SECTION 4, TOWNSHIP 35, RANGE 14

11-06-2015 LETTING ITEM 086

F. A. U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
876	12-00055-00-CH	COOK	61	1
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

CONTRACT #61B77

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

IL ROUTE 1 (HALSTED STREET/FAP 876)
FAU 1624 (187TH STREET) TO FAU 1622 (183RD STREET)
CHANNELIZATION, INTERSECTION IMPROVEMENT AND SIDEWALK
SECTION NO.: 12-00055-00-CH
PROJECT NO.: M-4003(121)
VILLAGE *of* GLENWOOD
COOK COUNTY
JOB NO.: C-91-118-13

INDEX OF SHEETS
SEE SHEET NO. 2

HIGHWAY STANDARDS
SEE SHEET NO. 2

DESIGN DESIGNATION – IL ROUTE 1 (HALSTED STREET) ADT 24,000 (2040) – SRA
PV=22,800 SU=480 MU=720
100% DESIGN TRAFFIC IN DESIGN LANE
P=95% S=2% M=3%
SSS=FAIR

DESIGN DESIGNATION – 187TH STREET ADT 6,000 (2040) – MINOR COLLECTOR
PV=5,820 SU=120 MU=60
100% DESIGN TRAFFIC IN DESIGN LANE
P=97% S=2% M=1%
SSS=FAIR

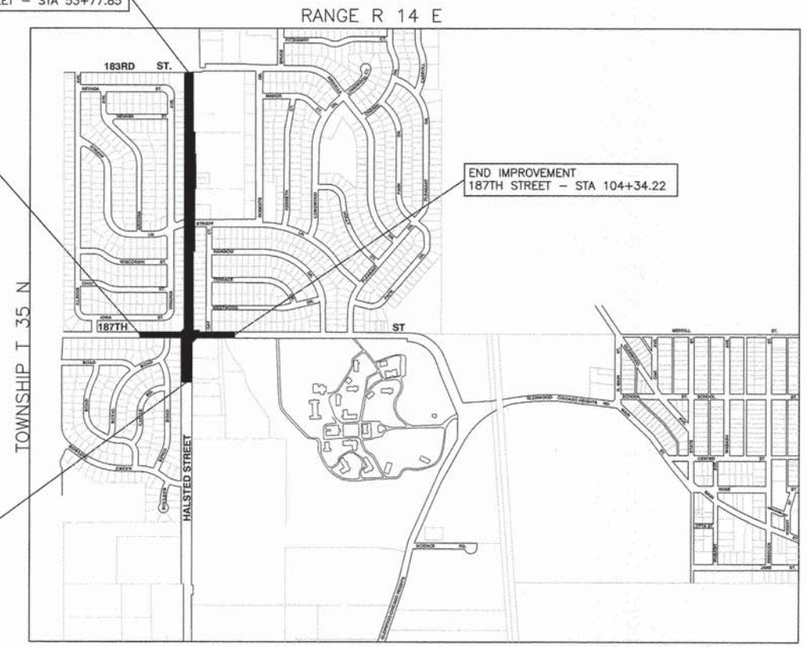
	IL ROUTE 1 (HALSTED STREET)	187TH STREET
2013 ADT –	22,000	5,300
2040 ADT –	24,000	6,000
POSTED SPEED LIMIT –	45 mph	25 mph
DESIGN PERIOD –	20 YEARS	20 YEARS
DESIGN SPEED LIMIT –	45 mph	30 mph
STREET CLASSIFICATION –	CLASS I	MINOR COLLECTOR

END IMPROVEMENT
HALSTED STREET – STA 53+77.85

BEGIN IMPROVEMENT
187TH STREET – STA 98+99.68

END IMPROVEMENT
187TH STREET – STA 104+34.22

BEGIN IMPROVEMENT
HALSTED STREET – STA 20+71.95



LOCATION MAP
GROSS LENGTH=3,840 FEET=0.72 MILES
NET LENGTH=3,840 FEET=0.72 MILES

LOCATION OF SECTION INDICATED THUS: -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Approved _____
4-30-2015
President, Village of Glenwood

Passed MAY 14, 2015
CHRISTOPHER HOLT
District 1 Engineer of Local Roads & Streets

Released for Bid Based on Limited Review
MAY 14, 2015
Deputy Director of Highways, Region 1 Engineer

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

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

100' 200' 300' - 1"= 100'
0 10' 20' 30' - 1"= 10'
0 50' 100' - 1"= 50'
0 50' 100' - 1"= 40'
0 50' 100' - 1"= 30'
0 50' 100' - 1"= 20'

