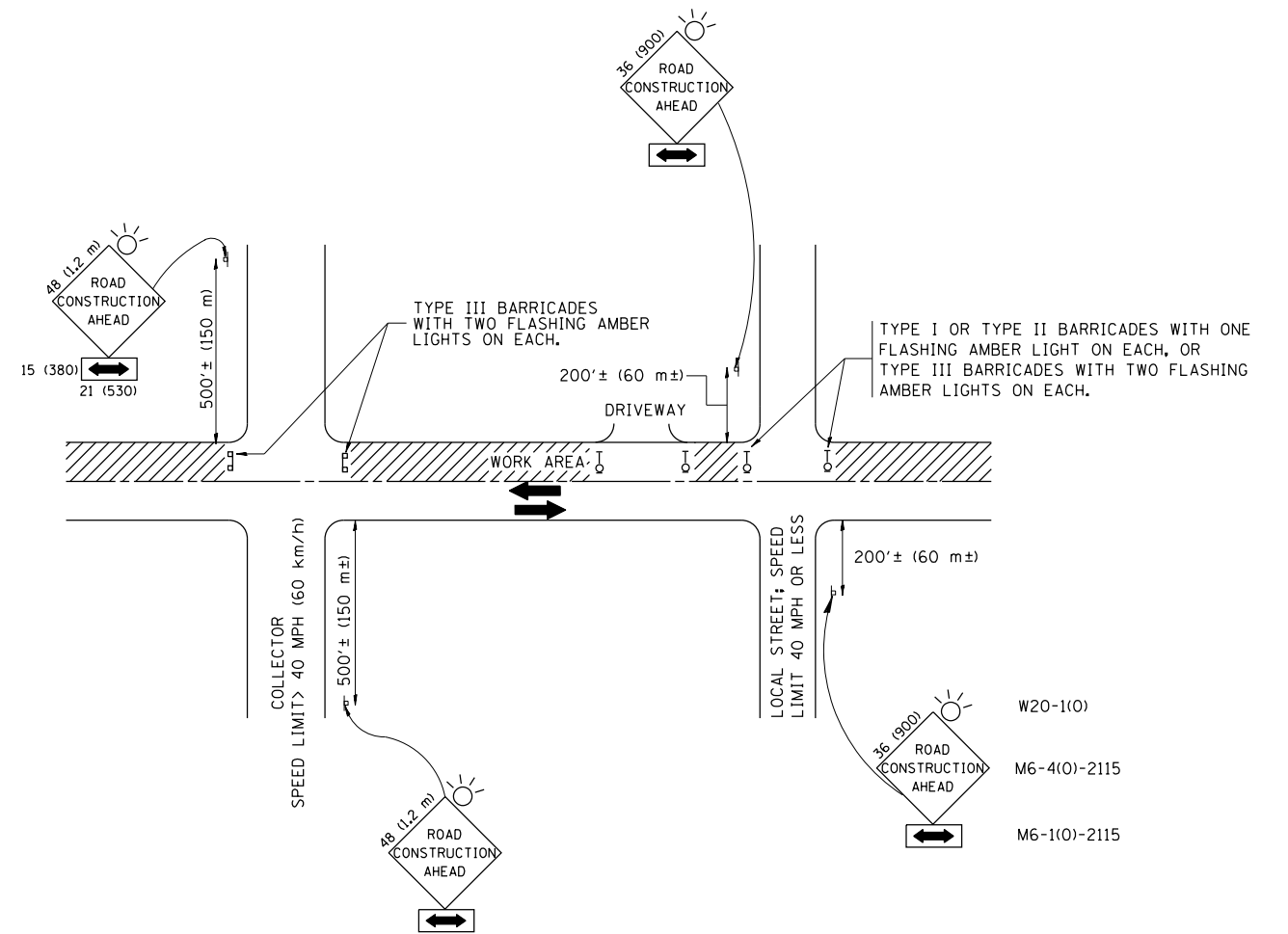
**DETAIL H – LONGITUDINAL TIE BAR STITCHING FOR PRECAST PANELS**



**NOTES FOR TIE BAR STITCHING:**

1. DRILL HOLES THAT ARE ORIENTED AT  $40^\circ \pm 5^\circ$  ANGLE TO THE PAVEMENT SURFACE SO THAT THEY INTERSECT THE LONGITUDINAL CRACK OR JOINT AT ABOUT MID-DEPTH. (IT IS IMPORTANT TO START DRILLING THE HOLE AT A CONSISTENT DISTANCE FROM THE JOINT, IN ORDER TO CONSISTENTLY CROSS AT THE MID-DEPTH OF THE SLAB.)
2. HOLE CENTERLINES ARE PERPENDICULAR TO THE JOINT (IN PLAN VIEW) AT EACH LOCATION BEING DRILLED.
3. SELECT A DRILL THAT MINIMIZES DAMAGE TO THE CONCRETE SURFACE, SUCH AS A HYDRAULIC POWERED DRILL. SELECT A DRILL DIAMETER NO MORE THAN 0.375 IN. LARGER THAN THE TIE-BAR DIAMETER. CHOOSE A GANG-MOUNTED DRILL IF A HIGHER PRODUCTIVITY IS NEEDED.
4. DRILL HOLES WITH NO LESS THAN A 24 INCH BAR SPACING. ADJACENT HOLES ARE DRILLED IN OPPOSITE DIRECTIONS ACROSS THE JOINT. THE HOLES AND INSERTED TIE BAR SHALL BE NO LESS THAN 24 INCHES FROM ANY EXISTING TRANSVERSE JOINT OR ANY PRECAST OR REPAIR TRANSFER JOINT.
5. HOLE BOTTOMS ARE NO MORE THAN 1 INCH FROM THE SLAB BOTTOM.
6. AIR BLOW THE HOLES TO REMOVE DUST AND DEBRIS AFTER DRILLING.
7. INJECT ADHESIVE INTO THE HOLE, LEAVING SOME VOLUME FOR THE BAR TO OCCUPY THE HOLE. (POURING THE ADHESIVE IS ACCEPTABLE FOR SMALL QUANTITIES.)
8. INSERT THE NO. 6 EPOXY COATED DEFORMED TIE BAR INTO THE HOLE, LEAVING ABOUT 1 IN. FROM THE TOP OF BAR TO THE PAVEMENT SURFACE. DEFORMED TIE BARS SHALL BE EPOXY COATED.
9. REMOVE EXCESS ADHESIVE AND FINISH FLUSH WITH THE PAVEMENT SURFACE.

