

04-27-12 LETTING ITEM 021

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

FAU 1609 (167TH STREET)
CHERRY HILL AVENUE TO FAU 2755 (80TH AVENUE)
ROADWAY RESURFACING
L.A. SECTION NO.: 11-00112-00-RS
PROJECT NO.: M-9003 (918)
VILLAGE of TINLEY PARK
COOK COUNTY
JOB NO. C-91-179-12

F. A. D. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1609	11-00112-00-RS	COOK	14	1
STA.	TO STA.			
FED. ROAD DIST. NO. 1				
ILLINOIS				
FED. AID PROJECT M-9003 (918)				
CONTRACT #63681				

- INDEX OF SHEETS**
- COVER SHEET, INDEX OF SHEETS & STATE STANDARDS
 - SUMMARY OF QUANTITIES & GENERAL NOTES
 - TYPICAL CROSS SECTIONS
 - 5. PAVEMENT PLAN
 - 7. PAVEMENT MARKINGS
 - 14. IDOT DISTRICT 1 STANDARD DETAILS

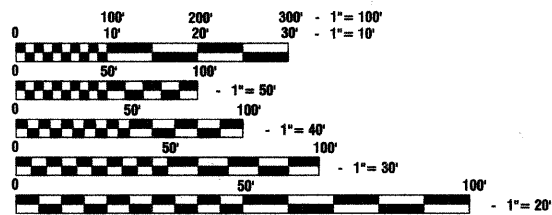
- HIGHWAY STANDARDS**
- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
 - 424001-06 PERPENDICULAR CURB RAMPS FOR SIDEWALKS
 - 442201-03 CLASS C AND D PATCHES
 - 606001-04 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
 - 701501-06 URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
 - 701801-05 LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
 - 701901-02 TRAFFIC CONTROL DEVICES
 - 720001-01 SIGN PANEL MOUNTING DETAILS
 - 720006-03 SIGN PANEL ERECTION DETAILS
 - 720011-01 METAL POST FOR SIGNS, MARKERS & DELINEATORS
 - 886001-01 DETECTOR LOOP INSTALLATIONS
 - 886006-01 TYPICAL LAYOUTS FOR DETECTOR LOOPS

167TH STREET

2010 ADT -	4,000
2040 ADT -	4,000
POSTED SPEED LIMIT -	25 mph
DESIGN PERIOD -	20 YEARS
DESIGN SPEED LIMIT -	30 mph
DESIGN DESIGNATION -	LOCAL COLLECTOR

SCALES

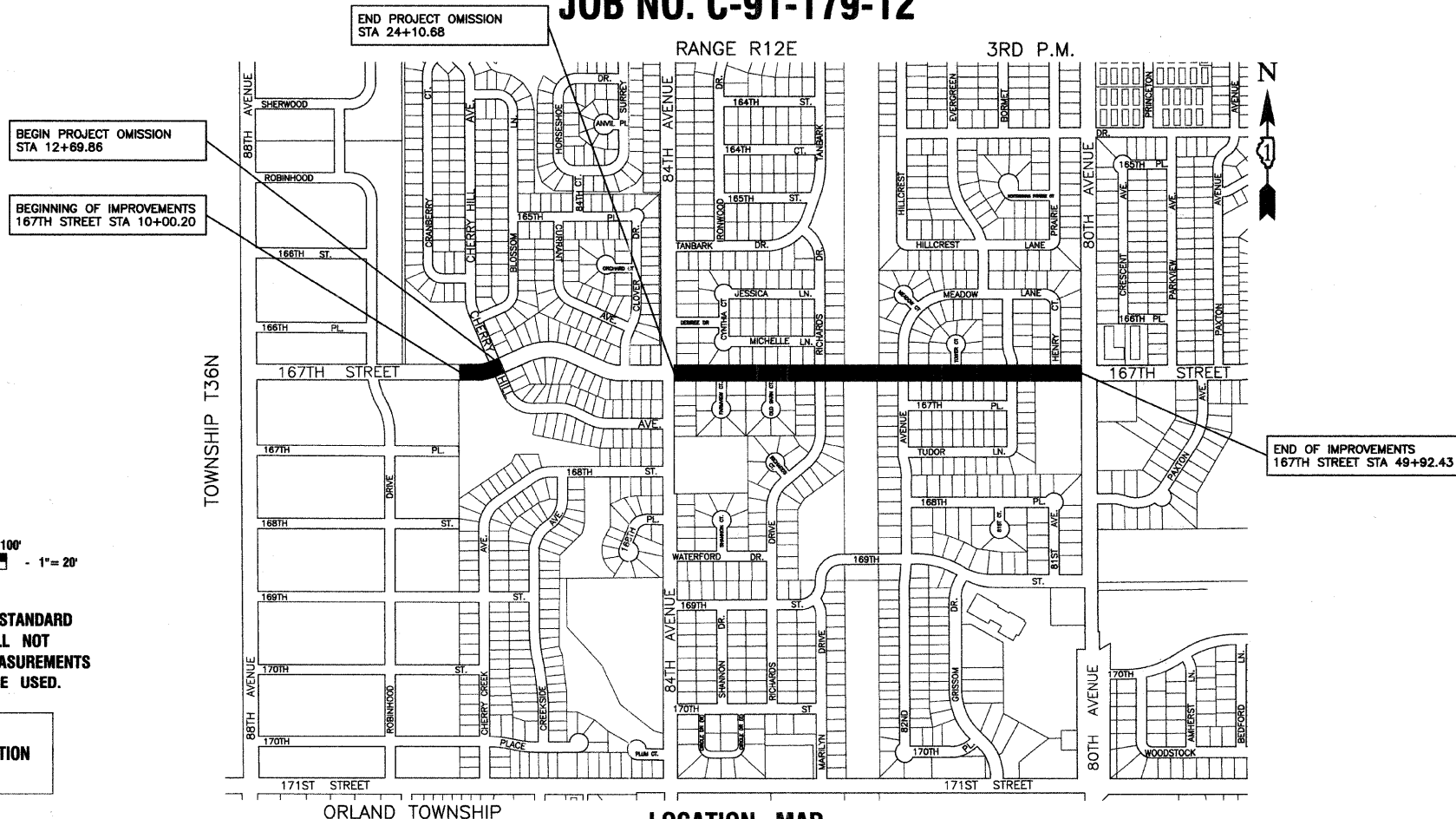
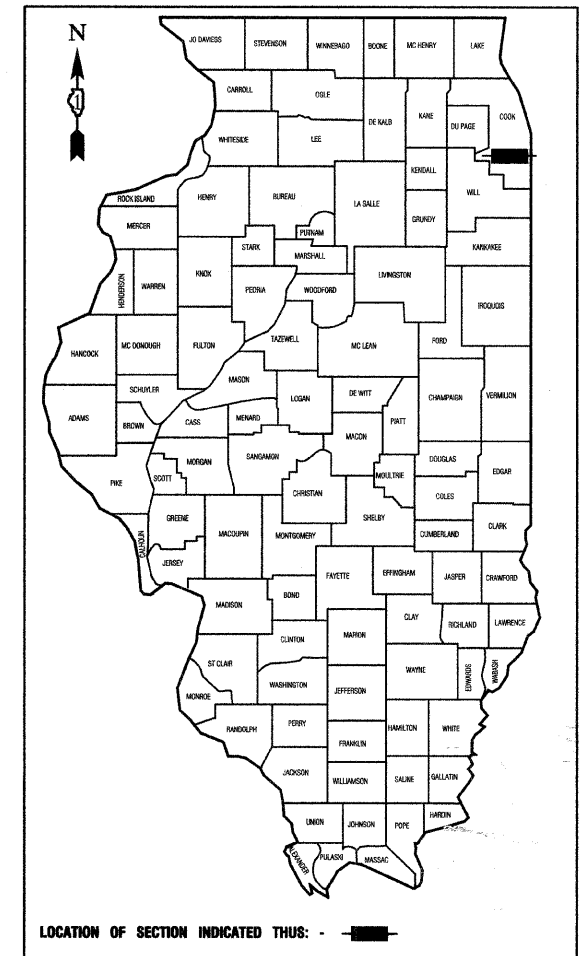
- PLAN - 1"=50'
- PROFILE HORIZ. - 1"=50'
- PROFILE VERT. - 1"=5'
- CROSS SECTIONS - 1"=10'



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

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

CONTRACT NO. 63681



LOCATION MAP

GROSS LENGTH=3,992 FEET=0.76 MILES
NET LENGTH=2,851 FEET=0.54 MILES

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Approved: *[Signature]* 1-31-12
President, Village of Tinley Park

Passed: FEBRUARY 14, 2012
[Signature]
District 1 Engineer of Local Roads & Streets

Released for Bid Based on Limited Review: FEBRUARY 14, 2012
[Signature]
Deputy Director of Highways, Region 1 Engineer

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:

[Signature]

1-31-12



LICENSE EXPIRES: 11/30/13

PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, PE (847)705-4406 SCHAUMBURG, IL
CONSULTANTS: ROBINSON ENGINEERING, LTD. 708-331-6700

SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE
S.I.	CODE NO.	PAY ITEM	UNIT	QUAN	0005
	20101700	SUPPLEMENTAL WATERING	UNIT	3	3
	20800150	TRENCH BACKFILL	CU YD	6	6
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	252	252
	40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	3078	3078
	40600300	AGGREGATE (PRIME COAT)	TON	32	32
	40600895	CONSTRUCTING TEST STRIP	EACH	1	1
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	613	613
	40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	1293	1293
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	1439	1439
	42400800	DETECTABLE WARNINGS	SQ FT	368	368
	44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	12	12
	44000600	SIDEWALK REMOVAL	SQ FT	1673	1673
	44201725	CLASS D PATCHES, TYPE I, 7 INCH	SQ YD	146	146
	44201729	CLASS D PATCHES, TYPE II, 7 INCH	SQ YD	146	146
	44201733	CLASS D PATCHES, TYPE III, 7 INCH	SQ YD	146	146
	44201735	CLASS D PATCHES, TYPE IV, 7 INCH	SQ YD	146	146
	550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	63	63
	60234200	INLETS, TYPE A, TYPE 1 FRAME, OPEN LID	EACH	1	1
	60250200	CATCH BASINS TO BE ADJUSTED	EACH	15	15
	60252800	CATCH BASINS TO BE RECONSTRUCTED	EACH	1	1
	67100100	MOBILIZATION	L SUM	1	1
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	3000	3000
	72000100	SIGN PANEL - TYPE 1	SQ FT	48	48
	72900200	METAL POST - TYPE B	FOOT	105	105
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	660	660