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. 61B77

PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:

5-1-15

PATRICIA K. BARKER
62-51255
REGISTERED PROFESSIONAL ENGINEER
STATE OF ILLINOIS

LICENSE EXPIRES: 11/30/15

I.D.O.T. FEDERAL AID PROGRAM ENGINEER: FAWAD AQUEEL, P.E. 847-705-4021 SCHAUMBURG, IL.
CONSULTANTS: ROBINSON ENGINEERING, LTD. 708-331-6700

12602_02-COVR-01 - C02

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HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
424011-02	CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
424021-03	DEPRESSED CORNER FOR SIDEWALKS
424031-01	MEDIAN PEDESTRIAN CROSSINGS
606001-06	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606301-04	PC CONCRETE ISLANDS AND MEDIANS
602301-04	INLET, TYPE A
602401-03	MANHOLE, TYPE A
604001-04	FRAME AND LIDS, TYPE 1
604036-03	GRATE, TYPE 8
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24' FROM PAVEMENT EDGE
701101-04	OFF-RD OPERATIONS, MULTILANE, 15' TO 24' FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701426-07	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS, FOR SPEEDS ≥ 45 MPH
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701606-10	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701701-09	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-05	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-04	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
805001	ELECTRICAL SERVICE INSTALLATION DETAILS
814001-03	HANDHOLES
814006-02	DOUBLE HANDHOLES
836001-02	LIGHT POLE FOUNDATION
857001-01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
862001-01	UNINTERRUPTABLE POWER SUPPLY (UPS)
873001-02	TRAFFIC SIGNAL GROUNDING & BONDING
876001-03	PEDESTRIAN PUSH BUTTON POST
877001-05	STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
878001-10	CONCRETE FOUNDATION DETAILS
880001-01	SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION
880006-1	TRAFFIC SIGNAL MOUNTING DETAILS
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUT FOR DETECTION LOOPS

GENERAL NOTES

1. ALL ROADWAY CONSTRUCTION SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2012 BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION AND ALL AMENDMENTS THERETO, AND IN ACCORDANCE WITH THE LATEST EDITION OF THE SPECIFICATIONS FOR CONSTRUCTION IN THE VILLAGE OF GLENWOOD AND IN CASE OF CONFLICT, THE MORE STRINGENT CODE SHALL TAKE PRECEDENCE.

2. ALL STORM SEWER, SANITARY SEWER AND WATER MAIN CONSTRUCTION SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", PUBLISHED JUNE 2014, AND IN ACCORDANCE WITH THE SPECIFICATIONS FOR CONSTRUCTION IN THE VILLAGE OF GLENWOOD UNLESS OTHERWISE NOTED ON THE PLANS.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE UTILITY COMPANIES LOCATE THEIR FACILITIES IN THE FIELD PRIOR TO CONSTRUCTION AND SHALL ALSO BE RESPONSIBLE FOR THE MAINTENANCE AND PRESERVATION OF THESE FACILITIES. THE ENGINEER DOES NOT WARRANT THE LOCATION OF ANY EXISTING UTILITIES SHOWN ON THE PLAN. THE CONTRACTOR SHALL CALL J.U.L.I.E. AT 800–892–0123 AND THE VILLAGE OF GLENWOOD FOR UTILITY LOCATIONS.

4. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE NATURE AND STATUS OF ALL UTILITY RELOCATION WORK PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO ENSURE THAT CONSTRUCTION OPERATIONS DO NOT INTERFERE WITH UTILITY FACILITIES AND RELOCATION WORK. THE SCHEDULE SHOULD REFLECT CONSTRUCTION SEQUENCING, WHICH COORDINATES WITH ALL UTILITY RELOCATION WORK. THE CONTRACTOR SHALL BE REQUIRED TO ADJUST THE ORDER OF ITS WORK FROM TIME TO TIME, TO COORDINATE SAME WITH UTILITY RELOCATION WORK, AND SHALL PREPARE REVISED SCHEDULE (S) IN COMPLIANCE THEREWITH AS DIRECTED BY THE OWNER. THE OWNER AND THE ENGINEER SHALL BE NOTIFIED IN WRITING BY THE CONTRACTOR AT LEAST 48 HOURS PRIOR TO THE START OF ANY OPERATION REQUIRED COOPERATION WITH OTHERS. ALL OTHER AGENCIES, UNLESS OTHERWISE NOTED, WILL BE NOTIFIED IN WRITING BY THE CONTRACTOR TEN (10) DAYS PRIOR TO THE START OF ANY SUCH OPERATION. THE UTILITY COMPANIES HAVE BEEN CONTACTED IN REFERENCE TO UTILITIES THEY OWN AND OPERATE WITHIN THE LIMITS FOR THIS PROJECT. ALL KNOWN DATA FROM THESE AGENCIES HAS BEEN INCORPORATED INTO THE PLANS. IT IS HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM OR ESTABLISH THE EXISTENCE OF ALL UTILITY FACILITIES AND THEIR EXACT LOCATIONS, WHETHER CONTAINED IN THE DATA SUBMITTED BY THESE AGENCIES OR NOT, AND TO SAFELY SCHEDULE ALL UTILITY RELOCATIONS.