FILE NAME =	USER NAME = dettmanna	DESIGNED - O. PATEL	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PRECAST CONCRETE PAVEMENT SLABS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 6/19/2014	DATE - 10-25-2013	REVISED -		SCALE: NONE	SHEET 19 OF 19 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT			



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

NOTES:

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

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

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

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

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

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

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

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

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

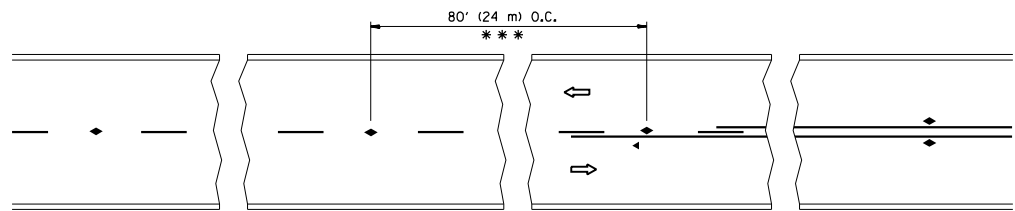
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	PLOT DATE = 6/13/2014	DATE - 06-89	REVISED - T. RAMMACH 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

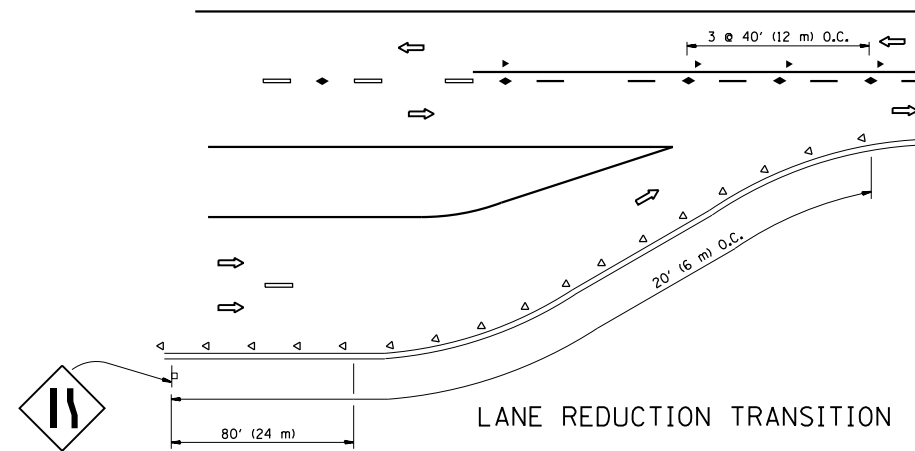
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TC-10			CONTRACT NO. 60L94	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

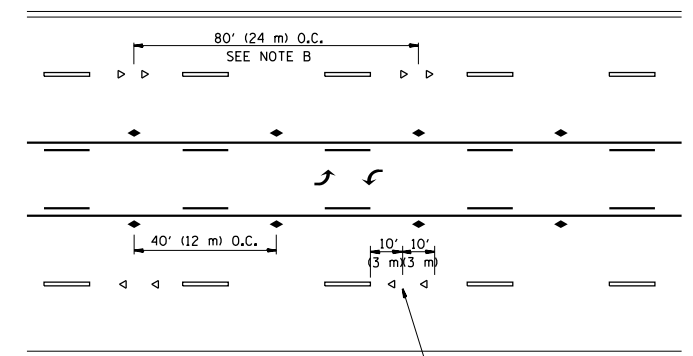


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

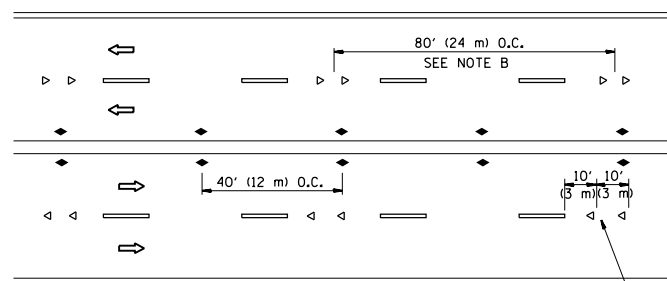
TWO-LANE/TWO-WAY



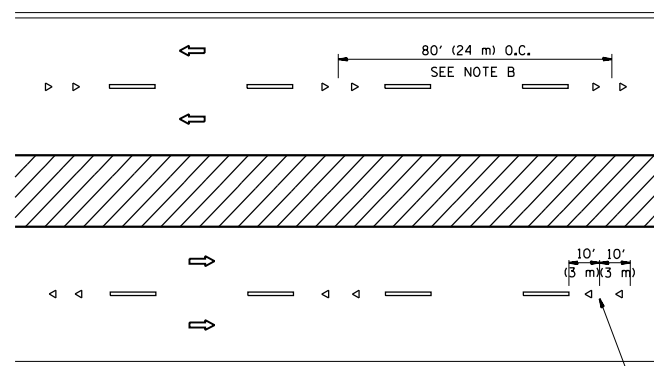
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

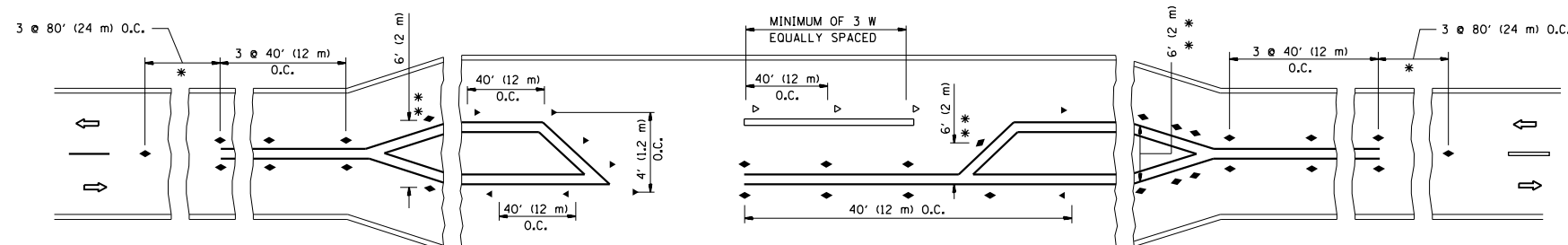
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