* - INDICATES SPECIALTY ITEMS

SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE
S.I.	CODE NO.	PAY ITEM	UNIT	QUAN	0005
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	6065	6065
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	6886	6886
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	536	536
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	65	65
*	88600600	DETECTOR LOOP REPLACEMENT	FOOT	437	437
	LR400510	REJUVENTATING AGENT	GALLON	1540	1540
	LR400520	HOT IN-PLACE RECYCLING - SURFACE RECYCLING	SQ YD	15387	15387
	X2520700	SODDING, SPECIAL	SQ YD	252	252
	X4400196	HOT-MIX ASPHALT SURFACE REMOVAL, SPECIAL	SQ YD	3998	3998
	X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	2	2
	Z0004530	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 8"	SQ YD	12	12
	Z0004562	COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	1029	1029

* - INDICATES SPECIALTY ITEMS

GENERAL NOTES

- BEFORE STARTING ANY EXCAVATION THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 AND (312) 744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. (48 HOUR NOTIFICATION REQUIRED)
- UTILITIES INDICATED ON THE PLANS ARE PROVIDED FOR THE CONTRACTORS USE AND ARE BASED UPON INFORMATION AVAILABLE AT THE TIME OF THE ADVERTISEMENT FOR BIDS. THE OWNER AND ENGINEER DO NOT GUARANTEE THE ACCURACY OF UTILITY INFORMATION.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- THE 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.
- ACCESS TO DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES BY LIMITING CURB AND GUTTER REPAIR TO ONE-HALF THE DRIVEWAY WIDTH AT ONE TIME AS WELL AS TEMPORARY AGGREGATE.
- THE REMOVAL AND/OR REPLACEMENT OF ANY DRIVEWAYS, PAVEMENT, CURB, SIDEWALK, ETC. SHALL BE ACCOMPLISHED BY MEANS OF A SAW CUT JOINT, AT THE DIRECTION OF THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE UNIT PRICE FOR THE VARIOUS ITEMS.
- ANY LOOSE MATERIAL DEPOSITED IN THE FLOW LINE OF DITCHES, GUTTERS OR OTHER DRAINAGE STRUCTURES SHALL BE REMOVED BY THE END OF EACH DAY BY THE CONTRACTOR AT THEIR EXPENSE.
- FOR WORK OUTSIDE THE LIMITS OF BRIDGE APPROACH PAVEMENT, ALL REFERENCES IN THE HIGHWAY STANDARDS AND STANDARD SPECIFICATIONS FOR REINFORCEMENT, DOWEL BARS AND TIE BARS IN PAVEMENT, SHOULDERS, CURB, GUTTER, COMBINATION CURB AND GUTTER AND MEDIAN, AND CHAIR SUPPORTS FOR CRC PAVEMENT, SHALL BE EPOXY COATED, UNLESS OTHERWISE NOTED ON THE PLAN.

COMMITMENTS

- NO PAVEMENT PATCHING WILL BE PERMITTED AFTER FRIDAY AT 3:00PM OF EACH WEEK.

FILE NAME = 11553-QUAN-01 - 001

USER NAME =

DESIGNED -- JPH

REVISED --

CHECKED -- PKB

REVISED --

PLOT SCALE =

DRAWN -- RG

REVISED --

PLOT DATE = 1-31-12

CHECKED -- AG

REVISED --

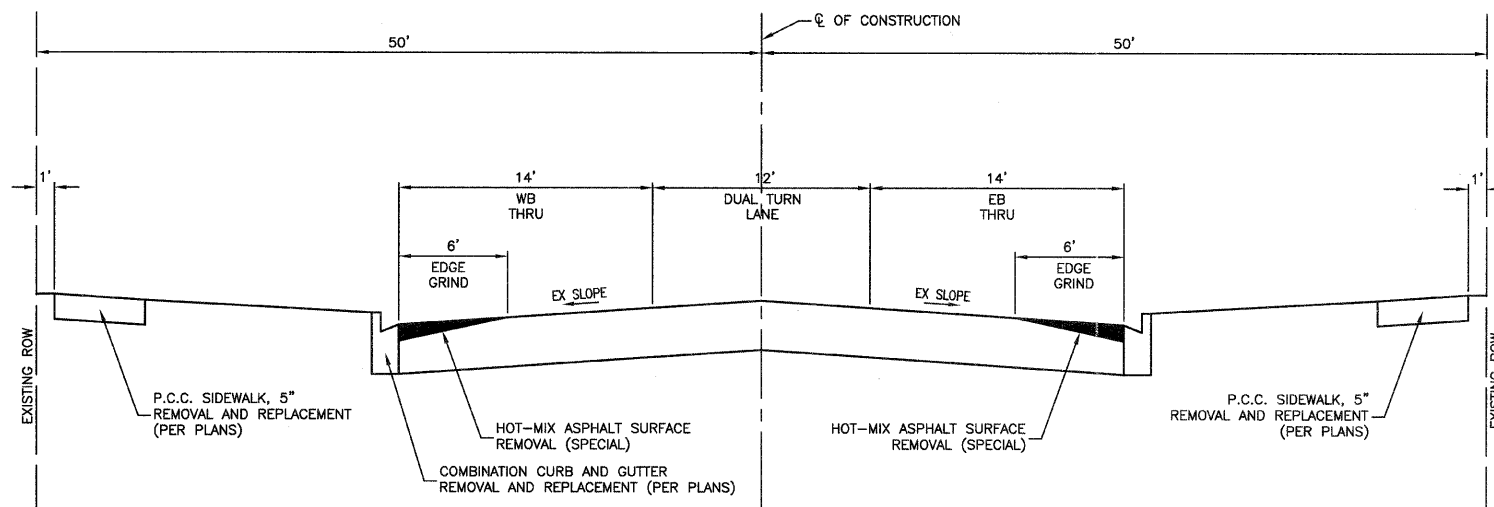
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

167TH STREET
ROADWAY RESURFACING
SUMMARY OF QUANTITIES & GENERAL NOTES

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1609	11-00112-00-RS	COOK	14	2
CONTRACT NO. 63681				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003 (918)				

LAST SAVED BY: RSONDEK ON 2/14/12
PLOTTED BY: RICHARD GONDEK ON 2/14/12

SCALE: NONE SHEET NO. 2 OF 14 SHEETS STA. TO STA.



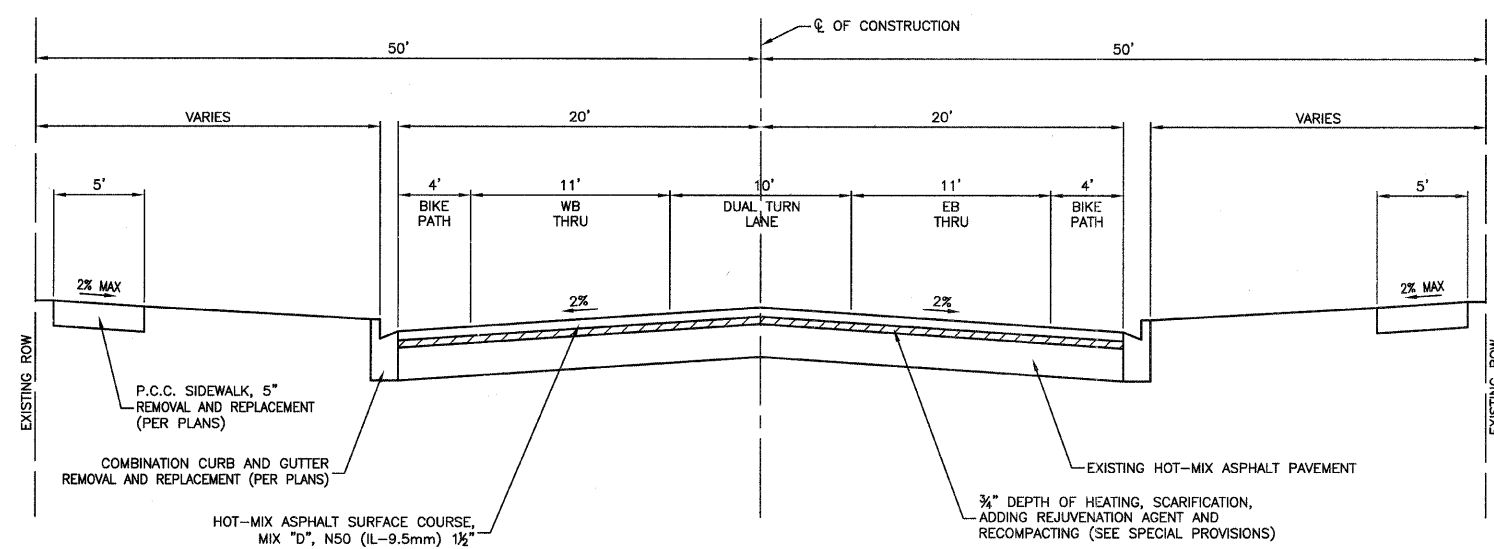
EXISTING TYPICAL CROSS SECTION

167TH STREET
 80TH AVENUE TO CHERRY HILL AVENUE
 STA 10+00.20 TO STA 12+69.86
 STA 24+10.68 TO STA 49+92.43

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE	AIR VOIDS @ NDES
RESURFACING	
HOT MIX ASPHALT SURFACE COURSE, MIX "D", N50(IL-9.5mm); 1 1/2"	4% @ 50 Gyr.
DRIVEWAYS	
HOT MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL-9.5mm); 2"	4% @ 50 Gyr.
HOT MIX ASPHALT BASE COURSE, (HMA BINDER IL-19.0mm); 6" (IN 3 LIFTS)	4% @ 50 Gyr.
PATCHING	
CLASS D PATCHES, TYPE I, II, III, IV (HMA BINDER IL-19.0mm), 7" (IN 3 LIFTS)	4% @ 70 Gyr.