5. ALL CONTRACTORS SHALL KEEP ACCESS AVAILABLE AT ALL TIMES FOR ALL TYPES OF TRAFFIC AS DIRECTED BY THE ENGINEER.

6. COMMENCING CONSTRUCTION

   A. CONTRACTOR SHALL TAKE PHOTOS AND VIDEO RECORD WORK AREA PRIOR TO CONSTRUCTION FOR THE PURPOSE OF DOCUMENTING EXISTING CONDITIONS.

7. THE CONTRACTOR SHALL PRESERVE ALL CONSTRUCTION STAKES UNTIL THEY ARE NO LONGER NEEDED. ANY STAKES DESTROYED OR DISTURBED BY THE CONTRACTOR PRIOR TO THEIR USE SHALL BE RESET BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

8. REMOVAL OF SPECIFIED ITEMS, INCLUDING BUT NOT LIMITED TO, PAVEMENT, SIDEWALK, CURB, CURB AND GUTTER, CULVERTS, ETC. SHALL BE DISPOSED OF OFF–SITE BY THE CONTRACTOR AT THE CONTRACTORS OWN EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR ANY PERMITS REQUIRED FOR SUCH DISPOSAL. THE REMOVAL SHALL BE ACCOMPLISHED BY MEANS OF A SAW CUT JOINT, AT THE DIRECTION OF THE ENGINEER. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS REMOVAL ITEMS.

9. THE CONTRACTOR SHALL COLLECT AND REMOVE ALL CONSTRUCTION DEBRIS, EXCESS MATERIALS, TRASH, OIL AND GREASE RESIDUE, MACHINERY, TOOLS AND OTHER MISCELLANEOUS ITEMS WHICH WERE NOT PRESENT PRIOR TO PROJECT COMMENCEMENT AT NO ADDITIONAL EXPENSE TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ANY AND ALL PERMITS NECESSARY FOR THE HAULING AND DISPOSAL REQUIRED FOR CLEAN–UP AS DIRECTED BY THE ENGINEER OR OWNER. BURNING ON THE SITE IS NOT PERMITTED.

10. AT THE CLOSE OF EACH WORKING DAY AND AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FORM DIRT AND DEBRIS.

11. TREES NOT MARKED FOR REMOVAL SHALL BE CONSIDERED AS DESIGNATED TO BE SAVED AND SHALL BE PROTECTED UNDER THE PROVISIONS OF ARTICLE 201.05 OF THE STANDARD SPECIFICATIONS.

12. THE TRENCHES FOR PIPE INSTALLATION SHALL BE KEPT DRY AT ALL TIMES DURING PIPE PLACEMENT. APPROPRIATE FACILITIES TO MAINTAIN THE DRY TRENCH SHALL BE PROVIDED BY THE CONTRACTOR AND THE COST OF SUCH SHALL BE INCLUDED IN THE UNIT PRICE BID AND APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION. NO ADDITIONAL COMPENSATION SHALL BE MADE FOR DEWATERING DURING CONSTRUCTION UNLESS APPROVED IN WRITING BY THE OWNER.

13. TRENCH BACKFILL WILL BE REQUIRED TO THE FULL DEPTH ABOVE SEWERS AND WATER MAIN WITHIN TWO (2) FEET OF PROPOSED OR EXISTING PAVEMENT.

14. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

15. THE THICKNESS OF HMA MIXTURE STATED IN THE SPECIFICATIONS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA SURFACE IS PLACED.

16. ACCESS TO DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES BY LIMITING CURB AND GUTTER REPAIR TO ONE–HALF THE DRIVEWAY WIDTH AT ONE TIME AS WELL AS TEMPORARY AGGREGATE WHICH SHALL BE INCLUDED IN THE COST OF DRIVEWAY REPLACEMENT.

17. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON VILLAGE RIGHT OF WAY WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.

