

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1556	16-00168-00-RS	DUPAGE/WILL	31	1

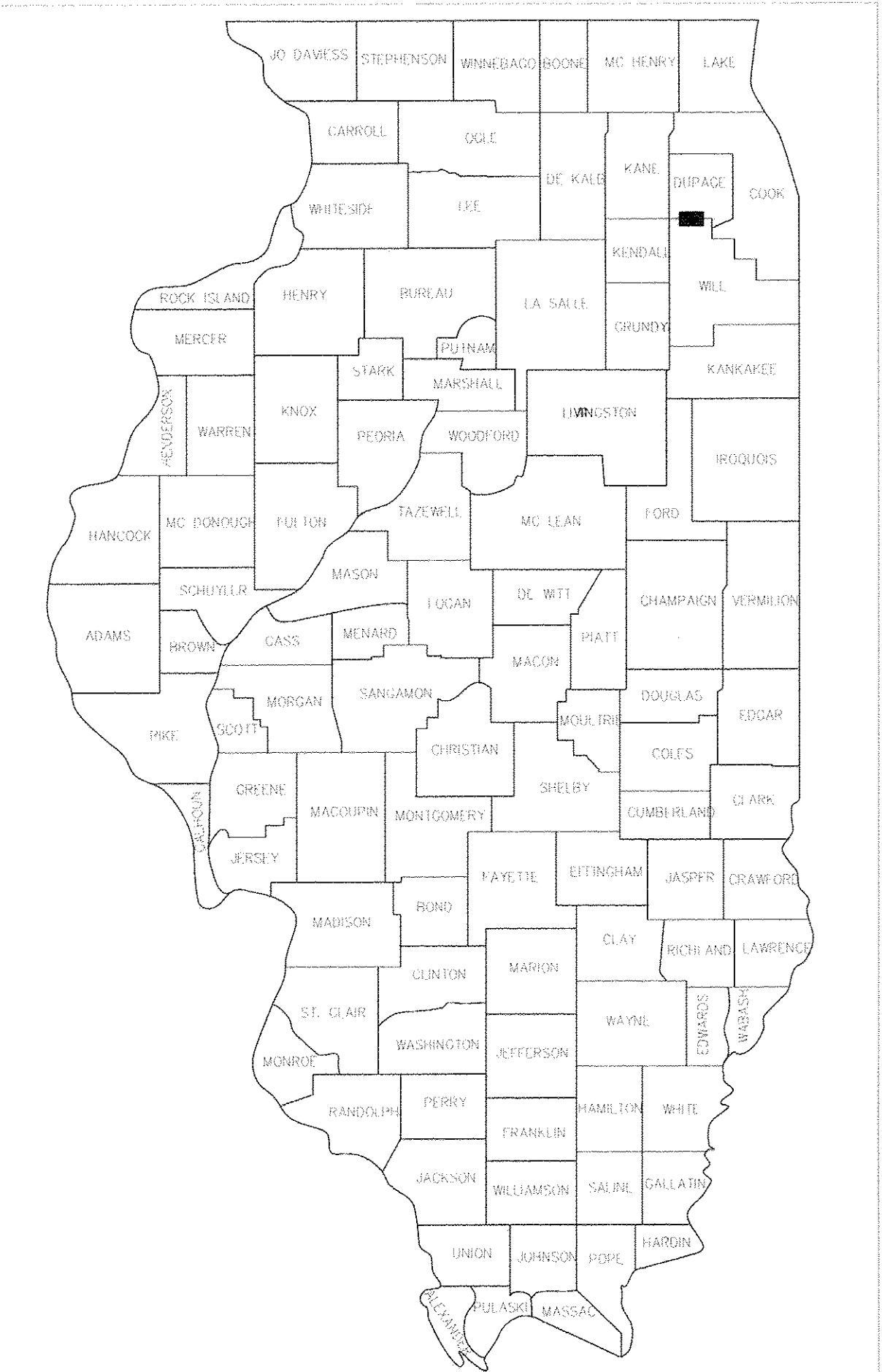
CONTRACT NO. 61D76

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

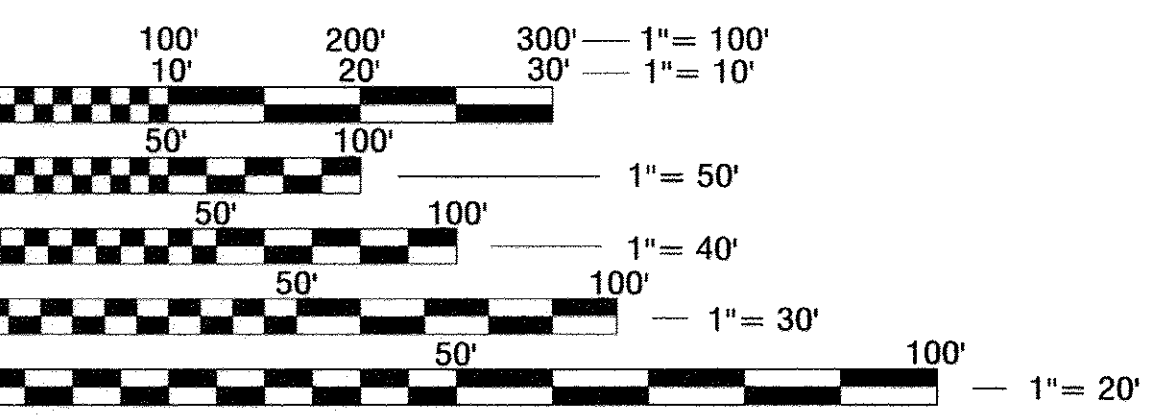
**FAU ROUTE 1556 (87th ST)
IL ROUTE 59 TO BOOK RD
RESURFACING
SECTION 16-00168-00-RS
PROJECT NO. M-4003(853)
CITY OF NAPERVILLE
DUPAGE & WILL COUNTY
JOB NO: C-91-131-17**

TRAFFIC DATA

2009 ADT = 9,400
2040 ADT = 10,200
POSTED SPEED LIMIT = 40 MPH
DESIGN DESIGNATION: MINOR ARTERIAL



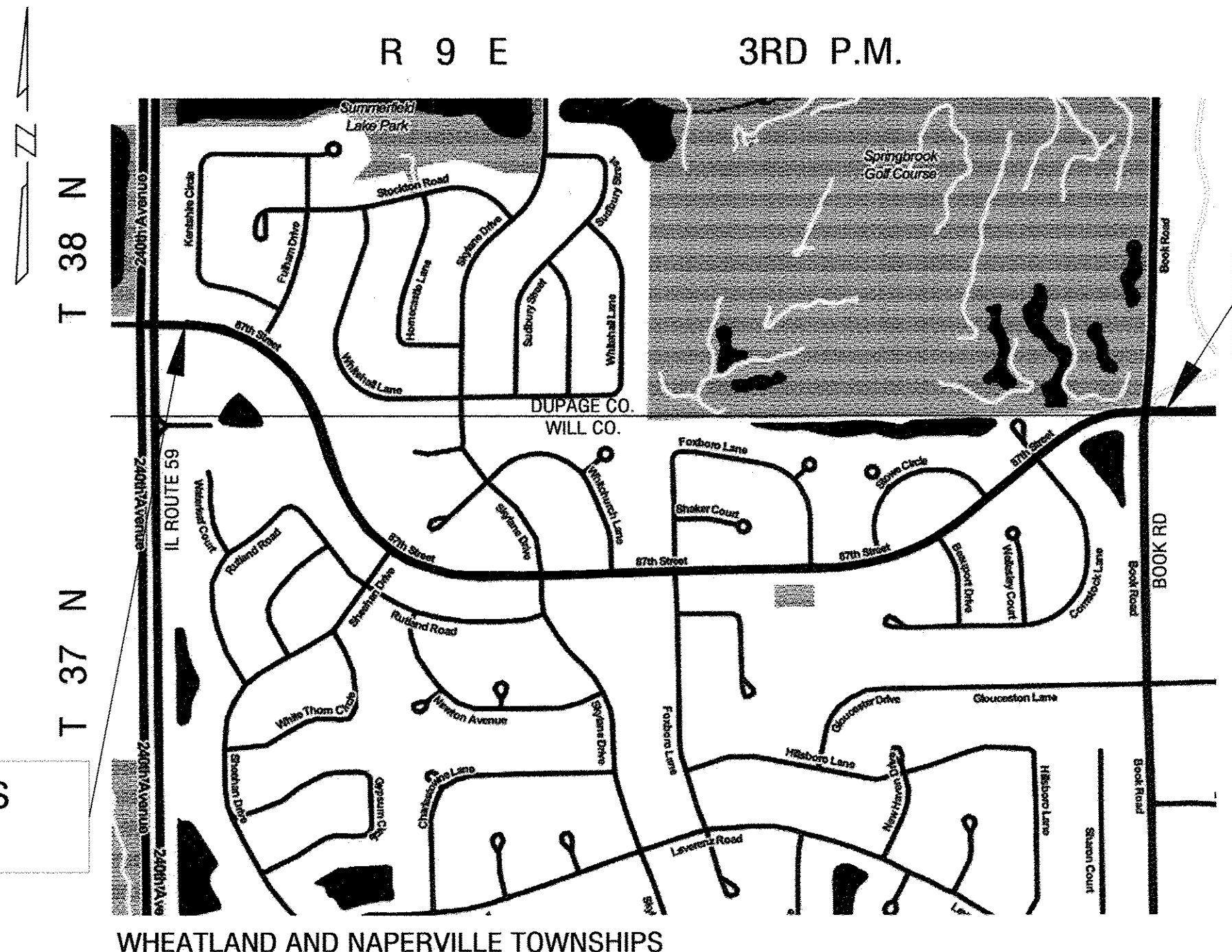
LOCATION OF SECTION INDICATED THUS: - ■ -



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

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

CONTRACT NO. 61D76



PROJECT BEGINS
STATION 3+65

PROJECT ENDS
STATION 63+97

LOCATION MAP
NOT TO SCALE

GROSS AND NET LENGTH = 6,032 FT (1.14 MILES)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Approved *Jan 30 2017*
Chris J. Shaw
CITY OF NAPERVILLE, CITY ENGINEER

Passed *Feb 14 2017*
Chris J. Shaw
DISTRICT 1 ENGINEER OF LOCAL ROADS AND STREETS

Released for Bid
Based on Limited Review *February 16 2017*
Arthur J. Quigley Jr.
REGIONAL ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

PLANS PREPARED BY:
 400 South Eagle Street
Naperville, IL 60540
630-420-6100



Expires: *11/30/2017* DATE: *1/30/17*

PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, P.E. 847-705-4406 SCHAUMBURG, IL

GENERAL NOTES

SPECIFICATIONS, STANDARDS, AND SPECIAL PROVISIONS:

ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED APRIL 1, 2016. (HEREINAFTER REFERRED TO AS THE STANDARD SPECIFICATIONS); THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", ADOPTED JANUARY 1, 2017; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS; THE "DETAILS" ON THE PLANS AND THE "SPECIAL PROVISIONS" INCLUDED IN THE CONTRACT DOCUMENTS. ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED AS THE LATEST STANDARD OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

PROJECT COORDINATION:

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 72 HOURS IN ADVANCE OF BEGINNING WORK AND SHALL COORDINATE ALL CONSTRUCTION OPERATIONS WITH THE ENGINEER. ATTENTION IS CALLED TO SECTION 701 OF THE STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS FOR TRAFFIC CONTROL AND PROTECTION. THE STORAGE OF EQUIPMENT AND/OR MATERIALS WITHIN THE RIGHT-OF-WAY SHALL REQUIRE PRIOR WRITTEN APPROVAL OF THE ENGINEER.

PERMITTING:

THE CONTRACTOR MUST OBTAIN ALL APPLICABLE PERMITS FOR THE COMPLETION OF THE WORK, INCLUDING FROM THE CITY OF NAPERVILLE.

SAFETY:

PER ARTICLE 701.12 OF THE STANDARD SPECIFICATIONS, ALL CONSTRUCTION PERSONNEL SHALL BE REQUIRED TO WEAR FLUORESCENT SAFETY VESTS OF THE SPECIFIED COLOR/S AT ALL TIMES WHILE ON THE CONSTRUCTION SITE.

TRAFFIC CONTROL AND MAINTENANCE:

THE CONTRACTOR SHALL STAGE THE WORK SO THAT ONE LANE OF TRAFFIC IN EACH DIRECTION IS MAINTAINED AT ALL TIMES. IN THE EVENT A TEMPORARY LANE CLOSURE IS REQUIRED, THE CONTRACTOR SHALL UTILIZE IDOT STANDARD 701601. A LANE CLOSURE WILL ONLY BE PERMITTED DURING CONSTRUCTION OPERATIONS AND IN ACCORDANCE WITH THE APPLICABLE IDOT STANDARD. THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN ALL SIGNS, BARRICADES, AND OTHER TRAFFIC CONTROL DEVICES INCLUDING FLAGGERS REQUIRED TO MAINTAIN TRAFFIC FLOW. THE CONTRACTOR SHALL SCHEDULE HIS WORK SO THAT NO HOLES IN THE PAVEMENT, AS DETERMINED BY THE ENGINEER, REMAIN OPEN OVER NIGHT.

ACCESS TO ABUTTING PROPERTY SHALL BE PROVIDED AT ALL TIMES DURING CONSTRUCTION OF THIS PROJECT. TIME REQUIRED FOR CONSTRUCTION AT DRIVEWAYS SHALL BE LIMITED TO THE MINIMUM TIME REQUIRED FOR SAID CONSTRUCTION AND, IF REQUIRED, TEMPORARY AGGREGATE SURFACE FOR DRIVEWAY ACCESS SHALL BE PROVIDED.

UTILITY COORDINATION:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK WITH ALL UTILITIES PER ARTICLE 107.39 OF THE STANDARD SPECIFICATIONS.

PAVEMENT STRIPING:

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

SAW CUTTING FOR REMOVAL:

THE CONTRACTOR SHALL BE REQUIRED TO MAKE A FULL DEPTH SAW CUT AT THE EDGE OF PAVEMENT ADJACENT TO THE REMOVAL OF ALL CONCRETE CURB OR COMBINATION CONCRETE CURB AND GUTTER. THE CONTRACTOR SHALL MAKE FULL DEPTH SAW CUTS FOR THE REMOVAL OF ALL CONCRETE CURB AND GUTTERS, SIDEWALKS, AND DRIVEWAYS AS SPECIFIED, OR AS DIRECTED BY THE ENGINEER.

BASE COURSE CLEANING:

PRIOR TO APPLYING THE BITUMINOUS TACK COAT, THE BASE SURFACE INCLUDING GUTTERS SHALL BE CLEANED OF LOOSE GRINDINGS, LEAVES, OF ALL DUST, DIRT, WEEDS, AND OTHER FOREIGN MATERIALS. ALL CRACK FILL MATERIAL SHALL BE REMOVED IN ITS ENTIRETY ALONG THE CURB LINE.

CLEAN-UP AND DISPOSAL:

THE CONTRACTOR SHALL MAINTAIN THE SITE IN A CLEAN AND ORDERLY MANNER. DEBRIS AND ANY SURPLUS MATERIAL SHALL BE REMOVED AND RESTORATION SHALL PROCEED AS THE WORK PROCEEDS. IF THE ENGINEER SO DIRECTS, THE CONTRACTOR SHALL STOP ALL OTHER WORK AND CONCENTRATE ON CLEAN-UP AND RESTORATION. DEBRIS AND SURPLUS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN APPROVED OFF-SITE DISPOSAL AREA.

CONSTRUCTION LIMITS:

THE CONTRACTOR SHALL CONFINE OPERATIONS WITHIN THE DEDICATED ROADWAY RIGHTS-OF-WAY. ANY DAMAGE OUTSIDE OF THE LIMITS OF OPERATION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

LANDSCAPING RESTORATION:

ALL LANDSCAPING DAMAGED DURING CONSTRUCTION SHALL BE RESTORED WITH A MINIMUM OF 4" OF PULVERIZED TOP SOIL, SODDING, AND FERTILIZER NUTRIENTS.

PUBLIC UTILITY LOCATIONS:

THE LOCATION OF EXISTING DRAINAGE STRUCTURES, STORM SEWERS, WATER MAINS, SANITARY SEWERS, AND ANY OTHER PUBLIC UTILITIES IS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR. THE CONTRACTOR SHALL FOLLOW SECTION 107.39 OF THE STANDARD SPECIFICATIONS.

REMOVAL OF EXISTING PAVEMENT AND APPURTENANCES:

WHEN PORTIONS OF EXISTING PAVEMENTS OR APPURTENANCES ARE TO REMAIN IN PLACE, OR ADJACENT EXISTING PAVEMENTS OR APPURTENANCES ARE TO REMAIN IN PLACE, THE CONTRACTOR SHALL FORM A PERPENDICULAR STRAIGHT JOINT BY FULL-DEPTH MACHINE SAWING AT THE ENDS AND ALL EDGES OF PORTIONS TO BE REMOVED TO PREVENT SURFACE SPALLING. IF DAMAGED, THE EXISTING PAVEMENT OR APPURTENANCE TO REMAIN IN PLACE SHALL BE REPAIRED OR REMOVED AND REPLACED BY THE CONTRACTOR AT HIS/HER OWN EXPENSE, AS DIRECTED BY THE ENGINEER.

PHASE 3 CONSTRUCTION ENGINEERING

PHASE 3 CONSTRUCTION ENGINEERING WILL BE PERFORMED BY THE CITY OF NAPERVILLE OR DESIGNEE.

INDEX OF SHEETS

STANDARD NO.	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES & STANDARDS
3-4	SUMMARY OF QUANTITIES
5-6	TYPICAL SECTIONS
7-11	PROPOSED ROADWAY PLANS
12-14	PAVEMENT MARKING PLAN
15	DETECTOR LOOP REPLACEMENT
16-31	DISTRICT 1 STANDARD DETAILS IDOT STANDARD DETAILS

DISTRICT 1 STANDARD DETAILS

STANDARD NO.	DESCRIPTION
BD-08	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING
BD-22	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
BD-24	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT
BD-32	BUTT JOINT AND HMA TAPER DETAILS
TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
TC-13	DISTRICT ONE TYPICAL PAVEMENT SECTIONS
TC-14	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
TC-16	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
TS-05	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS
TS-07	DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING

IDOT STANDARD DETAILS

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
424001-09	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424006-02	DIAGONAL CURB RAMPS FOR SIDEWALKS
424011-03	CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
424016-03	MID-BLOCK CURB RAMPS FOR SIDEWALKS
424021-03	DEPRESSED CORNER FOR SIDEWALKS
424031-01	MEDIAN PEDESTRIAN CROSSING
442201-03	CLASS C AND D PATCHES
606001-06	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' TO 24" FROM EDGE OF PAVEMENT
701427-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS <= 40 MPH
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-06	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS

FILE NAME = 02-General Notes & Standards.dwg

DESIGNED	-	MCP	REVISED	-
DRAWN	-	MCP	REVISED	-
CHECKED	-	YL	REVISED	-
DATE	-	1/27/2017	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

GENERAL NOTES & STANDARDS

SCALE: N.T.S.	SHEET NO. 1 OF 1 SHEETS	STA. _____ TO STA. _____	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			1556	16-00168-00-RS	DUPAGE/WILL	31	2
			CONTRACT NO. 61D76				
			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SPECIALTY ITEM	S.P.	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
						ROADWAY
						0005 URBAN
		21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	1700	1700
		25000400	NITROGEN FERTILIZER NUTRIENT	POUND	21	21
		25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	21	21
		25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	21	21
		25200110	SODDING, SALT TOLERANT	SQ YD	1700	1700
		40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	27800	27800
		40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	60	60
		40600827	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	1750	1750
		40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	460	460
		40600990	TEMPORARY RAMP	SQ YD	850	850
		40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	4660	4660
		42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	2900	2900
		42400800	DETECTABLE WARNINGS	SQ FT	320	320
		44000160	HOT-MIX ASPHALT SURFACE REMOVAL, 2 3/4"	SQ YD	41300	41300
		44000600	SIDEWALK REMOVAL	SQ FT	2900	2900

SPECIALTY ITEM	S.P.	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
						ROADWAY
						0005 URBAN
		44201690	CLASS D PATCHES, TYPE I, 4 INCH	SQ YD	25	25
		44201692	CLASS D PATCHES, TYPE II, 4 INCH	SQ YD	50	50
		44201694	CLASS D PATCHES, TYPE III, 4 INCH	SQ YD	100	100
		44201696	CLASS D PATCHES, TYPE IV, 4 INCH	SQ YD	200	200
		44201785	CLASS D PATCHES, TYPE I, 12 INCH	SQ YD	25	25
		44201789	CLASS D PATCHES, TYPE II, 12 INCH	SQ YD	50	50
		44201794	CLASS D PATCHES, TYPE III, 12 INCH	SQ YD	100	100
		44201796	CLASS D PATCHES, TYPE IV, 12 INCH	SQ YD	200	200
		67100100	MOBILIZATION	LSUM	1	1
		70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	LSUM	1	1
		70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	1	1
		70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1	1
		70106800	CHANGEABLE MESSAGE SIGN	CAL MO	6	6
		70300100	SHORT TERM PAVEMENT MARKING	FOOT	2500	2500
		70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	700	700

FILE NAME = 03-Summary of Quantities.dwg

DESIGNED - MCP	REVISED -
DRAWN - MCP	REVISED -
CHECKED - YL	REVISED -
DATE - 1/27/2017	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET NO. 1 OF 2 SHEETS STA. — TO STA. —

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1556	16-00168-00-RS	DUPAGE/WILL	31	3
CONTRACT NO. 61D76				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SPECIALTY ITEM	S.P.	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
						ROADWAY
						0005 URBAN
		70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SQ FT	620	620
		70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1340	1340
		70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	2600	2600
		70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	200	200
		70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	200	200
*		78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	620	620
*		78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	13400	13400
*		78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	2600	2600
*		78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	200	200
*		78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	200	200
*		88600600	DETECTOR LOOP REPLACEMENT	FOOT	530	530
*		X0320050	CONSTRUCTION LAYOUT (SPECIAL)	LSUM	1	1
*		X4400220	CURB REMOVAL AND REPLACEMENT	FOOT	6400	6400
*		X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	2	2
		X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	2000	2000
		X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	140	140
*		Z0017500	DRAINAGE & UTILITY STRUCTURE ADJUSTMENT (SPECIAL)	EACH	47	47

FILE NAME = 03-Summary of Quantities.dwg

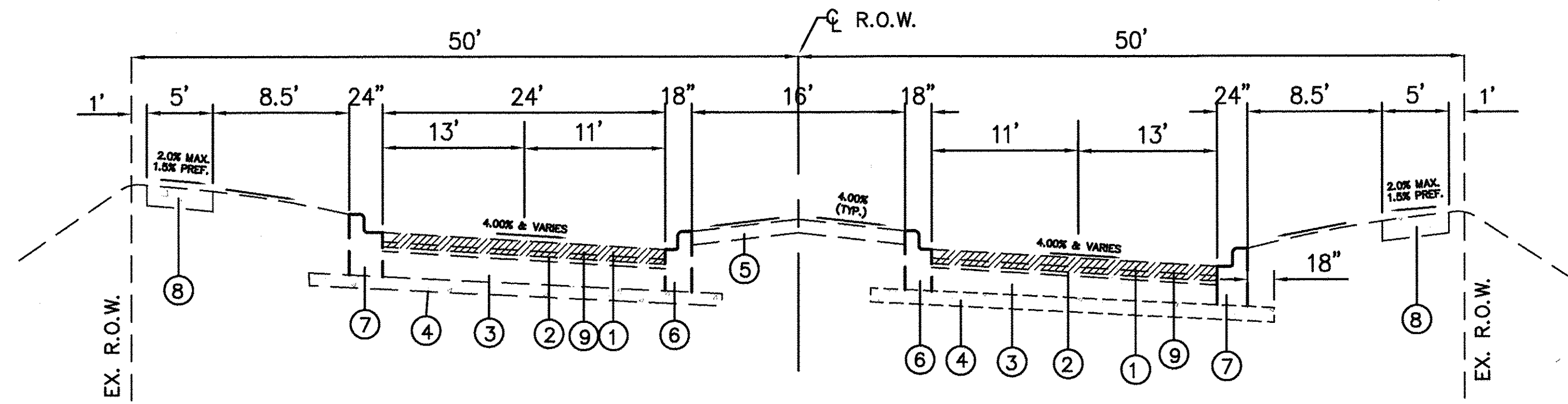
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CHECKED - YL	REVISED -
DATE - 1/27/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

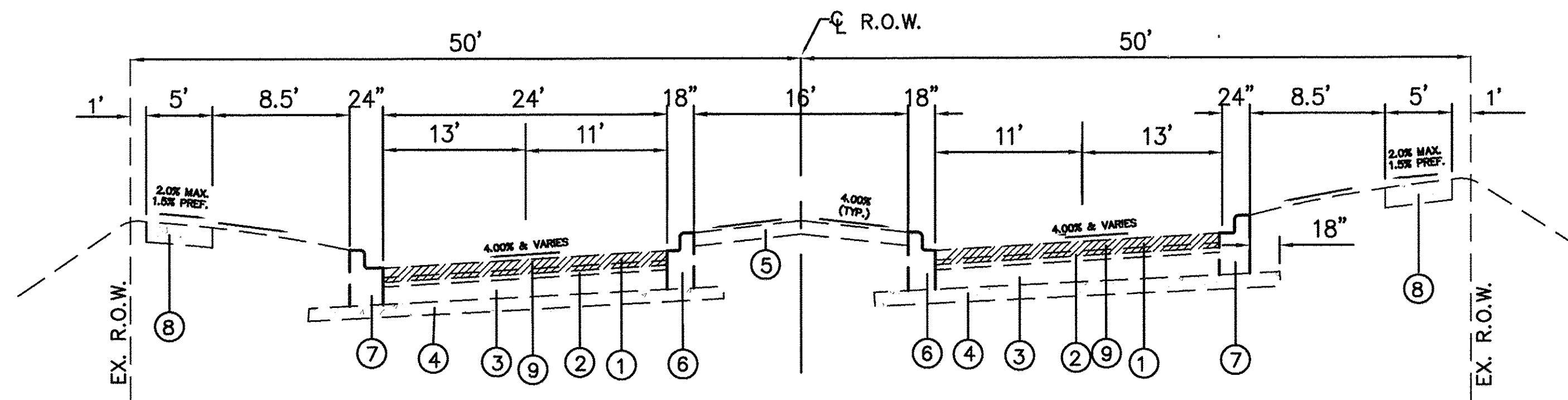
SCALE: N.T.S. SHEET NO. 2 OF 2 SHEETS STA. -- TO STA. --

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1556	16-00168-00-RS	DUPAGE	31	4
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61D76	



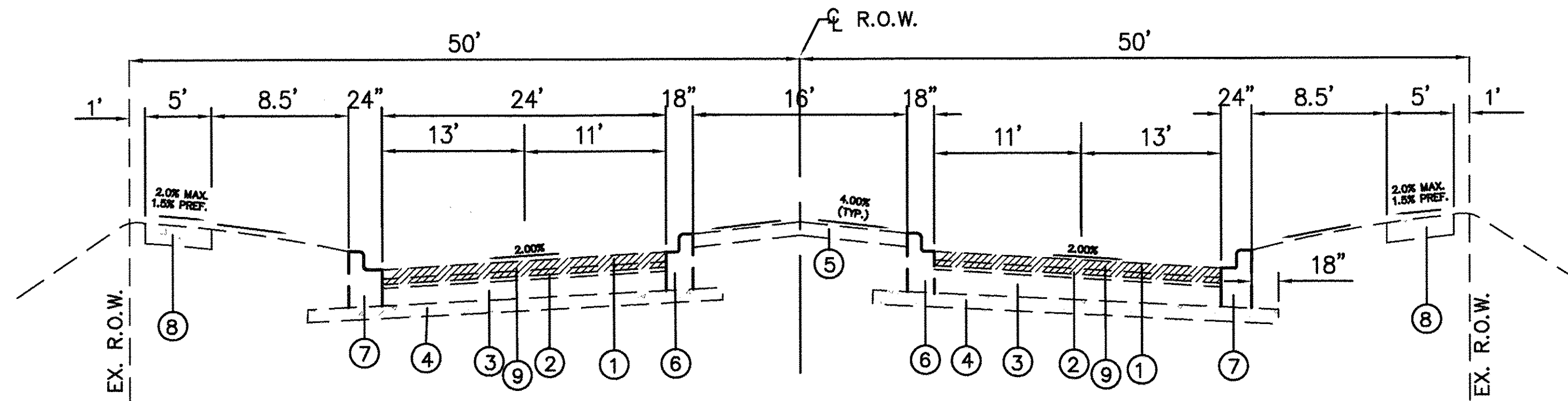
EXISTING TYPICAL SECTION NO. 1

87TH STREET
 STA. 58+47 TO STA. 63+44,
 STA. 4+25 TO STA. 13+50



EXISTING TYPICAL SECTION NO. 2

87TH STREET
 STA. 44+46 TO STA. 52+37
 STA. 16+50 TO STA. 26+31



EXISTING TYPICAL SECTION NO. 3

87TH STREET
 STA. 52+37 TO STA. 58+47
 STA. 26+31 TO STA. 44+46
 STA. 13+50 TO STA. 16+50
 STA. 2+55 TO 4+25

LEGEND

1. EXISTING BITUMINOUS CONC. SURFACE COURSE, 1-1/2"
2. EXISTING BITUMINOUS CONC. BINDER COURSE, 2-1/2"
3. EXISTING BITUMINOUS AGGREGATE MATERIAL, 11"
4. EXISTING SUBBASE GRANULAR MATERIAL, 4"
5. EXISTING GRASS MEDIAN
6. EXISTING CONC. CURB & GUTTER, TYPE B-6.12
7. EXISTING CONC. CURB & GUTTER, TYPE B-6.18
8. EXISTING SIDEWALK
9. PROPOSED HMA SURFACE REMOVAL, 2-3/4"



REMOVAL

DESIGNED	YL	REVISED	-
DRAWN	- TAC	REVISED	-
CHECKED	- MCP	REVISED	-
DATE	- 1/27/2017	REVISED	-

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

87TH STREET TYPICAL SECTIONS	
SCALE: 1" = 20 FT	SHEET NO. 1 OF 2 SHEETS
STA. VARIOUS	TO STA. VARIOUS

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1566	16-00168-00-RS	DUPAGE/WILL	31	5
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61D76	

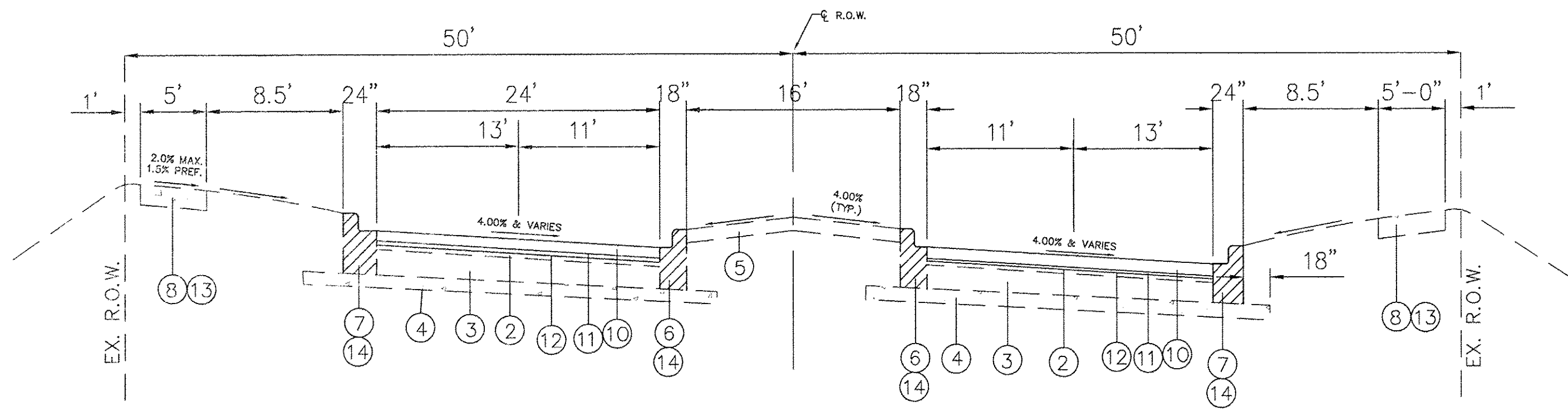
LEGEND

- 2. EXISTING BITUMINOUS CONC. BINDER COURSE
- 3. EXISTING BITUMINOUS AGGREGATE MATERIAL, 11"
- 4. EXISTING SUBBASE GRANULAR MATERIAL, 4"
- 5. EXISTING GRASS MEDIAN
- 6. EXISTING CONC. CURB & GUTTER, TYPE B-6.12
- 7. EXISTING CONC. CURB & GUTTER, TYPE B-6.18
- 8. EXISTING SIDEWALK
- 10. PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 2"
- 11. PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- 12. PROPOSED BITUMINOUS MATERIALS (TACK COAT)
- 13. SIDEWALK REMOVAL AND REPLACEMENT (AS DIRECTED BY THE ENGINEER)
- 14. CURB AND GUTTER REMOVAL AND REPLACEMENT (~30% TO BE REMOVED AND REPLACED, AS DIRECTED BY THE ENGINEER)

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

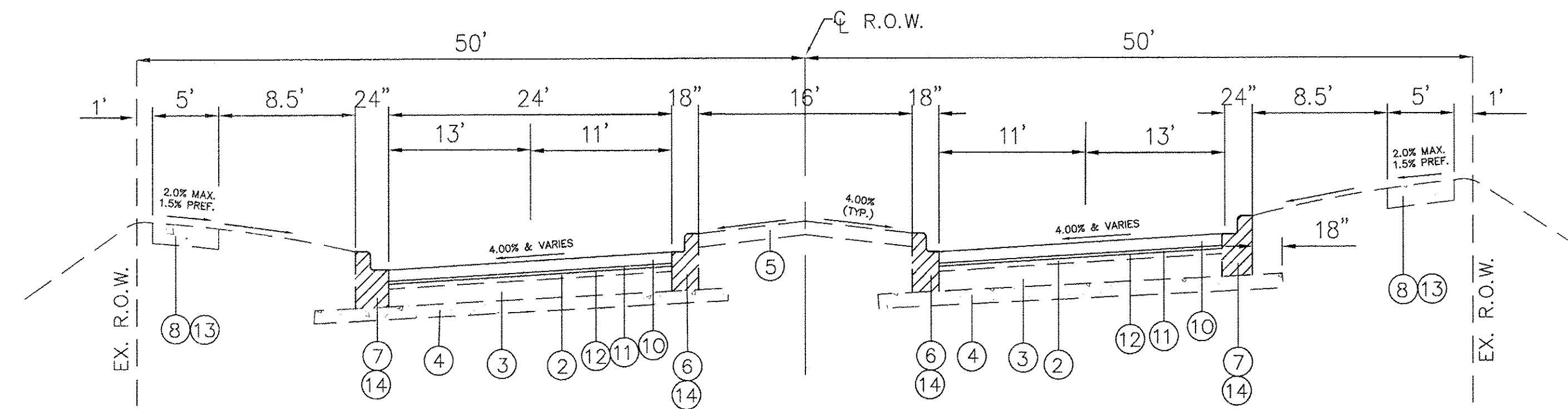
MIXTURE TYPE	AIR VOIDS @ Ndes
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (2")	4% @ 70 Gyr.
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, (3/4")	3.5% @ 50 Gyr.
CLASS D PATCHES 4" AND 12" (AS SPECIFIED) (HMA BINDER IL-19 mm)	4% @ 70 Gyr.

- 1. THE UNIT WEIGHT USED TO CALCULATE HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN
- 2. FOR "PERCENT OF RAP AND RAS" SEE DISTRICT ONE SPECIAL PROVISIONS.
- 3. THE AC TYPE FOR POLYMERIZED HMA MIXES SHALL BE "SBS-SBR76-22" AND FOR NON-POLYMERIZED HMA THE AC TYPE SHALL BE "PG-64-22" UNLESS MODIFIED BY DISTRICT 1 SPECIAL PROVISIONS.



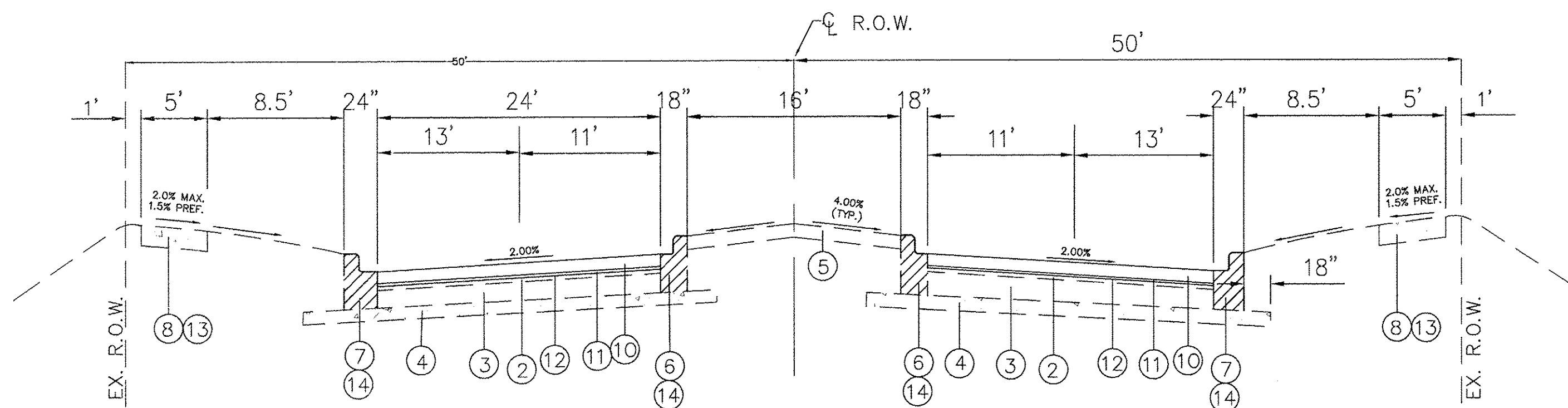
PROPOSED TYPICAL SECTION NO. 1

87TH STREET
STA. 58+47 TO STA. 63+44
STA. 4+25 TO STA. 13+50



PROPOSED TYPICAL SECTION NO. 2

87TH STREET
STA. 44+46 TO STA. 52+37
STA. 16+50 TO STA. 26+31



PROPOSED TYPICAL SECTION NO. 3

87TH STREET
STA. 52+37 TO STA. 58+47
STA. 26+31 TO STA. 44+46
STA. 13+50 TO STA. 16+50
STA. 2+55 TO 4+25

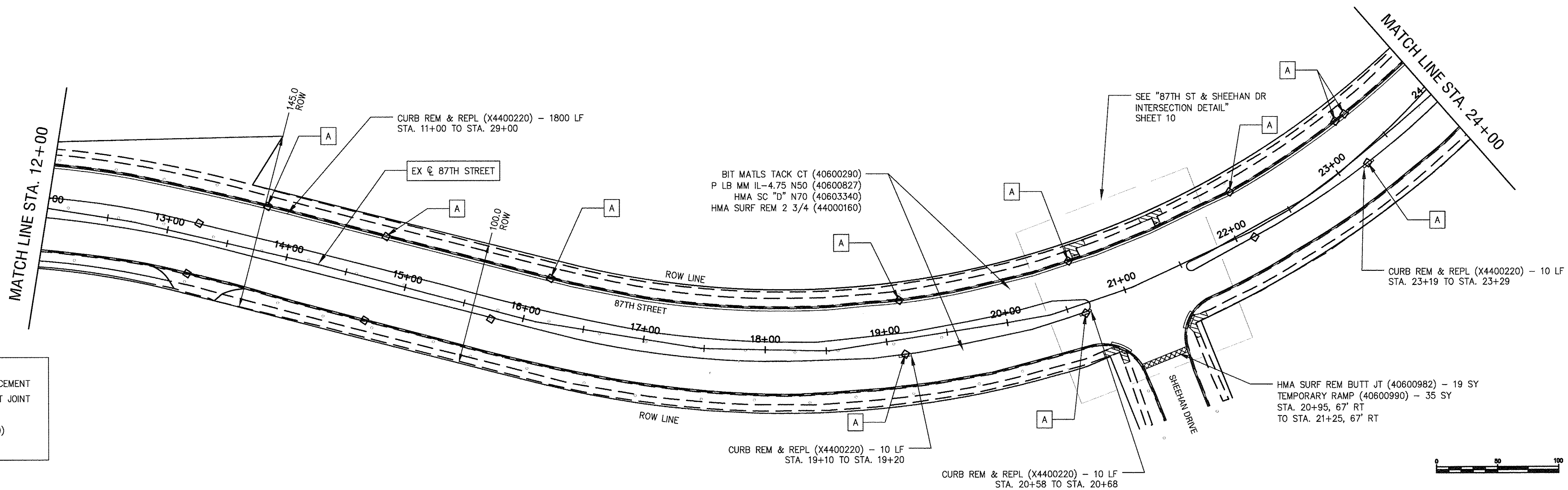
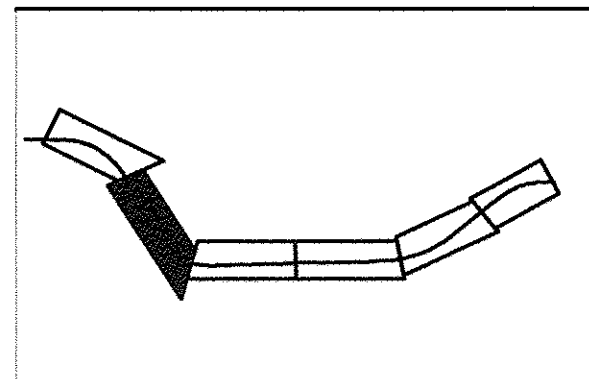
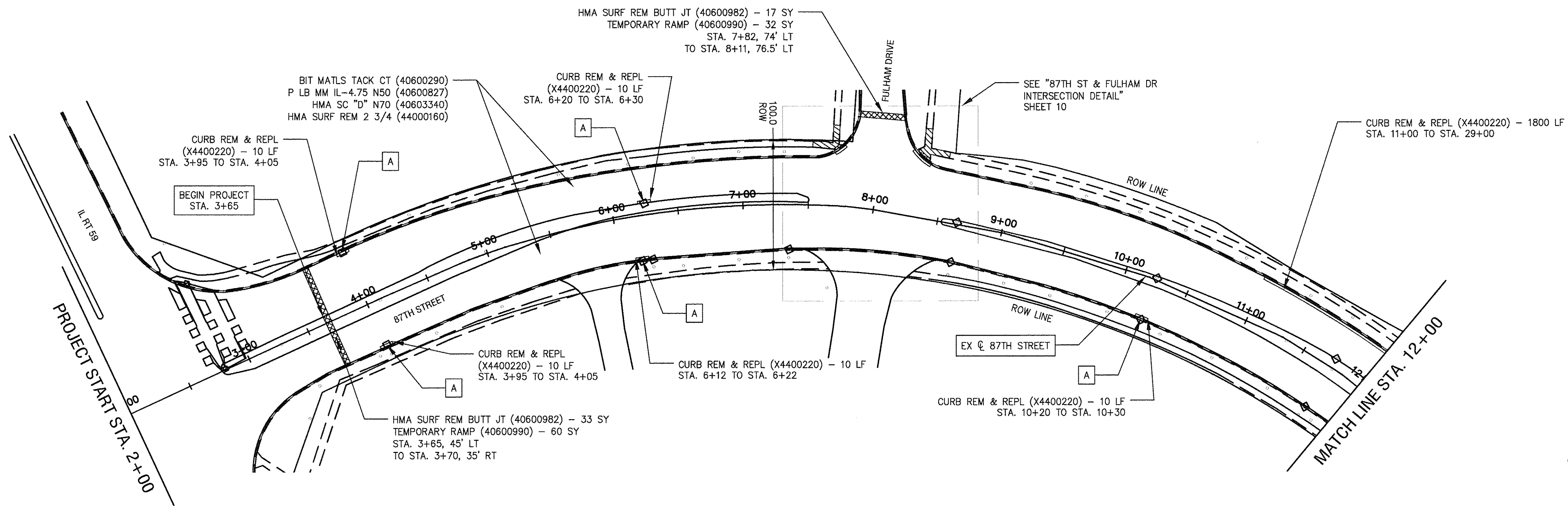
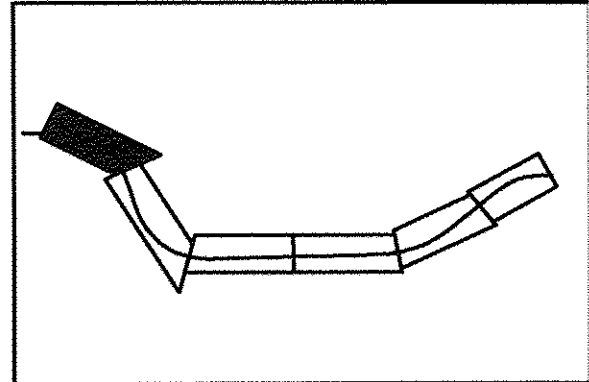
DESIGNED	YL	REVISED	-
DRAWN	TAC	REVISED	-
CHECKED	MCP	REVISED	-
DATE	1/27/2017	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

