04-27-2018 LETTING ITEM 148

# STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

### 2422 16-00061-00-RS DUPAGE 23 STA. 10+67.34 TO STA. 113+80.00 FED. ROAD DIST. NO. | LLINOIS | FED. AD PROJECT 4003(879)

CONTRACT #61D92

INDEX OF SHEETS **SEE SHEET NO. 2** 

HIGHWAY STANDARDS SEE SHEET NO. 2

SCHAUMBURG,

705

(847)

RIDDLE,

CHARLES

ENGINEER:

OFFICE

AND

2016 ADT -2040 ADT -

POSTED SPEED LIMIT -

DESIGN SPEED LIMIT -

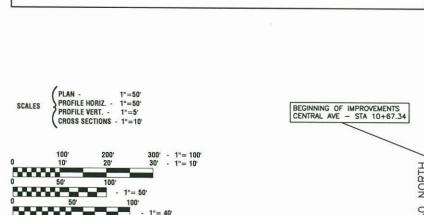
STREET CLASSIFICATION -

DESIGN PERIOD -

# PLANS FOR PROPOSED FEDERAL AID HIGHWAY

**FAU 2422 (CENTRAL AVENUE) ROADWAY RESURFACING** PROJECT NO.: 4003(879) VILLAGE of ROSELLE **DUPAGE COUNTY** 

**GARY AVENUE TO ROSELLE ROAD** SECTION NO.: 16-00061-00-RS C-91-162-17



35 mph URBAN MAJOR COLLECTOR

CENTRAL AVENUE

10,021

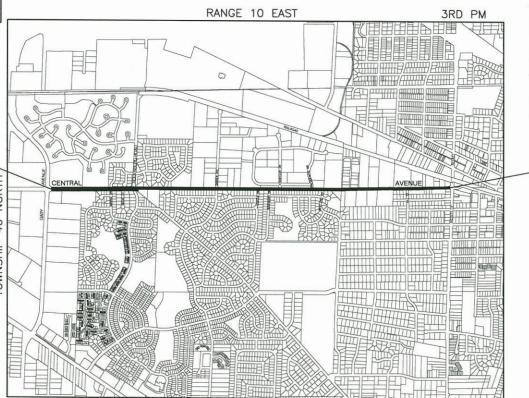
25-35 mph

20 YEARS

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.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1 - 800 - 892 - 0123 or 811

CONTRACT NO. 61D92

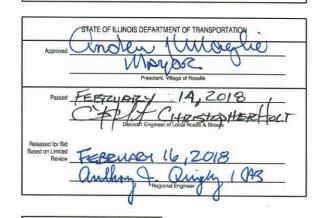


LOCATION MAP

GROSS LENGTH=10,313 FEET=2.0 MILES

NET LENGTH=10,313 FEET=2.0 MILES

BLOOMINGDALE TOWNSHIP



LOCATION OF SECTION INDICATED THUS:

PRINTED BY THE AUTHORITY OF

THE STATE OF ILLINOIS

PREPARED BY OR UNDER THE

END OF IMPROVEMENTS CENTRAL AVE - STA 113+80.00

LICENSE EXPIRES: 11/30/19

### INDEX OF SHEETS

- COVER SHEET
- INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES SUMMARY OF QUANTITIES
- TYPICAL SECTIONS
- PROPOSED PLAN
- 9.-12. 13.-22. PAVEMENT MARKING PLAN
  IDOT DISTRICT 1 STANDARD DETAILS

### **HIGHWAY STANDARDS**

- STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS 424001-10 424011-03 424016-04 PERFENDICULAR CURB RAMPS
  CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
  MID—BLOCK CURB RAMPS FOR SIDEWALKS
  DEPRESSED CORNER FOR SIDEWALKS
- 424021-04
- CLASS C AND D PATCHES
  CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER 701006-05
- OFF-ROAD OPERATIONS, 2L, 2W, 15'(4.5m) TO 24"(600mm) FROM PAVEMENT EDGE LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
  LANE CLOSURES, 2L, 2W, MOVING OPERATIONS DAY ONLY
- 701501-06
- URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
  URBAN LANE CLOSURE, 2L, 2W, WITH DIRECTIONAL LEFT TURN LANE
  URBAN LANE CLOSURE, MULTILANE, TW OR 2W WITH NONTRANSVERSABLE MEDIAN
  URBAN LANE CLOSURE, MULTILANE, IN TERSECTION
- SIDEWALK, CORNER OR CROSSWALK CLOSURE
- 701801-06 701901-07
- TRAFFIC CONTROL DEVICES
  TYPICAL PAVEMENT MARKINGS

### **DISTRICT ONE DETAILS**

- DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING
- PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT BUTT JOINT AND HMA TAPER DETAILS
- BD-32
- DISTRICT ON TYPICAL PAVEMENT MARKINGS
  PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
- TC-22 ARTERIAL ROAD INFORMATION SIGN
- STANDARD TRAFFIC SIGNAL DESIGN DETAILS LOOP DETECTOR INSTALLATION DETAILS FOR ROADWAY RESURFACING

### **GENERAL NOTES**

FILE NAME = 16R0610-NOTE-01 - P01

USER NAME =

PLOT SCALE =

PLOT DATE = 03-17-17

- ALL REFERENCES TO "STANDARD SPECIFICATIONS" IN THESE GENERAL NOTES SHALL BE INTERPRETED TO MEAN "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION, APRIL 1, 2016.
- 2. ALL REFERENCES TO "ENGINEER" SHALL BE INTERPRETED TO MEAN THE RESIDENT ENGINEER.
- 3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS PRIOR TO BIDDING ON THE PROJECT.
- 4. BEFORE STARTING ANY EXCAVATION THE CONTRACT SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOUR NOTIFICATION REQUIRED)
- 5. THE CONTRACTOR WILL NOT BE ALLOWED TO SETUP A YARD OR FIELD OFFICE ON STATE OR VILLAGE PROPERTY OR RIGHT OF WAY WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.
- 6. SAW CUTTING OF PAVEMENTS. SIDEWALK, ETC. SHALL BE TO FULL DEPTH AND SHALL RESULT IN A CLEAN STRAIGHT EDGE ON THE PORTION REMAINING.

DESIGNED — GG

CHECKED - AG

DRAWN

CHECKED - HLG

— RG

REVISED REVISED

REVISED

REVISED

- 7. OFFSET LOCATIONS GIVEN IN THE PLANS FOR STRUCTURES, EDGE OF PAVEMENT, ETC. ARE FROM THE ROADWAY CENTERLINE.
- HOT-MIX ASPHALT SURFACE REMOVAL BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE BUTT JOINT AND HOT-MIX ASPHALT TAPER DETAILS SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
- QUANTITIES FOR PATCHING SHALL NOT EXCEED THOSE PROVIDED IN THE SUMMARY OF QUANTITIES UNLESS OTHERWISE APPROVED BY THE ENGINEER. THE ENGINEER WILL VERIFY FINAL PATCH LOCATIONS IN THE FIELD, PRIOR TO REMOVAL.
- 10. THE THICKNESS OF HMA MIXTURE STATED IN THE SPECIFICATIONS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA SURFACE IS PLACED.

### **UTILITY NOTES**

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL UTILITIES PRIOR TO CONSTRUCTION TO DETERMINE THE LOCATION OF ALL UTILITY EQUIPMENT. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY OWNERS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS IF UTILITY RELOCATION, ADJUSTMENT, OR PROTECTION IS NECESSARY.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND AND SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY PROPERTY DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER IN ACCORDANCE WITH ARTICLES 105.07 AND 107.20.
- 3. ALL UTILITY OWNERS SHALL BE NOTIFIED AT LEAST 3 DAYS PRIOR TO THE START OF CONSTRUCTION
- 4. THE CONTRACTOR SHALL USE ALL NECESSARY PRECAUTIONS AND PROTECTION MEASURES REQUIRED TO MAINTAIN EXISTING UTILITES,
- 5. THE CONTRACTOR SHALL VERIFY THAT ALL WATER SYSTEM VALVES, VALVE VAULTS, FIRE HYDRANTS, AND SANITARY SEWER MANHOLES REMAIN READILY ACCESSIBLE TO THE VILLAGE FOR EMERGENCY OPERATIONS. THE LOCATIONS OF ALL WATER AND SANITARY FACILITIES SHALL BE MARKED AND READILY VISIBLE AT ALL TIMES.
- 6. ALL LOOSE MATERIAL DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES, WHICH OBSTRUCTS THE NATURAL FLOW OF WATER SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. PRIOR TO ACCEPTANCE OF THE IMPROVEMENT, ALL DRAINAGE STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS.

### **MISCELLANEOUS**

- 1. MATERIALS RESULTING FROM THE REMOVAL OF CONCRETE SURFACES, UTILITY STRUCTURE ADJUSTMENT, RESTORATION WORK, ETC. SHALL BE REMOVED AT THE END OF EACH DAY TO AN APPROVED SITE
- 2. THE INDISCRIMINATE USE OF FIRE HYDRANTS, EXISTING STREAMS, CREEKS, OR PONDS IS STRICTLY PROHIBITED. THE CONTRACTOR SHALL PROVIDE A WATER TRUCK AND DRIVER AS REQUIRED TO OBTAIN AND TRANSPORT THIS WATER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WATER FROM AN APPROVED SOURCE. IF THIS WATER IS FROM A SOURCE OTHER THAN HIS/HER YARD. WRITTEN APPROVAL FROM THE ACENCY HAVING JURISDICTION FOR THE SOURCE OF THE WATER MUST BE RECEIVED BY THE CONTRACTOR PRIOR TO USE OF THE WATER.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SWEEPING AND CLEANING STREETS OF ANY DEBRIS AND MATERIAL THAT HAS ACCUMULATED AS A RESULT OF THE CONSTRUCTION ACTIVITY. A MECHANICAL SWEEPER, MECHANICALLY DRIVEN AIR AND HANDWORK WITH SHOVEL AND BROOM SHALL BE UTILIZED TO PROVIDE A CLEAN STREET FOR THE MOTORING PUBLIC. WITHIN 24 HOURS OF PLACING TACK COAT AND THE LAYING OF HMA, THE CONTRACTOR SHALL SWEEP THE PAVEMENT AND REMOVE STANDING WATER, EARTH, WEEDS, LEAVES, DIRT, CONSTRUCTION DEBRIS AND ALL LOOSE MATERIAL.
- 4. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY RESIDENTS AND THE VILLAGE WHEN ACCESS TO THEIR DRIVEWAYS WILL BE TEMPORARILY CLOSED DUE TO SIDEWALK REPLACEMENT AND/OR CURB AND GUTTER REPLACEMENT. AT LOCATIONS WHERE THE SIDEWALK OR CURB AND GUTTER IS SCHEDULED TO BE REMOVED. THE CONTRACTOR SHALL CONTACT THE BUSINESS/HOMEOWNER 24 HOURS
  PRIOR TO REMOVING THE CURB OR SIDEWALK. EVERY EFFORT SHALL BE MADE TO ACCOMMODATE ACCESS TO THESE PROPERTIES. THE
  CONTRACTOR SHALL NOT BE ALLOWED TO CLOSE A DRIVEWAY FOR MORE THAN 48 HOURS UNDER ANY CIRCUMSTRANCE. THE
  CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE BARRICADES TO PREVENT TRAFFIC FROM USING THE DRIVEWAYS DURING
- 5. WHEN REMOVING PAVEMENT, CURB AND GUTTER, SHOULDER, AND/OR AND OTHER STRUCTURES, THE USE OF ANY TYPE OF CONCRETE BREAKERS WHICH MIGHT DAMAGE UNDERGROUND PUBLIC OR PRIVATE UTILITIES AND BUILDING FOUNDATIONS WILL NOT BE PERMITTED. UNDER NO CIRCUMSTANCES WILL THE USE OF A FROST BALL BE PERMITTED.