18. THE ENGINEER SHALL CONTACT THE AREA TRAFFIC FIELD TECHNICIAN, MS. PATRICE HARRIS, AT (708)597–9800 TWO (2) WEEKS PRIOR TO PLACING PERMANENT PAVEMENT MARKINGS.

19. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847)705–4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

EARTHWORK NOTES

1. GENERAL

   A. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE SOIL AND GROUNDWATER CONDITIONS AT THE SITE.

   B. ANY QUANTITIES IN THE BID PROPOSAL ARE INTENDED AS A GUIDE FOR THE CONTRACTORS USE IN DETERMINING THE SCOPE OF THE COMPLETED PROJECT. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE ALL MATERIAL QUANTITIES AND APPRAISE HIMSELF OF ALL SITE CONDITIONS.

   C. THE CONTRACTOR WILL NOTE THAT THE ELEVATIONS SHOWN ON THE CONSTRUCTION PLANS ARE FINISHED GRADE AND SUBGRADE ELEVATIONS (AS NOTED) AND THAT PAVEMENT THICKNESS, TOPSOIL, ETC. MUST BE ACCOUNTED FOR.

   D. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE DURING CONSTRUCTION, AND PREVENT STORMWATER FROM RUNNING INTO OR STANDING IN EXCAVATED AREAS. THE FAILURE TO PROVIDE PROPER DRAINAGE WILL NEGATE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIALS CREATED AS A RESULT THEREOF. FINAL GRADES SHALL BE PROTECTED AGAINST DAMAGE FROM EROSION, SEDIMENTATION AND TRAFFIC.

   E. PLANS FOR THE SITE DEWATERING, IF EMPLOYED, SHALL BE SUBMITTED AND APPROVED PRIOR TO IMPLEMENTATION. NO ADDITIONAL COMPENSATION SHALL BE MADE FOR DEWATERING DURING CONSTRUCTION.

   F. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF THE "SOIL EROSION AND SEDIMENTATION CONTROL MEASURES". THE INITIAL ESTABLISHMENT OF EROSION CONTROL PROCEDURES AND THE PLACEMENT OF SILT AND FILTER FENCING, ETC. TO PROTECT ADJACENT PROPERTY, WETLANDS, ETC. SHALL OCCUR BEFORE GRADING BEGINS.

   G. ALL STORM INLETS SHALL BE PROTECTED BY INLET FILTERS. PLACEMENTS AND MAINTENANCE OR SILT BARRIER SHALL BE AS DIRECTED BY THE ENGINEER, BASED ON ACTUAL GRADING. GRADE THE AREA WITHIN FOUR (4) FEET AROUND STRUCTURES ONE (1) FOOT BELOW RIM TO SERVE AS A SEDIMENTATION BASIN DURING CONSTRUCTION.

   H. FINAL LOCATION OF SILT FENCE SHALL BE ADJUSTED BASED ON ACTUAL SITE GRADING CONDITIONS. ADDITIONAL MEASURES SHALL BE ADDED AS DIRECTED BY THE ENGINEER.

   I. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESEEDED AS SOON AS PRACTICAL.

STORM SEWER NOTES

1. STORM SEWER PIPE: ALL STORM SEWER PIPE SHALL BE RCP.

2. BEDDING: ALL STORM SEWERS SHALL BE INSTALLED ON A TYPE A GRANULAR BEDDING, ¼" TO 1" IN SIZE (CA–7) WITH A MINIMUM THICKNESS EQUAL TO ¼ THE OUTSIDE DIAMETER OF THE SEWER PIPE BUT NOT LESS THAT 4". BLOCKING OF ANY KIND FOR GRADE IS NOT PERMITTED. THE BEDDING MATERIALS SHALL BE COMPACTED TO 90% OF MODIFIED PROCTOR DENSITY. BEDDING SHALL EXTEND TO THE SPRINGLINE OF THE PIPE.

3. COVER: THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE (1') FOOT OF COVER OVER THE TOP OF SHALLOW PIPES AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL MOUND OVER ANY PIPES WHICH HAVE LESS THAN ONE (1') FOOT OF COVER DURING CONSTRUCTION UNTIL THE AREA IS FINAL GRADED OR PAVED.