- NOTES:
1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SY/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. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

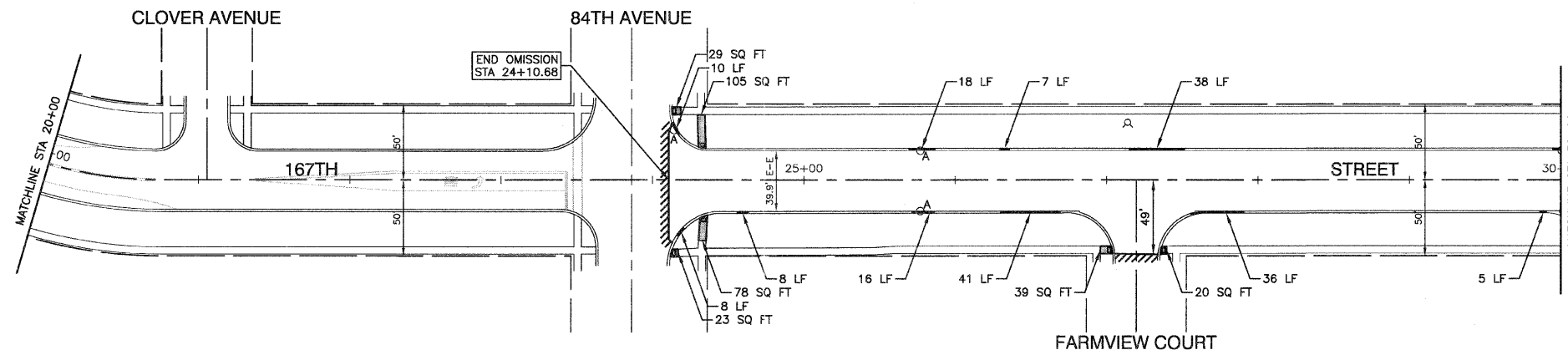
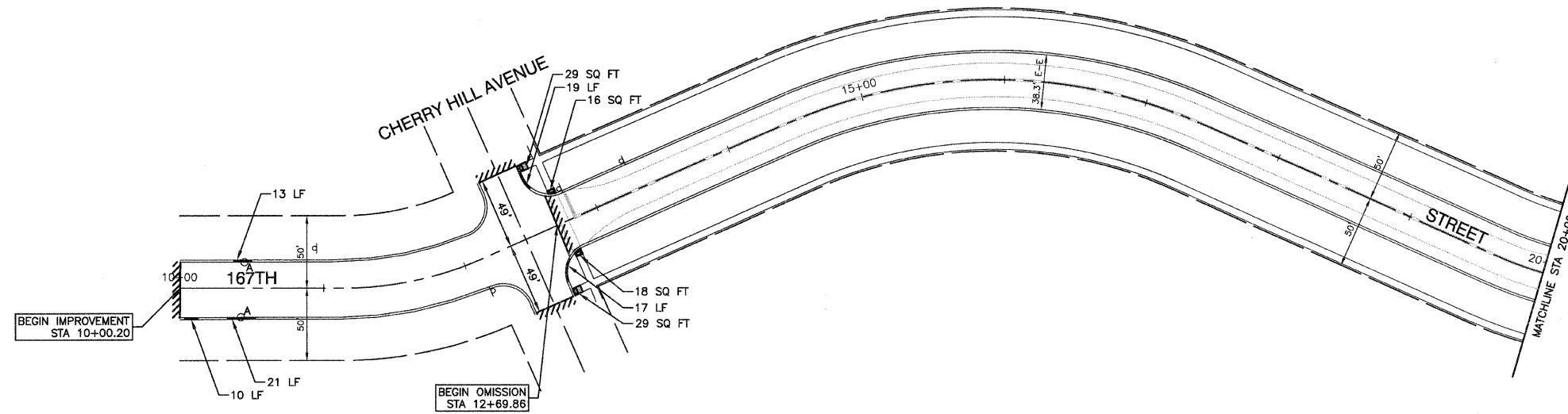


PROPOSED TYPICAL CROSS SECTION

167TH STREET
 80TH AVENUE TO CHERRY HILL AVENUE
 STA 10+00.20 TO STA 12+69.86
 STA 24+10.68 TO STA 49+92.43

FILE NAME = 11553-TYPK-01 - TYP01 LAST REVISED BY: JPH/STN 01/14/13 PLOT DATE: 1-31-12	USER NAME = _____ DESIGNED -- JPH CHECKED -- PKB DRAWN -- RG CHECKED -- AG	REVISED -- _____ REVISED -- _____ REVISED -- _____ REVISED -- _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	167TH STREET ROADWAY RESURFACING TYPICAL CROSS SECTIONS		F.A.U. RTE. 1609 SECTION 11-00112-00-RS COUNTY COOK TOTAL SHEETS 14 SHEET NO. 3	CONTRACT NO. 63681 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003 (918)	
	PLOT SCALE = _____ PLOT DATE = 1-31-12			SCALE: NONE	SHEET NO. 3 OF 14 SHEETS	STA. _____ TO STA. _____		

SECTION 23, TOWNSHIP 36, RANGE 12
SECTION 26, TOWNSHIP 36, RANGE 12



NOTES:

1. DETECTABLE WARNINGS ARE TO BE INSTALLED AT LOCATIONS OF SIDEWALK REMOVAL AND REPLACEMENT. CONTRACTOR TO POSITION AND PLACE DETECTABLE WARNINGS AT THE DIRECTION OF THE ENGINEER IN ACCORDANCE WITH ADA REQUIREMENTS AND IDOT STANDARDS.
2. LIMIT OF CONSTRUCTION ON ALL SIDE STREETS IS THE RADIUS RETURN PLUS 10' BUTT JOINT OR ROW AS NOTED.
3. ACCESS TO ALL DRIVEWAYS SHALL BE MAINTAINED UPON COMPLETION OF EACH WORKDAY. RESIDENTS SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF WHEN DRIVEWAY REPLACEMENT WILL TAKE PLACE.
4. ADDITIONAL PATCHING MAY BE PERFORMED AT THE INSTRUCTION OF THE ENGINEER.

LEGEND

- CLASS D PATCH
- HMA DRIVEWAY REMOVAL AND REPLACEMENT
- CONCRETE DRIVEWAY REMOVAL AND REPLACEMENT
- CONCRETE SIDEWALK REMOVAL AND REPLACEMENT
- BUTT JOINTS
- CURB REMOVAL AND REPLACEMENT
- "A" STRUCTURE TO BE ADJUSTED
- "R" STRUCTURE TO BE RECONSTRUCTED
- DETECTOR LOOP TO BE REPLACED

FILE NAME = 11553-PLAN 01 - P01

USER NAME =
PLOT SCALE =
PLOT DATE = 1-31-12

DESIGNED — JPH
CHECKED — PKB
DRAWN — RG
CHECKED — AG

REVISED —
REVISED —
REVISED —
REVISED —

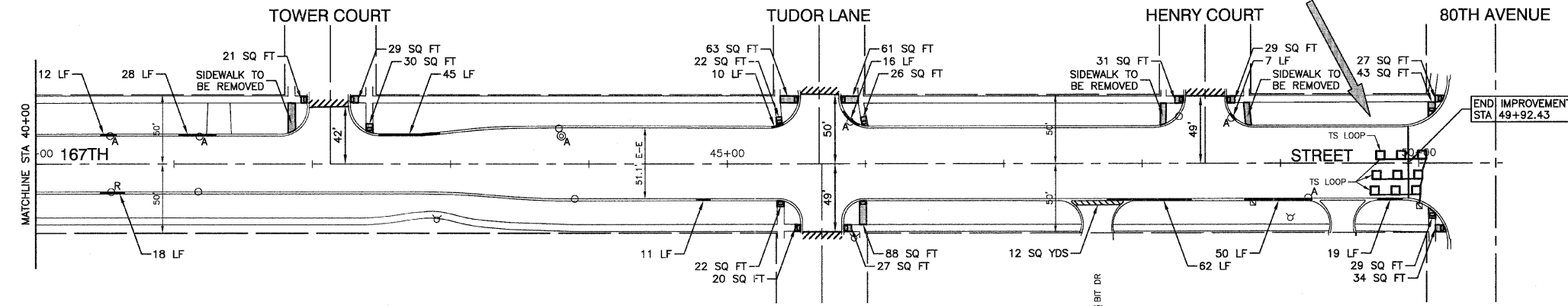
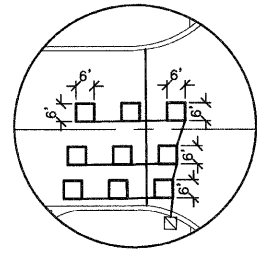
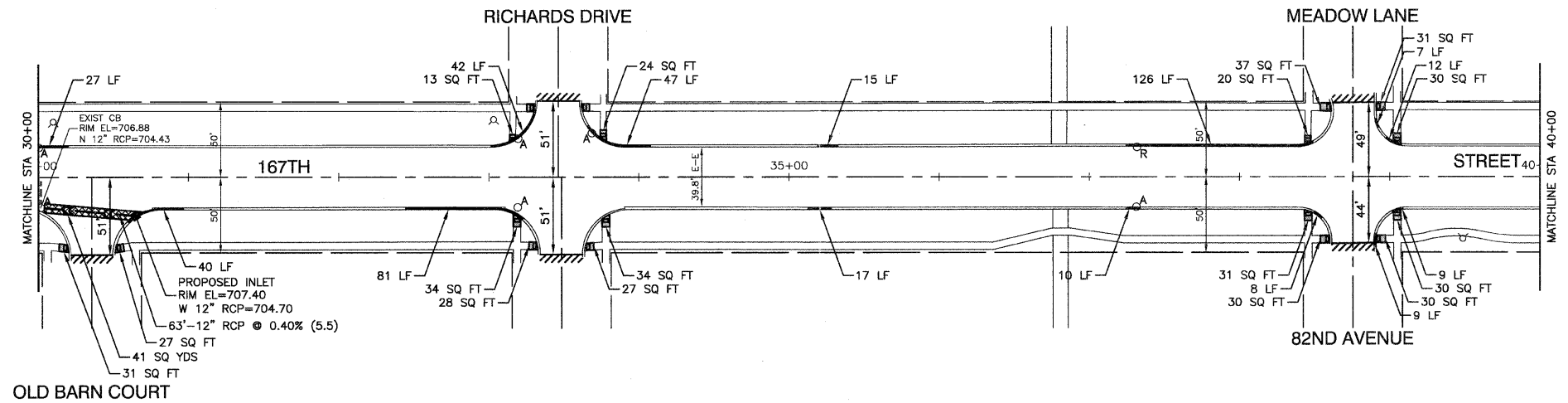
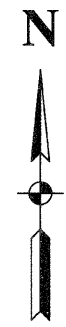
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

167TH STREET
ROADWAY RESURFACING
PROPOSED PLAN
SCALE: 1"=50'
SHEET NO. 4 OF 14 SHEETS
STA. 10+00.20 TO STA. 30+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1609	11-00112-00-RS	COOK	14	4
FED. ROAD DIST. NO. 1 ILLINOIS			CONTRACT NO. 63681	
FED. AID PROJECT: M-9003 (918)				

LAST SOURCE BY METROPOLITAN ILLINOIS
PLANNING AND TRANSPORTATION DIVISION

SECTION 23, TOWNSHIP 36, RANGE 12
SECTION 26, TOWNSHIP 36, RANGE 12



NOTES:

1. DETECTABLE WARNINGS ARE TO BE INSTALLED AT LOCATIONS OF SIDEWALK REMOVAL AND REPLACEMENT. CONTRACTOR TO POSITION AND PLACE DETECTABLE WARNINGS AT THE DIRECTION OF THE ENGINEER IN ACCORDANCE WITH ADA REQUIREMENTS AND IDOT STANDARDS.
2. LIMIT OF CONSTRUCTION ON ALL SIDE STREETS IS THE RADIUS RETURN PLUS 10' BUTT JOINT OR ROW AS NOTED.
3. ACCESS TO ALL DRIVEWAYS SHALL BE MAINTAINED UPON COMPLETION OF EACH WORKDAY. RESIDENTS SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF WHEN DRIVEWAY REPLACEMENT WILL TAKE PLACE.
4. ADDITIONAL PATCHING MAY BE PERFORMED AT THE INSTRUCTION OF THE ENGINEER.