87TH STREET
TYPICAL SECTIONS

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1566	16-00168-00-RS	DUPAGE/WILL	31	6
CONTRACT NO. 61D76				

SCALE: 1" = 20 FT. SHEET NO. 3 OF 3 SHEETS STA. 58+47 TO STA. 63+44



LEGEND:

	SIDEWALK REMOVAL AND REPLACEMENT
	HMA SURFACE REMOVAL - BUTT JOINT
	DETECTABLE WARNINGS
	DR UTIL STR ADJ SP (Z0017500)
	FR & LID ADJ SP (X6030310)

NOTES:

1. THE LOCATION OF PAVEMENT PATCHING WILL BE DETERMINED IN THE FIELD, DURING CONSTRUCTION, BY THE RESIDENT ENGINEER.

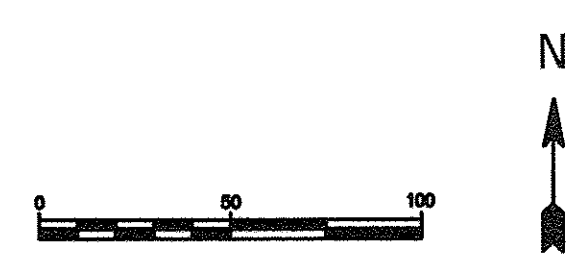
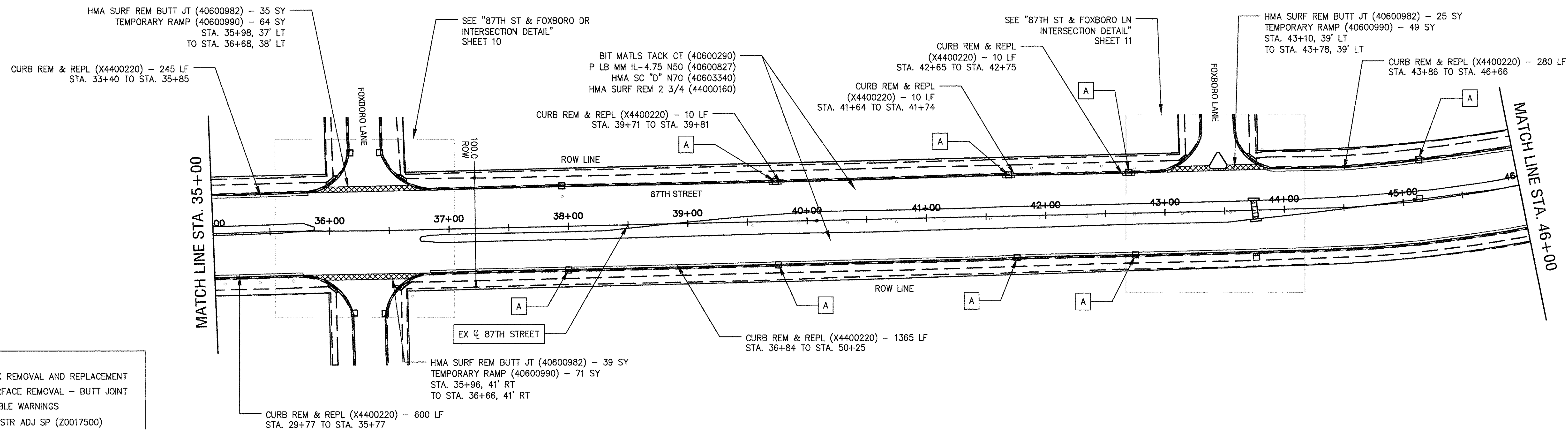
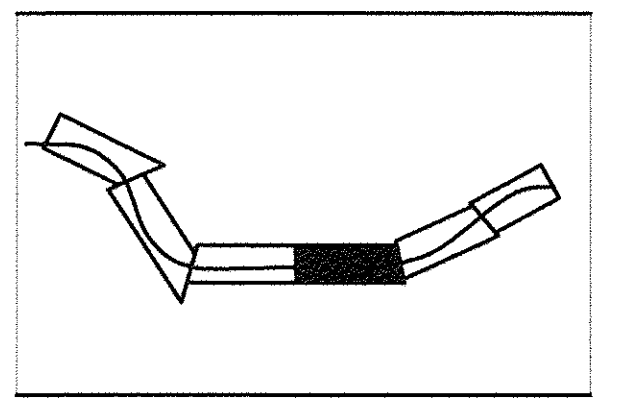
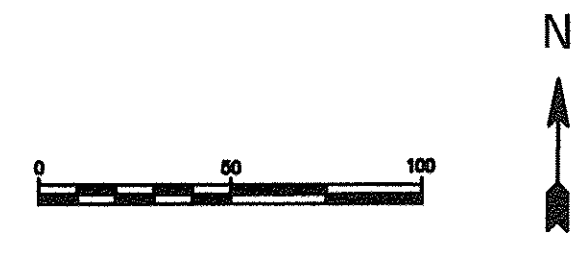
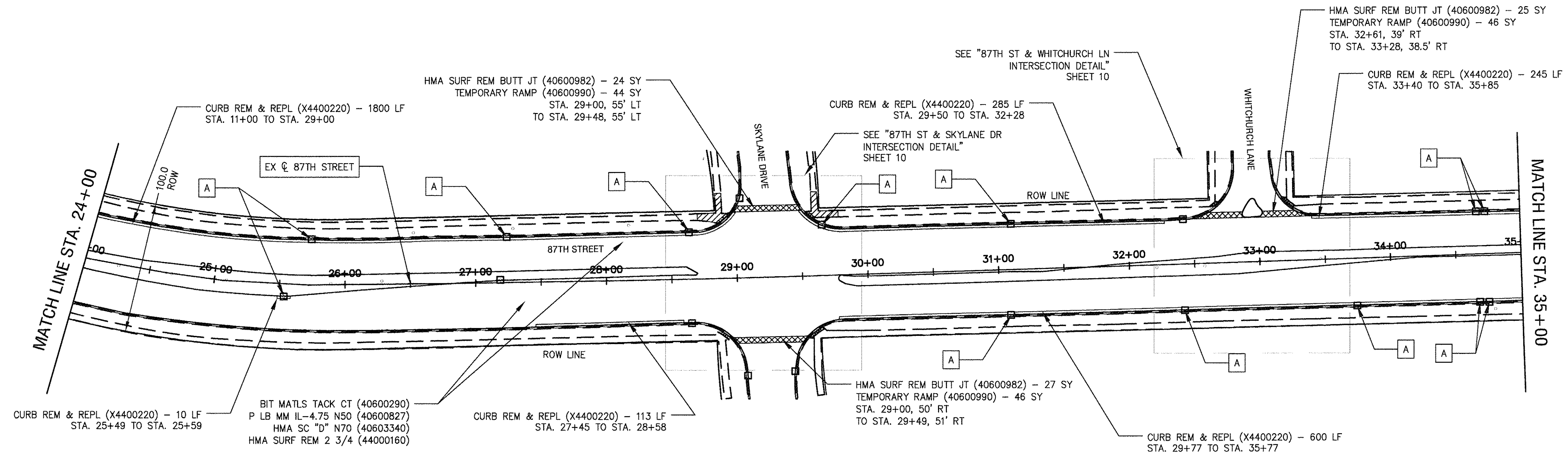
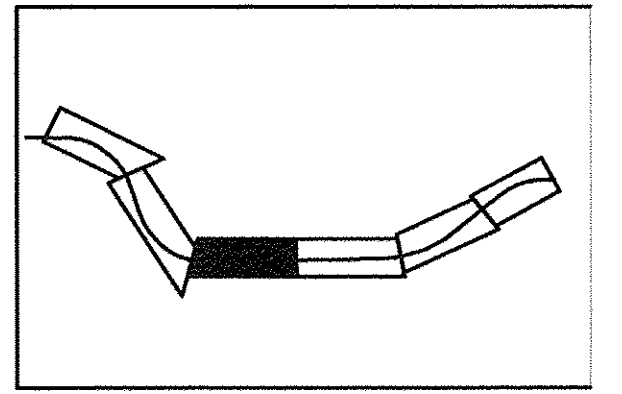
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DRAWN	- MCP	REVISED	-
CHECKED	- YL	REVISED	-
DATE	- 1/27/2017	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

87TH STREET
PROPOSED ROADWAY PLAN

SCALE: 1" = 50 FT SHEET NO. 1 OF 5 SHEETS STA. 2+00 TO STA. 24+00

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1566	16-00168-00-RS	DUPAGE/WLL	31	7
CONTRACT NO. 61D76				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



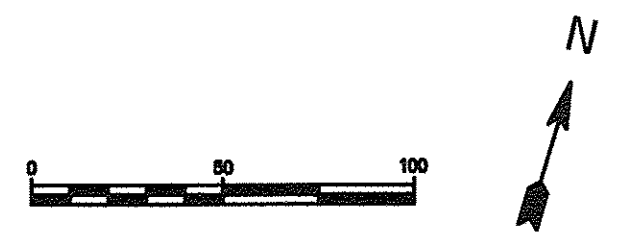
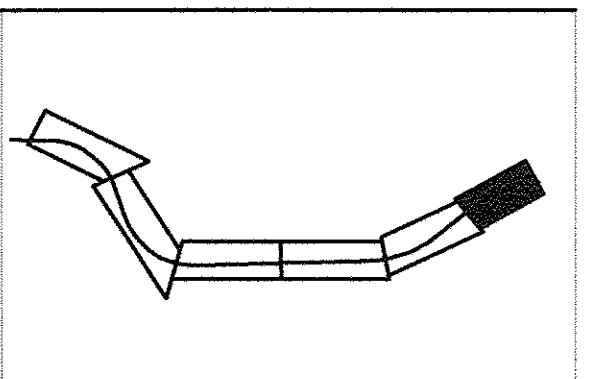
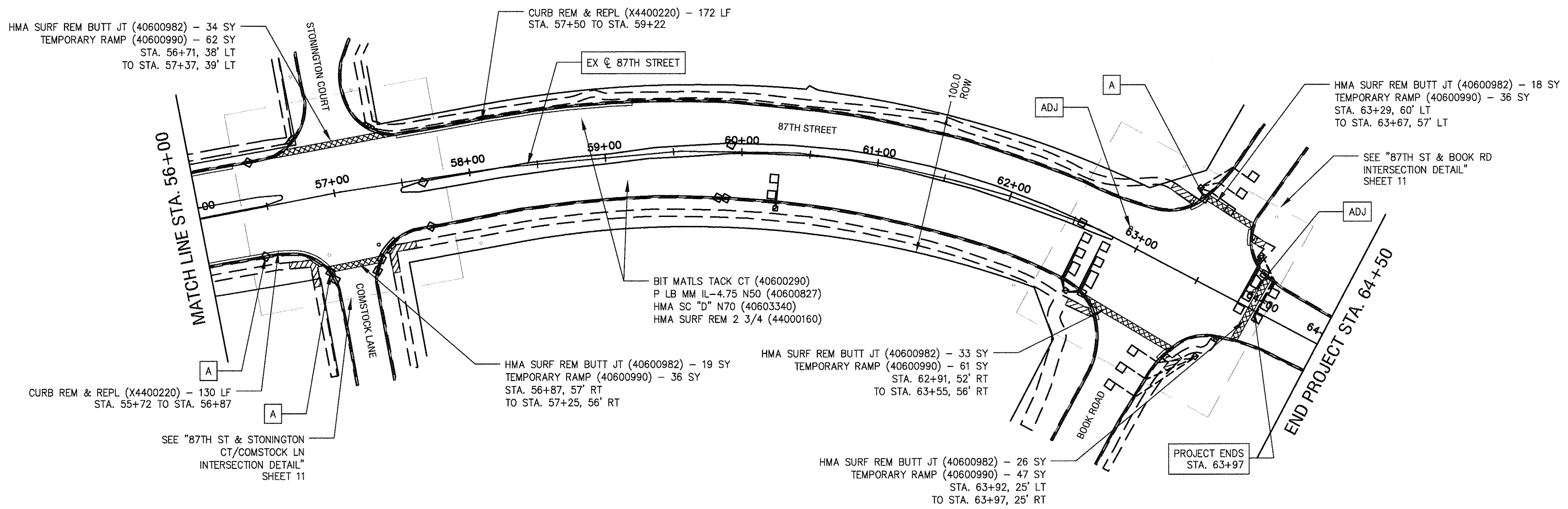
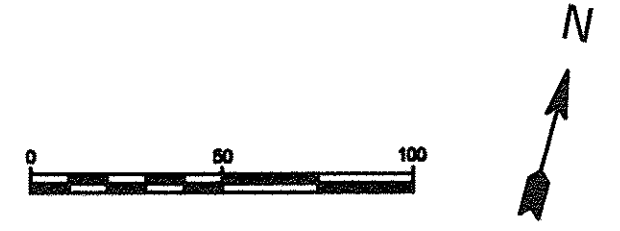
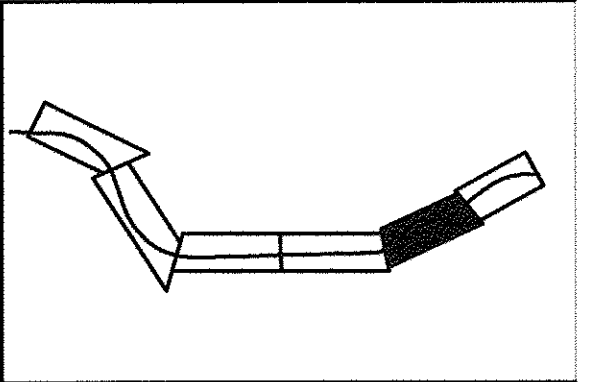
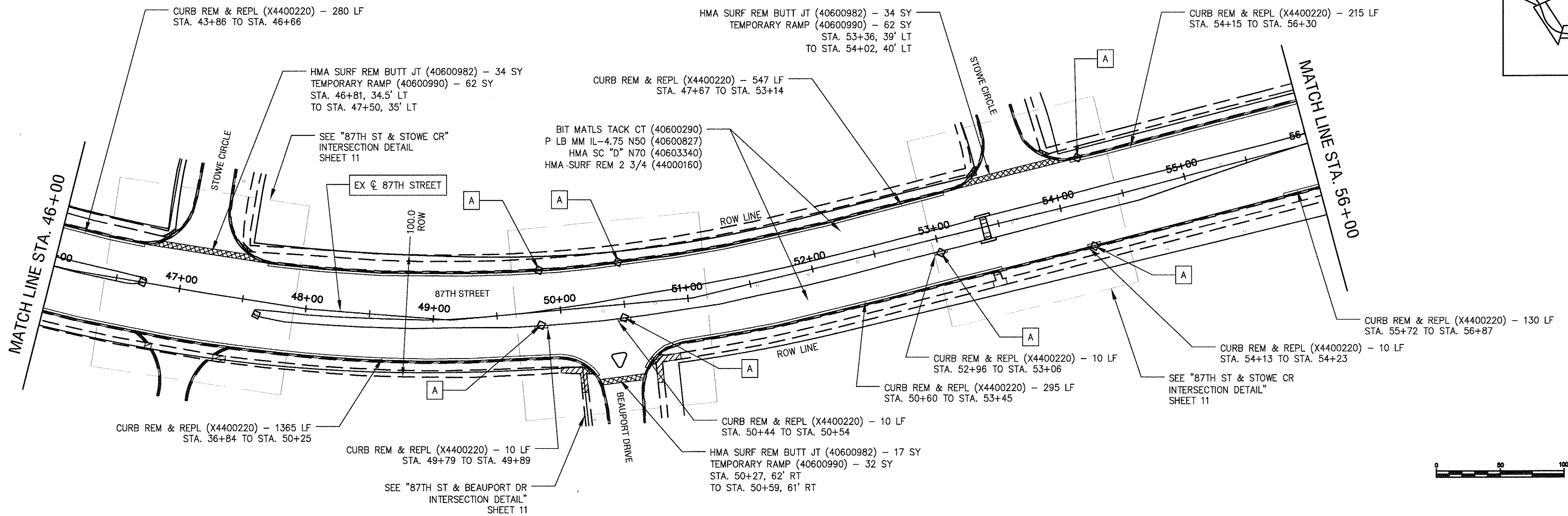
LEGEND:

	SIDEWALK REMOVAL AND REPLACEMENT
	HMA SURFACE REMOVAL - BUTT JOINT
	DETECTABLE WARNINGS
	DR UTIL STR ADJ SP (Z0017500)
	FR & LID ADJ SP (X6030310)

NOTES:

- THE LOCATION OF PAVEMENT PATCHING WILL BE DETERMINED IN THE FIELD, DURING CONSTRUCTION, BY THE RESIDENT ENGINEER.

DESIGNED	MCP	REVISED	-	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	87TH STREET PROPOSED ROADWAY PLAN		F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DRAWN	- MCP	REVISED	-		1566	16-00168-00-RS	DUPAGE/MILL	31	8		
CHECKED	- YL	REVISED	-		CONTRACT NO. 61D76						
DATE	1/27/2017	REVISED	-		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						
SCALE: 1" = 50 FT				SHEET NO. 2 OF 5 SHEETS		STA. 24+00 TO STA. 46+00					



LEGEND:

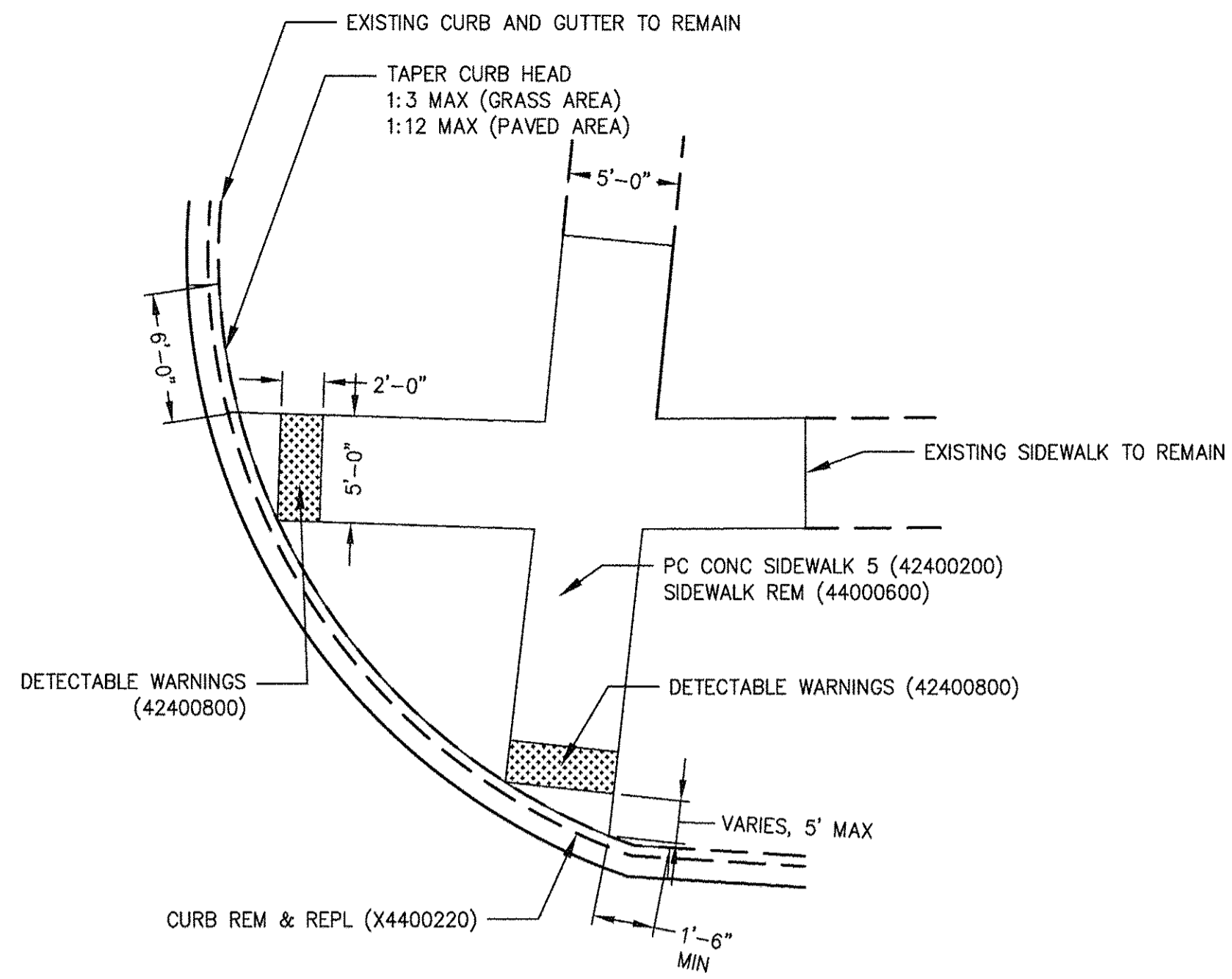
	SIDEWALK REMOVAL AND REPLACEMENT
	HMA SURFACE REMOVAL - BUTT JOINT
	DETECTABLE WARNINGS
	DR UTIL STR ADJ SP (20017500)
	FR & LID ADJ SP (X6030310)

NOTES:

- THE LOCATION OF PAVEMENT PATCHING WILL BE DETERMINED IN THE FIELD, DURING CONSTRUCTION, BY THE RESIDENT ENGINEER.

DESIGNED	MCP	REVISED	-	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	87TH STREET PROPOSED ROADWAY PLAN	F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
DRAWN	MCP	REVISED	-			1566	16-00168-00-RS	DUPAGE/WILL	31	9	
CHECKED	YL	REVISED	-			CONTRACT NO. 61D76					
DATE	1/27/2017	REVISED	-			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

SCALE: 1" = 50 FT SHEET NO. 3 OF 5 SHEETS STA. 46+00 TO STA. 64+50

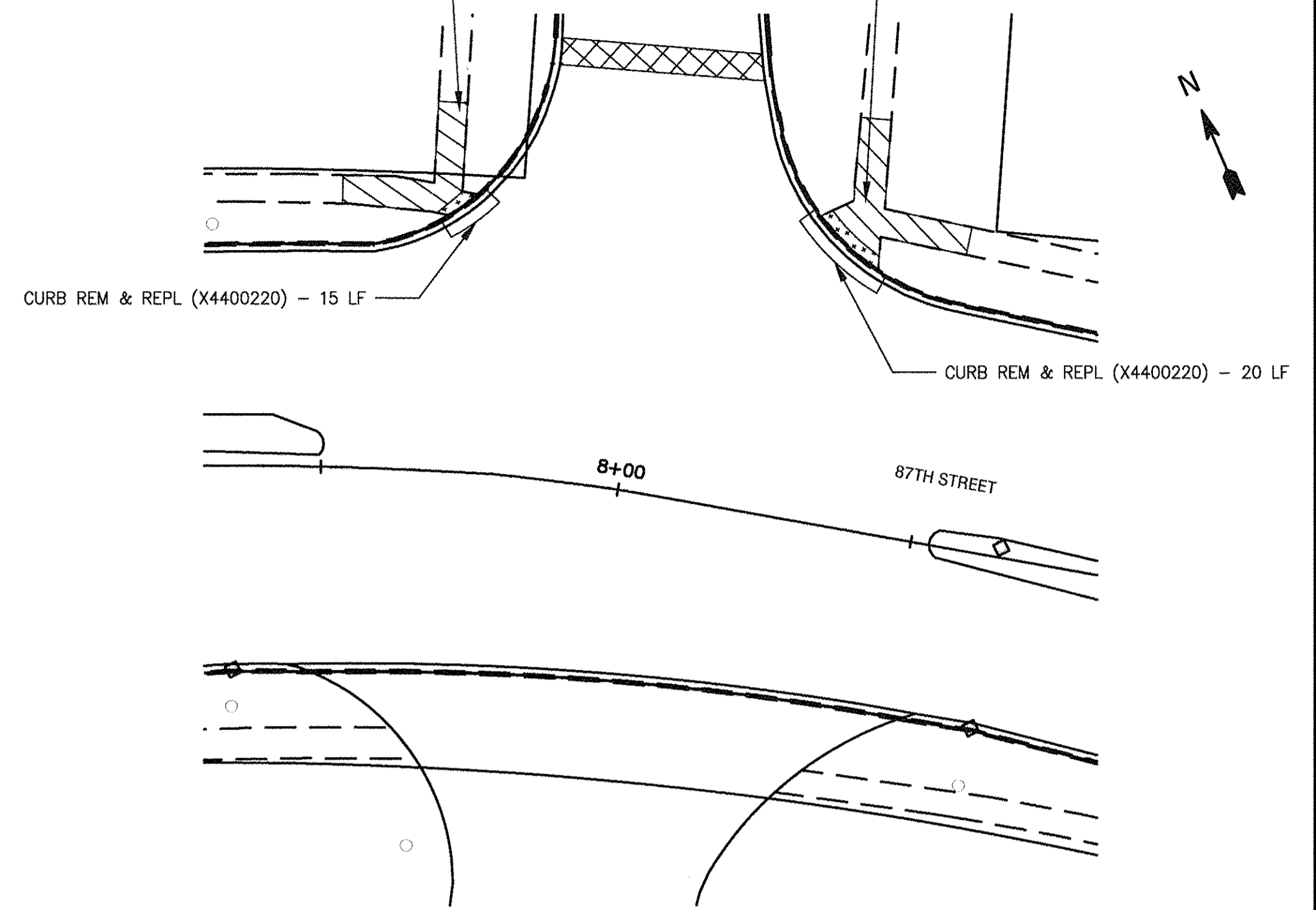


TYPICAL SIDEWALK REMOVAL AND REPLACEMENT DETAIL

NTS

SEE IDOT STANDARDS 424001, 424006, 424011, 424016, AND 424021 FOR ADDITIONAL DETAILS. QUANTITIES SHOWN ON ROADWAY PLANS OR INTERSECTION DETAILS. LIMITS OF REMOVAL AND REPLACEMENT VARY BY LOCATION.

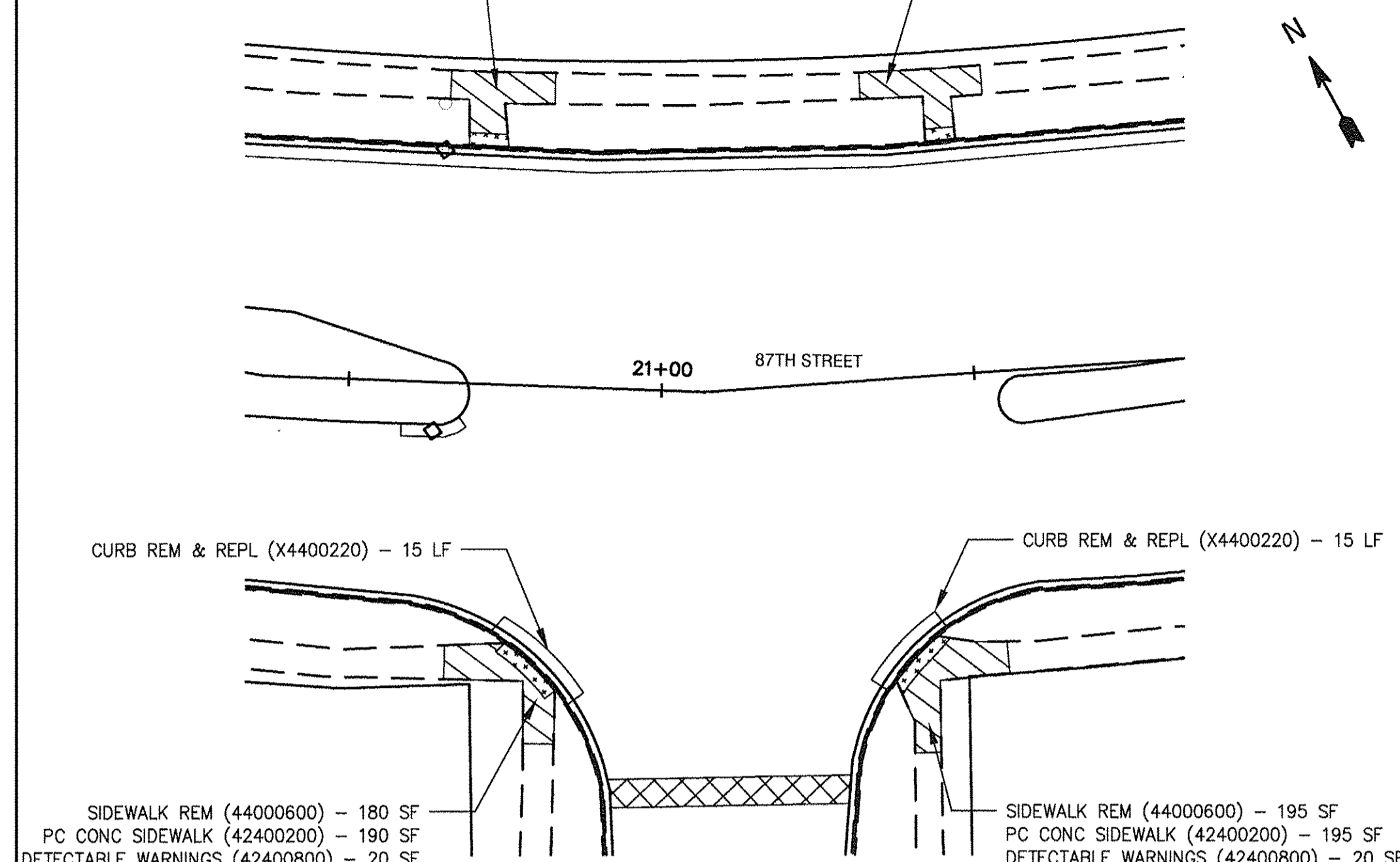
SIDEWALK REM (44000600) - 160 SF
 PC CONC SIDEWALK (42400200) - 160 SF
 DETECTABLE WARNINGS (42400800) - 10 SF



87TH ST & FULHAM DR INTERSECTION DETAIL

SCALE: 1" = 20'

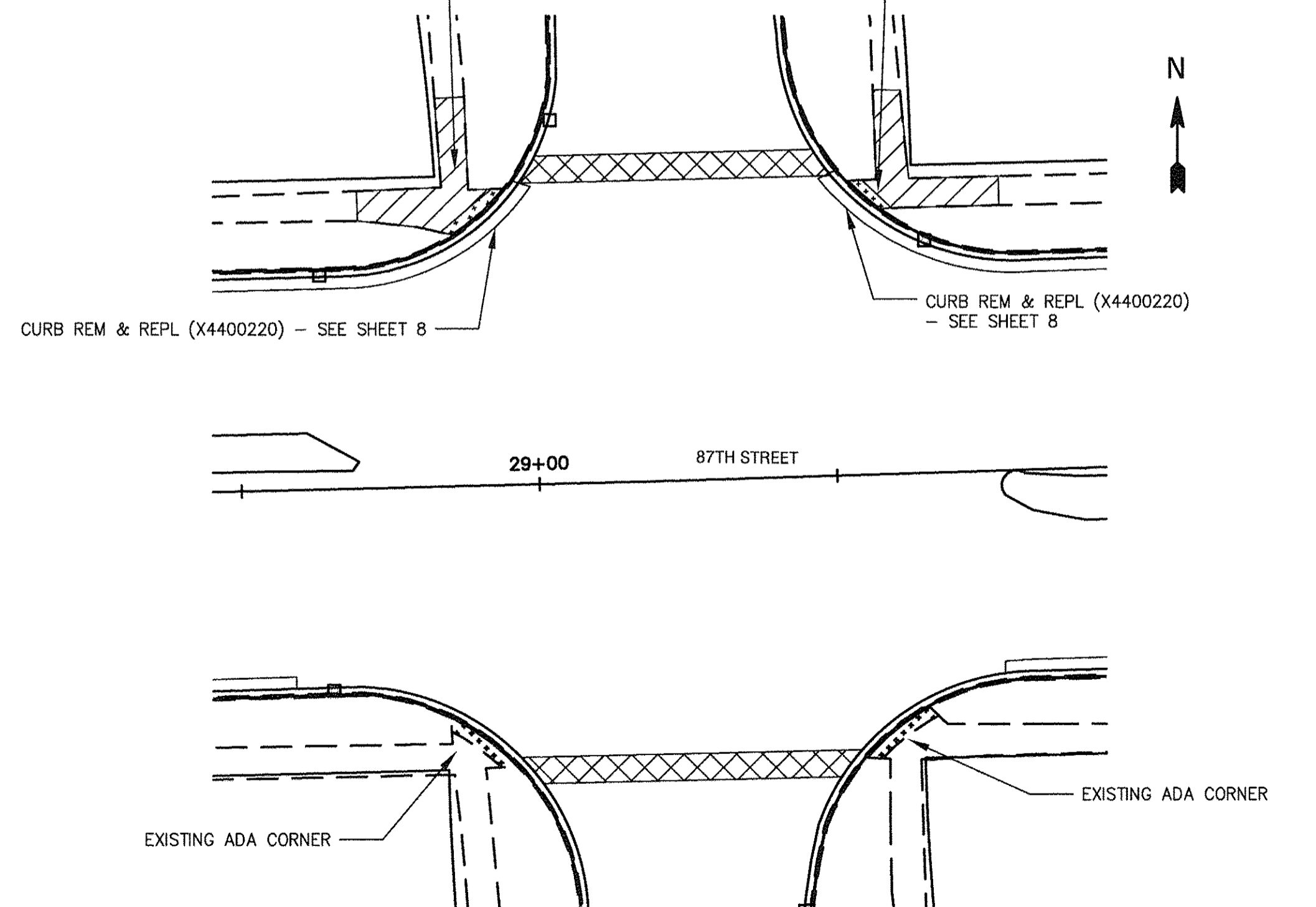
SIDEWALK REM (44000600) - 128 SF
 PC CONC SIDEWALK (42400200) - 116 SF
 DETECTABLE WARNINGS (42400800) - 10 SF



87TH ST & SHEEHAN DR INTERSECTION DETAIL

SCALE: 1" = 20'

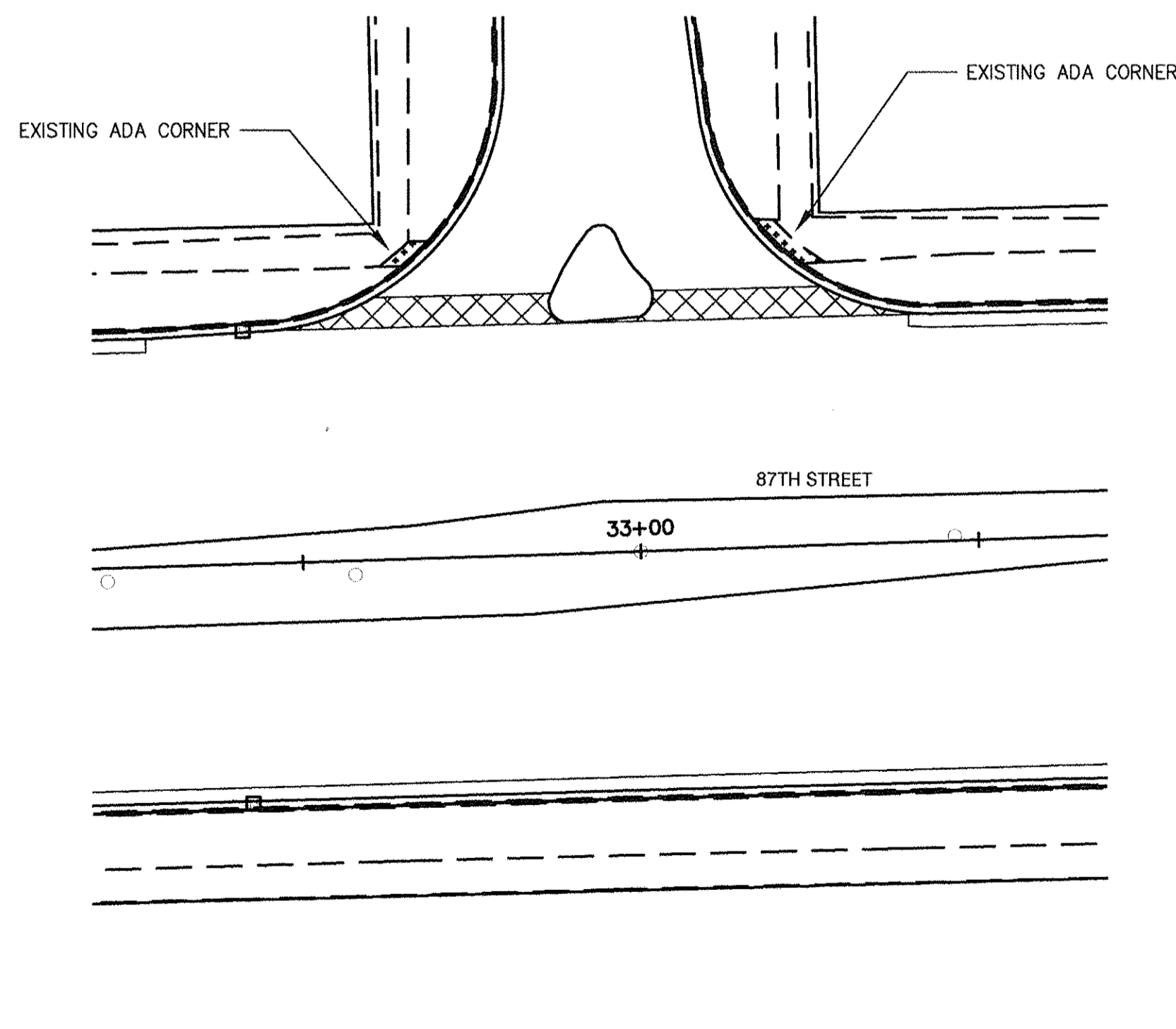
SIDEWALK REM (44000600) - 195 SF
 PC CONC SIDEWALK (42400200) - 195 SF
 DETECTABLE WARNINGS (42400800) - 20 SF



87TH ST & SKYLANE DR INTERSECTION DETAIL

SCALE: 1" = 20'

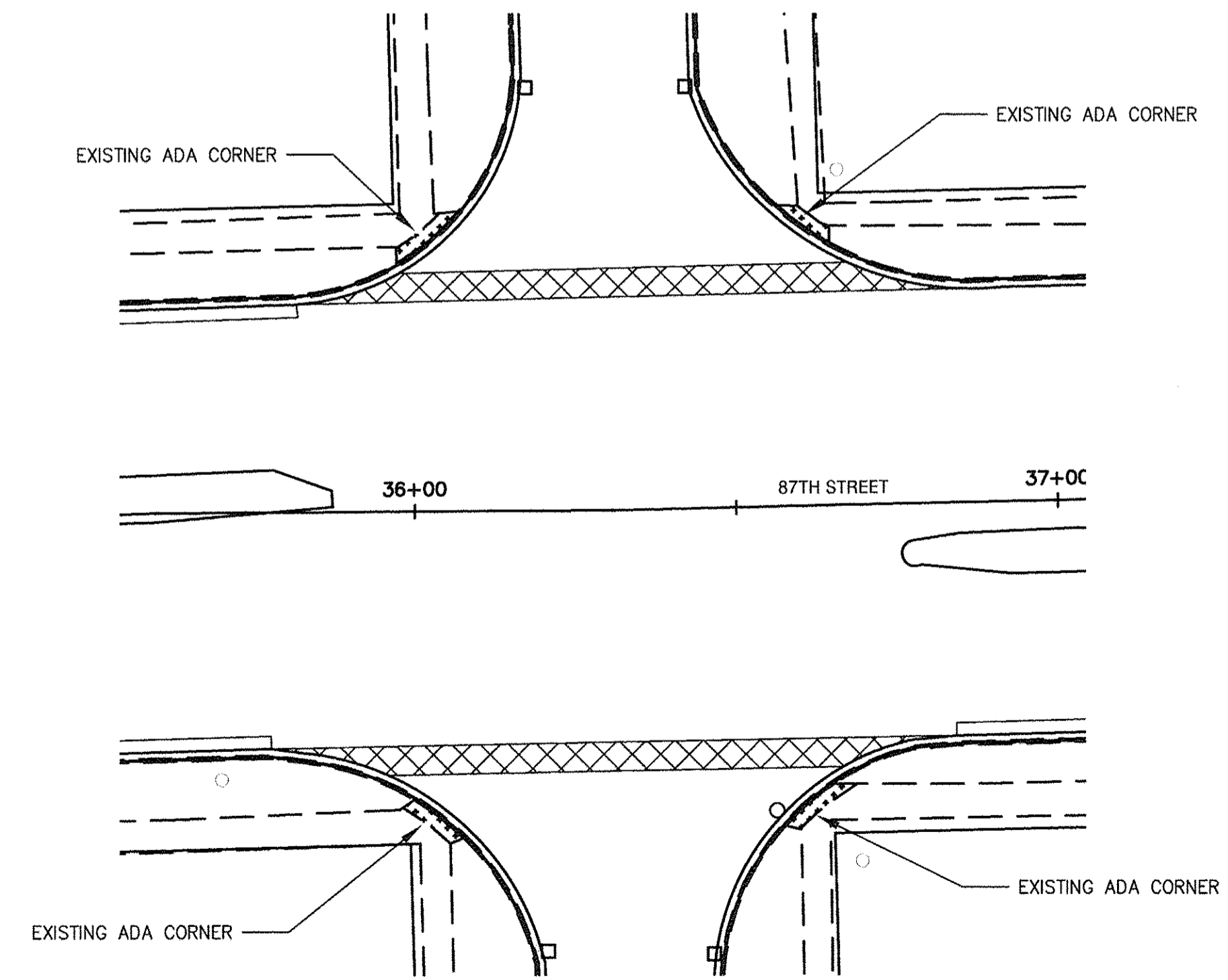
SIDEWALK REM (44000600) - 190 SF
 PC CONC SIDEWALK (42400200) - 190 SF
 DETECTABLE WARNINGS (42400800) - 12 SF