4. ALL TRENCHES BENEATH PROPOSED OR EXISTING UTILITIES, PAVEMENTS, ROADWAYS, SIDEWALKS, AND FOR A DISTANCE OF TWO (2') FEET ON EITHER SIDE OF SAME, AND/OR WHERE SHOWN ON THE PLANS, SHALL BE BACKFILLED WITH SELECT GRANULAR BACKFILL, CA–7, AND THOROUGHLY MECHANICALLY COMPACTED IN 9" THICK (LOOSE MEASUREMENT) LAYERS. JETTING WITH WATER IS NOT PERMITTED. TRENCH BACKFILL SHALL BE USED ON THE ENTIRE LENGTH OF THE MAIN DRAIN. TRENCH BACKFILL SHALL BE MEASURED ACCORDING TO SECTION 208.03 OF THE STANDARD SPECIFICATIONS.

5. ON ALL IMPROVEMENTS THE FRAMES AND LIDS OF EXISTING CATCH BASINS, INLETS, MANHOLES AND VALVE VAULTS WHICH ARE TO BE ABANDONED DUE TO CONSTRUCTION OF THIS IMPROVEMENT ARE TO REMAIN THE PROPERTY OF THE VILLAGE OF GLENWOOD AND BE SALVAGED. THE OWNER SHALL BE NOTIFIED AS TO AVAILABILITY FOR PICK–UP.

6. THE TOP OF ALL STRUCTURES SHALL BE FLUSH WITH THE ADJACENT SURFACE OR AT THE INDICATED ELEVATIONS SHOWN ON THE PLANS.

7. 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.

SUMMARY OF QUANTITIES

S.I.	CODE NO.	PAY ITEM	UNIT	QUAN	ROADWAY 0004	SAFETY 0021	LANDSCAPING 0031	TRAINEES 0042					
	20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	72			72						
	20200100	EARTH EXCAVATION	CU YD	916	916								
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	3944			3944						
	28000400	PERIMETER EROSION BARRIER	FOOT	2884	2884								
	28000510	INLET FILTERS	EACH	37	37								
	31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	1754	1754								
	31101400	SUBBASE GRANULAR MATERIAL, TYPE B 6"	SQ YD	548	548								
	40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUNDS	2164	2164								
	40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	10	10								
	40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	108	108								
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	115	115								
	40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	116	116								
	40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	288	288								
	42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SQ YD	50	50								
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	15784	15784								
	42400800	DETECTABLE WARNINGS	SQ FT	135	135								
	44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	2190	2190								
	44000100	PAVEMENT REMOVAL	SQ YD	128	128								
	44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	66	66								
	44000300	CURB REMOVAL	FOOT	12	12								
	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	740	740								
	44000600	SIDEWALK REMOVAL	SQ FT	1741	1741								
	44003100	MEDIAN REMOVAL	SQ FT	3787	3787								
	44201785	CLASS D PATCHES, TYPE I, 12 INCH	SQ YD	7	7								

(Column headers: CONSTRUCTION TYPE CODE)

* - INDICATES SPECIALTY ITEMS

SUMMARY OF QUANTITIES

S.I.	CODE NO.	PAY ITEM	UNIT	QUAN	ROADWAY	SAFETY	LANDSCAPING	TRAINEES					
					CONSTRUCTION TYPE CODE								
					0004	0021	0031	0042					
	44201789	CLASS D PATCHES, TYPE II, 12 INCH	SQ YD	30	30								
	44201796	CLASS D PATCHES, TYPE IV, 12 INCH	SQ YD	250	250								
	550A0360	STORM SEWERS, CLASS A, TYPE 2 15"	FOOT	8	8								
	55100700	STORM SEWER REMOVAL 15"	FOOT	8	8								
*	56400100	FIRE HYDRANTS TO BE MOVED	EACH	1	1								
	60206905	CATCH BASINS, TYPE C, TYPE 1 FRAME, OPEN LID	EACH	3	3								
	60234200	INLETS, TYPE A, TYPE 1 FRAME, OPEN LID	EACH	1	1								
	60250200	CATCH BASINS TO BE ADJUSTED	EACH	6	6								
	60250400	CATCH BASINS TO BE ADJUSTED WITH NEW TYPE 1 FRAME, OPEN LID	EACH	1	1								
	60255500	MANHOLES TO BE ADJUSTED	EACH	7	7								
	60260400	INLETS TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED LID	EACH	1	1								
*	60266600	VALVE BOXES TO BE ADJUSTED	EACH	2	2								
	60500050	REMOVING CATCH BASINS	EACH	5	5								
	60600605	CONCRETE CURB, TYPE B	FOOT	12	12								
	60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	422	422								
	60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	286	286								
	60619600	CONCRETE MEDIAN, TYPE SB-6.12	SQ FT	2661	2661								
*	66900200	NON-SPECIAL WASTE DISPOSAL	CY	40	40								
*	66900450	SPECIAL WASTE PLANS AND REPORTS	L SUM	1	1								
*	66900530	SOIL DISPOSAL ANALYSIS	EACH	1	1								
	67100100	MOBILIZATION	L SUM	1	1								
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1								
	70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1								
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1								

