

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED  
FEDERAL AID HIGHWAY

175TH STREET AT FAP ROUTE 348 (HARLEM AVENUE)  
INTERSECTION IMPROVEMENTS  
PROJECT#HSIP-8003(851)  
SECTION NO.: 06-00104-00-CH  
JOB NO.: C-91-367-07  
VILLAGE OF TINLEY PARK  
COOK COUNTY

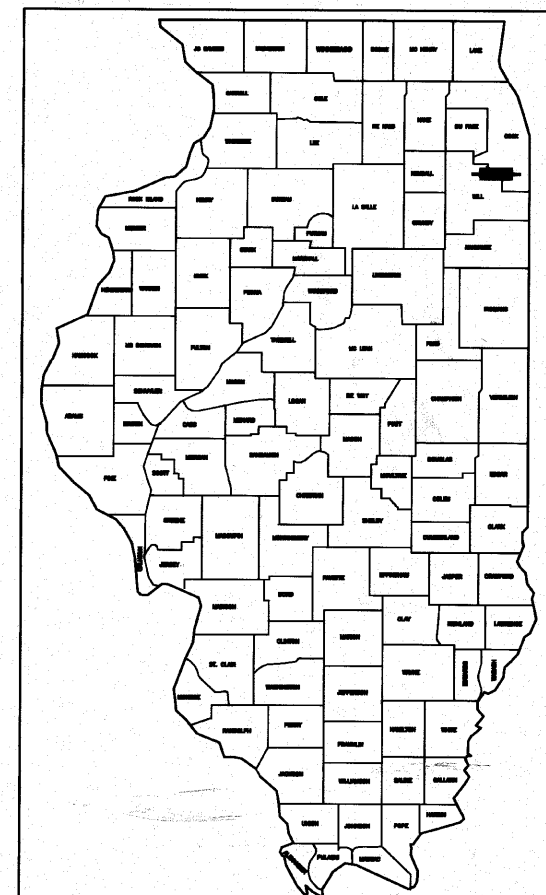
F. A. P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	80	1
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT#	HSIP-8003 (851)	

CONTRACT #63453

INDEX OF SHEETS  
SEE SHEET NO. 2

HIGHWAY STANDARDS  
SEE SHEET NO. 2

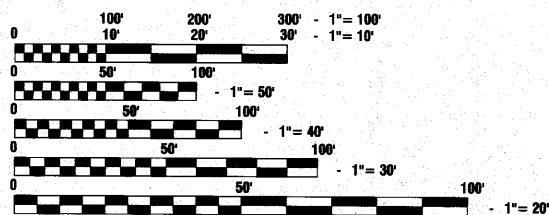
DESIGN DESIGNATION - 175th STREET ADT = 8,500 (2030) - COLLECTOR - 0.50			
PV = 8245 SU = 170 MU = 85			
% DESIGN TRAFFIC IN DESIGN LANE			
P = 97% S = 2% M = 1%			
SSS = FAIR			
	175th STREET (WEST LEG)	175th STREET (EAST LEG)	HARLEM AVENUE
2009 ADT -	7,500	860	40,000
2030 ADT -	8,500	1,000	45,000
POSTED SPEED LIMIT -	30 MPH	20 MPH	40 MPH
DESIGN PERIOD -	20 YEARS	20 YEARS	20 YEARS
DESIGN SPEED LIMIT -	35 MPH	25 MPH	45 MPH
STREET CLASSIFICATION	CLASS II	CLASS III	CLASS I



LOCATION OF SECTION INDICATED THUS: —



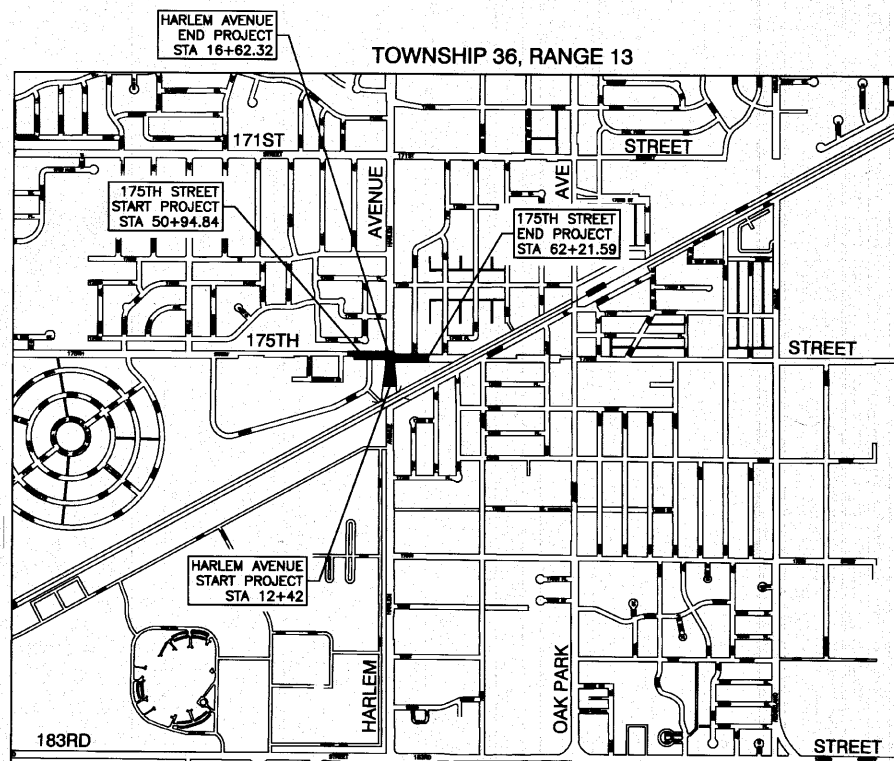
SCALES  
PLAN - 1"=50'  
PROFILE HORIZ. - 1"=50'  
PROFILE VERT. - 1"=5'  
CROSS SECTIONS - 1"=10'



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

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

CONTRACT NO. 63453



LOCATION MAP

— INDICATES PROPOSED IMPROVEMENT  
GROSS LENGTH= 1,547.07 FEET = 0.29 MILES  
NET LENGTH= 1,482.45 FEET = 0.28 MILES

FIELD ENGINEER: MELCHOR MANGOBA 847-705-4408  
CONSULTANTS: ROBINSON ENGINEERING, LTD. 708-331-6700  
CONTACT ENGINEER: WILLIAM DOLAN

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

Approved: 10-14-10  
*William P. Dolan*  
Public Works Director, Village of Tinley Park

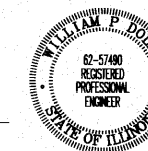
Passed: OCTOBER 28, 2010  
*Chris Hausman*  
District 1 Engineer of Local Roads & Streets

Released for Bid Based on Limited Review: OCTOBER 29, 2010  
*Deanne M. O'Keefe*  
Deputy Director of Highways, Region 1 Engineer

PRINTED BY THE AUTHORITY OF  
THE STATE OF ILLINOIS

PREPARED BY OR UNDER THE  
DIRECT SUPERVISION OF:

William P. Dolan  
10-14-10



LOCKE EXPRESS: 11/30/11

**INDEX OF SHEETS**

- 1. COVER SHEET
- 2. INDEX OF SHEETS AND STATE STANDARDS
- 3. GENERAL NOTES
- 4.-7. SUMMARY OF QUANTITIES
- 8.-9. TYPICAL CROSS SECTIONS
- 10.-13. ALIGNMENT AND TIES
- 14.-15. DETOUR PLAN
- 16.-18. SUGGESTED STAGING OF CONSTRUCTION AND TRAFFIC CONTROL
- 19.-20. PLAN AND PROFILES
- 21. INTERSECTION GRADING PLAN
- 22.-23. DRAINAGE AND UTILITIES PLANS
- 24. WATER MAIN RELOCATION PLAN
- 25. PAVEMENT MARKING AND SIGNING
- 26. LANDSCAPING AND EROSION CONTROL PLANS
- 27.-32. STREET LIGHTING PLANS
- 33. DISTRICT 1 STANDARD TRAFFIC SIGNAL LEGEND
- 34.-44. TRAFFIC SIGNAL PLANS
- 45. MAST ARM MOUNTED STREET NAME SIGNS
- 46.-50. DISTRICT 1 STANDARD TRAFFIC SIGNAL DETAILS
- 51.-56. CROSS SECTIONS
- 57.-60. CONSTRUCTION AND DISTRICT 1 DETAILS

**STATE STANDARDS**

- 00001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 280001-05 TEMPORARY EROSION CONTROL SYSTEMS
- 424001-05 CURB RAMPS FOR SIDEWALKS
- 442101-07 CLASS B PATCHES
- 602001-02 CATCH BASIN, TYPE A
- 602301-03 INLET, TYPE A
- 602401-03 MANHOLE, TYPE A
- 602601-02 PRECAST REINFORCED CONCRETE FLAT SLAB TOP
- 602701-02 MANHOLE STEPS
- 604001-03 FRAME AND LIDS TYPE 1
- 604051-03 FRAME AND GRATE TYPE 11
- 604091-02 FRAME AND GRATE TYPE 24
- 606001-04 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
- 606301-04 PC CONCRETE ISLANDS AND MEDIANS
- 701101-02 OFF-ROAD OPERATIONS, MULTILANE, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701501-06 URBAN LANE CLOSURE, 2L, 2W UNDIVIDED
- 701606-07 URBAN LANE CLOSURE, MULTILANE WITH MOUNTABLE MEDIAN
- 701701-07 URBAN LANE CLOSURE MULTILANE INTERSECTION
- 701901-01 TRAFFIC CONTROL DEVICES
- 720001-01 SIGN PANEL MOUNTING DETAILS
- 720006-02 SIGN PANEL ERECTION DETAILS
- 720011-01 METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
- 729001-01 APPLICATIONS OF TYPE A & B METAL POSTS (FOR SIGNS AND MARKERS)
- 780001-02 TYPICAL PAVEMENT MARKINGS
- 805001-01 ELECTRICAL SERVICE INSTALLATION DETAILS
- 814001-02 HANDHOLES
- 814006-02 DOUBLE HANDHOLES
- 857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
- 862001-01 UNINTERRUPTABLE POWER SUPPLY (UPS)
- 873001-02 TRAFFIC SIGNAL GROUNDING AND BONDING
- 877001-04 STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
- 878001-08 CONCRETE FOUNDATION DETAILS
- 880001-01 SPAN MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION
- 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS
- 888001-01 DETECTOR LOOP INSTALLATIONS

FILE NAME = 06506-INDX-01 - IDOT P01	USER NAME =	DESIGNED — WPD	REVISED —	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS AND STATE STANDARDS</b>	F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED — WPD	REVISED —			348	06-00104-00-CH	COOK	60	2
	PLOT DATE = 10-14-10	DRAWN — AG	REVISED —			CONTRACT NO. 63453				
						SCALE:	SHEET NO. 2	OF 60 SHEETS	STA.	TO STA.
						FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT#HSIP-8003 (851)				

- 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 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.
- 3 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.
- 4 HALF TRAPS ARE TO BE OMITTED IN CATCH BASINS.
- 5 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.
- 6 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. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES BID AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 7 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.
- 8 THE APPROXIMATE LOCATION OF KNOWN PUBLIC UTILITIES ARE SHOWN ON THE PLANS. HOWEVER, THE DEPARTMENT DOES NOT GUARANTEE THEIR 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 UTILITY OWNER (OR COMMUNITY) INVOLVED. ADJUSTMENT OF ALL PUBLIC UTILITIES WITHIN THE LIMITS OF THIS IMPROVEMENT WILL BE DONE BY THE RESPECTIVE OWNERS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF UNDERGROUND INSTALLATION BEFORE STARTING CONSTRUCTION OPERATIONS IN ACCORDANCE WITH ARTICLE 105.07. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH ALL UTILITY COMPANIES.
- 9 ALL TRENCHES WITHIN 2 FEET OF PROPOSED PAVEMENT, DRIVEWAYS, AND SIDEWALKS SHALL BE BACKFILLED WITH TRENCH BACKFILL ONLY.
- 10 COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 OR B-6.24 SHALL BE INSTALLED WITH A THICKNESS EQUAL TO NINE (9") AT THE GUTTER FLAG.

- 11 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.
- 12 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).
- 13 THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON VILLAGE PROPERTY OR PUBLIC RIGHT OF WAY WITHOUT WRITTEN PERMISSION FROM THE VILLAGE.
- 14 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.
- 15 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 TINLEY PARK (708) 444-5510, A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- 16 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.
- 17 ALL PAVEMENT, CURB AND SIDEWALK REMOVALS SHALL BE MADE BY MEANS OF STRAIGHT SAW CUT JOINT. THE COST FOR SAW CUTTING SHALL BE INCLUDED IN THE COST OF THE ITEM FOR WHICH THE WORK APPLIES.
- 18 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.
- 19 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.
- 20 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.
- 21 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 AND ENGINEER IN WRITING 24 HOURS IN ADVANCE.

FILE NAME = 06508-NOTE-01 - IDOT P01

USER NAME =	DESIGNED -- WPD	REVISED --
	CHECKED -- WPD	REVISED --
PLOT SCALE =	DRAWN -- ACAD	REVISED --
PLOT DATE = 10-14-10	CHECKED -- ACAD	REVISED --

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

SCALE: SHEET NO. 3 OF 60 SHEETS STA. TO STA.

F.A.P. RITE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	3
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT#HSIP-8003 (851)				

SUMMARY OF QUANTITIES					PAVEMENT	MARKINGS	SIGNS	LANDSCAPE	LIGHTS	SIGNALS	TRAINING	NON-PARTICIPATING 100% VILLAGE OF TINLEY PARK
S.I.	CODE NO.	PAY ITEM	UNIT	QUAN	CONSTRUCTION TYPE CODE							
					004	004	021	031	021	021	042	043
	20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	33	33							
	20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	42	42							
	20101100	TREE TRUNK PROTECTION	EACH	7	7							
	20200100	EARTH EXCAVATION	CU YD	3823	3823							
	20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	100	100							
	20800150	TRENCH BACKFILL	CU YD	509	59							450
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	4840	4840							
*	25000210	SEEDING, CLASS 2A	ACRE	1	1							
*	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	90	90							
*	25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	90	90							
*	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	90	90							
*	25100630	EROSION CONTROL BLANKET	SQ YD	4840	4840							
	28000400	PERIMETER EROSION BARRIER	FOOT	1203	1203							
	28000510	INLET FILTERS	EACH	9	9							
	31101200	SUB-BASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	596	596							
	31200500	STABILIZED SUBBASE - HOT-MIX ASPHALT, 4"	SQ YD	223	223							
	35300500	PORTLAND CEMENT CONCRETE BASE COURSE 10"	SQ YD	223	223							
	35501300	HOT-MIX ASPHALT BASE COURSE, 4"	SQ YD	317	317							
	35501308	HOT-MIX ASPHALT BASE COURSE, 6"	SQ YD	81	81							
	40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	808	808							
	40600300	AGGREGATE (PRIME COAT)	TON	12	12							
	40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	10	10							
	40600895	CONSTRUCTING TEST STRIP	EACH	1	1							
	40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	46	46							
	40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	23	23							
	40701846	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 8 1/4"	SQ YD	5223	5223							
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	5356	5356							
	42400800	DETECTABLE WARNINGS	SQ FT	128	128							
	44000100	PAVEMENT REMOVAL	SQ YD	4208	4208							
	44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	719	719							
	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	2872	2872							
	44000600	SIDEWALK REMOVAL	SQ FT	3474	3474							
	44200966	CLASS B PATCHES, TYPE I, 10 INCH	SQ YD	5	5							
	550A0040	STORM SEWERS, CLASS A, TYPE 1 10"	FOOT	18	18							
	550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	84	84							
	550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	280	280							
	55100500	STORM SEWER REMOVAL 12"	FOOT	157	157							
*	56103000	DUCTILE IRON WATER MAIN 6"	FOOT	85								85
*	56103100	DUCTILE IRON WATER MAIN 8"	FOOT	1025								1025
*	56103200	DUCTILE IRON WATER MAIN 10"	FOOT	20								20
*	56108800	TAPPING VALVES AND SLEEVES 6"	EACH	3								3
*	56108900	TAPPING VALVES AND SLEEVES 8"	EACH	2								2
*	56300100	ADJUSTING SANITARY SEWERS, 8-INCH DIAMETER OR LESS	FOOT	60								60
*	56300300	ADJUSTING WATER SERVICE LINES	FOOT	60								60
*	56400820	FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX	EACH	3								3
*	56500700	DOMESTIC WATER SERVICE BOXES TO BE REMOVED	EACH	2								2
*	56500800	DOMESTIC WATER SERVICE BOXES	EACH	2								2
	60200105	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID	EACH	1	1							
	60201105	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 11 FRAME AND GRATE	EACH	2	2							

\* - INDICATES SPECIALTY ITEMS

FILE NAME = 06508-QUAN-01 - P01

USER NAME =	DESIGNED -- WPD	REVISED --
	CHECKED -- WPD	REVISED --
PLOT SCALE = 1=1"	DRAWN -- AG	REVISED --
PLOT DATE = 10-14-10	CHECKED -- AG	REVISED --

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
SUMMARY OF QUANTITIES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	08-00104-00-CH	COOK	80	4
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-HSIP-8003 (851)				

SCALE: NA SHEET NO. 4 OF 80 SHEETS STA. TO STA.

SUMMARY OF QUANTITIES					PAVEMENT	MARKINGS	SIGNS	LANDSCAPE	LIGHTS	SIGNALS	TRAINING	NON-PARTICIPATING 100% VILLAGE OF TINLEY PARK
S.I.	CODE NO.	PAY ITEM	UNIT	QUAN	CONSTRUCTION TYPE CODE							
					004	004	021	031	021	021	042	043
	60201340	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 24 FRAME AND GRATE	EACH	2	2							
	60218400	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	2	2							
	60221100	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1							
	60236800	INLETS, TYPE A, TYPE 11 FRAME AND GRATE	EACH	1	1							
	60237470	INLETS, TYPE A, TYPE 24 FRAME AND GRATE	EACH	3	3							
*	60248700	VALVE VAULTS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	5								5
*	60248900	VALVE VAULTS, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1								1
	60250200	CATCH BASINS TO BE ADJUSTED	EACH	1	1							
	60255500	MANHOLES TO BE ADJUSTED	EACH	5	5							
	60260100	INLETS TO BE ADJUSTED	EACH	3	3							
	60500040	REMOVING MANHOLES	EACH	1	1							
	60500050	REMOVING CATCH BASINS	EACH	3	3							
	60500060	REMOVING INLETS	EACH	1	1							
	60500080	REMOVING CATCH BASINS TO MAINTAIN FLOW	EACH	1	1							
	60500090	REMOVING INLETS TO MAINTAIN FLOW	EACH	2	2							
	60600605	CONCRETE CURB, TYPE B	FOOT	404	404							
	60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	998	998							
	60604400	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18	FOOT	27	27							
	60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	1298	1298							
	60618300	CONCRETE MEDIAN SURFACE, 4 INCH	SQ FT	1860	1860							
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6							
	67100100	MOBILIZATION	L SUM	1	1							
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1							
	X7006119	TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR	L SUM	1	1							
	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	169	169							
	70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	145	145							
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	2592	2592							
	70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	446	446							
	70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	104	104							
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1498	1498							
	72000100	SIGN PANEL - TYPE 1	SQ FT	11	11							
	72000200	SIGN PANEL - TYPE 2	SQ FT	25	25							
	72400500	RELOCATE SIGN PANEL ASSEMBLY - TYPE A	EACH	8	8							
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	291	291							
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	2242	2242							
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1596	1596							
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	70	70							
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	140	140							
*	81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	545						545		
*	81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	218						218		
*	81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	11						11		
*	81001000	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	29						29		
*	81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	153						153		
*	81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	441						441		
*	81400100	HANDHOLE	EACH	4						4		
*	81400200	HEAVY-DUTY HANDHOLE	EACH	4						4		
*	81400300	DOUBLE HANDHOLE	EACH	2						2		
*	81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1896						1896		
*	82102250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	2						2		

\* - INDICATES SPECIALTY ITEMS

FILE NAME = 06508-QUAN-01 - P02

USER NAME =	DESIGNED - WPD	REVISED -
	CHECKED - WPD	REVISED -
PLOT SCALE = 1"=1'	DRAWN - AG	REVISED -
PLOT DATE = 10-14-10	CHECKED - AG	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
SUMMARY OF QUANTITIES

SCALE: NA SHEET NO. 5 OF 60 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	5
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-HSP-0003 (851)				

SUMMARY OF QUANTITIES					PAVEMENT	MARKINGS	SIGNS	LANDSCAPE	LIGHTS	SIGNALS	TRAINING	NON-PARTICIPATING 100% VILLAGE OF TINLEY PARK
S.I.	CODE NO.	PAY ITEM	UNIT	QUAN	CONSTRUCTION TYPE CODE							
					004	004	021	031	021	021	042	043
*	83008500	LIGHT POLE, ALUMINUM, 40 FT. M.H., 12 FT. MAST ARM	EACH	2						2		
*	83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	50						50		
*	83800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	6						6		
*	84200804	REMOVAL OF POLE FOUNDATION	EACH	4						4		
*	84400105	RELOCATE EXISTING LIGHTING UNIT	EACH	4						4		
*	85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1						1		
*	85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1						1		
*	86400100	TRANSCIVER - FIBER OPTIC	EACH	1						1		
*	87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1147						1147		
*	87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1495						1495		
*	87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	878						878		
*	87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1571						1571		
*	87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2175						2175		
*	87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	85						85		
*	87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4						4		
*	87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1						1		
*	87700230	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1						1		
*	87700240	STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1						1		
*	87700250	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1						1		
*	87800100	CONCRETE FOUNDATION, TYPE A	FOOT	16						16		
*	87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4						4		
*	87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	48						48		
*	87900200	DRILL EXISTING HANDHOLE	EACH	2						2		
*	88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	5						5		
*	88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3						3		
*	88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	5						5		
*	88030220	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1						1		
*	88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8						8		
*	88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	10						10		
*	88500100	INDUCTIVE LOOP DETECTOR	EACH	2						2		
*	88600100	DETECTOR LOOP, TYPE I	FOOT	609						609		
*	88700200	LIGHT DETECTOR	EACH	2						2		
*	88700300	LIGHT DETECTOR AMPLIFIER	EACH	1						1		
*	88800100	PEDESTRIAN PUSH-BUTTON	EACH	8						8		
*	89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1						1		
*	89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1						1		
*	89502380	REMOVE EXISTING HANDHOLE	EACH	5						5		
*	89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	8						8		
	Z0001050	AGGREGATE SUBGRADE 12"	SQ YD	5995	5995							
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	52	52							
*	Z0033028	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	4						4		
*	Z0033046	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1						1		
*	Z0033090	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	3400						3400		
*	Z0041900	POLYETHYLENE ENCASMENT	FOOT	1200								1200
	Z0042002	POROUS GRANULAR EMBANKMENT, SUBGRADE	CU YD	100	100							
	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1							
	Z0056608	STORM SEWER (WATER MAIN REQUIREMENTS) 12 INCH	FOOT	98	98							
	Z0062456	TEMPORARY PAVEMENT	SQ YD	241	241							
*	Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1						1		

\* - INDICATES SPECIALTY ITEMS

FILE NAME = 06508-QUAN-01 - P03

USER NAME =	DESIGNED -- WPD	REVISED --
	CHECKED -- WPD	REVISED --
PLOT SCALE = 1"=1'	DRAWN -- AG	REVISED --
PLOT DATE = 10-14-10	CHECKED -- AG	REVISED --

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
SUMMARY OF QUANTITIES

SCALE: NA SHEET NO. 6 OF 80 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	80	6
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-HSIP-9003 (851)				

SUMMARY OF QUANTITIES					PAVEMENT	MARKINGS	SIGNS	LANDSCAPE	LIGHTS	SIGNALS	TRAINING	NON-PARTICIPATING 100% VILLAGE OF TINLEY PARK
S.I.	CODE NO.	PAY ITEM	UNIT	QUAN	CONSTRUCTION TYPE CODE							
					004	004	021	031	021	021	042	043
	Z0076600	TRAINEES	HOUR	1000								
*	A2006618	TREE, QUERCUS IMBRICARIA (SHINGLE OAK), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	5	5						1000	
*	X0323005	AUXILIARY VALVE AND VALVE BOX	EACH	1								1
	X0326657	RELOCATE SIGN, SPECIAL	EACH	1	1							
	X2130010	EXPLORATION TRENCH, SPECIAL	FOOT	350	350							
	X2800510	INLET FILTER CLEANING	EACH	9	9							
	X4021000	TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	7	7							
	X4022000	TEMPORARY ACCESS (COMMERCIAL ENTRANCE)	EACH	2	2							
	X4403800	MEDIAN SURFACE REMOVAL	SQ FT	1577	1577							
*	X5630006	CUT AND CAP EXISTING 6" WATER MAIN	EACH	8								8
*	X5630008	CUT AND CAP EXISTING 8" WATER MAIN	EACH	2								2
*	X5630010	CUT AND CAP EXISTING 10" WATER MAIN	EACH	2								2
	X6026050	SANITARY MANHOLES TO BE ADJUSTED	EACH	5	5							
*	X8050015	SERVICE INSTALLATION - POLE MOUNTED	EACH	1						1		
*	X8163090	UNIT DUCT, 600V, 3-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1 1/2" DIA. POLYETHYLENE	FOOT	1270						1270		
*	X8620020	UNINTERRUPTIBLE POWER SUPPLY	EACH	1						1		
*	X8710020	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	3400						3400		
*	X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	1515						1515		
*	X8730250	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	292						292		
*	XX001047	VALVE VAULTS TO BE ABANDONED	EACH	2								2
*	XX001490	GATE VALVES, 8"	EACH	2								2
*	XX003037	DUCTILE IRON FITTINGS AND ACCESSORIES	POUND	2500								2500
*	XX005855	WATER MAIN CASING PIPE	FOOT	170								170
*	XX006244	WATER SERVICE INSTALL, 2" COMPLETE	EACH	1								1
*	XX006536	WATER SERVICE LINE 1", BORED	FOOT	50								50
*	XX006879	DUCTILE IRON SOLID SLEEVE 6"	EACH	2								2
*	XX007266	FIRE HYDRANTS TO BE REMOVED, SPECIAL	EACH	2								2
*	XX007776	REMOVE AND ABANDON VALVE BOX	EACH	5								5
*	XX008209	TAPPING VALVES AND SLEEVES 10" X 8"	EACH	1								1

\* - INDICATES SPECIALTY ITEMS

FILE NAME - 06508-QUAN-01 - P04

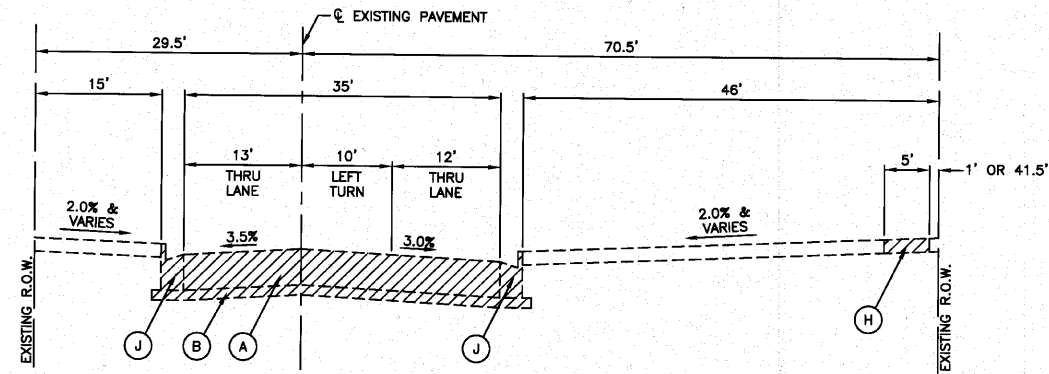
USER NAME =	DESIGNED -- WPD	REVISED --
	CHECKED -- WPD	REVISED --
PLOT SCALE = 1=1'	DRAWN -- AG	REVISED --
PLOT DATE = 10-14-10	CHECKED -- AG	REVISED --

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

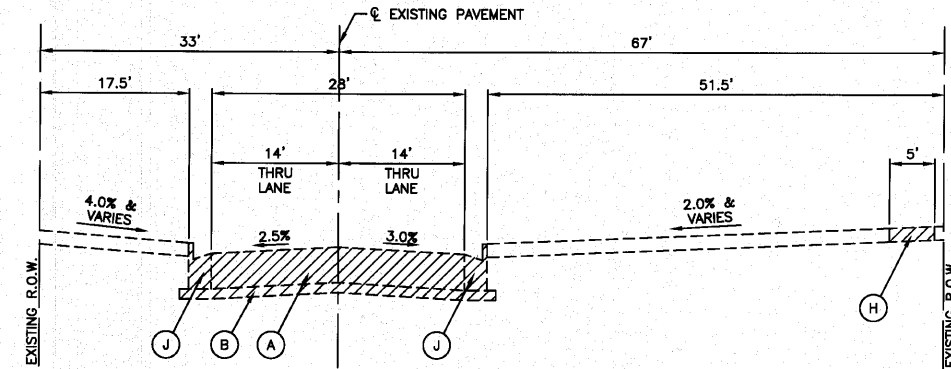
175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
SUMMARY OF QUANTITIES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	7
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	M-HSIP-8003 (851)	

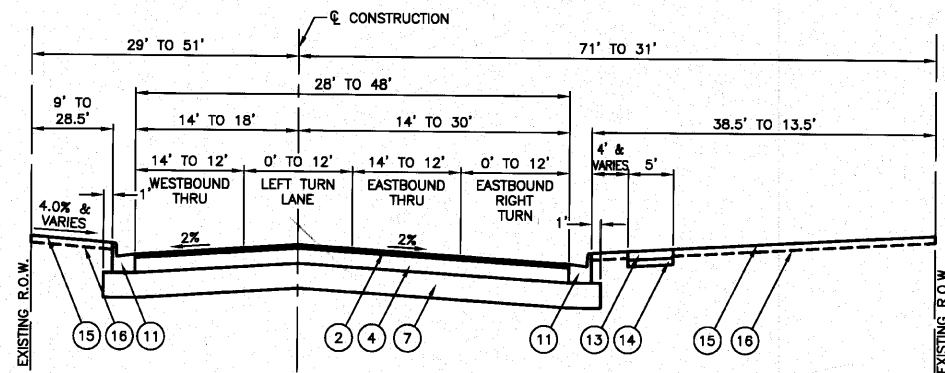
SCALE: NA SHEET NO. 7 OF 60 SHEETS STA. TO STA.



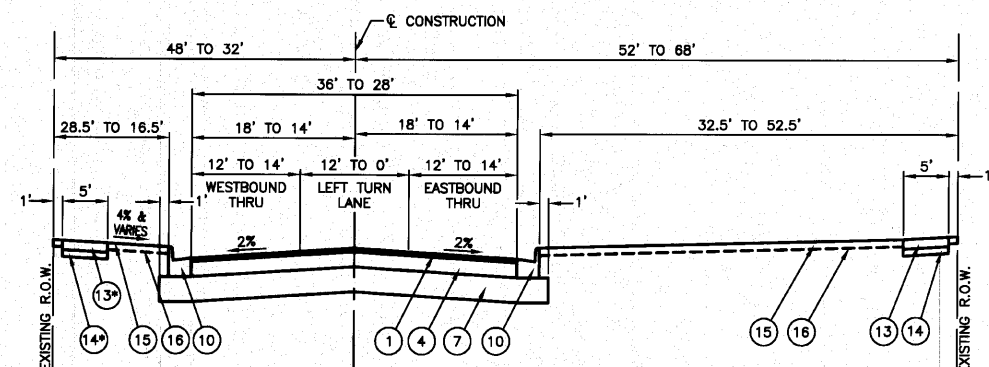
EXISTING TYPICAL CROSS SECTION  
175TH STREET  
STA 50+94.84 TO STA 56+17.70



EXISTING TYPICAL CROSS SECTION  
175TH STREET  
STA 56+82.32 TO STA 62+21.59



PROPOSED TYPICAL CROSS SECTION  
175TH STREET  
STA 50+94.84 TO STA 56+17.70



PROPOSED TYPICAL CROSS SECTION  
175TH STREET  
STA 56+82.32 TO STA 62+21.59

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS @ Ndes
<b>FULL DEPTH PAVEMENT - 175TH STREET (WEST LEG)</b>	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL-9.5mm); 2 INCH	4% @ 50 Gyr.
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 6.25 INCH	4% @ 50 Gyr.
<b>FULL DEPTH PAVEMENT - 175TH STREET (EAST LEG)</b>	
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL-9.5mm); 2 INCH	4% @ 50 Gyr.
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 6.25 INCH	4% @ 50 Gyr.
<b>DRIVEWAYS</b>	
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL-9.5mm); 2 INCH	4% @ 50 Gyr.
HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL-19.0mm); PE-4 INCH, OE-8 INCH	4% @ 50 Gyr.
<b>HARLEM AVENUE PAVEMENT WIDENING</b>	
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL-9.5mm); 1 3/4 INCH	4% @ 90 Gyr.
LEVELING BINDER (MACHINE METHOD), N70 (IL-9.5mm); 0.75 INCH	4% @ 70 Gyr.
STABILIZED SUB-BASE HOT-MIX ASPHALT, 4 INCH	2% @ 30 Gyr.
<b>TEMPORARY PAVEMENT</b>	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL-9.5mm); 1 1/2 INCH	4% @ 50 Gyr.
TEMPORARY PAVEMENT (HMA BINDER IL-19mm), 8 1/2 INCH	4% @ 50 Gyr.

NOTE:  
1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SY/IN.  
2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

FILE NAME = 06508-TYPX-01	USER NAME =	DESIGNED - WPD	REVISED -
	PLOT SCALE =	CHECKED - WPD	REVISED -
	PLOT DATE = 10-14-10	DRAWN - AG	REVISED -
		CHECKED - ACAD	REVISED -

LEGEND

- (A) HMA PAVEMENT, 6" TO 9"
- (B) CRUSHED STONE BASE COURSE, 4" TO 6"
- (C) HMA SURFACE COURSE, 2 1/2"
- (D) PCC PAVEMENT, 10"
- (F) STABILIZED SUBBASE, 4"
- (G) PCC MEDIAN
- (J) COMBINATION CONCRETE CURB & GUTTER
- (H) PCC SIDEWALK
- (Hatched) ITEMS TO BE REMOVED
- (1) HMA SURFACE COURSE, MIX "C", N50, 2"
- (2) HMA SURFACE COURSE, MIX "D", N50, 2"
- (3) POLYMERIZED HMA SURFACE COURSE, MIX "F", N90, 1 3/4"
- (4) HMA BINDER COURSE, IL-19.0, N50, 6 1/2"
- (5) LEVELING BINDER (MACHINE METHOD) N70, 3/4"
- (6) PCC BASE COURSE, 10"
- (7) AGGREGATE SUB-GRADE, 12"
- (8) STABILIZED SUB-BASE, HMA, 4"
- (9) TYPE B CURB, 6"
- (10) TYPE B-6.12 COMBINATION CONCRETE CURB & GUTTER
- (11) TYPE B-6.24 COMBINATION CONCRETE CURB & GUTTER
- (12) CONCRETE MEDIAN SURFACE COURSE, 4"
- (13) PCC SIDEWALK, 5"
- (14) SUB-BASE GRANULAR MATERIAL, 4"
- (15) SEEDING, CLASS 2A
- (16) TOPSOIL, FURNISH & PLACE, 4"
- (17) #8 DEFORMED BAR, 24" @ 24" C-C

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION	UNSUITABLE OR UNSTABLE MATERIAL	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD
STA. 50+94.84 TO STA. 56+17.70	2257	462	1693	27	1666
STA. 56+82.32 TO STA. 62+21.59	1566	154	1175	63	1112
TOTAL	3823	616	2868	90	2778

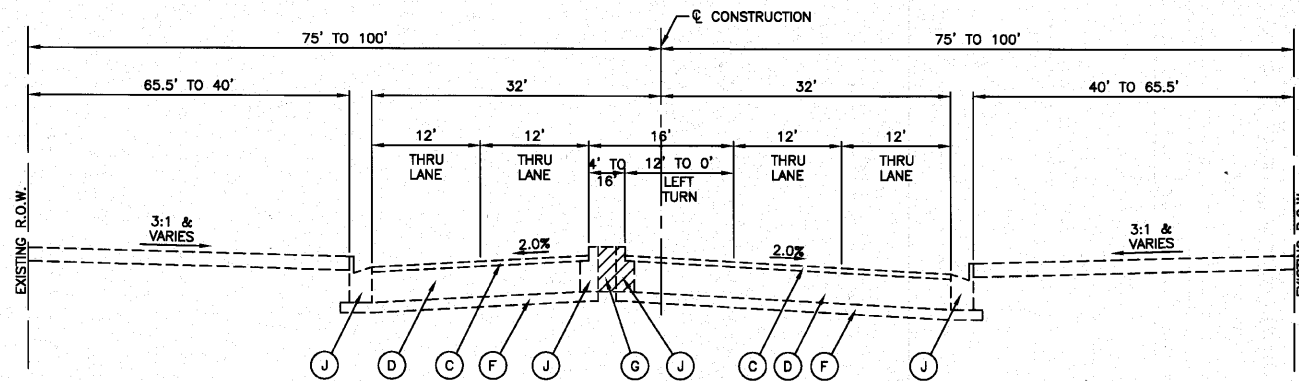
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTION

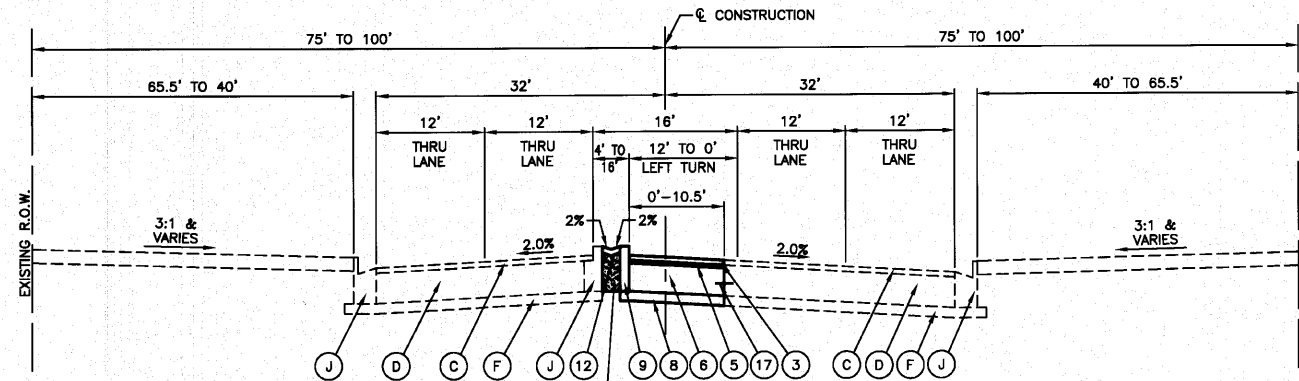
SCALE: NA SHEET NO. 8 OF 60 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	8
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT#HSIP-8003 (851)				





EXISTING TYPICAL CROSS SECTION  
HARLEM AVENUE  
STA 12+42.00 TO STA 16+62.32



PROPOSED TYPICAL CROSS SECTION  
HARLEM AVENUE  
STA 12+42.00 TO STA 16+62.32

LEGEND

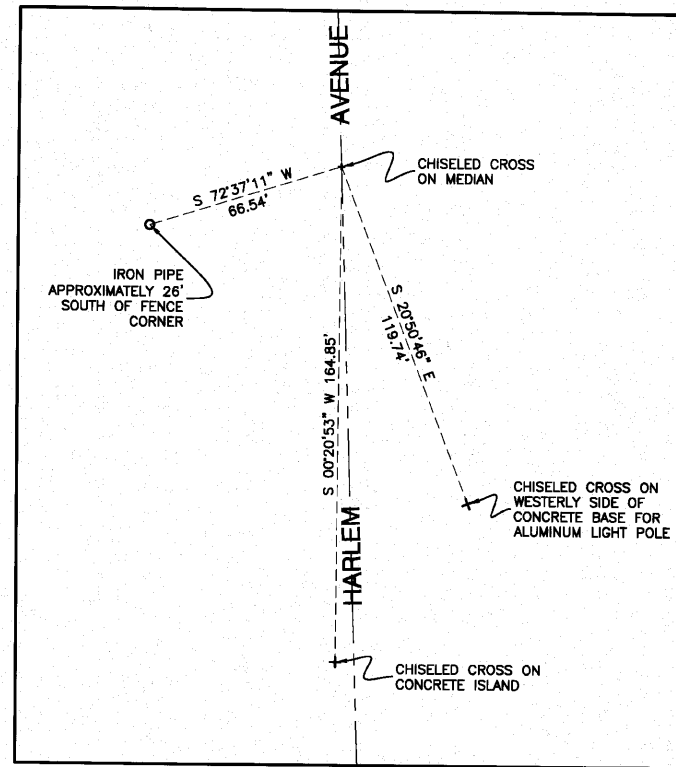
- |   |  |
|---|--|
| (A) HMA PAVEMENT, 6" TO 9"              | (1) HMA SURFACE COURSE, MIX "C", N50, 2"                 |
| (B) CRUSHED STONE BASE COURSE, 4" TO 6" | (2) HMA SURFACE COURSE, MIX "D", N50, 2"                 |
| (C) HMA SURFACE COURSE, 2 1/2"          | (3) POLYMERIZED HMA SURFACE COURSE, MIX "F", N90, 1 3/4" |
| (D) PCC PAVEMENT, 10"                   | (4) HMA BINDER COURSE, IL-19.0, N50, 6 1/4"              |
| (F) STABILIZED SUBBASE, 4"              | (5) LEVELING BINDER (MACHINE METHOD) N70, 3/4"           |
| (G) PCC MEDIAN                          | (6) PCC BASE COURSE, 10"                                 |
| (J) COMBINATION CONCRETE CURB & GUTTER  | (7) AGGREGATE SUB-GRADE, 12"                             |
| (H) PCC SIDEWALK                        | (8) STABILIZED SUB-BASE, HMA, 4"                         |
| (Hatched Box) ITEMS TO BE REMOVED       | (9) TYPE B CURB, 6"                                      |
|   | (10) TYPE B-6.12 COMBINATION CONCRETE CURB & GUTTER      |
|   | (11) TYPE B-6.24 COMBINATION CONCRETE CURB & GUTTER      |
|   | (12) CONCRETE MEDIAN SURFACE COURSE, 4"                  |
|   | (13) PCC SIDEWALK, 5"                                    |
|   | (14) SUB-BASE GRANULAR MATERIAL, 4"                      |
|   | (15) SEEDING, CLASS 2A                                   |
|   | (16) TOPSOIL, FURNISH & PLACE, 4"                        |
|   | (17) #8 DEFORMED BAR, 24" @ 24" C-C                      |

FILE NAME = 06506-TYPX-01	USER NAME =	DESIGNED -- WPD	REVISION --
		CHECKED -- WPD	REVISION --
	PLOT SCALE =	DRAWN -- AG	REVISION --
	PLOT DATE = 10-14-10	CHECKED -- ACAD	REVISION --

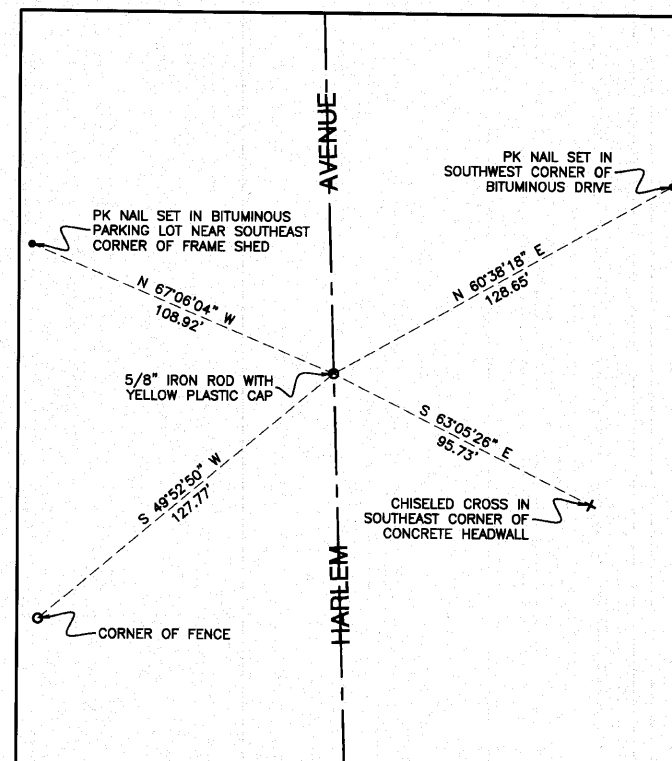
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTION  
SCALE: NA SHEET NO. 9 OF 60 SHEETS STA. TO STA.