87TH ST & WHITCHURCH LN INTERSECTION DETAIL

SCALE: 1" = 20'

SIDEWALK REM (44000600) - 140 SF
 PC CONC SIDEWALK (42400200) - 140 SF
 DETECTABLE WARNINGS (42400800) - 10 SF



87TH ST & FOXBORO LN INTERSECTION DETAIL

SCALE: 1" = 20'

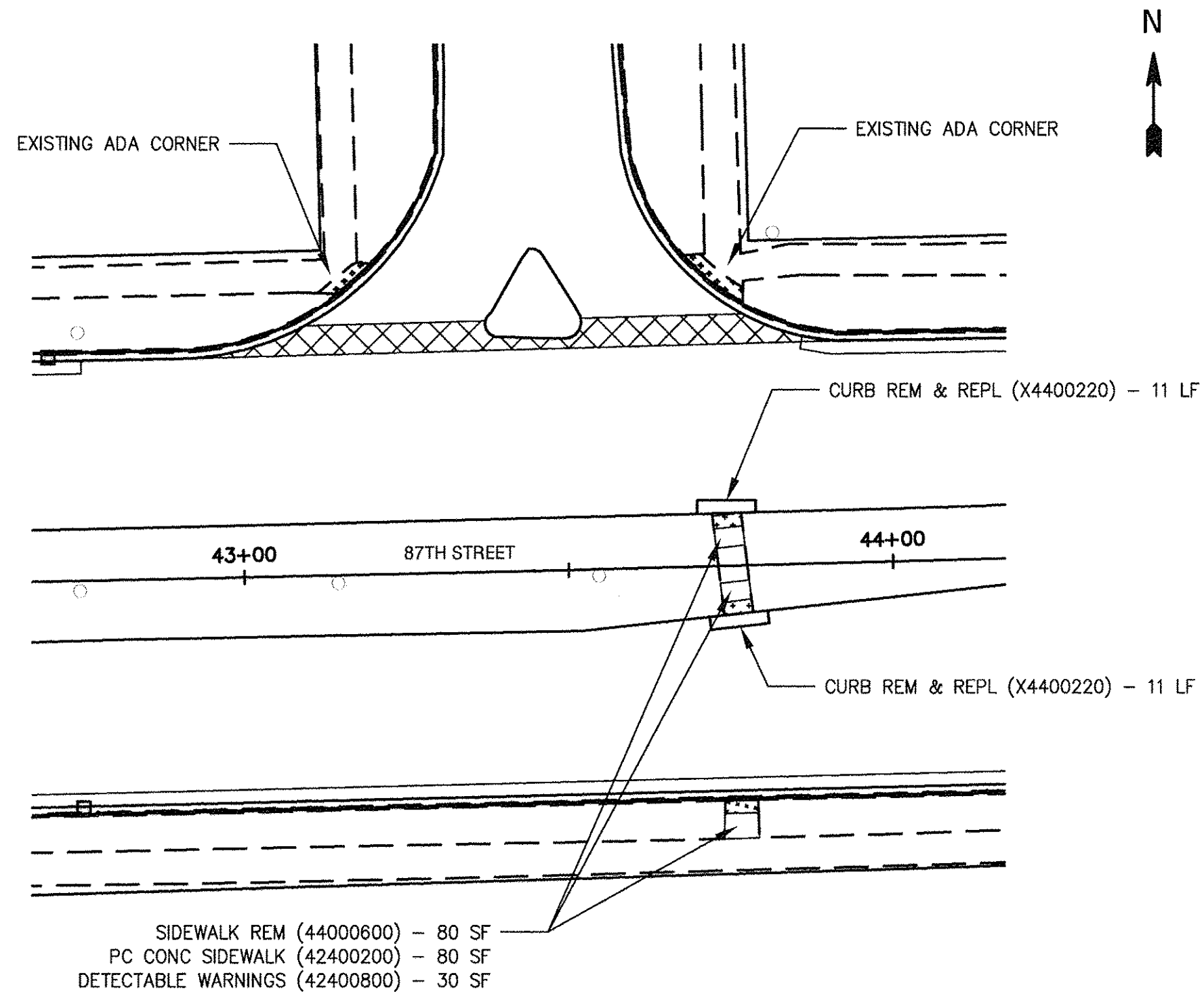
DESIGNED	MCP	REVISED	-
DRAWN	MCP	REVISED	-
CHECKED	YL	REVISED	-
DATE	1/27/2017	REVISED	-

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

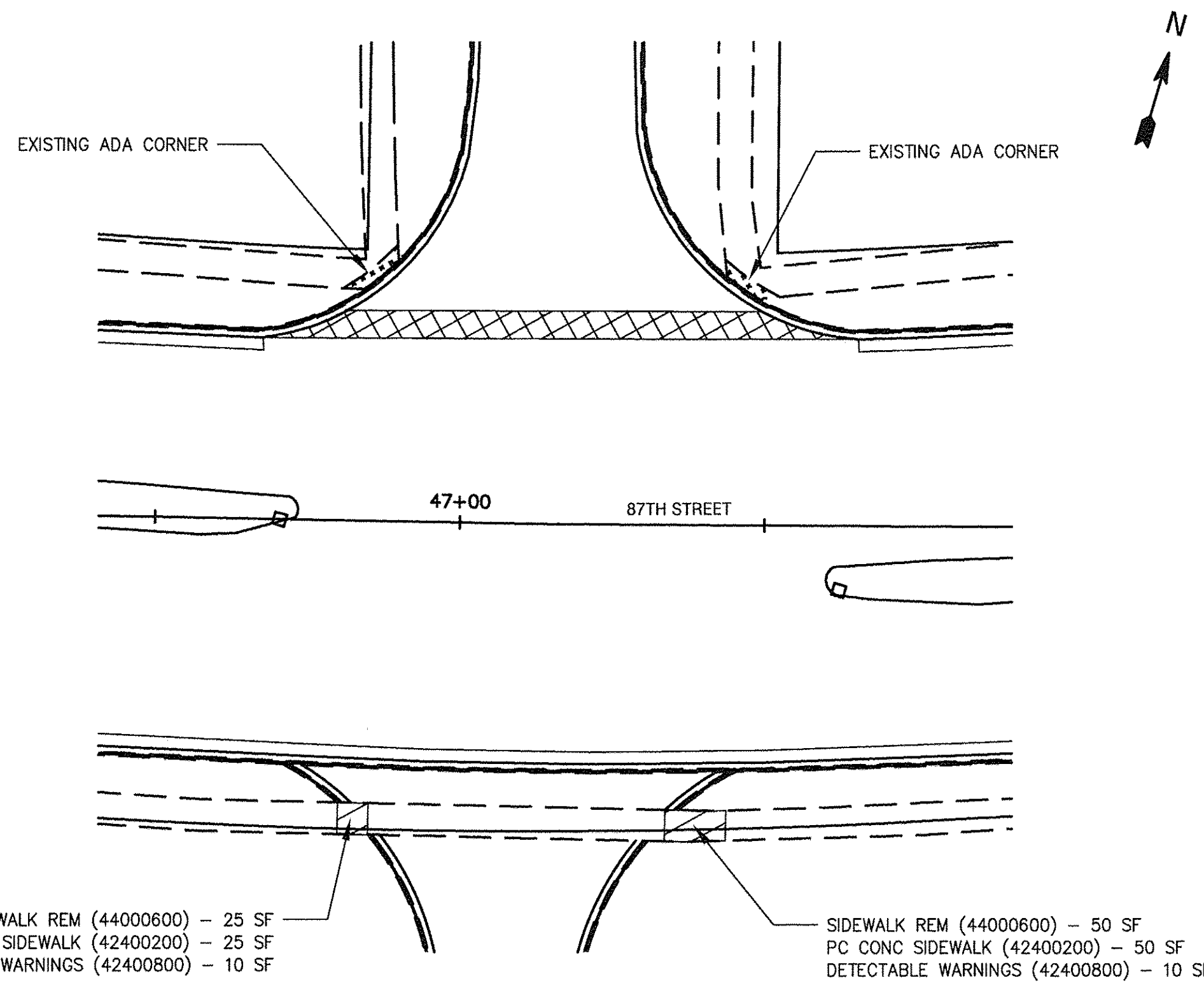
87TH STREET PROPOSED ROADWAY PLAN	
SCALE: 1" = 20 FT	SHEET NO. 4 OF 5 SHEETS
STA. VARIOUS	TO STA. VARIOUS

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1566	16-00168-00-RS	DUPAGE/MILL	31	10
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

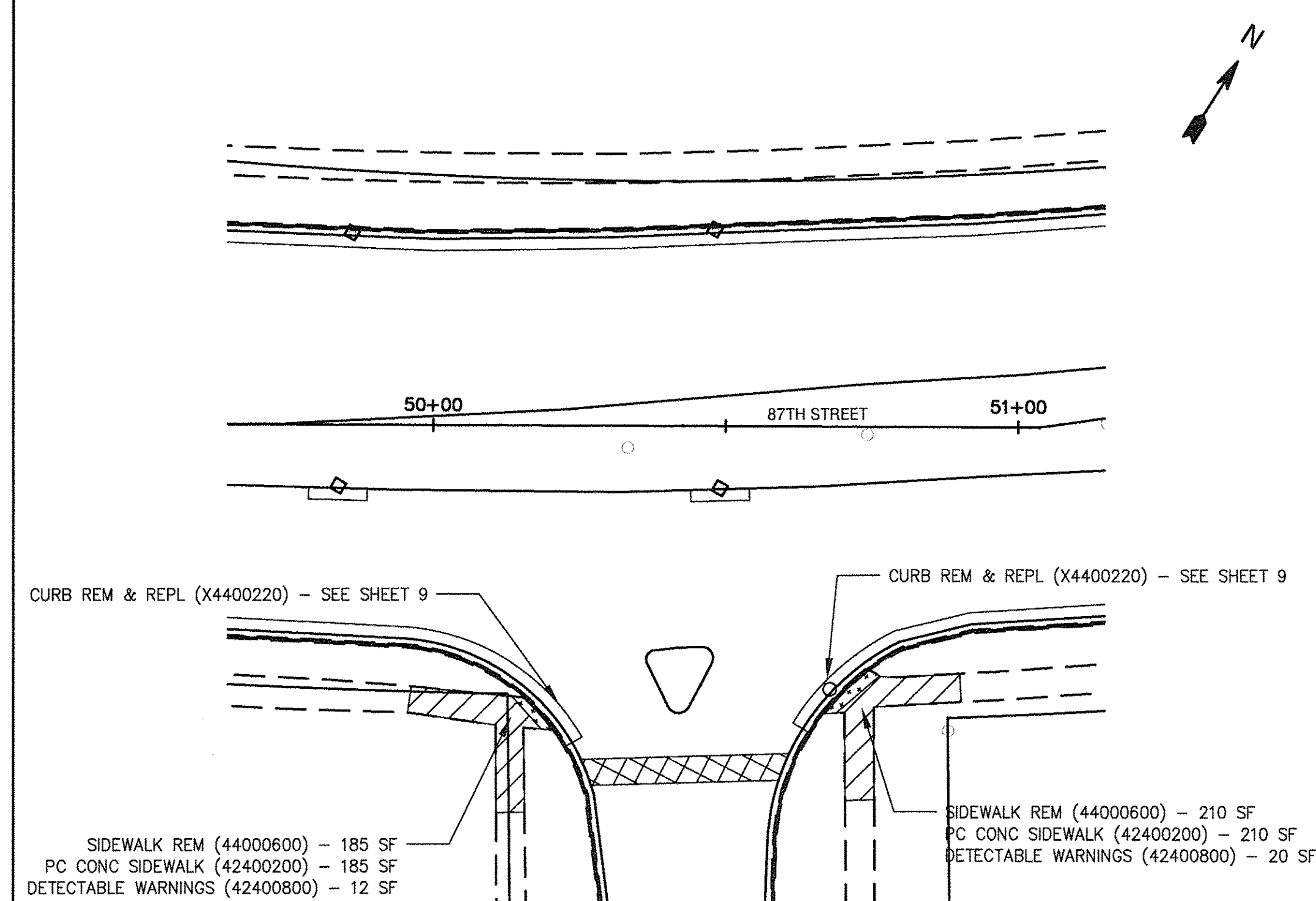
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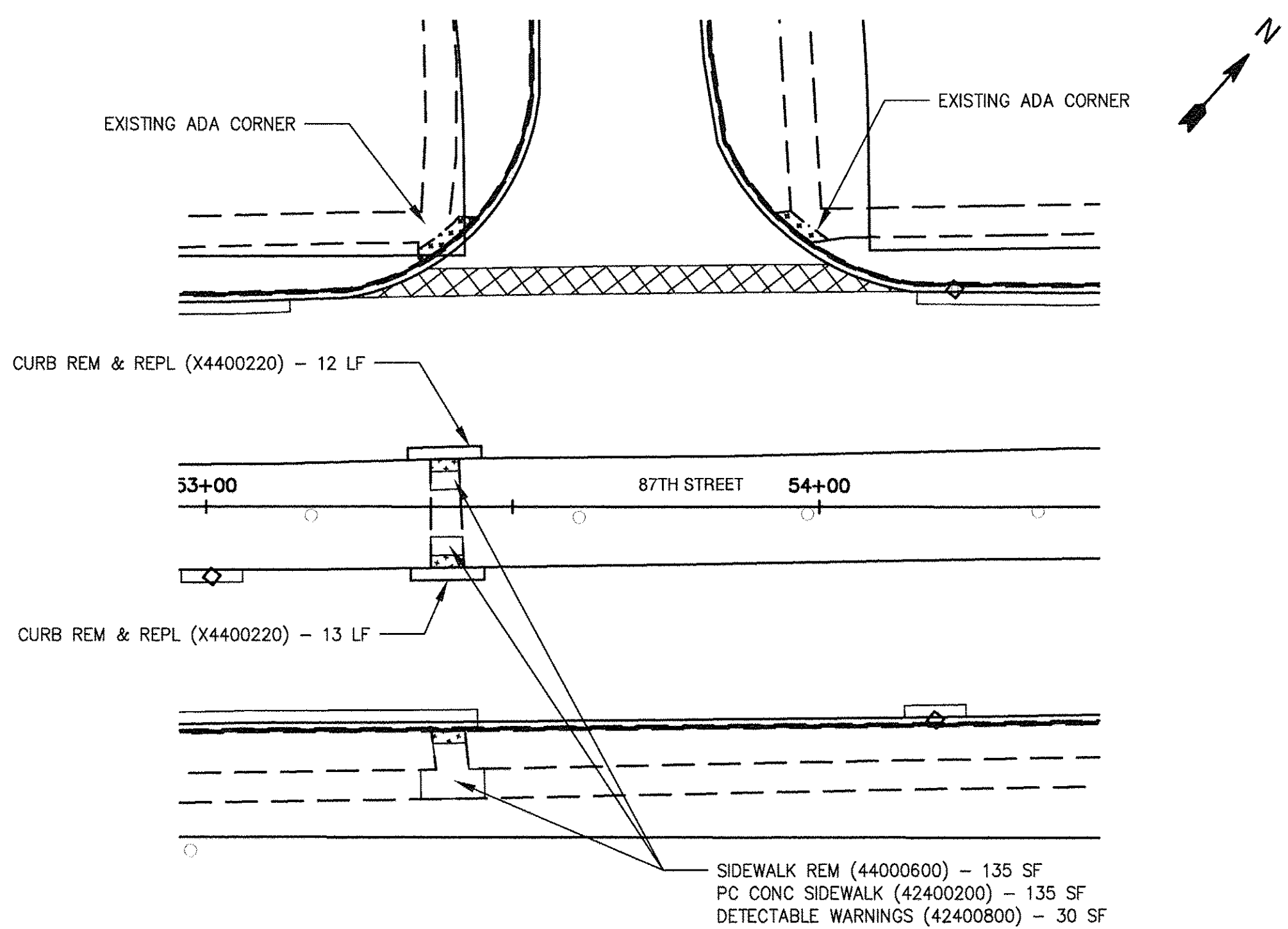
87TH ST & FOXBORO LN
INTERSECTION DETAIL
SCALE: 1" = 20'



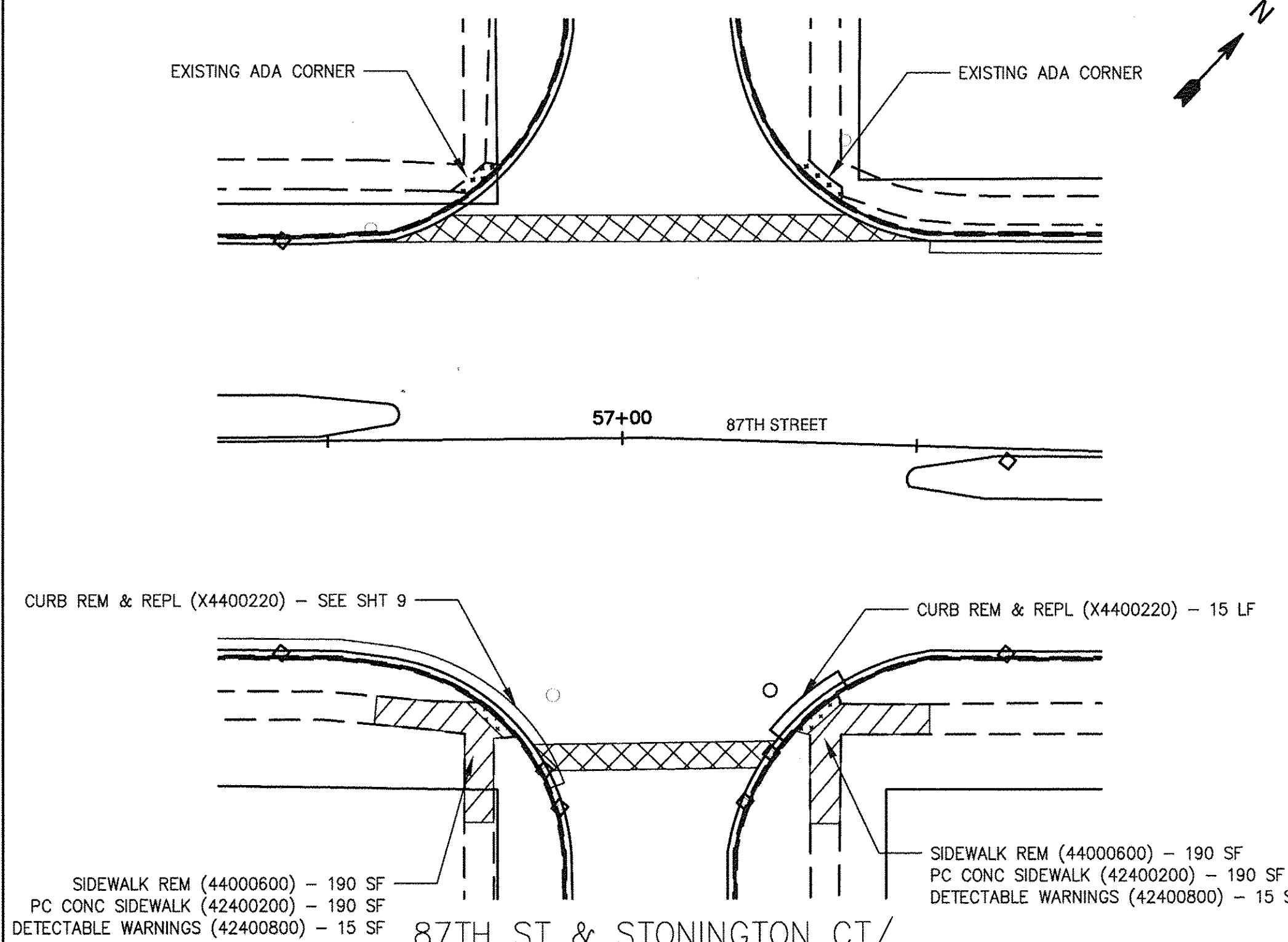
87TH ST & STOWE CR
INTERSECTION DETAIL
SCALE: 1" = 20'



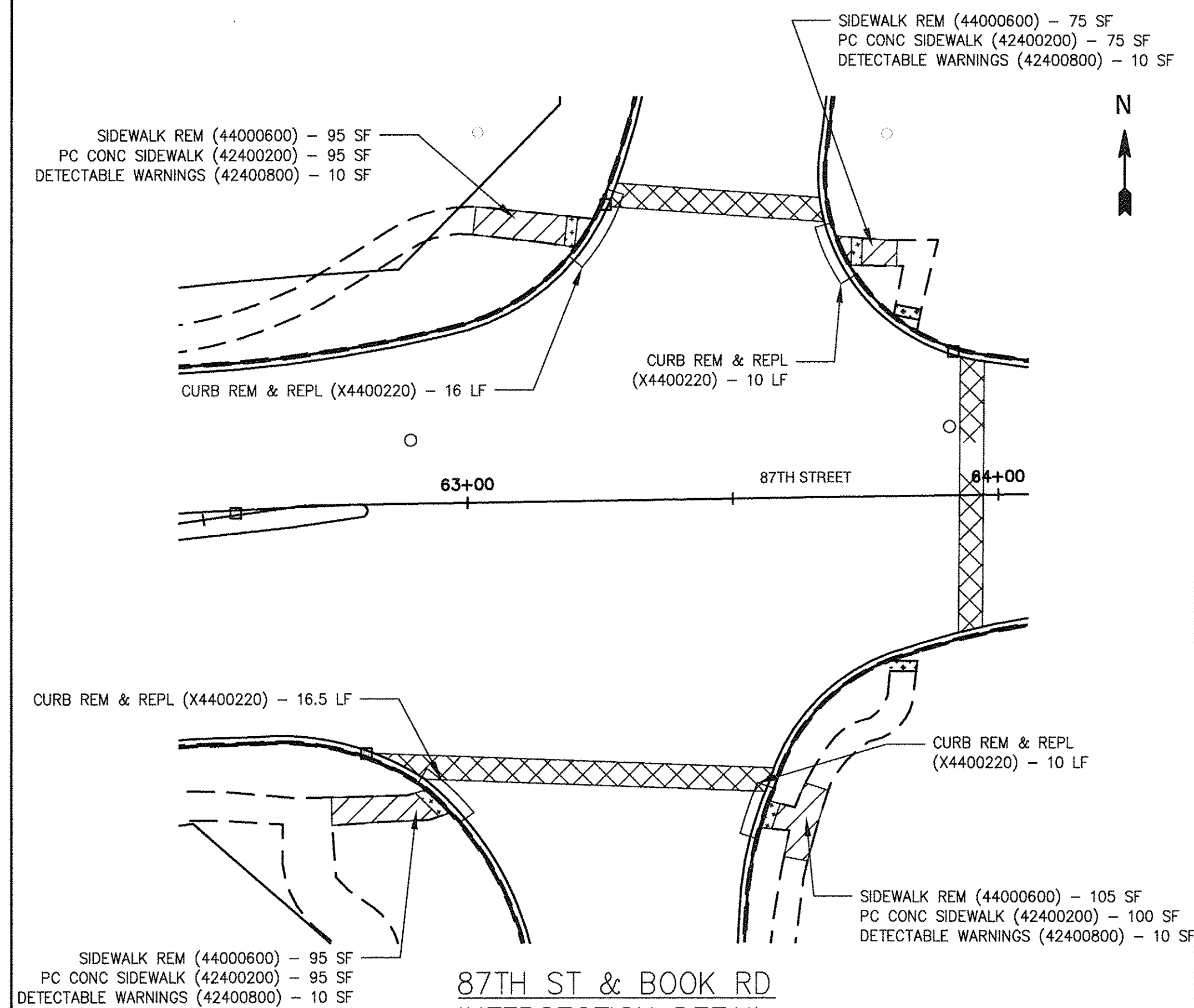
87TH ST & BEAUPORT LN
INTERSECTION DETAIL
SCALE: 1" = 20'



87TH ST & STOWE CR
INTERSECTION DETAIL
SCALE: 1" = 20'



87TH ST & STONINGTON CT/
COMSTOCK LN
INTERSECTION DETAIL
SCALE: 1" = 20'



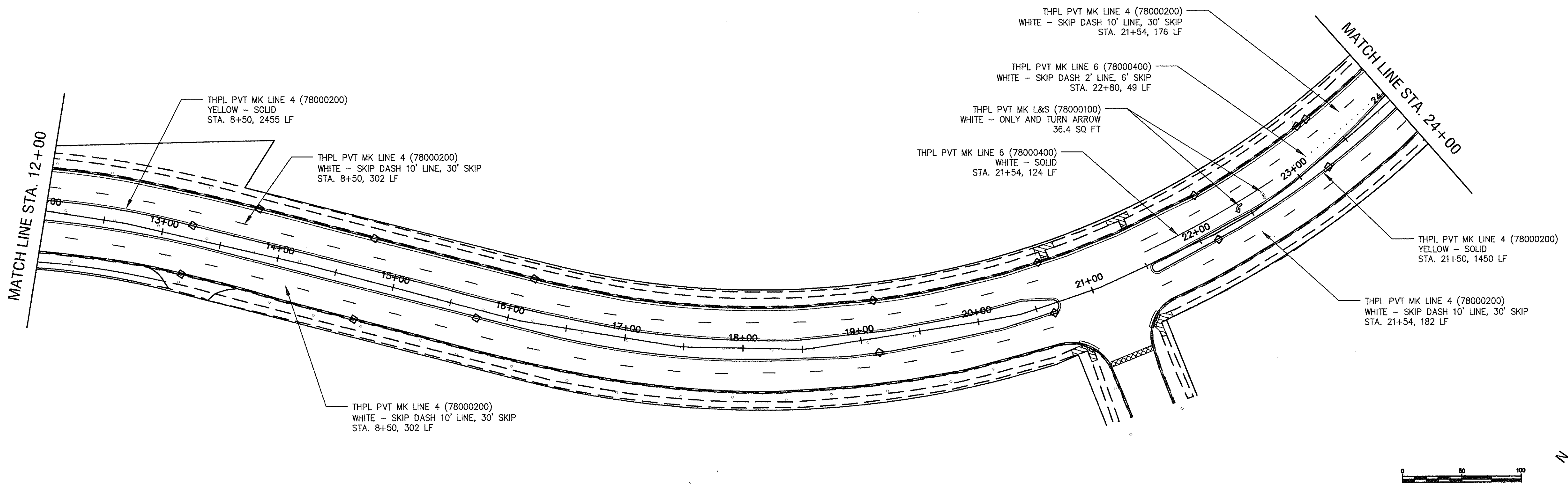
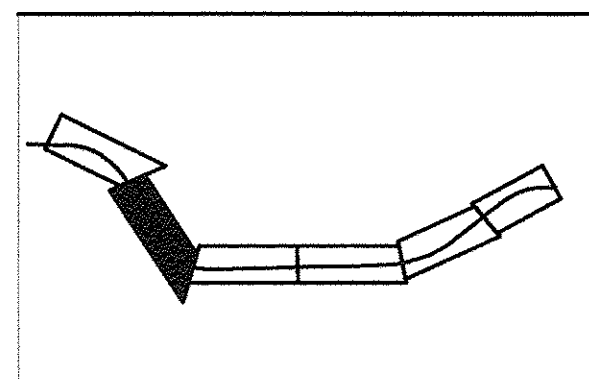
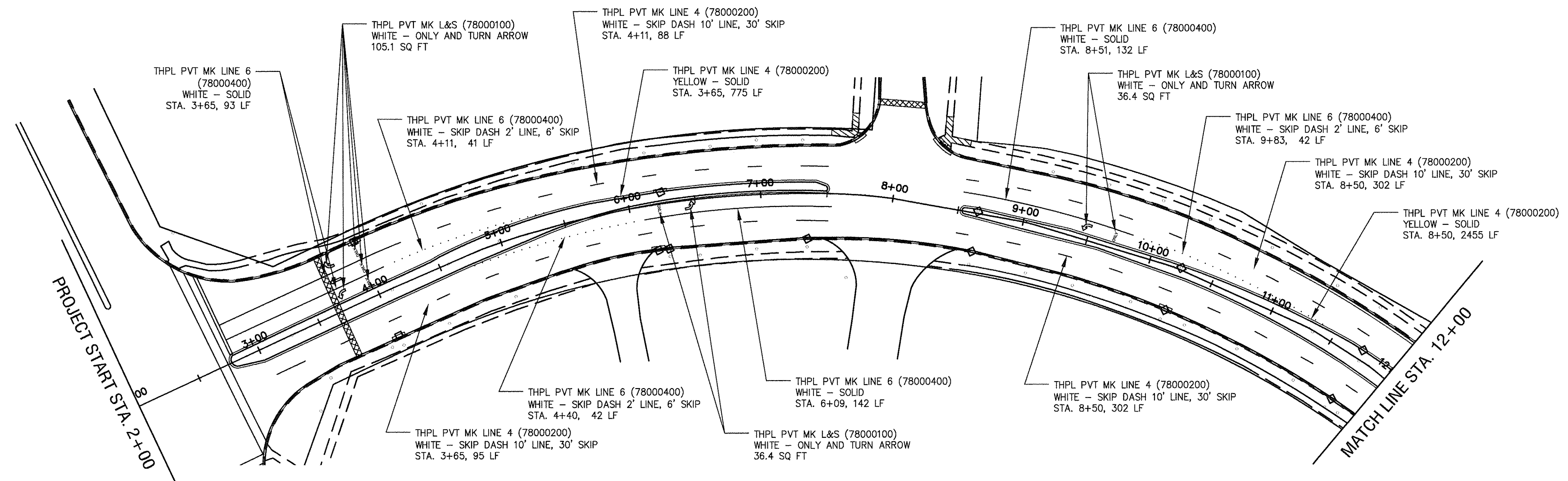
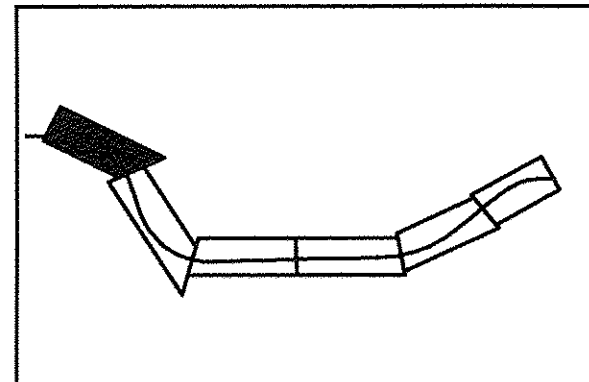
87TH ST & BOOK RD
INTERSECTION DETAIL
SCALE: 1" = 20'

DESIGNED	MCP	REVISED	-
DRAWN	- MCP	REVISED	-
CHECKED	- YL	REVISED	-
DATE	- 1/27/2017	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

87TH STREET PROPOSED ROADWAY PLAN	
SCALE: 1" = 20 FT	SHEET NO. 5 OF 5 SHEETS
STA. VARIOUS	TO STA. VARIOUS

F.A.U. ROUTE 1566	SECTION 16-00168-00-RS	COUNTY DUPAGE/WILL	TOTAL SHEETS 31	SHEET NO. 11
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61D76	



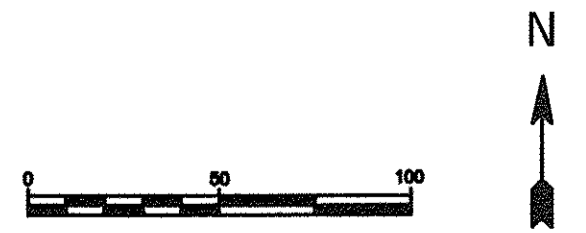
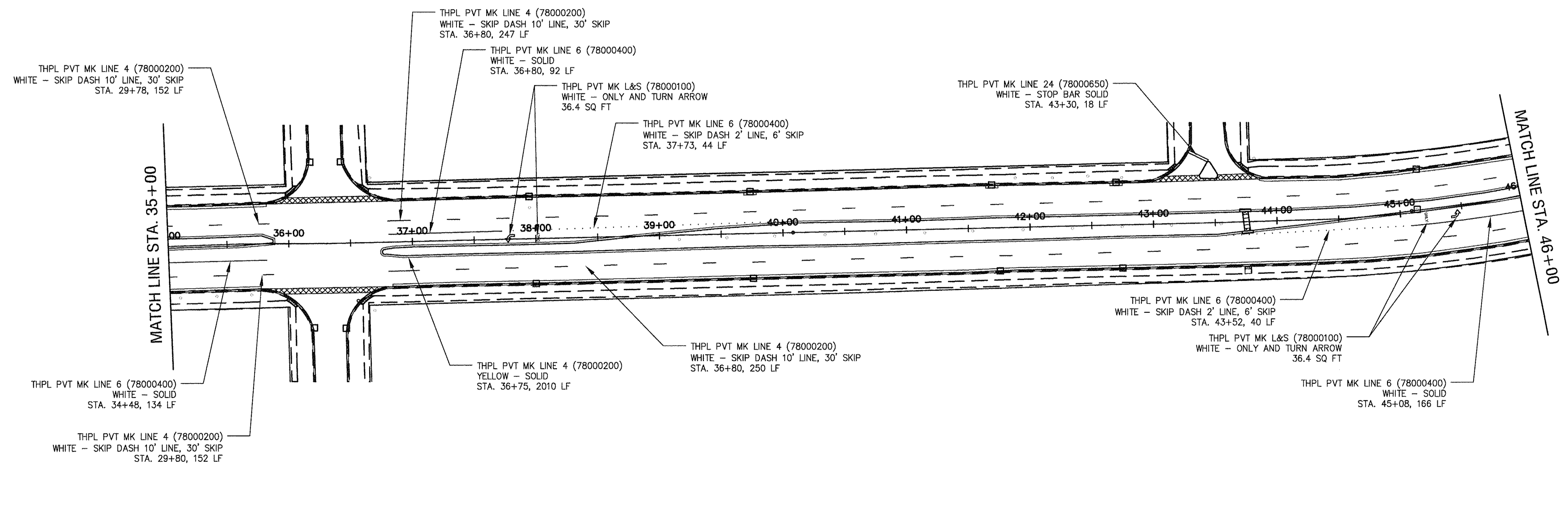
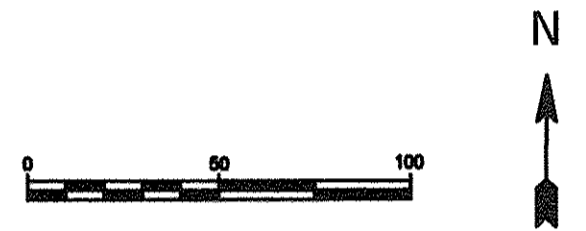
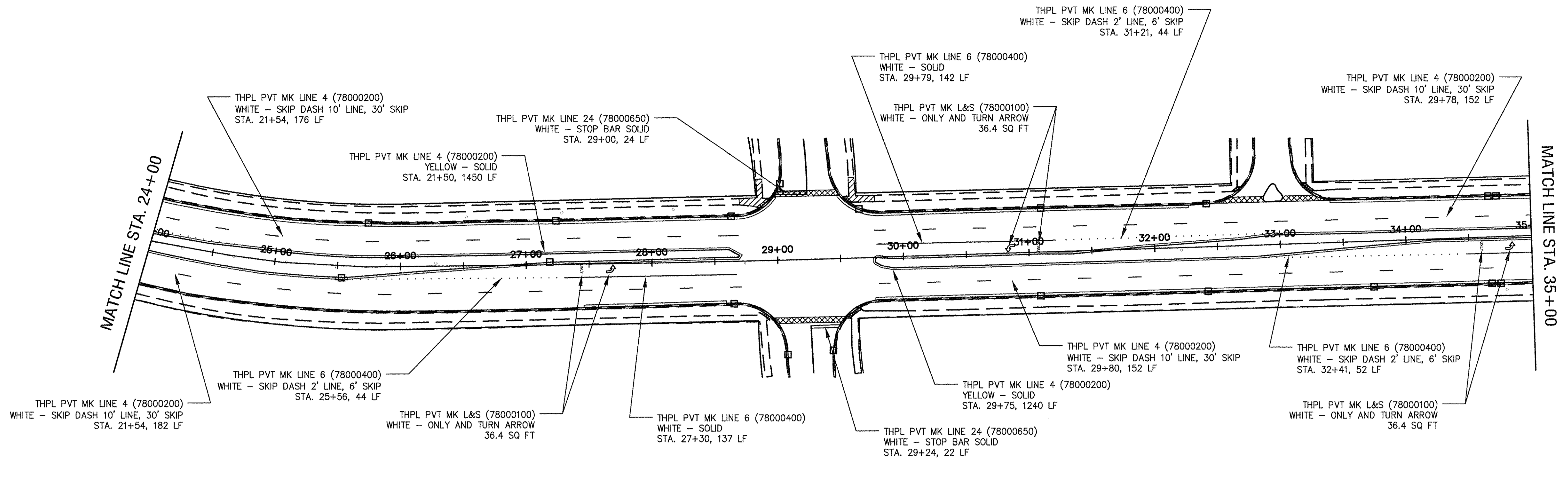
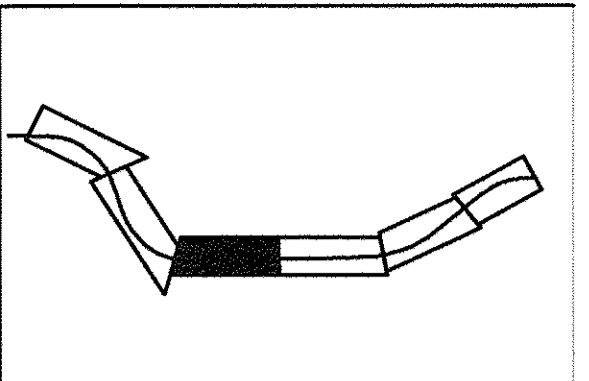
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DRAWN	- MCP	REVISED	-
CHECKED	- YL	REVISED	-
DATE	- 1/27/2017	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

87TH STREET
PAVEMENT MARKING PLAN
SCALE: 1" = 50 FT SHEET NO. 1 OF 3 SHEETS STA. 2+00 TO STA. 24+00

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1566	16-00168-00-RS	DUPAGE/WILL	31	12
CONTRACT NO. 61D76				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FILE NAME: 87TH STREET - PROPOSED ROW - UPDATED.DWG



