5-15-09 Letting, Item 010

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	3132 (A&B) RS	COOK	18	1
	ILLINOIS	CONTRACT NO. 62554		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

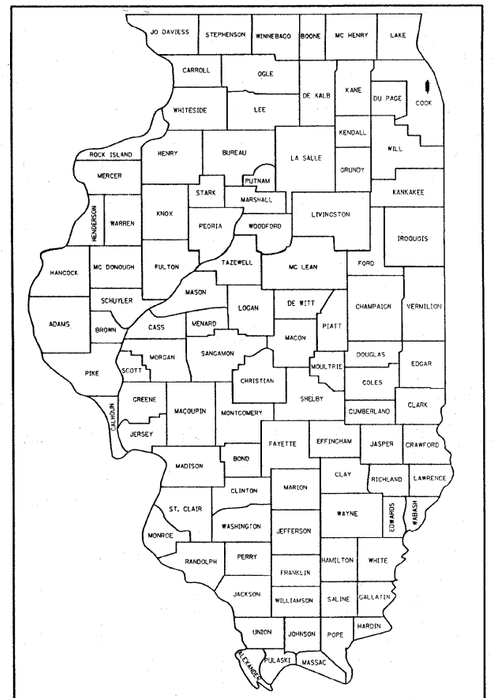
FAP 348 / ILL 43 (HARLEM AVENUE.)
ILL 64 (NORTH AVENUE) TO WABANSIA AVENUE
SECTION: 3132 (A&B) RS
RESURFACING (3P)

COOK COUNTY
C-91-007-03

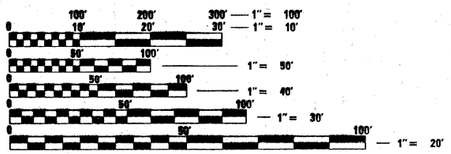
FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT LOCATED IN
CITY OF CHICAGO, AND
VILLAGE OF ELMWOOD PARK

D-91-007-03



LOCATION OF SECTION INDICATED THUS:- ■



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

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

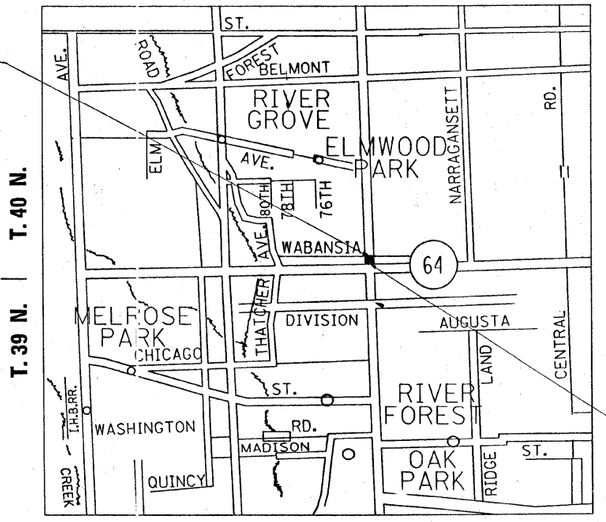
PROJECT ENGINEER: DAN WILGREEN (847) 705-4240
PROJECT MANAGER: KEN ENG

CONTRACT NO. 62554

R. 12 E. | R. 13 E.

T. 40 N. | T. 39 N.

PROJECT ENDS
STATION 329+50



N

PROJECT BEGINS
STATION 324+10

TRAFFIC DATA
2007 ADT = 28,300
SPEED LIMIT = 30 MPH

GROSS & NET LENGTH OF PROJECT = 613 LIN FT = 0.12 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED MARCH 24, 2009
Diane M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
May 1, 2009
Charles J. Ingersoll
ENGINEER OF DESIGN AND ENVIRONMENT
May 1, 2009
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS:

STATE STANDARDS:

000001-*05* STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

442201-*03* CLASS C AND D PATCHES

701301-*03* LANE CLOSURE, 2L 2W, SHORT TIME OPERATIONS

701306-*02* LANE CLOSURE, 2L 2W SLOW MOVING DAY ONLY OPERATIONS, FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH

701336-*05* LANE CLOSURE, 2L, 2W WORK AREAS IN SERIES FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH

701501-*05* URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED

701606-*06* LANE CLOSURE, MULTILANE, 2-W, WITH MOUNTABLE MEDIAN

701701-*06* URBAN LANE CLOSURE, MULTILANE INTERSECTION

701801-*04* LANE CLOSURE, MULTILANE, 1-W OR 2W, CROSSWALK OR SIDEWALK CLOSURE

701901-*01* TRAFFIC CONTROL DEVICES

GENERAL NOTES:

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED).

THE RESIDENT ENGINEER SHALL VERIFY THE LOCATIONS OF ALL EXISTING PAVEMENT MARKINGS PRIOR TO START OF CONSTRUCTION

3 METER (10 FEET) TRANSITION SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS & GUTTERS 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 AND THE VILLAGE OF PLAINFIELD.

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

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

THE ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705- 4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TRAFFIC CONTROL DEVICES

PERMANENT PAVEMENT MARKINGS SHALL BE THERMOPLASTIC (OF THE EXTRUDED TYPE) AND SHOULD BE PLACED IN ACCORDANCE WITH "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" DETAIL. TWO WEEKS PRIOR TO PLACING PERMANENT PAVEMENT MARKINGS, CONTACT MR. WALLY CZARNY, AREA TRAFFIC FIELD TECHNICIAN AT (773) 685-4342

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

FILE NAME = c:\pw_work\pwidot\byunsh\d0133580\D100703-Design1.dgn	USER NAME = byunsh	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/26/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 43 (HARLEM AVENUE)
INDEX OF SHEETS, LIST OF STATE STANDARDS AND GENERAL NOTES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	3132 (A&B) RS	COOK	18	2
		CONTRACT NO. 62554		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES			URBAN 100% STATE	CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	1000					
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	2	2					
40600300	AGGREGATE (PRIME COAT)	TON	9	9					
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	2	2					
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	54	54					
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	440	440					
~~42400100~~	~~PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH~~	~~SQ FT~~	~~100~~	~~100~~					
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	100	100					
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	4450	4450					
44000600	SIDEWALK REMOVAL	SQ FT	100	100					
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	200	200					
44201803	CLASS D PATCHES, TYPE II, 13 INCH	SQ YD	100	100					
44201807	CLASS D PATCHES, TYPE III, 13 INCH	SQ YD	150	150					
44201809	CLASS D PATCHES, TYPE IV, 13 INCH	SQ YD	150	150					
50300300	PROTECTIVE COAT	SQ YD	56	56					
60250200	CATCH BASINS TO BE ADJUSTED	EACH	5	5					
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	5	5					
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	8	8					
60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	2	2					
60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	2	2					
67100100	MOBILIZATION	L SUM	1	1					
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1					
70100600	TRAFFIC CONTROL AND PROTECTION, STANDARD 701336	L SUM	1	1					
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1					
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	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	900	900					
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	36.4	36.4					

SUMMARY OF QUANTITIES			URBAN 100% STATE	CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	1000					
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	2000	2000					
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	150	150					
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	180	180					
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	40	40					
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	230	230					
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	36.4	36.4					
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	2000	2000					
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	150	150					
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	180	180					
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	40	40					
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	60	60					
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	50	50					
* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	533	533					
X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	180	180					
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3					
Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	15	15					
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	51.4	51.4					

* SPECIALTY ITEMS

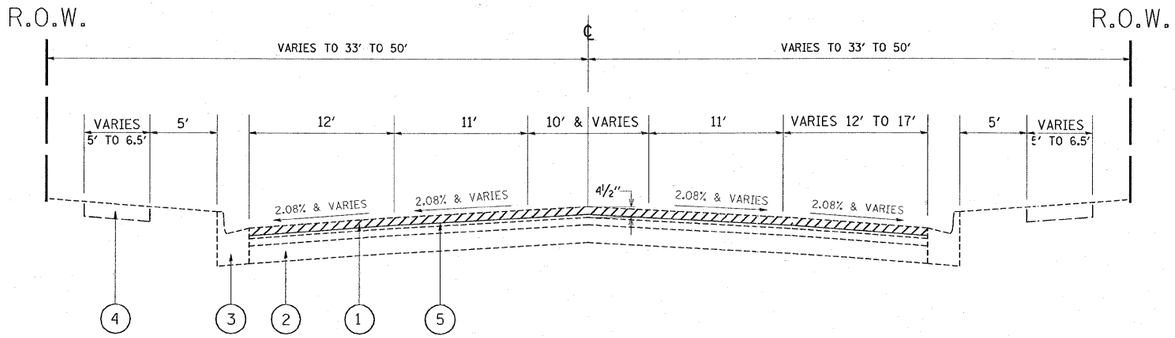
FILE NAME = c:\pw_work\pwidot-byunsh\d0133580\D100703-DesignI.dgn	USER NAME = byunsh	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/26/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 43 (HARLEM AVENUE)
SUMMARY OF QUANITIES