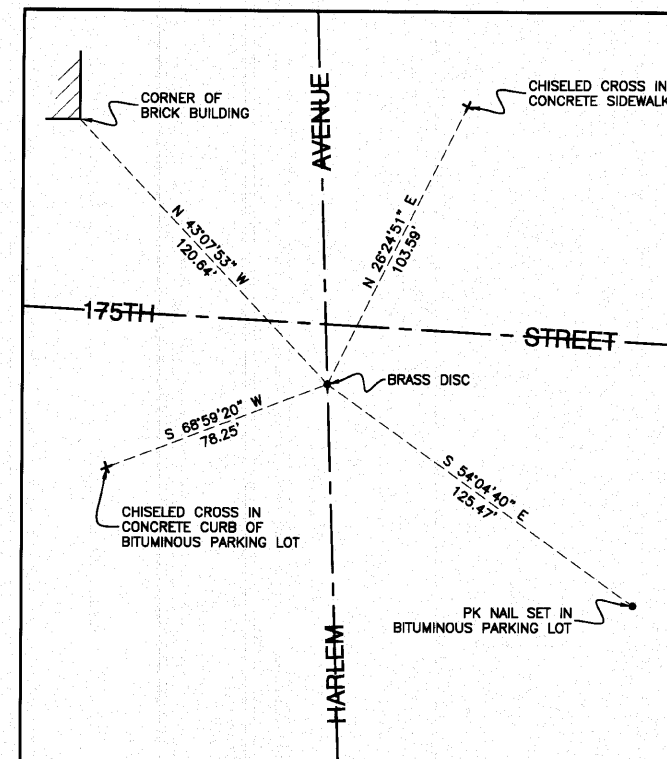
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	9
FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT #HSIP-8003 (851)		



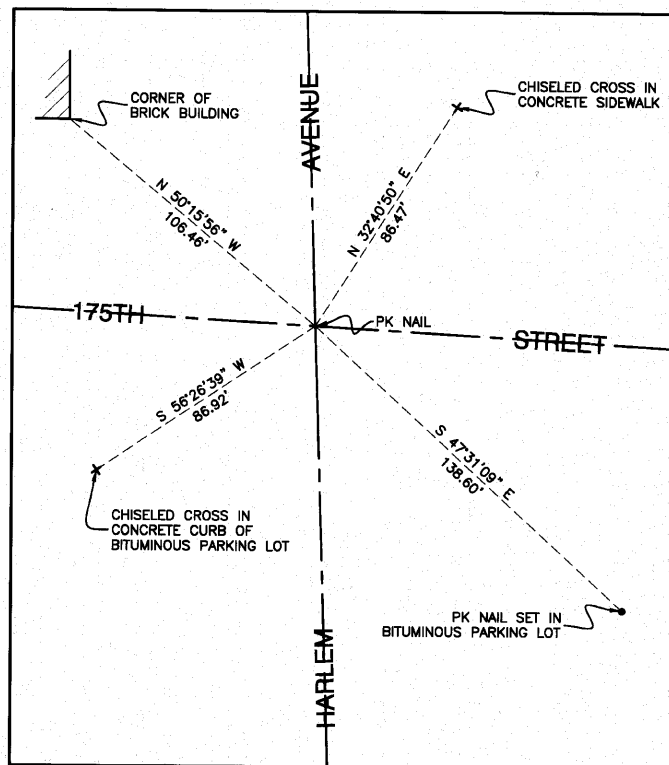
#155 P.O.T. STATION 10+00.00 0.00' RIGHT HARLEM AVENUE  
NORTH=1786799.9284 EAST=1132057.3202



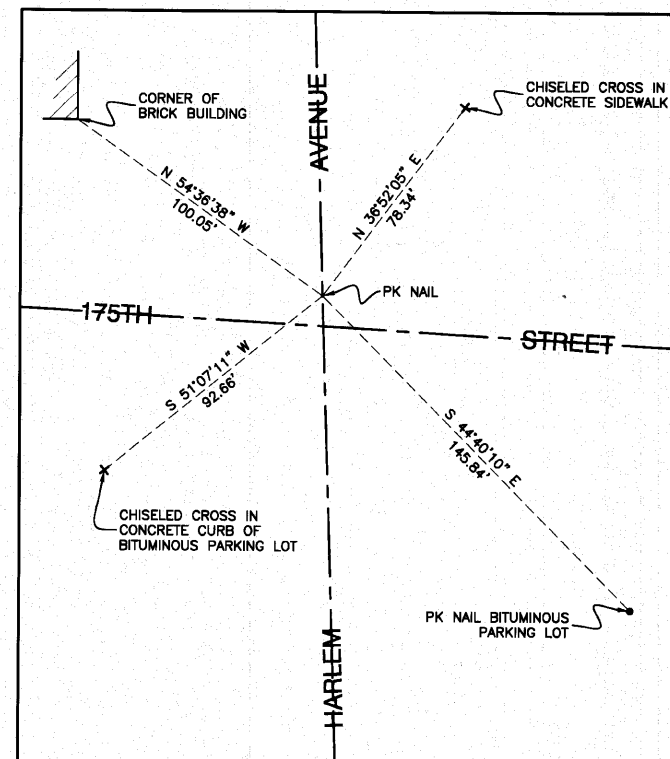
#156 P.O.T. STATION 12+47.37 0.00' RIGHT HARLEM AVENUE  
NORTH=1787047.1711 EAST=1132049.3847



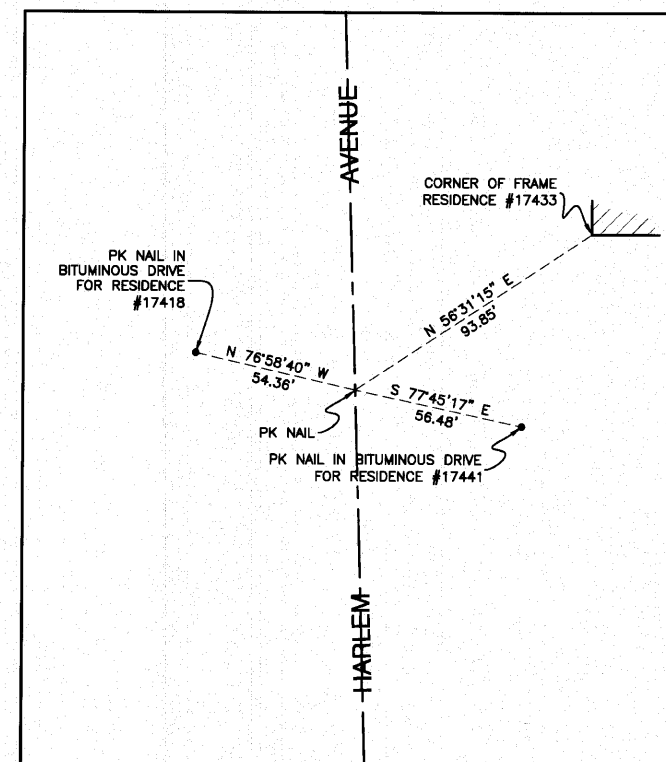
#108 P.O.T. STATION 16+88.45 0.00' RIGHT HARLEM AVENUE  
NORTH=1787488.0195 EAST=1132035.2354



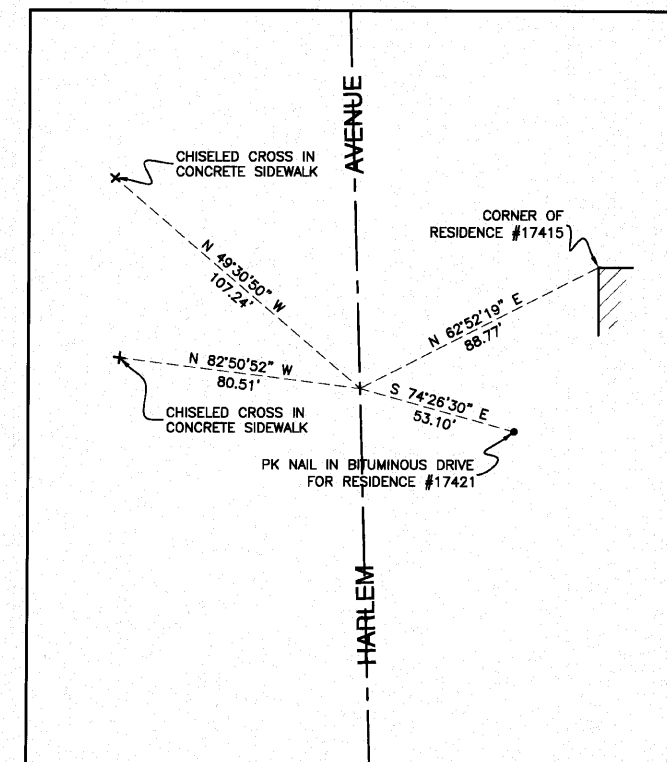
#142 P.O.T. STATION 56+50.00 175TH STREET  
P.O.T. STATION 17+08.44 0.00' RIGHT HARLEM AVENUE  
NORTH=1787508.0096 EAST=1132034.6259



#157 P.O.T. STATION 17+18.56 0.00' RIGHT HARLEM AVENUE  
NORTH=1787518.1228 EAST=1132034.3176



#158 P.O.T. STATION 20+00.00 0.00' RIGHT HARLEM AVENUE  
NORTH=1787799.4293 EAST=1132025.7408



#159 P.O.T. STATION 22+00.00 0.00' RIGHT HARLEM AVENUE  
NORTH=1787999.3365 EAST=1132019.6458

**NOTE:**

Coordinate values indicated hereon are based upon the North American Datum of 1983 adjustment of 2007 (N.A.D. '83 (2007)). The coordinate values are Illinois State Plane Eastern Zone estimated GROUND coordinates utilizing an average location for the length of the project having the following parameters:

WGS '84 North Latitude = 41°34'32.76869"  
WGS '84 West Longitude = 87°46'56.40390"  
WGS '84 Height = 590.647 U.S. Feet

Utilization of these parameters should yield a ground scale factor of 1.0000272094.

Bearings indicated hereon are referenced to the North American Datum of 1983 adjustment of 2007 (N.A.D. '83 (2007)) Illinois State Plane Eastern Zone

FILE NAME = 08506-ALGN-02 Alignment & Ties - TIE 01	USER NAME =	DESIGNED =	REVISED =
	PLOT SCALE = Not To Scale	CHECKED = REG, KWM	REVISED =
	PLOT DATE =	DRAWN = REG, KWM	REVISED =
		CHECKED = REG, KWM	REVISED =

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

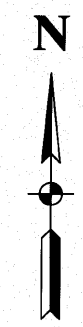
175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
ALIGNMENT & TIES

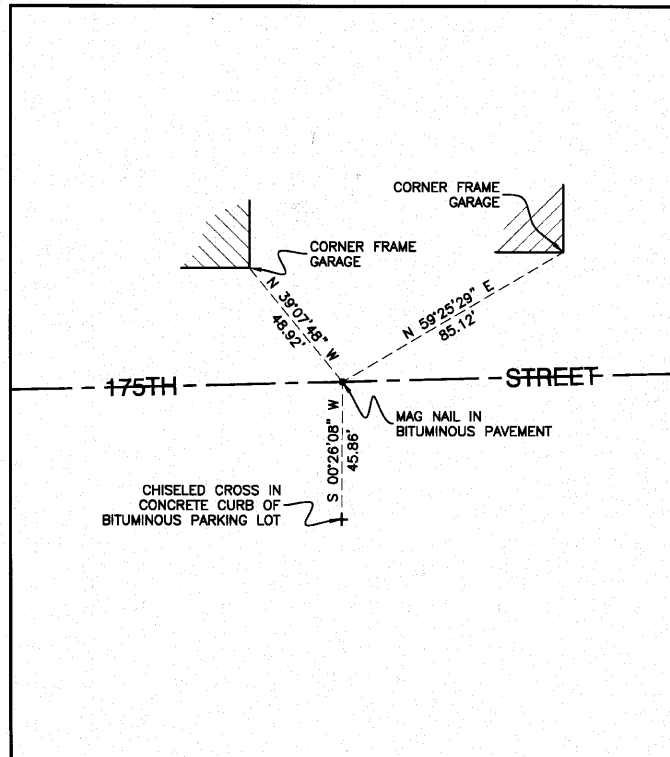
SCALE: Not To Scale SHEET NO. 10 OF 60 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-GH	COOK	60	10

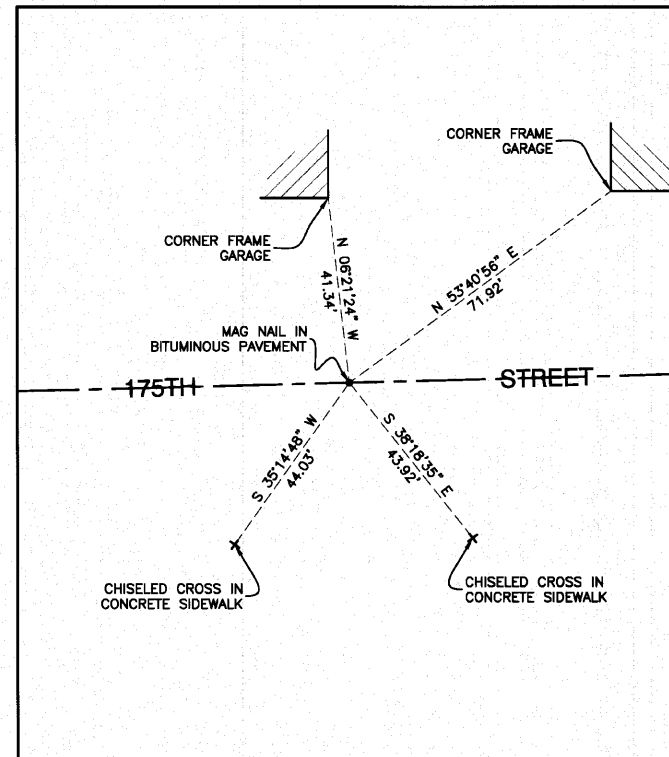
CONTRACT NO. 63453

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT NH-SIP-8003 (851)

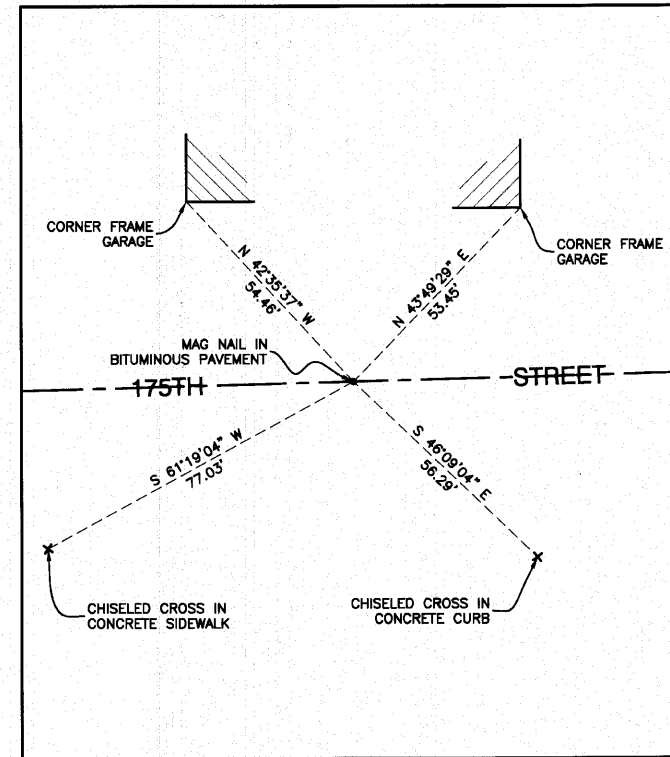




#136 P.O.T. STATION 48+00.00 0.00' RIGHT 175TH STREET  
NORTH=1787516.6972 EAST=1131185.3717



#137 P.O.T. STATION 50+00.00 0.00' RIGHT 175TH STREET  
NORTH=1787521.9802 EAST=1131385.3019



#138 P.O.T. STATION 50+94.84 0.00' RIGHT 175TH STREET  
NORTH=1787524.4855 EAST=1131480.1088

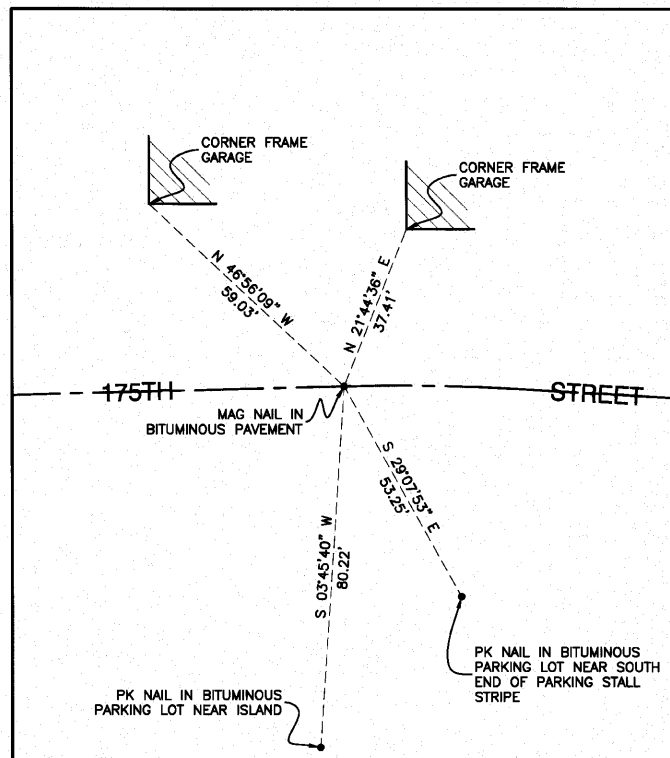
**NOTE:**

Coordinate values indicated herein are based upon the North American Datum of 1983 adjustment of 2007 (N.A.D. '83 (2007)). The coordinate values are Illinois State Plane Eastern Zone estimated GROUND coordinates utilizing an average location for the length of the project having the following parameters:

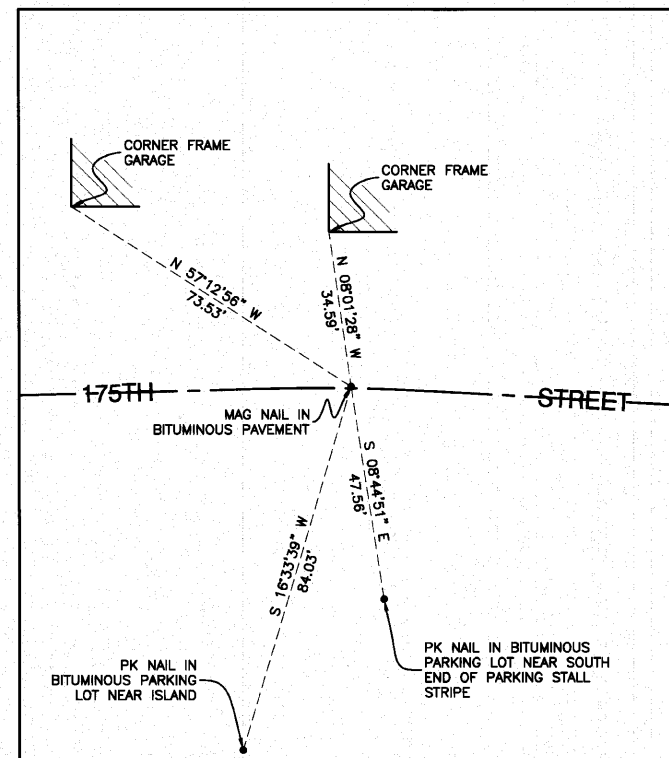
WGS '84 North Latitude = 41°34'32.78869"  
WGS '84 West Longitude = 87°46'56.40390"  
WGS '84 Height = 590.647 U.S. Feet

Utilization of these parameters should yield a ground scale factor of 1.0000272094.

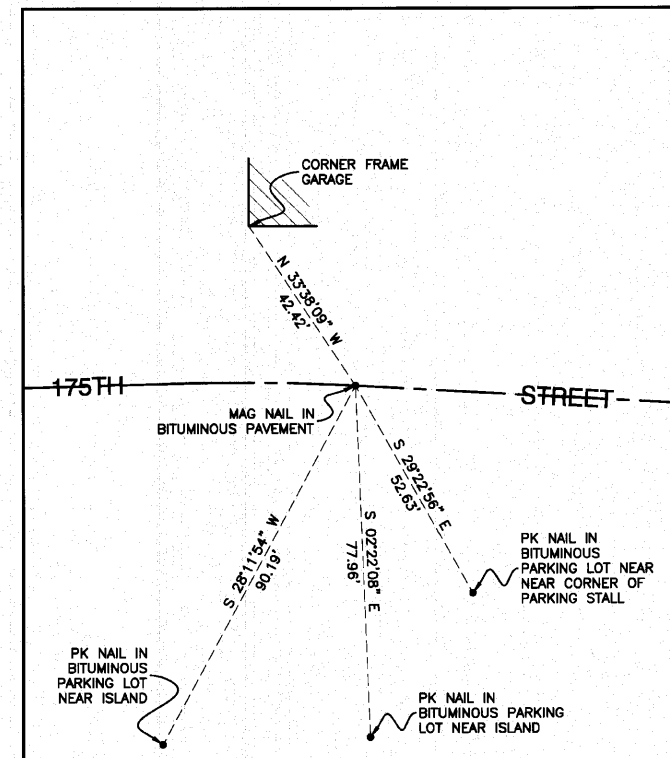
Bearings indicated herein are referenced to the North American Datum of 1983 adjustment of 2007 (N.A.D. '83 (2007)) Illinois State Plane Eastern Zone



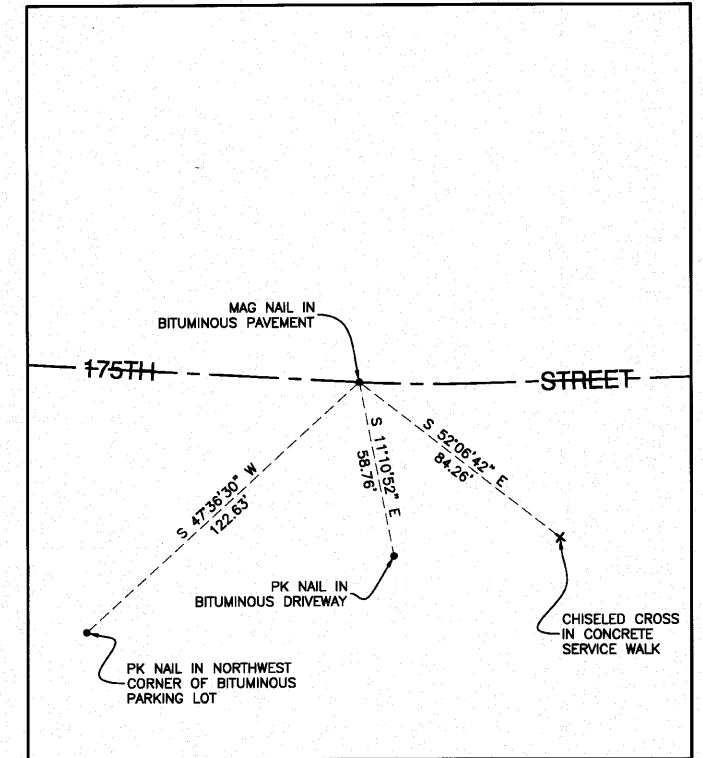
#139 P.C. STATION 52+56.17 0.00' RIGHT 175TH STREET  
NORTH=1787528.7469 EAST=1131641.3793



#140 P.I. CURVE "A" 175TH STREET  
NORTH=1787529.2408 EAST=1131660.0677



#141 P.T. STATION 52+93.54 175TH STREET  
NORTH=1787528.1828 EAST=1131678.7327

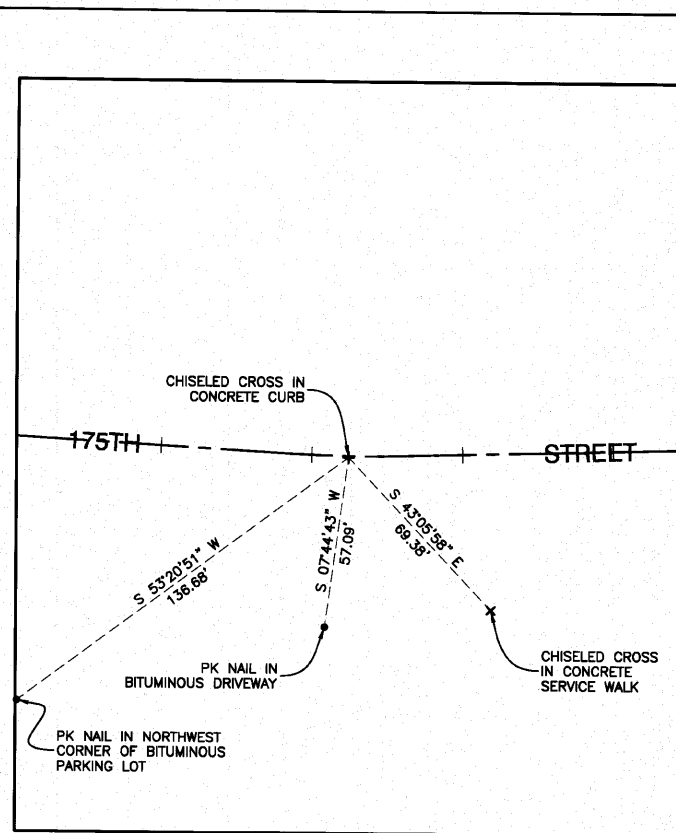


#143 P.C. STATION 58+43.09 175TH STREET  
NORTH=1787497.0821 EAST=1132227.4074

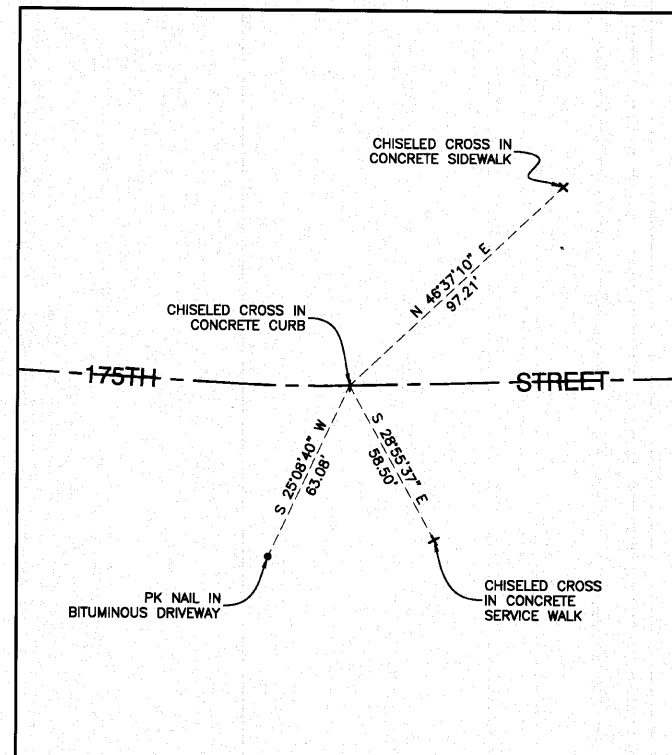
FILE NAME = 08506-ALQ4-02 Alignment & Ties - TIE 02	USER NAME =	DESIGNED =	REVISED =
		CHECKED = REG, KWM	REVISED =
	PLOT SCALE = Not To Scale	DRAWN = REG, KWM	REVISED =
	PLOT DATE =	CHECKED = REG, KWM	REVISED =

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

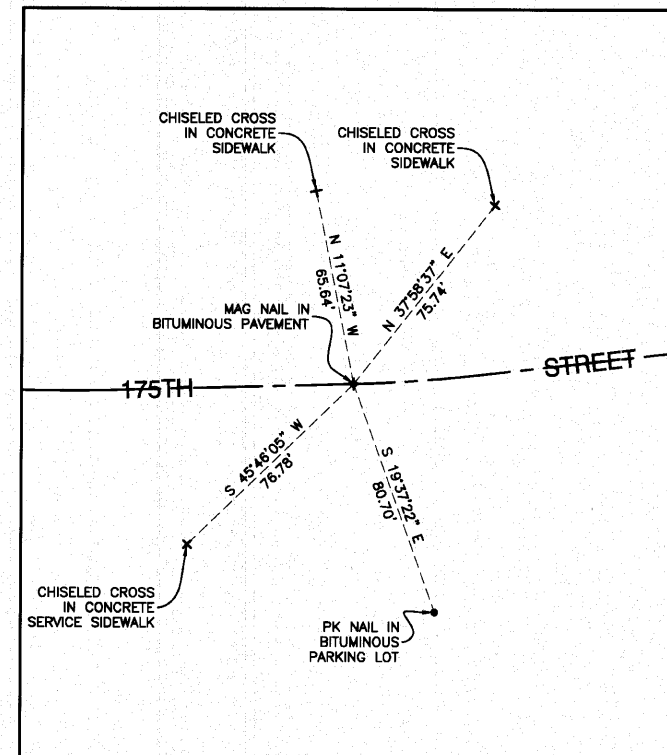
175TH STREET AT HARLEM AVENUE INTERSECTION IMPROVEMENTS ALIGNMENT & TIES		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCALE: Not To Scale		348	06-00104-00-CH	COOK	60	11
SHEET NO. 11 OF 60 SHEETS		FED. ROAD DIST. NO. 1 ILLINOIS		CONTRACT NO. 63453		
STA. TO STA.		FED. AID PROJECT N#HSIP-8003 (851)				



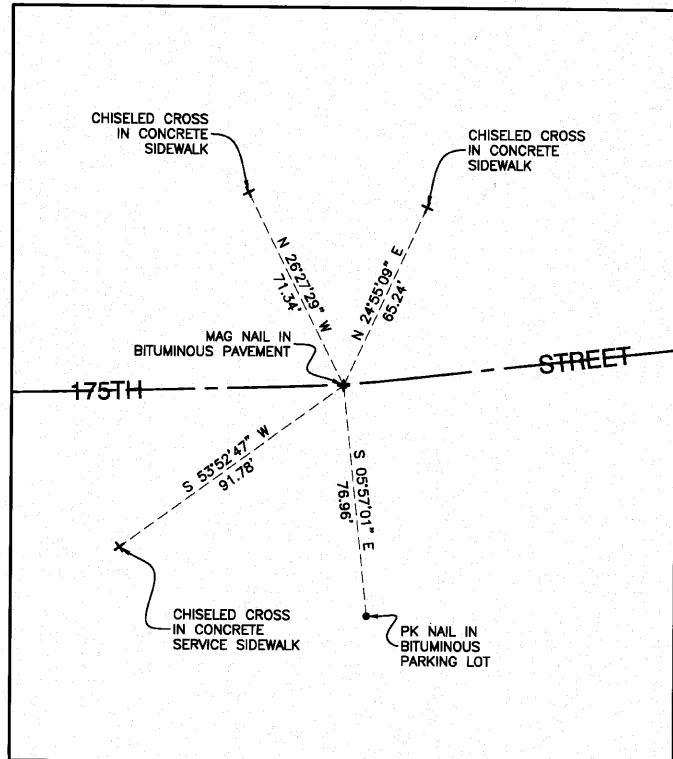
#144 P.I. CURVE "B" 175TH STREET  
NORTH=1787496.0001 EAST=1132246.4954



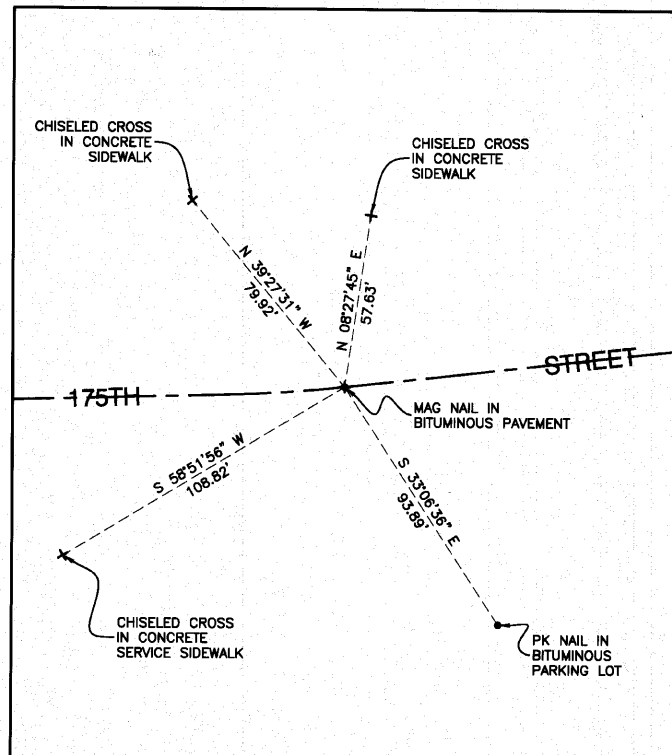
#145 P.T. STATION 58+81.30 175TH STREET  
NORTH=1787496.5411 EAST=1132265.6064



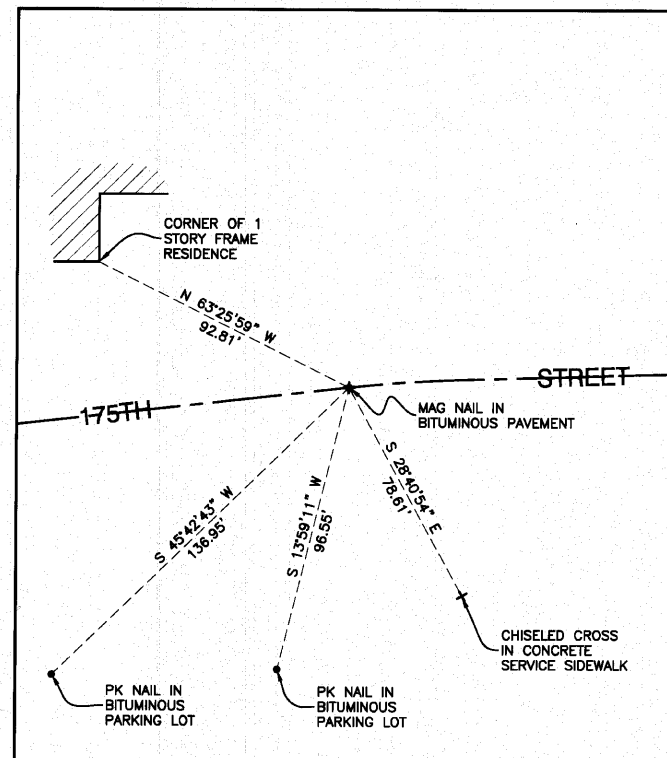
#146 P.C. STATION 59+64.66 175TH STREET  
NORTH=1787498.8993 EAST=1132348.9209



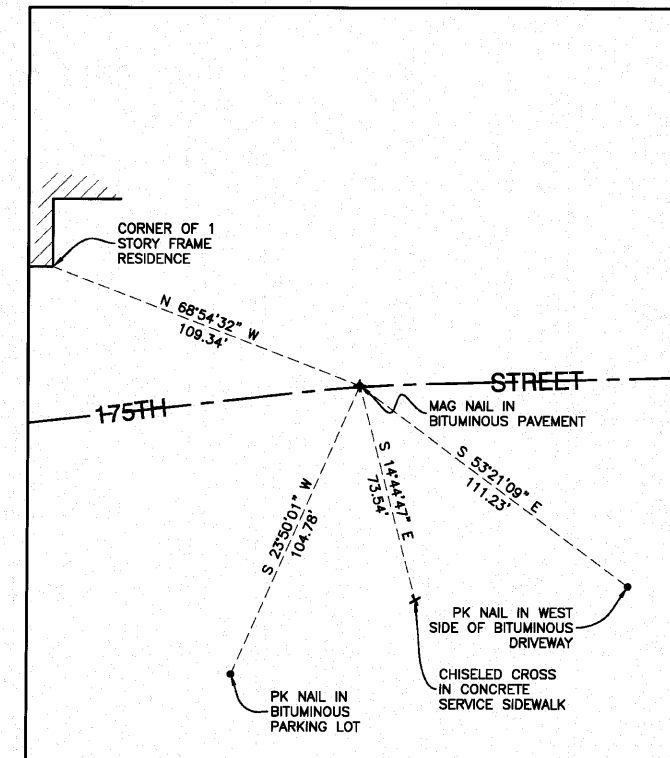
#147 P.I. CURVE "C" 175TH STREET  
NORTH=1787499.4406 EAST=1132368.0419



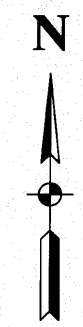
#148 P.T. STATION 60+02.89 175TH STREET  
NORTH=1787501.8025 EAST=1132387.0480



#149 P.C. STATION 61+53.17 175TH STREET  
NORTH=1787518.5875 EAST=1132536.3666



#150 P.I. CURVE "C" 175TH STREET  
NORTH=1787520.7495 EAST=1132555.3728



**NOTE:**

Coordinate values indicated hereon are based upon the North American Datum of 1983 adjustment of 2007 (N.A.D. '83 (2007)). The coordinate values are Illinois State Plane Eastern Zone estimated GROUND coordinates utilizing an average location for the length of the project having the following parameters:

WCS '84 North Latitude = 41°34'32.78869"  
WCS '84 West Longitude = 87°46'56.40390"  
WCS '84 Height = 590.647 U.S. Feet

Utilization of these parameters should yield a ground scale factor of 1.0000272094.

Bearings indicated hereon are referenced to the North American Datum of 1983 adjustment of 2007 (N.A.D. '83 (2007)) Illinois State Plane Eastern Zone

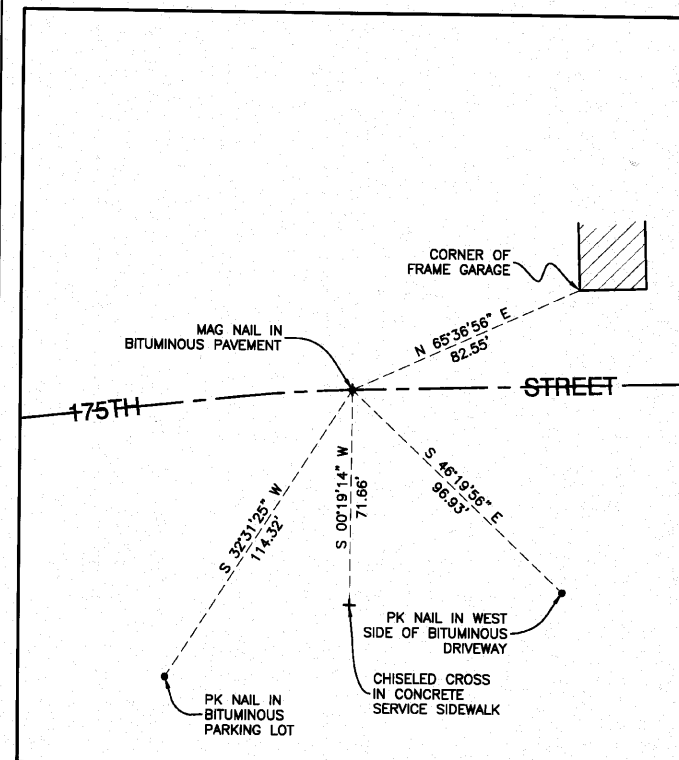
FILE NAME = 06509-ALGN-02 Alignment & Ties - TIE 03	USER NAME =	DESIGNED =	REVISED =
	PLOT SCALE = Not To Scale	CHECKED = REG, KWM	REVISED =
	PLOT DATE =	DRAWN = REG, KWM	REVISED =
		CHECKED = REG, KWM	REVISED =

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

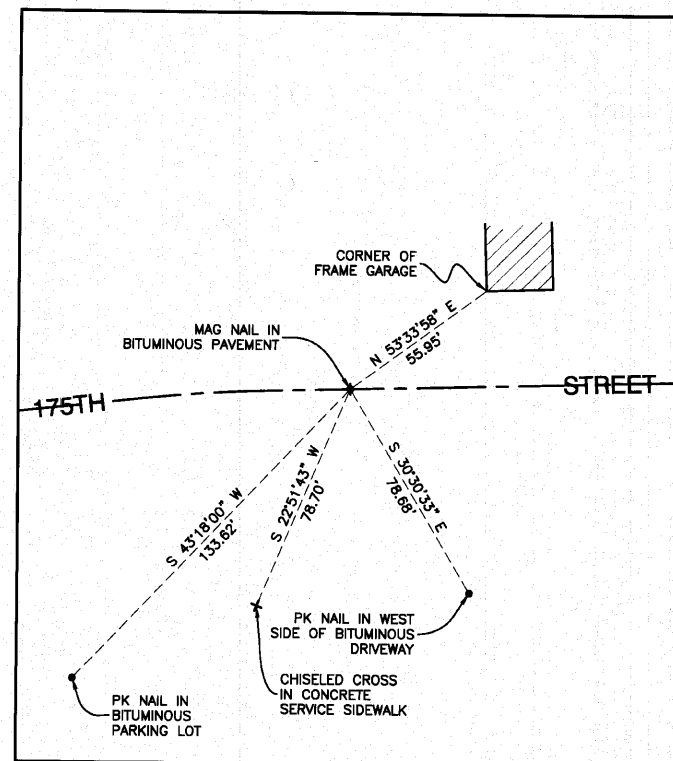
175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
ALIGNMENT & TIES

SCALE: Not To Scale SHEET NO. 12 OF 60 SHEETS STA. TO STA.

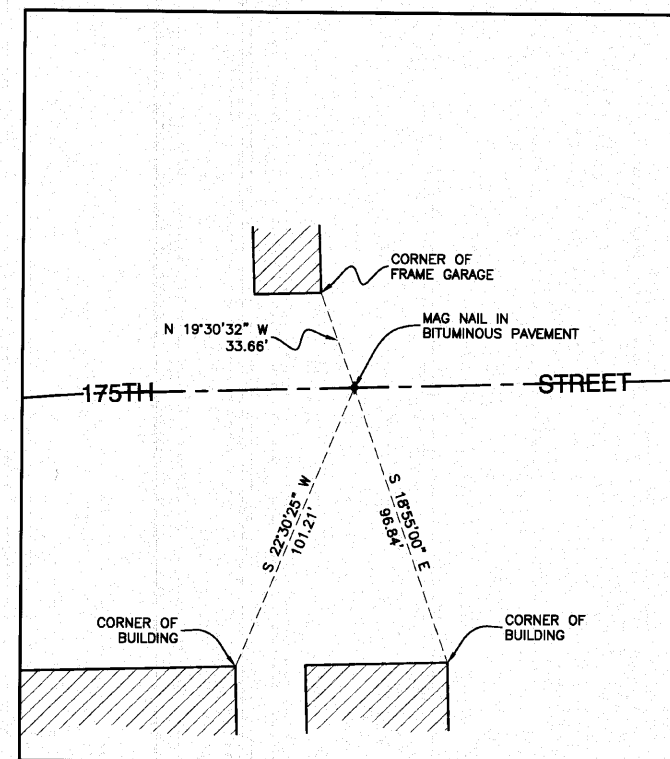
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	12
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT#HSIP-8003 (851)				



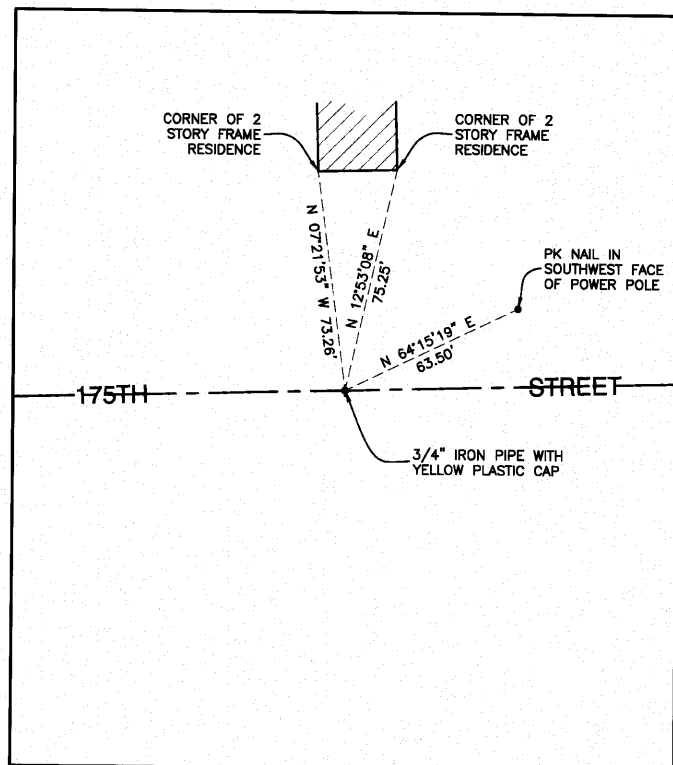
#151 P.T. STATION 61+91.40 175TH STREET  
NORTH=1787521.2907 EAST=1132574.4938



#152 P.O.T. STATION 62+21.59 175TH STREET  
NORTH=1787522.1448 EAST=1132604.6687



#153 P.O.T. STATION 63+00.00 175TH STREET  
NORTH=1787524.3634 EAST=1132683.0473



#154 P.O.T. STATION 65+00.00 175TH STREET  
NORTH=1787530.0222 EAST=1132882.9672

**NOTE:**

Coordinate values indicated hereon are based upon the North American Datum of 1983 adjustment of 2007 (N.A.D. '83 (2007)). The coordinate values are Illinois State Plane Eastern Zone estimated GROUND coordinates utilizing an average location for the length of the project having the following parameters:

WGS '84 North Latitude = 41°34'32.76869"  
WGS '84 West Longitude = 87°46'56.40390"  
WGS '84 Height = 590.647 U.S. Feet

Utilization of these parameters should yield a ground scale factor of 1.0000272094.

Bearings indicated hereon are referenced to the North American Datum of 1983 adjustment of 2007 (N.A.D. '83 (2007)) Illinois State Plane Eastern Zone



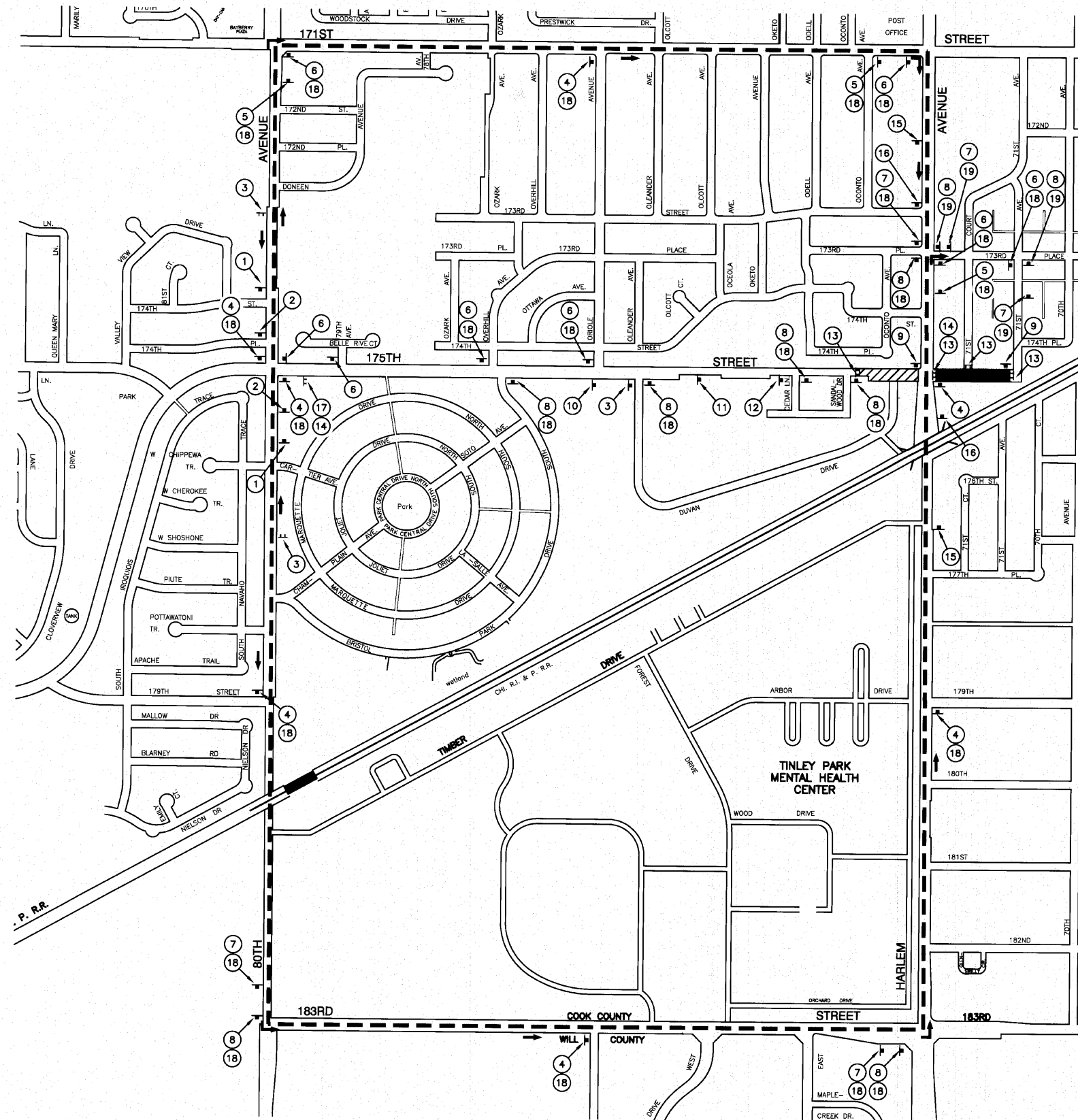
FILE NAME = 08508-ALGN-02 Alignment & Ties - TIE 04	USER NAME =	DESIGNED =	REVISED =
	PLOT SCALE = Not To Scale	CHECKED = REG, KWM	REVISED =
	PLOT DATE =	DRAWN = REG, KWM	REVISED =
		CHECKED = REG, KWM	REVISED =

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
ALIGNMENT & TIES

SCALE: Not To Scale SHEET NO. 13 OF 60 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	13
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT#HSIP-8003 (851)				



**LEGEND**

- ⋈ TYPE III BARRICADE
- ⊥ SIGN
- DETOUR ROUTE
- ➔ DIRECTION OF TRAFFIC
- CONSTRUCTION AREA CLOSED TO TRAFFIC (STAGE 1 ONLY)
- ▨ CONSTRUCTION AREA WITH WESTBOUND TRAFFIC ONLY

**NOTES:**

1. 175TH STREET EAST OF HARLEM AVENUE SHALL BE CLOSED ONLY DURING STAGE 1 CONSTRUCTION.
2. WESTBOUND TRAFFIC SHALL BE MAINTAINED AT ALL TIMES FOR 175TH STREET WEST OF HARLEM AVENUE.

