06-16-2017 LETTING ITEM 170

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
392	(F)RS-6	GRUNDY	13	1
	ILLINOIS	CONTRACT NO. 66F59		

INDEX OF SHEETS

LIST OF ILLINOIS DOT HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
701001-02	OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006-05	OFF-ROAD OPERATIONS 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701306-03	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS ≥ 45 MPH
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701901-06	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUT FOR DETECTION LOOPS

STATE OF ILLINOIS

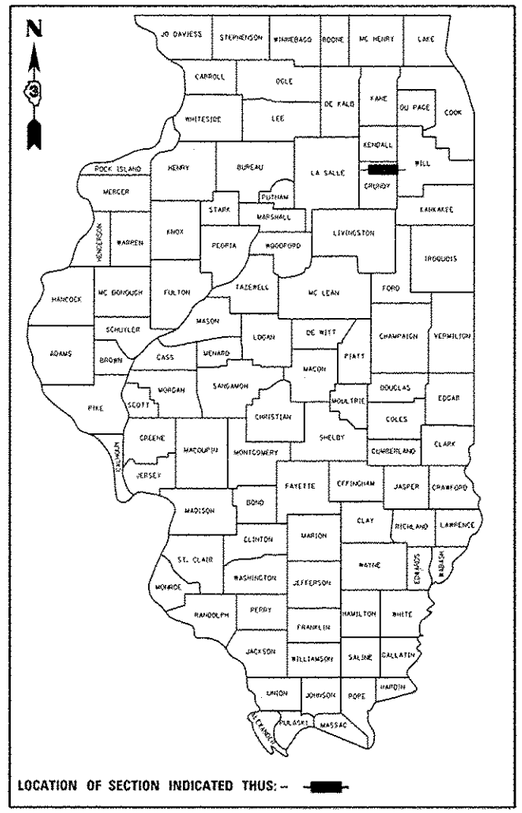
DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

FAU 392 (US 6)
SECTION (F)RS-6
PROJECT STP-0392(009)
3P RESURFACING
GRUNDY COUNTY

C-93-100-16

D-93-053-16



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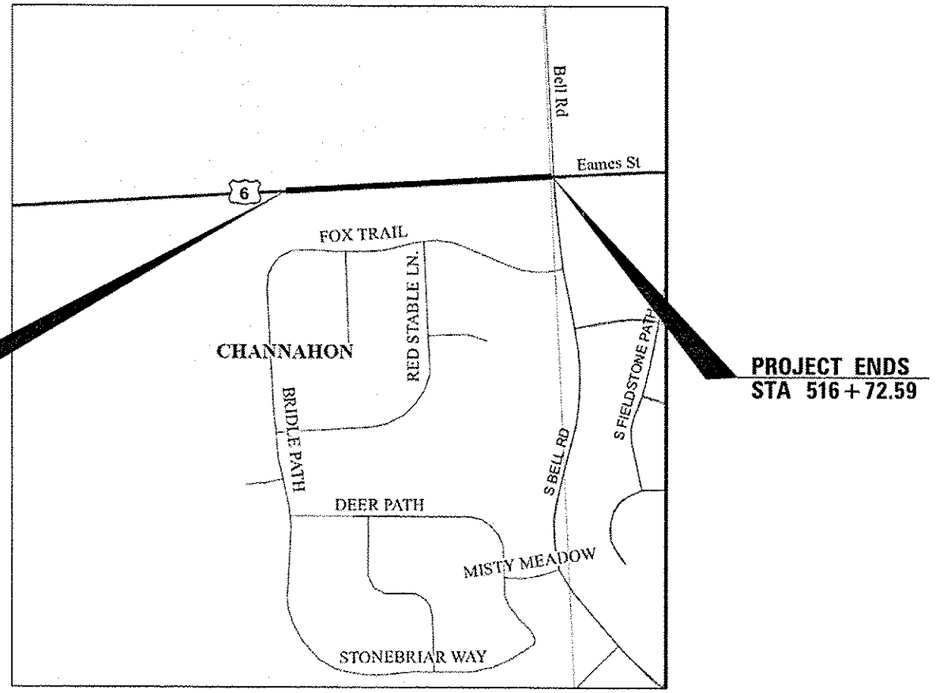
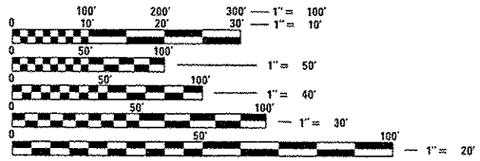


GROSS LENGTH = 1047 FT. = 0.198 MILE

NET LENGTH = 1047 FT. = 0.198 MILE

MINOR ARTERIAL
2015 ADT = 9,500
P.V. = 85.8%
S.U. = 10.3%
M.U. = 3.9%



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

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED 3-21 2017
Kevin Marchk P.E.
REGIONAL ENGINEER

May 12 2017
Maureen M. Addis P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

May 12 2017
DIRECTOR OF PROGRAM DEVELOPMENT

PROJECT ENGINEER: DAVE ALEXANDER, PE
UNIT CHIEF: RUTH GEDYE
DISTRICT 3 NO. (815) 434-6131
CONTRACT NO. 66F59

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

REV

GENERAL NOTES

THE THICKNESS OF HMA SHOWN ON THE PLANS 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 IS PLACED.

EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.

ALL EXCAVATED MATERIAL, WHICH INCLUDES DIGGING OR GRADING OF ANY SOIL OR FILL MATERIAL, WITH THE EXCEPTION OF AGGREGATE FILLS, MUST BE INCORPORATED WITHIN THE IDOT RIGHT OF WAY DUE TO ENVIRONMENTAL DOCUMENTATION REQUIREMENTS.