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

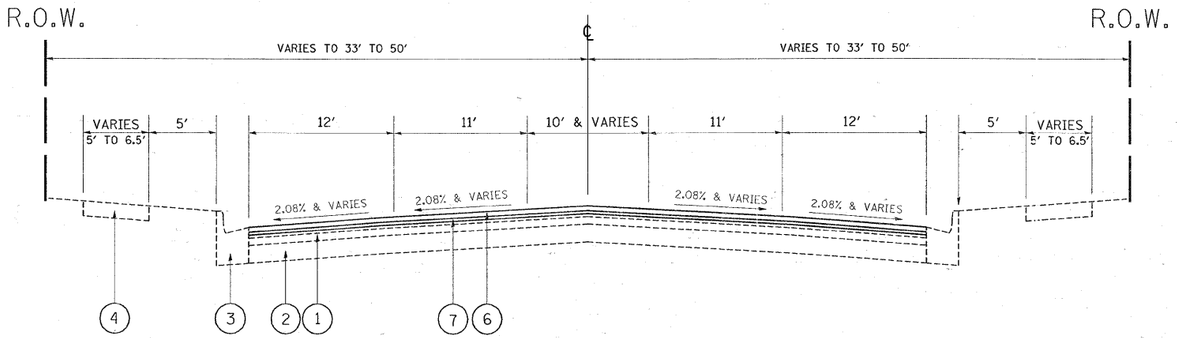
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	3132 (A&B) RS	COOK	18	3
		CONTRACT NO. 62554		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



EXISTING TYPICAL SECTION
ILL RTE. 43 (HARLEM AVE.)
STA. 324+10 TO STA. 330+23

LEGEND

1. EXIST. HMA SURFACE COURSE (± 4½")
2. EXIST. PCC PAVEMENT (± 10½")
3. EXIST. COMB. CONCRETE CURB & GUTTER, TYPE B-6.12
4. EXIST. CONCRETE SIDEWALK (5")
5. PROP. HMA SURFACE REMOVAL, 2½"
   NOTE: MILLINING OF ROADWAY TO BE DONE PRIOR TO PATCHIING
6. PROP. HMA SURFACE COURSE, MIX "F", 90, 1¾"
7. PROP. POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, ¾"



PROPOSED TYPICAL SECTION
ILL RTE. 43 (HARLEM AVE.)
STA. 324+10 TO STA. 330+23

HOT-MIX ASPHALT MIXTURE REQUIREMENT		
MIXTURE TYPE	AC TYPE	AIR VOIDS
HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL 9.5 MM)	SBS/SBR PG 70-22	4% @ 90 GYR
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	SBS/SBR PG 76-28/-22	4% @ 50 GYR
ALL CLASS D PATCHES, (HMA BINDER IL-19 MM)	PG 64-22	4% @ 70 GYR

NOTE: THE UINT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN

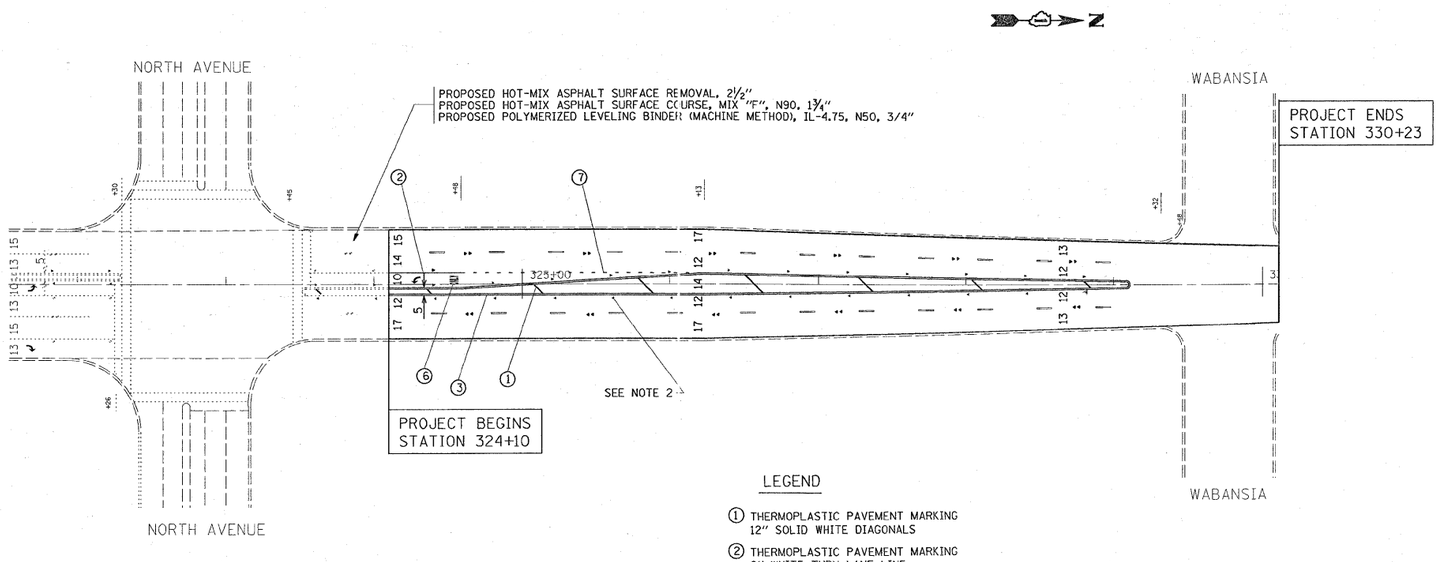
FILE NAME = c:\pw_work\pwidot\byunsh\d0133580\D100703-Design1.dgn	USER NAME = byunsh	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/26/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 43 (HARLEM AVENUE)
TYPICAL SECTIONS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	3132 (A&B) RS	COOK	18	4
		CONTRACT NO. 62554		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



LEGEND

1. THERMOPLASTIC PAVEMENT MARKING 12" SOLID WHITE DIAGONALS
2. THERMOPLASTIC PAVEMENT MARKING 6" WHITE TURN LANE LINE
3. THERMOPLASTIC PAVEMENT MARKING 4" YELLOW SOLID CENTERLINE
4. THERMOPLASTIC PAVEMENT MARKING 6" WHITE SOLID CROSSWALK LINE
5. THERMOPLASTIC PAVEMENT MARKING 24" WHITE STOP BAR
6. THERMOPLASTIC PAVEMENT MARKING LETTERS AND SYMBOLS, WHITE
7. THERMOPLASTIC PAVEMENT MARKING 2'-6' WHITE DOTTED, 6"

NOTE:

1. ALL PAVEMENT MARKING SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED. SEE DISTRICT DETAIL TC-13, TC-24
2. RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE USED THROUGH THE IMPROVEMENT LIMITS. DOUBLE LANE LINE MARKERS SHALL BE INSTALLED. SEE DISTRICT DETAIL TC-11