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

DESIGN NOTES

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



LEFT TURN

\* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE  
 \*\* WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

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

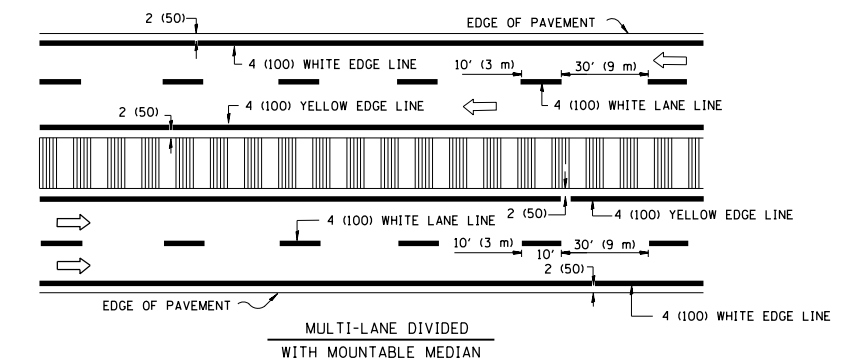
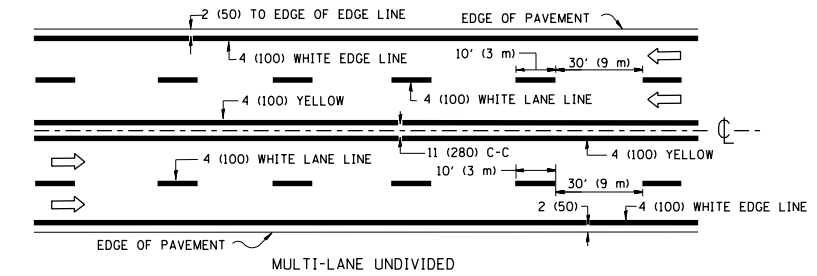
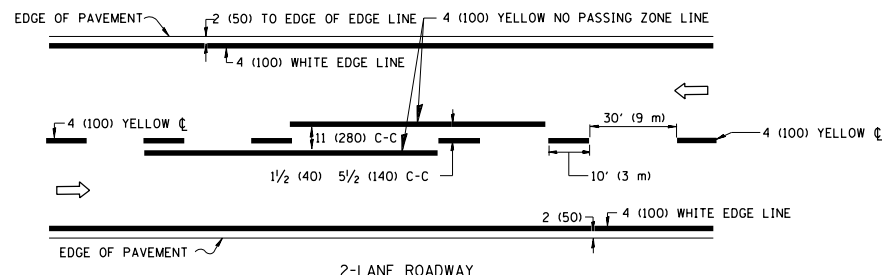
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	PLOT DATE = 6/13/2014	DATE -	REVISED - C. JUCIUS 09-09-09

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS  
 RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

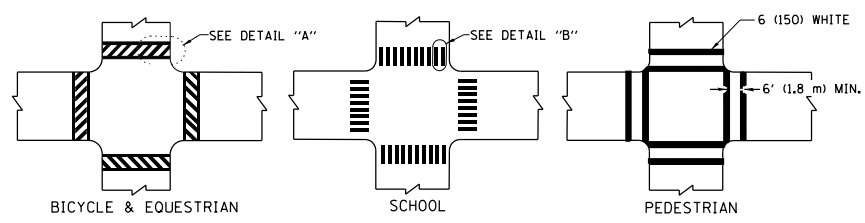
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TC-11			CONTRACT NO. 60L94	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

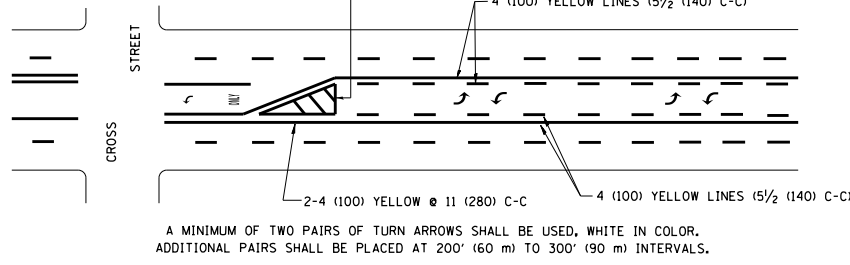
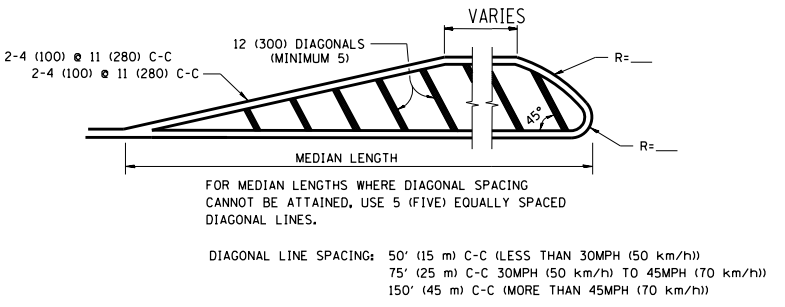
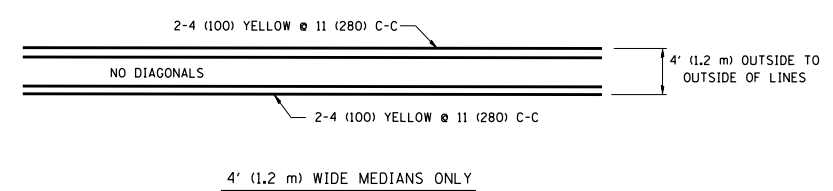


