

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1587	3098-RS-1	COOK	22	1

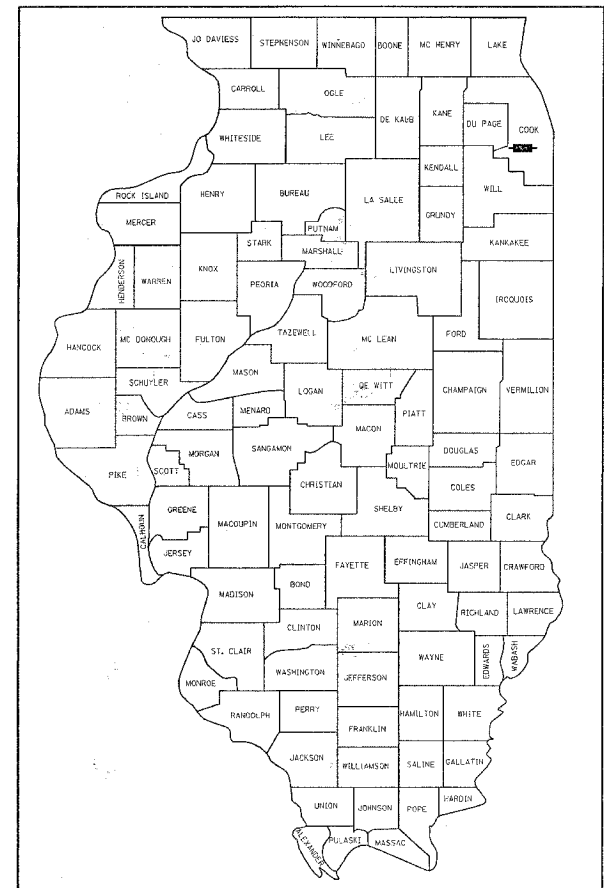
D-91-155-05

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

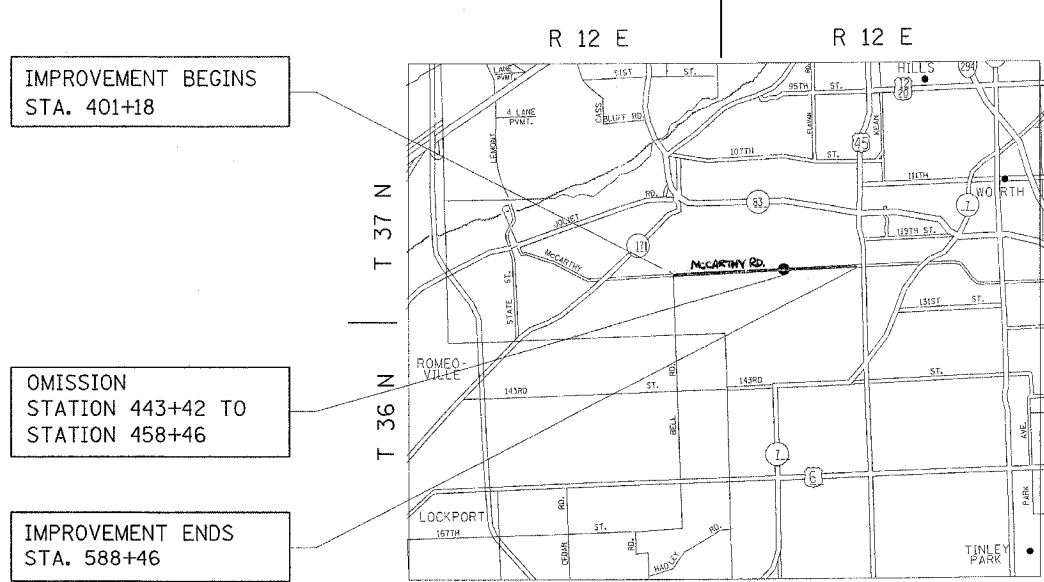
FOR INDEX OF SHEETS, SEE SHEET NO. 2

THE IMPROVEMENT IS LOCATED IN THE
VILLAGES OF LEMONT & PALOS PARK



LOCATION OF SECTION INDICATED THUS: - [Symbol] -

F.A.U. ROUTE 1587: MCCARTHY ROAD
SECTION: 3098 RS-4
BELL ROAD TO US 45 (LA GRANGE ROAD)
RESURFACING (MAINTENANCE), DRAINAGE
COOK COUNTY
C-91-155-05
PROJECT: ACHPP-HPP-F-1587(004)



IMPROVEMENT BEGINS
STA. 401+18

OMISSION
STATION 443+42 TO
STATION 458+46

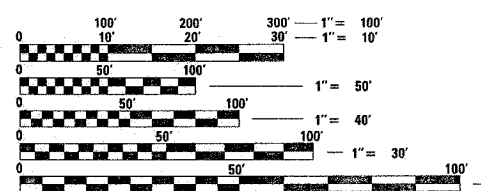
IMPROVEMENT ENDS
STA. 588+46



LEMONT TOWNSHIP

TRAFFIC DATA

2002 ADT = 13,900
POSTED SPEED LIMIT = 45 - 55 MPH



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

GROSS LENGTH OF IMPROVEMENT = 18,728 LINEAL FEET = 3.50 MILES
NET LENGTH OF IMPROVEMENT = 17,503 LINEAL FEET = 3.31 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED March 27, 2006

Diane M. O'Keefe /col
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

June 30, 2006
Mike Stone /RD
ENGINEER OF DESIGN AND ENVIRONMENT

June 30, 2006
Milton L. Sees, P.E. /RD
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

DIST. 1 DESIGN - PLAN PREP ENGINEER/KEN BOB BORO (847) 705-4178

D-91-155-05

F. A. No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1587	3098 RS-4	COOK	32	2
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ELIMINATED	FED. AID PROJECT		

CONTRACT NO. 62923

INDEX OF SHEET

SHEET NO.	
1	TITLE SHEET
2	INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES
3-4	SUMMARY OF QUANTITIES
5-7	TYPICAL SECTIONS
8-14	ROADWAY AND PAVEMENT MARKING SHEETS
15	DRAINAGE STRUCTURE AND PIPE TABLE
16-19	PROPOSED DRAINAGE PLANS
20	PAVEMENT PATCHING FOR BITUMINOUS SURFACED PAVEMENT
21	BUTT JOINT AND BITUMINOUS TAPER DETAILS
22	CORRUGATED SHOULDER (COOK COUNTY)
23	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
24	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
25	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
26	SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS
27	TEMPORARY INFORMATION SIGNING
28	DISTRICT ONE DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING
29	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS
30-32	DETECTOR LOOP PLANS

LIST OF STANDARDS

- 000001⁰⁴ STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 442201⁰¹ CLASS C AND D PATCHES
- 701301⁰² LANE CLOSURE, 2-L,2-W, SHORT TIME OPERATIONS
- 701306⁰¹ LANE CLOSURE, 2-L,2-W SLOW MOVING OPERATIONS- DAY ONLY FOR SPEEDS >_45
- 701311⁰² LANE CLOSURE, 2-L,2-W MOVING OPERATION- DAY ONLY
- 701501⁰³ URBAN LANE CLOSURE 2L, 2W UNDIVIDED
- 702001⁰⁶ TRAFFIC CONTROL DEVICE
- ~~482101~~ RUMBLE STRIP FOR PCC OR BITUMINOUS SHOULDER
- ~~642001~~ SHOULDER RUMBLE STRIPS
- 280001⁰⁴ TEMPORARY EROSION CONTROL SYSTEMS
- 482011⁰¹ BIT. SHOULDER STRIPS/SHOULDERS WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS
- 542101 REINFORCED CONCRETE END SECTIONS FOR PIPE CULVERTS 375MM (15") THRU 900MM (36") DIA. AT RIGHT ANGLES WITH ROADWAY
- 542306 PRECAST REINFORCED CONCRETE ELLIPTICAL FLARED END SECTION
- 542501 INLET BOX TYPE 600 (24) A
- 601101 CONCRETE HEADWALL FOR PIPE DRAIN
- 602001 CATCH BASIN TYPE A
- 602401⁰¹ MANHOLE TYPE A
- 604036⁰¹ GRATE TYPE 8
- 630001⁰⁶ STEEL PLATE BEAM GUARDRAIL
- 630301⁰³ SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
- 635006⁰² REFLECTOR AND TERMINAL MARKER PLACEMENT
- 635011⁰¹ REFLECTOR MARKER AND MOUNTING DETAILS

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED)

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGES OF LEMONT.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 40 MM (1 1/2 INCHES) WHERE THE SPEED LIMIT IS 80 KM/H (45 MPH) OR LESS AND 25 MM (1 INCH) WHERE THE SPEED LIMIT IS GREATER THAN 80 KM/H (45 MPH). WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 75 MM (3 INCHES) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).

BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINT AND BITUMINOUS TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.

THE RESIDENT ENGINEER SHALL CONTACT MS. PATRICE HARRIS AREA TRAFFIC FIELD TECHNICIAN AT (708) 597-9800 A MINIMUM OF 2 WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKING.

THE QUANTITIES FOR PATCHING ARE BASED ON PATCHING FIRST THEN MILLING.

4/7/2006
c:\p\project\15505\15505.dgn
REF: ---
REF: ---

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MCCARTHY ROAD
INDEX OF SHEETS, STATE STANDARDS &
GENERAL NOTES

SCALE: VERT. 1"=50'
 HORIZ. 1"=50'
 DATE 4/7/2006

DRAWN BY
 CHECKED BY

Rev.

62923

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE						
CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	80% FED. 20% STATE					
				1000					
20800150	TRENCH BACKFILL	CU YD	75	75					
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	1603	1603					
21400100	GRADING AND SHAPING DITCHES	FOOT	2606	2606					
25000210	SEEDING, CLASS 2A	ACRE	2.2	2.2					
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	38	38					
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	38	38					
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	38	38					
25100630	EROSION CONTROL BLANKET	SQ YD	441	441					
28100105	STONE RIPRAP, CLASS A3	SQ YD	17	17					
28100107	STONE RIPRAP, CLASS A4	SQ YD	34	34					
28200200	FILTER FABRIC	SQ YD	51	51					
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	19	19					
40600300	AGGREGATE (PRIME COAT)	TON	96	96					
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGWAYS	TON	14	14					
40600980	BITUMINOUS SURFACE REMOVAL - BUTT JOINT	SQ YD	197	197					
40601000	BITUMINOUS REPLACEMENT OVER PATCHES	TON	3248	3248					
44000004	BITUMINOUS SURFACE REMOVAL 1"	SQ YD	3200	3200					
44000124	BITUMINOUS REMOVAL OVER PATCHES, 6"	SQ YD	9670	9670					
44201753	CLASS D PATCHES, TYPE II, 9 INCH	SQ YD	395	395					
44201757	CLASS D PATCHES, TYPE III, 9 INCH	SQ YD	313	313					
44201759	CLASS D PATCHES, TYPE IV, 9 INCH	SQ YD	2616	2616					
48101200	AGGREGATE SHOULDERS, TYPE B	TON	1276	1276					
48202400	BITUMINOUS SHOULDERS SUPERPAVE 6"	SQ YD	900	900					
50105220	PIPE CULVERT REMOVAL	FOOT	93	93					
54201279	PIPE CULVERTS, TYPE 2 RCCP 24"	FOOT	45	45					
54209892	PIPE CULVERTS, TYPE 2, REINFORCED CONCRETE - ELLIPTICAL, EQUIVALENT ROUND-SIZE 27"	FOOT	234	234					
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	EACH	5	5					
54214722	PRECAST REINFORCED CONCRETE FLARED END SECTIONS - ELLIPTICAL, EQUIVALENT ROUND-SIZE 27"	EACH	10	10					
54215424	CAST-IN-PLACE REINFORCED CONCRETE END SECTIONS 24"	EACH	2	2					

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE						
CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	80% FED. 20% STATE					
				1000					
54215430	CAST-IN-PLACE REINFORCED CONCRETE END SECTIONS 30"	EACH	1	1					
54244805	INLET BOX, STANDARD 542501	EACH	3	3					
542A1069	PIPE CULVERTS, CLASS A, TYPE 2 24"	FOOT	90	90					
55039700	STORM SEWERS TO BE CLEANED	FOOT	100	100					
550A0090	STORM SEWERS, CLASS A, TYPE 1 18"	FOOT	1158	1158					
550A0120	STORM SEWERS, CLASS A, TYPE 1 24"	FOOT	140	140					
550A0380	STORM SEWERS, CLASS A, TYPE 2 18"	FOOT	1185	1185					
550A0430	STORM SEWERS, CLASS A, TYPE 2 30"	FOOT	555	555					
60200805	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 8 GRATE	EACH	1	1					
60219000	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 8 GRATE	EACH	12	12					
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	3	3					
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	1275	1275					
* 63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	4	4					
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6					
67100100	MOBILIZATION	L SUM	1	1					
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1					
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	2191	2191					
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	73	73					
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	59753	59753					
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	981	981					
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	80	80					
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	50	50					
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	73	73					
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	59753	59753					

* SPECIALTY ITEMS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES

62923

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	80% FED. STATE				
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	981	981				
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	80	80				
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	50	50				
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	532	532				
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	16	16				
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4				
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	532	532				
* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	350	350				
X0321374	GRADING AND SHAPING SHOULDERS	FOOT	15948	15948				
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	51.4	51.4				
X0323092	HEADWALL REMOVAL	EACH	3	3				
X0323973	SEDIMENT CONTROL, SILT FENCE	FOOT	2732	2732				
X4066426	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N70	TON	4148	4148				
X4066616	BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0, N70	TON	101	101				
X4067100	POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, IL-4.75, N50	TON	2074	2074				
X4409410	BITUMINOUS SURFACE REMOVAL 2 1/4"	SQ YD	46000	46000				
Z0055400	RUMBLE STRIP	FOOT	126	126				

SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	1000					

*SPECIALTY ITEMS

REVISIONS	
NAME	DATE

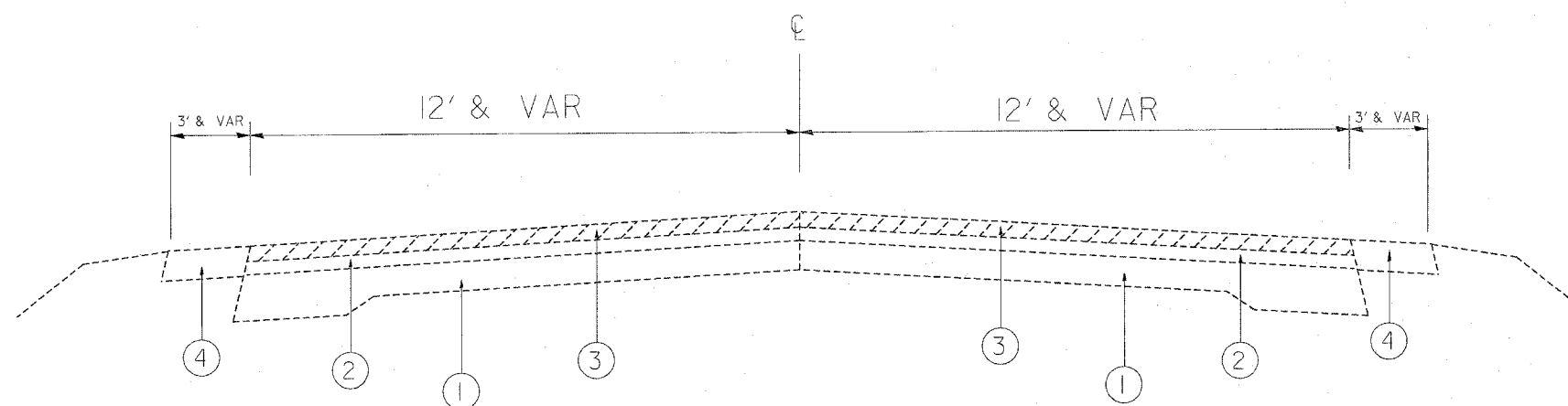
ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES

FAP R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1587	3098 RS-4	COOK	32	5
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 62923

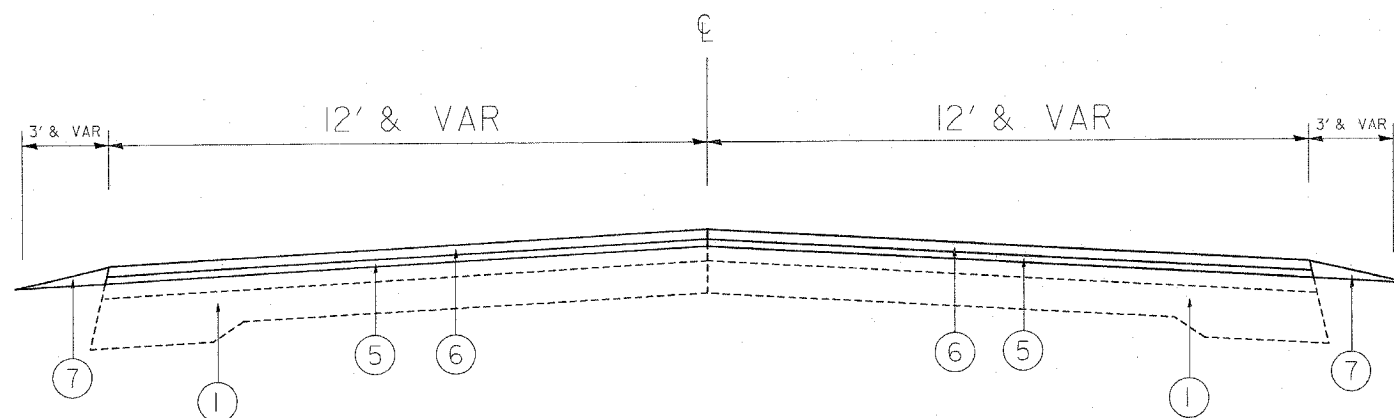
LEGEND

- ① EXISTING PCC BASE COURSE, 9"
- ② EXISTING BITUMINOUS SURFACE OVERLAY
- ③ PROPOSED BITUMINOUS SURFACE REMOVAL, 2 1/4"
- ④ EXISTING AGGREGATE SHOULDERS
- ⑤ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, IL 4.75 N50
- ⑥ PROPOSED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N70, 1 1/2 "
- ⑦ PROPOSED AGGREGATE SHOULDERS TYPE B
- ⑧ EXISTING COMB. CONC. CURB AND GUTTER
- ⑨ EXISTING BITUMINOUS SURFACE REMOVAL, 1"
- ⑩ PROPOSED LEVELING BINDER (MACHINE METHOD), SUPERPAVE N70, 1 1/2"



MCCARTHY RD.

EXISTING TYPICAL CROSS SECTION
 STA. 401+18 TO STA. 443+42
 STA. 458+46 TO STA. 539+55



MCCARTHY RD.

PROPOSED TYPICAL CROSS SECTION
 STA. 401+18 TO STA. 443+42
 STA. 458+46 TO STA. 539+55
 STA. 559+66 TO STA. 588+46

MIXTURE REQUIREMENTS			
MIXTURE USES	AC / PG	RAP % (MAX)	DESIGN AIR VOIDS
POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, IL-4.75, N50	SBS/SBR PG76-28	0%	2.5% AT 50 GYRATIONS
BIT. CONC. SURFACE COURSE, SUPERPAVE, MIX "D", N70	PG 64-22	10%	4% AT 70 GYRATIONS
LEVELING BINDER (MACHINE METHOD) SUPERPAVE N70	PG 64-22	10%	4% AT 70 GYRATIONS
ALL CLASS D PATCHING BINDER IL - 19MM	PG 64-22	15%	4% AT 70 GYRATIONS
BIT. REPLACEMENT OVER PATCHES BINDER IL - 19MM	PG 64-22	15%	4% AT 70 GYRATIONS

UNIT WEIGHT USED TO CALCULATE ALL BITUMINOUS SURFACE MIXTURE IS 112 LBS/SY/IN

REVISIONS	
NAME	DATE

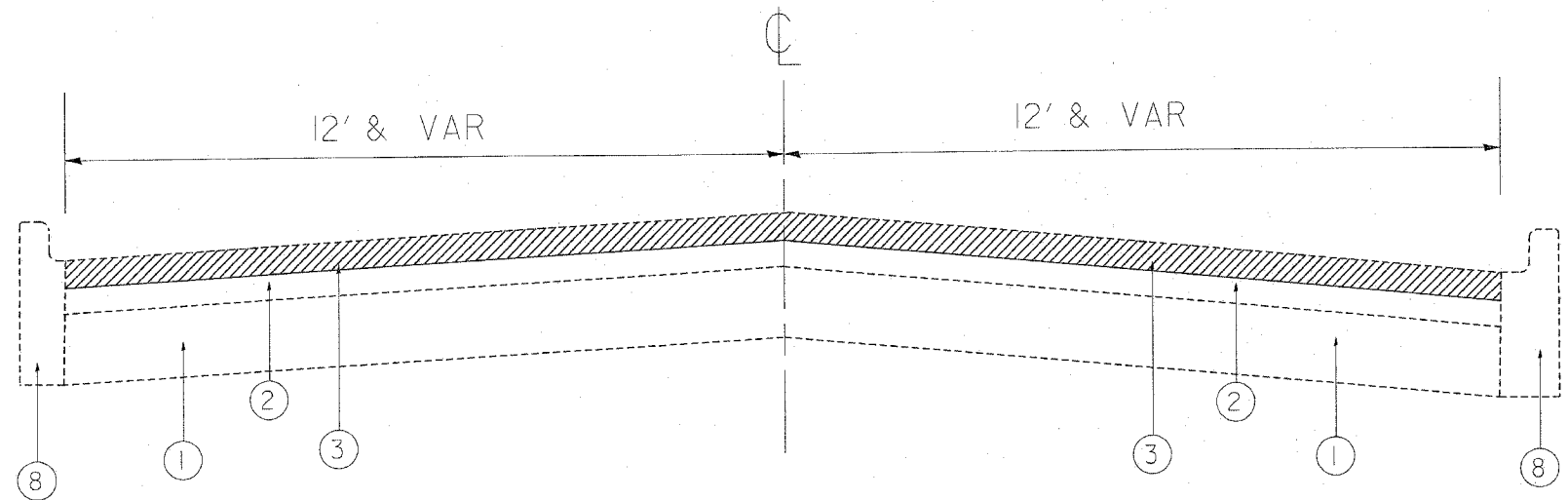
ILLINOIS DEPARTMENT OF TRANSPORTATION

EXISTING & PROPOSED TYPICAL SECTIONS PLAN

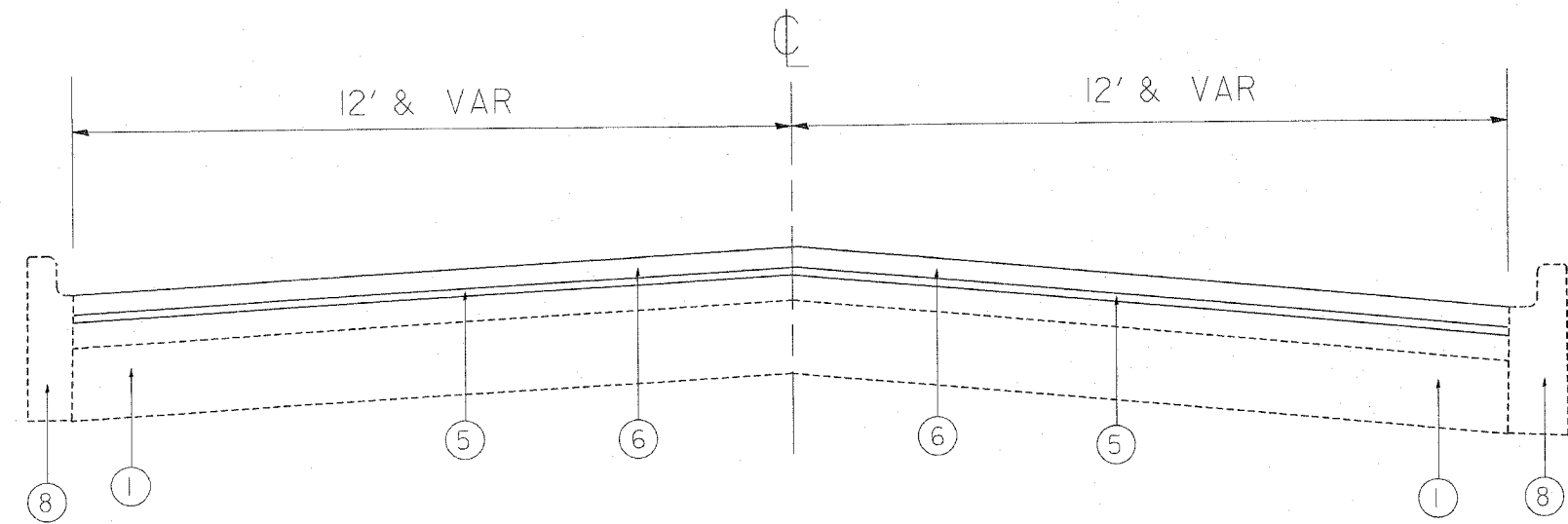
SCALE
DATE

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CHECKED BY

F.A.W. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1587	309B RS-4	COOK	32	6
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 62923				



MCCARTHY RD.
EXISTING TYPICAL SECTION
STA. 546+90 TO STA. 559+66



MCCARTHY RD.
PROPOSED TYPICAL SECTION
STA. 546+90 TO STA. 559+66

LEGEND

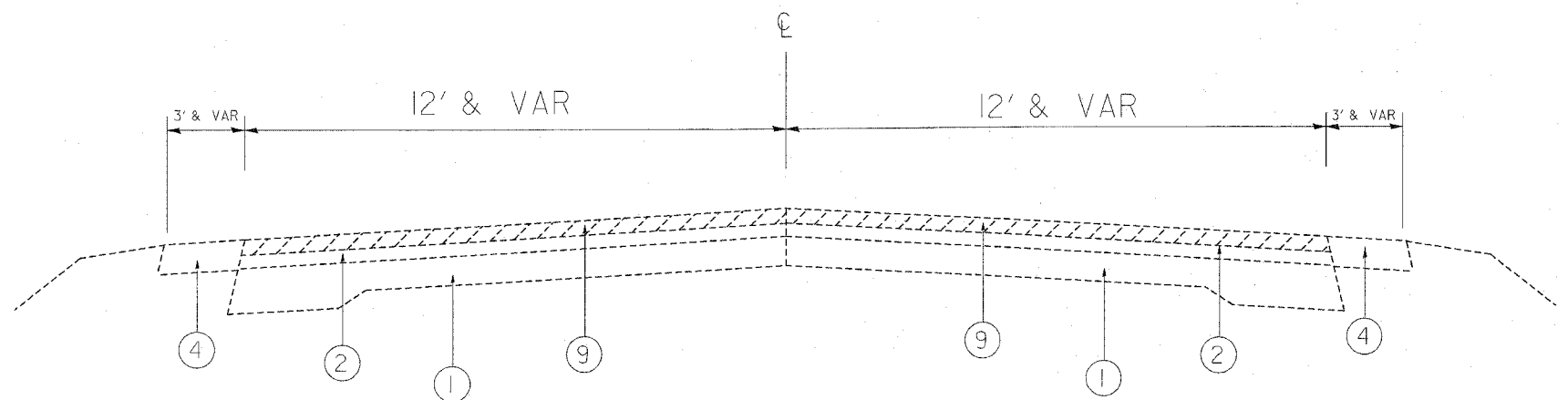
- ① EXISTING PCC BASE COURSE, 9"
- ② EXISTING BITUMINOUS SURFACE OVERLAY
- ③ PROPOSED BITUMINOUS SURFACE REMOVAL, 2 1/4 "
- ④ EXISTING AGGREGATE SHOULDERS
- ⑤ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, IL 4.75 N50
- ⑥ PROPOSED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N70, 1 1/2 "
- ⑦ PROPOSED AGGREGATE SHOULDERS TYPE B
- ⑧ EXISTING COMB. CONC. CURB AND GUTTER
- ⑨ EXISTING BITUMINOUS SURFACE REMOVAL, 1"
- ⑩ PROPOSED LEVELING BINDER (MACHINE METHOD), SUPERPAVE N70, 1 1/2"

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**EXISTING & PROPOSED
TYPICAL SECTIONS PLAN**

SCALE: VERT. NONE
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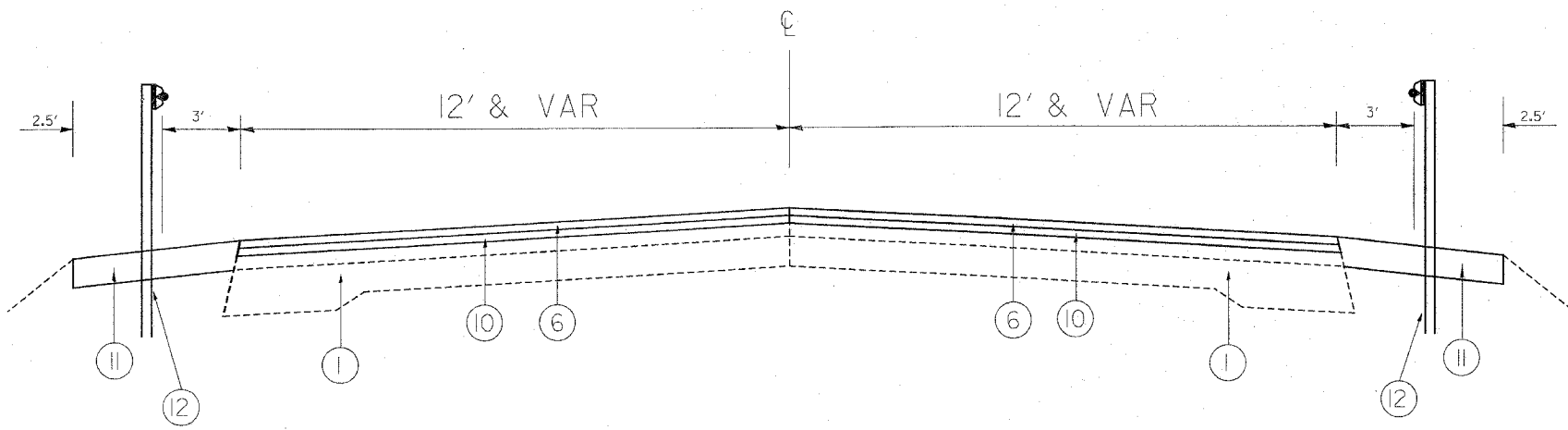
F.A.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1587	3098 BS-4	COOK	32	7
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



MCCARTHY RD.

EXISTING TYPICAL CROSS SECTION
STA. 539+55 TO STA. 546+90

- ① EXISTING PCC BASE COURSE, 9"
- ② EXISTING BITUMINOUS SURFACE
- ③ PROPOSED BITUMINOUS SURFACE REMOVAL, 2 1/4"
- ④ EXISTING AGGREGATE SHOULDERS
- ⑤ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, IL 4.75 N50
- ⑥ PROPOSED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N70, 1 1/2 "
- ⑦ PROPOSED AGGREGATE SHOULDERS TYPE B
- ⑧ EXISTING COMB. CONC. CURB AND GUTTER
- ⑨ EXISTING BITUMINOUS SURFACE REMOVAL, 1"
- ⑩ PROPOSED LEVELING BINDER (MACHINE METHOD), SUPERPAVE N70, 1 1/2"
- ⑪ PROPOSED BITUMINOUS SHOULDER SUPERPAVE, 6"
- ⑫ PROPOSED STEEL PLATE BEAM GUARDRAIL TYPE A



MCCARTHY RD.

PROPOSED TYPICAL CROSS SECTION
STA. 539+55 TO STA. 546+90

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		EXISTING & PROPOSED TYPICAL SECTIONS PLAN

SCALE: VERT. _____
HORIZ. _____
DATE _____

DRAWN BY _____
CHECKED BY _____

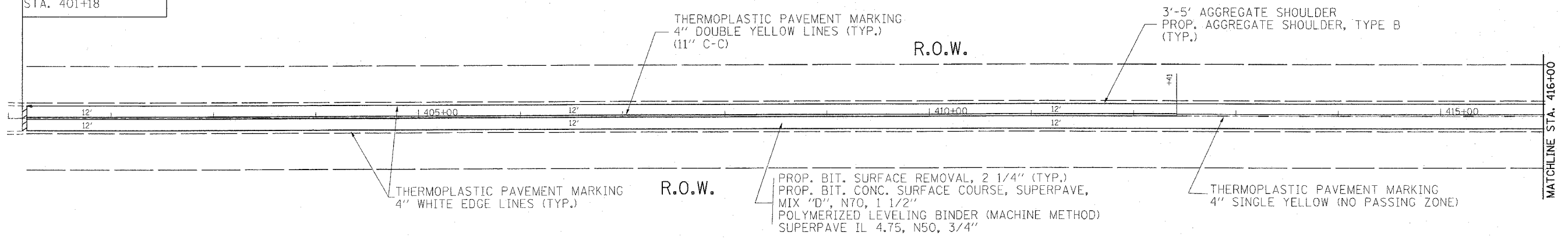
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USER NAME = banks

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1587	3098_BS-4	COOK	32	8
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

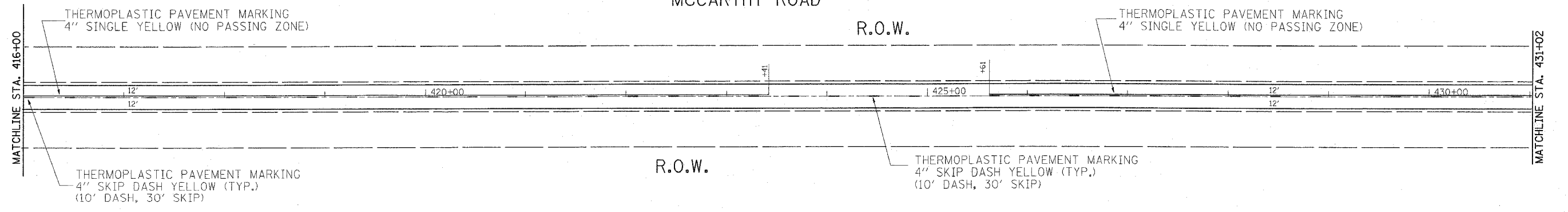


McCARTHY ROAD

IMPROVEMENT BEGINS
STA. 401+18



McCARTHY ROAD



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USER NAME = benthal

REVISIONS	
NAME	DATE

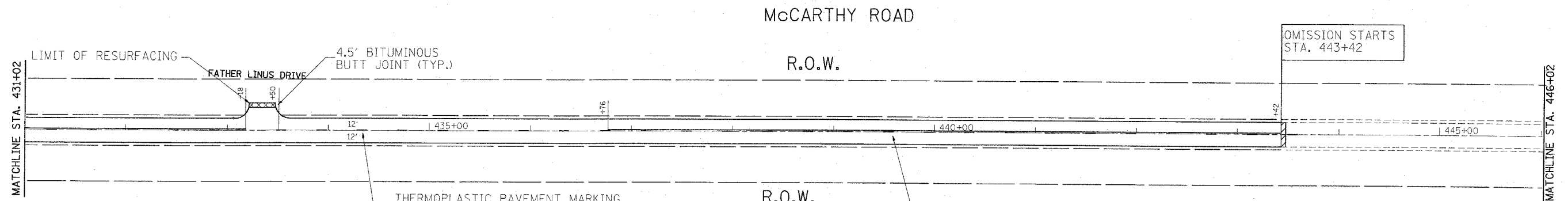
ILLINOIS DEPARTMENT OF TRANSPORTATION

**MCCARTHY ROAD
PAVEMENT MARKING/ROADWAY PLANS**

SCALE: VERT. _____
HORIZ. _____

DRAWN BY _____
CHECKED BY _____

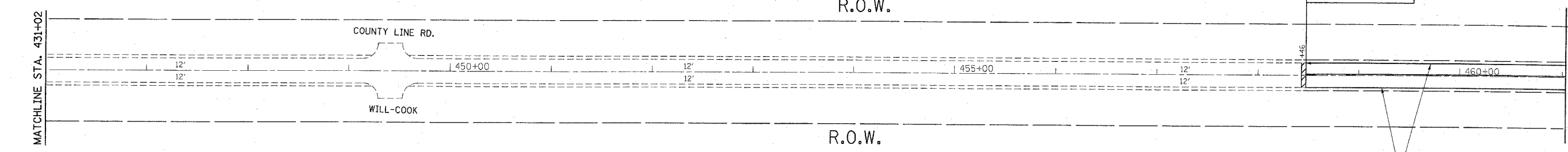
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1587	3098 BS-4	COOK	32	9
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



THERMOPLASTIC PAVEMENT MARKING
4" SKIP DASH YELLOW (TYP.)
(10' DASH, 30' SKIP)

PROP. BIT. SURFACE REMOVAL, 2 1/4" (TYP.)
PROP. BIT. CONC. SURFACE COURSE, SUPERPAVE,
MIX "D", N70, 1 1/2"
PROP. POYLMERIZED LEVELING BINDER (MACHINE METHOD)
SUPERPAVE IL 4.75, N50, 3/4"

McCARTHY ROAD



THERMOPLASTIC PAVEMENT MARKING
4" WHITE EDGE LINES (TYP.)

PLOT DATE = 4/15/2006
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PLOT SCALE = 1/8" = 1'-0"
USER NAME = bmkell

REVISIONS	
NAME	DATE

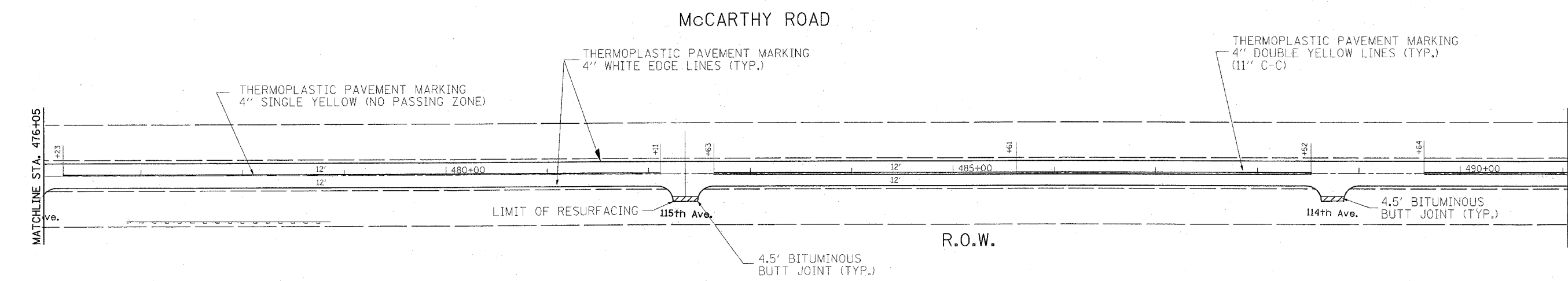
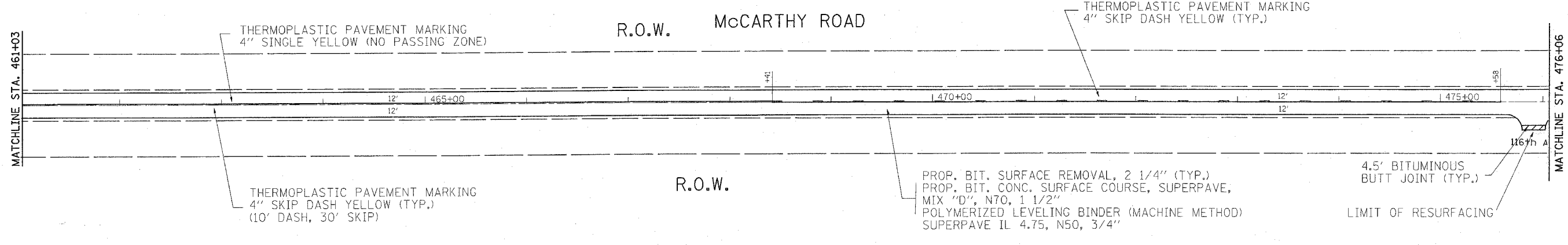
ILLINOIS DEPARTMENT OF TRANSPORTATION

MCCARTHY ROAD
PAVEMENT MARKING/ROADWAY PLANS

SCALE: VERT. _____
HORIZ. _____

DATE _____ DRAWN BY _____
CHECKED BY _____

F.A.W. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1581	3098 BS-4	COOK	32	10
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



PLOT DATE = 4/3/2006
 PLOT SCALE = 5/8" = 1' IN.
 USER NAME = bmk1

REVISIONS	
NAME	DATE

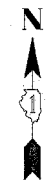
ILLINOIS DEPARTMENT OF TRANSPORTATION

MCCARTHY ROAD
 PAVEMENT MARKING/ROADWAY PLANS

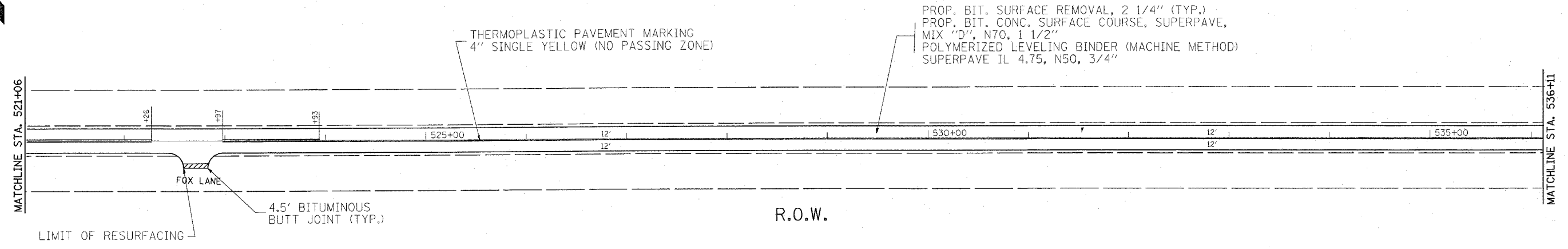
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 HORIZ. _____

DATE _____ DRAWN BY _____
 CHECKED BY _____

F.A.W. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1587	3098 BS-4	COOK	32	12
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



McCARTHY ROAD



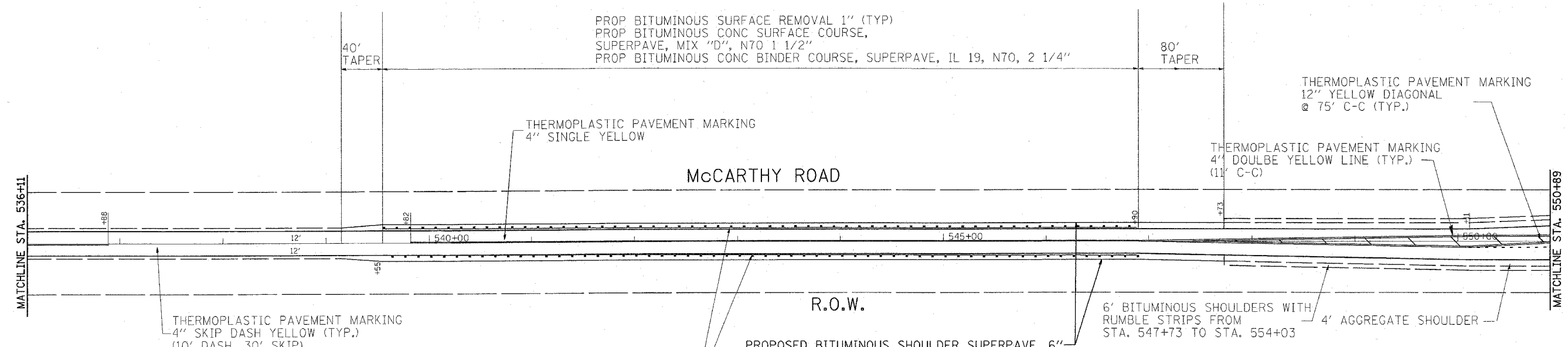
PROP. BIT. SURFACE REMOVAL, 2 1/4" (TYP.)
 PROP. BIT. CONC. SURFACE COURSE, SUPERPAVE,
 MIX "D", N70, 1 1/2"
 POLYMERIZED LEVELING BINDER (MACHINE METHOD)
 SUPERPAVE IL 4.75, N50, 3/4"

THERMOPLASTIC PAVEMENT MARKING
 4" SINGLE YELLOW (NO PASSING ZONE)

4.5' BITUMINOUS BUTT JOINT (TYP.)

LIMIT OF RESURFACING

PROP BITUMINOUS SURFACE REMOVAL 1" (TYP.)
 PROP BITUMINOUS CONC SURFACE COURSE,
 SUPERPAVE, MIX "D", N70 1 1/2"
 PROP BITUMINOUS CONC BINDER COURSE, SUPERPAVE, IL 19, N70, 2 1/4"



THERMOPLASTIC PAVEMENT MARKING
 12" YELLOW DIAGONAL
 @ 75' C-C (TYP.)

THERMOPLASTIC PAVEMENT MARKING
 4" SINGLE YELLOW

THERMOPLASTIC PAVEMENT MARKING
 4" DOUBLE YELLOW LINE (TYP.)
 (11' C-C)

McCARTHY ROAD

R.O.W.

PROPOSED BITUMINOUS SHOULDER SUPERPAVE, 6"

6' BITUMINOUS SHOULDERS WITH RUMBLE STRIPS FROM STA. 547+73 TO STA. 554+03

4' AGGREGATE SHOULDER

PROPOSED STEEL PLATE BEAM GUARDRAIL TYPE A,
 (BOTH SIDES WITH TRAFFIC BARRIER TERMINAL,
 TYPE 1 SPECIAL (TANGENT))

THERMOPLASTIC PAVEMENT MARKING
 4" SKIP DASH YELLOW (TYP.)
 (10' DASH, 30' SKIP)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

McCARTHY ROAD
 PAVEMENT MARKING/ROADWAY PLANS

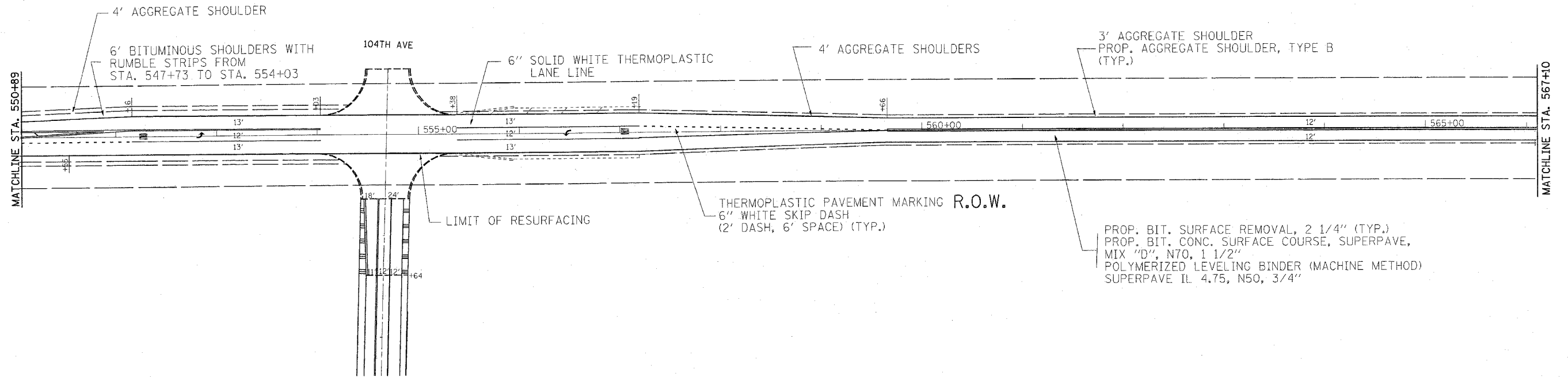
SCALE: VERT.
 HORIZ.
 DATE

DRAWN BY
 CHECKED BY

PLT DATE = 4/5/2016
 PLT SCALE = 500000.00
 USER NAME = Borkki

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
158T	3098_BS-4	COOK	32	13
STA.	TO STA.			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

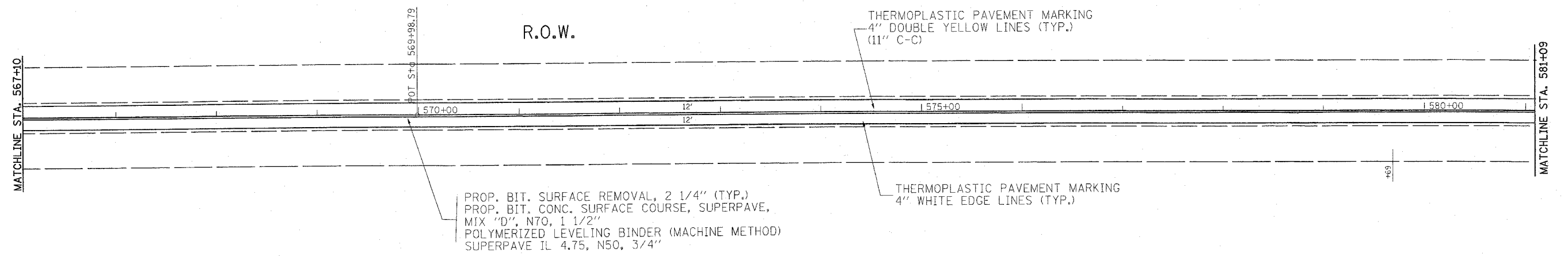
MCCARTHY ROAD



PROP. BIT. SURFACE REMOVAL, 2 1/4" (TYP.)
 PROP. BIT. CONC. SURFACE COURSE, SUPERPAVE,
 MIX "D", N70, 1 1/2"
 POLYMERIZED LEVELING BINDER (MACHINE METHOD)
 SUPERPAVE IL 4.75, N50, 3/4"

THERMOPLASTIC PAVEMENT MARKING R.O.W.
 6" WHITE SKIP DASH
 (2' DASH, 6' SPACE) (TYP.)

LIMIT OF RESURFACING



PROP. BIT. SURFACE REMOVAL, 2 1/4" (TYP.)
 PROP. BIT. CONC. SURFACE COURSE, SUPERPAVE,
 MIX "D", N70, 1 1/2"
 POLYMERIZED LEVELING BINDER (MACHINE METHOD)
 SUPERPAVE IL 4.75, N50, 3/4"

THERMOPLASTIC PAVEMENT MARKING
 4" DOUBLE YELLOW LINES (TYP.)
 (11" C-C)

THERMOPLASTIC PAVEMENT MARKING
 4" WHITE EDGE LINES (TYP.)

R.O.W.

PLT DATE = 4/5/2006
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 USER NAME = bmk1

REVISIONS	
NAME	DATE

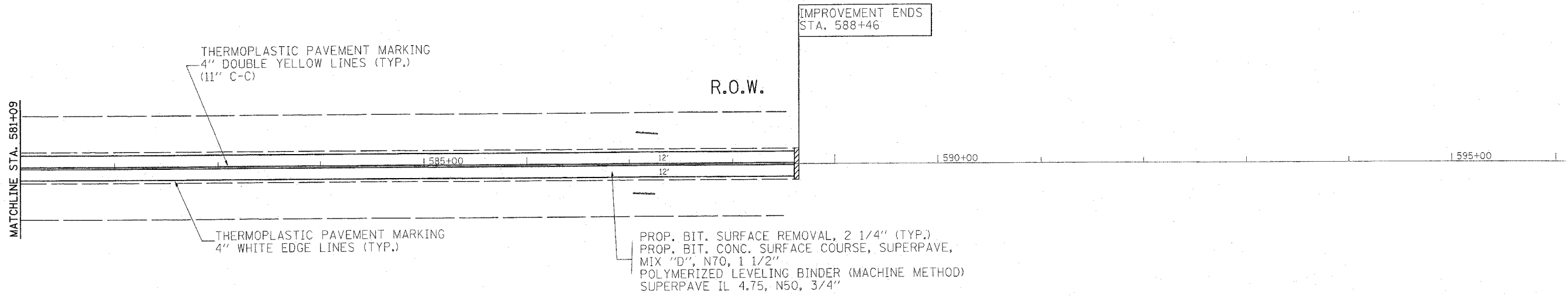
ILLINOIS DEPARTMENT OF TRANSPORTATION

MCCARTHY ROAD
 PAVEMENT MARKING/ROADWAY PLANS

SCALE: VERT. _____
 HORIZ. _____

DATE _____ DRAWN BY _____
 CHECKED BY _____

F.A.W. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1587	3098_BS-4	COOK	32	14
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



PLOT DATE = 4/15/2006
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 PLOT SCALE = 8000 / 1" = 8000'
 USER NAME = bencel

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

MCCARTHY ROAD
 PAVEMENT MARKING/ROADWAY PLANS

SCALE: VERT. _____
 DATE _____ HORIZ. _____

DRAWN BY _____
 CHECKED BY _____

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1581	3098 BS-4	COOK	32	15
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

1 MH TYP A, 4' DIA., T8 GRATE
STA. 512+70, 20' RT
T.O.G. 736.00
INV. 731.00

2 MH TYP A, 4' DIA., T8 GRATE
STA. 512+70, 21' RT
T.O.G. 735.00
INV. 730.72

3 MH TYP A, 4' DIA., T8 GRATE
STA. 515+65, 24' LT
T.O.G. 738.50
INV. 729.69

4 MH TYP A, 4' DIA., T8 GRATE
STA. 517+30, 27' LT
T.O.G. 737.00
INV. 728.81

5 MH TYP A, 4' DIA., T8 GRATE
STA. 542+05, 40' RT
T.O.G. 722.20
INV. 716.89

6 MH TYP A, 4' DIA., T8 GRATE
STA. 544+55, 40' RT
T.O.G. 725.10
INV. 716.39

7 MH TYP A, 4' DIA., T8 GRATE
STA. 547+05, 40' RT
T.O.G. 720.00
INV. 715.89

8 MH TYP A, 4' DIA., T8 GRATE
STA. 549+55, 40' RT
T.O.G. 722.80
INV. 715.39

9 MH TYP A, 4' DIA., T8 GRATE
STA. 552+05, 40' RT
T.O.G. 719.00
INV. 714.89

10 MH TYP A, 4' DIA., T8 GRATE
STA. 554+64, 40' RT
T.O.G.
INV. 714.02

11 MH TYP A, 4' DIA., T8 GRATE
STA. 554+36, 345' RT
T.O.G.
INV. 713.12

12 MH TYP A, 4' DIA., T8 GRATE
STA. 539+55, 40' RT
T.O.G. 720.70
INV. 717.39

PIPE TABLE

NO.	STATION & OFFSET	TO	STATION & OFFSET	TYPE	CLASS	DIA.	LINEAR FT.	FLARE	END SECTION
1	512+37, 35' RT	TO	512+70, 20' RT	1	A	24"	25	-	
1A	512+56, 27' LT	TO	512+70, 22' LT	1	A	24"	14	1	
2	512+70, 20' RT	TO	512+70, 22' LT	1	A	24"	42	1	
3	512+70, 20' LT	TO	515+65, 25' LT	2	A	30"	295	-	
4	515+65, 25' LT	TO	518+15, 27' LT	2	A	30"	250	-	
4A	518+16, 28' LT	TO	518+20, 35' LT	2	A	30"	10		
5	538+84, 45' LT	TO	538+84, 45' RT	2	A	24"	90	-	
6	539+55, 46' LT	TO	539+55, 40' RT	1	A	18"	70	-	
7	539+55, 40' RT	TO	542+05, 40' RT	2	A	18"	250	-	
8	542+05, 40' RT	TO	544+55, 40' RT	2	A	18"	250	-	
9	544+55, 40' RT	TO	547+05, 40' RT	2	A	18"	250	-	
10	547+05, 40' RT	TO	549+55, 40' RT	2	A	18"	250	-	
11	549+53, 40' RT	TO	552+03, 40' RT	2	A	18"	250	-	
12	552+03, 40' RT	TO	554+25, 40' RT	2	A	18"	259	-	
13	554+64, 40' RT	TO	554+36, 345' RT	2	A	18"	345	-	
14	554+06, 40' RT	TO	554+36, 350' RT	2	A	18"	25	-	
15	554+11, 345' RT	TO	554+94, 345' RT	2	A	24"	58	2	

PLOT DATE = 4/5/2006
FILE NAME = c:\p\projects\115060\115060.dgn
PLOT SCALE = 50.0000 / 1 IN.
USER NAME = berk31

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

MCCARTHY ROAD
PROPOSED DRAINAGE STRUCTURES
AND PIPE TABLE

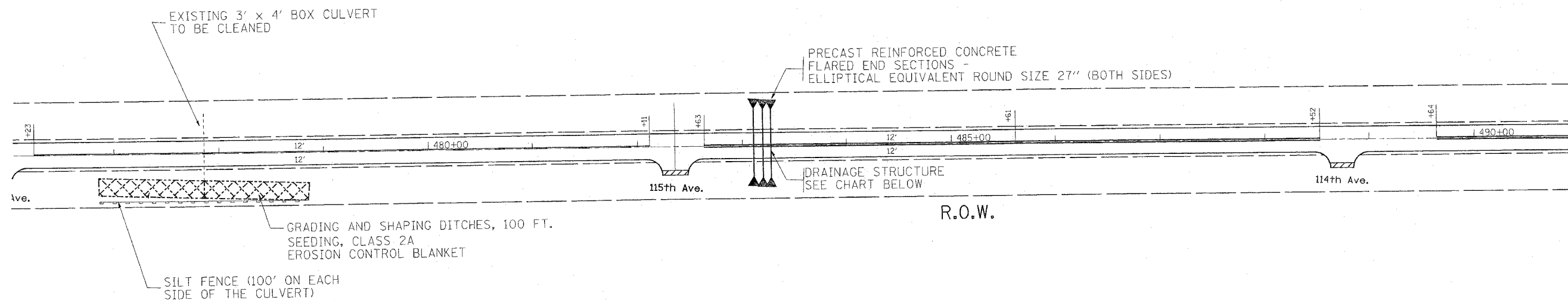
SCALE: VERT.
DATE: HORIZ.

DRAWN BY
CHECKED BY

F.A.W. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1587	3098.BS-4	COOK	32	16
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



MCCARTHY ROAD



NOTE: REMOVE EXISTING HEADWALL AT
 STA. 483+10 LEFT
 PAID FOR AS HEADWALL REMOVAL,
 1 EACH

PIPE SIZE	SHAPE	EQUIV ROUND SIZE	LENGTH	UPSTREAM INV.	DOWNSTREAM INV.
3-34"x 22"	ELLIPTICAL	27"	48'	720.25 (SOUTH)	719.00 (NORTH)

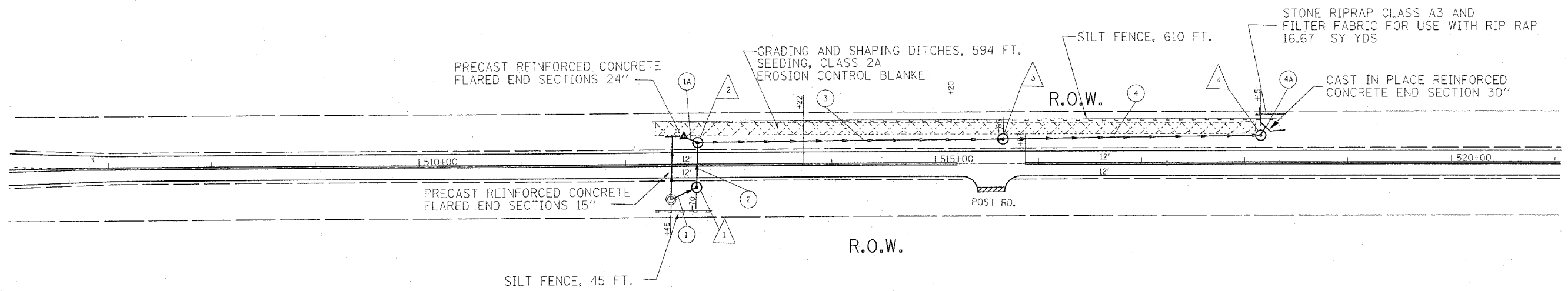
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 FILE NAME = \\1587\1587\1587\1587.dgn
 PLOT SCALE = 50,000% / IN.
 USER NAME = bmk1

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p style="text-align: center;">MCCARTHY ROAD PROPOSED DRAINAGE PLANS AND EROSION CONTROL PLANS</p> <p>SCALE: VERT. _____ HORIZ. _____</p> <p>DRAWN BY _____ CHECKED BY _____</p>

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
158I	3098_BS-4	COOK	32	17
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



McCARTHY ROAD



PLOT DATE = 4/2/2006
 FILE NAME = c:\projects\105695\105695.dgn
 USER NAME = bobk1

REVISIONS	
NAME	DATE

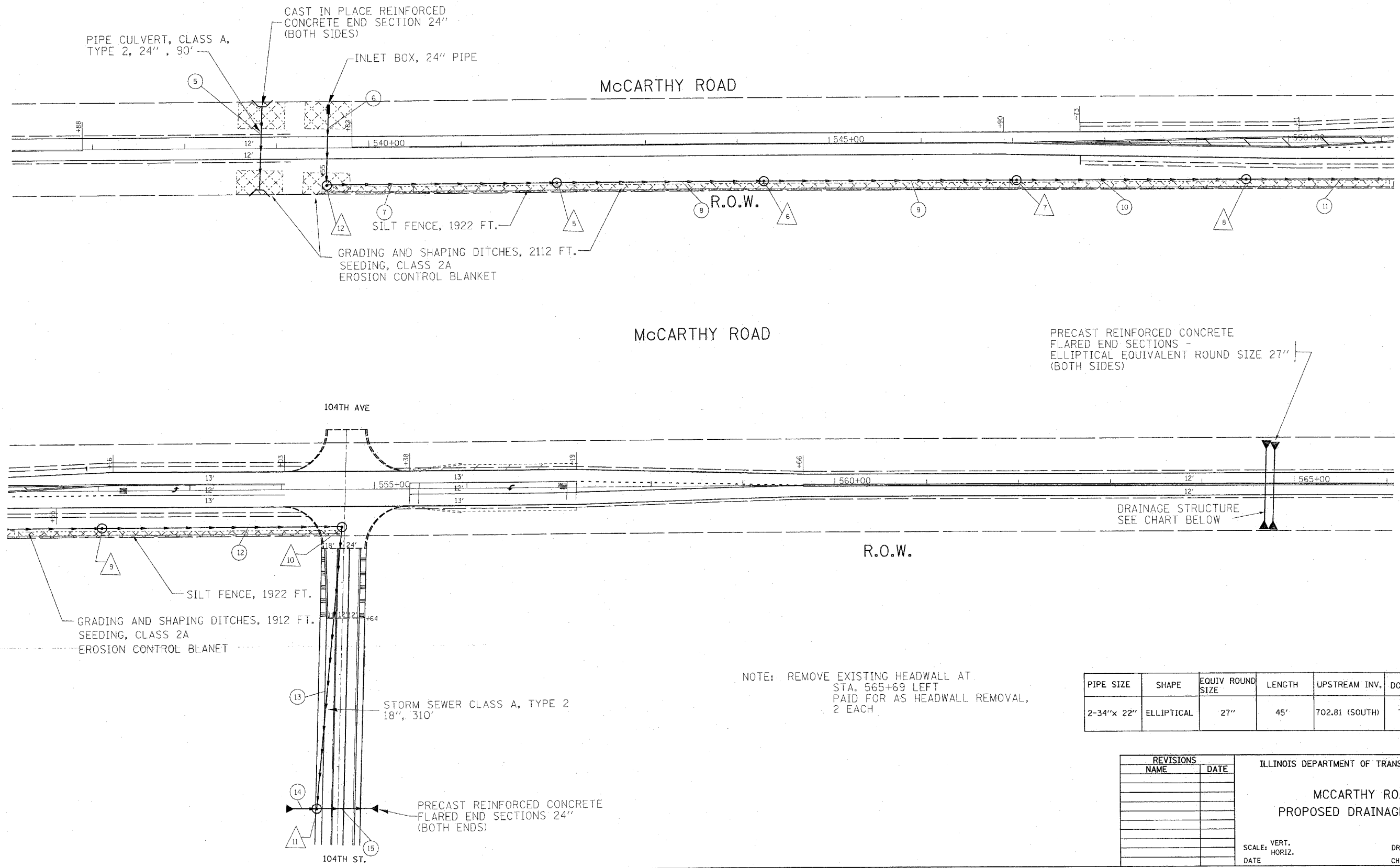
ILLINOIS DEPARTMENT OF TRANSPORTATION

**MCCARTHY ROAD
 PROPOSED DRAINAGE PLANS
 AND EROSION CONTROL PLANS**

SCALE: VERT. _____
 HORIZ. _____

DATE _____ DRAWN BY _____
 CHECKED BY _____

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1587	3098.BS-4	COOK	32	18
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTE: REMOVE EXISTING HEADWALL AT STA. 565+69 LEFT PAID FOR AS HEADWALL REMOVAL, 2 EACH

PIPE SIZE	SHAPE	EQUIV ROUND SIZE	LENGTH	UPSTREAM INV.	DOWNSTREAM INV.
2-34"x 22"	ELLIPTICAL	27"	45'	702.81 (SOUTH)	702.71 (NORTH)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

MCCARTHY ROAD
PROPOSED DRAINAGE PLANS

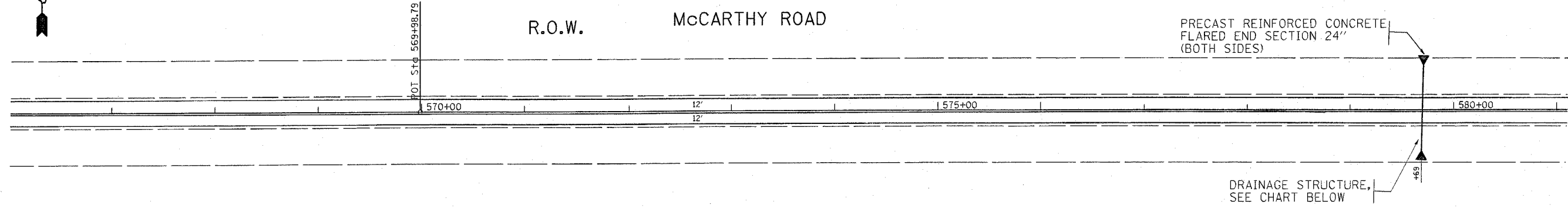
SCALE: VERT. _____
HORIZ. _____

DATE _____

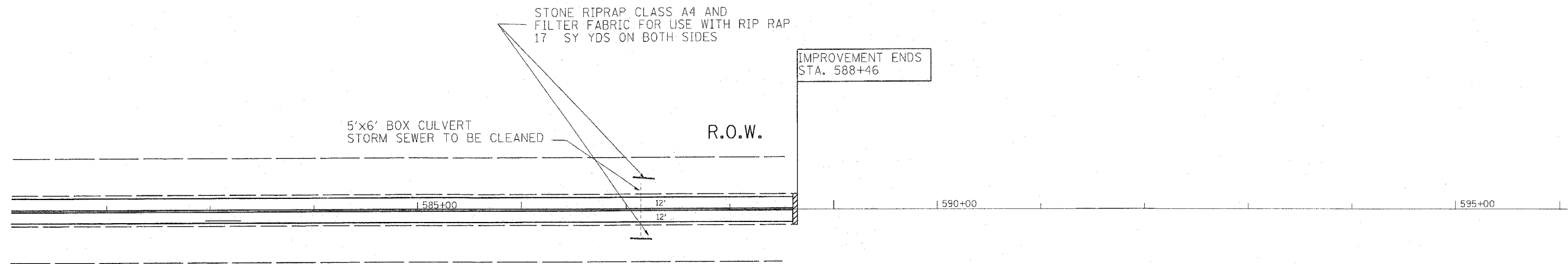
DRAWN BY _____
CHECKED BY _____

PLOT DATE = 4/5/2006
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 PLOT NAME = 1105005 / IN
 USER NAME = bhndal

F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1587	3098-BS-4	COOK	32	19
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	



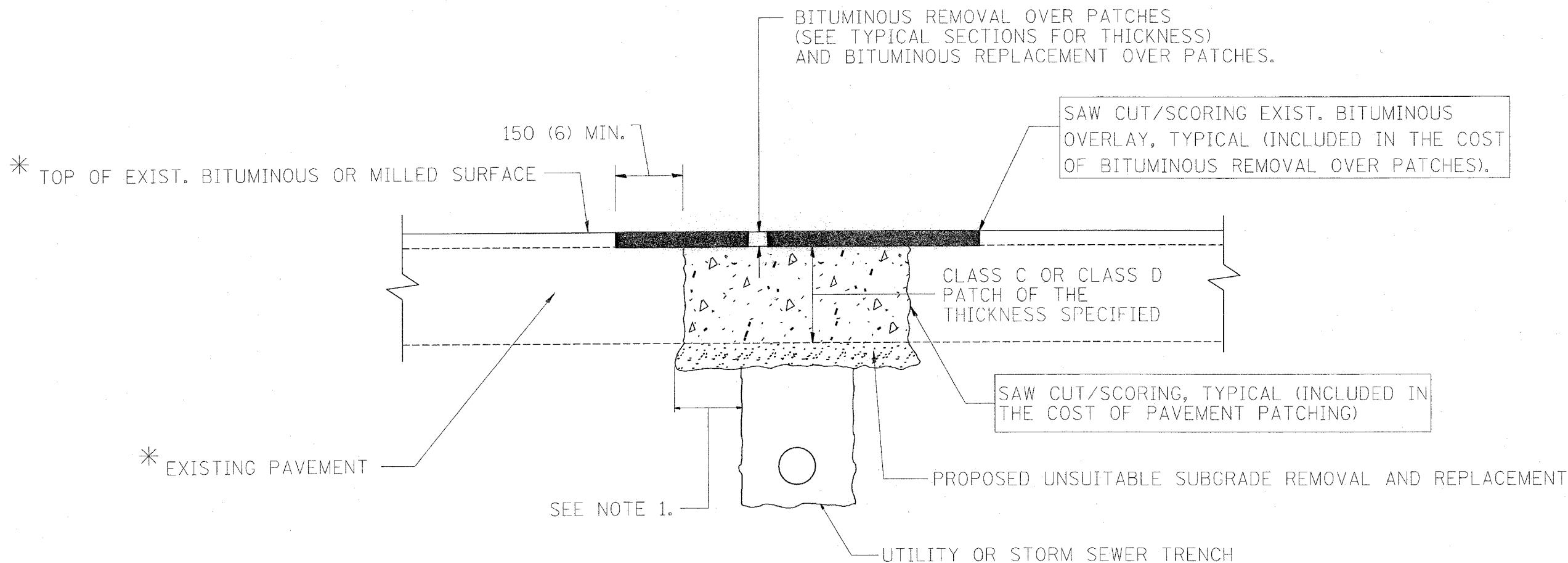
PIPE SIZE	SHAPE	LENGTH	UPSTREAM INV.	DOWNSTREAM INV.
24"	TYPE 2 RCCP 24"	45'	692.20 (SOUTH)	692.05 (NORTH)



PLOT DATE = 4/5/2006
 PLOT SCALE = 5/8" = 1'-0"
 USER NAME = Borkal

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p style="text-align: center;">MCCARTHY ROAD PROPOSED DRAINAGE PLANS</p> <p>SCALE: VERT. DRAWN BY HORIZ. CHECKED BY DATE</p>

F.A.L.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1587	3098 RS-4	Cook	32	20
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

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

SEQUENCE OF CONSTRUCTION

1. REMOVE THE EXISTING BITUMINOUS MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE FULL DEPTH PATCHES
3. REPLACE BITUMINOUS MATERIAL OVER THE AREA TO BE PATCHED.

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

REVISIONS	
NAME	DATE
R. SHAH	10/25/94
R. SHAH	01/14/95
R. SHAH	03/23/95
R. SHAH	04/24/95
A. HOUSEH	03/15/96
A. ABBAS	03/21/97
A. ABBAS	01/20/98
ART ABBAS	04/27/98

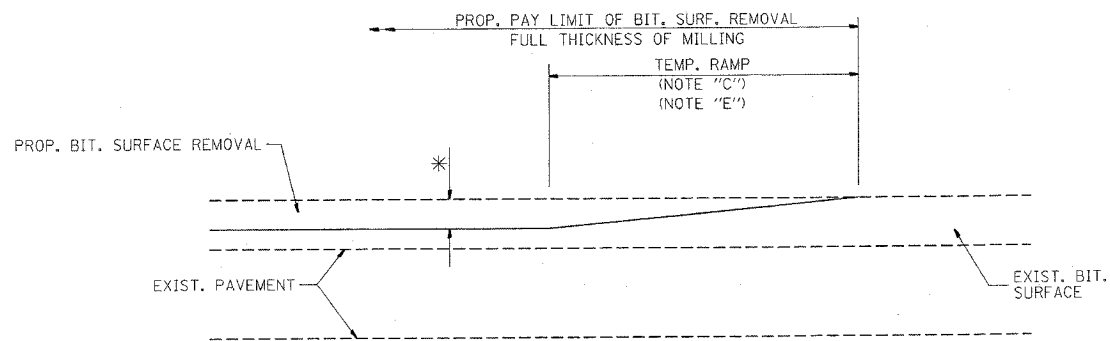
ILLINOIS DEPARTMENT OF TRANSPORTATION
PAVEMENT PATCHING FOR BITUMINOUS SURFACED PAVEMENT

SCALE: VERT. HORIZ. DATE 8/23/2005

DRAWN BY CHECKED BY

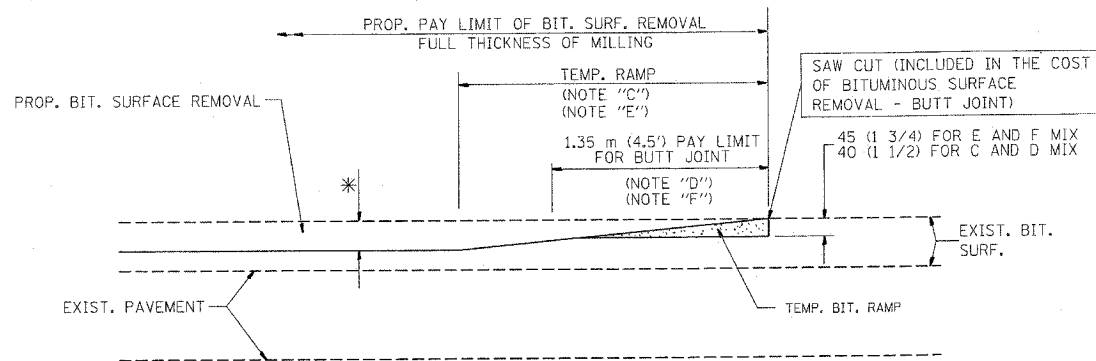
BD400-04 (BD-22) REVISION DATE: 04/27/98

F. A. J. RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1987	30982s-4	Cook	32	21
STA.	TO STA.			
FED. ROAD DIST. NO.	BLINDS	FED. AID PROJECT		



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

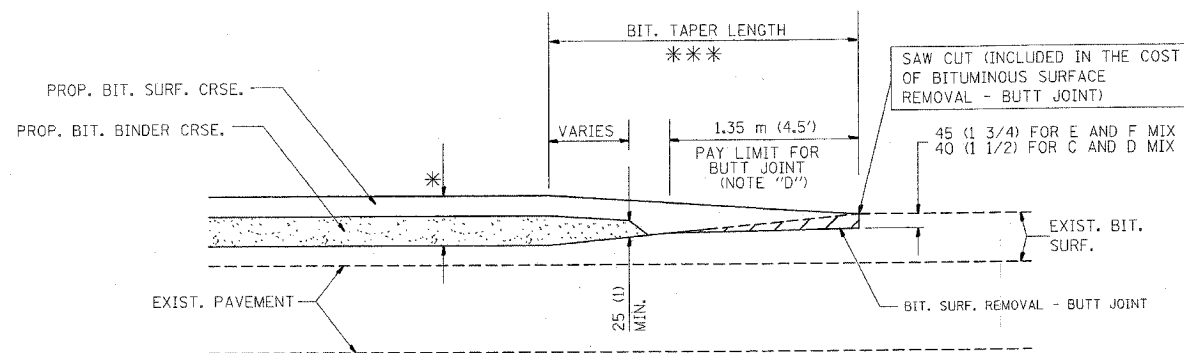
OPTION 1



BITUMINOUS CONSTRUCTED TEMPORARY RAMP
(FOR BUTT JOINT AND BIT. TAPER SEE DETAIL BELOW)

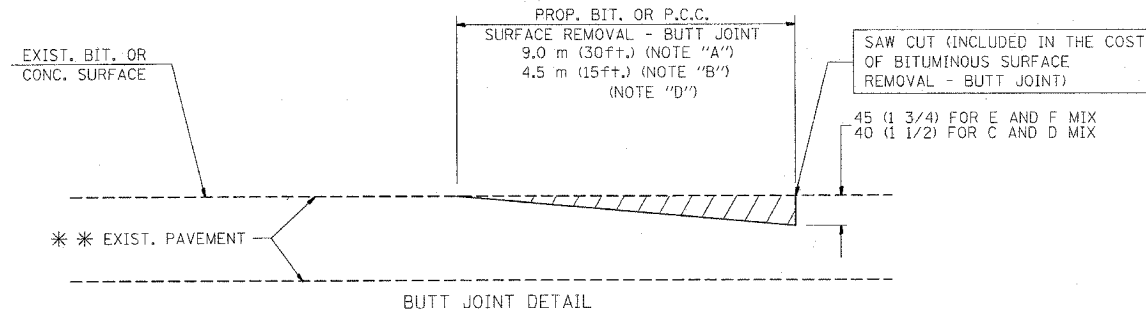
OPTION 2

TYPICAL TEMPORARY RAMP

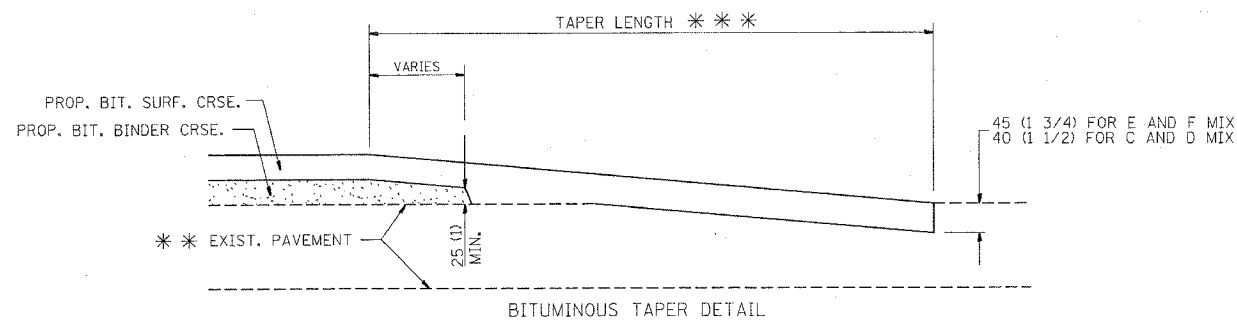


BUTT JOINT AND BITUMINOUS TAPER

TYPICAL BUTT JOINT AND BITUMINOUS TAPER
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



BITUMINOUS TAPER DETAIL

TYPICAL BUTT JOINT AND BITUMINOUS TAPER
FOR RESURFACING ONLY

*** PC CONCRETE, BITUMINOUS OR BITUMINOUS 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 BITUMINOUS SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED BITUMINOUS COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 900 (3 ft.) PER INCH OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 1.35 m (4.5') TEMP. BIT. RAMP WILL BE PAID AS "BITUMINOUS SURFACE REMOVAL - BUTT JOINT".
 - G: SEE ARTICLE 406.18 AND 406.24 OF THE STANDARD SPECIFICATIONS FOR "BITUMINOUS AND PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- *** 6.1 m (20') PER 25 (1) RESURFACING (NOTE "A")
3.0 m (10') PER 25 (1) RESURFACING (NOTE "B")

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

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR PER SQUARE METER (SQUARE YARD.) AS "BITUMINOUS SURFACE REMOVAL - BUTT JOINT" OR AS "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

REVISIONS	
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	09/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. GOMEZ	04/06/01

ILLINOIS DEPARTMENT OF TRANSPORTATION

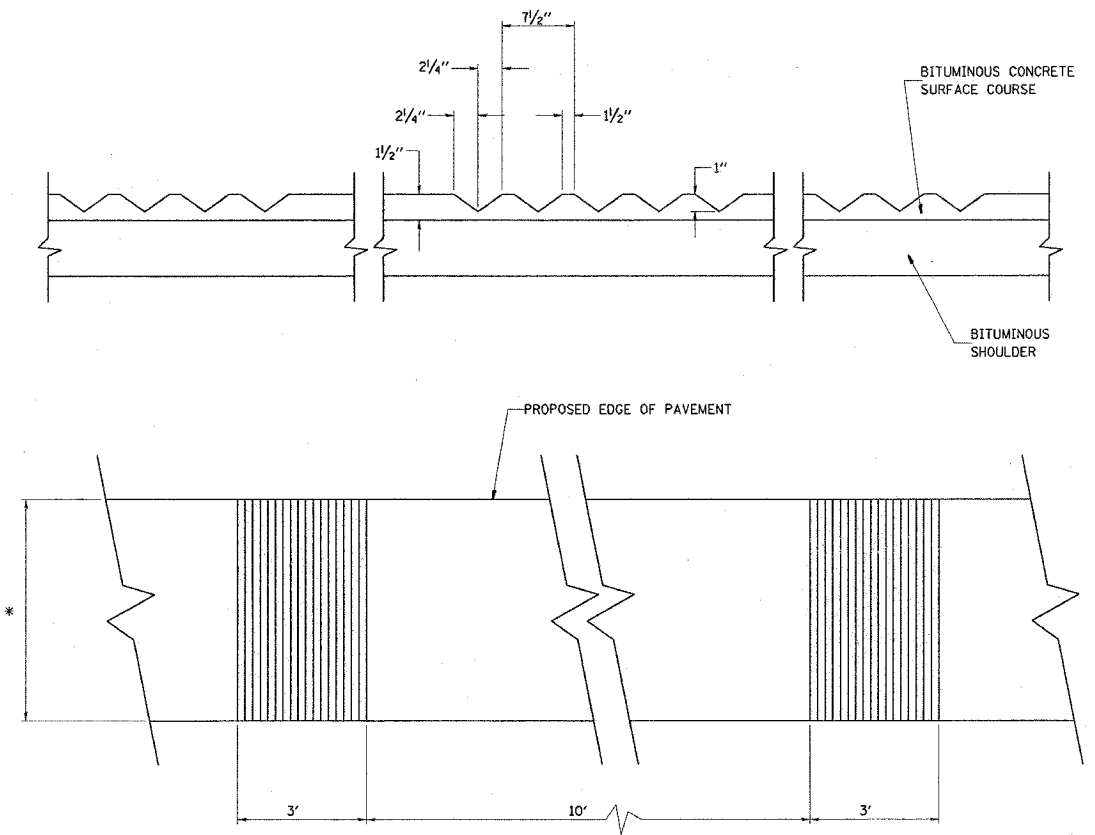
BUTT JOINT AND BITUMINOUS TAPER
DETAILS

SCALE: NONE
DATE PLOTTED: 8/23/2005

DRAWN BY
CHECKED BY
BD400-05 (VI-BD32)

REVISION DATE: 04/06/01

K-ALJ RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1581	3098RS-4	COOK	32	22
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



* SEE TYPICAL CROSS SECTIONS IN THE PLANS **TYPICAL SECTION**

NOTES :

1. THE PLACEMENT OF THE SURFACE COURSE SHALL BE THE FULL WIDTH OF THE BITUMINOUS SHOULDER. THE CORRUGATED SHOULDER SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH THE SURFACE COURSE.
2. THE METHOD OF COMPACTING AND GROOVING THE SHOULDER SHALL BE APPROVED BY THE ENGINEER.
3. THE CONTRACTOR SHALL PROTECT THE CORRUGATED SHOULDER WITH SUITABLE SAFETY DEVICES AS WORK PROGRESSES, TO PREVENT TRAFFIC USE UNTIL THE SHOULDER HAS COOLED SUFFICIENTLY TO PREVENT DEFORMATION OF THE GROOVES, AS DIRECTED BY THE ENGINEER.
4. A SEPARATE TANDEM ROLLER SHALL BE USED IN THE CONSTRUCTION OF THE CORRUGATED SHOULDER.
5. BASIS OF PAYMENT : THE CORRUGATED SHOULDER WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR "BITUMINOUS SHOULDER" OF THE THICKNESS SPECIFIED, WHICH PRICE INCLUDES THE CONSTRUCTION OF THE GROOVED SURFACE COURSE AND ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO CONSTRUCT THE SHOULDER AS SHOWN.

**CORRUGATED SHOULDER
(COOK COUNTY)**

REVISIONS	
NAME	DATE
M. DE YONG	07/03/90
ART ABBAS	03/22/97

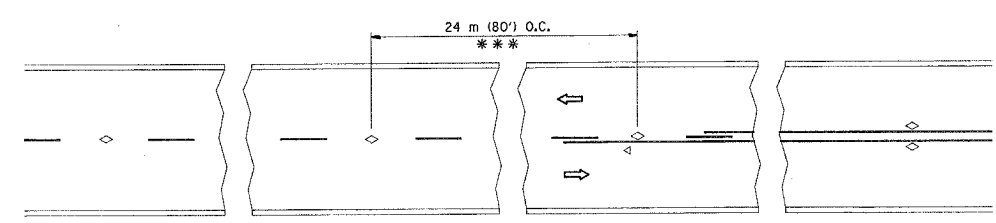
ILLINOIS DEPARTMENT OF TRANSPORTATION

**CORRUGATED SHOULDER
(COOK COUNTY)**

SCALE: VERT. NOT TO SCALE
HORIZ.
DATE 8/23/2005

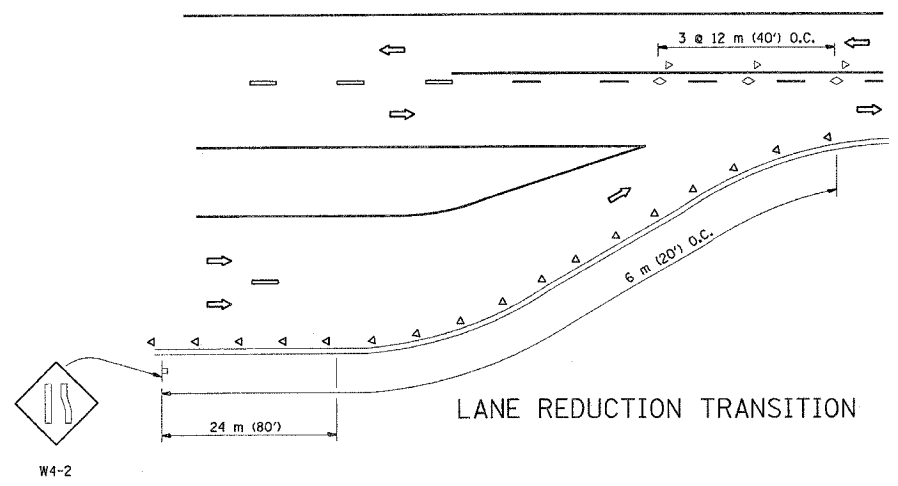
DRAWN BY C.A.D.
CHECKED BY
BD400-07 (BD-35)
REVISION DATE: 03/22/97

F.A.J. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1587	3098-25-4	COOK	32	23
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

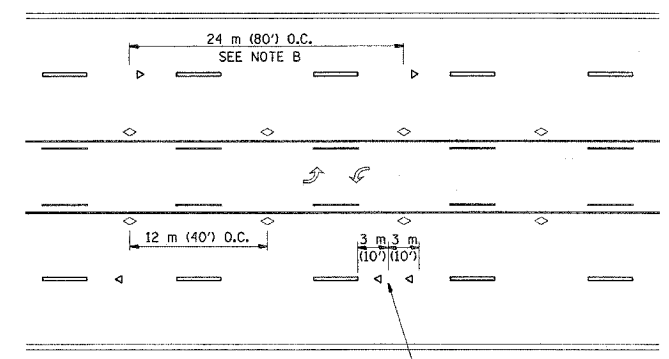


*** REDUCE TO 12 m (40') O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 70 km/h (45 M.P.H.) OR LESS.

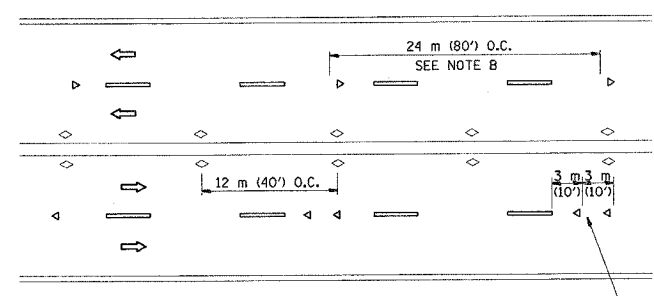
TWO-LANE/TWO-WAY



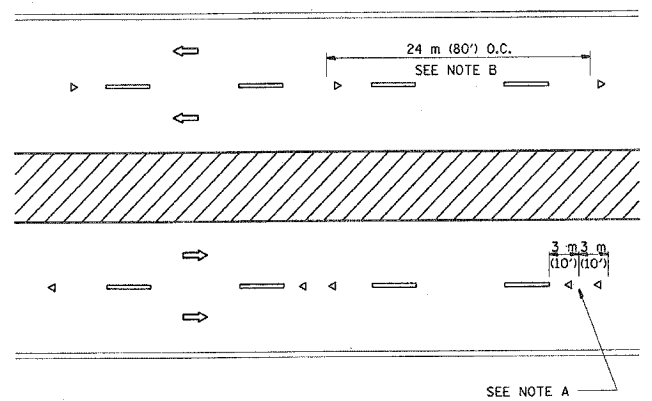
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 50 TO 75 (2 TO 3) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 150 m (500') IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

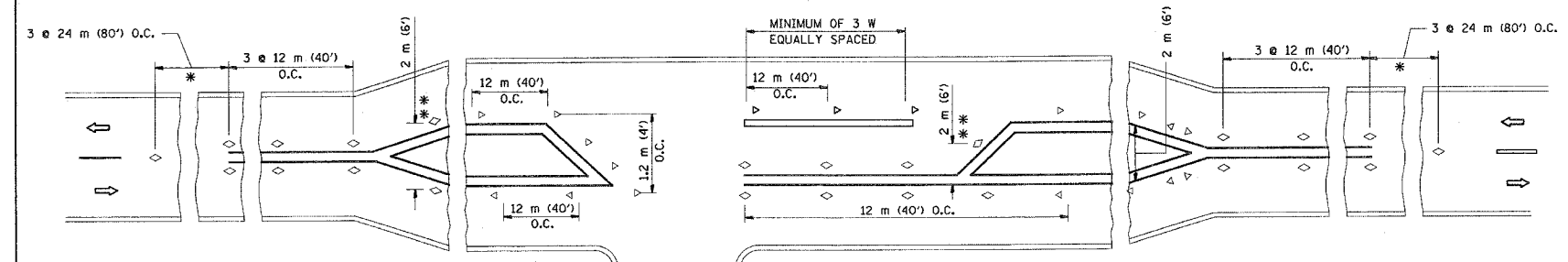
- YELLOW STRIPE
- WHITE STRIPE
- ◁ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◊ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 12 m (40') O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 20 km/h (10 M.P.H.) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 ** WHERE THE MEDIAN WIDTH IS 2 m (6') OR LESS USE TWO-WAY MARKERS.

LEFT TURN

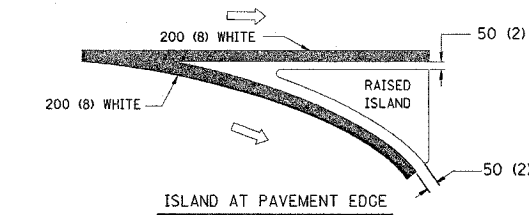
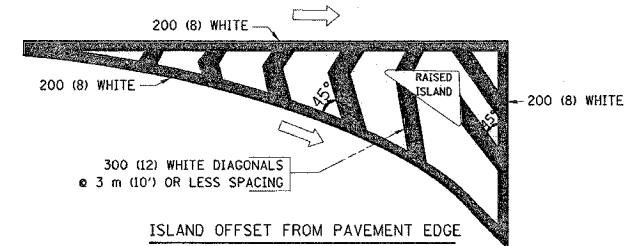
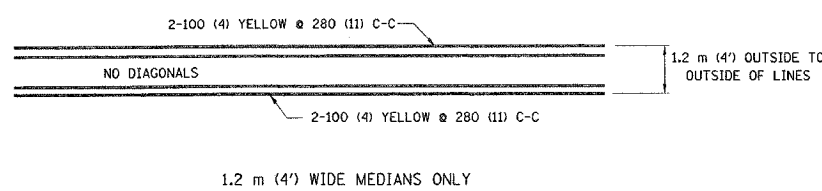
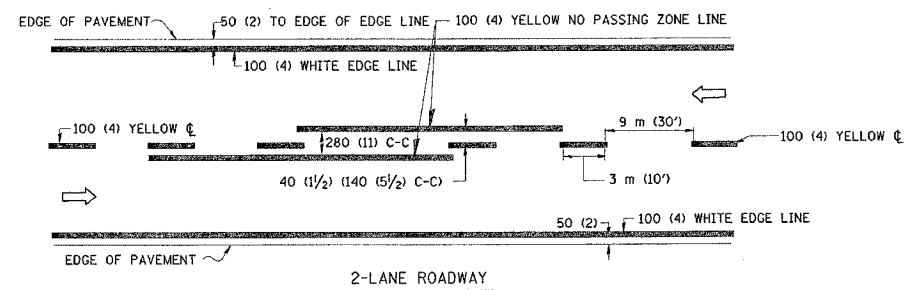
All dimensions are in millimeters (Inches) unless otherwise shown.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TYPICAL APPLICATIONS
 RAISED REFLECTIVE PAVEMENT MARKERS
 (SNOW-PLOW RESISTANT)

REVISIONS	
NAME	DATE
T. RAMMACHER	09-19-94
T. RAMMACHER	03-12-99
T. RAMMACHER	01-06-00

SCALE: NONE
 DATE: 8/23/2005
 DRAWN BY CADD
 CHECKED BY

F.A.L. REV.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1987	3098RS-4	COOK	32	24
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

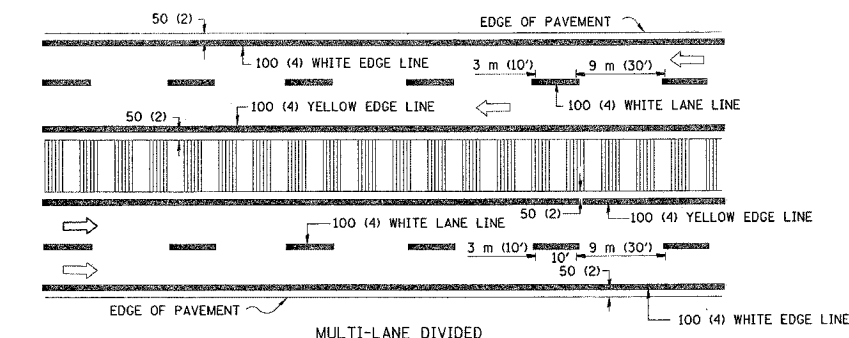
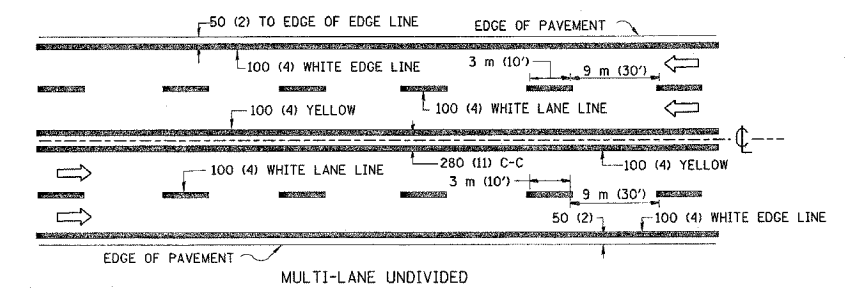


TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	100 (4)	SKIP-DASH	YELLOW	3 m (10') LINE WITH 9 m (30') SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 100 (4)	SOLID	YELLOW	280 (11) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	100 (4) 2 @ 100 (4)	SOLID SOLID	YELLOW YELLOW	140 (5 1/2) C-C FROM SKIP-DASH CENTERLINE 280 (11) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	100 (4) 125 (5) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	3 m (10') LINE WITH 9 m (30') SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	600 (2) LINE WITH 1.8 m (6') SPACE
EDGE LINES	100 (4)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	150 (6) LINE; FULL SIZE LETTERS & SYMBOLS (2.4 m (8'))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 100 (4) EACH DIRECTION 2.4 m (8') LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	3 m (10') LINE WITH 9 m (30') SPACE FOR SKIP-DASH; 140 (5 1/2) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 150 (6) 300 (12) @ 45° 300 (12) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 1.8 m (6') APART 600 (2) APART 600 (2) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	600 (24)	SOLID	WHITE	PLACE 1.2 m (4') IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 100 (4) WITH 300 (12) DIAGONALS @ 45° NO DIAGONALS USED FOR 1.2 m (4') WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	280 (11) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	200 (8) WITH 300 (12) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 4.5 m (15') C-C (LESS THAN 50 km/h (30 MPH)) 6 m (20') C-C (50 km/h (30 MPH) TO 70 km/h (45 MPH)) 9 m (30') C-C (OVER 70 km/h (45 MPH))
RAILROAD CROSSING	600 (24) TRANSVERSE LINES; "RR" IS 1.8 m (6') LETTERS; 400 (16) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=0.33m ² (3.6 SQ. FT.) EACH "X"=5.0 m ² (54.0 SQ. FT.)
SHOULDER DIAGONALS	300 (12) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	15 m (50') C-C (LESS THAN 50 km/h (30 MPH)) 25 m (75') C-C (50 km/h (30 MPH) TO 70 km/h (45 MPH)) 45 m (150') C-C (OVER 70 km/h (45 MPH))

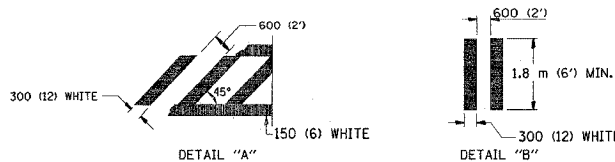
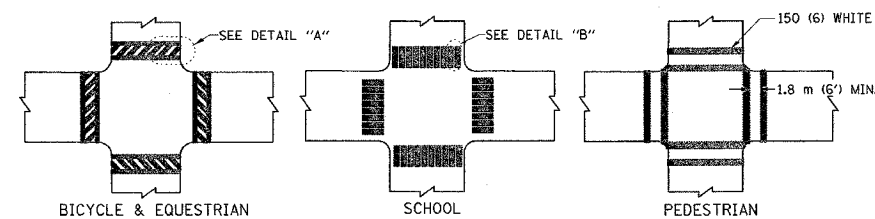
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

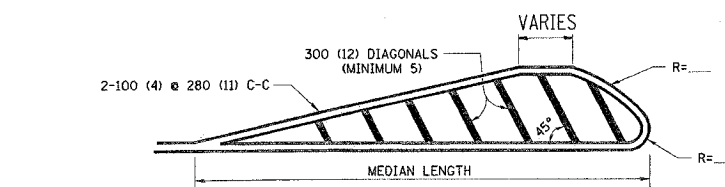


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING



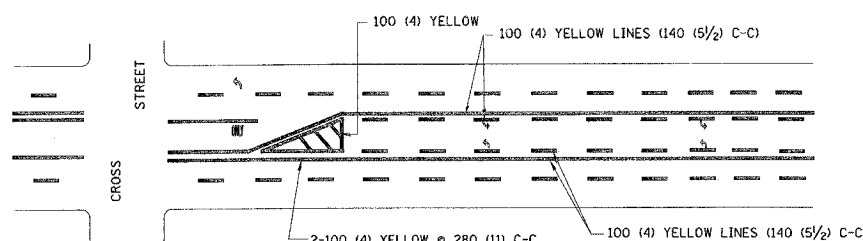
TYPICAL CROSSWALK MARKING



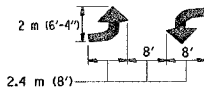
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

MEDIANS OVER 1.2 m (4') WIDE

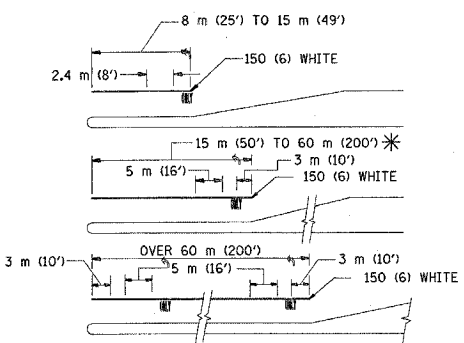


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 60 m (200') TO 90 m (300') INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING



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

* TURN LANES IN EXCESS OF 120 m (400') 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

REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT
MARKINGS

SCALE: NONE
DATE: 8/23/2005

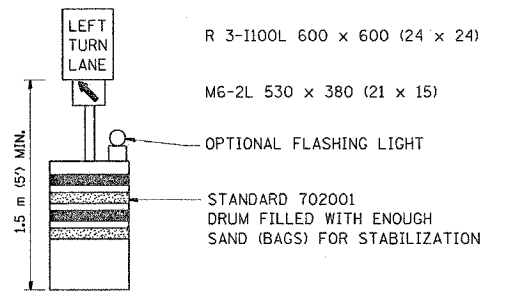
DRAWN BY: CADD

CHECKED BY:

TC-13

REVISION DATE: 01/06/00

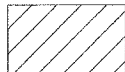





F.A.U. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1587	3098RS-4	COOK	32	25
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 710 (28) IN HEIGHT, WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 1.5 m (5').
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 600 x 600 (24 x 24) AND M6-2R 530 x 380 (21 x 15) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM BT 725 IS REQUIRED.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

LEGEND

-  WORK AREA
-  LANE OPEN TO TRAFFIC
-  TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
-  DRUM WITH STEADY BURN LIGHT
-  DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
-  TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL AND PROTECTION
 AT TURN BAYS
 (TO REMAIN OPEN TO TRAFFIC)**

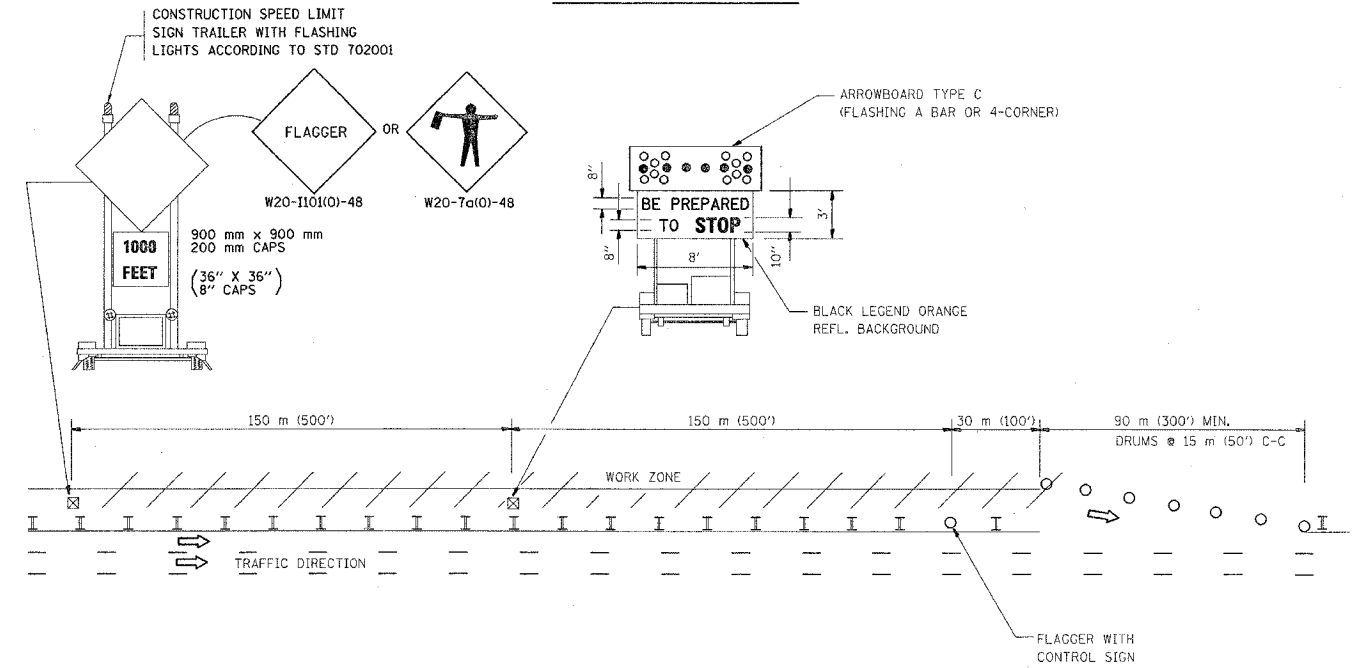
REVISIONS	
NAME	DATE
T. RAMMACHER	09/08/94
A. HOUSEH	11/07/95
A. HOUSEH	10/12/96
T. RAMMACHER	01/06/00

SCALE: NONE
 DATE: 8/23/2005
 DRAWN BY
 CHECKED BY LHA
 TC-14

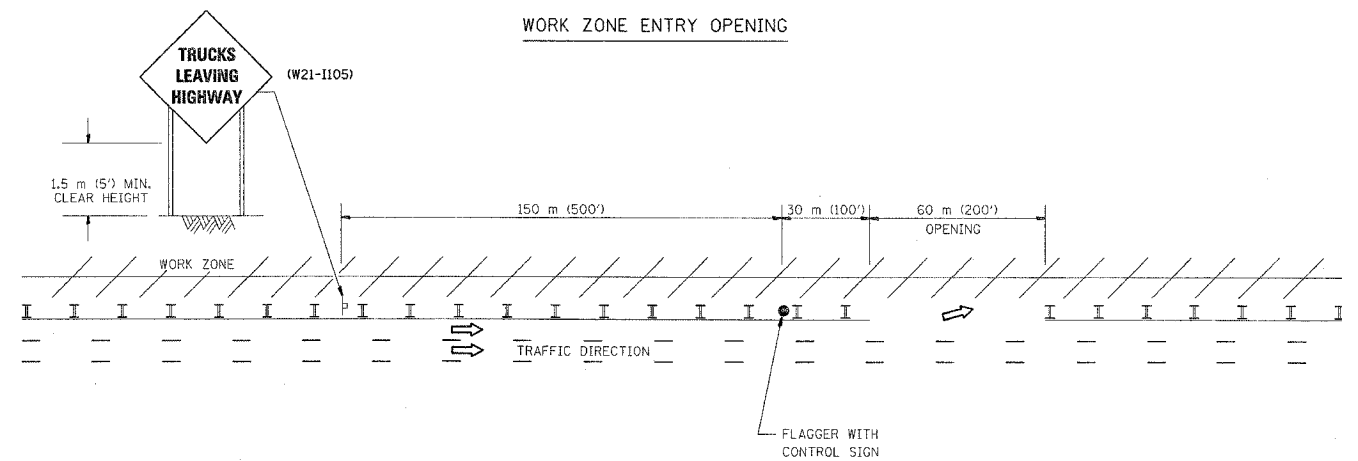
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1581	3098 RS-4	Cook	32	26
STA.	TO STA.			
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. The Arrowboard, the Flagger Ahead trailer mounted sign, and the Trucks Leaving Highway sign shall be removed or turned away from traffic and the exit and entry openings shall be closed when the flagging operation ceases.
2. Work Zone Exit Openings should be a minimum of one half mile apart.
3. Exiting the work zone at any place other than at a Work Zone Exit Opening will be prohibited.
4. All vehicles shall enter the work zone at entry openings, using their turn signals to warn motorists

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN

ILLINOIS DEPARTMENT OF TRANSPORTATION

REVISIONS	
NAME	DATE
DWS	8/98
JAF	4/03

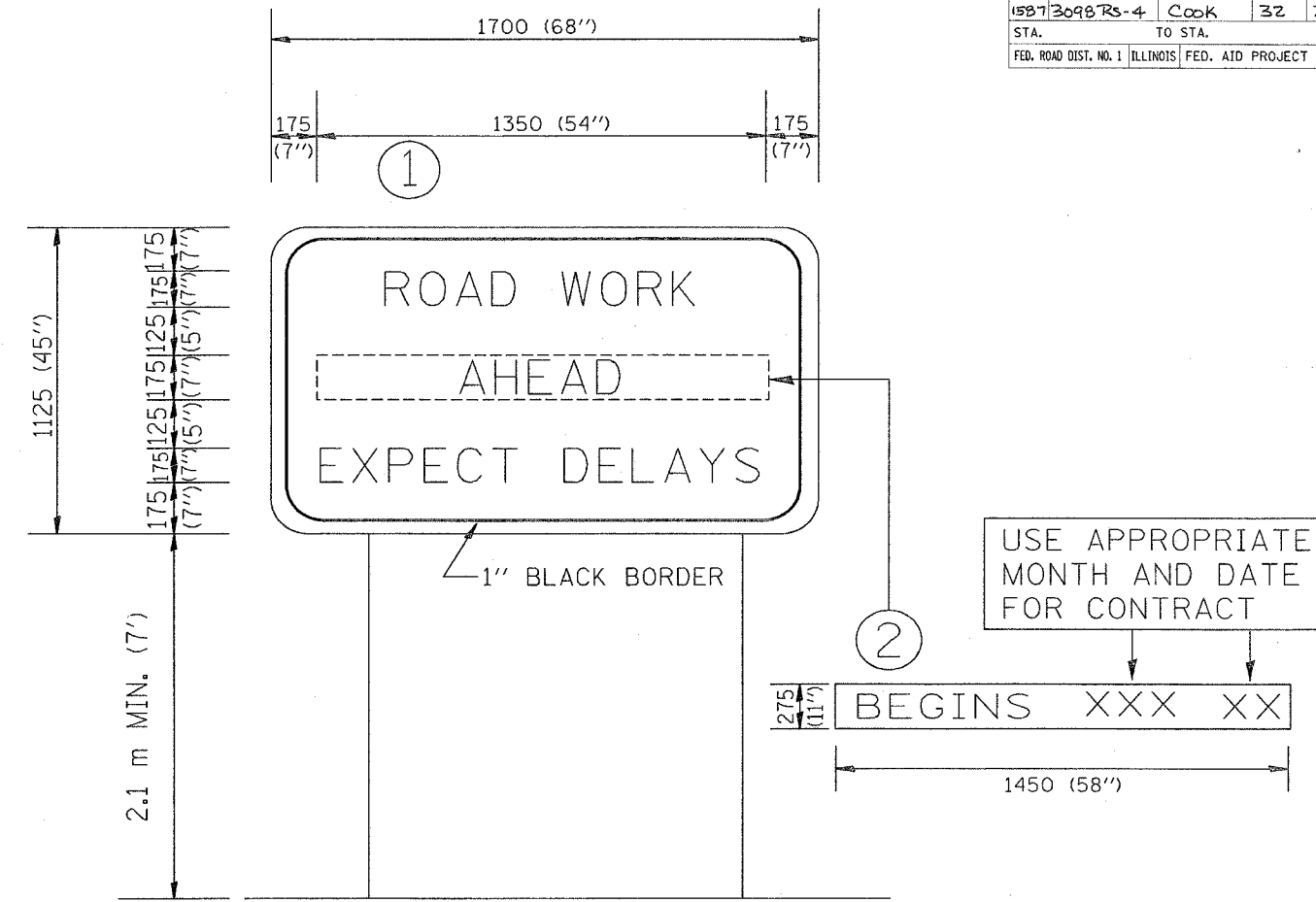
SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

SCALE: NONE
DATE 8/23/2005

DRAWN BY CADD
CHECKED BY TC-18

REVISION DATE: 04/24/03

F.A.M. RTE.	SECTION	COUNTY	TOTAL SHEETS	NO.
1587	3098RS-4	COOK	32	27
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



NOTES:

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

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

REVISIONS	
NAME	DATE
R. MIRS	9-15-97
R. MIRS	2-11-97
T. RAMMACHER	2-2-99

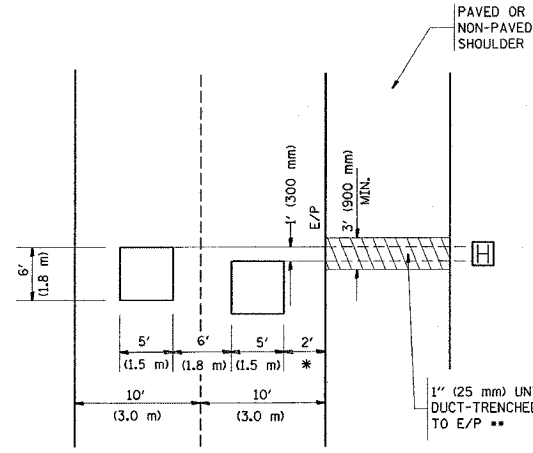
ILLINOIS DEPARTMENT OF TRANSPORTATION
TEMPORARY INFORMATION SIGNING

SCALE: DATE 8/23/2005
DRAWN BY: BUR. OF DESIGN
CHECKED BY
TC22
REVISION DATE: 02/02/99

F.A.L. R/L	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1587	3098Rs-4	COOK	32	28
STA.	TO STA.			
FED. AID DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

LOOPS NEXT TO SHOULDERS

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

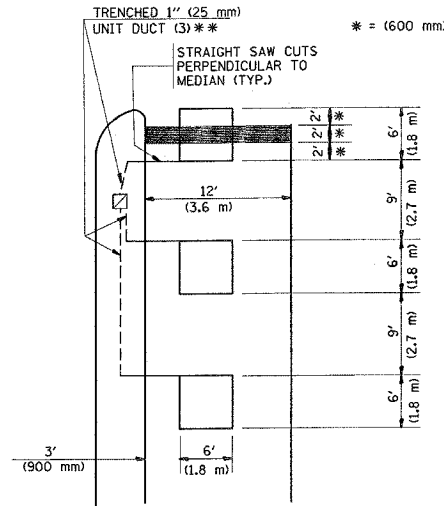


* = (600 mm)

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

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

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

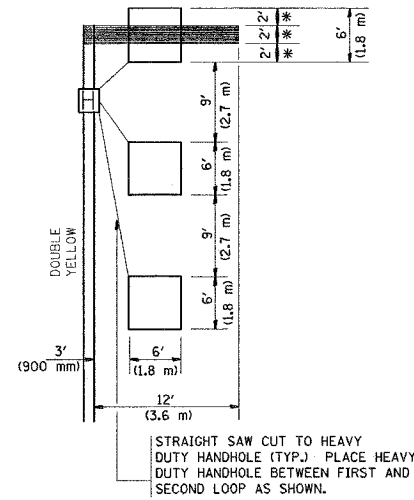


** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

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

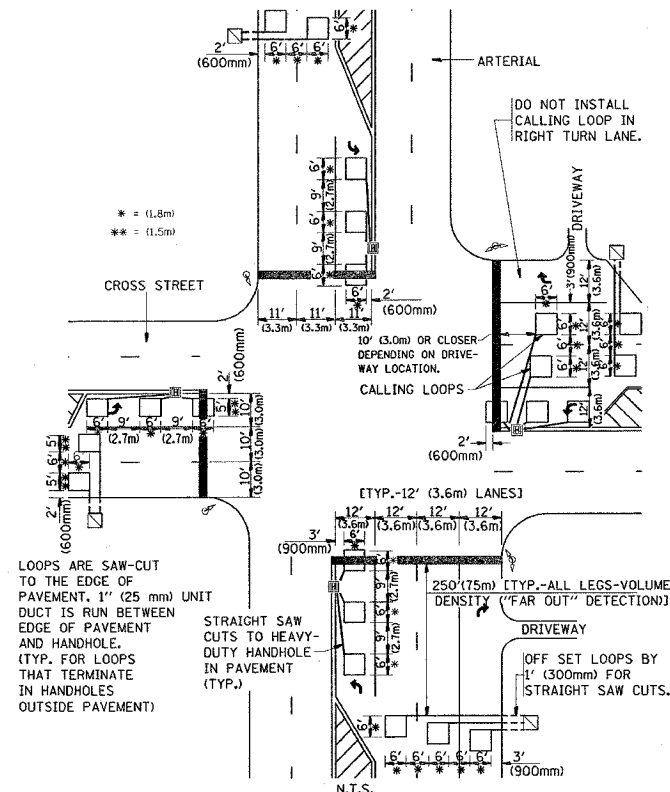
LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)

* = (600 mm)



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

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



LOOPS ARE SAW-CUT TO THE EDGE OF PAVEMENT. 1" (25 mm) UNIT DUCT IS RUN BETWEEN EDGE OF PAVEMENT AND HANDHOLE. (TYP. FOR LOOPS THAT TERMINATE IN HANDHOLES OUTSIDE PAVEMENT)

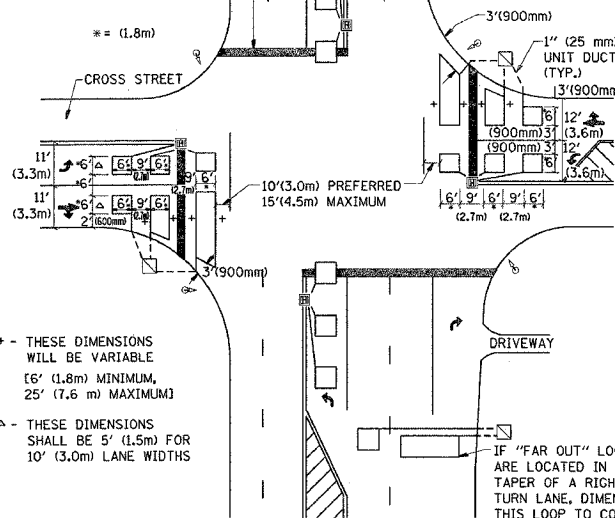
STRAIGHT SAW CUTS TO HEAVY-DUTY HANDHOLE IN PAVEMENT (TYP.)

OFF SET LOOPS BY 1' (300mm) FOR STRAIGHT SAW CUTS.

DETAIL 1
N.T.S.

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

OFFSET LOOPS BY 1' (300mm) FOR STRAIGHT SAW CUTS
THIS DIMENSION MAY BE ADJUSTED FOR DRIVEWAY OR OTHER OBSTRUCTIONS. WHEN ADJUSTMENT IS REQUIRED, DETECTORS WILL NORMALLY BE MOVED CLOSER TO THE INTERSECTION.



+ THESE DIMENSIONS WILL BE VARIABLE [6' (1.8m) MINIMUM, 25' (7.6 m) MAXIMUM]

△ THESE DIMENSIONS SHALL BE 5' (1.5m) FOR 10' (3.0m) LANE WIDTHS

IF "FAR OUT" LOOPS ARE LOCATED IN TAPER OF A RIGHT TURN LANE, DIMENSION THIS LOOP TO COVER TAPER AREA. DO NOT COVER THE LEFT TURN LANE OR LEFT TURN LANE TAPER.

DETAIL 2
N.T.S.

NOTES:

VEHICLES LOOP DETECTORS

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

PLACEMENT OF DETECTORS

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

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

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

NOTE:

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

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

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 1
DETECTOR LOOP
INSTALLATION DETAILS
FOR ROADWAY RESURFACING

SCALE: NONE
DATE 8/23/2005

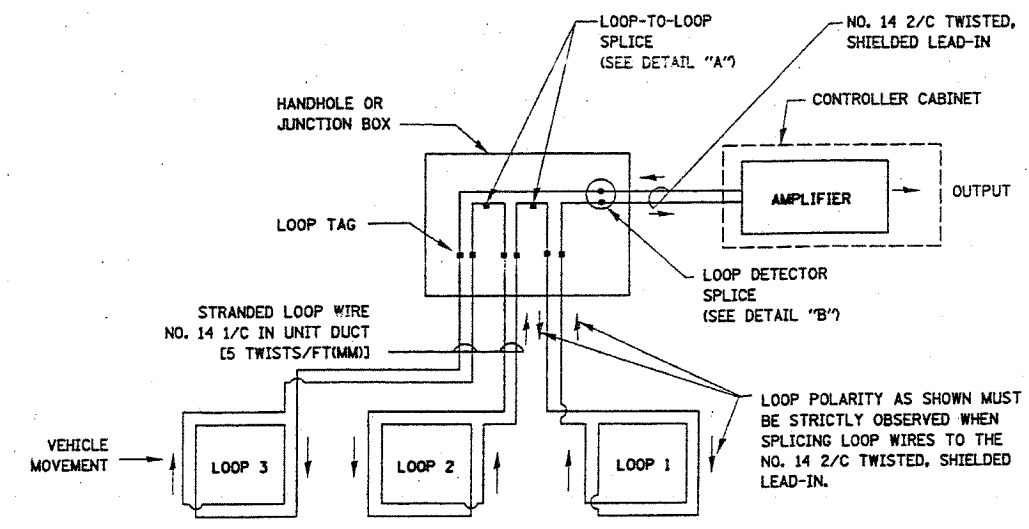
DRAWN BY CADD
DESIGNED BY
CHECKED BY R.K.F.
TSOT

REVISION DATE:

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1587	3098 RS-4	COOK	32	29
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

LOOP DETECTOR NOTES

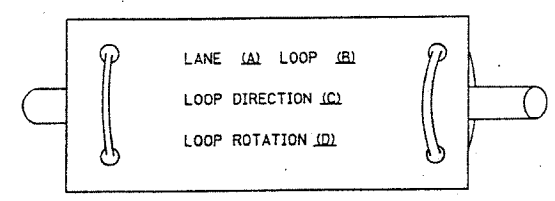
1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED 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 DIVESHOLES 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.



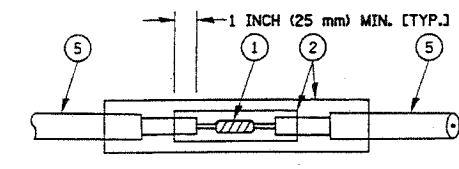
DETECTOR LOOP WIRING SCHEMATIC

- 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.

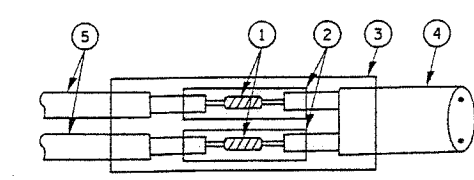
LOOP LEAD-IN CABLE TAG



- 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.



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.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DISTRICT ONE
 STANDARD TRAFFIC SIGNAL
 DESIGN DETAILS

SCALE: VERT. NONE
 HORIZ. DATE 1-01-02

DRAWN BY: RWP
 DESIGNED BY: DAD
 CHECKED BY: MAZ
 SHEET OF

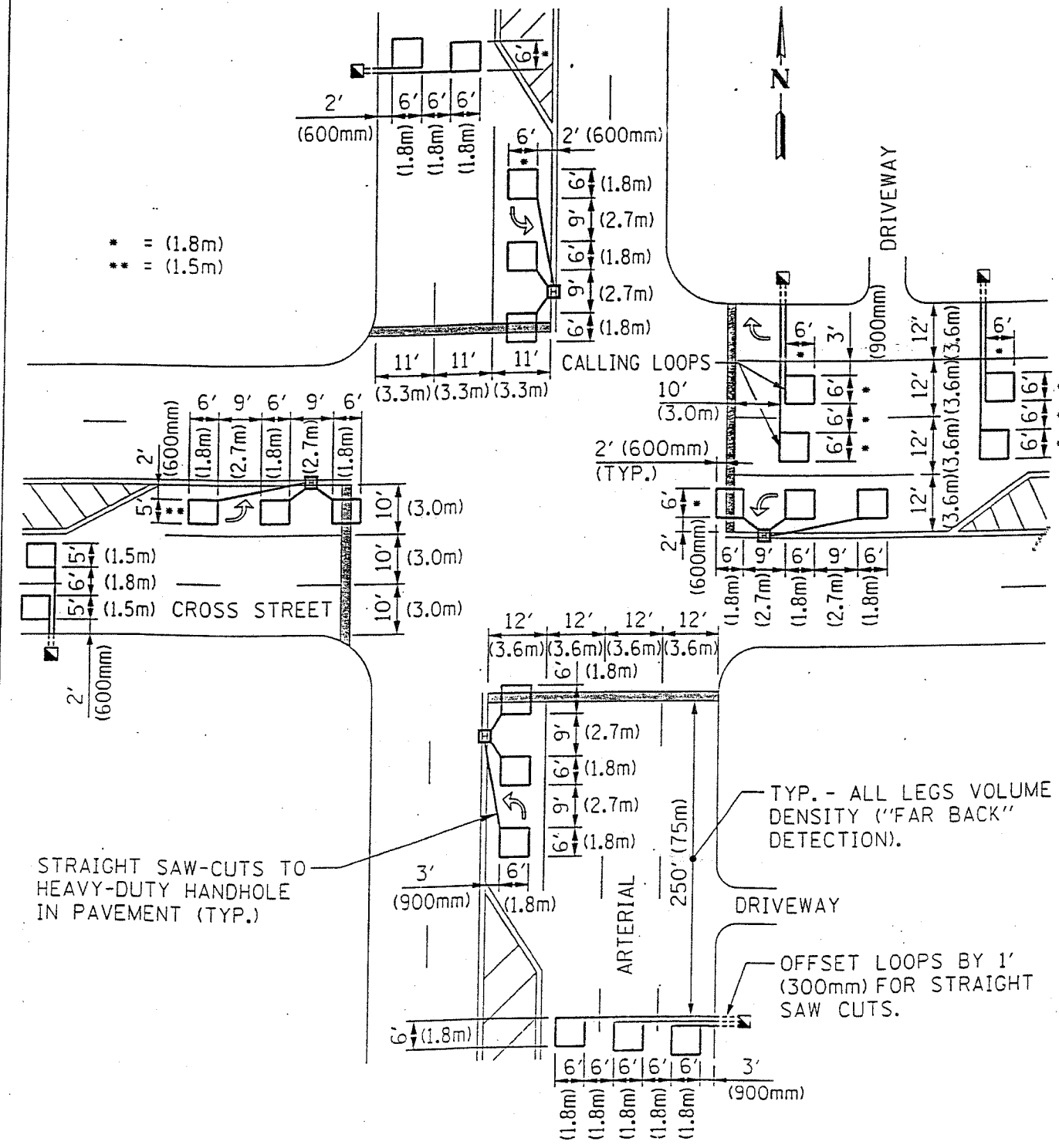
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FAU No.	Section	County	Total Sheets	Sheet No.
1587	30982s-4	COOK	32	30
STA.	TO STA.			

CONTRACT # 62923

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

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



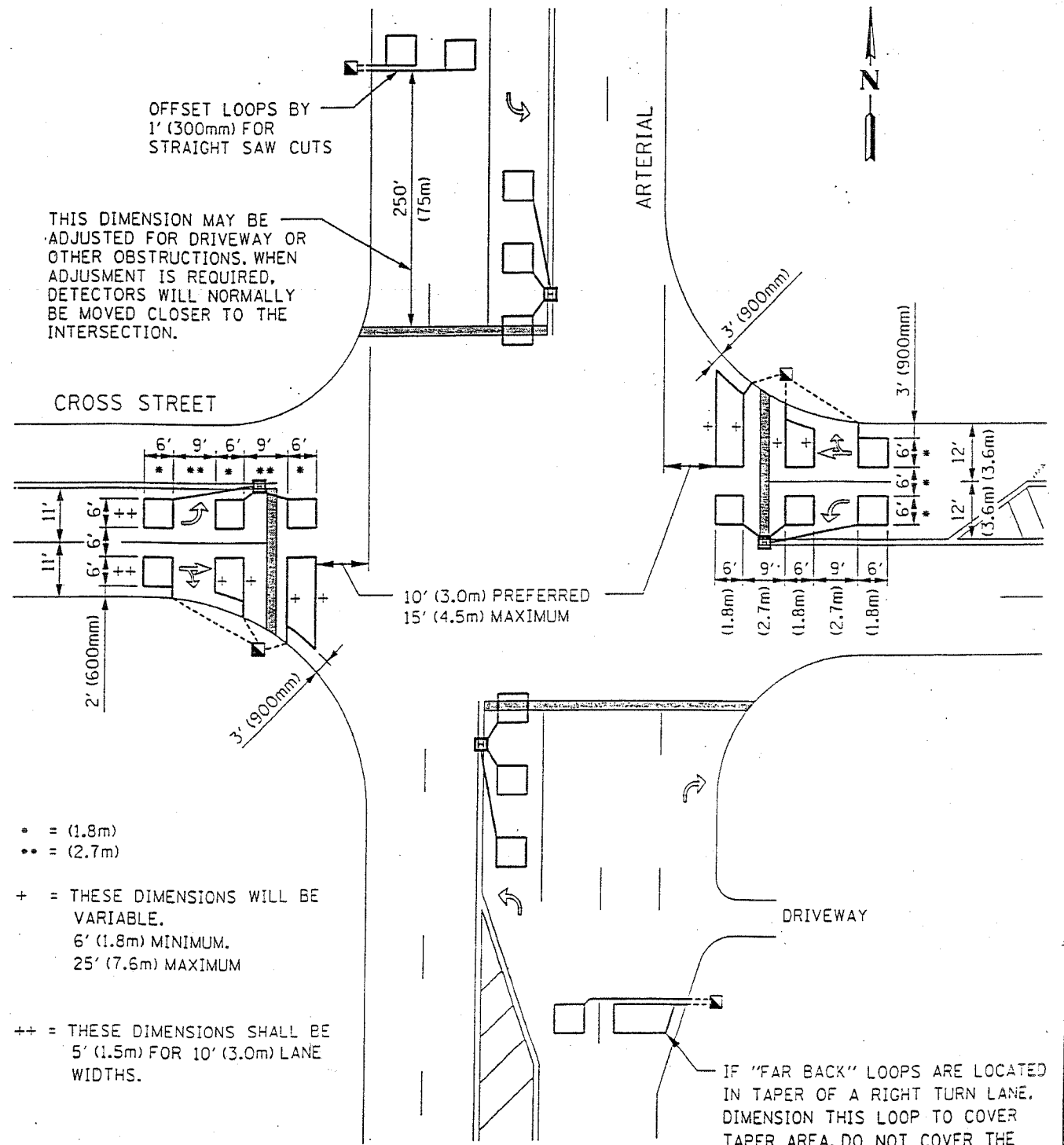
STRAIGHT SAW-CUTS TO HEAVY-DUTY HANDHOLE IN PAVEMENT (TYP.)

TYP. - ALL LEGS VOLUME DENSITY ("FAR BACK" DETECTION).

OFFSET LOOPS BY 1' (300mm) FOR STRAIGHT SAW CUTS.

LOOPS ARE SAW-CUT TO THE EDGE OF PAVEMENT. 1" (25mm) UNIT DUCT IS RUN BETWEEN EDGE OF PAVEMENT AND HANDHOLE, (TYP. FOR LOOPS THAT TERMINATE IN HANDHOLES OUTSIDE PAVEMENT).

N.T.S.

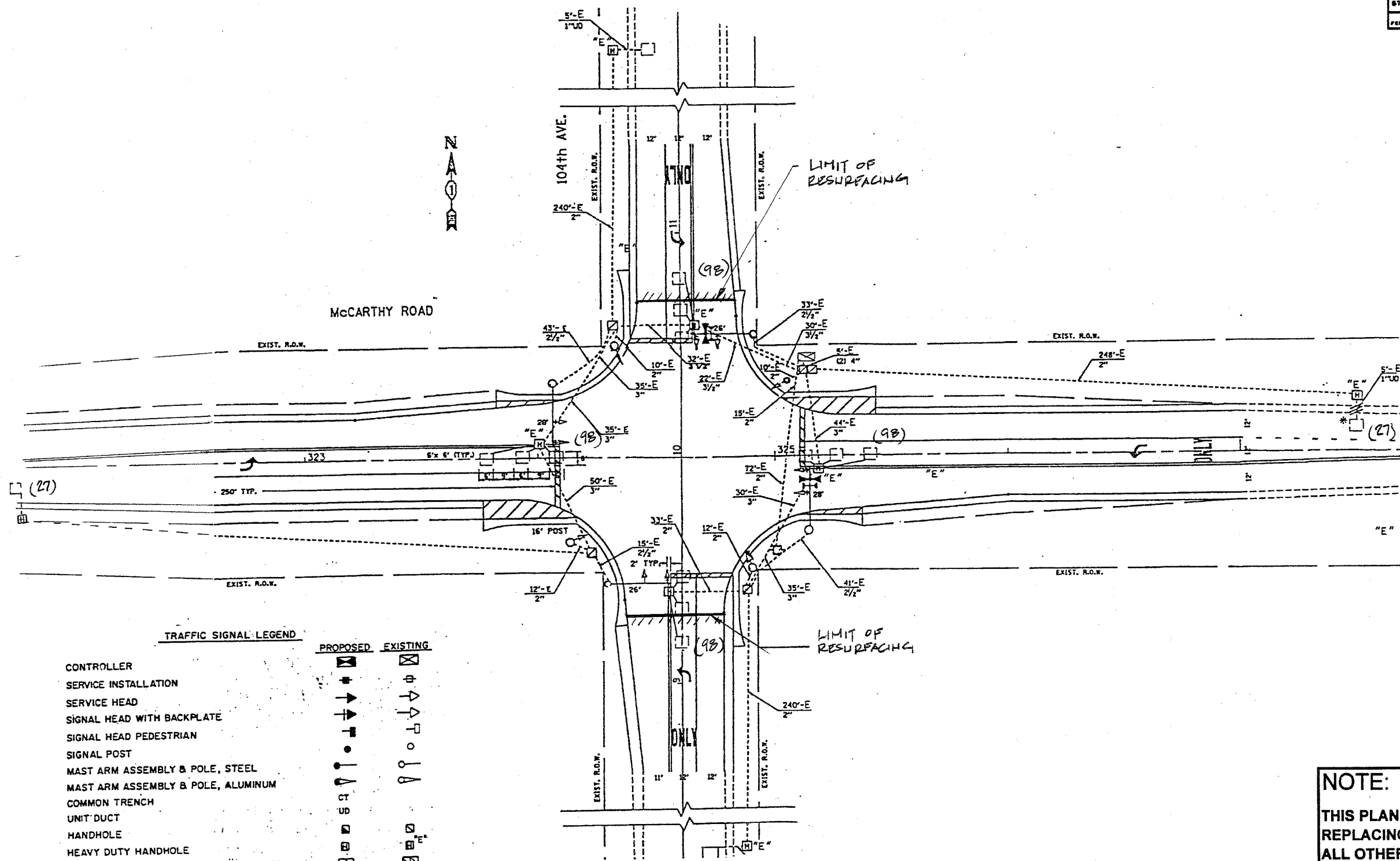


- = (1.8m)
- = (2.7m)
- + = THESE DIMENSIONS WILL BE VARIABLE.
6' (1.8m) MINIMUM.
25' (7.6m) MAXIMUM
- ++ = THESE DIMENSIONS SHALL BE 5' (1.5m) FOR 10' (3.0m) LANE WIDTHS.

IF "FAR BACK" LOOPS ARE LOCATED IN TAPER OF A RIGHT TURN LANE, DIMENSION THIS LOOP TO COVER TAPER AREA. DO NOT COVER THE LEFT TURN LANE OR LEFT TURN LANE TAPER.

N.T.S.

F. A. L. SVE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1587	309825-9	COOK	32	32
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]
SERVICE HEAD	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]
SIGNAL HEAD PEDESTRIAN	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]
MAST ARM ASSEMBLY & POLE, STEEL	[Symbol]	[Symbol]
MAST ARM ASSEMBLY & POLE, ALUMINUM	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G. S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]

REPLACE ALL DETECTOR LOOPS AS SHOWN

(WITHIN THE RESURFACING LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
86600600	446	Foot	Detector Loop Replacement

NOTE:
THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.

ILLINOIS DEPARTMENT OF TRANSPORTATION
DETECTOR LOOP REPLACEMENT

McCarthy Rd. (123 Post.) @ 104th Ave.

SCALE: 1" = 20'
DATE: AUG. 05

DRAWN BY: J.E.
DESIGNED BY: J.E.
CHECKED BY: J.E.

REVISIONS	
NAME	DATE