ON EXISTING PAVEMENT WHICH MAY BE SUPERELEVATED, THE NEW HMA PAVEMENT SHALL BE BUILT WITH THE SAME SUPERELEVATION UNLESS NEW SUPERELEVATION RATES ARE GIVEN ON THE PLANS.

ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05	TONS / CU YD
HMA RESURFACING	112	LBS / SQ YD / IN
SHORT TERM PAVEMENT MARKING	10	FT /100 FT OF APPLICATION
MIX FOR CRACKS, JTS & FLGWYS	0.0003	TONS / SQ YD
LEVEL BINDER (HAND METHOD)	0.0005	TONS / SQ YD

MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:

THE CONTRACTOR SHALL CONTACT JULIE AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE
AS BUILT INFORMATION

SUPERVISING CONSTRUCTION FIELD ENGINEER

RESIDENT ENGINEER / TECHNICIAN

START & END DATES OF CONSTRUCTION:

INSPECTORS:

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

PREPARED BY: Dan Bonnic
DISTRICT STUDIES & PLANS ENGINEER

DATE: 3-21-17

EXAMINED BY: Jack C. Wirt
DISTRICT CONSTRUCTION ENGINEER

Michael A Shaat
DISTRICT MATERIALS ENGINEER

Tom Hufnagel
DISTRICT OPERATIONS ENGINEER

FILE NAME = c:\pw_work\p=idot\geduera\d0479395\D036759-sht-cover.dgn	USER NAME = Geduera	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -			392	(F)RS-6	GRUNDY	13	2
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 66F59		
$MODELNAME$	PLOT DATE = 3/20/2017	DATE -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

CONSTR. CODE
80% FEDERAL 20% STATE
ROADWAY
0005 ✓
URBAN ✓

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	3423	3423
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	2	2
40600537	LEVELING BINDER (HAND METHOD), IL-9.5FG, N70	TON	3	3
40600637	LEVELING BINDER (MACHINE METHOD), IL-9.5FG, N70	TON	213	213
40600990	TEMPORARY RAMP	SQ YD	60	60
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	426	426
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	5071	5071
48101200	AGGREGATE SHOULDERS, TYPE B	TON	60	60
67100100	MOBILIZATION	LSUM	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	LSUM	1	1
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	LSUM	1	1
70300100	SHORT TERM PAVEMENT MARKING	FOOT	1241	1241
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	413	413
70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SQ FT	187	187

19 • SPECIALTY ITEMS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
392	(F)RS-6	GRUNDY	13	3
		CONTRACT NO. 66F59		
		ILLINOIS FED. AID PROJECT		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE 80% FEDERAL 20% STATE ROADWAY 0005 URBAN
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	10660	10660
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	238	238
70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	1345	1345
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	278	278
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	77	77
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	94	94
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	5330	5330
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	553	553
* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	673	673
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	139	139
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	138	138
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	68	68
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	68	68
* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	173	173

* SPECIALTY ITEMS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
392	(F)RS-6	GRUNDY	13	4
		CONTRACT NO. 66F59		
		ILLINOIS FED. AID PROJECT		

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE 80% FEDERAL 20% STATE ROADWAY 0005 URBAN
	X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	90	90
•	X7830074	GROOVING FOR RECESSED PAVEMENT MARKING 7"	FOOT	553	553
•	X7830076	GROOVING FOR RECESSED PAVEMENT MARKING 9"	FOOT	1070	1070
•	X7830090	GROOVING FOR RECESSED PAVEMENT MARKING 25"	FOOT	138	138

4 • SPECIALTY ITEMS

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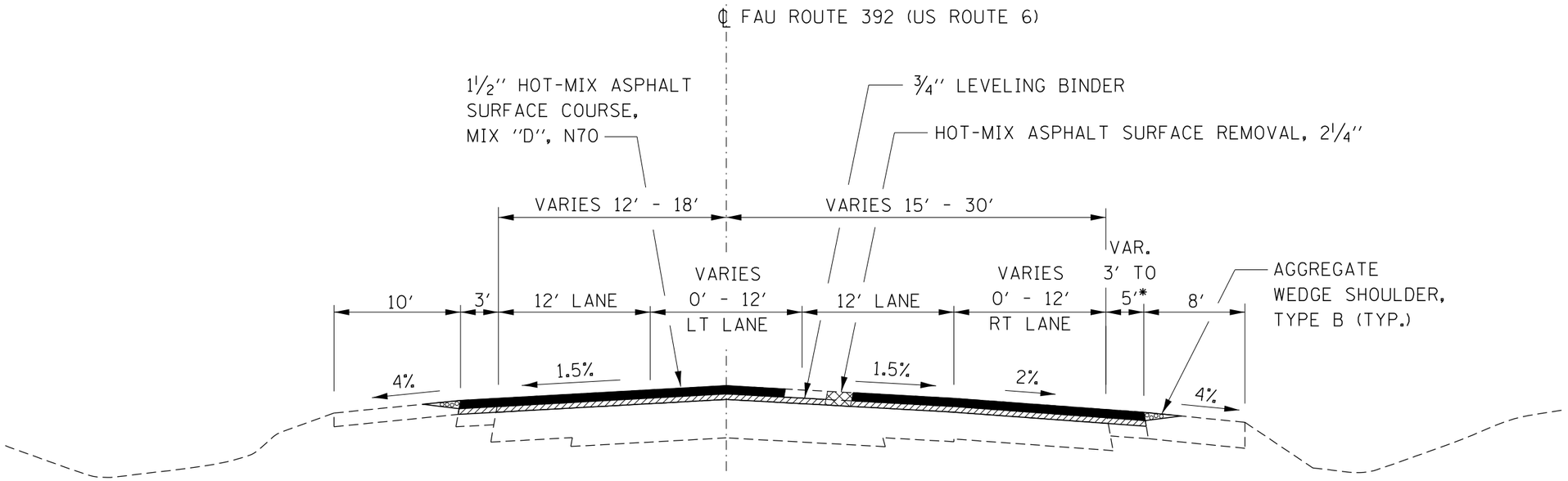
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
392	1(FAS-6	GRUNDY	13	5
		CONTRACT NO. 66F59		
	ILLINOIS FED. AID PROJECT			



