

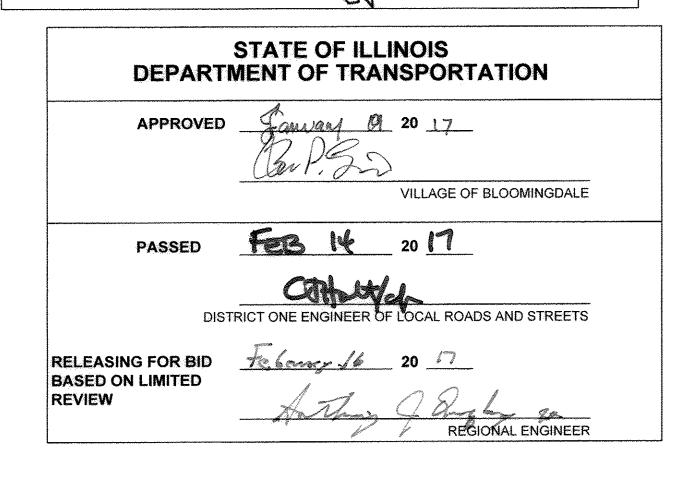
 FAU RTE
 SECTION
 COUNTY
 TOTAL SHEETS NO.

 2160 & 3809
 16-00065-00-RS
 DUPAGE
 22
 1

 ILLINOIS
 CONTRACT NO. 61D78

**LOCATION OF SECTION** 





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## **GENERAL NOTES**

- ALL REFERENCES TO THE "VILLAGE" IN THESE GENERAL NOTES SHALL BE INTERPRETED TO MEAN THE VILLAGE OF BLOOMINGDALE.
- ALL REFERENCES TO "STANDARD SPECIFICATIONS" IN THESE GENERAL NOTES SHALL BE INTERPRETED TO MEAN THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," ADOPTED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION ON APRIL 1, 2016.
- ALL CURB & GUTTER AND SIDEWALK REMOVAL AND REPLACEMENT SECTIONS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
- PUBLIC OR PRIVATE UTILITIES. THE LOCATIONS OF PUBLIC OR PRIVATE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND THE VILLAGE AND THE ENGINEER DO NOT GUARANTEE THEIR ACCURACY. THE CONTRACTOR WILL BE REQUIRED TO ASCERTAIN THE EXACT LOCATION OF UTILITIES AND EXERCISE CARE DURING HIS CONSTRUCTION OPERATIONS SO AS NOT TO DAMAGE THEM. IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND ARTICLE 105.07 OF THE "STANDARD SPECIFICATIONS" THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL EXISTING UTILITIES SO THAT THEIR FACILITIES MAY BE LOCATED AND ADJUSTED OR MOVED, IF NECESSARY, PRIOR TO THE START OF THE CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY OWNERS AS PROVIDED FOR IN THE "STANDARD SPECIFICATIONS".
- CONCRETE BREAKERS

  WHEN REMOVING CURB, CURB AND GUTTER, PAVEMENT, SIDEWALK OR ANY OTHER

  STRUCTURE, THE CONTRACTOR SHALL TAKE PRECAUTIONS NECESSARY TO NOT DAMAGE

  PUBLIC OR PRIVATE UTILITIES. UNDER NO CIRCUMSTANCES WILL THE USE OF A FROST

  BALL CONCRETE BREAKER BE ALLOWED.
- THE CONTRACTOR IS PROHIBITED FROM BURNING MATERIAL WITHIN OR ADJACENT TO THE IMPROVEMENT.

  ALL EXCESS OR WASTE MATERIAL SHALL EITHER BE HAULED AWAY FROM THE SITE OF THE IMPROVEMENT BY THE CONTRACTOR AND DEPOSITED AT LOCATIONS PROVIDED BY HIM, OR DISPOSED OF WITHIN THE RIGHT OF WAY IN A MANNER OTHER THAN BURNING, SUBJECT TO THE APPROVAL OF THE ENGINEER.
- ACCESS TO ABUTTING PROPERTY. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ABUTTING PROPERTY DURING THE CONSTRUCTION OF THIS PROJECT EXCEPT FOR PERIODS OF SHORT DURATION, AS APPROVED BY THE ENGINEER.
- DEPRESSED CURB. PROPOSED CURB SHALL BE DEPRESSED AT ALL SIDEWALK AND DRIVEWAY LOCATIONS AS DETERMINED BY THE ENGINEER.
- RESPONSIBILITY FOR VANDALISM THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEFACEMENT OF ANY CONCRETE PLACEMENT BEFORE SAID CONCRETE HAS SET UP. CONCRETE THAT HAS BEEN DEFACED, IN THE OPINION OF THE ENGINEER, SHALL BE REPAIRED OR REMOVED AND REPLACED BY THE CONTRACTOR.
- WATER FOR CONSTRUCTION & USE OF FIRE HYDRANTS

  ANY USE OR ATTEMPT TO ACCESS A FIRE HYDRANT WITHIN THE VILLAGE WITHOUT THE ENGINEER'S CONSENT IS STRICTLY PROHIBITED. WATER MAY BE OBTAINED, FREE OF CHARGE, USING A HYDRANT METER AND AN ACCOUNT SHALL BE ARRANGED WITH THE VILLAGE SERVICES DEPARTMENT (630-893-7073) PRIOR TO OBTAINING WATER.

### **INDEX OF SHEETS**

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- 6 OVERLAY & STRIPING SPRINGFIELD DR. STA. 31+00 TO 62+00
- OVERLAY & STRIPING SPRINGFIELD DR. STA. 62+00 TO 93+00
- 8 OVERLAY & STRIPING SPRINGFIELD DR. STA. 93+00 TO 109+58
- 9 OVERLAY & STRIPING BUTTERFIELD DR. STA. 0+00 TO 15+50
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### HIGHWAY STANDARDS

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424001-09	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424006-02	DIAGONAL CURB RAMPS FOR SIDEWALKS
424016-03	MIDBLOCK CURB RAMPS FOR SIDEWALKS
424021-03	DEPRESSED CORNER FOR SIDEWALKS
606001-06	CONCRETE CURB AND COMBINATION CONC. CURB AND GUTTER
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
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701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701501-06	URBAN LANE CLOSURE - UNDIVIDED
701606-10	URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE 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

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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 MARKINGS
TC-16	SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS
TC-22	ARTERIAL ROAD INFORMATIONAL SIGN
TS-05	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS (SHEET 2 OF 7)
TS-07	DISTRICT ONE - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING

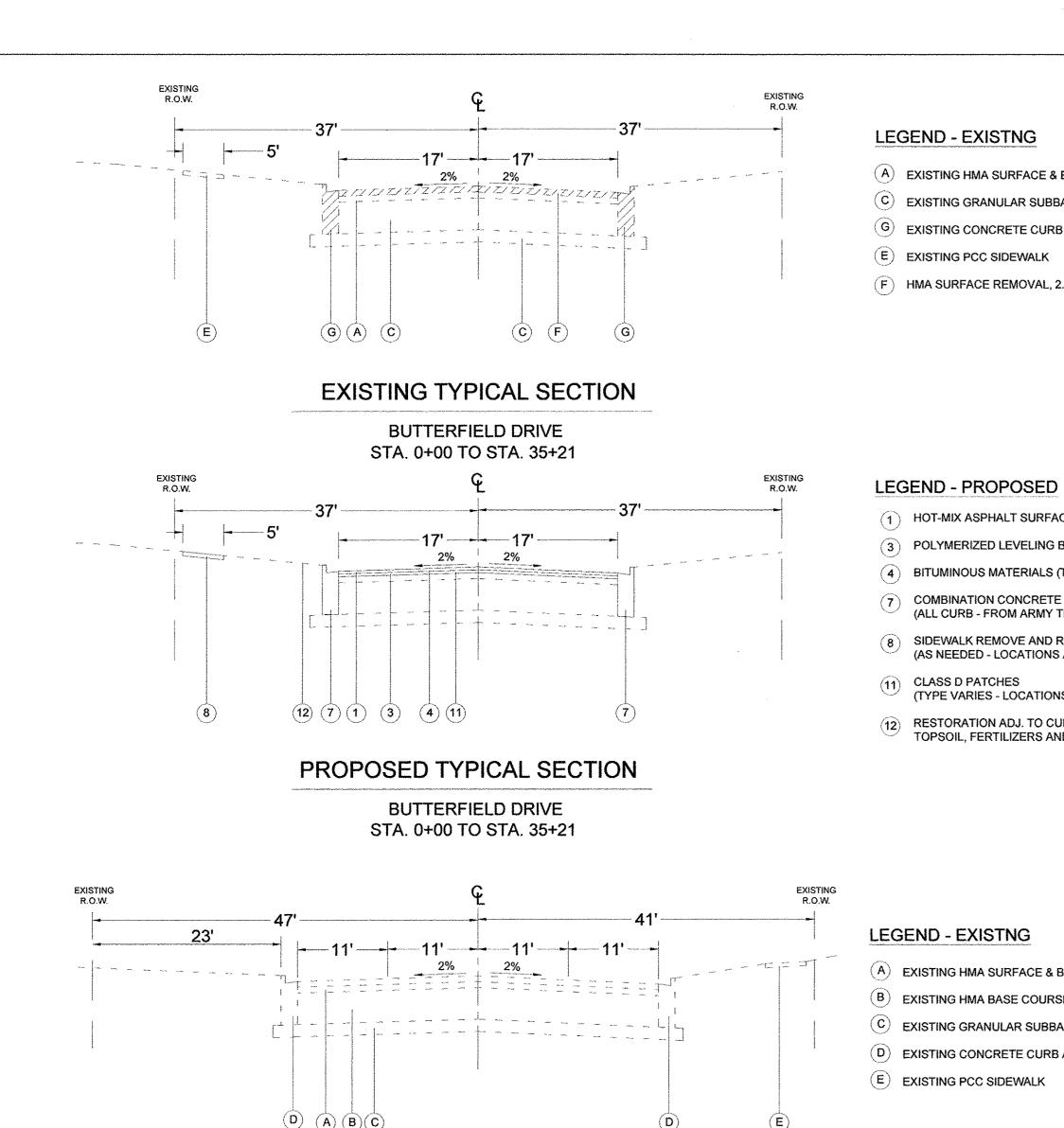
## SUMMARY OF QUANTITIES

Specialty Item	Code No.	Item	Unit	Total Quantity	CONSTRUCTION CODE 0005	CONSTRUCTION CODE 0028	CONSTRUCTION CODE 0042
item	20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	75	75	0028	0042
	20200100	EARTH EXCAVATION	CU YD	256		256	
	20200500	EARTH EXCAVATION (WIDENING)	CU YD	440	440		
	20800150	TRENCH BACKFILL	CU YD	45	45		<u>'</u>
	21101625	TOPSOIL FURNISH AND PLACE, 6"	SQ YD	5000	4500	500	
*	25000100	SEEDING, CLASS 1	ACRE	0.15		0.15	
*	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	55	55		
* 7	25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	55	55		
*	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	55	55		
*	25200100	SODDING	SQ YD	4500	4500		
*	25200200	SUPPLEMENTAL WATERING	UNIT	20	20		
	28001100	TEMPORARY EROSION CONTROL BLANKET	SQ YD	725		725	
	31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	1844	1844		
	35102000	AGGREGATE BASE COURSE, TYPE B 8"	SQ YD	710		710	
	35600716	HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	SQ YD	711	711		
	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	50374	50374		
	40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	112	112		
	40600827	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	4134	4134		
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	1360	1360		
	40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	5983	5903	80	
	40603565	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N70	TON	480	480		
	40800025	BITUMINOUS MATERIALS (PRIME COAT)	POUND	1597		1597	
	42001300	PROTECTIVE COAT	SQ YD	3000	3000		
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	6450	6450		
	42400800	DETECTABLE WARNINGS	SQ FT	760	760		
	44000100	PAVEMENT REMOVAL	SQ YD	849	754	95	
	44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	250	250	·	
	44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	60305	60305		
	44000600	SIDEWALK REMOVAL	SQ FT	6450	6450		
	44201709	CLASS D PATCHES, TYPE III, 5 INCH	SQ YD	50	50		
	44201711	CLASS D PATCHES, TYPE IV, 5 INCH	SQ YD	200	200		
	550A0050	STORM SEWERS, CLASS A, TYPE 1 , 12"	FOOT	20	20		
*	56400100	FIRE HYDRANTS TO BE MOVED	EACH	2		2	
	60100915	PIPE DRAINS 6"	FOOT	270	270		
	60234200	INLETS, TYPE A, TYPE I FRAME, OPEN LID	EACH	5	5		

Specialty Item	Code No.	Item	Unit	Total Ouantity	CONSTRUCTION CODE 0005	CONSTRUCTION CODE 0028	CONSTRUCTION CODE
	60238800	INLETS, TYPE A	EACH	2	2		
	60265700	VALVE VAULTS TO BE ADJUSTED	EACH	2		2	
	60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	92	92		
	60404300	FRAMES AND GRATES, TYPE 3	EACH	1	1		
	60404800	FRAMES AND GRATES, TYPE 11	EACH	1			
	60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	1	1		
	60500060	REMOVING INLETS	EACH	2	2		
		MOBILIZATION	LSUM	1	1		
			LSUM	1	1		
		TRAFFIC CONTROL AND PROTECTION, STANDARD 701501			1		
		TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	LSUM	1	1		
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	1	1		
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1	1		
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	7000	7000		
	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	1000	1000		
	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	1244	1244		
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	40400	40400		
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	5575	5575		
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1770	1770		
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	505	505		
*		RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	160	160		
*		RELOCATE EXISITING LIGHTING UNIT	EACH	2	2		
*				(2)			
		DETECTOR LOOP REPLACEMENT	FOOT	2450	2450		
*	- 177003760	EVERGREEN, THUJA OCCIDENTALIS (AMERICAN ARBORVITAE), 5' HEIGHT, BALLED AND BURLAPPED	EACH	10		10	
·	*			* * * * * * * * * * * * * * * * * * * *			
	X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	10	10		
		HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 3"	SQ YD	250	250		
		COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	10275	10275		
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	77	77		
	Z0076600	TRAINEES	HOUR	500			500
	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500			500
*	Paipooxx	WATER SAMPLE STATION REMOVAL AND REPLACEMENT	EACH	1		1	·



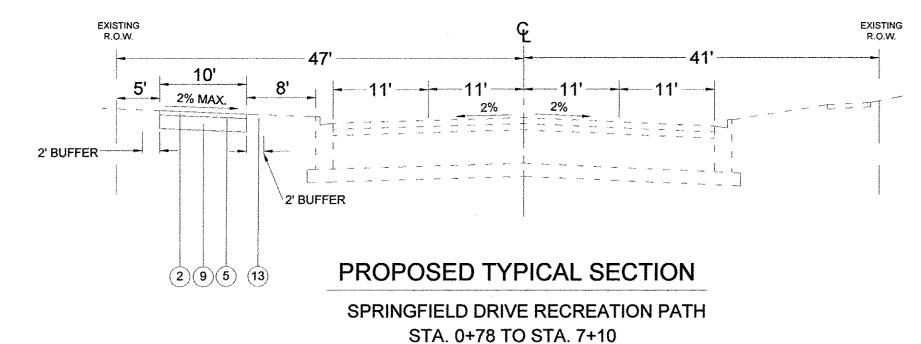
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2160 & 3809	16-00065-00-RS	DUPAGE	22	3
FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.



