04-29-11 LETTING ITEM 008

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37+1	1
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 60K54		

#37+1=38

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT IS LOCATED IN THE VILLAGES OF WILLOW SPRINGS, JUSTICE, AND BEDFORD PARK

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAU 3565: ILLINOIS 171 (ARCHER AVENUE)
FROM TEC AIR AVE. TO ROBERTS RD.
SECTION: B–R–2–RS
RESURFACING (3P)
PROJECT NO.: M-3565(004)
COOK COUNTY
C–91–523–10

D–91–523–10

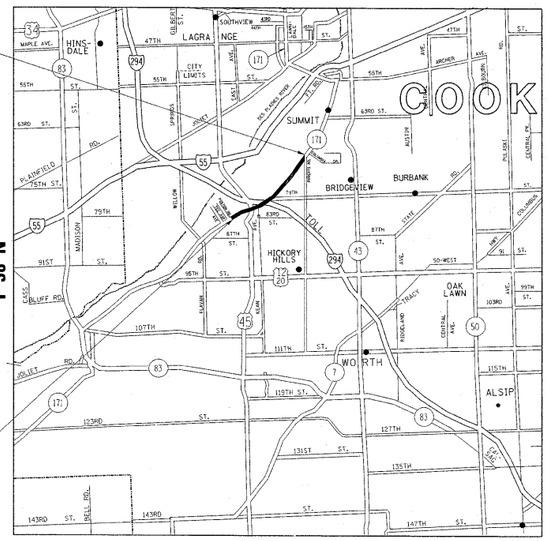
LOCATION OF SECTION INDICATED THUS: –■–

PROJECT ENDS STATION 168+38

PROJECT BEGINS STATION 21+07

R 12 E

T 38 N



N

OMISSION @ I-294 BRIDGE
(WESTBOUND IL. RTE. 171)
STA. 209+21 - STA. 233+73
STATION EQUATION:
STA. 240+49.16 (WB) = STA. 85+00 E(B)

OMISSION @ US RTE. 12/20/45 BRIDGE
(WESTBOUND IL. RTE. 171)
STA. 25+80 - STA. 203+47
STATION EQUATION:
STA. 200+10.57 (WB) = STA. 44+00 (EB)

TRAFFIC DATA:

2009 ADT = 15,700 – 17,700
SPEED LIMIT = 35 – 45 MPH

OMISSION @ RAMP J BRIDGE
(EASTBOUND IL. RTE. 171)
STA. 72+52 - STA. STA. 74+27

OMISSION @ I-294 BRIDGE
(EASTBOUND IL RTE. 171)
STA. 65+97 - STA. 69+25

OMISSION @ US RTE. 12/20/45 BRIDGE
(EASTBOUND IL. RTE. 171)
STA. 25+80 - STA. 46+74
STATION EQUATION:
STA. 200+10.57 (WB) = STA. 44+00 (EB)

100′ 200′ 300′ — 1″= 100′
0 10′ 20′ 30′ — 1″= 10′
0 50′ 100′ — 1″= 50′
0 50′ 100′ — 1″= 40′
0 50′ 100′ — 1″= 30′
0 50′ 100′ — 1″= 20′

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: JENPAI P. CHANG (847) 705 – 4432
PROJECT MANAGER: KEN ENG

CONTRACT NO. 60K54

GROSS LENGTH OF PROJECT = 14,723 FEET = 2.79 MILES
NET LENGTH OF PROJECT = 12,126 FEET = 2.30 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED JANUARY 28, 20 10
Diane M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
March 25 20 11
Scott E. Stitt, P.E. /for
acting ENGINEER OF DESIGN AND ENVIRONMENT
March 25 20 11
Christine M. Reed /for
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

LIST OF STATE STANDARDS:

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
442201-03	CLASS C AND D PATCHES
606001-04	COMCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701101-02	OFF-RD OPERATIONS, MULTILANE, 4.5 m (15') TO 600 mm (24') FROM PAVEMENT EDGE
701411-07	LANE CLOSURE, MULTI LANE, ENTRANCE OR EXIR RAMP FOR SPEED > 45 MPH
701422-03	LANE CLOSURE, MULTI LANE, FOR SPEED > 45 MPH TO 55 MPH
701426-04	LANE CLOSURE, MULTI LANE, INTERMITTENT OR MOVING OPERATIONS FOR SPEED > 45 MPH
~~701426~~	~~LANE CLOSURE, MULTI LANE, INTERMITTENT OR MOVING OPERATIONS FOR SPEED > 45 MPH~~
701427	LANE CLOSURE, MULTI LANE, INTERMITTENT OR MOVING OPERATIONS FOR SPEED < 40 MPH
701601-07	URBAN LANE CLOSURE, MULTILANE, 1W, OR 2W WITH NONTRAVERSAVLE MEDIAN
701606-07	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-07	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-01	TRAFFIC CONTROL DEVICES
886001-01	DETECTOR LOOP INSTALLATION
886006-01	TYPICAL LAYOUT FOR DETECTOR LOOPS

GENERAL NOTES:

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE AT 800-892-0123 (OR 811) FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED).

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGES OF WILLOW SPRINGS, JUSTICE, AND BEDFORD PARK.

WHEN CONSTRUCTING SIDEWALK RAMPS FOR THE HANDICAPPED (STATE STANDARD 424001), USE TYPE B RAMPS UNLESS OTHERWISE SPECIFIED.

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

ANY DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

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

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

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

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

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

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

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 PATRICE HARRIS TRAFFIC FIELD ENGINEER, AT (708) 597-9800, A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

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

THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY AND RECORD LOCATIONS OF DETECTOR LOOP FOR REPLACEMENT AT INTERSECTIONS MAINTAINED BY MUNICIPALITIES.

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

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RTE. 171 (ARCHER AVENUE)
INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	2
		CONTRACT NO. 60K54		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	URBAN 80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0005
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	406	406
25200110	SODDING, SALT TOLERANT	SQ YD	406	406
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	62	62
40600300	AGGREGATE (PRIME COAT)	TON	296	296
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	114	114
40600895	CONSTRUCTING TEST STRIP	EACH	2	2
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	365	365
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	6392	6392
42001300	PROTECTIVE COAT	SQ YD	812	812
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	73883	73883
44201789	CLASS D PATCHES, TYPE II, 12 INCH	SQ YD	796	796
44201794	CLASS D PATCHES, TYPE III, 12 INCH	SQ YD	123	123
44201796	CLASS D PATCHES, TYPE IV, 12 INCH	SQ YD	816	816
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	125	125
60250200	CATCH BASINS TO BE ADJUSTED	EACH	15	15
60253000	CATCH BASINS TO BE RECONSTRUCTED WITH NEW TYPE I FRAME, OPEN LID	EACH	2	2
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6
67100100	MOBILIZATION	L SUM	1	1
70100315	TRAFFIC CONTROL AND PROTECTION, STANDARD 701422	EACH	11	11
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	11	11
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	5	5
70300100	SHORT TERM PAVEMENT MARKING	FOOT	4275	4275
70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SQ FT	281	281
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	64315	64315
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	500	500
70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	570	570

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	URBAN 80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0005
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	425	425
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	353	353
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	23481	23481
*78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	281	281
*78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	64315	64315
*78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	500	500
*78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	570	570
*78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	425	425
*78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	353	353
*78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	880	880
*78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	750	750
*88600600	DETECTOR LOOP REPLACEMENT	FOOT	668	668
X2020110	GRADING AND SHAPING SHOULDERS	UNIT	58	58
X4060826	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	3196	3196
#X5539700	STORM SEWERS TO BE CLEANED	FOOT	800	800
X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	13	13
Z0004562	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	2435	2435
#Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	10	10
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	205.6	205.6

* SPECIALTY ITEMS

NON- PARTICIPATING ITEMS (100% ST)

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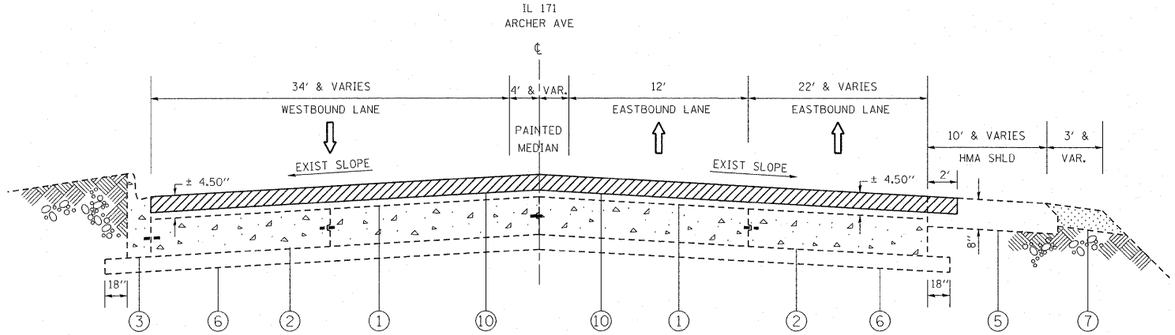
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 171 (ARCHER AVENUE)
SUMMARY OF QUANTITIES

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	3
		CONTRACT NO. 60K54		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

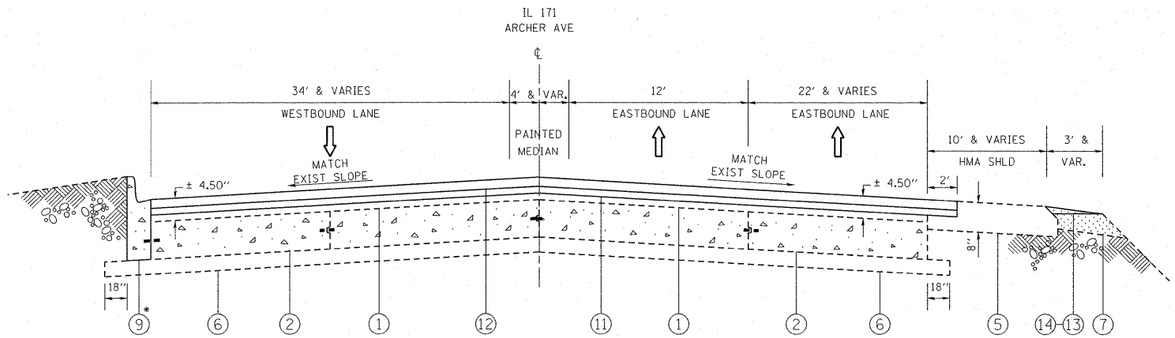


IL 171 (ARCHER AVE)
EXISTING TYPICAL SECTION
STA. 21+07 TO STA. 25+80

NOTE:

EASTBOUND OMISSION:
STA. 25+80 TO STA. 46+74

NO TYPICAL SECTION ARE PROVIDED FOR OMITTED ROADWAY SECTIONS

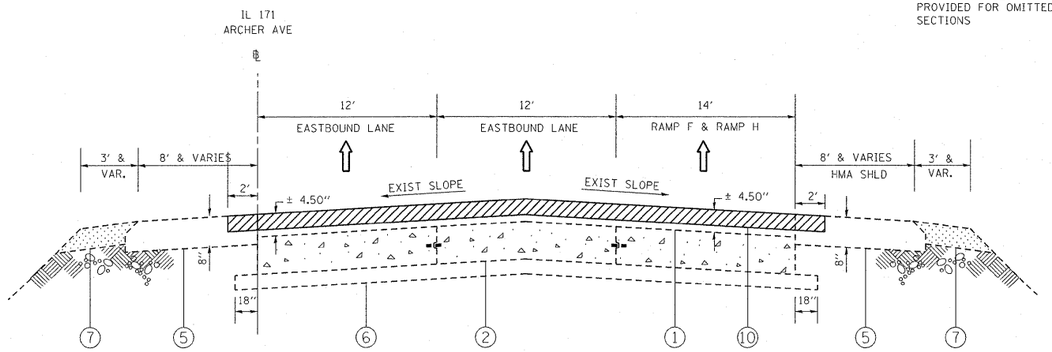


IL 171 (ARCHER AVE)
PROPOSED TYPICAL SECTION
STA. 21+07 TO STA. 25+80

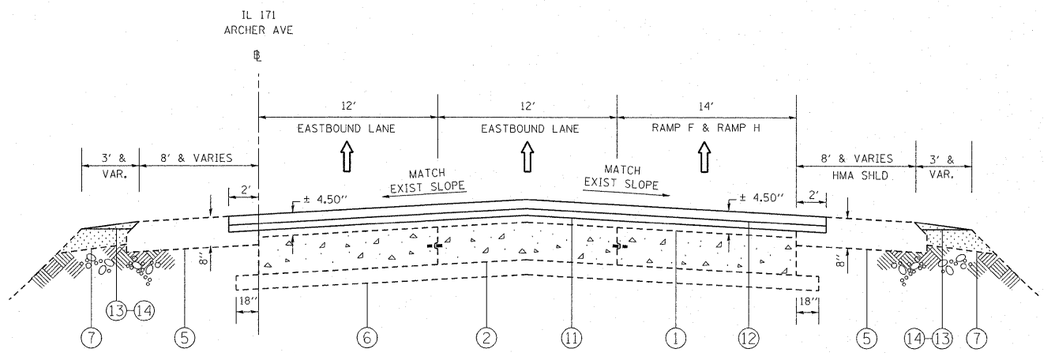
NOTE:

EASTBOUND OMISSION:
STA. 25+80 TO STA. 46+74

NO TYPICAL SECTION ARE PROVIDED FOR OMITTED ROADWAY SECTIONS



IL 171 (ARCHER AVE)
EXISTING TYPICAL SECTION
STA. 46+74 TO STA. 61+26



IL 171 (ARCHER AVE)
PROPOSED TYPICAL SECTION
STA. 46+74 TO STA. 61+26

LEGEND

1. EXISTING HMA SURFACING, ± 4.50"
2. EXISTING P.C. CONCRETE BASE COURSE, ± 9.50"
3. EXISTING COMB. CONC. CURB & GUTTER, TYPE B-6.24
4. EXISTING COMB. CONC. CURB & GUTTER, TYPE M-4.24
5. EXISTING HMA SHOULDER
6. EXISTING SUB-BASE GRANULAR MATERIAL, TYPE B, 4"
7. EXISTING AGGREGATE SHOULDER, TYPE B
8. EXISTING CONCRETE MEDIAN
9. *PROPOSED COMB. CONC. C&G REMOVAL AND REPLACEMENT
10. PROPOSED HMA SURFACE REMOVAL, 2-1/4"
11. PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
12. PROPOSED HMA SURFACE COURSE, MIX "D", N70, 1-1/2"
13. PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
14. PROPOSED GRADING AND SHAPING OF SHOULDERS

NOTE:

* LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER

" THE CONTRACTOR SHALL MILL FIRST PRIOR TO PATCHING".

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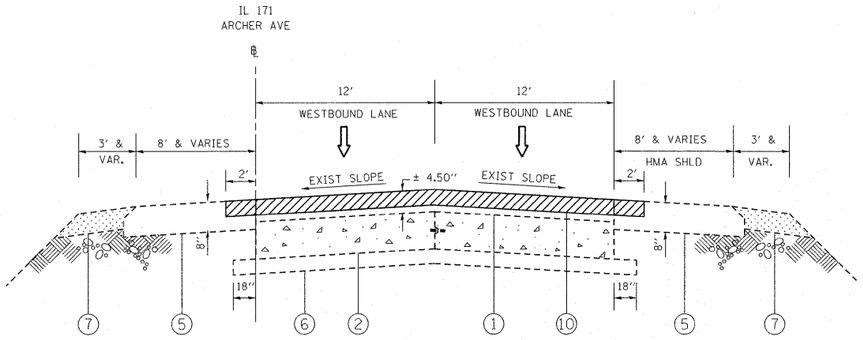
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 171 (ARCHER AVENUE)
EXISTING AND PROPOSED TYPICAL SECTIONS

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	4
		CONTRACT NO. 60K54		
		ILLINOIS FED. AID PROJECT		



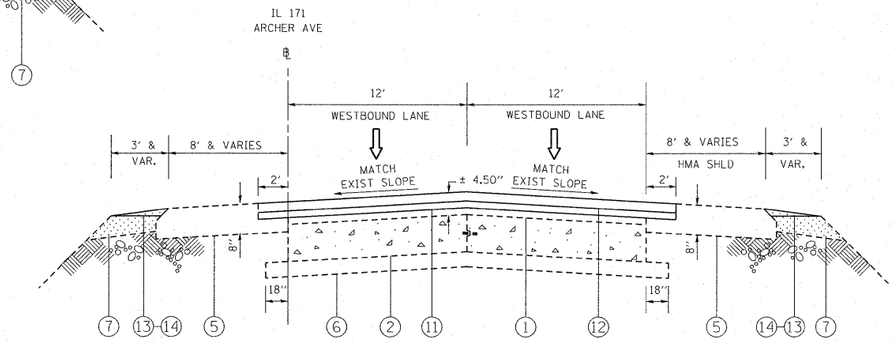
IL 171 (ARCHER AVE)
EXISTING TYPICAL SECTION
STA. 203+47 TO STA. 209+21

NOTE:

WESTBOUND OMISSION:
STA. 25+80 TO STA. 44+00
STA. 200+10.57 TO STA. 203+47

STATION EQUIVALENT:
STA. 44+00 (EB) = STA. 200+10.57 (WB)

NO TYPICAL SECTION ARE PROVIDED FOR OMITTED ROADWAY SECTIONS



IL 171 (ARCHER AVE)
PROPOSED TYPICAL SECTION
STA. 203+47 TO STA. 209+21

NOTE:

WESTBOUND OMISSION:
STA. 25+80 TO STA. 44+00
STA. 200+10.57 TO STA. 203+47

STATION EQUIVALENT:
STA. 44+00 (EB) = STA. 200+10.57 (WB)

NO TYPICAL SECTION ARE PROVIDED FOR OMITTED ROADWAY SECTIONS

LEGEND

1. EXISTING HMA SURFACING, ± 4.50"
2. EXISTING P.C. CONCRETE BASE COURSE, ± 9.50"
3. EXISTING COMB. CONC. CURB & GUTTER, TYPE B-6.24
4. EXISTING COMB. CONC. CURB & GUTTER, TYPE M-4.24
5. EXISTING HMA SHOULDER
6. EXISTING SUB-BASE GRANULAR MATERIAL, TYPE B, 4"
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13. PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
14. PROPOSED GRADING AND SHAPING OF SHOULDERS

NOTE:

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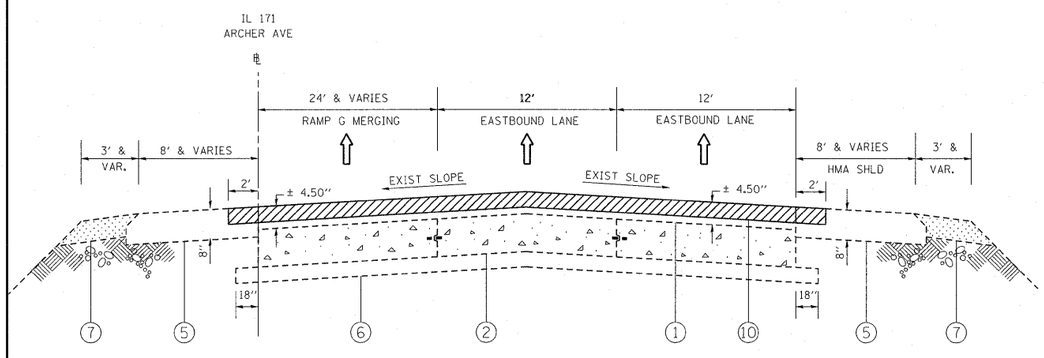
" THE CONTRACTOR SHALL MILL FIRST PRIOR TO PATCHING".