LEGEND

- CLASS D PATCH
- HMA DRIVEWAY REMOVAL AND REPLACEMENT
- CONCRETE DRIVEWAY REMOVAL AND REPLACEMENT
- CONCRETE SIDEWALK REMOVAL AND REPLACEMENT
- BUTT JOINTS
- CURB REMOVAL AND REPLACEMENT
- "A" STRUCTURE TO BE ADJUSTED
- "R" STRUCTURE TO BE RECONSTRUCTED
- DETECTOR LOOP TO BE REPLACED

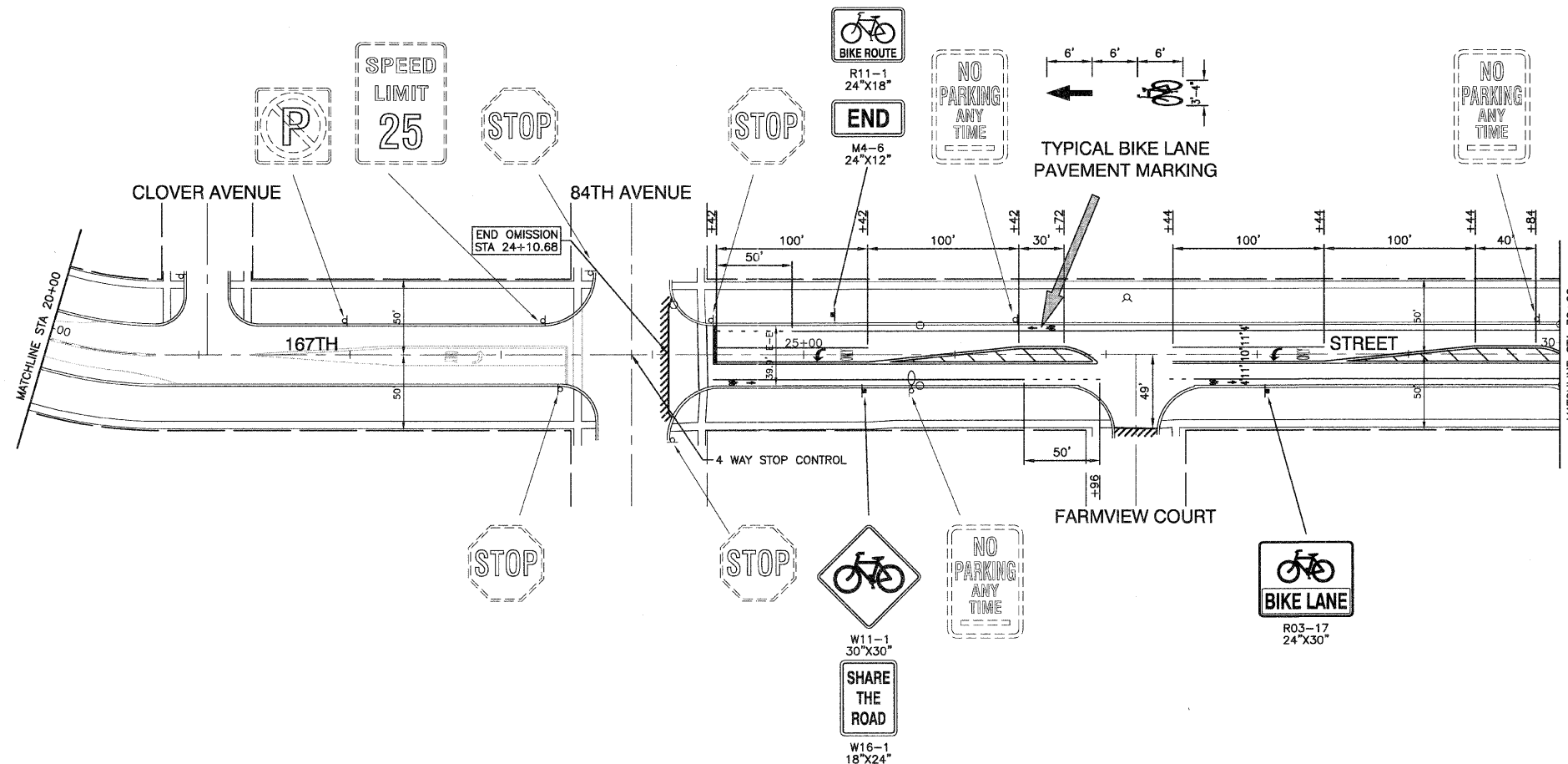
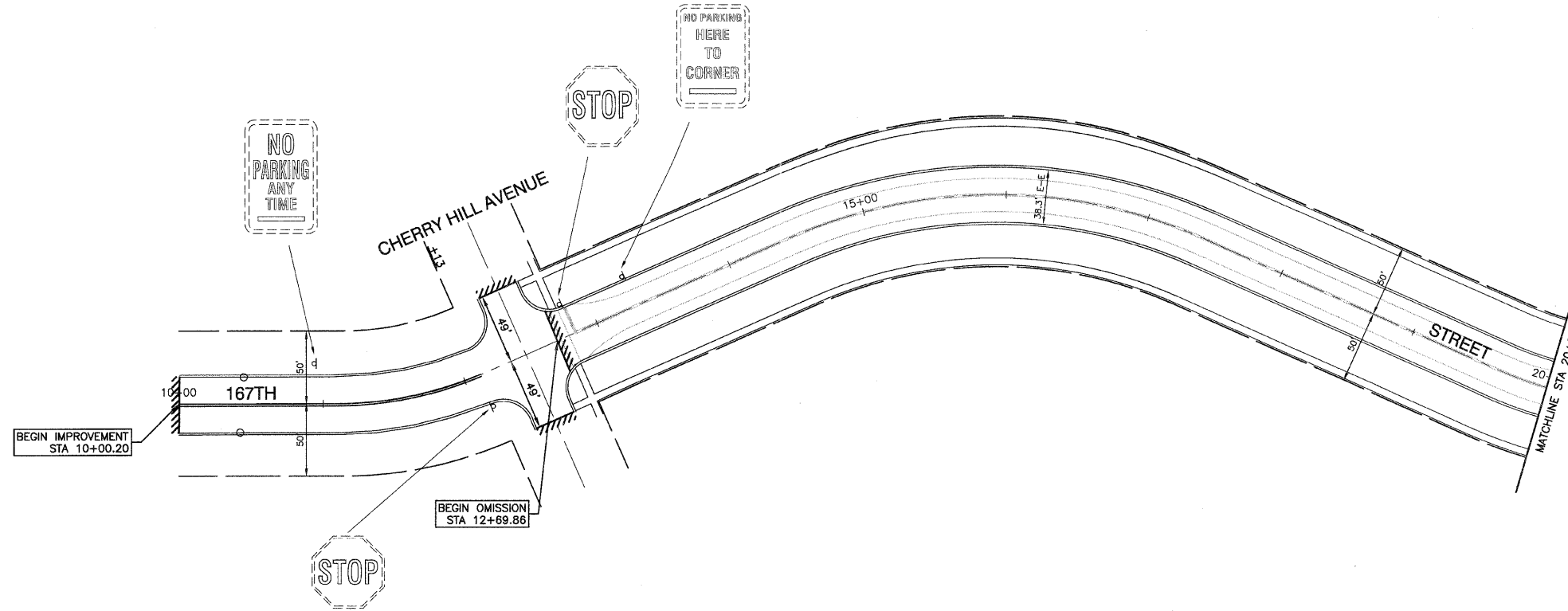
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USER NAME =	DESIGNED -- JPH	REVISED --
	CHECKED -- PKB	REVISED --
PLOT SCALE =	DRAWN -- RG	REVISED --
PLOT DATE = 1-31-12	CHECKED -- AG	REVISED --

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

167TH STREET
ROADWAY RESURFACING
PROPOSED PLAN
SCALE: 1"=50' SHEET NO. 5 OF 14 SHEETS STA. 30+00 TO STA. 49+92.43

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1609	11-00112-00-RS	COOK	14	5
CONTRACT NO. 63681				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003 (918)				



STRIPING LEGEND

MARKING	USES
THERMOPLASTIC PAVEMENT MARKING WHITE, 24"	ALL STOP BARS
THERMOPLASTIC PAVEMENT MARKING WHITE, LINE, 4", SKIP DASH (10' LINE-30' SPACE)	LANE LINES
THERMOPLASTIC PAVEMENT MARKING WHITE, LINE, 6"	CROSS WALK OUTSIDE LINES/ LEFT & RIGHT TURN LANES
THERMOPLASTIC PAVEMENT MARKING YELLOW, DOUBLE LINE, 4"	CENTERLINES
THERMOPLASTIC PAVEMENT MARKING YELLOW, LINE, 12" (20' C-C)	MEDIAN DIAGONALS
THERMOPLASTIC PAVEMENT MARKING WHITE, LINE, 6" (2' LINE-6' SPACE/BLANK)	TURN LANE SKIP DASH
THERMOPLASTIC PAVEMENT MARKING WHITE, LINE, 12" (2' C-C)	SCHOOL CROSS WALKS & CORNER DIAGONALS
THERMOPLASTIC PAVEMENT MARKING WHITE, LETTERS AND SYMBOLS	AS SHOWN
THERMOPLASTIC PAVEMENT MARKING WHITE, LINE, 4"	BIKE LANES
THERMOPLASTIC PAVEMENT MARKING WHITE, LINE, 4" (2' LINE-6' SPACE)	BIKE LANES AS SHOWN

FILE NAME = 11503-PLAN-01 - PVMK01

USER NAME =	DESIGNED — CJK	REVISED —
	CHECKED — PKB	REVISED —
PLOT SCALE =	DRAWN — RG	REVISED —
PLOT DATE = 1-31-12	CHECKED — AG	REVISED —