## LEGEND - EXISTNG (A) EXISTING HMA SURFACE & BINDER, 6" EXISTING HMA BASE COURSE, 7" (C) EXISTING GRANULAR SUBBASE (D) EXISTING CONCRETE CURB AND GUTTER, TYPE B6.18 (E) EXISTING PCC SIDEWALK

## **EXISTING TYPICAL SECTION**

SPRINGFIELD DRIVE RECREATION PATH STA, 0+78 TO STA, 7+10



**LEGEND - PROPOSED** 

- HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 2"
- 8" AGGREGATE BASE COURSE, CA-6
- BITUMINOUS MATERIALS (PRIME COAT)
- RESTORATION ADJ. TO REC. PATH TOPSOIL, FERTILIZERS, SEED AND TEMP. EROSION CONTROL BLANKET (LOCATIONS AS DIRECTED BY THE ENGINEER)

REMOVAL ITEMS

#### LEGEND - EXISTNG

- (A) EXISTING HMA SURFACE & BINDER, 6"
- (C) EXISTING GRANULAR SUBBASE
- (G) EXISTING CONCRETE CURB AND GUTTER, TYPE B6.12

1 HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 1.5"

(4) BITUMINOUS MATERIALS (TACK COAT)

(8) SIDEWALK REMOVE AND REPLACE

(11) CLASS D PATCHES

3 POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 1"

(ALL CURB - FROM ARMY TRAIL RD. to SPRINGFIELD DRIVE)

(AS NEEDED - LOCATIONS AS DIRECTED BY THE ENGINEER)

(TYPE VARIES - LOCATIONS AS DIRECTED BY THE ENGINEER)

(7) COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT

- (E) EXISTING PCC SIDEWALK
- (F) HMA SURFACE REMOVAL, 2.5"

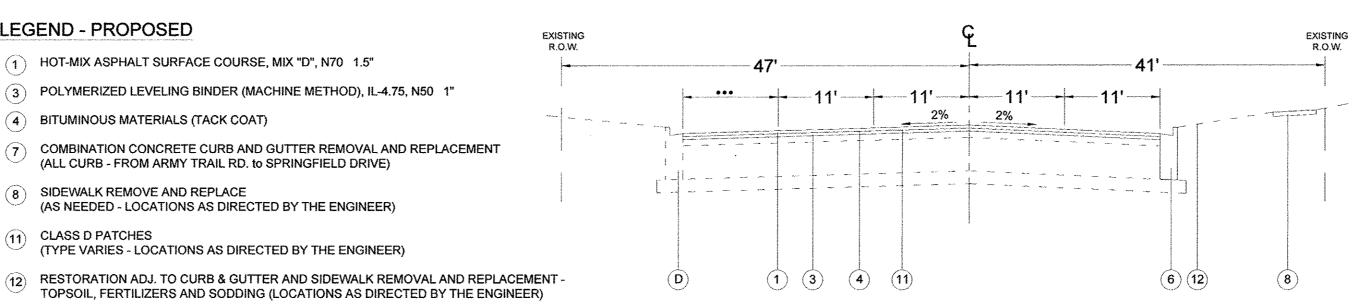
# EXISTING R.O.W.

## LEGEND - EXISTNG

- (A) EXISTING HMA SURFACE & BINDER, 6"
- (B) EXISTING HMA BASE COURSE, 7"
- (C) EXISTING GRANULAR SUBBASE
- (D) EXISTING CONCRETE CURB AND GUTTER, TYPE B6.18
- (E) EXISTING PCC SIDEWALK
- (F) HMA SURFACE REMOVAL
- ••• VARIES 0' TO 11'

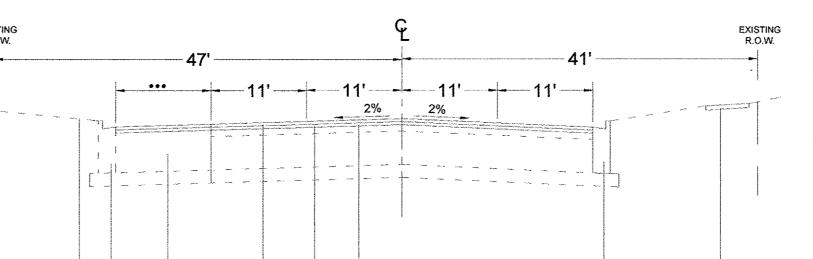
#### **EXISTING TYPICAL SECTION**

SPRINGFIELD DRIVE STA. 0+00 TO STA. 109+58



### PROPOSED TYPICAL SECTION

SPRINGFIELD DRIVE STA. 0+00 TO STA. 109+58



### PROPOSED TYPICAL SECTION

SPRINGFIELD DRIVE WIDENING AREA STA. 1+80 TO STA. 10+00

#### LEGEND - PROPOSED

- (1) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 1.5"
- (3) POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 1"
- (4) BITUMINOUS MATERIALS (TACK COAT)
- COMBINATION CONCRETE CURB AND GUTTER REMOVE AND REPLACE
- (AS NEEDED LOCATIONS AS DIRECTED BY THE ENGINEER)
- (8) SIDEWALK REMOVE AND REPLACE (AS NEEDED - LOCATIONS AS DIRECTED BY THE ENGINEER)
- (11) CLASS D PATCHES
- (TYPE VARIES LOCATIONS AS DIRECTED BY THE ENGINEER)
- (12) RESTORATION ADJ. TO CURB & GUTTER AND SIDEWALK REMOVAL AND REPLACEMENT -TOPSOIL, FERTILIZERS AND SODDING (LOCATIONS AS DIRECTED BY THE ENGINEER)
- ••• VARIES 0' TO 11'

## LEGEND - PROPOSED

- 1 HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 1.5"
- (3) POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 1"
- (4) BITUMINOUS MATERIALS (TACK COAT)
- COMBINATION CONCRETE CURB AND GUTTER REMOVE AND REPLACE (AS NEEDED - LOCATIONS AS DIRECTED BY THE ENGINEER)
- SIDEWALK REMOVE AND REPLACE
- (AS NEEDED LOCATIONS AS DIRECTED BY THE ENGINEER)
- (10) HOT-MIX ASPHALT BASE COURSE WIDENING, 10"
- RESTORATION ADJ. TO CURB & GUTTER AND SIDEWALK REMOVAL AND REPLACEMENT TOPSOIL, FERTILIZERS AND SODDING (LOCATIONS AS DIRECTED BY THE ENGINEER)
- ••• VARIES 0' TO 11'

HOT-MIX ASPHALT MIXTURE RE	QUIREMENTS
MIXTURE TYPE	AIR VOIDS @ Nde
PAVEMENT RESURFACING	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, (IL - 9.5mm)	4% @ 70 Gyr.
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N70, (IL 9.5mm)	4% @ 70 Gyr.
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	3.5% @ 50 Gyr.
CLASS D PATCH, 5"	
CLASS D PATCH (HMA BINDER IL-19 mm)	4% @ 70 Gyr.
PAVEMENT WIDENING	
HOT-MIX ASPHALT BASE COURSE WIDENING (HMA BINDER IL-19mm); 10"	4% @ 70 Gyr.
HMA DRIVEWAY PAVEMENT, 3"	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, (IL-9.5mm)	4% @ 50 Gyr.

THE UNIT WEIGHT USED TO CALCULATED ALL HOT-MIX SURFACE QUANTITIES IS II2 LBS./SQ.YD./IN.

THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA, THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR USE OF RECYCLED MATERIALS, SEE SPECIAL PROVISIONS.

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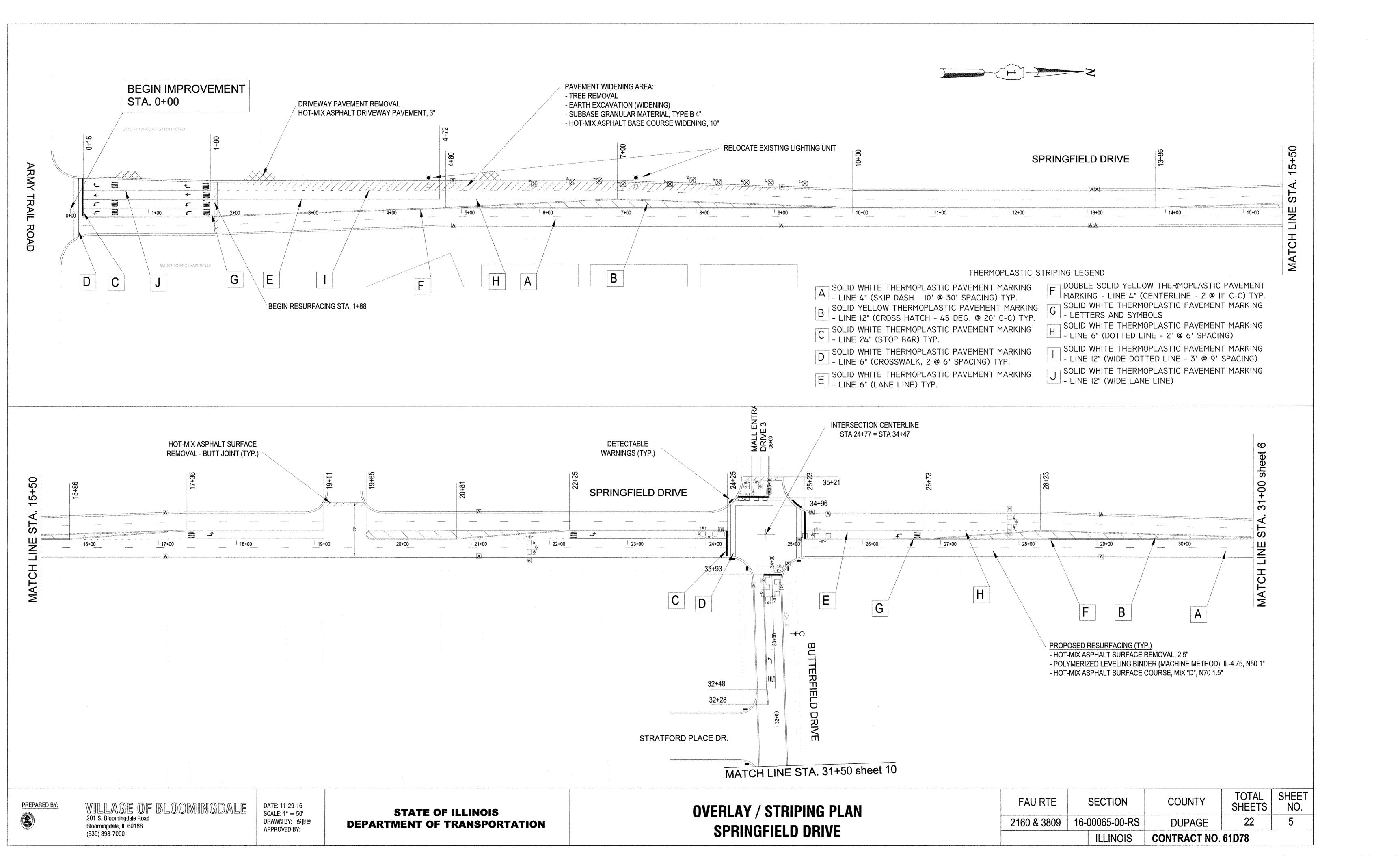
201 S. Bloomingdale Road Bloomingdale, IL 60188 (630) 893-7000