FILE NAME = 06506-DETR01 - P01

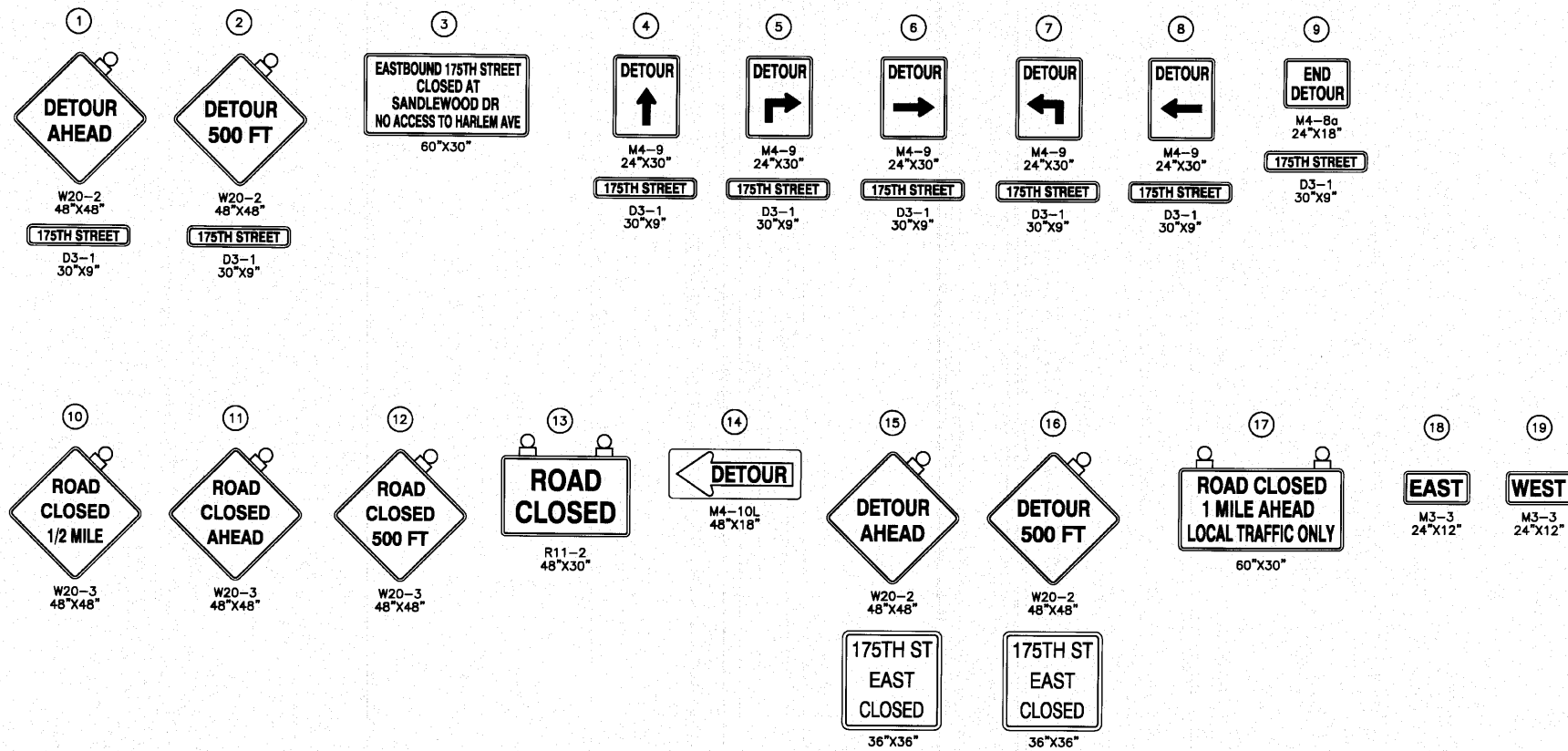
USER NAME =	DESIGNED -- WPD	REVISED --
CHECKED -- WPD	REVISED --	
PLOT SCALE = 1"=20'	DRAWN -- AG	REVISED --
PLOT DATE = 10-14-10	CHECKED -- AG	REVISED --

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
DETOUR PLAN

SCALE: 1"=500' SHEET NO. 14 OF 60 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	14
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT #HSIP-8003 (851)				



FILE NAME = 06509-DETR-01 - P02

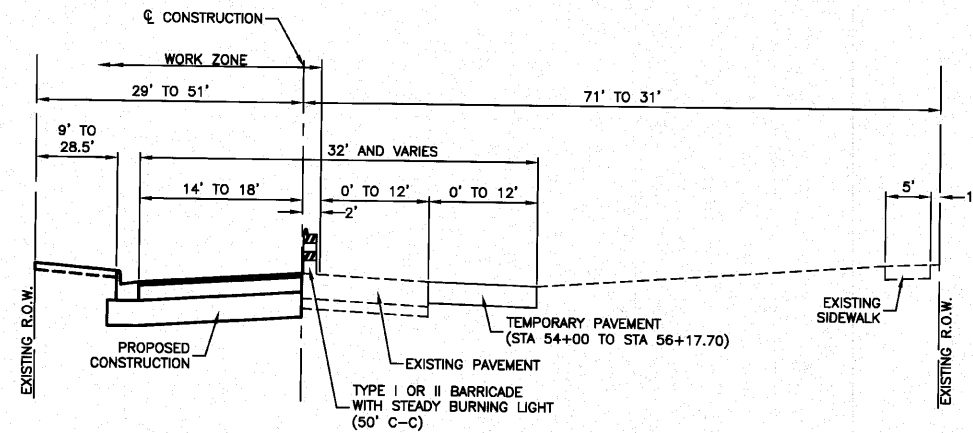
USER NAME =	DESIGNED — WPD	REVISED —
	CHECKED — WPD	REVISED —
PLOT SCALE = 1"=20'	DRAWN — AG	REVISED —
PLOT DATE = 10-14-10	CHECKED — AG	REVISED —

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

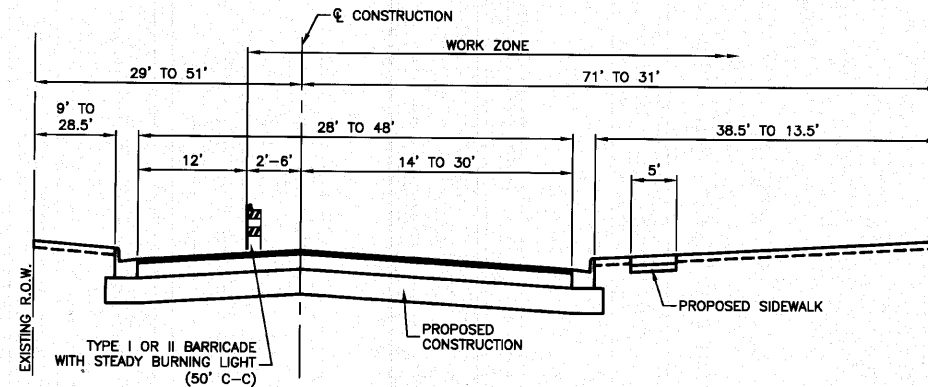
175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
DETOUR PLAN SIGN LEGEND

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	15
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT #HSIP-8003 (851)				

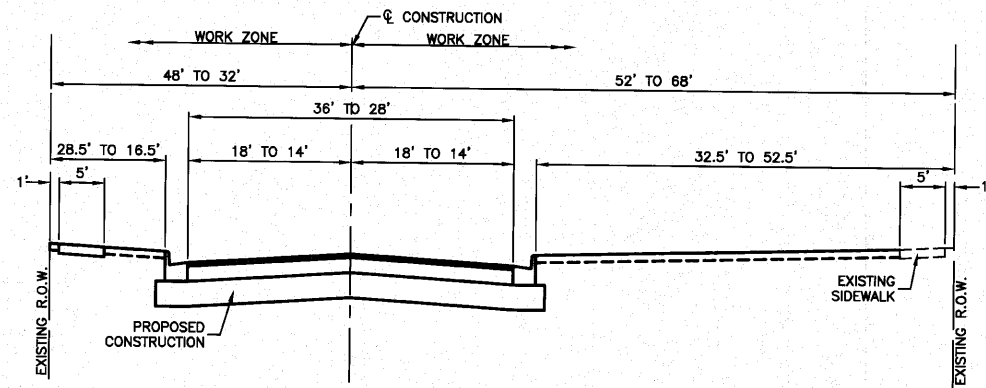
SCALE: NA SHEET NO. 15 OF 60 SHEETS STA. TO STA.



**TYPICAL CROSS SECTION**  
 STAGE I - 175TH STREET  
 STA 50+94.84 TO STA 56+17.70



**TYPICAL CROSS SECTION**  
 STAGE 2 - 175TH STREET  
 STA 50+94.84 TO STA 56+17.70



**TYPICAL CROSS SECTION**  
 STAGE I - 175TH ST  
 STA 56+82.32 TO STA 62+21.59

**SUGGESTED STAGING**

**Pre-Stage Construction**

- Install temporary signals at 175th Street and Harlem Avenue.
- Remove curb and gutter and construct temporary pavement along the south side of 175th Street from approximate Station 54+00 to Station 56+17.70 as shown on the Suggested Construction Staging - Stage I plan sheet.
- Change out any drainage structure frame and grates located in the removed curb and gutter that conflict with the temporary pavement.

**Pre-Stage Traffic Control**

- The work to be performed in the Pre-Stage shall be completed using Highway Standard 701701.

**Stage 1 Construction**

- Construct proposed drainage and pavement for 175th Street east of Harlem Avenue.
- Construct proposed drainage and pavement for the north half of 175th Street west of Harlem Avenue.
- Construct the proposed median and pavement widening for the northbound left turn lane along Harlem Avenue.

**Stage 1 Traffic Control**

- Establish and maintain the detour route for westbound 175th Street traffic west of Harlem Avenue utilizing 171st Street, 183rd Street and 80th Avenue.
- Establish and maintain the local detour route for the east leg of 175th Street utilizing 173rd Street east of Harlem Avenue. Driveway entrances through closure must be maintained at all times. Contractor to provide access to driveways from 71st Avenue.
- The work to be performed along Harlem Avenue shall be completed using Highway Standard 701701.
- 175th Street west of Harlem Avenue - Maintain 1-12' westbound lane utilizing the existing and temporary pavement on the south side of the street.

**Stage 2 Construction**

- Construct the remaining drainage improvements and proposed pavement for the south half of 175th Street west of Harlem Avenue.

**Stage 2 Traffic Control**

- Eliminate the local detour route and open 175th Street east of Harlem Avenue. Place temporary markings as shown on the Stage 2 Staging Plans.
- Continue to maintain the detour route for westbound 175th Street traffic west of Harlem Avenue utilizing 171st Street, 183rd Street and 80th Avenue.
- 175th Street west of Harlem Avenue - Maintain 1-12' westbound lane on the north half of newly constructed pavement.

**Stage 3 Construction**

- Place final pavement markings.
- Install street lighting.
- Install permanent traffic signals and remove temporary traffic signals.
- Perform final grading operations and place sod.
- Post final signing.

**Stage 3 Traffic Control**

- The work to be performed in this stage will be completed using Highway Standards 701101, 701606 and 701701.

FILE NAME = 06508-TYPX-02

USER NAME =	DESIGNED - WPD	REVISED -
PLOT SCALE =	CHECKED - WPD	REVISED -
PLOT DATE = 10-14-10	DRAWN - AG	REVISED -
	CHECKED - ACAD	REVISED -

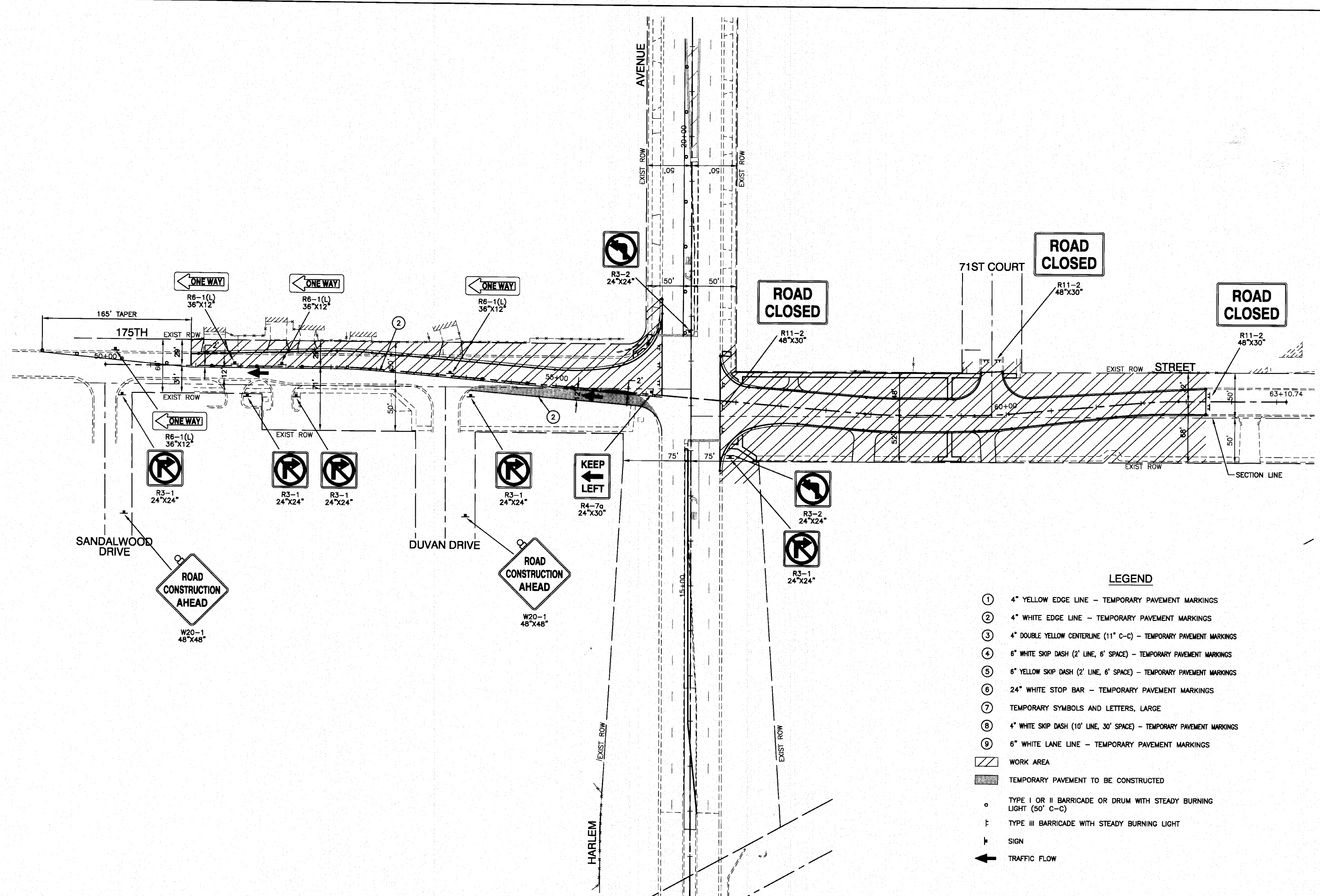
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CONSTRUCTION STAGING  
 TYPICAL CROSS SECTION

SCALE: NA SHEET NO. 16 OF 60 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	16
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT#HSIP-8003 (851)				





**LEGEND**

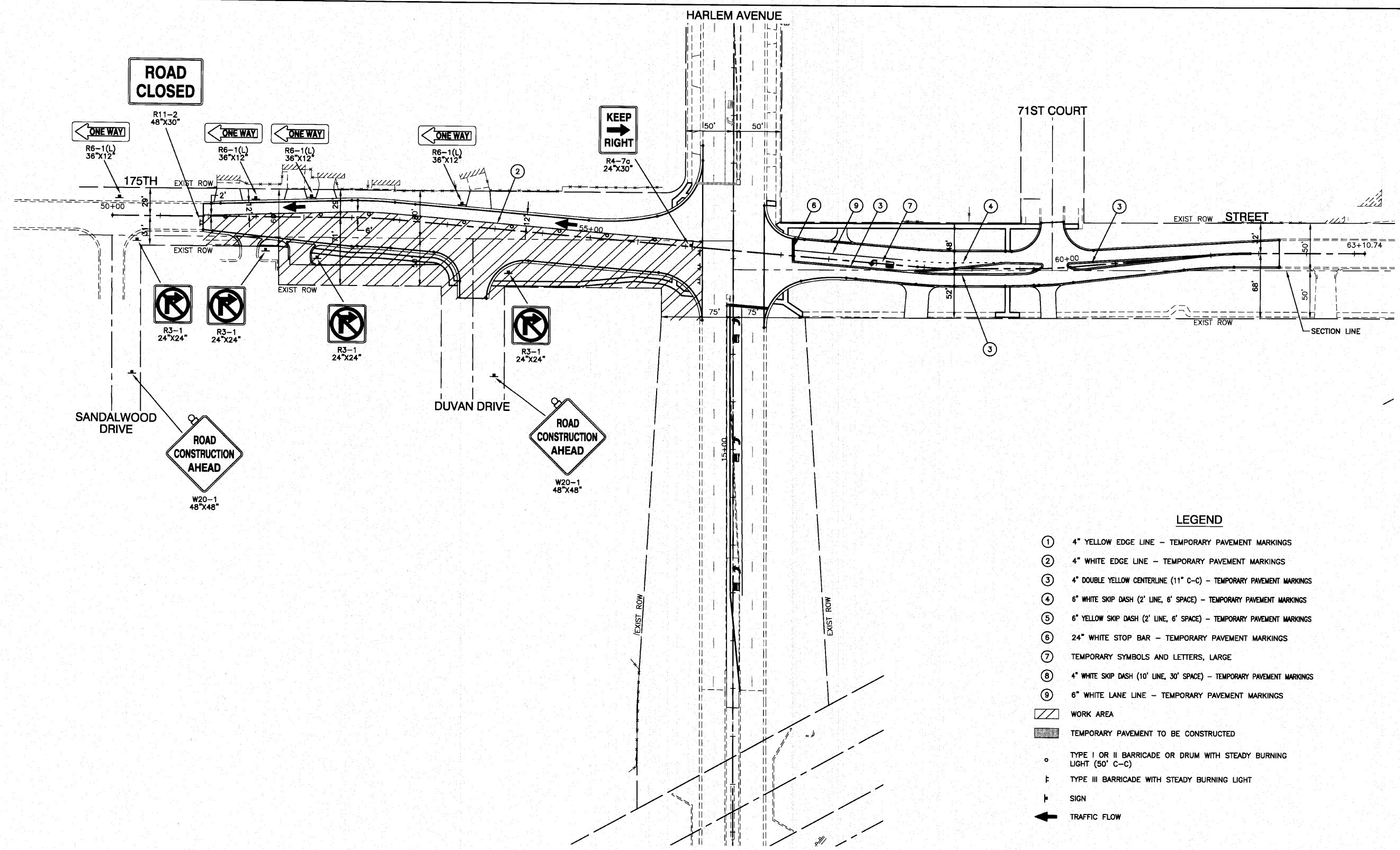
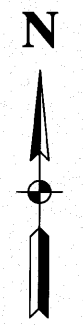
- ① 4" YELLOW EDGE LINE - TEMPORARY PAVEMENT MARKINGS
- ② 4" WHITE EDGE LINE - TEMPORARY PAVEMENT MARKINGS
- ③ 4" DOUBLE YELLOW CENTERLINE (11" C-C) - TEMPORARY PAVEMENT MARKINGS
- ④ 6" WHITE SKIP DASH (2' LINE, 6' SPACE) - TEMPORARY PAVEMENT MARKINGS
- ⑤ 6" YELLOW SKIP DASH (2' LINE, 6' SPACE) - TEMPORARY PAVEMENT MARKINGS
- ⑥ 24" WHITE STOP BAR - TEMPORARY PAVEMENT MARKINGS
- ⑦ TEMPORARY SYMBOLS AND LETTERS, LARGE
- ⑧ 4" WHITE SKIP DASH (10' LINE, 30' SPACE) - TEMPORARY PAVEMENT MARKINGS
- ⑨ 6" WHITE LANE LINE - TEMPORARY PAVEMENT MARKINGS
- ▨ WORK AREA
- ▩ TEMPORARY PAVEMENT TO BE CONSTRUCTED
- TYPE I OR II BARRICADE OR DRUM WITH STEADY BURNING LIGHT (50' C-C)
- ⊥ TYPE III BARRICADE WITH STEADY BURNING LIGHT
- ⊢ SIGN
- ← TRAFFIC FLOW

FILE NAME = 06508-TC0N-01 - P01	USER NAME =	DESIGNED - WPD	REVISED -
		CHECKED - WPD	REVISED -
	PLOT SCALE =	DRAWN - AG	REVISED -
	PLOT DATE = 10-14-10	CHECKED - AG	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
SUGGESTED CONSTRUCTION STAGING - STAGE 1  
SCALE: 1"=50'

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	17
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT/HSIP-8003 (851)				



**LEGEND**

- ① 4" YELLOW EDGE LINE - TEMPORARY PAVEMENT MARKINGS
- ② 4" WHITE EDGE LINE - TEMPORARY PAVEMENT MARKINGS
- ③ 4" DOUBLE YELLOW CENTERLINE (11" C-C) - TEMPORARY PAVEMENT MARKINGS
- ④ 6" WHITE SKIP DASH (2' LINE, 6' SPACE) - TEMPORARY PAVEMENT MARKINGS
- ⑤ 6" YELLOW SKIP DASH (2' LINE, 6' SPACE) - TEMPORARY PAVEMENT MARKINGS
- ⑥ 24" WHITE STOP BAR - TEMPORARY PAVEMENT MARKINGS
- ⑦ TEMPORARY SYMBOLS AND LETTERS, LARGE
- ⑧ 4" WHITE SKIP DASH (10' LINE, 30' SPACE) - TEMPORARY PAVEMENT MARKINGS
- ⑨ 6" WHITE LANE LINE - TEMPORARY PAVEMENT MARKINGS
- ▨ WORK AREA
- ▩ TEMPORARY PAVEMENT TO BE CONSTRUCTED
- TYPE I OR II BARRICADE OR DRUM WITH STEADY BURNING LIGHT (50' C-C)
- ⊥ TYPE III BARRICADE WITH STEADY BURNING LIGHT
- ⊢ SIGN
- ← TRAFFIC FLOW

FILE NAME = 08508-TCON-02 - P01

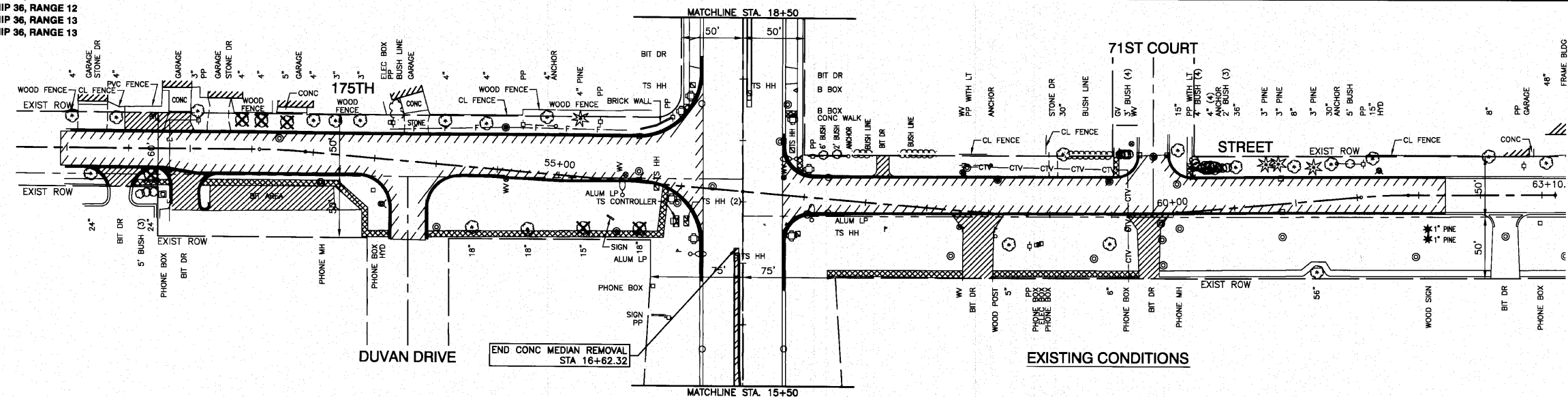
USER NAME =	DESIGNED - WPD	REVISED -
	CHECKED - WPD	REVISED -
PLOT SCALE =	DRAWN - AG	REVISED -
PLOT DATE = 10-14-10	CHECKED - AG	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

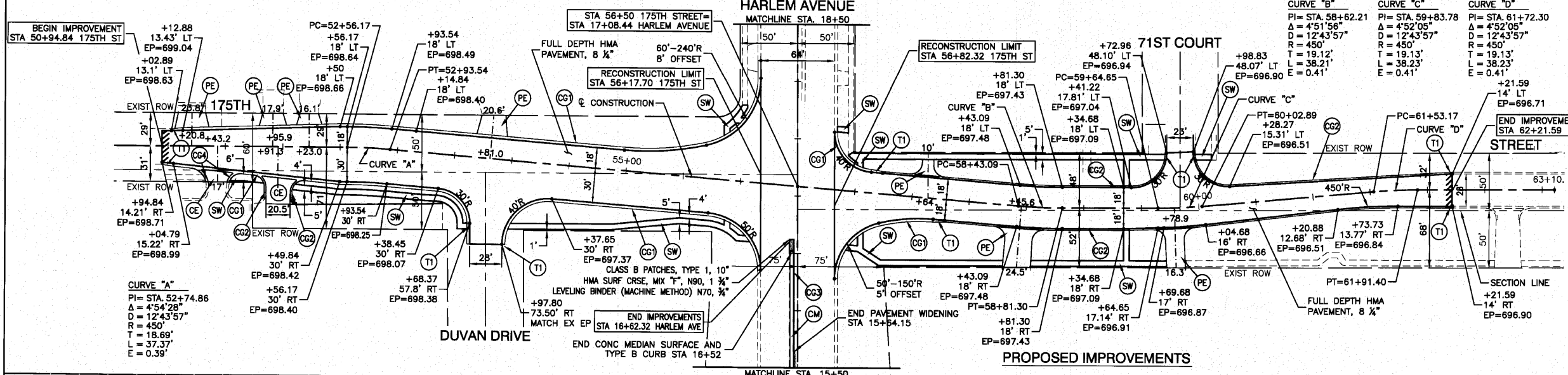
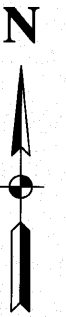
175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
SUGGESTED CONSTRUCTION STAGING - STAGE 2  
SCALE: 1"=50'

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	08-00104-00-CH	COOK	60	18
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT#HSIP-8003 (851)				

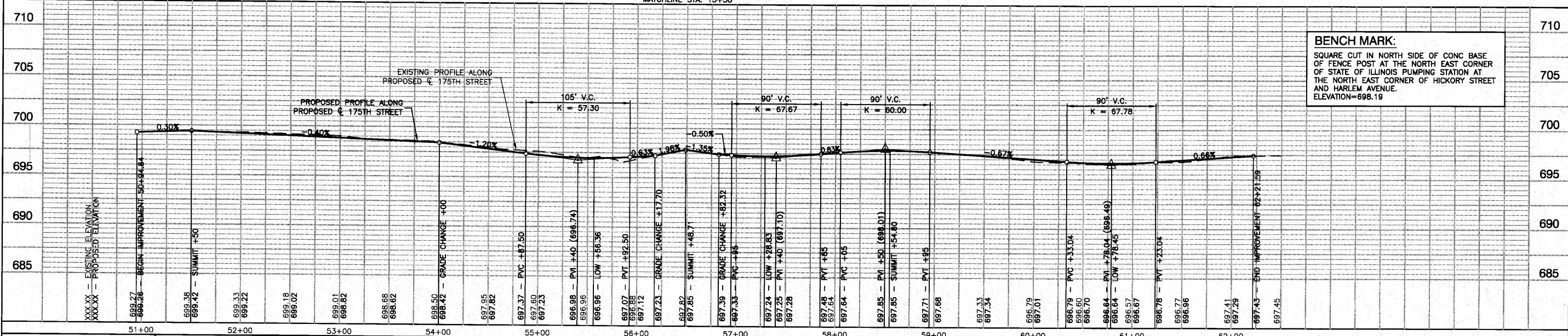
SECTION 36, TOWNSHIP 36, RANGE 12  
 SECTION 25, TOWNSHIP 36, RANGE 12  
 SECTION 31, TOWNSHIP 36, RANGE 13  
 SECTION 30, TOWNSHIP 36, RANGE 13



- LEGEND**
- ☒ TREE TO BE REMOVED
  - ▬ CONC CURB AND GUTTER REMOVAL
  - ▬ PAVEMENT REMOVAL
  - ▬ CONC SIDEWALK REMOVAL
  - ▬ DRIVEWAY REMOVAL
  - ▬ MEDIAN REMOVAL
  - SW P.C.C. SIDEWALK, 5"
  - CG1 C & G TYPE B-6.24
  - CG2 C & G TYPE B-6.12
  - CG3 TYPE B CURB, 6"
  - CG4 C & G TYPE B-6.18
  - CM CONCRETE MEDIAN SURFACE, 4"
  - TI 10' CURB TRANSITION
  - CE COMMERCIAL DRIVEWAY  
HMA SURFACE COURSE, MIX "C", N50, 2"  
HMA BASE COURSE, 6"
  - PE PRIVATE DRIVEWAY  
HMA SURFACE COURSE, MIX "C", N50, 2"  
HMA BASE COURSE, 4"
  - ▬ PAVEMENT WIDENING

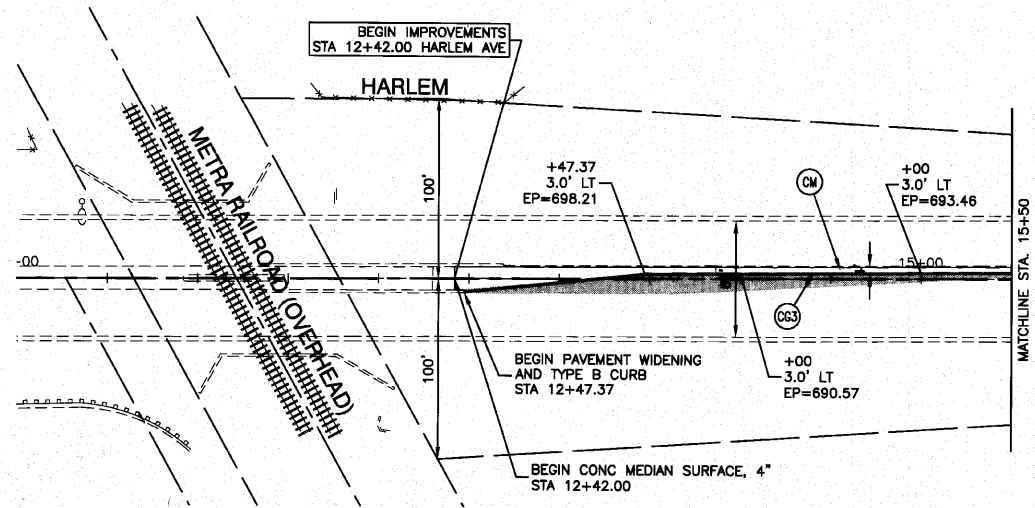
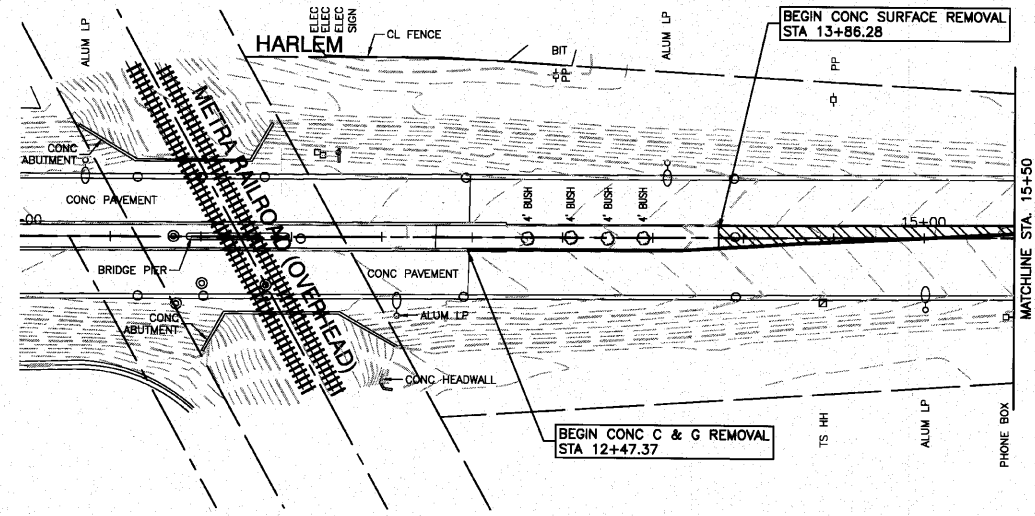


- NOTES**
- SEE INTERSECTION GRADING PLAN FOR EDGE OF PAVEMENT STATION, OFFSET AND ELEVATIONS NEAR HARLEM AVENUE.
  - THE 10" PCC BASE COURSE SHALL BE TIED TO THE EXISTING PCC BASE COURSE WITH EPOXY COATED DEFORMED STEEL TIE BAR NO. 8, 24" LONG AT 24" CENTERS, DRILLED AND GROUTED.
  - THE COST FOR ALL THE BARS SHALL BE CONSIDERED INCLUDED IN THE COST OF THE 10" PCC BASE COURSE.



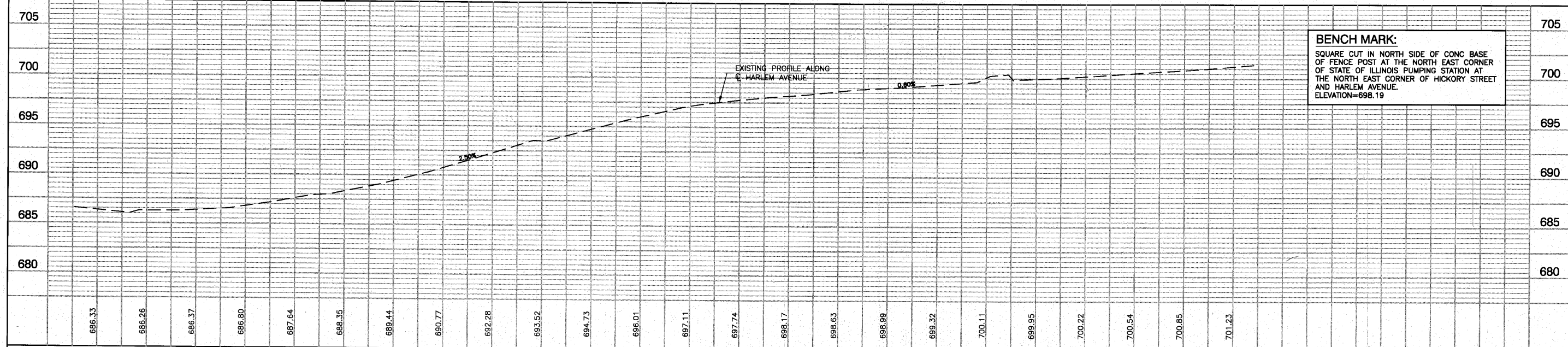
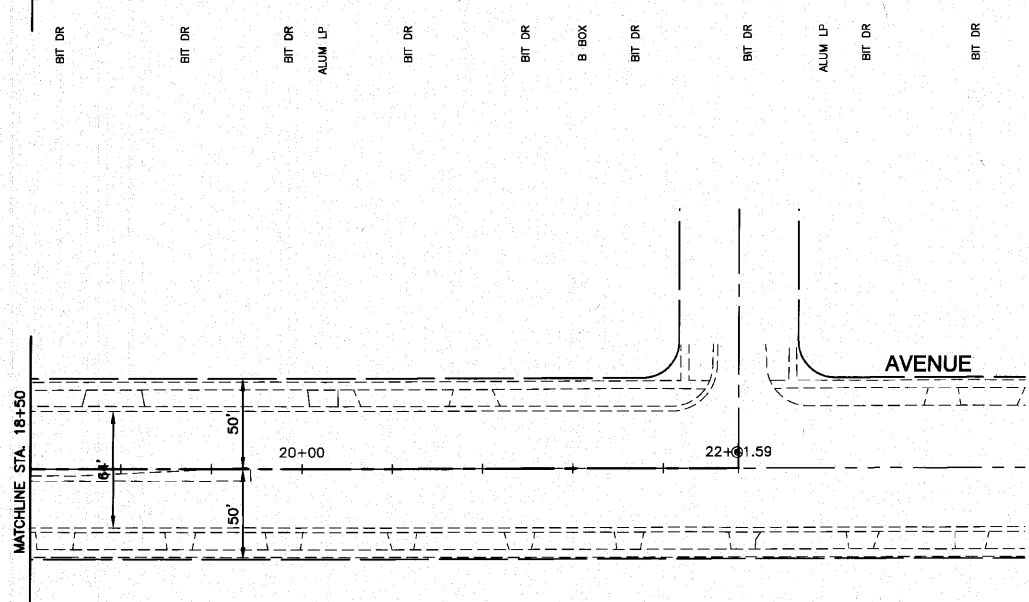
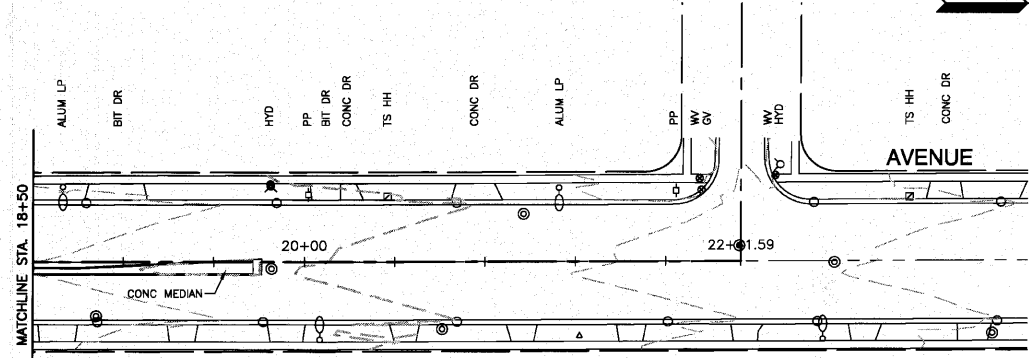
FILE NAME = 06509-PLR01-01	USER NAME =	DESIGNED - WPD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	175TH STREET AT HARLEM AVENUE INTERSECTION IMPROVEMENTS PLAN AND PROFILE 175TH STREET	F.A.P. RFE = 348	SECTION = 06-00104-00-CH	COUNTY = COOK	TOTAL SHEETS = 80	SHEET NO. = 19		
PLOT SCALE = 1"=50'	DRAWN - AG	CHECKED - WPD	REVISED -			SCALE: H 1"=50' V 1"=5'	SHEET NO. 19 OF 80 SHEETS	STA 50+94.84	TO STA. 62+21.59	CONTRACT NO. 63453		
PLOT DATE = 10-14-10	CHECKED - AG	REVISIONS:				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT NHSIP-8003 (851)						

SECTION 36, TOWNSHIP 36, RANGE 12  
 SECTION 25, TOWNSHIP 36, RANGE 12  
 SECTION 31, TOWNSHIP 36, RANGE 13  
 SECTION 30, TOWNSHIP 36, RANGE 13



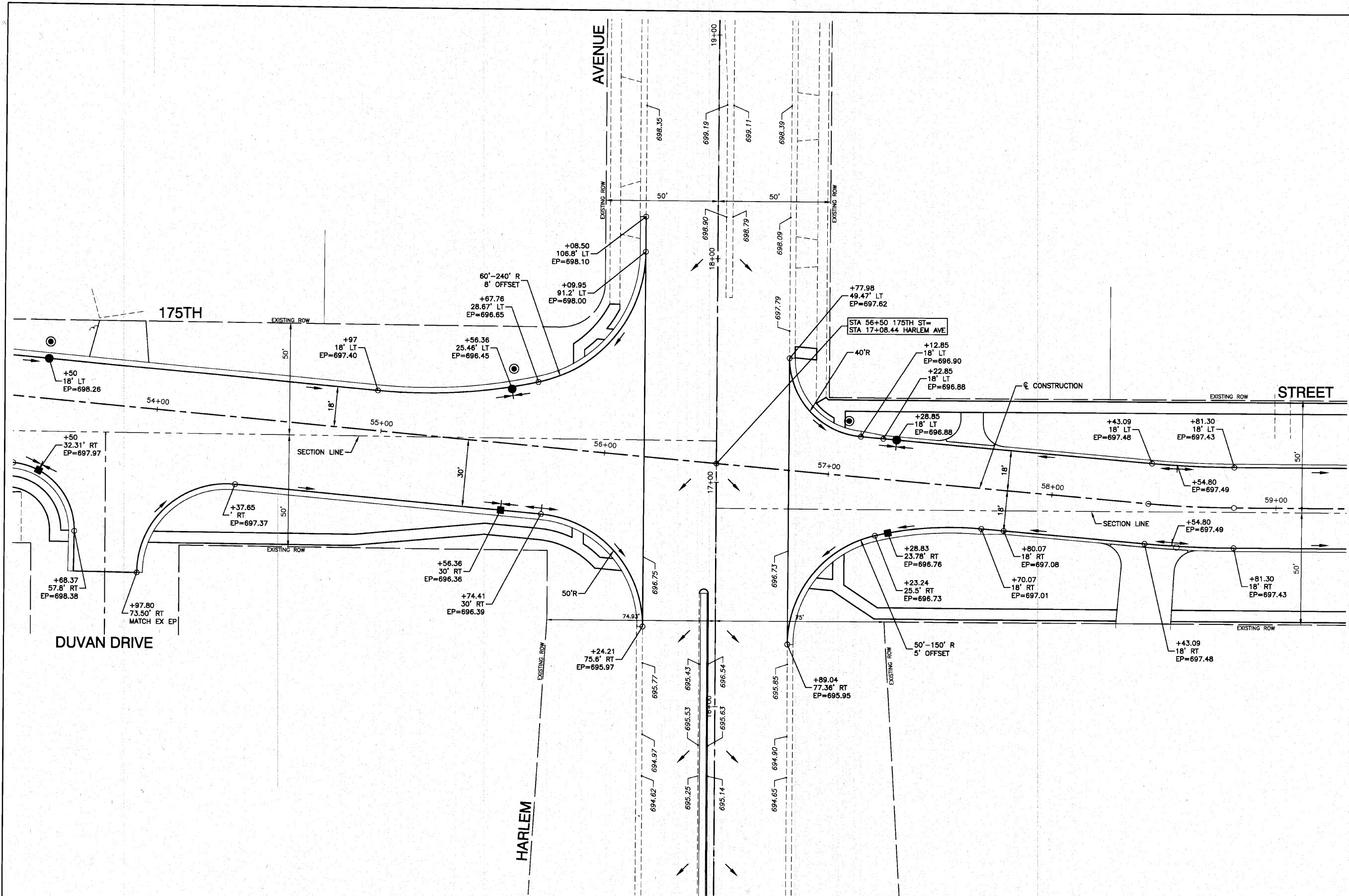
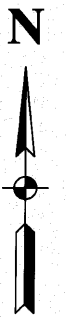
**LEGEND**

- TREE TO BE REMOVED
- CONC CURB AND GUTTER REMOVAL
- PAVEMENT REMOVAL
- CONC SIDEWALK REMOVAL
- DRIVEWAY REMOVAL
- MEDIAN REMOVAL
- P.C.C. SIDEWALK, 5"
- C & G TYPE B-6.24
- C & G TYPE B-6.12
- TYPE B CURB, 6"
- C & G TYPE B-6.18
- CONCRETE MEDIAN SURFACE, 4"
- 10' CURB TRANSITION
- COMMERCIAL DRIVEWAY HMA SURFACE COURSE, MIX "C", N50, 2" HMA BASE COURSE, 6"
- PRIVATE DRIVEWAY HMA SURFACE COURSE, MIX "C", N50, 2" HMA BASE COURSE, 4"
- PAVEMENT WIDENING



**BENCHMARK:**  
 SQUARE CUT IN NORTH SIDE OF CONC BASE OF FENCE POST AT THE NORTH EAST CORNER OF STATE OF ILLINOIS PUMPING STATION AT THE NORTH EAST CORNER OF HICKORY STREET AND HARLEM AVENUE.  
 ELEVATION=698.19

FILE NAME = 06500-PLPR01 - P02	USER NAME =	DESIGNED — WPD	REVISED —	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>175TH STREET AT HARLEM AVENUE INTERSECTION IMPROVEMENTS PLAN AND PROFILE HARLEM AVENUE</b>	F.A.P. RTE. 348	SECTION 06-00104-00-CH	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 20	
PLOT SCALE = 1=50	DRAWN — AG	CHECKED — WPD	REVISED —			SCALE: H 1"=50' V 1"=5'		SHEET NO. 20 OF 80 SHEETS		STA. 50+94.84 TO STA. 62+21.59	
PLOT DATE = 10-14-10	CHECKED — AG	DRAWN — AG	REVISED —			CONTRACT NO. 63453		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT #HSIP-0003 (651)			
						CONTRACT NO. 63453					



FILE NAME = 06606-PLAN-01 - P01

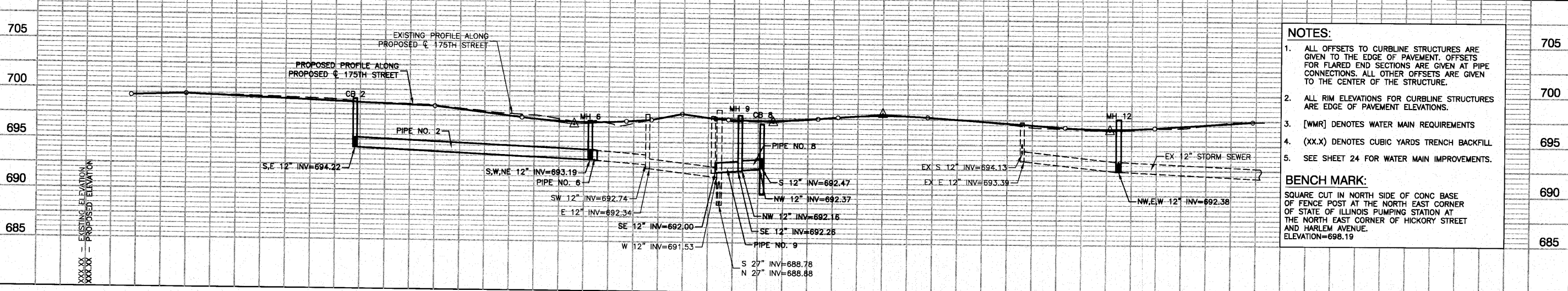
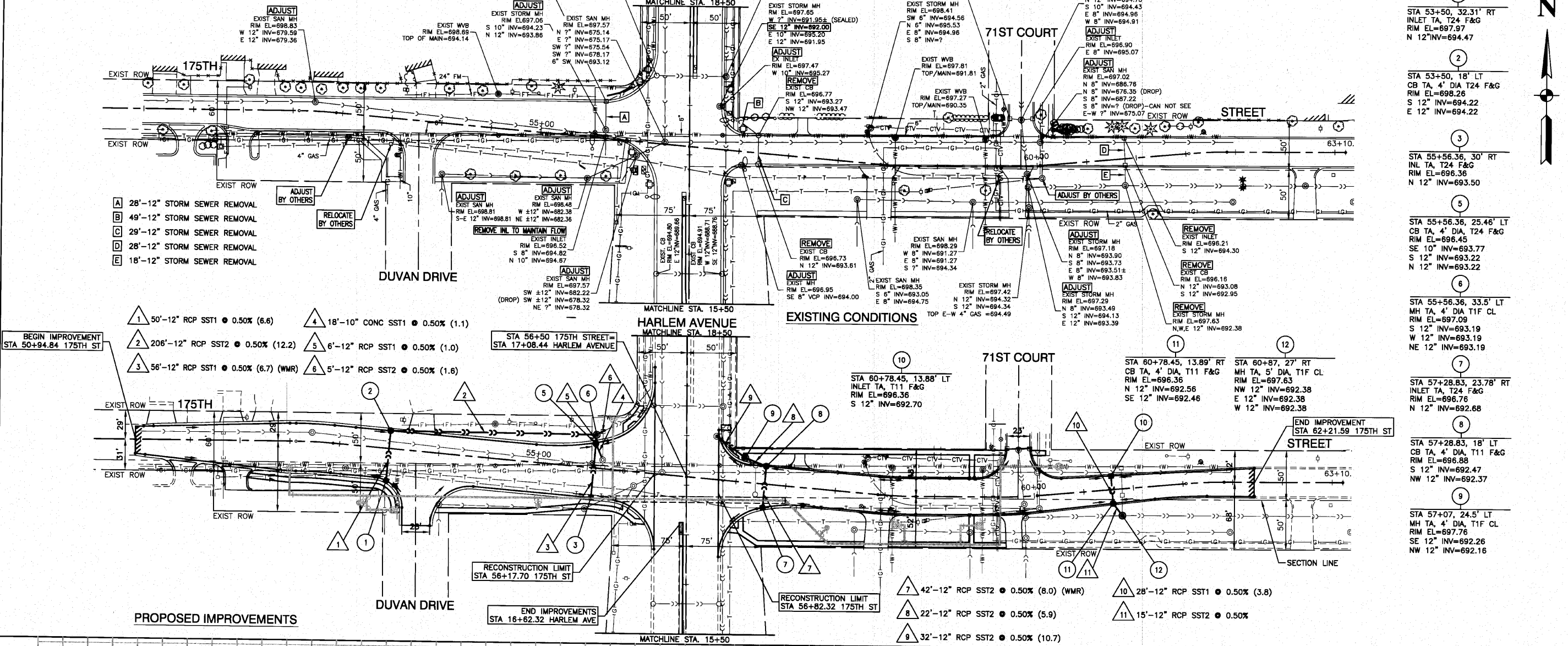
USER NAME =	DESIGNED = WPD	REVISED =
CHECKED = WPD	REVISED =	
PLOT SCALE = 1"=20'	DRAWN = AG	REVISED =
PLOT DATE = 10-14-10	CHECKED = AG	REVISED =

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

175TH STREET AT HARLEM AVENUE  
INTERSECTION GRADING PLAN  
INTERSECTION DETAIL  
SCALE: 1"=20' SHEET NO. 21 OF 80 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	80	21
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT #HSIP-8003 (851)				

SECTION 36, TOWNSHIP 36, RANGE 12  
 SECTION 25, TOWNSHIP 36, RANGE 12  
 SECTION 31, TOWNSHIP 36, RANGE 13  
 SECTION 30, TOWNSHIP 36, RANGE 13



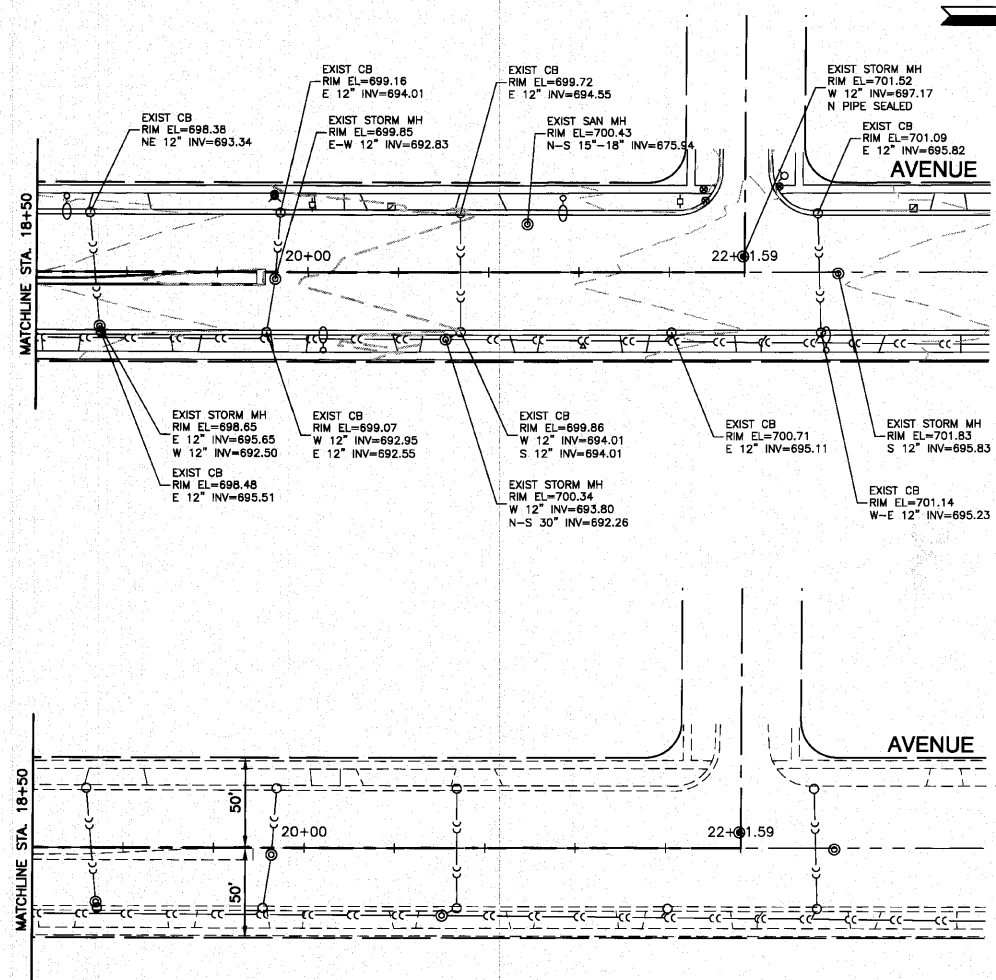
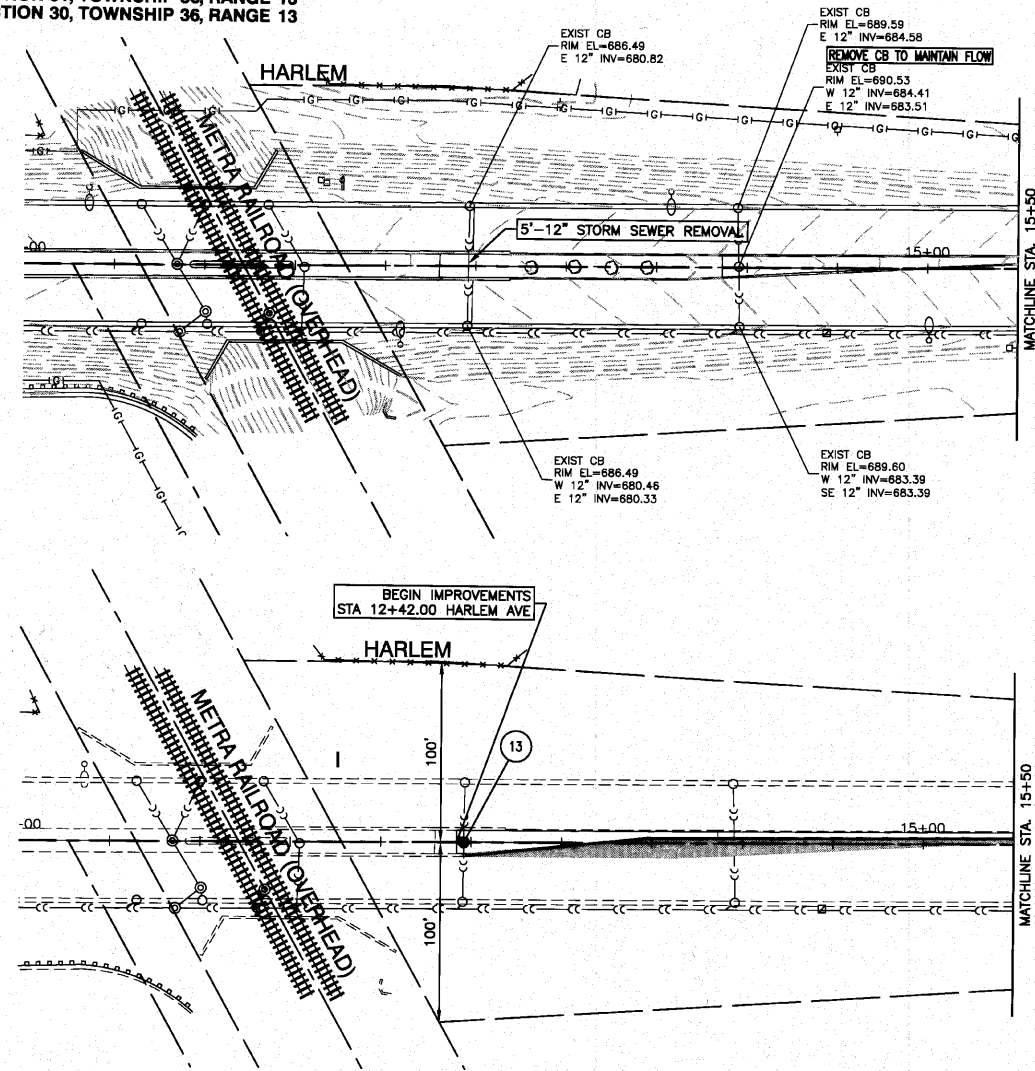
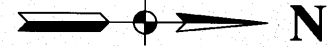
**NOTES:**

- ALL OFFSETS TO CURBLINE STRUCTURES ARE GIVEN TO THE EDGE OF PAVEMENT. OFFSETS FOR FLARED END SECTIONS ARE GIVEN AT PIPE CONNECTIONS. ALL OTHER OFFSETS ARE GIVEN TO THE CENTER OF THE STRUCTURE.
- ALL RIM ELEVATIONS FOR CURBLINE STRUCTURES ARE EDGE OF PAVEMENT ELEVATIONS.
- [WMR] DENOTES WATER MAIN REQUIREMENTS
- (XX.X) DENOTES CUBIC YARDS TRENCH BACKFILL
- SEE SHEET 24 FOR WATER MAIN IMPROVEMENTS.

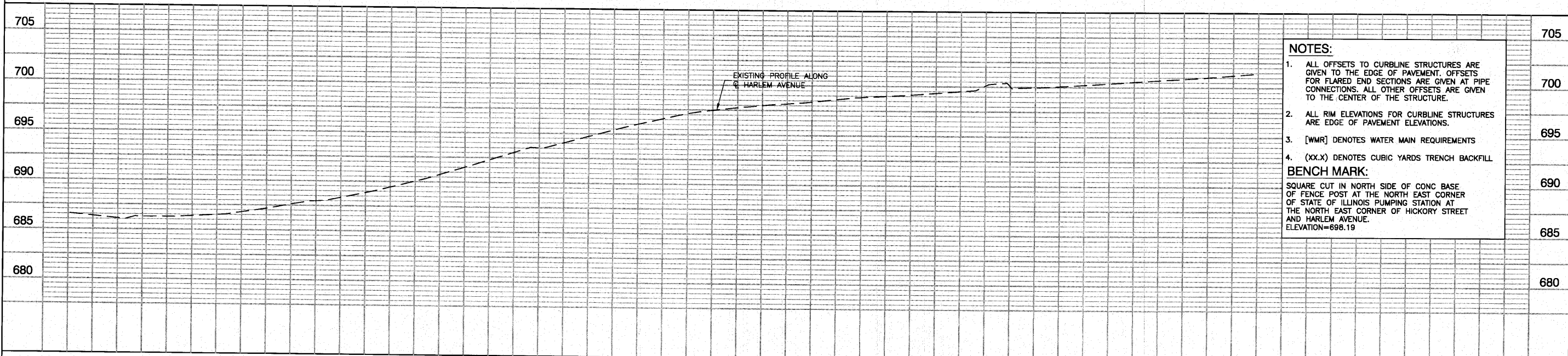
**BENCH MARK:**  
 SQUARE CUT IN NORTH SIDE OF CONC BASE OF FENCE POST AT THE NORTH EAST CORNER OF STATE OF ILLINOIS PUMPING STATION AT THE NORTH EAST CORNER OF HICKORY STREET AND HARLEM AVENUE. ELEVATION=698.19

FILE NAME = 08508-STRM-01 - P01	USER NAME =	DESIGNED - WPD	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	175TH STREET AT HARLEM AVENUE INTERSECTION IMPROVEMENTS DRAINAGE AND UTILITIES 175TH STREET	F.A.P. RTE. = 348	SECTION = 08-00104-00-CH	COUNTY = COOK	TOTAL SHEETS = 60	SHEET NO. = 22		
	PLOT SCALE = 1"=50'	CHECKED - WPD	REVISD -			SCALE: H 1"=50' V 1"=5'	SHEET NO. 22 OF 60 SHEETS	STA. 50+94.84 TO STA. 62+21.59	CONTRACT NO. 63453			
	PLOT DATE = 10-14-10	DRAWN - AG	REVISD -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT NHSP-8003 (B51)						
		CHECKED - AG	REVISD -									

SECTION 36, TOWNSHIP 36, RANGE 12  
 SECTION 25, TOWNSHIP 36, RANGE 12  
 SECTION 31, TOWNSHIP 36, RANGE 13  
 SECTION 30, TOWNSHIP 36, RANGE 13



13  
 STA 12+45.92, 0' LT  
 CB TA, 4' DIA, T1F OL  
 RIM EL=687.27  
 W 12" INV=680.49  
 E 12" INV=680.46



**NOTES:**

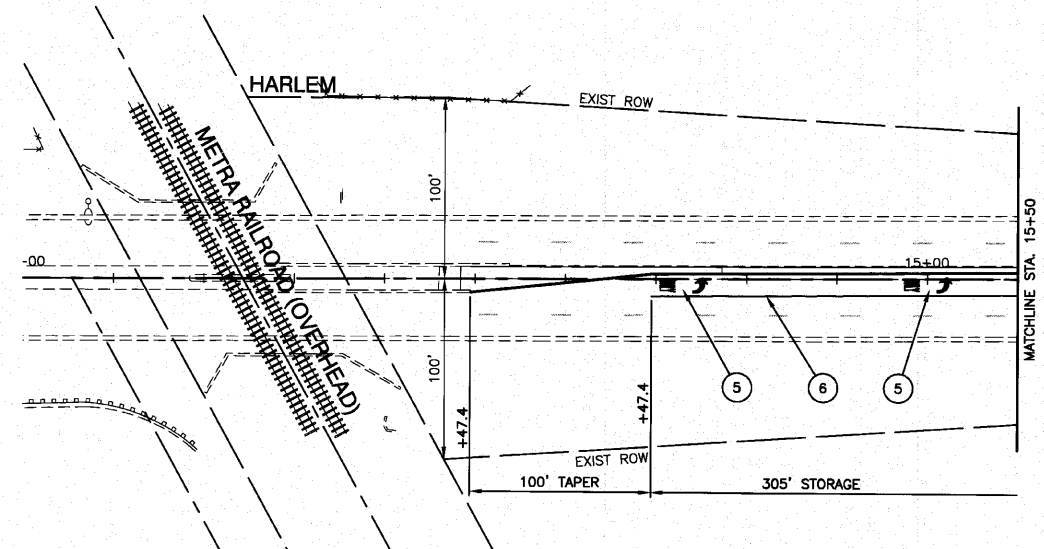
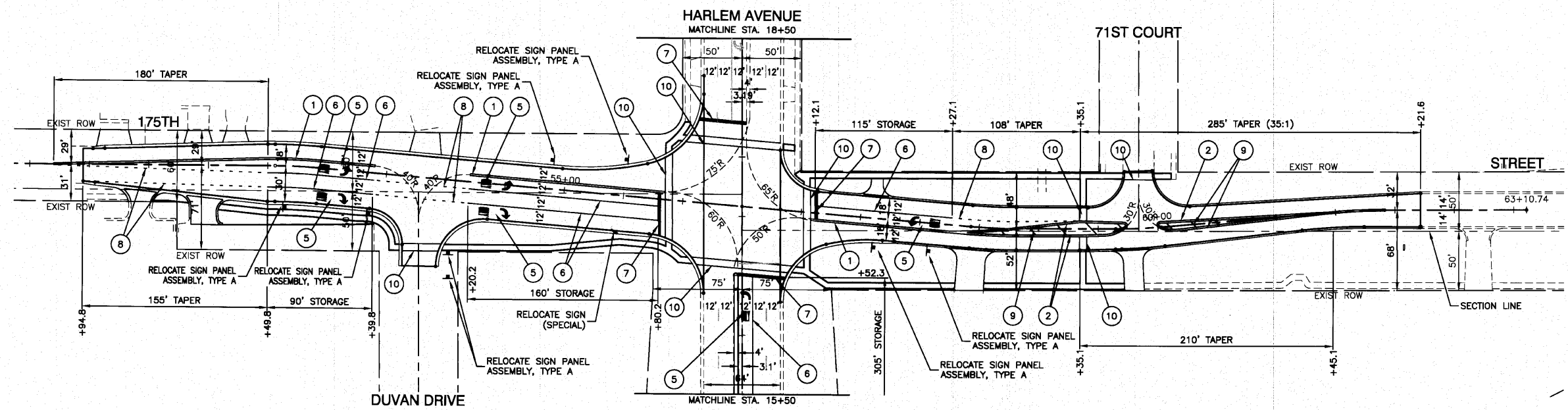
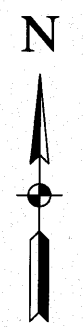
1. ALL OFFSETS TO CURBLINE STRUCTURES ARE GIVEN TO THE EDGE OF PAVEMENT. OFFSETS FOR FLARED END SECTIONS ARE GIVEN AT PIPE CONNECTIONS. ALL OTHER OFFSETS ARE GIVEN TO THE CENTER OF THE STRUCTURE.
2. ALL RIM ELEVATIONS FOR CURBLINE STRUCTURES ARE EDGE OF PAVEMENT ELEVATIONS.
3. [WMR] DENOTES WATER MAIN REQUIREMENTS
4. (XX.X) DENOTES CUBIC YARDS TRENCH BACKFILL

**BENCH MARK:**  
 SQUARE CUT IN NORTH SIDE OF CONC BASE OF FENCE POST AT THE NORTH EAST CORNER OF STATE OF ILLINOIS PUMPING STATION AT THE NORTH EAST CORNER OF HICKORY STREET AND HARLEM AVENUE.  
 ELEVATION=698.19

FILE NAME = 06506-STRM-01 - P02	USER NAME =	DESIGNED - WPD	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>175TH STREET AT HARLEM AVENUE INTERSECTION IMPROVEMENTS DRAINAGE AND UTILITIES HARLEM AVENUE</b>	F.A.P. RTE. 348	SECTION 08-00104-00-CH	COUNTY COOK	TOTAL SHEETS 60	SHEET NO. 23		
PLOT SCALE = 1"=50'	CHECKED - WPD	REVISED -	SCALE: H 1"=50' V 1"=5'			SHEET NO. 23 OF 60 SHEETS			STA. 50+94.84 TO STA. 62+21.59			
PLOT DATE = 10-14-10	DRAWN - AG	REVISED -	CONTRACT NO. 63453			FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT NH-SIP-8003 (851)				
	CHECKED - AG	REVISED -										



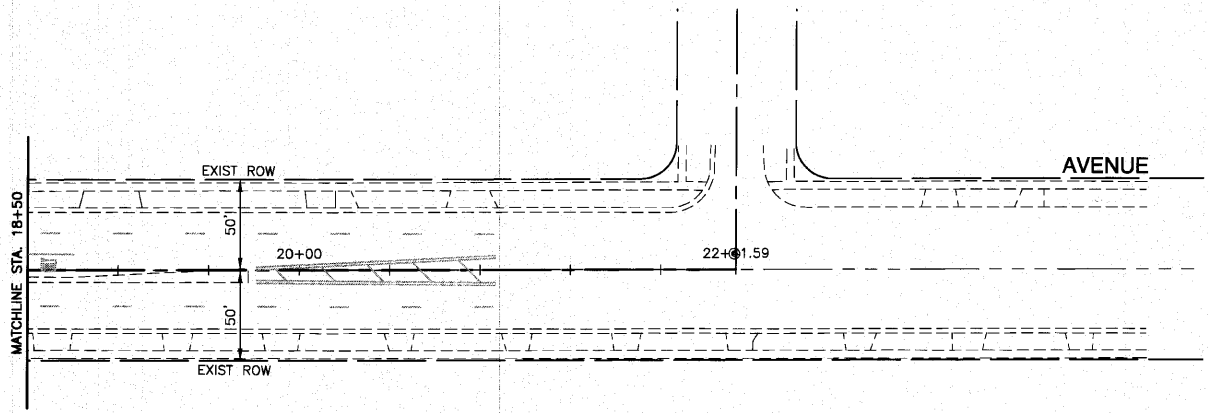




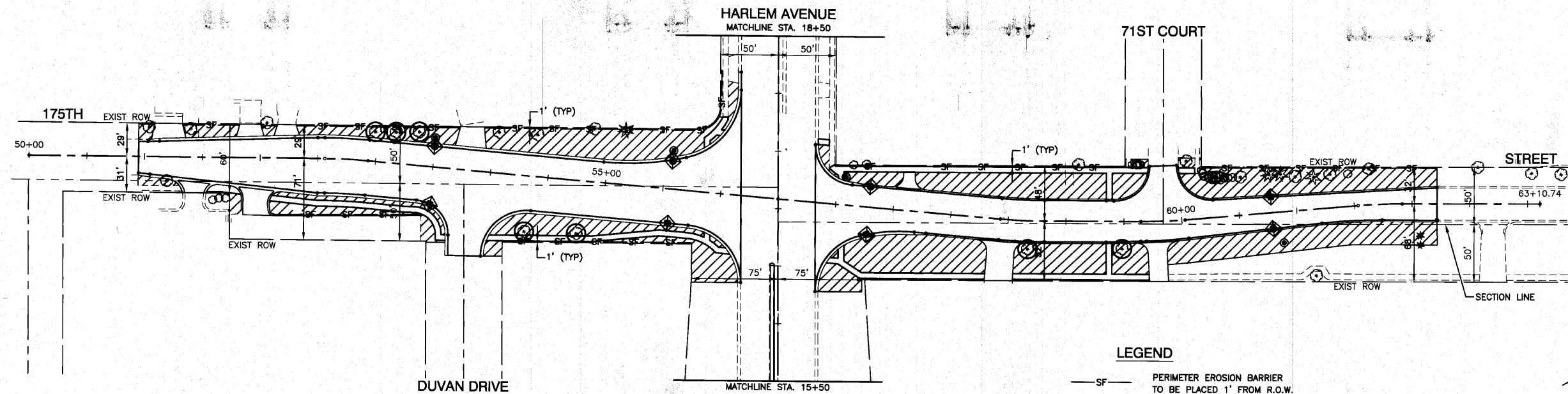
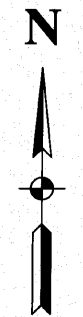
**LEGEND**

- ① 4" DOUBLE YELLOW CENTERLINE (11" C/C)
- ② 4" DOUBLE YELLOW MEDIAN OUTLINE (11" C/C)
- ③ 4" WHITE SKIP DASH (10' LINE, 30' SPACE)
- ④ 12" YELLOW DIAGONAL (25' C/C)
- ⑤ WHITE LETTERS & SYMBOLS - LARGE
- ⑥ 6" WHITE LANE LINE
- ⑦ 24" WHITE STOP BAR
- ⑧ 6" WHITE SKIP DASH (2' LINE, 6' SPACE)
- ⑨ 12" YELLOW DIAGONAL (20' C/C)
- ⑩ 6" WHITE CROSSWALK (6' C/C)

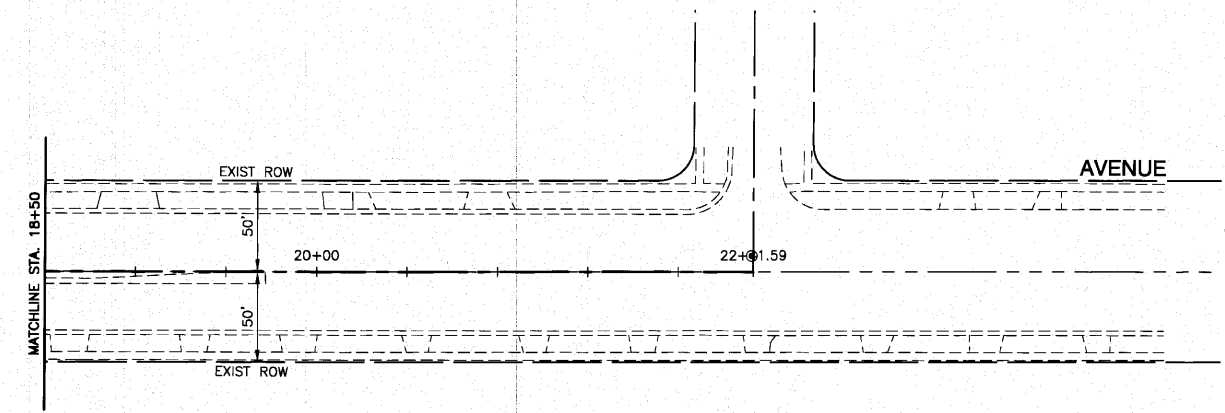
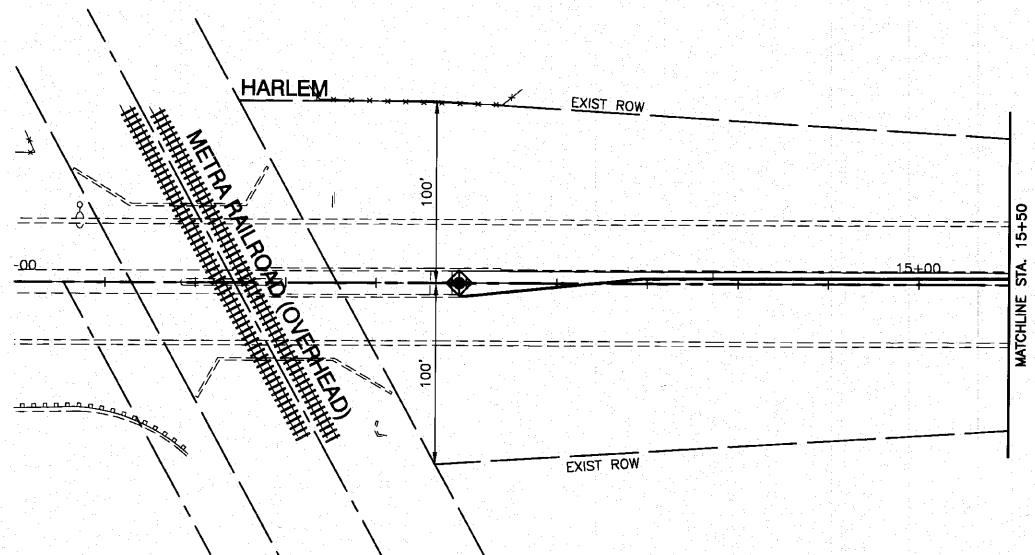
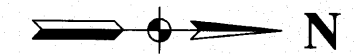
**NOTES:**  
 1. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.



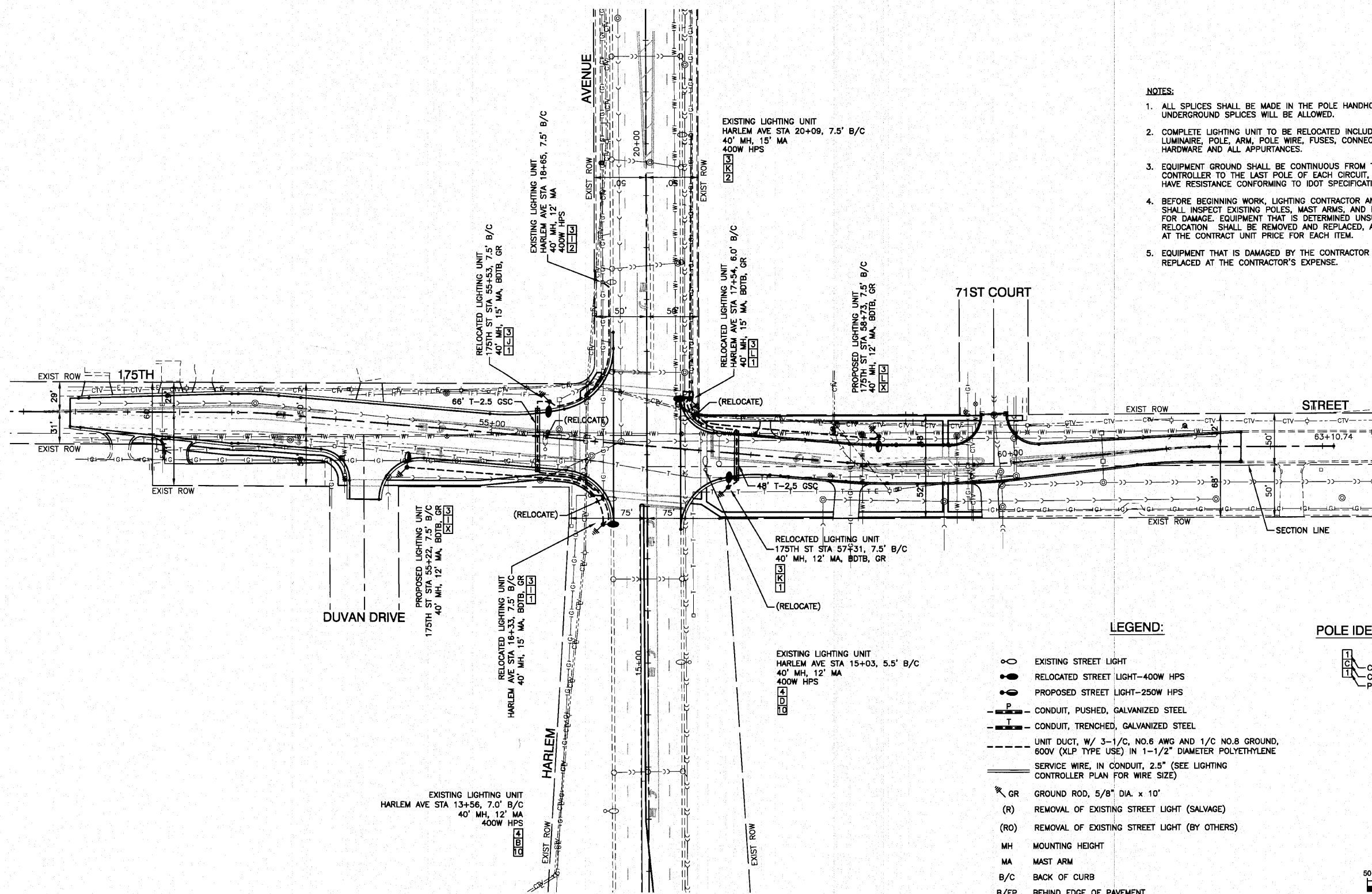
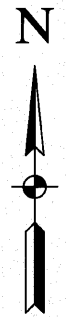
FILE NAME = 06508-PV/MK-01 - P01	USER NAME =	DESIGNED - WPD	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>175TH STREET AT HARLEM AVENUE INTERSECTION IMPROVEMENTS PAVEMENT MARKING AND SIGNING PLAN</b>		F.A.P. RTE. 348	SECTION 06-00104-00-CH	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 25	
	PLOT SCALE =	CHECKED - WPD	REVISED -		SCALE: 1"=50'	SHEET NO. 25	OF 80 SHEETS	STA.	TO STA.	CONTRACT NO. 63453		
	PLOT DATE = 10-14-10	DRAWN - AG	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT #HSIP-8003 (851)							
		CHECKED - AG	REVISED -									



- LEGEND**
- SF — PERIMETER EROSION BARRIER TO BE PLACED 1' FROM R.O.W.
  - ⊙ TREE PROTECTION
  - ◆ INLET FILTER
  - ▨ SEEDING CLASS 2A WITH EXCELSIOR BLANKET



FILE NAME = 06508-UNSC-01 - UNSC01	USER NAME =	DESIGNED — WPD	REVISED —	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>175TH STREET AT HARLEM AVENUE INTERSECTION IMPROVEMENTS LANDSCAPING AND EROSION CONTROL PLAN</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED — WPD	REVISED —					348	06-00104-00-CH	COOK	60	26
	PLOT DATE = 10-14-10	DRAWN — AG	REVISED —					CONTRACT NO. 63453				
		CHECKED — AG	REVISED —					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT#HSIP-8003 (651)				
					SCALE: 1"=50'	SHEET NO. 26 OF 60 SHEETS		STA.	TO STA.			

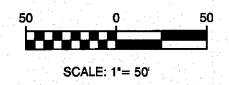
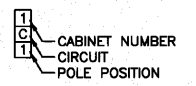


- NOTES:**
1. ALL SPLICES SHALL BE MADE IN THE POLE HANDHOLE. NO UNDERGROUND SPLICES WILL BE ALLOWED.
  2. COMPLETE LIGHTING UNIT TO BE RELOCATED INCLUDING LUMINAIRE, POLE, ARM, POLE WIRE, FUSES, CONNECTIONS, HARDWARE AND ALL APPURTANCES.
  3. EQUIPMENT GROUND SHALL BE CONTINUOUS FROM THE LIGHTING CONTROLLER TO THE LAST POLE OF EACH CIRCUIT, AND SHALL HAVE RESISTANCE CONFORMING TO IDOT SPECIFICATIONS.
  4. BEFORE BEGINNING WORK, LIGHTING CONTRACTOR AND ENGINEER SHALL INSPECT EXISTING POLES, MAST ARMS, AND LUMINAIRES FOR DAMAGE. EQUIPMENT THAT IS DETERMINED UNSUITABLE FOR RELOCATION SHALL BE REMOVED AND REPLACED, AND PAID FOR AT THE CONTRACT UNIT PRICE FOR EACH ITEM.
  5. EQUIPMENT THAT IS DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

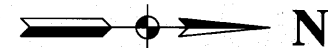
**LEGEND:**

- EXISTING STREET LIGHT
- RELOCATED STREET LIGHT-400W HPS
- PROPOSED STREET LIGHT-250W HPS
- P — CONDUIT, PUSHED, GALVANIZED STEEL
- T — CONDUIT, TRENCHED, GALVANIZED STEEL
- UNIT DUCT, W/ 3-1/C, NO.6 AWG AND 1/C NO.8 GROUND, 600V (XLP TYPE USE) IN 1-1/2" DIAMETER POLYETHYLENE
- SERVICE WIRE, IN CONDUIT, 2.5" (SEE LIGHTING CONTROLLER PLAN FOR WIRE SIZE)
- GR GROUND ROD, 5/8" DIA. x 10'
- (R) REMOVAL OF EXISTING STREET LIGHT (SALVAGE)
- (RO) REMOVAL OF EXISTING STREET LIGHT (BY OTHERS)
- MH MOUNTING HEIGHT
- MA MAST ARM
- B/C BACK OF CURB
- B/EP BEHIND EDGE OF PAVEMENT
- BDTB BREAKAWAY DEVICE, TRANSFORMER BASE

**POLE IDENTIFICATION**

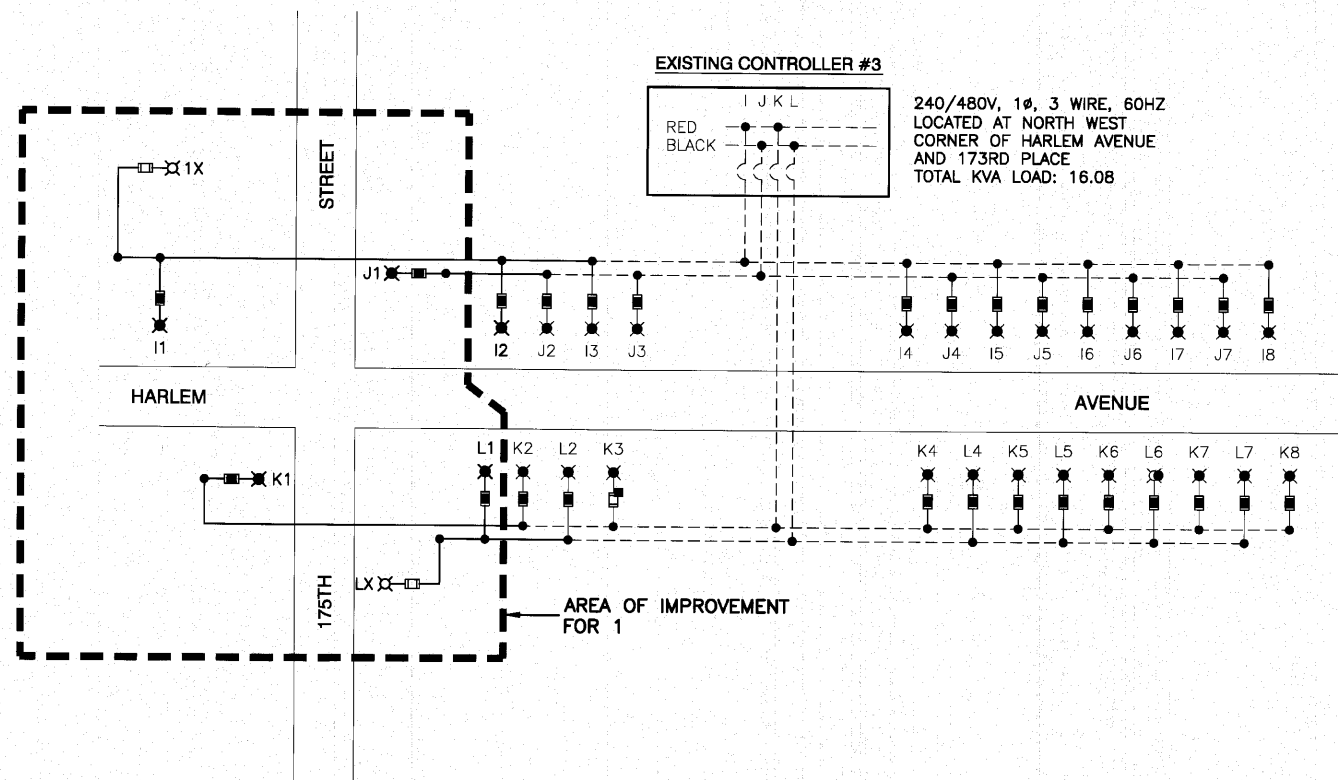


FILE NAME = 06508-LIGHT-01 - P01	USER NAME =	DESIGNED — WPD	REVISED —	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>175TH STREET AT HARLEM AVENUE INTERSECTION IMPROVEMENTS STREET LIGHTING PLAN PLAN</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED — WPD	REVISED —			348	06-00104-00-CH	COOK	60	27
	PLOT DATE = 10-14-10	DRAWN — AG	REVISED —			CONTRACT NO. 63453				
		CHECKED — AG	REVISED —			FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT #HSIP-8003 (851)				
					SCALE: 1"=50'	SHEET NO. 27 OF 60 SHEETS		STA. TO STA.		

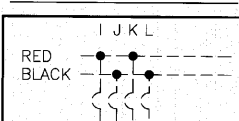


LOAD TABULATIONS CONTROLLER #3

CIRCUIT	WATTS	AMPS @ 240V	
		RED PHASE	BLACK PHASE
I	4,129	17.30	
J	3,346		14.00
K	3,824	16.00	
L	3,173		13.30
SUBTOTAL	14,472	33.30	27.30
TOTAL AMPS @ 240 V		60.60	

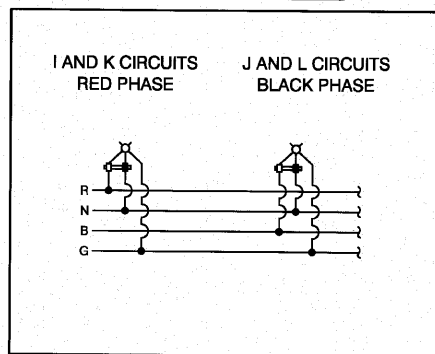


EXISTING CONTROLLER #3



240/480V, 1 $\phi$ , 3 WIRE, 60HZ  
 LOCATED AT NORTH WEST  
 CORNER OF HARLEM AVENUE  
 AND 173RD PLACE  
 TOTAL KVA LOAD: 16.08

TYPICAL POLE WIRING



LEGEND

- ⊗ LUMINAIRE, 250W HPS, 240V
- ⊗ LUMINAIRE, 400W HPS, 240V
- FUSE, 3.5 AMP
- FUSE, 6.0 AMP
- A1 LUMINAIRE CIRCUIT
- ⌋ CIRCUIT BREAKER
- CONNECTION



FILE NAME = 08508-LGHT-02 - P01

USER NAME =

DESIGNED — WPD

REVISED —

PLOT SCALE = 1"=1'

CHECKED — WPD

REVISED —

PLOT DATE = 10-14-10

DRAWN — AG

REVISED —

CHECKED — AG

REVISED —

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

175TH STREET AT HARLEM AVENUE  
 INTERSECTION IMPROVEMENTS  
 SINGLE LINE WIRING DIAGRAM

SCALE: NA

SHEET NO. 28 OF 60 SHEETS

STA. TO STA.

F.A.P.  
 RTE.  
 348

SECTION  
 06-00104-00-CH

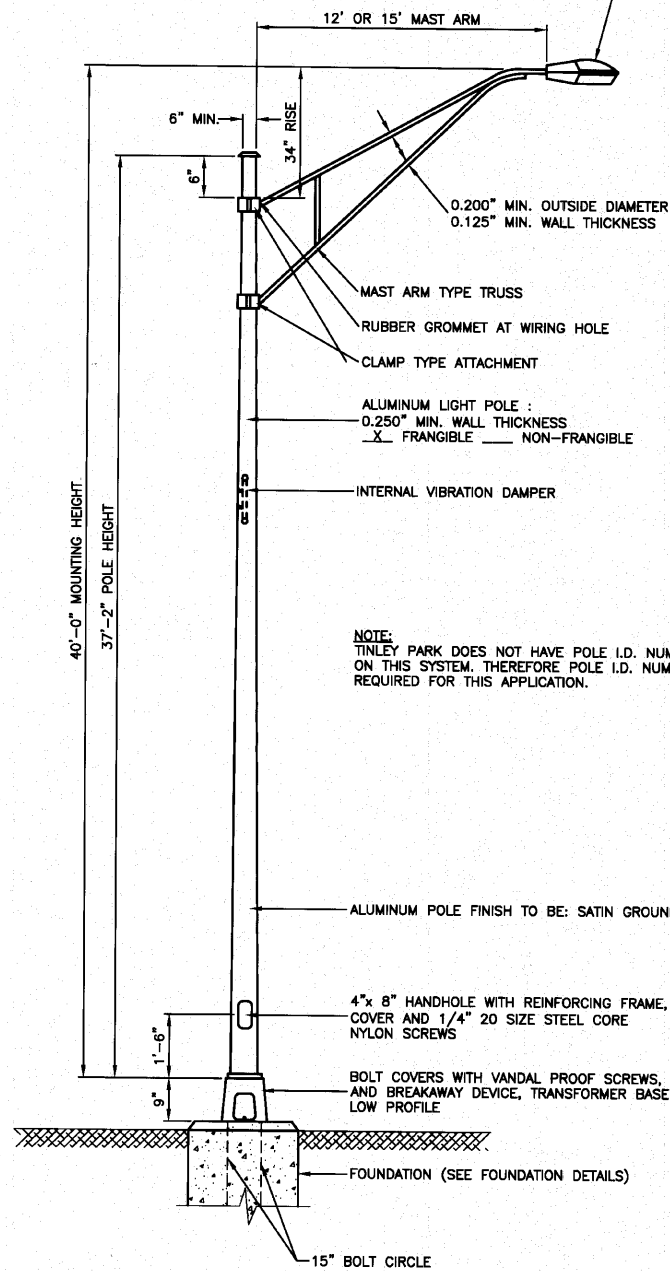
COUNTY  
 COOK

TOTAL SHEETS  
 60

SHEET NO.  
 28

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT #HSIP-8003 (851) CONTRACT NO. 63453

LUMINAIRE:		LUMINAIRE:	
250 WATT HIGH PRESSURE SODIUM LAMP 240 VOLT BALLAST		400 WATT HIGH PRESSURE SODIUM LAMP 240 VOLT BALLAST	
I.E.S. TYPE: MC III LIGHT DISTRIBUTION, FULL CUTOFF	OR	I.E.S. TYPE: MC III LIGHT DISTRIBUTION, FULL CUTOFF	
LENS TYPE: FLAT		LENS TYPE: FLAT	
INITIAL LAMP LUMENS: 28,000		INITIAL LAMP LUMENS: 50,000	
LAMP LIFE: 24,000 HOURS		LAMP LIFE: 24,000 HOURS	

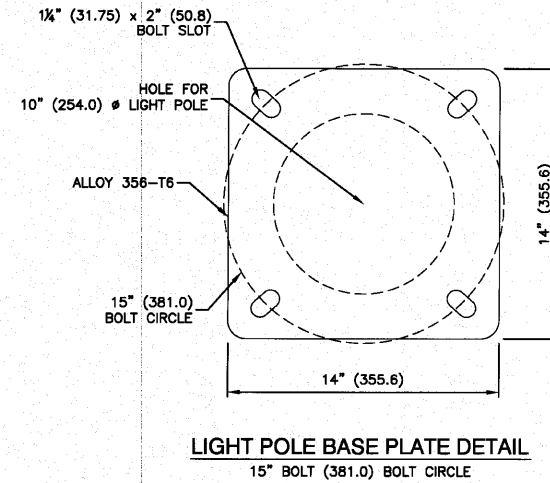
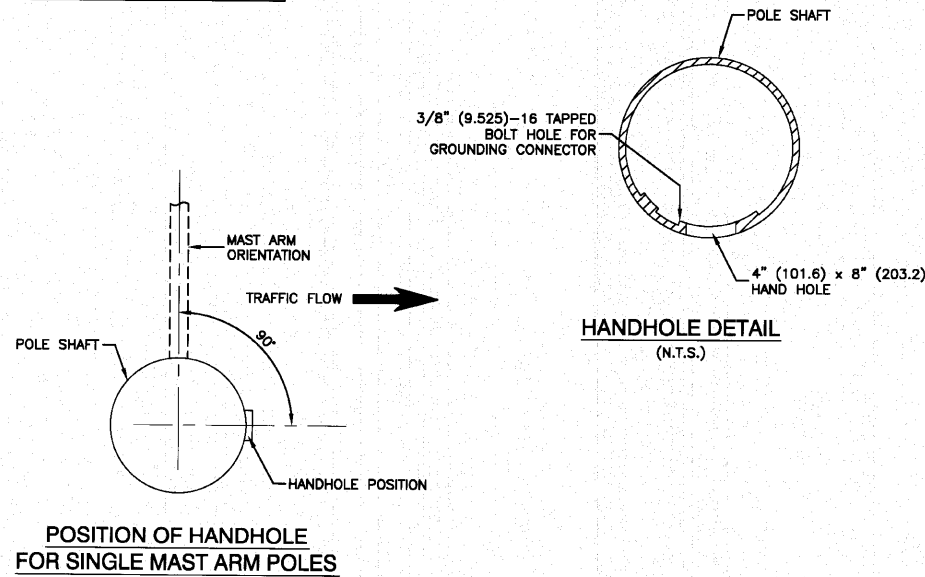


**NOTE:**  
TINLEY PARK DOES NOT HAVE POLE I.D. NUMBERS ON THIS SYSTEM, THEREFORE POLE I.D. NUMBERS NOT REQUIRED FOR THIS APPLICATION.

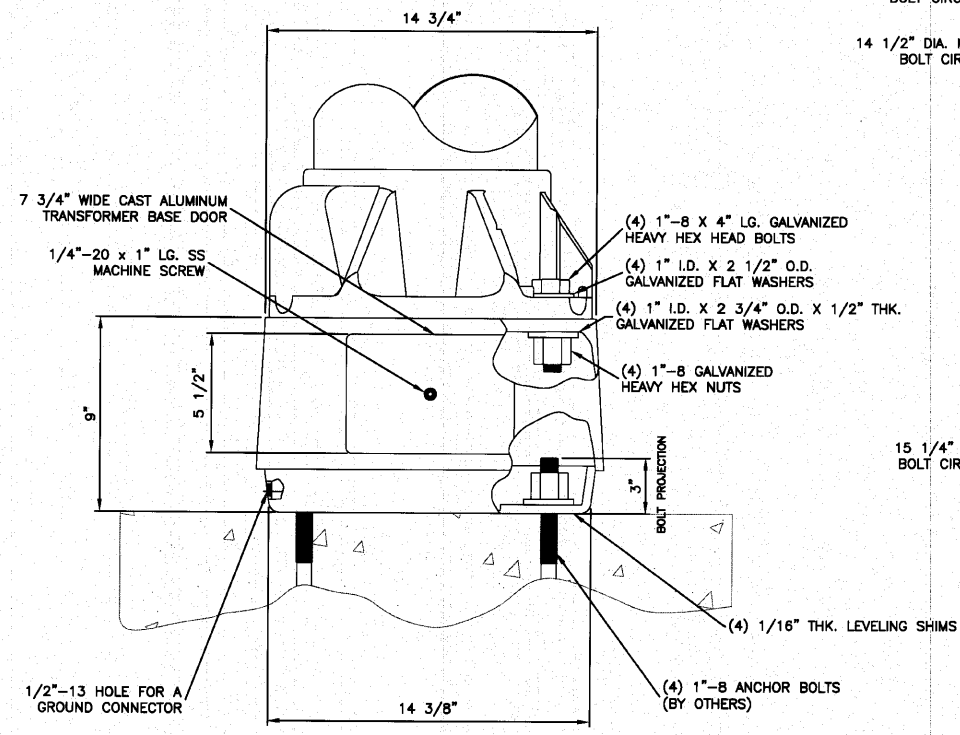
**NOTES:**

1. THE LIGHTING UNITS SHALL MEET AASHTO DESIGN CRITERIA. DESIGN FOR 90 M.P.H. WIND WITH 30% GUST AND 75 POUND LUMINAIRE HAVING AN E.P.A. OF 1.6 SQ. FT. AND PROPER ICE LOADING.
2. ALUMINUM ALLOY 6063-T6 SHALL BE USED.
3. LIGHT POLE AND ASSOCIATED EQUIPMENT TO BE U.L. LISTED

**TYPICAL POLE INSTALLATION FOR EXISTING, PROPOSED AND RELOCATED LIGHTING UNITS**



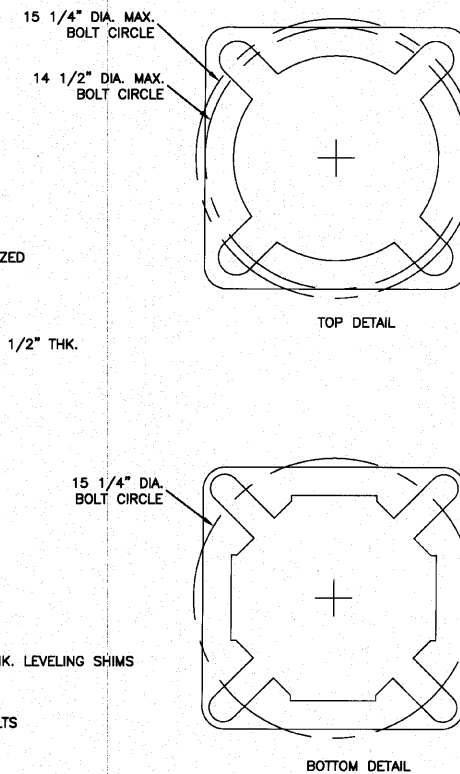
**LIGHT POLE BASE PLATE DETAIL**  
15" BOLT (381.0) BOLT CIRCLE



**BREAKAWAY TRANSFORMER BASE DETAIL**

**IMPORTANT NOTE:**  
TRANSFORMER BASE AND LIGHTPOLE TO BE LEVELLED AS ONE UNIT, USING LEVELING SHIMS IF REQUIRED.

**NOTE:**  
BREAKAWAY BASE TO BE AASHTO APPROVED



TOP DETAIL

BOTTOM DETAIL



FILE NAME = 06508-LIGHT-02 - P02

USER NAME	DESIGNED	REVISIONS
WPD	WPD	
AG	AG	
AG	AG	

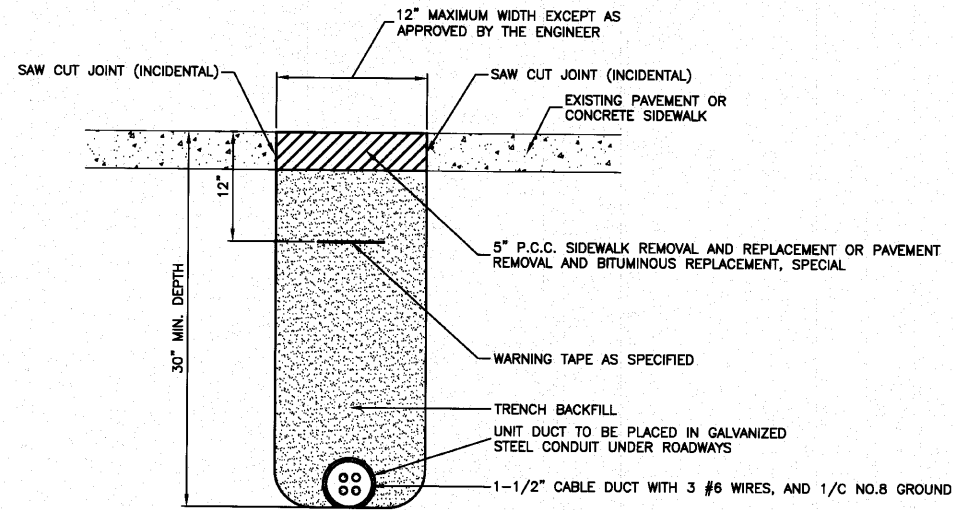
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
STREET LIGHTING DETAILS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	29
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT#HSIP-8003 (851)				

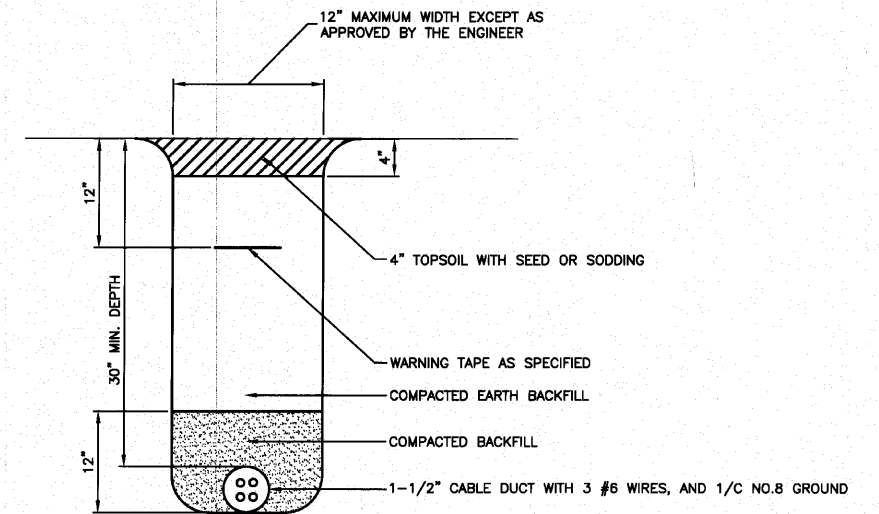
SCALE: NA SHEET NO. 29 OF 60 SHEETS STA. TO STA.





**HOT-MIX ASPHALT PAVEMENT OR CONCRETE SIDEWALK  
REMOVAL AND REPLACEMENT**

**NOTE:**  
WHERE UNIT DUCT IS INSTALLED OUTSIDE OF THE  
INTERSECTION RECONSTRUCTION AREA, THE DUCT SHALL BE  
BORED AND PULLED WHEREVER POSSIBLE.



**TRENCH DETAIL**



FILE NAME = 06508-LGHT-02 - P04

USER NAME =	DESIGNED -- WPD	REVISED --
	CHECKED -- WPD	REVISED --
PLOT SCALE = 1=1'	DRAWN -- AG	REVISED --
PLOT DATE = 10-14-10	CHECKED -- AG	REVISED --

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

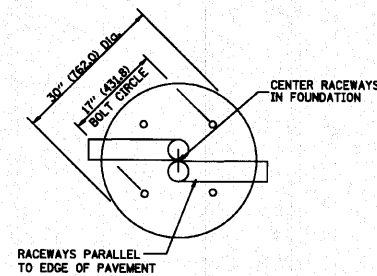
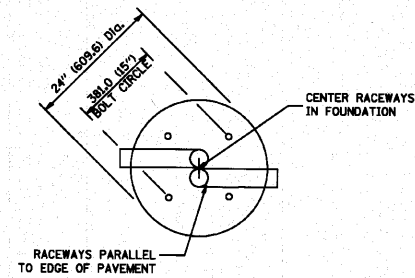
**175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
STREET LIGHTING DETAILS**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	31
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT#HSIP-8003 (851)				

SCALE: NA SHEET NO. 31 OF 60 SHEETS STA. TO STA.

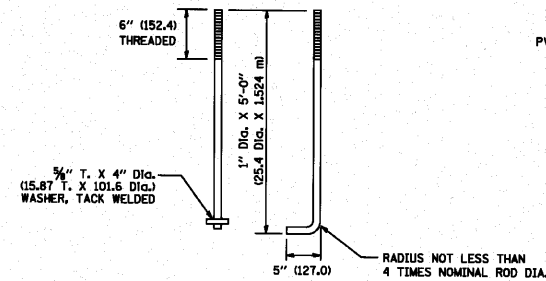
LIGHT POLE FOUNDATION DEPTH TABLE  
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Qu = 0.375 TON/SQ. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY Qu = 0.75 TON/SQ.FT	9'-6" (2.89 m)	10'-9" (3.23 m)
STIFF CLAY Qu = 1.50 TON/SQ. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND φ = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND φ = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND φ = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)

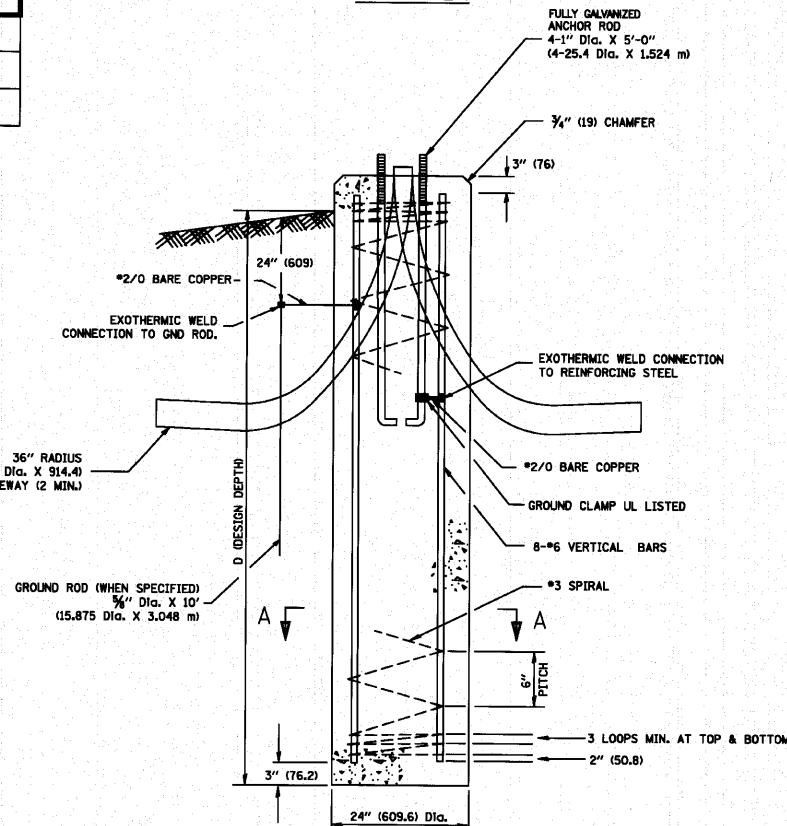


TOP VIEW

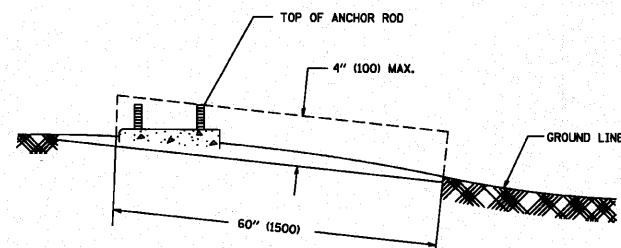
TOP VIEW



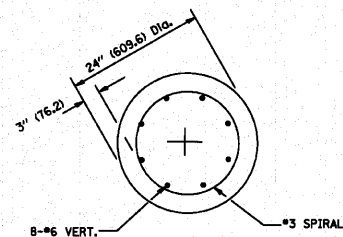
ANCHOR ROD DETAIL



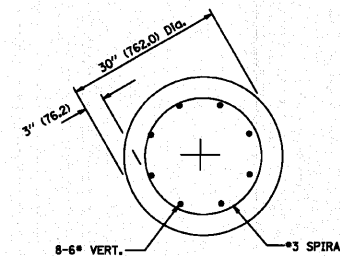
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

NOTES

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS ST. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UMG MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.
- GROUND RODS SHALL NOT BE PAID FOR SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO THE PAY ITEM FOR LIGHT POLE FOUNDATION, 24" DIAMETER.



FILE NAME = 06508-LIGHT-02 - POS

USER NAME =	DESIGNED — WPD	REVISED —
PLOT SCALE = 1=1'	CHECKED — WPD	REVISED —
PLOT DATE = 10-14-10	DRAWN — AG	REVISED —
	CHECKED — AG	REVISED —

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
STREET LIGHTING DETAILS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-GH	COOK	80	32
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT#HSIP-8003 (851)				

SCALE: NA SHEET NO. 32 OF 80 SHEETS STA. TO STA.

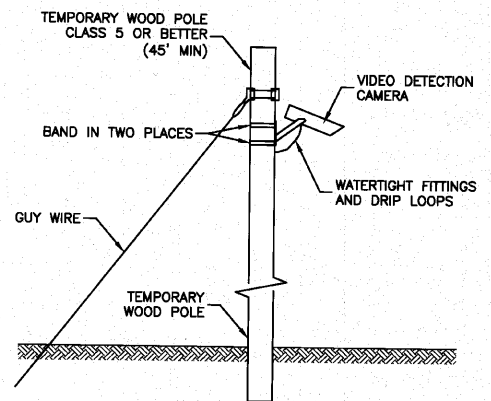
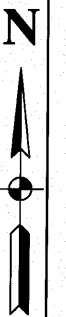


# TRAFFIC SIGNAL LEGEND

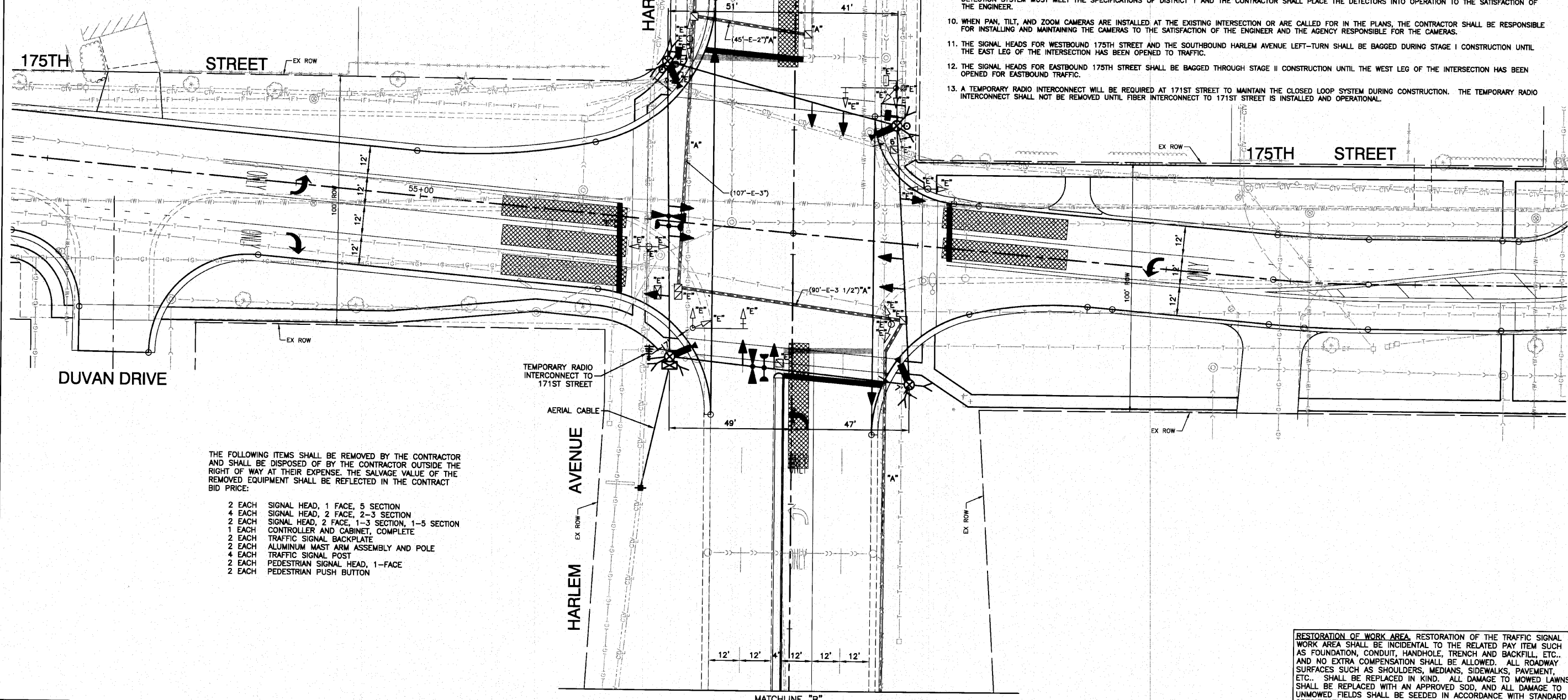
ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE			
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE			
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA			
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED			
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F			
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F			
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, MM12F 5M12F			
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE			
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM		S	S	STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM		I	IP	ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED			
SIGNAL POST				REMOVE ITEM	R			STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED			
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM	RL			SIGNAL POST AND FOUNDATION TO BE REMOVED			
GUY WIRE				ABANDON ITEM	A			INTERSECTION & SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				EXISTING INTERSECTION LOOP DETECTOR			
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD				EXISTING PREFORMED INTERSECTION LOOP DETECTOR			
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID				PREFORMED SAMPLING (SYSTEM) DETECTOR			
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER				<b>RAILROAD SYMBOLS</b>			
ILLUMINATED SIGN "NO LEFT TURN"				RADIO INTERCONNECT				RAILROAD CONTROL CABINET			
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO REPEATER				RAILROAD CANTILEVER MAST ARM			
DETECTOR LOOP, TYPE I				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED				FLASHING SIGNAL			
PREFORMED DETECTOR LOOP				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)				CROSSING GATE			
MICROWAVE VEHICLE SENSOR								CROSSBUCK			
VIDEO DETECTION CAMERA											
VIDEO DETECTION ZONE											
PAN, TILT, ZOOM CAMERA											
WIRELESS DETECTOR SENSOR											
WIRELESS ACCESS POINT											

### TEMPORARY TRAFFIC SIGNAL NOTES

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE STATE APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL. TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, AND ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.
11. THE SIGNAL HEADS FOR WESTBOUND 175TH STREET AND THE SOUTHBOUND HARLEM AVENUE LEFT-TURN SHALL BE BAGGED DURING STAGE I CONSTRUCTION UNTIL THE EAST LEG OF THE INTERSECTION HAS BEEN OPENED TO TRAFFIC.
12. THE SIGNAL HEADS FOR EASTBOUND 175TH STREET SHALL BE BAGGED THROUGH STAGE II CONSTRUCTION UNTIL THE WEST LEG OF THE INTERSECTION HAS BEEN OPENED FOR EASTBOUND TRAFFIC.
13. A TEMPORARY RADIO INTERCONNECT WILL BE REQUIRED AT 171ST STREET TO MAINTAIN THE CLOSED LOOP SYSTEM DURING CONSTRUCTION. THE TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 171ST STREET IS INSTALLED AND OPERATIONAL.



TEMPORARY VIDEO DETECTION MOUNTING DETAIL

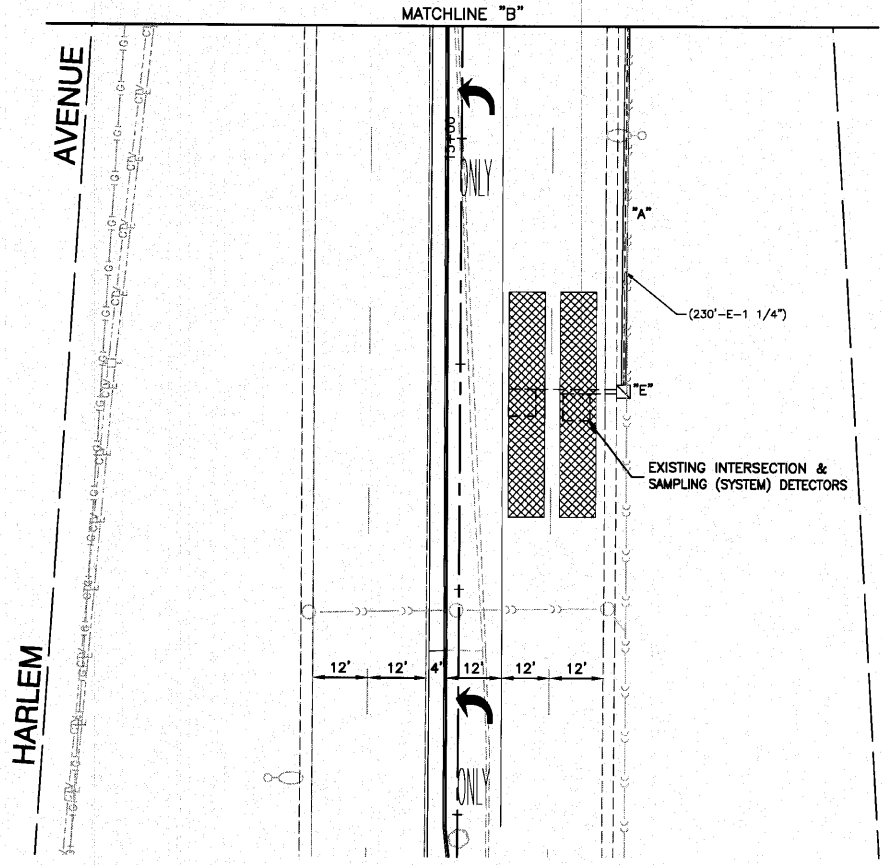
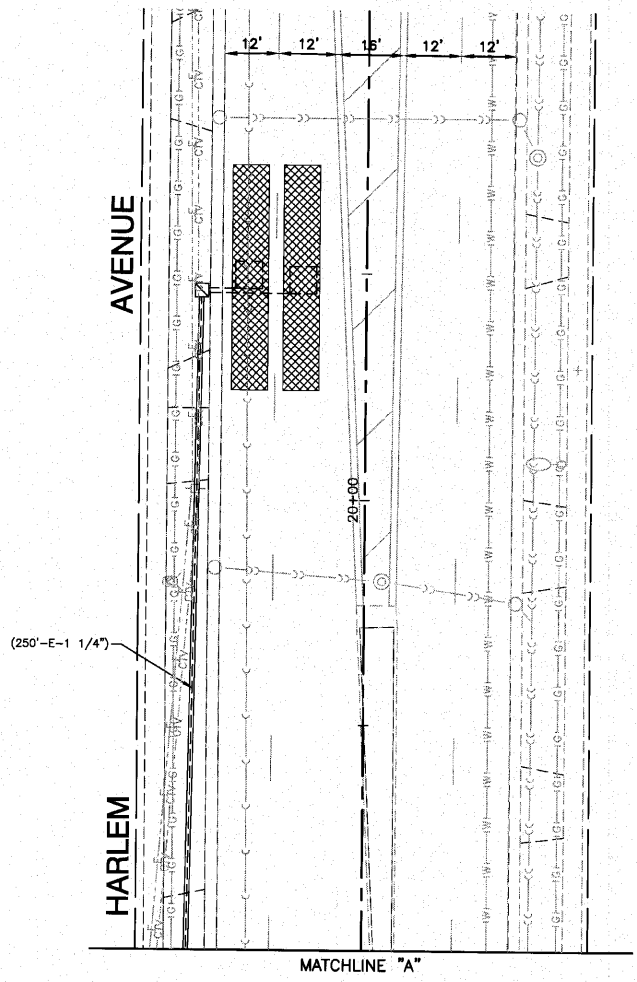


THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THE CONTRACTOR OUTSIDE THE RIGHT OF WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE:

- 2 EACH SIGNAL HEAD, 1 FACE, 5 SECTION
- 4 EACH SIGNAL HEAD, 2 FACE, 2-3 SECTION
- 2 EACH SIGNAL HEAD, 2 FACE, 1-3 SECTION, 1-5 SECTION
- 1 EACH CONTROLLER AND CABINET, COMPLETE
- 2 EACH TRAFFIC SIGNAL BACKPLATE
- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 4 EACH TRAFFIC SIGNAL POST
- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 2 EACH PEDESTRIAN PUSH BUTTON

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC.. AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC.. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

FILE NAME = 08508-SGNL-02 - IDOT P01	USER NAME =	DESIGNED - WPD	REVISIONS	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	175TH STREET AT HARLEM AVENUE INTERSECTION IMPROVEMENTS TEMPORARY TRAFFIC SIGNAL	F.A.P. RTE. 348	SECTION 06-00104-00-CH	COUNTY COOK	TOTAL SHEETS 60	SHEET NO. 34		
	PLOT SCALE =	DRAWN - PS	REVISIONS			SCALE: 1"=20'	SHEET NO. 34 OF 60 SHEETS	STA. TO STA.	CONTRACT NO. 63453			
	PLOT DATE = 10-14-10	CHECKED - WD	REVISIONS			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT#HSIP-8003 (851)						



RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC.. AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC., SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

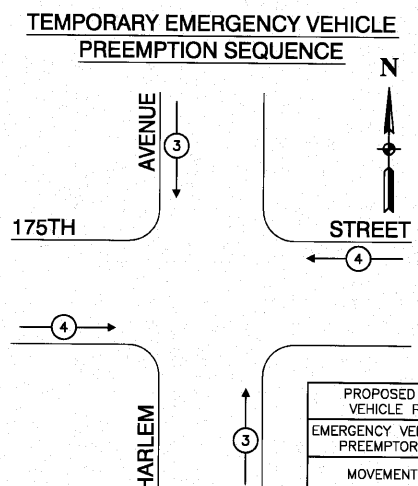
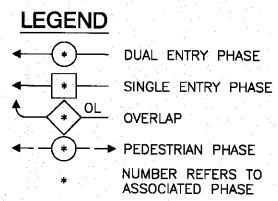
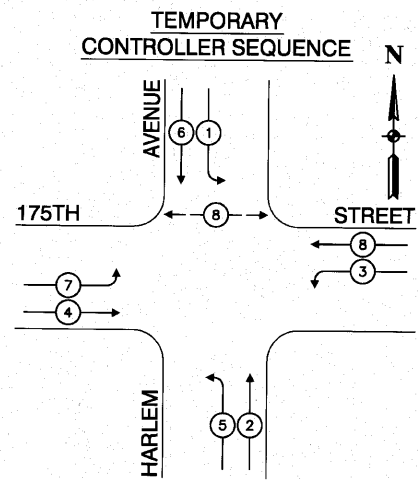
FILE NAME = 06608-SGNL-02 - IDOT P02	USER NAME =	DESIGNED — WPD	REVISED —
		CHECKED — WPD	REVISED —
	PLOT SCALE =	DRAWN — PS	REVISED —
	PLOT DATE = 10-14-10	CHECKED — WD	REVISED —

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

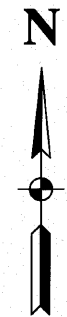
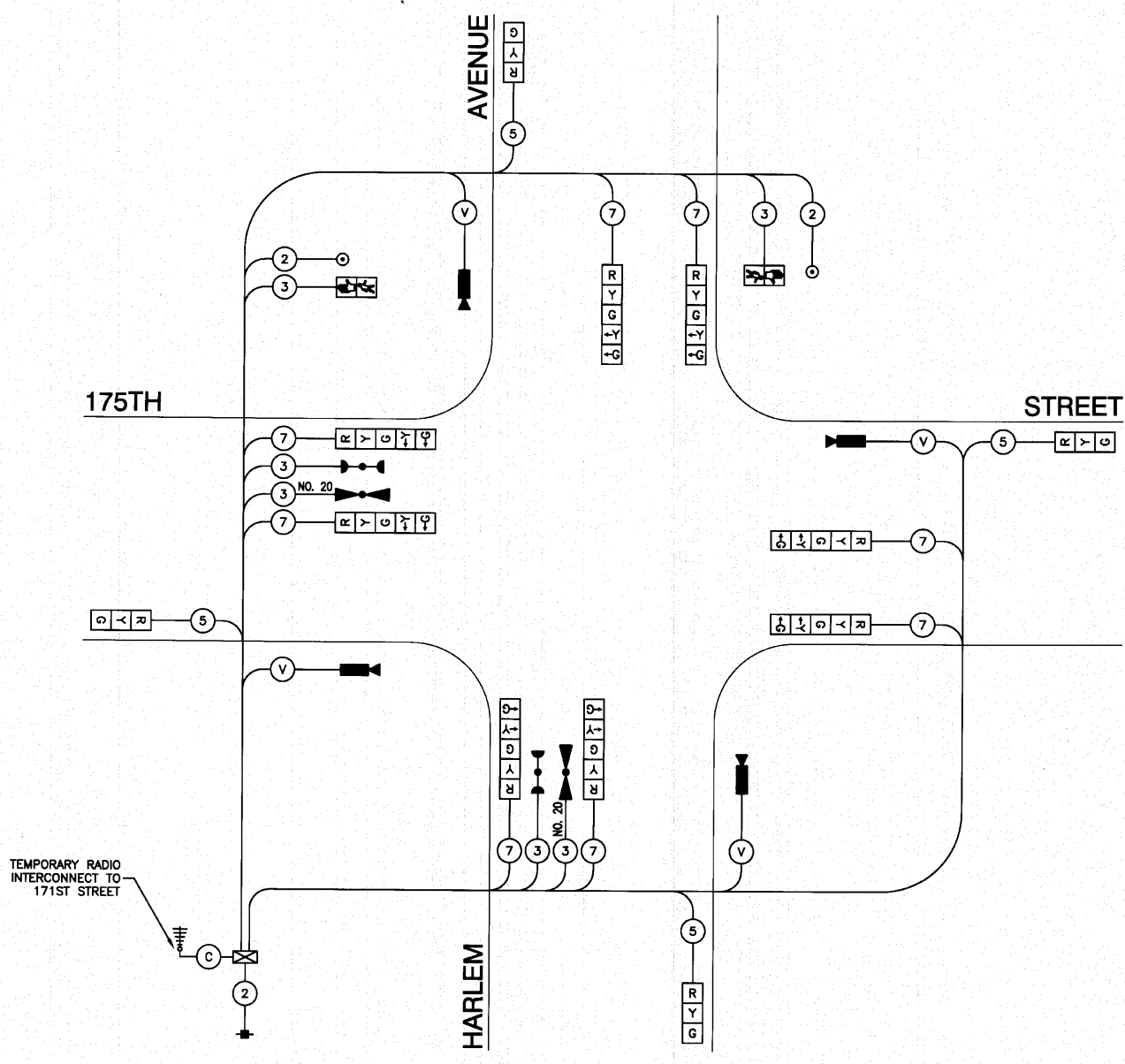
**175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
TEMPORARY TRAFFIC SIGNAL**

SCALE: 1"=20'    SHEET NO. 35 OF 60 SHEETS    STA.    TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	35
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT#HSIP-8003 (851)	



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	↑	→



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	LED	OPERATION	
SIGNAL (RED)	12	17	0.50		102
(YELLOW)	12	25	0.25		75
(GREEN)	12	15	0.25		45
ARROW	16	12	0.10		19.2
PED. SIGNAL	2	25	1.00		50
CONTROLLER	1	100	1.00		100
ILLUM. SIGN	-	25	0.05		
VIDEO SYSTEM	-	150	-	1.00	150
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	541.20

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAY / DISTRICT 1  
 201 WEST CENTER COURT / SCHUMBERG, ILLINOIS 60196-1096  
 ENERGY SUPPLY CONTACT: ANTHONY ESCALANTE  
 PHONE: (708)235-2328  
 COMPANY: COMMONWEALTH EDISON

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC.. AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC., SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOG, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

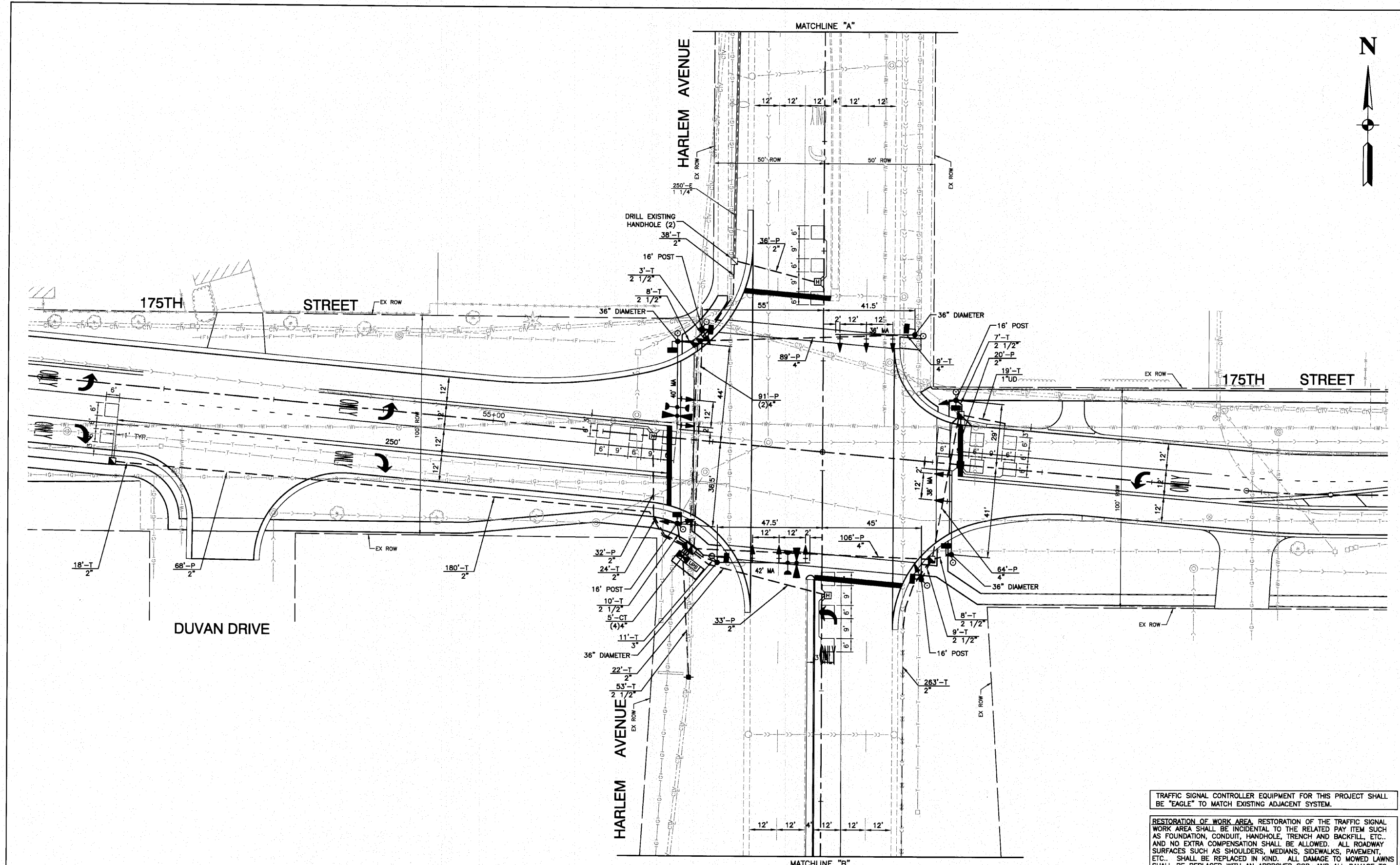
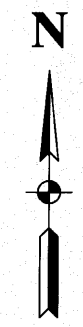
FILE NAME = 06508-CBLE-PLAN-02 - P01	USER NAME =	DESIGNED -- WPD	REVISED --
		CHECKED -- WPD	REVISED --
	PLOT SCALE =	DRAWN -- PS	REVISED --
	PLOT DATE = 10-14-10	CHECKED -- WD	REVISED --

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

175TH STREET AT HARLEM AVENUE  
 INTERSECTION IMPROVEMENTS  
 TRAFFIC SIGNAL - TEMPORARY CABLE PLAN

SCALE: NONE SHEET NO. 36 OF 60 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	36
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT NH-SIP-8003 (851)				



TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH EXISTING ADJACENT SYSTEM.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC., SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

FILE NAME = 06508-SGNL-01 - IDOT P01	USER NAME =	DESIGNED - WPD	REVISED -
		CHECKED - WPD	REVISED -
	PLOT SCALE =	DRAWN - PS	REVISED -
	PLOT DATE = 10-14-10	CHECKED - WD	REVISED -

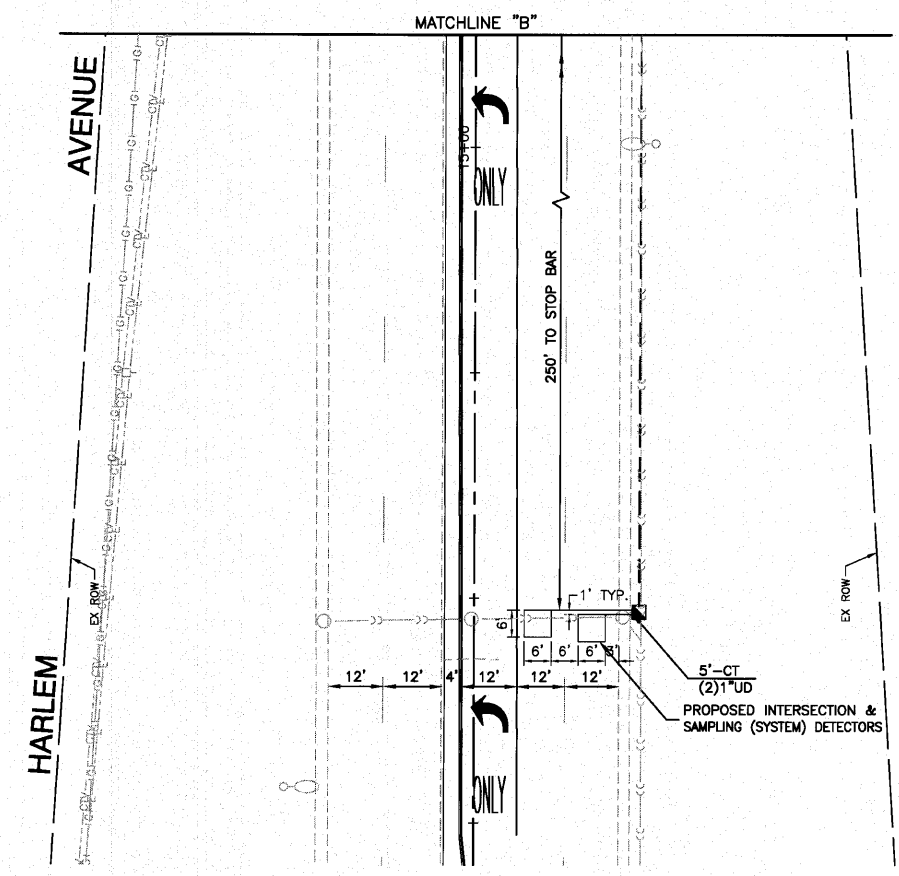
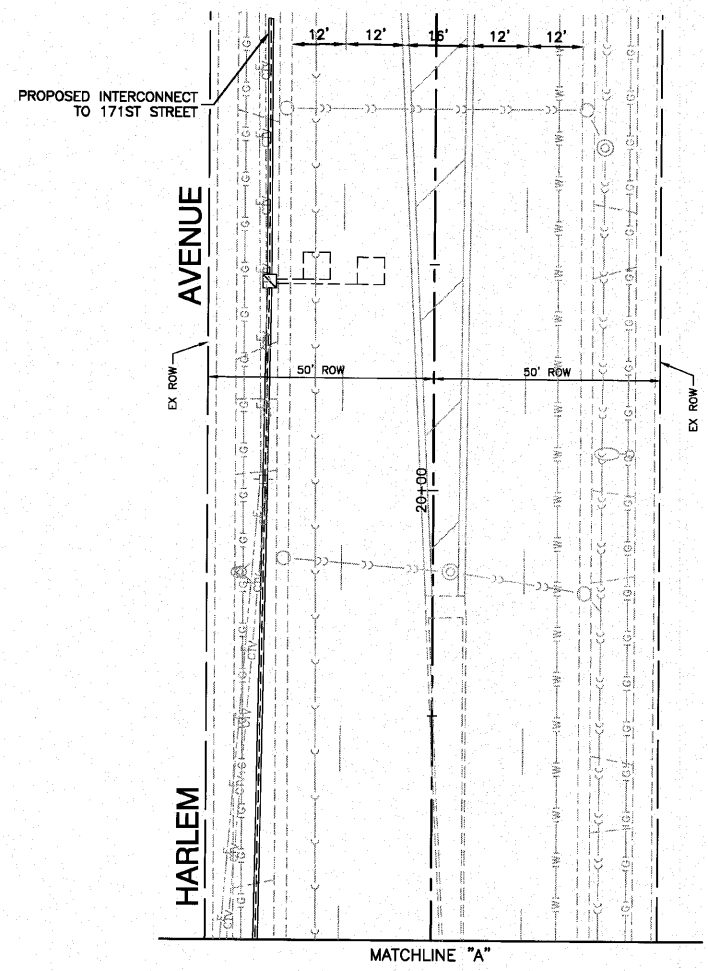
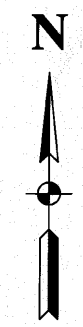
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
TRAFFIC SIGNAL INSTALLATION

SCALE: 1"=20'

SHEET NO. 37 OF 60 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	37
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT NHSIP-8003 (851)				



TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH EXISTING ADJACENT SYSTEM.

**RESTORATION OF WORK AREA.** RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC., SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

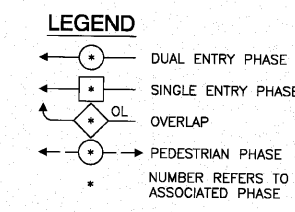
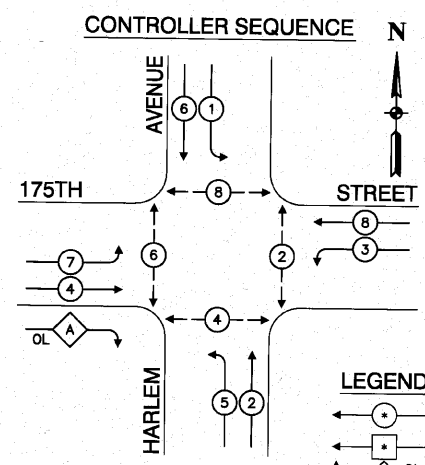
FILE NAME = 08508-SGNL-01 - IDOT P02	USER NAME =	DESIGNED — WPD	REVISED —
		CHECKED — WPD	REVISED —
	PLOT SCALE =	DRAWN — PS	REVISED —
	PLOT DATE = 10-14-10	CHECKED — WD	REVISED —

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

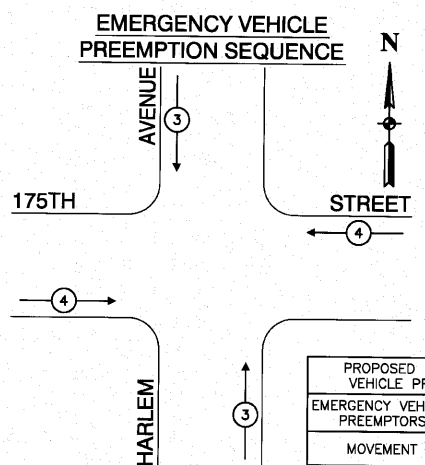
175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
TRAFFIC SIGNAL INSTALLATION

SCALE: 1"=20'    SHEET NO. 38 OF 60 SHEETS    STA.    TO STA.

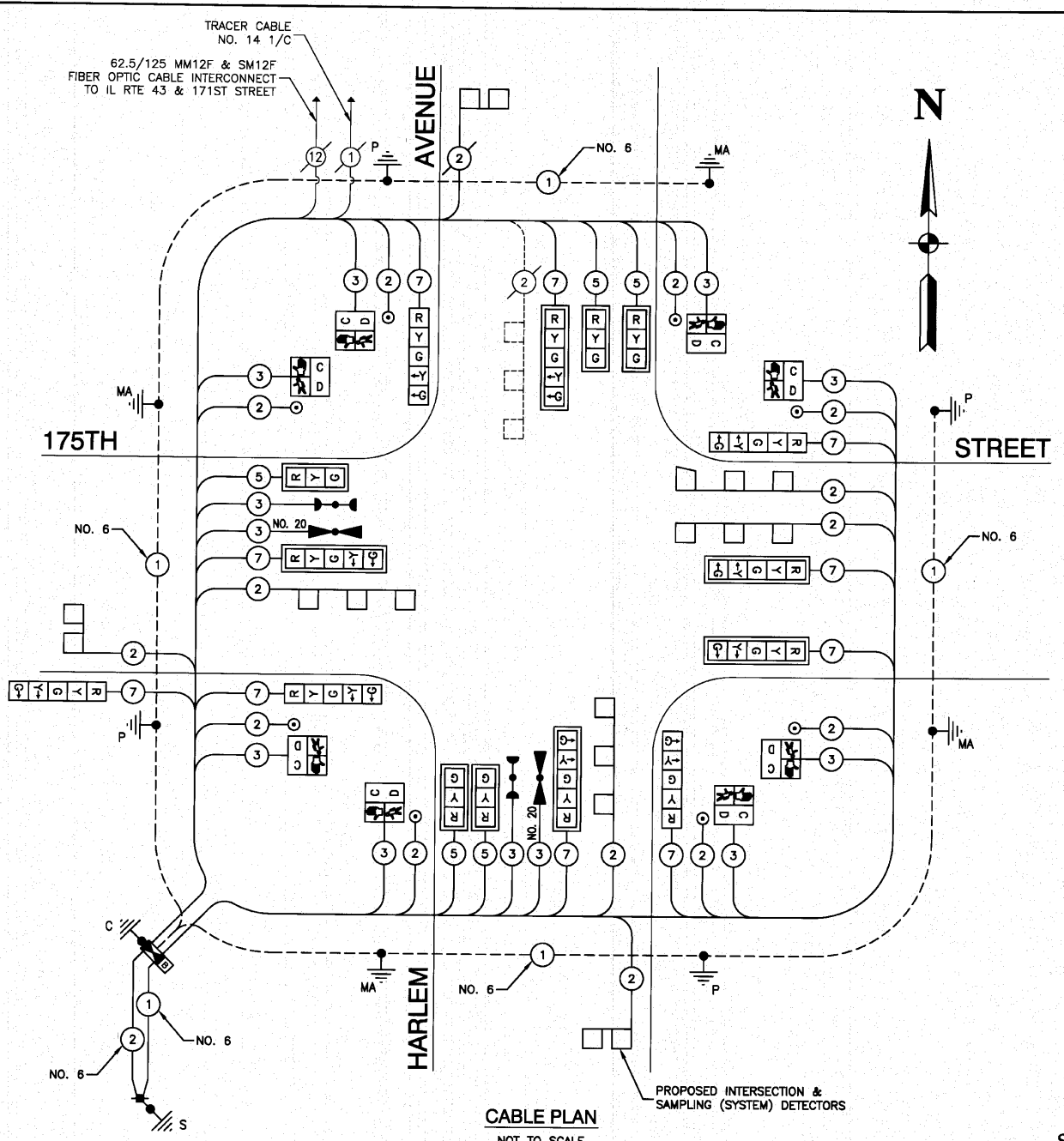
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	80	38
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT#HSIP-8003 (851)				



OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	4	5



PROPOSED EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTORS	3 4
MOVEMENT	↑ ↓



### SCHEDULE OF QUANTITIES

ITEM	UNIT	QUAN	ITEM	UNIT	QUAN
SIGN PANEL - TYPE 1	SQ FT	10.5	CONCRETE FOUNDATION, TYPE C	FOOT	4
SIGN PANEL - TYPE 2	SQ FT	25	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	48
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	545	DRILL EXISTING HANDHOLE	EACH	2
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	98	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	5
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	11	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	29	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	5
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	153	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	441	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
HANDHOLE	EACH	4	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	10
HEAVY-DUTY HANDHOLE	EACH	2	INDUCTIVE LOOP DETECTOR	EACH	2
DOUBLE HANDHOLE	EACH	2	DETECTOR LOOP, TYPE 1	FOOT	609
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	711	LIGHT DETECTOR	EACH	2
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	LIGHT DETECTOR AMPLIFIER	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1	PEDESTRIAN PUSH-BUTTON	EACH	8
TRANSCEIVER - FIBER OPTIC	EACH	1	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1147	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1495	REMOVE EXISTING HANDHOLE	EACH	5
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	878	REMOVE EXISTING CONCRETE FOUNDATION	EACH	8
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1571	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	3400
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2175	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	85	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 16 FT.	EACH	4	SERVICE INSTALLATION - POLE MOUNTED	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1	UNINTERRUPTIBLE POWER SUPPLY	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	3400
STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	1515
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	292
CONCRETE FOUNDATION, TYPE A	FOOT	16			

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	OPERATION	
SIGNAL (RED)	15	17	0.25	0.50	127.50
SIGNAL (YELLOW)	15	25	0.25	0.25	93.75
SIGNAL (GREEN)	15	15	0.25	0.25	56.25
ARROW	20	12	0.10	0.10	24.0
PED. SIGNAL	8	25	1.00	1.00	200.0
CONTROLLER	1	100	1.00	1.00	100
ILLUM. SIGN	-	25	0.05	-	-
FLASHER			0.50		
ENERGY COSTS TO:			TOTAL =		601.50

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAY / DISTRICT 1  
201 WEST CENTER COURT / SCHAMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ANTHONY ESCALANTE  
PHONE: (708) 236-2328  
COMPANY: COMMONWEALTH EDISON

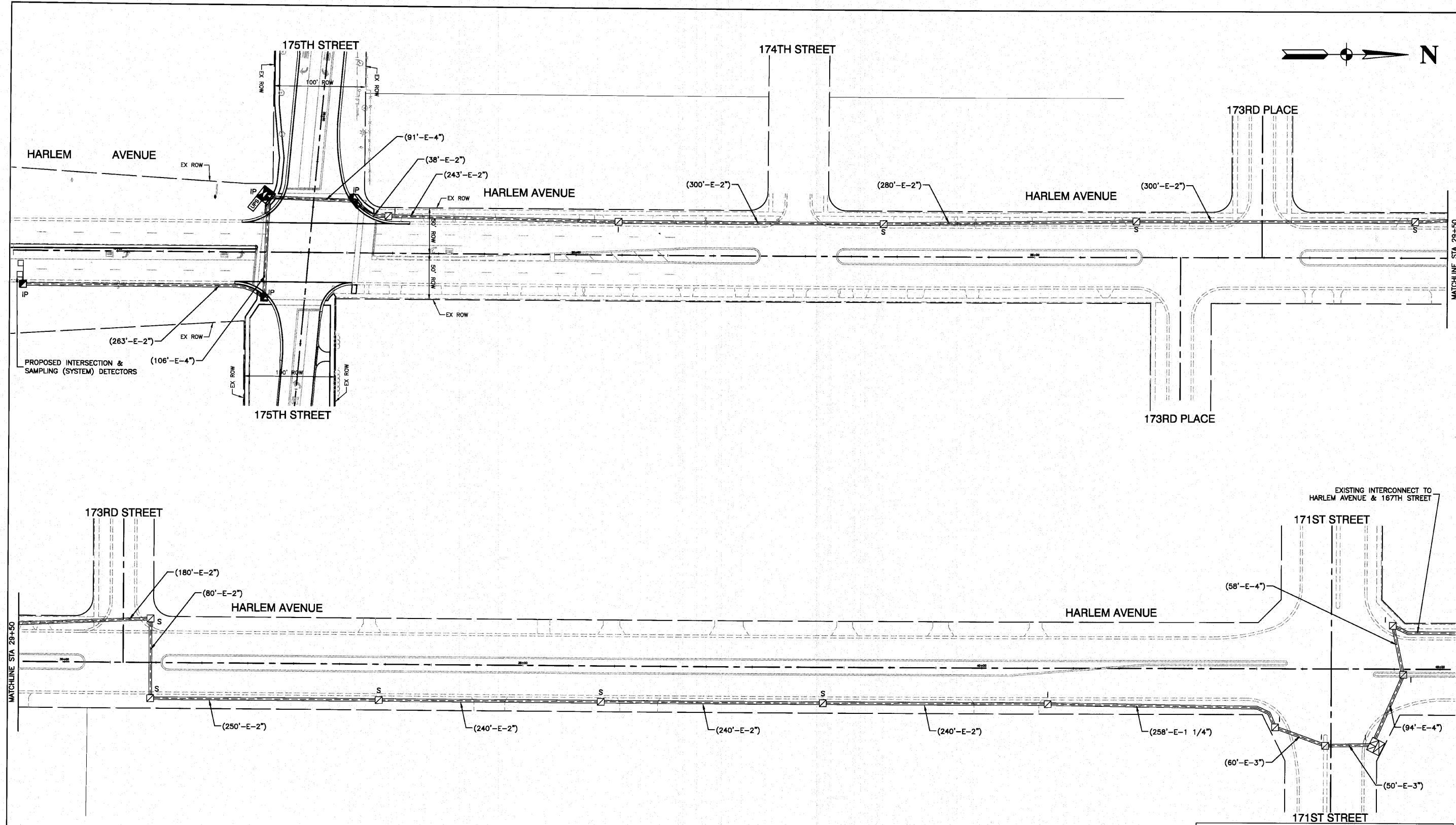
USER NAME =	DESIGNED - WPD	REVISED -
PLOT SCALE =	CHECKED - WPD	REVISED -
PLOT DATE = 10-14-10	DRAWN - PS	REVISED -
	CHECKED - WD	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
TRAFFIC SIGNAL - CABLE PLAN

SCALE: NONE SHEET NO. 39 OF 60 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	39
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT NHSIP-8003 (851)				



TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH EXISTING ADJACENT SYSTEM.

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC., SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

FILE NAME = 06508-SGNL-03 - IDOT P01	USER NAME =	DESIGNED — WPD	REVISED —
		CHECKED — WPD	REVISED —
	PLOT SCALE =	DRAWN — PS	REVISED —
	PLOT DATE = 10-14-10	CHECKED — WD	REVISED —

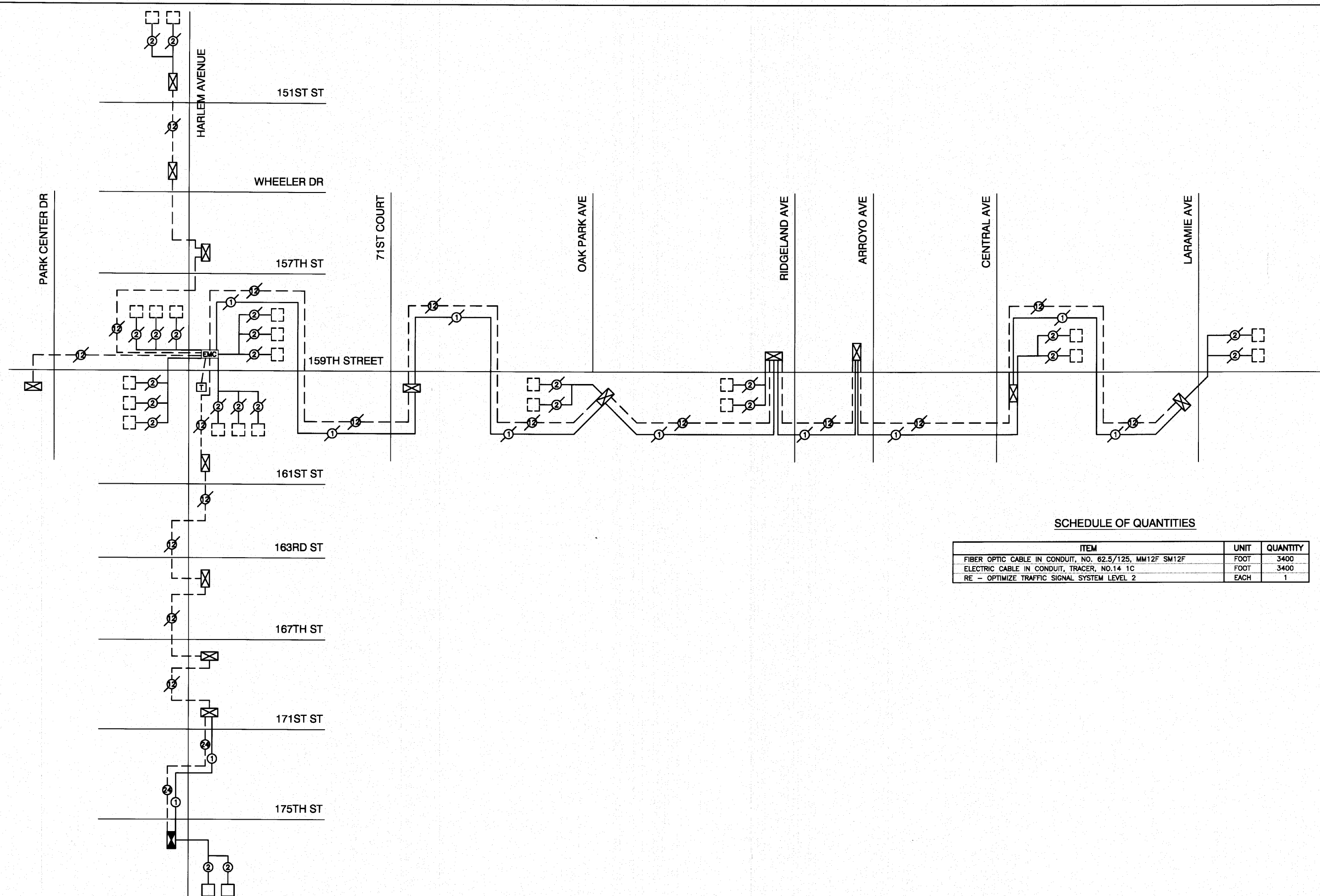
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
TRAFFIC SIGNAL INTERCONNECT PLAN

SCALE: 1"=50'    SHEET NO. 40 OF 60 SHEETS    STA.    TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	40
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1    ILLINOIS    FED. AID PROJECT #HSIP-8003 (851)				



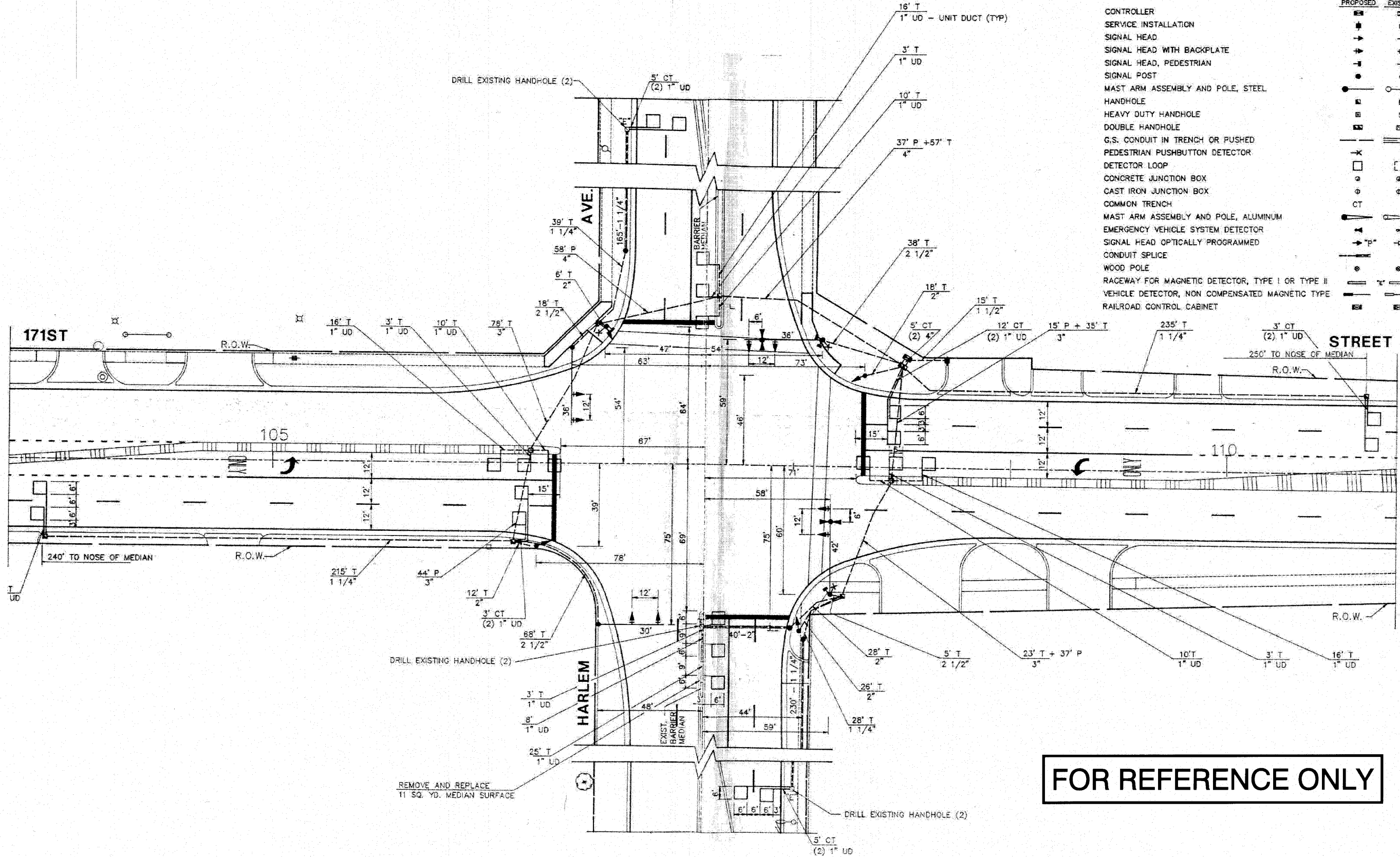


**SCHEDULE OF QUANTITIES**

ITEM	UNIT	QUANTITY
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	3400
ELECTRIC CABLE IN CONDUIT, TRACER, NO.14 1C	FOOT	3400
RE - OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1

**LEGEND**

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CONCRETE JUNCTION BOX		
CAST IRON JUNCTION BOX		
COMMON TRENCH		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
EMERGENCY VEHICLE SYSTEM DETECTOR		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		



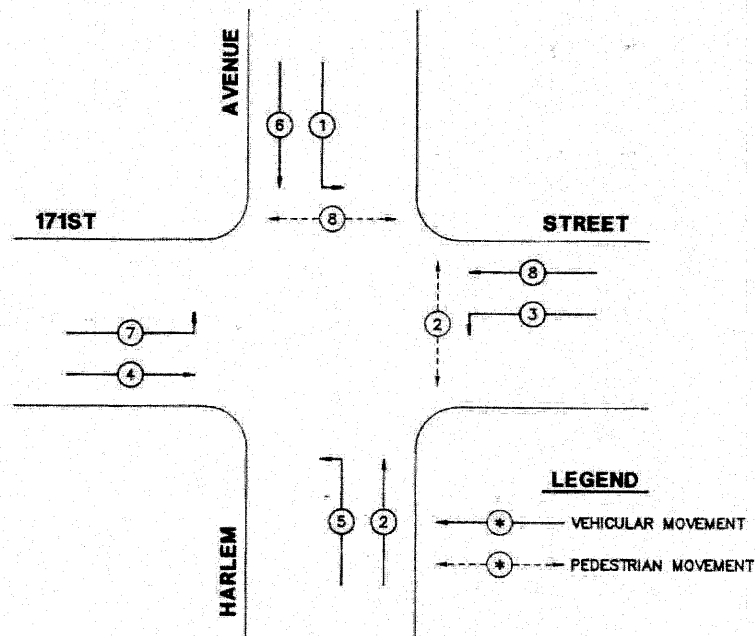
**FOR REFERENCE ONLY**

FILE NAME = 06508 SGNL 06 - P01	USER NAME =	DESIGNED -- WPD	REVISED --	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	TRAFFIC SIGNAL INSTALLATION 171ST STREET AND HARLEM AVENUE		F.A.P. RTE. 348	SECTION 06-00104-00-CH	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 42	
PLOT SCALE = 1=1	DRAWN -- AG	CHECKED -- WPD	REVISED --		SCALE: N/A	SHEET NO. 42 OF 80 SHEETS	STA. N/A	TO STA. N/A	CONTRACT NO. 63453			
PLOT DATE = 10-14-10	CHECKED -- AG	DRAWN -- AG	REVISED --		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT #HSIP-9003 (851)							

ASB DRAWN BY AG/LE/BA ON 4/16/10  
PLOT BY RICHARD QUINLAN ON 10/13/10

**CONTROLLER SEQUENCE IV**

REFERRING TO STANDARD 2393-1 THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



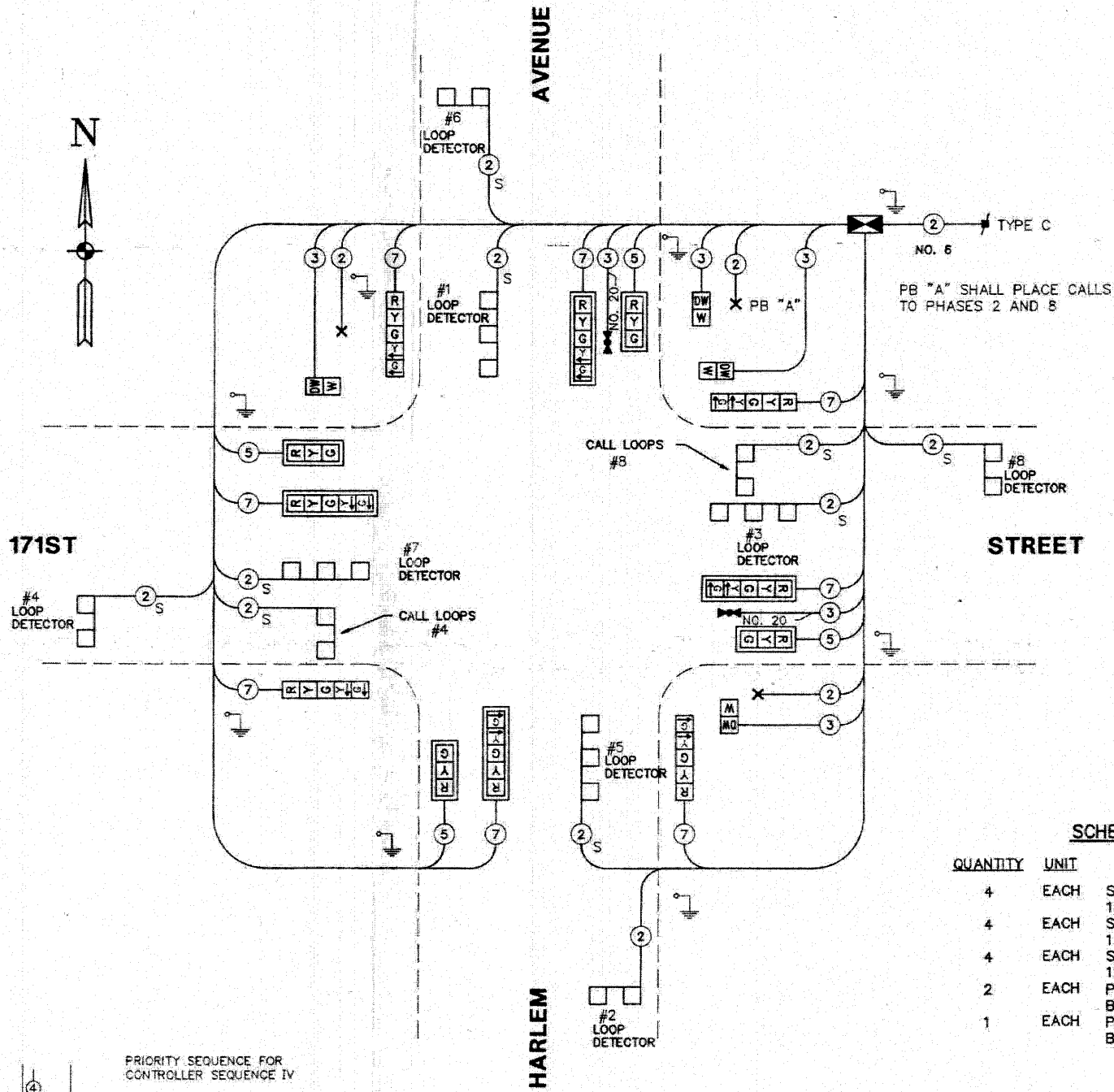
**PHASE DESIGNATION DIAGRAM**

**BILL OF MATERIAL**

QUAN.	UNIT	ITEM
1	EACH	FULL-ACTUATED CONTROLLER, STD SEQ IV, 8 PHASES, IN TYPE IV CABINET
4	EACH	SIGNAL HEAD, ALUMINUM, 1-FACE, 3-SECTION, MAST ARM MOUNTED
4	EACH	SIGNAL HEAD, ALUMINUM, 1-FACE, 5-SECTION, MAST ARM MOUNTED
4	EACH	SIGNAL HEAD, ALUMINUM, 1-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, ALUMINUM, 1-FACE, BRACKET MOUNTED
1	EACH	PEDESTRIAN SIGNAL HEAD, ALUMINUM, 2-FACE, BRACKET MOUNTED
8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED
4	EACH	TRAFFIC SIGNAL POST, FERROUS, 16 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT. MAST ARM
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT. MAST ARM
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT. MAST ARM
1	EACH	SERVICE INSTALLATION, TYPE C
8	EACH	INDUCTION LOOP DETECTOR AMPLIFIER
2	EACH	INDUCTION LOOP DETECTOR AMPLIFIER, WITH CALLING DETECTOR RELAY
3	EACH	PEDESTRIAN PUSH BUTTON
6	EACH	CONCRETE HANDHOLE
2	EACH	CONCRETE HEAVY-DUTY HANDHOLE
1	EACH	CONCRETE DOUBLE HANDHOLE
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6	EACH	REMOVE EXISTING HANDHOLE
8	EACH	REMOVE EXISTING CONCRETE FOUNDATION
12	LIN FT	CONCRETE FOUNDATION, TYPE A
3.5	LIN FT	CONCRETE FOUNDATION, TYPE D
60	LIN FT	CONCRETE FOUNDATION, TYPE E (30 IN. DIA.)
749	LIN FT	DETECTOR LOOP, TYPE 1
17	LIN FT	ELECTRIC CABLE IN CONDUIT, NO. 6 2/C
486	LIN FT	ELECTRIC CABLE IN CONDUIT, NO. 14, 2/C
486	LIN FT	ELECTRIC CABLE IN CONDUIT, NO. 14, 3/C
891	LIN FT	ELECTRIC CABLE IN CONDUIT, NO. 14, 5/C
1660	LIN FT	ELECTRIC CABLE IN CONDUIT, NO. 14, 7/C
2755	LIN FT	ELECTRIC CABLE IN CONDUIT, NO. 14, 2/C, TWISTED, SHIELDED
267	LIN FT	EMERGENCY VEHICLE PRIORITY SYSTEM LEAD-IN CABLE IN CONDUIT
517	LIN FT	GALVANIZED STEEL CONDUIT IN TRENCH - 1 1/4 IN.
15	LIN FT	GALVANIZED STEEL CONDUIT IN TRENCH - 1 1/2 IN.
89	LIN FT	GALVANIZED STEEL CONDUIT IN TRENCH - 2 IN.
129	LIN FT	GALVANIZED STEEL CONDUIT IN TRENCH - 2 1/2 IN.
136	LIN FT	GALVANIZED STEEL CONDUIT IN TRENCH - 3 IN.
67	LIN FT	GALVANIZED STEEL CONDUIT IN TRENCH - 4 IN.
52	LIN FT	GALVANIZED STEEL CONDUIT PUSHED - 3 IN.
139	LIN FT	GALVANIZED STEEL CONDUIT PUSHED - 4 IN.
183	LIN FT	UNIT DUCT, WITHOUT CABLE, IN TRENCH 1"
1094	LIN FT	TRENCH AND BACKFILL
435	LIN FT	PULL ELECTRIC CABLE FROM CONDUIT
2	EACH	RELOCATE EMERGENCY VEHICLE PRIORITY SYSTEM DETECTOR UNIT
1	EACH	RELOCATE EMERGENCY VEHICLE PRIORITY SYSTEM PHASING UNIT
6	EACH	DRILL EXISTING HANDHOLE
105	SQ FT	MEDIAN REMOVAL AND REPLACEMENT

**NOTE:**

A TRANSYT MODEL 1880EL CONTROLLER SHALL BE UTILIZED FOR THE TRAFFIC SIGNAL INSTALLATION TO BE COMPATIBLE WITH THE EXISTING TBC SYSTEM ON HARLEM AVENUE.



**CABLE PLAN LEGEND**

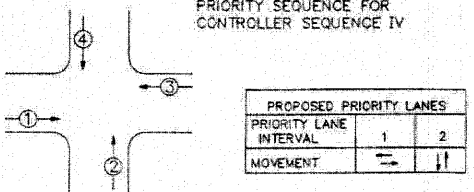
- [G] 8" TRAFFIC SIGNAL SECTION
- [R] 12" TRAFFIC SIGNAL SECTION
- [W] 12" PEDESTRIAN SIGNAL SECTION
- [C] CONTROLLER CABINET
- [S] SERVICE INSTALLATION
- [V] VEHICLE DETECTOR, INDUCTION LOOP
- [X] PUSHBUTTON DETECTOR
- (2) DENOTES NUMBER OF CONDUCTORS (NEW) ALL LOOP DETECTOR CABLE TO BE TWISTED & SHIELDED. ALL CABLE #14 EXCEPT AS INDICATED.
- (2) INDICATES EXISTING CABLE
- [P] SIGNAL FACE WITH 12" LENSES "P" INDICATES PROGRAMMED
- [B] BACKPLATE
- [R] EXISTING SIGNAL SECTION
- [M] MAGNETIC DETECTOR
- [O] OPTICAL DETECTOR
- [GND] GROUND
- [S] SHIELDED AND TWISTED

**SCHEDULE OF SIGNAL HEADS**

QUANTITY	UNIT	ITEM
4	EACH	SIGNAL HEAD, ALUMINUM, 1-FACE, 3-SECTION, WITH 12" LENSES, MAST ARM MOUNTED
4	EACH	SIGNAL HEAD, ALUMINUM, 1-FACE, 5-SECTION, WITH 12" LENSES, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, ALUMINUM, 1-FACE, 5-SECTION, WITH 12" LENSES, MAST ARM MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, ALUMINUM, 1-FACE BRACKET MOUNTED
1	EACH	PEDESTRIAN SIGNAL HEAD, ALUMINUM, 2-FACE, BRACKET MOUNTED

**FOR REFERENCE ONLY**

**PRIORITY SEQUENCE FOR CONTROLLER SEQUENCE IV**



- NOTES:
- TERMINATION OF PHASES 1+5 OR 3+7 SHALL BE WITH A YELLOW ARROW DISPLAYED TOGETHER WITH A CIRCULAR RED.
  - TERMINATION OF PHASES 1, 3, 5, OR 7 ALONE IN PHASES 1+6, 3+8, 2+4, OR 4+7 SHALL BE WITH A YELLOW ARROW DISPLAYED TOGETHER WITH A CIRCULAR GREEN WHEN FOLLOWED BY A PRIORITY LANE INTERVAL WHICH DISPLAYS THE CIRCULAR GREEN.
  - TERMINATION OF PHASES 1+6, 3+8, 2+5, OR 4+7 SHALL BE WITH A CIRCULAR YELLOW DISPLAY WHEN FOLLOWED BY A PRIORITY LANE INTERVAL WHICH DISPLAYS A CIRCULAR RED.

- TERMINATION OF PHASES 2+6 OR 4+8 SHALL BE WITH A CIRCULAR YELLOW WHEN FOLLOWED BY A PRIORITY LANE INTERVAL WHICH DISPLAYS A CIRCULAR RED. WHEN PHASE 2+6 OR 4+8 CIRCULAR GREEN IS TO BE DISPLAYED IN THE PRIORITY LANE INTERVAL, IT SHALL REMAIN GREEN.
- TERMINATION OF ALL PEDESTRIAN INTERVALS SHALL INCLUDE FULL FLASHING "DON'T WALK" CLEARANCE INTERVAL.
- TERMINATION OF ALL PRIORITY INTERVALS SHALL BE WITH A CIRCULAR YELLOW EXCEPT WHEN THE GREEN DISPLAYED DURING THE PRIORITY INTERVAL IS TO REMAIN GREEN WHEN THE NORMAL SEQUENCE OF OPERATIONS RESUMES CONTROL OF THE INTERSECTION.
- IF ALL RED CLEARANCE IS USED IN THE NORMAL SEQUENCE OF OPERATIONS, IT MUST BE DISPLAYED AFTER THE YELLOW CLEARANCE INTERVAL WHEN ENTERING OR LEAVING THE PRIORITY SEQUENCE.

FILE NAME = 06508-SGNL-05 - P02

USER NAME =	DESIGNED - WPD	REVISED -
PLOT SCALE = 1=1	CHECKED - WPD	REVISED -
PLOT DATE = 10-14-10	DRAWN - AG	REVISED -
	CHECKED - AG	REVISED -

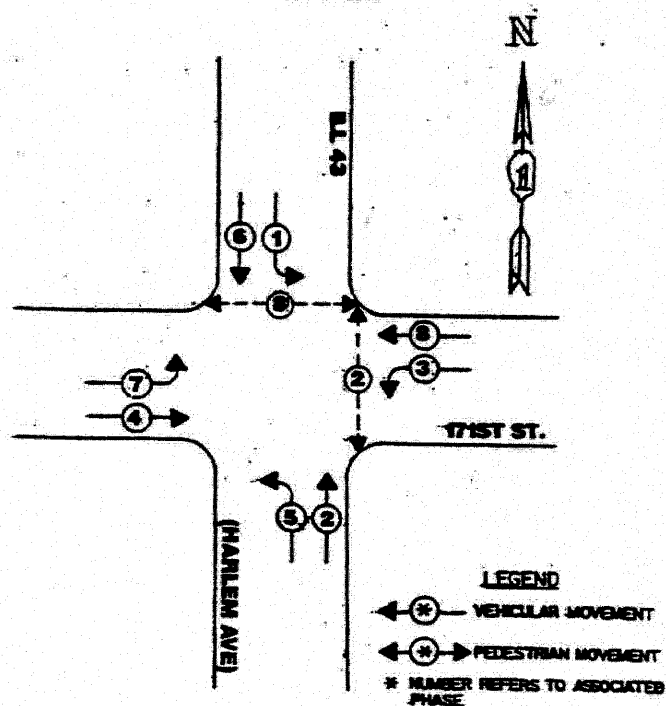
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN  
171ST STREET AND HARLEM AVENUE  
SCALE: N/A SHEET NO. 43 OF 60 SHEETS STA. N/A TO STA. N/A

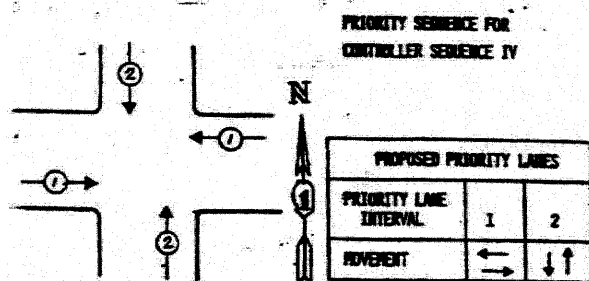
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	43

CONTRACT NO. 63453  
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT #HSIP-8003 (851)

**CONTROLLER SEQUENCE IV**  
 REFERRING TO STANDARD 2393-1, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.

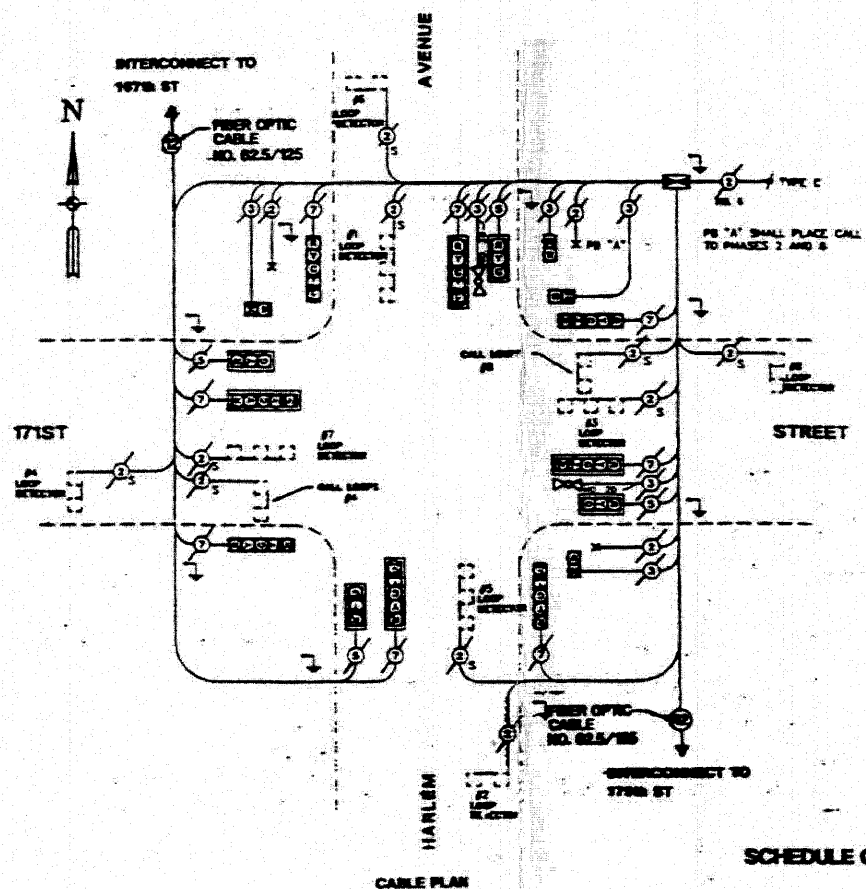


**PHASE DESIGNATION DIAGRAM**



**NOTES:**

1. TERMINATION OF PHASES 1+5 OR 3+7 SHALL BE WITH A YELLOW ARROW DISPLAYED TOGETHER WITH A CIRCULAR RED.
2. TERMINATION OF PHASES 1, 3, 5, OR 7 ALONE IN PHASES 1+6, 3+8, 2+5, OR 4+7 SHALL BE WITH A YELLOW ARROW DISPLAYED TOGETHER WITH A CIRCULAR GREEN WHEN FOLLOWED BY A PRIORITY LANE INTERVAL WHICH DISPLAYS THE CIRCULAR GREEN.
3. TERMINATION OF PHASES 1+6, 3+8, 2+5, OR 4+7 SHALL BE WITH A CIRCULAR YELLOW DISPLAY WHEN FOLLOWED BY A PRIORITY LANE INTERVAL WHICH DISPLAYS A CIRCULAR RED.
4. TERMINATION OF PHASES 2+6 OR 4+3 SHALL BE WITH A CIRCULAR YELLOW WHEN FOLLOWED BY A PRIORITY LANE INTERVAL WHICH DISPLAYS A CIRCULAR RED. WHEN PHASES 2+6 OR 4+3 CIRCULAR GREEN IS TO BE DISPLAYED IN THE PRIORITY LANE INTERVAL, IT SHALL REMAIN GREEN.
5. TERMINATION OF ALL PEDESTRIAN INTERVALS SHALL INCLUDE A FULL FLASHING "DON'T WALK" CLEARANCE INTERVAL.
6. TERMINATION OF ALL PRIORITY INTERVALS SHALL BE WITH A CIRCULAR YELLOW EXCEPT WHEN THE GREEN DISPLAYED DURING THE PRIORITY INTERVAL IS TO REMAIN GREEN AND THE NORMAL SEQUENCE OF OPERATIONS RESUMES CONTROL OF THE INTERSECTION.
7. IF ALL RED CLEARANCE IS USED IN THE NORMAL SEQUENCE OF OPERATIONS, IT MUST BE DISPLAYED AFTER THE YELLOW CLEARANCE INTERVAL WHEN ENTERING OR LEAVING THE PRIORITY SEQUENCE.



- CABLE PLAN LEGEND**
- (G) 8" TRAFFIC SIGNAL SECTION
  - (R) 12" TRAFFIC SIGNAL SECTION
  - (W) 12" PEDESTRIAN SIGNAL SECTION
  - (C) CONTROLLER CABINET
  - (S) SERVICE INSTALLATION
  - (V) VEHICLE DETECTOR, INDUCTION LOOP
  - (P) PUSHBUTTON DETECTOR
  - (N) DENOTES NUMBER OF CONDUCTORS (NEW).
  - (S) ALL LOOP DETECTOR CABLE TO BE SHIELDED. ALL CABLE NO. 14 EXCEPT AS INDICATED.
  - (E) INDICATES EXISTING CABLE
  - (P\*) SIGNAL FACE WITH BACKPLATE
  - (P\*) INDICATES PROGRAMMED
  - (X) LIGHT DETECTOR, EXISTING

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	FULL-ACTIVATED CONTROLLER, STANDARD SEQUENCE IV, 8 PHASES, IN TYPE IV CABINET
1	EACH	TRANSCEIVER, FIBER OPTIC
5	EACH	INDUCTION LOOP DETECTOR AMPLIFIER
2	EACH	INDUCTION LOOP DETECTOR AMPLIFIER WITH CALLING DETECTOR RELAY
1	EACH	REMOVAL OF EXISTING TRAFFIC SIGNAL SIGNALIZATION
1	EACH	REPAIR EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	RELOCATE LIGHT DETECTOR AMPLIFIER
150	LIN. FT.	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 24"
300	LIN. FT.	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 6"

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR. SHALL REMAIN THE PROPERTY OF THE STATE, AND SHALL BE STORED AS STATED IN THE SPECIAL PROVISION FOR PICK UP BY STATE FORCES AS DESIGNATED BY THE ENGINEER.

- 1 EACH CONTROLLER AND CABINET COMPLETE
- 5 EACH INDUCTION LOOP DETECTOR AMPLIFIER

**FOR REFERENCE ONLY**

FILE NAME = 06509-SGNL-05 - P03

USER NAME =	DESIGNED - WPD	REVISED -
	CHECKED - WPD	REVISED -
PLOT SCALE = 1=1	DRAWN - AG	REVISED -
PLOT DATE = 10-14-10	CHECKED - AG	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

ILL 43 (HARLEM AVE) & 171ST STREET  
 PHASE DESIGNATION DIAGRAM  
 EMERGENCY VEHICLE PREEMPTION SEQUENCE, CABLE PLAN AND SCHEDULE OF QUANTITIES

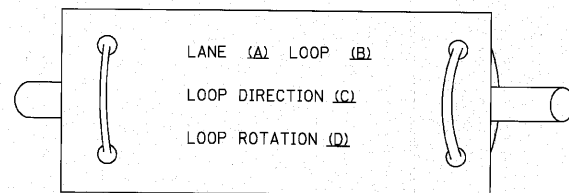
F.A.P. RTE. 348	SECTION 06-00104-00-CH	COUNTY COOK	TOTAL SHEETS 60	SHEET NO. 44
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT #HSIP-8003 (851)				



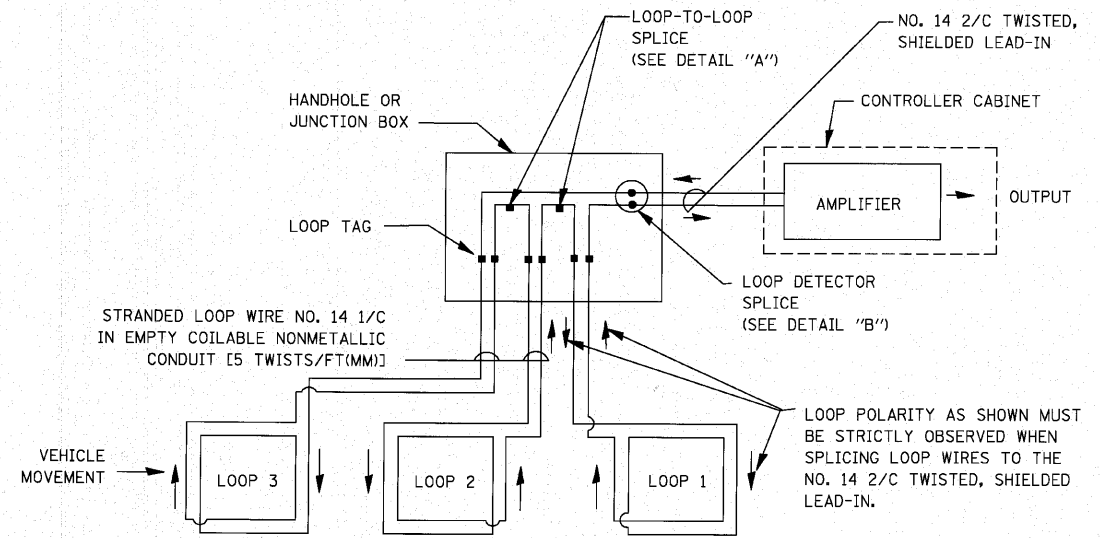
**LOOP DETECTOR NOTES**

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVESHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

**LOOP LEAD-IN CABLE TAG**

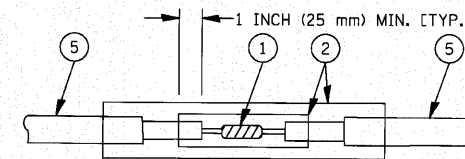


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

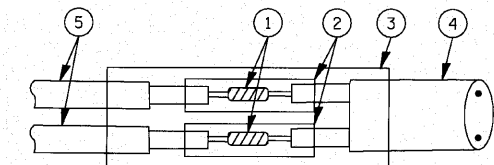


**DETECTOR LOOP WIRING SCHEMATIC**

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

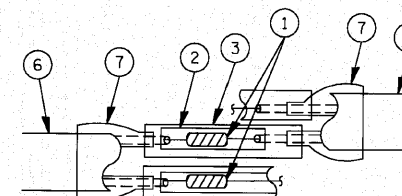


**DETAIL "A"  
LOOP-TO-LOOP SPLICE**

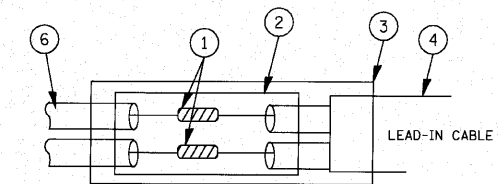


**DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE**

**TYPE I LOOP**



**DETAIL "A"  
LOOP-TO-LOOP SPLICE**



**DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE**

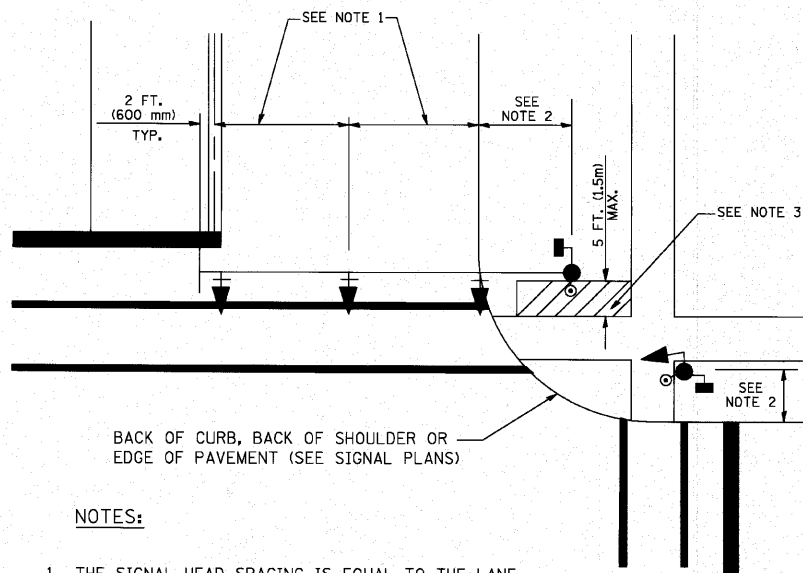
**LOOP DETECTOR SPLICE**

- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- 2 WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- 6 PRE-FORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL

FILE NAME = 06508-SGNL-DTLS 01 - P01	USER NAME = bauerdl	DESIGNED -- DAD	REVISION --	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>	F.A.P. RTE. 348	SECTION 06-00104-00-CH	COUNTY COOK	TOTAL SHEETS 60	SHEET NO. 46	
PLOT SCALE = 5/8" = 1" IN.	DRAWN -- DAD	CHECKED -- BCK	REVISION --			<b>TS-06</b>		CONTRACT NO. 63453			
PLOT DATE = 11/4/2009	CHECKED -- 10-28-09	REVISION --	REVISION --			SCALE: NONE		SHEET NO. 46 OF 60 SHEETS		STA. TO STA.	
						FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT #HSIP-8003 (851)	

**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST**

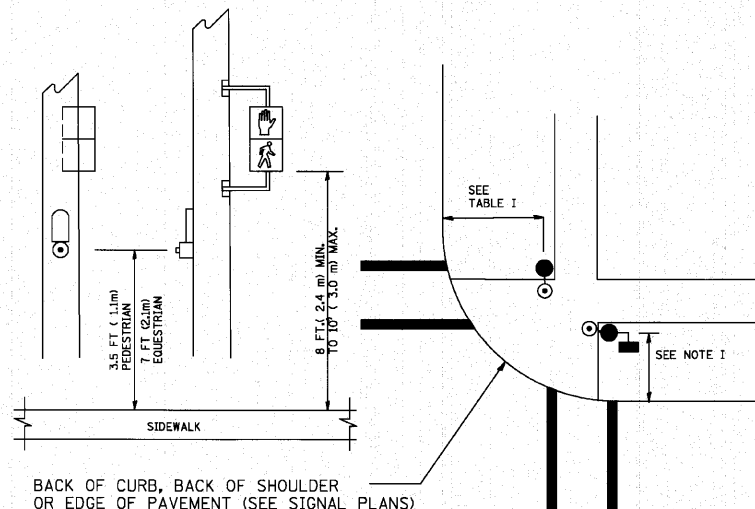
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



**NOTES:**

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

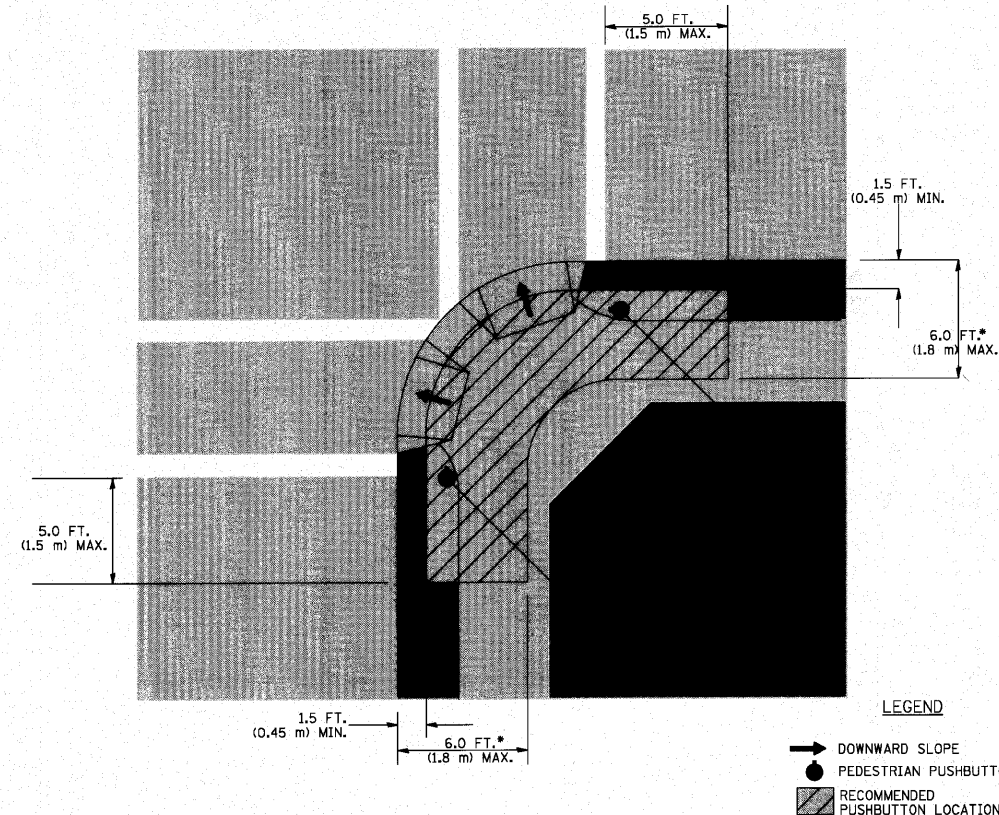
**PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST**



**NOTES:**

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

**RECOMMENDED PUSHBUTTON LOCATIONS**



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

**NOTES:**

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

**TRAFFIC SIGNAL EQUIPMENT OFFSET**

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

**NOTES:**

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

FILE NAME = 06506-SGNL-DT1-S-01 - P02

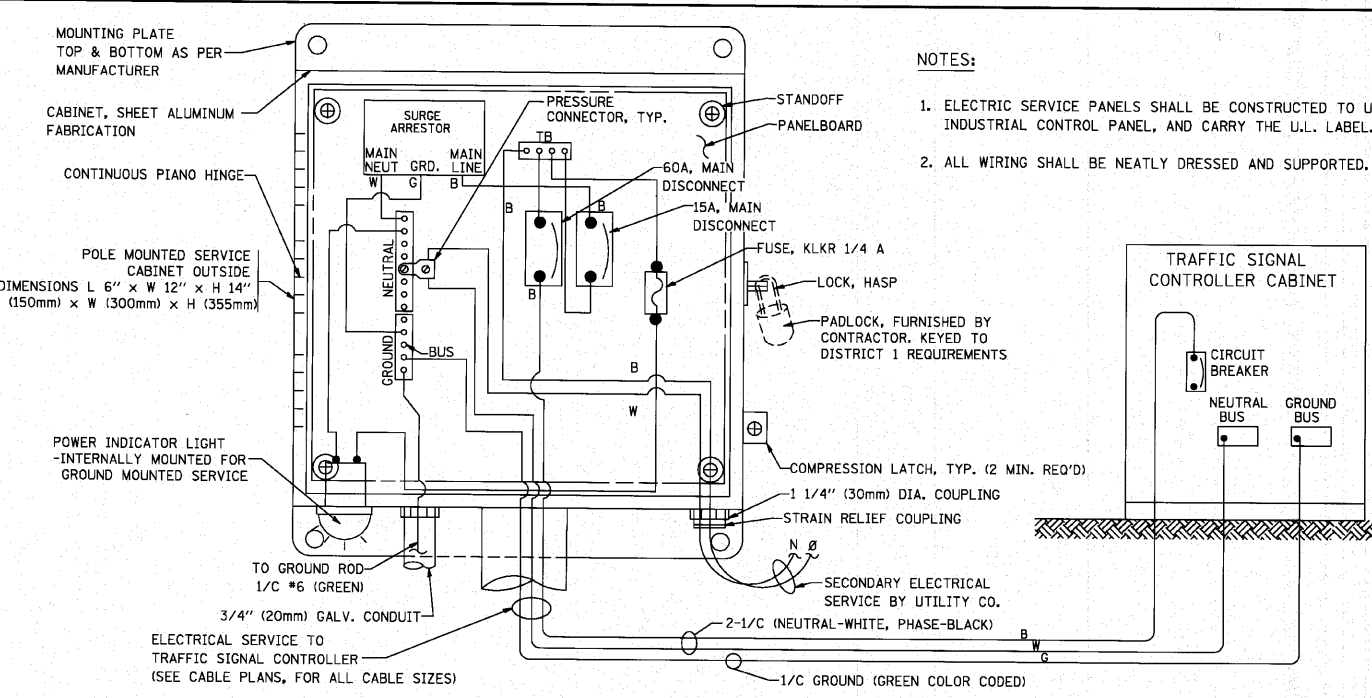
USER NAME = bauer-dl	DESIGNED -- DAD	REVISED --
	CHECKED -- BCK	REVISED --
PLOT SCALE = 5/8" = 1' IN.	DRAWN -- DAD	REVISED --
PLOT DATE = 11/4/2009	CHECKED -- 10-28-09	REVISED --

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

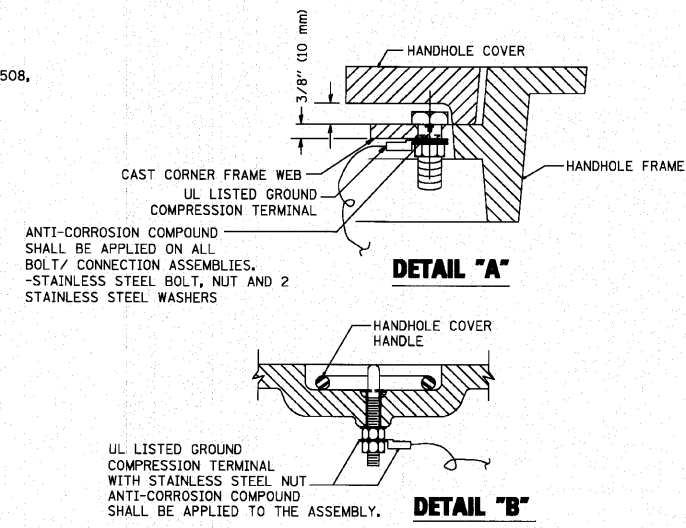
DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE SHEET NO. 47 OF 60 SHEETS STA. TO STA.

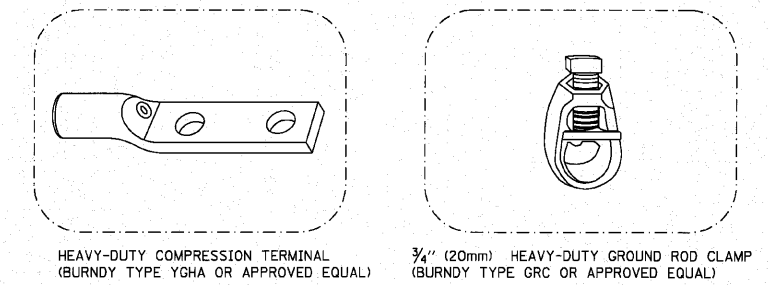
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	47
TS-05		CONTRACT NO. 63453		
FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT#HSIP-9003 (851)		



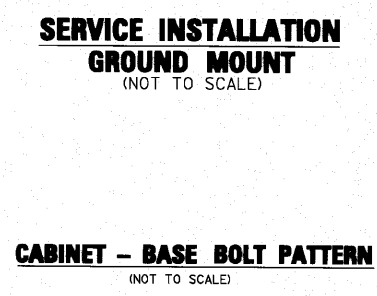
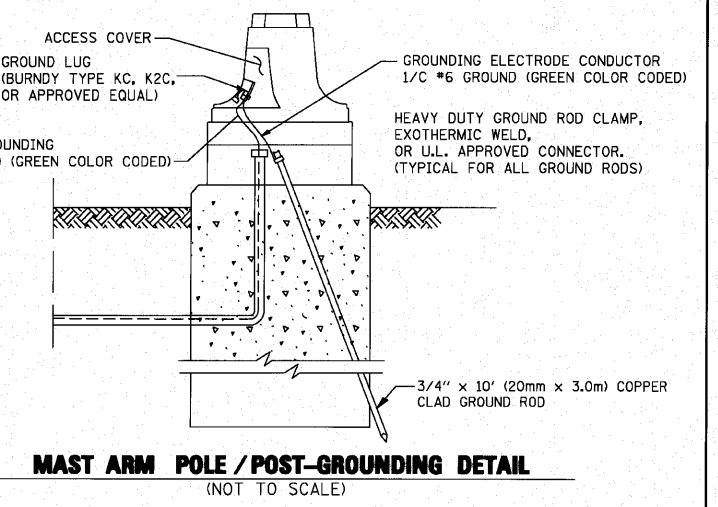
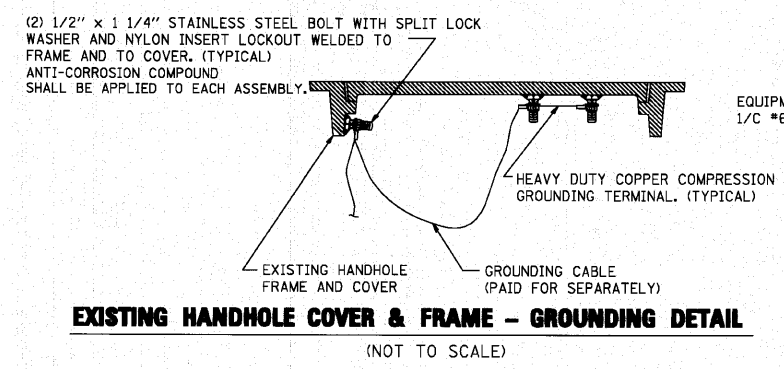
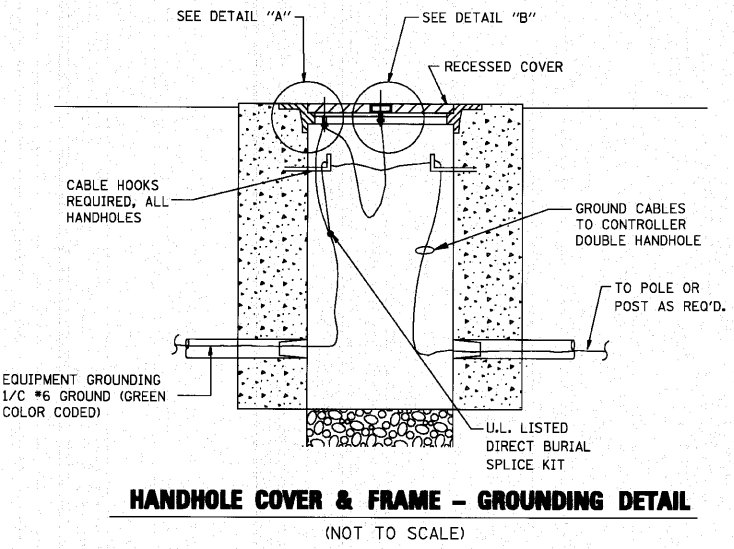
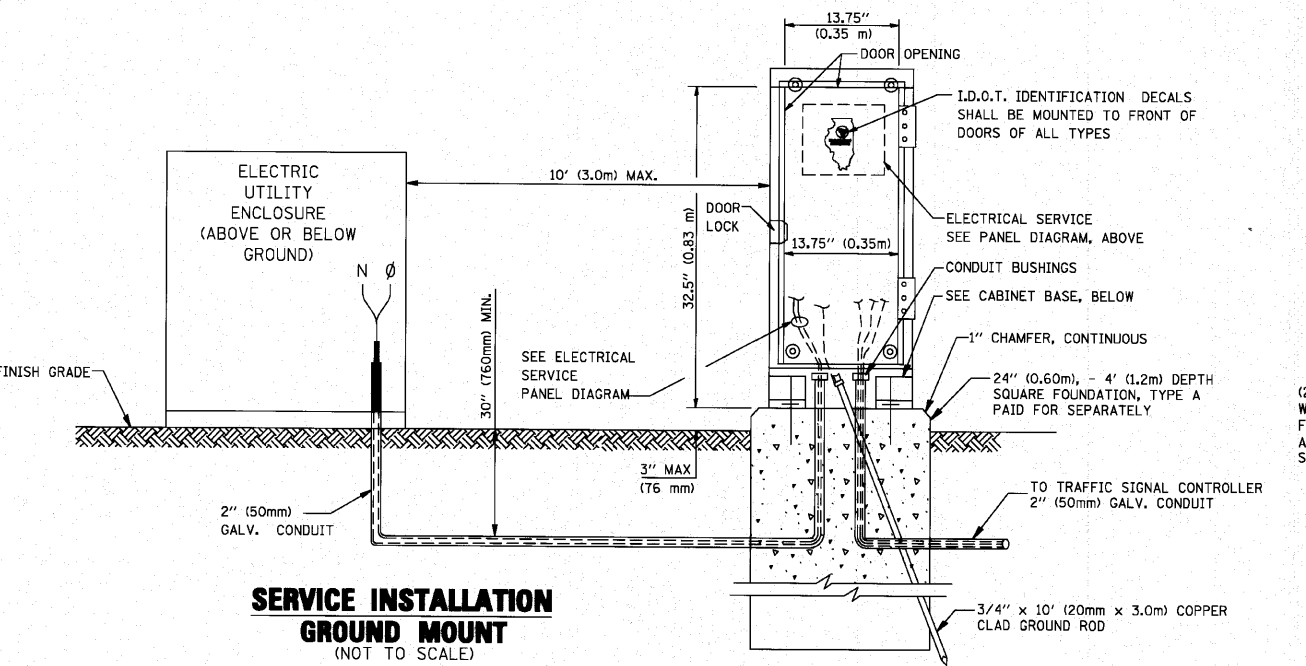
- NOTES:**
1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
  2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.



- 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.

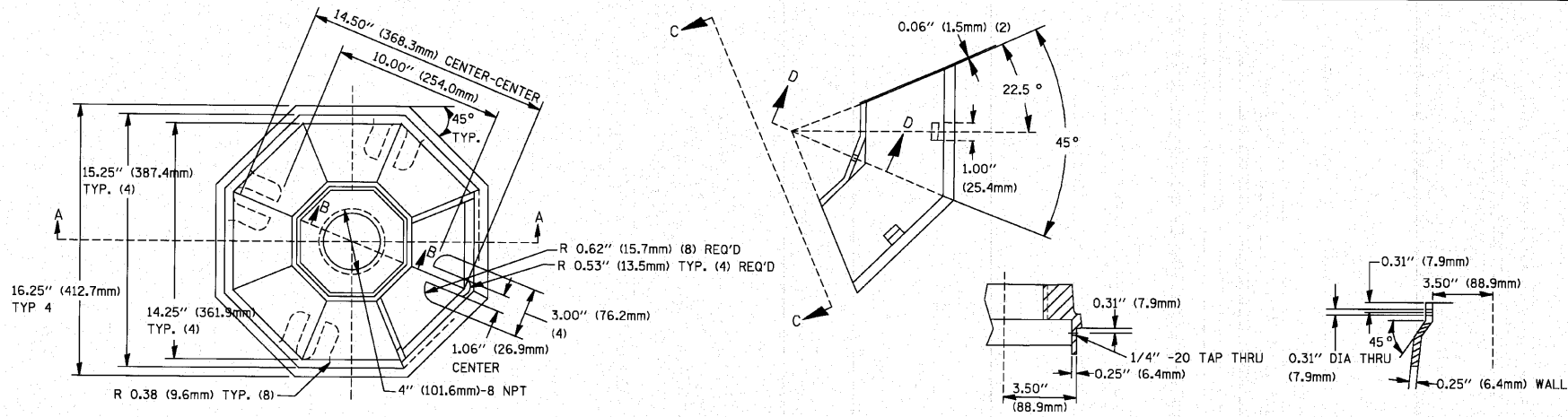


- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
  - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



FILE NAME = 06508-SGNL-DTLS-01 - P03	USER NAME = bauer-dl	DESIGNED - DAD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 50.0000' / IN.	CHECKED - BCK	REVISED -	348			06-00104-00-CH	COOK	60	48	
PLOT DATE = 11/4/2009	DRAWN - DAD	REVISED -	TS-06			CONTRACT NO. 63453				
	CHECKED - 10-28-09	REVISED -	FED. ROAD DIST. NO. 1			ILLINOIS FED. AID PROJECT #HSIP-8003 (851)				
SCALE: NONE					SHEET NO. 48 OF 60 SHEETS		STA. TO STA.			

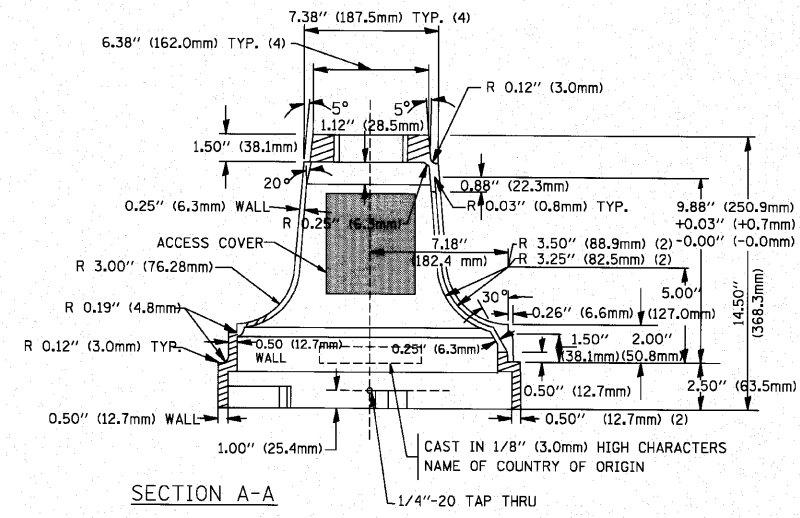




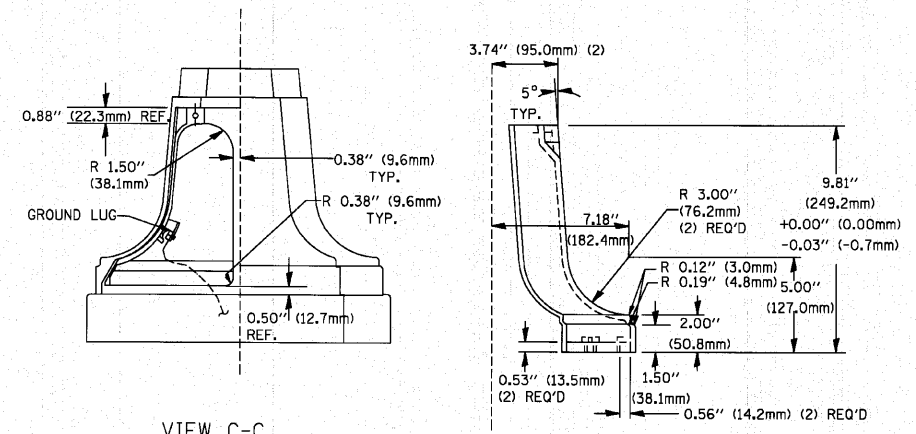
TOP VIEW

SECTION B-B

SECTION D-D

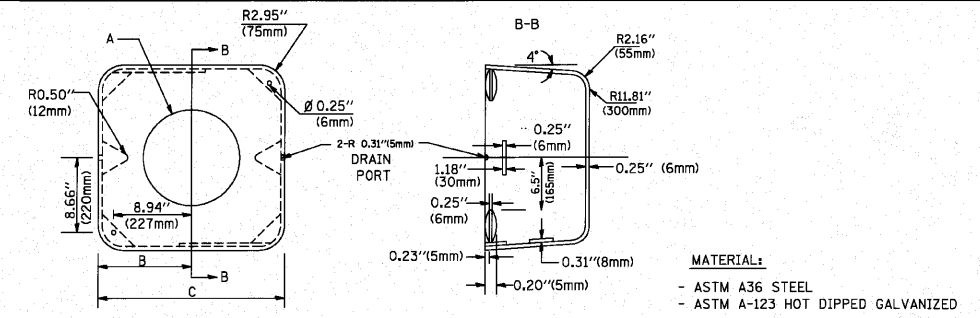


SECTION A-A



VIEW C-C

TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



MATERIAL:  
 - ASTM A36 STEEL  
 - ASTM A-123 HOT DIPPED GALVANIZED

	A	B	C	HEIGHT	WEIGHT
VARIES	9.5\" (241mm)	19\" (483mm)	7\" (178mm)	12\" (300mm)	53 lbs (24kg)
VARIES	10.75\" (273mm)	21.5\" (546mm)	7\" (178mm)	12\" (300mm)	68 lbs (31 kg)
VARIES	13.0\" (330mm)	26\" (660mm)	7\" (178mm)	12\" (300mm)	81 lbs (37 kg)
VARIES	18.5\" (470mm)	37\" (940mm)	7\" (178mm)	12\" (300mm)	126 lbs (57 kg)

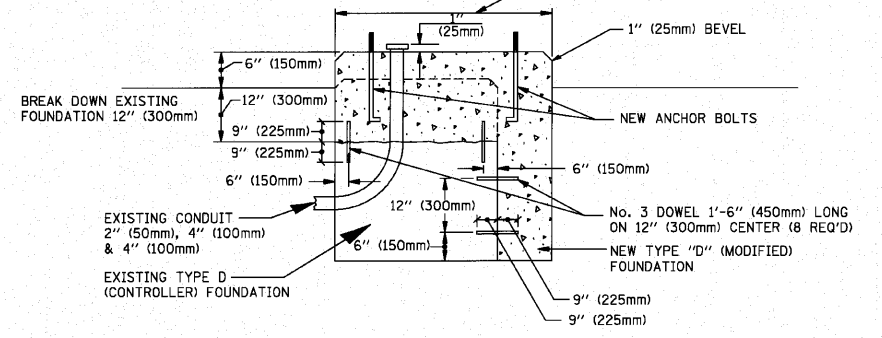
SHROUD

NOTES:

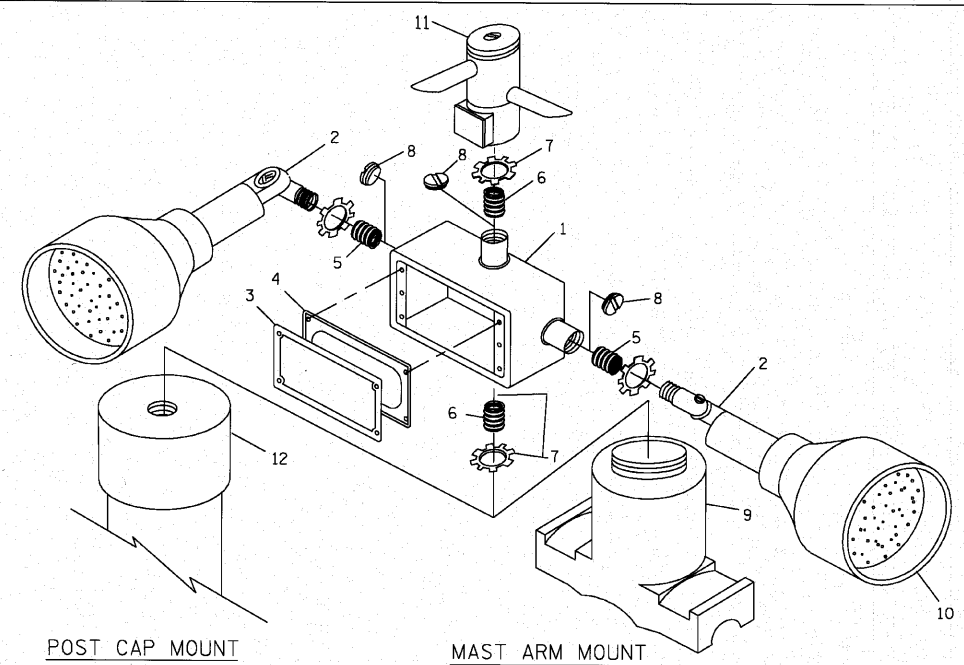
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

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



POST CAP MOUNT

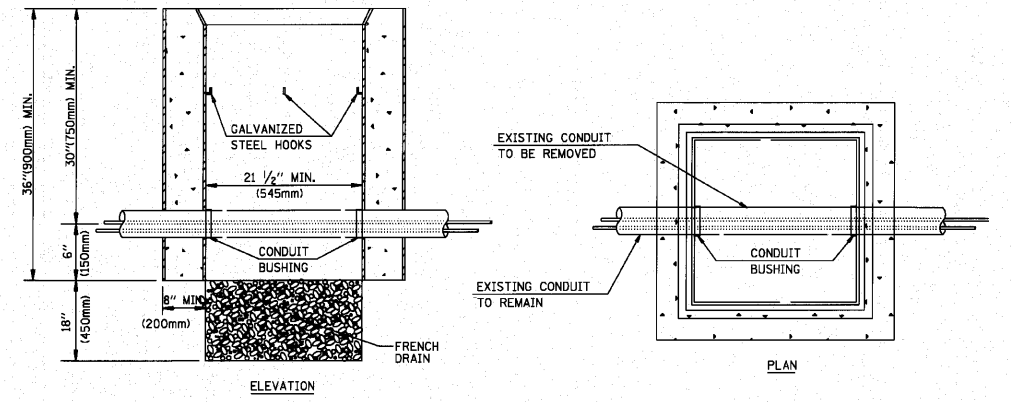
MAST ARM MOUNT

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	3/4\" (19 mm) CLOSE NIPPLE
7	3/4\" (19 mm) LOCKNUT
8	3/4\" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP (18 FT. (5.4 m) POST MIN.)

NOTES:

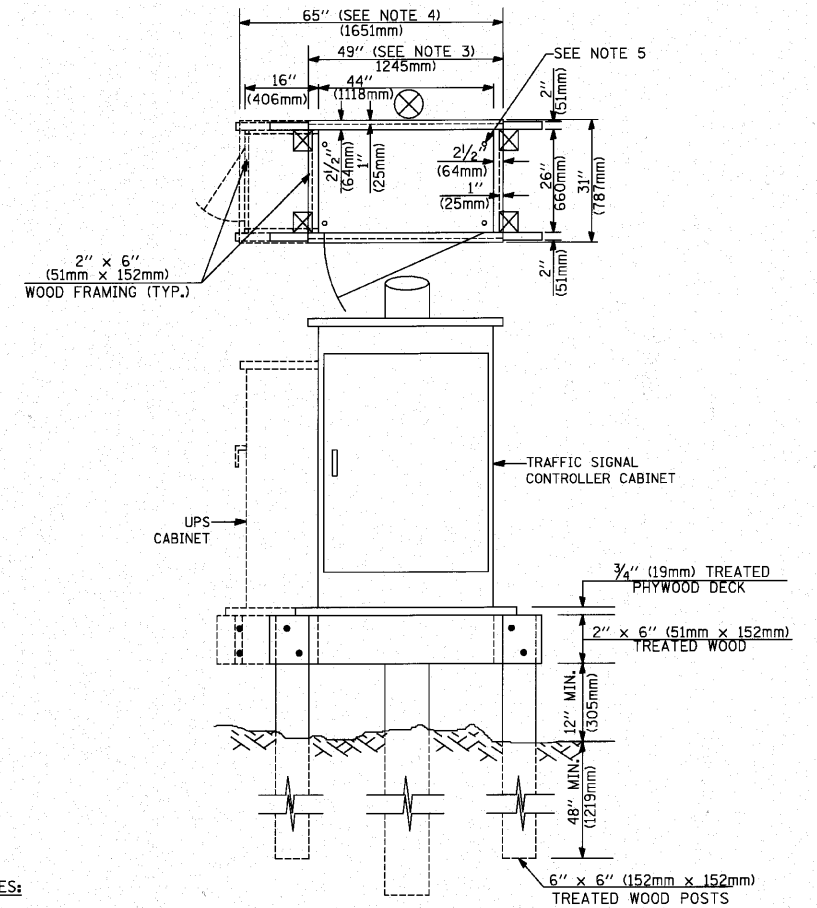
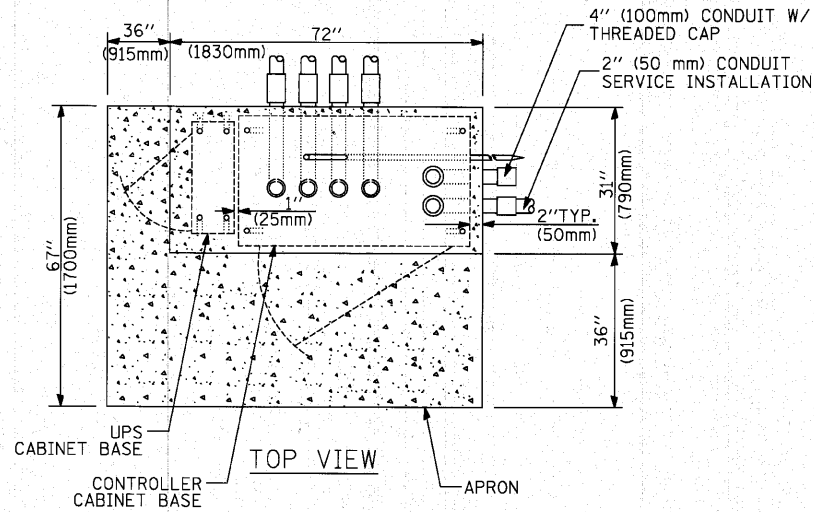
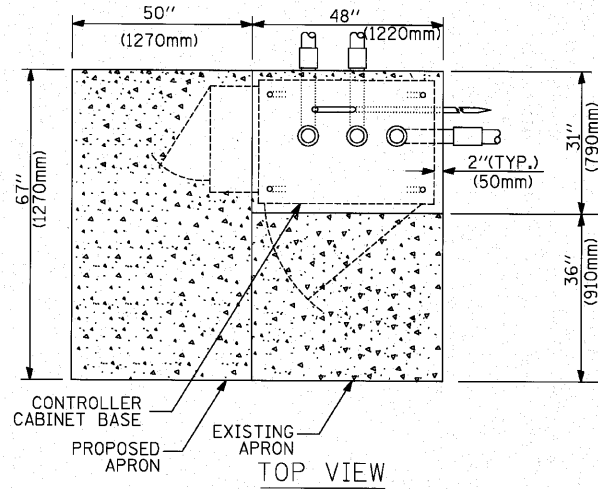
1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
 ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT  
 ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED.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



NOTES:

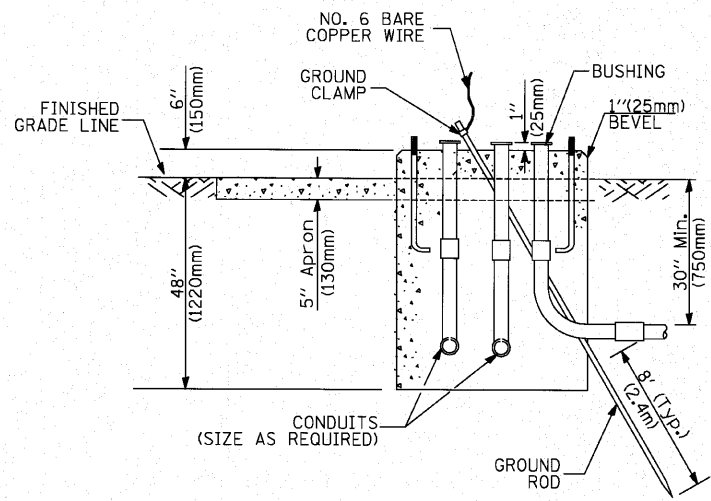
1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

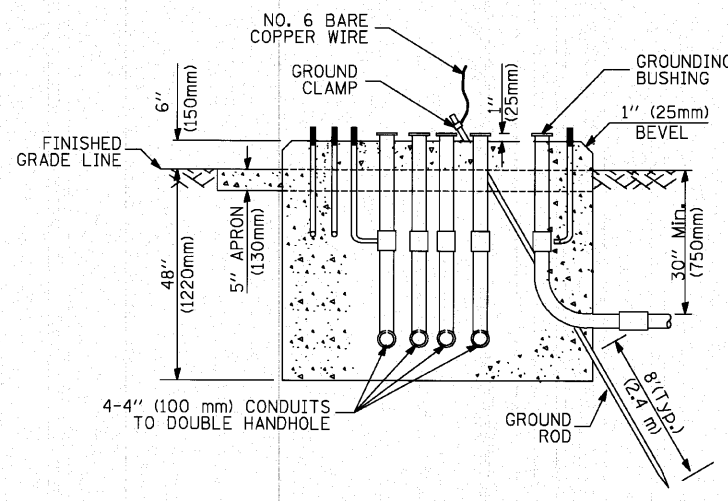


- NOTES:**
1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
  2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
  3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
  4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
  5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
  6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

**TEMPORARY SIGNAL CONTROLLER WOOD SUPPORT PLATFORM**



**TYPE D FOR GROUND MOUNTED CONTROLLER CABINET AND UPS BATTERY CABINET**



**TYPE C FOR GROUND MOUNTED CONTROLLER CABINET AND UPS BATTERY CABINET**

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

**CABLE SLACK**

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

**VERTICAL CABLE LENGTH**

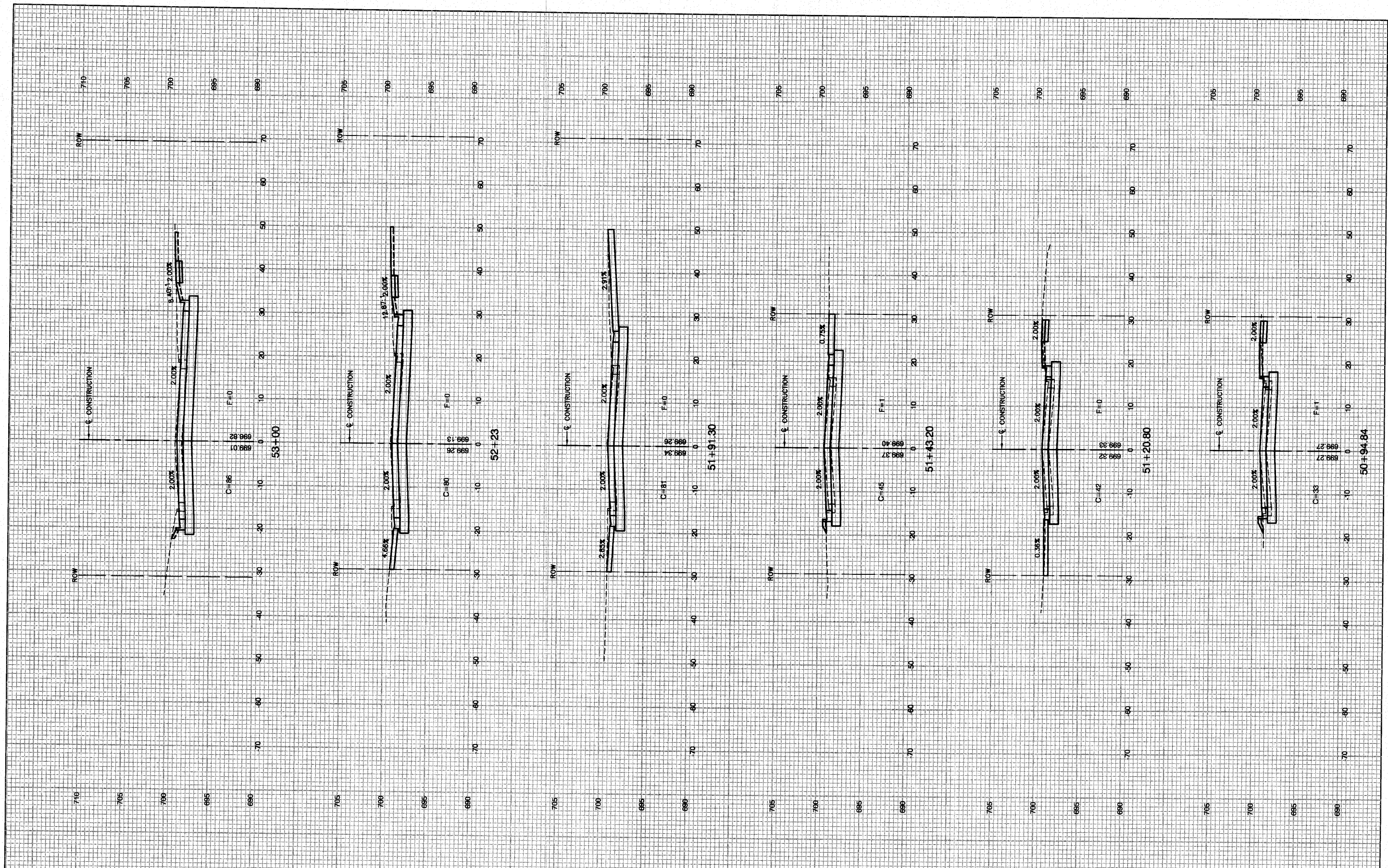
FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

**DEPTH OF FOUNDATION**

Mast Arm Length	Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

- NOTES:**
1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
  2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
  3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
  4. For mast arm assemblies with dual arms refer to state standard 878001.

**DEPTH OF MAST ARM FOUNDATIONS, TYPE E**



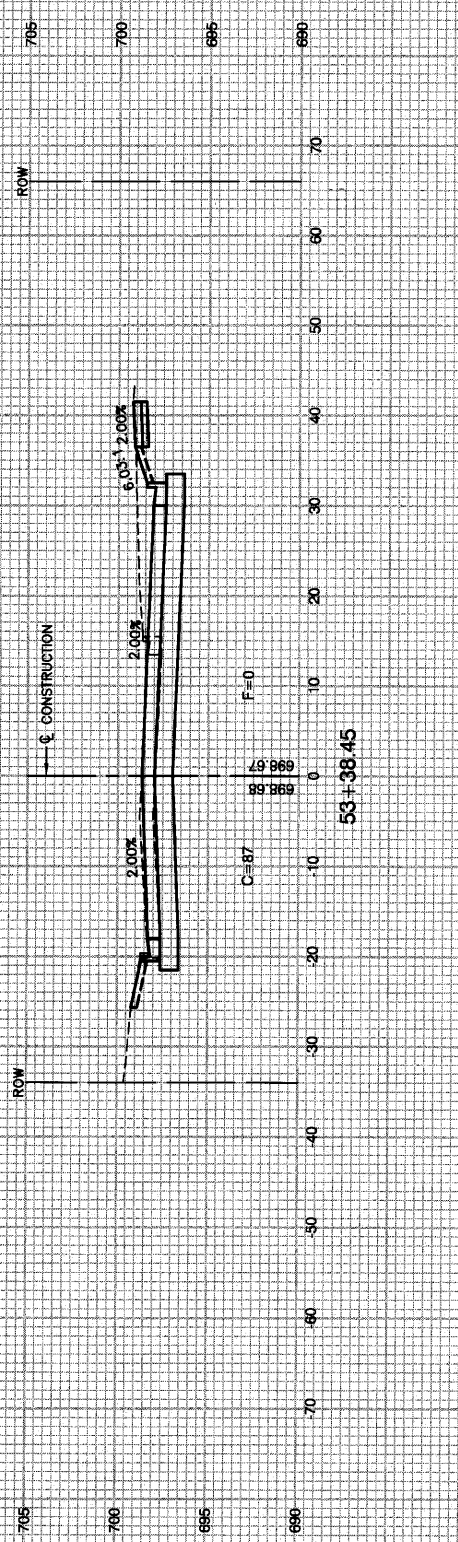
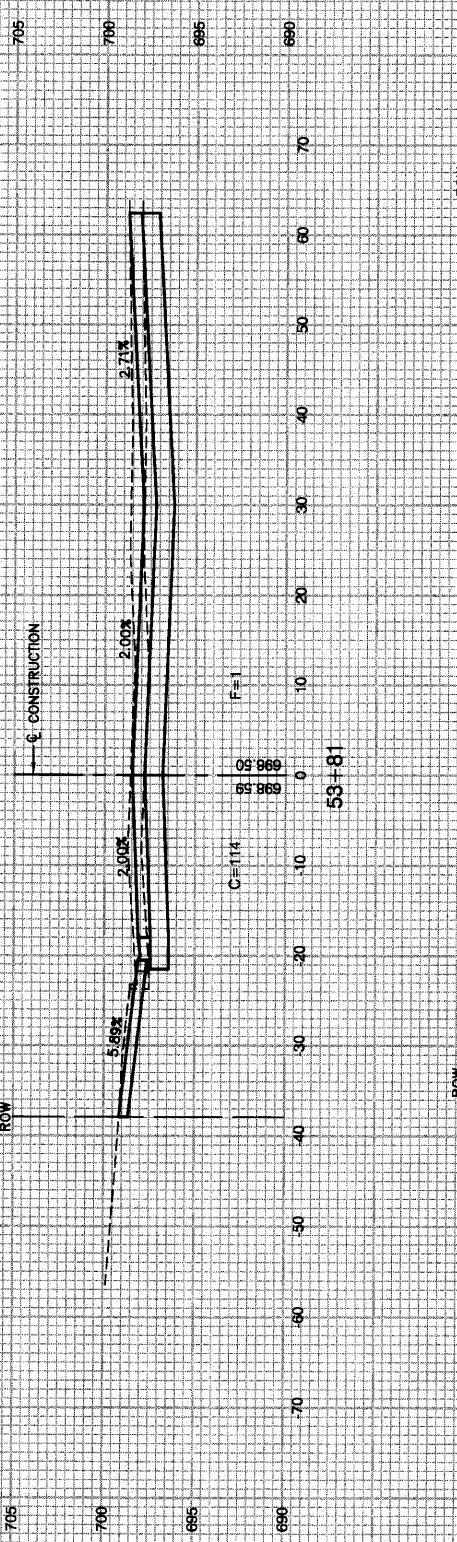
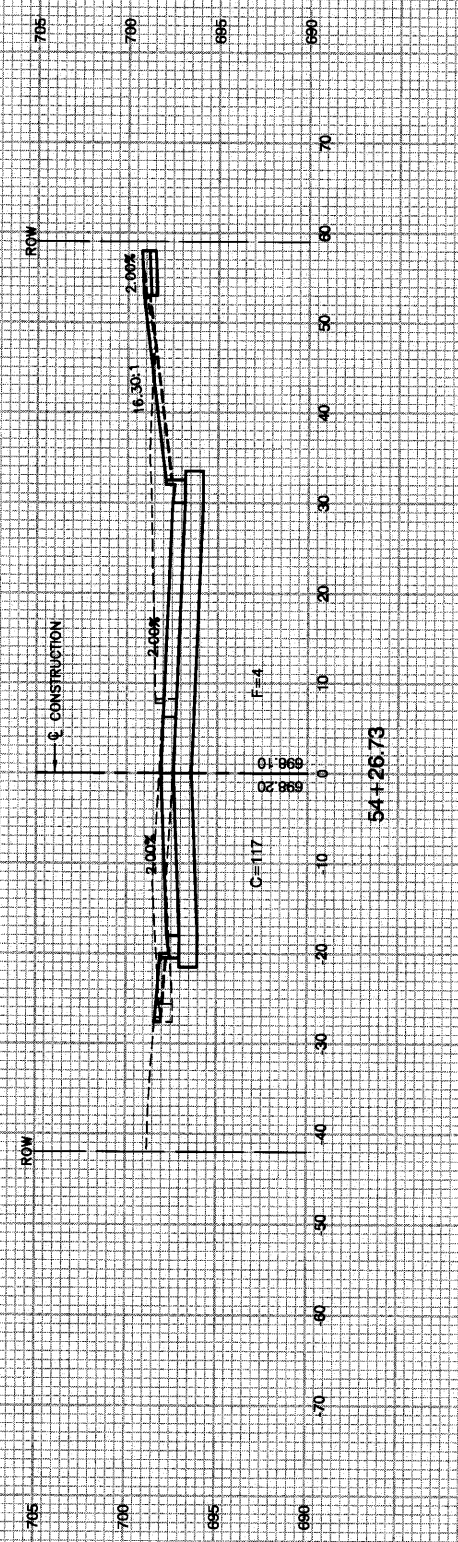
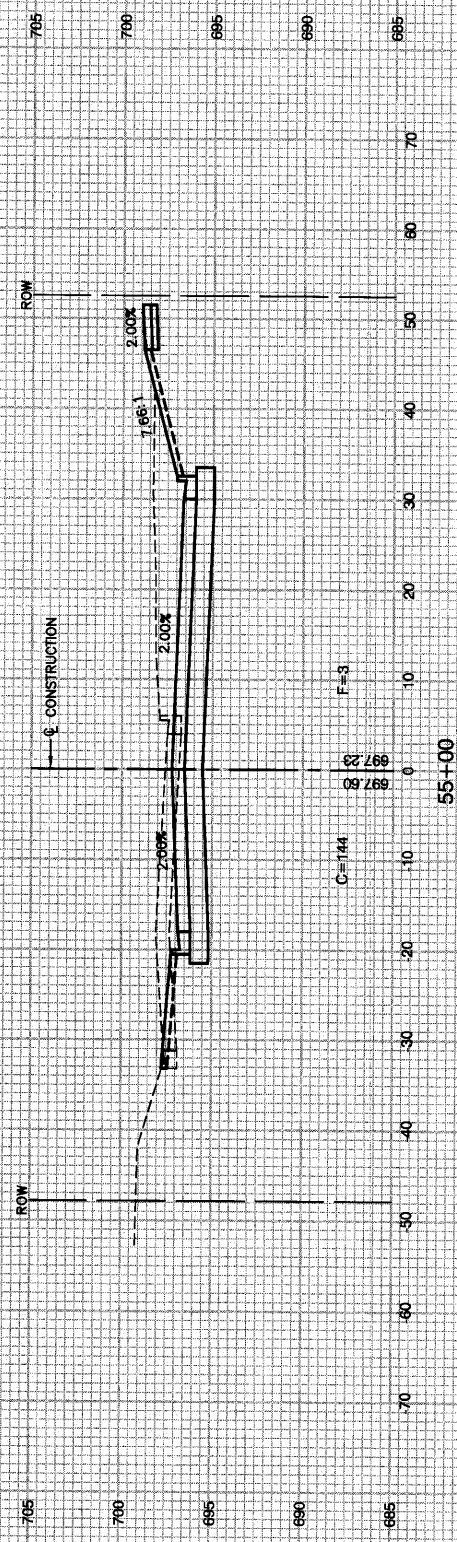
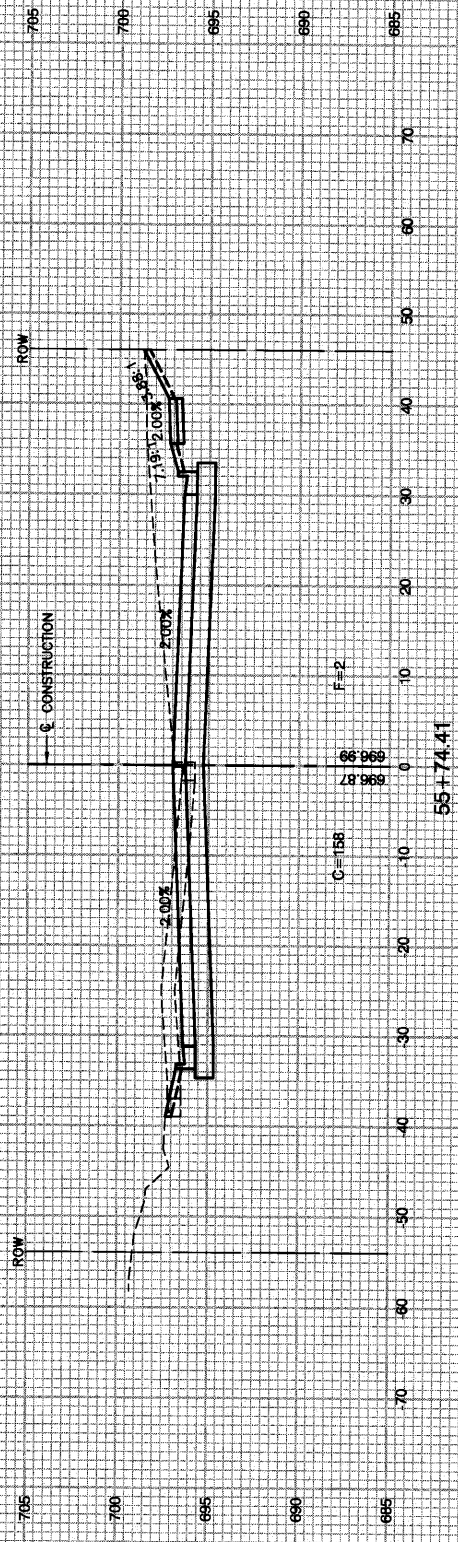
FILE NAME = 06506 XSEC-01 - X01	USER NAME =	DESIGNED - WPD	REVISED -
	PLOT SCALE = 1"=10'	CHECKED - WPD	REVISED -
	PLOT DATE = 10-14-10	DRAWN - AG	REVISED -
		CHECKED - AG	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
175TH STREET CROSS SECTIONS

SCALE: H 1"=10' V 1"=5' SHEET NO. 51 OF 60 SHEETS STA. TO STA.

F.A.P. RTE. 348	SECTION 06-00104-00-CH	COUNTY COOK	TOTAL SHEETS 60	SHEET NO. 51
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT #HSIP-8003 (851)				



FILE NAME = 06508-XSEC-01 - X02

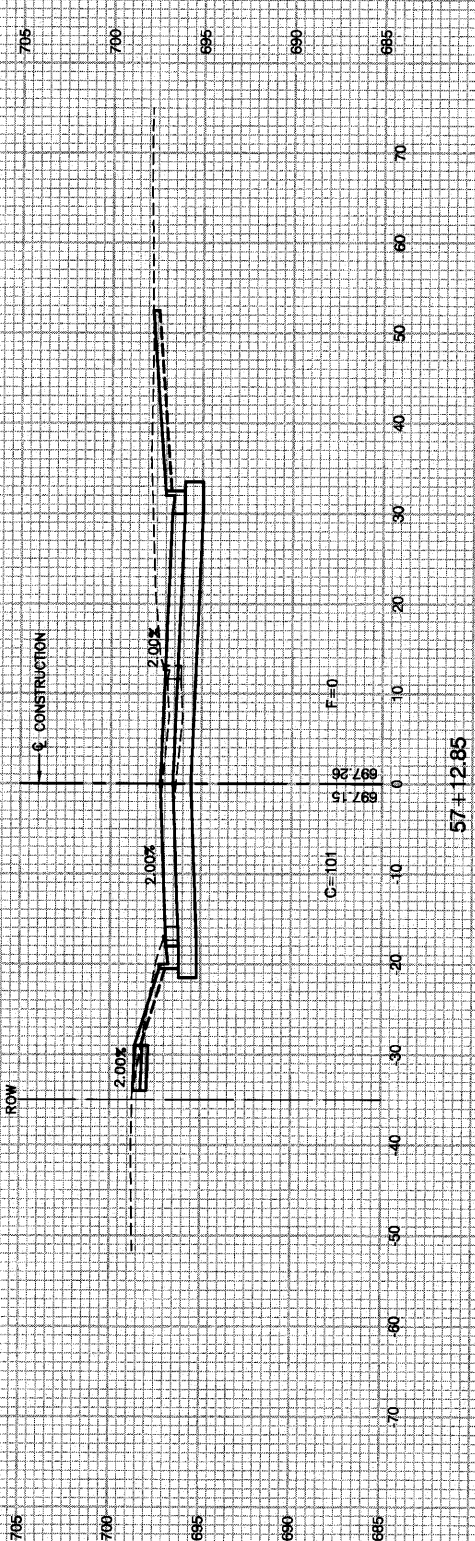
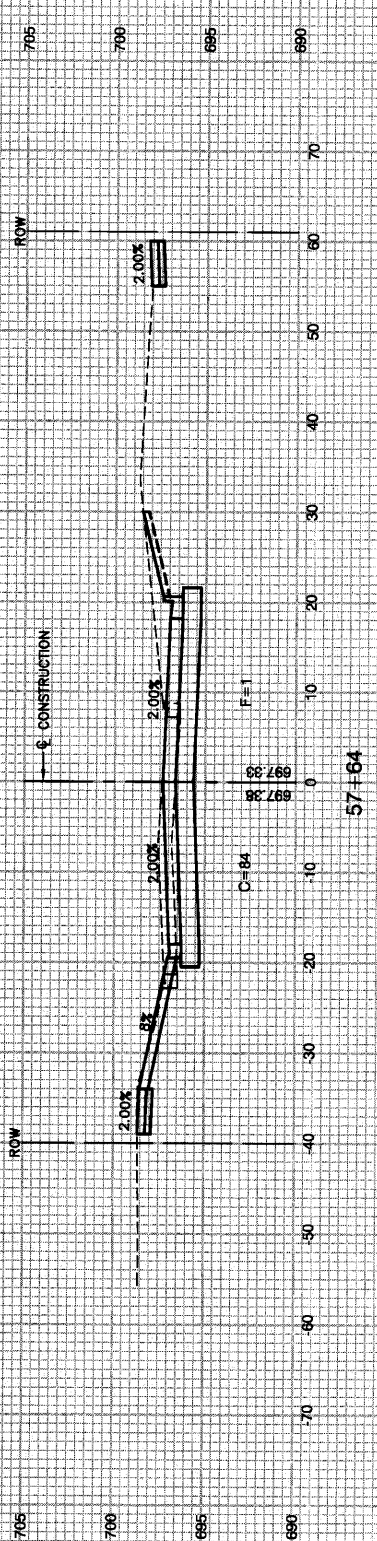
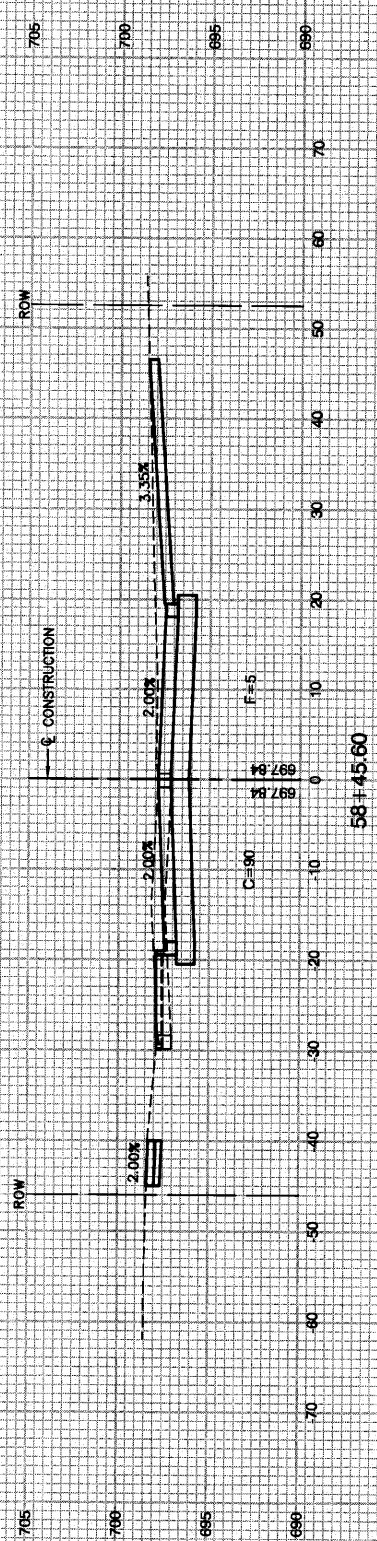
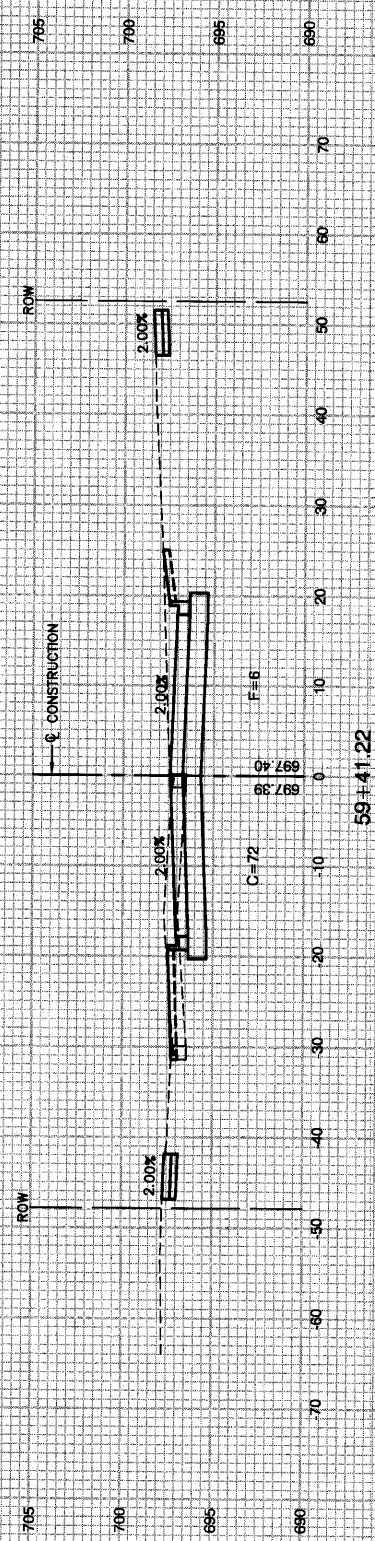
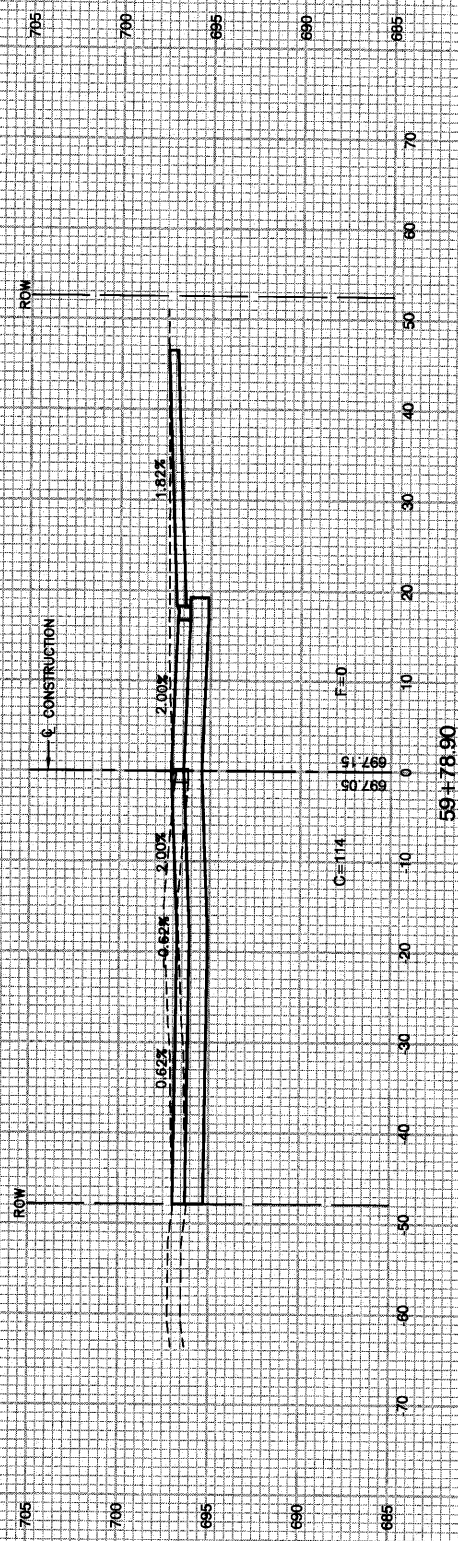
USER NAME =	DESIGNED -- WPD	REVISED --
PLOT SCALE = 1"=10'	CHECKED -- WPD	REVISED --
PLOT DATE = 10-14-10	DRAWN -- AG	REVISED --
	CHECKED -- AG	REVISED --

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
175TH STREET CROSS SECTIONS

SCALE: H 1"=10' V 1"=5'

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	52
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT #HSIP-8003 (851)				



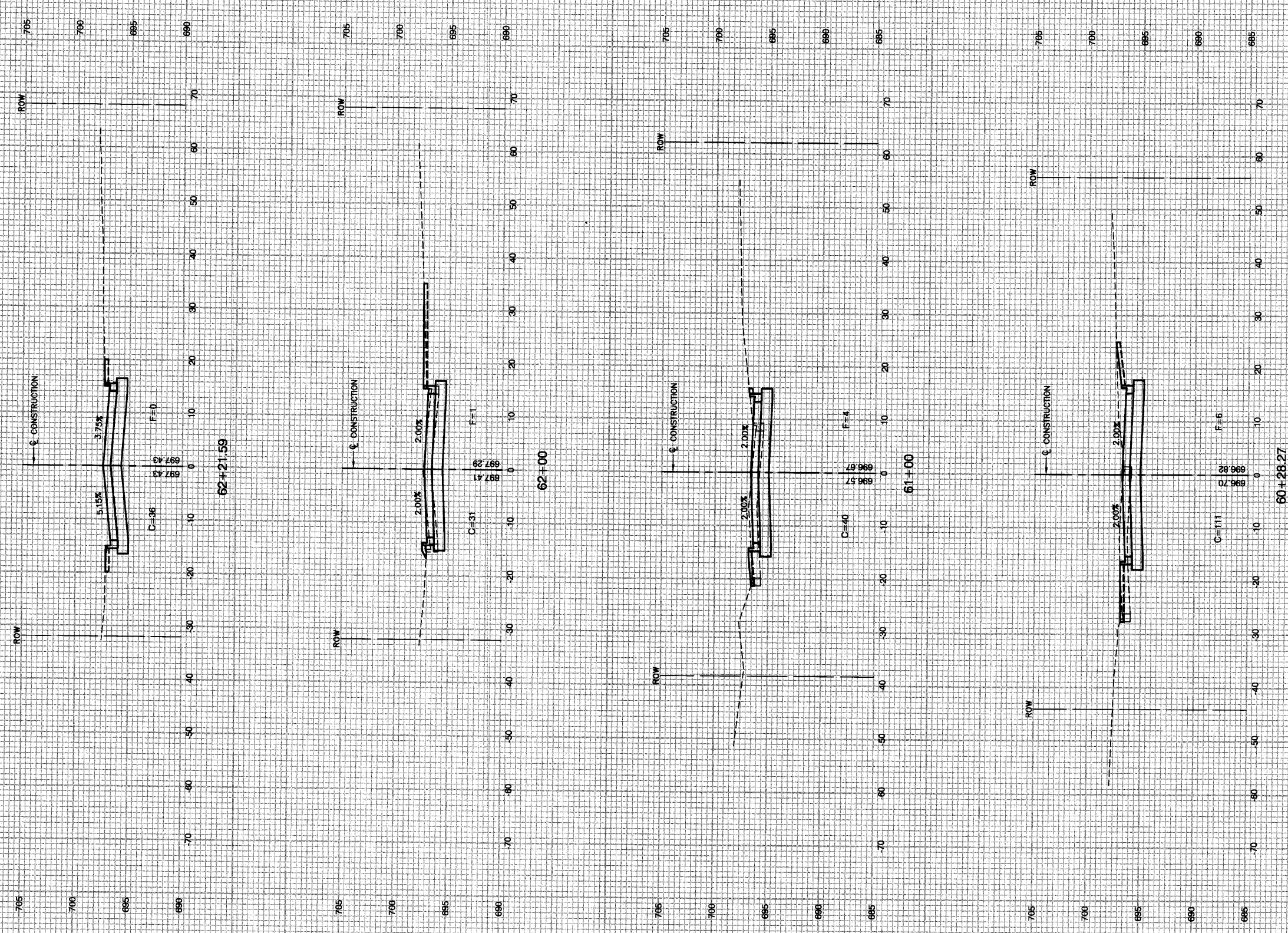
FILE NAME = 06508-XSEC-01 - X03

USER NAME =	DESIGNED -- WPD	REVISED --
CHECKED -- WPD	CHECKED -- WPD	REVISED --
PLOT SCALE = 1"=10'	DRAWN -- AG	REVISED --
PLOT DATE = 10-14-10	CHECKED -- AG	REVISED --

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
175TH STREET CROSS SECTIONS  
SCALE: H 1"=10' V 1"=5' SHEET NO. 53 OF 60 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	53
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT #HSIP-8003 (851)				



FILE NAME = 06008-XSEC-01 - X04

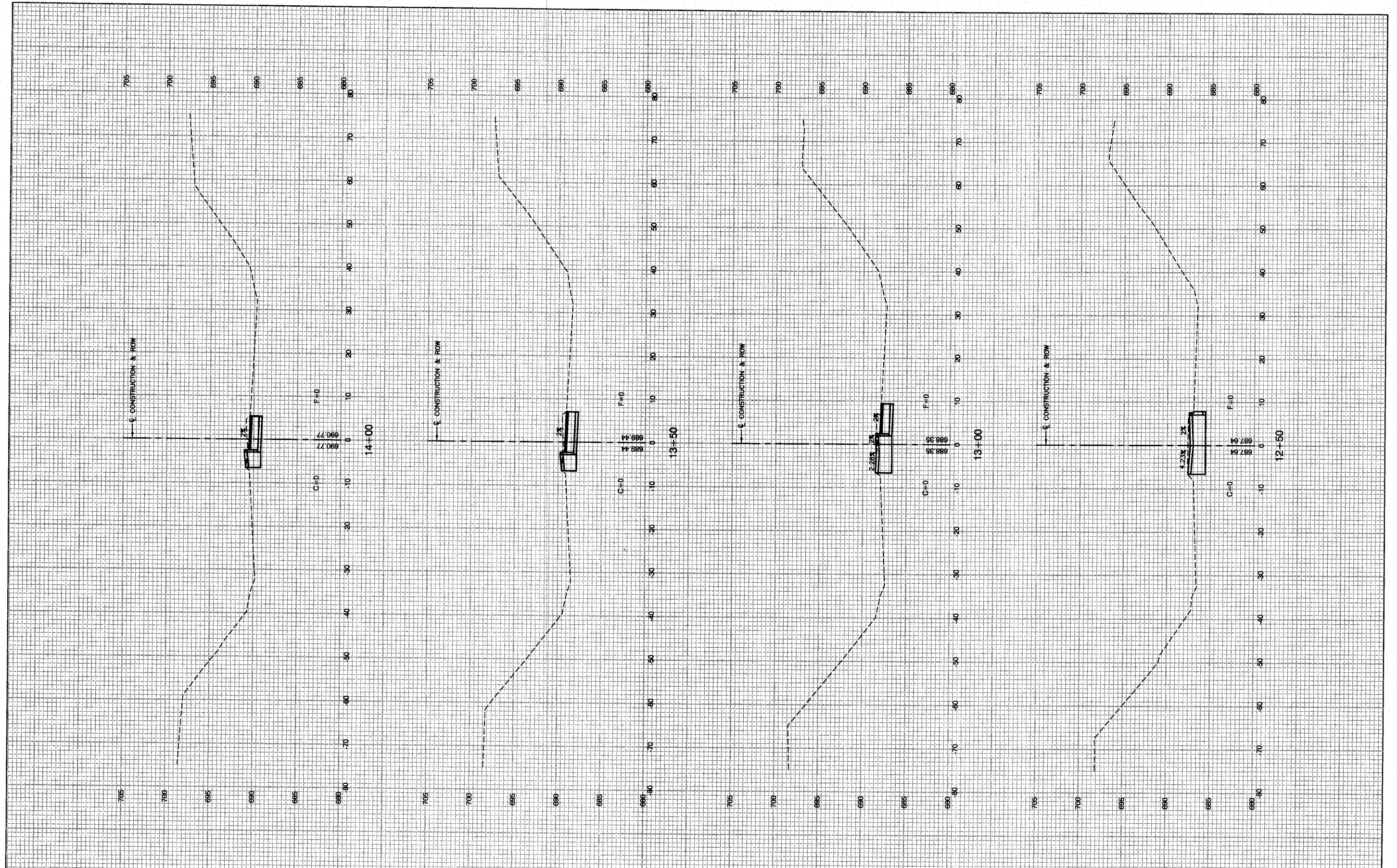
USER NAME =	DESIGNED — WPD	REVISED —
	CHECKED — WPD	REVISED —
PLOT SCALE = 1"=10'	DRAWN — AG	REVISED —
PLOT DATE = 10-14-10	CHECKED — AG	REVISED —

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
175TH STREET CROSS SECTIONS

SCALE: H 1"=10' V 1"=5'

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	54
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT HSIP-8003 (851)				



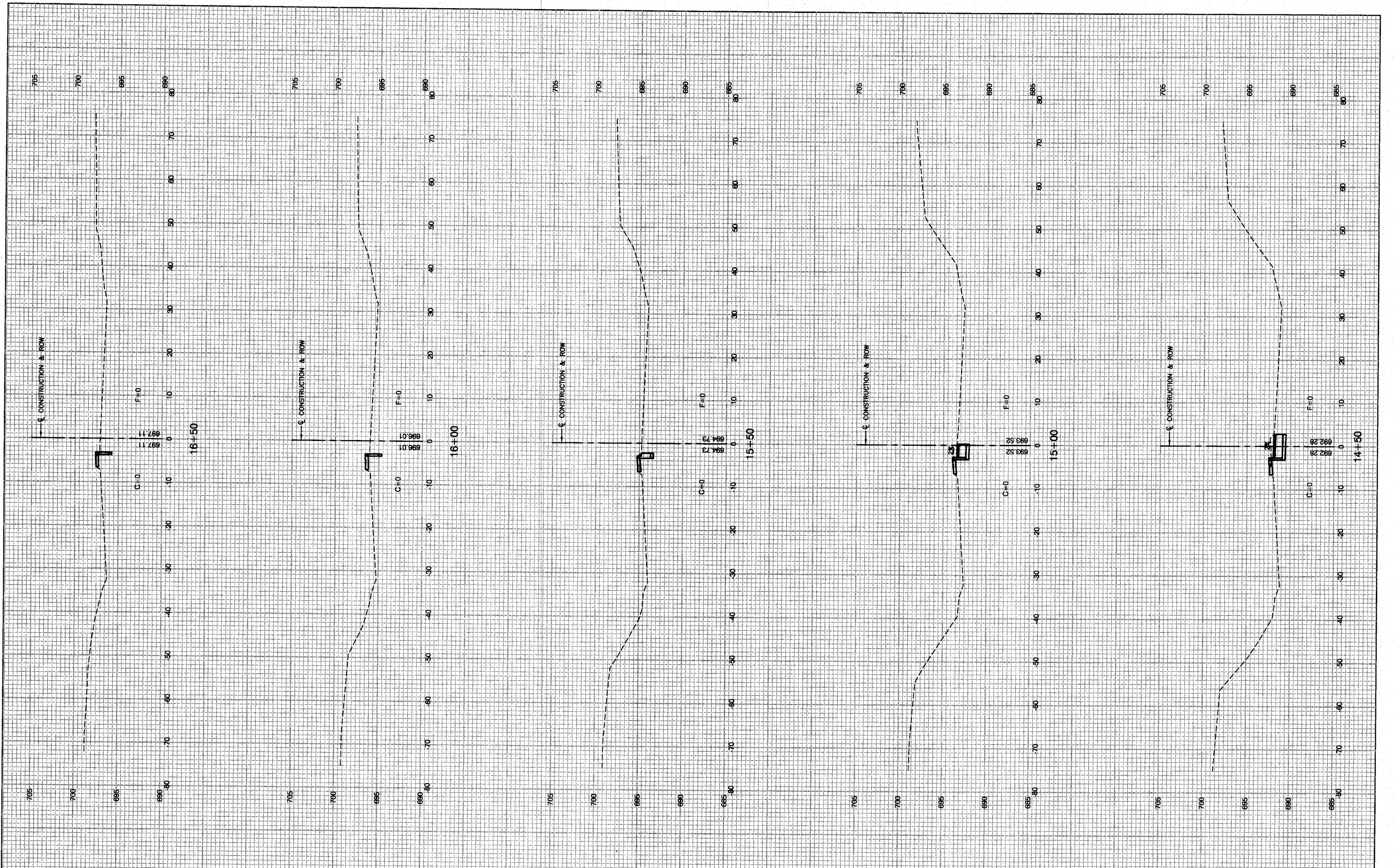
FILE NAME = 06508-XSEC-01 - X05	USER NAME =	DESIGNED — WPD	REVISED —
		CHECKED — WPD	REVISED —
	PLOT SCALE = 1"=10'	DRAWN — AG	REVISED —
	PLOT DATE = 10-14-10	CHECKED — AG	REVISED —

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

175TH STREET AT HARLEM AVENUE  
INTERSECTION IMPROVEMENTS  
HARLEM AVENUE CROSS SECTIONS

SCALE: H 1"=10' V 1"=5'    SHEET NO. 55 OF 60 SHEETS    STA.    TO STA.

F.A.P. RTE. 348	SECTION 06-00104-00-CH	COUNTY COOK	TOTAL SHEETS 60	SHEET NO. 55
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT #HSIP-8003 (851)				



FILE NAME = 06509.XSEC-01 - X06  
 USER NAME =  
 PLOT SCALE = 1"=10'  
 PLOT DATE = 10-14-10

DESIGNED — WPD	REVISIONS
CHECKED — WPD	REVISIONS
DRAWN — AG	REVISIONS
CHECKED — AG	REVISIONS

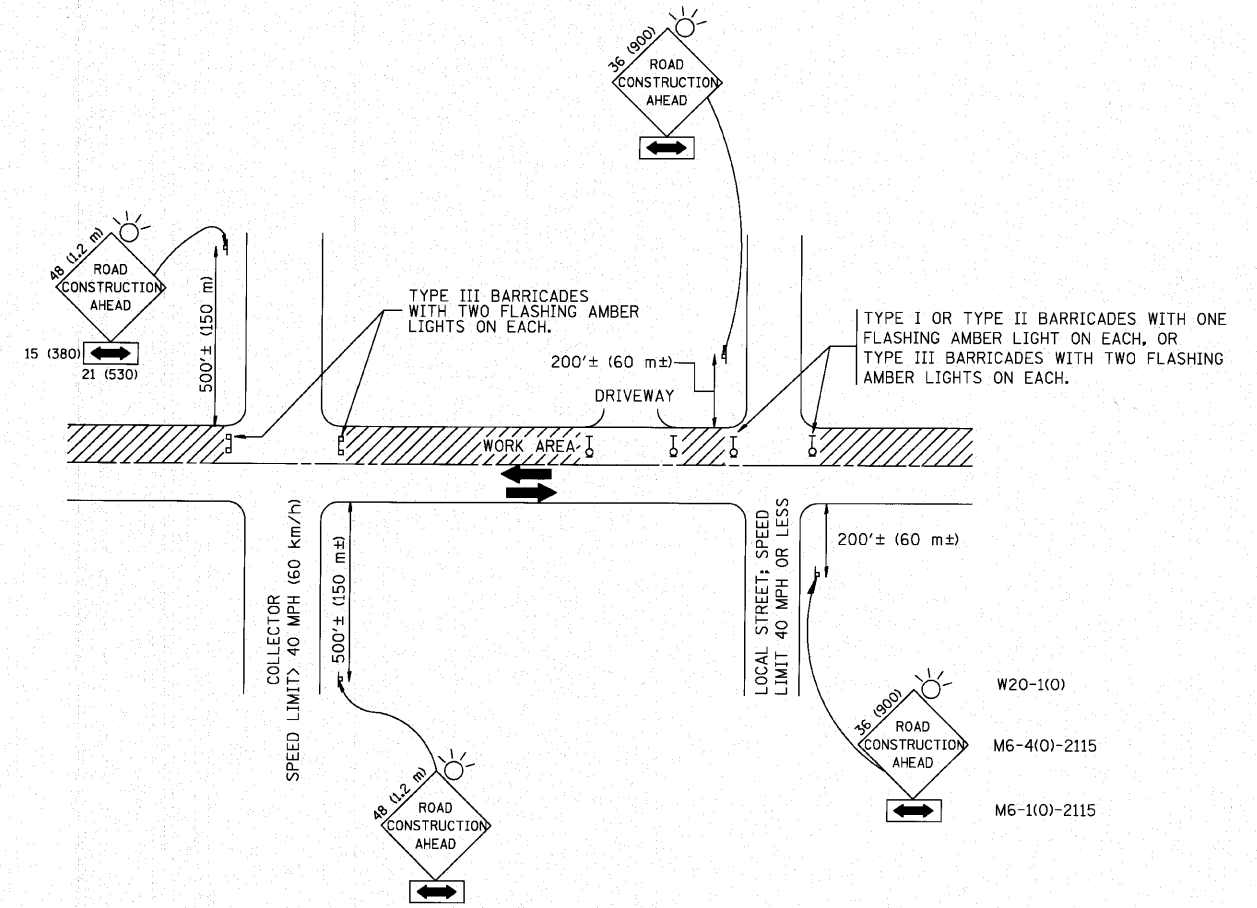
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

175TH STREET AT HARLEM AVENUE  
 INTERSECTION IMPROVEMENTS  
 HARLEM AVENUE CROSS SECTIONS

SCALE: H 1"=10' V 1"=5' SHEET NO. 56 OF 60 SHEETS STA. TO STA.

F.A.P. RTE. 348	SECTION 06-00104-00-CH	COUNTY COOK	TOTAL SHEETS 60	SHEET NO. 56
CONTRACT NO. 63453				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT #HSIP-8003 (851)				





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

NOTES:

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

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

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

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

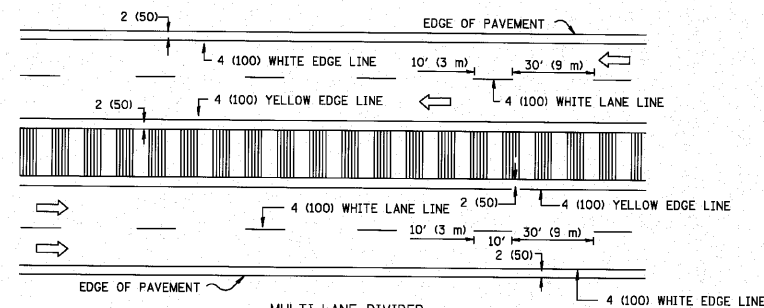
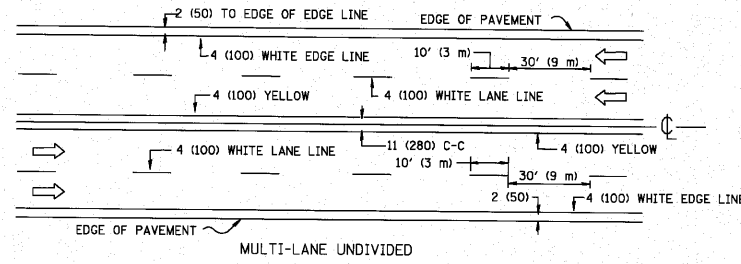
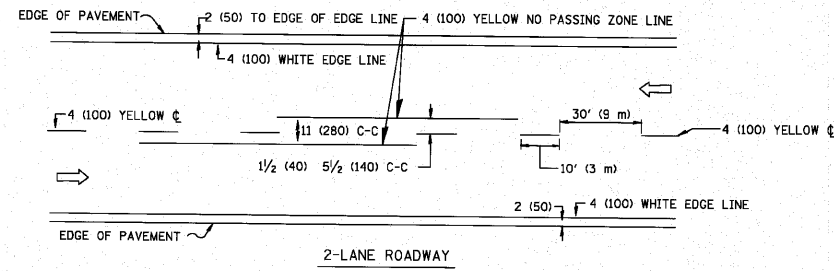
FILE NAME = 06508-DTLS01 - P01	USER NAME = gagliano	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 5/8" = 1' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE =	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

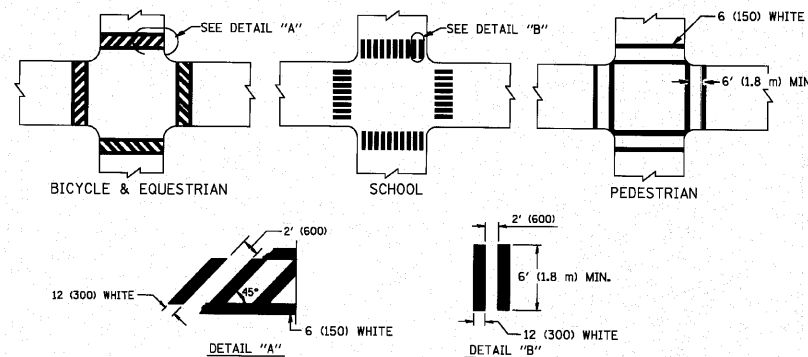
SCALE: SHEET NO. 57 OF 60 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	57
<b>TC-10</b>			CONTRACT NO. 63453	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT HSIP-8003 (851)				

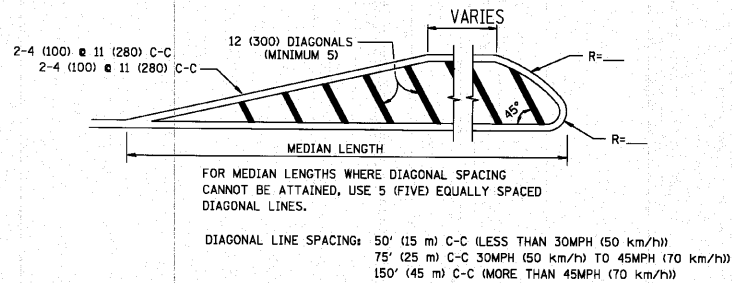
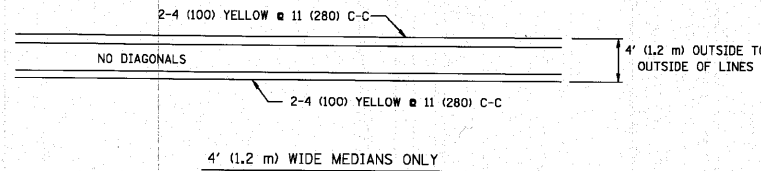


NOTE: MEDIANS WITH BARRIER CURBS DO NOT REQUIRE AN EDGE LINE

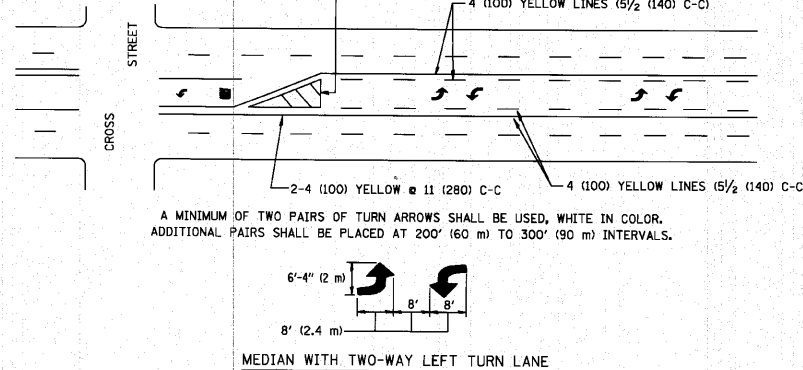
TYPICAL LANE AND EDGE LINE MARKING



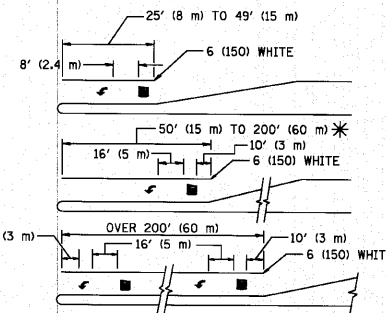
TYPICAL CROSSWALK MARKING



TYPICAL PAINTED MEDIAN MARKING



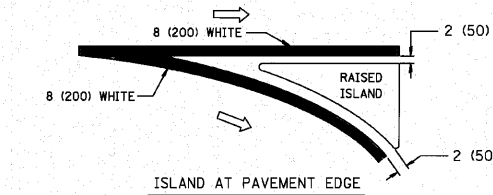
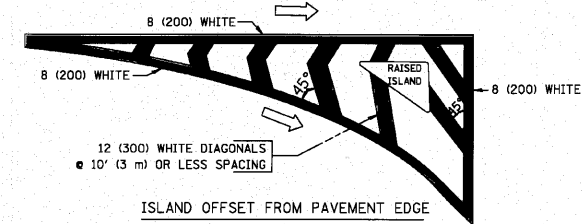
TYPICAL TURN LANE MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
 AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)  
 \* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

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

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

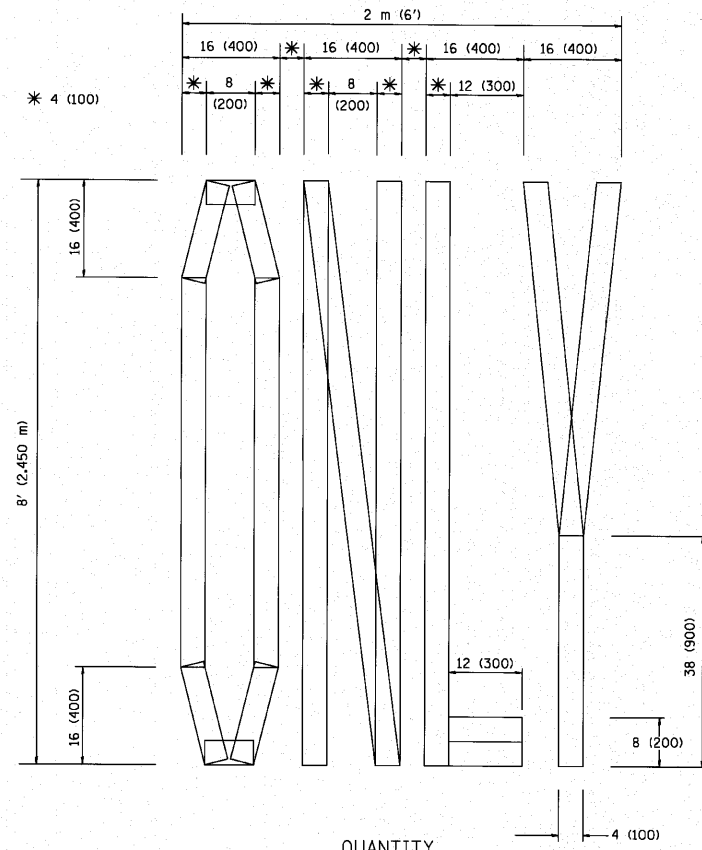
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = 06608-DTLS01 - P02	USER NAME = drivekoagn	DESIGNED = EVERS	REVISED = T. RAMMACHER 10-27-94
c:\pwork\pwork\drivekoagn\d8188315\td	3.dgn	DRAWN =	REVISED = C. JUCIUS 09-09-09
PLOT SCALE = 5/8"=1'-0"	CHECKED =	DATE = 03-19-90	REVISED =
PLOT DATE = 9/9/2009			

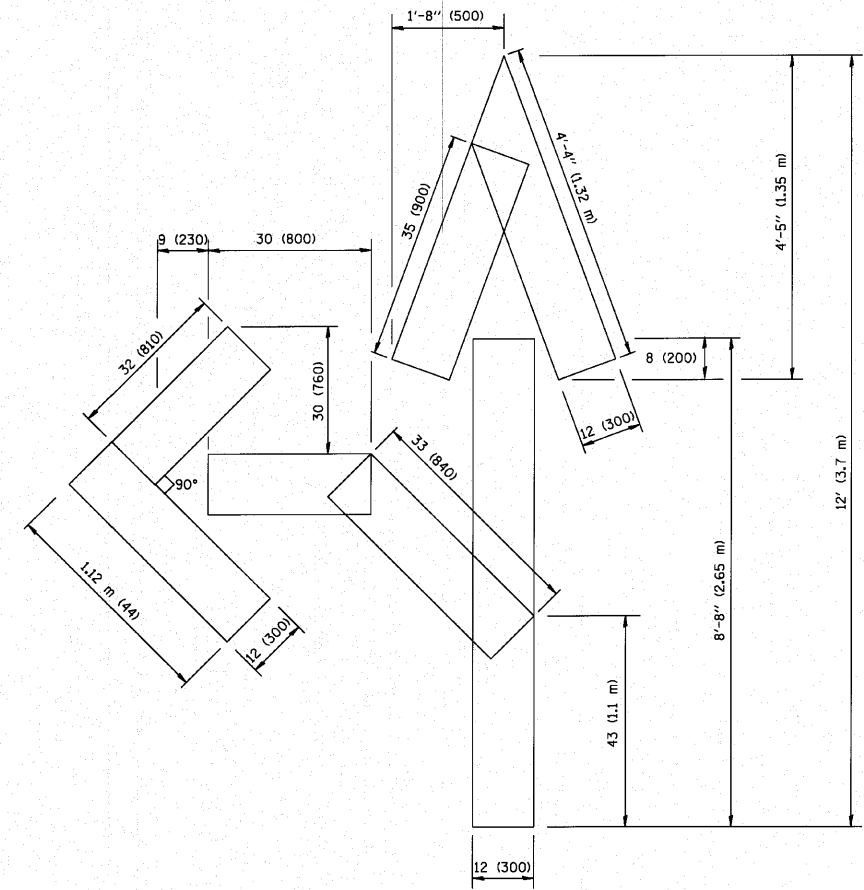
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE			
TYPICAL PAVEMENT MARKINGS			
SCALE: NONE	SHEET NO. 58	OF 60 SHEETS	STA. TO STA.

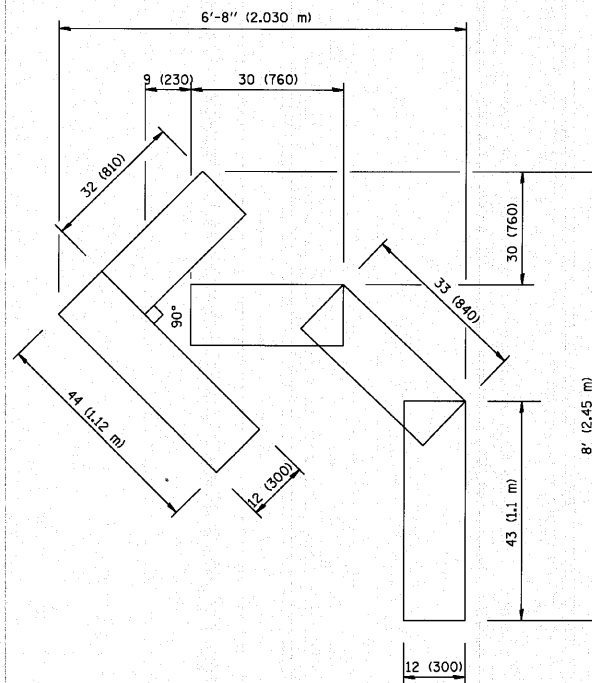
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	58
TC-13		CONTRACT NO. 63453		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT #HSIP-8003 (851)		



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



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



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

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

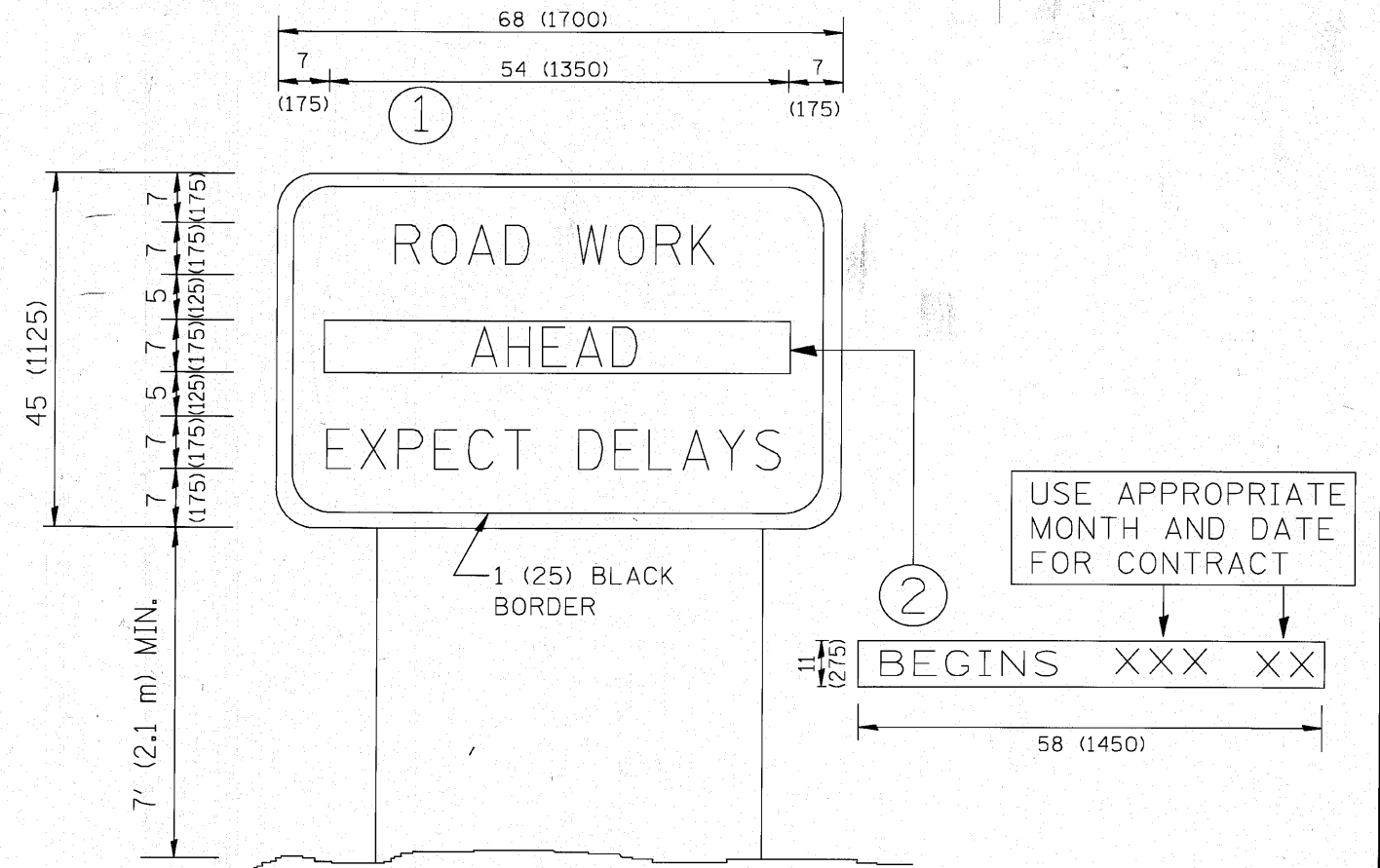
FILE NAME = B6006-DTLS-01 - P03 W:\data\22x34\1016.dgn	USER NAME = gaglienobt	DESIGNED —	REVISED — T. RAMMACHER 06-05-96
		DRAWN —	REVISED — T. RAMMACHER 11-04-97
	PLOT SCALE = 50.0000 / IN.	CHECKED —	REVISED — T. RAMMACHER 03-02-98
	PLOT DATE = 1/4/2008	DATE — 09-18-94	REVISED — E. GOMEZ 08-28-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING LETTERS AND SYMBOLS  
FOR TRAFFIC STAGING

SCALE: NONE SHEET NO. 59 OF 60 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	80	59
TC-16		CONTRACT NO. 63453		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT/HSIP-8003 (851)		



**NOTES:**

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

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

FILE NAME = 06508-DTUS-01 - P04 M:\distatd\22x34\to22.dgn	USER NAME = gegl1anobt	DESIGNED —	REVISED — R. MIRS 09-15-97
		DRAWN —	REVISED — R. MIRS 12-11-97
	PLOT SCALE = 50.000' / IN.	CHECKED —	REVISED — T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE —	REVISED — C. JUCIUS 01-31-07

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ANTENNA ROAD  
INFORMATION SIGN

SCALE: NONE SHEET NO. 60 OF 60 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	06-00104-00-CH	COOK	60	60
<b>TC-22</b>			CONTRACT NO. 63453	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT HSIP-8003 (851)				