OTATE OF ILLINIOIS		ROADWAY RESURFACING					SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INIDEV	NE CHEETO	CENTRAL AVE		NEDAL NOTES	2422	16-00061-00-RS	DUPAGE	22	2
	INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES							CONTRACT	NO. 61D9	12
	SCALE: NONE SHEET NO. 2 OF 22 SHEETS STA. TO STA.					FED. ROA	AD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		

		SUMMARY OF QUANTITIES	T	LTOTAL	TYPE CO
S.I.	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWA 0005
	35800200	AGGREGATE BASE REPAIR	TON	50	
	40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	60	
	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	27,540	
	40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	70	
	40600827	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	1,885	
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	633	
	40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	4,570	
	42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	SQ YD	135	·
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	2,450	
	42400400	PORTLAND CEMENT CONCRETE SIDEWALK 7 INCH	SQ FT	560	
	42400800	DETECTABLE WARNINGS	SQ FT	480	
	44000100	PAVEMENT REMOVAL	SQ YD	75	
	44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	40,800	
	44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	285	
	44201749	CLASS D PATCHES, TYPE I, 9 INCH	SQ YD	155	
	44201753	CLASS D PATCHES, TYPE II,9 INCH	SQ YD	335	
	44201757	CLASS D PATCHES, TYPE III, 9 INCH	SQ YD	130	
	44201759	CLASS D PATCHES, TYPE IV, 9 INCH	SQ YD	365	
	60250200	CATCH BASINS TO BE ADJUSTED	EACH	41	
	60255500	MANHOLES TO BE ADJUSTED	EACH	3	
	67100100	MOBILIZATION	LSUM	1	
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	LSUM	1	
	70102622	TRAFFIC CONTROL AND PROTECTION, STANDARD 701502	LSUM	1	
		TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	LSUM		

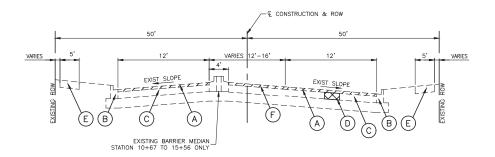
* -	INDICATES	SPECIALTY	ITEMS
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FILE NAME == 16R0610-QUAN-01 - IDOT-Q01	USER NAME =	DESIGNED — GG	REVISED —	
		CHECKED HLG	REVISED —	
	PLOT SCALE =	DRAWN — RG	REVISED —	
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### STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

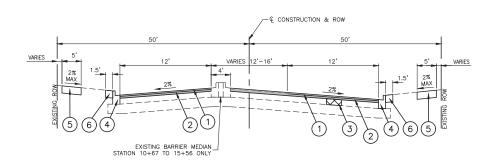
				FACING			F.A.U RTE.	SEC	ION		COUNTY	TOTAL SHEETS	S
						2422 16-00061-00-RS				DUPAGE	22		
	SUM	MARY	OF QUA	NTITIES							CONTRACT	NO. 61D	92
SCALE: NONE	SHEET NO. 3 C	OF 22	SHEETS	STA.	TO STA.		FED. RO	AD DIST. NO. 1	ILLINOIS	FED. A	D PROJECT		

		SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE
S.I.	CODE NO.	ITEM	UNIT	TOTAL	ROADWAY 0005
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	1	
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1	
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	17,400	
	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	5,800	
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	1,340	
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	20,600	
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	2,300	
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	670	
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	135	
*	85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	3	
*	88600600	DETECTOR LOOP REPLACEMENT	FOOT	1,070	
	Z0004522	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 6"	SQ YD	150	
	Z0004562	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACMENT	FOOT	2,760	
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	257	
	X4404700	SIDEWALK REMOVAL (SPECIAL)	SQ FT	1,900	
	X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	14	
	XX006343	SEEDING (COMPLETE)	SQ YD	750	
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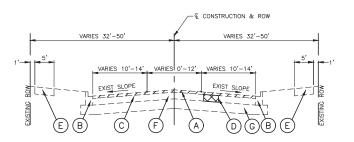
### **EXISTING TYPICAL SECTION**

STA. 10+67.34 TO 32+22.00, CENTRAL AVE GARY AVENUE TO RODENBURG ROAD



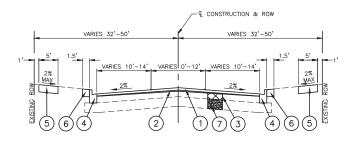
### PROPOSED TYPICAL SECTION

STA. 10+67.34 TO 32+22.00, CENTRAL AVE GARY AVENUE TO RODENBURG ROAD



### **EXISTING TYPICAL SECTION**

STA. 32+22.00 TO 113+80.00, CENTRAL AVE RODENBURG ROAD TO ROSELLE ROAD



### PROPOSED TYPICAL SECTION

STA. 32+22.00 TO 113+80.00, CENTRAL AVE RODENBURG ROAD TO ROSELLE ROAD

### EXISTING LEGEND

- HOT MIX ASPHALT SURFACE REMOVAL, 2.5"
- EXISTING CURB & GUTTER TO BE REMOVED AT LOCATIONS SHOWN  $\bigcirc$ B ON PLANS OR DIRECTED BY ENGINEER
- 0 EXISTING HOT-MIX ASPHALT PAVEMENT (3.5" TO 17.25")
- PAVEMENT REMOVAL FOR CLASS D PATCHES
- E EXISTING PCC SIDEWALK TO BE REMOVED AT LOCATIONS SHOWN ON PLANS OR DIRECTED BY ENGINEER
- EXISTING STRIPED MEDIAN/LEFT TURN LANE
- G EXISTING AGGREGATE SUBGRADE

### PROPOSED LEGEND

- HOT MIX ASPHALT SURFACE COURSE, MIX "D", N70, 2"
- 2 POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- 3 CLASS D PATCH, 9" AT LOCATIONS SHOWN ON PLANS OR DIRECTED BY ENGINEER
- PROPOSED CURB AND GUTTER TO BE INSTALLED AT LOCATIONS SHOWN ON PLAN OR DIRECTED BY ENGINEER (IN KIND) 4
- PROPOSED PORTLAND CEMENT CONCRETE SIDEWALK 5" (REPLACEMENT AT LOCATIONS DIRECTED BY THE ENGINEER) (5)
- SEEDING (COMPLETE), SPECIAL WITH 4" TOPSOIL AND EROSION CONTROL BLANKET. 1.5' MAXIMUM WIDTH PER BD-24. 6
- 7 AGGREGATE BASE REPAIR

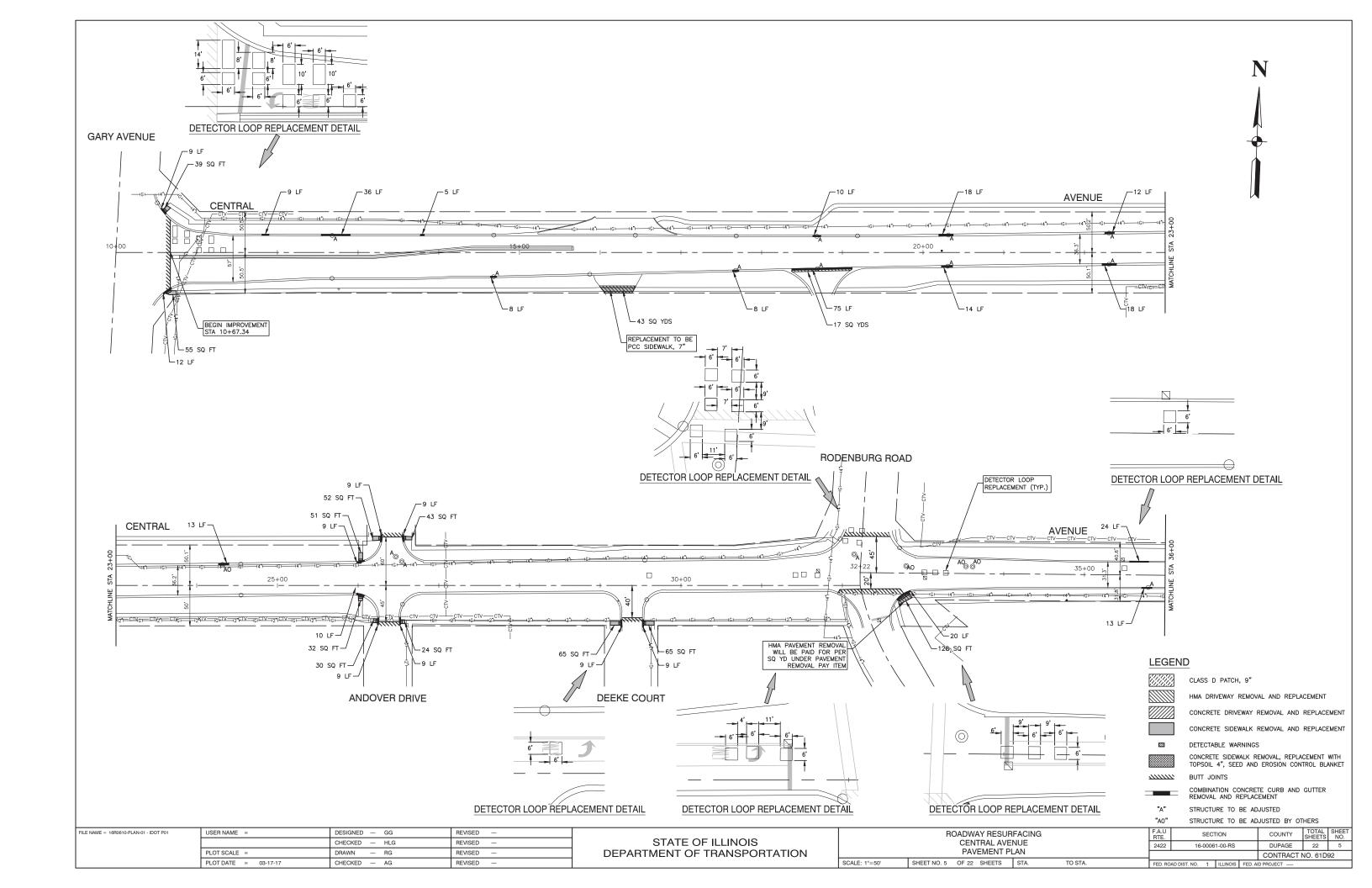
### HOT-MIX ASPHALT MIXTURE REQUIREMENTS