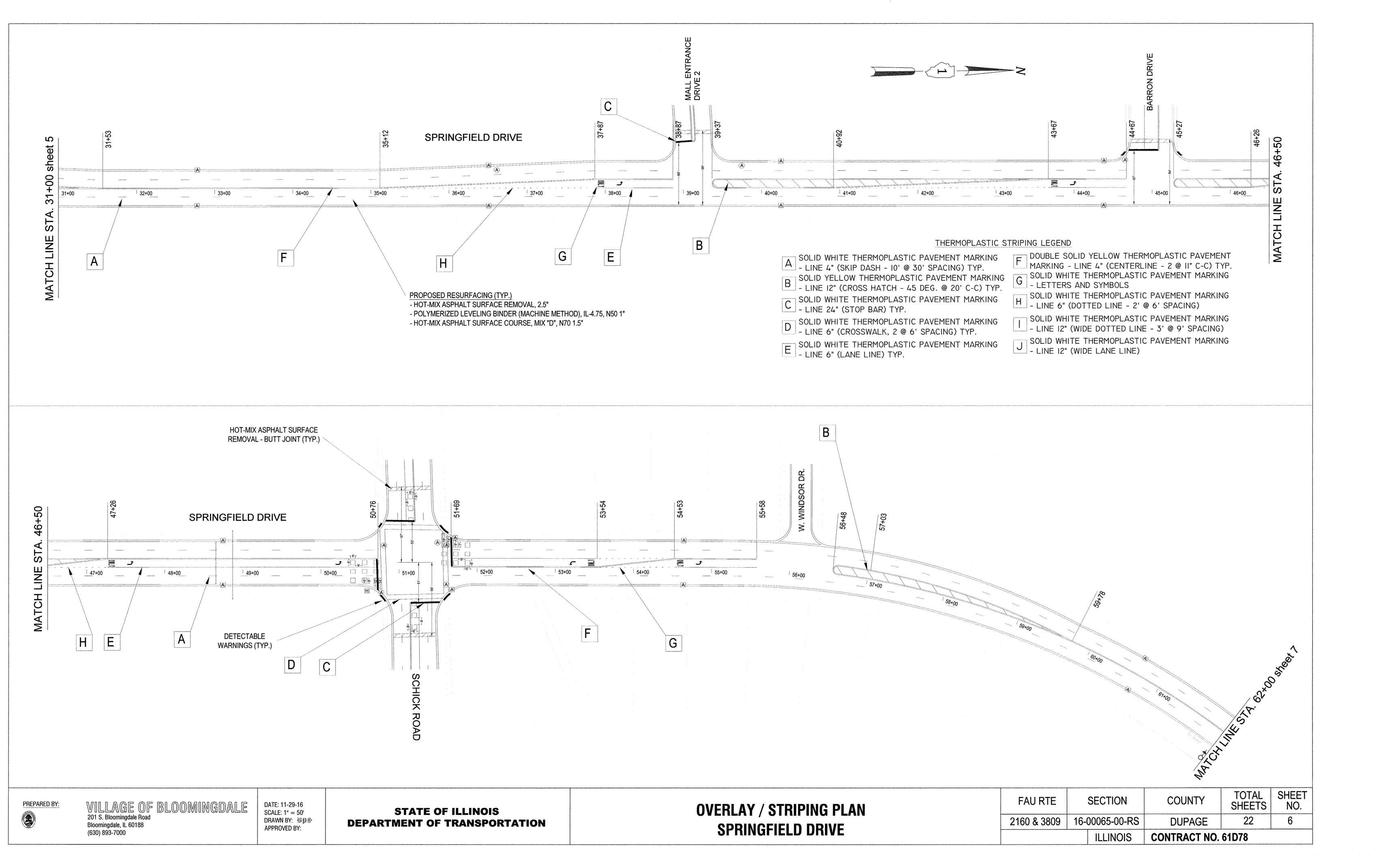
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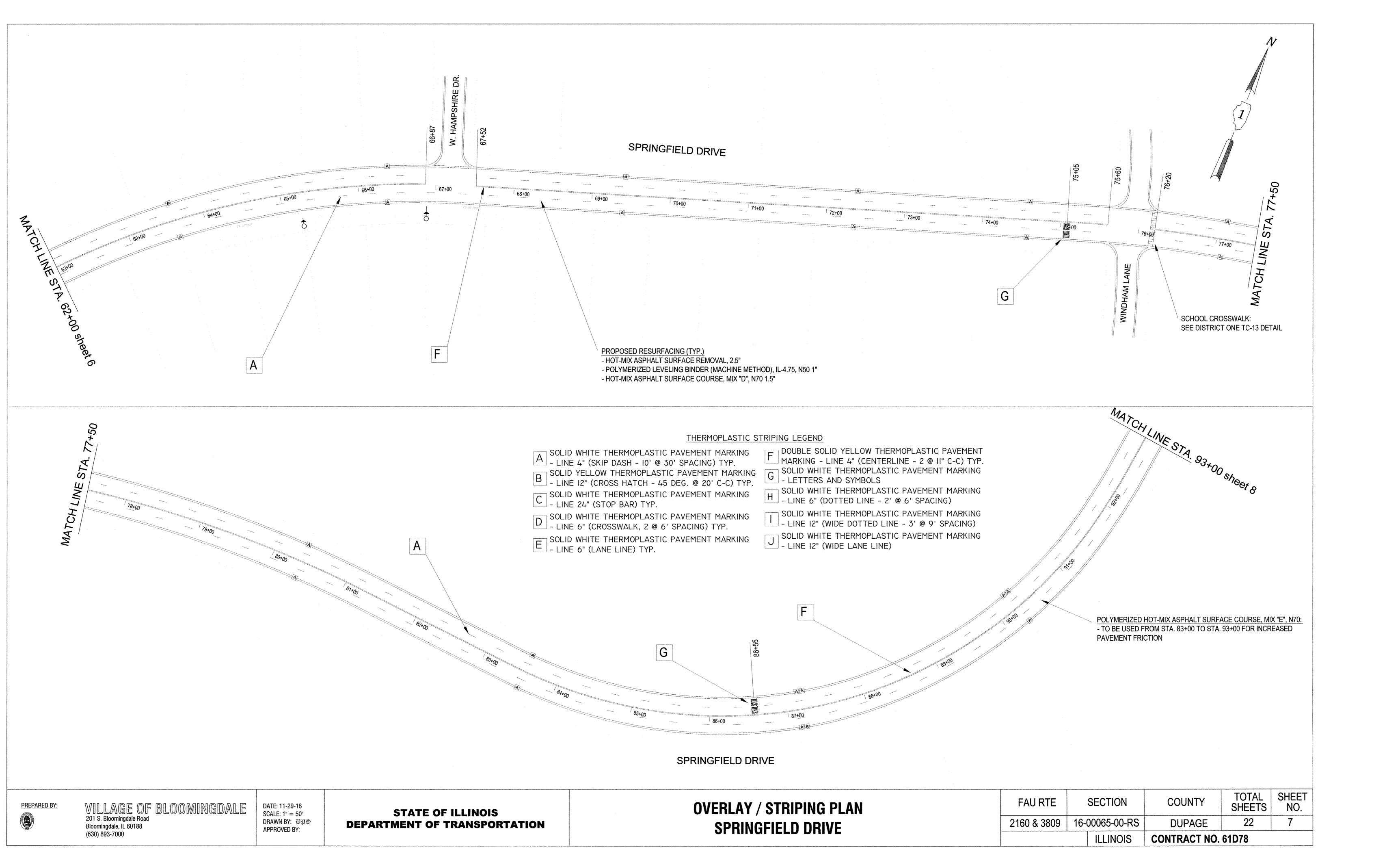
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

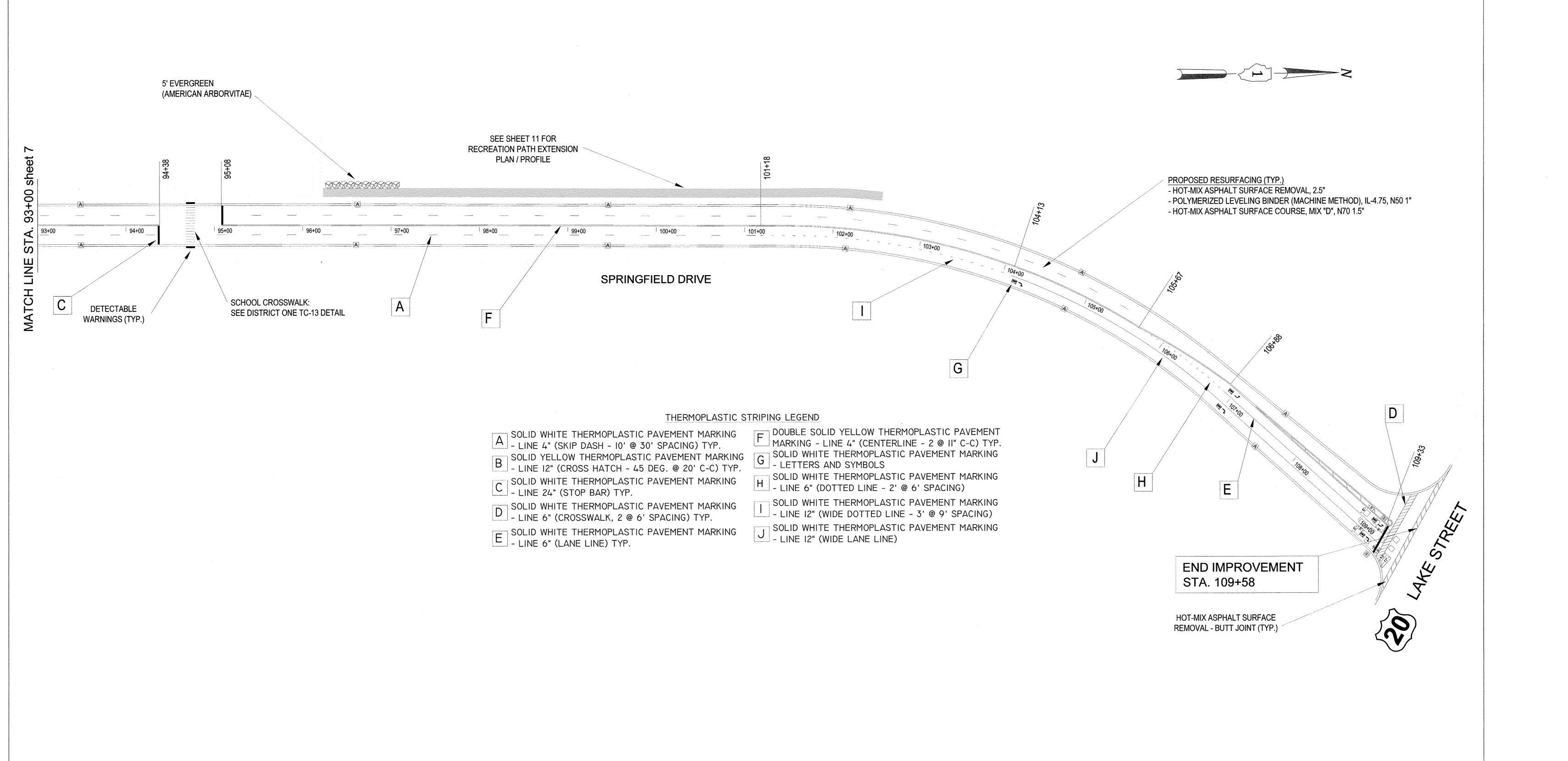
TYPICAL SECTIONS

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VILLAGE OF BLOOMINGDALE 201 S. Bloomingdale Road Bloomingdale, IL 60188 (630) 893-7000 DATE: 11-29-16 SCALE: 1" = 50' DRAWN BY: 過算多 APPROVED BY:

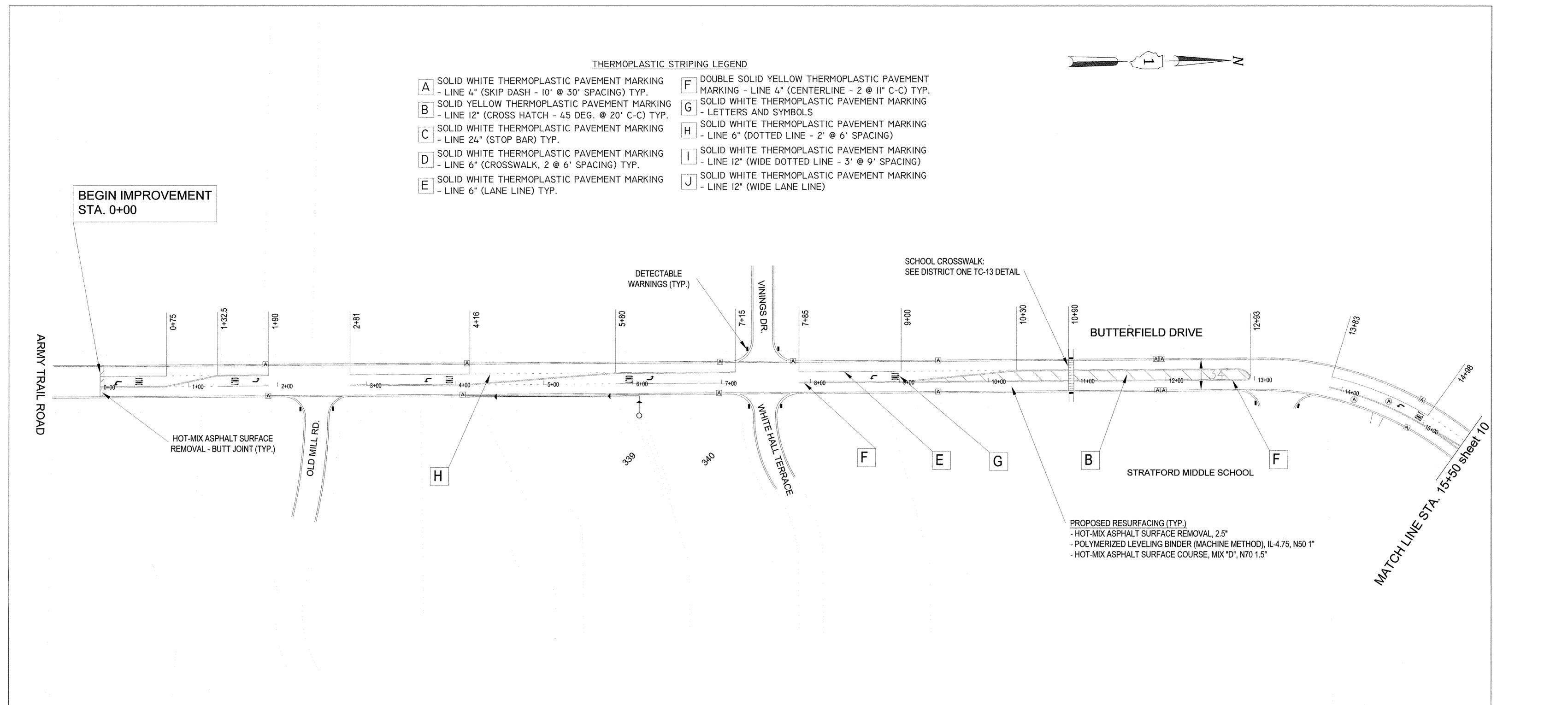
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERLAY / STRIPING PLAN
SPRINGFIELD DRIVE