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

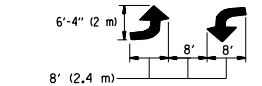
**TYPICAL LANE AND EDGE LINE MARKING**



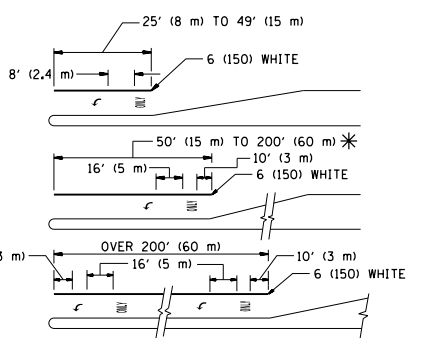
**TYPICAL CROSSWALK MARKING**



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

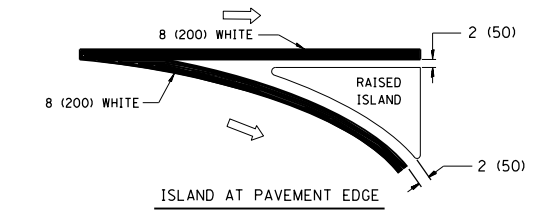
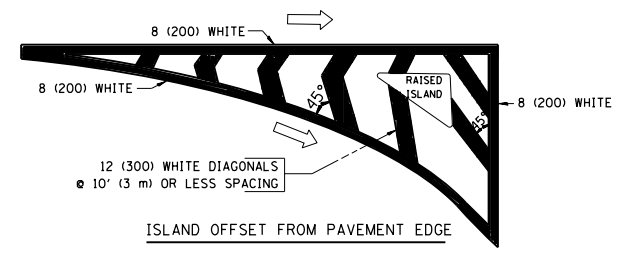


**TYPICAL PAINTED MEDIAN MARKING**



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)  
 \* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

**TYPICAL TURN LANE MARKING**



**TYPICAL ISLAND MARKING**

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION	4 (100)	SOLID	YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE
NO PASSING ZONE LINES: FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE. SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE. SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" 15 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> ) EACH
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

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

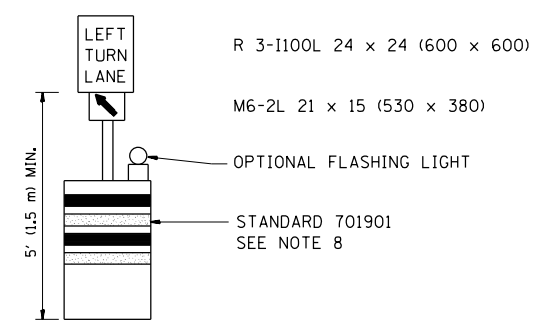
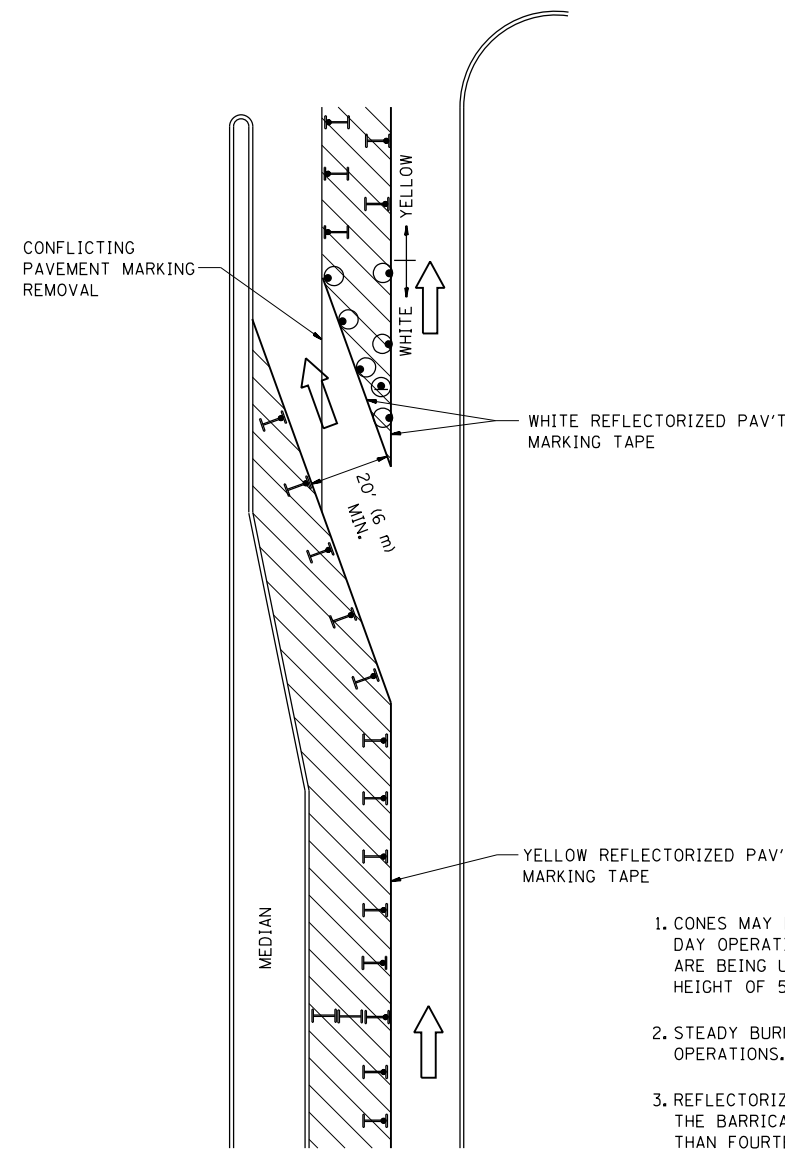
All dimensions are in inches (millimeters) unless otherwise shown.