PROPOSED FAU ROUTE 392 (US ROUTE 6)

506+25.59 TO 516+72.59

*STA. 508+31.59 TO STA. 514+02.59
RIGHT SIDE SHOULDER WIDTH = 5'

HMA MIXTURE REQUIREMENT TABLE		
LOCATION(S):	ENTIRE PROJECT	ENTIRE PROJECT
MIXTURE USE(S):	HMA SURFACE	HMA LEVEL BINDER
BINDER GRADE (PG):	PG64-22	PG64-22
DESIGN AIR VOIDS:	4.0% @ N70	4.0% @ N70
MIXTURE COMPOSITION: (MIXTURE GRADATION)	IL 9.5	IL 9.5FG
FRICTION AGGREGATE:	MIXTURE D	
MIXTURE WEIGHT:	112.0 LB/SY/IN	112.0 LB/SY/IN
QUALITY MANAGEMENT PROGRAM:	QCQA	QCQA
SUBLOT SIZE:	NA	NA
DENSITY TEST METHOD:	CORES	GROWTH CURVE

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	PLOT DATE = 3/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
392	(F)RS-6	GRUNDY	13	6
		CONTRACT NO. 66F59		
	ILLINOIS FED. AID PROJECT			

PAVEMENT MARKING

STA. TO STA.		LENGTH	THERMO PVMT MRK LINE 4'' (WHITE)	THERMO PVMT MRK LINE 4'' (YELLOW)	THERMO PVMT MRK LINE 6''	THERMO PVMT MRK LINE 8''	THERMO PVMT MRK LINE 12''	THERMO PVMT MRK LINE 24''	THERMO PVMT MRK LETTERS SYMBOLS	GROOVING FOR RECESSED PAVEMENT MARKING 7''	GROOVING FOR RECESSED PAVEMENT MARKING 9''	GROOVING FOR RECESSED PAVEMENT MARKING 25''	RAISED REFLECTIVE PVMT MARKERS (2 WAY AMBER)	RAISED REFLECTIVE PVMT MARKERS (1 WAY AMBER)	RAISED REFLECTIVE PVMT MARKERS (1 WAY CRYSTAL)	RAISED REFLECTIVE PVMT MARKER REMOVAL
		FT	FT	FT	FT	FT	FT	FT	SQ FT	FT	FT	FT	EACH	EACH	EACH	EACH
US 6																
506+25.59	508+31.59	206	412.0	412.0										10		10
508+31.59	511+37.59	306	612.0	1224.0			81.6							16		16
511+37.59	514+02.59	265	530.0	1060.0		132.5	57.3				530			14		14
514+02.59	516+72.59	270	540.0	540.0		540.0		38.5	93.6		540	38.5	14		14	28
516+72.59	516+76.59	4			119					119.0						
NORTH LEG					129.2			24.5		129.2		24.5				
EAST LEG					158.6			39.7		158.6		39.7				
SOUTH LEG					146.5			35.4		146.5		35.4				
TOTALS			2094	3236	553	673	139	138	94	553	1070	138	14	40	14	68

TEMPORARY PAVEMENT MARKING

STA. TO STA.			TEMP PVMT MRK LINE 4'' (WHITE)	TEMP PVMT MRK LINE 4'' (YELLOW)	TEMP PVMT MRK LINE 6''	TEMP PVMT MRK LINE 8''	TEMP PVMT MRK LINE 12''	TEMP PVMT MRK LINE 24''	TEMP PVMT MRK LETTERS & SYMBOLS
		FT	FT	FT	FT	FT	FT	FT	SQ FT
US 6									
506+25.59	508+31.59	206	824.0	824.0					
508+31.59	511+37.59	306	1224.0	2448.0			163.2		
511+37.59	514+02.59	265	1060.0	2120.0		265.0	114.7		
514+02.59	516+72.59	270	1080.0	1080.0		1080.0		77.0	187.2
516+72.59	516+76.59	4			238				
TOTALS			4188	6472	238	1345	278	77	187

MAINLINE SCHEDULE

STA. TO STA.		LENGTH	PVMT WIDTH	SHOULDER WIDTH	HMA SURF CSE 1 1/2''	LEVEL BINDER (MM)	LEVEL BINDER (HM)	HMA SURF REM 2 1/4''	MIX FOR JTS, CRACKS & FLGWYS	TACK COAT	AGG SHLD TY B	TEMP RAMP
		FT	FT	FT	TONS	TONS	TONS	SQ YD	TONS	LBS	TONS	SQ YD
US 6												
506+25.59	508+31.59	206	24	3	57.7	28.8	0.3	686.7	0.2	463.5	11.7	20.0
508+31.59	511+37.59	306	30	3	108.5	54.3	0.6	1292.0	0.4	872.1	17.4	
511+37.59	514+02.59	265	42	3	123.7	61.8	0.7	1472.2	0.4	993.8	15.1	
514+02.59	516+72.59	270	48	3	136.1	68.0	0.8	1620.0	0.5	1093.5	15.4	40.0
TOTALS					426	213	3	5071	2	3423	60	60