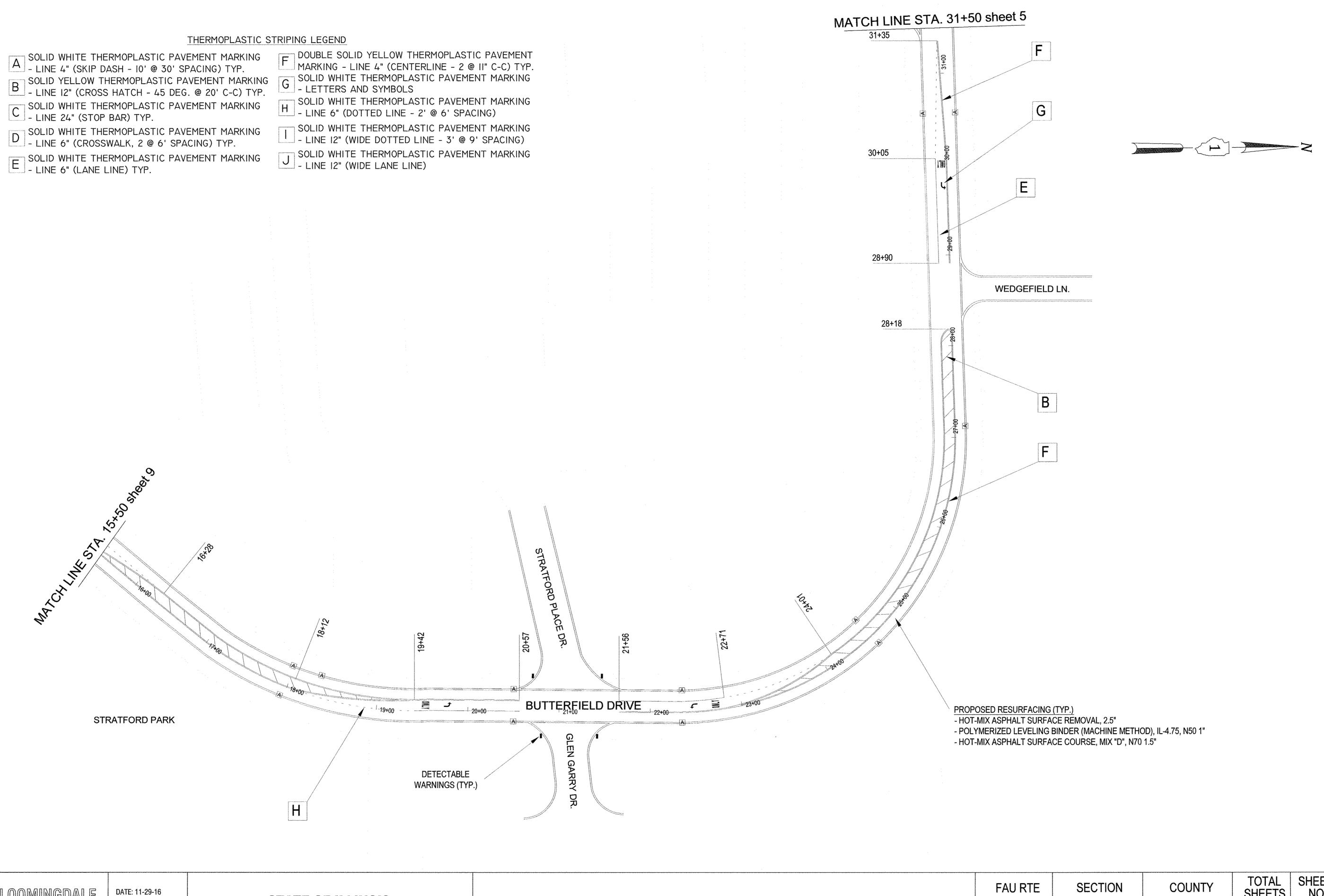
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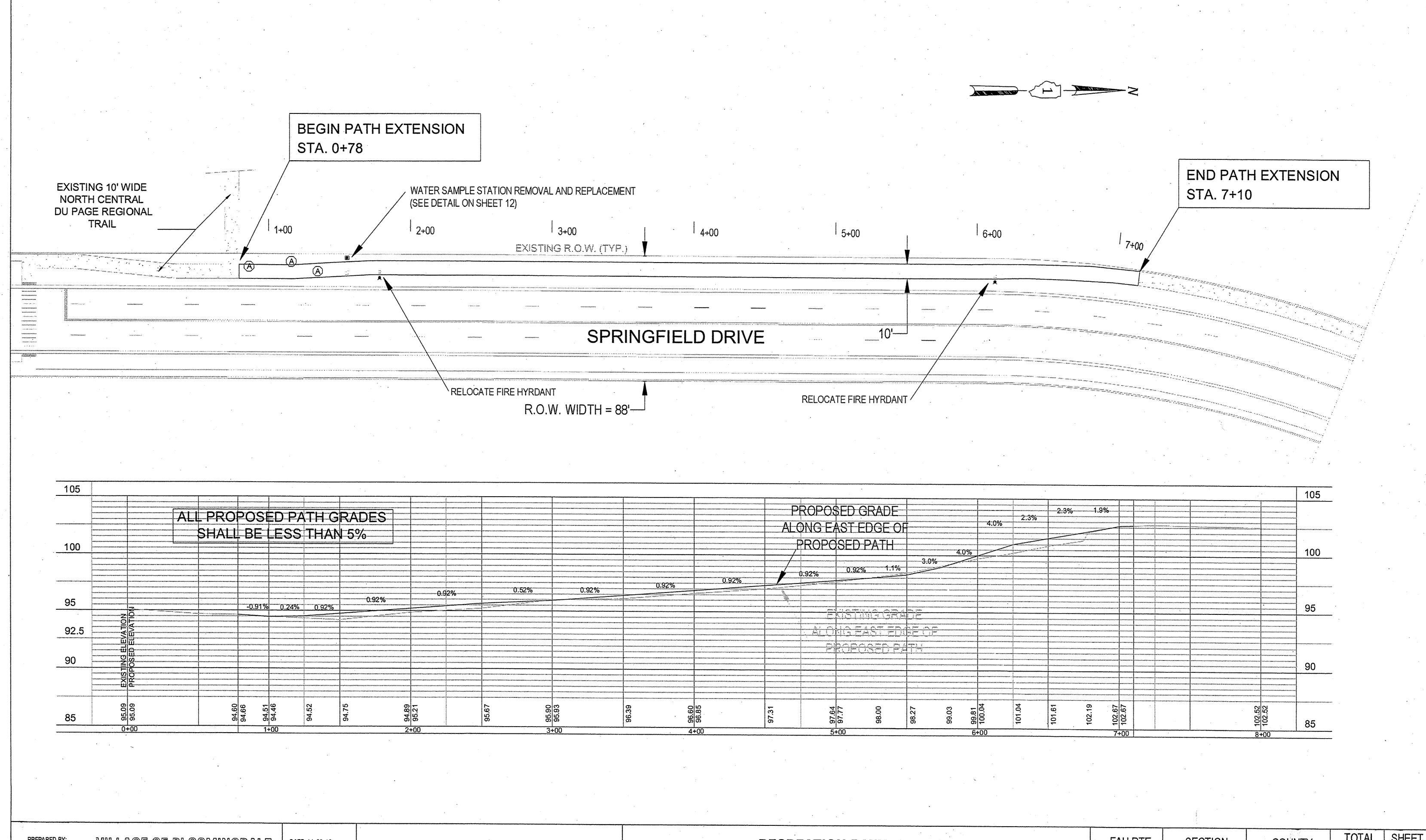
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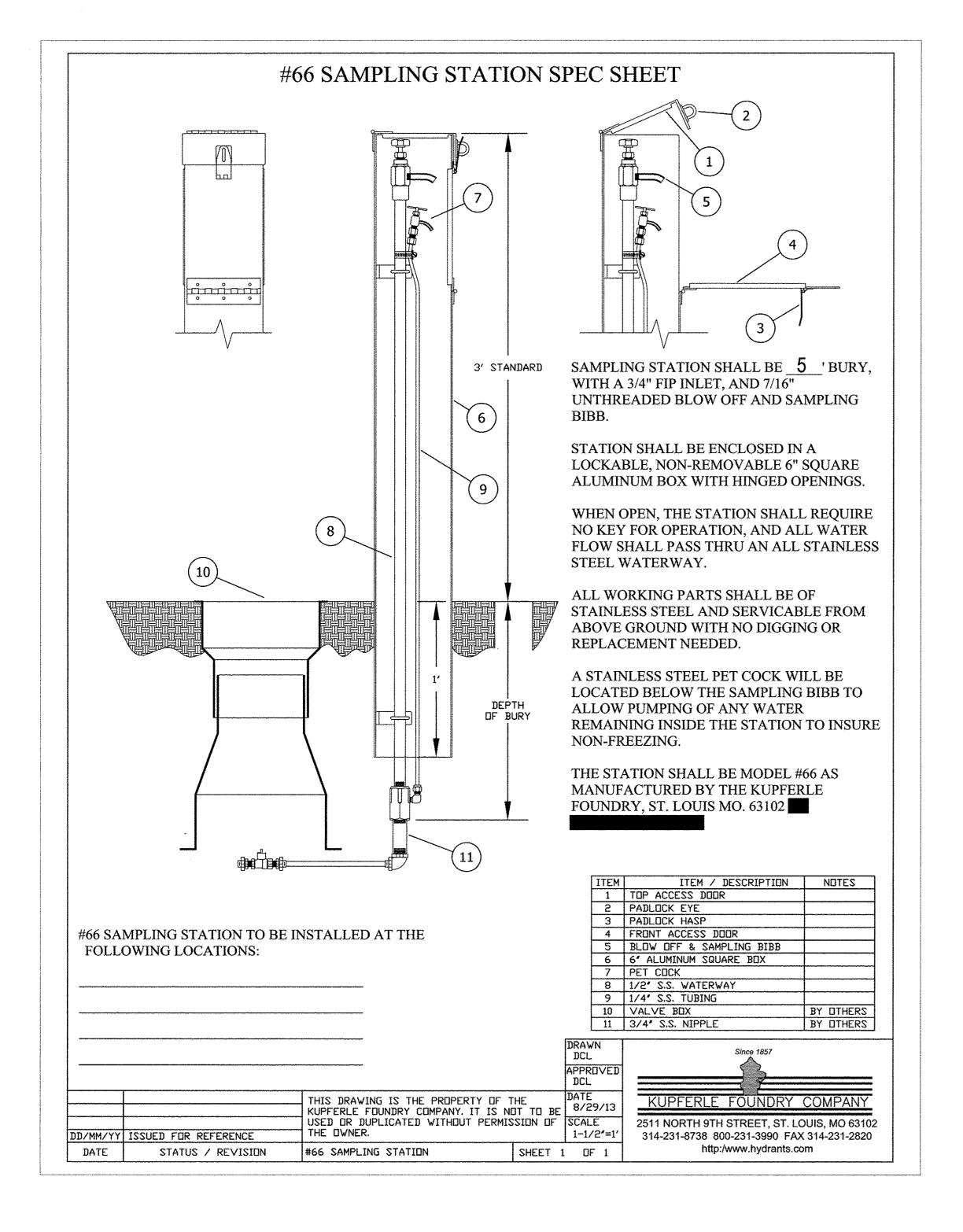
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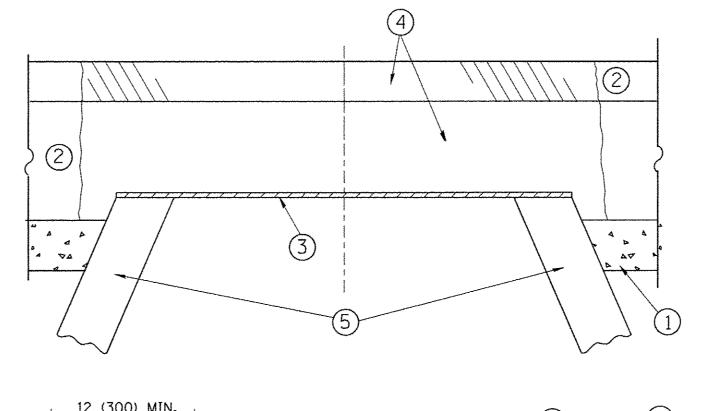
RECREATION PATH EXTENSION PLAN / PROFILE

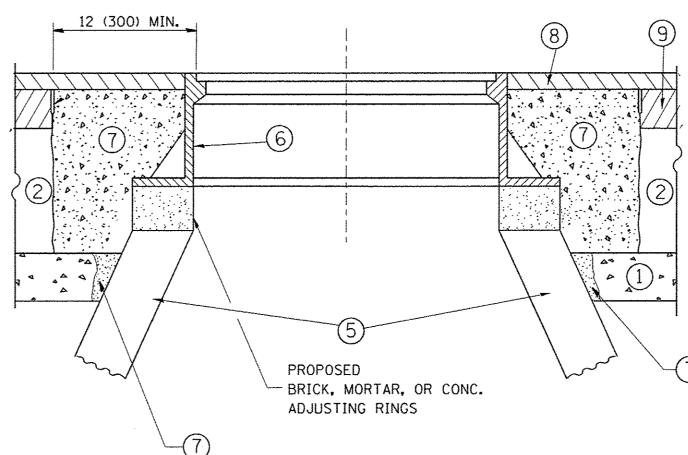
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- ALL EQUIPEMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE INSTALLATION AS SHOWN SHALL BE INCLUDED IN THE COST OF "WATER SAMPLE STATION REMOVAL AND REPLACEMENT".

PREPARED BY:





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.

SCALE: NONE

#### 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  $1\frac{1}{2}$  (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
- 6 FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT
- 7 CLASS PP-1\* CONCRETE
- 3 36 (900) DIAMETER METAL PLATE
- (8) PROPOSED HMA SURFACE COURSE
- 4 PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- (5) EXISTING STRUCTURE
- (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.