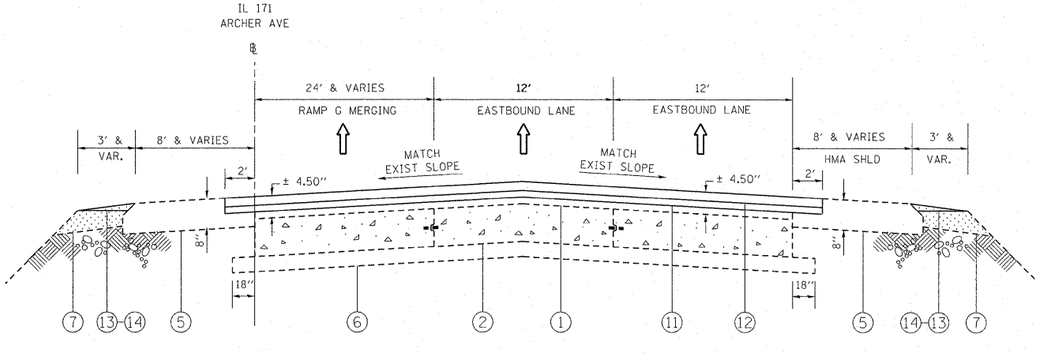


IL 171 (ARCHER AVE)
EXISTING TYPICAL SECTION
STA. 61+26 TO STA. 65+97

NOTE:

EASTBOUND OMISSION:
STA. 65+97 TO STA. 69+25

NO TYPICAL SECTION WILL BE PROVIDED FOR OMITTED ROADWAY SECTIONS



IL 171 (ARCHER AVE)
PROPOSED TYPICAL SECTION
STA. 61+26 TO STA. 65+97

NOTE:

EASTBOUND OMISSION:
STA. 65+97 TO STA. 69+25

NO TYPICAL SECTION WILL BE PROVIDED FOR OMITTED ROADWAY SECTIONS

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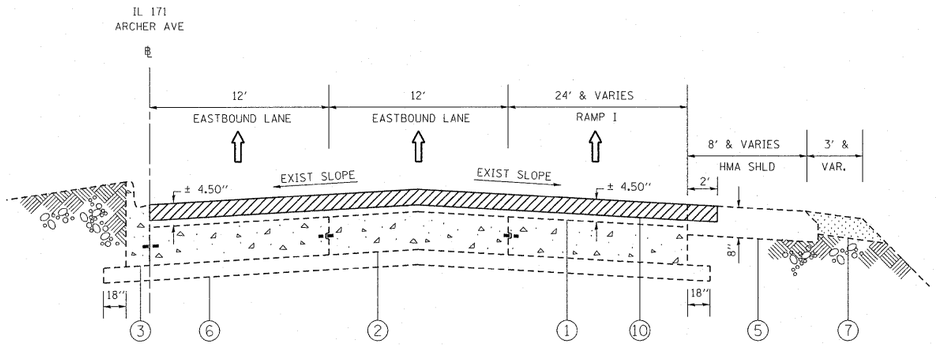
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 171 (ARCHER AVENUE)
EXISTING AND PROPOSED TYPICAL SECTIONS

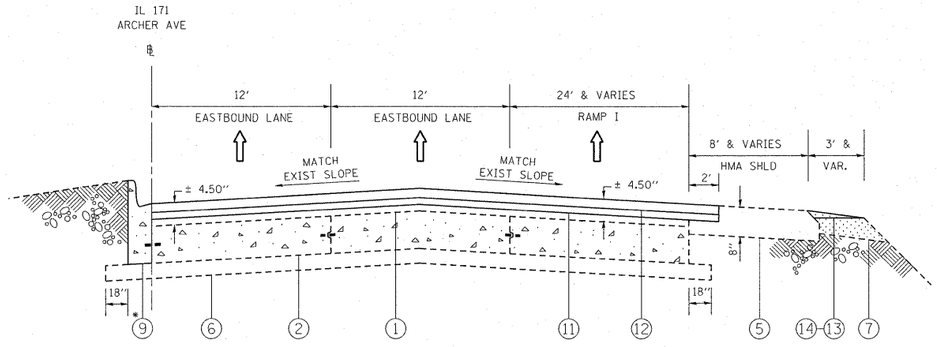
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	5
		CONTRACT NO. 60K54		
	ILLINOIS FED. AID PROJECT			



IL 171 (ARCHER AVE)
EXISTING TYPICAL SECTION
STA. 69+25 TO STA. 72+52

NOTE:
EASTBOUND OMISSION:
STA. 72+52 TO STA. 74+27
NO TYPICAL SECTION ARE PROVIDED FOR OMITTED ROADWAY SECTIONS



IL 171 (ARCHER AVE)
PROPOSED TYPICAL SECTION
STA. 69+25 TO STA. 72+52

LEGEND

1. EXISTING HMA SURFACING, ± 4.50"
2. EXISTING P.C. CONCRETE BASE COURSE, ± 9.50"
3. EXISTING COMB. CONC. CURB & GUTTER, TYPE B-6.24
4. EXISTING COMB. CONC. CURB & GUTTER, TYPE M-4.24
5. EXISTING HMA SHOULDER
6. EXISTING SUB-BASE GRANULAR MATERIAL, TYPE B, 4"
7. EXISTING AGGREGATE SHOULDER, TYPE B
8. EXISTING CONCRETE MEDIAN
9. * PROPOSED COMB. CONC. C&G REMOVAL AND REPLACEMENT
10. PROPOSED HMA SURFACE REMOVAL, 2-1/4"
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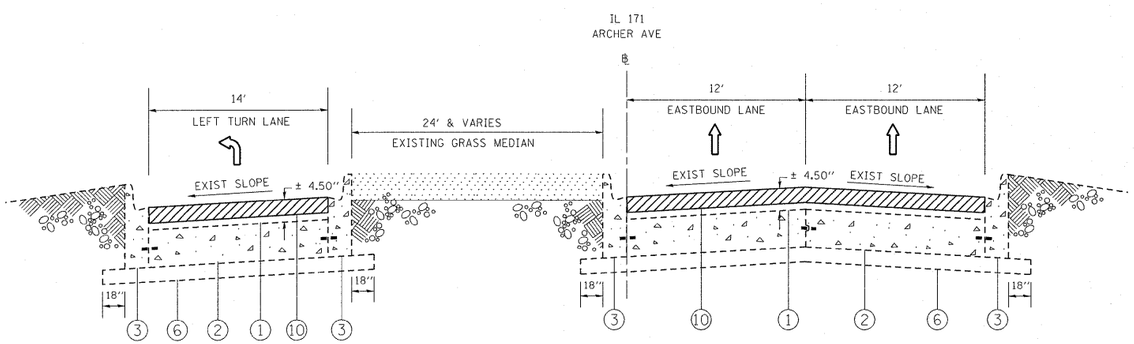
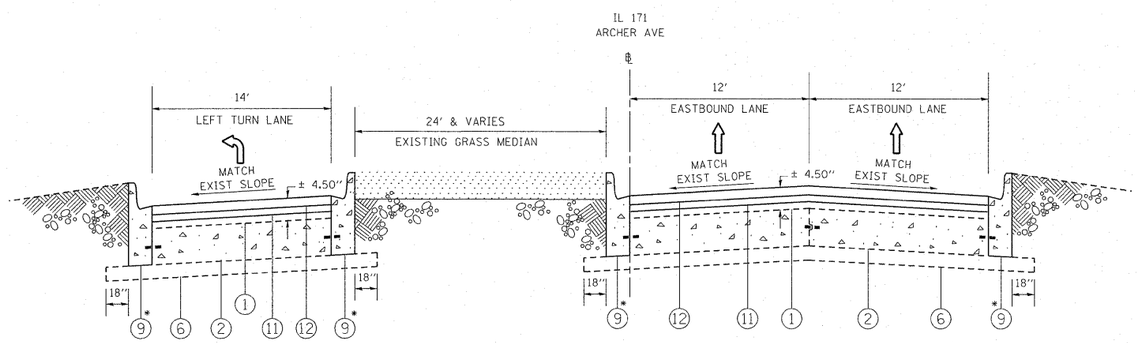
12. PROPOSED HMA SURFACE COURSE, MIX "D", N70, 1-1/2"
13. PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
14. PROPOSED GRADING AND SHAPING OF SHOULDERS

NOTE:
* LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER
" THE CONTRACTOR SHALL MILL FIRST PRIOR TO PATCHING".



IL 171 (ARCHER AVE)
EXISTING TYPICAL SECTION
STA. 74+27 TO 88TH AVENUE INT.

NOTE:
EASTBOUND OMISSION:
STA. 72+52 TO STA. 74+27
NO TYPICAL SECTION ARE PROVIDED FOR OMITTED ROADWAY SECTIONS



IL 171 (ARCHER AVE)
PROPOSED TYPICAL SECTION
STA. 74+27 TO 88TH AVENUE INT.

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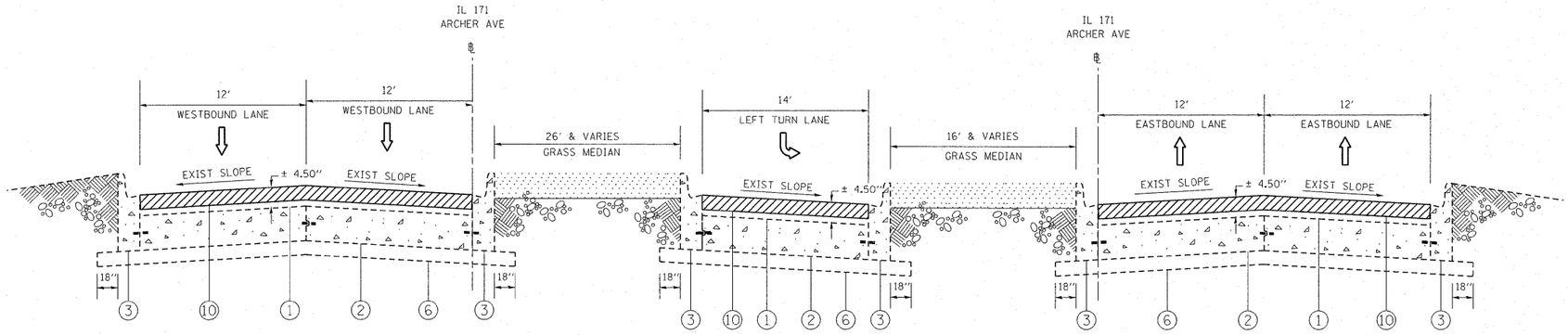
	PLOT DATE = 2/12/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 171 (ARCHER AVENUE)
EXISTING AND PROPOSED TYPICAL SECTIONS

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	6
		CONTRACT NO. 60K54		
	ILLINOIS FED. AID PROJECT			



IL 171 (ARCHER AVE)
EXISTING TYPICAL SECTION
88TH AVE. INT. TO STA. 84+07
STATION EQUIVALENT:
STA. 85+00 (EB) = STA. 240.16 (WB)

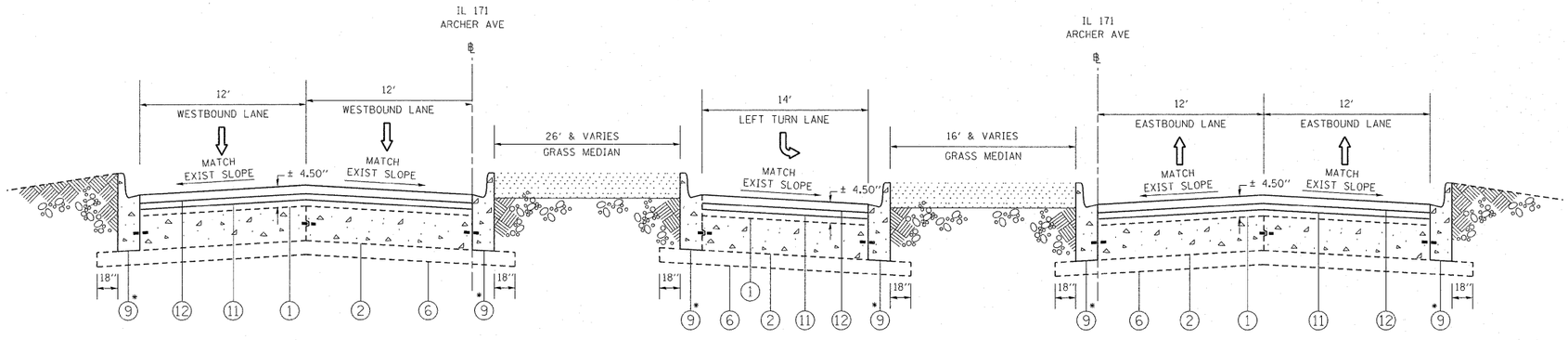
LEGEND

1. EXISTING HMA SURFACING, ± 4.50"
2. EXISTING P.C. CONCRETE BASE COURSE, ± 9.50"
3. EXISTING COMB. CONC. CURB & GUTTER, TYPE B-6.24
4. EXISTING COMB. CONC. CURB & GUTTER, TYPE M-4.24
5. EXISTING HMA SHOULDER
6. EXISTING SUB-BASE GRANULAR MATERIAL, TYPE B, 4"
7. EXISTING AGGREGATE SHOULDER, TYPE B
8. EXISTING CONCRETE MEDIAN
9. PROPOSED COMB. CONC. C&G REMOVAL AND REPLACEMENT
10. PROPOSED HMA SURFACE REMOVAL, 2-1/4"
11. PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
12. PROPOSED HMA SURFACE COURSE, MIX "D", N70, 1-1/2"
13. PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
14. PROPOSED GRADING AND SHAPING OF SHOULDERS

NOTE:

* LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER

" THE CONTRACTOR SHALL MILL FIRST PRIOR TO PATCHING".



IL 171 (ARCHER AVE)
PROPOSED TYPICAL SECTION
88TH AVE. INT. TO STA. 84+07
STATION EQUIVALENT:
STA. 85+00 (EB) = STA. 240.16 (WB)

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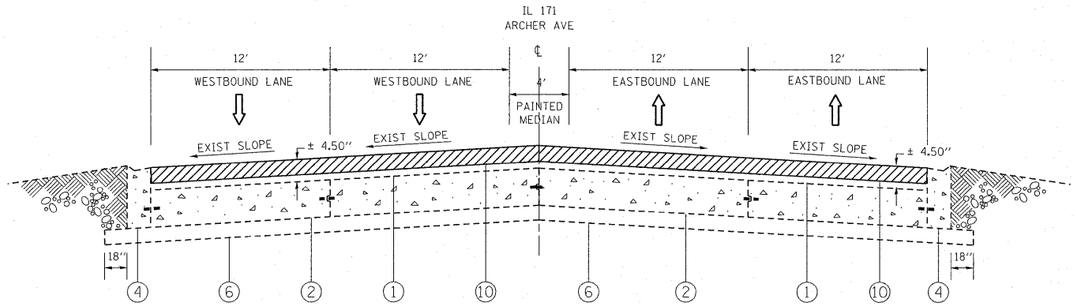
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

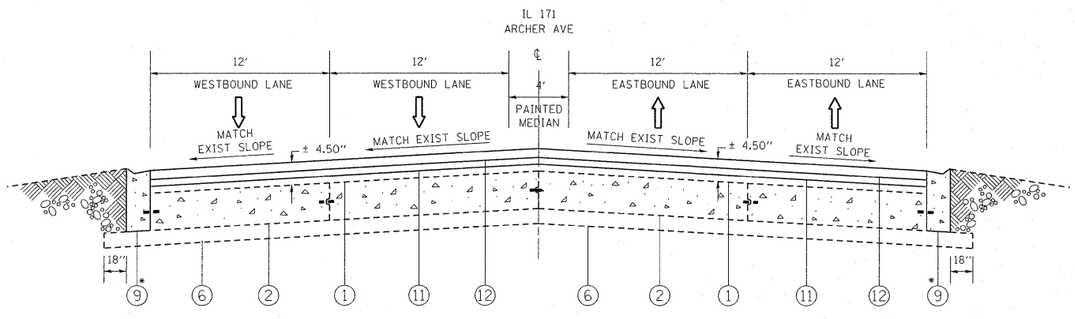
IL 171 (ARCHER AVENUE)
EXISTING AND PROPOSED TYPICAL SECTIONS

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	7
		CONTRACT NO. 60K54		
	ILLINOIS FED. AID PROJECT			



IL 171 (ARCHER AVE)
EXISTING TYPICAL SECTION
STA. 84+07 TO STA. 162+72
STATION EQUIVALENT:
STA. 85+00 (EB) = STA. 240+49.16 (WB)



IL 171 (ARCHER AVE)
PROPOSED TYPICAL SECTION
STA. 84+07 TO STA. 162+72
STATION EQUIVALENT:
STA. 85+00 (EB) = STA. 240+49.16 (WB)

LEGEND

1. EXISTING HMA SURFACING, ± 4.50"
2. EXISTING P.C. CONCRETE BASE COURSE, ± 9.50"
3. EXISTING COMB. CONC. CURB & GUTTER, TYPE B-6.24
4. EXISTING COMB. CONC. CURB & GUTTER, TYPE M-4.24
5. EXISTING HMA SHOULDER
6. EXISTING SUB-BASE GRANULAR MATERIAL, TYPE B, 4"
7. EXISTING AGGREGATE SHOULDER, TYPE B
8. EXISTING CONCRETE MEDIAN
9. * PROPOSED COMB. CONC. C&G REMOVAL AND REPLACEMENT
10. PROPOSED HMA SURFACE REMOVAL, 2-1/4"
11. PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
12. PROPOSED HMA SURFACE COURSE, MIX "D", N70, 1-1/2"
13. PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
14. PROPOSED GRADING AND SHAPING OF SHOULDERS

NOTE:

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HOT-MIX ASPHALT MIXTURE REQUIREMENTS

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT

MIXTURE USE	THICKNESS	AIR VOIDS (%) @ NDES
MAINLINE RESURFACING		
HMA SURFACE COURSE MIX "D", N70 (IL 9.5 mm)	1-1/2"	4% @ 70 Gyr.
POLY. LEVELING BINDER (MM) IL-4.75, N50	3/4"	4% @ 50 Gyr.
PATCHING		
CLASS D PATCH (HMA BINDER IL-19 mm)	12-3/4"	4% @ 70 Gyr.
SHOULDER RESURFACING		
HMA SURFACE COURSE MIX "D", N70 (IL 9.5 mm)	1-1/2"	4% @ 70 Gyr.
POLY. LEVELING BINDER (MM) IL-4.75, N50	3/4"	4% @ 50 Gyr.

NOTE:

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 POUNDS PER SQUARE YARD-INCH

THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.

FOR "PERCENT RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

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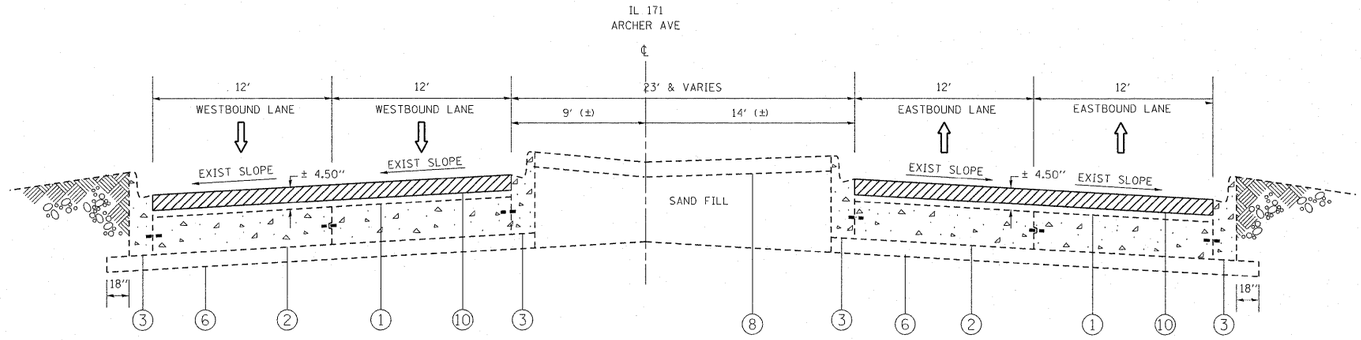
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

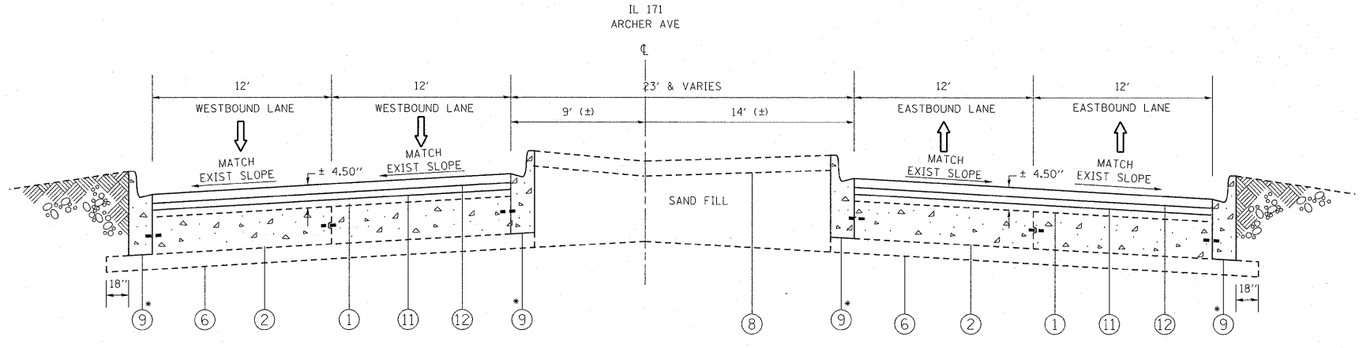
IL 171 (ARCHER AVENUE)
EXISTING AND PROPOSED TYPICAL SECTIONS

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R--2-RS	COOK	37	8
		CONTRACT NO. 60K54		
	ILLINOIS FED. AID PROJECT			



IL 171 (ARCHER AVE)
EXISTING TYPICAL SECTION
STA. 162+72 TO ROBERTS RD. INT.



IL 171 (ARCHER AVE)
PROPOSED TYPICAL SECTION
STA. 162+72 TO ROBERTS RD. INT.