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	PLOT DATE = 6/13/2014	DATE - 03-19-90	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

DISTRICT ONE			
TYPICAL PAVEMENT MARKINGS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-13		CONTRACT NO. 60L94		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				









**GENERAL NOTES**

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM OPER 725 IS REQUIRED.
8. IF A DRUM OR TYPE II BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 PREQUIREMENTS.
9. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

**LEGEND**

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

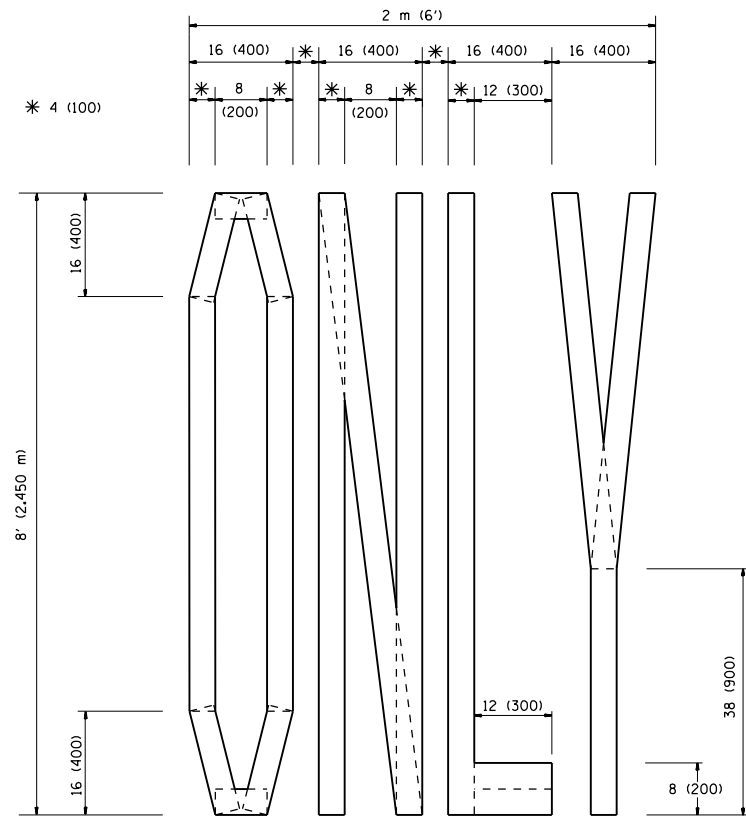
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

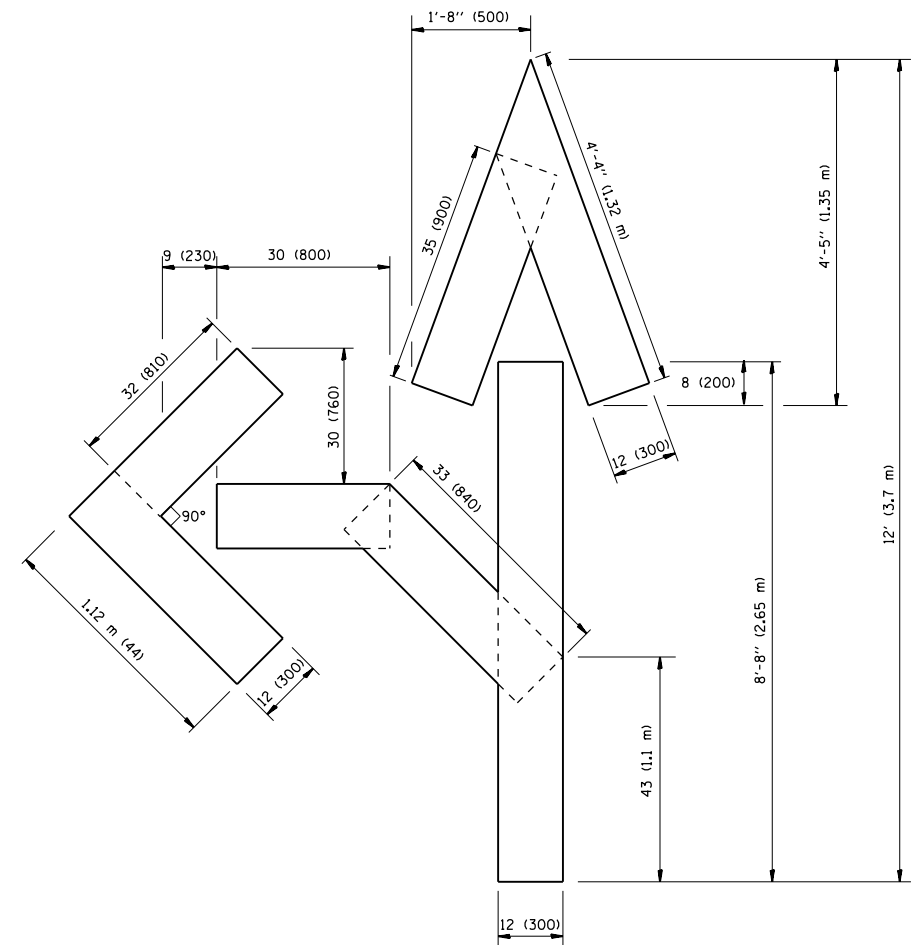
**TRAFFIC CONTROL AND PROTECTION AT TURN BAYS  
(TO REMAIN OPEN TO TRAFFIC)**

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

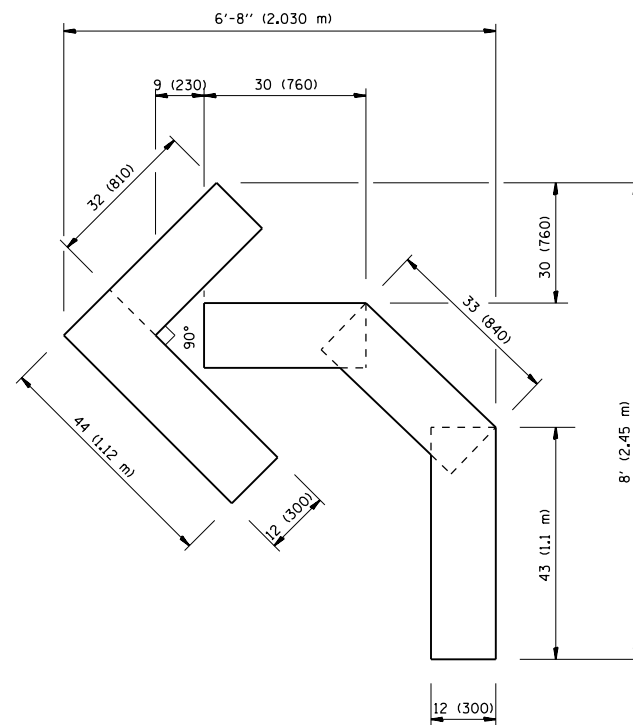
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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<b>TC-14</b>		<b>CONTRACT NO. 60L94</b>		
<small>FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT</small>				



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.