# 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
c:\pw_work\pwidot\bauerdl\d0108315\bd08.	lgn	DRAWN -	REVISED - R. BORO 01-01-07
	PLOT SCALE = 1968.5000 '/ m	CHECKED -	REVISED - R. BORO 03-09-11
	PLOT DATE = 12/6/2011	DATE - 10-25-94	REVISED - R. BORO 12-06-11

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

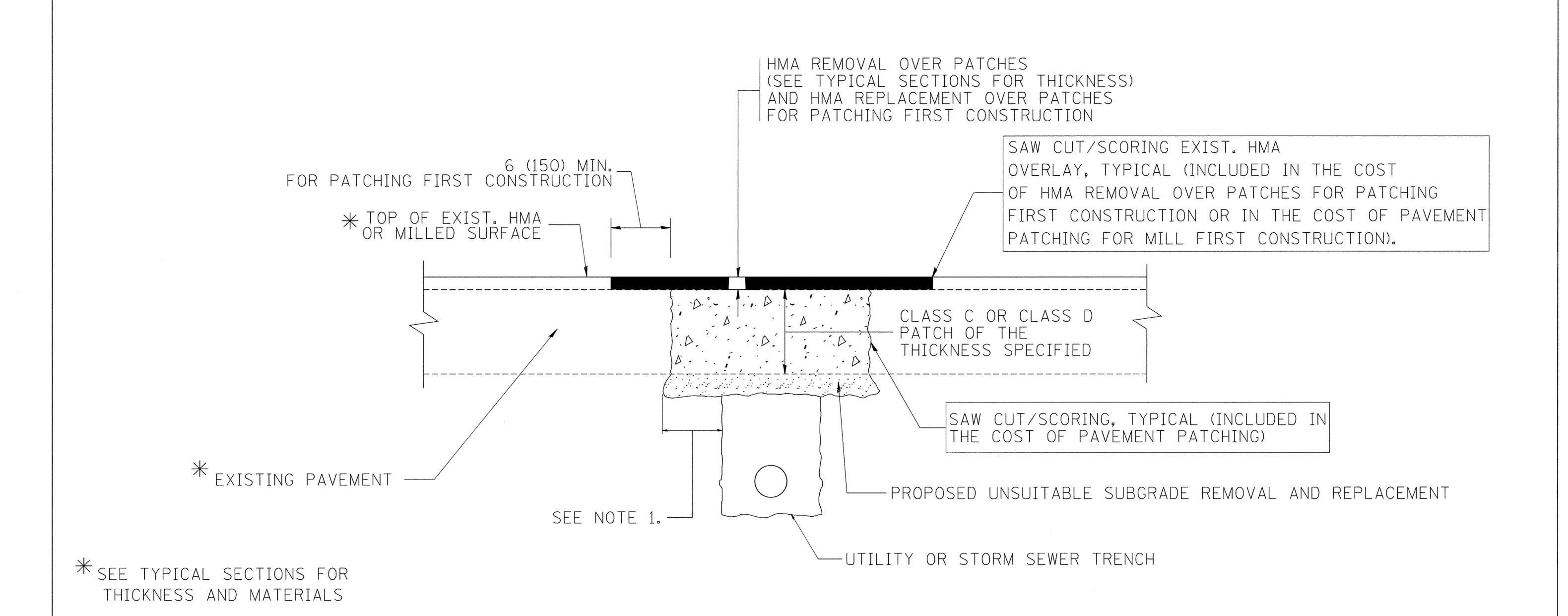
DETAILS FOR									
FRAME	S A	ND	LI	DS	ADJUSTN	IENT	WITH	MILLING	
SHEET	NO.	1	OF	1	SHEETS	STA	\ <u>,</u>	TO	STA.

F.A. SECTION COUNTY TOTAL SHEETS NO.

16-00065-00-RS DUPAGE 22 13

BD600-03 (BD-8) CONTRACT NO. 61D78

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



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

## SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

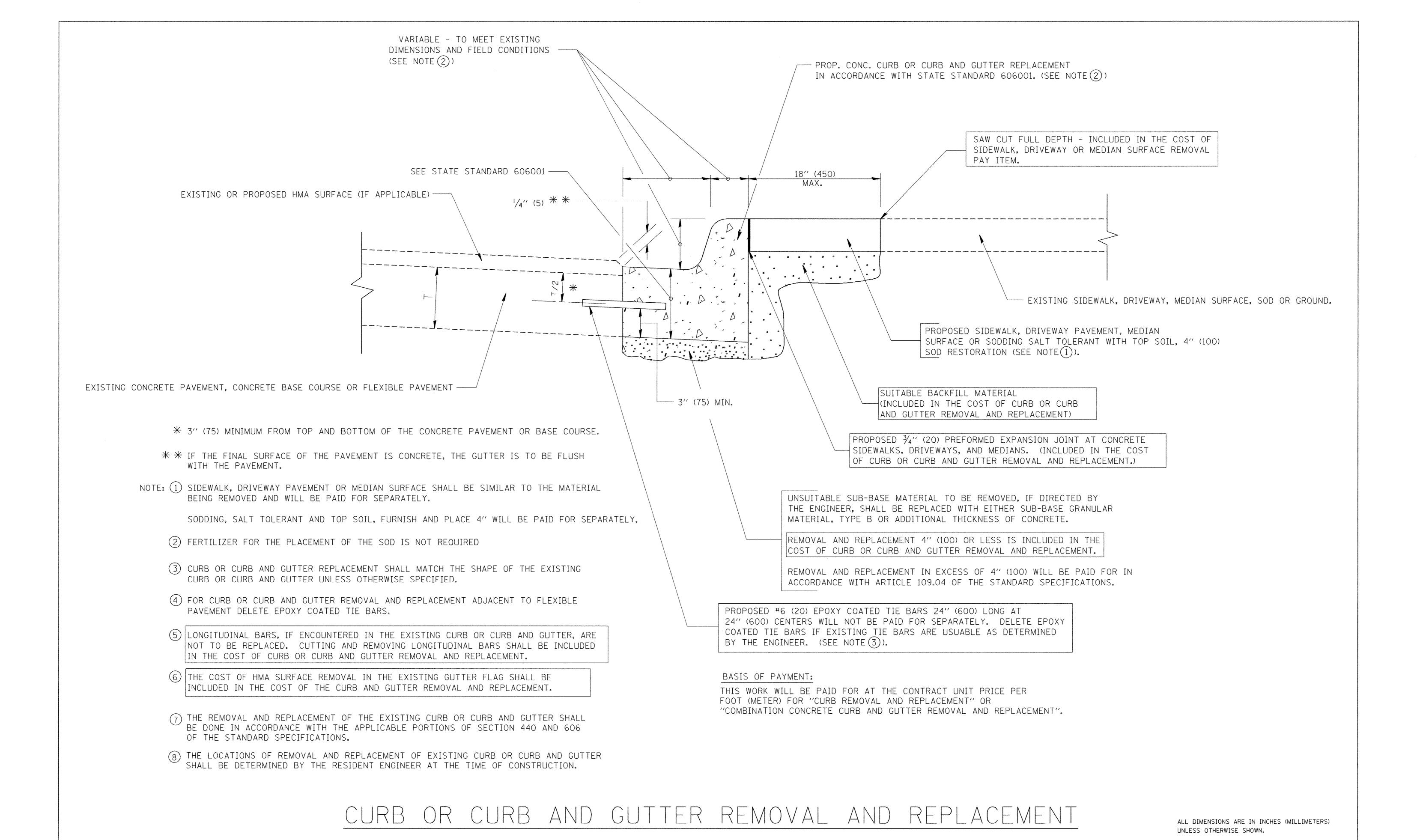
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

## SEQUENCE OF CONSTRUCTION (MILLING FIRST)

- 1. MILL HMA FIRST IF THERE IS AT LEAST  $4\frac{1}{2}$  INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

FILE NAME =	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98			PAVEMENT PATCHING FOR		F.A. SECTION	COUNTY TOTAL SHEET SHEETS NO.
c:\projects\diststd22x34\bd22.dgn		DRAWN ~	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS				16-00065-00-RS	DUPAGE 22 14
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION	HMA SURFACED PAVEMENT			BD400-04 (BD-22)	CONTRACT NO. 61D78
	PLOT DATE = 10/27/2008	DATE - 10-25-94	REVISED - K. ENG 10-27-08		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.		. AID PROJECT



STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

FILE NAME =

c:\pw\_work\pwidot\drivakasgn\d0108315\bd24.dgn

DESIGNED - A. HOUSEH

- 03-11-94

DRAWN

DATE

CHECKED

USER NAME = drivakosgn

PLOT SCALE = 50.000 '/ IN.

PLOT DATE = 12/15/2009

REVISED - R. SHAH 10-03-96

REVISED - A. ABBAS 03-21-97

REVISED - M. GOMEZ 01-22-01

REVISED - R. BORO 12-15-09

COUNTY TOTAL SHEET NO.

DUPAGE 22 15

CONTRACT NO. 61D78

16-00065-00-RS

BD600-06 (BD-24)

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

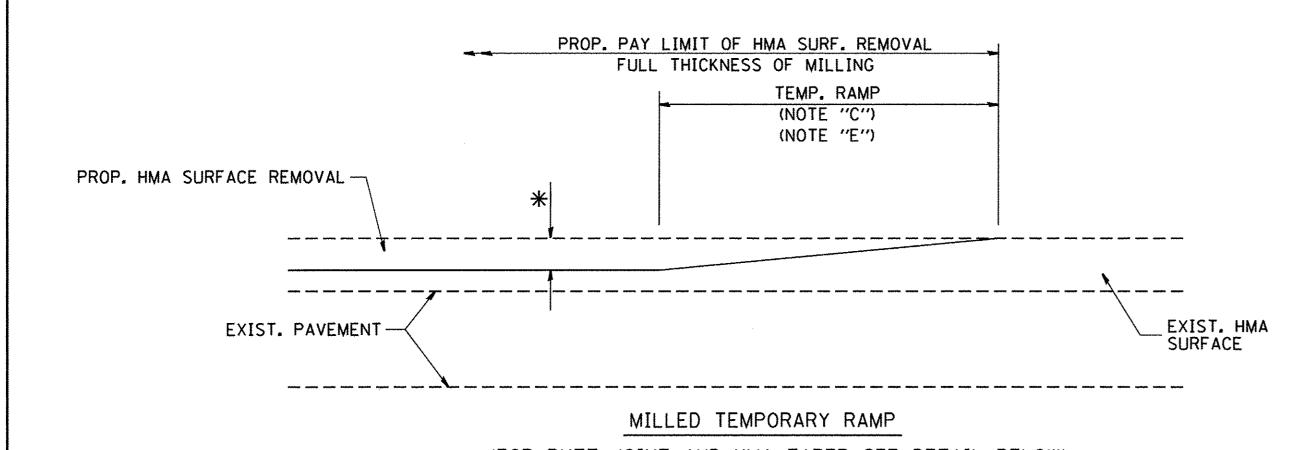
**CURB OR CURB AND GUTTER** 

REMOVAL AND REPLACEMENT

TO STA.

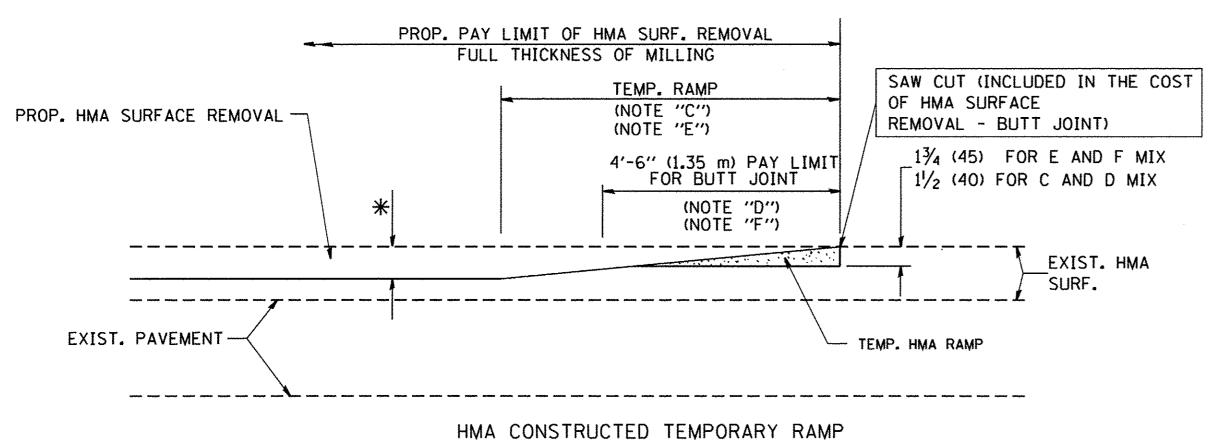
SHEET NO. 1 OF 1 SHEETS STA.