LEGEND

1. EXISTING HMA SURFACING, ± 4.50"
2. EXISTING P.C. CONCRETE BASE COURSE, ± 9.50"
3. EXISTING COMB. CONC. CURB & GUTTER, TYPE B-6.24
4. EXISTING COMB. CONC. CURB & GUTTER, TYPE M-4.24
5. EXISTING HMA SHOULDER
6. EXISTING SUB-BASE GRANULAR MATERIAL, TYPE B, 4"
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9. * PROPOSED COMB. CONC. C&G REMOVAL AND REPLACEMENT
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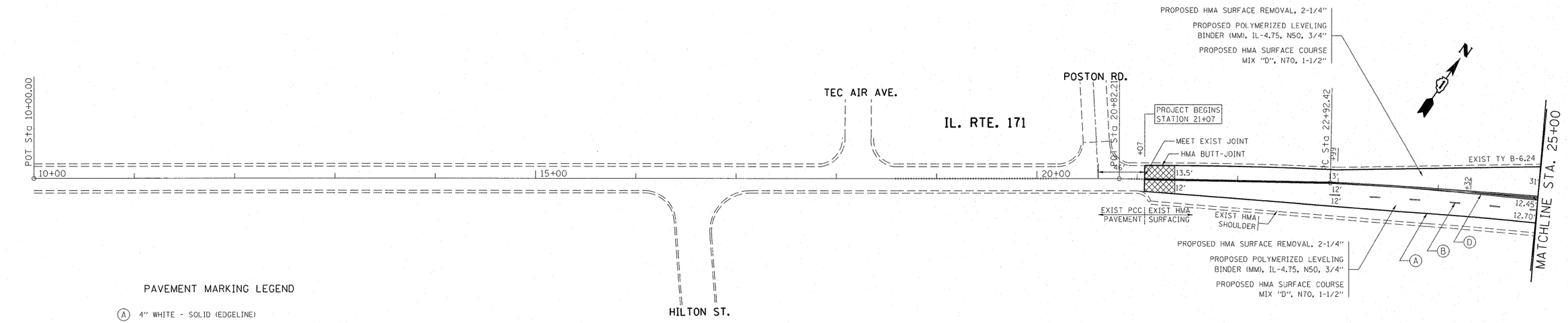
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 171 (ARCHER AVENUE)
EXISTING AND PROPOSED TYPICAL SECTIONS

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	9
		CONTRACT NO. 60K54		
	ILLINOIS FED. AID PROJECT			



PAVEMENT MARKING LEGEND

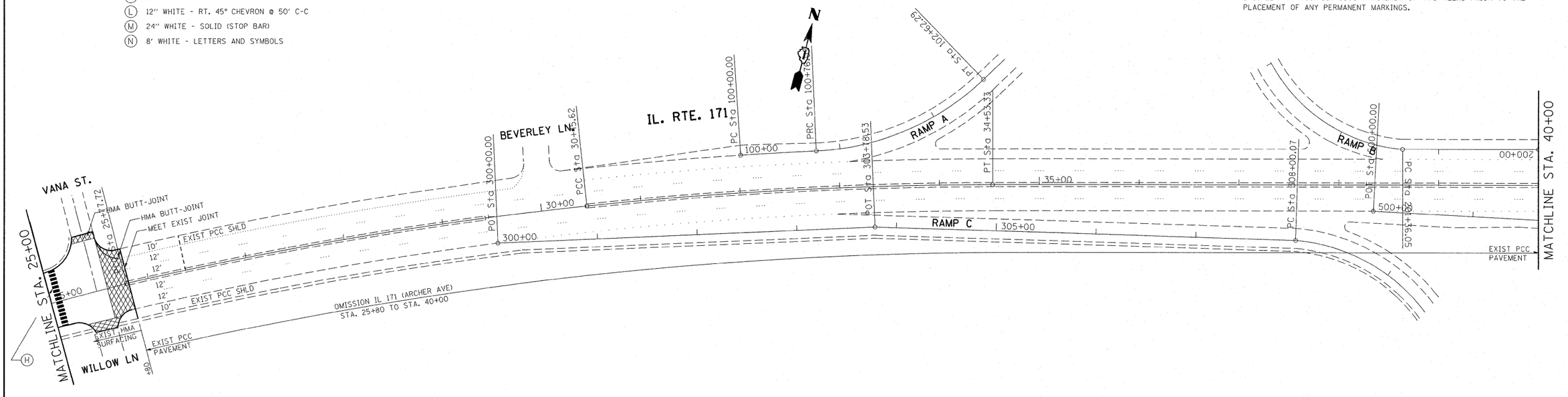
- (A) 4" WHITE - SOLID (EDGELINE)
- (B) 4" WHITE - 10' DASH / 30' SKIP
- (C) 4" YELLOW - SOLID (EDGELINE)
- (D) 4" YELLOW - 2 @ 11" C-C
- (E) 6" WHITE - SOLID (TURN LANE LINE)
- (F) 6" WHITE - 2' DASH / 6' SKIP (TURN LANE LINE)
- (G) 8" WHITE - SOLID (CHANNELIZATION)
- (H) 12" WHITE - RT. 90° 6' LINE, 2' APART (CROSS WALK LINE)
- (I) 12" YELLOW - RT. 45° DIAGONAL @ 20' C-C
- (J) 12" WHITE - RT. 45° DIAGONAL @ 20' C-C
- (K) 12" YELLOW - RT. 45° DIAGONAL @ 50' C-C
- (L) 12" WHITE - RT. 45° CHEVRON @ 50' C-C
- (M) 24" WHITE - SOLID (STOP BAR)
- (N) 8' WHITE - LETTERS AND SYMBOLS

NOTES:

PAVEMENT MARKING SHALL BE THERMOPLASTIC OF THE EXTRUDED TYPE AND SHOULD BE PLACED IN ACCORDANCE WITH THE DISTRICT ONE "TYPICAL PAVEMENT MARKING DETAILS".

RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE IN ACCORDANCE WITH THE DISTRICT ONE "TYPICAL APPLICATION RAISED REFLECTIVE PAVEMENT MARKERS DETAILS".

THE RESIDENT ENGINEER SHALL CONTACT Ms. PATRICE HARRIS, TRAFFIC FIELD ENGINEER AT (708) 597-9800 A MINIMUM OF TWO WEEKS PRIOR TO THE PLACEMENT OF ANY PERMANENT MARKINGS.



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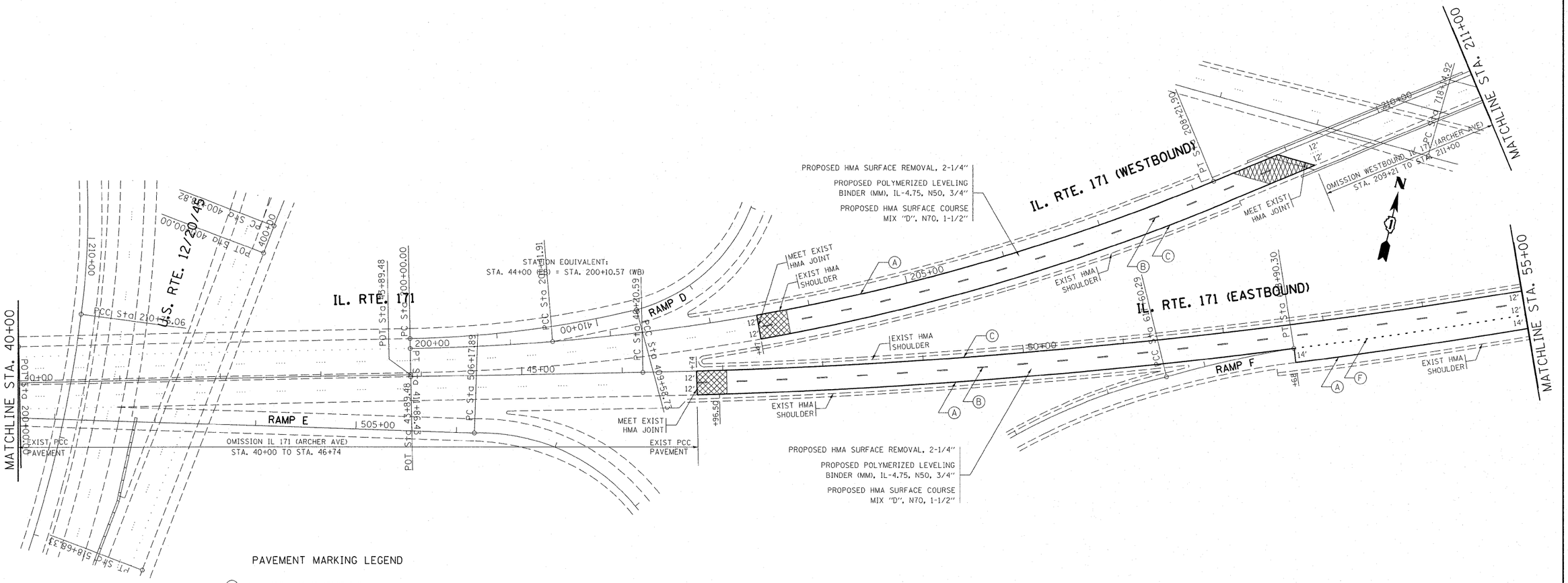
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 171 (ARCHER AVENUE)
ROADWAY AND PAVEMENT MARKING PLAN

SCALE: 1"=50' | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	10
		CONTRACT NO. 60K54		
	ILLINOIS FED. AID PROJECT			



PAVEMENT MARKING LEGEND

- (A) 4" WHITE - SOLID (EDGELINE)
- (B) 4" WHITE - 10' DASH / 30' SKIP
- (C) 4" YELLOW - SOLID (EDGELINE)
- (D) 4" YELLOW - 2 @ 11" C-C
- (E) 6" WHITE - SOLID (TURN LANE LINE)
- (F) 6" WHITE - 2' DASH / 6' SKIP (TURN LANE LINE)
- (G) 8" WHITE - SOLID (CHANNELIZATION)
- (H) 12" WHITE - RT. 90° 6' LINE, 2' APART (CROSS WALK LINE)
- (I) 12" YELLOW - RT. 45° DIAGONAL @ 20' C-C
- (J) 12" WHITE - RT. 45° DIAGONAL @ 20' C-C
- (K) 12" YELLOW - RT. 45° DIAGONAL @ 50' C-C
- (L) 12" WHITE - RT. 45° CHEVRON @ 50' C-C
- (M) 24" WHITE - SOLID (STOP BAR)
- (N) 8' WHITE - LETTERS AND SYMBOLS

NOTES:

PAVEMENT MARKING SHALL BE THERMOPLASTIC OF THE EXTRUDED TYPE AND SHOULD BE PLACED IN ACCORDANCE WITH THE DISTRICT ONE "TYPICAL PAVEMENT MARKING DETAILS".

RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE IN ACCORDANCE WITH THE DISTRICT ONE "TYPICAL APPLICATION RAISED REFLECTIVE PAVEMENT MARKERS DETAILS".

THE RESIDENT ENGINEER SHALL CONTACT Ms. PATRICE HARRIS, TRAFFIC FIELD ENGINEER AT (708) 597-9800 A MINIMUM OF TWO WEEKS PRIOR TO THE PLACEMENT OF ANY PERMANENT MARKINGS.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 171 (ARCHER AVENUE)
ROADWAY AND PAVEMENT MARKING PLAN

SCALE: 1"=50' | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	11
		CONTRACT NO. 60K54		
	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKING LEGEND

- (A) 4" WHITE - SOLID (EDGELINE)
- (B) 4" WHITE - 10' DASH / 30' SKIP
- (C) 4" YELLOW - SOLID (EDGELINE)
- (D) 4" YELLOW - 2 @ 11" C-C
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- (L) 12" WHITE - RT. 45° CHEVRON @ 50' C-C
- (M) 24" WHITE - SOLID (STOP BAR)
- (N) 8' WHITE - LETTERS AND SYMBOLS

NOTES:

PAVEMENT MARKING SHALL BE THERMOPLASTIC OF THE EXTRUDED TYPE AND SHOULD BE PLACED IN ACCORDANCE WITH THE DISTRICT ONE "TYPICAL PAVEMENT MARKING DETAILS".

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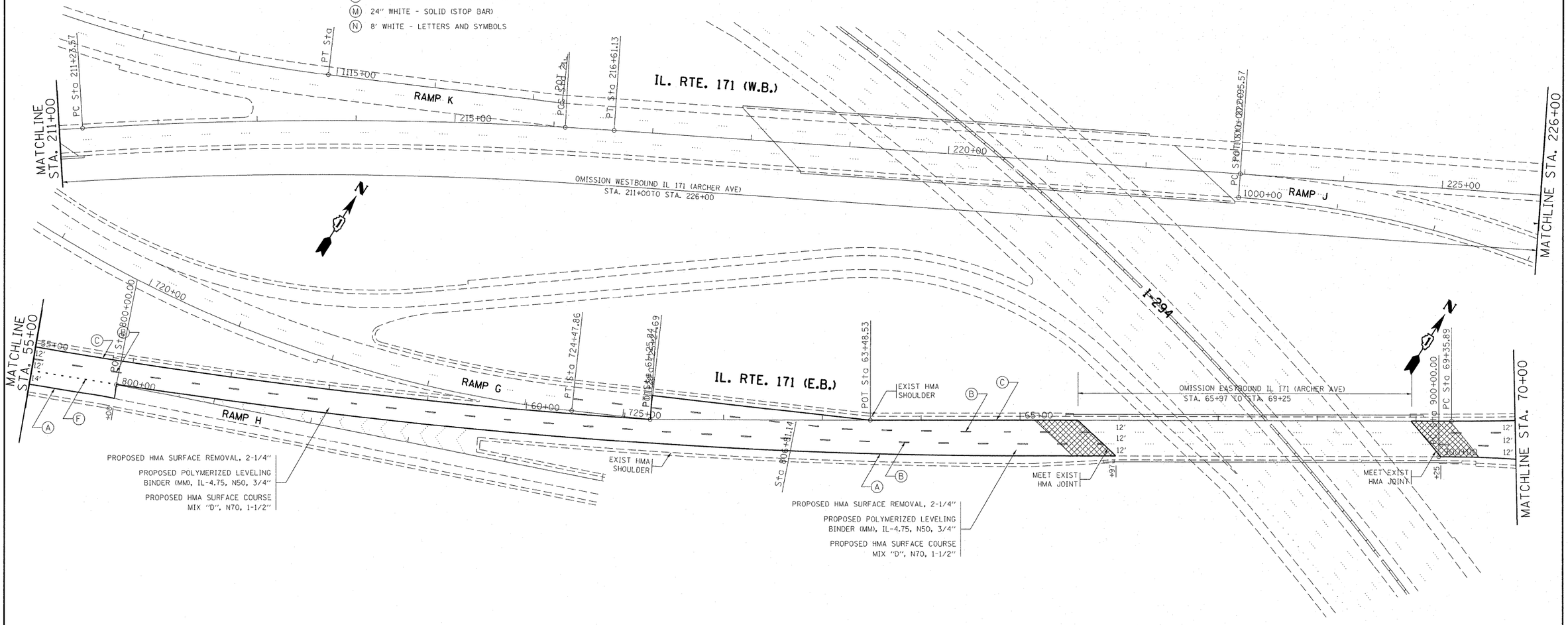

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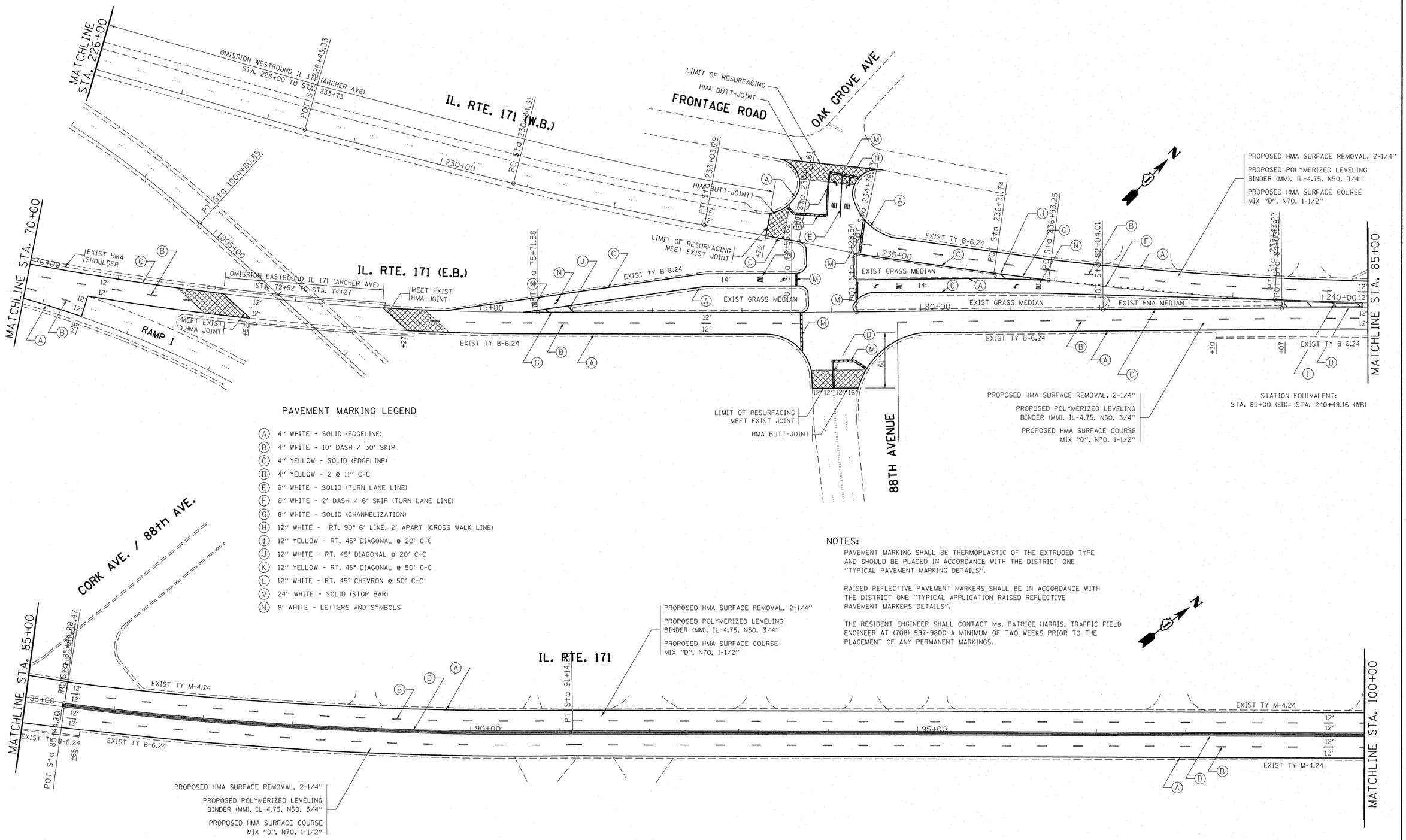
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 171 (ARCHER AVENUE)
ROADWAY AND PAVEMENT MARKING PLAN)

SCALE: 1"=50' | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	12
		CONTRACT NO. 60K54		
	ILLINOIS FED. AID PROJECT			



PAVEMENT MARKING LEGEND

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- (N) 8' WHITE - LETTERS AND SYMBOLS

NOTES:

PAVEMENT MARKING SHALL BE THERMOPLASTIC OF THE EXTRUDED TYPE AND SHOULD BE PLACED IN ACCORDANCE WITH THE DISTRICT ONE "TYPICAL PAVEMENT MARKING DETAILS".

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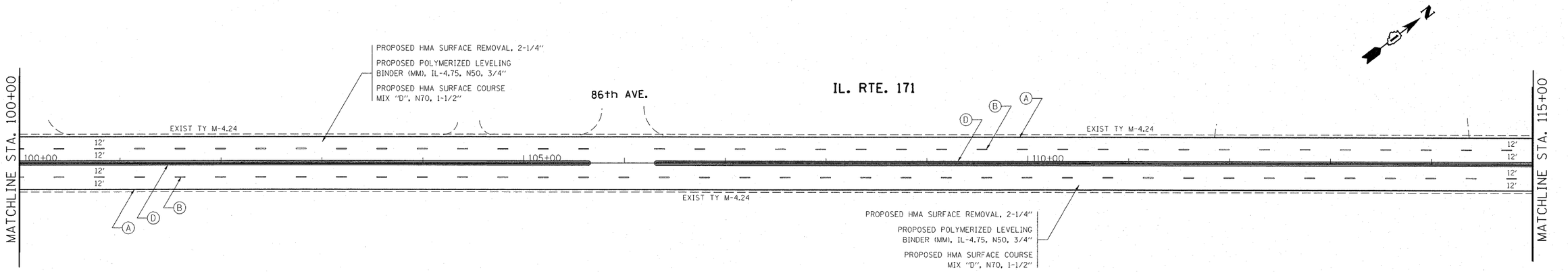
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 171 (ARCHER AVENUE)
ROADWAY AND PAVEMENT MARKING PLAN

SCALE: 1"=50' | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	13
		CONTRACT NO. 60K54		
	ILLINOIS FED. AID PROJECT			



PAVEMENT MARKING LEGEND

- (A) 4" WHITE - SOLID (EDGELINE)
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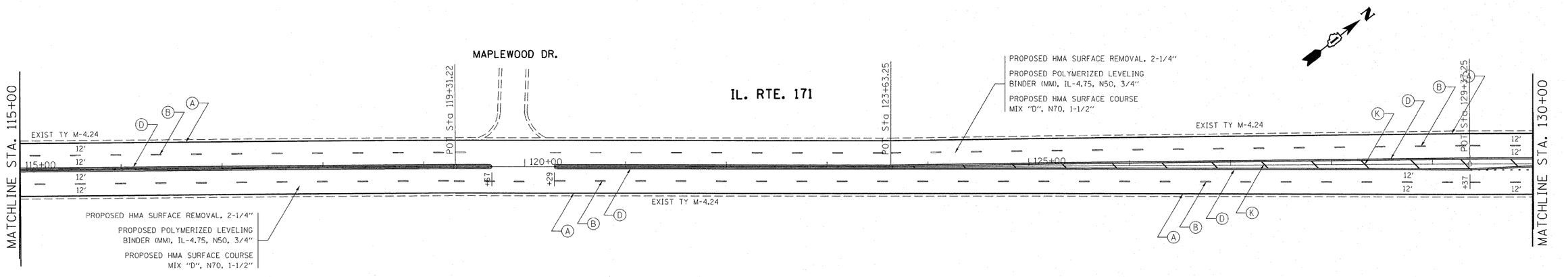

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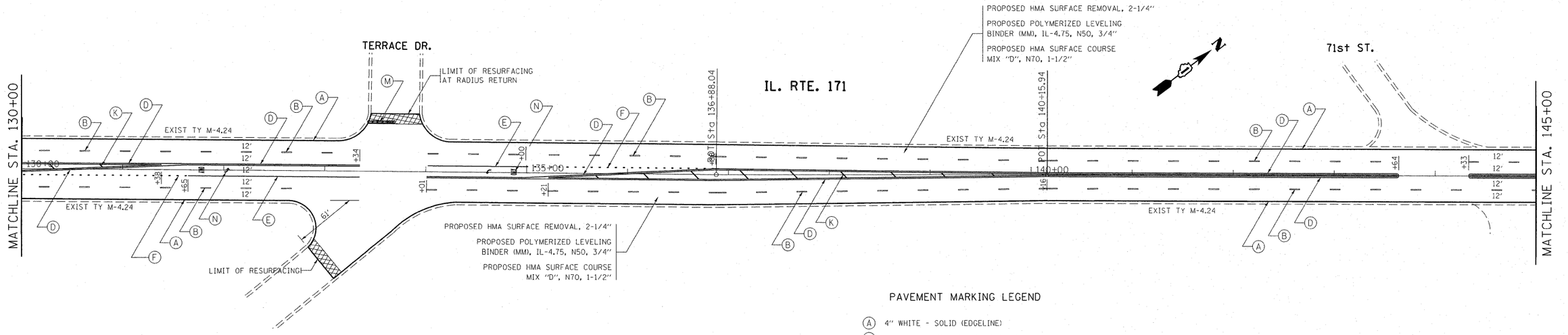
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 171 (ARCHER AVENUE)
ROADWAY AND PAVEMENT MARKING PLAN

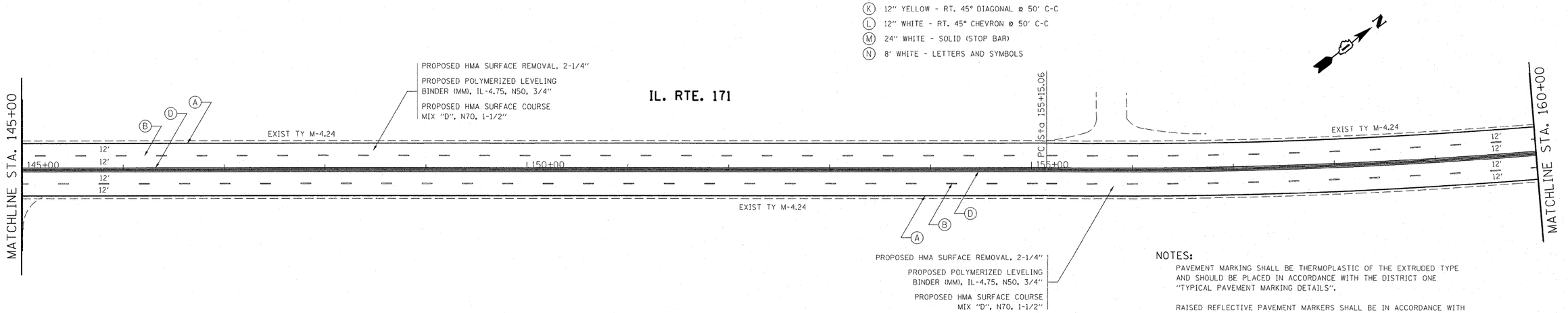
SCALE: 1"=50' | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	14
		CONTRACT NO. 60K54		
	ILLINOIS FED. AID PROJECT			



PAVEMENT MARKING LEGEND

- (A) 4" WHITE - SOLID (EDGELINE)
- (B) 4" WHITE - 10' DASH / 30' SKIP
- (C) 4" YELLOW - SOLID (EDGELINE)
- (D) 4" YELLOW - 2 @ 11" C-C
- (E) 6" WHITE - SOLID (TURN LANE LINE)
- (F) 6" WHITE - 2' DASH / 6' SKIP (TURN LANE LINE)
- (G) 8" WHITE - SOLID (CHANNELIZATION)
- (H) 12" WHITE - RT. 90° 6' LINE, 2' APART (CROSS WALK LINE)
- (I) 12" YELLOW - RT. 45° DIAGONAL @ 20' C-C
- (J) 12" WHITE - RT. 45° DIAGONAL @ 20' C-C
- (K) 12" YELLOW - RT. 45° DIAGONAL @ 50' C-C
- (L) 12" WHITE - RT. 45° CHEVRON @ 50' C-C
- (M) 24" WHITE - SOLID (STOP BAR)
- (N) 8' WHITE - LETTERS AND SYMBOLS



NOTES:

PAVEMENT MARKING SHALL BE THERMOPLASTIC OF THE EXTRUDED TYPE AND SHOULD BE PLACED IN ACCORDANCE WITH THE DISTRICT ONE "TYPICAL PAVEMENT MARKING DETAILS".

RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE IN ACCORDANCE WITH THE DISTRICT ONE "TYPICAL APPLICATION RAISED REFLECTIVE PAVEMENT MARKERS DETAILS".

THE RESIDENT ENGINEER SHALL CONTACT Ms. PATRICE HARRIS, TRAFFIC FIELD ENGINEER AT (708) 597-9800 A MINIMUM OF TWO WEEKS PRIOR TO THE PLACEMENT OF ANY PERMANENT MARKINGS.

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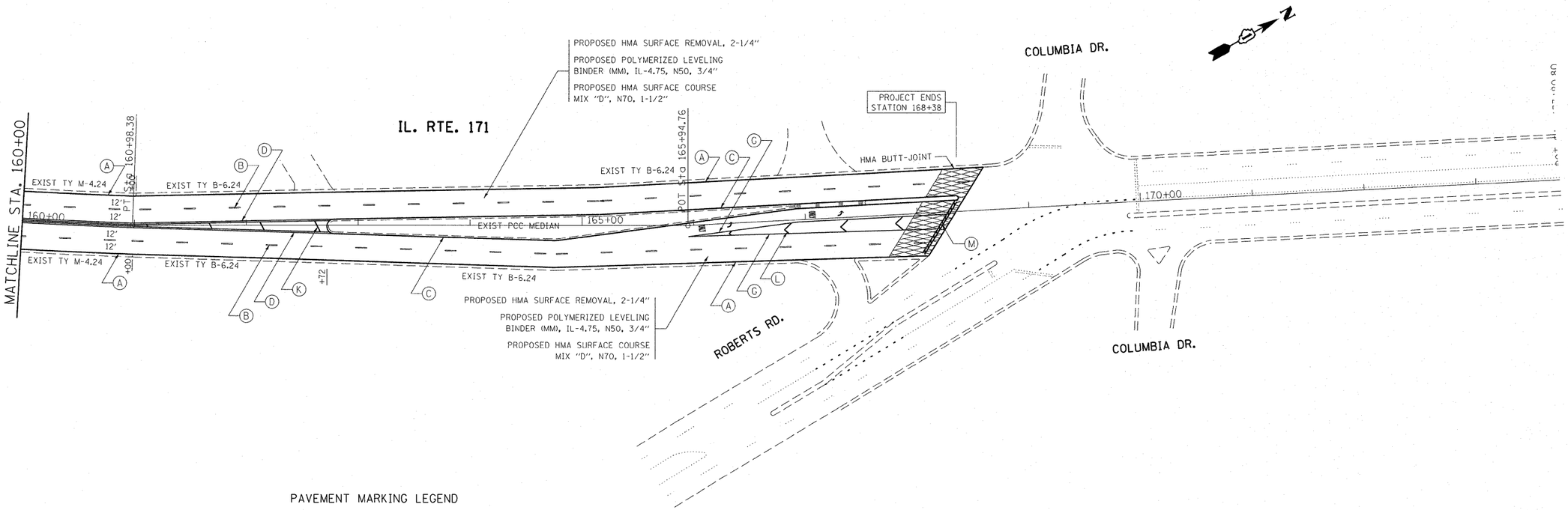
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 171 (ARCHER AVENUE)
ROADWAY AND PAVEMENT MARKING PLAN

SCALE: 1"=50' | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	15
		CONTRACT NO. 60K54		
		ILLINOIS FED. AID PROJECT		



PAVEMENT MARKING LEGEND

- (A) 4" WHITE - SOLID (EDGELINE)
- (B) 4" WHITE - 10' DASH / 30' SKIP
- (C) 4" YELLOW - SOLID (EDGELINE)
- (D) 4" YELLOW - 2 @ 11" C-C
- (E) 6" WHITE - SOLID (TURN LANE LINE)
- (F) 6" WHITE - 2' DASH / 6' SKIP (TURN LANE LINE)
- (G) 8" WHITE - SOLID (CHANNELIZATION)
- (H) 12" WHITE - RT. 90° 6' LINE, 2' APART (CROSS WALK LINE)
- (I) 12" YELLOW - RT. 45° DIAGONAL @ 20' C-C
- (J) 12" WHITE - RT. 45° DIAGONAL @ 20' C-C
- (K) 12" YELLOW - RT. 45° DIAGONAL @ 50' C-C
- (L) 12" WHITE - RT. 45° CHEVRON @ 50' C-C
- (M) 24" WHITE - SOLID (STOP BAR)
- (N) 8' WHITE - LETTERS AND SYMBOLS

NOTES:

PAVEMENT MARKING SHALL BE THERMOPLASTIC OF THE EXTRUDED TYPE AND SHOULD BE PLACED IN ACCORDANCE WITH THE DISTRICT ONE "TYPICAL PAVEMENT MARKING DETAILS".

RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE IN ACCORDANCE WITH THE DISTRICT ONE "TYPICAL APPLICATION RAISED REFLECTIVE PAVEMENT MARKERS DETAILS".

THE RESIDENT ENGINEER SHALL CONTACT Ms. PATRICE HARRIS, TRAFFIC FIELD ENGINEER AT (708) 597-9800 A MINIMUM OF TWO WEEKS PRIOR TO THE PLACEMENT OF ANY PERMANENT MARKINGS.

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	PLOT DATE = 2/12/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 171 (ARCHER AVENUE)
ROADWAY AND PAVEMENT MARKING PLAN

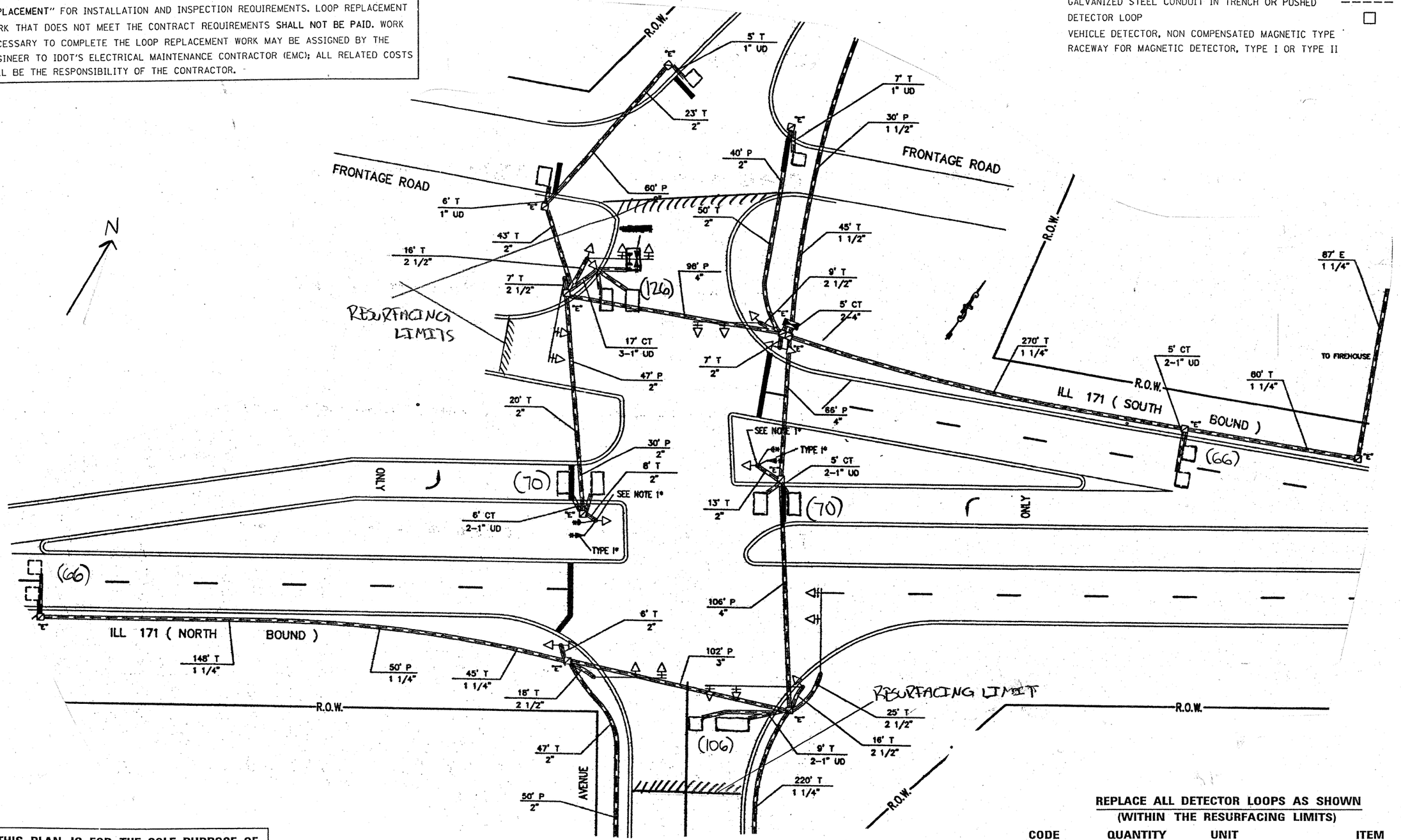
SCALE: 1"=50' | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	16
		CONTRACT NO. 60K54		
		ILLINOIS FED. AID PROJECT		

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		"E"



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	504	FOOT	DETECTOR LOOP, REPLACEMENT

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE – DETECTOR LOOP REPLACEMENT
IL 171 @ 98TH AVE / OAK GROVE AVE
SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	18-R-2-RS	COOK	37	17
		CONTRACT NO. 60K54		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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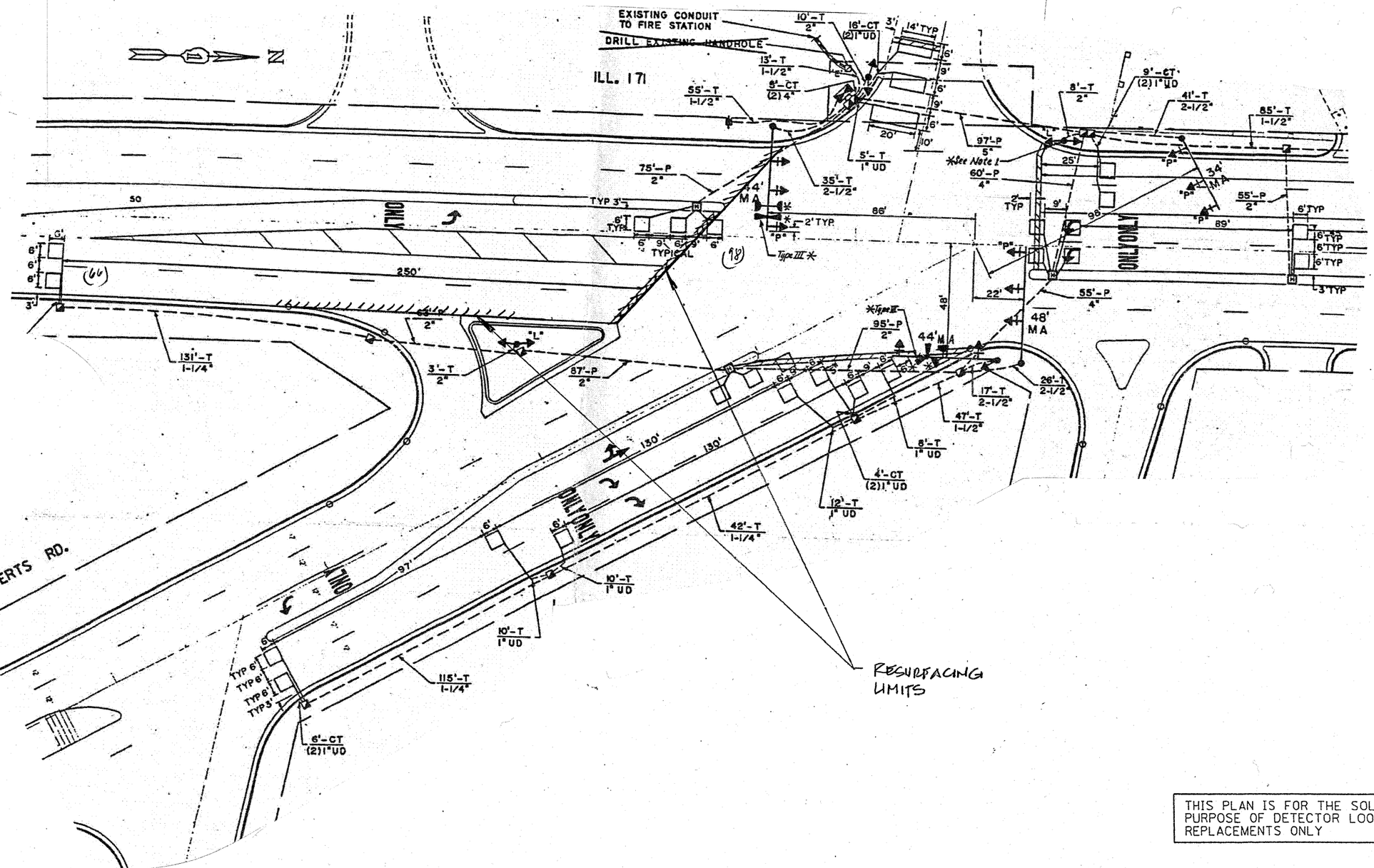

THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY

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

CODE	QUANTITY	UNIT	ITEM
86600600	164	FOOT	DETECTOR LOOP, REPLACEMENT

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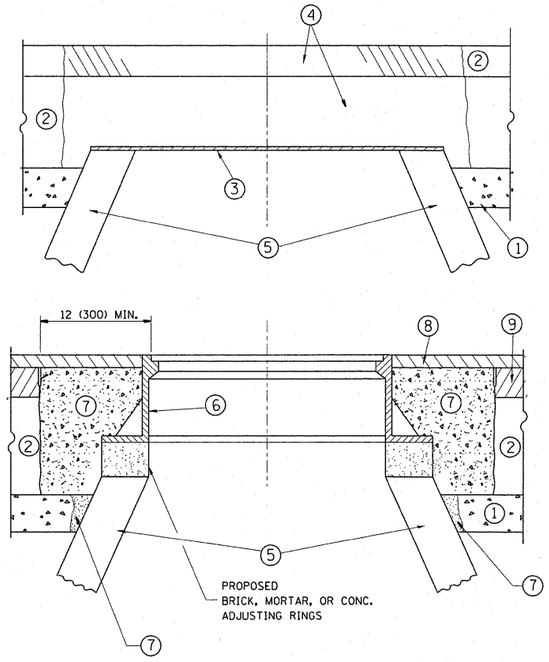
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE - DETECTOR LOOP REPLACEMENT
ILL. ROUTE 171 (ARCHER AV.) @ ROBERTS RD.

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3505	8-R-2-RS	COOK	37	17A
		CONTRACT NO. 60K54		
FED. ROAD DIST. NO.	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 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 *PP CONCRETE EXISTING BASE COURSE OR THE BINDER COURSE.

* THE CLASS OF PP CONCRETE WILL BE AS DIRECTED BY THE ENGINEER.

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

LEGEND

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

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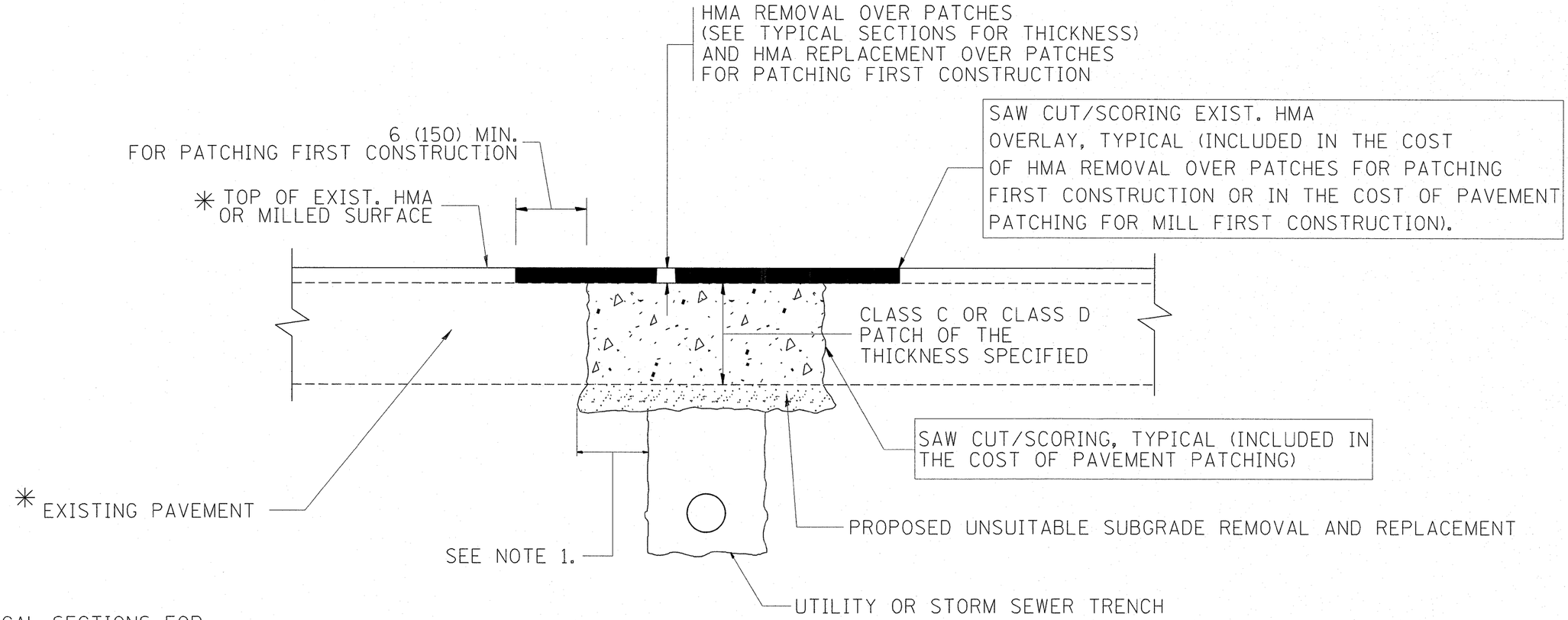
		DRAWN -	REVISED - R. WIEDEMAN 05-14-04
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - R. BORO 01-01-07
	PLOT DATE = 2/12/2011	DATE - 10-25-94	REVISED - R. BORO 02-01-11

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.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	18
	BD600-03 (BD-8)	CONTRACT NO.	60K54	
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 $4\frac{1}{2}$ INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

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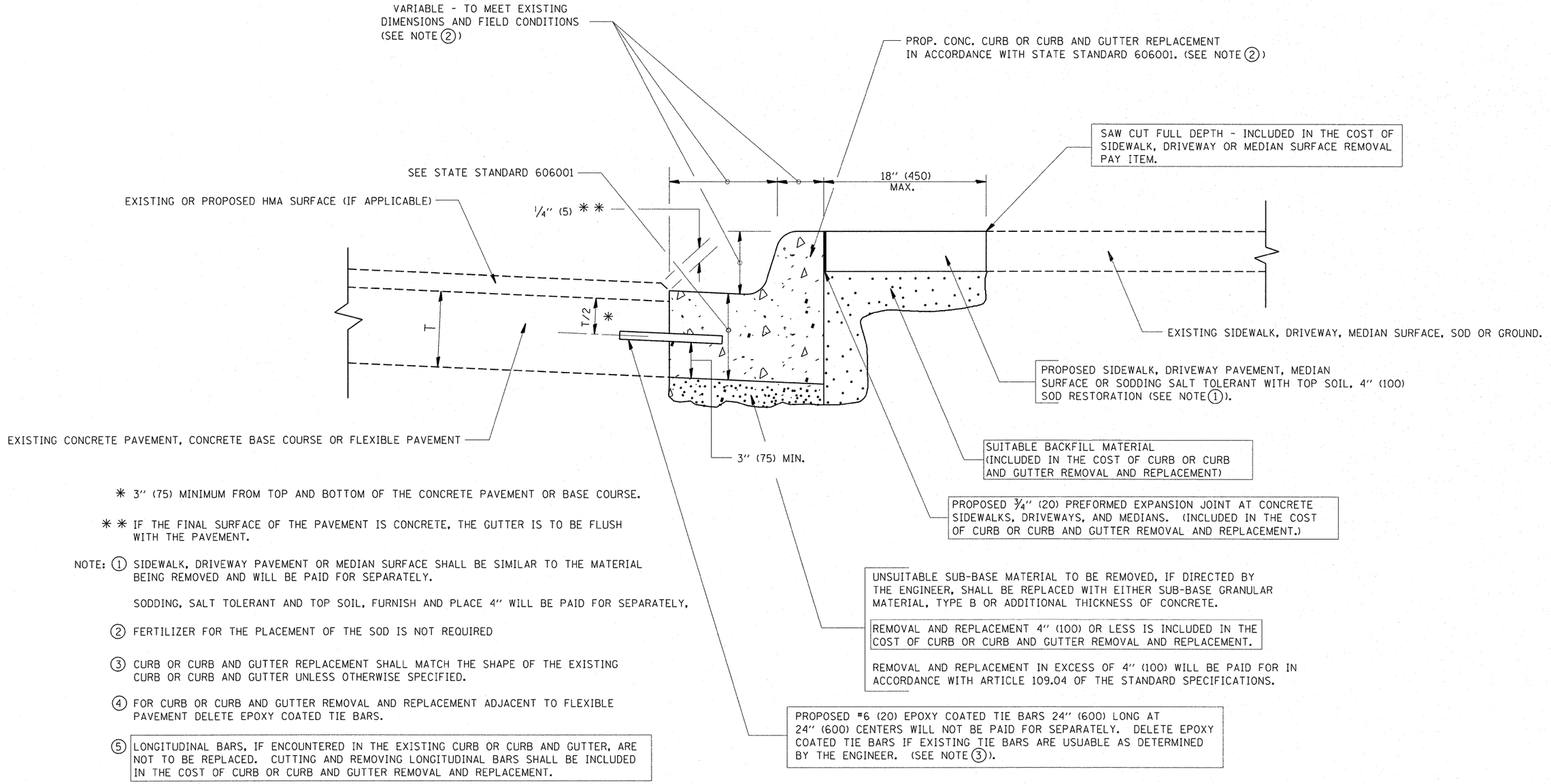
	PLOT DATE = 2/12/2011	DATE - 10-25-94	REVISED - K. ENG 10-27-08

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	19
	BD400-04 (BD-22)	CONTRACT NO. 60K54		
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.