* - INDICATES SPECIALTY ITEMS

FILE NAME = 12602_02-QUAN-01 - P02	USER NAME =	DESIGNED - JPH	REVISED -
		CHECKED - PKB	REVISED -
	PLOT SCALE =	DRAWN - PS	REVISED -
	PLOT DATE = 8-31-15	CHECKED - AG	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
SUMMARY OF QUANTITIES

SCALE: NONE | SHEET NO. 4 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	4
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

SUMMARY OF QUANTITIES

S.I.	CODE NO.	PAY ITEM	UNIT	QUAN	ROADWAY	SAFETY	LANDSCAPING	TRAINEES					
					CONSTRUCTION TYPE CODE								
					0004	0021	0031	0042					
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1								
	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	75	75								
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	2000		2000							
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	667		667							
	72000100	SIGN PANEL – TYPE 1	SQ FT	25.5		25.5							
	72400100	REMOVE SIGN PANEL ASSEMBLY – TYPE A	EACH	25.5		25.5							
*	78000100	THERMOPLASTIC PAVEMENT MARKING – LETTERS AND SYMBOLS	SQ FT	112		112							
*	78000200	THERMOPLASTIC PAVEMENT MARKING – LINE 4"	FOOT	2010		2010							
*	78000400	THERMOPLASTIC PAVEMENT MARKING – LINE 6"	FOOT	906		906							
*	78000600	THERMOPLASTIC PAVEMENT MARKING – LINE 12"	FOOT	368		368							
*	78000650	THERMOPLASTIC PAVEMENT MARKING – LINE 24"	FOOT	97		97							
*	78300100	PAVEMENT MARKING REMOVAL	SQ FT	368		368							
*	80500020	SERVICE INSTALLATION – POLE MOUNTED	EACH	1		1							
*	81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	690		690							
*	81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	63		63							
*	81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	115		115							
*	81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	346		346							
*	81400100	HANDHOLE	EACH	7		7							
*	81400200	HEAVY–DUTY HANDHOLE	EACH	4		4							
*	81400300	DOUBLE HANDHOLE	EACH	1		1							
*	83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	10		10							
*	84400105	RELOCATE EXISTING LIGHTING UNIT	EACH	1		1							
*	85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1		1							
*	86400100	TRANSCEIVER – FIBER OPTIC	EACH	1		1							

* – INDICATES SPECIALTY ITEMS

FILE NAME = 12602_02-QUAN-01 - P03	USER NAME =	DESIGNED – JPH	REVISED –
		CHECKED – PKB	REVISED –
	PLOT SCALE =	DRAWN – PS	REVISED –
	PLOT DATE = 8-31-15	CHECKED – AG	REVISED –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
SUMMARY OF QUANTITIES

SCALE: NONE | SHEET NO. 5 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	5
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

SUMMARY OF QUANTITIES

S.I.	CODE NO.	PAY ITEM	UNIT	QUAN	ROADWAY	SAFETY	LANDSCAPING	TRAINEES					
					CONSTRUCTION TYPE CODE								
					0004	0021	0031	0042					
*	87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	2811		2811							
*	87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	372		372							
*	87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	710		710							
*	87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1131		1131							
*	87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1827		1827							
*	87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2856		2856							
*	87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	44		44							
*	87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	603		603							
*	87500600	TRAFFIC SIGNAL POST, 10 FT.	EACH	1		1							
*	87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4		4							
*	87700200	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1		1							
*	87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1		1							
*	87700270	STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	1		1							
*	87700290	STEEL MAST ARM ASSEMBLY AND POLE, 50 FT.	EACH	1		1							
*	87800100	CONCRETE FOUNDATION, TYPE A	FOOT	20		20							
*	87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4		4							
*	87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	50		50							
*	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	5		5							
*	88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	5		5							
*	88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4		4							
*	88200410	TRAFFIC SIGNAL BACKPLACE, LOUVERED, FORMED PLASTIC	EACH	10		10							
*	88500100	INDUCTIVE LOOP DETECTOR	EACH	11		11							
*	88600100	DETECTOR LOOP, TYPE I	FOOT	1026		1026							