STA. 508+31.59 TO STA. 514+02.59 - RIGHT SIDE SHOULDER WIDTH = 5'

SHORT TERM PAVEMENT MARKING

STA. TO STA.		LENGTH	SHORT TERM PVMT MRK	SHORT TERM PVMT MRK REMOVAL
		FT	FT	SQ FT
US 6				
506+25.59	508+31.59	206	123.6	41.0
508+31.59	511+37.59	306	367.2	122.0
511+37.59	514+02.59	265	318.0	106.0
514+02.59	516+72.59	270	432.0	144.0
516+72.59	516+76.59	4		
TOTALS			1241	413

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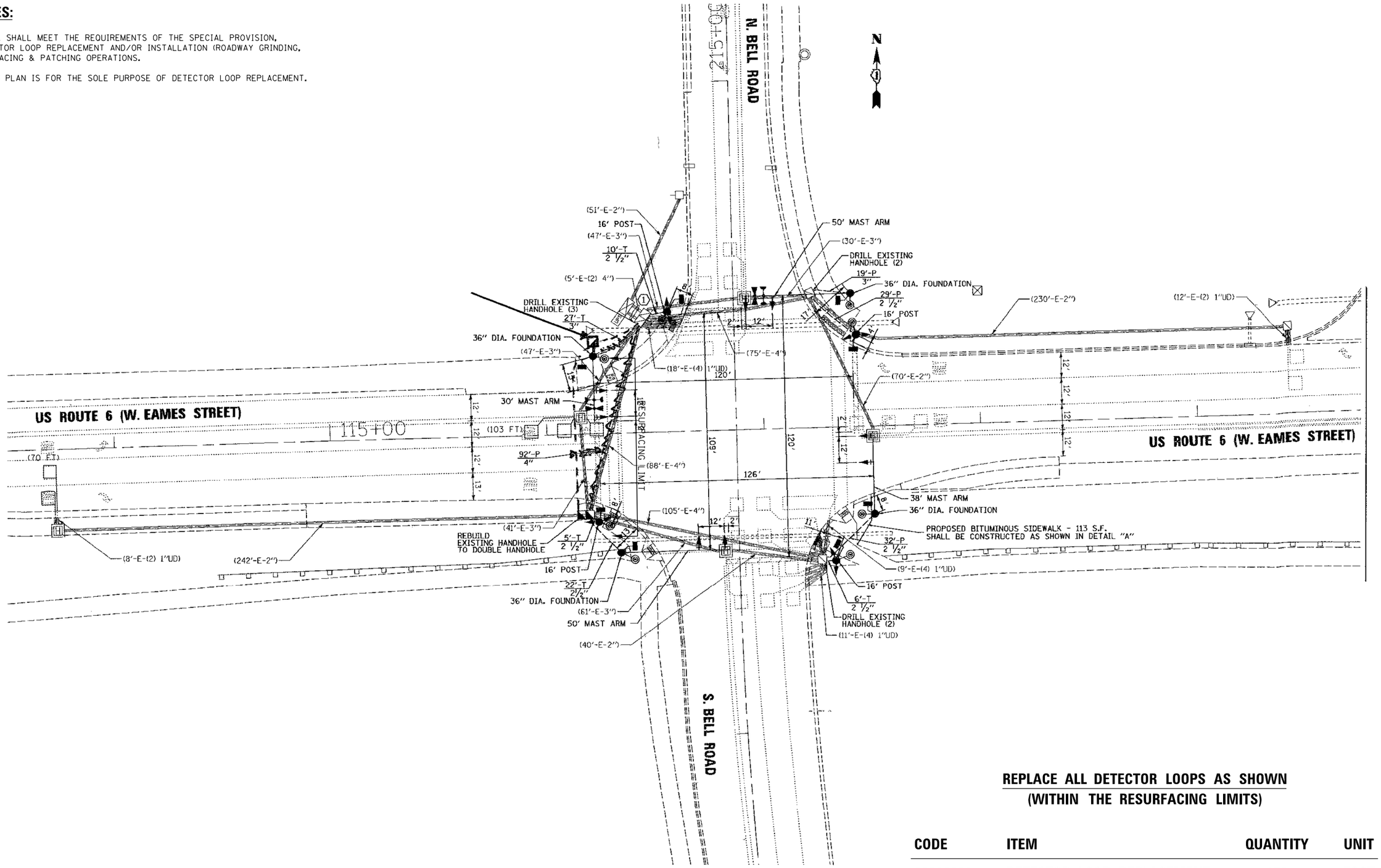
		DRAWN -	REVISED -			392	F(RS)-6	GRUNDY	13	7
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 66F59		
Default	PLOT DATE = 3/20/2017	DATE -	REVISED -		SCALE:	SHEET OF SHEETS	STA. TO STA.	ILLINOIS	FED. AID PROJECT	

NOTES:

1. WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION (ROADWAY GRINDING, RESURFACING & PATCHING OPERATIONS.

2. THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENT.



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

CODE	ITEM	QUANTITY	UNIT
88600600	DETECTOR LOOP REPLACEMENT	173	FOOT

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Default	PLOT DATE = 3/20/2017	DATE - ---	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETECTOR LOOP REPLACEMENT PLAN
US ROUTE 6 AT BELL ROAD

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
392	(F) RS-6	WILL	13	8
		CONTRACT NO. 66F59		
	ILLINOIS FED. AID PROJECT			