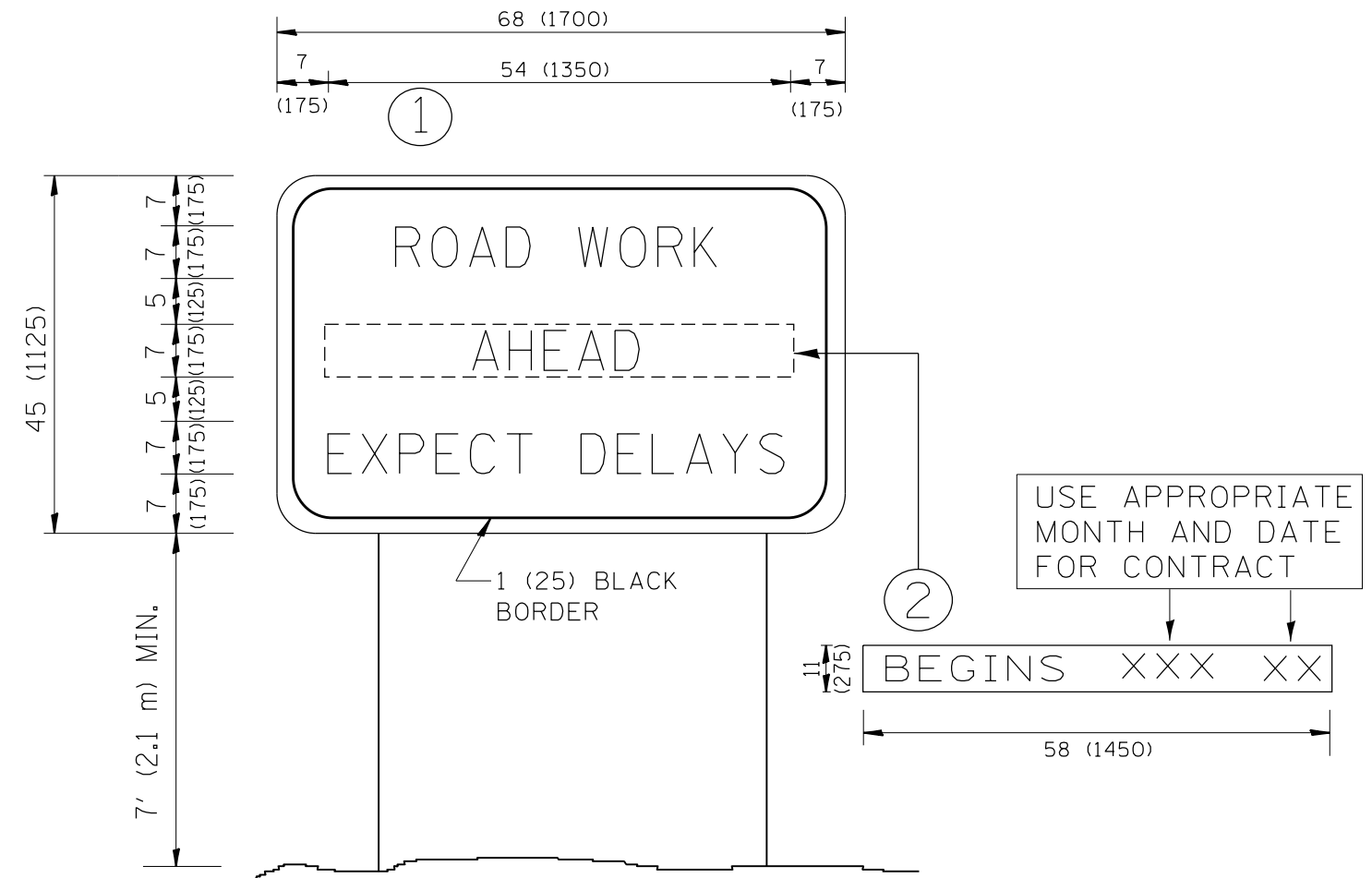
FILE NAME =	USER NAME = dettmanna	DESIGNED -	REVISED -T. RAMMACHER 06-05-96
et:\pw\work\p\dot\dettmanna\d0230696\DetStd.dgn		DRAWN -	REVISED -T. RAMMACHER 11-04-97
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -T. RAMMACHER 03-02-98
	PLOT DATE = 6/13/2014	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00

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.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	23R-R5	COOK	66	63
TC-16			CONTRACT NO. 60L94	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**NOTES:**

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

FILE NAME =	USER NAME = dettmanna	DESIGNED -	REVISED - R. MIRS 09-15-97
et:\pw\work\p\dot\dettmanna\d0230696\DetStd.dgn		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 6/13/2014	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD  
INFORMATION SIGN**

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

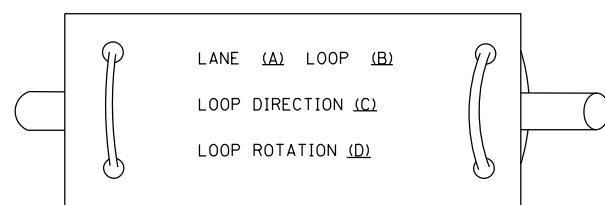
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	23R-R5	COOK	66	64
TC-22		CONTRACT NO. 60L94		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



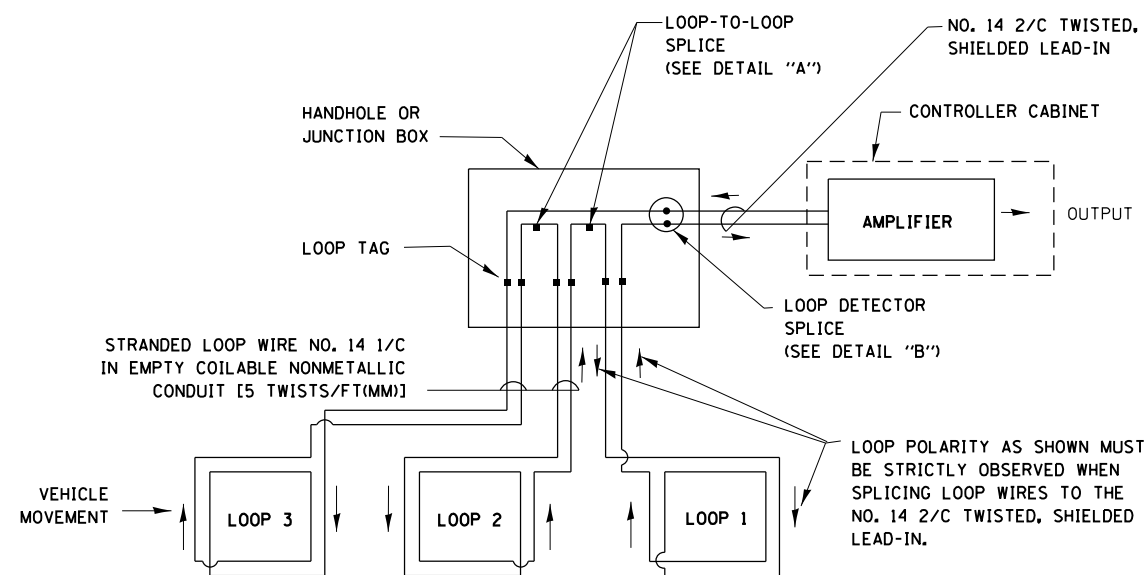
**LOOP DETECTOR NOTES**

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

**LOOP LEAD-IN CABLE TAG**

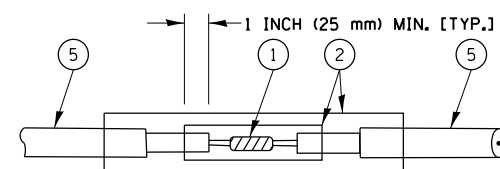


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

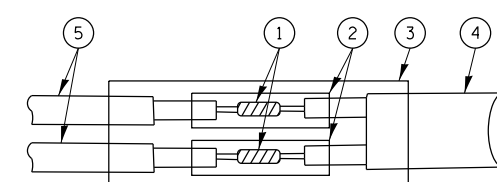


**DETECTOR LOOP WIRING SCHEMATIC**

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

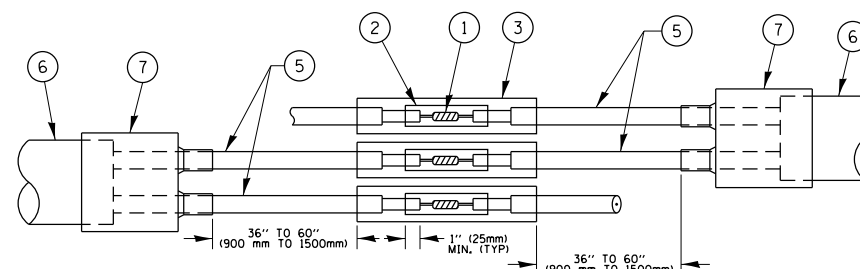


DETAIL "A"  
LOOP-TO-LOOP SPLICE

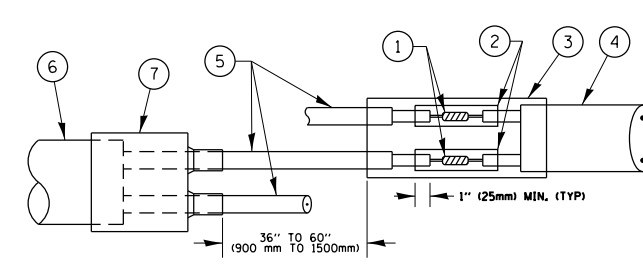


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**TYPE I LOOP**



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

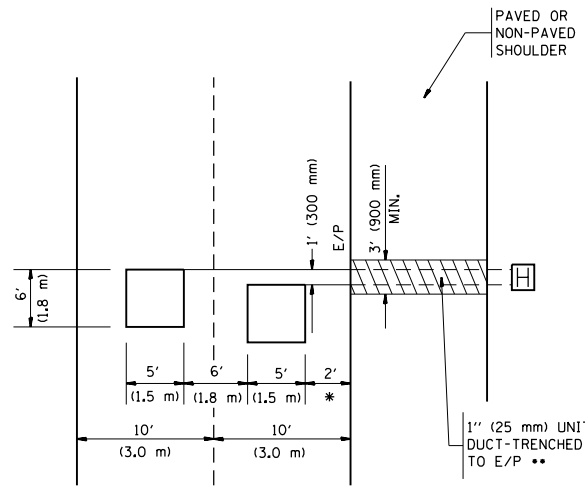
**LOOP DETECTOR SPLICE**

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

FILE NAME =	USER NAME = dettmanna	DESIGNED - DAD	REVISED - DAG 1-1-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
et:\pw\work\p1dot\dettmanna\d0230696\DetStd.dgn		DRAWN - BCK	REVISED -		SCALE: NONE	SHEET NO. 2 OF 7 SHEETS	STA.	TO STA.	353	23R-R5	COOK	66	65
		CHECKED - DAD	REVISED -					<b>TS-05</b>		<b>CONTRACT NO. 60L94</b>			
		DATE - 10-28-09	REVISED -		<small>FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT</small>								

LOOPS NEXT TO SHOULDERS

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



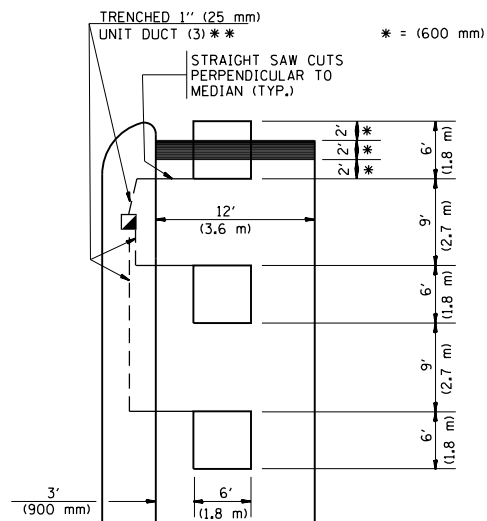
\* = (600 mm)

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

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.