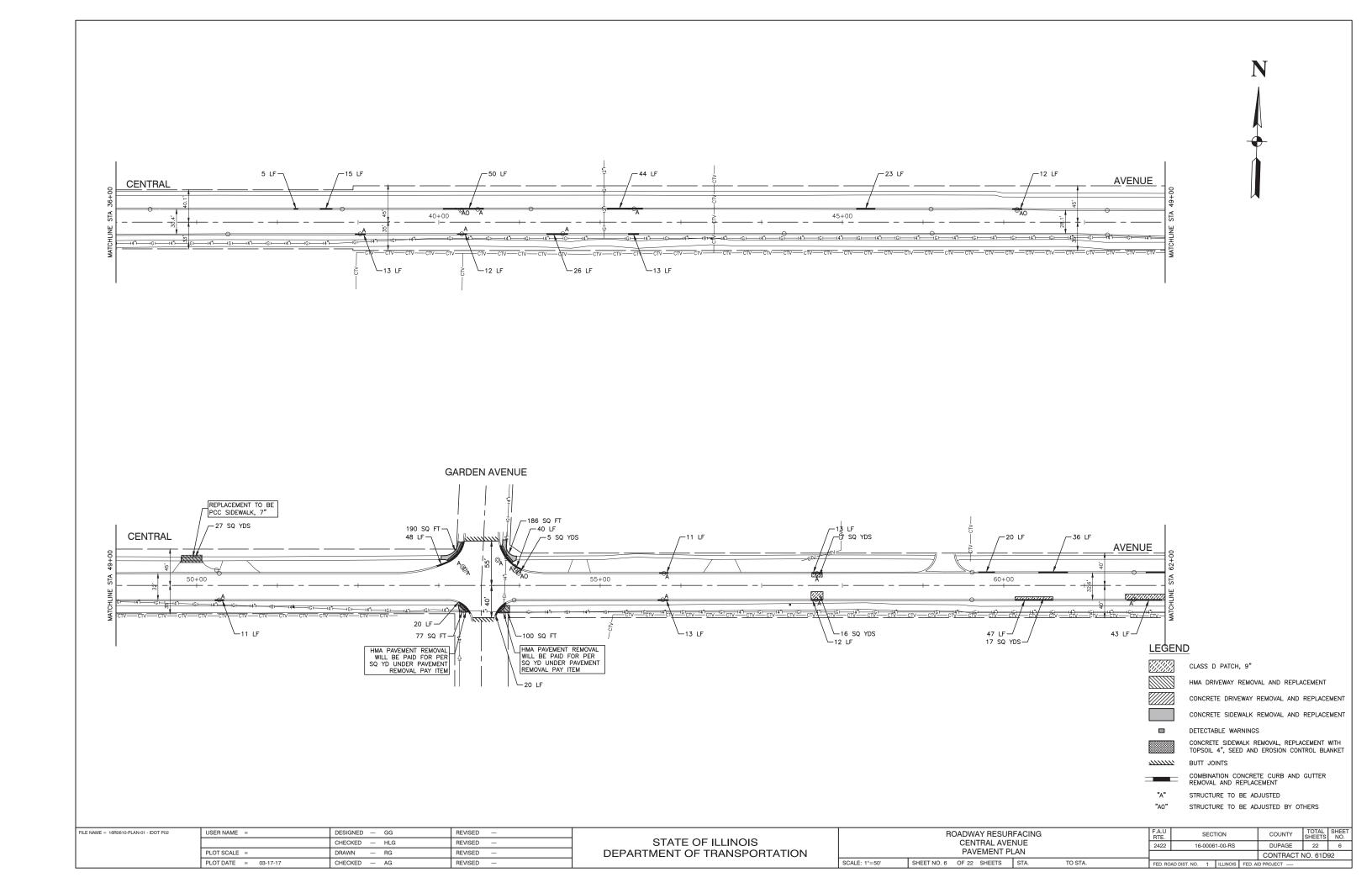
(CONTRACTOR SHALL WILL BEFORE FATCHING)	
MIXTURE TYPE	AIR VOIDS @ Ndes
RESURFACING	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 2"	4% 🕲 70 Gyr.
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"	3.5% @ 50 Gyr.
PATCHING	
CLASS D PATCHES, TYPE I, II, III, IV, (HMA BINDER IL-19.0mm): 9" (IN 3 LIFTS)	4% @ 70 Gyr.
DRIVEWAYS	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 2"	4% @ 50 Gyr.
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 4" (IN 2 LIFTS)	4% @ 50 Gyr.

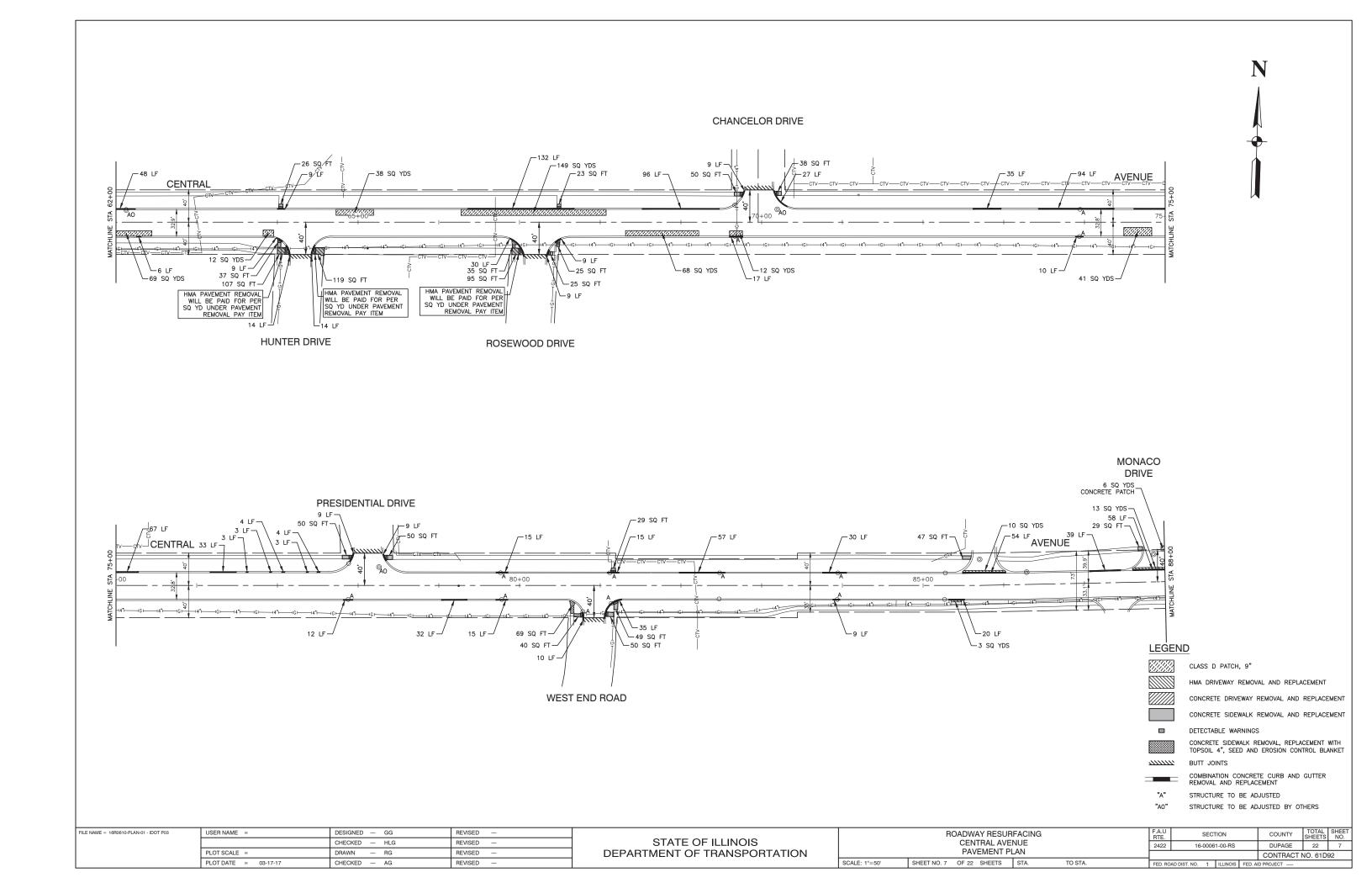
### NOTES:

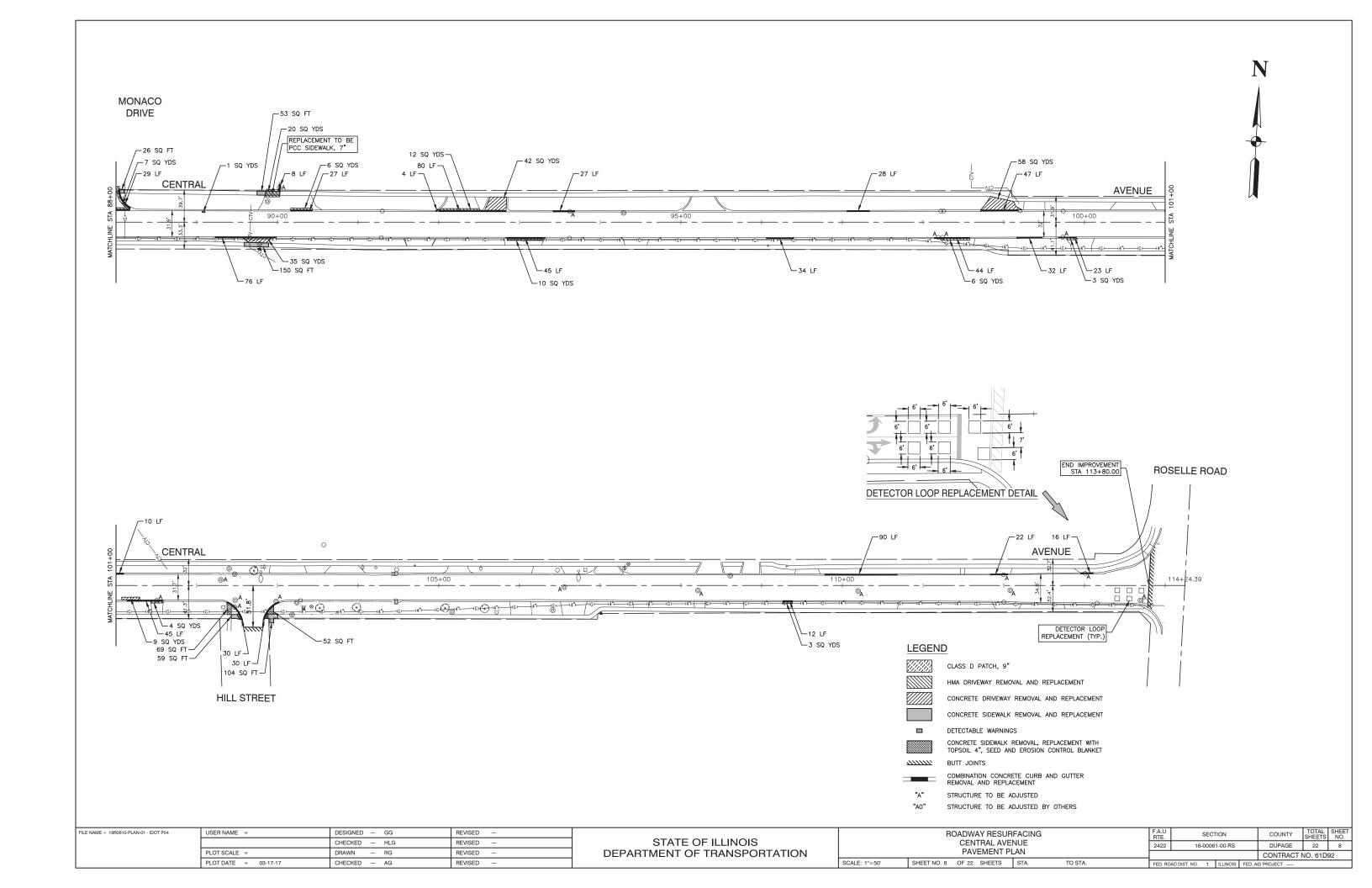
- 1. THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
- 2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.
- 3. FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.
- 4. CLASS D PATCHES, TYPE I, II, III & IV AT APPROXIMATE STATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- 5. HMA PATH FROM STA 32+20 TO STA 67+10.

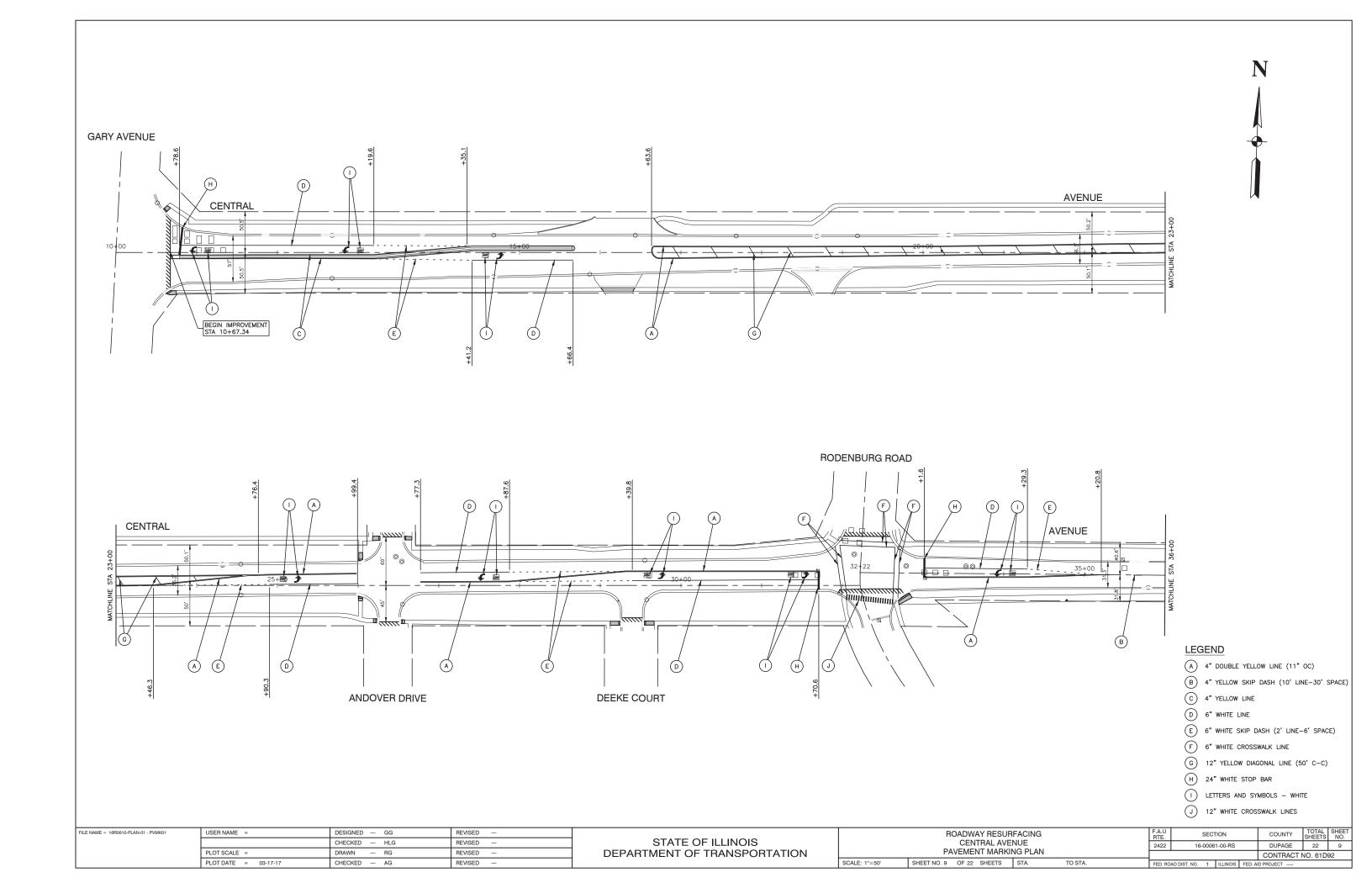
FILE NAME = 16R0610-TYPX-01 - IDOT P01	USER NAME =	DESIGNED — GG	REVISED —		ROADWAY RESURFACING	F.A.U RTE	SECTION	COUNTY TO	OTAL SHEET
		CHECKED — HLG	REVISED —	STATE OF ILLINOIS	CENTRAL AVENUE	2422 16	16-00061-00-RS	DUPAGE	22 4
	PLOT SCALE =	DRAWN — RG	REVISED —	DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS	-		CONTRACT NO	61D92
LAST SAVED BY: JBERNARDI ON 3/29/17 PLOTTED BY: MATTHEW DOWNS ON 1/31/18	PLOT DATE = 03-17-17	CHECKED — AG	REVISED —		SCALE: NONE SHEET NO. 4 OF 22 SHEETS STA. TO STA.	FED. ROAD DIST. NO.	. 1 ILLINOIS FED. A		