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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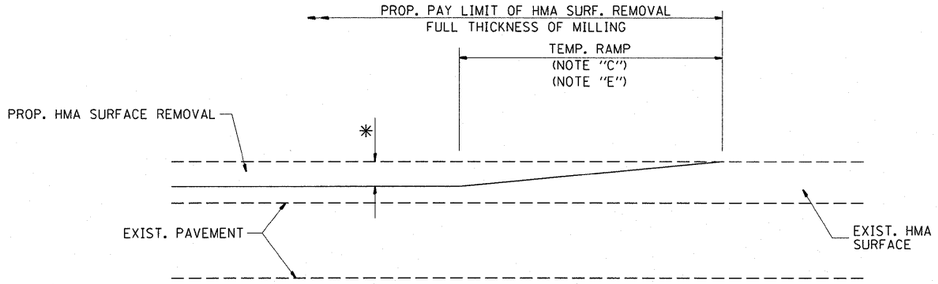
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01
	PLOT DATE = 2/12/2011	DATE - 03-11-94	REVISED - R. BORO 12-15-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

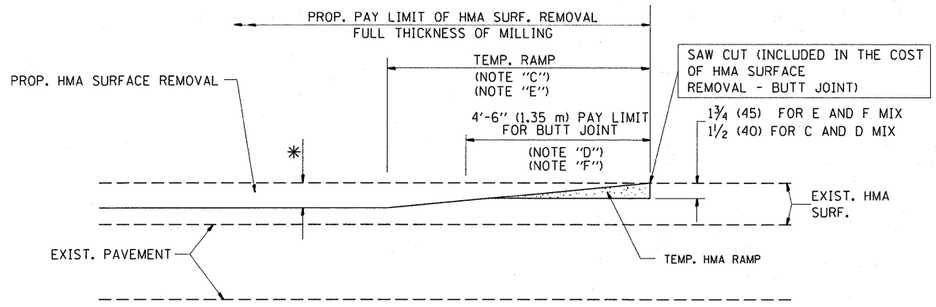
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	20
	BD600-06 (BD-24)	CONTRACT NO. 60K54		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

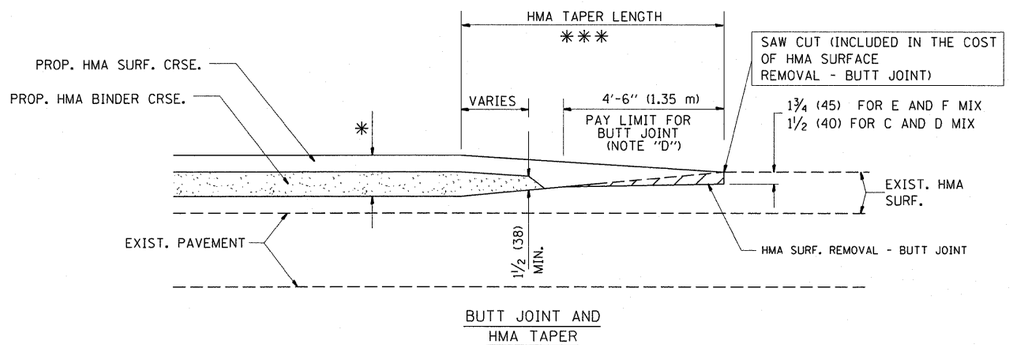


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

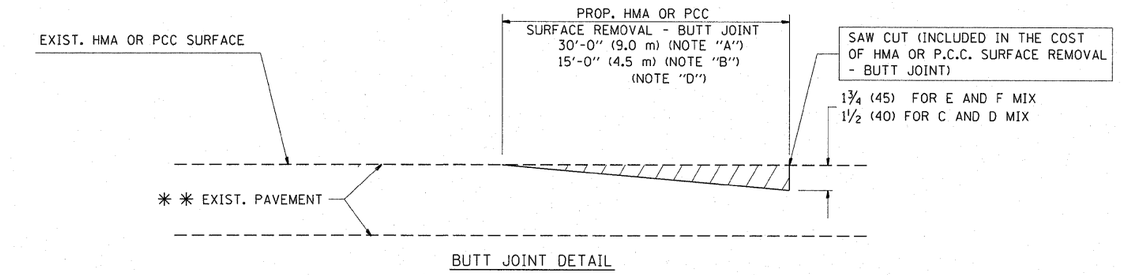
OPTION 2

TYPICAL TEMPORARY RAMP

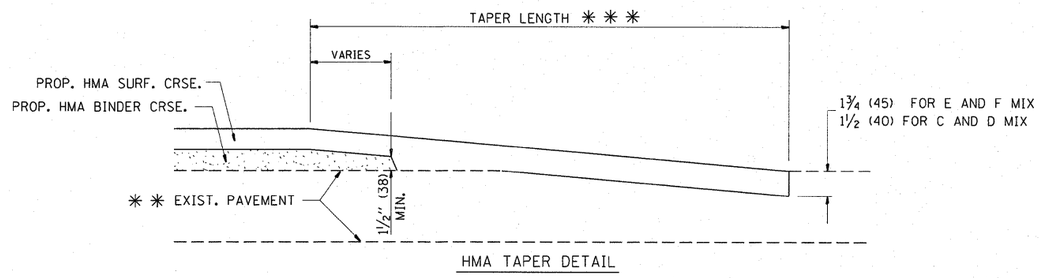


BUTT JOINT AND HMA TAPER

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.

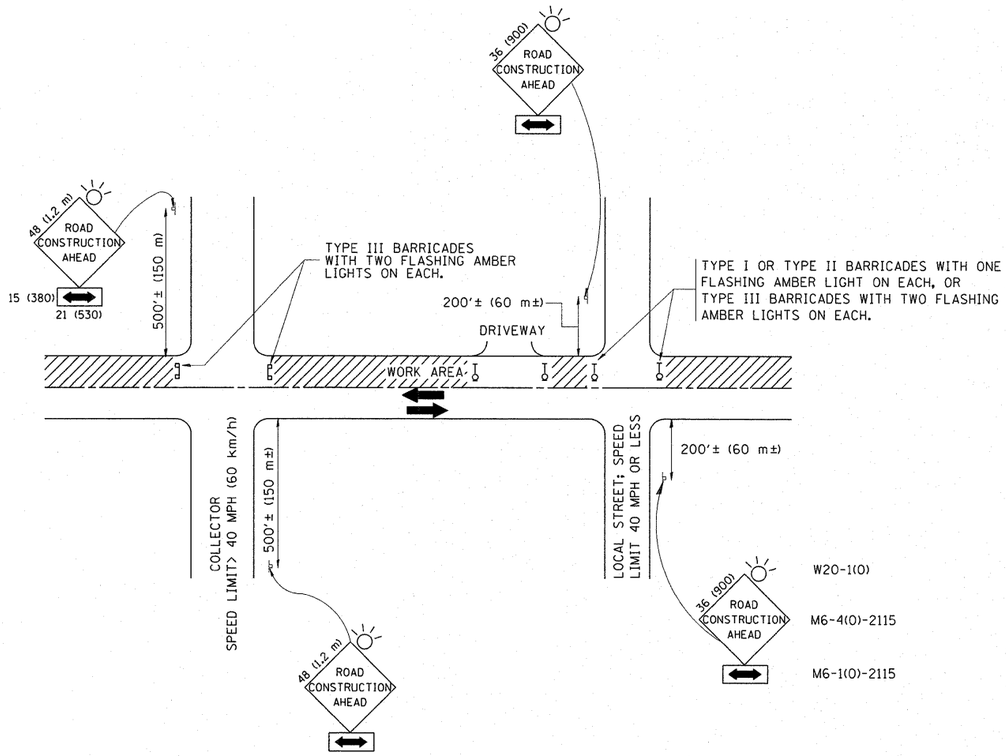
FILE NAME = c:\pw_work\pwidot\galbanjr\d0194557\Dist3td.dgn	USER NAME = galbanjr	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 2/12/2011	DATE - 06-13-90	REVISED - R. BORO 01-01-07

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.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	21
	BD400-05 BD32	CONTRACT NO. 60K54		
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.

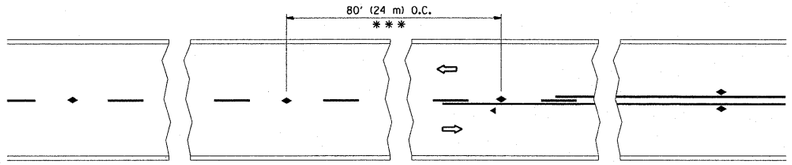
FILE NAME = c:\pw_work\pwidot\galbanjr\d0194557\Dist3td.dgn	USER NAME = galbanjr	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 2/12/2011	DATE - 06-89	REVISED -T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

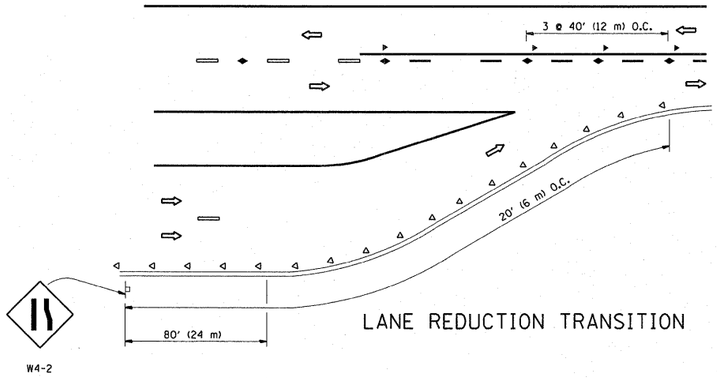
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	22
	TC-10	CONTRACT NO. 60K54		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

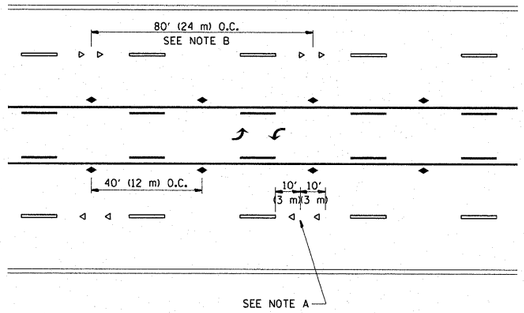


* * * REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

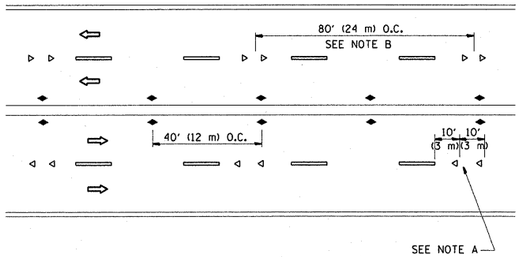
TWO-LANE/TWO-WAY



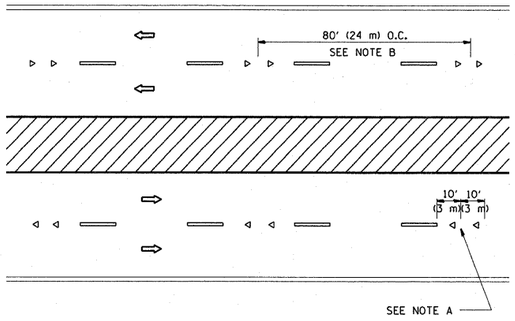
LANE REDUCTION TRANSITION



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

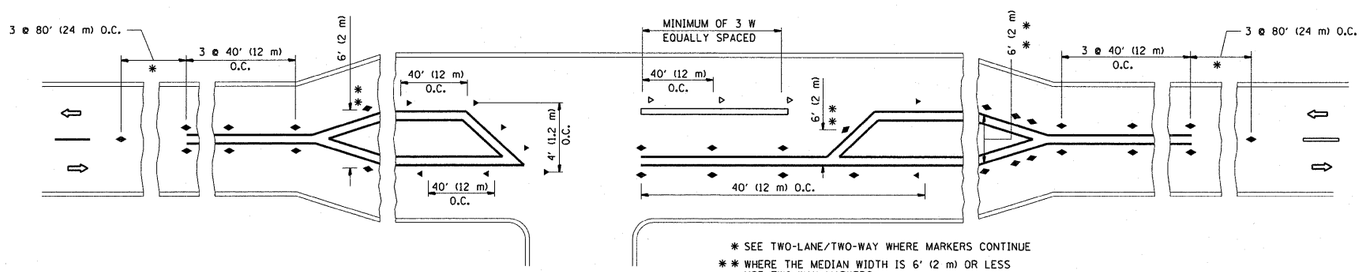
LANE MARKER NOTES

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 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.



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

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

LEFT TURN

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

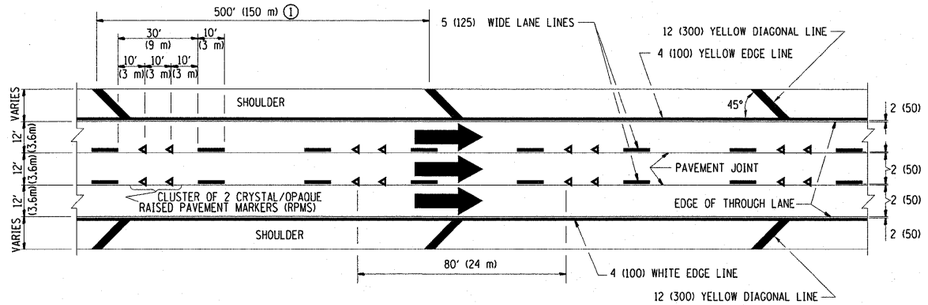
FILE NAME = c:\pw_work\pwidot\galbanjr\d0194557\Dist5std.dgn	USER NAME = galbanjr	DESIGNED -	REVISED - T. RAMMACHER 09-19-94
		DRAWN -	REVISED - T. RAMMACHER 03-12-99
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 01-06-00
	PLOT DATE = 2/12/2011	DATE -	REVISED - C. JUCIUS 09-09-09

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.

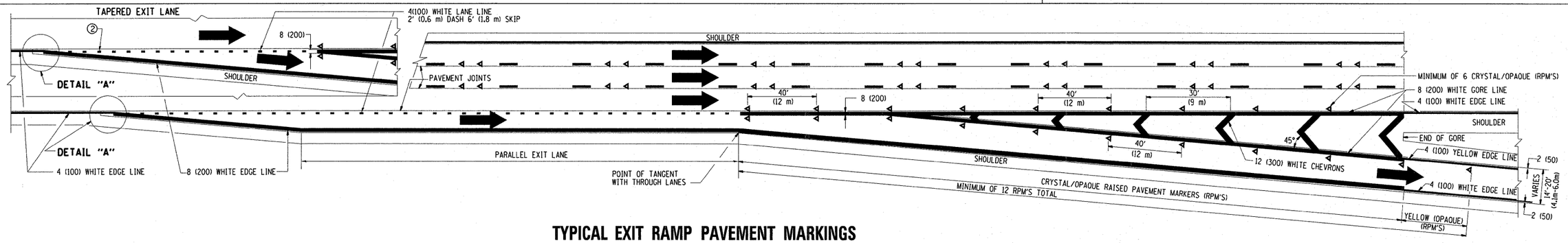
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	23
	TC-11	CONTRACT NO. 60K54		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



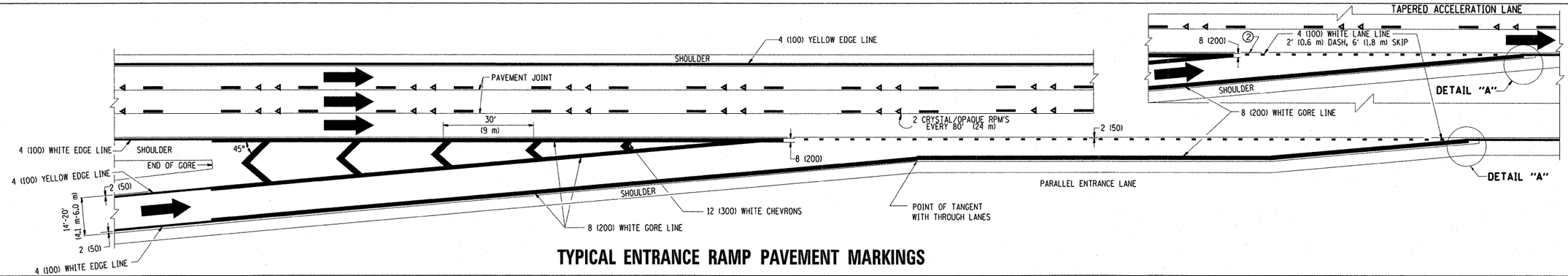
TYPICAL EDGE LINES & LANE LINES

PAVEMENT MARKING MATERIALS

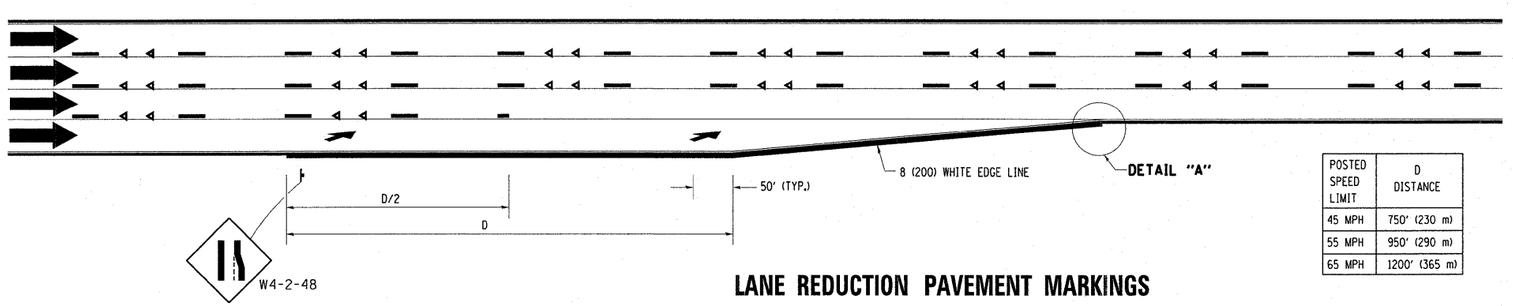
1. THERMO PLASTIC PAVEMENT MARKING LINE SHALL BE USED FOR THE EDGE LINES, GORE LINES, AND DIAGONAL LINES ON BITUMINOUS PAVEMENT ONLY.
2. PREFORMED PLASTIC TYPE B PAVEMENT MARKING LINE SHALL BE USED FOR ALL LANE LINES ON BITUMINOUS PAVEMENT.
3. POLYUREA PAVEMENT MARKING SHALL BE USED FOR ALL MARKINGS ON PCC.



TYPICAL EXIT RAMP PAVEMENT MARKINGS

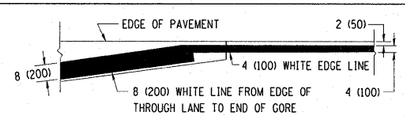


TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS



POSTED SPEED LIMIT	D DISTANCE
45 MPH	750' (230 m)
55 MPH	950' (290 m)
65 MPH	1200' (365 m)

LANE REDUCTION PAVEMENT MARKINGS



DETAIL "A"

NOTES:

① THE DIAGONAL LINES SHALL BE SPACED AT 40' (12 m) C-C ACROSS ALL STRUCTURES WHICH ARE 500' (150 m) OR LESS IN LENGTH. THE DIAGONAL LINES ARE NOT REQUIRED ON SHOULDERS WHICH ARE 6' (1.8 m) OR LESS IN WIDTH.

② 4" (2' DASH, 6' SKIP) MARKING ON TAPERED ENTRANCE AND EXIT RAMP SHALL BE OMITTED ON TANGENT SECTIONS.