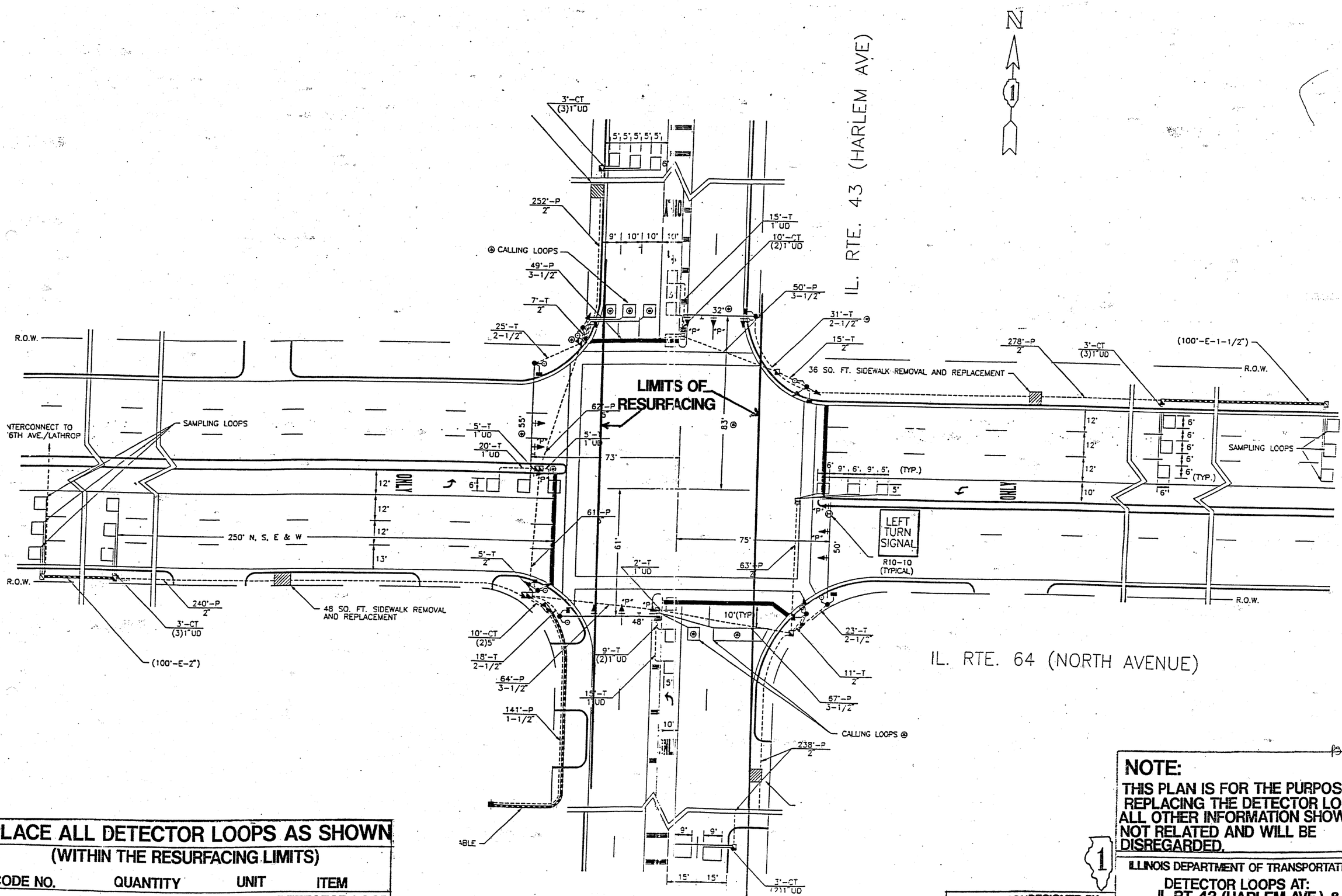
FILE NAME = c:\pw_work\pwidot\byunsh\d0133580\D100703-Design1.dgn	USER NAME = byunsh	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/26/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 43 (HARLEM AVENUE)
ROADWAY & PAVEMENT MARKING PLAN

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	3132 (A&B) RS	COOK	18	5
		CONTRACT NO. 62554		
	ILLINOIS FED. AID PROJECT			



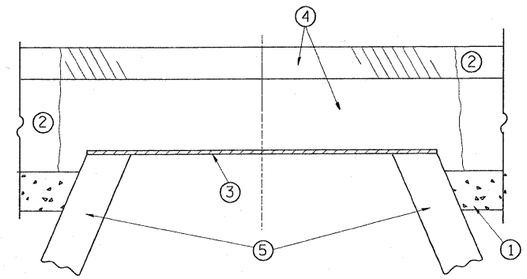
REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMITS)			
CODE NO.	QUANTITY	UNIT	ITEM
88600600	533	FOOT	DETECTOR LOOP REPLACEMENT

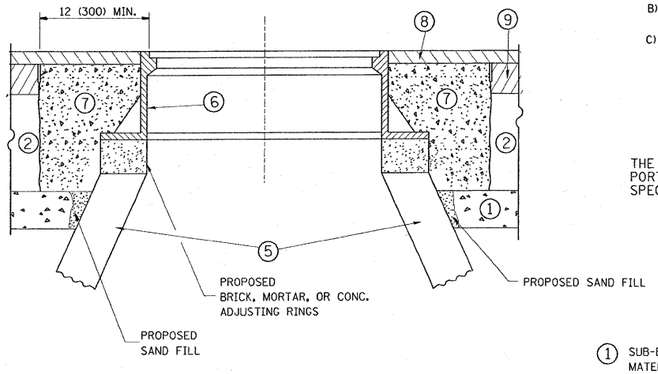
NOTE:
THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETECTOR LOOPS AT:
IL RT 43 (HARLEM AVE.) &
IL RT 64 (NORTH AVE.)

SCALE: 1"= 40' DESIGNED BY:
DRAWN BY:
DATE 5-30-03 CHECKED BY:





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 1½ (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.

B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.

C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

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

LEGEND

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

NOTES:

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

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

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

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

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

LOCATION OF STRUCTURES:

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

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

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

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

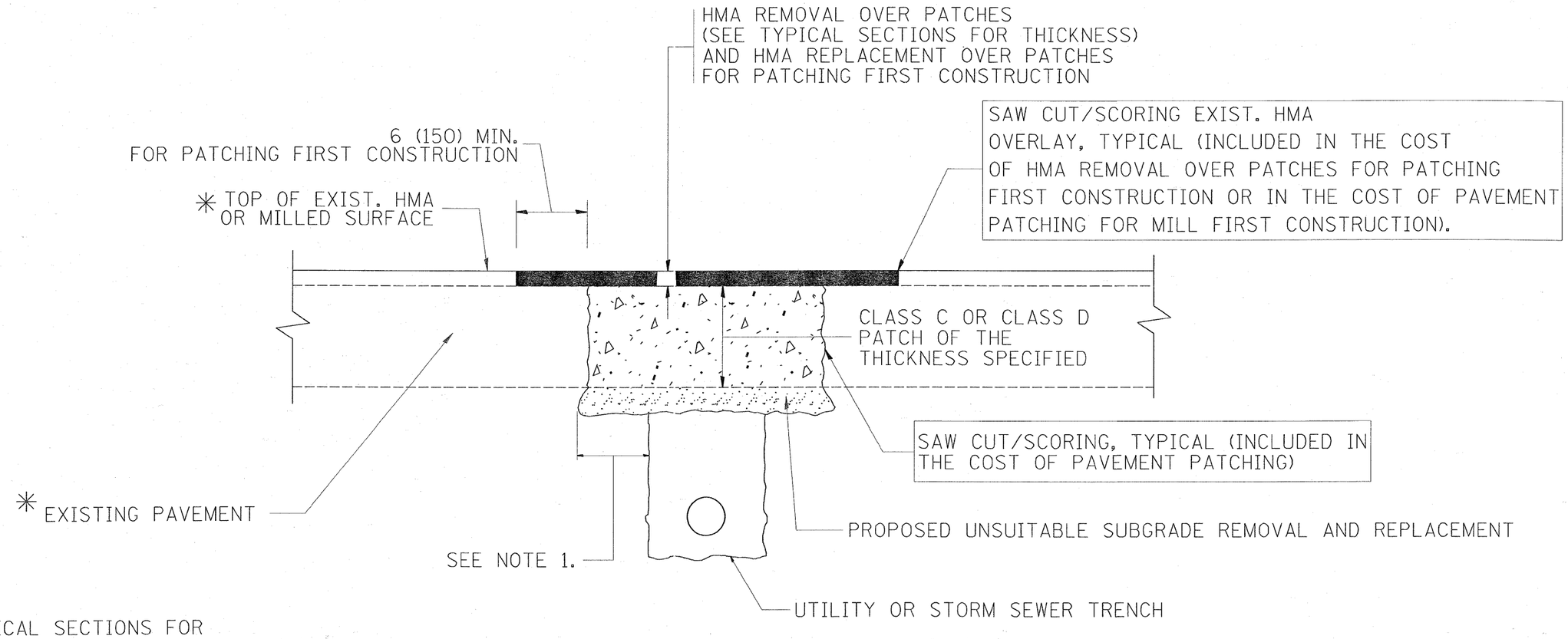
FILE NAME = c:\pw_work\pwidot\bjunsh\d0133580\D1stStd.dgn	USER NAME = bjunsh	DESIGNED - R. SHAH	REVISED - R. SHAH 03-10-95
		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - R. WIEDEMAN 05-14-04
	PLOT DATE = 3/26/2009	DATE - 10-25-94	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS FOR
FRAMES AND LIDS ADJUSTMENT WITH MILLING