SCALE: NONE



## (FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

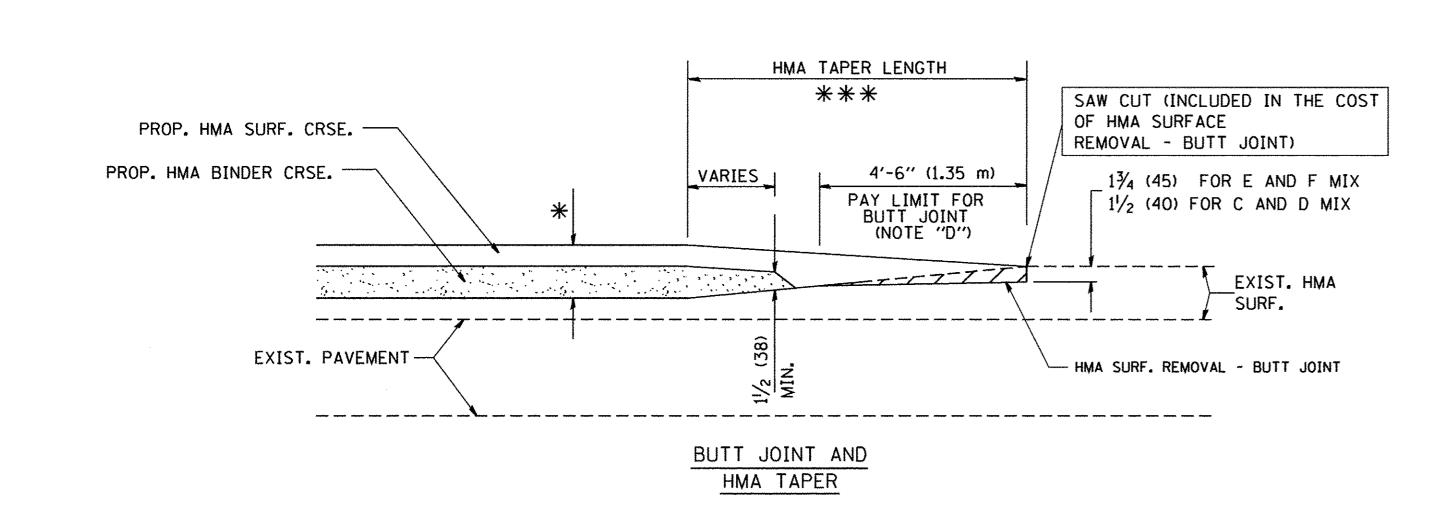
## OPTION 1



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

## OPTION 2

## TYPICAL TEMPORARY RAMP

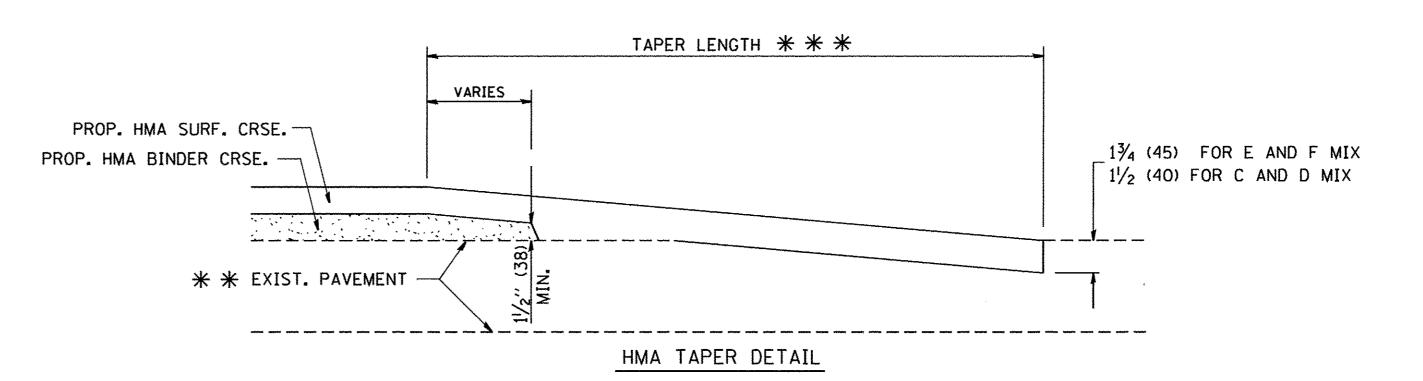


# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

PROP. HMA OR PCC
SURFACE REMOVAL - BUTT JOINT
30'-0" (9.0 m) (NOTE "A")
15'-0" (4.5 m) (NOTE "B")
(NOTE "D")

\*\* \* EXIST. PAVEMENT

BUTT JOINT 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:

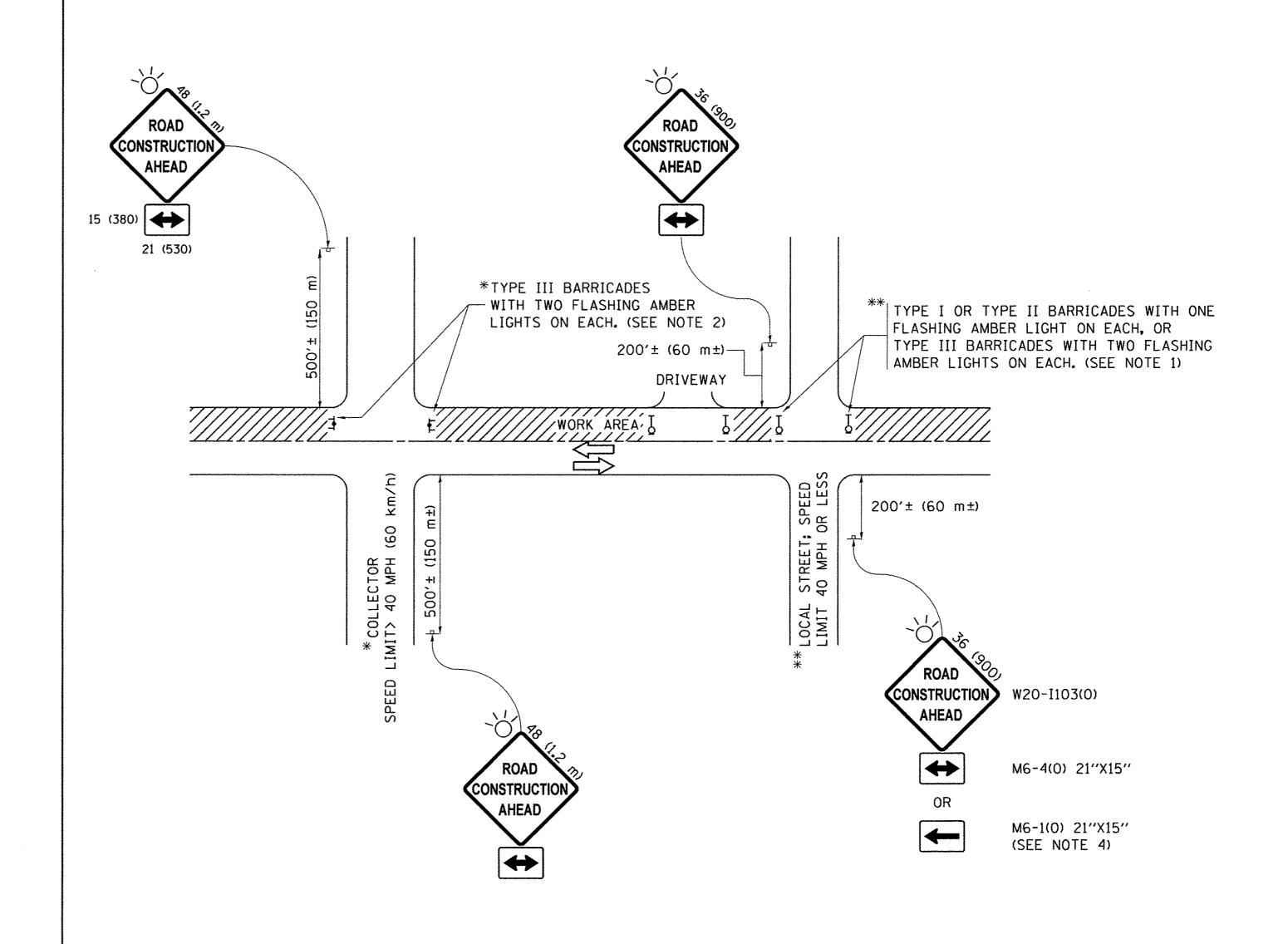
THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER)
FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

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

FILE NAME =	USER NAME = gaglianobt	DESIGNED - M. DE YONG	REVISED - R	. SHAH 10-25-94
W:\diststd\22x34\bd32.dgn		DRAWN -	REVISED - A	. ABBAS 03-21-97
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - N	. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R	. BORO 01-01-07

STATE	OF	ILLINOIS
DEPARTMENT (	OF 7	TRANSPORTATION

	BUTT JOINT /	F.A RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
	HMA TAPER DE		16-00065-00-RS	DUPAGE	22	16		
	nivia tapen de		BD400-05 BD32	CONTRACT	<b>NO.</b> 6	1D78		
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. RO	AD DIST. NO. 1   ILLINOIS FED. A	ID PROJECT		



- 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:
  - d) 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:
  - 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).

SCALE: NONE

- 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.

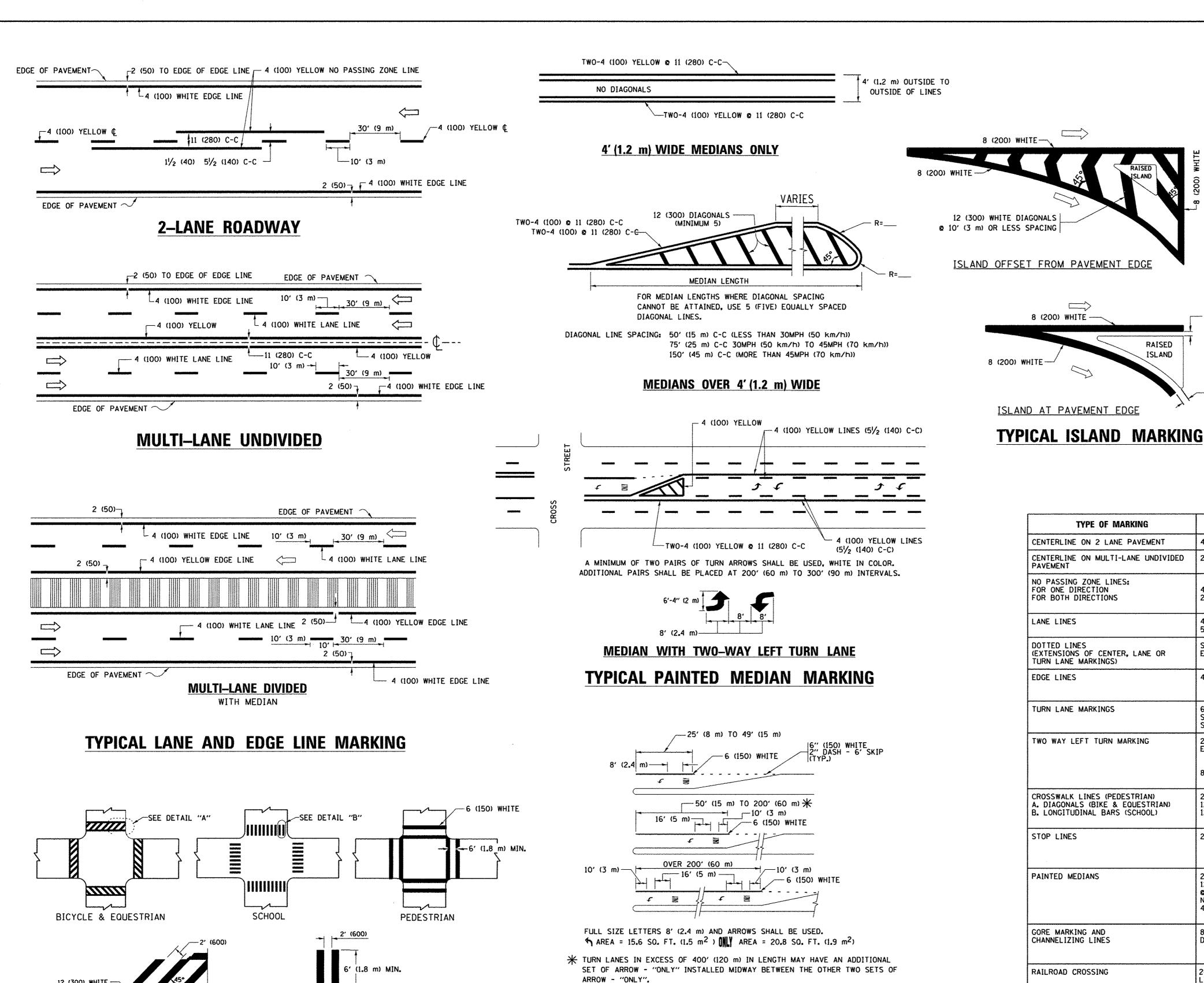
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = footemJ	DESIGNED - L.H.A.	REVISED	- A. HOUSEH 10-15-96
pw:\\ILØ84EBIDINTEG.ıllınoıs.gov:PWIDOT\Do	ouments\IDOT Offices\District 1\Projects\Dist	St <b>OR'AWM</b> \CADData\CADsheets\tc10.dgn	REVISED	-T. RAMMACHER 01-06-00
	PLOT SCALE = 50.000 '/ in.	CHECKED -	REVISED	- A. SCHUETZE 07-01-13
Default	PLOT DATE = 9/15/2016	DATE - 06~89	REVISED	- A. SCHUETZE 09-15-16

STATE	OF	ILLINOIS
<b>DEPARTMENT</b>	OF '	TRANSPORTATION

TRAFFIC	CONTROL	AND PROTE	CTION FOR
SIDE ROADS	S, INTERS	ECTIONS, AND	DRIVEWAYS
SHEET 1	OF 1	SHEETS STA.	TO STA.

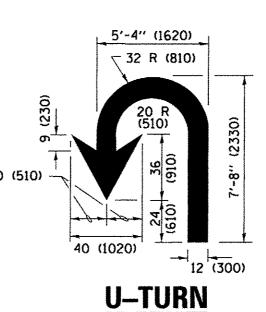
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHE NC
	16-00065-00-RS	DUPAGE	22	17
	TC-10	CONTRACT	NO. 61	D78
	ILLINOIS FED. A	ID PROJECT		



12 (300) 40 (1020) 64 (1620)

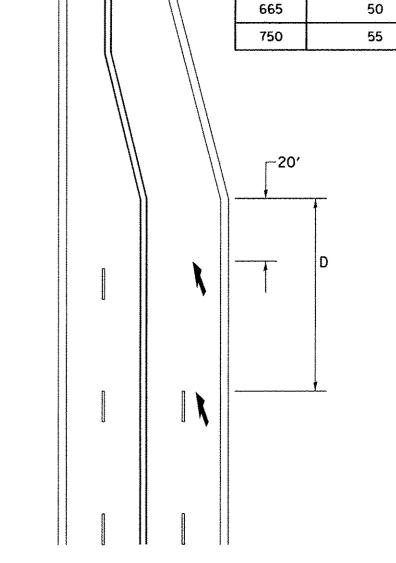
6'-4" (1930)

## COMBINATION LEFT AND U-TURN



\_\_\_ 2 (50)

RAISED



SPEED LIMIT

35

40

45

D(FT)

425

500

580

## LANE REDUCTION TRANSITION

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

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 <b>Q</b> 4 (100)	SOLID SOLID	YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE 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; 51/2 (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" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SO. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS > 8')	12 (300) <b>e</b> 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h) 150' (45 m) C-C (0VER 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 = footemj DESIGNED -EVERS REVISED C. JUCIUS 09-09-09 STATE OF ILLINOIS pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 1\Projects\DistBtDRAWN\CADData\CADsheets\tc13.dgn REVISED C. JUCIUS 07-01-13 PLOT SCALE = 50.000 '/ in. CHECKED REVISED C. JUCIUS 12-21-15 PLOT DATE = 4/13/2016 - 03-19-90 REVISED C. JUCIUS 04-12-16