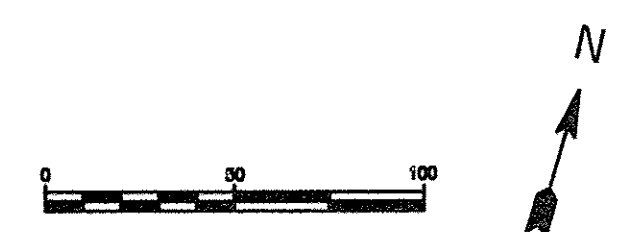
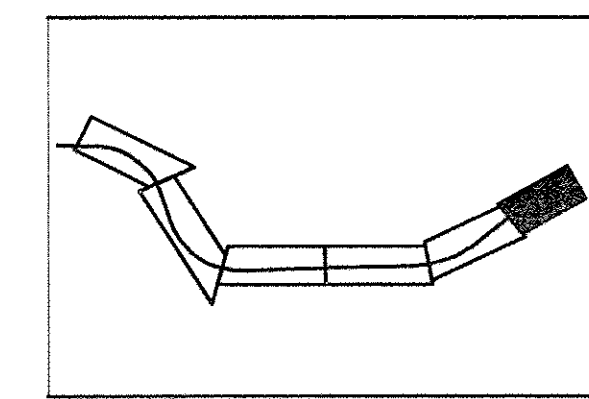
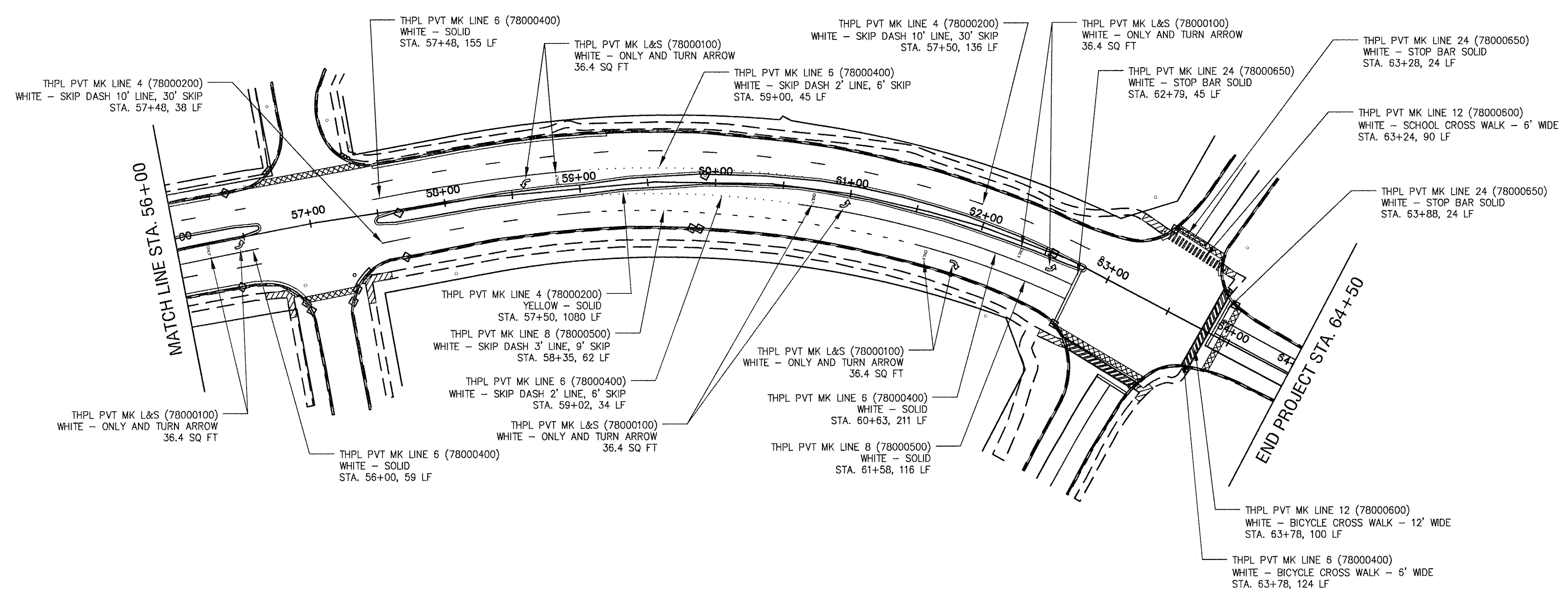
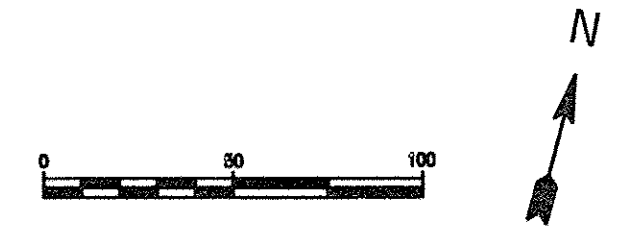
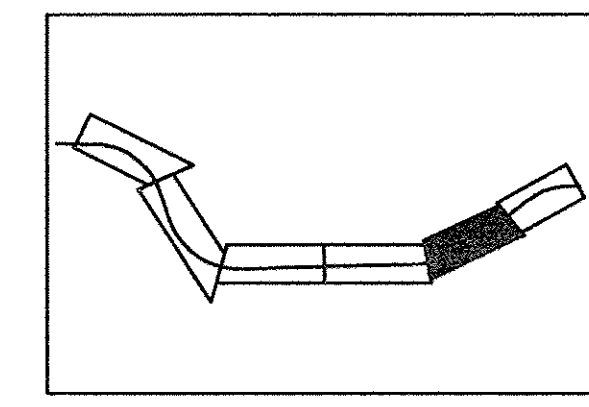
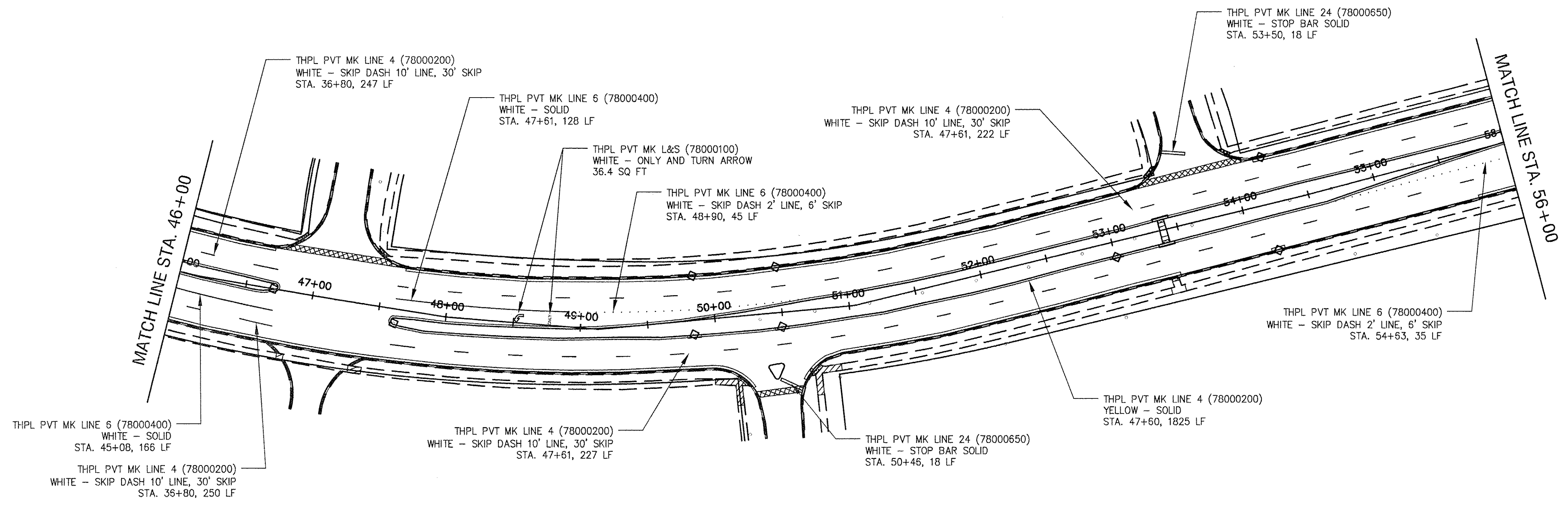
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DRAWN	- MCP	REVISED	-
CHECKED	- YL	REVISED	-
DATE	- 1/27/2017	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

87TH STREET
PAVEMENT MARKING PLAN
SCALE: 1" = 50 FT SHEET NO. 2 OF 3 SHEETS STA. 24+00 TO STA. 46+00

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1566	16-00168-00-RS	DUPAGE/WLL	31	13
CONTRACT NO. 61D76				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FILE NAME = 87TH STREET - PROPOSED ROW - UPDATED.DWG



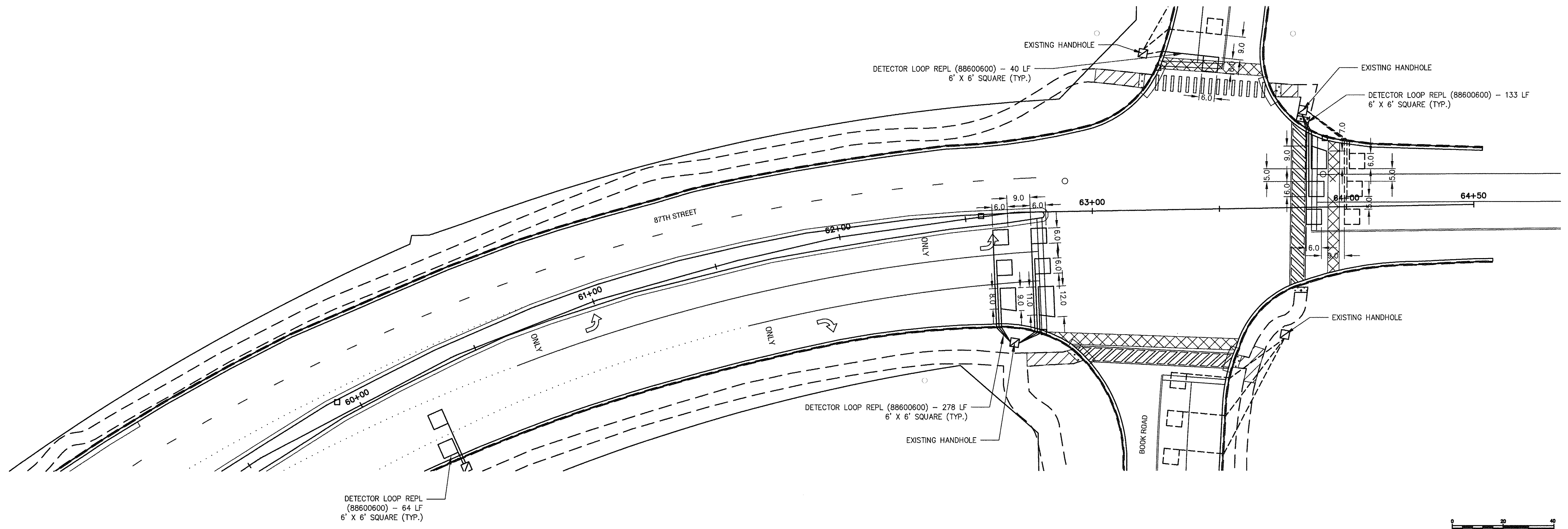
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DRAWN	MCP	REVISED	-
CHECKED	YL	REVISED	-
DATE	1/27/2017	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

87TH STREET
PAVEMENT MARKING PLAN
SCALE: 1" = 50 FT | SHEET NO. 3 OF 3 SHEETS | STA. 46+00 TO STA. 64+50

F.A.U. ROUTE 1555	SECTION 16-00168-00-RS	COUNTY DUPAGE/MILL	TOTAL SHEETS 31	SHEET NO. 14
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FILE NAME = 87TH STREET - PROPOSED ROW - IMPROVEMENTS



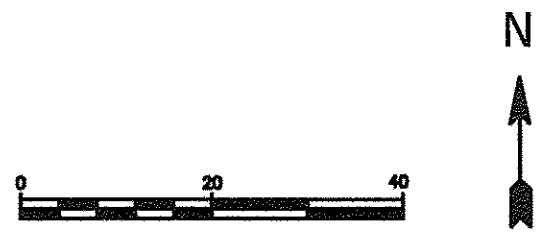
DETECTOR LOOP REPL
(88600600) - 64 LF
6' X 6' SQUARE (TYP.)

DETECTOR LOOP REPL (88600600) - 278 LF
6' X 6' SQUARE (TYP.)

DETECTOR LOOP REPL (88600600) - 40 LF
6' X 6' SQUARE (TYP.)

DETECTOR LOOP REPL (88600600) - 133 LF
6' X 6' SQUARE (TYP.)

SEE DISTRICT 1 TS-07
SCALE 1" = 20'



FILE NAME = 87TH STREET - PROPOSED ROW - UPDATED.DWG

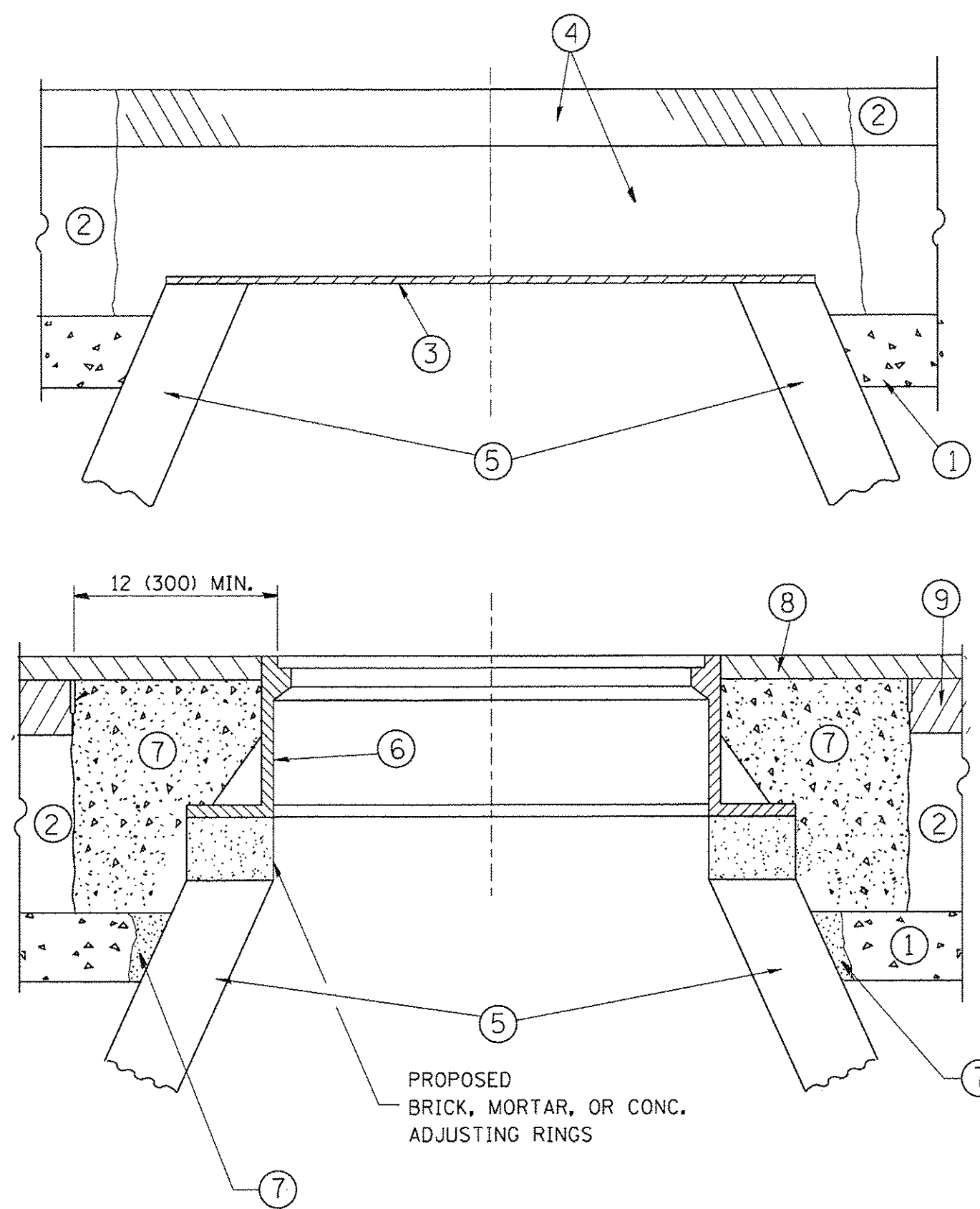
DESIGNED	MCP	REVISED	-
DRAWN	- MCP	REVISED	-
CHECKED	- YL	REVISED	-
DATE	- 1/27/2017	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

87TH STREET AND BOOK ROAD
DETECTOR LOOP REPLACEMENT DETAILS

SCALE: 1" = 20 FT SHEET NO. 1 OF 1 SHEETS STA. VARIOUS TO STA. VARIOUS

F.A.U. ROUTE 1566	SECTION 16-00168-00-RS	COUNTY DUPAGE/WILL	TOTAL SHEETS 31	SHEET NO. 15
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61D76	



CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

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

STAGE 2 (AFTER PAVEMENT MILLING)

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

*UNLESS OTHERWISE SPECIFIED IN THE PLANS.

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

LEGEND

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

LOCATION OF STRUCTURES:

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

BASIS OF PAYMENT:

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

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

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

NOTES:

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

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

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

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

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

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

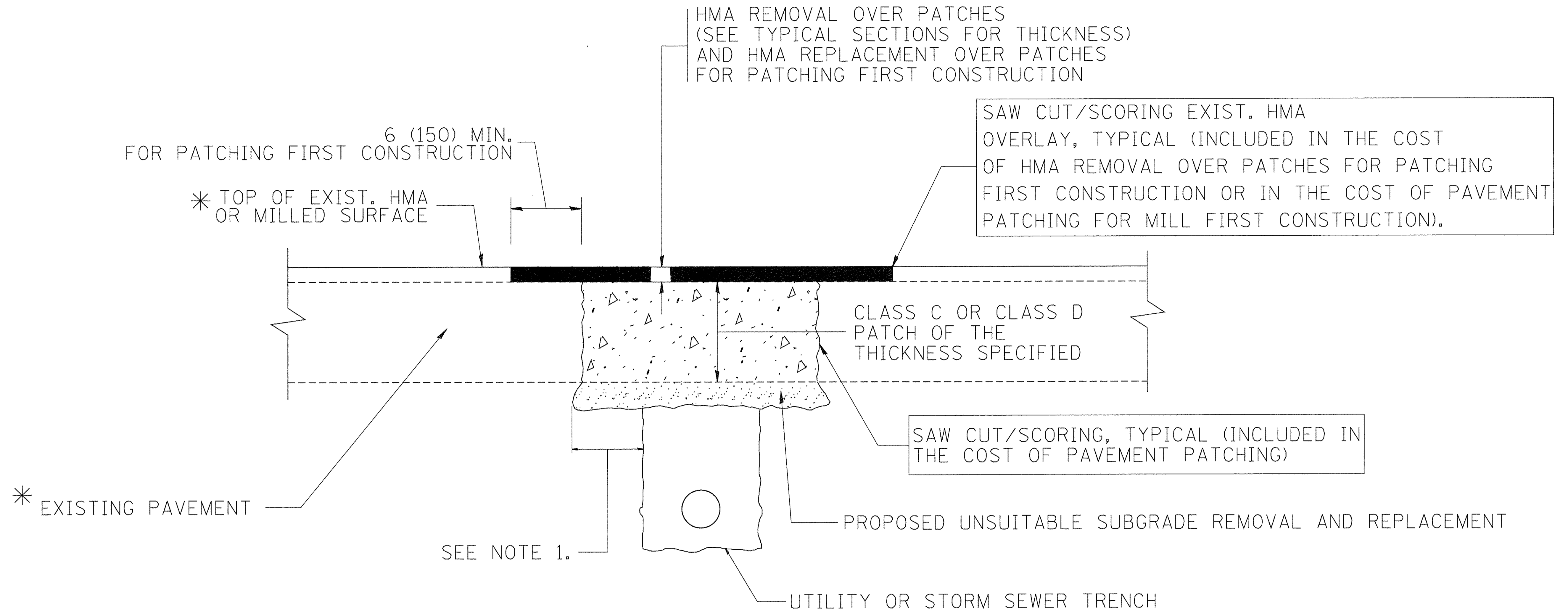
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - R. WIEDEMAN 05-14-04
cs:\pw_work\pwidot\bauerdl\d0108315\bd08.dgn		DRAWN -	REVISED - R. BORO 01-01-07
		CHECKED -	REVISED - R. BORO 03-09-11
		DATE - 10-25-94	REVISED - R. BORO 12-06-11

**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.
1566	16-00168-00-RS	DUPAGE/WILL	31	16
BD600-03 (BD-8)			CONTRACT NO. 61176	
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 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.

FILE NAME = c:\projects\diststd22x34\bd22.dgn	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98
		DRAWN -	REVISED - R. BORO 01-01-07
		CHECKED -	REVISED - R. BORO 09-04-07
		DATE - 10-25-94	REVISED - K. ENG 10-27-08

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

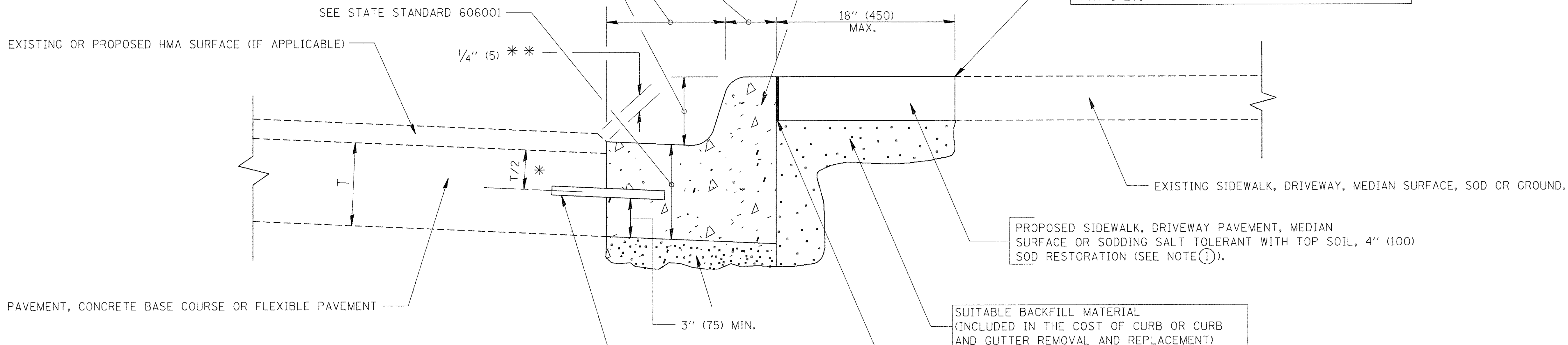
PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1566	16-00168-00-RS	DUPAGE/WILL	31	17
BD400-04 (BD-22)			CONTRACT NO. 61076	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

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

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



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

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

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

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USUABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

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

* 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.

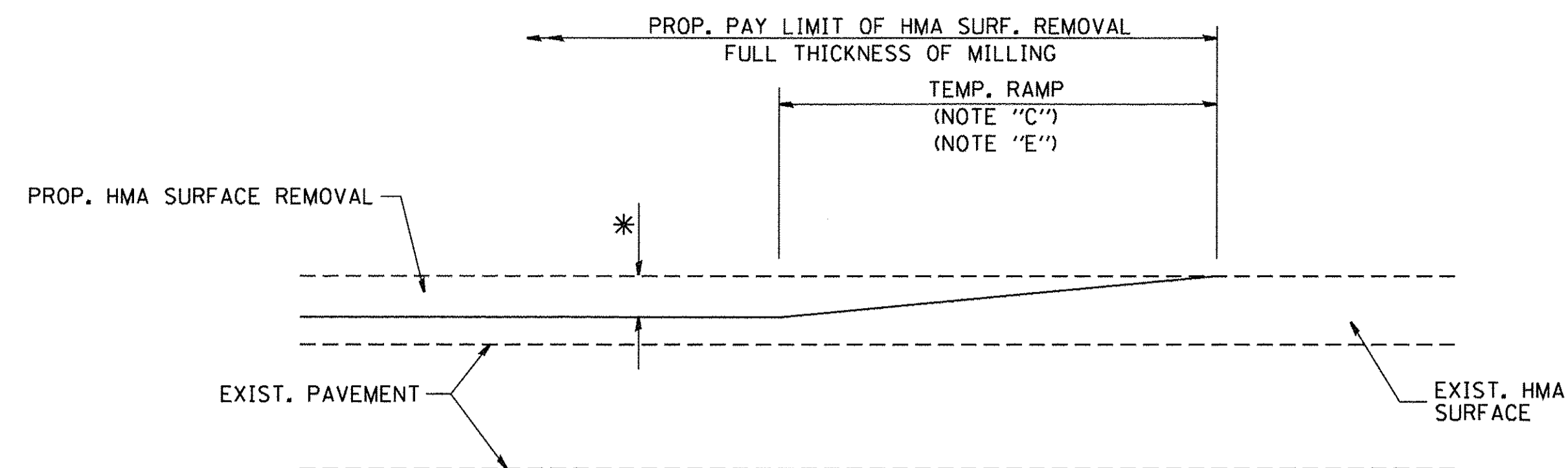
⑦ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

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.

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

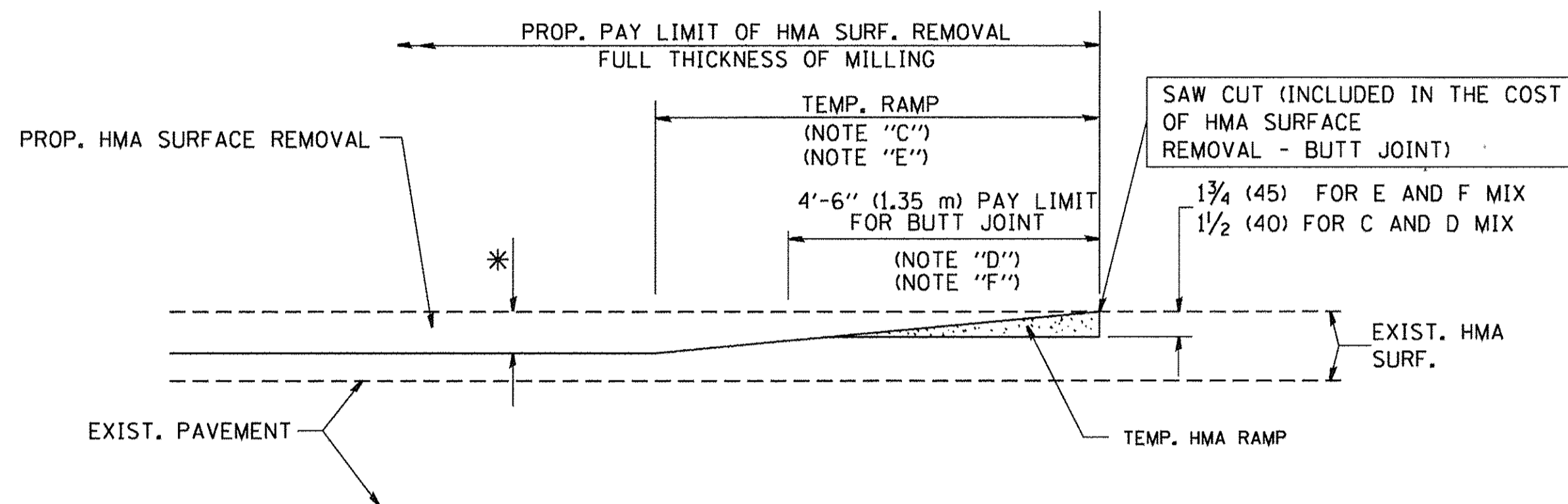
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = drivakosgn	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
cs:\pw_work\pwt\dot\drivakosgn\d0108315\bd24.dgn	DRAWN -	REVISED - A. ABBAS 03-21-97	1666			16-00168-00-RS	DUPAGE/WILL	31	18	
PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01	BD600-06 (BD-24)			CONTRACT NO. <i>61176</i>				
PLOT DATE = 12/15/2009	DATE - 03-11-94	REVISED - R. BORO 12-15-09	SCALE: NONE			SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		



MILLED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

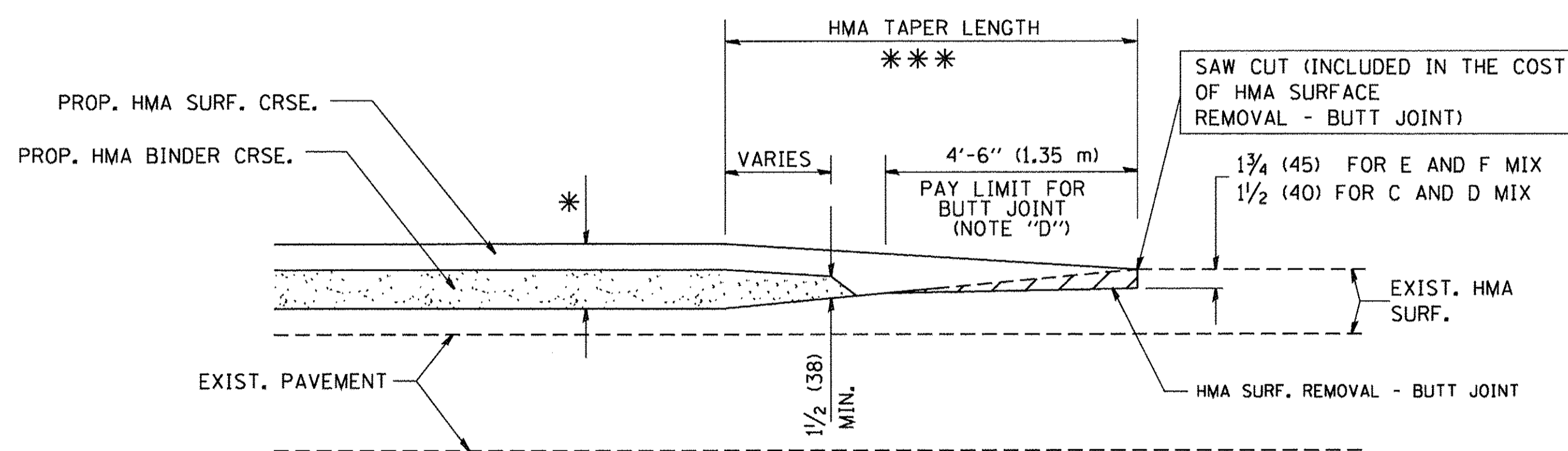
OPTION 1



HMA CONSTRUCTED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

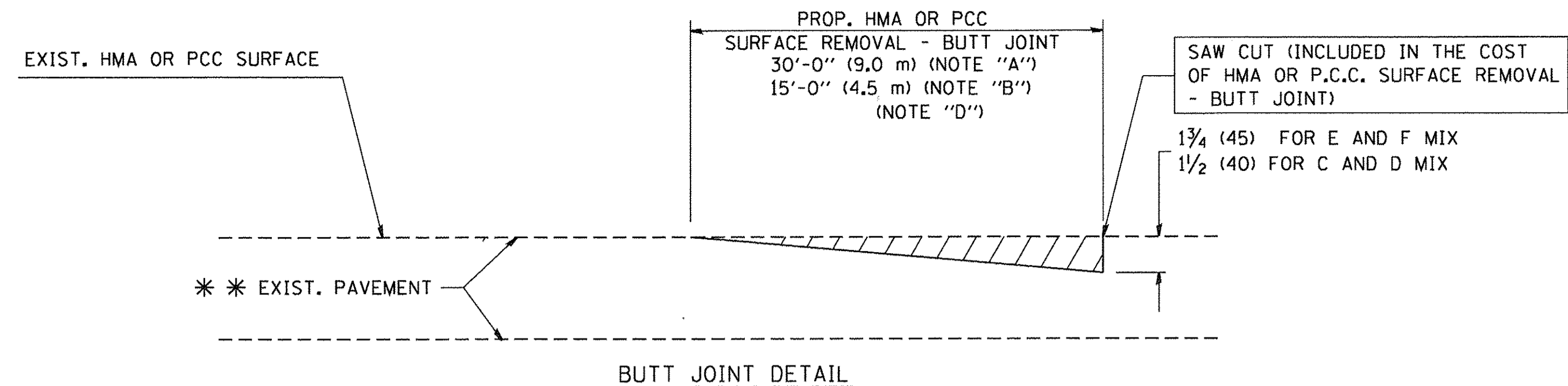
OPTION 2

TYPICAL TEMPORARY RAMP

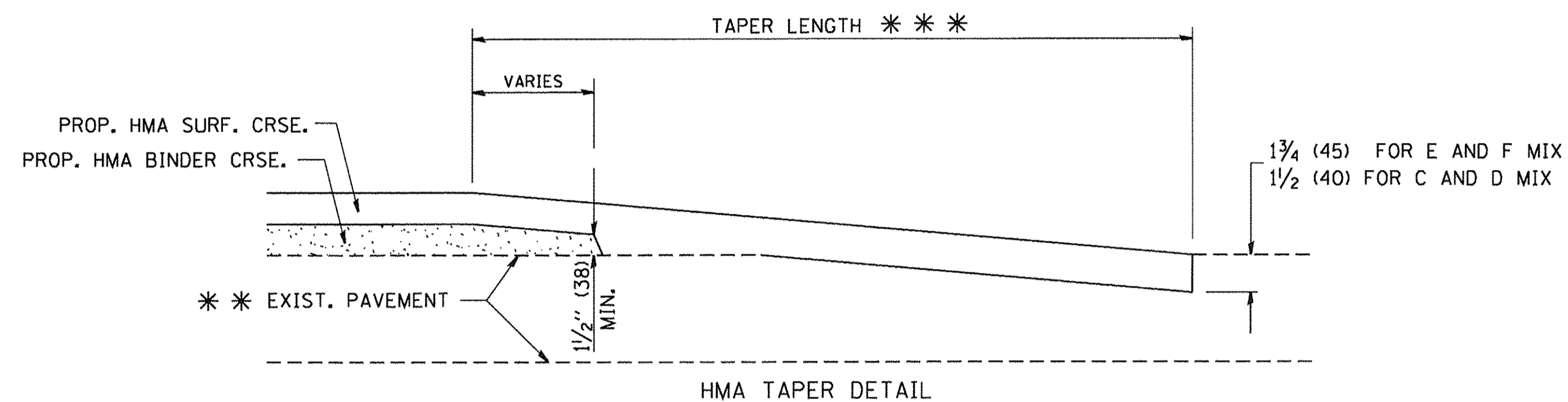


BUTT JOINT AND
HMA TAPER

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".

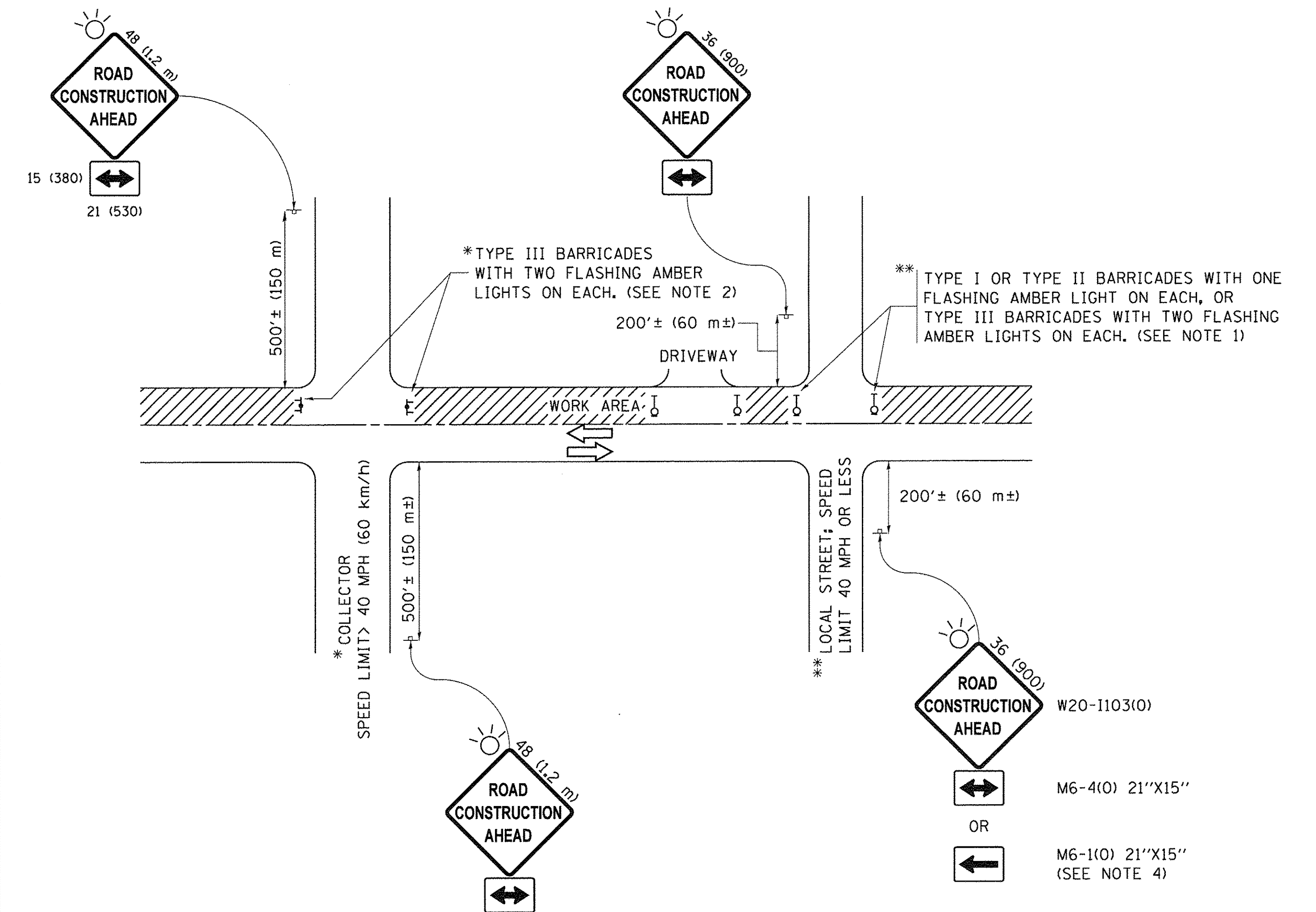
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\diststd\22x34\bd32.dgn	USER NAME = gaglianobt	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 = 1/4/2008	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.
1566	18-00168-00-RS	DUPAGE/WILL	31	19
BD400-05 BD32		CONTRACT NO. 61576		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



NOTES:

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 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. 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.
4. 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).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

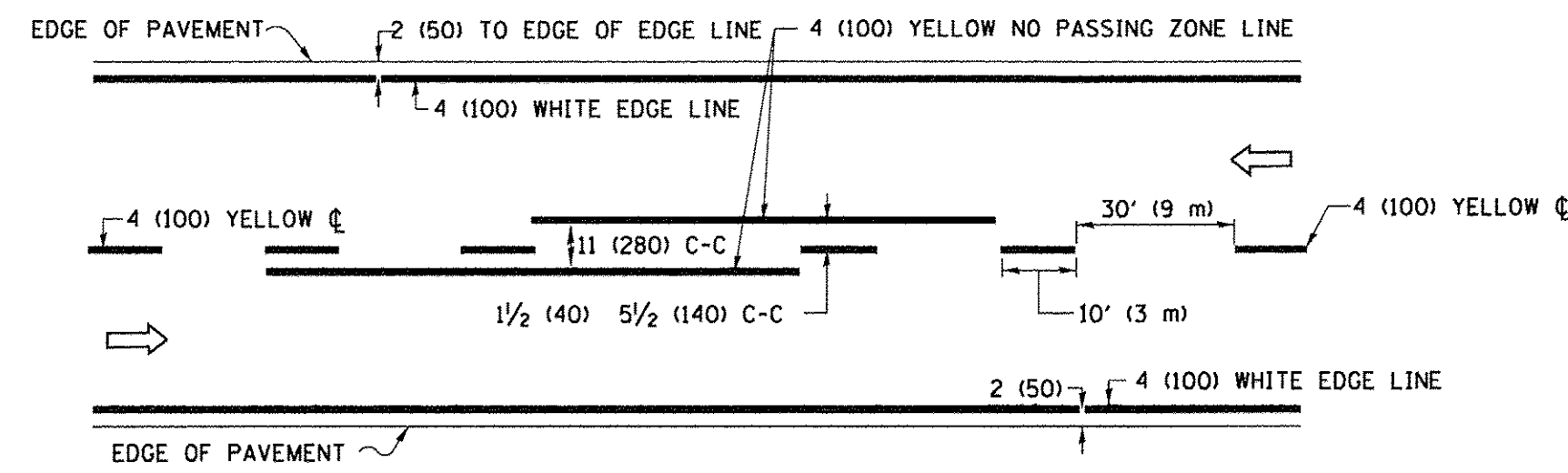
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p:\11084EBIDINTEG.illinois.gov\PWIDOT\Documents\IDOT Offices\District 1\Projects\Dist	DRAMA\CADData\CADsheets\col0.dgn	CHECKED -	REVISED - T. RAMMACHER 01-06-00
Default	PLOT SCALE = 50.000' / in.	DATE - 06-89	REVISED - A. SCHUETZE 07-01-13
	PLOT DATE = 9/15/2016		REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

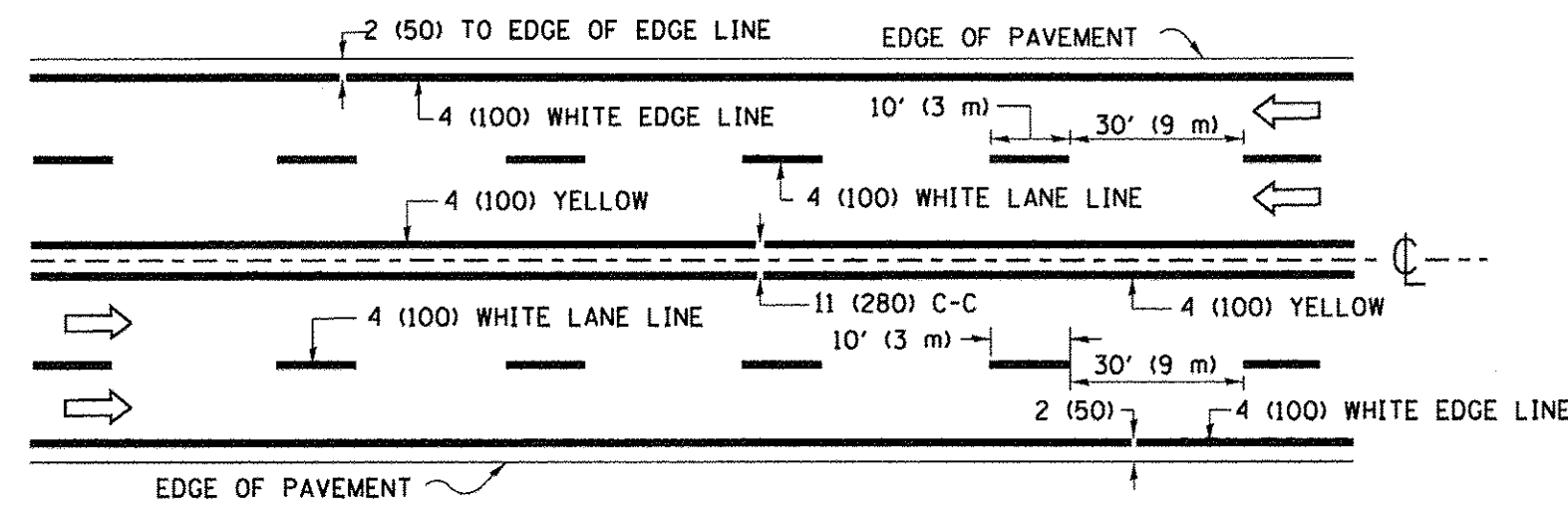
**TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

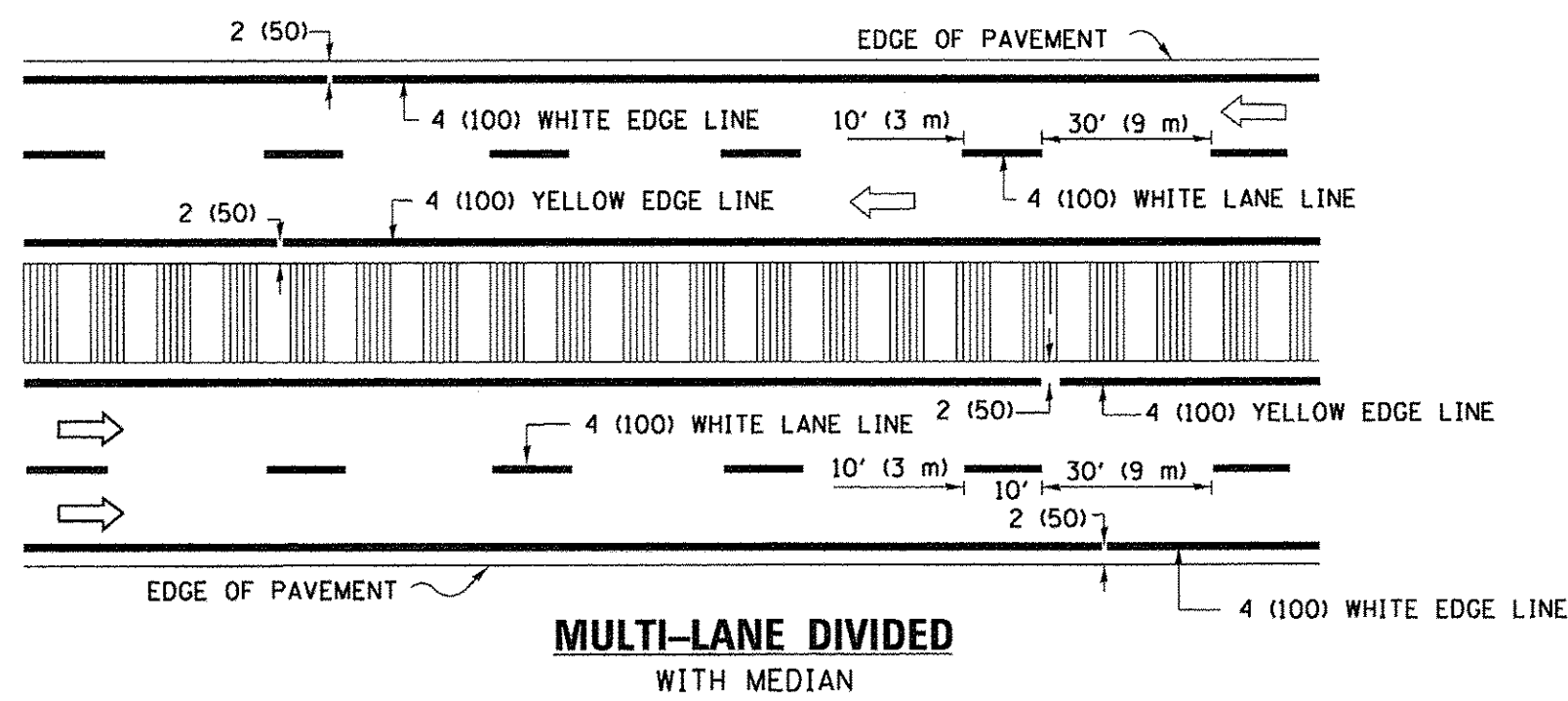
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1566	16-00168-00-RS	DUPAGE/WILL	31	20
TC-10			CONTRACT NO. 61874	
ILLINOIS FED. AID PROJECT				