LOOP DETECTOR NOTES

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

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

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

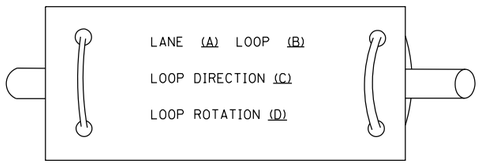
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

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

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

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

LOOP LEAD-IN CABLE TAG

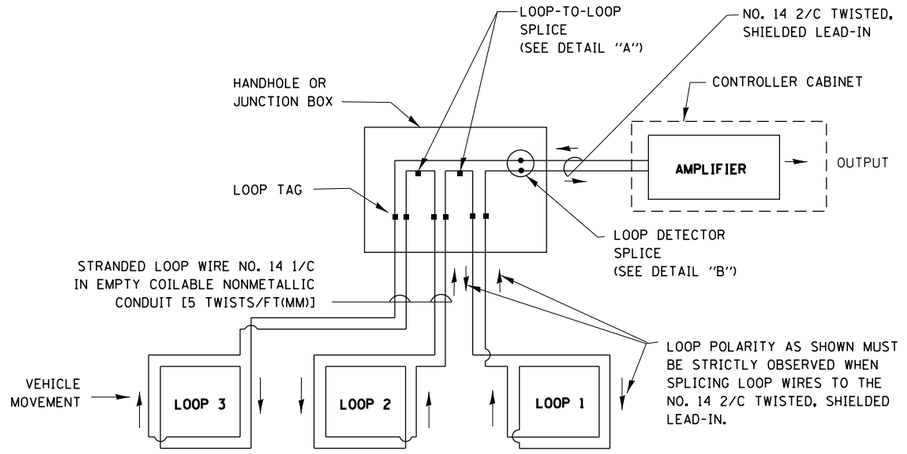


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

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

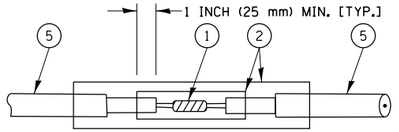
C. LABEL LOOP CABLE ''IN'' OR LOOP CABLE ''OUT''.

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

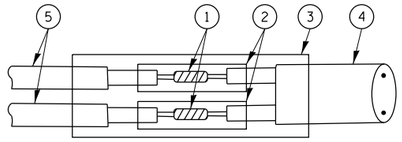


DETECTOR LOOP WIRING SCHEMATIC

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

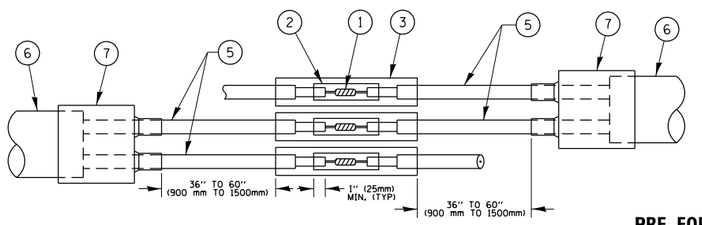


DETAIL ''A''
LOOP-TO-LOOP SPLICE

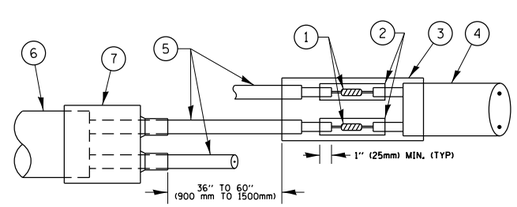


DETAIL ''B''
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL ''A''
LOOP-TO-LOOP SPLICE



DETAIL ''B''
LOOP-TO-CONTROLLER SPLICE

PRE-FORMED LOOP

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.

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

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

(6) PRE-FORMED LOOP

(7) XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 3\Projects\D366F59-Detector Loop Details sht 1.dgn	USER NAME = GedyeRA	DESIGNED -	REVISED -
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	PLOT SCALE = 100.0000 '' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 3/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

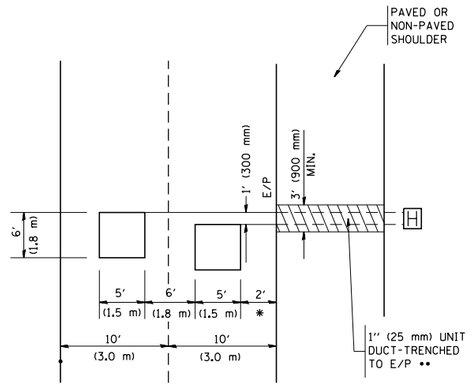
DETECTOR LOOP DETAILS

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
392	(F)RS-6	GRUNDY	13	9
	TS-05	CONTRACT NO. 66F59		
	ILLINOIS FED. AID PROJECT			

LOOPS NEXT TO SHOULDERS

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

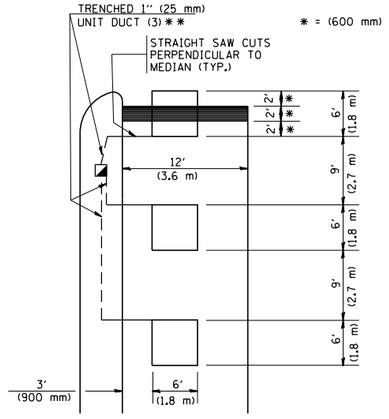


* = (600 mm)