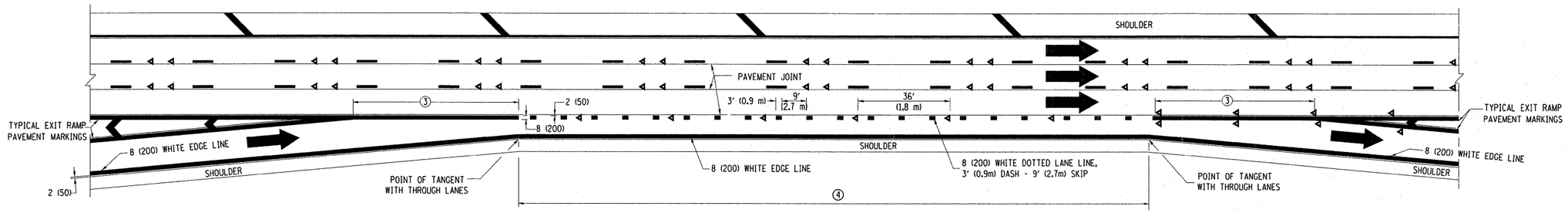
FILE NAME = c:\pw_work\pwidot\galbanjr\d0194557\DistStd.dgn	USER NAME = galbanjr	DESIGNED - D.W.S.	REVISED - D.W.S. 07-96
		DRAWN -	REVISED - J.A.F. 02-06
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - S.P.B. 01-07
	PLOT DATE = 2/12/2011	DATE - 01-90	REVISED - S.P.B. 01-10

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

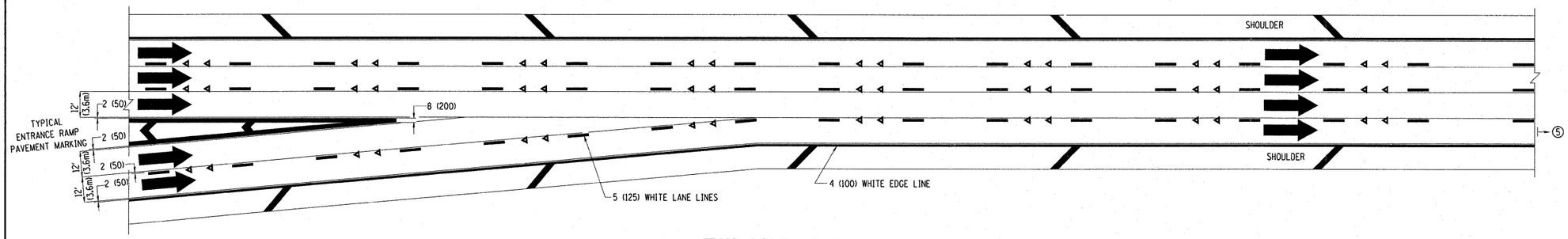
MULTI-LANE FREEWAY
PAVEMENT MARKING DETAILS

SCALE: NONE | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

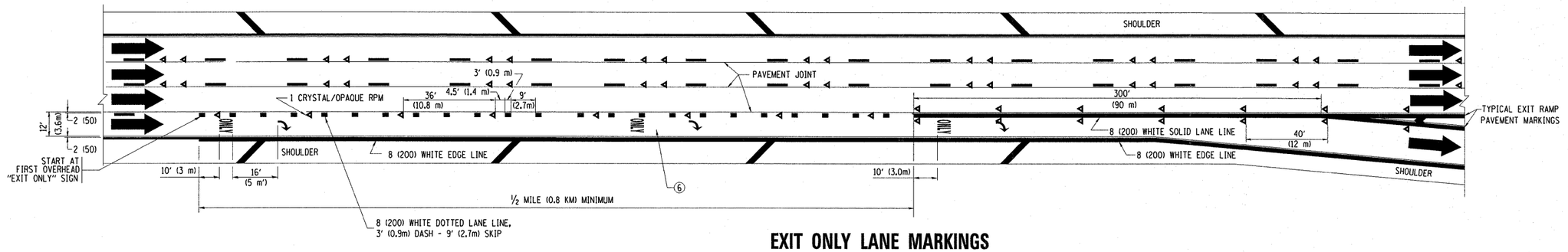
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	24
	TC-12	CONTRACT NO. 60K54		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



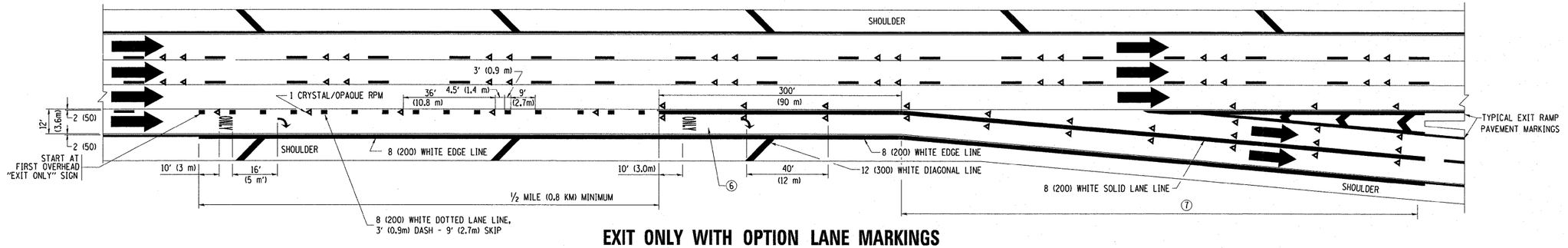
AUXILIARY LANE MARKINGS



TWO LANE ENTRANCE RAMP WITH MERGE MARKINGS



EXIT ONLY LANE MARKINGS



EXIT ONLY WITH OPTION LANE MARKINGS

NOTES

③ OMIT WHEN LENGTH OF AUXILIARY LANE IS LESS THAN 500' (150 m).

④ 8-INCH WIDE DOTTED LANE LINE MARKINGS SHALL BE USED WHEN THE LENGTH OF THE AUXILIARY LANE IS 2 MILES OR LESS.

⑤ FOR TWO-LANE ENTRANCE RAMP, IF RIGHT LANE ENDS, USE TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS.

⑥ ONLY AND ARROWS EQUALLY SPACED, 500' (150 m) MAXIMUM SPACING. FULL SIZE LETTERS AND ARROW SHALL BE USED.

⑦ CONTINUE 8" SOLID LANE LINE THROUGH EXIT TO END OF PAVED GORE.

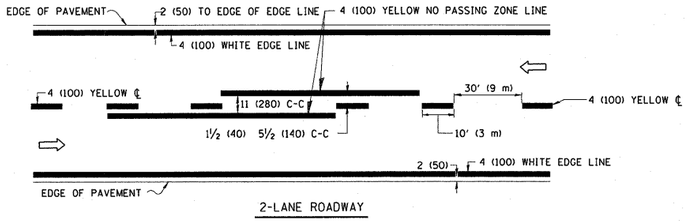
FILE NAME = c:\pw_work\pwidot\galbanjr\d0194557\Dist1td.dgn	USER NAME = galbanjr	DESIGNED - D.W.S.	REVISED - D.W.S. 07-96
		DRAWN -	REVISED - J.A.F. 02-06
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - S.P.B. 01-07
	PLOT DATE = 2/12/2011	DATE - 01-90	REVISED - S.P.B. 01-10

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

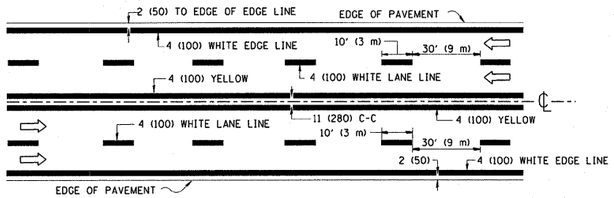
MULTI-LANE FREEWAY
PAVEMENT MARKING DETAILS

SCALE: NONE | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

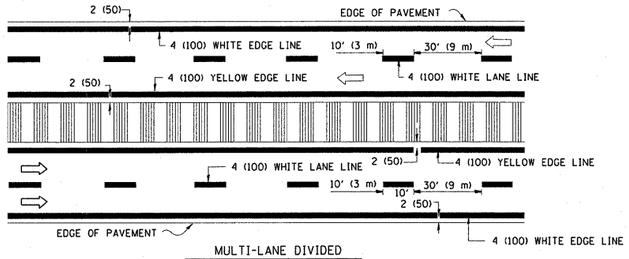
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	25
	TC-12	CONTRACT NO. 60K54		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



2-LANE ROADWAY



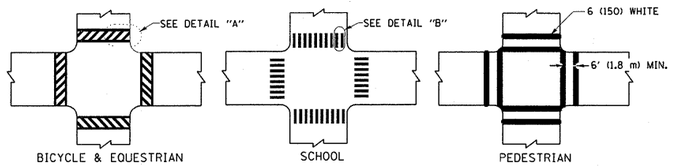
MULTI-LANE UNDIVIDED

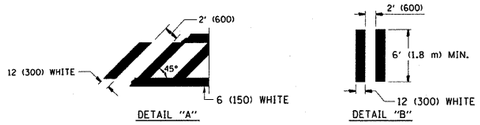


MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

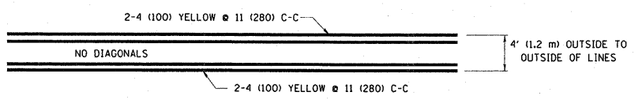
NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

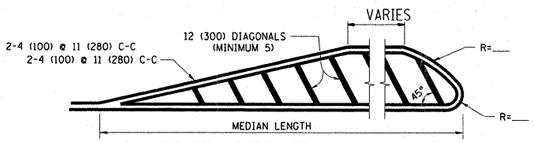




TYPICAL CROSSWALK MARKING



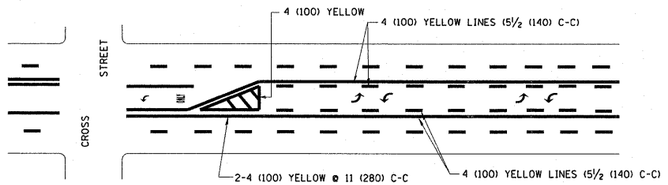
4' (1.2 m) WIDE MEDIANS ONLY



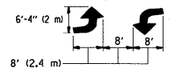
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (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

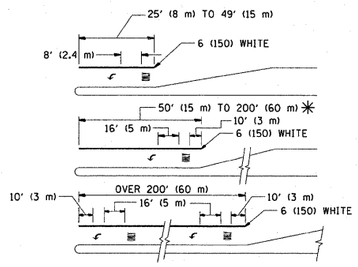


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

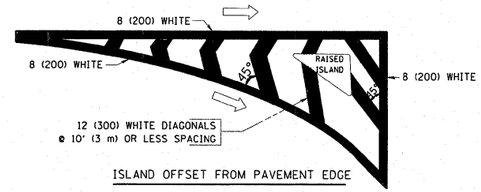


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m^2) **ONLY** AREA = 20.8 SQ. FT. (1.9 m^2)

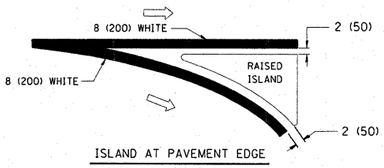
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

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 UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	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 @ 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 @ 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^2) EACH "X"=54.0 SQ. FT. (5.0 m^2)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

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

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

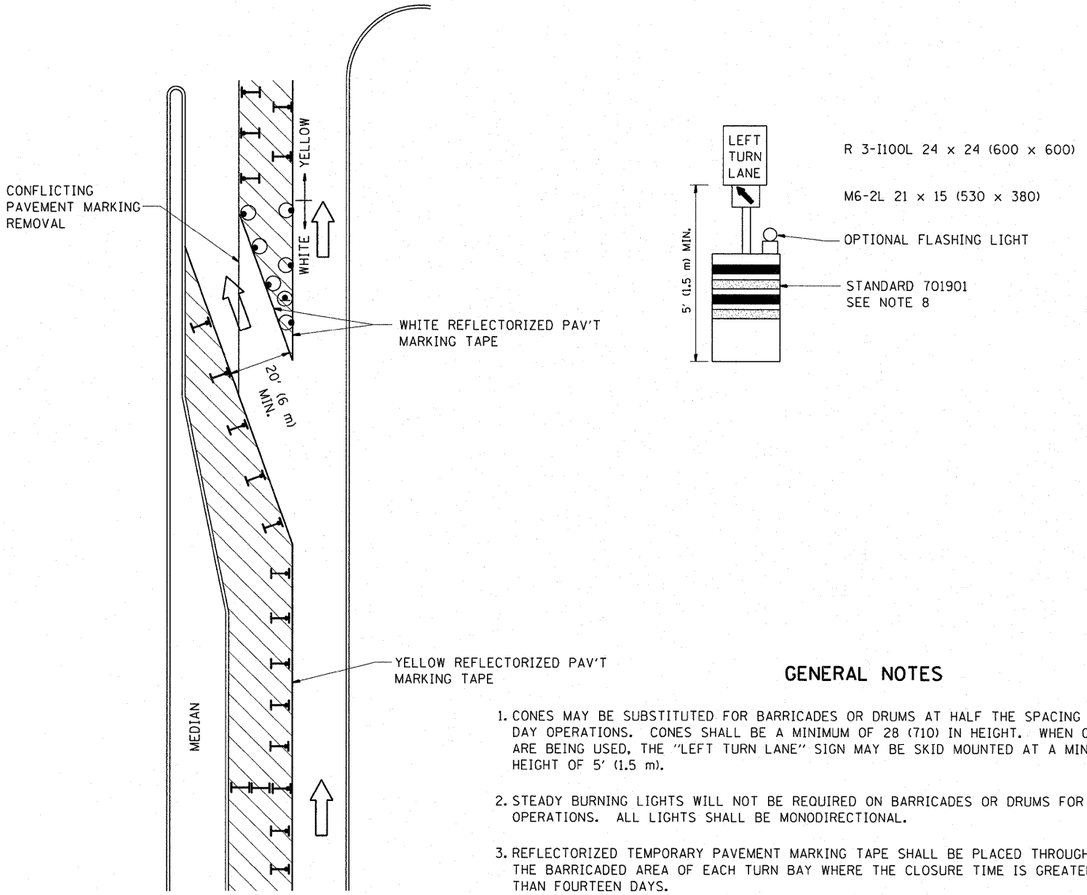
FILE NAME = c:\pw_work\pwidot\galbanjr\d0194557\Dist5td.dgn	USER NAME = galbanjr	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94
		DRAWN -	REVISED -C. JUCIUS 09-09-09
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 2/12/2011	DATE - 03-19-90	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	26
	TC-13	CONTRACT NO. 60K54		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



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

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 NCHR 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.

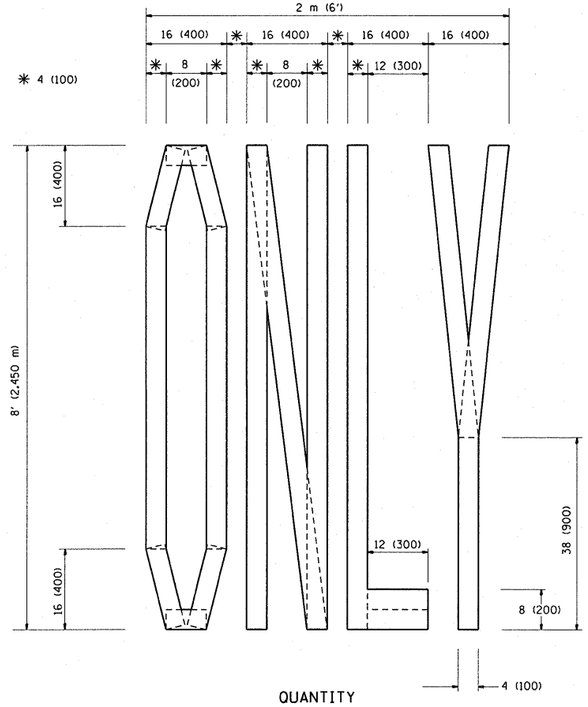
FILE NAME = c:\pw_work\pwidot\galbanjr\d0194557\Dist1td.dgn	USER NAME = galbanjr	REVISED -T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09
	PLOT SCALE = 50.0000 ' / IN.	REVISED - A. HOUSEH 11-07-95	REVISED -
	PLOT DATE = 2/12/2011	REVISED -T. RAMMACHER 01-06-00	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

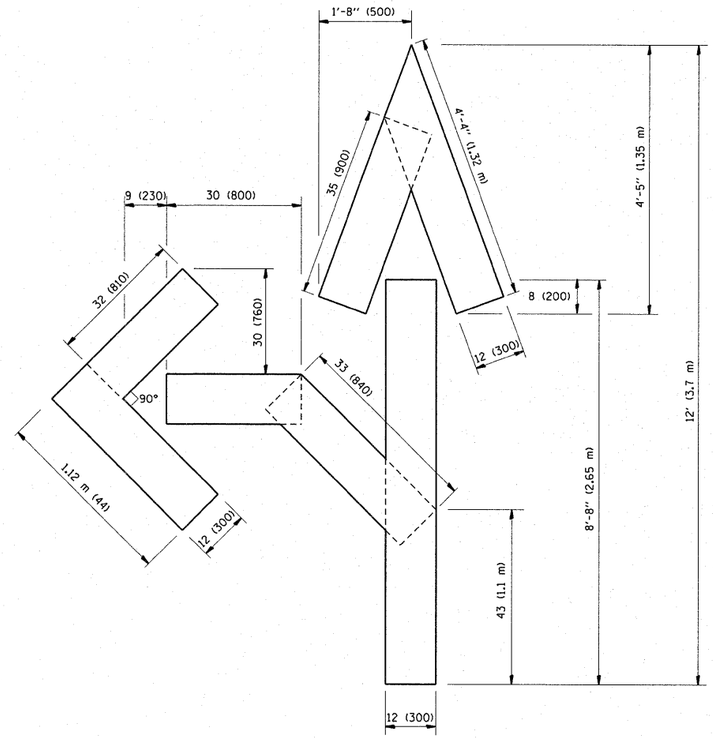
TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
(TO REMAIN OPEN TO TRAFFIC)

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

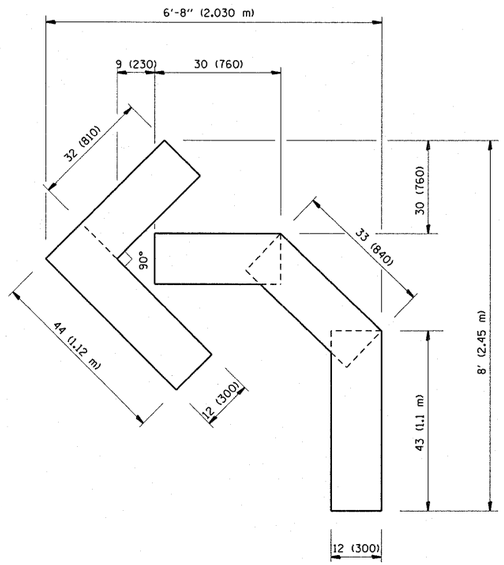
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	27
	TC-14	CONTRACT NO. 60K54		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



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.

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		DRAWN -	REVISED -T. RAMMACHER 11-04-97
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98
	PLOT DATE = 2/12/2011	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00

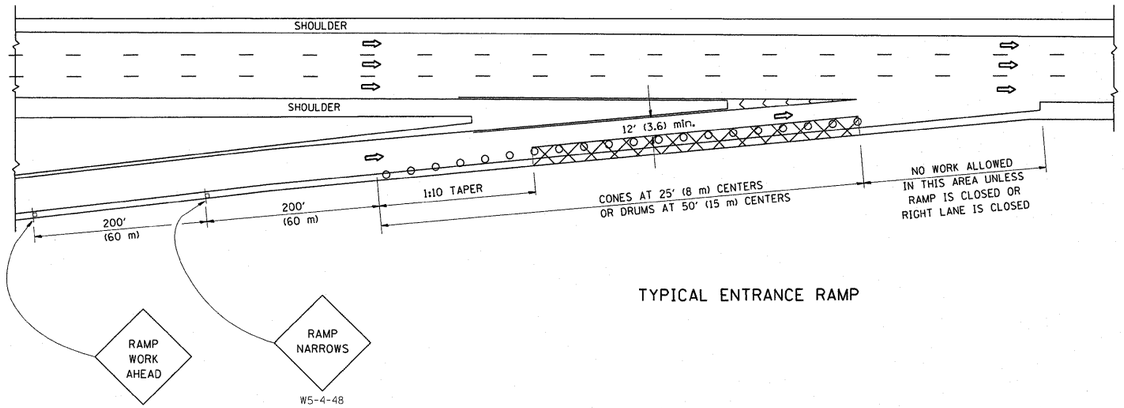
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING

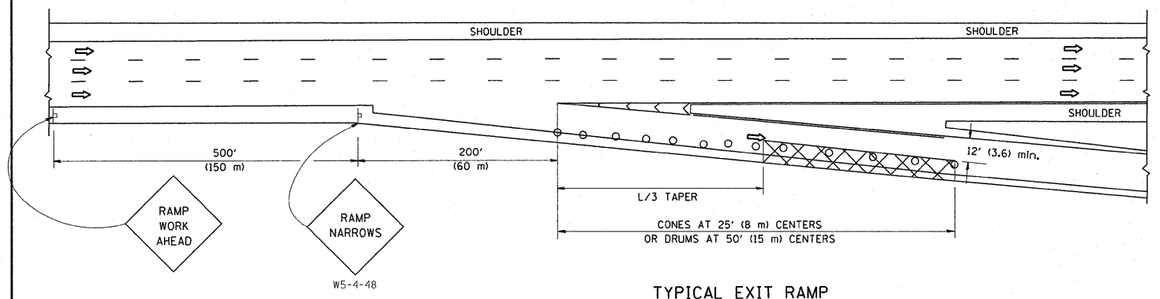
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	28
	TC-16	CONTRACT NO. 60K54		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

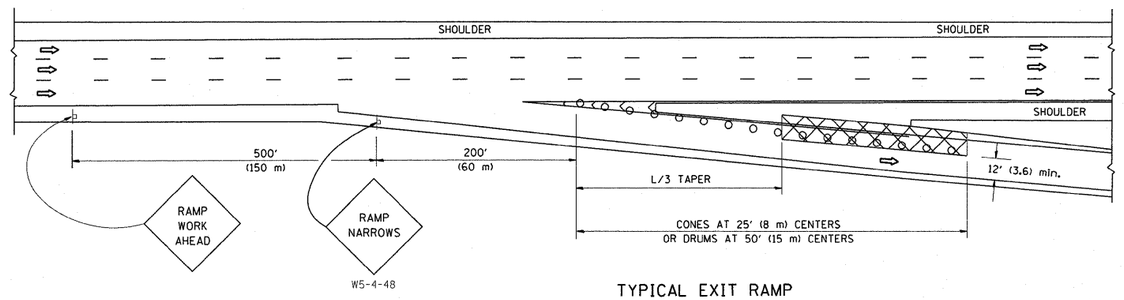
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