* - INDICATES SPECIALTY ITEMS

FILE NAME = 12602_02-QUAN-01 - P04	USER NAME =	DESIGNED - JPH	REVISED -
		CHECKED - PKB	REVISED -
	PLOT SCALE =	DRAWN - PS	REVISED -
	PLOT DATE = 8-31-15	CHECKED - AG	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
SUMMARY OF QUANTITIES

SCALE: NONE | SHEET NO. 6 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	6
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

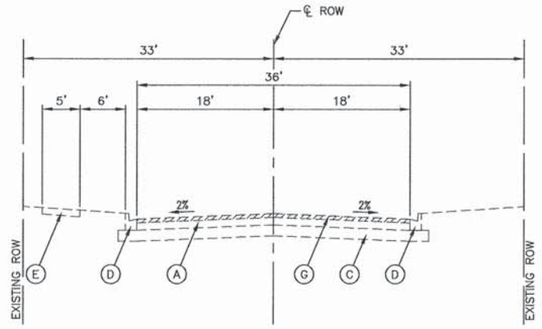
SUMMARY OF QUANTITIES

S.I.	CODE NO.	PAY ITEM	UNIT	QUAN	ROADWAY	SAFETY	LANDSCAPING	TRAINEES					
					CONSTRUCTION TYPE CODE								
					0004	0021	0031	0042					
*	88800100	PEDESTRIAN PUSH-BUTTON	EACH	4		4							
*	89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1		1							
*	89501400	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT	EACH	2		2							
*	89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	2		2							
*	89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2811		2811							
*	89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1		1							
*	89502380	REMOVE EXISTING HANDHOLE	EACH	10		10							
*	89502382	REMOVE EXISTING DOUBLE HANDHOLE	EACH	1		1							
*	89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	9		9							
*	A2006416	TREE, QUERCUS ALBA (WHITE OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	2			2						
	Z0004538	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 10"	SQ YD	50	50								
*	Z0033046	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1		1							
*	Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1		1							
	Z0076600	TRAINEES	HOUR	500				500					
	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500				500					
*	X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	310		310							
*	X0324599	ROD AND CLEAN EXISTING CONDUIT	FOOT	200		200							
	X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	1	1								
*	X1400081	FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	EACH	1		1							
*	X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1		1							
*	X8710024	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	2.4		2.4							
	XX006343	SEEDING (COMPLETE)	SQ YD	3944			3944						

* - INDICATES SPECIALTY ITEMS

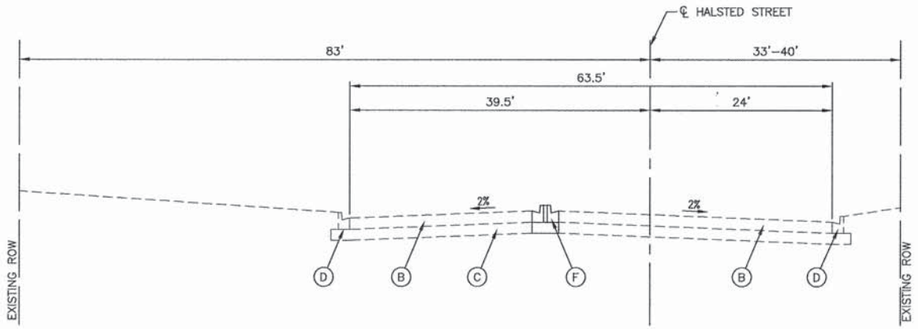
FILE NAME = 12602_02-QUAN-01 - P05	USER NAME =	DESIGNED - JPH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERSECTION IMPROVEMENTS HALSTED STREET AND 187TH STREET SUMMARY OF QUANTITIES	
		CHECKED - PKB	REVISED -			
	PLOT SCALE =	DRAWN - PS	REVISED -			
	PLOT DATE = 8-31-15	CHECKED - AG	REVISED -		SCALE: NONE	SHEET NO. 7 OF 61 SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	7
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		