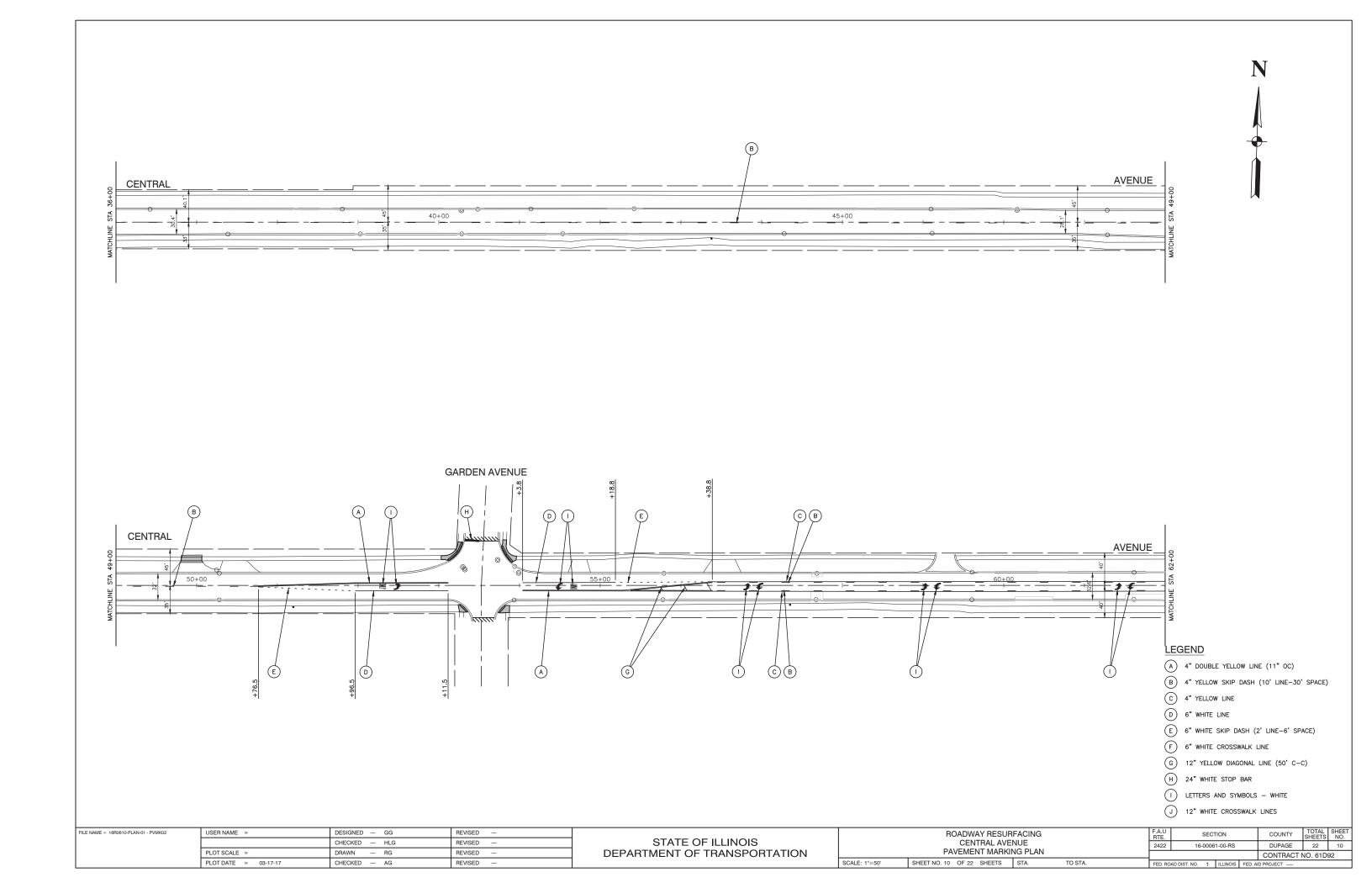


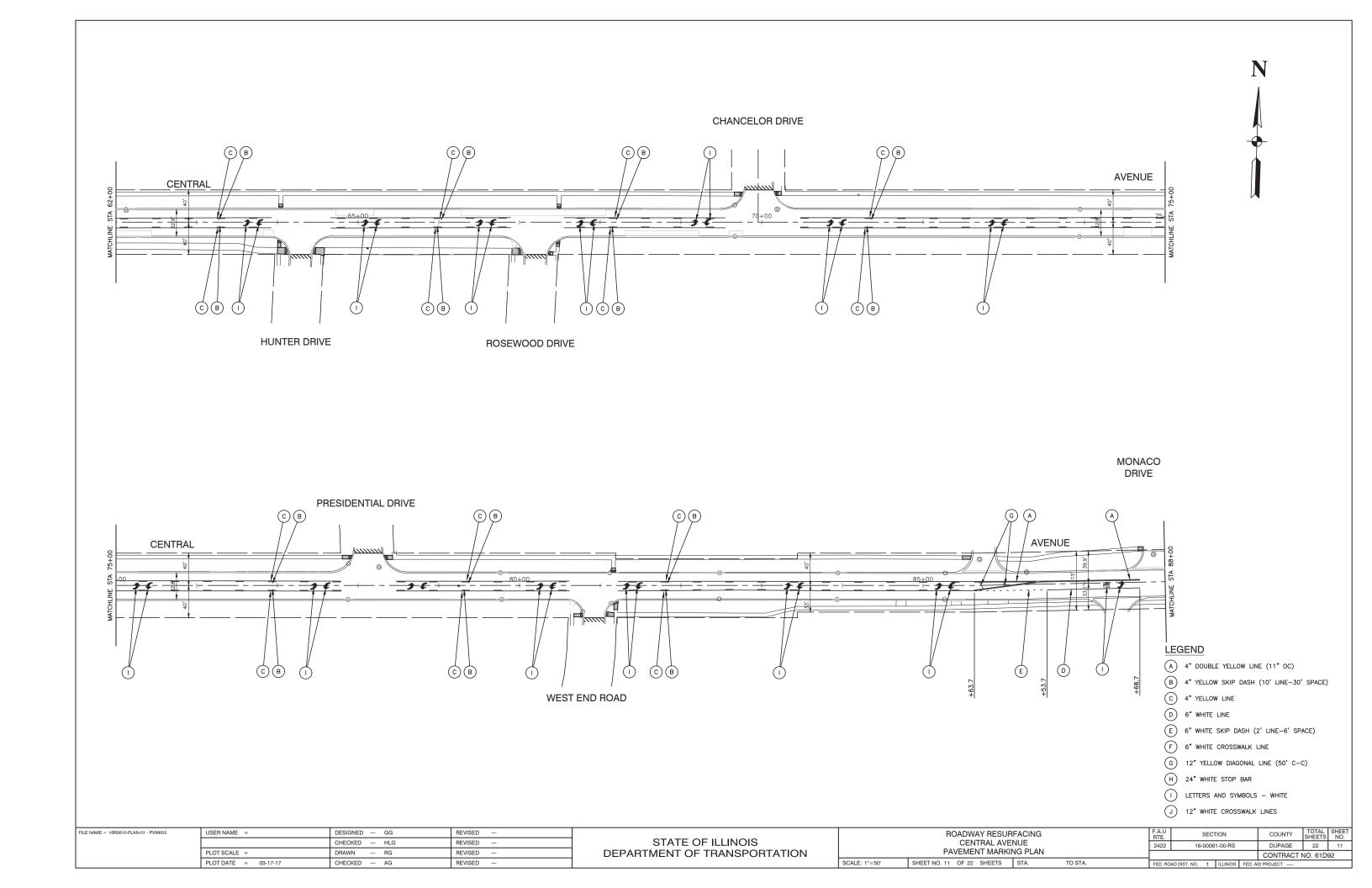


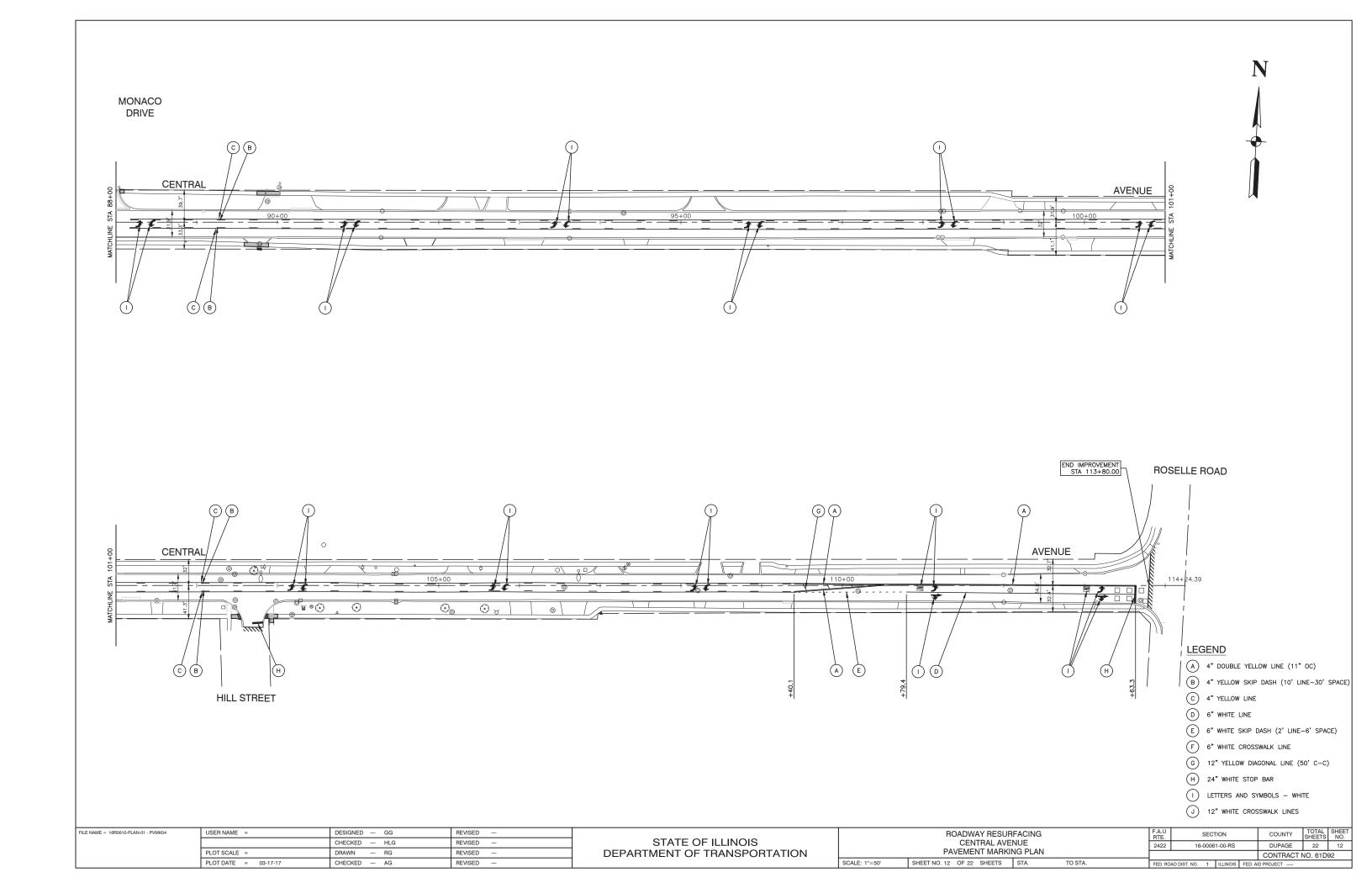


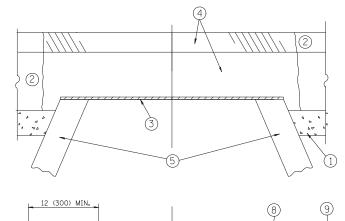


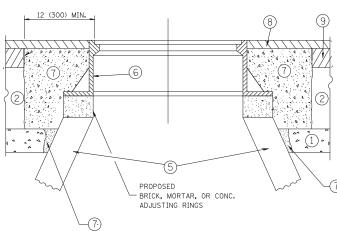












### NOTES:

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.

SCALE:

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.

### 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 11/2 (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."

### LEGENE

- 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
- 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.