SYMBOLS

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

GENERAL NOTES

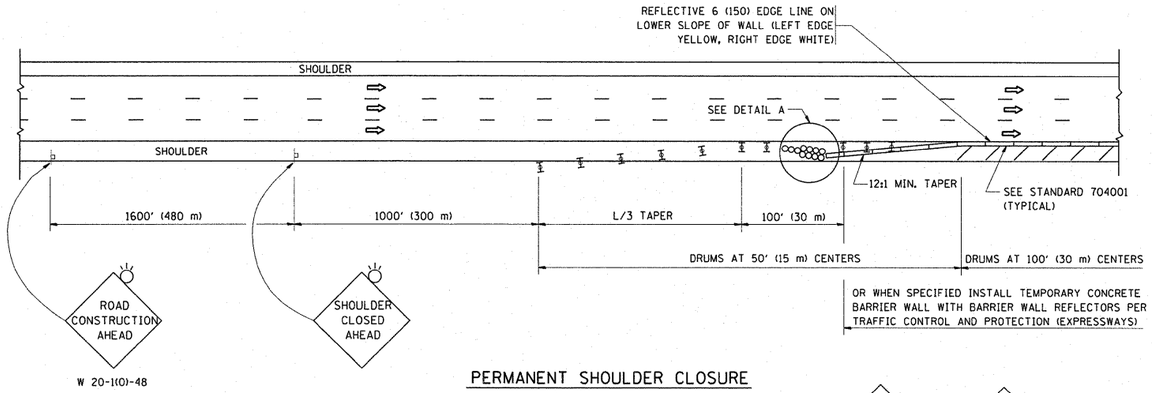
1. THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS	
45 mph (80 km/h) OR GREATER:	METRIC L=0.65(WXS)	ENGLISH L=(WXS)

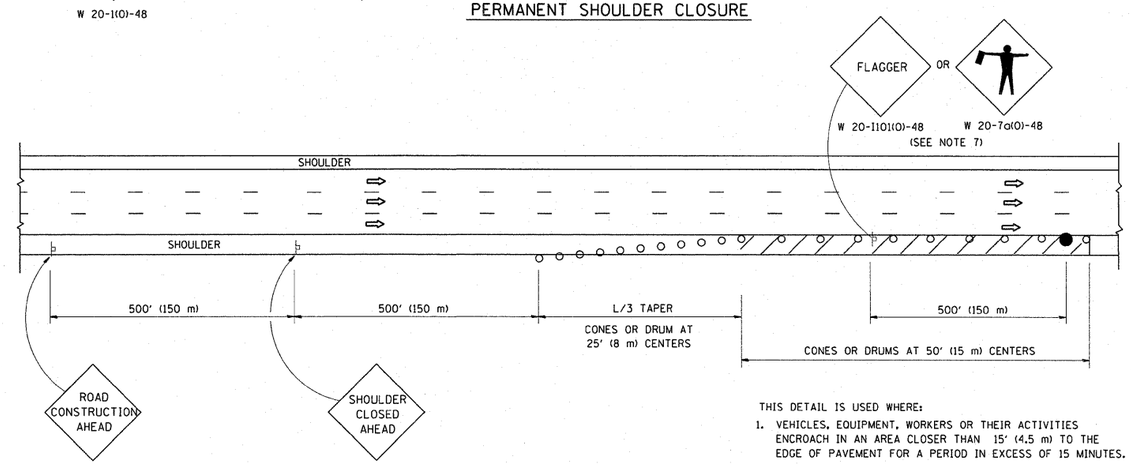
W = WIDTH OF OFFSET IN FEET (METERS)
S = NORMAL POSTED SPEED MPH (KM/H)

2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

SHOULDER CLOSURE DETAILS



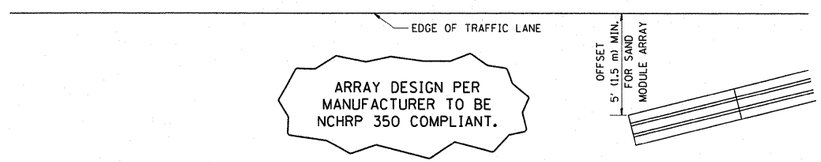
PERMANENT SHOULDER CLOSURE



THIS DETAIL IS USED WHERE:

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

DAYTIME SHOULDER CLOSURE



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

5. THE IMPACT ATTENTUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
   a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
   b. THE WORK AVTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.

   THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.

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

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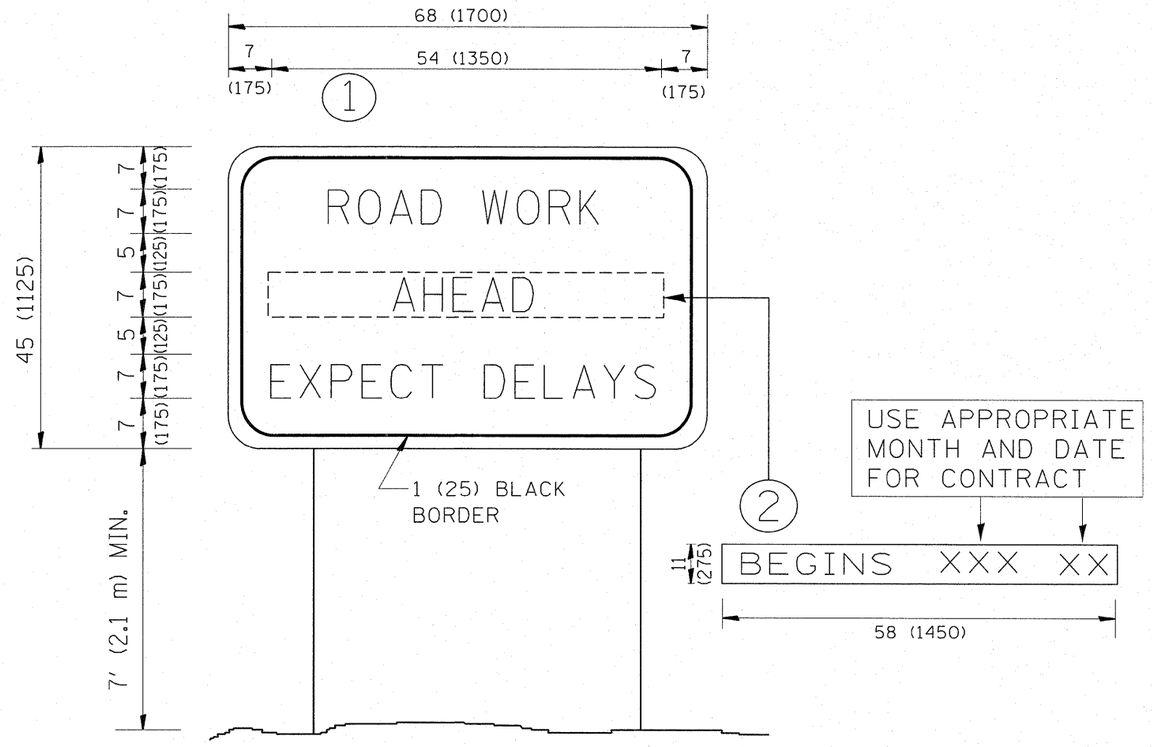
		DRAWN - D.W.S.	REVISED - J.A.F. 12-06
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - S.P.B. 01-07
	PLOT DATE = 2/12/2011	DATE - 11-96	REVISED - S.P.B. 12-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL DETAILS FOR FREEWAY
SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	29
	TC-17	CONTRACT NO. 60K54		
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\galbanjr\d0194557\D1stStd.dgn	USER NAME = galbanjr	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 = 2/12/2011	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.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	30
	TC-22	CONTRACT NO. 60K54		
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.

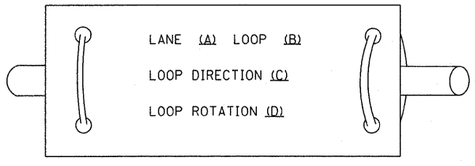
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

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

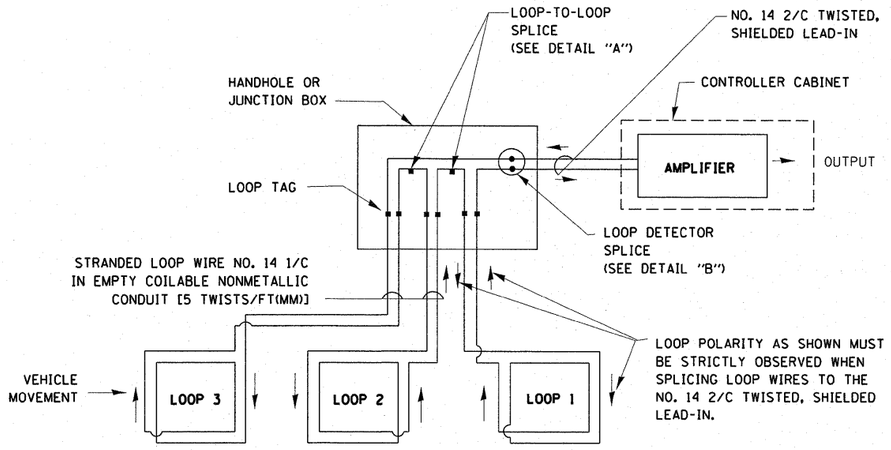


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

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

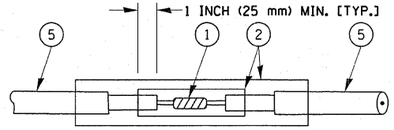
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

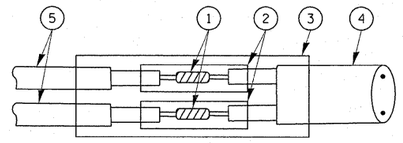


DETECTOR LOOP WIRING SCHEMATIC

- 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.

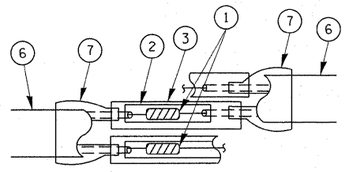


DETAIL "A"
LOOP-TO-LOOP SPLICE



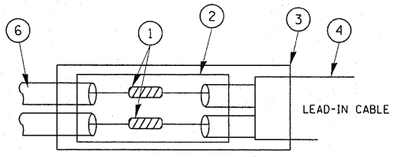
DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE

PRE-FORMED LOOP



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

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

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

(3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 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 = c:\pw_work\pwidot\galbanjr\d0194557\Dist1std.dgn	USER NAME = galbanjr	DESIGNED - DAD	REVISED -
		DRAWN - BCK	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED - DAD	REVISED -
	PLOT DATE = 2/12/2011	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

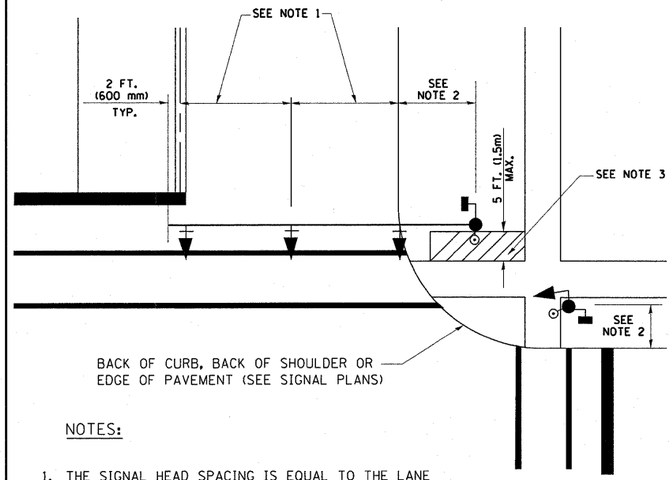
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 1 OF 6 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	31
	TS-05	CONTRACT NO. 60K54		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

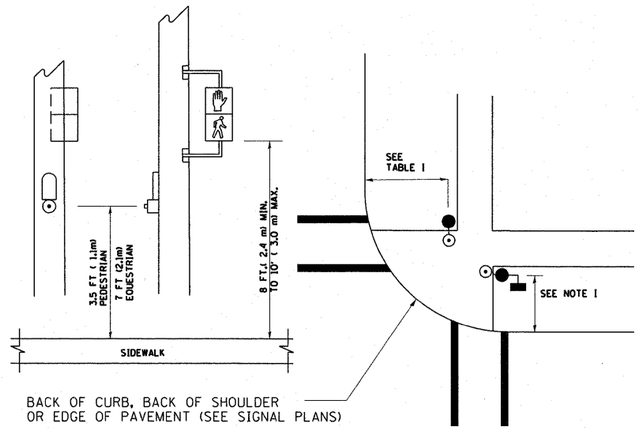
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

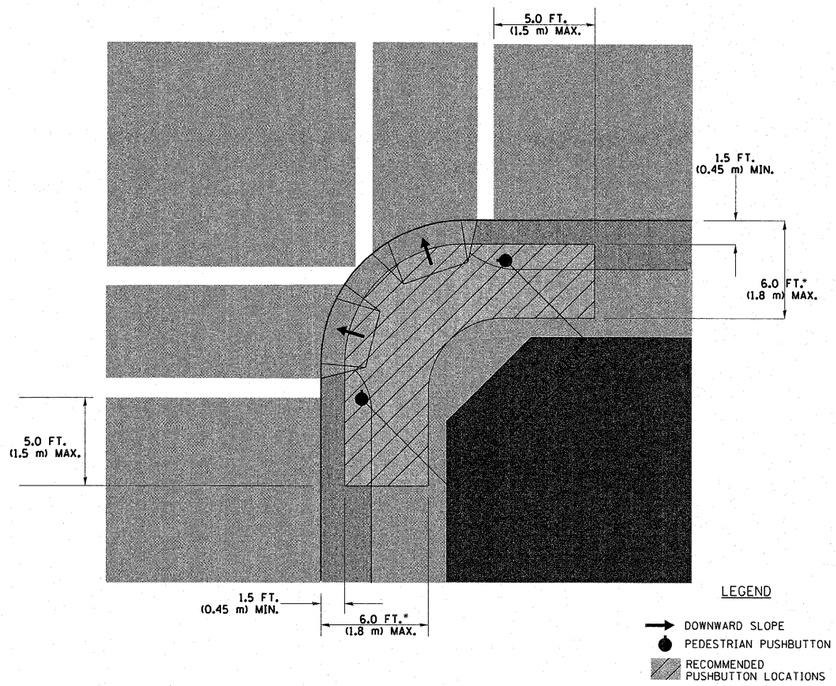
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- •• WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

NOTES:

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

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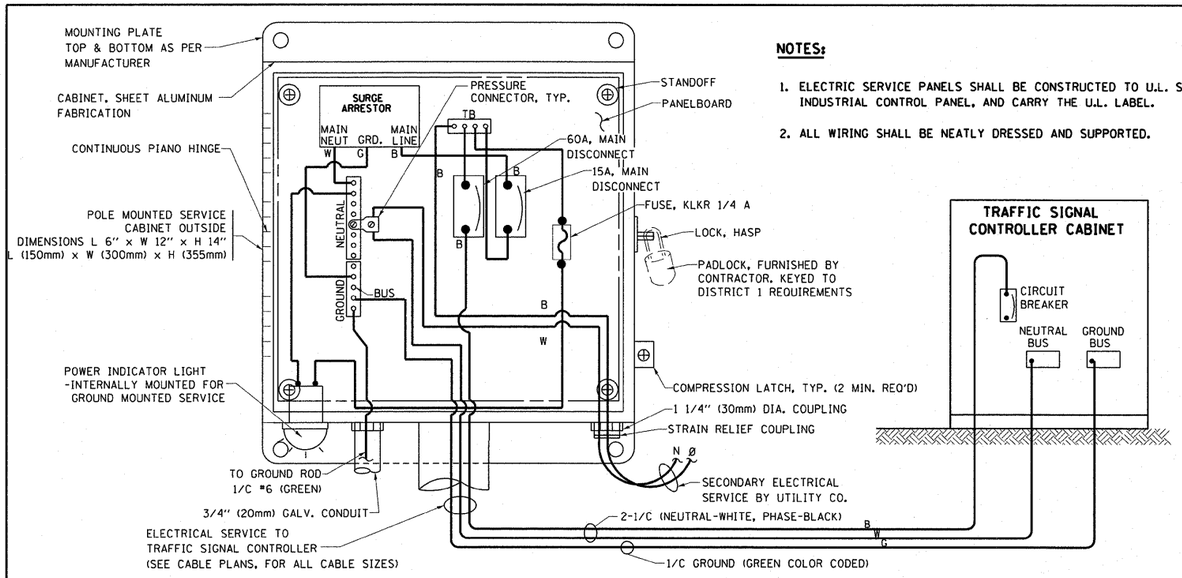
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 2 OF 6 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	32
	TS-05	CONTRACT NO. 60K54		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



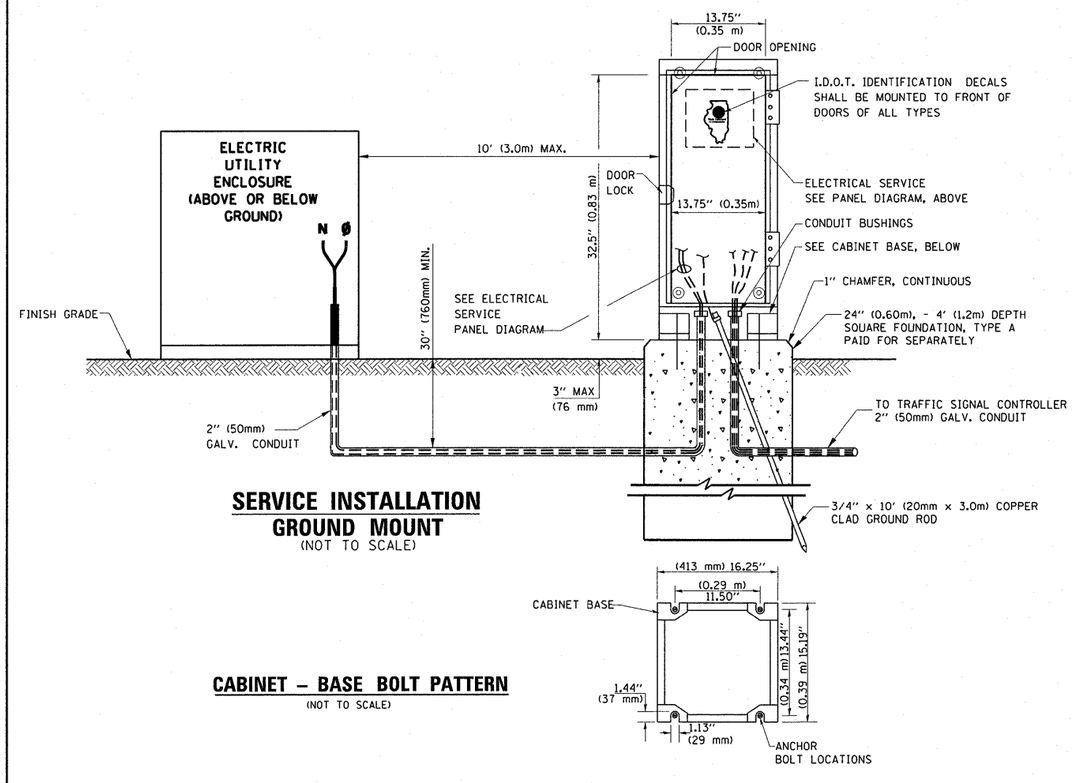
NOTES:

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

SERVICE INSTALLATION POLE MOUNT (SHOWN)

(NOT TO SCALE)

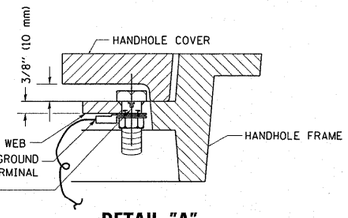


SERVICE INSTALLATION GROUND MOUNT

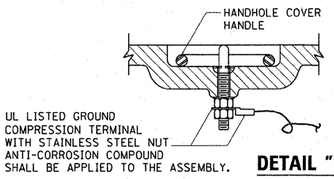
(NOT TO SCALE)

CABINET – BASE BOLT PATTERN

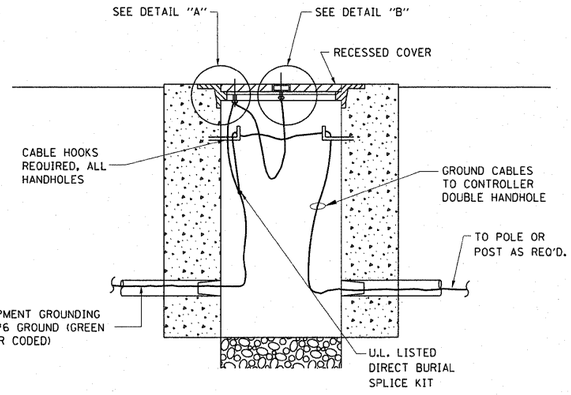
(NOT TO SCALE)



DETAIL "A"

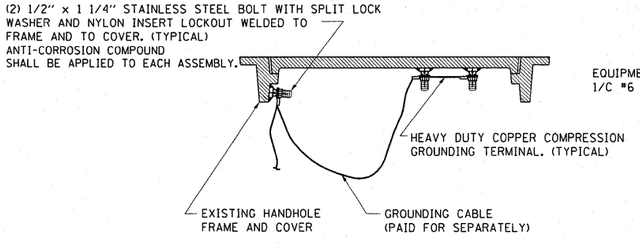


DETAIL "B"



HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



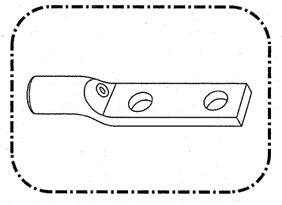
EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)

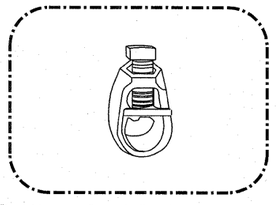
NOTES:

GROUNDING SYSTEM

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



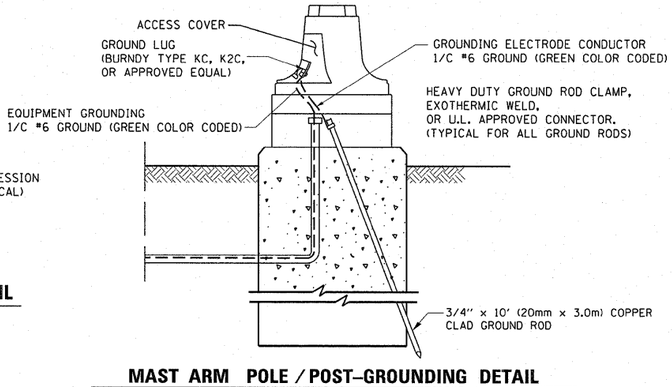
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

NOTES:

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



MAST ARM POLE / POST–GROUNDING DETAIL

(NOT TO SCALE)

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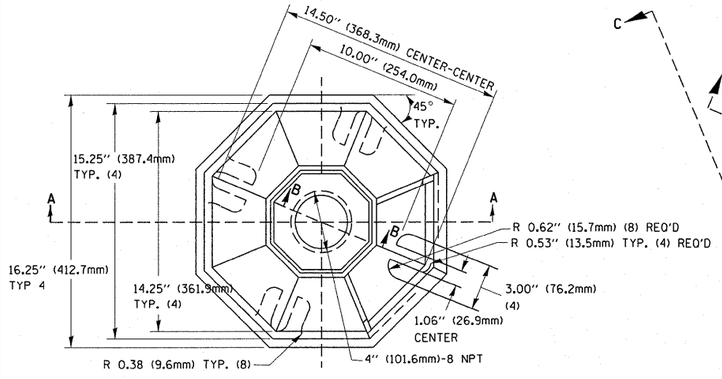
	PLOT DATE = 2/12/2011	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

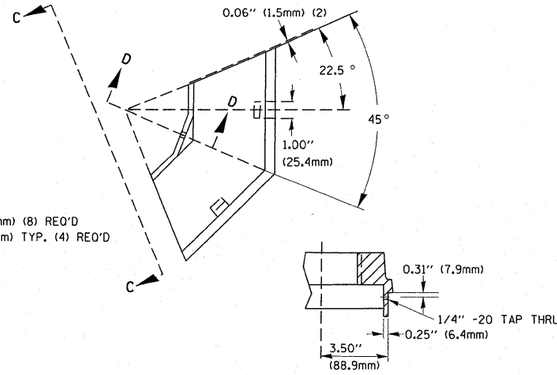
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 3 OF 6 SHEETS | STA. | TO STA.