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	3132 (A&B) RS	COOK	18	7
	BD600-03 (BD-8)	CONTRACT NO. 62554		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

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

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

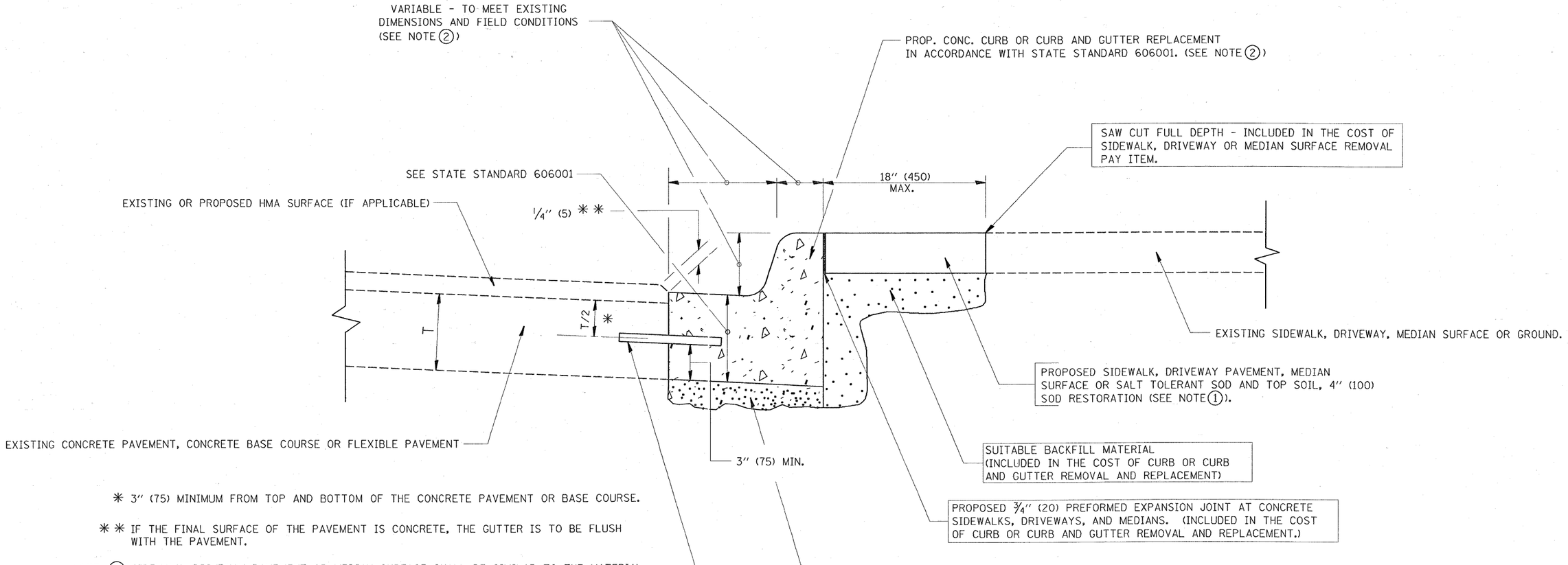
1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4½ INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

FILE NAME = c:\pw_work\pwidot\byunsh\d0133580\DistStd.dgn	USER NAME = byunsh	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - R. BORO 01-01-07					348	3132 (A&B) RS	COOK	18	8
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - R. BORO 09-04-07						BD400-04 (BD-22)	CONTRACT NO. 62554		
	PLOT DATE = 3/26/2009	DATE - 10-25-94	REVISED - K. ENG 10-27-08		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.		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.

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

(2) CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

(3) FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

(4) LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

(5) THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.

(6) THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

(7) THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

BASIS OF PAYMENT:

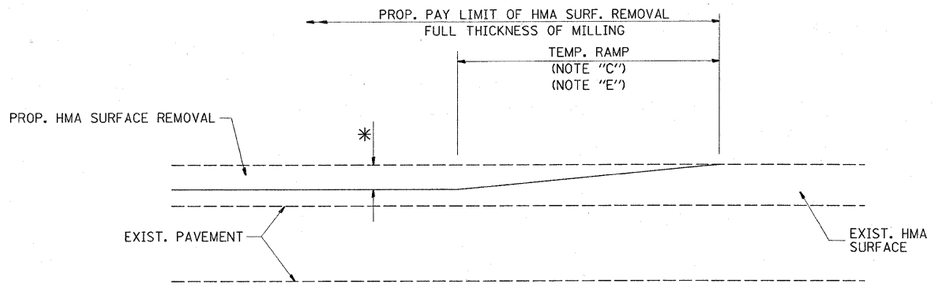
THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

FILE NAME = c:\pw_work\pwdot\byunsh\d0133686\DistStd.dgn	USER NAME = byunsh	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT
	PLOT SCALE = 50.0000 ' / IN.	DRAWN -	REVISED - A. ABBAS 03-21-97		SCALE: NONE / SHEET NO. 1 OF 1 SHEETS / STA. / TO STA.
	PLOT DATE = 3/26/2009	CHECKED -	REVISED - M. GOMEZ 01-22-01		
		DATE - 03-11-94	REVISED - R. BORO 01-01-07		

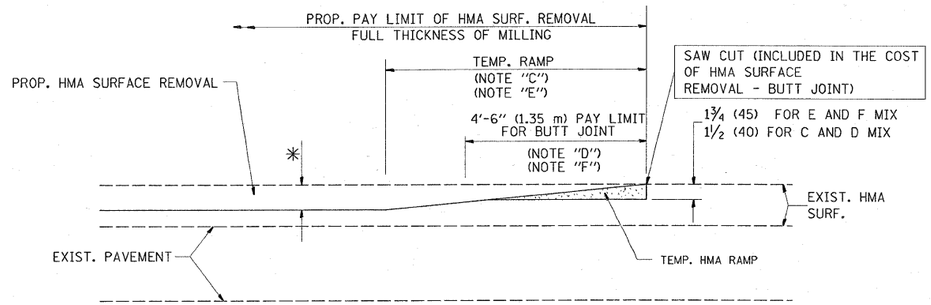
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	3132 (A&B) RS	COOK	18	9
	BD600-06 (BD-24)	CONTRACT NO. 62554		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

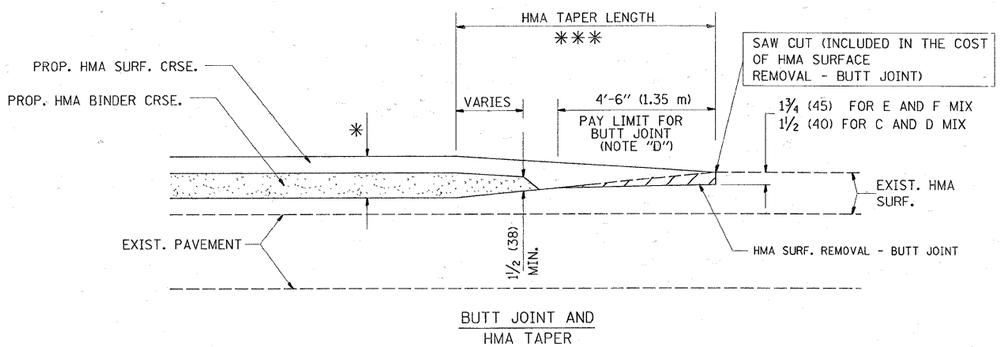


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

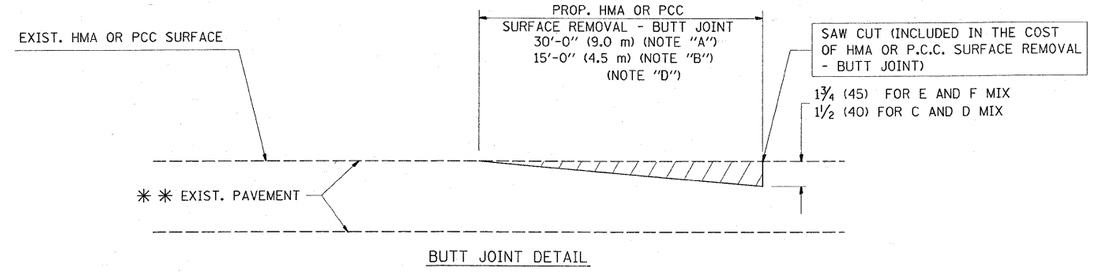
OPTION 2

TYPICAL TEMPORARY RAMP

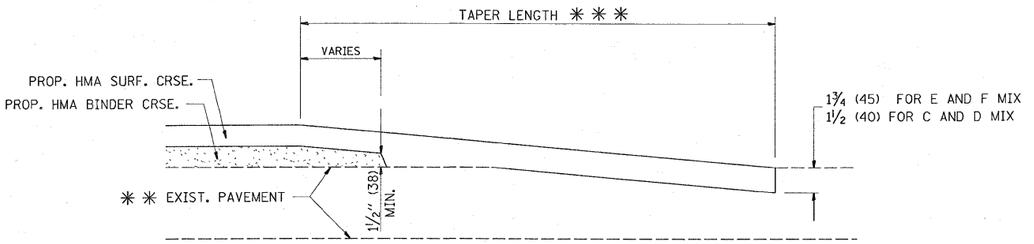


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B: MINOR SIDE ROADS.