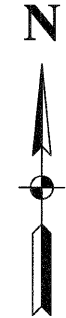
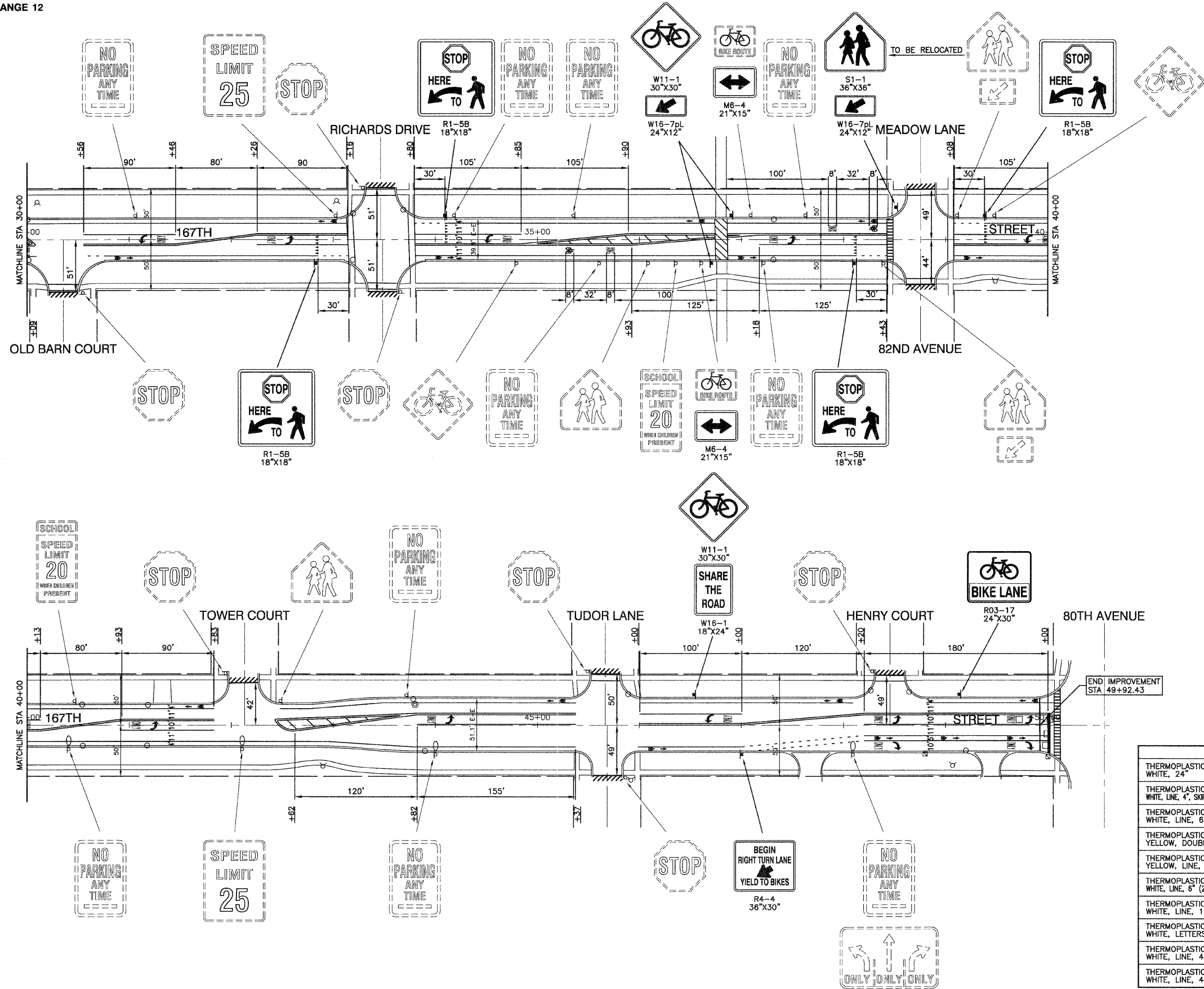
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

167TH STREET
ROADWAY RESURFACING
PAVEMENT MARKING PLAN

SCALE: 1"=50' SHEET NO. 6 OF 14 SHEETS STA. 10+00.20 TO STA. 30+00

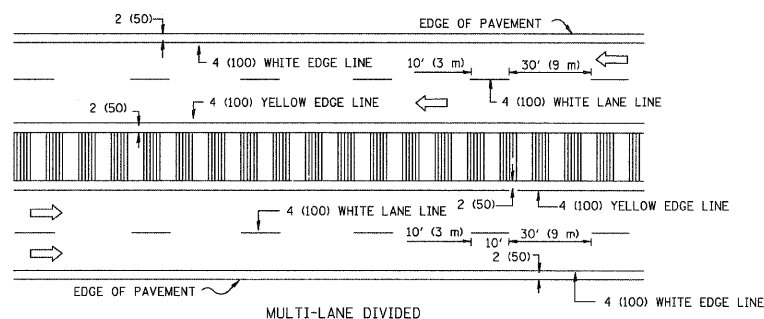
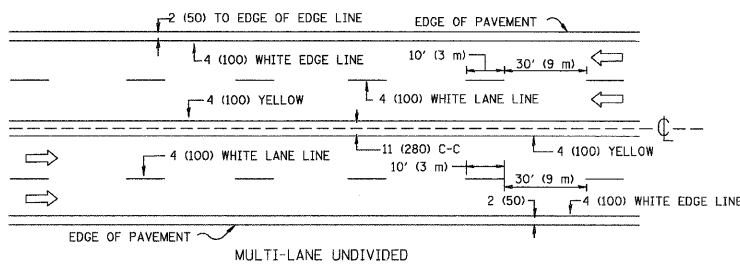
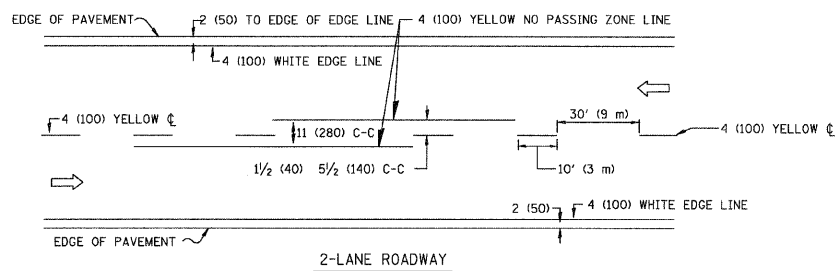
F.A.U. RTE. 1609	SECTION 11-00112-00-RS	COUNTY COOK	TOTAL SHEETS 14	SHEET NO. 6
CONTRACT NO. 63681				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003 (918)				

SECTION 23, TOWNSHIP 36, RANGE 12
SECTION 26, TOWNSHIP 36, RANGE 12



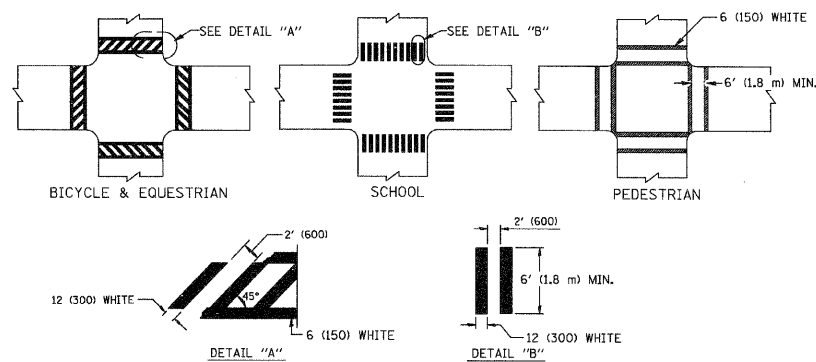
STRIPING LEGEND

MARKING	USES
THERMOPLASTIC PAVEMENT MARKING WHITE, 24"	ALL STOP BARS
THERMOPLASTIC PAVEMENT MARKING WHITE, LINE, 4", SKIP DASH (10' LINE-30' SPACE)	LANE LINES
THERMOPLASTIC PAVEMENT MARKING WHITE, LINE, 6"	CROSS WALK OUTSIDE LINES/ LEFT & RIGHT TURN LANES
THERMOPLASTIC PAVEMENT MARKING YELLOW, DOUBLE LINE, 4"	CENTERLINES
THERMOPLASTIC PAVEMENT MARKING YELLOW, LINE, 12" (20' C-C)	MEDIAN DIAGONALS
THERMOPLASTIC PAVEMENT MARKING WHITE, LINE, 6" (2' LINE-6' SPACE/BLANK)	TURN LANE SKIP DASH
THERMOPLASTIC PAVEMENT MARKING WHITE, LINE, 12" (2' C-C)	SCHOOL CROSS WALKS & CORNER DIAGONALS
THERMOPLASTIC PAVEMENT MARKING WHITE, LETTERS AND SYMBOLS	AS SHOWN
THERMOPLASTIC PAVEMENT MARKING WHITE, LINE, 4"	BIKE LANES
THERMOPLASTIC PAVEMENT MARKING WHITE, LINE, 4" (2' LINE-6' SPACE)	BIKE LANES AS SHOWN

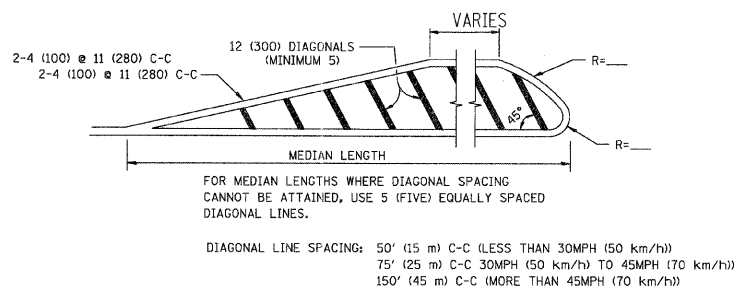
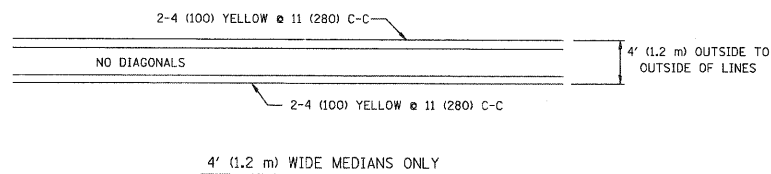