2-LANE ROADWAY

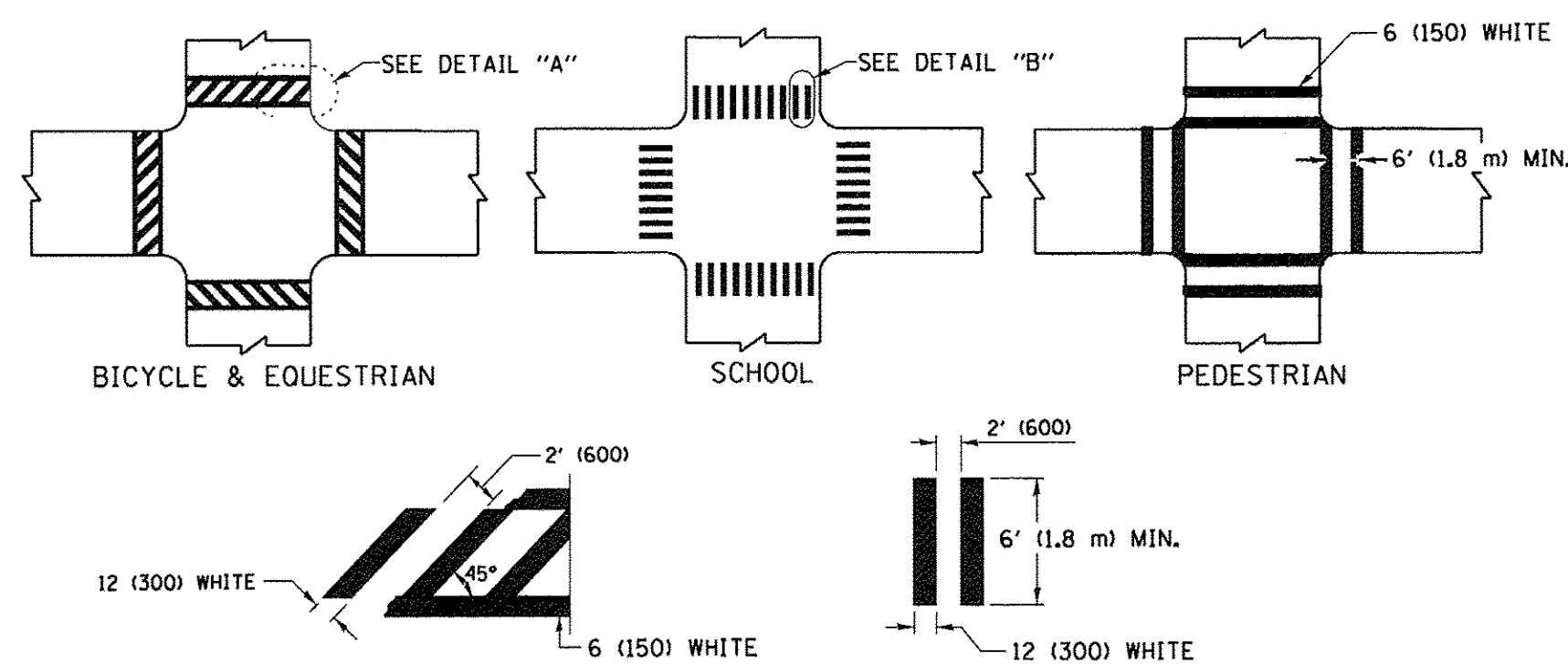


MULTI-LANE UNDIVIDED



MULTI-LANE DIVIDED WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

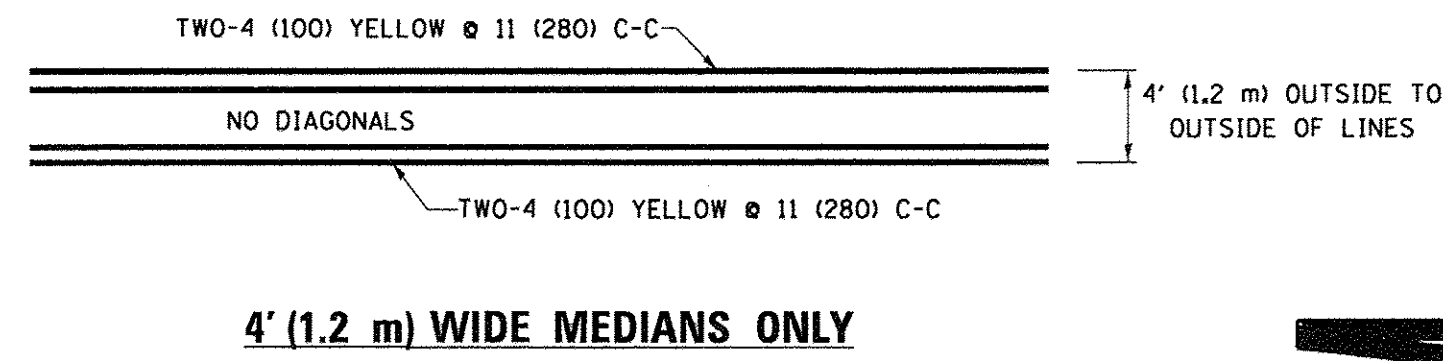


DETAIL "A"

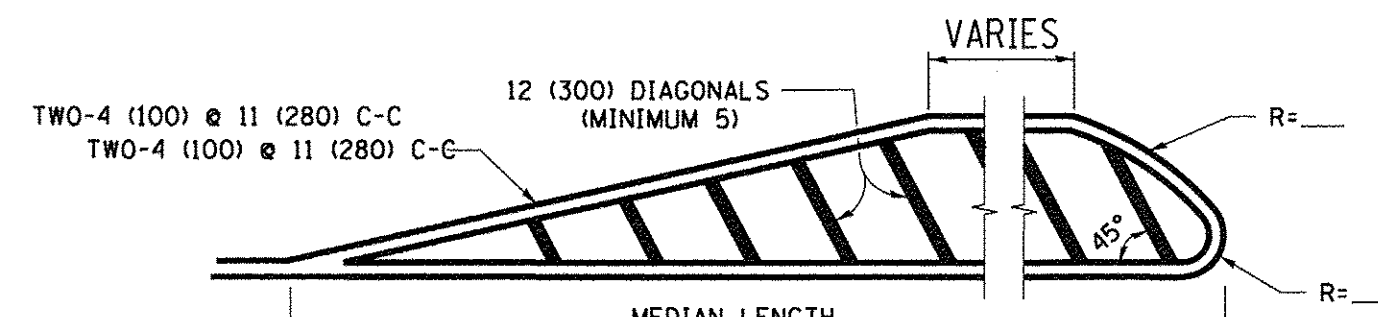
DETAIL "B"

TYPICAL CROSSWALK MARKING

* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



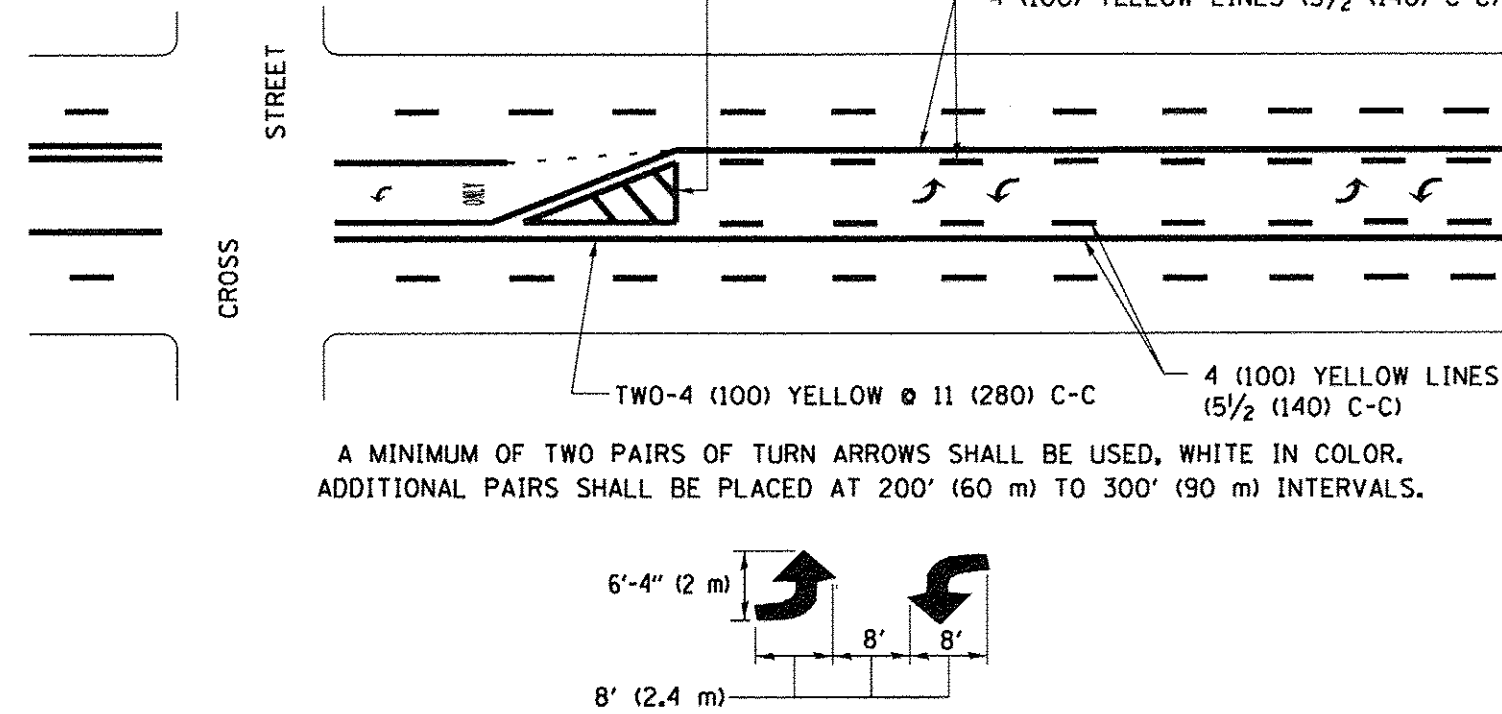
4' (1.2 m) WIDE MEDIANS ONLY



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

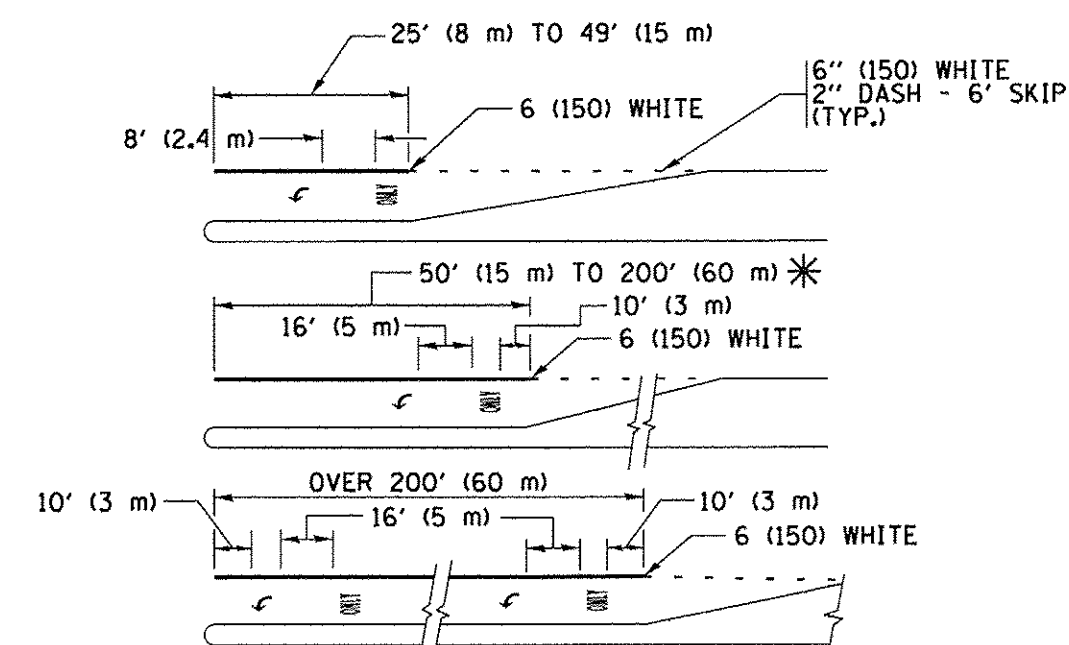
DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (23 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE



MEDIAN WITH TWO-WAY LEFT TURN LANE

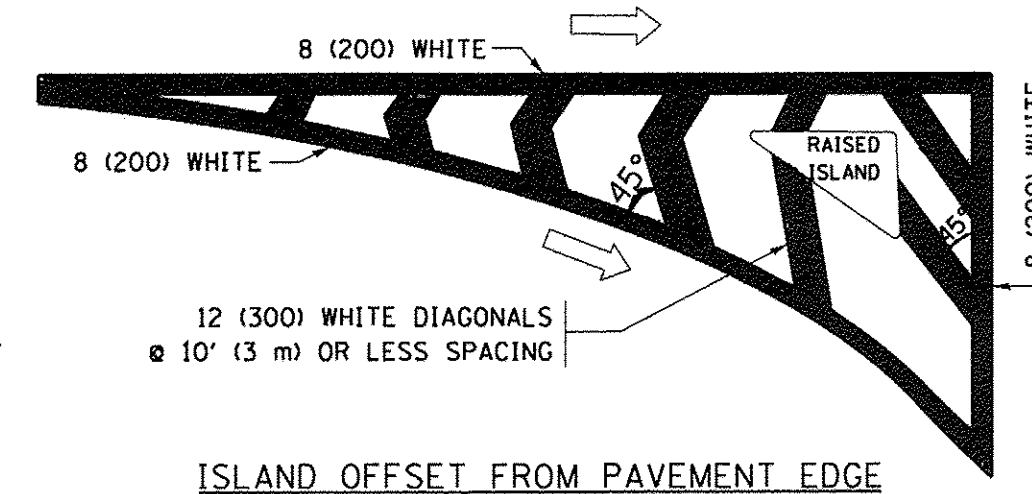
TYPICAL PAINTED MEDIAN MARKING



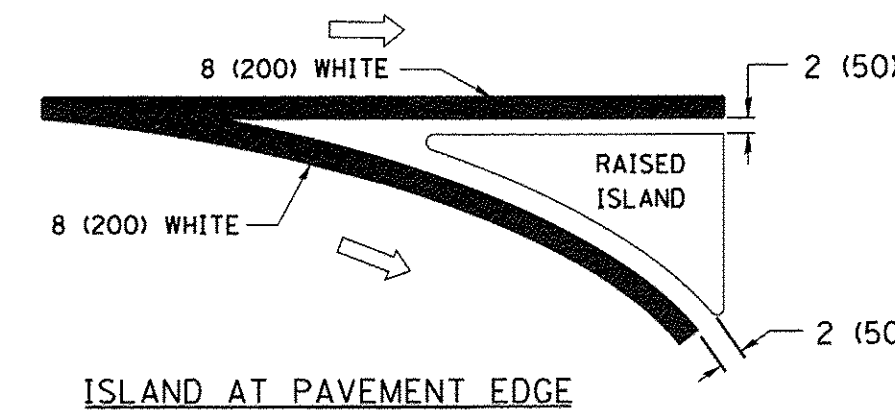
TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

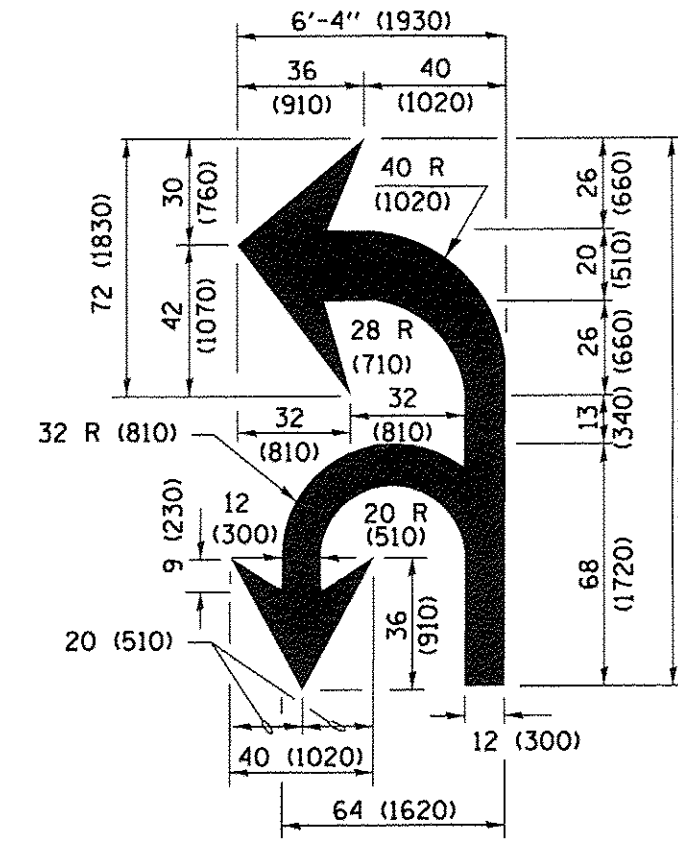


ISLAND OFFSET FROM PAVEMENT EDGE

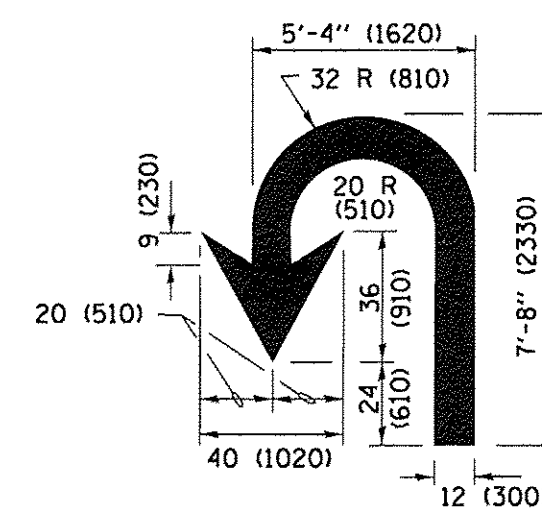


ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING



COMBINATION LEFT AND U-TURN



U-TURN

LANE REDUCTION TRANSITION

* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

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	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" 15' (4.5 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 (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (23 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

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 =	USER NAME = footej	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09
pat\N\084EB\INTEG.1\inois.gov\PWIDOT\Documents\DOT_Offices\District 1\Projects\Dist1\CAD\CADData\CADsheets\tcl3.dgn		CHECKED -	REVISED - C. JUCIUS 07-01-13
Default	PLOT SCALE = 50.000' / in.	DATE - 03-19-90	REVISED - C. JUCIUS 12-21-15
	PLOT DATE = 4/13/2016		REVISED - C. JUCIUS 04-12-16

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE
TYPICAL PAVEMENT MARKINGS**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1566	16-00168-00-RS	DUPAGE/WILL	31	21
TC-13			CONTRACT NO. 61876	
ILLINOIS FED. AID PROJECT				

TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER

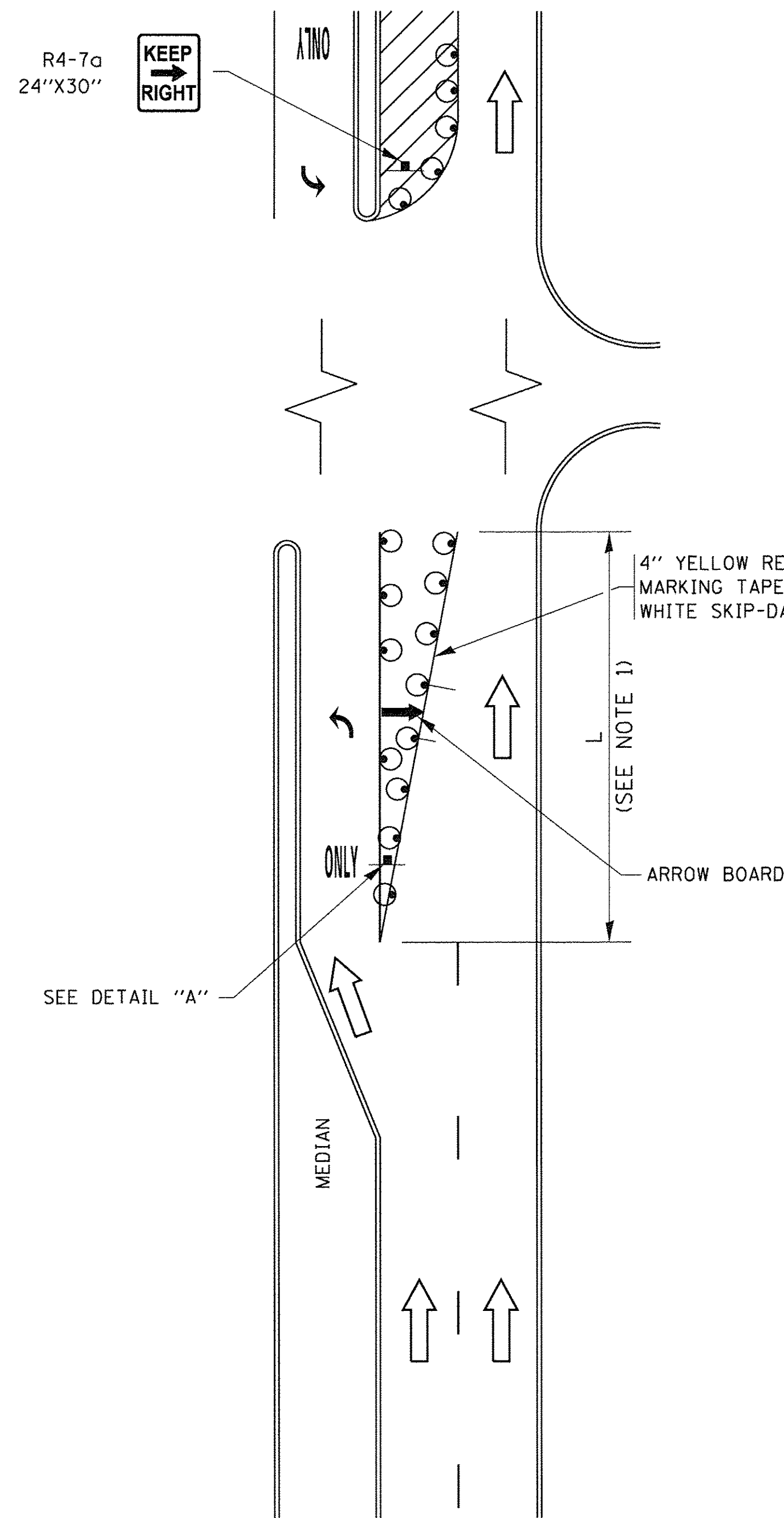


FIGURE 1

TURN BAY ENTRANCE WITHIN A LANE CLOSURE

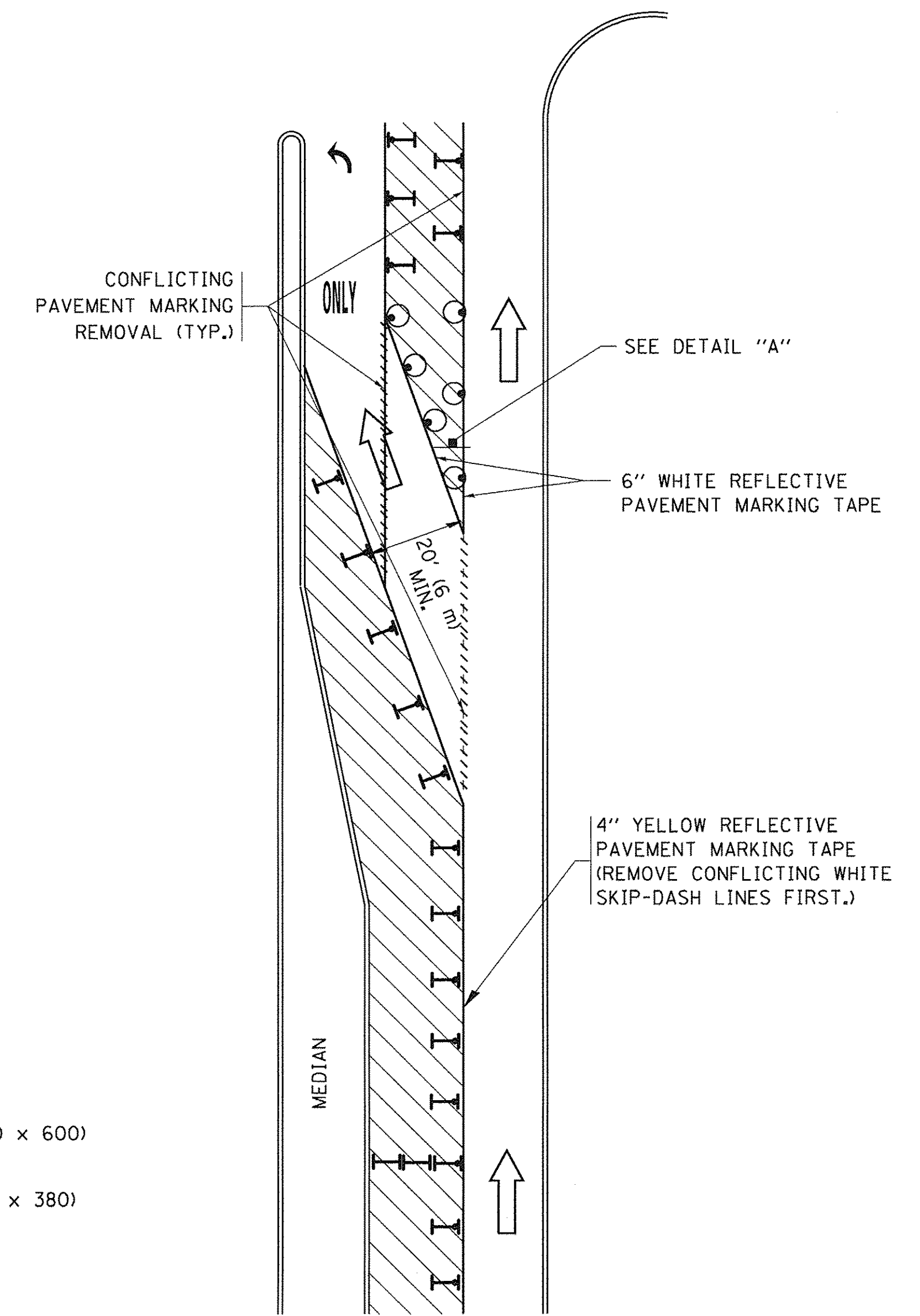


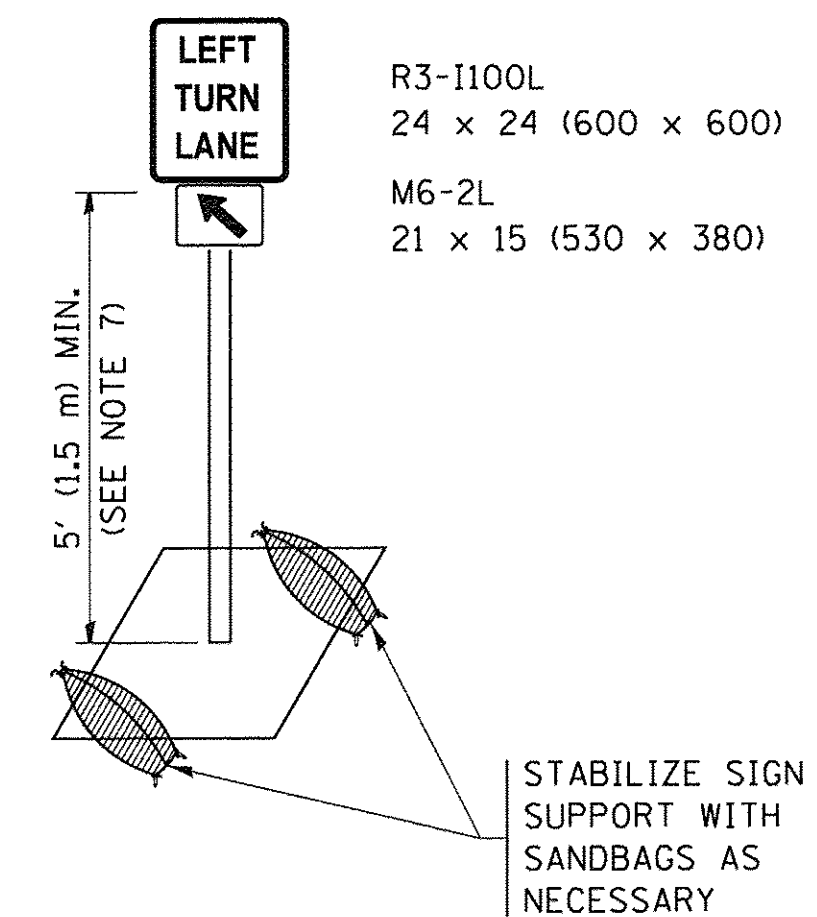
FIGURE 2

LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- ARROW BOARD
- TYPE I OR II BARRICADE OR DRUM WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- SIGN ASSEMBLY
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

NOTES:

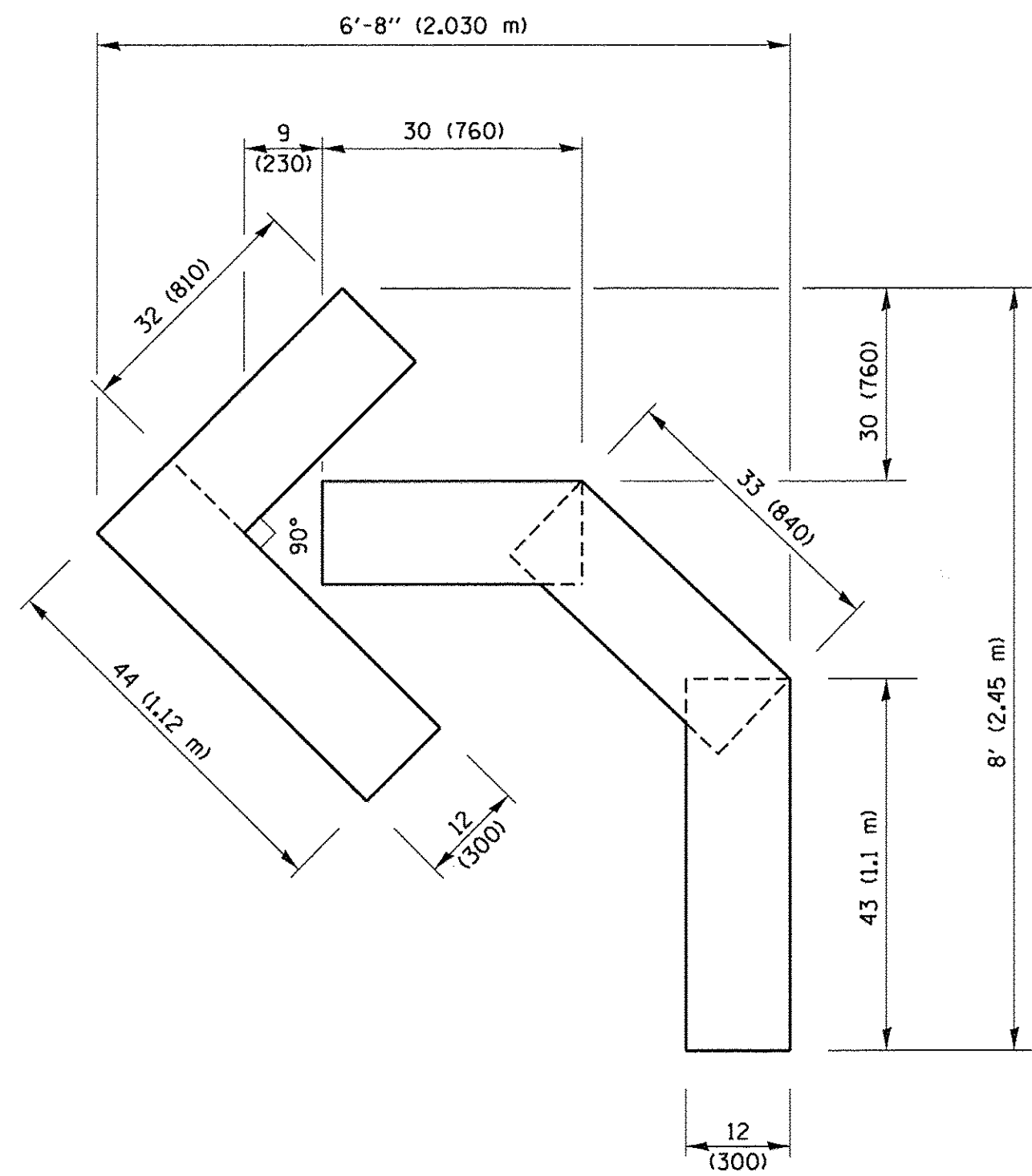
1. A) WHEN "L" IS \leq THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.
B) WHEN "L" IS $>$ THE STORAGE LENGTH OF THE TURN LANE OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.
2. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
3. LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.
5. 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" R3-1100R 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
6. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PREUIREMENTS.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.



DETAIL A

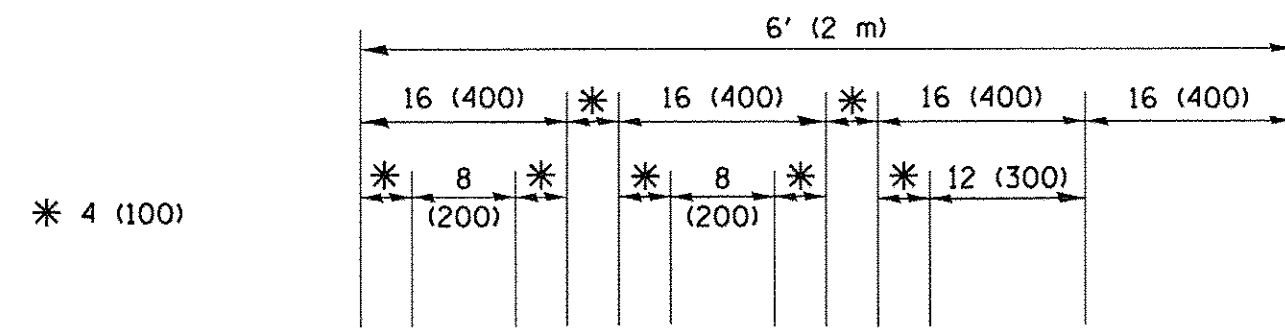
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = footemj	REVISED - T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
px:\IL084EBIDINTEG.illinois.gov\PWIDOT\Documents\IDOT Offices\District 1\Projects\Dist	REVISED - A. HOUSEH 10-07-95	REVISED - A. SCHUETZE 07-01-13	REVISED - A. SCHUETZE 09-15-16					1566	18-00168-00-RS	DUPAGE/WILL	31	22
PLOT SCALE = 50.0000' / in.	REVISED - T. RAMMACHER 01-06-00	REVISED -			TC-14			CONTRACT NO. 61576				
Default	PLOT DATE = 9/15/2016				SCALE: NONE	SHEET 1	OF 1	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	

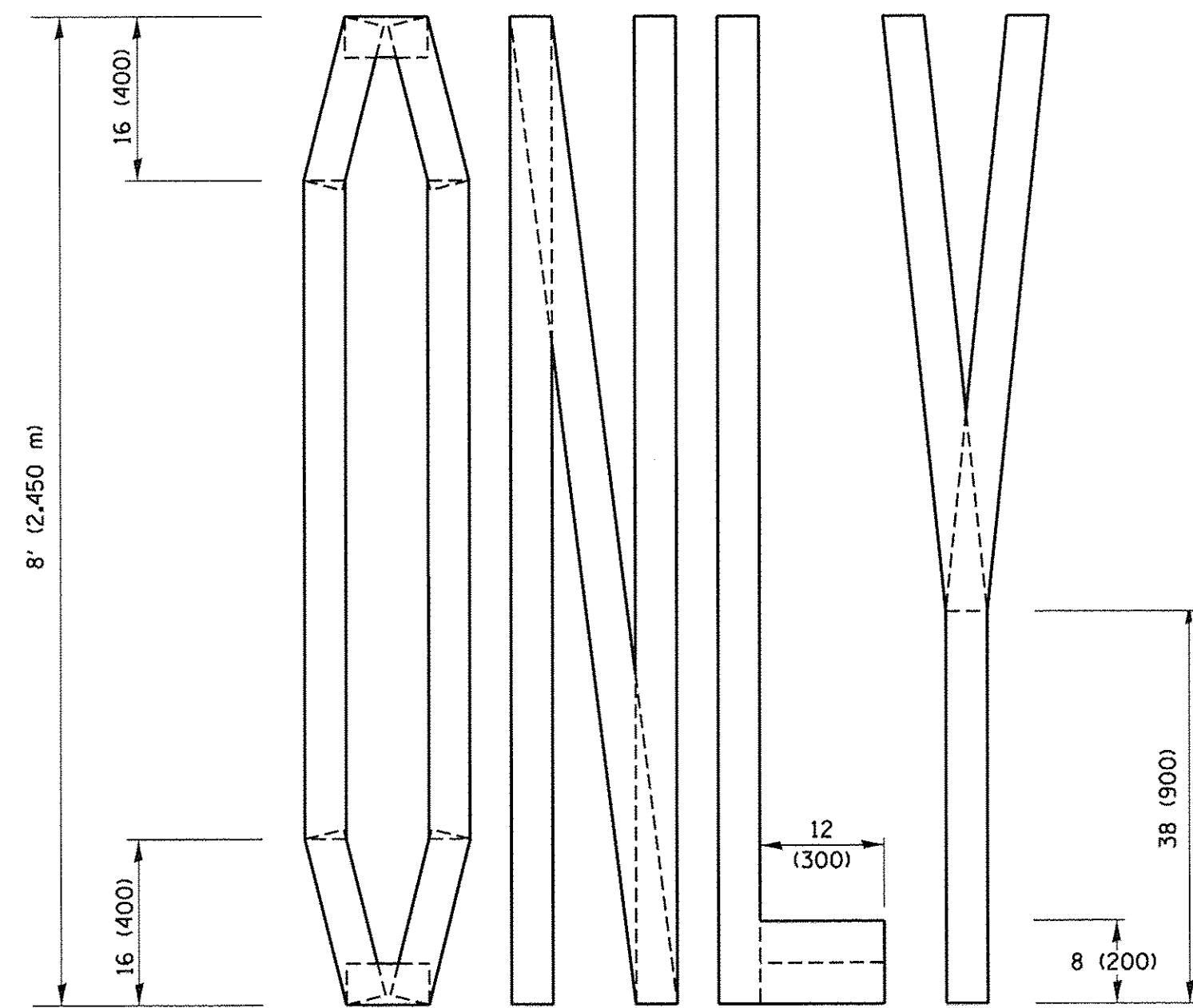


QUANTITY

4 (100) LINE = 45.5 ft. (13.9 m)
15.2 sq. ft. (1.41 sq. m)

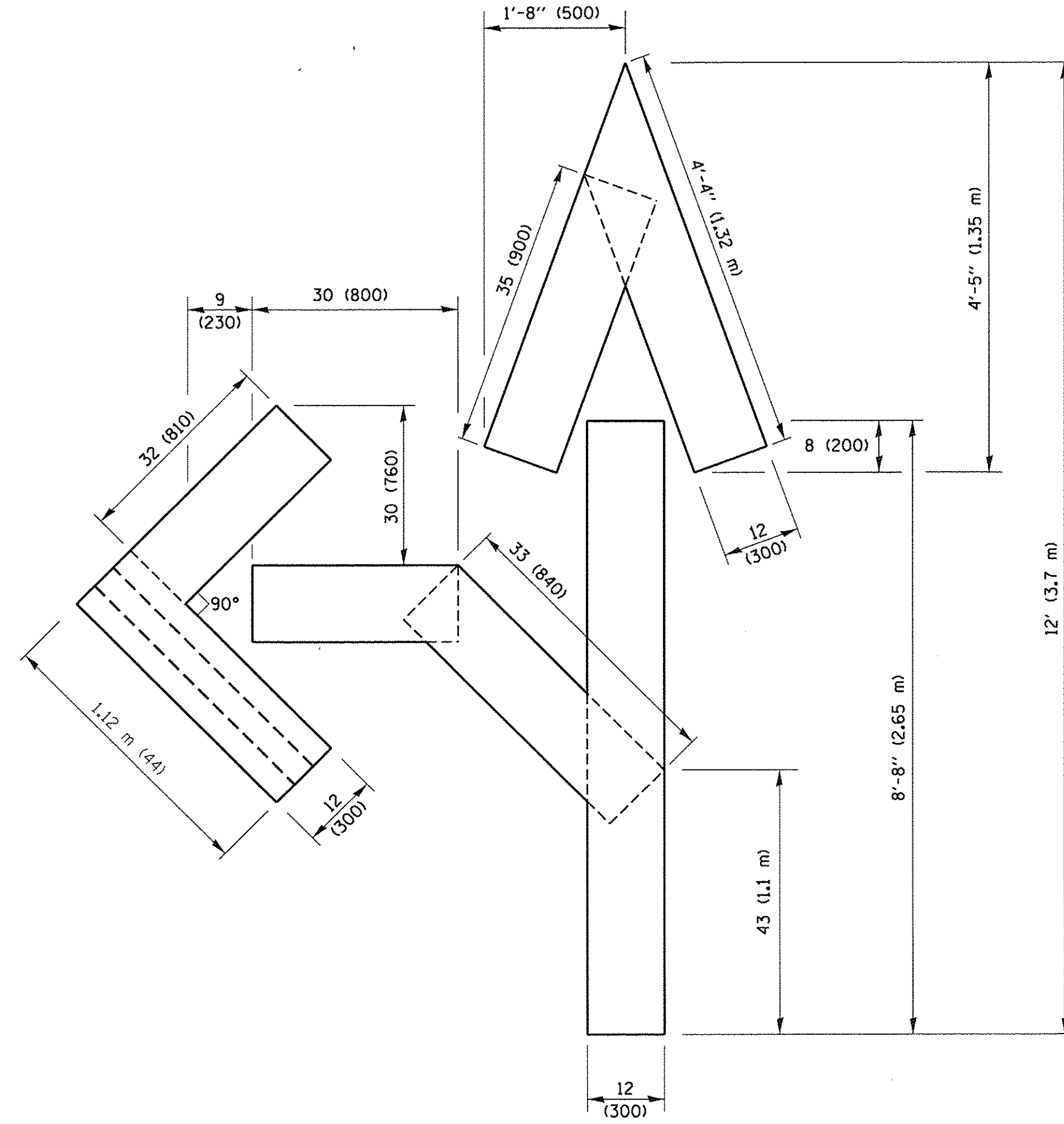


* 4 (100)



QUANTITY

4 (100) LINE = 64.1 ft. (19.5 m)
21.4 sq. ft. (1.99 sq. m)

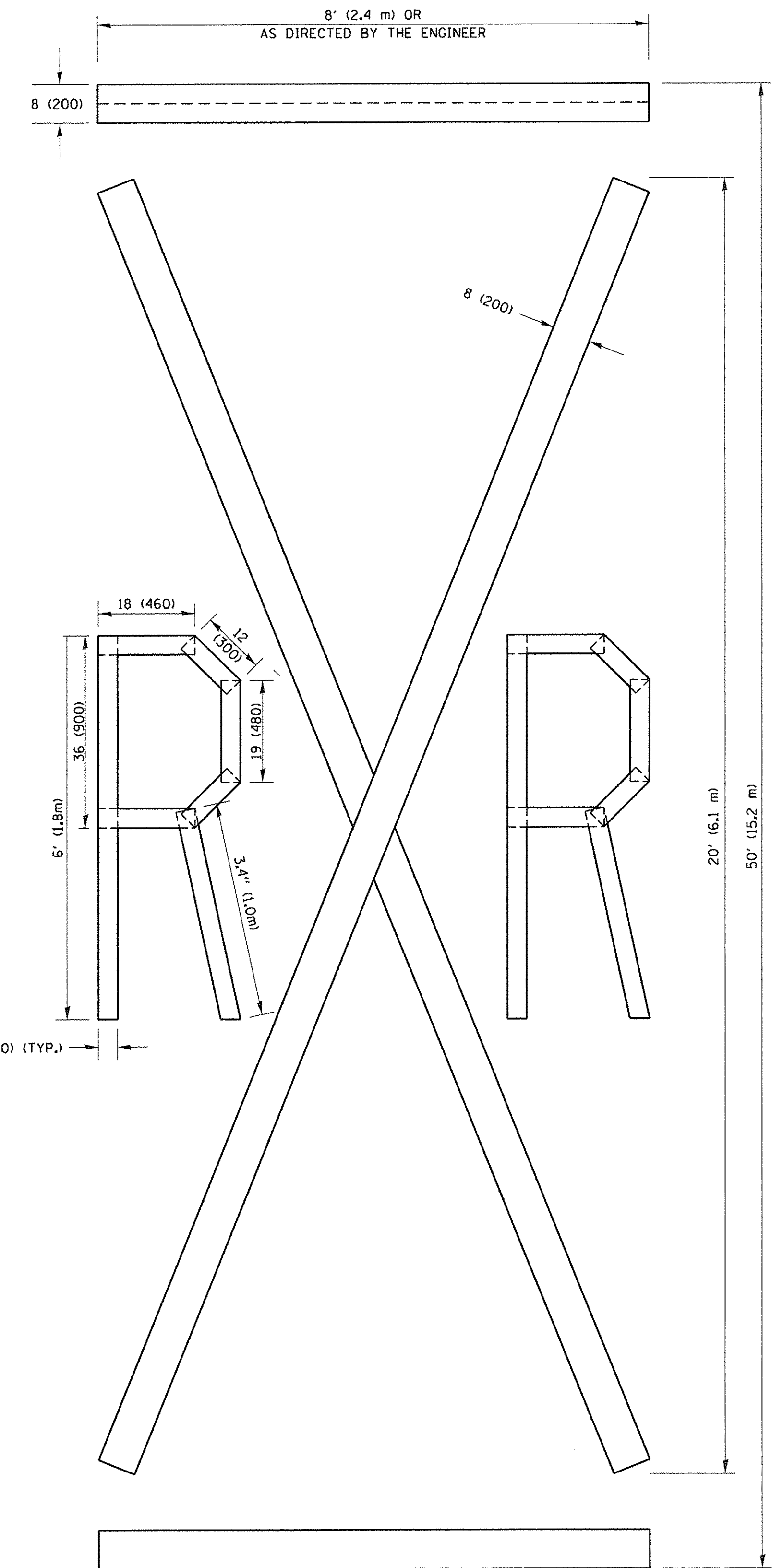


QUANTITY

4 (100) LINE = 82.5 ft. (25.1 m)
27.5 sq. ft. (2.53 sq. m)

NOTE:

ALL QUANTITIES OF PLACEMENT ARE REPRESENTED IN LINEAR FEET OF 4" LINES TO MATCH THE 4" TEMPORARY TAPE PAY ITEM AND REPRESENTS THE TOTAL QUANTITY OF 4" TAPE REQUIRED.