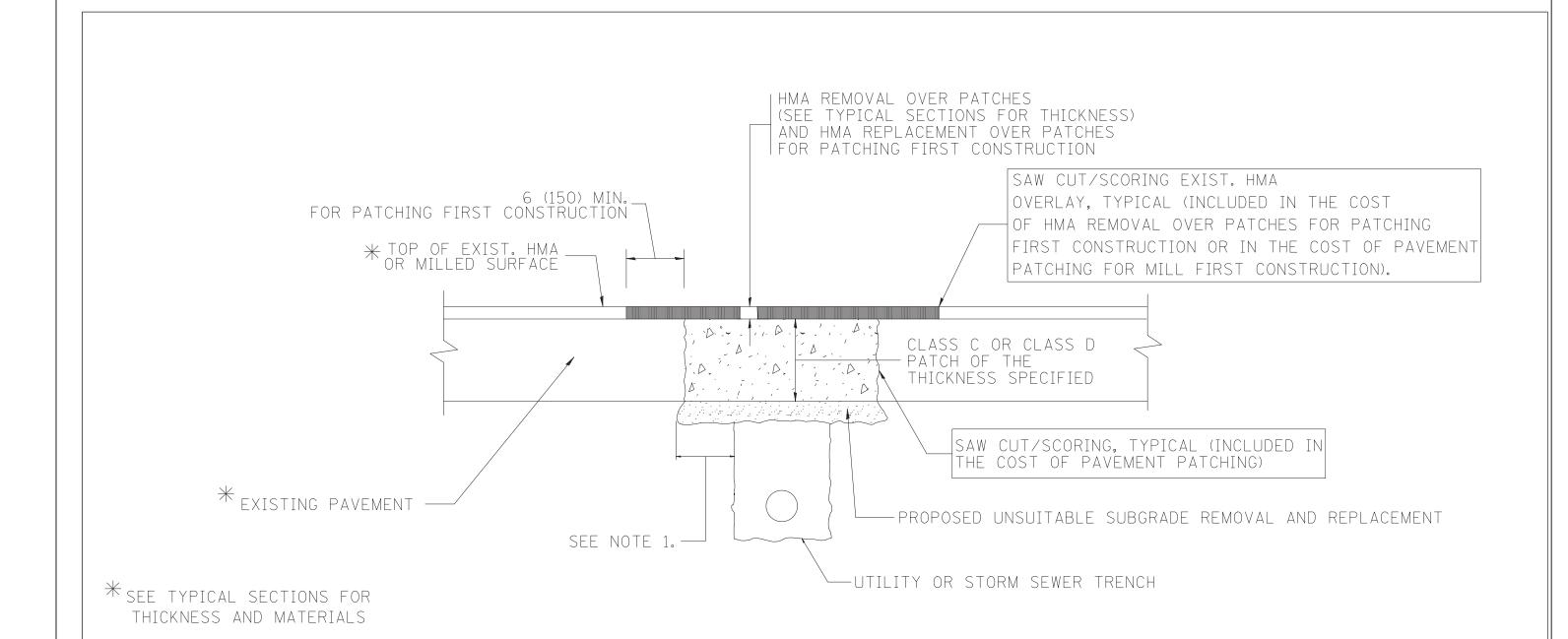
DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PETAILS FOR
FRAMES AND LIDS ADJUSTMENT WITH MILLING
SHEET NO. 13 OF 22 SHEETS STA. TO STA.

| FA.U | SECTION | COUNTY | TOTAL | SHE | SHEETS | NO | 2422 | 16-00061-00-RS | DUPAGE | 22 | 13 | | BD606-03 (RD-1) | CONTRACT NO. 61D92



### 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)

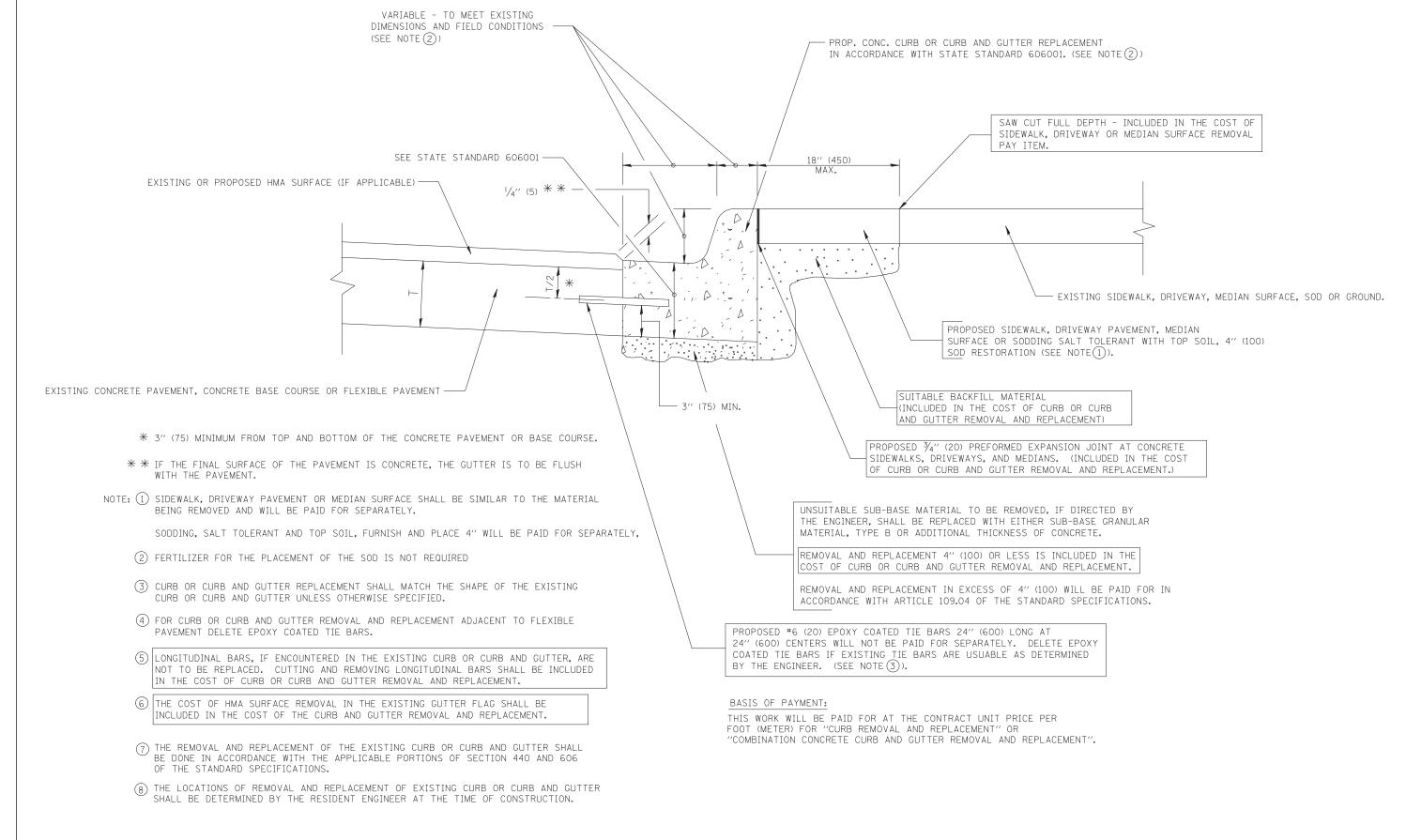
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

### SEQUENCE OF CONSTRUCTION (MILLING FIRST)

- 1. MILL HMA FIRST IF THERE IS AT LEAST 41/2 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 = 16R0610-DTLS-01 - BD-22 USER NAME = DESIGNED — REVISED — A. ABBAS 04-27-98 **PAVEMENT PATCHING FOR** STATE OF ILLINOIS CHECKED -REVISED - R. BORO 01-01-07 16-00061-00-BS DUPAGE 22 HMA SURFACED PAVEMENT REVISED — R. BORO 09-04-07
REVISED — K. ENG 10-27-08 PLOT SCALE = DEPARTMENT OF TRANSPORTATION BD400-04 (BD-22) CONTRACT NO. 61D92 SHEET NO. 14 OF 22 SHEETS STA. PLOT DATE = CHECKED



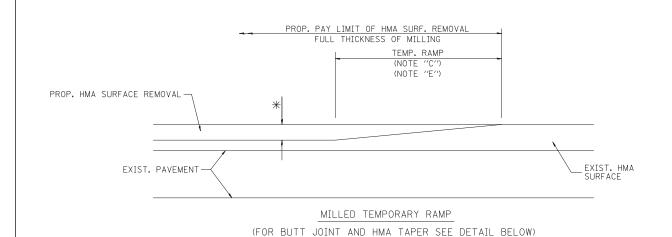
# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

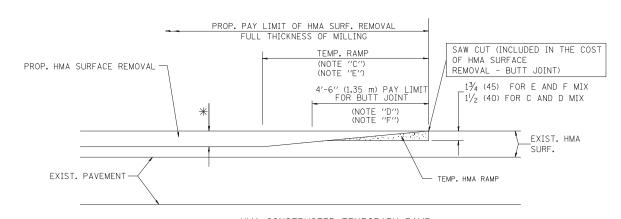
LE NAME = 16R0610-DTLS-01 - BD-24	USER NAME =	DESIGNED —	REVISED	— R. SHAH 10-03-96
		CHECKED —	REVISED	— A. ABBAS 03-21-97
	PLOT SCALE =	DRAWN —	REVISED	- M. GOMEZ 01-22-01
	PLOT DATE =	CHECKED —	REVISED	- R. BORO 12-15-09

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

	CURB OR CURB AND SUTTER REMOVAL AND REPLACEMENT					SECT	COUNTY	TOTAL SHEETS	SHEE NO.		
						2422 16-00061-00-RS			DUPAGE	22	15
						BD600-06 (B	D-24)		CONTRACT I	VO. 61D	92
	SHEET NO. 15 OF 22 SH	HEETS	STA.	TO STA.	FED. RO	AD DIST. NO. 1	ILLINOIS	FED. A	D PROJECT		



### OPTION 1

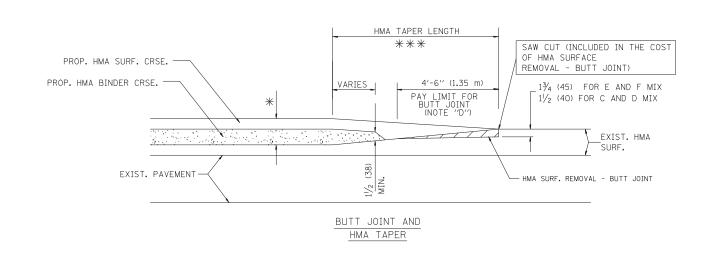


HMA CONSTRUCTED TEMPORARY RAMP

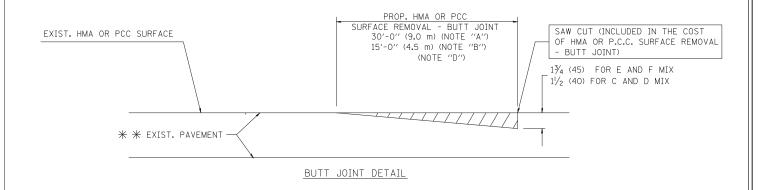
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

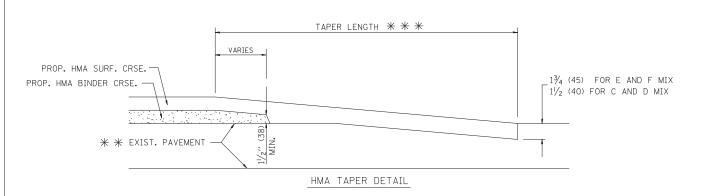
OPTION 2

### TYPICAL TEMPORARY RAMP



# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING





# 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")

SCALE:

### BASIS OF PAYMENT:

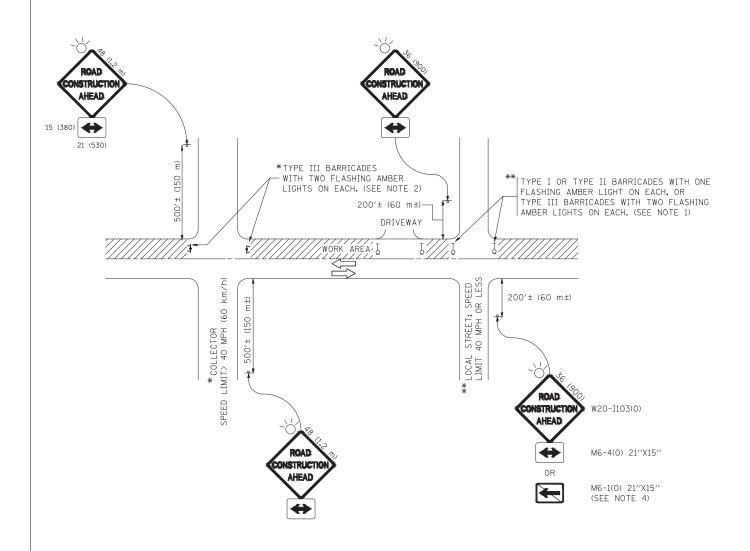
THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SOUARE YARD (SOUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

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

FILE NAM	ME = 16R0610-DTLS-01 - BD-32	USER NAME =	DESIGNED —	REVISED	_	R. SHAH 10-25-94
			CHECKED —	REVISED	_	A. ABBAS 03-21-97
		PLOT SCALE =	DRAWN —	REVISED	_	M. GOMEZ 04-06-01
		PLOT DATE =	CHECKED —	REVISED	_	R. BORO 01-01-07

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

	BUTT JOINT AND					F.A.U RTE.	SECT	ΓΙΟΝ		COUNTY	TOTAL SHEETS	
HMA TAPER DETAILS						2422	16-00061-00-RS			DUPAGE	22	16
TIMA TAPER DETAILS							BD400-05	BD32		CONTRACT	NO. 61D9	92
SHEET NO. 16	OF 22	SHEETS	STA.	TO STA.		FED. RO.	AD DIST. NO. 1	ILLINOIS	FED. Al	D 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:
  - d) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48  $\times$  48 (1.2 m  $\times$  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:

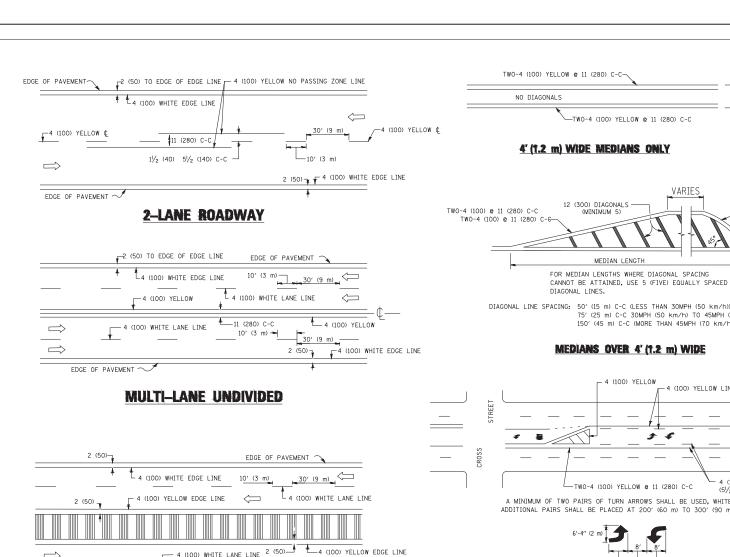
- 5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
- 6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

SHEET NO. 17 OF 22 SHEETS STA. TO STA.



- 4 (100) WHITE LANE LINE

MULTI-LANE DIVIDED

TYPICAL LANE AND EDGE LINE MARKING

himmi

TYPICAL CROSSWALK MARKING

 $\divideontimes$  MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES

2 (50)

SEE DETAIL "B"

2' (600)

**DETAIL "B"** 

12 (300) WHITE

4 (100) WHITE EDGE LINE

PEDESTRIAN

-6 (150) WHITE

REVISED

- C. JUCTUS 04-12-16

 $\Rightarrow$ 

FILE NAME = 16R0610-DTLS-01 - TC-13

EDGE OF PAVEMENT

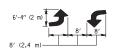
IIIIII

BICYCLE & EQUESTRIAN

**DETAIL "A"** 

PLOT DATE =

## - 4 (100) YELLOW 4 (100) YELLOW LINES (51/2 (140) C-C) TWO-4 (100) YELLOW @ 11 (280) C-C (51/2 (140) C-C) A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS



TWO-4 (100) YELLOW № 11 (280) C-C

`\_TWO-4 (100) YELLOW @ 11 (280) C-C

4' (1.2 m) WIDE MEDIANS ONLY

12 (300) DIAGONALS

DIAGONAL LINES.

MEDIAN LENGTH

FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING

MEDIANS OVER 4' (1.2 m) WIDE

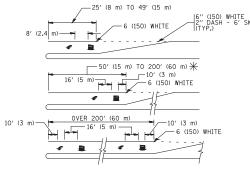
CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED

75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))

150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

NO DIAGONALS

### MEDIAN WITH TWO-WAY LEFT TURN LANE TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE LISED.  $\uparrow$  AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup> ) **(MLY** AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

### TYPICAL TURN LANE MARKING

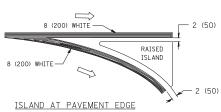
USER NAME = DESIGNED -REVISED - C. JUCIUS 09-09-09 CHECKED REVISED C, JUCIUS 07-01-13 PLOT SCALE = REVISED C. JUCIUS 12-21-15

CHECKED

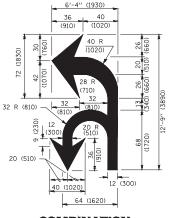
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

COUNTY DISTRICT ONE 2422 16-00061-00-BS DUPAGE 22 TYPICAL PAVEMENT MARKINGS TC-13 CONTRACT NO. 61D92 SHEET NO. 18 OF 22 SHEETS STA. TO STA.

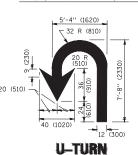
4' (1.2 m) OUTSIDE TO OUTSIDE OF LINES 8 (200) WHITE-12 (300) WHITE DIAGONALS @ 10' (3 m) OR LESS SPACING ISLAND OFFSET FROM PAVEMENT EDGE



### TYPICAL ISLAND MARKING



### COMBINATION LEFT AND U-TURN



# LANE REDUCTION TRANSITION

SPEED LIMIT

35

55

345

425

500

580

665

750

**⊢**20′

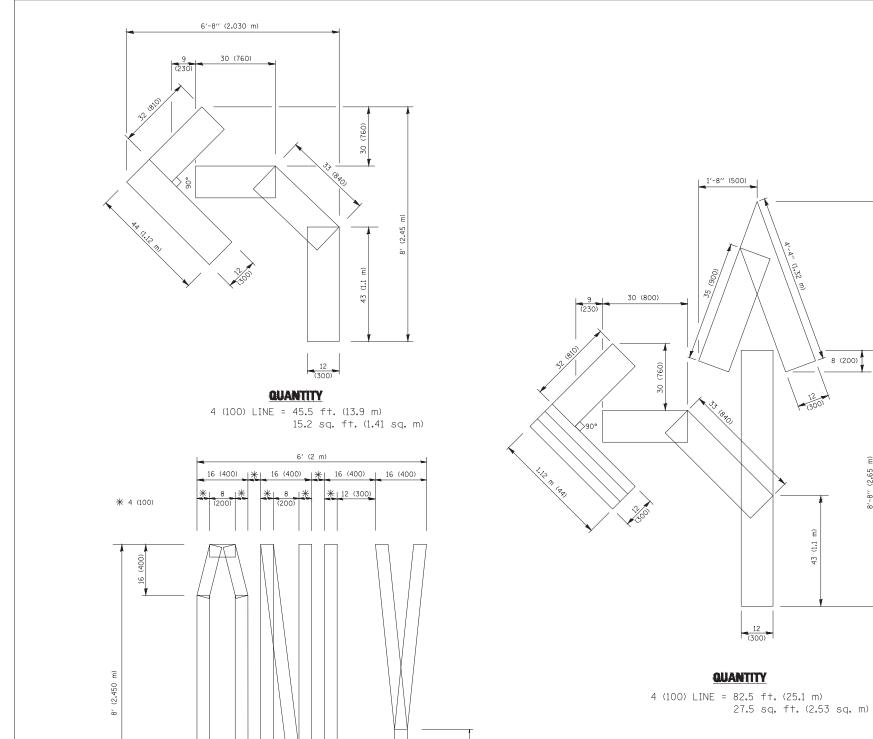
\* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

### WIDTH OF LINE PATTERN SPACING /REMARKS CENTERLINE ON 2 LANE PAVEMENT 4 (100) SKIP-DASH YELLOW 10' (3 m) LINE WITH 30' (9 m) SPACE SOLID YELLOW CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT 11 (280) C-0 NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 2 @ 4 (100) OMIT SKIP-DASH CENTERLINE BETWEEN LANE LINES 10' (3 m) LINE WITH 30' (9 m) SPACE 4 (100) 5 (125) ON FREEWAYS SKIP-DASH SKIP-DASH DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS) SAME AS LINE BEING EXTENDED SAME AS LINE BEING EXTENDED 2' (600) LINE WITH 6' (1.8 m) SPACE SKIP-DASH EDGE LINES OUTLINE MEDIANS IN YELLOW 6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m) TURN LANE MARKINGS SOLID WHITE SEE TYPICAL TURN LANE MARKING DETAIL 10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL SKIP-DASH AND SOLID IN PAIRS TWO WAY LEFT TURN MARKING YELLOW 2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW WHITE NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART 5' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS. 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 STOP LINES 24 (600) SOLID WHITE 2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS 11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING. PAINTED MEDIANS SOLID YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC 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 (0VER 45MPH (70 km/h)) GORE MARKING AND CHANNELIZING LINES 8 (200) WITH 12 (300) DIAGONALS @ 45° 24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 LETTERS; 16 (400) LINE FOR "X" RAILROAD CROSSING SOLID WHITE SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m<sup>2</sup>) EACH "X"=54.0 SQ. FT. (5.0 m<sup>2</sup>) SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS > 8') 12 (300) @ 45° SOLID U TURN ARROW SEE DETAIL SOLID WHITE ARROW COMBINATION SOLID WHITE SEE DETAIL 30.4 SE LEFT AND U TURN

