

F. A. U. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3603	03-00048-00-RS	COOK	16	1
STA.		TO STA.		
FED. ROAD DIST. NO.	ALIGN.	FED. AID PROJECT		

CONTRACT NO. 83916

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

# PLANS FOR PROPOSED FEDERAL AID HIGHWAY

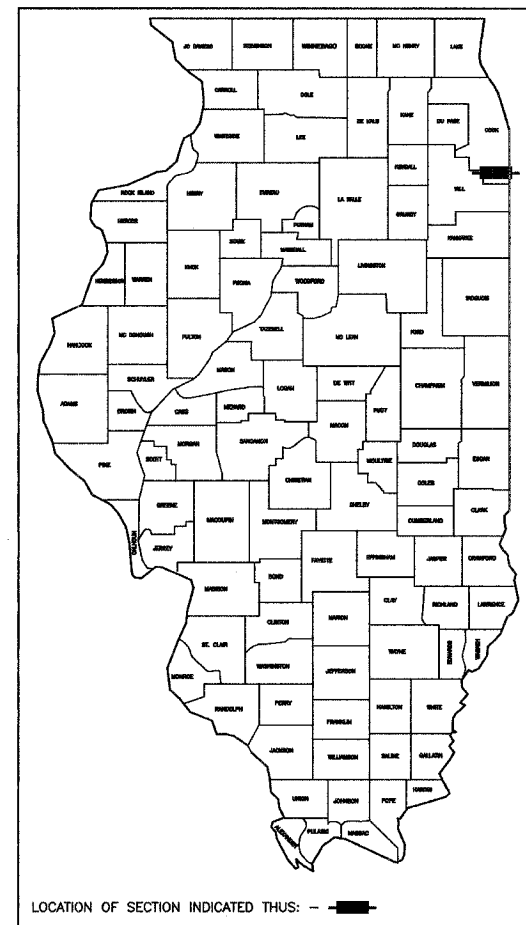
FAU 3603 / MAIN STREET  
STATE STREET TO GLENWOOD DYER ROAD  
LOCAL AGENCY PAVEMENT PRESERVATION

STREET RESURFACING  
SECTION NO.: 03-00048-00-RS

PROJECT: M-8003(572)

JOB NO.: C-91-148-06

VILLAGE OF GLENWOOD  
COOK COUNTY



LOCATION OF SECTION INDICATED THUS: —

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

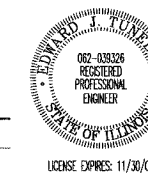
APPROVED 3/27/07 20 07  
*Jeanne F. Maggio* MAYOR, VILLAGE OF GLENWOOD

PASSED APRIL 11 20 07  
*Charles H. ...* REGION ONE ENGINEER OF LOCAL ROADS & STREETS

RELEASED FOR  
BID BASED ON  
LIMITED REVIEW APRIL 12 20 07  
*Edmund ...* DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER

PREPARED BY OR UNDER THE  
DIRECT SUPERVISION OF:

*Edward J. Tunick*  
3/27/07



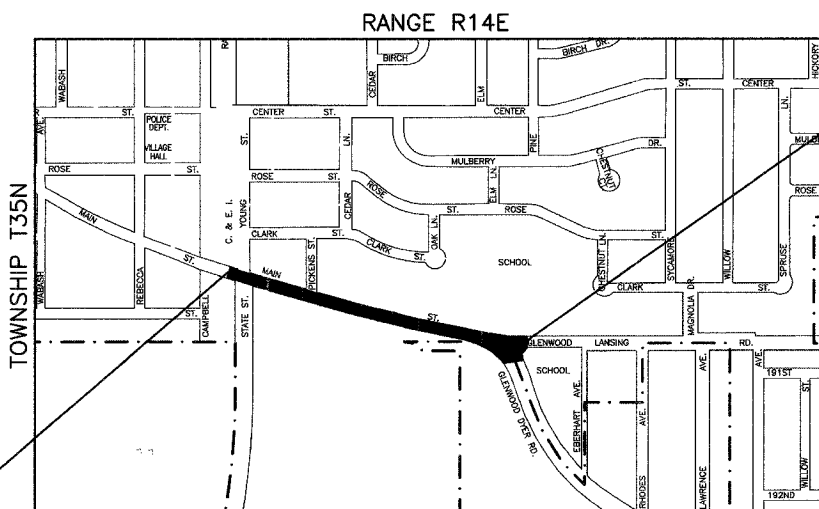
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THE STATE OF ILLINOIS

**INDEX OF SHEETS**

- 1 COVER SHEET, INDEX OF SHEETS, LOCATION MAP  
INDEX OF STATE STANDARDS
- 2 SUMMARY OF QUANTITIES & GENERAL NOTES
- 3 TYPICAL CROSS SECTION
- 4 PAVEMENT PLAN
- 5 STRIPING PLAN
- 6-16 DISTRICT 1 CADD DETAILS

**STATE STANDARDS**

- |           |                                                                                    |
|-----------|------------------------------------------------------------------------------------|
| 000001-04 | STANDARD STANDARDS, ABBREVIATIONS AND PATTERNS                                     |
| 280001-03 | TEMPORARY EROSION CONTROL SYSTEMS                                                  |
| 424001-04 | CURB RAMPS FOR SIDEWALK                                                            |
| 442201-02 | CLASS C AND D PATCHES                                                              |
| 606001-03 | CONCRETE CURB AND COMBINATION CONCRETE CURB & GUTTER                               |
| 701501-03 | URBAN LANE CLOSURE 2-L, 2-W, UNDIVIDED                                             |
| 701601-04 | URBAN LANE CLOSURE, MULTILANE INTERSECTION, 1W OR 2W<br>WITH NONTRAVERSABLE MEDIAN |
| 701701-04 | URBAN LANE CLOSURE, MULTILANE INTERSECTION                                         |
| 701801-03 | LANE CLOSURE, MULTILANE, 1W OR 2W, CROSSWALK<br>OR SIDEWALK CLOSURE,               |
| 702001-06 | TRAFFIC CONTROL DEVICES                                                            |
| 780001-01 | TYPICAL PAVEMENT MARKINGS                                                          |
| 781001-02 | TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS                            |
| 886001    | DETECTOR LOOP INSTALLATIONS                                                        |
| 886006    | TYPICAL LAYOUT FOR DETECTION LOOPS                                                 |

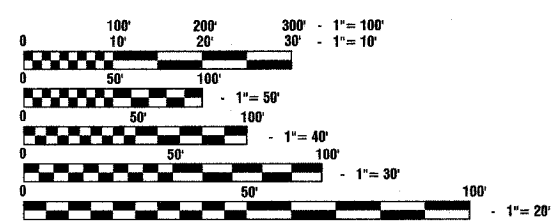


PROJECT  
MAIN STREET  
ENDS STA 17+31

TRAFFIC DATA  
2002 ADT = 10,000  
POSTED SPEED LIMIT = 25 MPH

ARTERIAL STREET

PROJECT  
MAIN STREET  
BEGINS STA 0+00



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

CONTRACT NO. 83916

**LOCATION MAP**

— INDICATES PROPOSED IMPROVEMENT  
GROSS LENGTH = 1731 FEET = 0.3278 MILES  
NET LENGTH = 1731 FEET = 0.3278 MILES

I.D.O.T. FEDERAL AID DESIGN ENGINEER: KEVIN STALLWORTH 847-705-4169  
CONSULTANTS: ROBINSON ENGINEERING, LTD. 708-331-6700  
CONTACT ENGINEER: RON SMITH

F. A. U. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3603	03-00048-00-RS	COOK	16	2
STA.	TO STA.			
FED. ROAD DIST. NO.	SLAB NO.	FED. AID PROJECT		

CONTRACT NO. 83916

SUMMARY OF QUANTITIES				
S.I.	CODE NO.	PAY ITEM	UNIT	QUAN
	40300100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	150
	40600300	AGGREGATE (PRIME COAT)	TON	250
	40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGES	TON	2
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	330
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK, 5"	SQ FT	50
	44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	530
	44000198	HOT-MIX ASPHALT SURFACE REMOVAL - VARIABLE DEPTH	SQ YD	2540
	44000300	CURB REMOVAL	FOOT	20
	44000500	CURB AND GUTTER REMOVAL	FOOT	59
	44000600	SIDEWALK REMOVAL	SQ FT	50
	44201725	CLASS D PATCHES, TYPE I (7")	SQ YD	61
	44201729	CLASS D PATCHES, TYPE II (7")	SQ YD	61
	44201733	CLASS D PATCHES, TYPE III (7")	SQ YD	61
	X0324096	HOT IN-PLACE RECYCLING	SQ YD	7390
	X0322052	ASPHALT REJUVENATING AGENT	GALLON	740
	55039700	STORM SEWERS TO BE CLEANED	FOOT	430
	60255500	MANHOLE TO BE ADJUSTED	EACH	14
	60266600	VALVE BOX TO BE ADJUSTED	EACH	2
	60600605	CONCRETE CURB, TYPE B	FOOT	20
	60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	59
	67100100	MOBILIZATION	L SUM	1
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1
	70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1
	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	180
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	680
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	865
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	140
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	185
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	80
*	88600100	DETECTOR LOOP, TYPE 1	FOOT	290
	40603335	HOT-MIX ASPHALT SURFACE COURSE MIXTURE "D", N50	TON	700
	40600625	LEVELING BINDER (MACHINE METHOD), IL 19.0 N50	TON	225
	X0006947	HOT-MIX ASPHALT DRIVEWAY REMOVAL AND REPLACEMENT	SQ YD	90
	40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	10
	42400800	DETECTABLE WARNINGS	SQ FT	25
	Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	8
	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1

GENERAL NOTES

- ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION.
- ITEMS OF WORK LISTED IN THE SUMMARY OF QUANTITIES WHICH ARE NOT SPECIFICALLY INDICATED IN THE PLANS SHALL BE PERFORMED AT LOCATIONS AS DIRECTED BY THE ENGINEER.
- DRAINAGE STRUCTURE ELEVATIONS: GRADES OF SEWER LINES WERE DETERMINED FROM AVAILABLE PLANS AND SURVEYS. ACCORDINGLY, AS DIRECTED BY THE ENGINEER, THE INVERTS OF THE PROPOSED DRAINAGE WILL BE REVISED TO MEET EXISTING FIELD CONDITIONS.
- THE TOP OF ALL STRUCTURES SHALL BE FLUSH WITH THE ADJACENT SURFACE OR AT THE INDICATED ELEVATIONS SHOWN ON THE PLANS. ALL RIM ELEVATIONS OF STRUCTURES IN THE PROPOSED CURB LINE ARE GIVEN TO THE EDGE OF PAVEMENT. ALL OTHER RIM ELEVATIONS ARE GIVEN TO THE CENTER OF THE STRUCTURES.
- HALF TRAPS ARE TO BE OMITTED IN CATCH BASINS EXCEPT WHERE NOTED.
- FRAME ELEVATIONS ARE GIVEN ONLY TO ASSIST IN DETERMINING THE APPROXIMATE OVERALL HEIGHT OF THE STRUCTURE. FRAMES ON ALL NEW STRUCTURES WILL BE ADJUSTED TO THE FINAL ELEVATION OF THE AREA IN WHICH THEY ARE LOCATED AS PART OF THE STRUCTURE COST.
- WHEN, IN THE CONSTRUCTION OPERATION, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DITCHES, GUTTERS OR OTHER DRAINAGE STRUCTURES SO THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED AT THE CLOSE OF EACH DAY BY THE CONTRACTOR AT HIS EXPENSE. AT THE CONCLUSION OF THE CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES SHALL BE FREE FROM ALL DIRT AND DEBRIS. THIS WORK SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR ALL PRIVATE OR PUBLIC DRAINS, SEWERS OR CATCH BASINS. HE SHALL PROVIDE FACILITIES TO TAKE IN ALL STORM WATER WHICH WILL BE RECEIVED BY THESE DRAINS & SEWERS AND DISCHARGE SAME. HE SHALL PROVIDE AND MAINTAIN AN EFFICIENT PUMPING PLANT, IF NECESSARY, AND A TEMPORARY OUTLET, AND BE PREPARED AT ALL TIMES TO DISPOSE OF THE WATER RECEIVED FROM THESE TEMPORARY SEWER CONNECTIONS UNTIL SUCH TIME AS THE PERMANENT CONNECTIONS WITH SEWERS ARE BUILT AND IN SERVICE. THIS WORK SHALL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- THE CAST IRON FRAMES AND COVERS OF FILLED, ABANDONED OR REMOVED MANHOLES, INLETS AND CATCH BASINS OR THOSE FRAMES AND COVERS UPON STRUCTURES RECEIVING NEW FRAMES AND COVERS SHALL BE STOCKPILED WITHIN THE RIGHT-OF-WAY, AS DIRECTED BY THE ENGINEER, AND PICKED UP BY THE COMMUNITY.
- THE APPROXIMATE LOCATION OF KNOWN PUBLIC UTILITIES ARE SHOWN ON THE PLANS. HOWEVER, THE DEPARTMENT DOES NOT GUARANTEE ITS ACCURACY. PRIOR TO COMMENCING OPERATIONS ON THE PROJECT WHICH MAY IN ANY WAY CREATE THE POSSIBILITY OF INVOLVEMENT WITH EXISTING UTILITIES, THE CONTRACTOR SHALL CONTACT THE FIRM (OR COMMUNITY) INVOLVED. ADJUSTMENT OF ALL PUBLIC UTILITIES WITHIN THE LIMITS OF THIS IMPROVEMENT WILL BE DONE BY THE RESPECTIVE OWNERS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO DELAYS OR INCONVENIENCE CAUSED BY THESE ADJUSTMENTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF UNDERGROUND INSTALLATION BEFORE STARTING CONSTRUCTION OPERATIONS.
- ALL TRENCHES WITHIN 2 FEET OF PROPOSED PAVEMENT, DRIVEWAYS, AND SIDEWALKS SHALL BE BACKFILLED WITH TRENCH BACKFILL ONLY.
- COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 SHALL BE INSTALLED WITH A THICKNESS EQUAL TO NINE AND ONE HALF INCHES (9 1/2").
- THE CONTRACTOR SHALL PROTECT ALL TREES WITHIN AND ADJACENT TO THE CONSTRUCTION SITE DURING THE CLEARING AND SUBSEQUENT CONSTRUCTION OPERATIONS IN ACCORDANCE WITH SECTION 201 OF THE STANDARD SPECIFICATIONS. THOSE TREES TO BE REMOVED AS SHOWN IN THE PLANS SHALL BE DONE IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS.
- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED).
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON VILLAGE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE VILLAGE.
- BARRICADES: THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SAND BAGS ON EACH TYPE I OR TYPE II BARRICADE USED. (ONE (1) WEIGHTED SAND BAG ACROSS EACH BOTTOM RAIL).
- ALL STORM SEWERS FOR THIS PROJECT SHALL BE FURNISHED AND INSTALLED WITH RUBBER GASKETS IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR STORM SEWERS AS SPECIFIED.
- THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4150 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK. THE CONTRACTOR SHALL ALSO CONTACT ROBINSON ENGINEERING (708) 331-6700 AND THE VILLAGE OF GLENWOOD (708) 753-2400, A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- ALL BITUMINOUS PAVING SHALL FOLLOW DESIGNATED DRIVING LANES AS SHOWN IN STRIPING DETAILS. NO LONGITUDINAL PAVING JOINT OR SEAMS ARE ALLOWED WITHIN THE DRIVING LANES. ALL LONGITUDINAL PAVING JOINTS OR SEAMS WILL BE BETWEEN THE DRIVING LANES.
- POROUS GRANULAR EMBANKMENT (PGE) SUBGRADE HAS BEEN PROVIDED FOR LOCATIONS WHERE SOILS TEND TO BE UNSTABLE WHEN WET. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH PGE WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE ENGINEER (BY USE OF A CONE PENETROMETER IN CONJUNCTION WITH THE IDOT SUBGRADE STABILITY MANUAL). IF UNSTABLE AND/OR UNSUITABLE MATERIALS ARE NOT ENCOUNTERED, THEN THE QUANTITY SHALL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR.
- ALL PAVEMENT, CURB AND SIDEWALK REMOVALS SHALL BE MADE BY MEANS OF STRAIGHT SAW CUT JOINT. THE COST FOR SAW CUTTING SHALL BE INCIDENTAL TO THE CONTRACT.
- CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES FOR TRAFFIC CONTROL AND PROTECTION IN ACCORDANCE WITH THE IDOT STANDARD SPECIFICATIONS ADOPTED JANUARY 1, 2007, THE LATEST EDITION OF THE ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AND THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS.
- THE CONTRACTOR SHALL MAKE EVERY ATTEMPT NOT TO DAMAGE EXISTING TREES.
- 10' TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER TO EXISTING CURB AND GUTTER OR TO TAPER FROM 6" TO 0", UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEM OF WORK SPECIFIED.
- ALL STORM SEWERS, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE STATE SPECIFICATIONS FOR REINFORCED CONCRETE CULVERT, STORM DRAIN AND SEWER PIPE A.A.S.H.T.O. DESIGNATION M170 (A.S.T.M. DESIGNATION C76), WITH A MINIMUM OF CLASS III.
- THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS THROUGHOUT THE RECONSTRUCTION LIMITS AT ALL TIMES. IF DRIVEWAY ACCESS MUST BE RESTRICTED, THE CONTRACTOR SHALL NOTIFY THE RESIDENT IN WRITING 24 HOURS IN ADVANCE.
- HOT MIX ASPHALT HAS BEEN CALCULATED ON THE BASIS OF 112 LB PER INCH THICKNESS PER SQUARE YARD.
- DETECTABLE WARNINGS SHALL BE INSTALLED PER HIGHWAY STANDARD 424001 AT ALL STREET CROSSINGS. WHERE SIDEWALK IS REPLACED.
- TEMPORARY FENCE SHOULD BE ERECTED ALONG THE DRIPLINE OF EXISTING TREES TO REMAIN WITHIN THE LIMITS OF CONSTRUCTION. AFTER TREES ARE SAFELY FENCED NOTHING IS TO BE STORED, DRIVEN, OR DISTURBED INSIDE THE FENCE. REMOVE PROTECTIVE TEMPORARY FENCE ONLY AFTER ALL CONSTRUCTION WORK HAS BEEN COMPLETED.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION OF EXISTING PLANT MATERIAL FOR WHICH THE CONTRACT DOES NOT PROVIDE REMOVAL. THE PROTECTION OF EXISTING PLANT MATERIAL AND THE REPAIR OR REPLACEMENT OF EXISTING PLANT MATERIAL DAMAGED BY THE CONTRACTOR SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 201 OF THE STANDARD SPECIFICATIONS.
- TREE ROOT PRUNING IS TO BE USED ON EXISTING TREES TO PREVENT THE RIPPING UP OF ROOTS WHEN TRENCHING OR EXCAVATION IS WITHIN THE ROOT ZONE OF ADJACENT TREES TO REMAIN. SUPPLEMENTAL WATERING OF TREES SHOULD BEGIN IMMEDIATELY AFTER ROOT PRUNING OF THE TREES HAS OCCURRED.
- EROSION CONTROL WORK ITEMS ARE CONSIDERED TO BE HIGH PRIORITY ITEMS ON THIS CONTRACT. THE ENGINEER WILL IMPLEMENT ALL PROVISIONS OF THE SPECIFICATION NECESSARY TO ASSURE THAT EROSION CONTROL ITEMS ARE CONSTRUCTED AND MAINTAINED IN A TIMELY WAY. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES WHICH WILL POTENTIALLY CREATE ERODABLE CONDITIONS.
- ALL WORK TO CONFORM TO THE NATIONAL ELECTRICAL CODE AND ANY APPLICABLE LOCAL CODES.
- CONTRACTOR TO VERIFY LOCATION OF ALL UNDERGROUND UTILITIES BEFORE TRENCHING OR AUGERING.
- BEFORE INSTALLING STANDARDS NEAR OVERHEAD FACILITIES CALL C.E. Co. FOR APPROVAL OF LOCATION.
- FOR LOCATION OF EXISTING UNDERGROUND ELECTRICAL CABLE CALL C.E. Co.
- SIZE ALL CONDUIT AS SPECIFIED ON DRAWINGS.
- CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO RESTORE ANY SPECIALIZED LANDSCAPING, (I.E. DECORATIVE ROCKS, SHRUBS, PLANTS, ECT.) OR SHALL REPLACE IT, THE COST OF WHICH SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

\* - INDICATES SPECIALTY ITEMS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

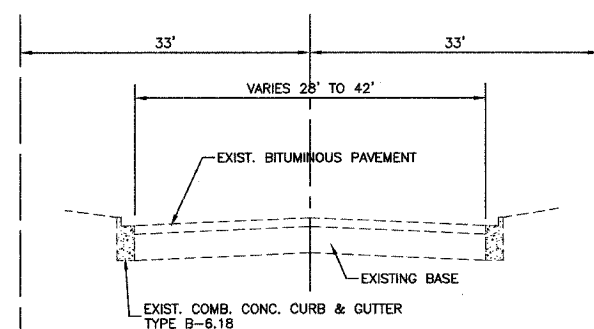
MAIN STREET  
STREET RESURFACING  
SUMMARY OF QUANTITIES  
AND GENERAL NOTES

SCALE: VERT. NA  
HORIZ. NA  
DATE 02/23/07  
DRAWN BY RG  
CHECKED BY ET

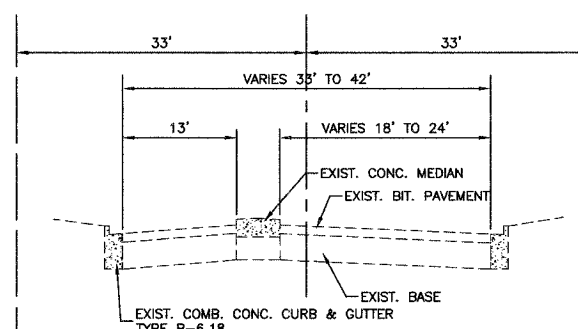
ROBINSON ENGINEERING, LTD.  
1700 SOUTH PARK AVENUE, SUITE 100, HOLLAND, ILLINOIS 60143  
(708) 381-6700 FAX (708) 381-3828  
ILLINOIS DESIGN FIRM REGISTRATION NO. 154601130

F. A. IL. SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3603	03-00048-00-RS	COOK	16	3
STA.		TO STA.		
FED. ROAD DIST. NO.	BLADES	FED. AID PROJECT		

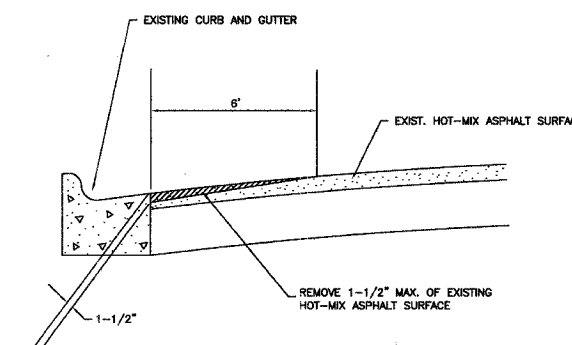
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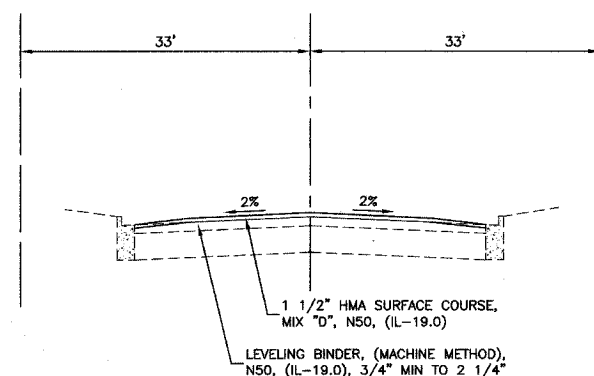
**EXISTING TYPICAL CROSS SECTION**  
(STA. 0+00 TO STA. 12+80± AND STA. 16+11 TO STA. 17+31)



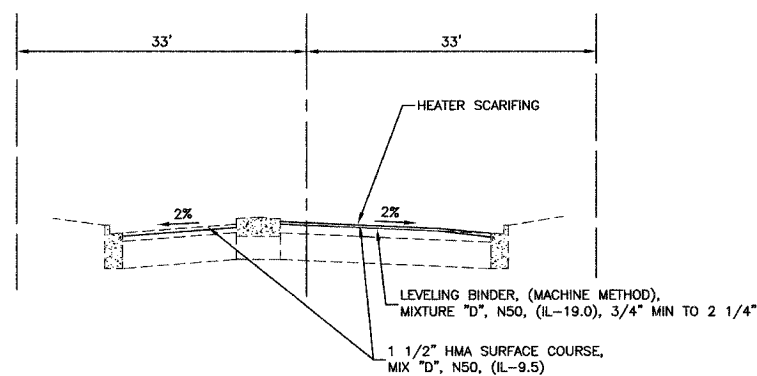
**EXISTING TYPICAL CROSS SECTION**  
(STA. 12+80± TO STA. 16+11±)



**EDGE GRINDING DETAIL**



**PROPOSED TYPICAL CROSS SECTION**  
(STA. 0+00 TO STA. 12+80± AND STA. 16+11 TO STA. 17+31)



**PROPOSED TYPICAL CROSS SECTION**  
(STA. 12+80± TO STA. 16+11±)

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
ITEM	AC TYPE	VOCS
HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50 (L-9.5 mm), 1 1/2"	PG 64-22	4% @ 50 GYR
LEVELING BINDER (MACHINE METHOD), N50 (L-19 mm), 3/4" min to 2 1/4"	PG 64-22/58-22	4% @ 50 GYR
DRIVEWAYS		
HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50 (L-9.5 mm), 1 1/2"	PG 64-22	4% @ 50 GYR
HOT-MIX ASPHALT BINDER COURSE (L-19mm), 6"	PG 64-22	4% @ 50 GYR
PATCHING		
CLASS D PATCHES, TYPE I, II, III, 7" (HMA BINDER L-19 mm)	PG 64-22/58-22	4% @ 70 GYR

NOTE:  
1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SY/IN.  
2. WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22.

REVISIONS	
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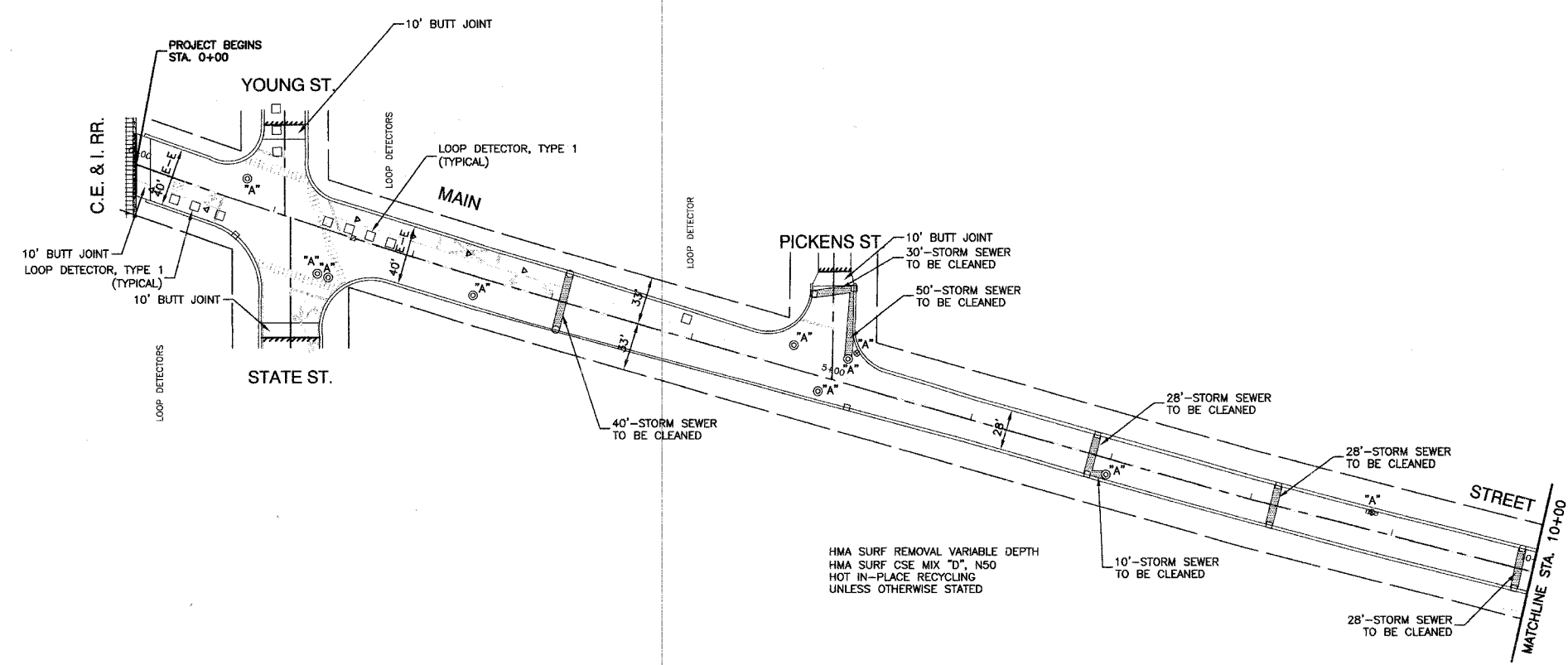
ILLINOIS DEPARTMENT OF TRANSPORTATION

**MAIN STREET  
STREET RESURFACING  
TYPICAL CROSS SECTIONS**

SCALE: VERT. NA  
HORIZ. NA  
DATE 02/23/07  
DRAWN BY RG  
CHECKED BY ET

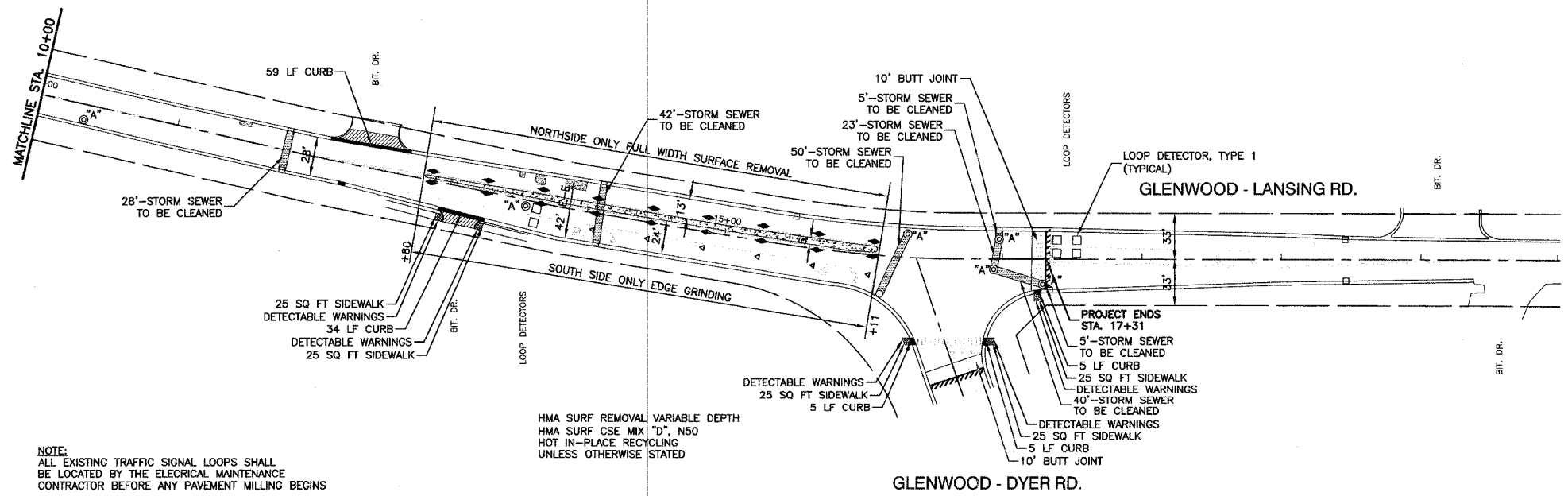
F. A. L. SHEET	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3603	03-00048-00-RS	COOK	16	4
STA. 0+00	TO STA. 17+31			
FED. ROAD DIST. NO.	ALABAMA	FED. AID PROJECT		

CONTRACT NO. 83916



**LEGEND:**

- ⊙ "A" MANHOLE TO BE ADJUSTED
- ⊗ "A" VALVE BOX TO BE ADJUSTED
- ▨ LIMITS OF RESURFACING
- ▩ CLASS D PATCH
- ▧ SIDEWALK REMOVAL AND REPLACEMENT
- ▨ BITUMINOUS DRIVEWAY REMOVAL AND REPLACEMENT
- ▬ CURB AND GUTTER REMOVAL AND REPLACEMENT
- ▭ STORM SEWER TO BE CLEANED



NOTE:  
ALL EXISTING TRAFFIC SIGNAL LOOPS SHALL BE LOCATED BY THE ELECTRICAL MAINTENANCE CONTRACTOR BEFORE ANY PAVEMENT MILLING BEGINS

HMA SURF REMOVAL VARIABLE DEPTH  
HMA SURF CSE MIX "D", N50  
HOT IN-PLACE RECYCLING  
UNLESS OTHERWISE STATED

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

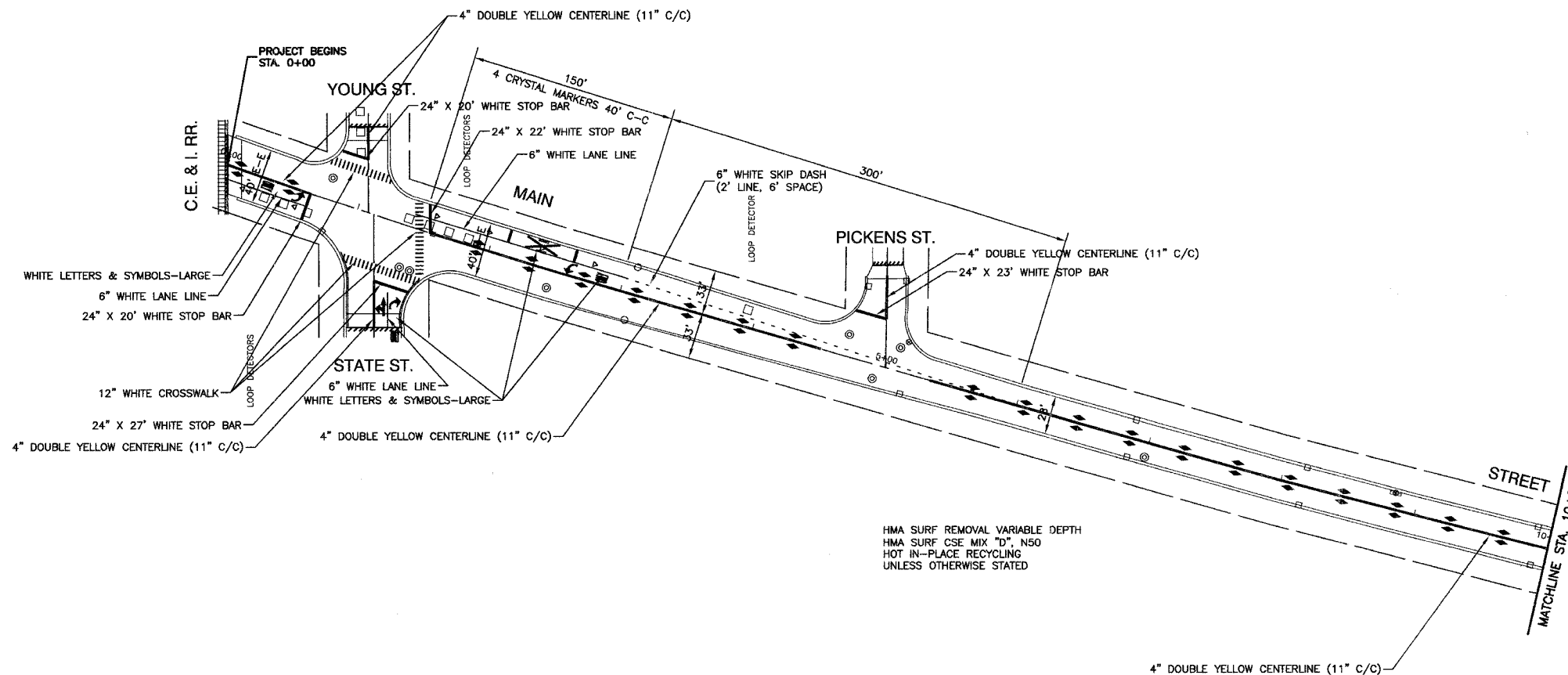
**MAIN STREET  
STREET RESURFACING  
PLAN SHEET**

SCALE: VERT. NA  
HORIZ. 1"=50'  
DATE 02/23/07

DRAWN BY RG  
CHECKED BY ET

F. A. U. SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3603	03-00048-00-RS	COOK	16	5
STA. 0+00	TO STA. 17+31			
FED. ROAD DIST. NO.	ALIGNED	FED. AID PROJECT		

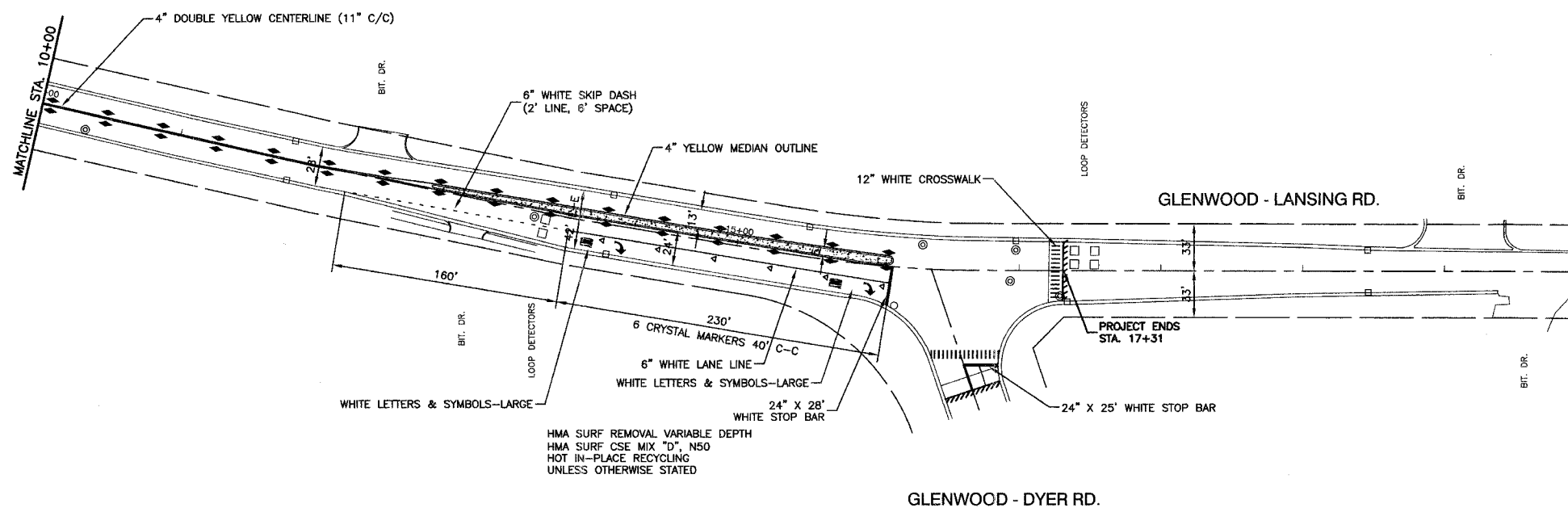
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**PAVEMENT MARKING LEGEND**

- ◁ ONE-WAY CRYSTAL MARKER  
40' C/C UNLESS OTHERWISE NOTED.
- ◆ TWO-WAY AMBER MARKERS  
40' C/C UNLESS OTHERWISE NOTED.

\*NOTE: ALL PAVEMENT MARKING TO BE THERMOPLASTIC



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**MAIN STREET  
STREET RESURFACING  
STRIPING PLAN**

SCALE: VERT. NA  
HORIZ. 1"=50'  
DATE 02/23/07

DRAWN BY RG  
CHECKED BY ET

**ROBINSON ENGINEERING, LTD.**  
1700 SOUTH PARK AVENUE, SOUTH HAVEN, ILLINOIS 62586  
(708) 337-8700 FAX (708) 337-3828  
ILLINOIS DESIGN FIRM REGISTRATION NO. 154801100

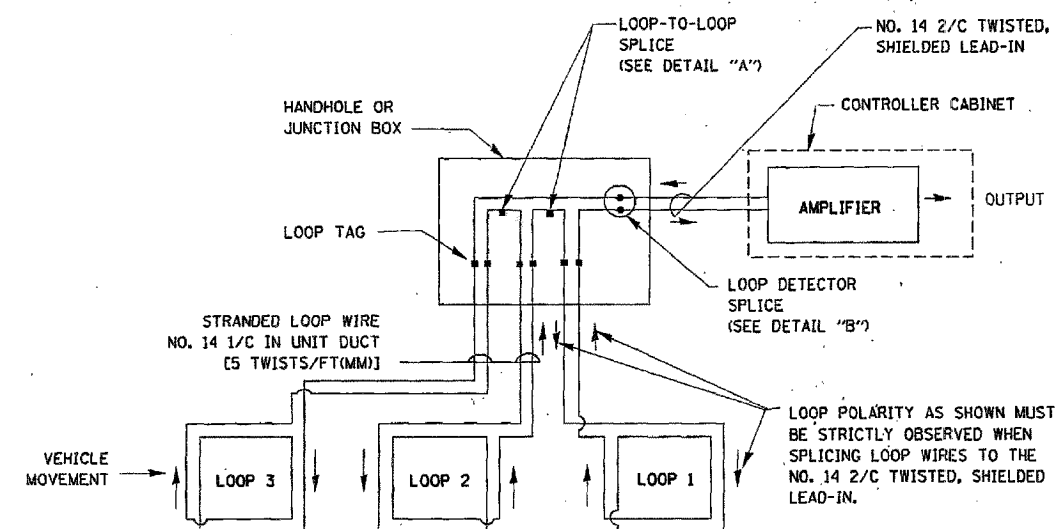
02527-PLAN-01

F. A. S. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3603	03-00048-00-RS	COOK	16	6
STA.	TO STA.			
FED. ROAD DIST. NO.	LLWODE	FED. AID PROJECT		

CONTRACT NO. 83916

**LOOP DETECTOR NOTES**

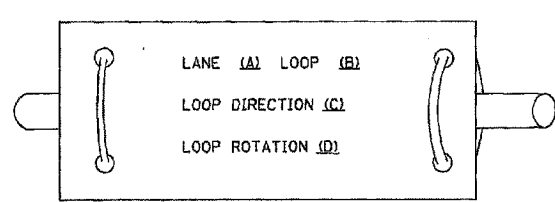
1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED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



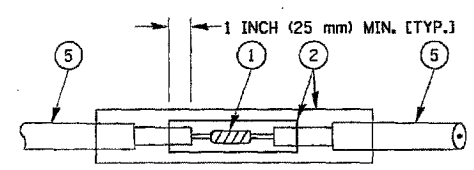
**DETECTOR LOOP WIRING SCHEMATIC**

- 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.

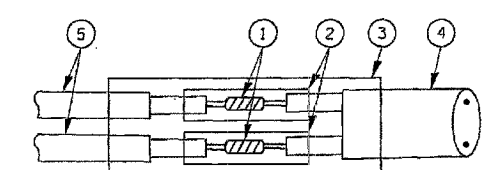
**LOOP LEAD-IN CABLE TAG**



- 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**

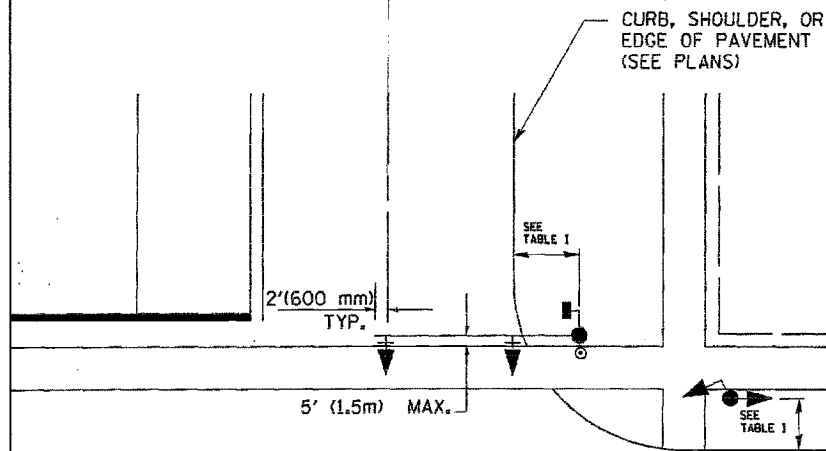
SCALE: VERT. NONE  
HORIZ. NONE  
DATE 1-01-02  
DRAWN BY: RWP  
DESIGNED BY: DAD  
CHECKED BY: OAZ  
SHEET 1 OF 4

F. A. U. SHEET	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3603	03-00048-00-RS	COOK	16	7
STA.		TO STA.		
FED. ROAD DIST. NO.	CLASS	FED. AID PROJECT		

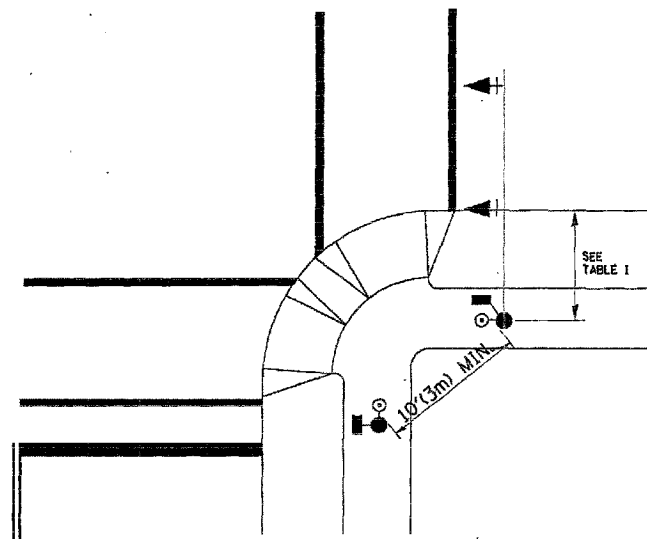
CONTRACT NO. 83916

**TRAFFIC SIGNAL MAST ARM AND POST**

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA, INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



**PEDESTRIAN SIGNAL PUSHBUTTON**



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

**NOTES:**

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.  
  
AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.  
  
PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:  
 A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.  
 B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.  
 C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.  
 D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).  
 E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

**PEDESTRIAN SIGNAL POST**

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

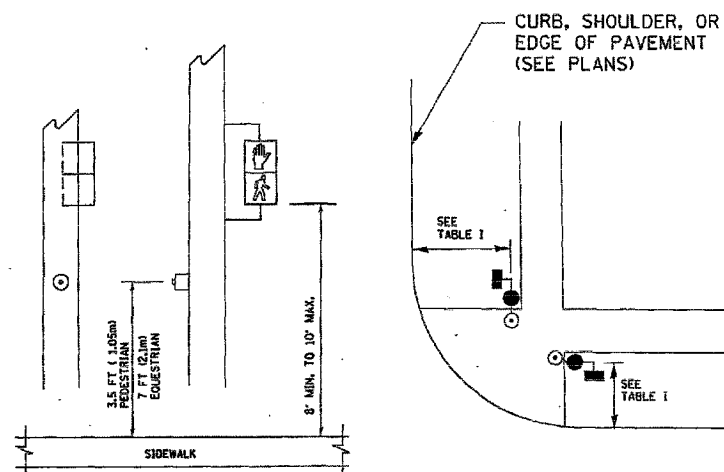


TABLE I

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
  
DISTRICT 1  
STANDARD TRAFFIC SIGNAL  
DESIGN DETAILS

SCALE: VERT. NONE  
HORIZ. NONE  
DATE 1-01-02  
  
DRAWN BY: RWP  
DESIGNED BY: DAD  
CHECKED BY: DAZ  
SHEET 2 OF 4

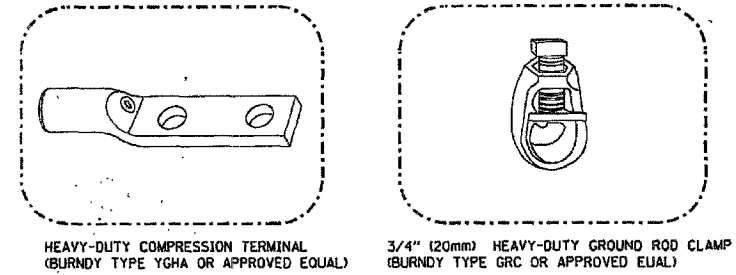
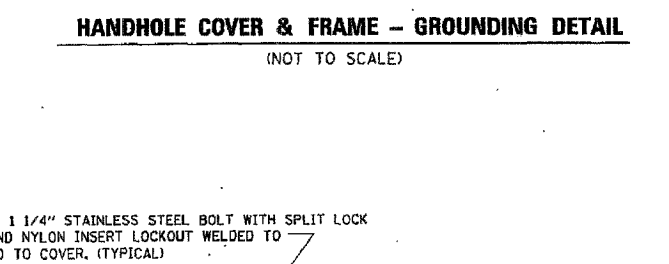
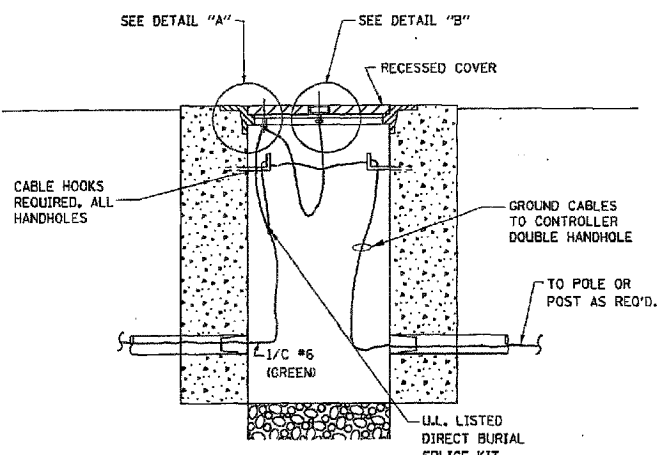
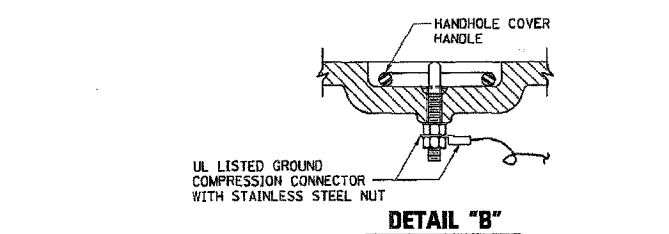
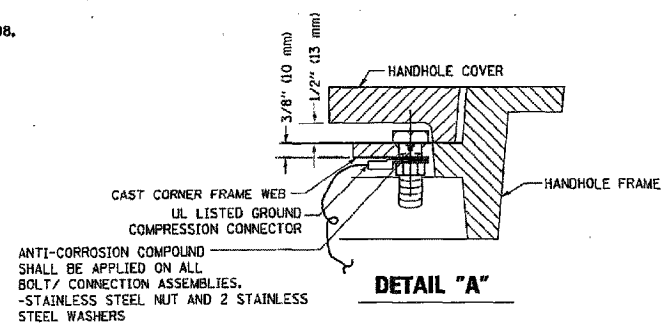
F. A. D. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3603	03-00048-00-RS	COOK	16	8
STA.	TO STA.			
FED. ROAD DIST. NO.	ALWAYS	FED. AID PROJECT		

CONTRACT NO. 83916

**NOTES:**

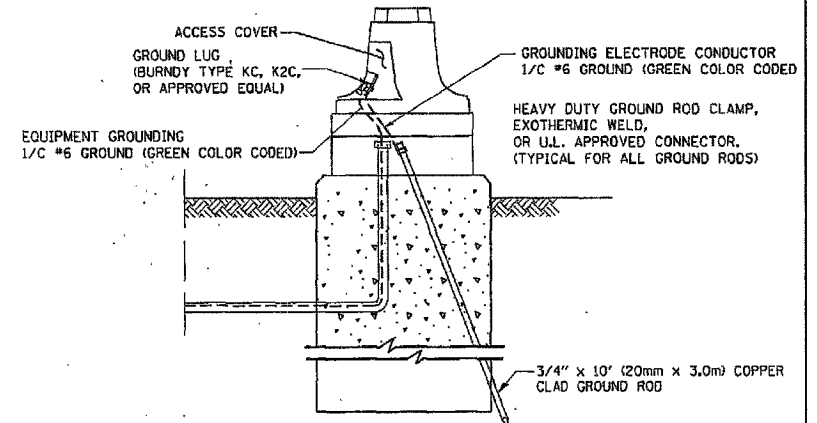
**GROUNDING SYSTEM**

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



**NOTES:**

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES. 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES. 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



**MAST ARM POLE / POST-GROUNDING DETAIL**

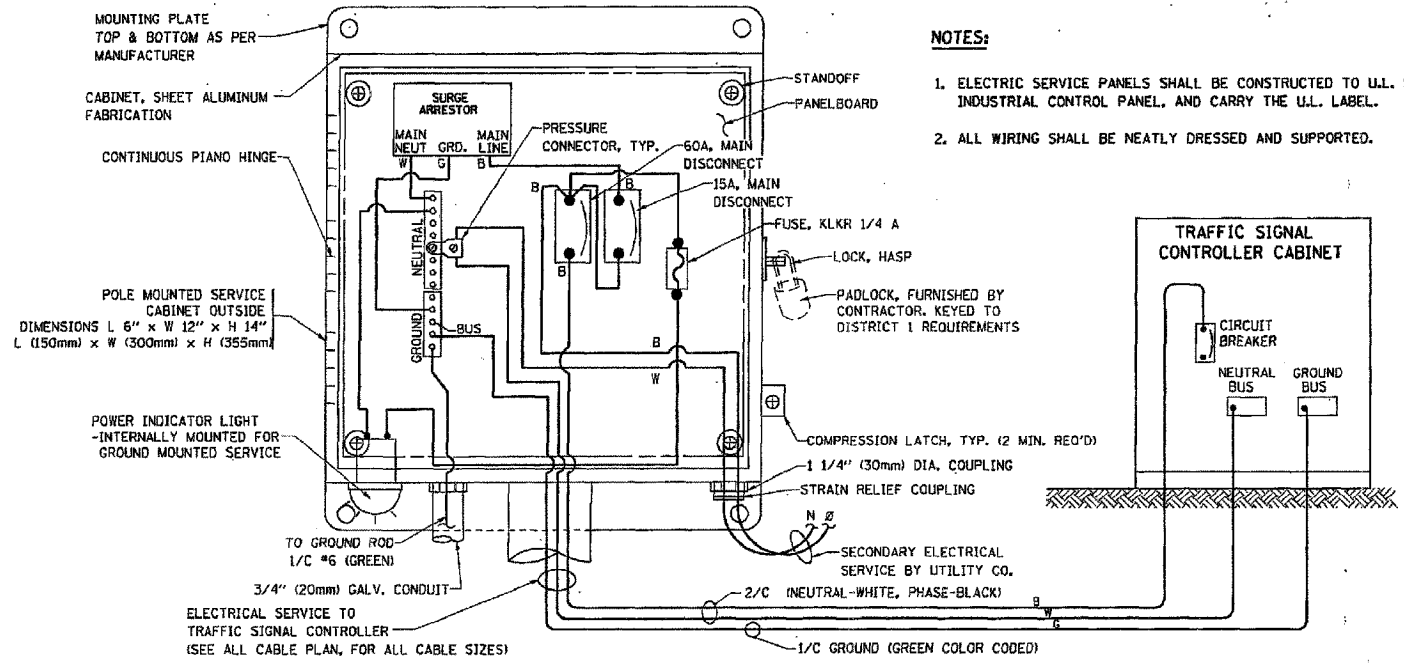
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT 1  
STANDARD TRAFFIC SIGNAL  
DESIGN DETAILS

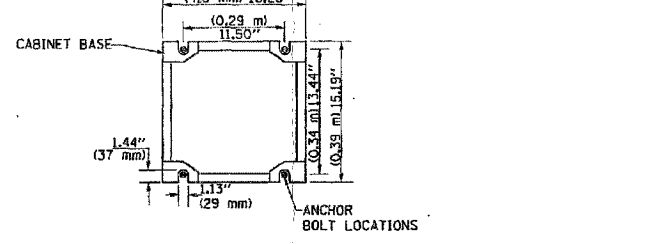
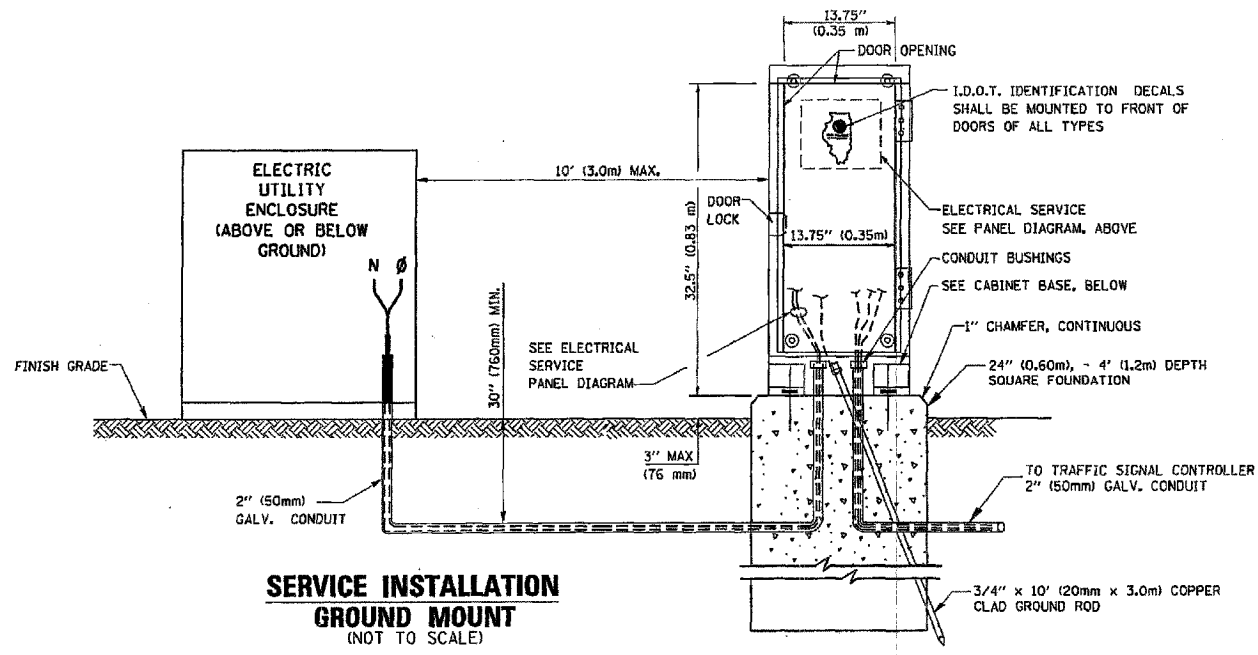
SCALE: VERT. NONE  
HORIZ. 1-1/2"  
DATE: 1-01-02  
DRAWN BY: RWP  
DESIGNED BY: DAD  
CHECKED BY: DAZ  
SHEET 3 OF 4

**NOTES:**

1. ELECTRICAL SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.



**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)  
SERVICE INSTALLATION POLE MOUNT (SHOWN)  
(NOT TO SCALE)**



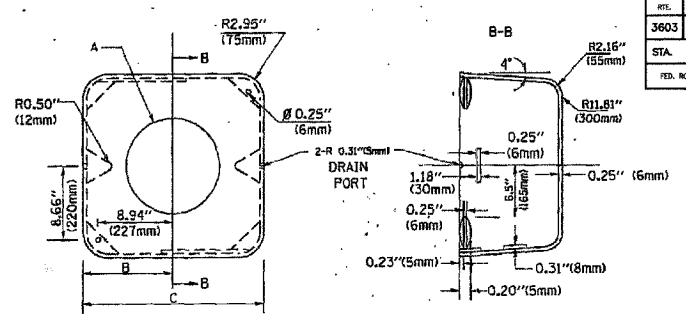
**CABINET - BASE BOLT PATTERN**



F. A. L. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3603	03-00048-00-RS	COOK	16	9
STA.	TO STA.			
FED. ROAD DIST. NO.	CLASS	FED. AID PROJECT		

CONTRACT NO. 83916

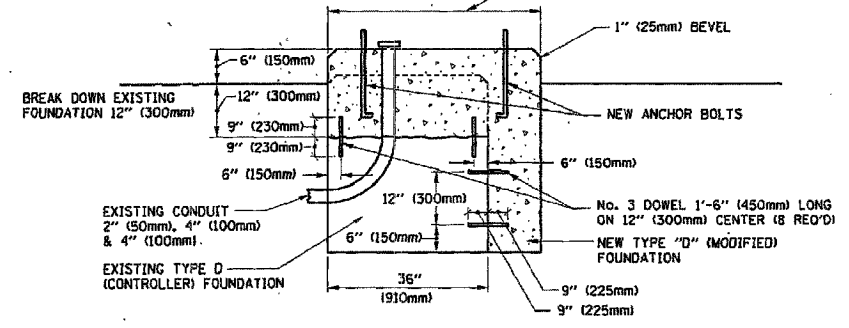
MATERIAL:  
 - ASTM A48 CLASS 30 GREY IRON  
 - ASTM A123 HOT DIPPED GALVANIZED



TYPE	A	B	C	HEIGHT	WEIGHT
I	Ø 10.125" (257mm)	9.5" (241mm)	19" (483mm)	12" (300mm)	24kg
II	Ø 11.125" (283mm)	10.75" (273mm)	21.5" (546mm)	12" (300mm)	26kg

SHROUD DETAIL

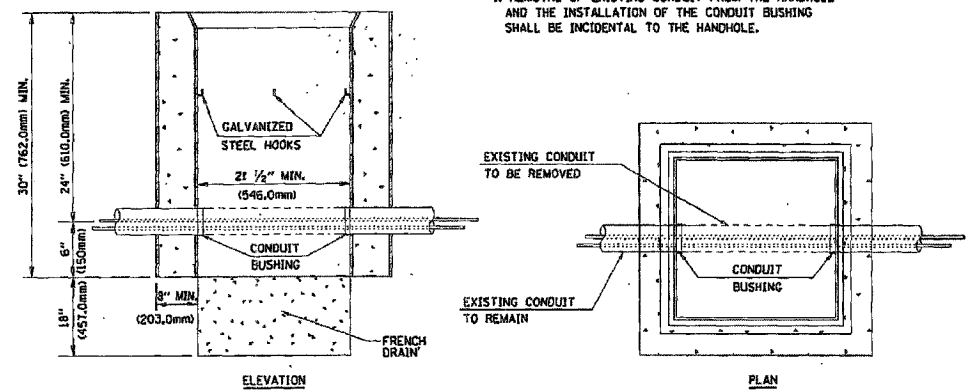
NOTE:  
 SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



MODIFY EXISTING TYPE "D" FOUNDATION

(NOT TO SCALE)

NOTES:  
 1. REMOVAL OF EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHING SHALL BE INCIDENTAL TO THE HANDHOLE.



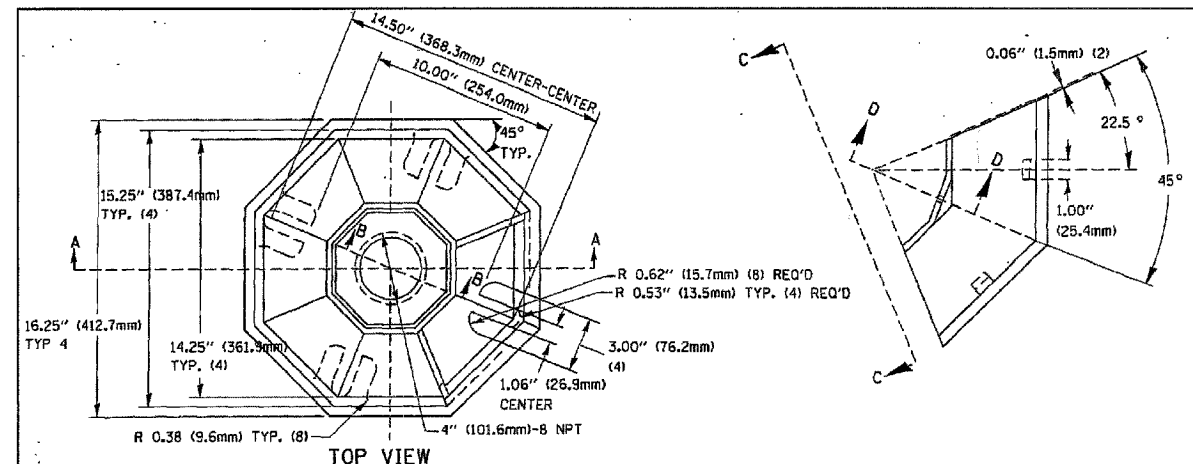
DETAIL HANDHOLE TO INTERCEPT EXISTING CONDUIT N.T.S.

REVISIONS	
NAME	DATE

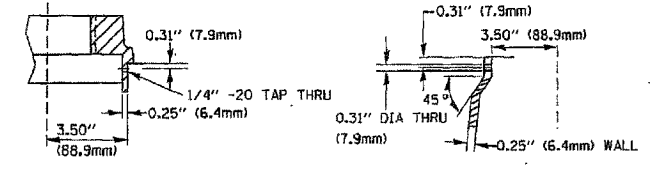
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DISTRICT 1  
 STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: VERT. NONE  
 HORIZ. DATE 1-01-02  
 DRAWN BY: RWP  
 DESIGNED BY: DAD  
 CHECKED BY: DAZ  
 SHEET 4 OF 4

TS05

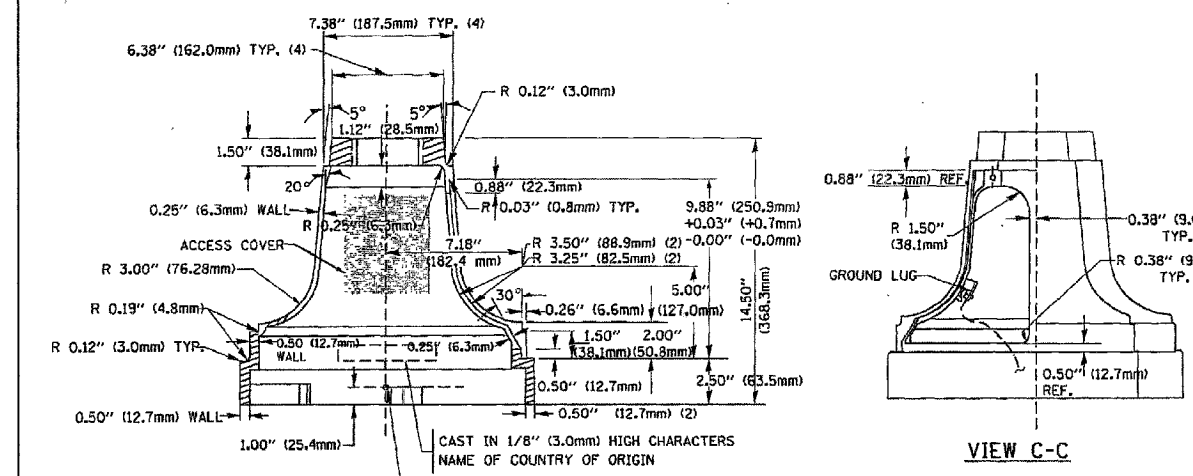


TOP VIEW



SECTION B-B

SECTION D-D



SECTION A-A

VIEW C-C

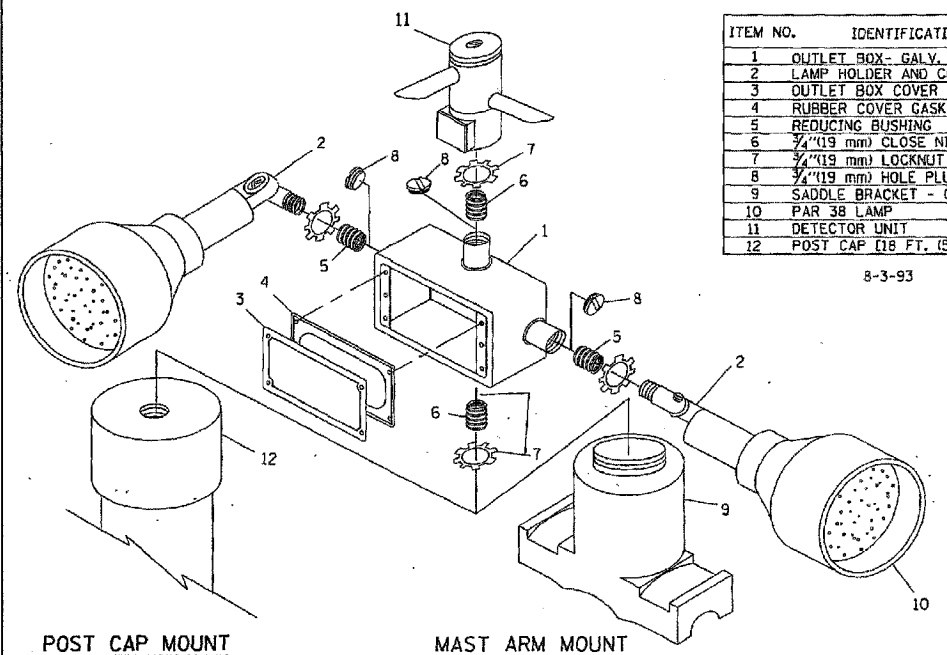
TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A

NOTES:

- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
 ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT  
 ITEM #3- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.

ITEM NO.	IDENTIFICATION
1	OUTLET BOX - GALV. 21 CU. IN. (0.000344 CU.-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4" (19 mm) CLOSE NIPPLE
7	3/4" (19 mm) LOCKNUT
8	3/4" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	PAR 38 LAMP
11	DETECTOR UNIT
12	POST CAP (16 FT. (5.4 m) POST MIN.)

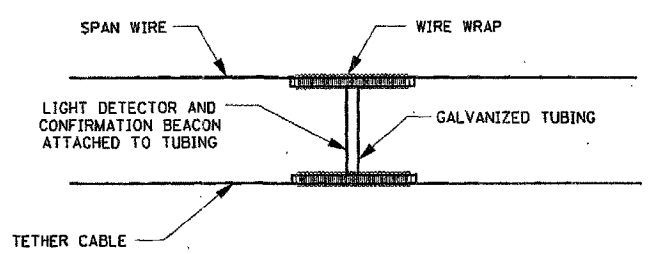
8-3-93



POST CAP MOUNT

MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

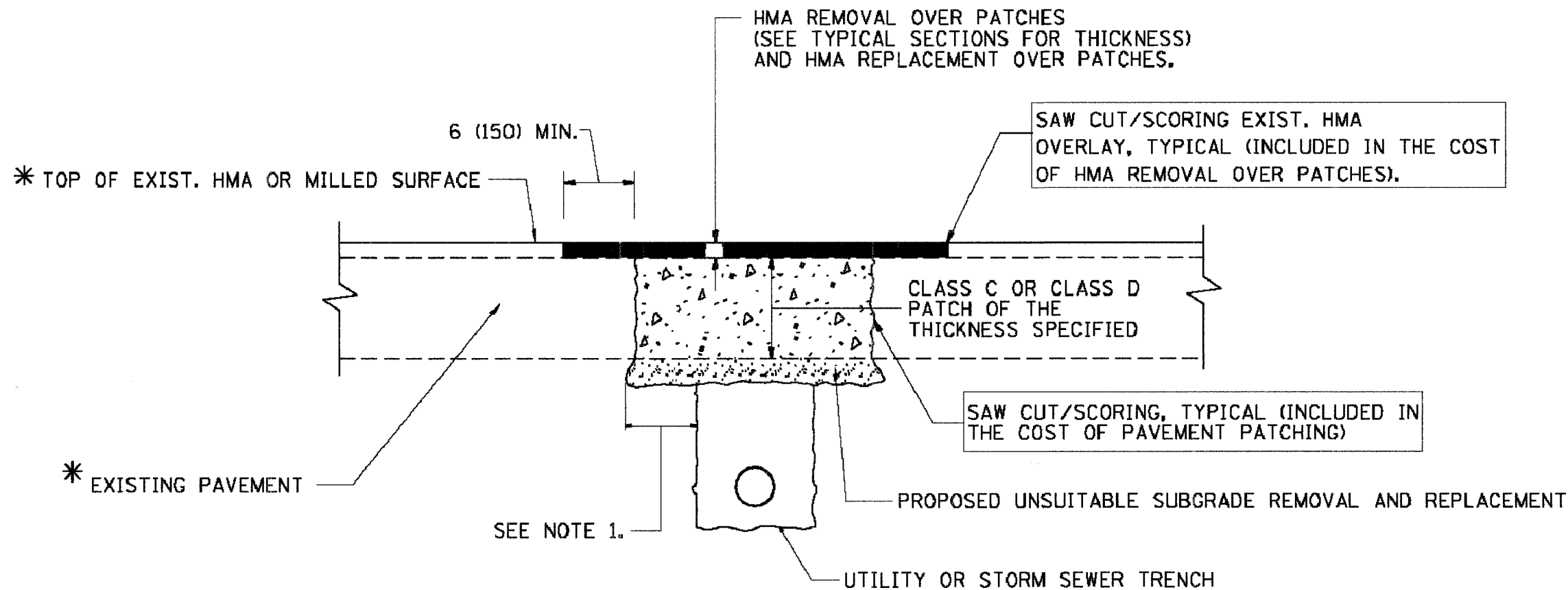


LIGHT DETECTOR AND CONFIRMATION BEACON MOUNTING FOR TEMPORARY TRAFFIC SIGNALS

(NOT TO SCALE)

F. A. D. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3603	03-00048-00-RS	COOK	16	10
STA.	TO STA.			
FED. ROAD DIST. NO.	LANDS	FED. AID PROJECT		

CONTRACT NO. 83916



\* 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**

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

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

REVISIONS	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	04/21/98
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

**PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT**

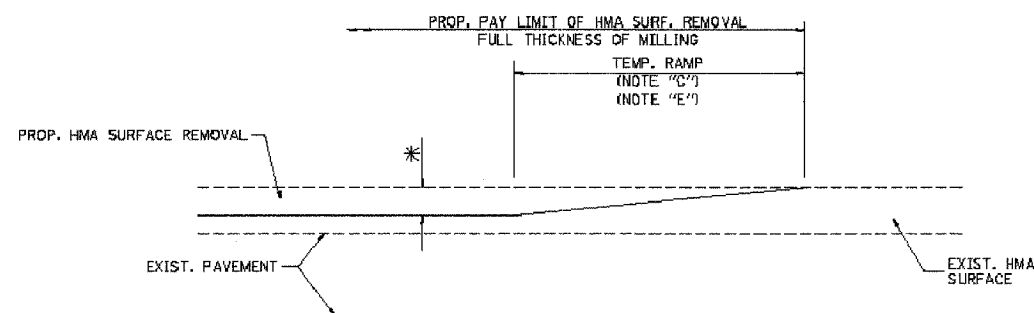
SCALE: VERT. NONE  
HORIZ. 1/16"=1'-0"  
PLOT DATE: 1/15/2007

DRAWN BY  
CHECKED BY

BD-100-04 (BD-22)

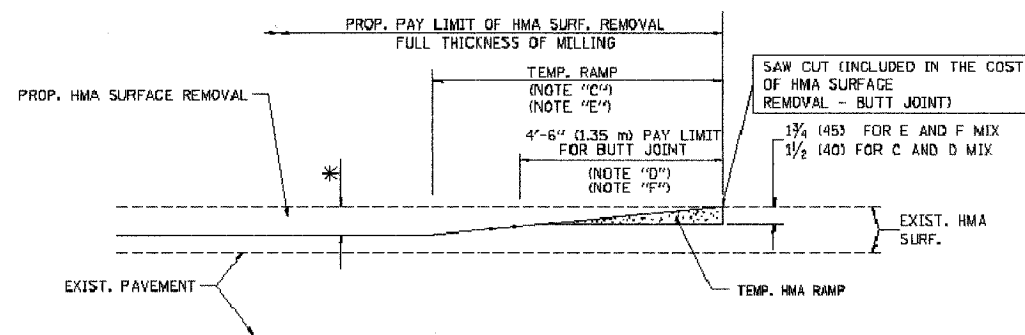
F. A. U. NO.	SECTION	COUNTY	TOTL SHEETS	SHEET NO.
3603	03-00048-00-RS	COOK	16	11
STA.	TO STA.			
FED. ROAD DIST. NO.	CLASS	FED. AID PROJECT		

CONTRACT NO. 83916



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

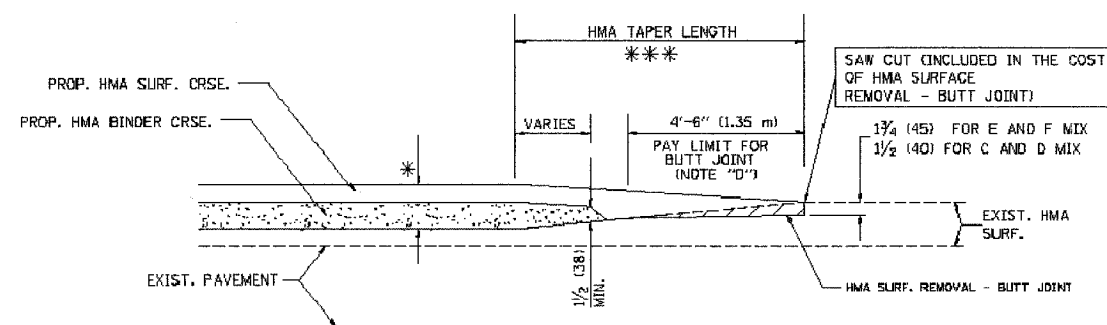
OPTION 1



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

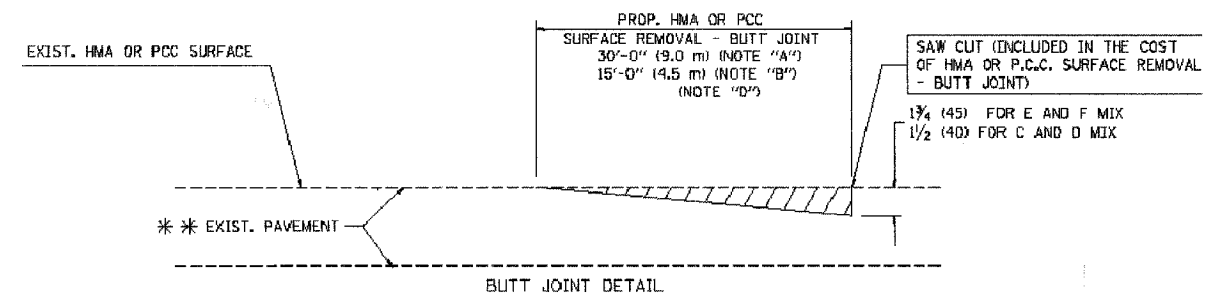
OPTION 2

TYPICAL TEMPORARY RAMP

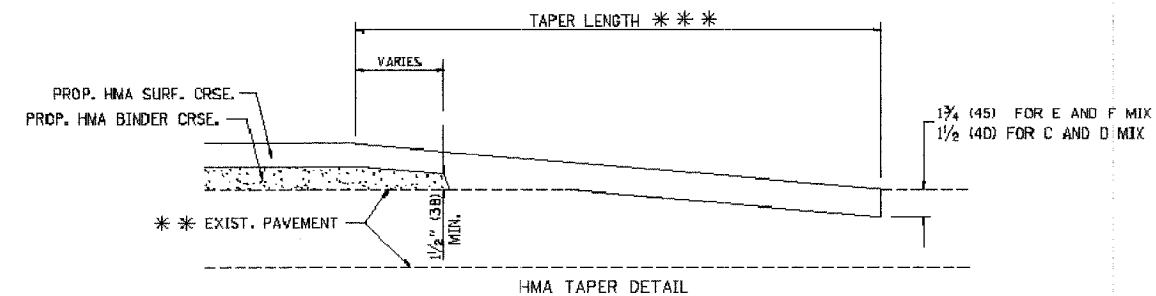


BUTT JOINT AND  
HMA TAPER

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")

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

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".

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
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND  
HMA TAPER  
DETAILS

SCALE: VERT. NONE  
HORIZ. NONE  
PLOT DATE: 10/31/2006

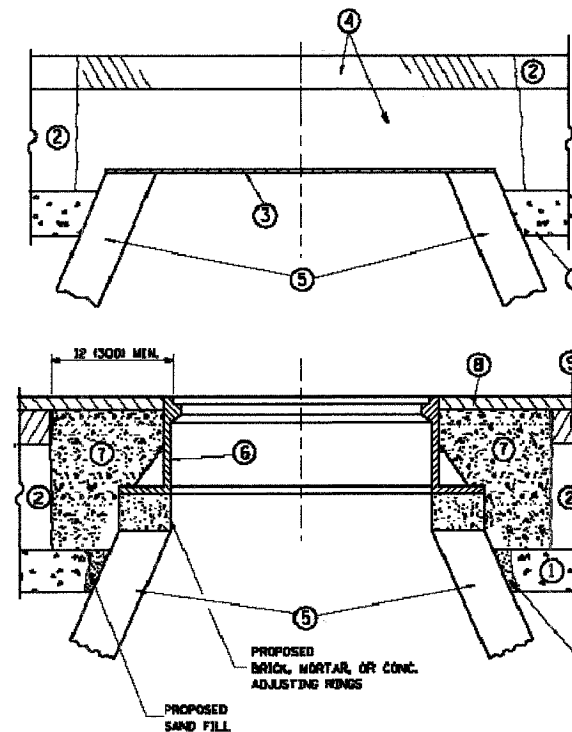
DRAWN BY  
CHECKED BY

0400-05 (VI-80) 1/1

PLOT DATE = 10/31/2006  
PLOT SCALE = 1/8" = 1'-0"

F. A. D. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3603	03-00048-00-RS	COOK	16	12
STA.	TO STA.			
FED. ROAD DIST. NO.	ALIAS	FED. AID PROJECT		

CONTRACT NO. 83916



**CONSTRUCTION PROCEDURES**

**STAGE 1 BEFORE PAVEMENT MILLING**

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

**STAGE 2 (AFTER PAVEMENT MILLING)**

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID, ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS S1 CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

**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 S1 CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- 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:** THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL".  
NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

**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 105.04 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.

**DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING**

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

REVISIONS	DATE
R. SHAH	10/25/94
R. SHAH	01/20/95
R. SHAH	03/10/98
A. ABBAS	03/21/91
R. WIEDEMAN	05/14/04
R. BORD	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING**

SCALE: VERT. NONE  
HORIZ. 1/8"=1'-0"

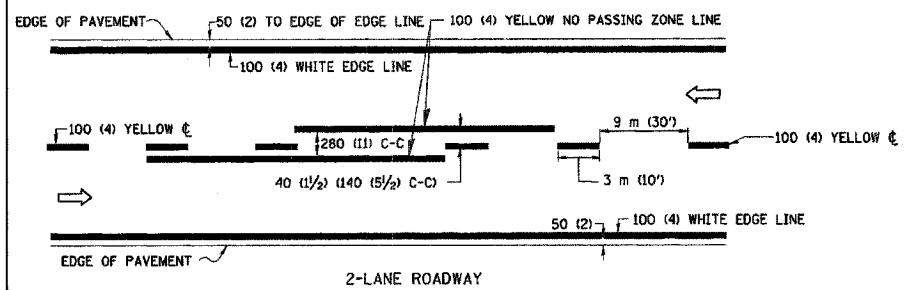
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CHECKED BY

PLOT DATE: 1/19/2007

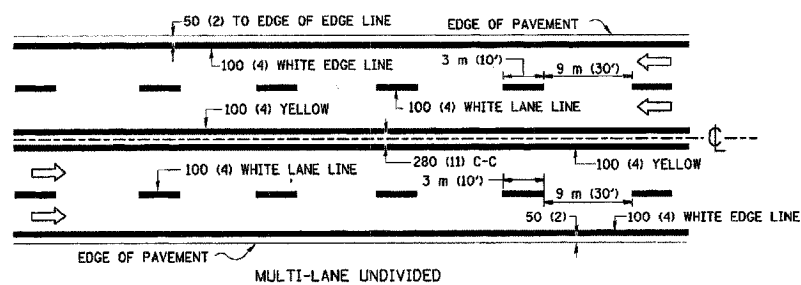
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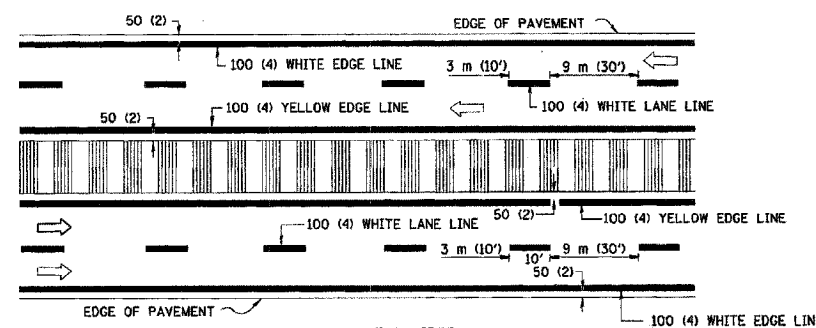
CONTRACT NO. 83916



2-LANE ROADWAY



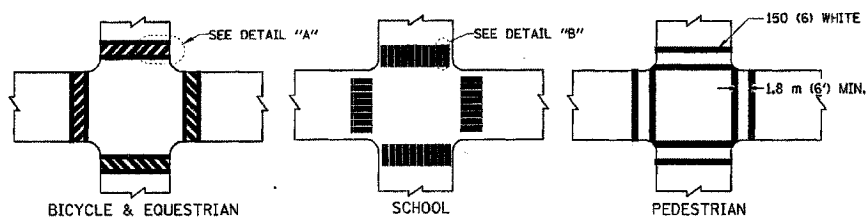
MULTI-LANE UNDIVIDED



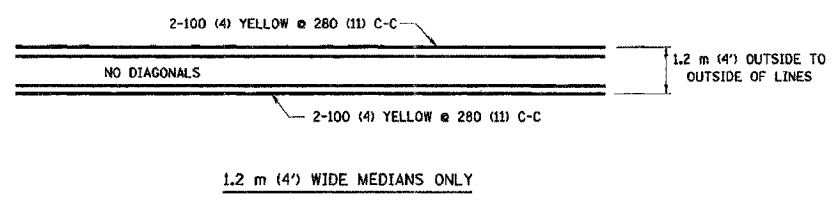
MULTI-LANE DIVIDED WITH MOUNTABLE MEDIAN

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

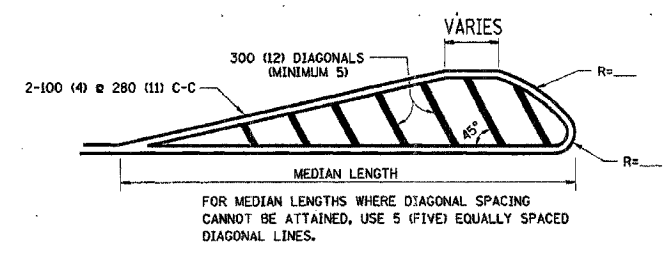
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

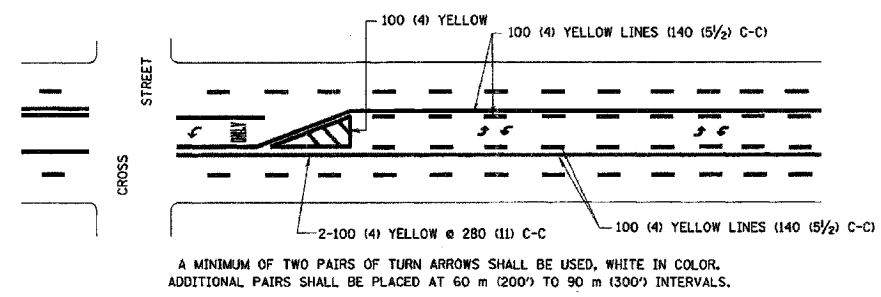


1.2 m (4') WIDE MEDIANS ONLY

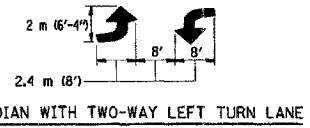


FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.  
 DIAGONAL LINE SPACING: 15 m (50') C-C (LESS THAN 50 km/h (30 MPH))  
 25 m (75') C-C (50 km/h (30 MPH) TO 70 km/h (45 MPH))  
 45 m (150') C-C (MORE THAN 70 km/h (45 MPH))

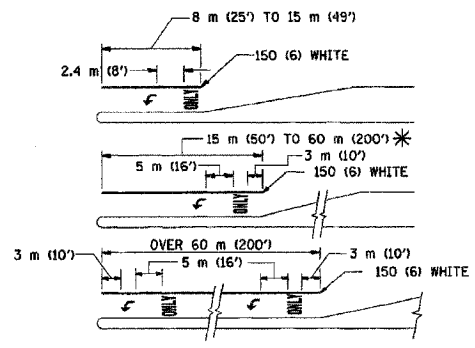
MEDIANS OVER 1.2 m (4') WIDE



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.



TYPICAL PAINTED MEDIAN MARKING

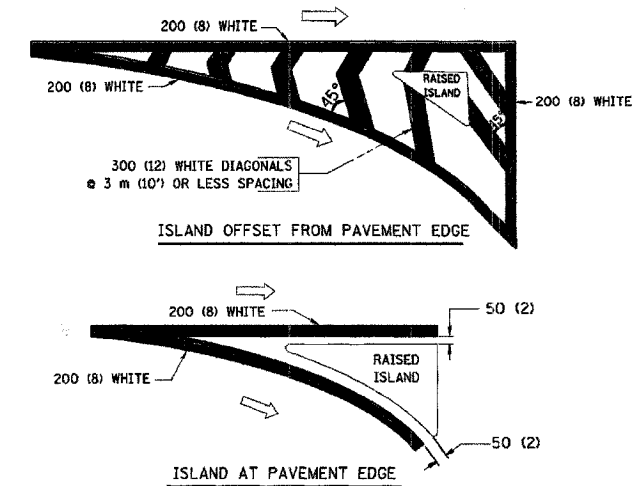


FULL SIZE LETTERS 2.4 m (8') AND ARROWS SHALL BE USED.  
 AREA = 1.5 m<sup>2</sup> (15.6 SQ. FT.) ONLY AREA = 1.9 m<sup>2</sup> (20.8 SQ. FT.)

\* 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



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)	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 <sup>2</sup> (3.6 SQ. FT.) EACH "X"=5.0 m <sup>2</sup> (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.

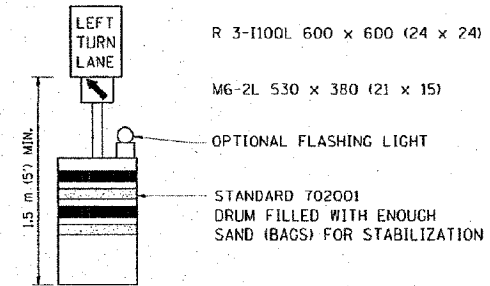
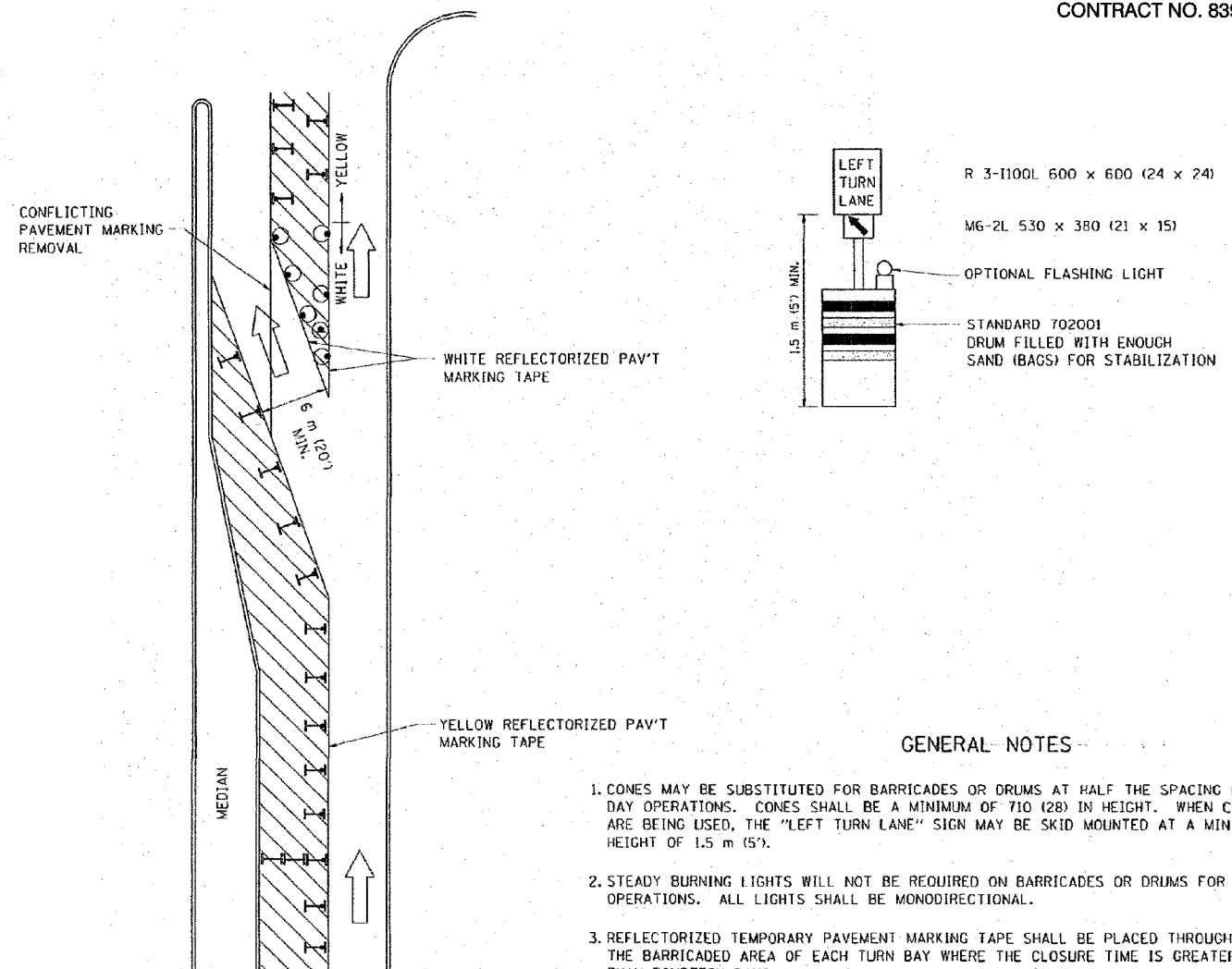
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DISTRICT ONE  
 TYPICAL PAVEMENT MARKINGS

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

SCALE: NONE  
 DATE: 03/26/2003  
 DRAWN BY: CADD  
 CHECKED BY: TC-13

F. A. N. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3603	03-00048-00-RS	COOK	16	15
STA.	TO STA.			
FED. ROAD DIST. NO.	STATE	FED. AID PROJECT		







CONTRACT NO. 83916



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

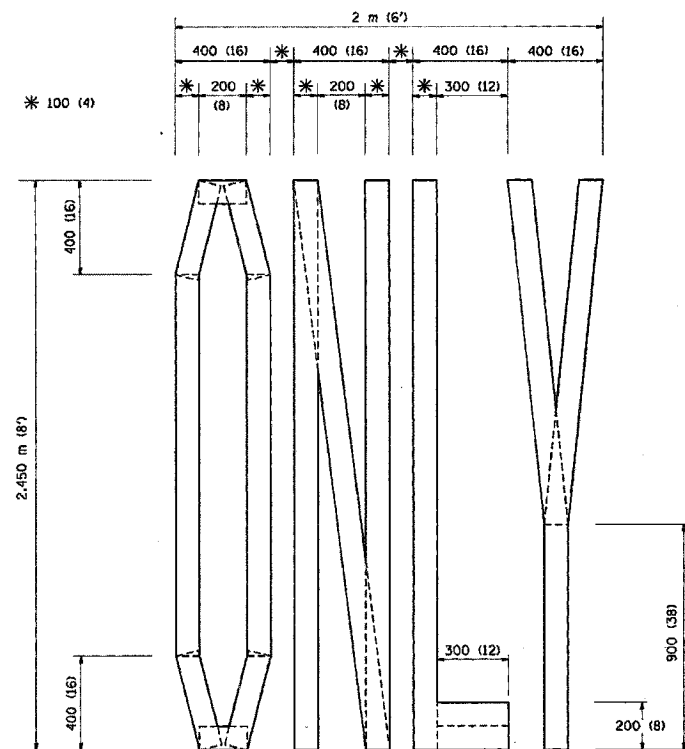
SCALE: NONE  
DATE: 10/18/2002

DRAWN BY  
CHECKED BY LHA  
TC-14

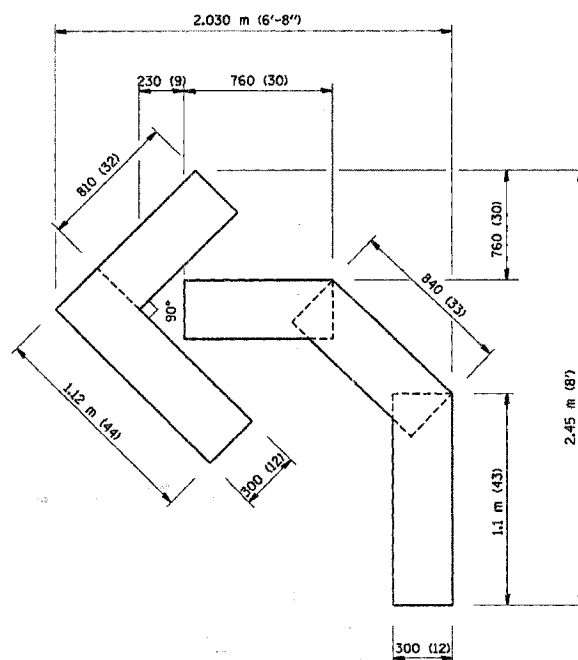
REVISION DATE: 01/06/00

F. A. U. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3603	03-00048-00-RS	COOK	16	16
STA.	TO STA.			
FED. ROAD DIST. NO.	LANDS	FED. AID PROJECT		

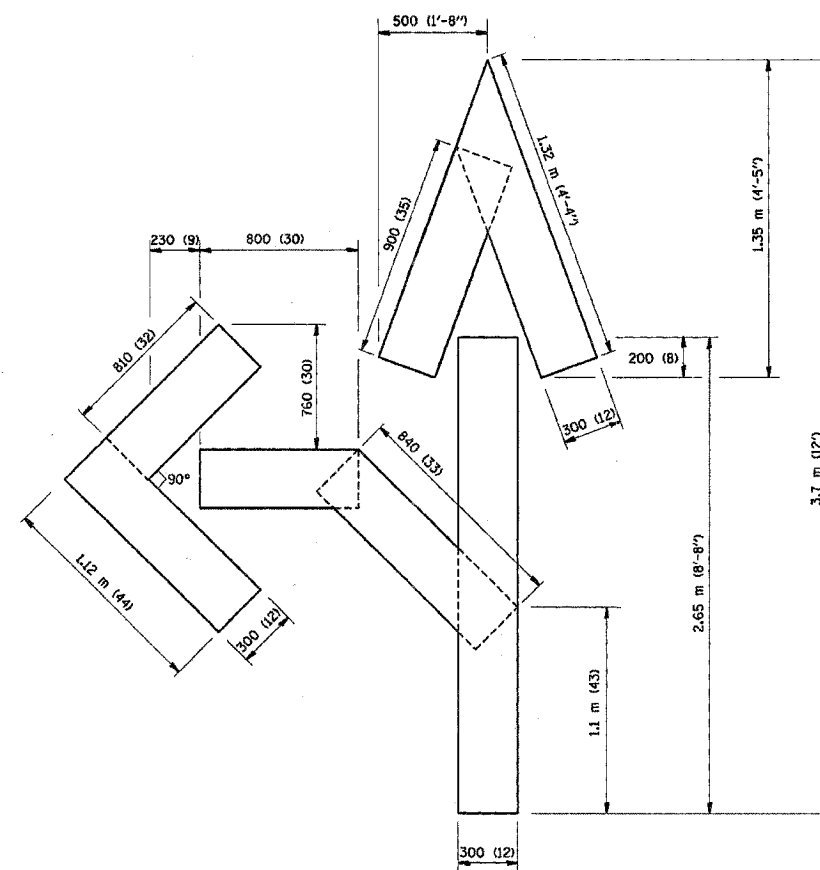
CONTRACT NO. 83916



QUANTITY  
100 (4) LINE = 19.7 m (64.1 ft.)  
1.97 sq. m (21.1 sq. ft.)



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



QUANTITY  
100 (4) LINE = 25.3 m (82.5 ft.)  
2.53 sq. m (27.5 sq. ft.)

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING  
LETTERS AND SYMBOLS  
FOR TRAFFIC STAGING

REVISIONS	
NAME	DATE
T. RAMMACHER	09/18/94
J. OBERLE	06/01/96
T. RAMMACHER	06/05/96
T. RAMMACHER	11/04/97
T. RAMMACHER	03/02/98
E. GOMEZ	08/28/00

SCALE: NONE  
DATE 03/26/2003

DRAWN BY CADD  
CHECKED BY

TC-16

REVISION DATE: 08/28/00