QUANTITY

4 (100) LINE = 225.9 ft. (68.9 m)
75.3 sq. ft. (6.99 sq. m)

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

FILE NAME =	USER NAME = foostmj	DESIGNED -	REVISED - T. RAMMACHER 03-02-98
pw\ill084EBIDINTEG.illinois.gov\PIDOT\Documents\IDOT Offices\District 1\Projects\Dist 1\Projects\CADData\CADsheets\tcl6.dgn		CHECKED -	REVISED - E. GOMEZ 08-28-00
		DATE - 09-18-94	REVISED - E. GOMEZ 08-28-00
			REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1566	16-00168-00-RS	DUPAGE/WILL	31	23
TC-16			CONTRACT NO. 61876	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

TRAFFIC SIGNAL LEGEND

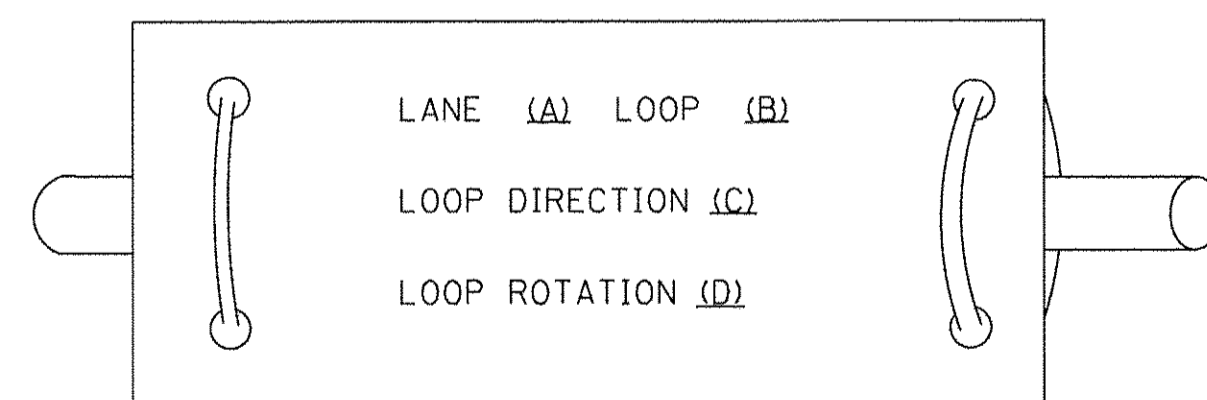
(NOT TO SCALE)

ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
CONTROLLER CABINET			HANDHOLE -SQUARE -ROUND	 	 	SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD		
COMMUNICATION CABINET			HEAVY DUTY HANDHOLE -SQUARE -ROUND	 	 	SIGNAL HEAD WITH BACKPLATE -(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE	 	
MASTER CONTROLLER			DOUBLE HANDHOLE			PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS		
MASTER MASTER CONTROLLER			JUNCTION BOX			PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		
UNINTERRUPTIBLE POWER SUPPLY			RAILROAD CANTILEVER MAST ARM			ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
SERVICE INSTALLATION -(P) POLE MOUNTED			RAILROAD FLASHING SIGNAL			NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED		
SERVICE INSTALLATION -(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED	 	 	RAILROAD CROSSING GATE			GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)		
TELEPHONE CONNECTION			RAILROAD CROSSBUCK			ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1/C		
STEEL MAST ARM ASSEMBLY AND POLE			RAILROAD CONTROLLER CABINET			COAXIAL CABLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE			UNDERGROUND CONDUIT (UC), GALVANIZED STEEL			VENDOR CABLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE			COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED		
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY			SYSTEM ITEM	S	SP	FIBER OPTIC CABLE -NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F		
WOOD POLE			INTERSECTION ITEM	I	IP			
GUY WIRE			REMOVE ITEM		R			
SIGNAL HEAD			RELOCATE ITEM		RL			
SIGNAL HEAD WITH BACKPLATE			ABANDON ITEM		A			
SIGNAL HEAD OPTICALLY PROGRAMMED			CONTROLLER CABINET AND FOUNDATION TO BE REMOVED		RCF			
FLASHER INSTALLATION -(FS) SOLAR POWERED	 	 	MAST ARM POLE AND FOUNDATION TO BE REMOVED		RMF			
PEDESTRIAN SIGNAL HEAD			SIGNAL POST AND FOUNDATION TO BE REMOVED		RPF			
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON	 	 	DETECTOR LOOP, TYPE I					
RADAR DETECTION SENSOR			PERFORMED DETECTOR LOOP					
VIDEO DETECTION CAMERA			SAMPLING (SYSTEM) DETECTOR					
RADAR/VIDEO DETECTION ZONE			INTERSECTION AND SAMPLING (SYSTEM) DETECTOR					
PAN, TILT, ZOOM (PTZ) CAMERA			QUEUE AND SAMPLING (SYSTEM) DETECTOR					
EMERGENCY VEHICLE LIGHT DETECTOR			WIRELESS DETECTOR SENSOR					
CONFIRMATION BEACON			WIRELESS ACCESS POINT					
WIRELESS INTERCONNECT								
WIRELESS INTERCONNECT RADIO REPEATER								

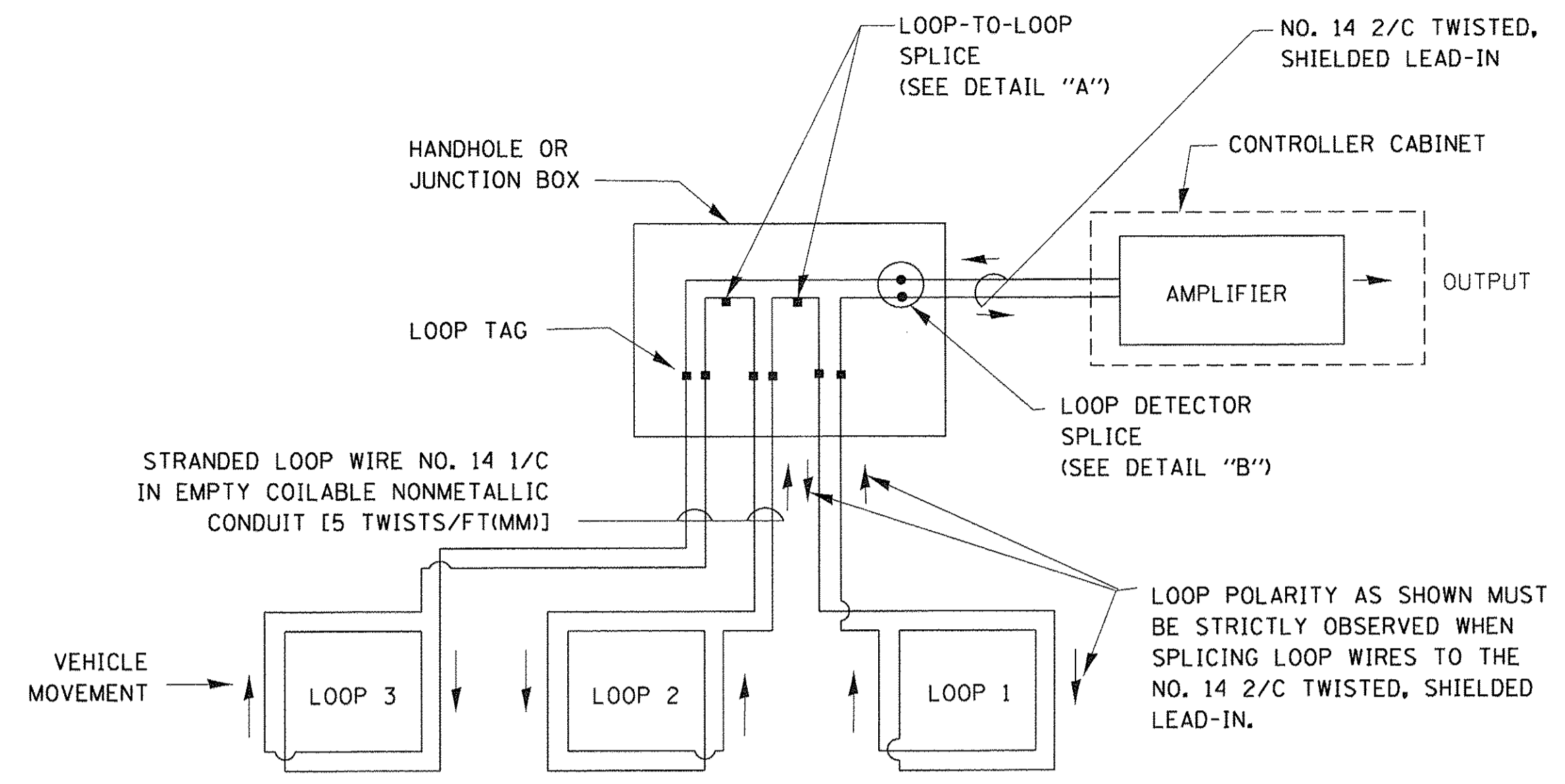
LOOP DETECTOR NOTES

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

LOOP LEAD-IN CABLE TAG

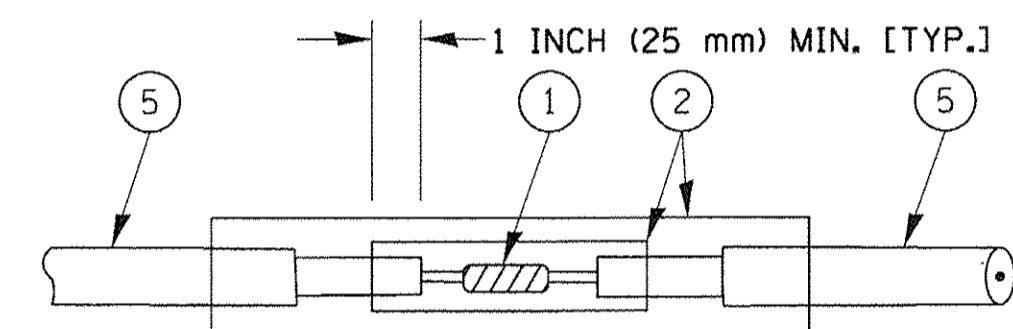


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

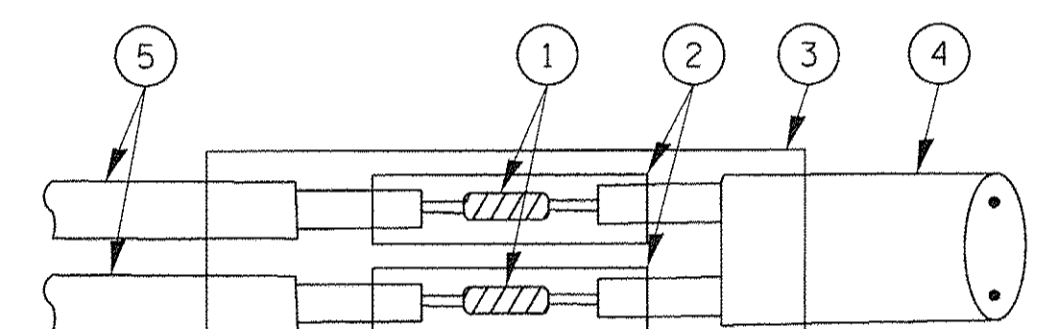


DETECTOR LOOP WIRING SCHEMATIC

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

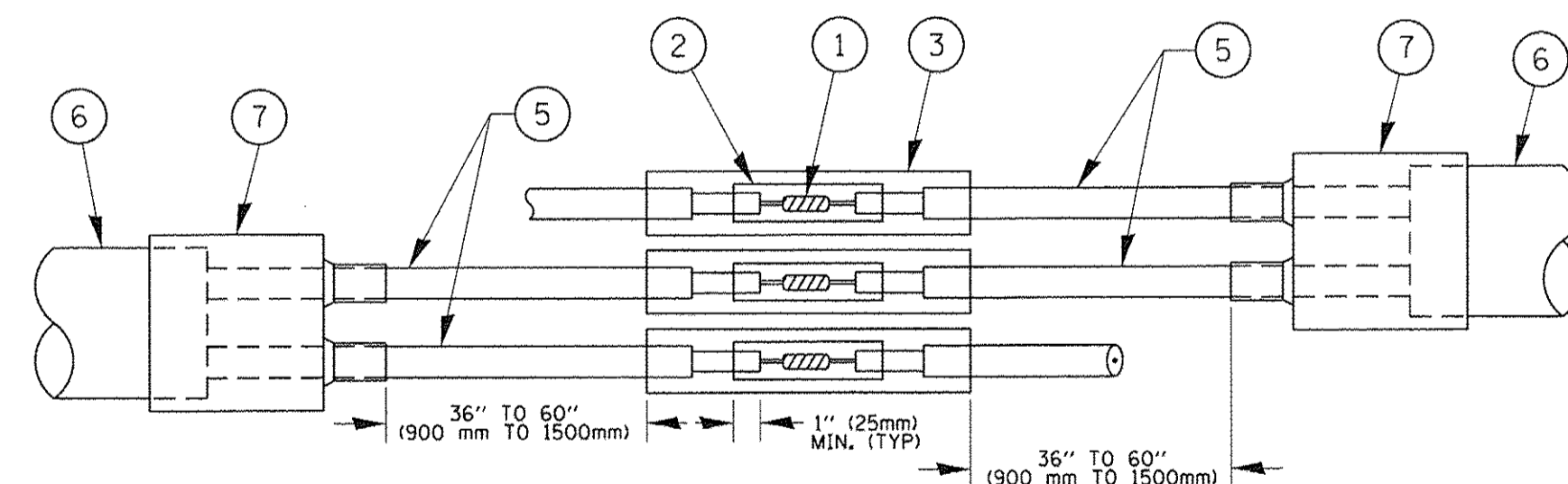


DETAIL "A"
LOOP-TO-LOOP SPLICE

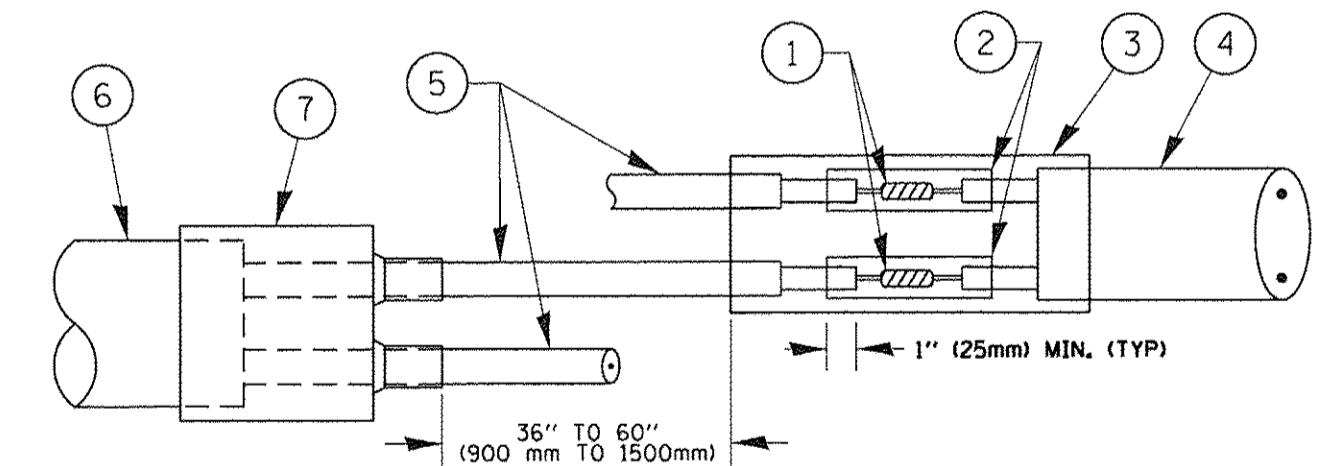


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

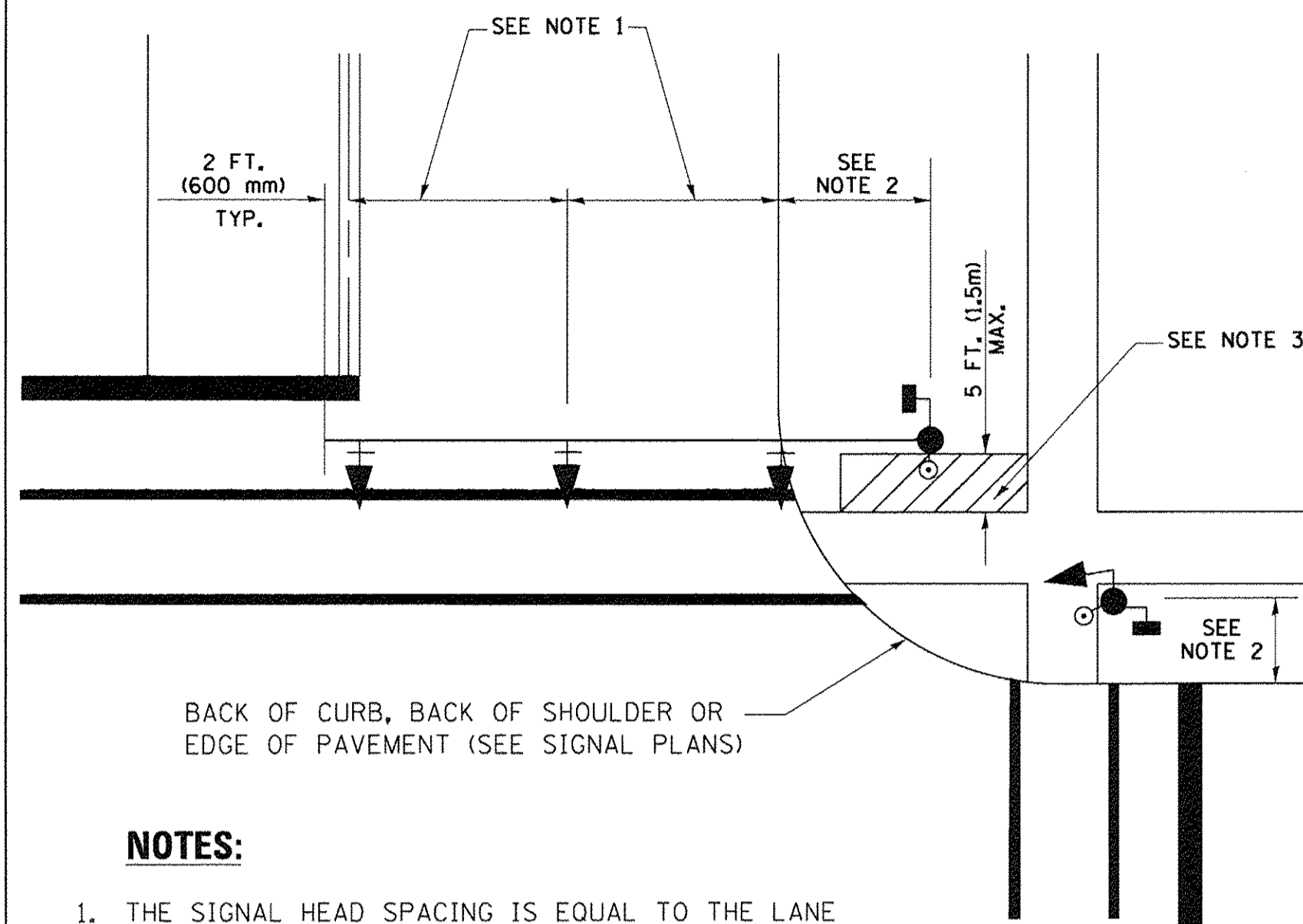
PRE-FORMED LOOP

LOOP DETECTOR SPLICE

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

FILE NAME =	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS			F.A.U. RTE. 1566	SECTION 16-00168-00-RS	COUNTY DUPAGE/WILL	TOTAL SHEETS 31	SHEET NO. 25
c:\pw_work\pwidot\footemj\d0108315\ts05.dgn		DRAWN - BCK	REVISED -		SCALE: NONE	SHEET NO. 2 OF 7 SHEETS	STA. TO STA.	TS-05		CONTRACT NO. 61876		
		CHECKED - DAD	REVISED -									
		DATE - 10-28-09	REVISED -									
PLOT SCALE = 50.0000' / in.		PLOT DATE = 1/13/2014		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT								

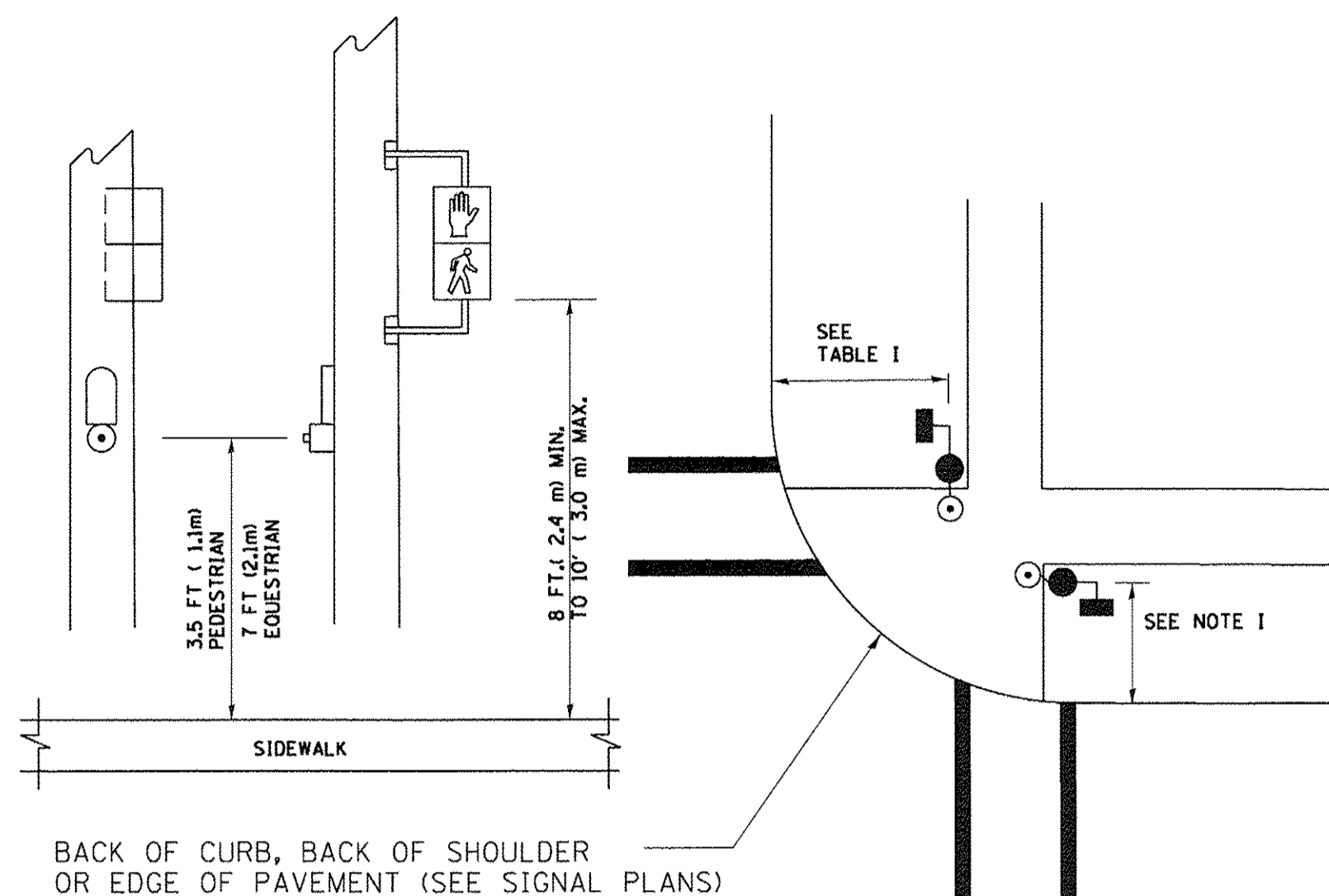
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR
FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN
WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



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."

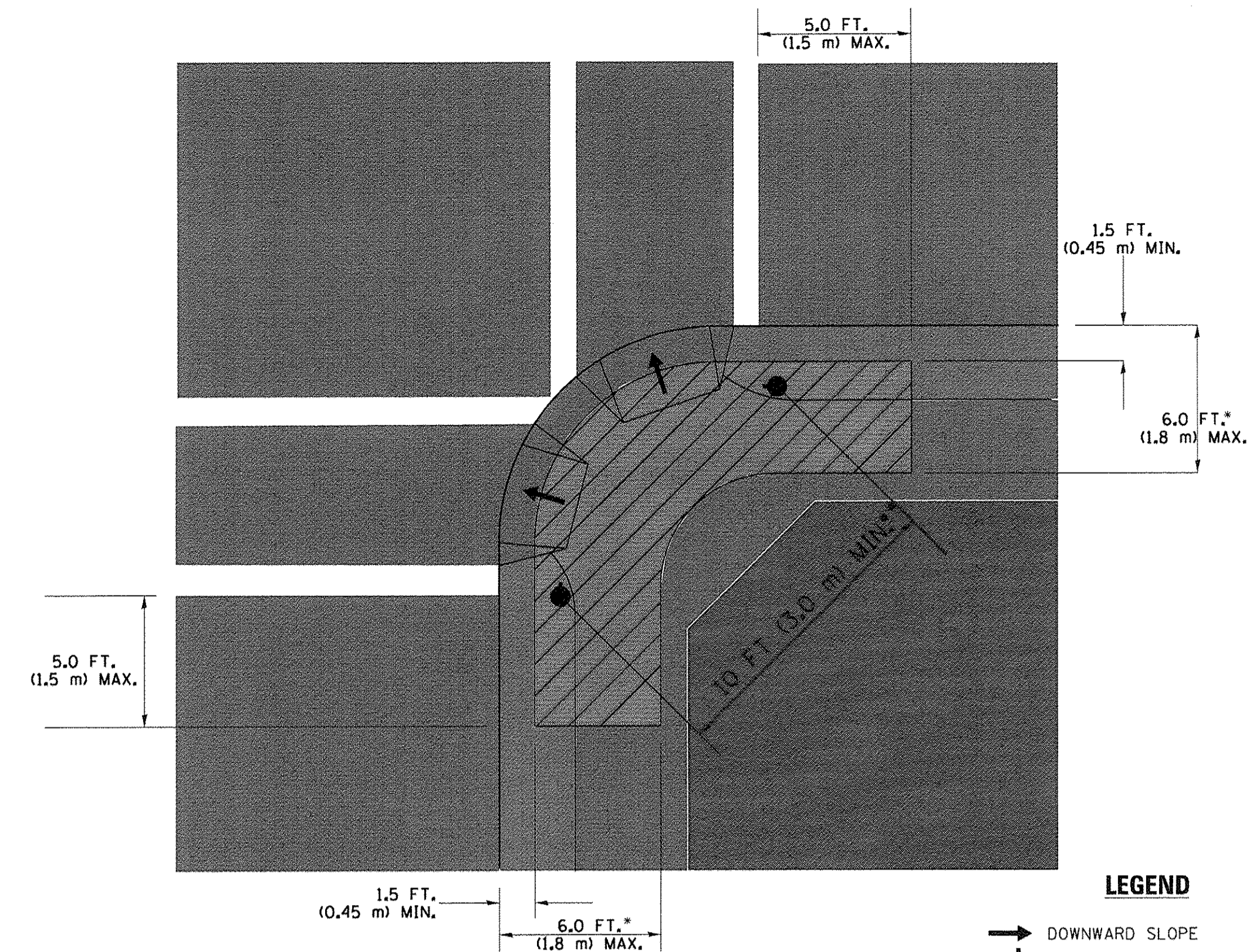
**PEDESTRIAN SIGNAL POST
AND
PEDESTRIAN PUSH BUTTON POST**



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:

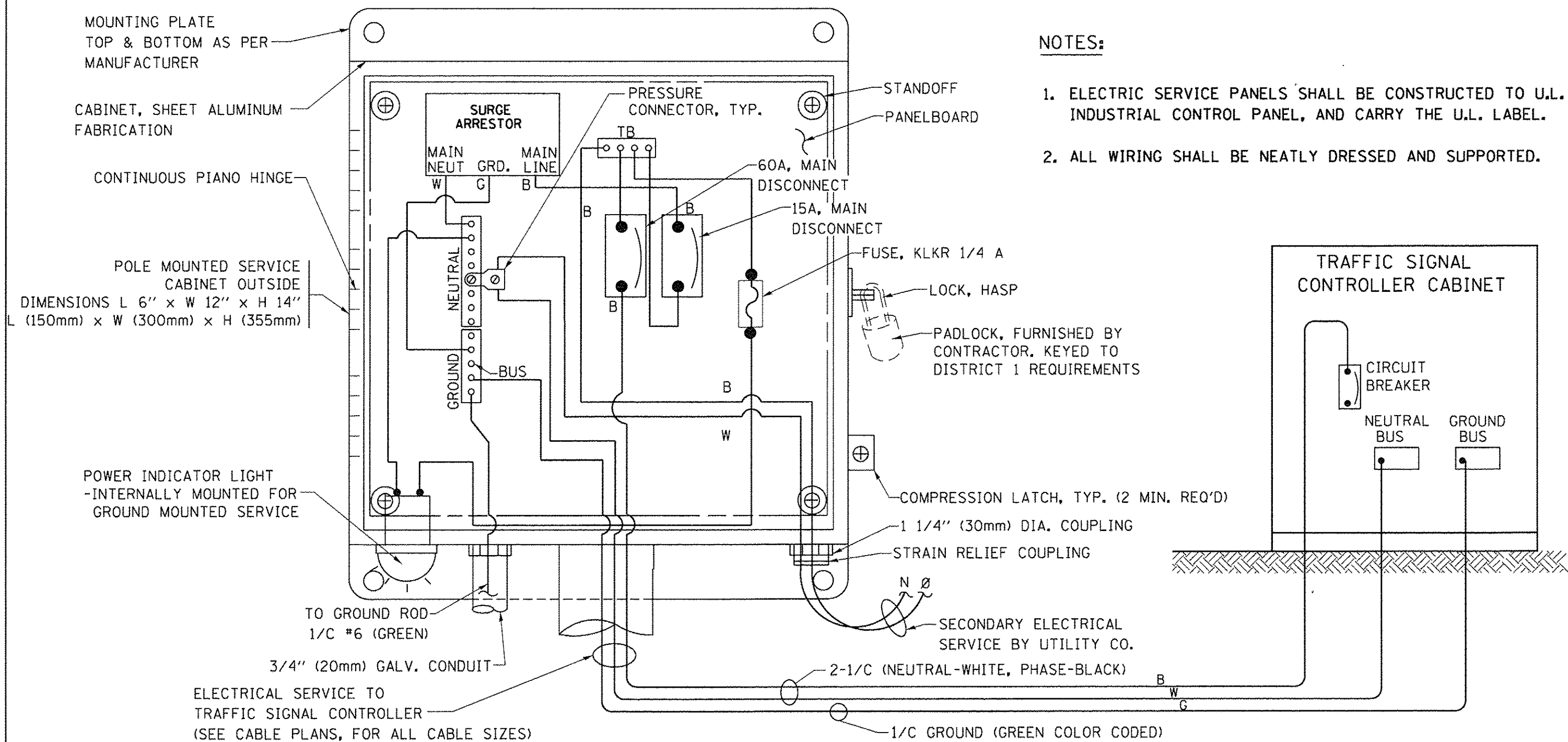
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM 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

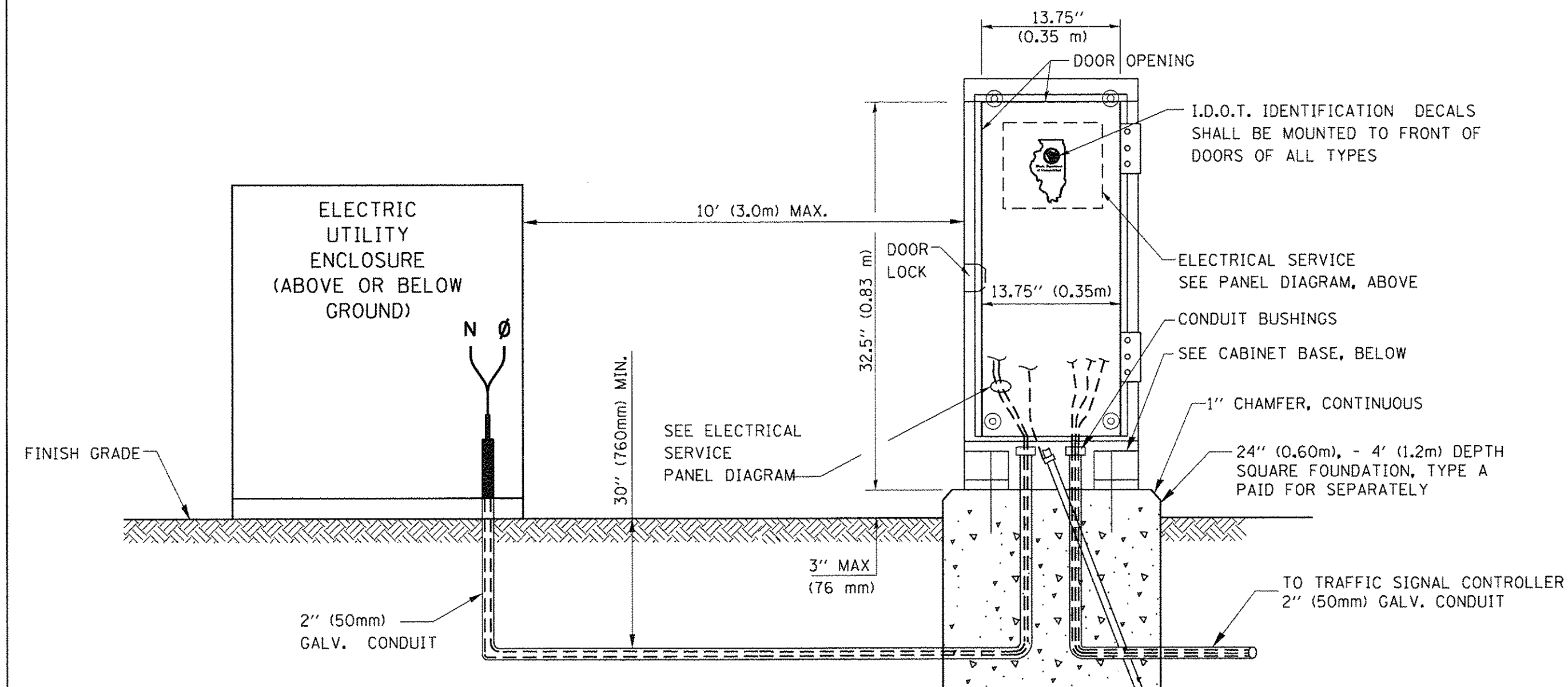
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 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:

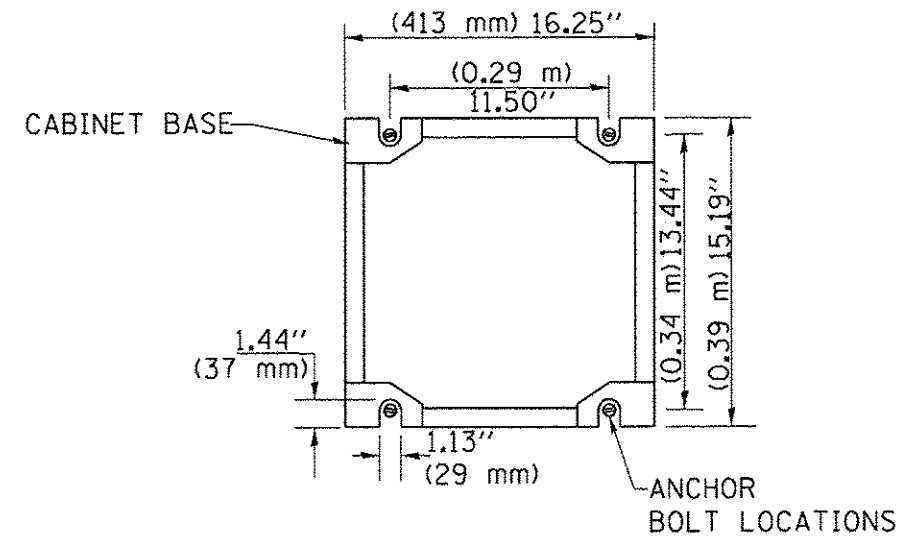
1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM 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.