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

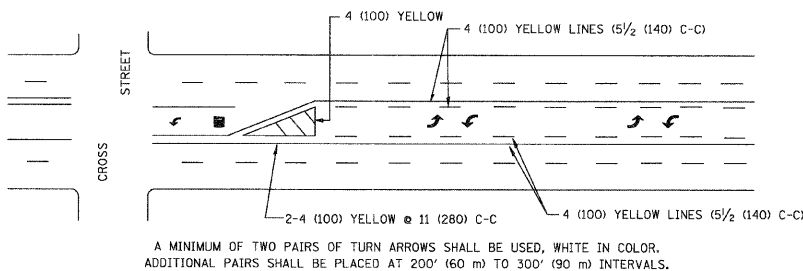
TYPICAL LANE AND EDGE LINE MARKING



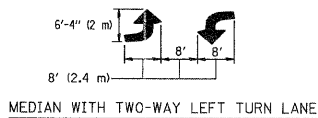
TYPICAL CROSSWALK MARKING



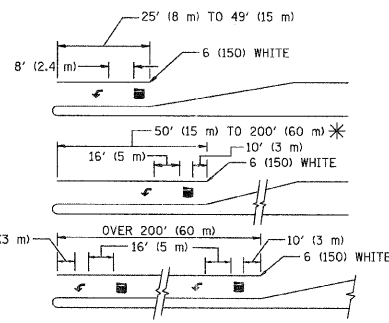
MEDIANS OVER 4' (1.2 m) WIDE



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



TYPICAL PAINTED MEDIAN MARKING

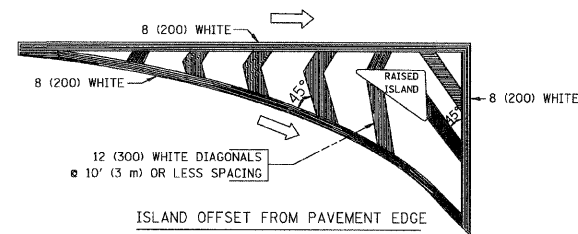


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m²) AREA = 20.8 SQ. FT. (1.9 m²)

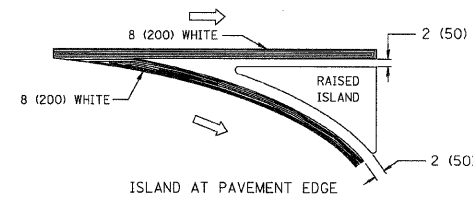
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION	4 (100)	SOLID	YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE
FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	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 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

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

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

FILE NAME = 11563-DTL5-01-TC13 - TC13

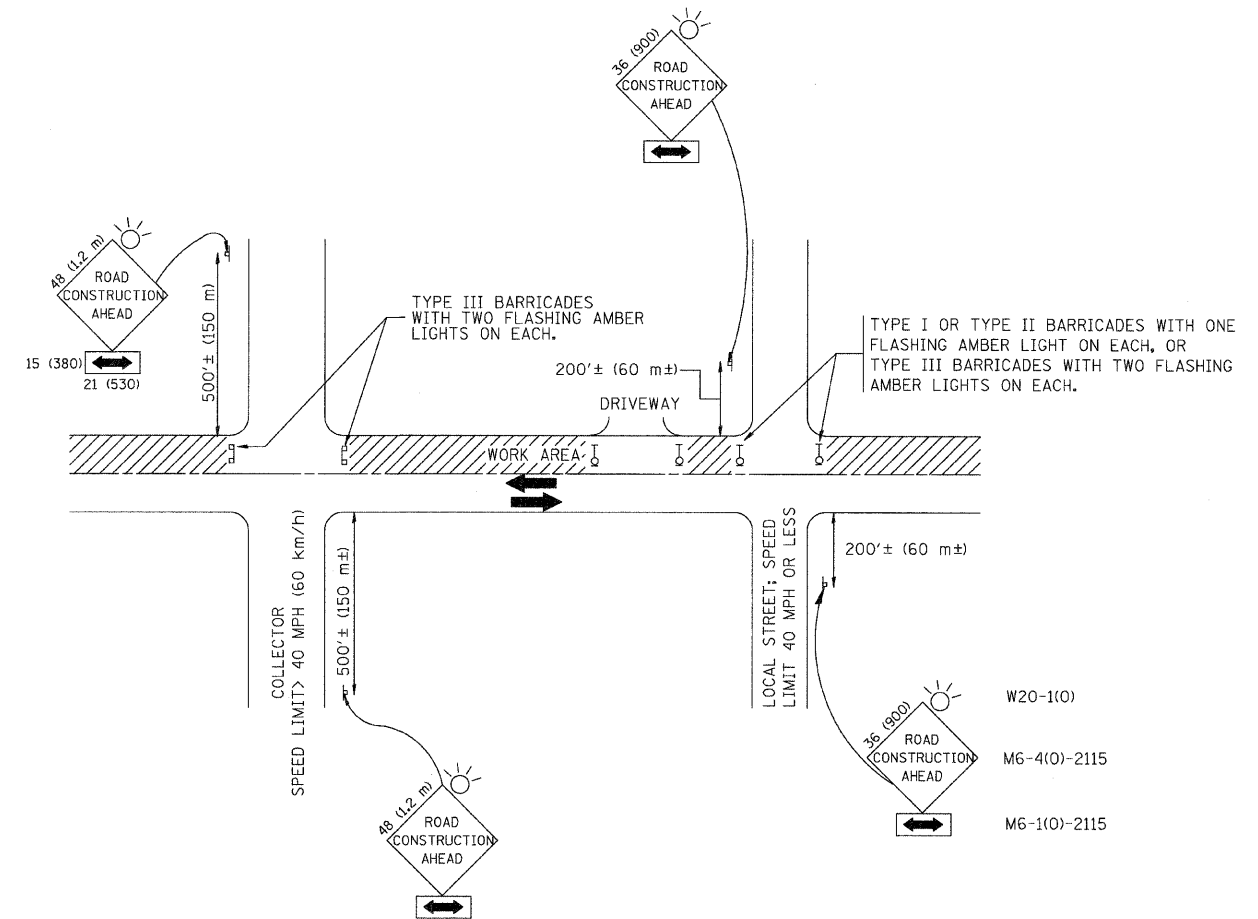
USER NAME = drvakosgn	DESIGNED = EVERS	REVISED = T. RAMMACHER 10-27-94
PLOT SCALE = 58,800' / IN.	CHECKED =	REVISED = C. JUCIUS 09-09-09
PLOT DATE = 9/9/2009	DRAWN =	REVISED =
	CHECKED = 03-19-90	REVISED =

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1609	11-00112-00-RS	COOK	14	8
TC-13			CONTRACT NO. 63681	
FED. ROAD DIST. NO. - 1 ILLINOIS			FED. AID PROJECT M-9003 (918)	

SCALE: SHEET NO. 8 OF 14 SHEETS STA. TO STA.



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

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

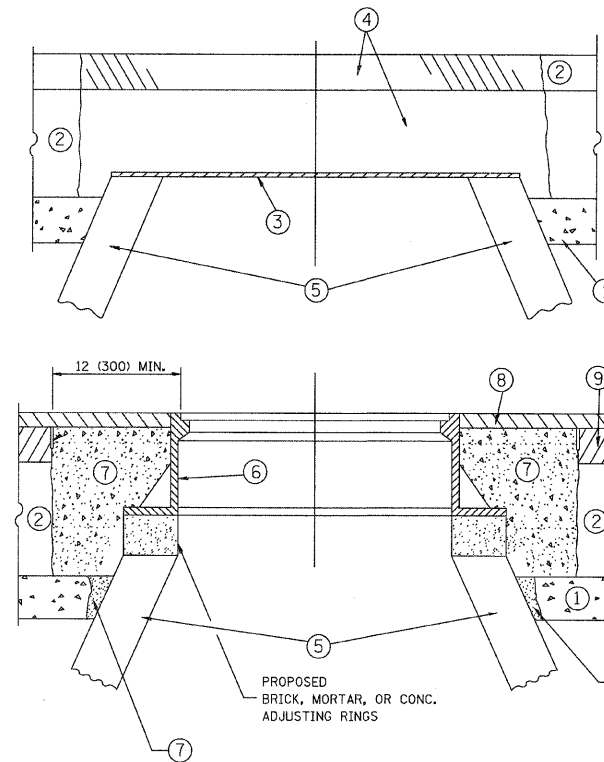
FILE NAME = 11553 DTLS 02-TC10 - TC-10	USER NAME = geg1:enobt	DESIGNED -- LHA	REVISED -- J. OBERLE 10-18-95
		CHECKED --	REVISED -- A. HOUSEH 03-06-96
	PLOT SCALE = 50,000' / IN.	DRAWN --	REVISED -- A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	CHECKED -- 06-89	REVISED -- T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

SCALE: SHEET NO. 9 OF 14 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1609	11 00112.00 RS	COOK	14	9
TC-10			CONTRACT NO. 63681	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003 (918)				



NOTES:

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

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

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

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

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

CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1½ (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

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

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

LEGEND

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

LOCATION OF STRUCTURES:

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

BASIS OF PAYMENT:

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

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

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

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

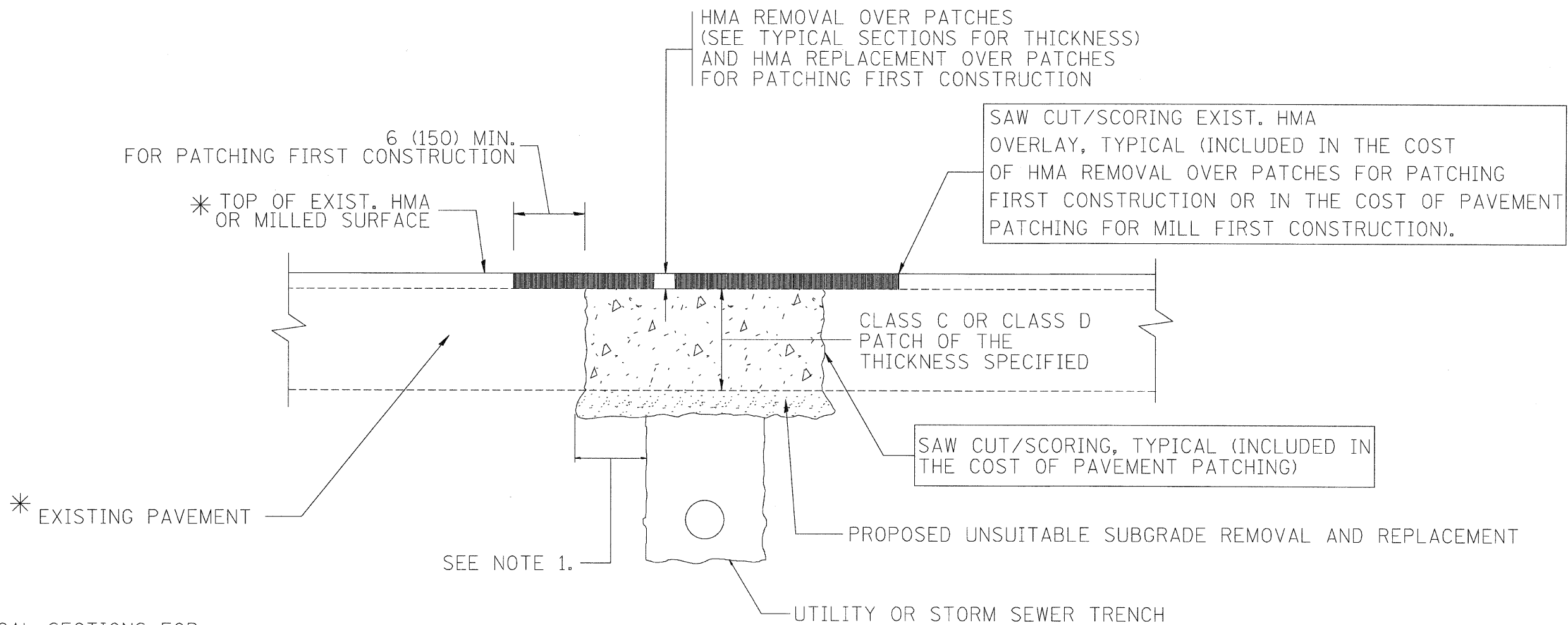
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION				
NAME	DATE	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING				
R. SHAH	10/25/94	SCALE: VERT. NONE HORIZ. DRAWN BY CHECKED BY				
R. SHAH	01/30/95					
R. SHAH	03/10/95					
A. ABBAS	03/21/97					
R. WIEDEMAN	05/14/04					
R. BORO	01/01/07					
R. BORO	03/09/11					
R. BORO	12/06/11					
						F.A.U. RTE.
		1609	11-00112-00-RS	COOK	14	10
		BD600-03 (BD-8)		CONTRACT NO. 63681		
		FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT M-9003 (918)

FILE NAME = 11563-DTIS-03-BD08 - BD-08	USER NAME = gegl1anobt	DESIGNED — R. SHAH	REVISED —R. SHAH 03-10-95
		CHECKED —	REVISED — A. ABBAS 03-21-97
	PLOT SCALE = 50.0000' / IN.	DRAWN —	REVISED —R. WIEDEMAN 05-14-04
	PLOT DATE = 1/4/2008	CHECKED — 10-25-94	REVISED — R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING			
SCALE:	SHEET NO. 10 OF 14 SHEETS	STA. N/A	TO STA. N/A



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

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

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

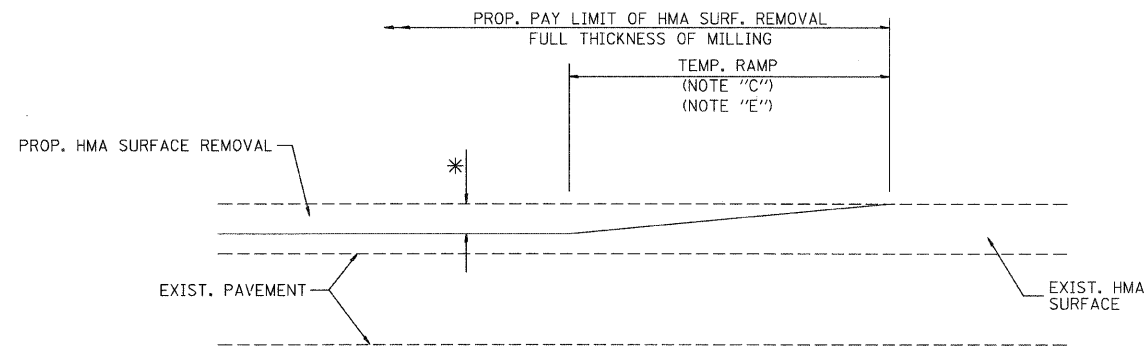
1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

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

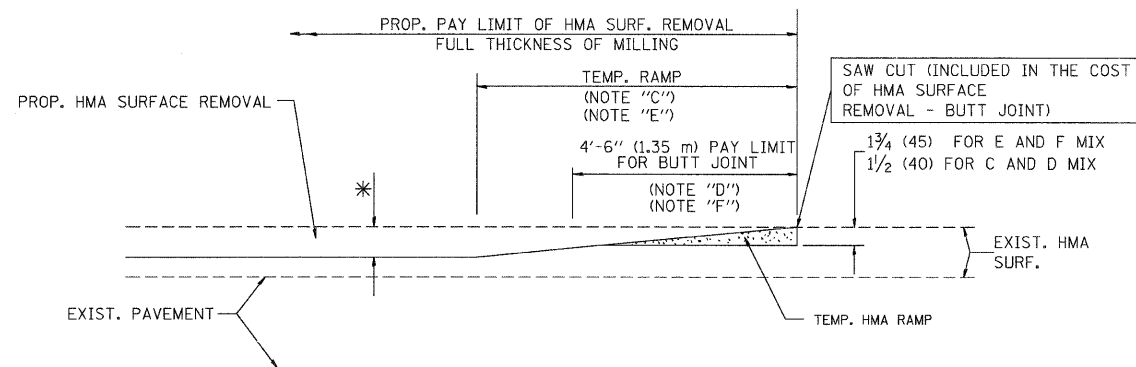
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = 1193-DTIS-04-BD22 - BD-22	USER NAME = bauerdl	DESIGNED -- R. SHAH	REVISED -- A. ABBAS 04-27-98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED --	REVISED -- R. BORO 01-01-07	1609			11-00112-00-RS	COOK	14	11	
	PLOT SCALE = 50.000' / IN.	DRAWN --	REVISED -- R. BORO 09-04-07			BD400-04 (BD-22)		CONTRACT NO. 63681		
	PLOT DATE = 10/27/2008	CHECKED -- 10-25-94	REVISED -- K. ENG 10-27-08			FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT M-9003 (918)		



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

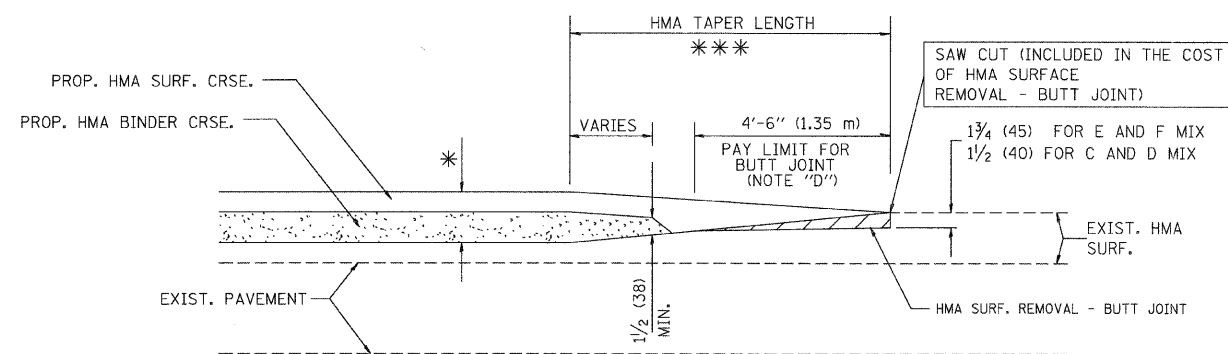
OPTION 1



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

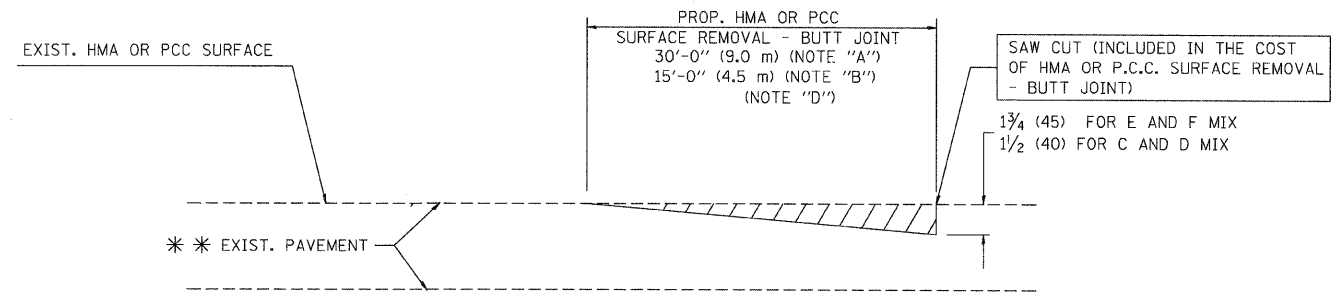
OPTION 2

TYPICAL TEMPORARY RAMP

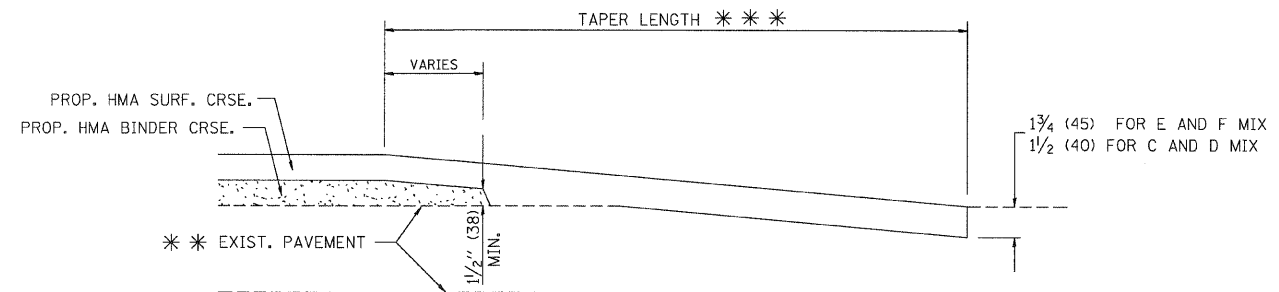


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER
FOR RESURFACING ONLY

*** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- *** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

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

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

FILE NAME = 11593-DTLS-05-BD32 - BD-32	USER NAME = gegliemobt	DESIGNED -- M. DE YONG	REVISED -- R. SHAH 10-25-94
		CHECKED --	REVISED -- A. ABBAS 03-21-97
	PLOT SCALE = 50,0000' / IN.	DRAWN --	REVISED -- M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	CHECKED -- 06-13-90	REVISED -- R. BORO 01-01-07

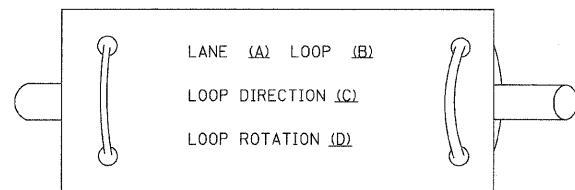
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:		SHEET NO. 12 OF 14 SHEETS		STA. TO STA.		BUTT JOINT AND HMA TAPER DETAILS		F.A.U. RTE. 1609	SECTION 11-00112-00-RS	COUNTY COOK	TOTAL SHEETS 14	SHEET NO. 12
						BD400-05 BD32		CONTRACT NO. 63681		FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-9003 (918)