12 (300) WHITE

DETAIL "B"

-6 (150) WHITE

THE ROAD WHICH IT CROSSES

TYPICAL CROSSWALK MARKING

\* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF

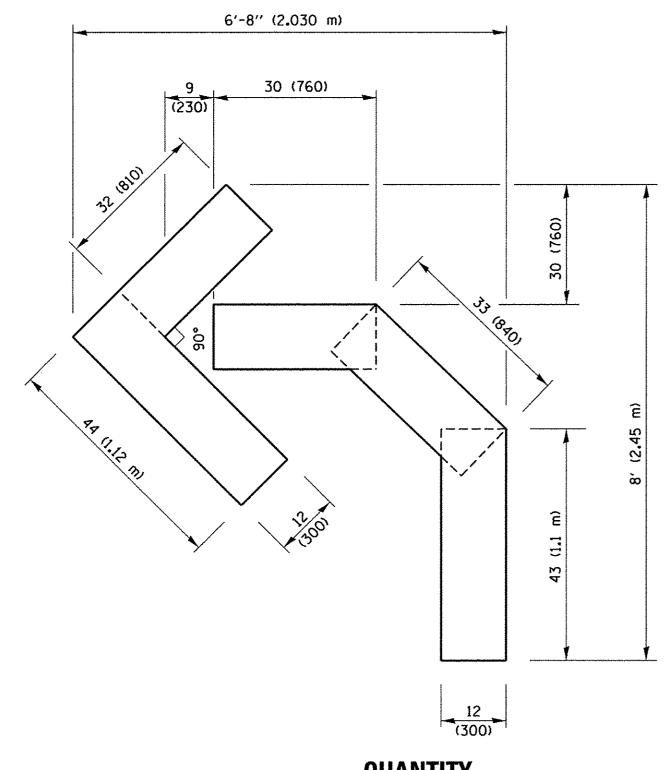
**DETAIL "A"** 

**DEPARTMENT OF TRANSPORTATION** 

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

DISTRICT ONE							SECTION	COUNTY	TOTAL SHE	EET 10.
TYPICAL PAVEMENT MARKINGS							16-00065-00-RS	DUPAGE	22 18	8
	1111	GML FA	TA CIAICIA I	IVIMININU			TC-13	CONTRAC	T NO. 61D78	3
SCALE: NONE	SHEET 1	OF 1	SHEETS	STA.	TO STA.		ILLINOIS FE	D. AID PROJECT		

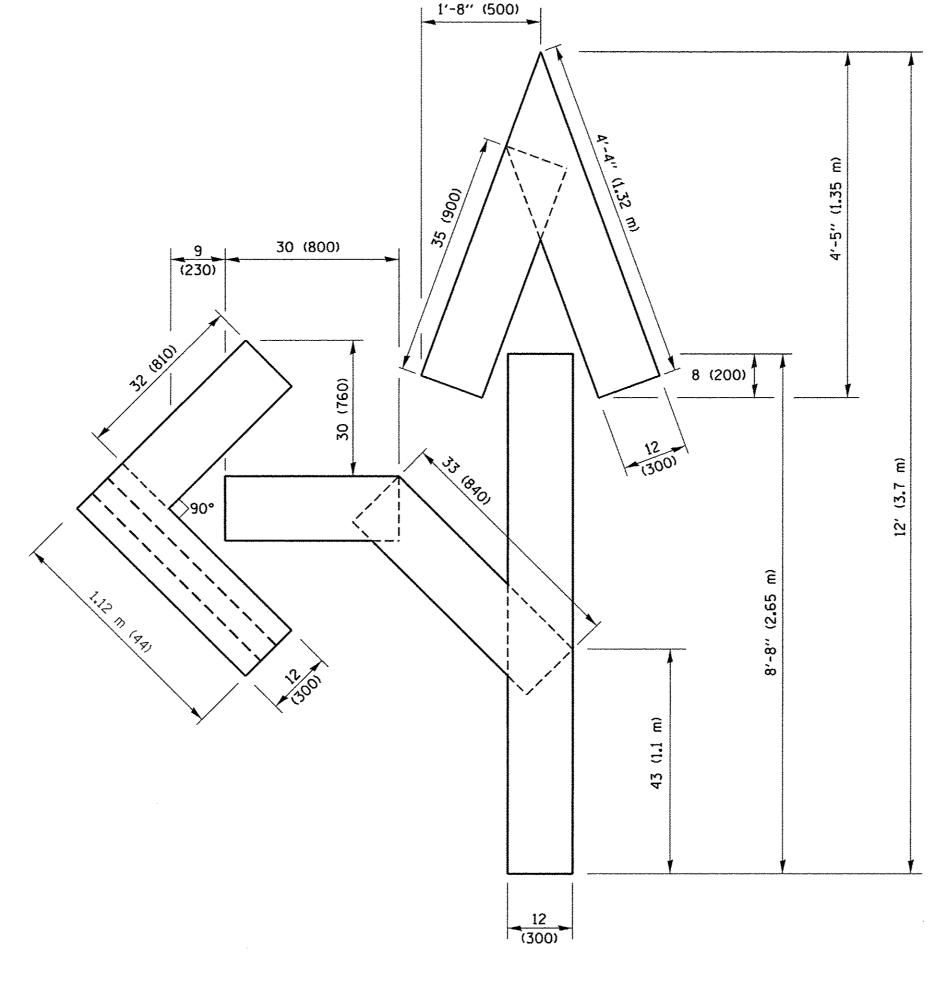


## **QUANTITY**

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

6' (2 m)

<del>*</del> 4 (100)	16 (400) * 16 (400) * 16 (400)  * 8 *
8' (2,450 m) 16 (400)	12 (300) 8 (200)
	ΟΙΙΔΝΤΙΤΥ 4 (100)

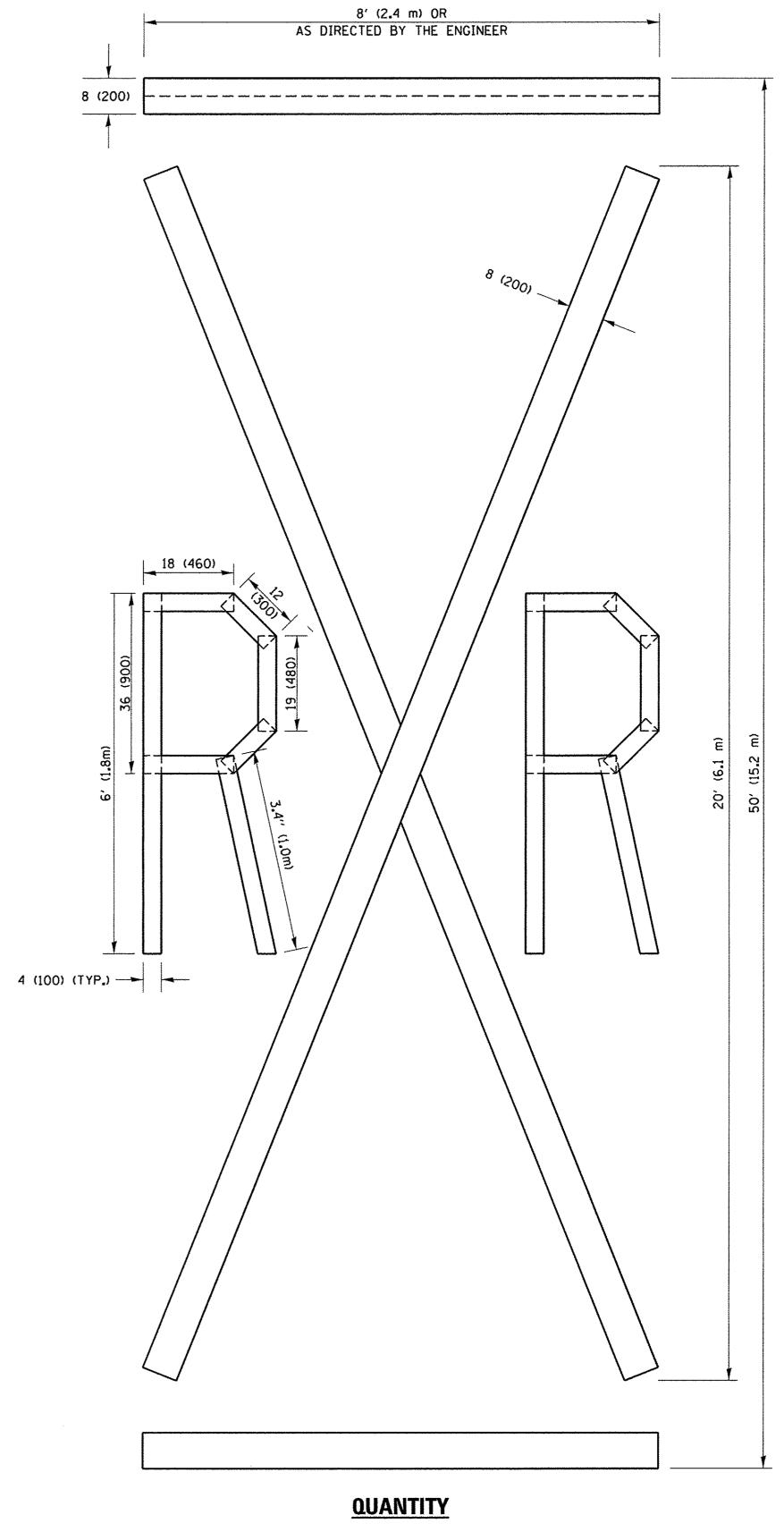


## **QUANTITY**

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.



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.

1	FILE NAME =	USER NAME = footemj	DESIGNED -	REVISED	-T. RAMMACHER 03-02-98
	pw:\\ILØ84EBIDINTEG.illinois.gov:PWIDOT\Do	cuments\IDOT Offices\District 1\Projects\Dist	S <b>∙DR'AWM</b> \CADData\CADsheets\tc16.dgn	REVISED	-E. GOMEZ 08-28-00
		PLOT SCALE = 50.0000 '/ in.	CHECKED -	REVISED	-E. GOMEZ 08-28-00
		PLOT DATE = 9/15/2016	DATE - 09-18-94	REVISED	- A. SCHUETZE 09-15-16

QUANTITY

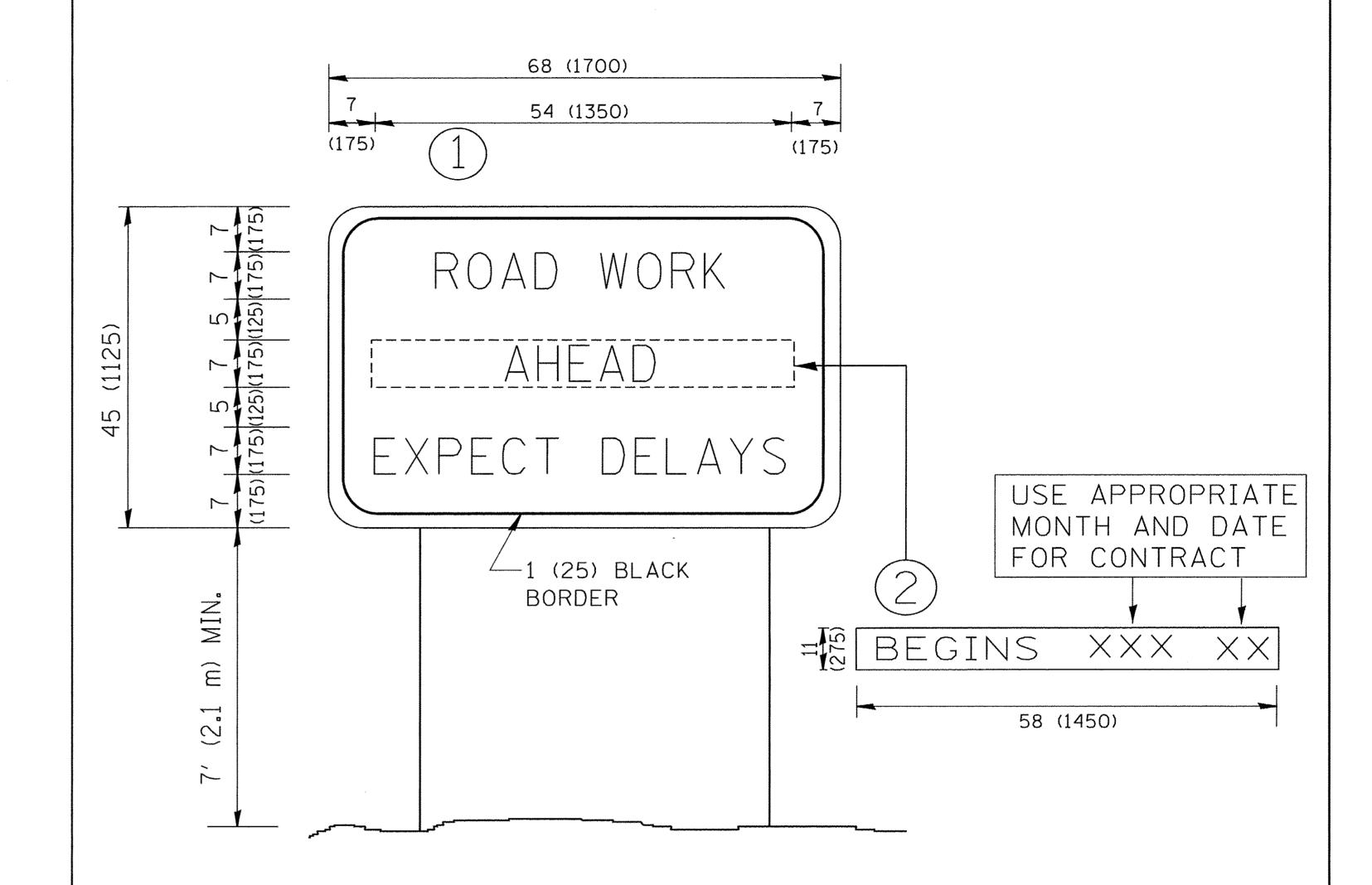
4 (100) LINE = 64.1 ft. (19.5 m)

21.4 sq. ft. (1.99 sq. m)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHORT	TERM	PAVE	MENT	MARKING	LETTERS	AND SYMBOLS	
SCALE: NONE	SHEET	NO. 1	OF 1	SHEETS	STA.	TO STA.	