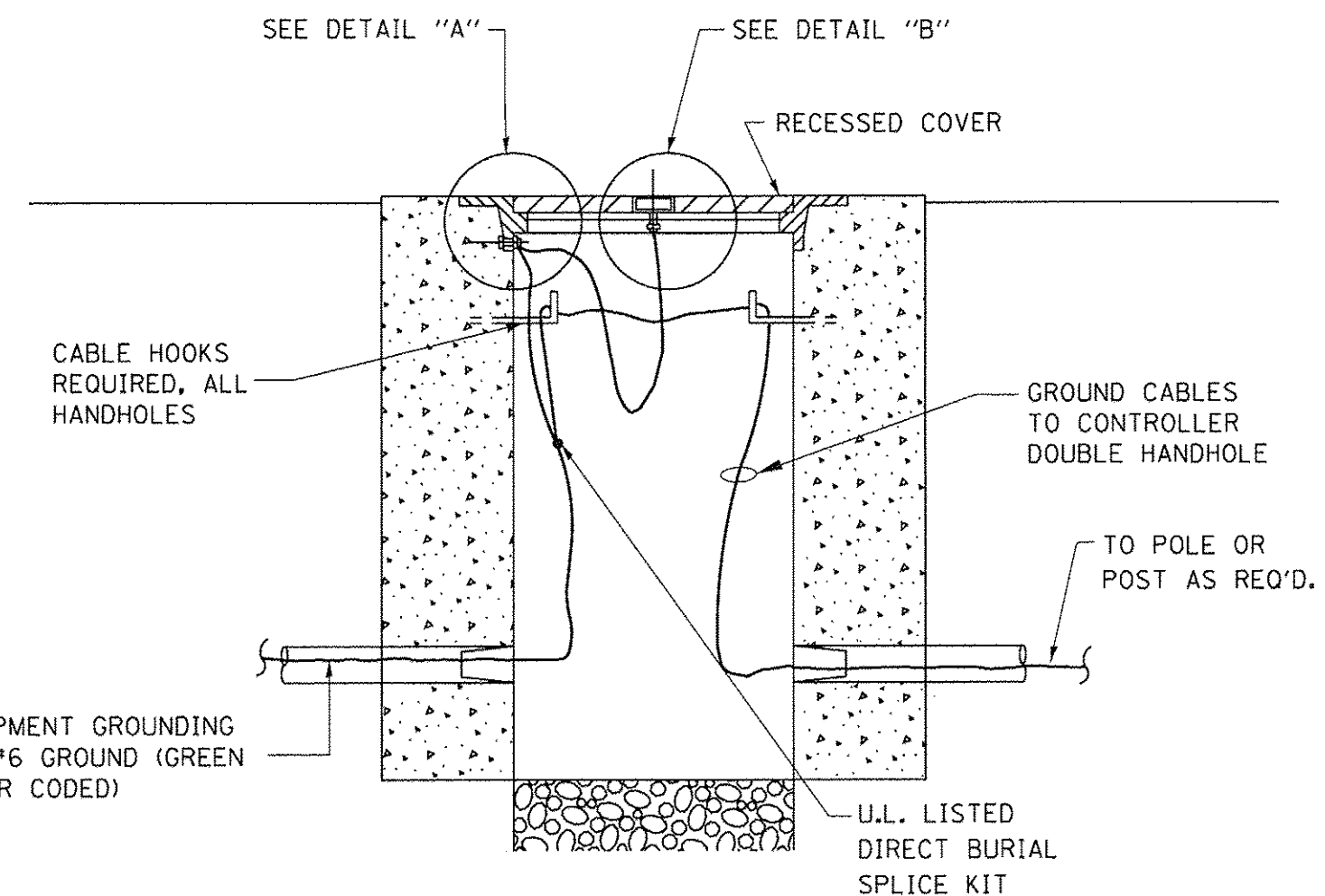
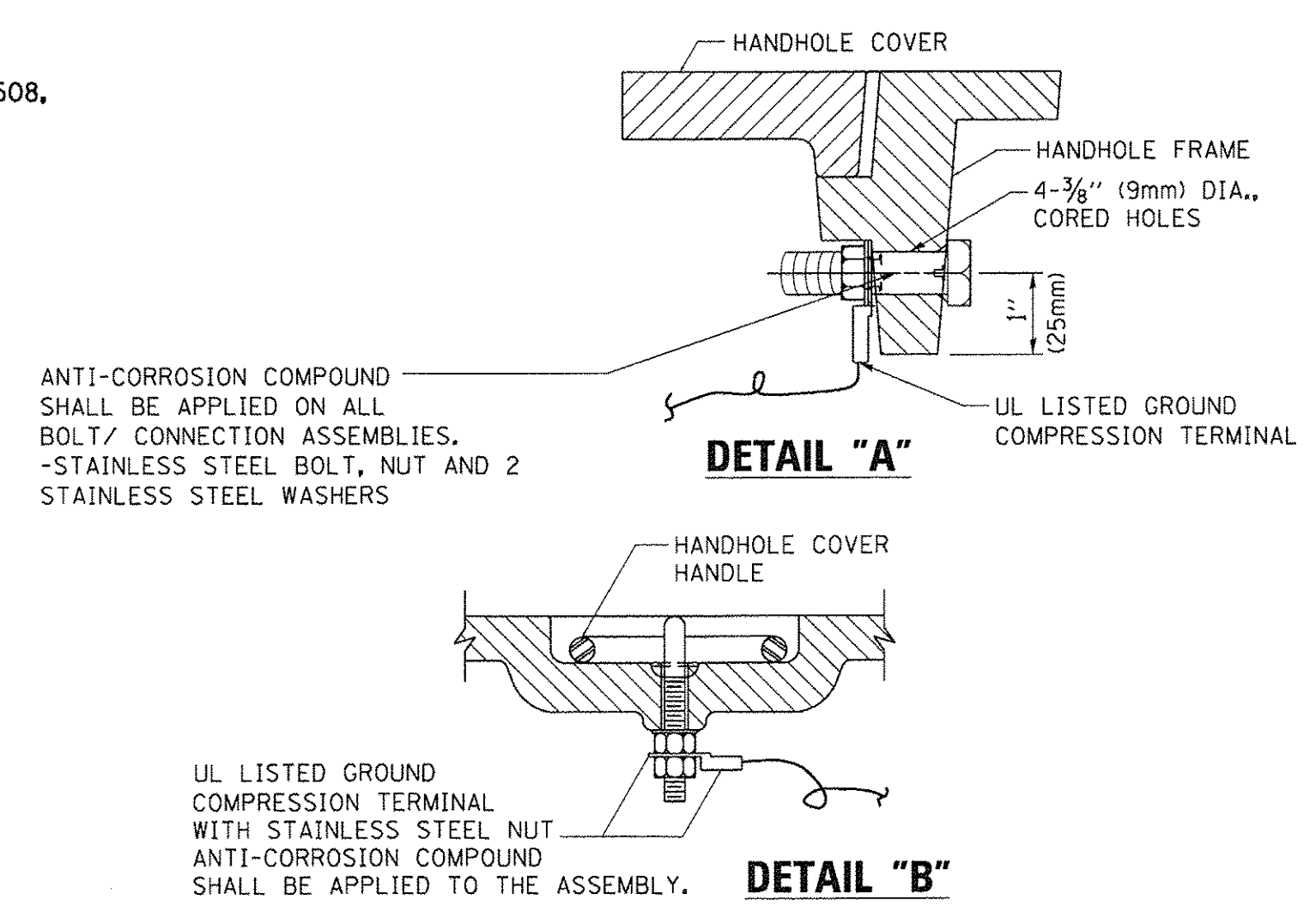
ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN) (NOT TO SCALE)



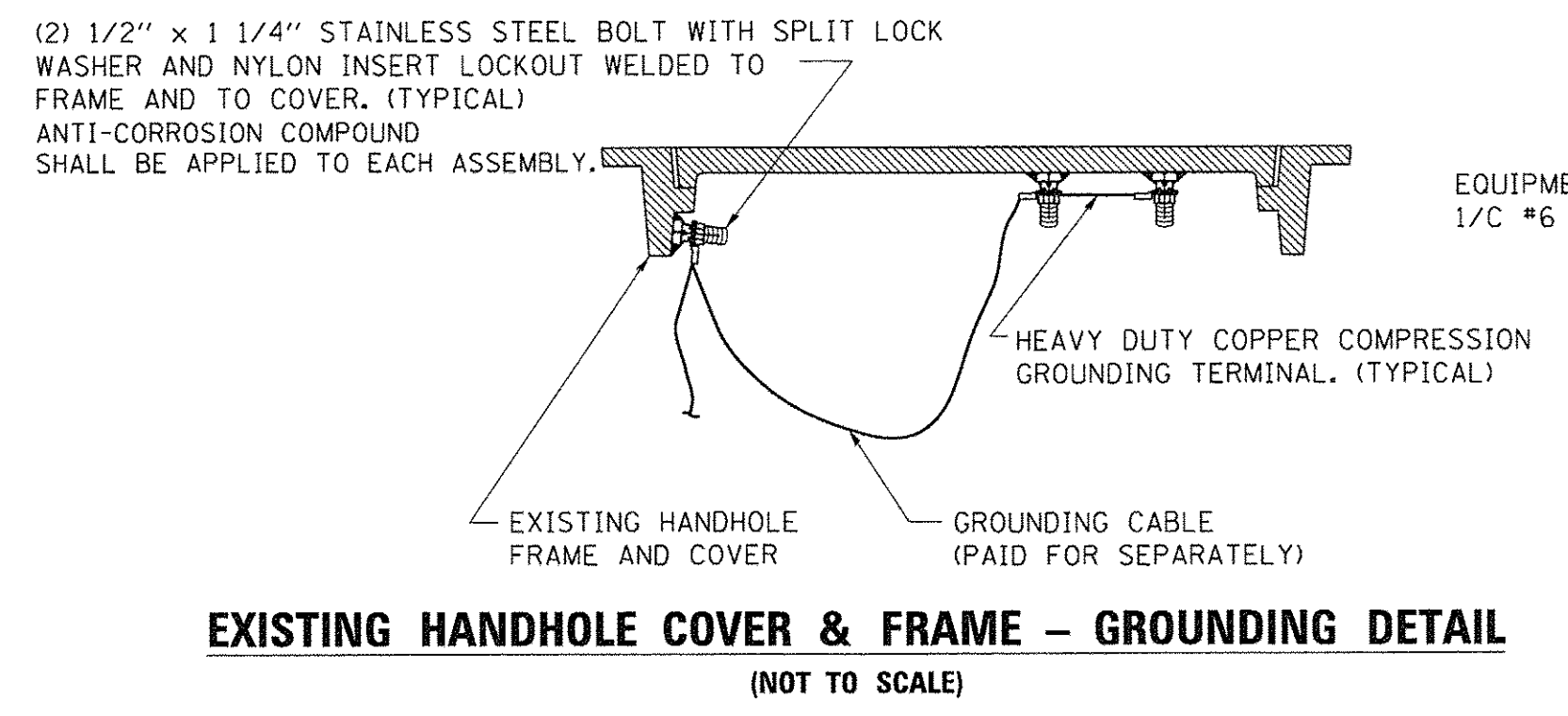
SERVICE INSTALLATION GROUND MOUNT (NOT TO SCALE)



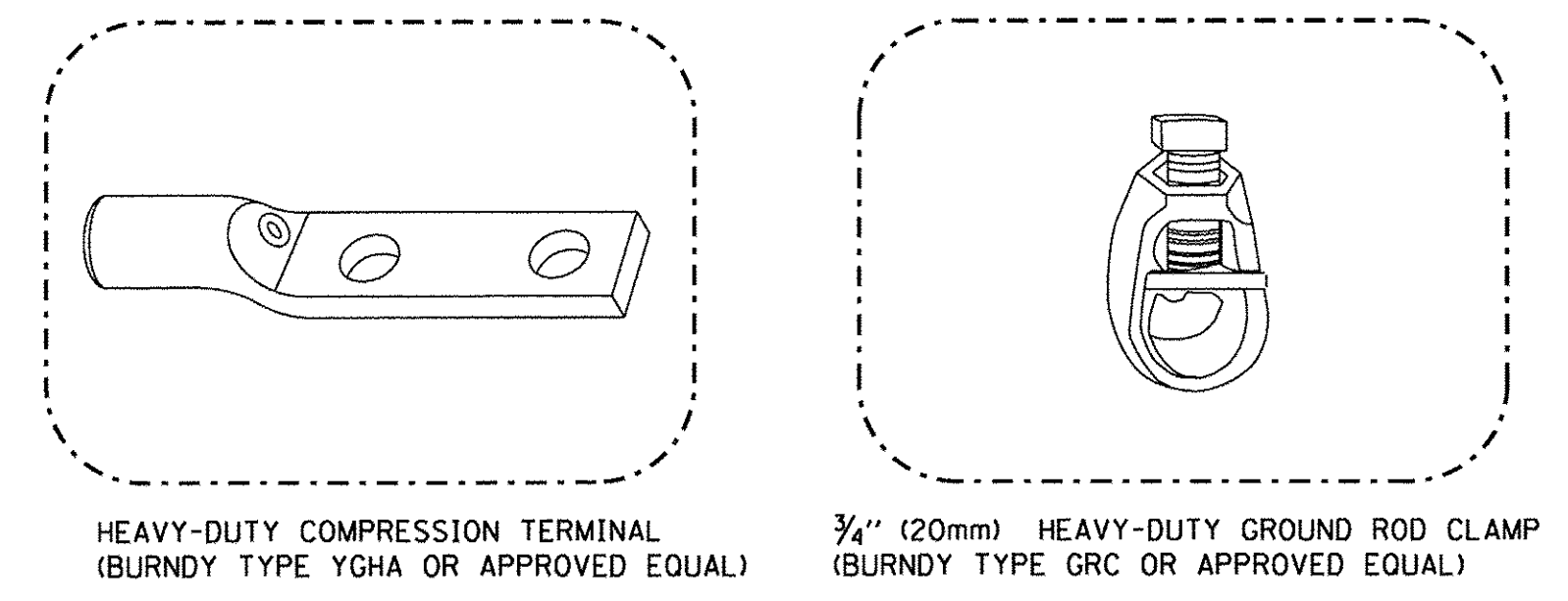
CABINET – BASE BOLT PATTERN (NOT TO SCALE)



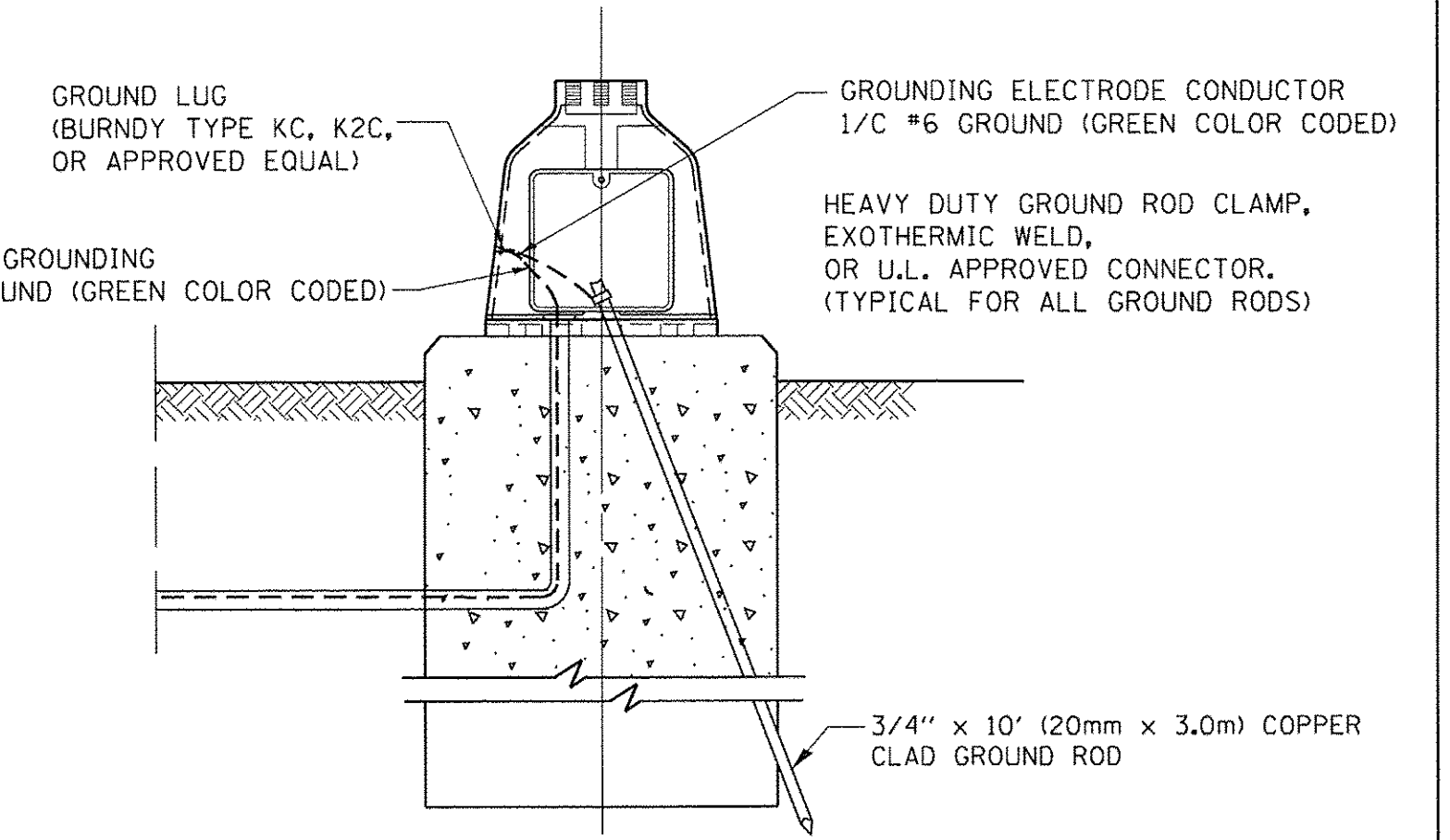
HANDHOLE COVER & FRAME – GROUNDING DETAIL (NOT TO SCALE)



EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL (NOT TO SCALE)

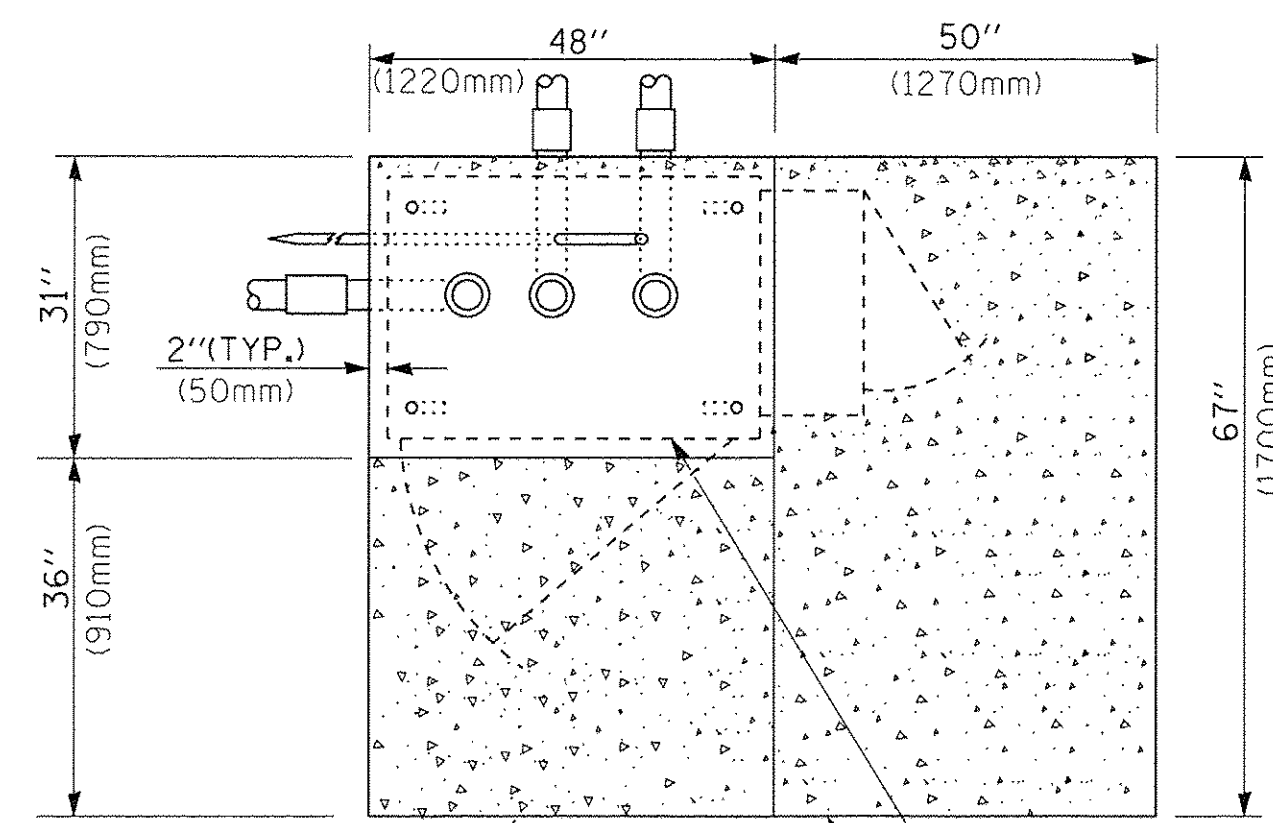


- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
 - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.

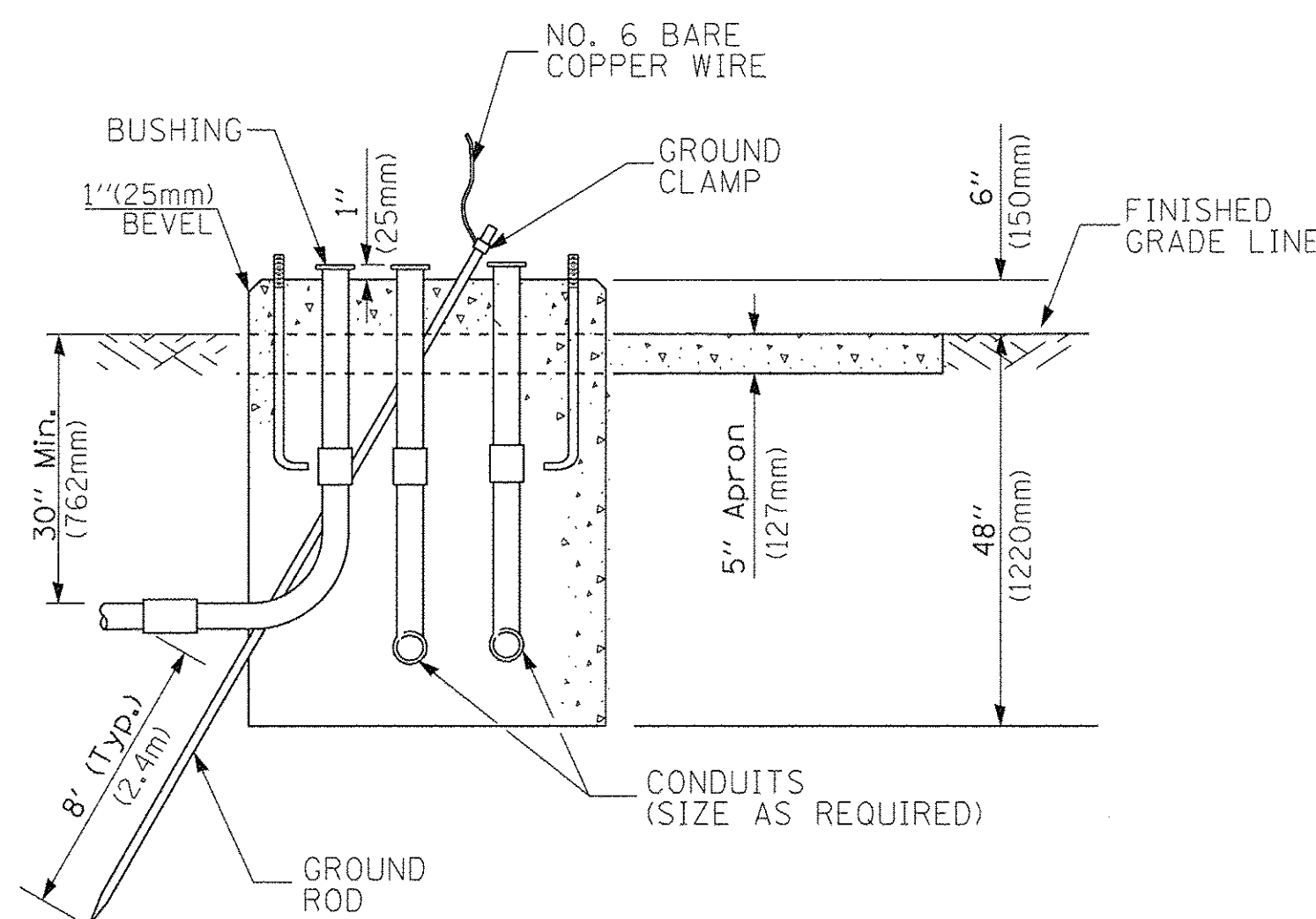


MAST ARM POLE / POST-GROUNDING DETAIL (NOT TO SCALE)

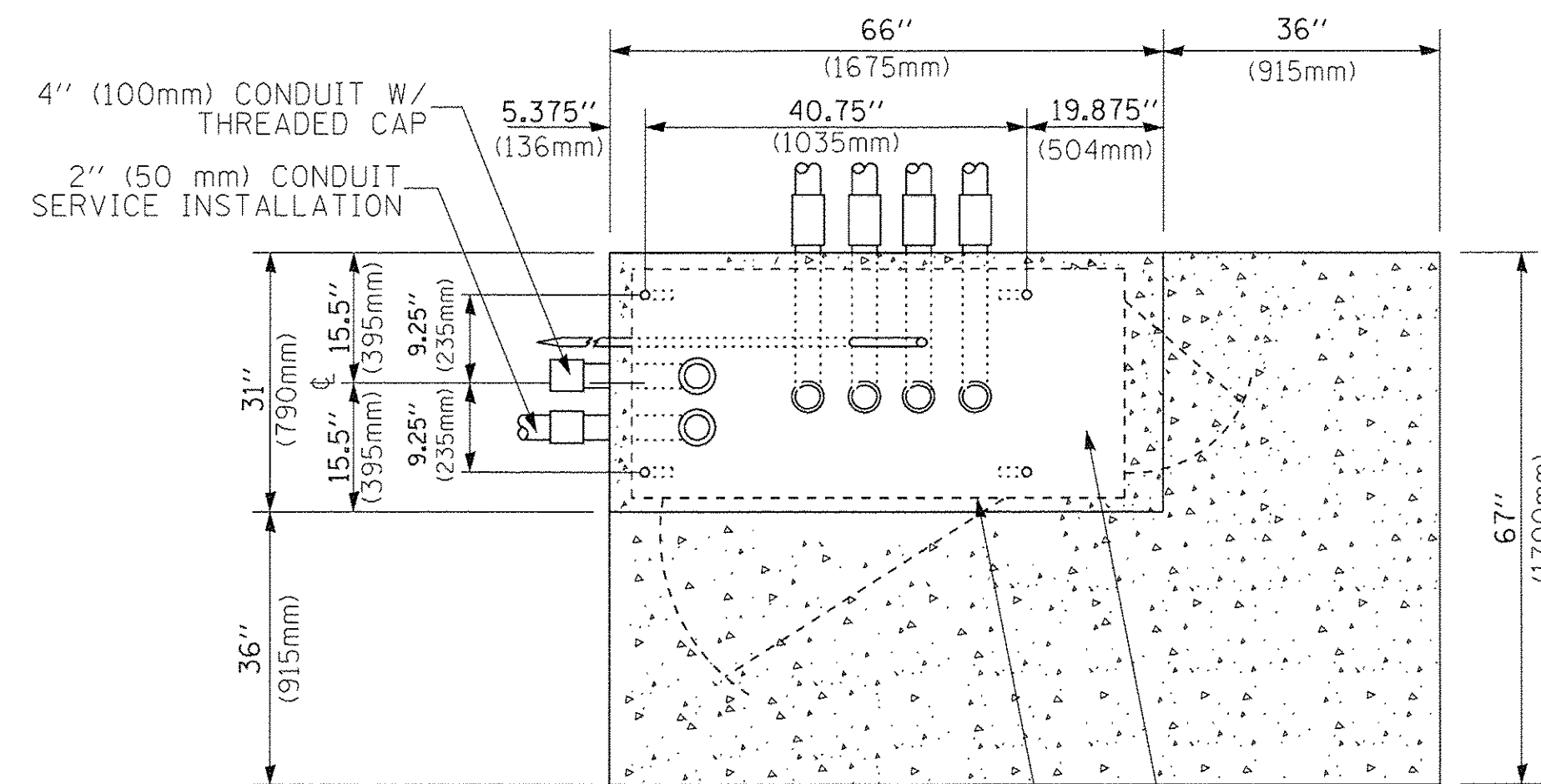
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		DATE - 10-28-09	REVISED -						ILLINOIS			



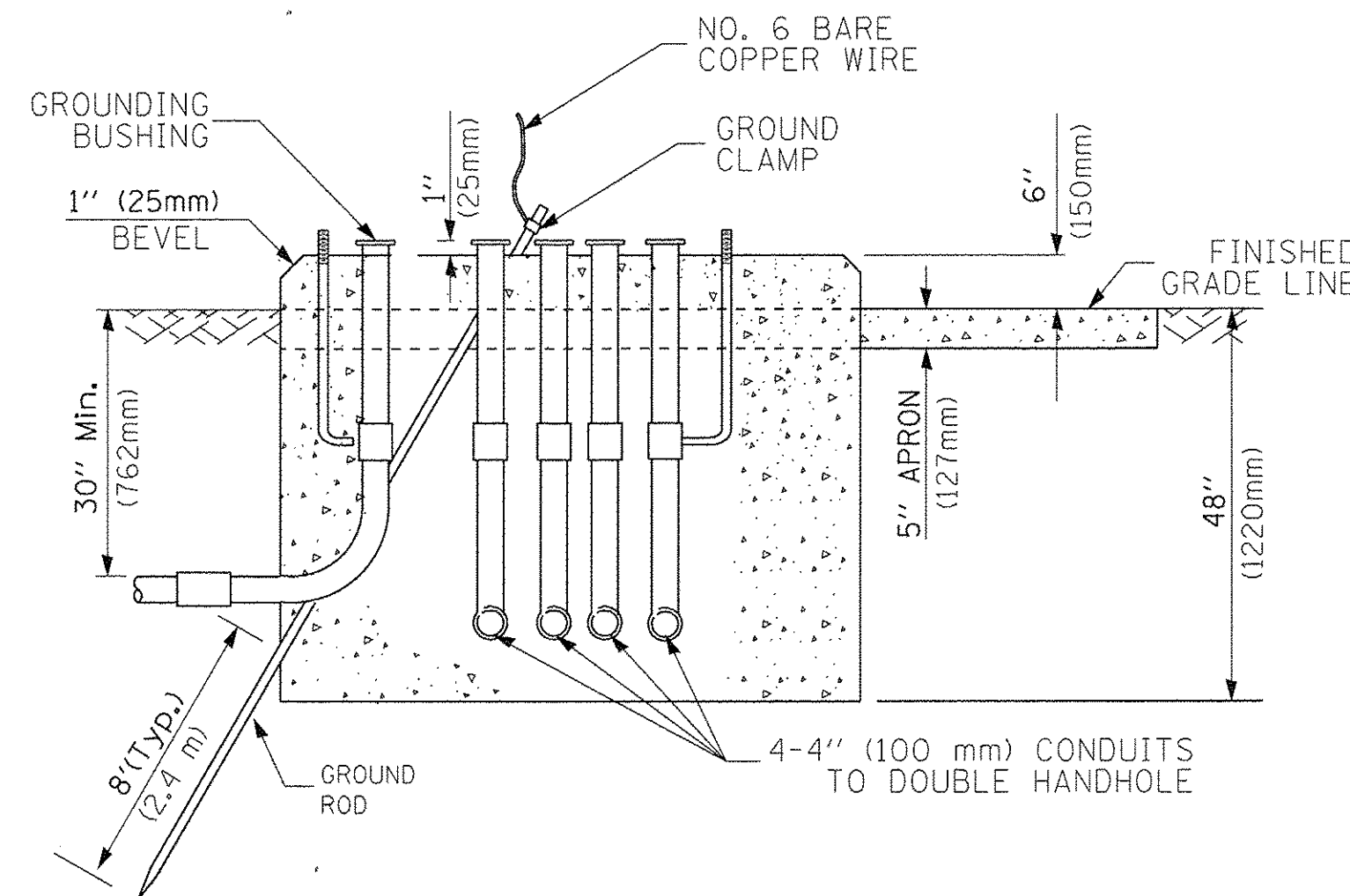
TOP VIEW



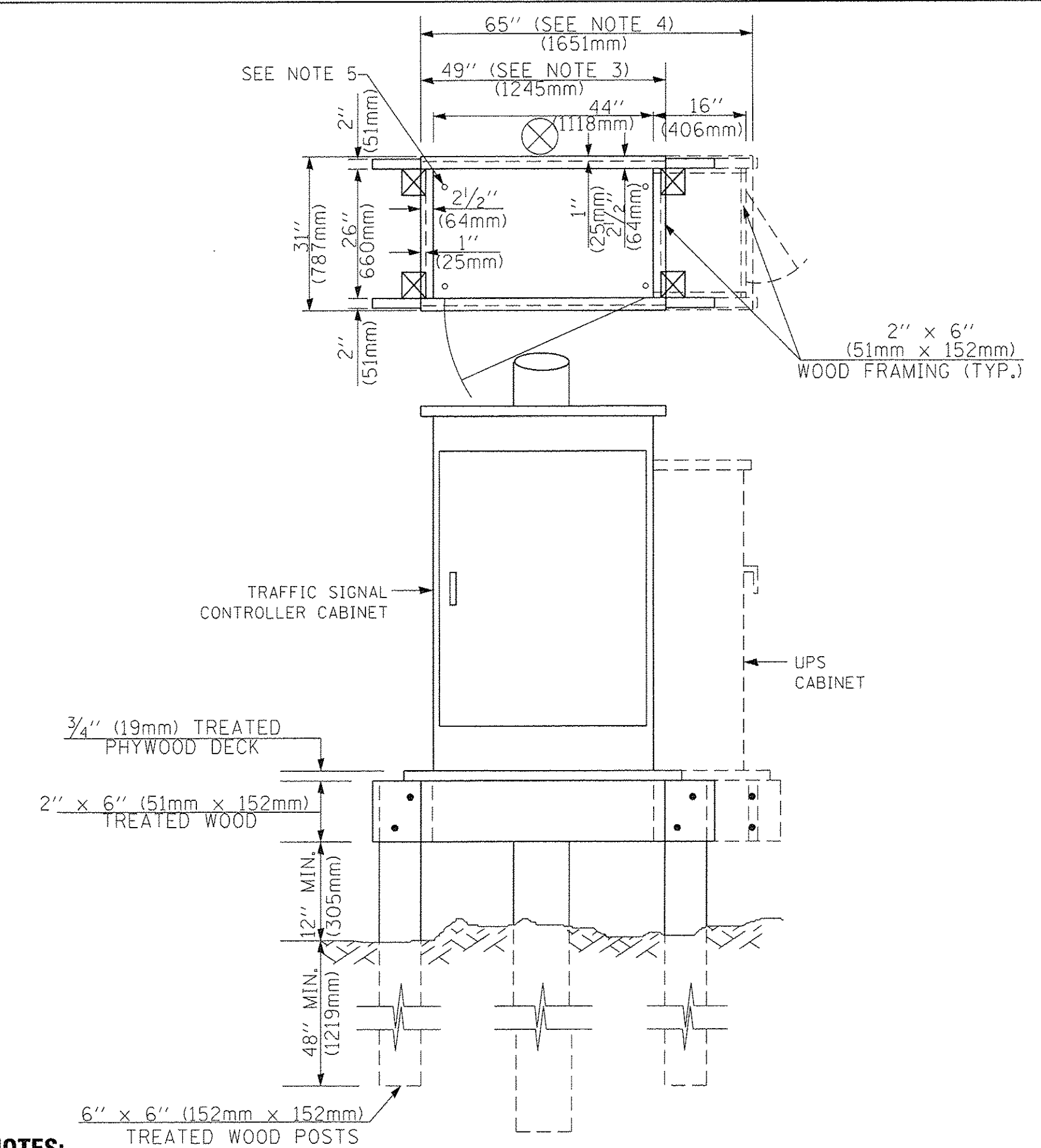
**TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**



TOP VIEW



**TYPE C
FOR GROUND MOUNTED
SUPER P (TYPE IV) AND SUPER R (TYPE V)
CONTROLLER CABINETS**



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)

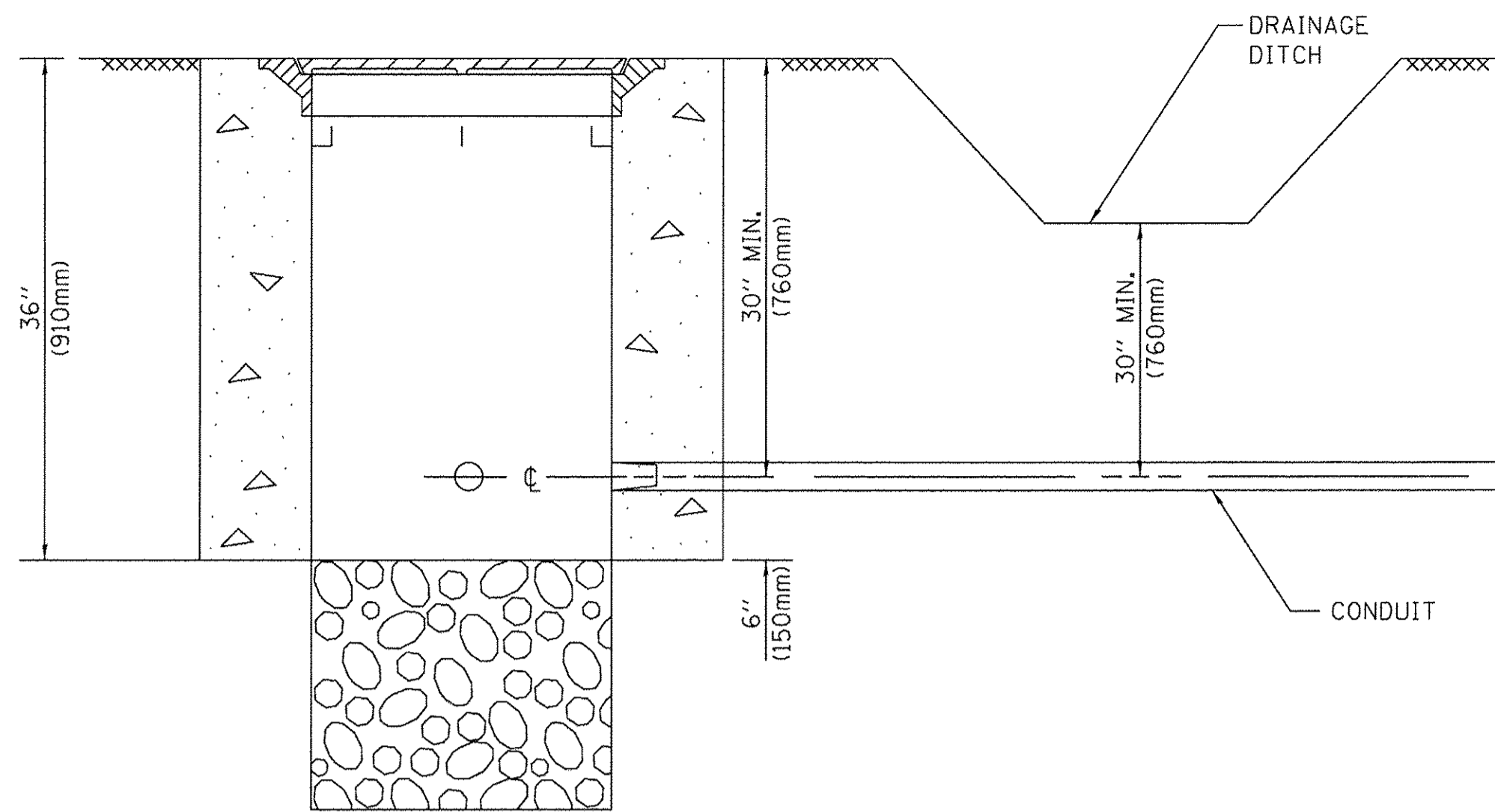
DEPTH OF FOUNDATION

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)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and up to 56' (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.