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

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

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

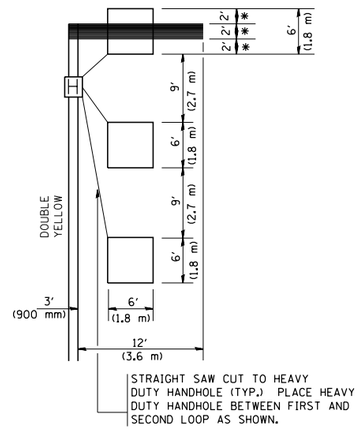


** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

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

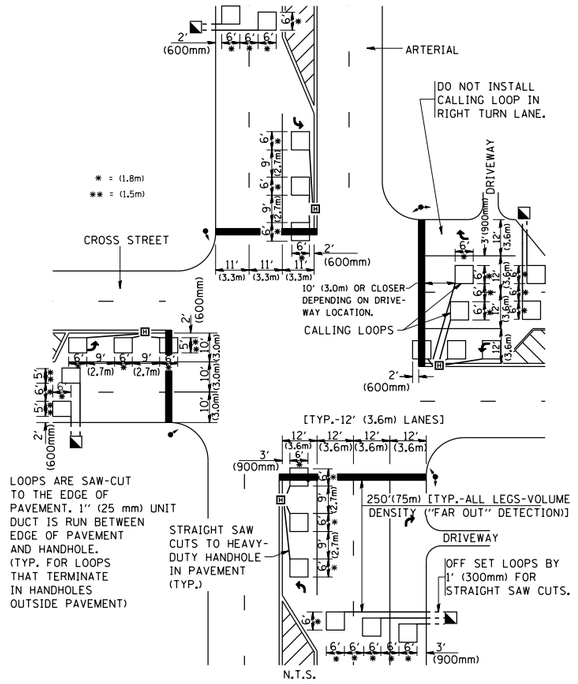
LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)

* = (600 mm)



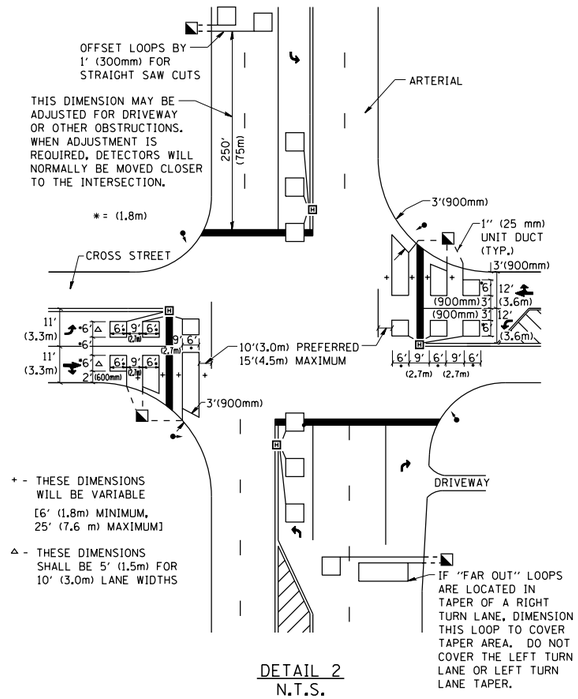
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



DETAIL 1
N.T.S.

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



DETAIL 2
N.T.S.

NOTES:

VEHICLES LOOP DETECTORS

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

PLACEMENT OF DETECTORS

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

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

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

NOTE:

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

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

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 3\Projects\D366F59-Detector Loop Details sht 2.dgn	USER NAME = GedyeRA	DESIGNED -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	DRAWN -	REVISED -
	PLOT DATE = 3/20/2017	CHECKED - R.K.F.	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETECTOR LOOP DETAILS

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
392	(F)RS-6	GRUNDY	13	10
	TS-07	CONTRACT NO. 66F59		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