C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.

F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT

G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

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

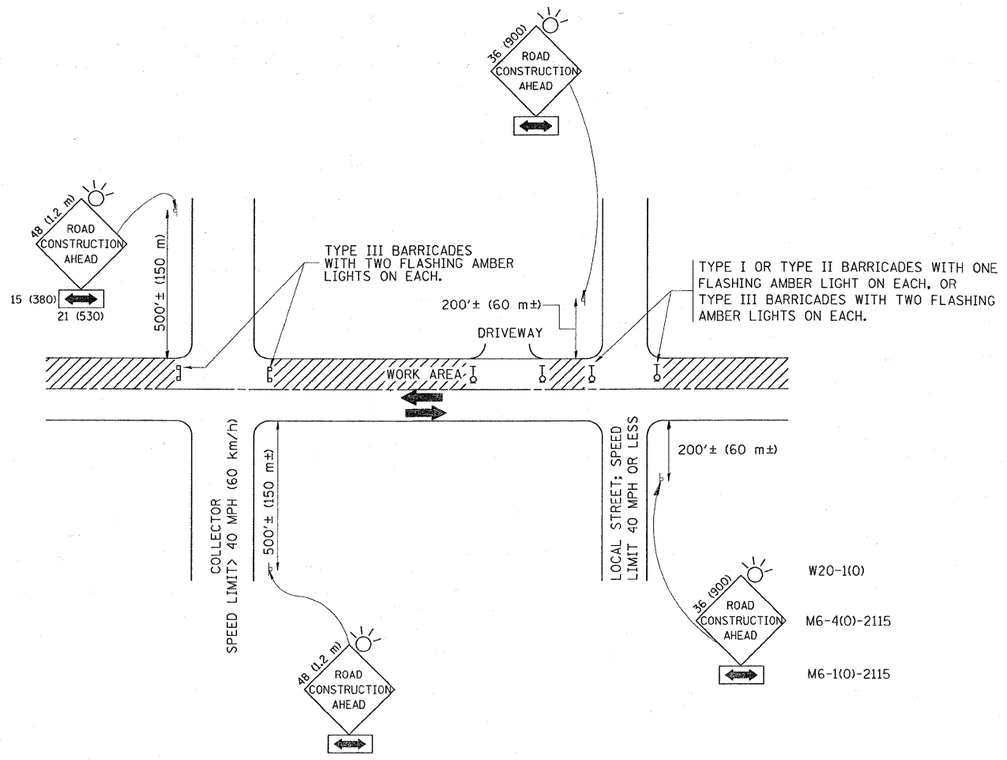
BASIS OF PAYMENT:

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

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

FILE NAME = c:\pw_work\pwidot\byunsh\d0133580\DistStd.dgn	USER NAME = byunsh	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BUTT JOINT AND HMA TAPER DETAILS
	PLOT SCALE = 50.0000 ' / IN.	DRAWN -	REVISED - A. ABBAS 03-21-97		SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.
	PLOT DATE = 3/26/2009	CHECKED -	REVISED - M. GOMEZ 04-06-01		
		DATE - 06-13-90	REVISED - R. BORO 01-01-07		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	3132 (A&B) RS	COOK	18	10
	BD400-05 BD32	CONTRACT NO. 62554		
FED. ROAD DIST. NO. 1	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.

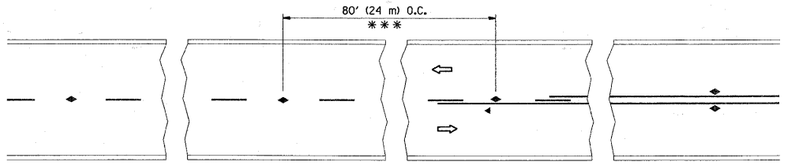
FILE NAME = c:\pw_work\pwidot\byunsh\d0133580\D1stStd.dgn	USER NAME = byunsh	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 3/26/2009	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

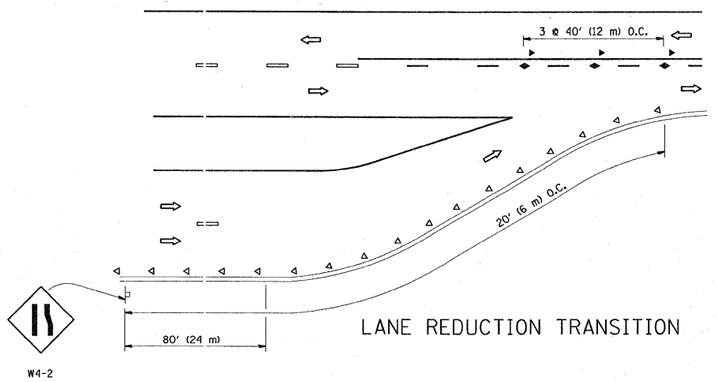
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	3132 (A&B) RS	COOK	18	11
	TC-10	CONTRACT NO. 62554		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

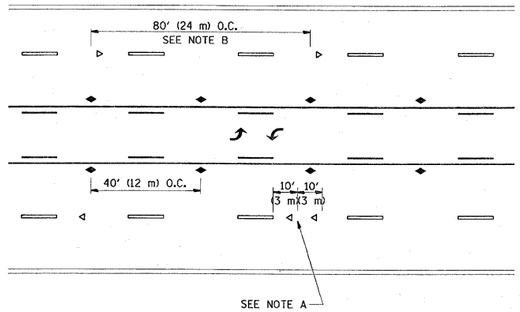


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

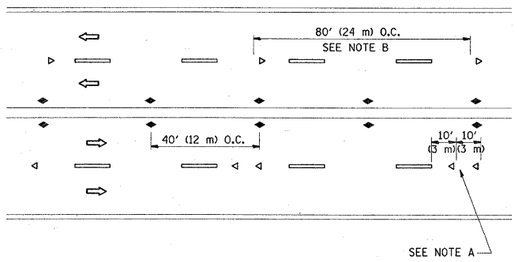
TWO-LANE/TWO-WAY



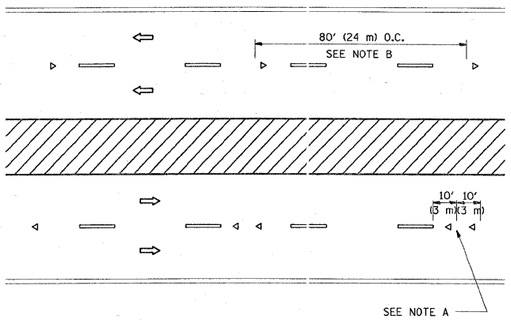
LANE REDUCTION TRANSITION



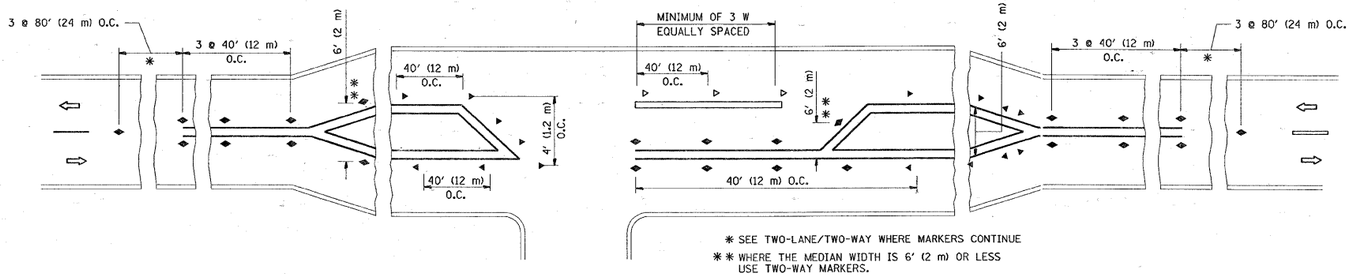
TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED



* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE

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

LEFT TURN

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

B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

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 SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

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

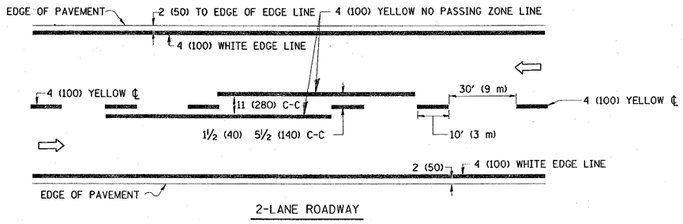
FILE NAME = c:\pw_work\pwidot\byunsh\d0133580\DistStd.dgn	USER NAME = byunsh	DESIGNED -	REVISED - T. RAMMACHER 09-19-94
		DRAWN -	REVISED - T. RAMMACHER 03-12-99
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 01-06-00
	PLOT DATE = 3/26/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

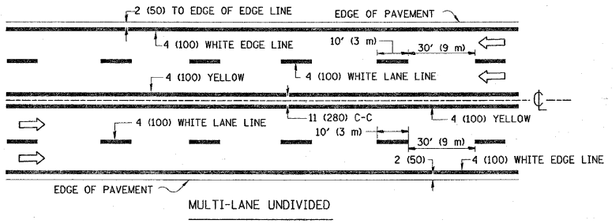
TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

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

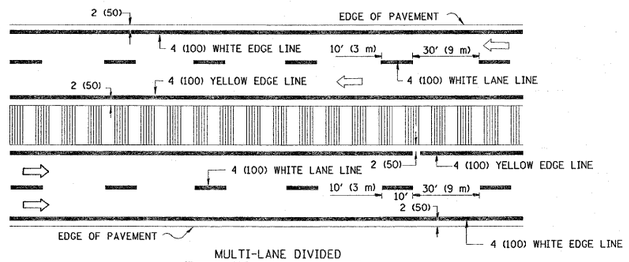
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	3132 (A&B) RS	COOK	18	12
	TC-11	CONTRACT NO. 62554		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



2-LANE ROADWAY



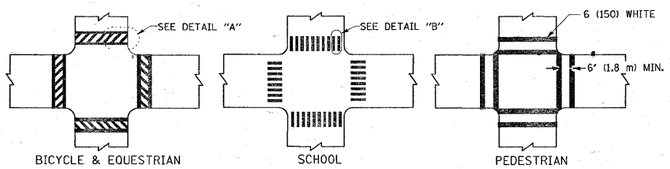
MULTI-LANE UNDIVIDED

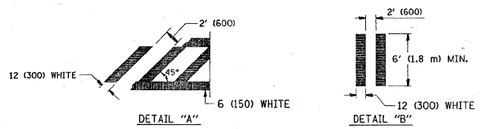


MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

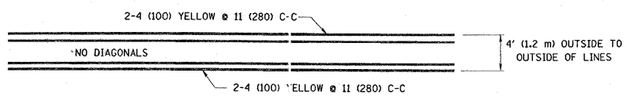
NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

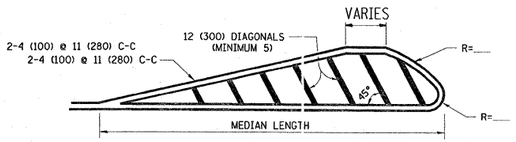




TYPICAL CROSSWALK MARKING



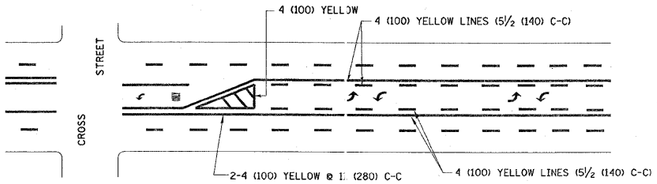
4' (1.2 m) WIDE MEDIANS ONLY



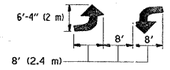
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 30' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

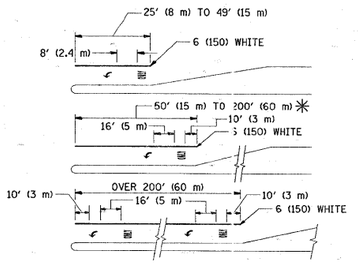


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

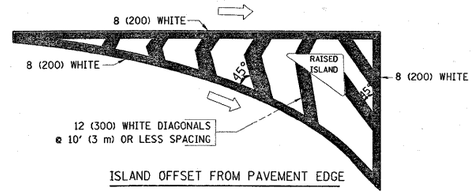


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m²) ↑ ONLY AREA = 20.8 SQ. FT. (1.9 m²)

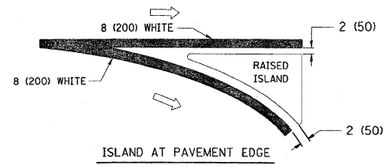
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

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 UNDIVEDED PAVEMENT	2 ø 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 ø 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 ø 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; 5½ (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 ø 6 (150) 12 (300) ø 45° 12 (300) ø 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 ø 4 (100) WITH 12 (300) DIAGONALS ø 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 ø 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) ø 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

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

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

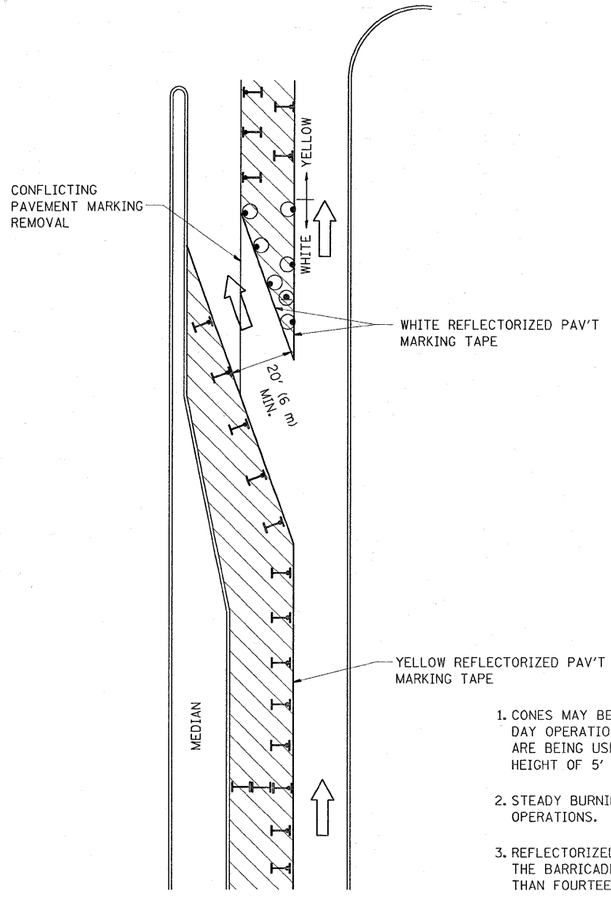
FILE NAME = c:\pw_work\pwidot\byunsh\d0133580\DistStd.dgn	USER NAME = byunsh	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94
		DRAWN -	REVISED -A. HOUSEH 10-09-96
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -A. HOUSEH 10-17-96
	PLOT DATE = 3/26/2009	DATE - 03-19-90	REVISED -T. RAMMACHER 01-06-00

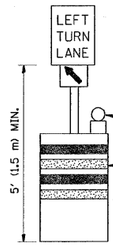
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	3132 (A&B) RS	COOK	18	13
	TC-13	CONTRACT NO. 62554		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		





R 3-1100L 24 x 24 (600 x 600)

M6-2L 21 x 15 (530 x 380)