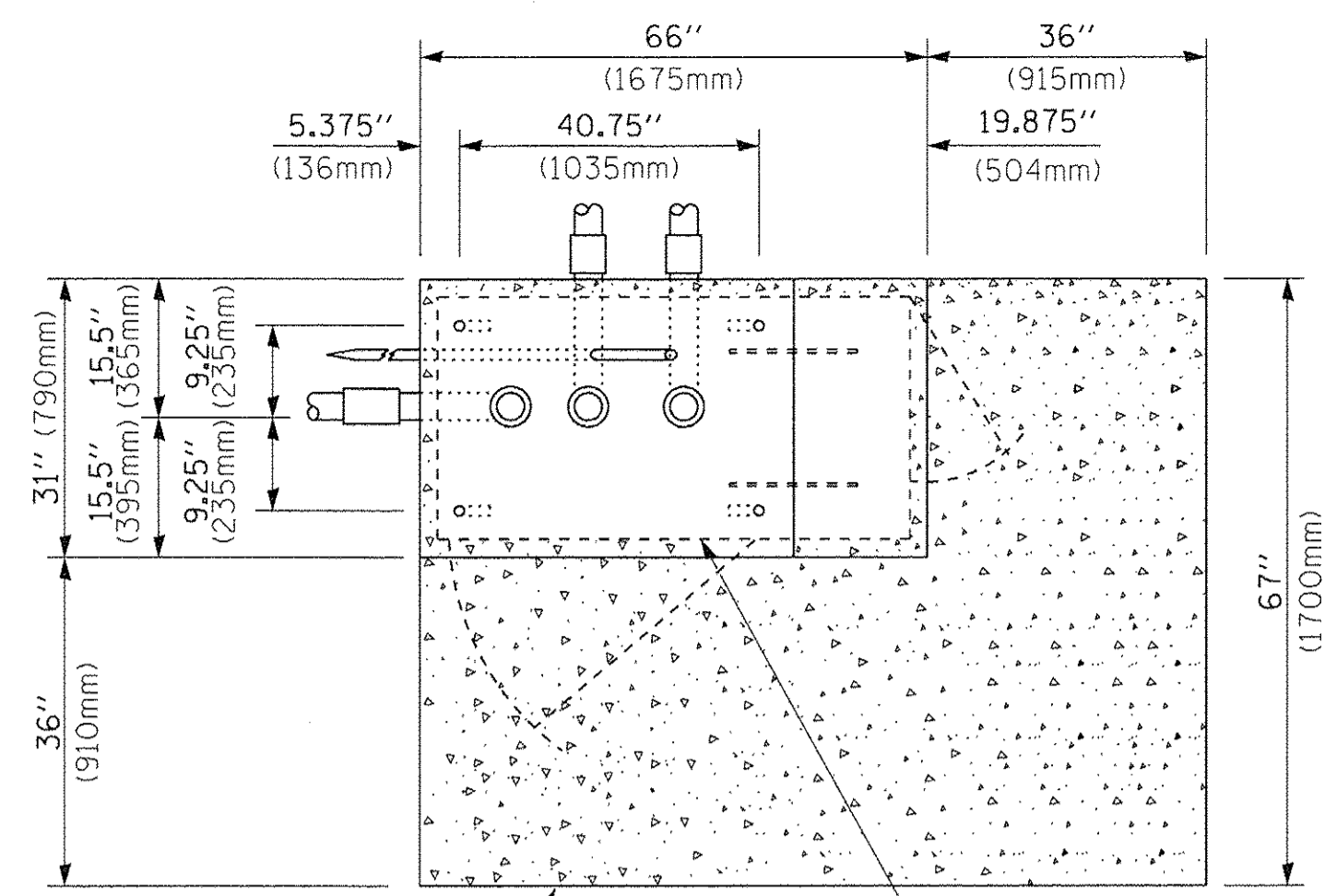
DEPTH OF MAST ARM FOUNDATIONS, TYPE E



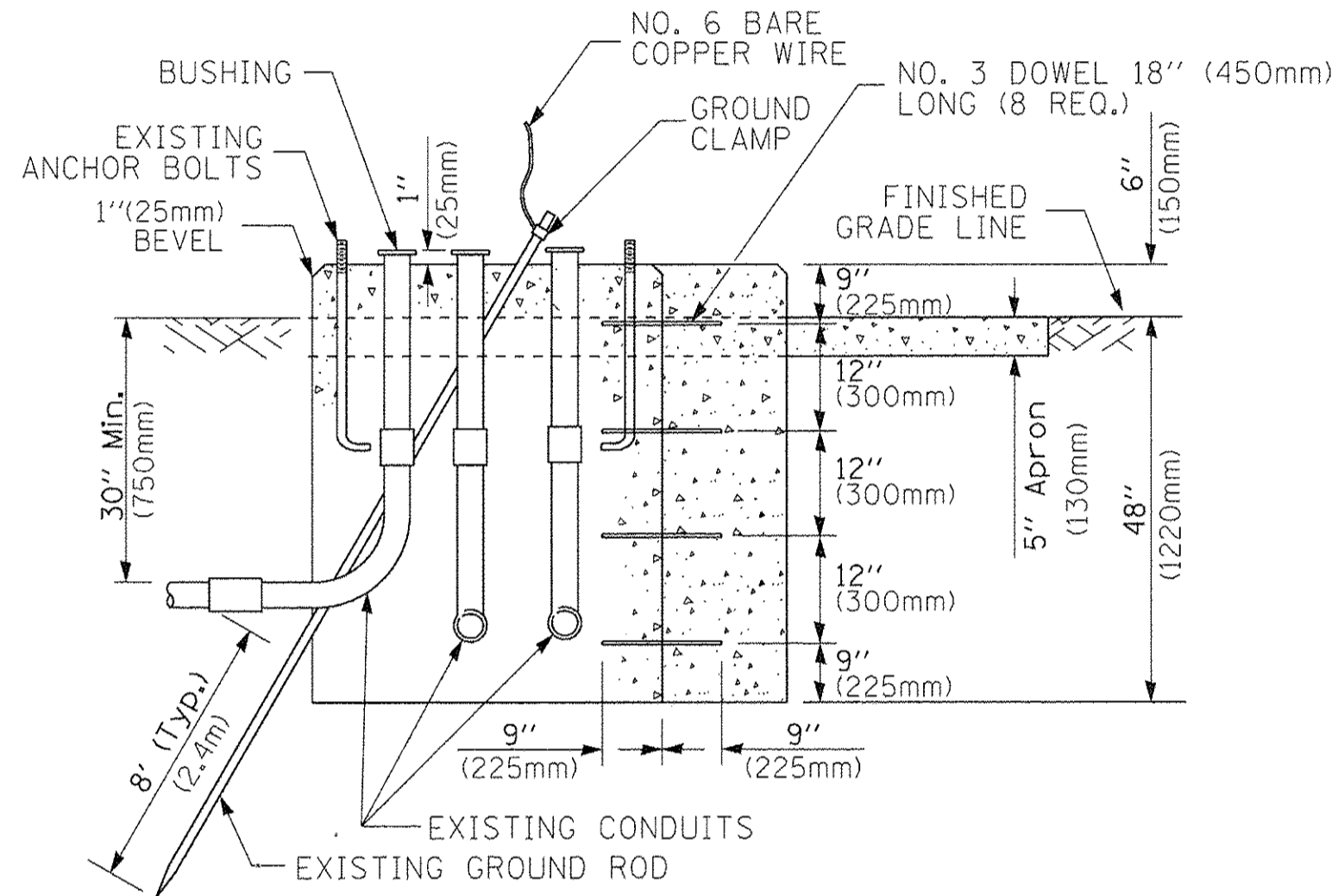
NOTES:

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

HANDHOLE WITH MINIMUM CONDUIT DEPTH
(NOT TO SCALE)



TOP VIEW
(NOT TO SCALE)

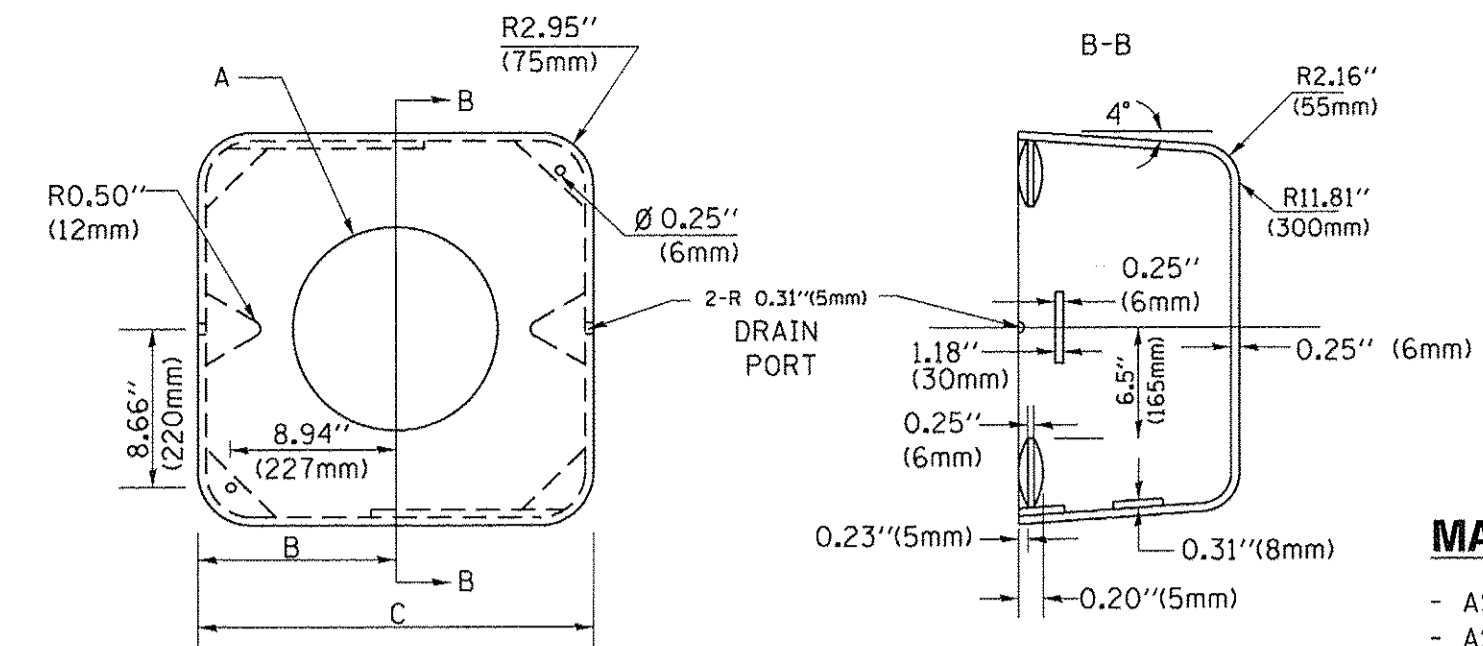


MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION
(NOT TO SCALE)

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	3/4" (19 mm) CLOSE NIPPLE
7	3/4" (19 mm) LOCKNUT
8	3/4" (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 3/4" (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
VARIABLES	9.5" (241mm)	19" (483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIABLES	10.75" (273mm)	21.5" (546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIABLES	13.0" (330mm)	26" (660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIABLES	18.5" (470mm)	37" (940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

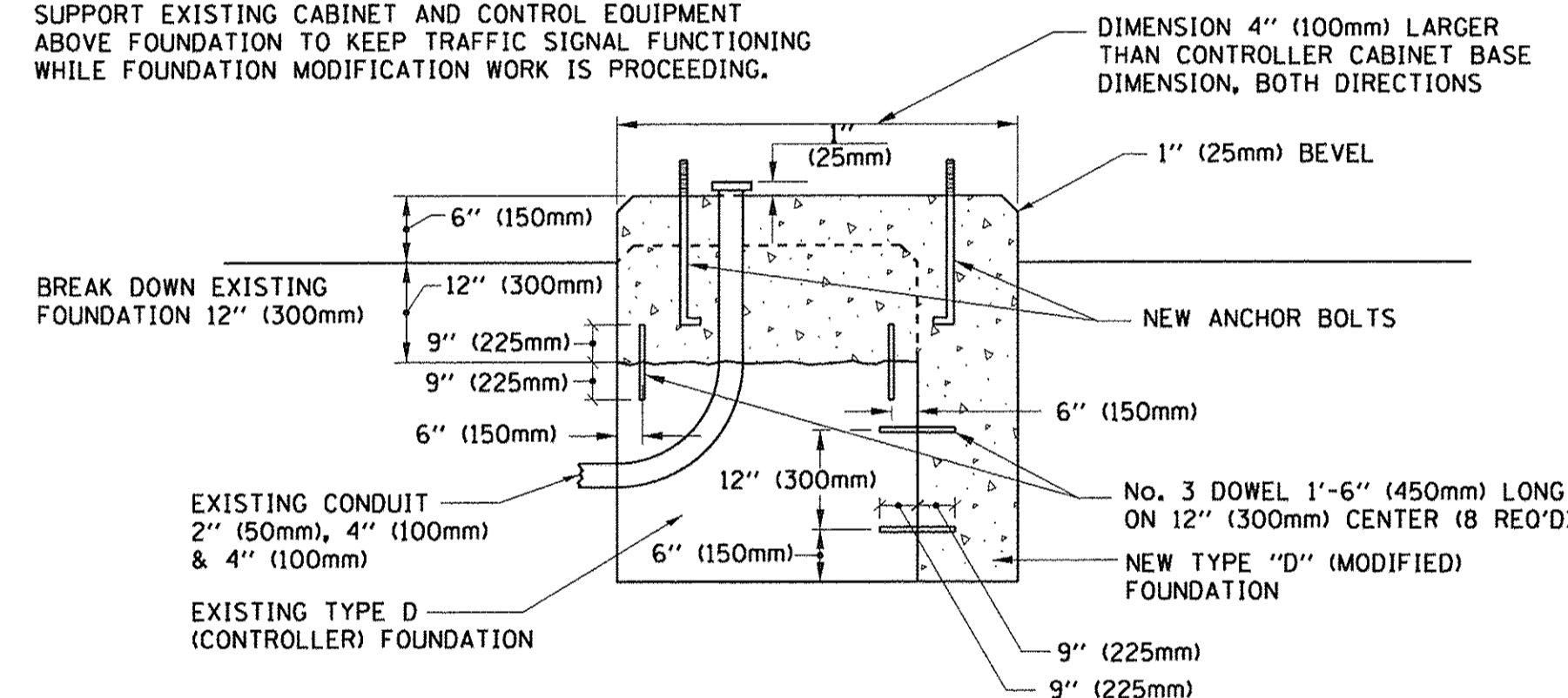
SHROUD

NOTES:

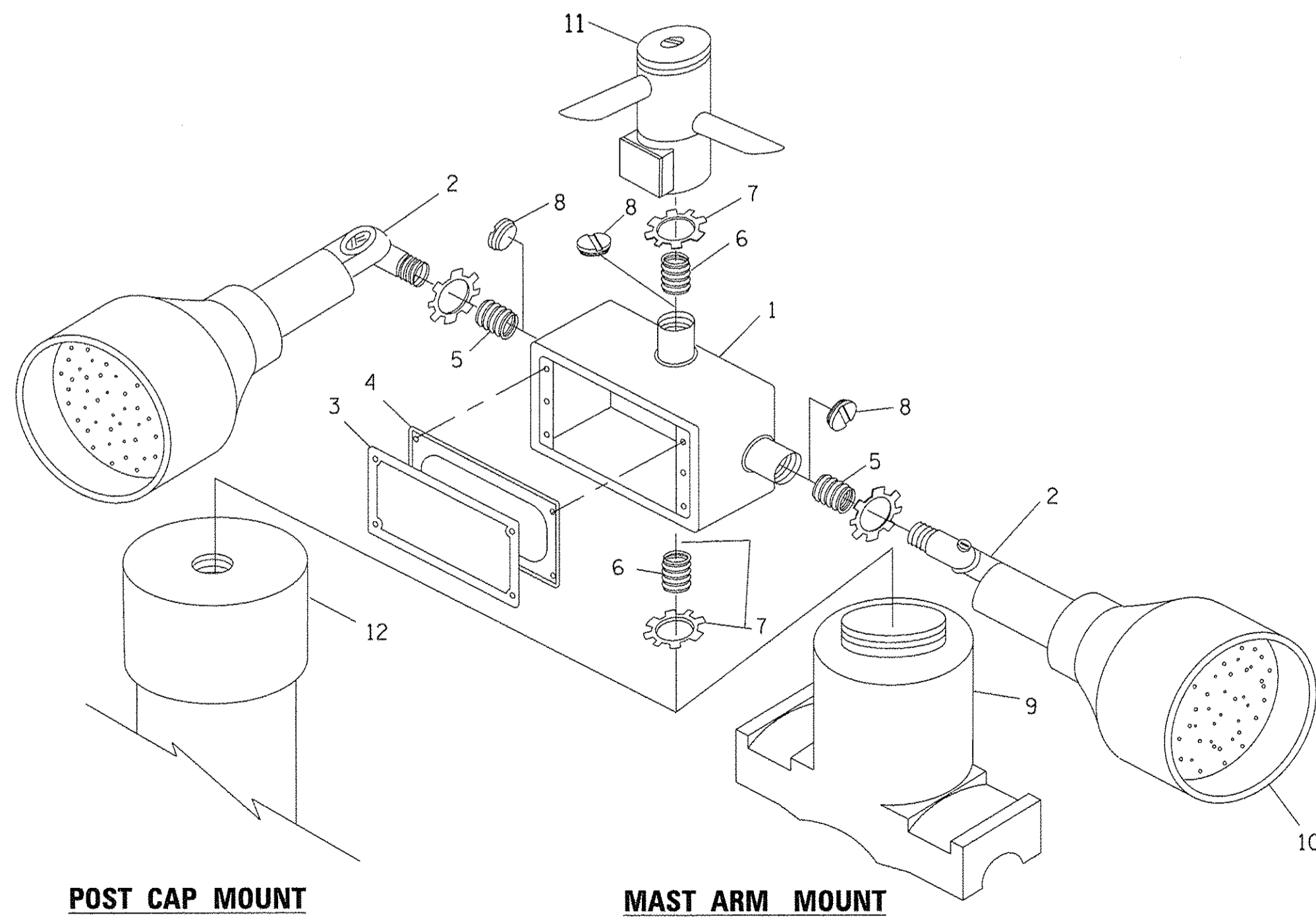
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

NOTE:

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



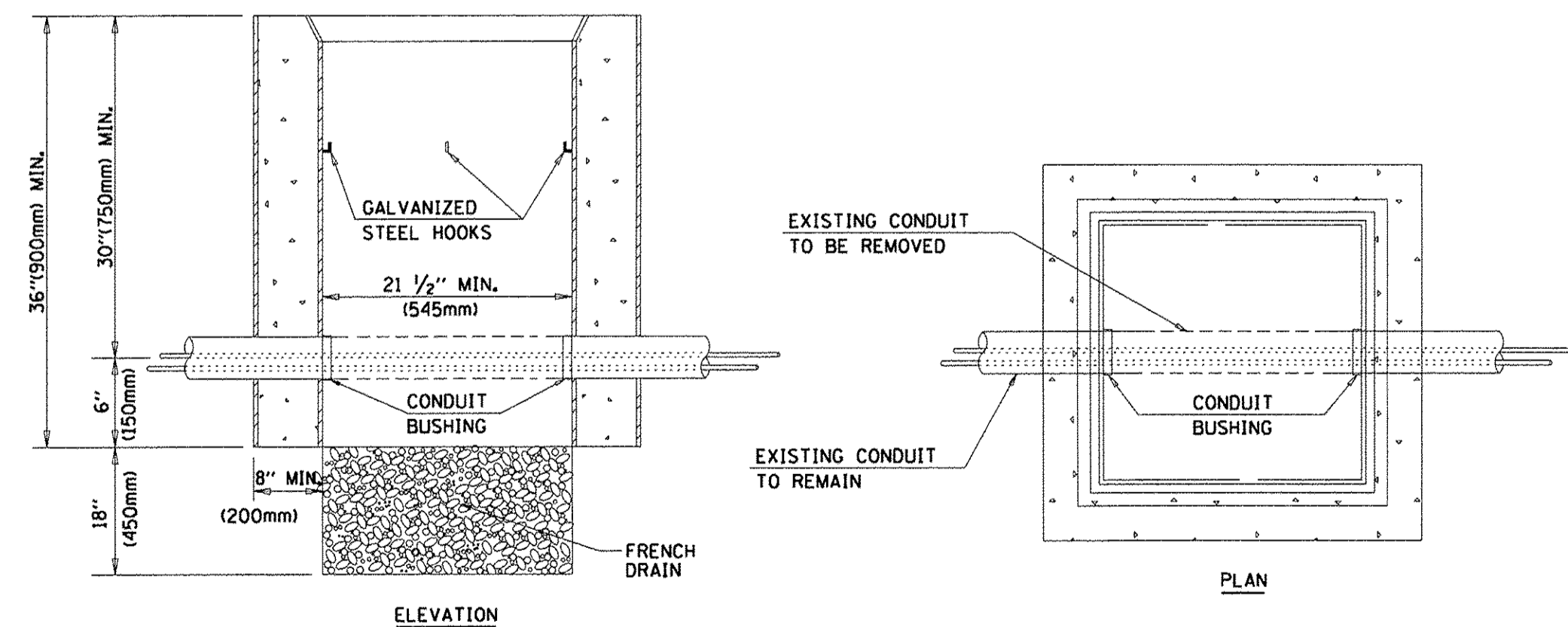
MODIFY EXISTING TYPE "D" FOUNDATION



POST CAP MOUNT

MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL



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 INCLUDED WITH THE COST OF THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

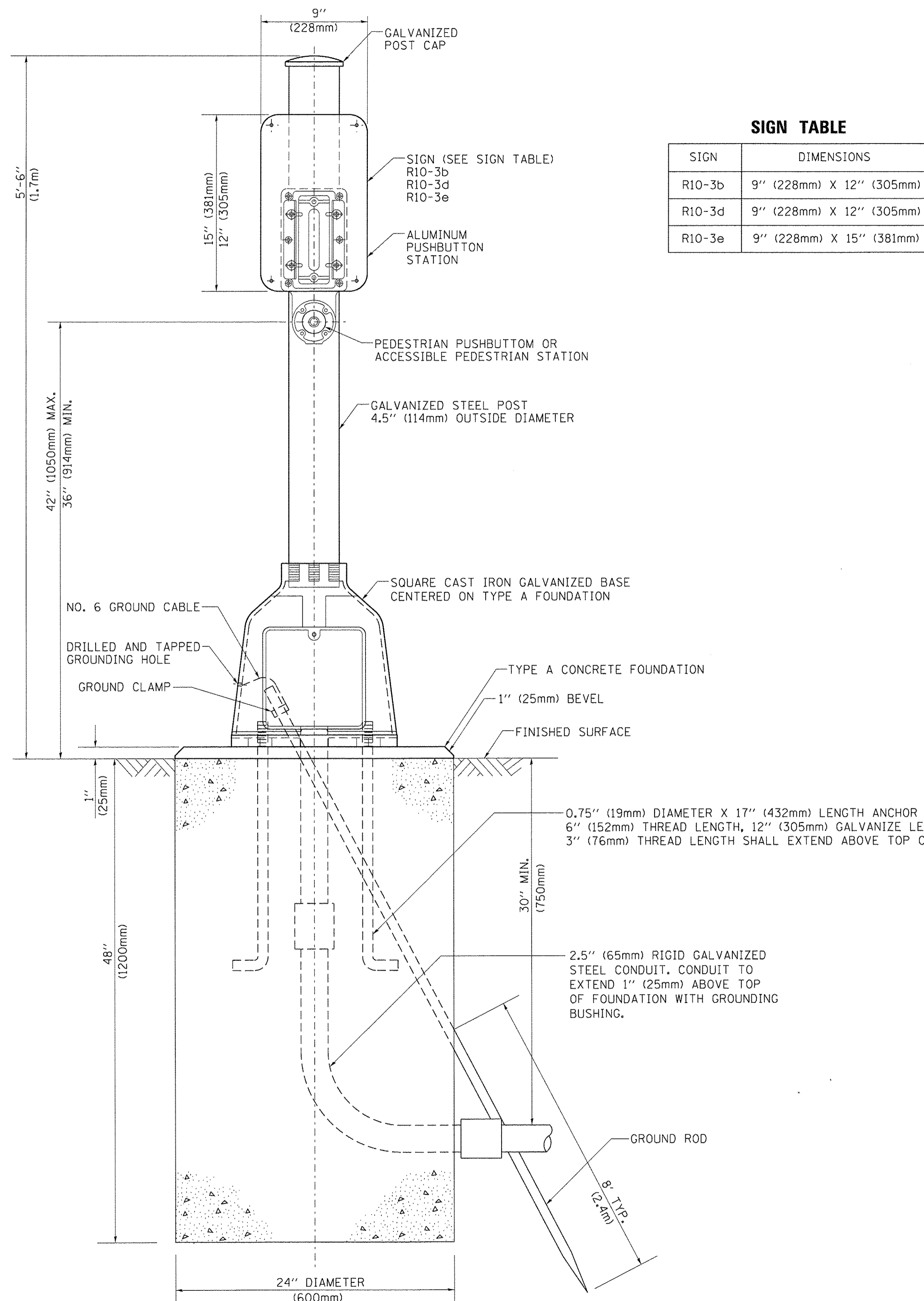
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

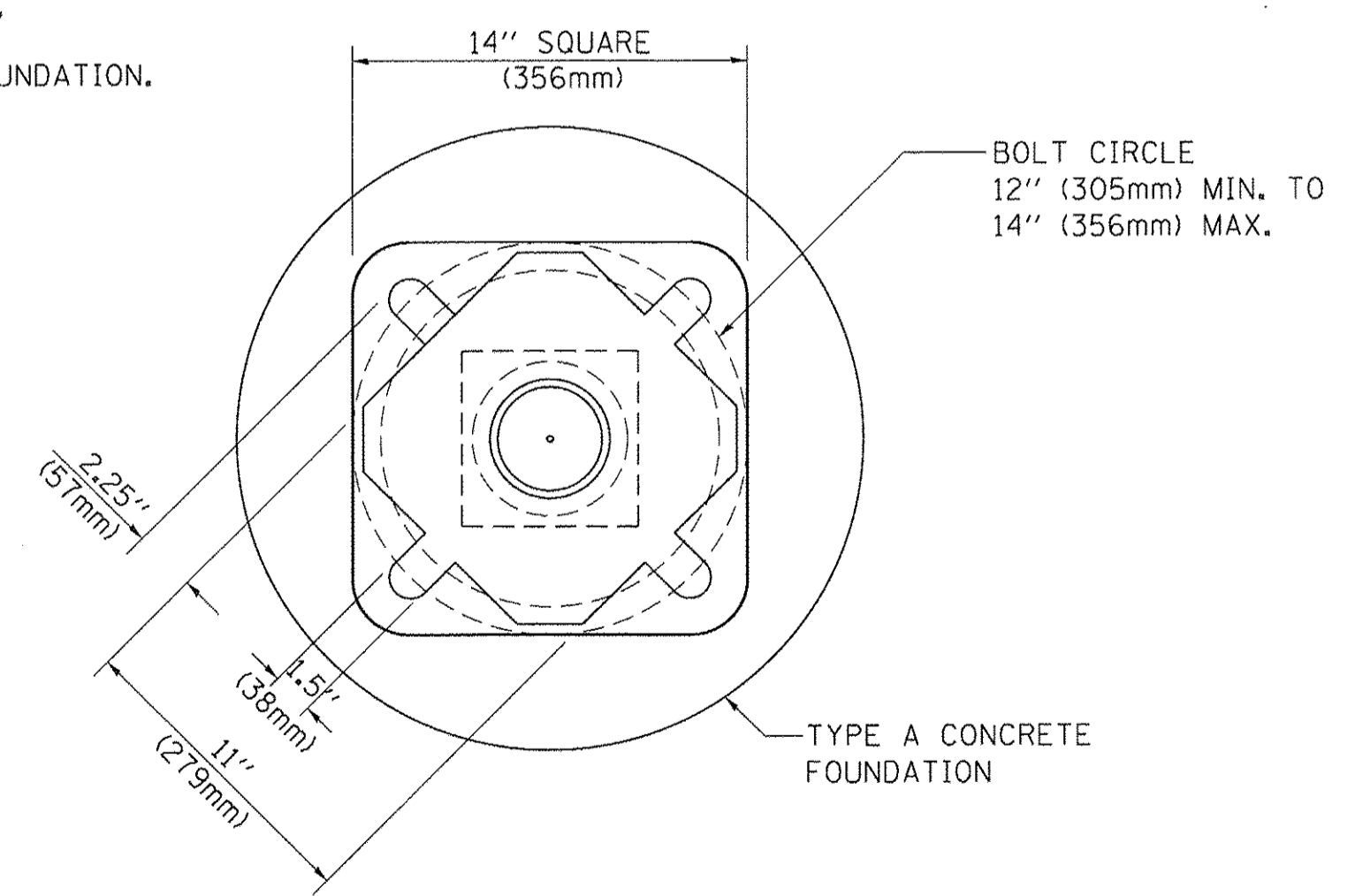
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1566	16-00168-00-RS	DUPAGE/WILL	31	29
TS-05			CONTRACT NO. 61876	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



SIGN TABLE

SIGN	DIMENSIONS
R10-3b	9" (228mm) X 12" (305mm)
R10-3d	9" (228mm) X 12" (305mm)
R10-3e	9" (228mm) X 15" (381mm)



BOLT PATTERN
PEDESTRIAN PUSH BUTTON POST, TYPE A

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		DATE - 10/1/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

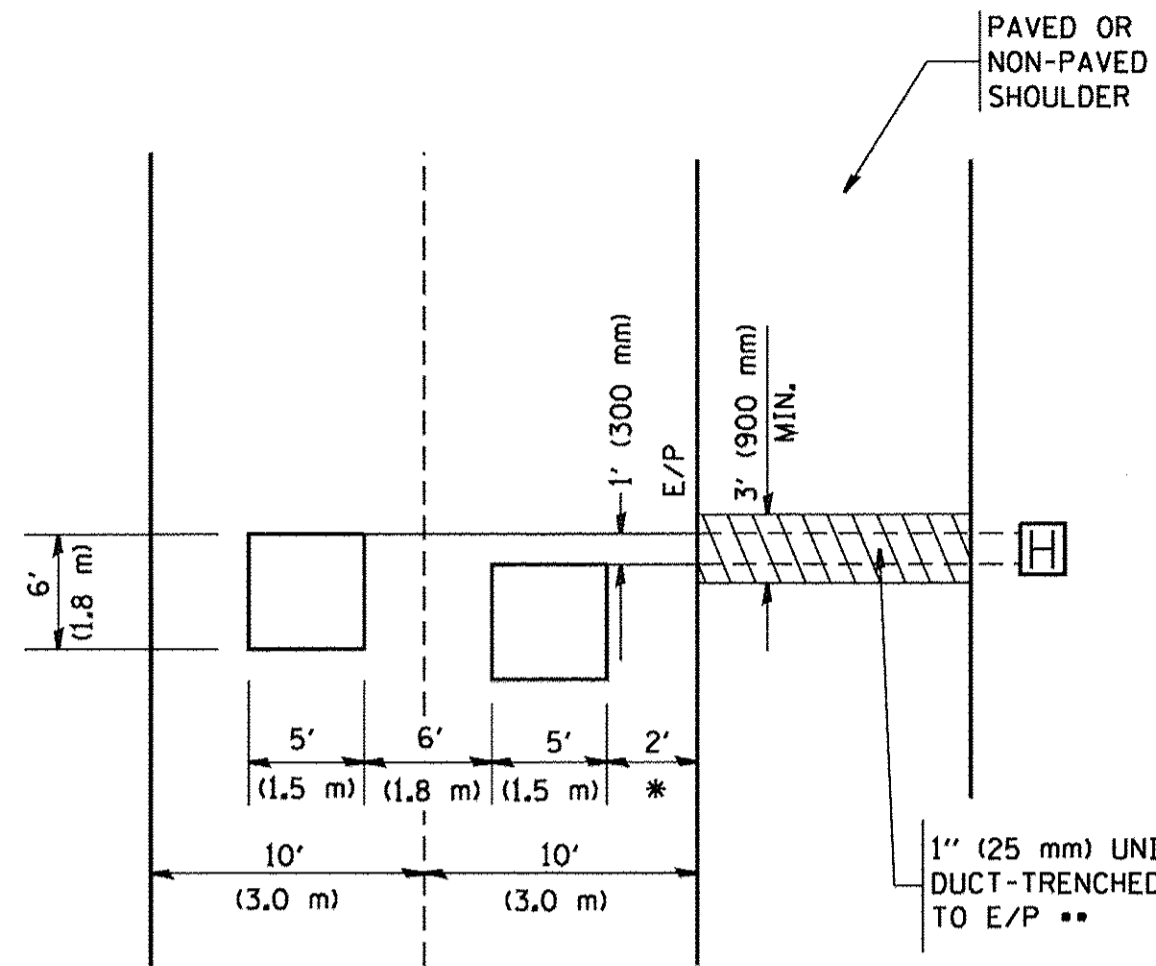
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

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1566	16-00168-00-RS	DUPAGE/WILL	31	30
TS-05			CONTRACT NO. 61D76	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

LOOPS NEXT TO SHOULDERS

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

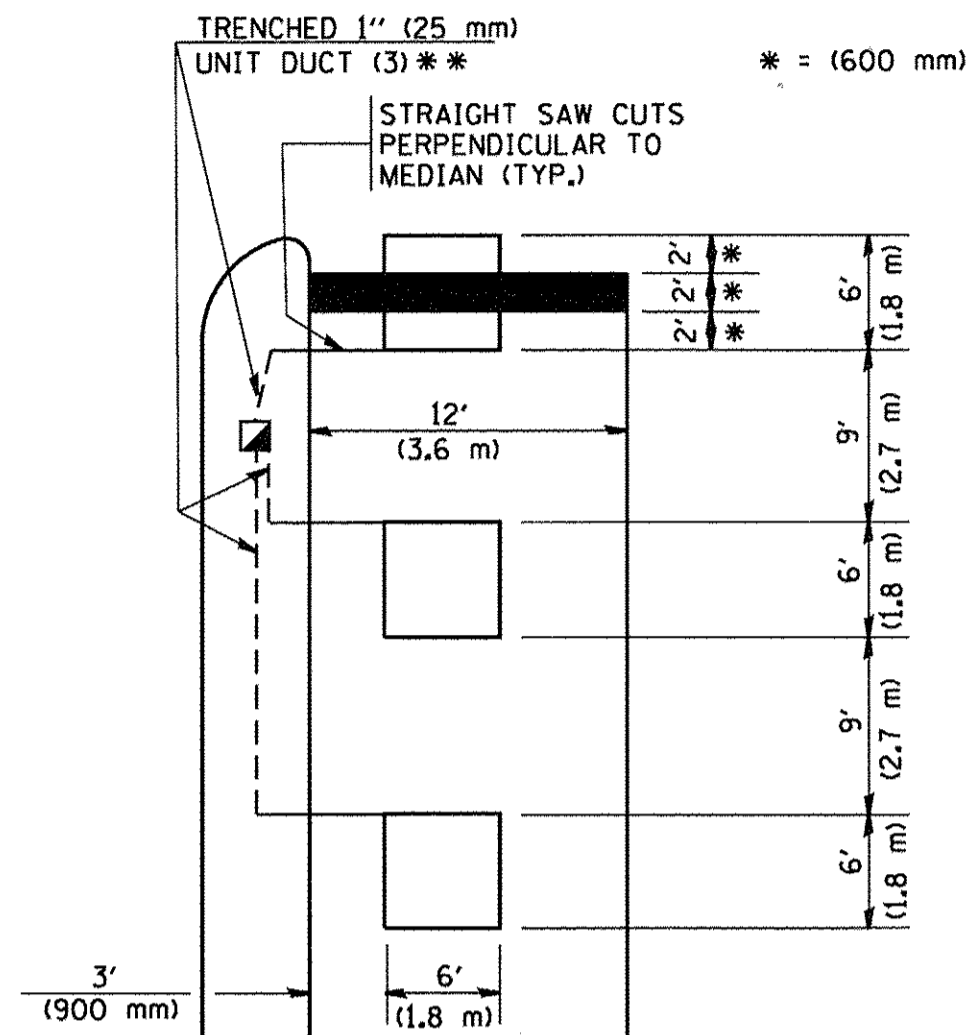


* = (600 mm)

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

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

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

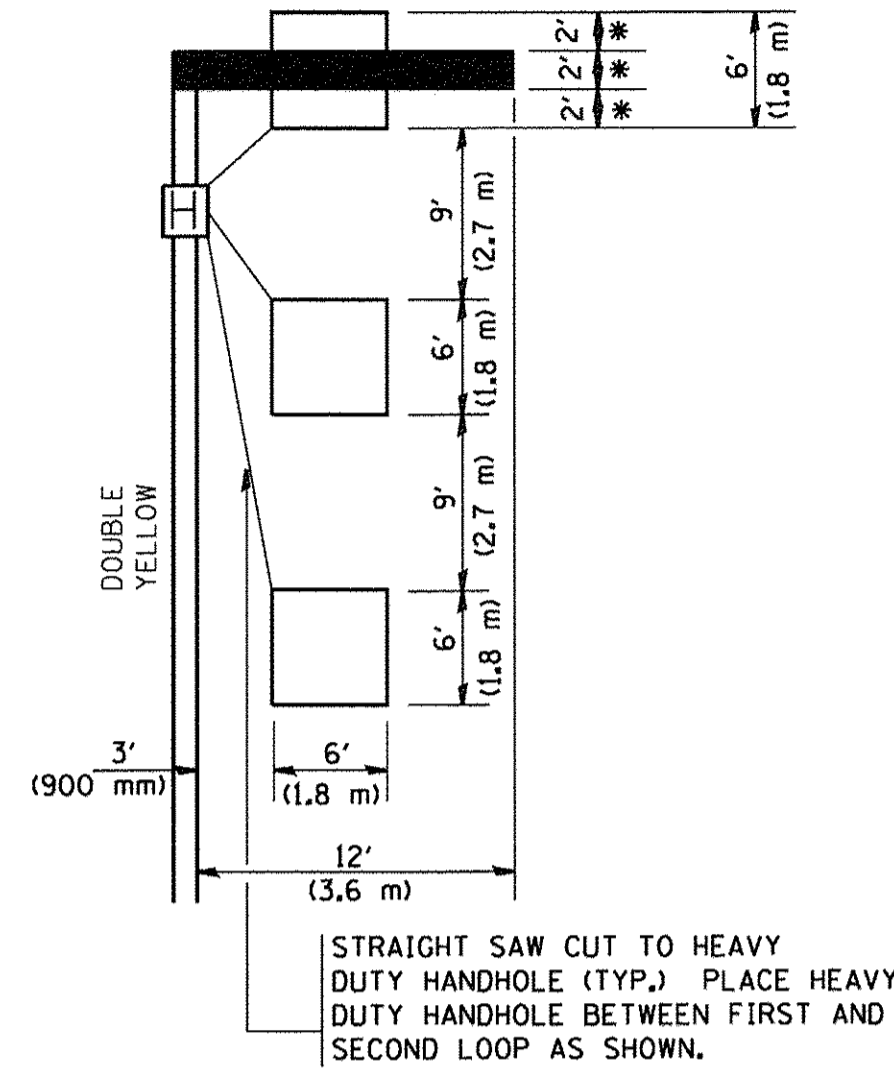


** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

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

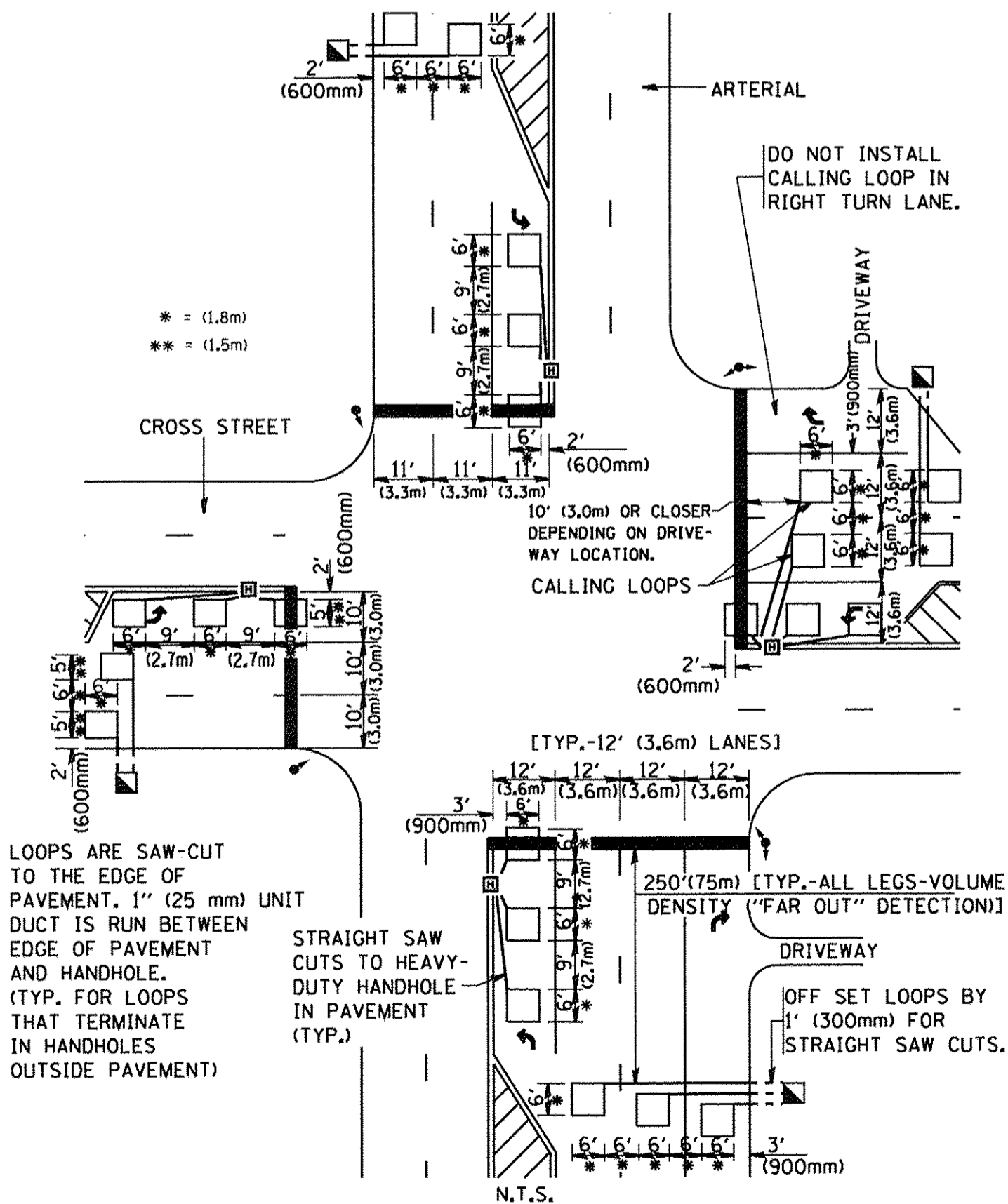
**LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)**

* = (600 mm)



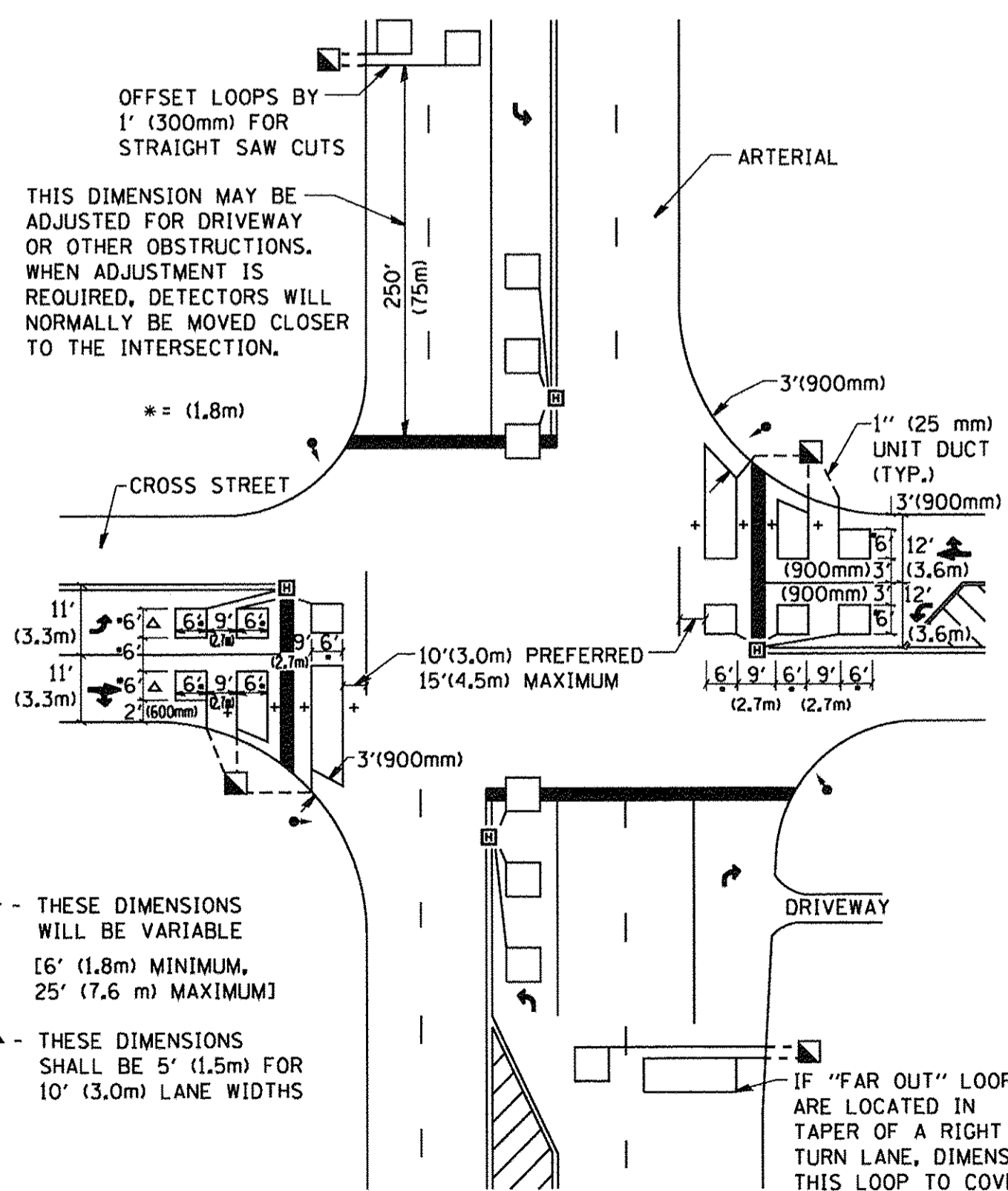
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**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 SEPARATELY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- * ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- * EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- * WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
- * WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

PLACEMENT OF DETECTORS

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

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

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

NOTE:

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

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

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DATE -

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**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.
1566	16-00168-00-RS	DUPAGE/WILL	31	31
TS-07			CONTRACT NO. 61876	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				