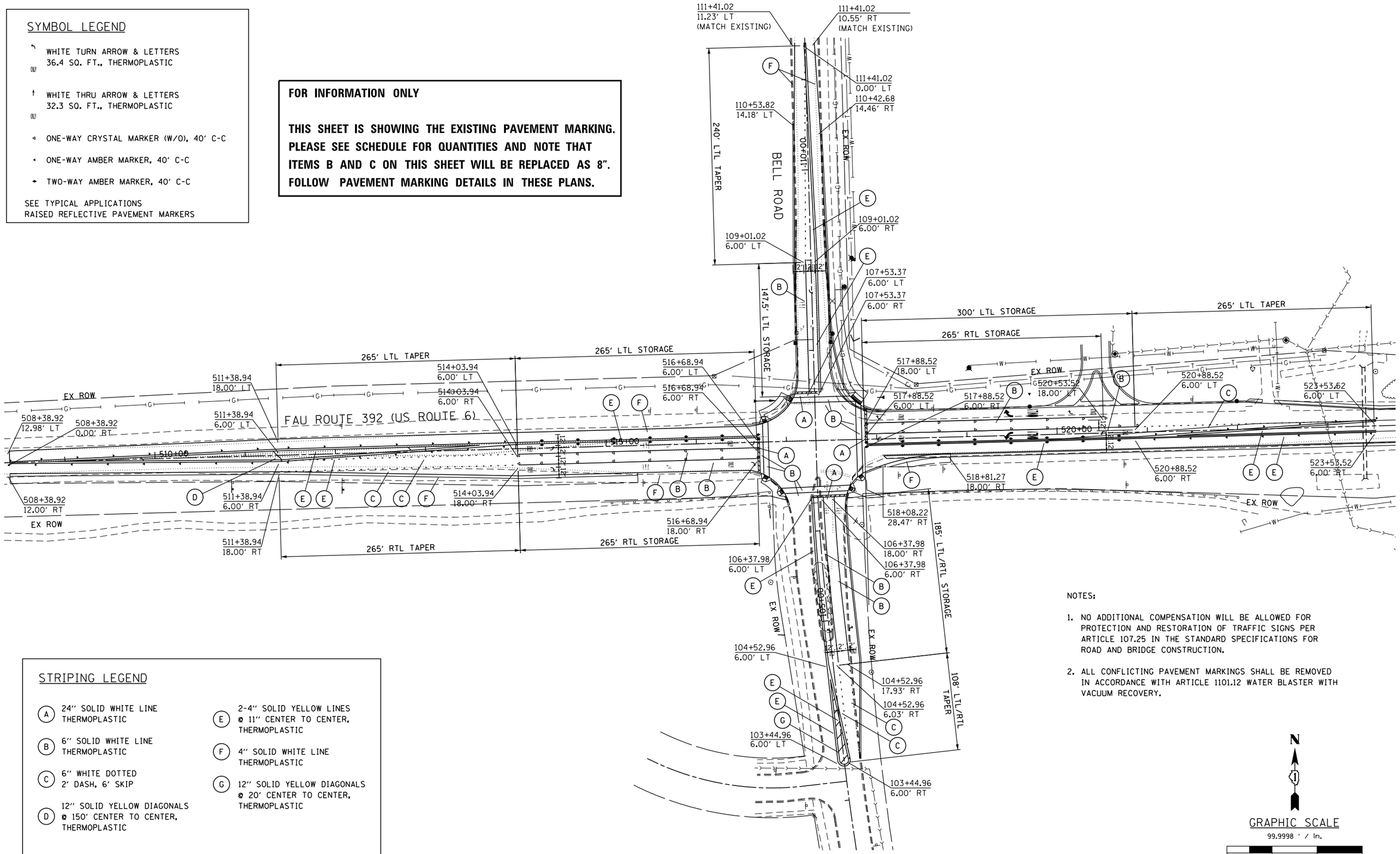
SYMBOL LEGEND

- WHITE TURN ARROW & LETTERS 36.4 SQ. FT., THERMOPLASTIC
- WHITE THRU ARROW & LETTERS 32.3 SQ. FT., THERMOPLASTIC
- ONE-WAY CRYSTAL MARKER (W/O), 40' C-C
- ONE-WAY AMBER MARKER, 40' C-C
- TWO-WAY AMBER MARKER, 40' C-C

SEE TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT MARKERS

FOR INFORMATION ONLY

THIS SHEET IS SHOWING THE EXISTING PAVEMENT MARKING. PLEASE SEE SCHEDULE FOR QUANTITIES AND NOTE THAT ITEMS B AND C ON THIS SHEET WILL BE REPLACED AS 8". FOLLOW PAVEMENT MARKING DETAILS IN THESE PLANS.



STRIPING LEGEND

- (A) 24" SOLID WHITE LINE THERMOPLASTIC
- (B) 6" SOLID WHITE LINE THERMOPLASTIC
- (C) 6" WHITE DOTTED 2' DASH, 6' SKIP
- (D) 12" SOLID YELLOW DIAGONALS @ 150' CENTER TO CENTER, THERMOPLASTIC
- (E) 2-4" SOLID YELLOW LINES @ 11" CENTER TO CENTER, THERMOPLASTIC
- (F) 4" SOLID WHITE LINE THERMOPLASTIC
- (G) 12" SOLID YELLOW DIAGONALS @ 20' CENTER TO CENTER, THERMOPLASTIC

NOTES:

1. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PROTECTION AND RESTORATION OF TRAFFIC SIGNS PER ARTICLE 107.25 IN THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
2. ALL CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED IN ACCORDANCE WITH ARTICLE 1101.12 WATER BLASTER WITH VACUUM RECOVERY.

N

GRAPHIC SCALE
99.9998 ' / in.
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FEET

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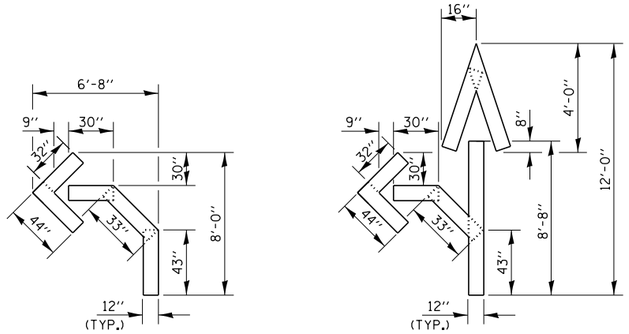
		DRAWN -	REVISED -
	PLOT SCALE = 99.9998 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 3/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY
EXISTING PAVEMENT MARKING

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
392	(F)RS-6	GRUNDY	13	11
		CONTRACT NO. 66F59		
	ILLINOIS FED. AID PROJECT			



QUANTITY

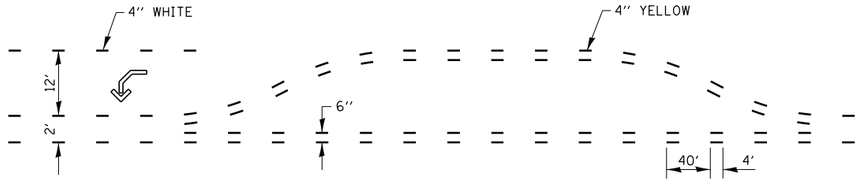
12" LINE = 16 LIN FT

OR 4" LINE = 48 LIN FT

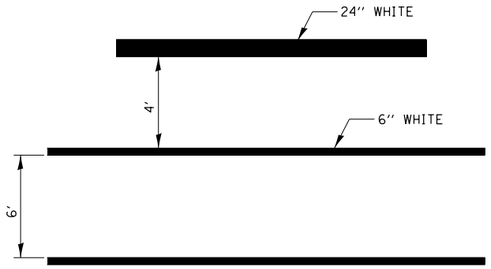
QUANTITY

12" LINE = 29 LIN FT

OR 4" LINE = 87 LIN FT



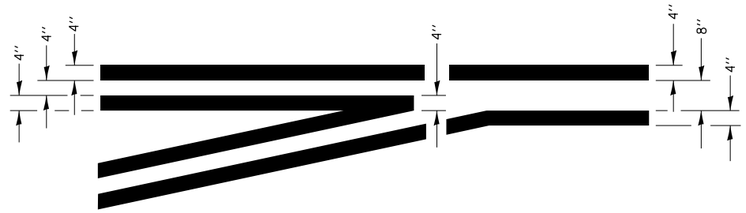
SHORT–TERM PAVEMENT MARKING FOR MEDIANS AND ARROWS