OPTIONAL FLASHING LIGHT

STANDARD 702001
DRUM FILLED WITH ENOUGH
SAND (BAGS) FOR STABILIZATION

GENERAL NOTES

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

LEGEND

WORK AREA

LANE OPEN TO TRAFFIC

TYPE I OR II BARRICADE WITH STEADY BURN LIGHT

DRUM WITH STEADY BURN LIGHT

DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL

TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

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

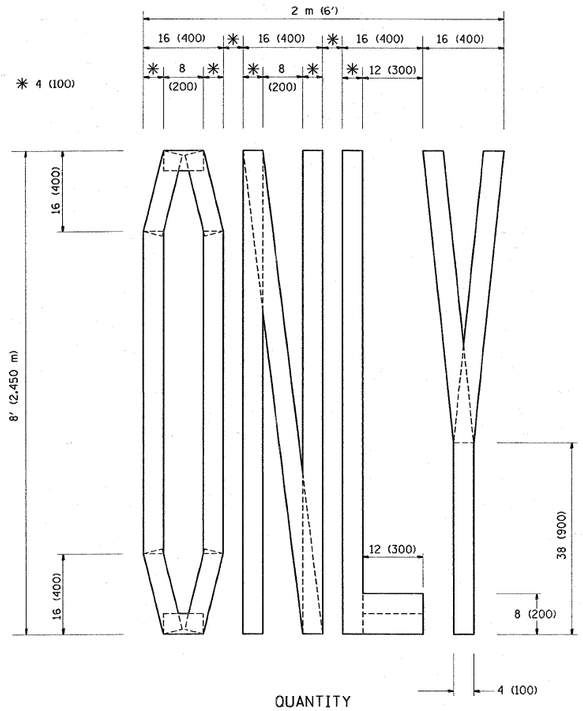
FILE NAME = c:\pw_work\pwidot\byunsh\d0133580\D1stStd.dgn	USER NAME = byunsh	DESIGNED -	REVISED -T. RAMMACHER 09-08-94
		DRAWN -	REVISED - A. HOUSEH 11-07-95
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-12-96
	PLOT DATE = 3/26/2009	DATE -	REVISED -T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

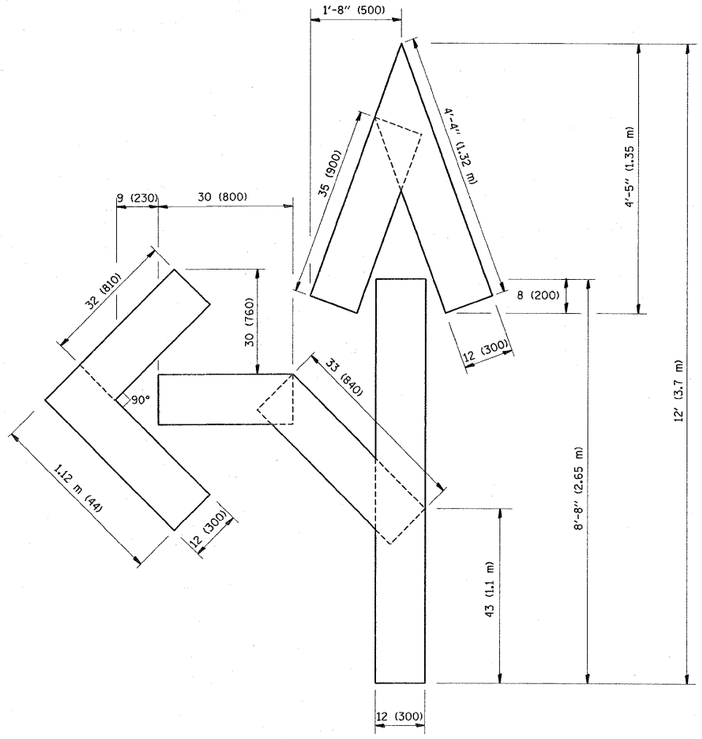
TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
(TO REMAIN OPEN TO TRAFFIC)

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

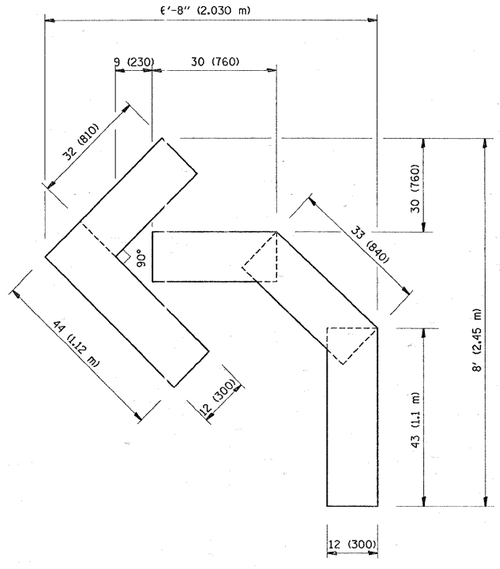
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	3132 (A&B) RS	COOK	18	14
	TC-14	CONTRACT NO. 62554		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



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.

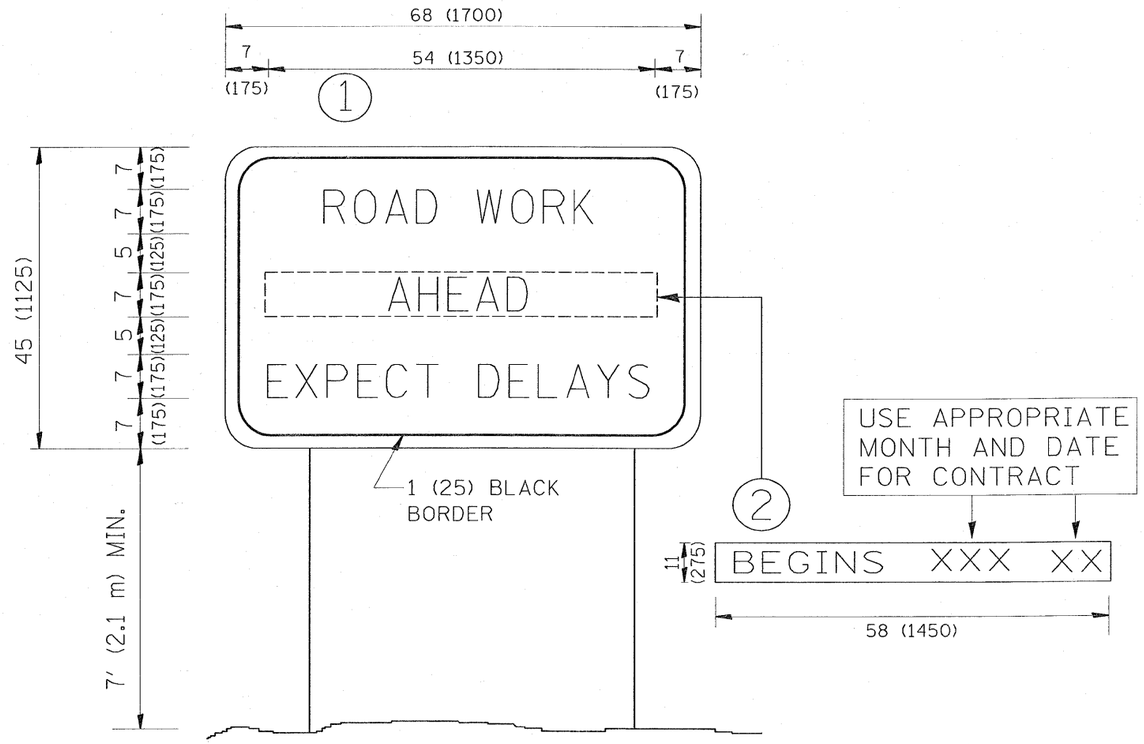
FILE NAME = c:\pw_work\pwidot\byunsh\d0133580\DistStd.dgn	USER NAME = byunsh	DESIGNED -	REVISED - T. RAMMACHER 06-05-96
		DRAWN -	REVISED - T. RAMMACHER 11-04-97
	PLOT SCALE = 50.2000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 03-02-98
	PLOT DATE = 3/26/2009	DATE - 09-18-94	REVISED - E. GOMEZ 08-28-00

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.
348	3132 (A&B) RS	COOK	18	15
	TC-16	CONTRACT NO. 62554		
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 = c:\pw_work\pwidot\byunsh\d0133580\DistSt1.dgn	USER NAME = byunsh	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 3/26/2009	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.
348	3132 (A&B) RS	COOK	18	16
	TC-22	CONTRACT NO. 62554		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

LOOP DETECTOR NOTES

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

2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.

3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.

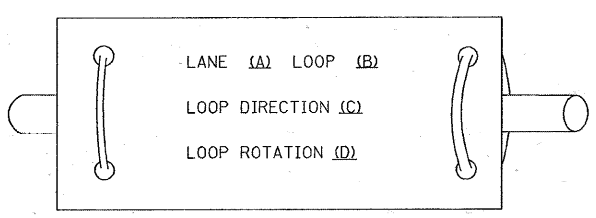
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.

6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.