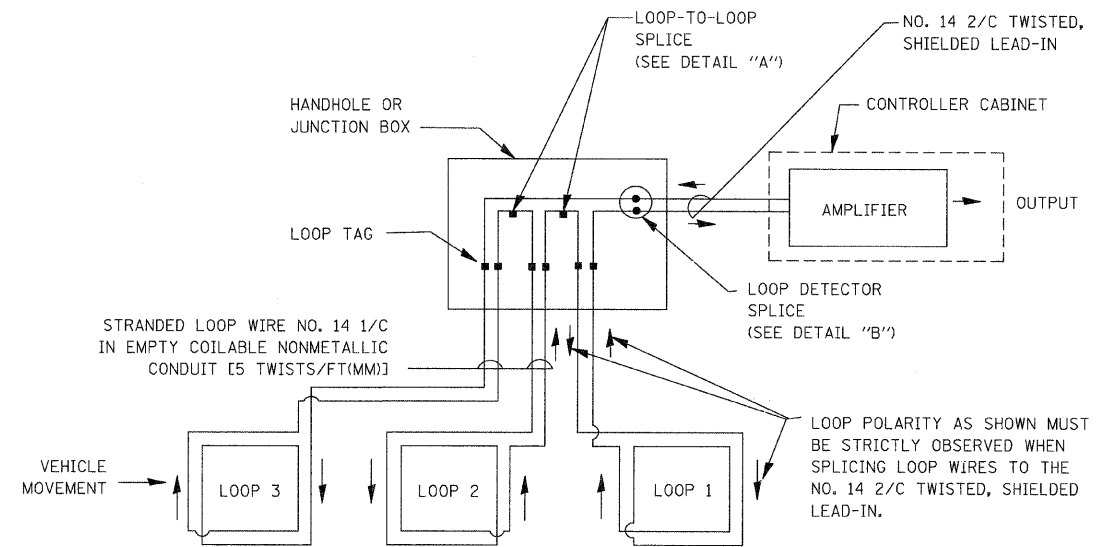
LOOP DETECTOR NOTES

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

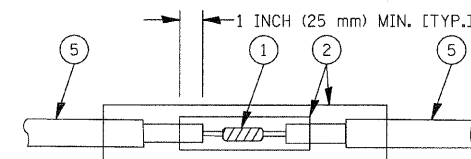


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

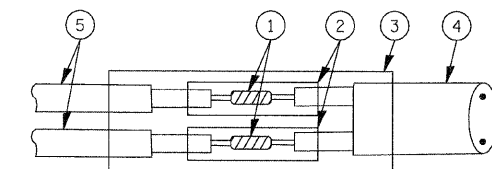


DETECTOR LOOP WIRING SCHEMATIC

- 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.

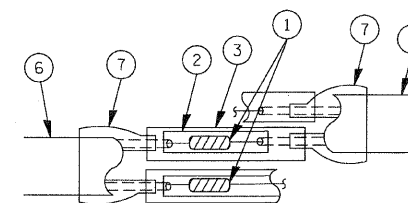


DETAIL "A" LOOP-TO-LOOP SPLICE

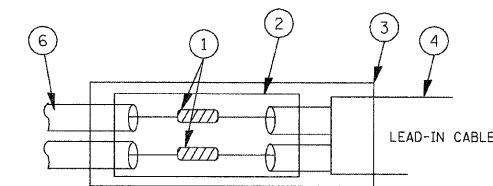


DETAIL "B" LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A" LOOP-TO-LOOP SPLICE



DETAIL "B" LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

- ① WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- ② WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- ③ WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 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 = 11553-DTIS-06-TS05 - TS-05A

USER NAME = beurd1	DESIGNED -- DAD	REVISED --
CHECKED --	REVISION --	
PLOT SCALE = 5/8" = 1" / IN.	DRAWN --	REVISED --
PLOT DATE = 11/1/2009	CHECKED -- 10-28-09	REVISED --

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

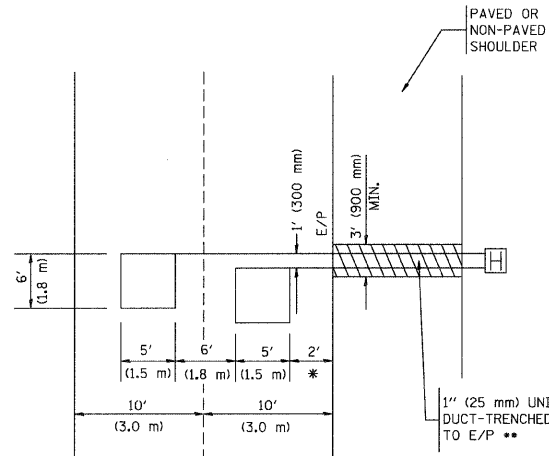
**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

F.A.U. RTE. 1609	SECTION 11-00112-00-RS	COUNTY COOK	TOTAL SHEETS 14	SHEET NO. 13
TS-05		CONTRACT NO. 63681		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003 (918)				

SCALE: SHEET NO. 13 OF 14 SHEETS STA. TO STA.

LOOPS NEXT TO SHOULDERS

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

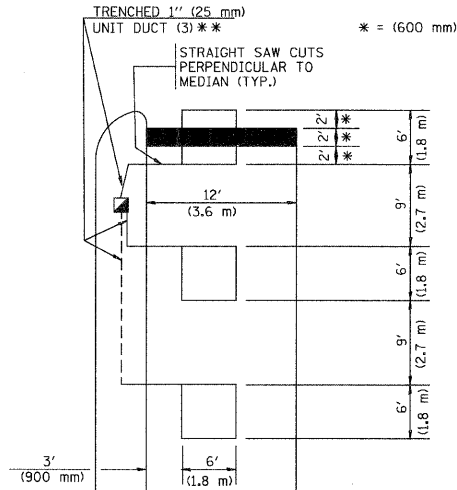


* = (600 mm)

** 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)

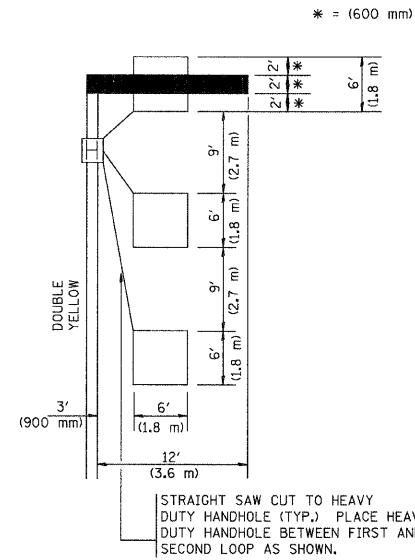
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.



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

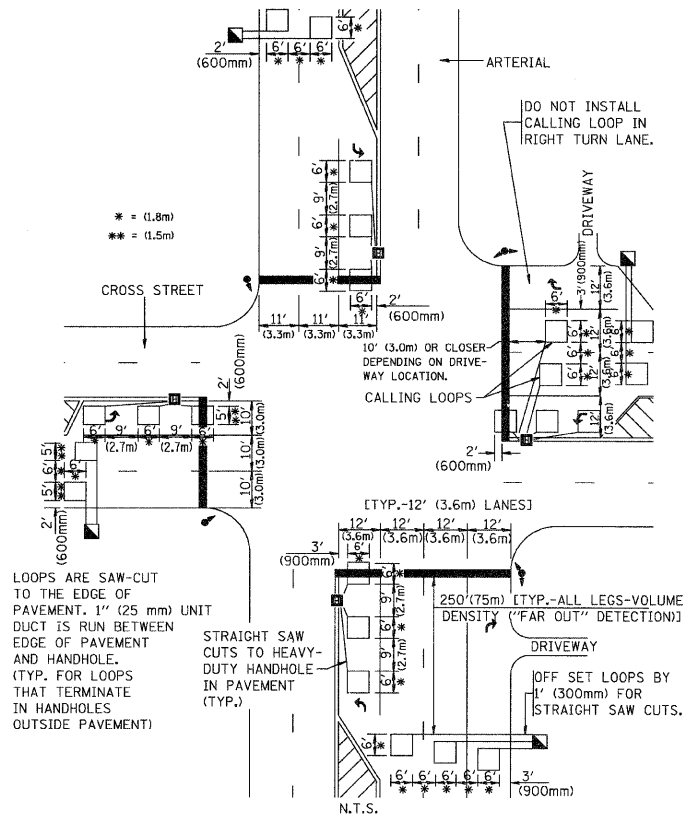
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



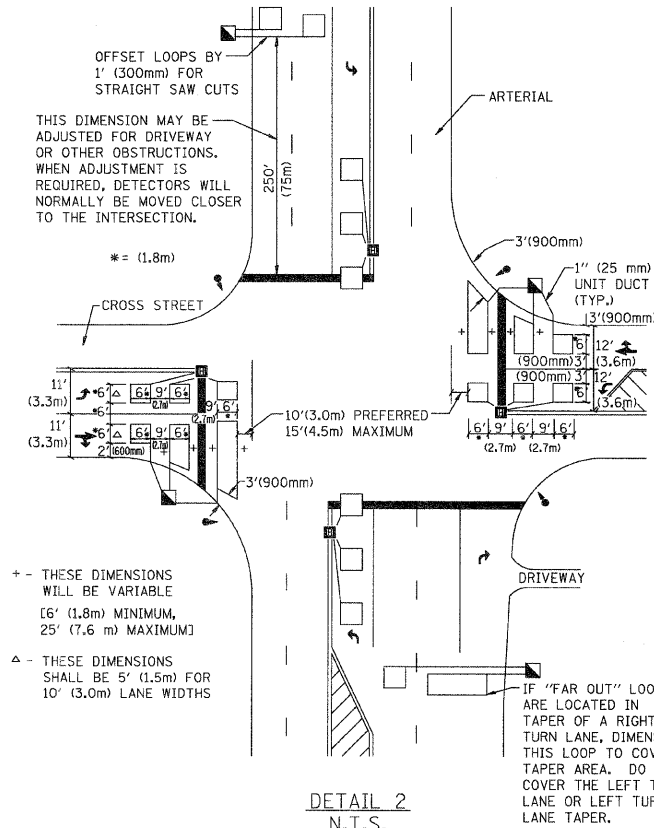
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



DETAIL 1
N.T.S.

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



DETAIL 2
N.T.S.

NOTES:

VEHICLES LOOP DETECTORS

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

PLACEMENT OF DETECTORS

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

LOCATIONS AND 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 = 11593-DTL8-07-TS-07 - TS-07

USER NAME = gegl1enob1

DESIGNED -

REVISIONS -

CHECKED -

REVISIONS -

PLOT SCALE = 58.0000' / IN.

DRAWN - R.K.F.

REVISIONS -

PLOT DATE = 1/4/2008

CHECKED -

REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 - DETECTOR LOOP INSTALLATION
DETAILS FOR ROADWAY RESURFACING

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1609	11-00112-00-RS	COOK	14	14
TS-07			CONTRACT NO. 63681	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003 (918)				

SCALE:

SHEET NO. 14 OF 14 SHEETS STA. TO STA.