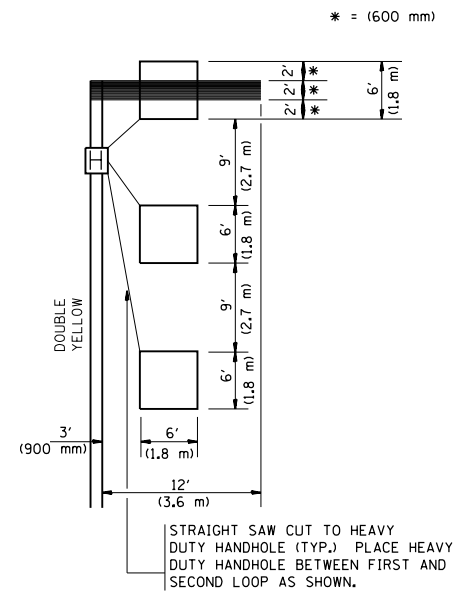


\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

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

LEFT TURN LANES WITHOUT MEDIANS  
VOLUME DENSITY ("FAR OUT" DETECTION)  
ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)



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

NOTES:

VEHICLES LOOP DETECTORS

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATELY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- \* ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- \* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- \* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
- \* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

PLACEMENT OF DETECTORS

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

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

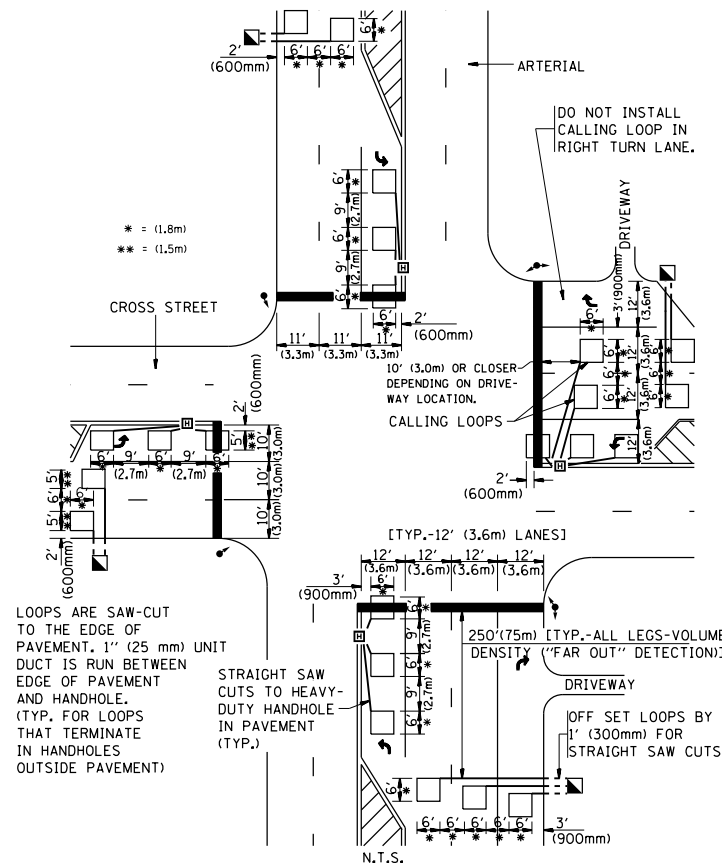
"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

NOTE:

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

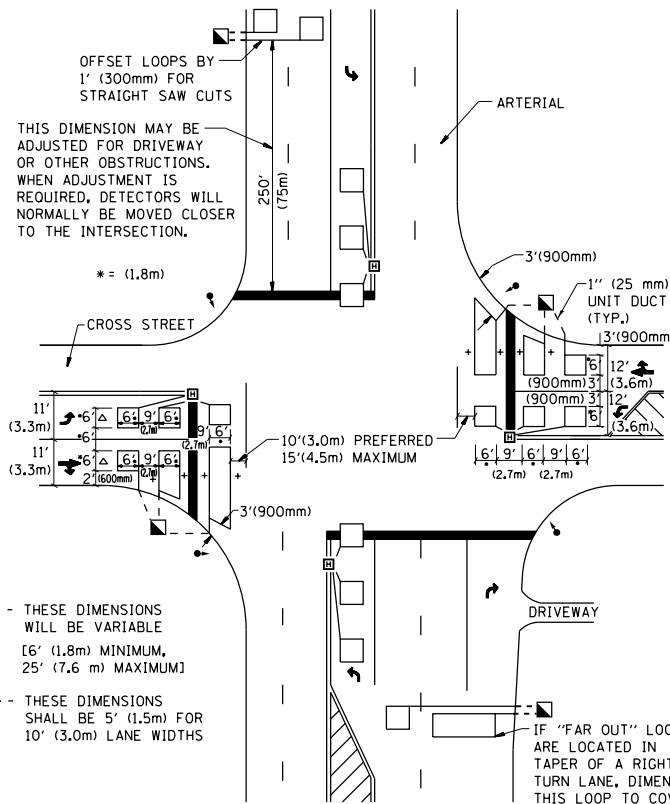
THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

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



DETAIL 1  
N.T.S.

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



DETAIL 2  
N.T.S.

FILE NAME =	USER NAME = dettmanna	DESIGNED -	REVISED -
et:\pw\work\p\dot\dettmanna\d0230696\dotStd.dgn		DRAWN -	REVISED -
		CHECKED - R.K.F.	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 - DETECTOR LOOP INSTALLATION  
DETAILS FOR ROADWAY RESURFACING

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	23R-R5	COOK	66	66
TS-07		CONTRACT NO. 60L94		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				