F.A RTE.	SEC	TION	COUNTY	TOTAL SHEETS	SHEET NO.	
	16-00065-00-	RS .		DUPAGE	22	19
	TC-16		CONTRACT	NO. 6	1D78	
FED. R	OAD DIST. NO. 1	ILLINOIS	FED.	AID PROJECT		



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

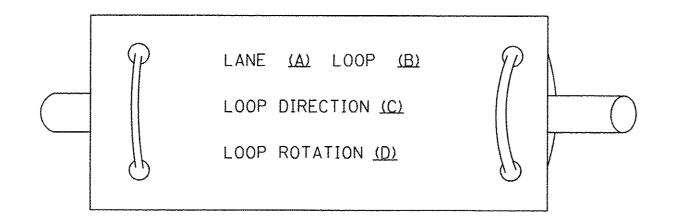
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97		ARTERIAL ROAD	F.A. SECTION	COUNTY TOTAL SHEET SHEETS NO.
W:\diststd\22x34\tc22.dgn		DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS		16-00065-00-RS	DUPAGE 22 20
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION	INFORMATION SIGN	TC-22	CONTRACT NO. 61D78
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07	SC	SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED.	

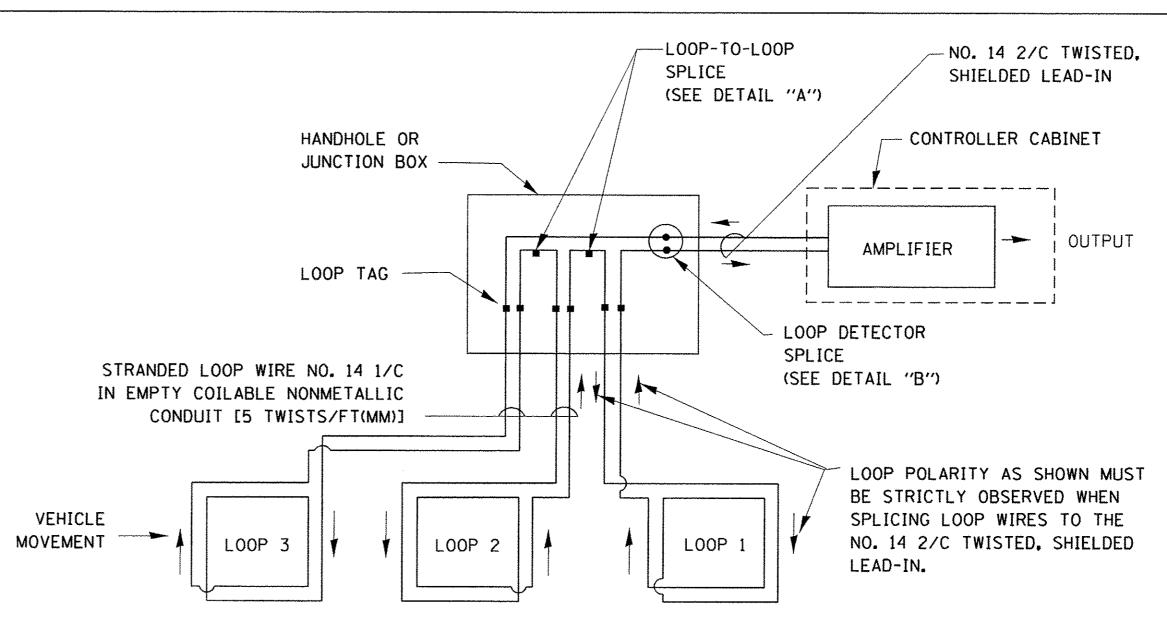
#### **LOOP DETECTOR NOTES**

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

### LOOP LEAD-IN CABLE TAG

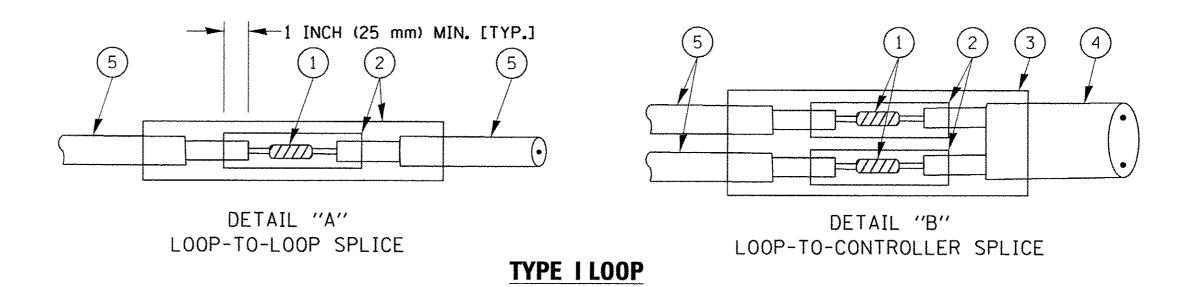


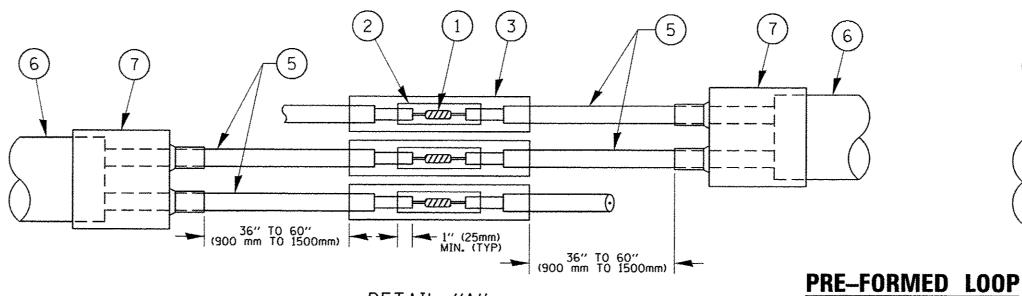
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

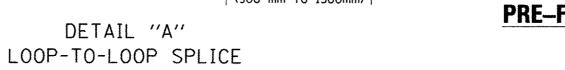


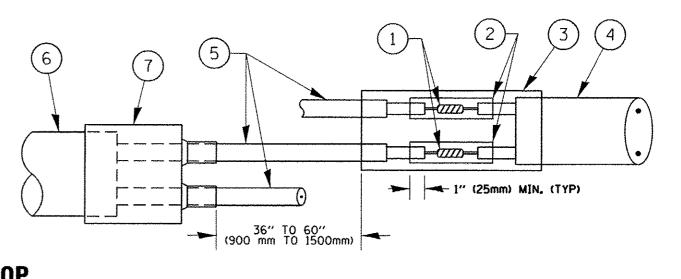
#### **DETECTOR LOOP WIRING SCHEMATIC**

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









DETAIL "B" LOOP-TO-CONTROLLER SPLICE

## LOOP DETECTOR SPLICE

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- (2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.

SCALE:

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

- (5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- 6 PRE-FORMED LOOP
- 7 STEAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE								
	STANDARD	TRAFFIC SIGNAL DESIGN	DETAILS					
NONE	SHEET NO. 2	OF 7 SHEETS STA.	TO STA.					

RTE. SECTION COUNTY SHEETS NO.

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TS-05 CONTRACT NO. 61D78

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

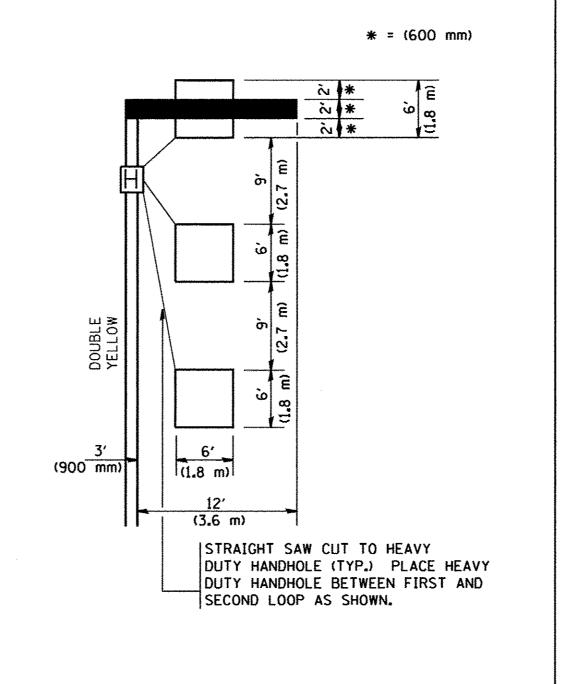
## LOOPS NEXT TO SHOULDERS PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER. PAVED OR NON-PAVED SHOULDER (1.5 m) (1.8 m) (1.5 m) \* 1" (25 mm) UNIT DUCT-TRENCHED (3.0 m)(3.0 m)TO E/P .. (900 mm) \*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS \* = (600 mm)BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS. NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO \* \* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS PLAN SHEET FOR DETECTOR LOOP REPLACEMENT 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.

TRENCHED 1" (25 mm) UNIT DUCT (3) \* \* \* = (600 mm)STRAIGHT SAW CUTS PERPENDICULAR TO MEDIAN (TYP.) (3.6 m)

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

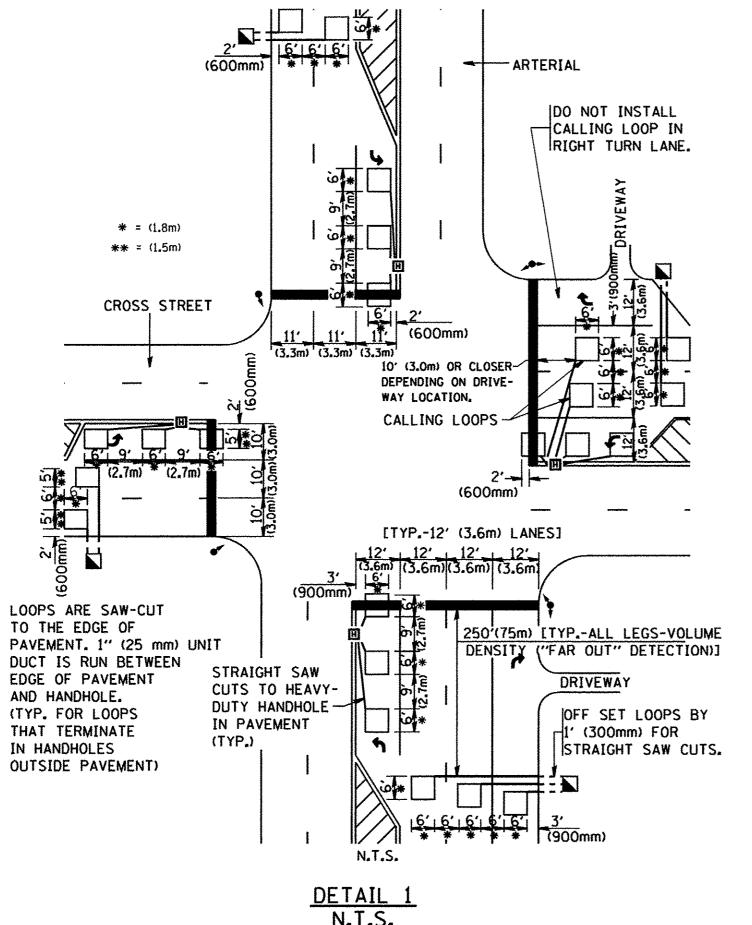


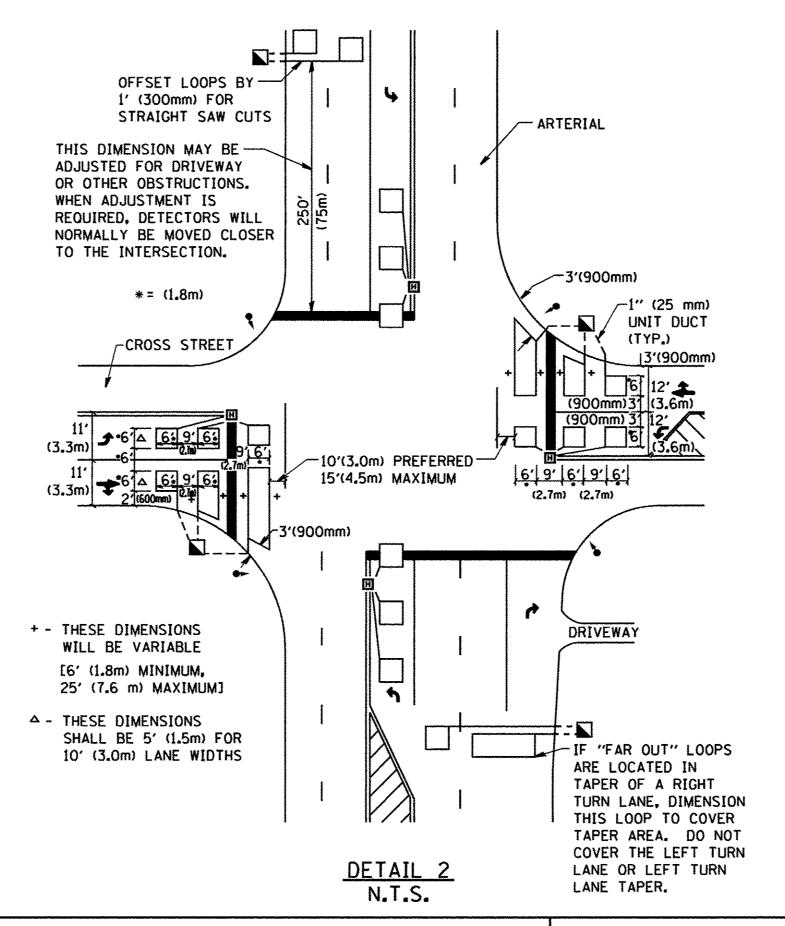
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

SCALE: NONE

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

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





NOTES:

#### VEHICLES LOOP DETECTORS

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

### PLACEMENT OF DETECTORS

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

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

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

#### NOTE:

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

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

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 1 – DETECTOR LOOP INSTALLATION  DETAILS FOR ROADWAY RESURFACING						RTE.	*		
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