7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

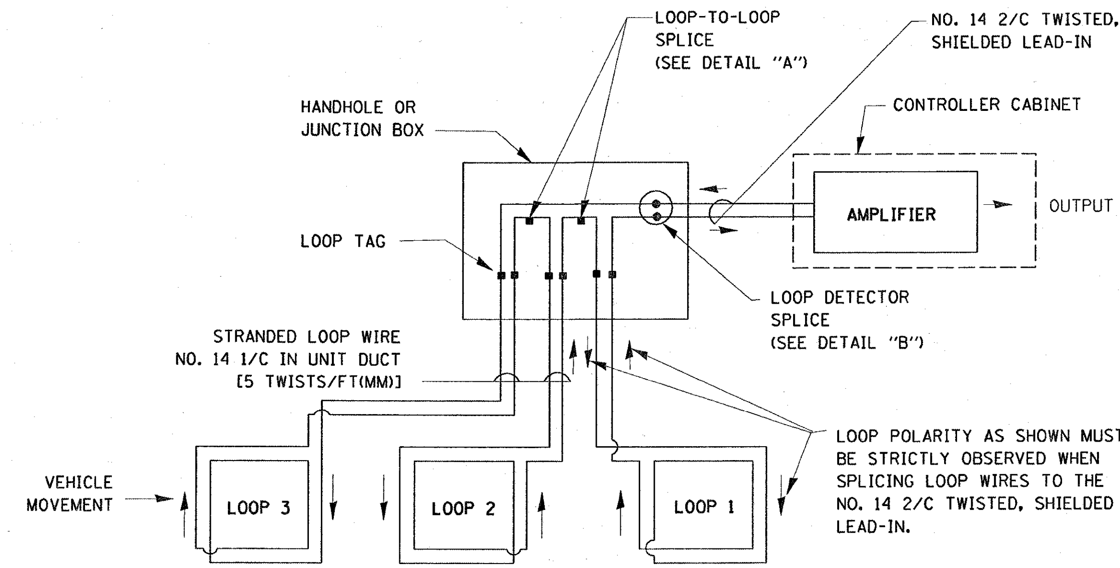


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.

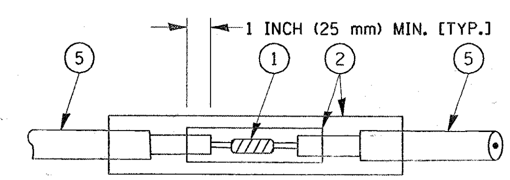
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

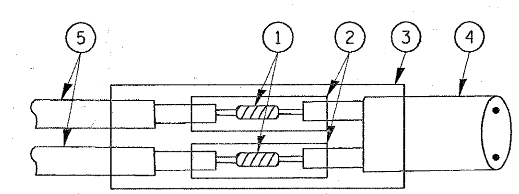


DETECTOR LOOP WIRING SCHEMATIC

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



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

(1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.

(2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.

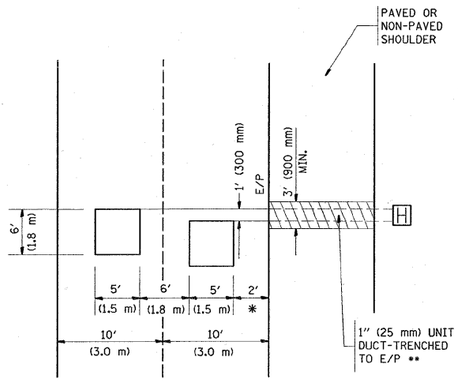
(3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.

(4) NO. 14 2/C TWISTED, SHIELDED CABLE.

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

FILE NAME = c:\pw_work\pwidot\byunsh\d0133580\DistStd.dgn	USER NAME = byunsh	DESIGNED - D.A.D.	REVISED - 11-12-01	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS	F.A.P. RTE. 348 / SECTION 3132 (A&B) RS / COUNTY COOK / TOTAL SHEETS 18 / SHEET NO. 17
		DRAWN - R.W.P.	REVISED - BUR. TRAFFIC 01-01-02			TS-05
	PLOT SCALE = 50.0000 ' / IN.	CHECKED - D.A.Z.	REVISED -		SCALE: NONE / SHEET NO. 1 OF 4 SHEETS / STA. TO STA.	CONTRACT NO. 62554
	PLOT DATE = 3/26/2009	DATE - 05-30-00	REVISED -			FED. ROAD DIST. NO. 1 / ILLINOIS / FED. AID PROJECT

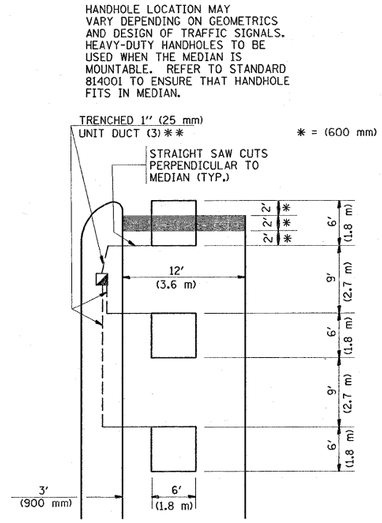
LOOPS NEXT TO SHOULDERS



* = (600 mm)

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

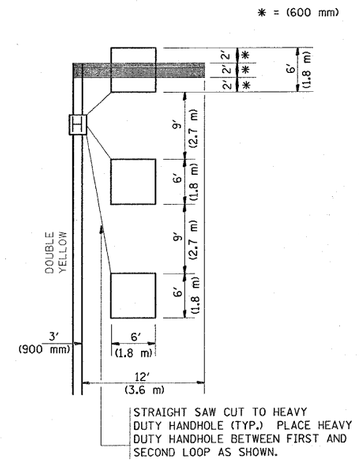
LEFT TURN LANES WITH MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)



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

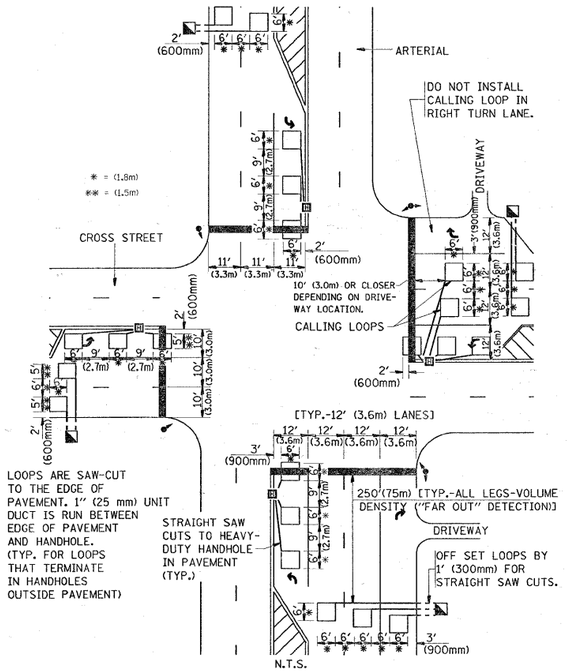
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



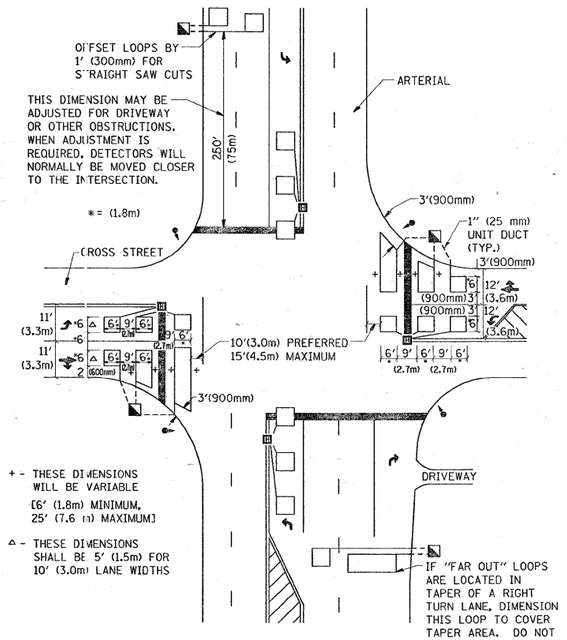
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



DETAIL 1
N.T.S.

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



DETAIL 2
N.T.S.

NOTES:

VEHICLES LOOP DETECTORS

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

PLACEMENT OF DETECTORS

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

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

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

NOTE:

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

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

FILE NAME = c:\pw_work\pwidot\byunsh\d0133580\DistStd.dgn	USER NAME = byunsh	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED - R.K.F.	REVISED -
	PLOT DATE = 3/26/2009	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.
348	3132 (A&B) RS	COOK	18	18
	TS-07	CONTRACT NO. 62554		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		