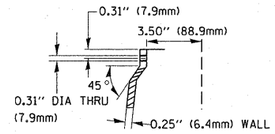
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	33
	TS-05	CONTRACT NO. 60K54		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



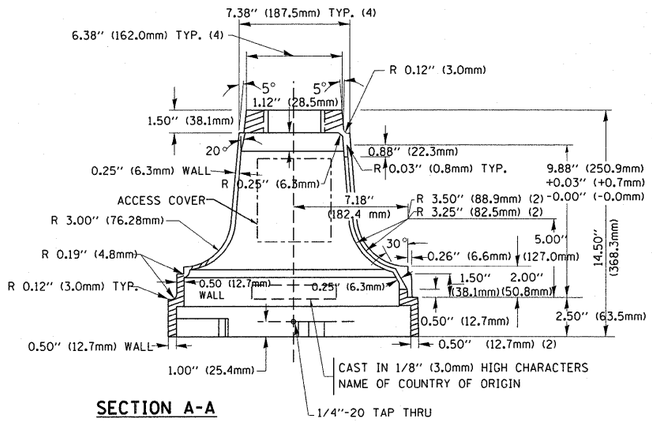
TOP VIEW



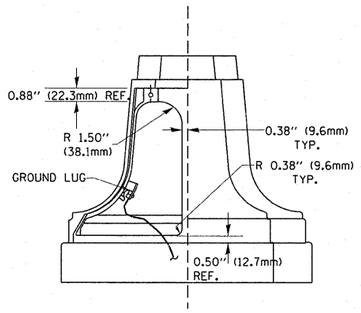
SECTION B-B



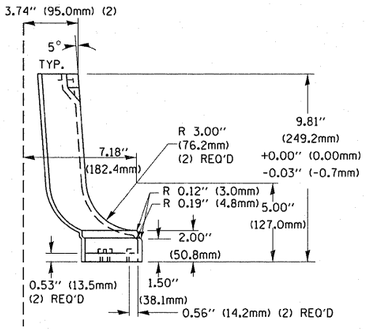
SECTION D-D



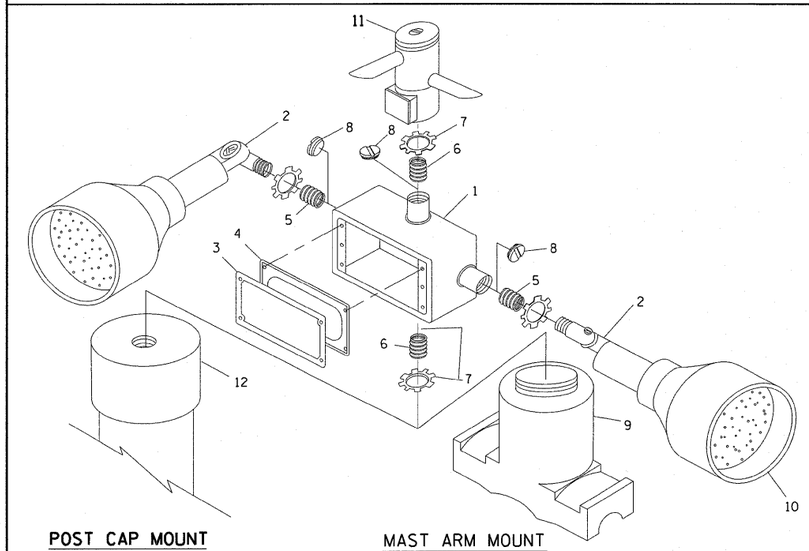
SECTION A-A



VIEW C-C



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



POST CAP MOUNT

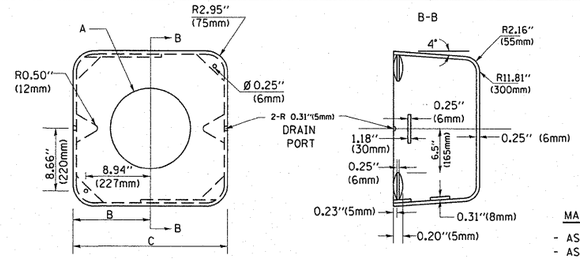
MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	¾"(19 mm) CLOSE NIPPLE
7	¾"(19 mm) LOCKNUT
8	¾"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
   ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
   ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A ¾"(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



MATERIAL:
- ASTM A36 STEEL
- ASTM A-123 HOT DIPPED GALVANIZED

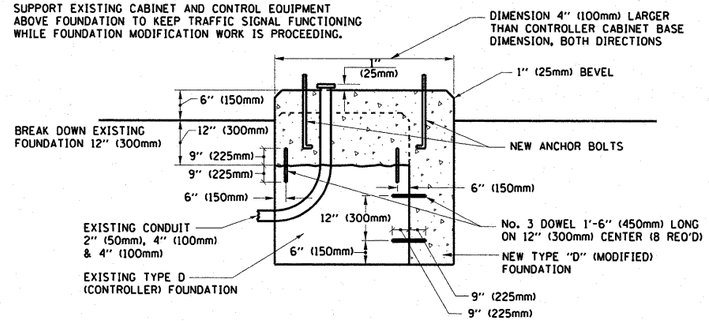
A	B	C	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

SHROUD

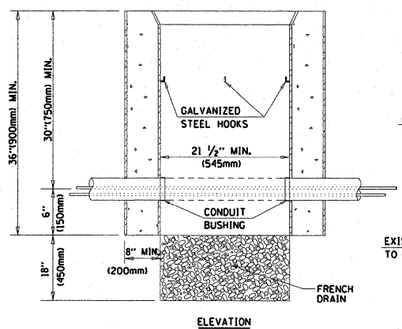
NOTES:

1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

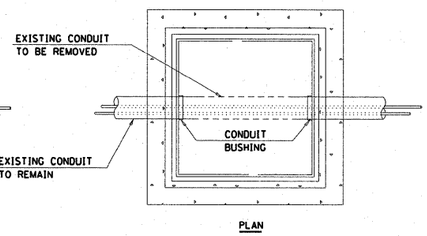
NOTE:
SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



MODIFY EXISTING TYPE "D" FOUNDATION



ELEVATION



PLAN

NOTES:

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

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	PLOT DATE = 2/12/2011	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 4 OF 6 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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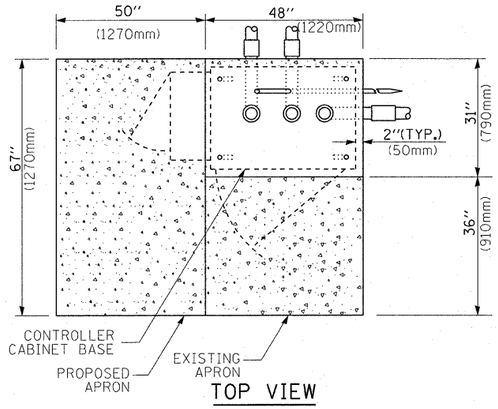
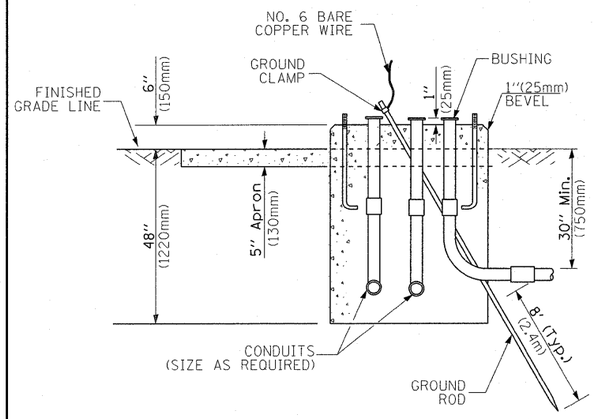
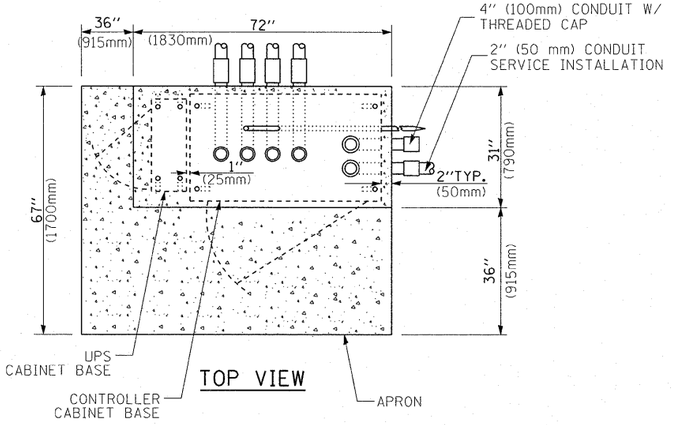
	TS-05	CONTRACT NO. 60K54		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



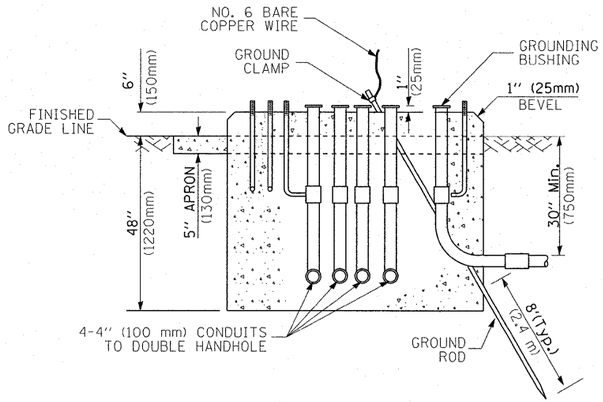
TOP VIEW



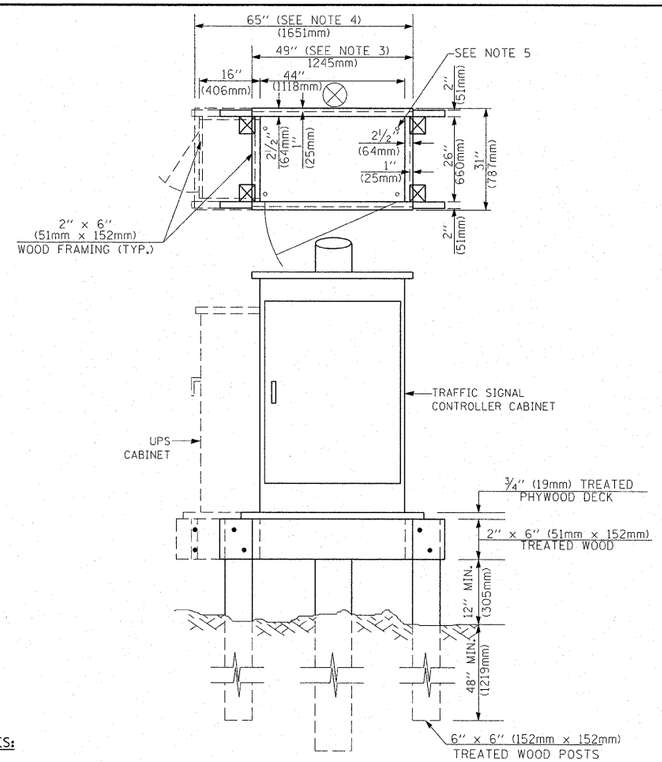
TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



TOP VIEW



TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



NOTES:

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

NOTES:

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
4. For mast arm assemblies with dual arms refer to state standard 878001.

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 5 OF 6 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	35
	TS-05	CONTRACT NO. 60K54		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET	R		
RAILROAD CONTROL CABINET		RR	RR
COMMUNICATIONS CABINET	R CC	E.C.C	CC
MASTER CONTROLLER		EMC	MC
MASTER MASTER CONTROLLER		EMMC	MMC
UNINTERRUPTIBLE POWER SUPPLY	R UPS	EUPS	UPS
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	R	P	P
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT	R T	P T	P T
STEEL MAST ARM ASSEMBLY AND POLE	R		
ALUMINUM MAST ARM ASSEMBLY AND POLE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA	R PTZ	PTZ	PTZ
SIGNAL POST	R		
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM	R		
GUY WIRE	R		
SIGNAL HEAD	R		
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)			2
SIGNAL HEAD WITH BACKPLATE	R		
SIGNAL HEAD OPTICALLY PROGRAMMED	R "P"	"P"	"P"
FLASHER INSTALLATION (S DENOTES SOLAR POWER)	R "F"	"F"	"F"
PEDESTRIAN SIGNAL HEAD	R		
PEDESTRIAN PUSHBUTTON DETECTOR	R		
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR	R APS	APS	APS
ILLUMINATED SIGN "NO LEFT TURN"	R		
ILLUMINATED SIGN "NO RIGHT TURN"	R		
DETECTOR LOOP, TYPE I			
PREFORMED DETECTOR LOOP		P	P
MICROWAVE VEHICLE SENSOR	R M	M	M
VIDEO DETECTION CAMERA	R V	V	V
VIDEO DETECTION ZONE			
PAN, TILT, ZOOM CAMERA	R PTZ	PTZ	PTZ
WIRELESS DETECTOR SENSOR	R W	W	W
WIRELESS ACCESS POINT	R		

ITEM	REMOVAL	EXISTING	PROPOSED
EMERGENCY VEHICLE LIGHT DETECTOR	R		
CONFIRMATION BEACON	R		
HANDHOLE	R		
HEAVY DUTY HANDHOLE	R H	H	H
DOUBLE HANDHOLE	R		
JUNCTION BOX	R		
GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)			
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE	R		
COMMON TRENCH			CT
COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC
SYSTEM ITEM		S	S
INTERSECTION ITEM		I	IP
REMOVE ITEM	R		
RELOCATE ITEM	RL		
ABANDON ITEM	A		
12" (300mm) TRAFFIC SIGNAL SECTION		R	R
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		R Y G	
SIGNAL FACE		R Y G Y G	R Y G Y G
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD		R Y G Y G "P"	R Y G Y G "P"
12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL		DW W	
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED			
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID			
PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER		C D	C D
RADIO INTERCONNECT	R		
RADIO REPEATER	R ERR	ERR	RR
DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED		5	5
GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)		1	1

ITEM	REMOVAL	EXISTING	PROPOSED
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE		1	1
COAXIAL CABLE		C	C
VENDOR CABLE FOR CAMERA		V	V
COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED		6	6
FIBER OPTIC CABLE NO. 62.5/125, MM12F		12F	
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F		24F	24F
FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE		C	C
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED	RCF		
STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED	RMF		
SIGNAL POST AND FOUNDATION TO BE REMOVED	RMF		
INTERSECTION & SAMPLING (SYSTEM) DETECTOR		IS	IS
SAMPLING (SYSTEM) DETECTOR		S	S
EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		P	
EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PP	
PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PIS	PIS
PREFORMED SAMPLING (SYSTEM) DETECTOR		PS	PS

RAILROAD SYMBOLS

	EXISTING	PROPOSED
RAILROAD CONTROL CABINET	RR	RR
RAILROAD CANTILEVER MAST ARM		
FLASHING SIGNAL		
CROSSING GATE		
CROSSBUCK		

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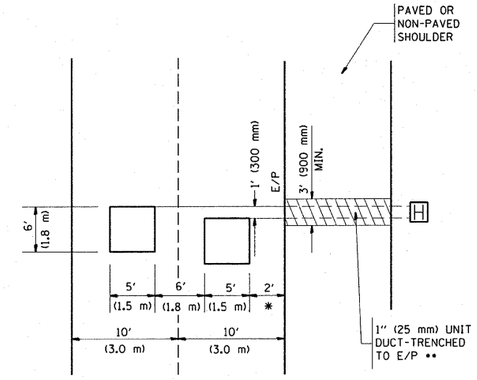
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 6 OF 6 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	36
	TS-05	CONTRACT NO. 60K54		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

LOOPS NEXT TO SHOULDERS

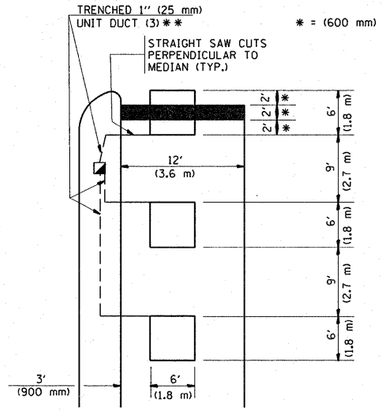


* = (600 mm)

** 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)

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

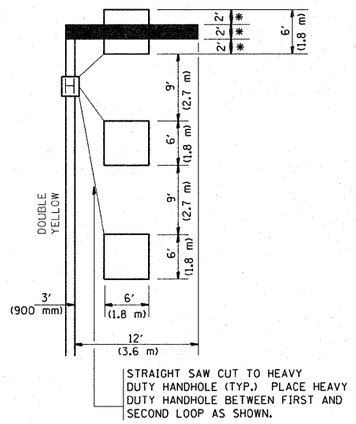


** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

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

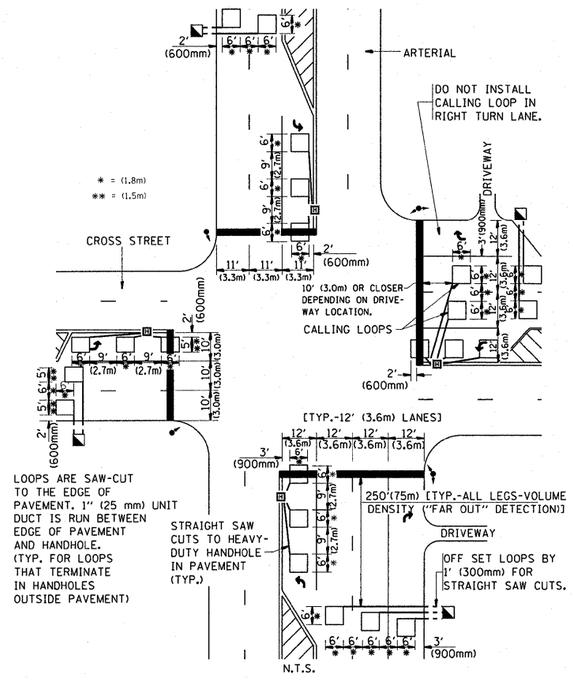
LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)

* = (600 mm)



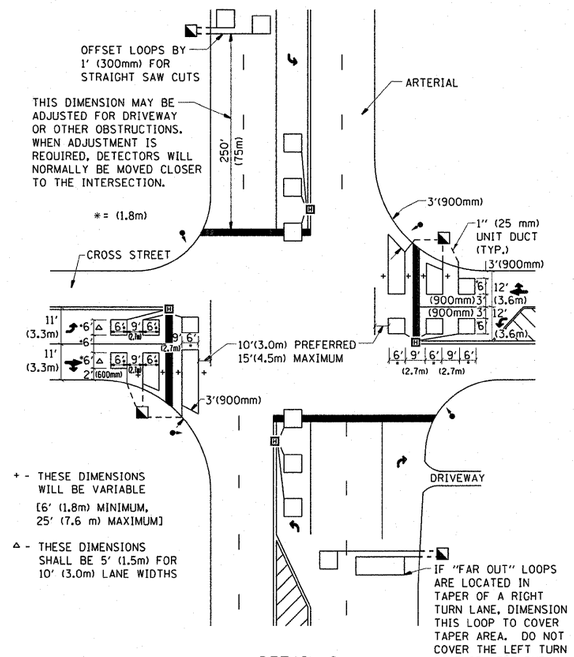
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



DETAIL 1
N.T.S.

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



DETAIL 2
N.T.S.

NOTES:

VEHICLES LOOP DETECTORS

* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR 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.

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	PLOT SCALE = 50.0000 ' / IN.	CHECKED - R.K.F.	REVISED -
	PLOT DATE = 2/12/2011	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.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3565	B-R-2-RS	COOK	37	37
	TS-07	CONTRACT NO. 60K54		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		