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

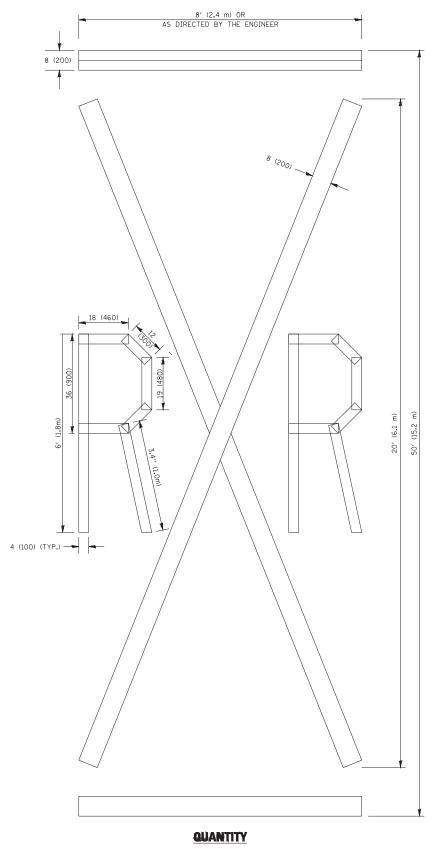
SCALE:

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



### 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.

FILE NAME = 16R0610-DTLS-01 - TC-16 USER NAME = DESIGNED -REVISED —T. RAMMACHER 03-02-98 CHECKED — REVISED —E. GOMEZ 08-28-00 PLOT SCALE = REVISED —E. GOMEZ 08-28-00 PLOT DATE = CHECKED — REVISED —A. SCHUETZE 09-15-16

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

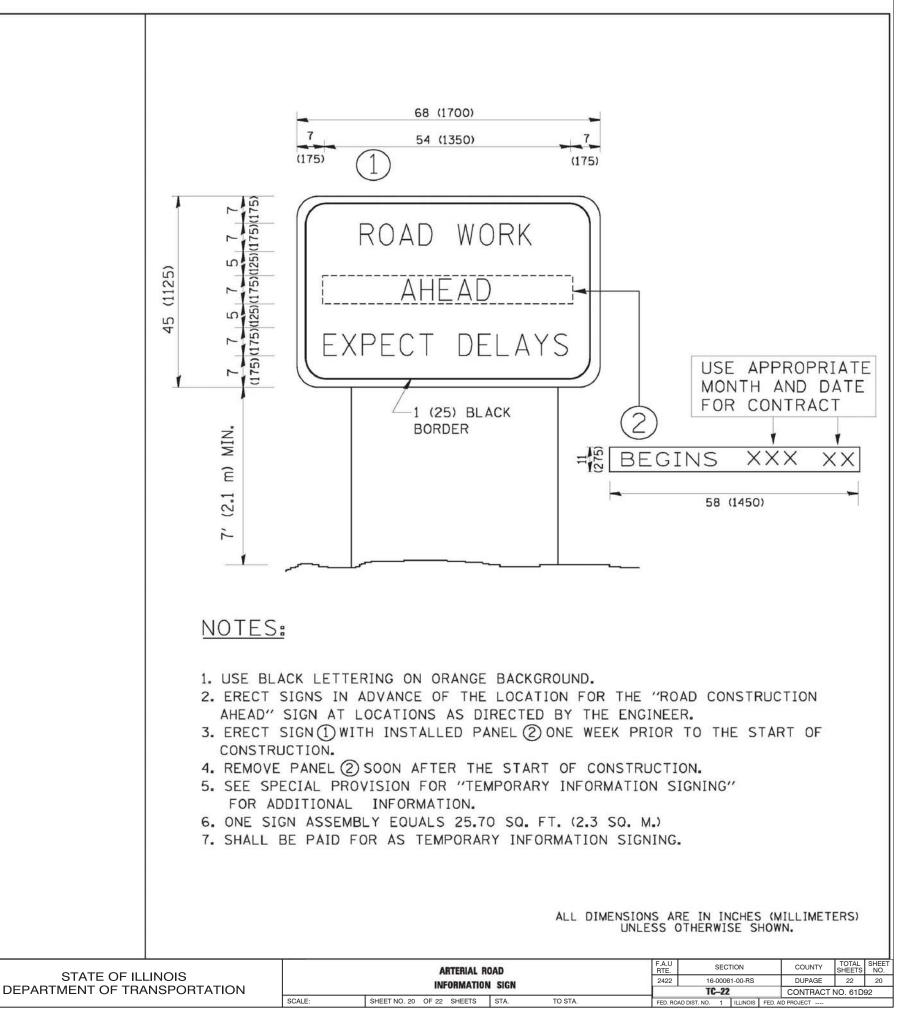
21.4 sq. ft. (1.99 sq. m)

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE:

SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS SHEET NO. 19 OF 22 SHEETS STA.

SECTION 2422 16-00061-00-RS DUPAGE 22 TC-16 CONTRACT NO. 61D92



FILE NAME = 16R0610-DTLS-01 - TC-22

USER NAME =

PLOT SCALE =

PLOT DATE =

DESIGNED -

CHECKED -

CHECKED -

REVISED - R. MIRS 09-15-97

REVISED - R. MIRS 12-11-97

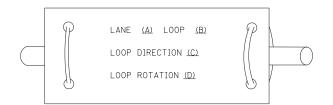
REVISED -T. RAMMACHER 02-02-99

REVISED - C. JUCIUS 01-31-07

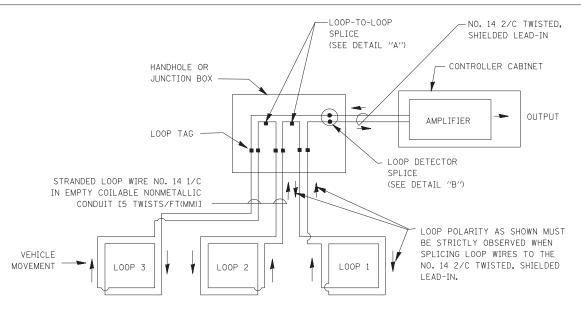
### LOOP DETECTOR NOTES

- 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

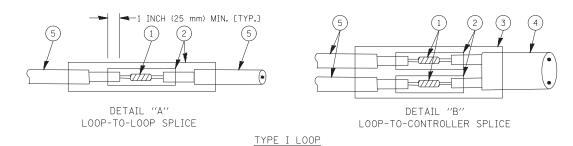


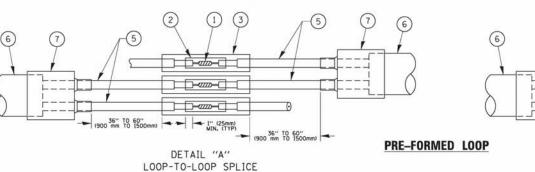
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

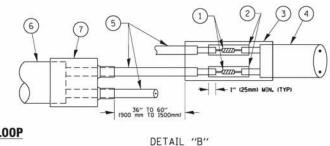


### DETECTOR LOOP WIRING SCHEMATIC

- 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.







LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- (2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM 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 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

610-DTLS-01 - TS-05B	USER NAME = footemj	DESIGNED — DAD	REVISED — DAG 1-1-14
		CHECKED — BCK	REVISED —
	PLOT SCALE = 50.0000 ' / IN.	DRAWN — DAD	REVISED —
	PLOT DATE = 1/13/2014	CHECKED — 10-28-09	REVISED —
			-

FILE NAME = 16R06

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

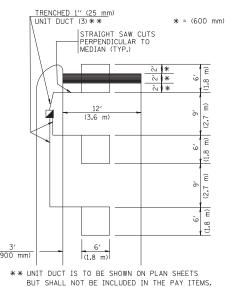
			- 0 - 7						
DISTRICT ONE		F.A.U RTE.					COUNTY	TOT/ SHEE	
STANDARD TRAFFIC SIGNAL DESIGN DETAILS			2422	16-00061-00-RS			DUPAGE	22	
SIMBURD INVITO SIGNAL DESIGN DELIGITO			TS-05				CONTRACT NO. 6		
	SHEET NO. 21 OF 22 SHEETS	STA. TO STA.	FED BC	AD DIST NO	1	ILLINOIS	FED A	D PROJECT	

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

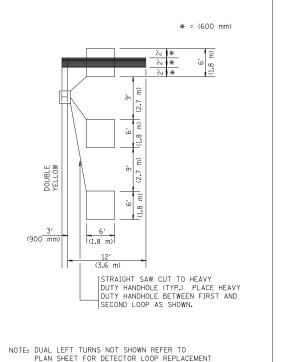


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

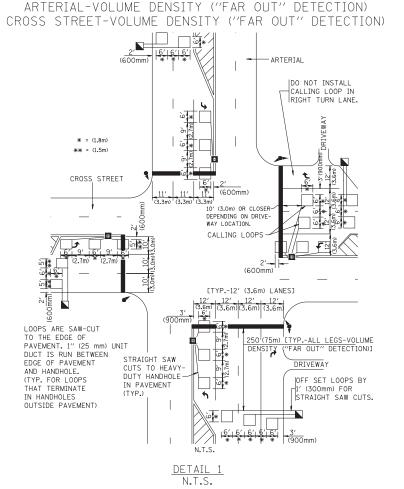
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

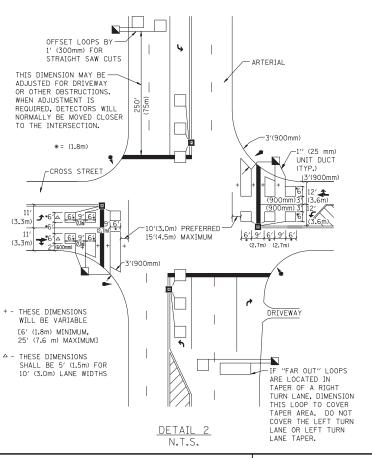
LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)



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





SCALE:

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 <u>ALL</u> 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  $\underline{\text{ALL}}$  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.

R0610-DTLS-01 - TS-07	USER NAME = gaglianobt	DESIGNED —	REVISED —
		CHECKED —	REVISED —
	PLOT SCALE = 50.0000 ' / IN.	DRAWN — R.K.F.	REVISED —
	PLOT DATE = 1/4/2008	CHECKED —	REVISED —

FILE NAME = 16R0

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	DISTRICT 1 - DETECTOR LOOP INSTALLATION					
	DETAI	LS FOR	ROADWAY	RESURFA	CING	
1	OUEET NO. 00	05.00	OLIFETO	0.7.4	TO 0T4	

 
 F.A.U RTE.
 SECTION
 COUNTY
 TOTAL SHEETS
 SHEET NO.

 2422
 16-00061-00-RS
 DUPAGE
 22
 22

 TS-07
 CONTRACT NO. 61D92

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