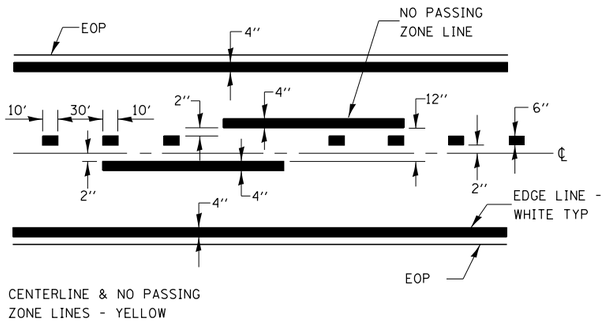
TYPICAL SPACING DETAIL FOR CROSSWALKS AND STOP BARS

150' AND LONGER

TYPICAL PLACEMENT OF ARROWS IN TURN LANES



TYPICAL APPLICATION LEFT TURN LANES



CENTERLINE & NO PASSING ZONE LINES - YELLOW

PAVEMENT MARKING

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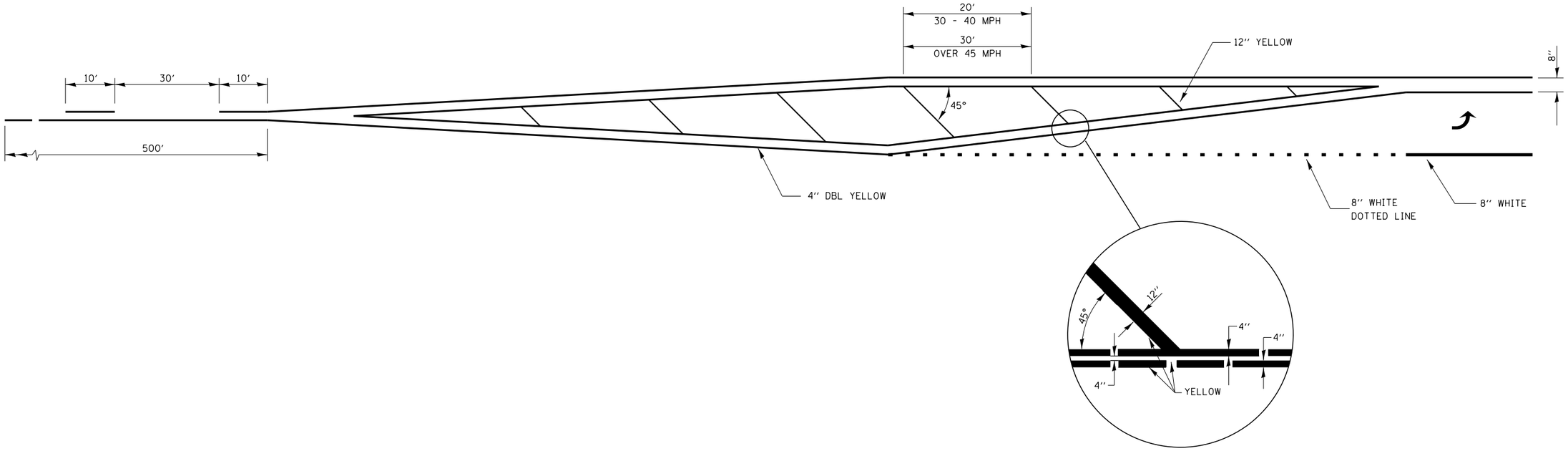
Default	PLOT DATE = 3/20/2017	DATE -	REVISED -

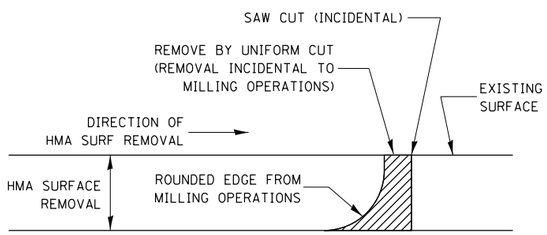
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS

SCALE: _____ | SHEET ___ OF ___ SHEETS | STA. _____ | TO STA. _____

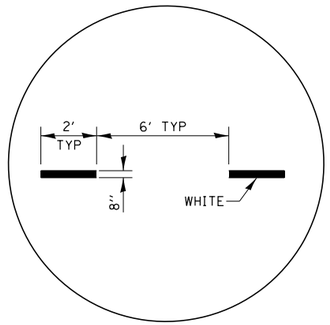
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
392	(F)RS-6	GRUNDY	13	12
		CONTRACT NO. 66F59		
		ILLINOIS FED. AID PROJECT		





NOTE:
WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAW CUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL

HMA DETAIL AT BUTT JOINTS



ADVANCE AND INTERSECTION LANE DIVIDER LINES

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		DRAWN -	REVISED -			392	(F)RS-6	GRUNDY	13	13
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Default	PLOT DATE = 3/20/2017	DATE -	REVISED -		SCALE:	SHEET	OF SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT