4-28-06 Letting, Item 083

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
339	02-00073-00-SW	COOK	20	1
PROJECT NO. CMF-0339(023)				
CONTRACT NO. 83836				

FOR UNDERGROUND UTILITY LOCATIONS CALL 48 HOURS BEFORE YOU DIG
(EXCLUDING SATURDAY, SUNDAY AND HOLIDAYS)
J.U.L.I.E.
1-800-892-0123
HOFFMAN ESTATES PUBLIC WORKS DEPT.
(847)490-6800

CALL J.U.L.I.E. TOLL FREE 800-892-0123

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID PROJECT

FAP ROUTE 339 ILL RTE 62 (ALGONQUIN ROAD)

WINSTON DRIVE TO ELA ROAD

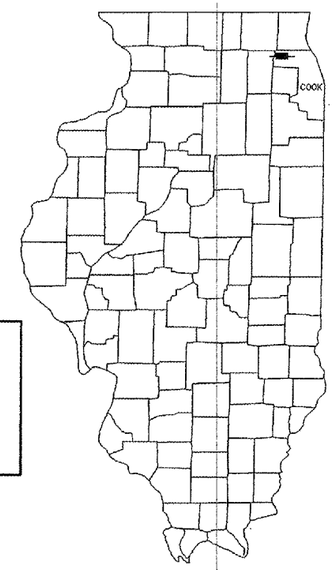
SIDEWALK IMPROVEMENTS

PROJECT NO. CMF-0339(023)
SECTION NO. 02-00073-00-SW
JOB NO. C-91-152-06

VILLAGE OF HOFFMAN ESTATES

COOK COUNTY
PALATINE TOWNSHIP 42, RANGE 10

ALGONQUIN ROAD
ADT = 28,700
SPEED LIMIT: 45 MPH



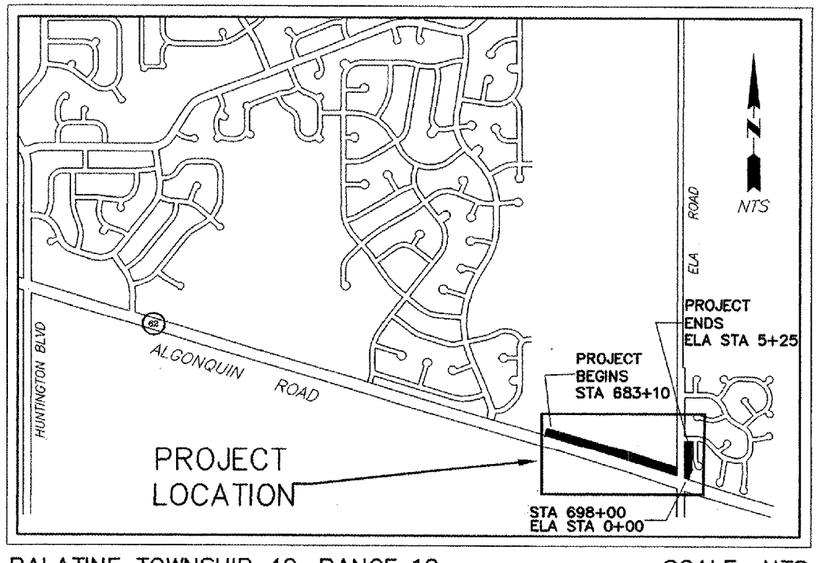
LOCATION OF SECTION INDICATED THUS: ➡

IDOT FEDERAL-AID DESIGN ENGINEER: JESSICA MILLER (847)705-4487
PLANS PREPARED BY: VILLAGE OF HOFFMAN ESTATES (847)882-9100

INDEX OF SHEETS

ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS

000001-04 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
424001-04 CURB RAMPS FOR SIDEWALKS
606001-02 CONCRETE CURB AND COMBINATION CONCRETE CURB & GUTTER
701006-02 OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-01 OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701101-01 OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701301-02 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701606-04 URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-04 URBAN LANE CLOSURE, MULTILANE INTERSECTION
702001-06 TRAFFIC CONTROL DEVICES
814001 CONCRETE HANDHOLES
880006 TRAFFIC SIGNAL MOUNTING DETAILS



PALATINE TOWNSHIP 42, RANGE 10 SCALE: NTS

LOCATION MAP

GROSS LENGTH = 2,040 LIN. FT. (0.386 MILES)
NET LENGTH = 1,880 LIN. FT. (0.356 MILE)

GARY SALAVITCH
062-045889
REGISTERED PROFESSIONAL ENGINEER
OF

GARY SALAVITCH
LIC. NO. 062 – 045889
LIC. EXP. 11-30-06

CONTRACT NO. 83836

APPROVED February 20, 2006
Gary Salavitch
VILLAGE OF HOFFMAN ESTATES

PASSED FEBRUARY 24 2006

BUREAU CHIEF OF LOCAL ROADS AND STREETS

APPROVED Feb. 24 2006

Dione M. O'Keefe/CM
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

(PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS)

SUMMARY OF QUANTITES

CODE NO.	ITEM	UNIT	QUANTITY	CONSTRUCTION TYPE CODE SFTY 1B
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	12	12
20200100	EARTH EXCAVATION	CY	215	215
21101625	TOPSOIL FURNISH AND PLACE, 6"	SY	2140	2140
25000400	NITROGEN FERTILIZER NUTRIENT	LB	40	40
25000500	PHOSPOROUS FERTILIZER NUTRIENT	LB	40	40
25000600	POTASSIUM FERTILIZER NUTRIENT	LB	40	40
25200110	SODDING, SALT TOLERANT	SY	2140	2140
25200200	SUPPLEMENTAL WATERING	UNIT	3	3
35101600	AGGREGATE BASE COURSE, TYPE B 4"	SY	1150	1150
42400200	PORTLAND CEMENT CONCRETE SIDEWALK, 5"	SF	9750	9750
42400800	DETECTABLE WARNINGS	SF	20	20
44000500	COMBINATION CURB AND GUTTER REMOVAL	FT	50	50
44213200	SAW CUTS	FT	65	65
60260100	INLETS TO BE ADJUSTED	EACH	8	8
60605100	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 (ABUTTING EXISTING PAVEMENT)	FT	350	350
67100100	MOBILIZATION	LUMP SUM	1	1
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	LUMP SUM	1	1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LUMP SUM	1	1
* 78000600	THERMOPLASTIC PAVEMENT MARKING LINE, 12"	FT	165	165
* 81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FT	25	25
* 85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	1
* 87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14, 2/C	FT	405	405
* 87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14, 3/C	FT	405	405
* 87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL, 14 FT	EACH	2	2
* 87800100	CONCRETE FOUNDATION, TYPE A	FT	8	8
* 87900200	DRILL EXISTING HANDHOLE	EACH	2	2
* 88800100	PEDESTRIAN PUSH BUTTON	EACH	2	2
* 89502200	MODIFY EXISTING CONTROLLER	EACH	1	1
X2010505	CLEARING, SPECIAL	LUMP SUM	1	1
* X8810610	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED	EACH	6	6
Z0051500	REMOVING AND RESETTING STREET SIGNS	EACH	4	4
Z0077900	WOOD POST AND RAIL FENCE	FT	80	80
XX005314	BITUMINOUS DRIVEWAY REMOVAL	SY	20	20

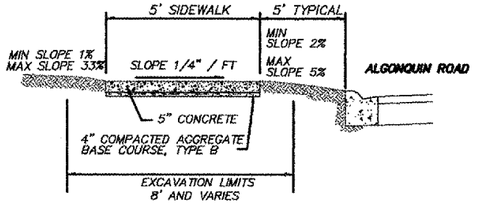
* SPECIALTY ITEMS

ALGONQUIN RD. SIDEWALK IMPROVEMENTS

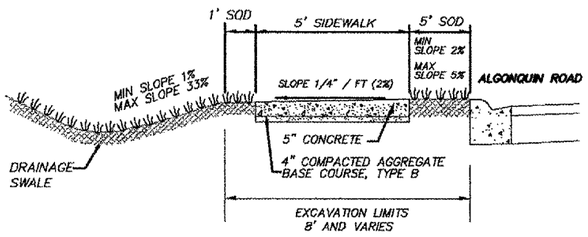
HORIZ. SCALE: NONE	FILE NAME	2 OF 20
	SUMQUANT.DWG	SHEET NO.

SUMMARY OF QUANTITIES

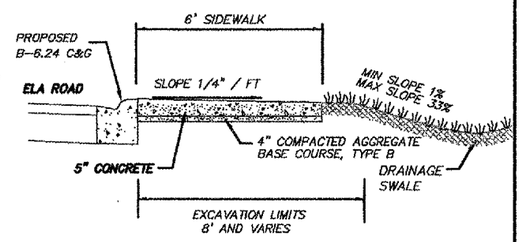
CONTRACT NO. 83836



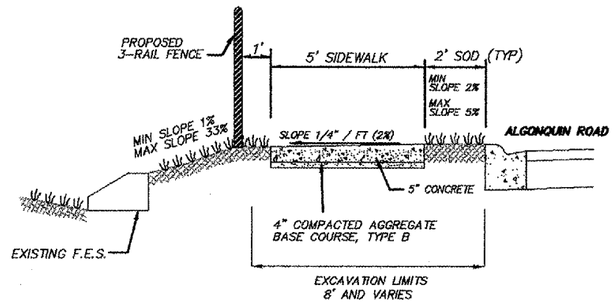
STA 691+45 TO 695+50



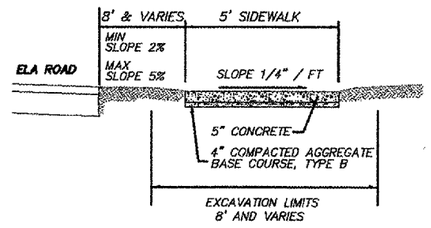
STA 683+10 TO 691+45 & STA 695+50 TO 697+40



STA 3+55 TO 5+25



STA 690+10 & 693+70



STA 0+00 TO 3+55

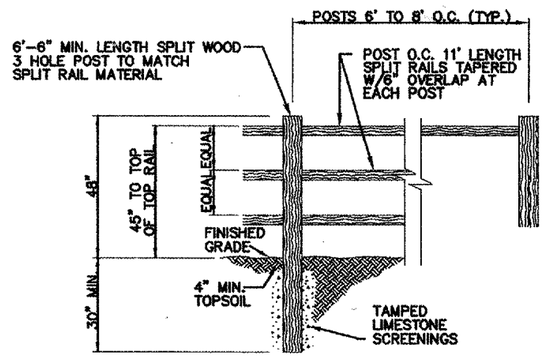
ALGONQUIN ROAD PROPOSED TYPICAL SIDEWALK CROSS SECTION

BEGIN IMPROVEMENTS STA 683+00 END IMPROVEMENTS STA 697+40

ELA ROAD PROPOSED TYPICAL SIDEWALK CROSS SECTION

BEGIN IMPROVEMENTS STA 0+00
END IMPROVEMENTS STA 5+50

NOTE: TOPSOIL COULD BE SAVED DURING EXCAVATION FOR PLACEMENT AS GRADE PREPARATION FOR SOD PLACEMENT. TOPSOIL SHALL BE PAID FOR AS FURNISH AND PLACE TOPSOIL, 6 INCH. MAXIMUM TOPSOIL AND SODDING LIMIT IS 10' ON THE NORTH SIDE OF THE SIDEWALK.



POST NOTES:
END AND CORNER POSTS SET IN CONCRETE MIN. 42" DEPTH

LINE POSTS SET WITH COMPACTED EARTH -- TAMP IN 6" LIFTS

WOOD NOTES:
ALL WOOD SHALL BE CEDAR

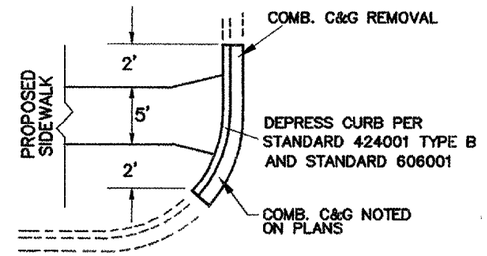
GENERAL NOTE:
CONTRACTOR TO SUBMIT SHOP DRAWING OF PROPOSED MATERIAL AND SAMPLES OF TYPICAL POST AND RAIL FOR APPROVAL PRIOR TO INSTALLATION

3-RAIL SPLIT RAIL FENCE DETAIL

LEGEND

EXISTING	PROPOSED	
		SIDEWALK OR CURB & GUTTER
		REMOVAL OF SIDEWALK OR CURB
		STORM MANHOLE
		STORM INLET
		CATCH BASIN
		POWER POLE
		FIRE HYDRANT
		STORM SEWER
		TRAFFIC SIGNAL
		HANDHOLE
		ROW LINE
		DITCH LINE
R&R		REMOVE AND RESET
T or E		TELEPHONE OR ELECTRICAL PEDESTAL
		STREET SIGN
		FLARED END SECTION
		LIGHT POLE

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
339	02-00073-00-SW	COOK	20	3
CONTRACT NO. 83836				

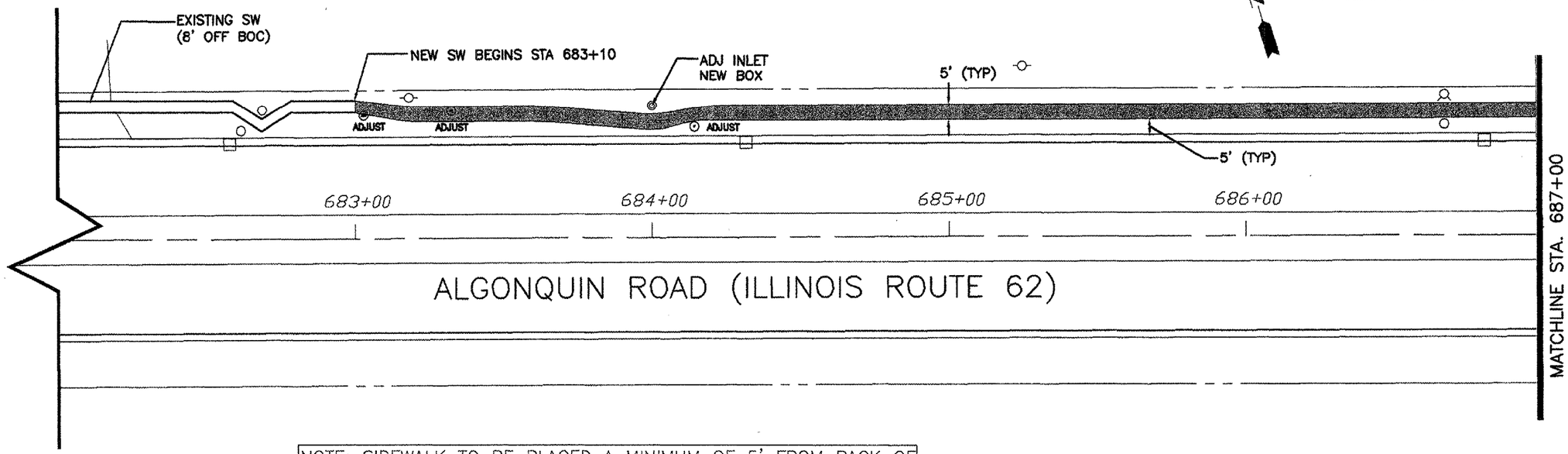


PROPOSED DEPRESSED CURB & GUTTER
EXIST. CURB & GUTTER NOT DEPRESSED

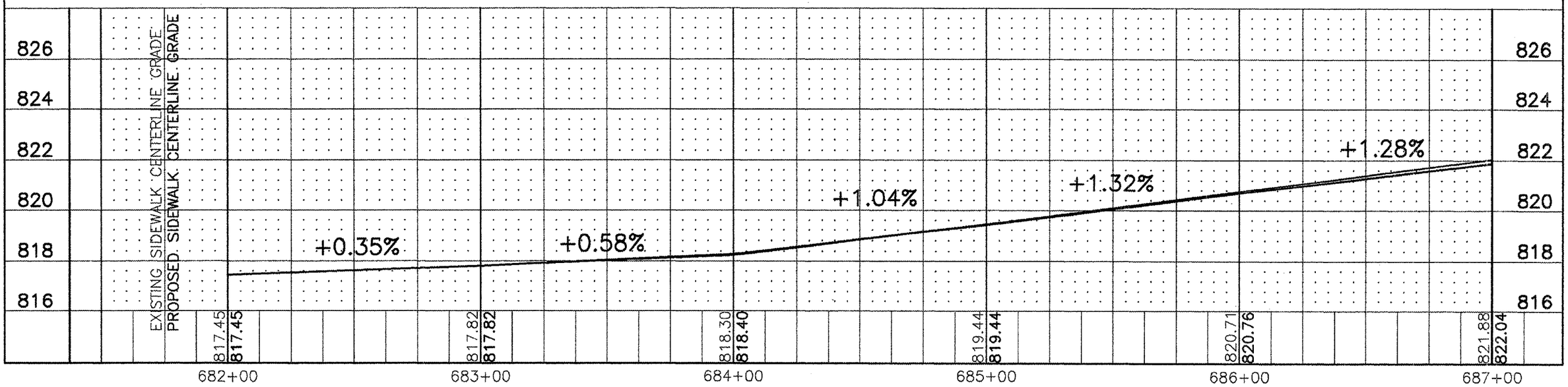
GENERAL NOTES

1. 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.
2. THE VILLAGE SHALL NOT ASSUME ANY OF THE RESPONSIBILITIES OF THE CONTRACTOR'S SUPERINTENDENT OR OF SUBCONTRACTORS.
3. THE LOCATION OF PUBLIC AND PRIVATE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND THEIR ACCURACY IS NOT GUARANTEED. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND ELEVATION OF ALL UTILITIES. THE CONTRACTOR SHALL REPORT ANY ENCOUNTERED DISCREPENCIES TO THE ENGINEER AT ONCE. THE CONTRACTOR SHALL TAKE DUE CARE IN ALL PHASES OF THE CONSTRUCTION TO PROTECT ANY UTILITIES WHICH MAY BE AFFECTED BY THE WORK. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. FOR UNDERGROUND UTILITY LOCATIONS, CALL 48 HOURS BEFORE DIGGING, (EXCLUDING SATURDAY, SUNDAY & HOLIDAYS) J.U.L.I.E. 1-800-692-0123.
4. THE PROPOSED PROFILE WILL MATCH EXISTING ON ALL SHEETS UNLESS OTHERWISE NOTED.
5. THE VILLAGE OF HOFFMAN ESTATES WILL BE PROVIDING CONSTRUCTION LAYOUT AND STAKING OF THE PROPOSED SIDEWALKS. THE SIDEWALK LOCATIONS ARE ESSENTIALLY FOLLOWING AN ESTABLISHED FOOT PATH, VARIATIONS IN THE PATH ARE SHOWN ON THE PLANS.
6. THE CONTRACTOR SHALL KEEP THE AREA OF CONSTRUCTION FREE OF DEBRIS AND OBJECTIONAL MATERIALS DURING CONSTRUCTION.
7. THE CONTRACTOR SHALL MAINTAIN ALL DRAINAGE FACILITIES DURING CONSTRUCTION AND SHALL REPAIR ANY DRAINAGE FACILITIES DAMAGED DURING CONSTRUCTION. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND WILL NOT BE PAID FOR SEPARATELY.
8. MINIMUM SIDEWALK THICKNESS SHALL BE 5".
9. MAXIMUM LONGITUDINAL SLOPE SHALL NOT EXCEED 5%.
10. MAXIMUM TRANSVERSE SLOPE SHALL BE 1/4"/FT (2%).
11. ALL SIDEWALKS WITHIN THE PROJECT LIMITS AND ADJACENT TO THE CURB SHALL BE REMOVED AND REPLACED TO CONSTRUCT SIDEWALK RAMPS ACCESSIBLE TO THE DISABLED ACCORDING TO IDOT STANDARD 424001 -- TYPE B.
12. A MINIMUM FOUR INCH AGGREGATE BASE COURSE, TYPE B, SHALL BE PROVIDED FOR THE SIDEWALK.
13. AGGREGATE BASE COURSE SHALL BE MECHANICALLY COMPACTED. ONLY 2x6 WOOD FORMS SHALL BE USED FOR FRAMING THE CONCRETE WORK OR APPROVED EQUAL.
14. THE CONTRACTOR SHALL PROTECT ALL SIDEWALKS AND CURB & GUTTER FROM DAMAGE AND VANDALISM.
15. SUPPLEMENTAL WATERING SHALL BE AT THE DIRECTION OF THE ENGINEER FOR SOD.
16. SODDING SHALL OCCUR BETWEEN THE SIDEWALK AND THE CURB, AS SHOWN ON THE PLANS, OR AT THE DIRECTION OF THE ENGINEER.

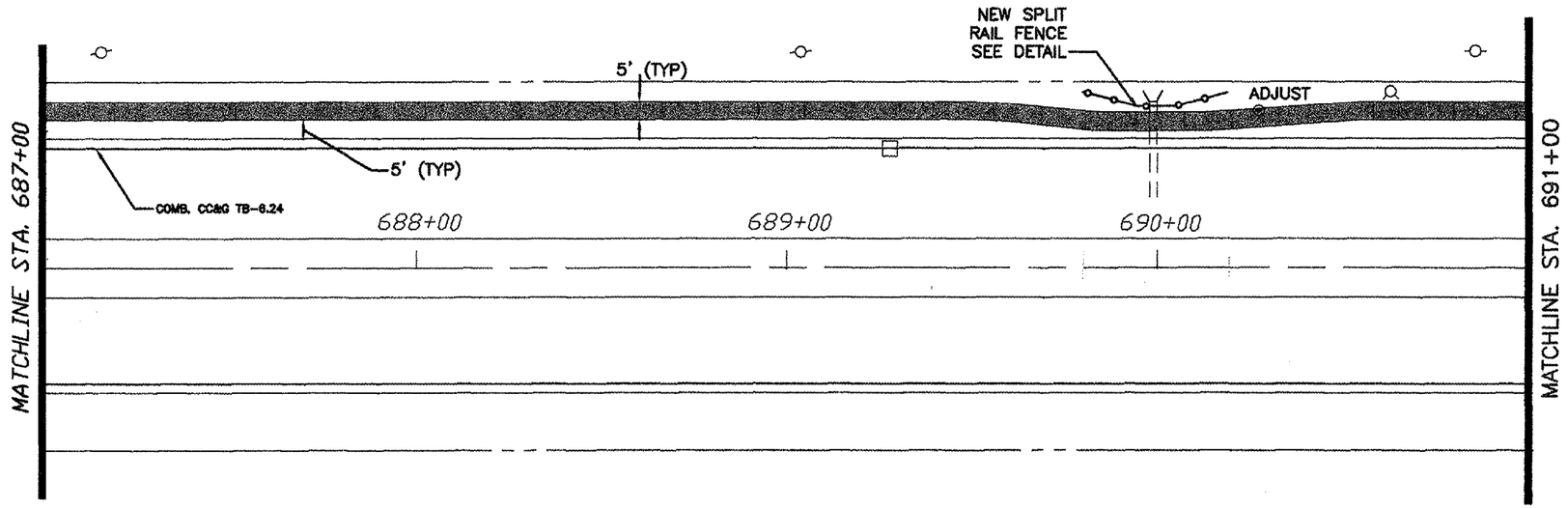
ALGONQUIN ROAD SIDEWALK IMPROVEMENTS		
HORIZ. SCALE: 1"=40'	FILE NAME	4 OF 20
VERT. SCALE: 1"=4'	ALGONQUINSW.DWG	SHEET NO.
ALGONQUIN ROAD		
STA. 682+00	TO STA. 687+00	
CONTRACT NO. 83836		



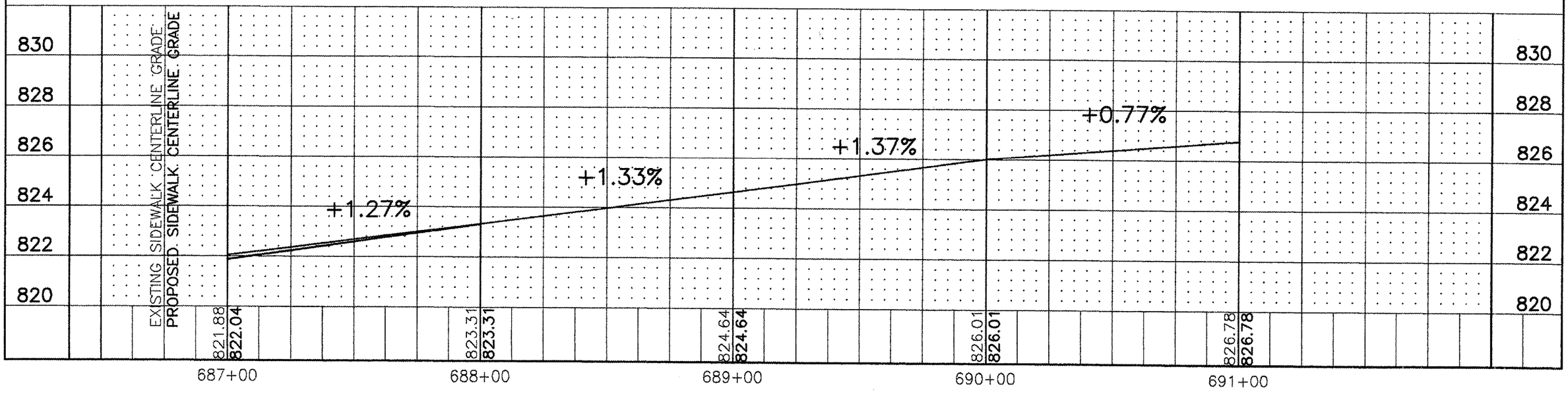
NOTE: SIDEWALK TO BE PLACED A MINIMUM OF 5' FROM BACK OF CURB, UNLESS OTHERWISE NOTED. SALT TOLERANT SOD SHALL BE PLACED ON DISTURBED AREAS BETWEEN THE CURB AND NEW SIDEWALK, AND ON THE NORTH SIDE OF THE PROPOSED SIDEWALK, WITHIN THE EXCAVATION LIMITS



ALGONQUIN ROAD SIDEWALK IMPROVEMENTS		
HORIZ. SCALE: 1"=40'	FILE NAME	5 OF 20
VERT. SCALE: 1"=4'	ALGONQUINSW.DWG	SHEET NO.
ALGONQUIN ROAD		
STA. 687+00	TO STA. 691+00	
CONTRACT NO. 83836		



NOTE: SIDEWALK TO BE PLACED A MINIMUM OF 5' FROM BACK OF CURB, UNLESS OTHERWISE NOTED. SALT TOLERANT SOD SHALL BE PLACED ON DISTURBED AREAS BETWEEN THE CURB AND NEW SIDEWALK, AND ON THE NORTH SIDE OF THE PROPOSED SIDEWALK, WITHIN THE EXCAVATION LIMITS



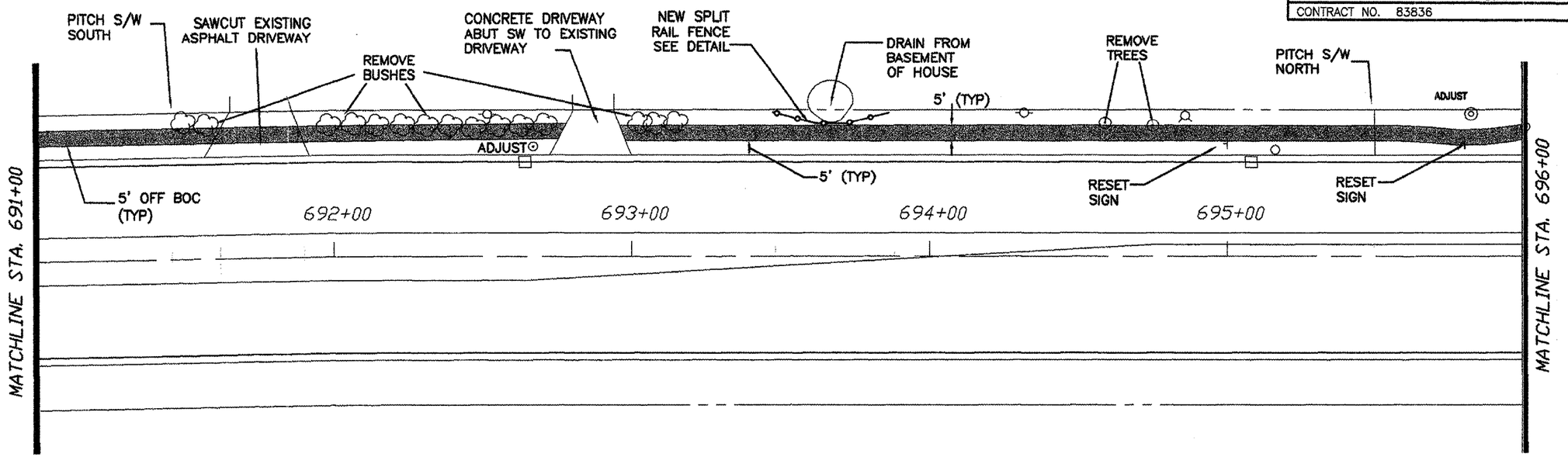
ALGONQUIN ROAD SIDEWALK IMPROVEMENTS

HORIZ. SCALE: 1"=40'	FILE NAME	6 OF 20
VERT. SCALE: 1"=4'	ALGONQUINSW.DWG	SHEET NO.

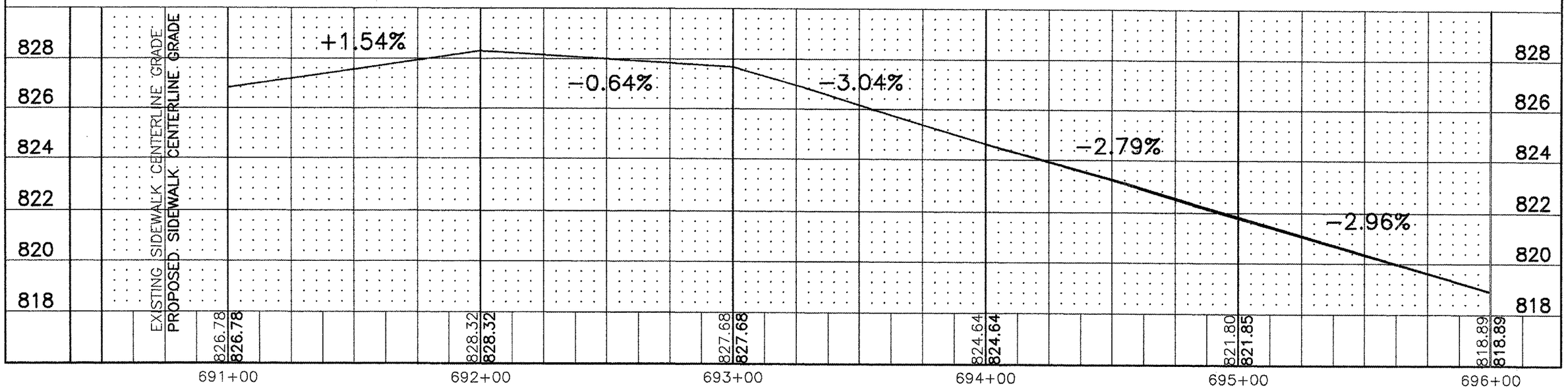
ALGONQUIN ROAD

STA. 691+00 TO STA. 696+00

CONTRACT NO. 83836



NOTE: SIDEWALK TO BE PLACED A MINIMUM OF 5' FROM BACK OF CURB, UNLESS OTHERWISE NOTED. SALT TOLERANT SOD SHALL BE PLACED ON DISTURBED AREAS BETWEEN THE CURB AND NEW SIDEWALK, AND ON THE NORTH SIDE OF THE PROPOSED SIDEWALK, WITHIN THE EXCAVATION LIMITS



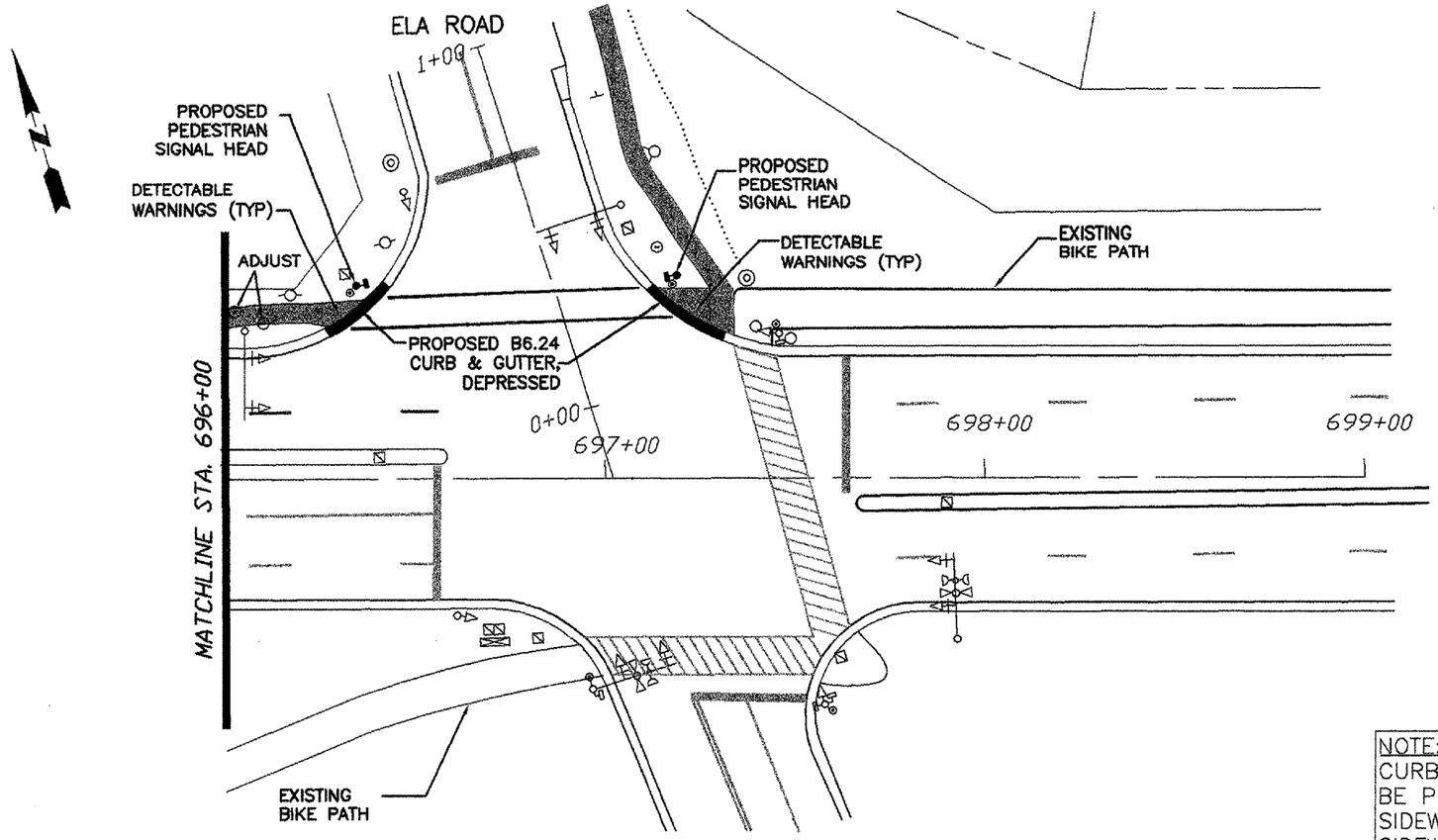
ALGONQUIN ROAD SIDEWALK IMPROVEMENTS

HORIZ. SCALE: 1"=40'	FILE NAME	7 OF 20
VERT. SCALE: 1"=4'	ALGONQUINSW.DWG	SHEET NO.

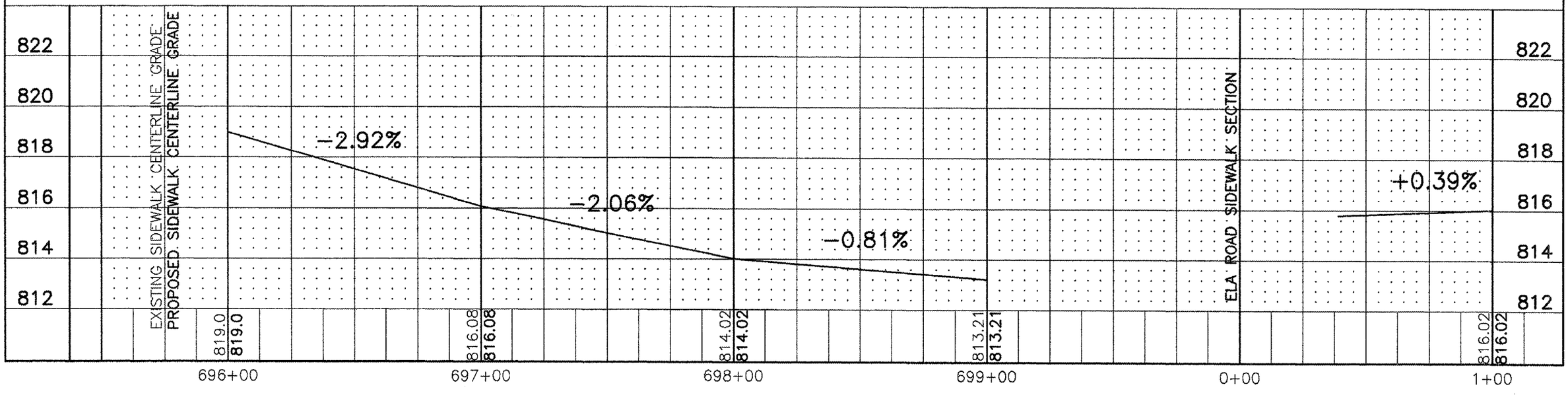
ALGONQUIN & ELA ROAD

STA. 696+00 TO STA. 699+00

CONTRACT NO. 83836

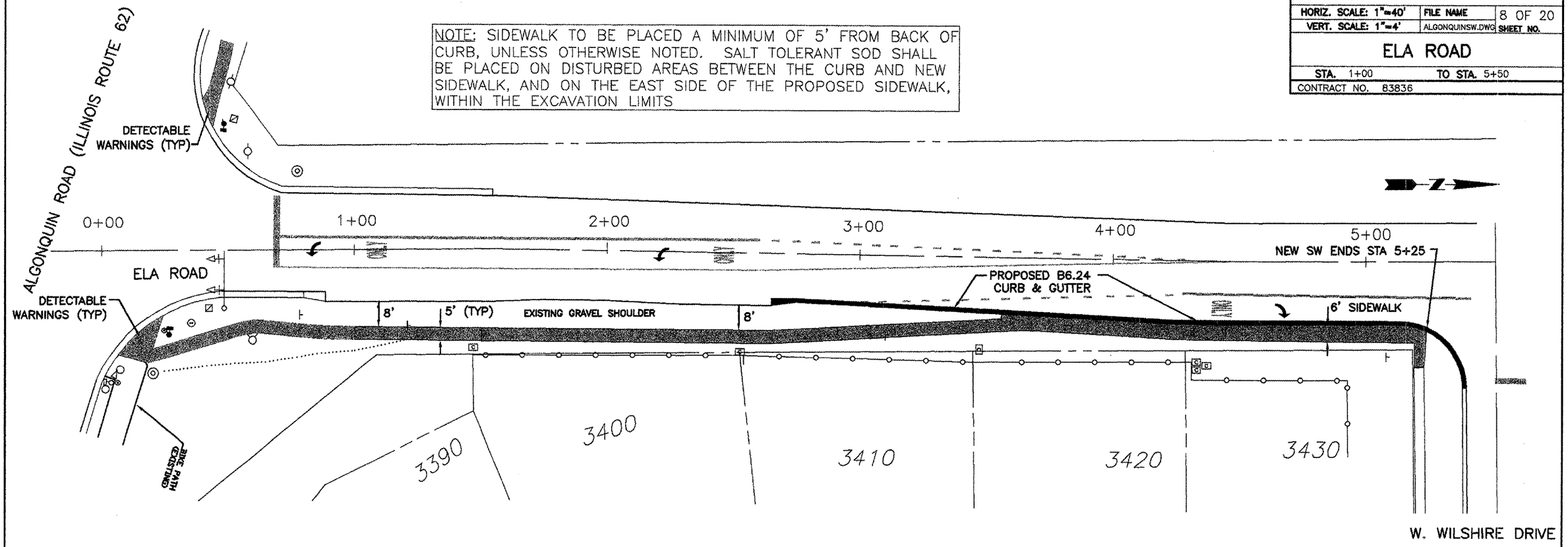


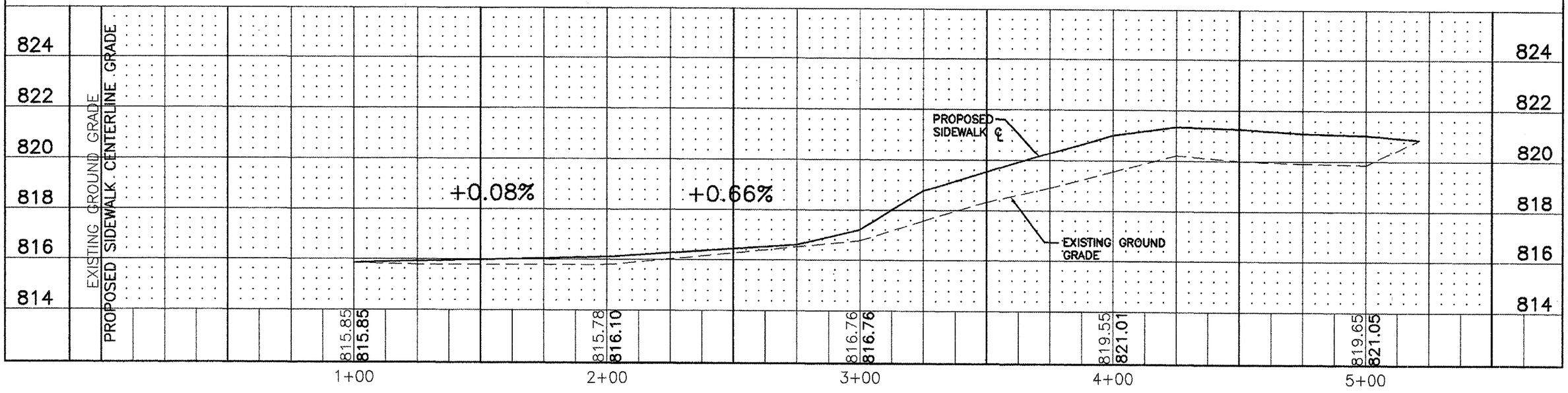
NOTE: SIDEWALK TO BE PLACED A MINIMUM OF 5' FROM BACK OF CURB, UNLESS OTHERWISE NOTED. SALT TOLERANT SOD SHALL BE PLACED ON DISTURBED AREAS BETWEEN THE CURB AND NEW SIDEWALK, AND ON THE NORTH SIDE OF THE PROPOSED SIDEWALK, WITHIN THE EXCAVATION LIMITS



ALGONQUIN ROAD SIDEWALK IMPROVEMENTS		
HORIZ. SCALE: 1"=40'	FILE NAME	8 OF 20
VERT. SCALE: 1"=4'	ALGONQUINSW.DWG	SHEET NO.
ELA ROAD		
STA. 1+00	TO STA. 5+50	
CONTRACT NO. 83836		

NOTE: SIDEWALK TO BE PLACED A MINIMUM OF 5' FROM BACK OF CURB, UNLESS OTHERWISE NOTED. SALT TOLERANT SOD SHALL BE PLACED ON DISTURBED AREAS BETWEEN THE CURB AND NEW SIDEWALK, AND ON THE EAST SIDE OF THE PROPOSED SIDEWALK, WITHIN THE EXCAVATION LIMITS





ALGONQUIN RD SIDEWALK IMPROVEMENTS

SCALE	FILE NAME	SHEET NO.
1"=40'	STRIPING.DWG	9 OF 20

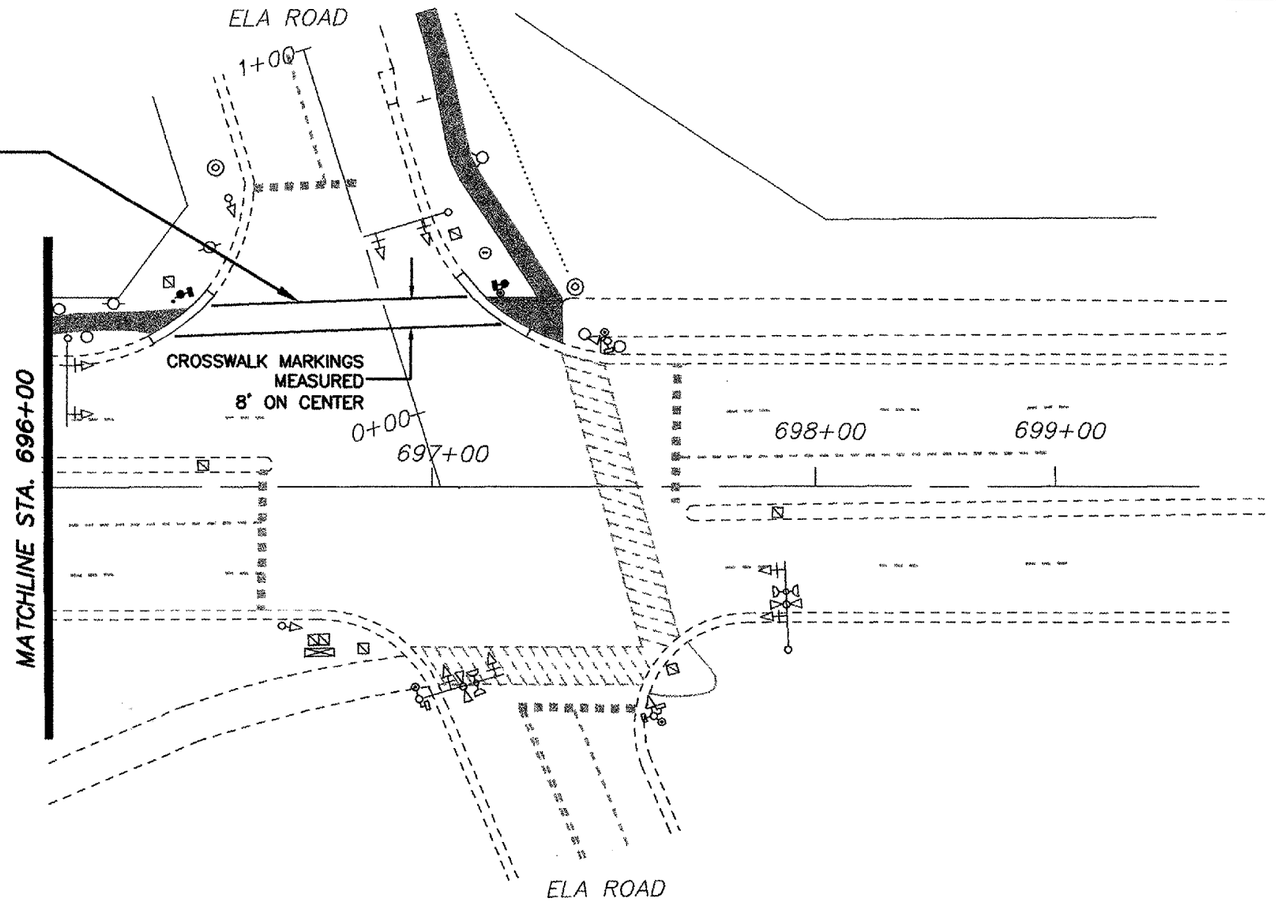
STRIPING PLAN

STA. 696+00 **TO STA.** 698+00

ROUTE NUMBER	SECTION NUMBER	COUNTY
339	02-00073-00-SW	COOK

CONTRACT NO. 83836

THERMOPLASTIC PAVEMENT MARKING LINE – 12" WHITE



ILLINOIS DEPARTMENT OF TRANSPORTATION

STRIPING PLAN

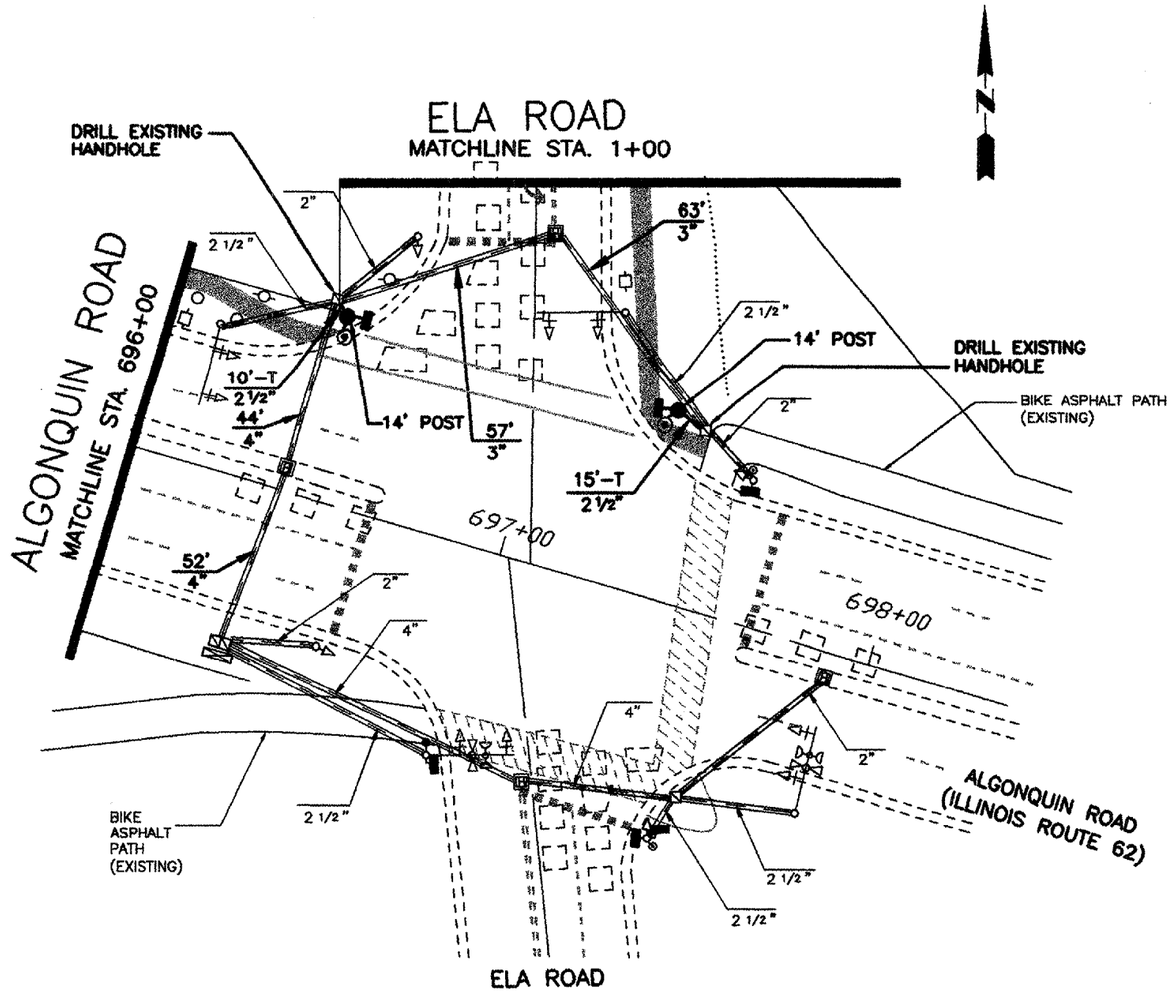
SCALE: 1"=40' DRAWN BY: SW

DATE: 9/1/04 CHECKED BY: NOR

ALGONQUIN RD SIDEWALK IMPROVEMENTS		
HORIZ. SCALE: 1"=40'	**FILE NAME**	**SHEET NO.**
	SIGNALS.DWG	10 OF 20

TRAFFIC SIGNAL PLAN

STA.	TO STA.	
ROUTE NUMBER	SECTION NUMBER	COUNTY
339	02-00073-00--SW	COOK
CONTRACT NO. 83836		



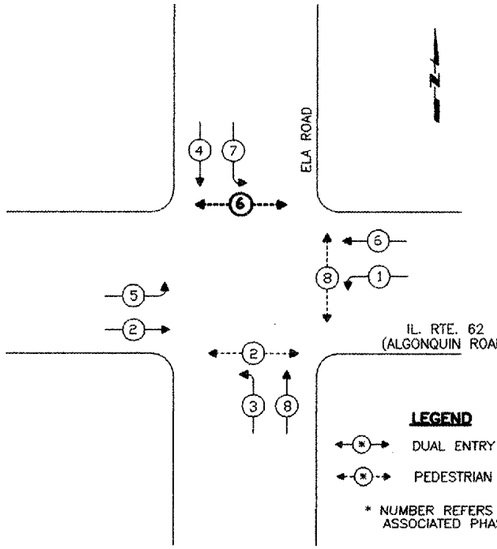
TRAFFIC SIGNAL LEGEND

EXISTING	PROPOSED	
⊠	■	CONTROLLER
→	→	SIGNAL HEAD
+→	+→	SIGNAL HEAD WITH BACKPLATE
—▯	—▮	SIGNAL HEAD, PEDESTRIAN
○	●	SIGNAL POST
—○	—●	MAST ARM ASSEMBLY AND POLE, ALUMINUM
	CT	COMMON TRENCH
	UD	UNIT DUCT
═══	———	G.S. CONDUIT IN TRENCH OR PUSHED
▨	◪	HANDHOLE
▣	Ⓗ	HEAVY DUTY HANDHOLE
▨▨	◪◪	DOUBLE HANDHOLE
⊙	⊙	PEDESTRIAN PUSHBUTTON DETECTOR
⊏⊐	□	DETECTOR LOOP
⋈		EMERGENCY VEHICLE SYSTEM DETECTOR
⋈◁		CONFIRMATION BEACON

NOTE:
IN ADDITION TO INSTALLING TWO NEW PEDESTRIAN LED SIGNAL HEADS, THE FOUR EXISTING PEDESTRIAN SIGNAL HEADS WILL BE REPLACED WITH THE NEW INTERNATIONAL TYPE SIGNAL HEAD LED. CABLING FOR THE TWO PROPOSED PEDESTRIAN SIGNAL HEADS AND PUSH BUTTONS WILL UTILIZE THE EXISTING CONDUIT RUNS TO CONNECT TO THE CONTROLLER BOX.

CONTROLLER SEQUENCE IV

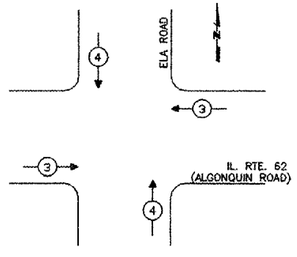
REFERING TO STANDARD 2393, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW



PHASE DESIGNATION DIAGRAM

DUAL ENTRY – ALL LEGS
PROTECTED/PERMITTED LEFT TURN PHASING

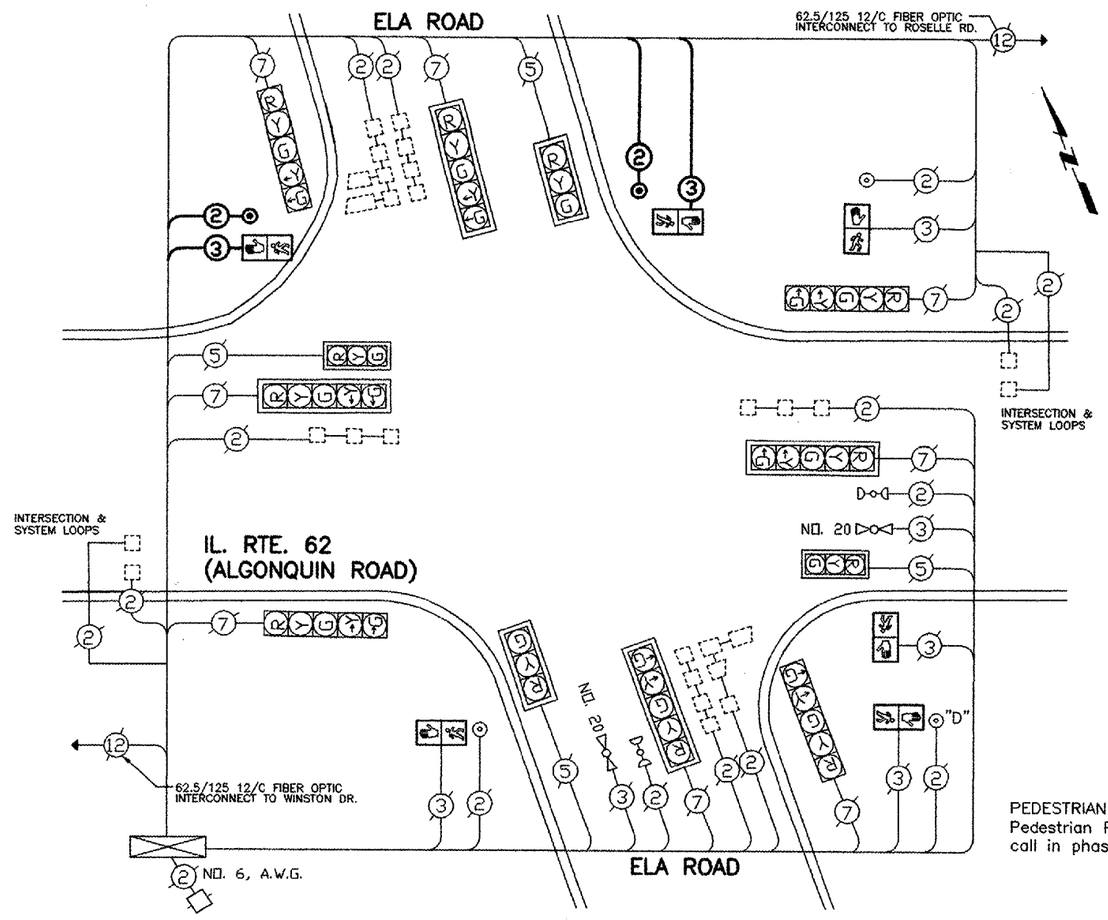
EMERGENCY VEHICLE PREEMPTIONSEQUENCE NOTES
FOR DUAL ENTRY OPERATION – ALL LEGS



PROPOSED	PRIORITY LANES	
PRIORITY LANE INTERVAL	3	4
MOVEMENT	⇄	↓↑

NOTES:

1. ONCE PREEMPTION HAS BEEN CALLED, TERMINATION OF A PHASE(S) SHLL BE IDENTICAL TO THE NORMAL SEQUENCE OF OPERATION'S TERMINATION OF A PHASE(S) AS DESCRIBED IN STANDARD 2393.
2. CONTINUATION OR TERMINATION OF ALL RIGHT TURN OVERLAP'S SHALL BE IDENTICAL TO THE NORMAL SEQUENCE OF OPERATIONS CONTINUATION OR TERMINATION OF RIGHT TURN OVERLAP'S AS DESCRIBED IN THE CLEARANCE NOTES FOR RIGHT TURN OVERLAP'S.
3. TERMINATION OF ALL PEDESTRIAN PHASES SHALL INCLUDE A FULL FLASHING "DON'T WALK" INTERVAL.
4. IF ALL RED CLEARANCE IS USED IN THE NORMAL SEQUENCE OF OPERATION, IT MUST BE DISPLAYED AFTER THE YELLOW CLEARANCE INTERVAL WHEN ENTERING OR LEAVING THE PREEMPTION SEQUENCE.



CABLE PLAN

SCHEDULE OF QUANTITES

QUANTITY	UNIT	PAY ITEM
25	FT	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
405	FT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14, 2/C
405	FT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14, 3/C
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL, 14 FT
8	FT	CONCRETE FOUNDATION, TYPE A
2	EACH	DRILL EXISTING HANDHOLE
2	EACH	PEDESTRIAN PUSH BUTTON
1	EACH	MODIFY EXISTING CONTROLLER
6	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1–FACE, BRACKET MOUNTED

ALGONQUIN RD SIDEWALK IMPROVEMENTS

SCALE	FILE NAME	SHEET NO.
NTS	CABLE.DWG	11 OF 2

CABLE PLAN

STA.	TO STA.	
ROUTE NUMBER	SECTION NUMBER	COUNTY
339	02-00073-00-SW	COOK

CONTRACT NO. 83836

CABLE PLAN LEGEND

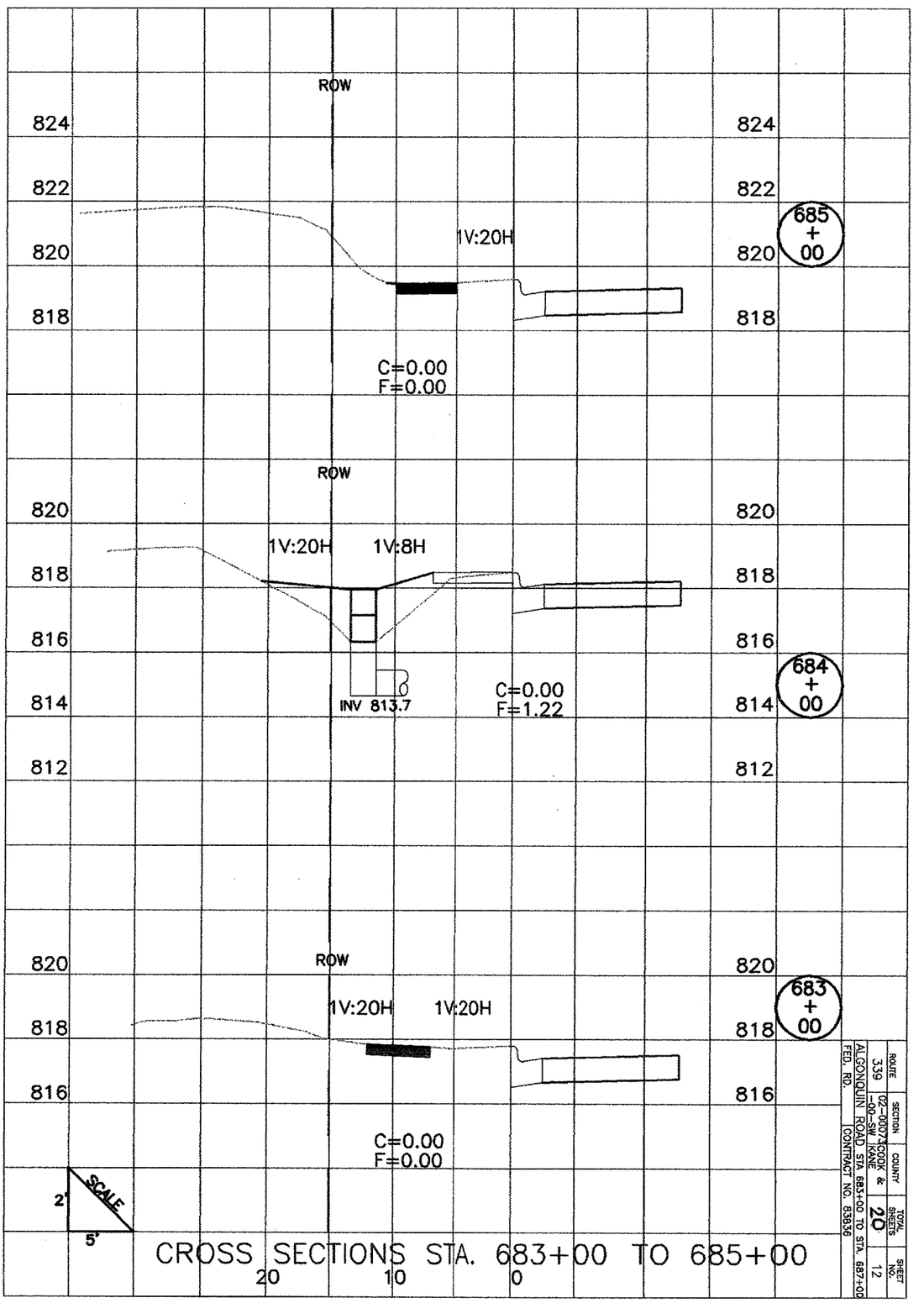
EXISTING	PROPOSED	
R	R	12" TRAFFIC SIGNAL SECTION
		12" PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		PUSHBUTTON DETECTOR
②	②	DENOTES NUMBER OF CONDUCTORS ALL LOOP DETECTOR CABLE TO BE SHIELDED. ALL CABLE NO. 14 EXCEPT AS INDICATED.
		EMERGENCY VEHICLE SYSTEM DETECTOR
		CONFIRMATION BEACON
	"P"	"P" SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD.

PEDESTRIAN PUSH BUTTON NOTES
Pedestrian Pushbutton "D" shall place a call in phases 2 & 8.

ILLINOIS DEPARTMENT OF TRANSPORTATION

CABLE PLAN

SCALE: NTS **DRAWN BY:** SW
DATE: 9/29/05 **CHECKED BY:** SW

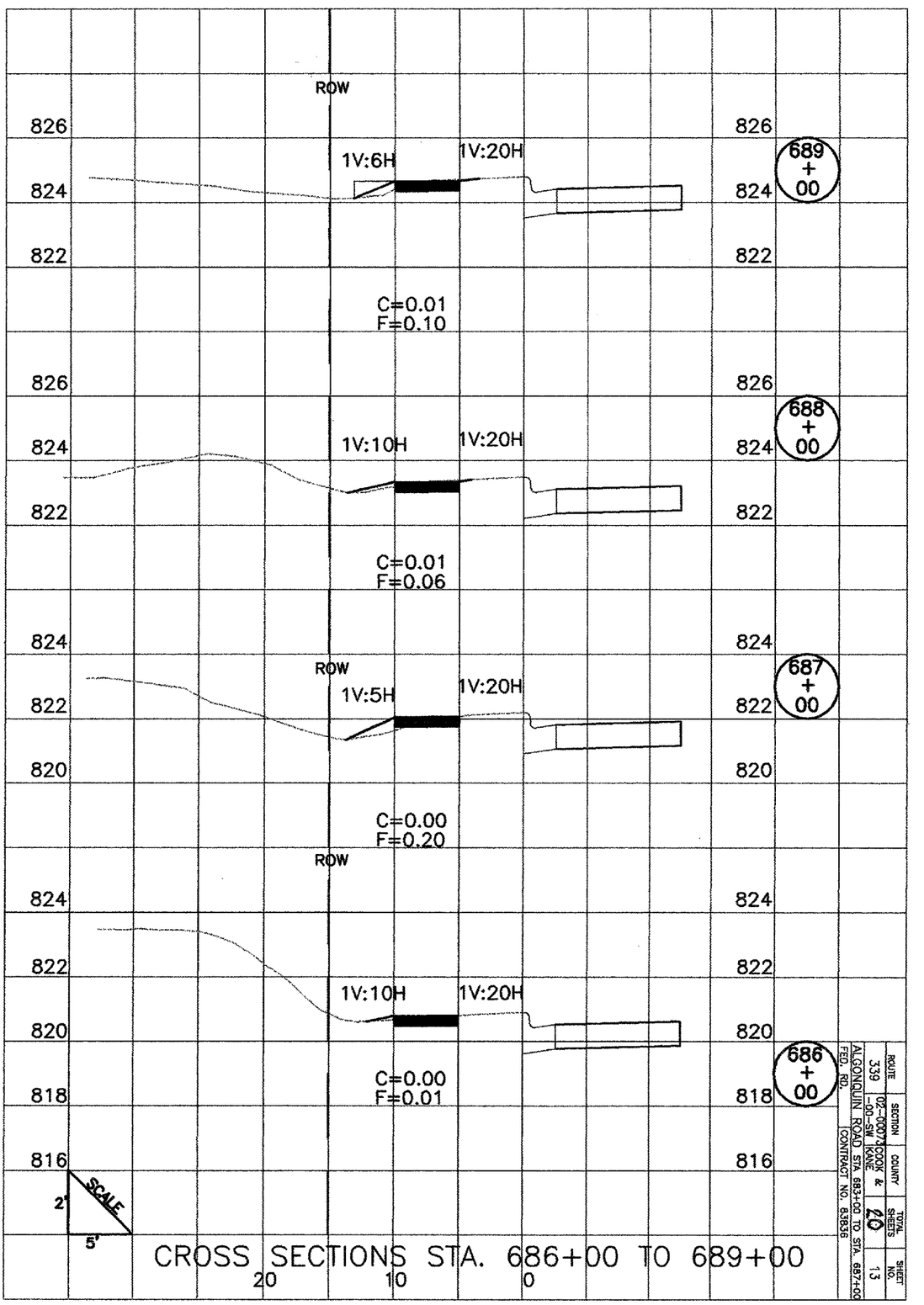


CROSS SECTIONS STA. 683+00 TO 685+00

ALGONQUIN ROAD

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
339	02-00077COOK &		20	12

ALGONQUIN ROAD STA. 683+00 TO STA. 687+00
FED. RD. CONTRACT NO. 63B56

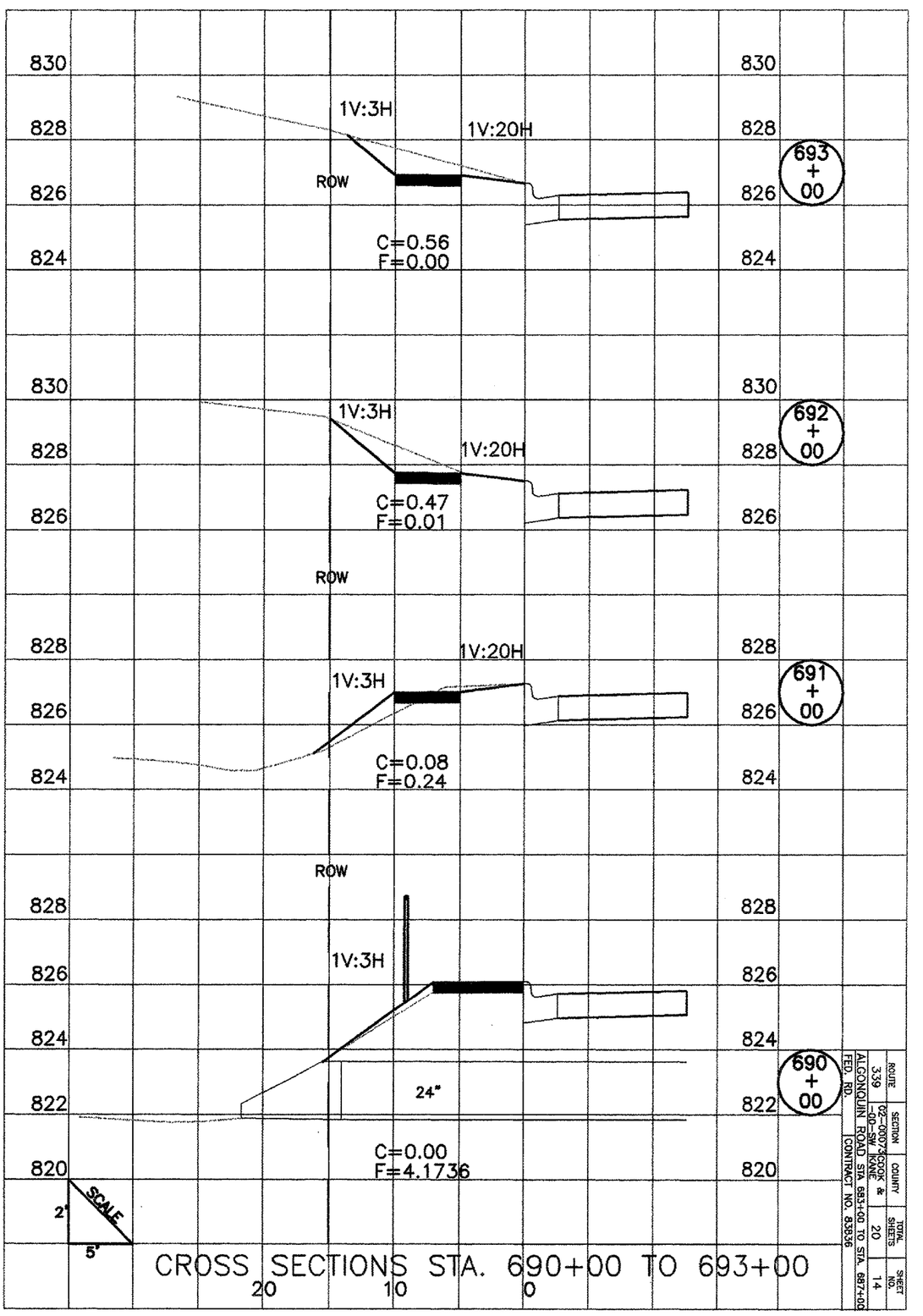


CROSS SECTIONS STA. 686+00 TO 689+00

ALGONQUIN ROAD

ROUTE	339
SECTION	02-20001 & 02-30001
COUNTY	KANE
TOTAL SHEETS	10
SHEET NO.	13

FED. RD. ALGONQUIN ROAD STA. 683+00 TO STA. 697+00
CONTRACT NO. 63636

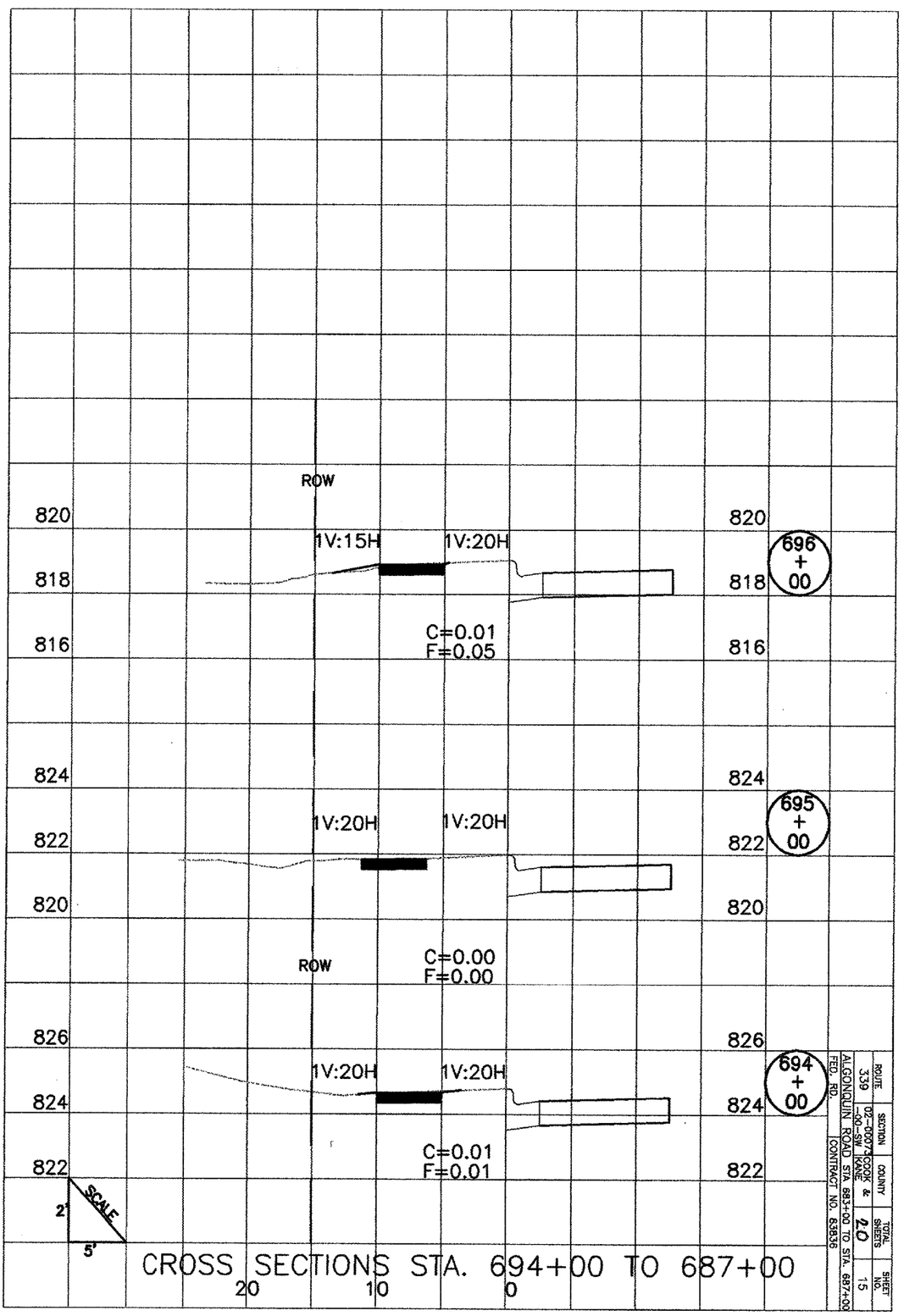


CROSS SECTIONS STA. 690+00 TO 693+00

ALGONQUIN ROAD

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
339	82-00073-00-SW	KANE & COOK	20	14

ALGONQUIN ROAD STA. 683+00 TO STA. 887+00
FED. RD.
CONTRACT NO. 63836

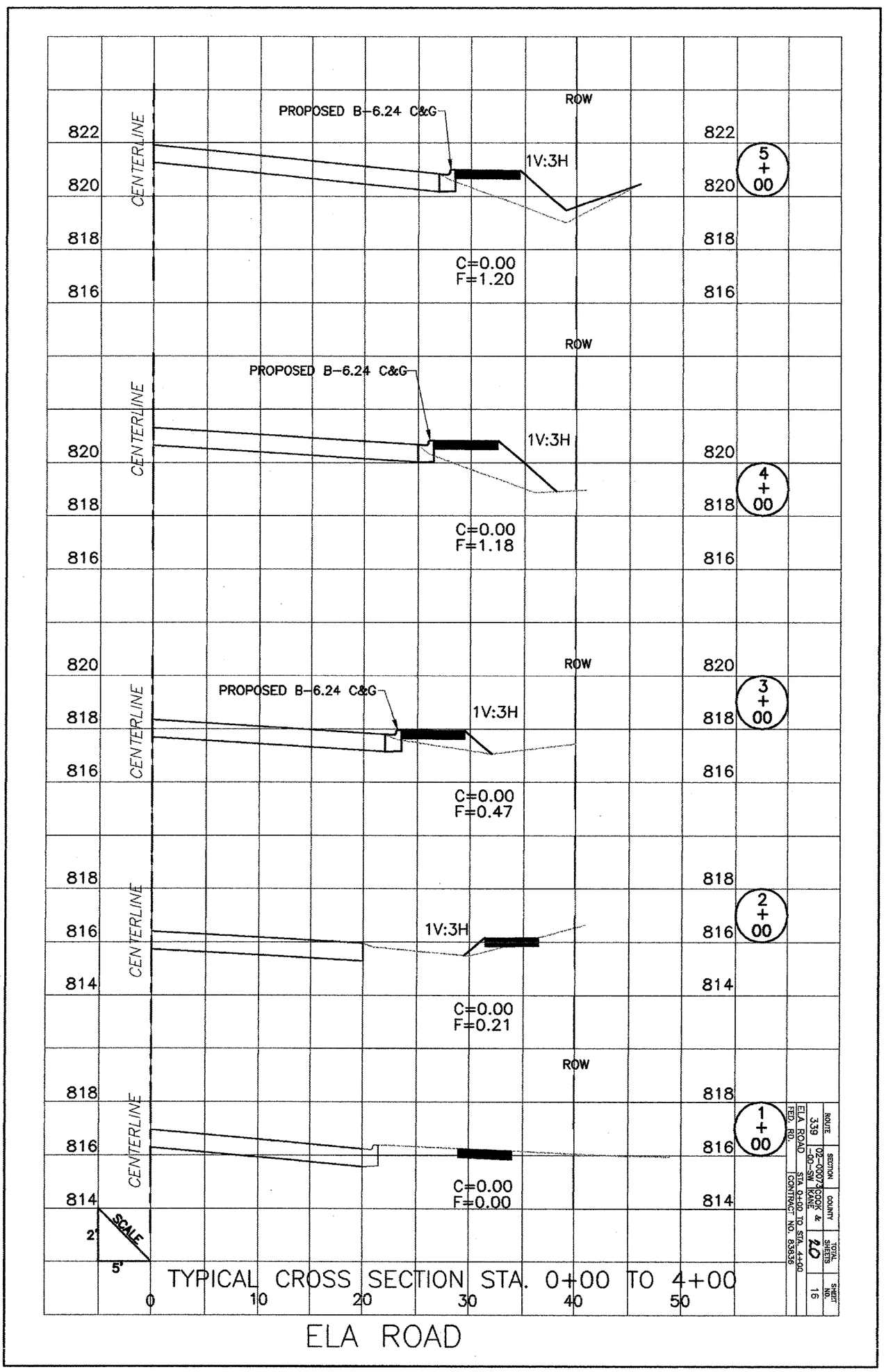


CROSS SECTIONS STA. 694+00 TO 687+00

ALGONQUIN ROAD

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
339	02-00073 -00-SW	COOK & KANE	20	15

ALGONQUIN ROAD STA. 687+00 TO STA. 694+00
FED. RD.
CONTRACT NO. 63B36



TYPICAL CROSS SECTION STA. 0+00 TO 4+00

ELA ROAD

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
339	02-00073-00-SW	COOK & KANE	20	16

FED. RD. ELA ROAD
CONTRACT NO. 63836
STA. 0+00 TO STA. 4+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3A	02-00078-	Cook	20	17
STA.	00+00 TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

Contract # 73836

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.

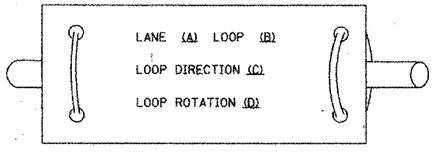
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

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.

LOOP LEAD-IN CABLE TAG

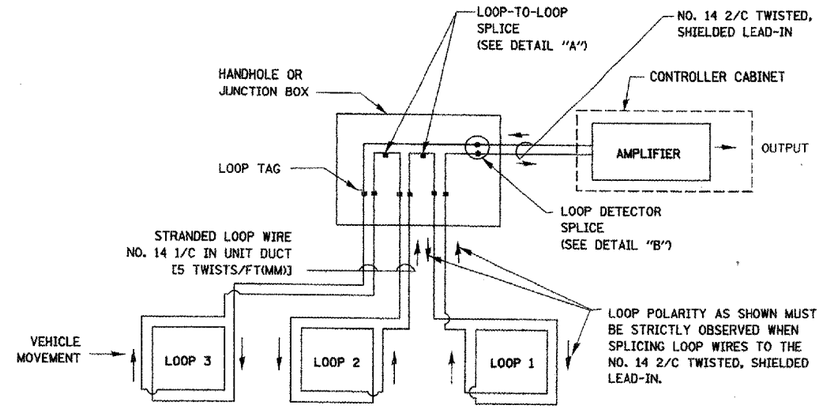


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

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

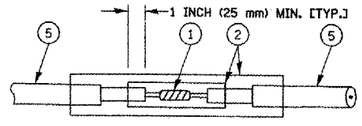
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

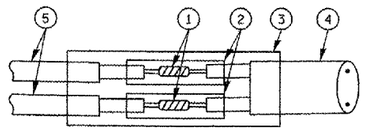


DETECTOR LOOP WIRING SCHEMATIC

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



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

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 LENGHT 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 1
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

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

DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 1 OF 4

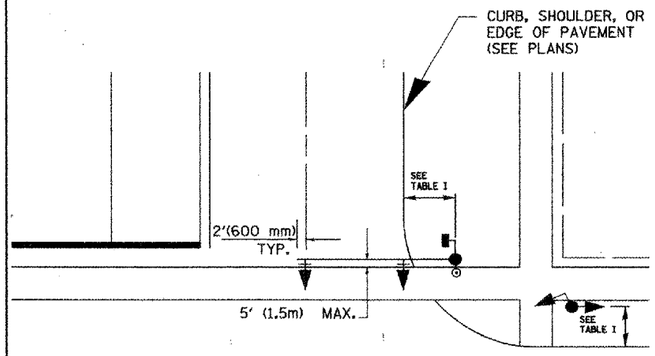
j:\projects\projects 2003\cedarrd\01-stdl.dgn
DATE-TIME
DGN-SPEC

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	02-00073	Cook	20	18
STA.	---	OTO STA.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

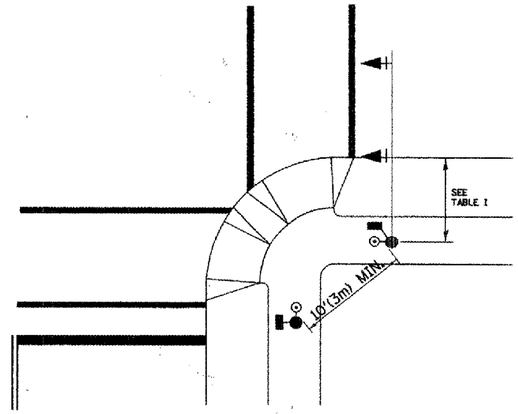
Contract # 83836

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:

1. 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

2. 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.

3. 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.

4. 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

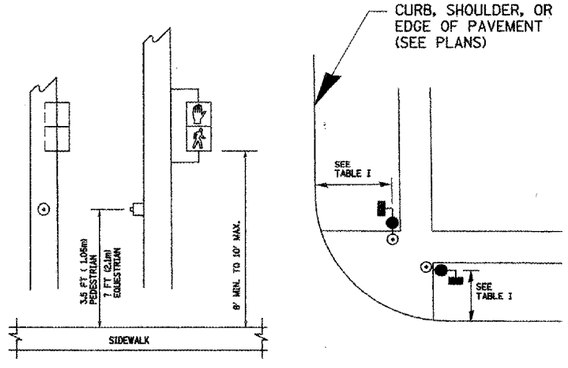


TABLE I

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. HORIZ. NONE
DATE 1-01-02

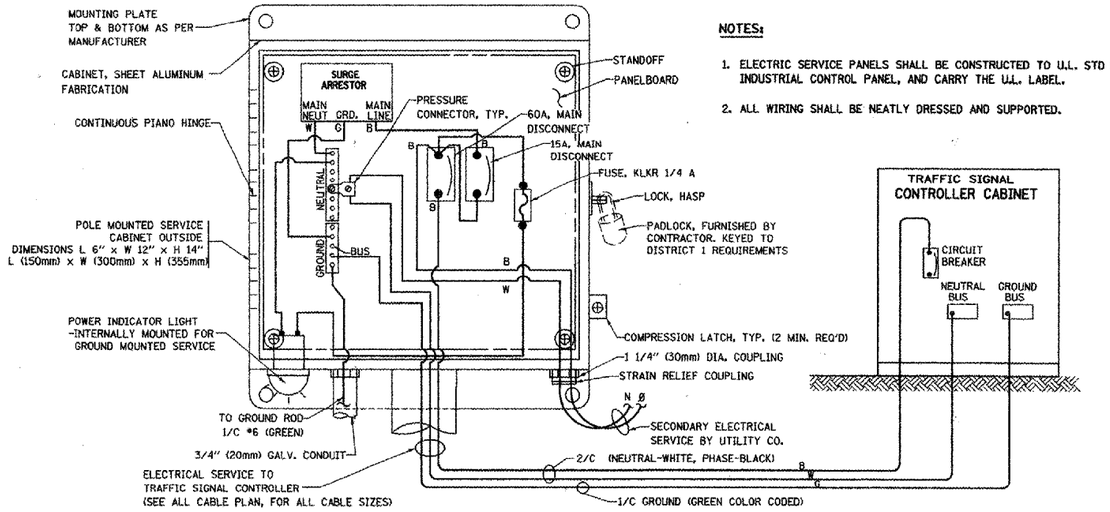
DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 2 OF 4

TS05

I:\projects\projects 2003\cedarrd\02-std2.dgn
DATE-TIME
DGN-SPEC

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3302-00073-		Cook	20	19
STA. 100 +SW	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

Contract # 63886

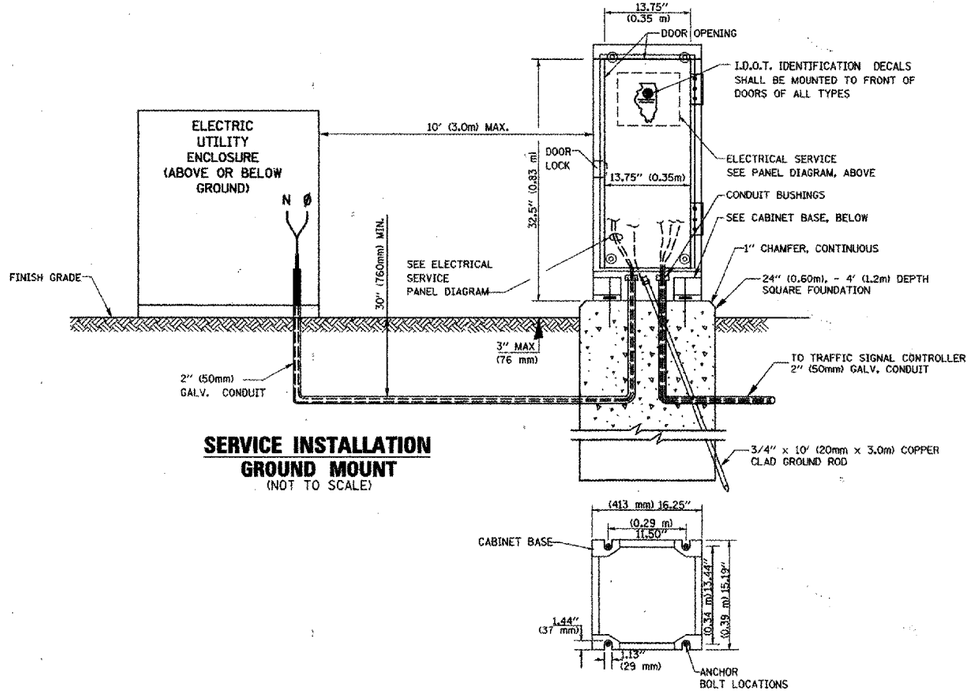


ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

NOTES:

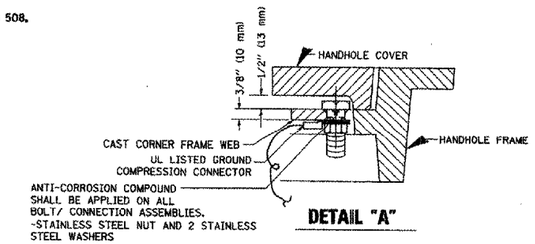
1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

SERVICE INSTALLATION POLE MOUNT (SHOWN)
(NOT TO SCALE)

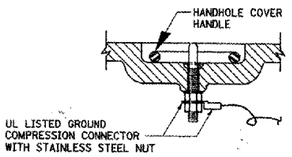


SERVICE INSTALLATION GROUND MOUNT
(NOT TO SCALE)

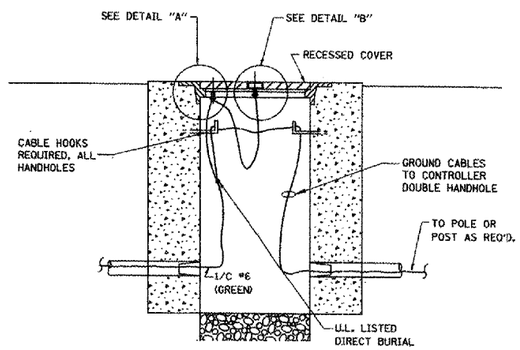
CABINET – BASE BOLT PATTERN
(NOT TO SCALE)



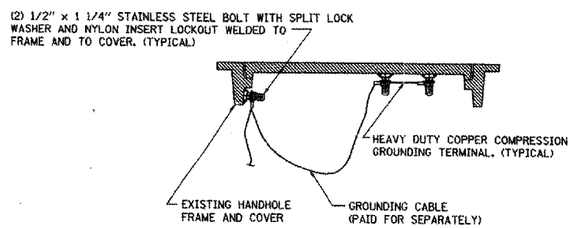
DETAIL "A"



DETAIL "B"



HANDHOLE COVER & FRAME – GROUNDING DETAIL
(NOT TO SCALE)

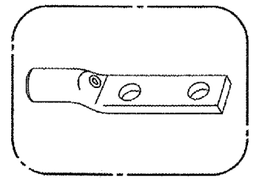


EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL
(NOT TO SCALE)

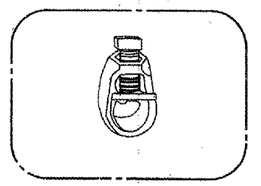
NOTES:

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.



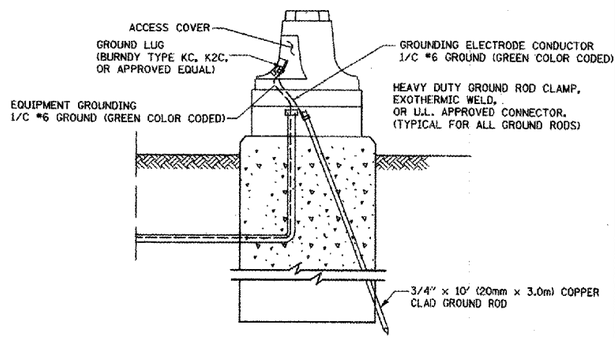
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EUAL)

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
(NOT TO SCALE)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

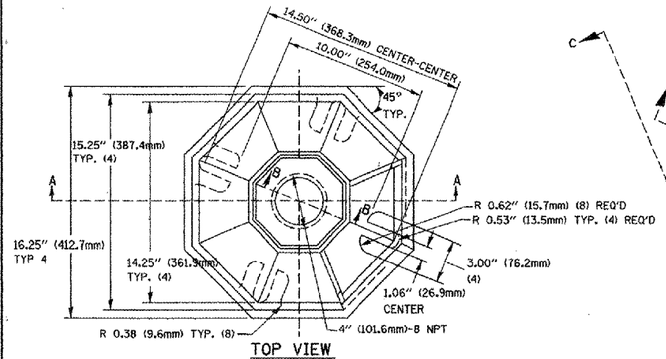
SCALE: VERT. NONE
HORIZ.
DATE 1-01-02

DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 3 OF 4

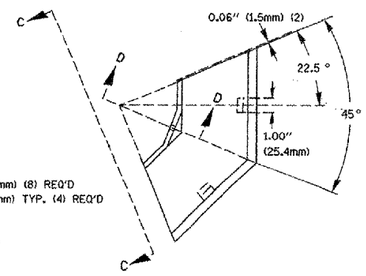
TS05

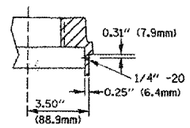
DATE-TIME
DGN-SPEC

Id:projects&projects 2003&cadorr&03-std3.dgn

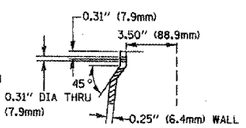


TOP VIEW

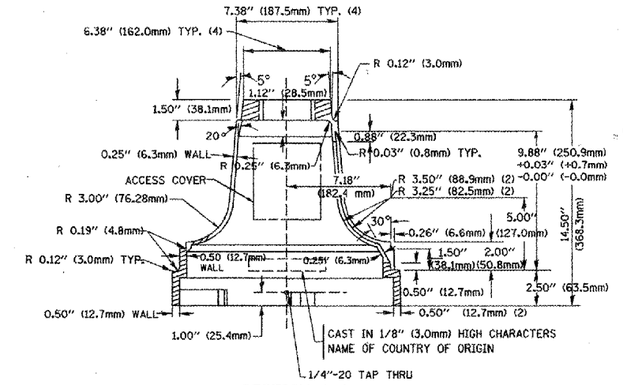




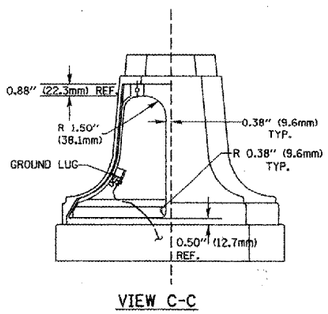
SECTION B-B



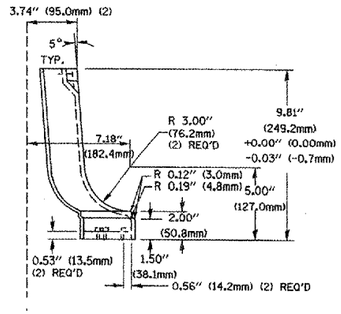
SECTION D-D



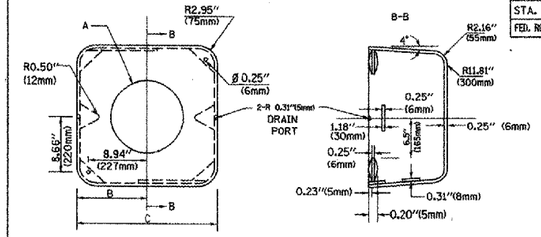
SECTION A-A



VIEW C-C



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
339	02-00073	Cook	20	20
STA.	CD-6W	TO STA.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

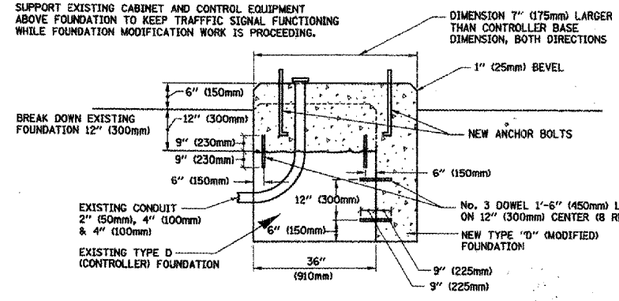
Contract # 83836

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

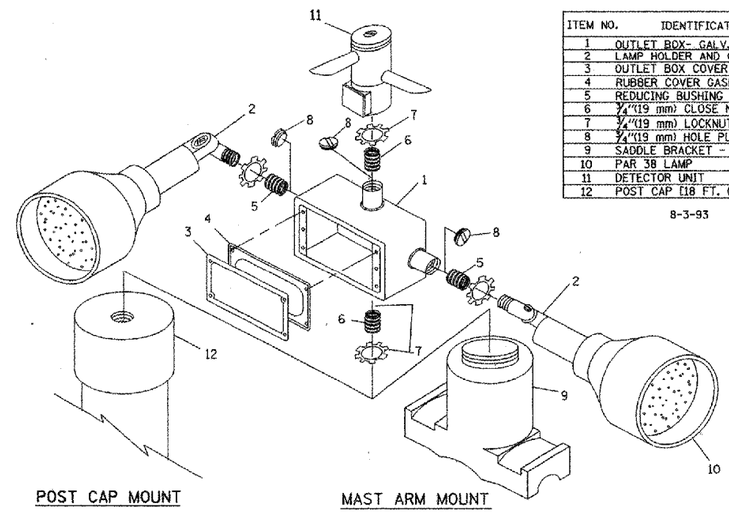
SHROUD DETAIL

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



MODIFY EXISTING TYPE "D" FOUNDATION

(NOT TO SCALE)



POST CAP MOUNT

MAST ARM MOUNT

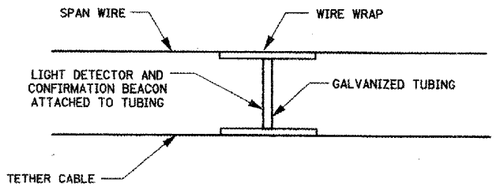
EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

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	¾"(19 mm) CLOSE NIPPLE
7	¾"(19 mm) LOCKNUT
8	¾"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	PAR 38 LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

8-3-93

NOTES:

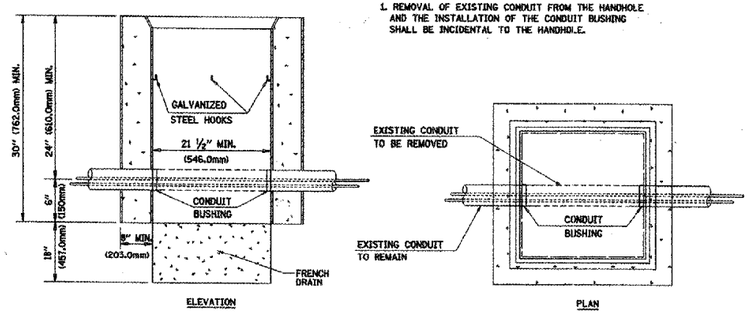
1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS *2 AND *11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM *1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
   ITEM *2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
   ITEM *9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM *9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A ¾"(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.



LIGHT DETECTOR AND CONFIRMATION BEACON MOUNTING FOR TEMPORARY TRAFFIC SIGNALS

(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

J:\projects\projects 2003\cedarrd\04-std4.dgn
DATE-TIME
DGN-SPEC