EXISTING TYPICAL SECTION

187TH STREET - EAST LEG
STA. 102+90 TO STA. 105+00



EXISTING/PROPOSED TYPICAL SECTION

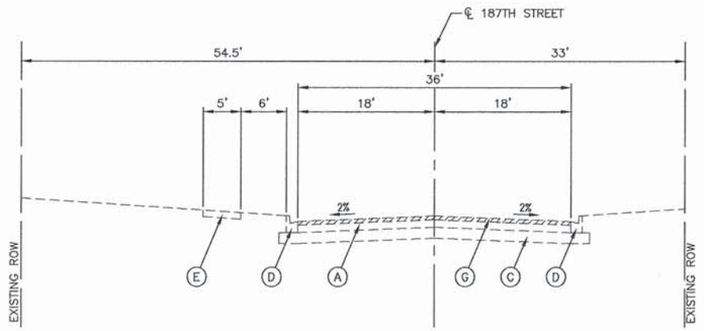
HALSTED STREET - SOUTH LEG

EXISTING LEGEND

- (A) EXISTING 6" HMA PAVEMENT & VARIES
- (B) EXISTING 12" HMA PAVEMENT & VARIES
- (C) EXISTING SUBGRADE
- (D) EXISTING CONCRETE CURB & GUTTER
- (E) EXISTING PCC SIDEWALK
- (F) EXISTING PCC MEDIAN REMOVAL AND REPLACEMENT
- (G) HOT–MIX ASPHALT SURFACE REMOVAL – 2½"

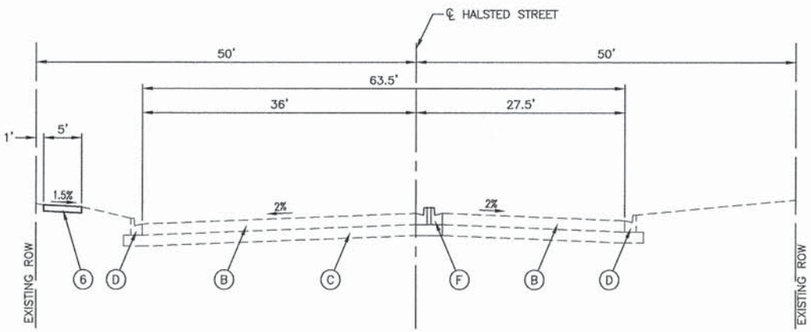
PROPOSED LEGEND

- (1) HOT–MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2"
- (2) HOT–MIX ASPHALT BINDER COURSE, IL–19.0, N50 – 5½" (IN 2 LIFTS)
- (3) POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL–4.75, N50 – ¾"
- (4) SUB–BASE GRANULAR MATERIAL, TYPE B–6"
- (5) COMBINATION CONCRETE CURB & GUTTER, TYPE B–6.12
- (6) PORTLAND CEMENT CONCRETE SIDEWALK, 5" WITH 4" SUB–BASE GRANULAR MATERIAL



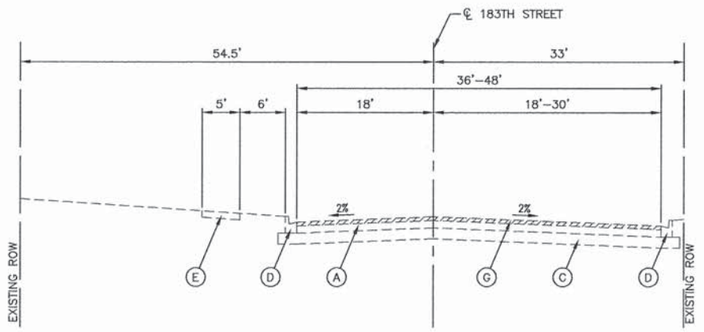
EXISTING TYPICAL SECTION

187TH STREET - EAST LEG
STA. 100+79 TO STA. 100+92



EXISTING/PROPOSED TYPICAL SECTION

HALSTED STREET - NORTH LEG
HALSTED STREET - 187TH STREET TO 183RD STREET



EXISTING TYPICAL SECTION

187TH STREET - EAST LEG
STA. 100+92 TO STA. 102+90

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

(CONTRACTOR SHALL MILL BEFORE PATCHING)

MIXTURE TYPE	AIR VOIDS @ Ndes
RESURFACING	
HOT–MIX ASPHALT SURFACE COURSE, MIX "D", N50, 2" (IL 9.5 MM)	4% @ 50 Gyr.
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL–4.75, N50, 3/4"	3.5% @ 50 Gyr.
PAVEMENT WIDENING – 187TH STREET	
HOT–MIX ASPHALT SURFACE COURSE, MIX "D", N50, 2" (IL 9.5 MM)	4% @ 50 Gyr.
HOT–MIX ASPHALT BINDER COURSE, IL–19.0, N50, 5–1/2"	4% @ 50 Gyr.
PATCHING	
CLASS D PATCHES, TYPE I, II, III, IV, (HMA BINDER IL–19.0mm): 7" (IN 2 LIFTS)	4% @ 70 Gyr.
DRIVEWAYS	
HOT–MIX ASPHALT SURFACE COURSE, MIX "D", N50, 2" (IL 9.5 MM)	4% @ 50 Gyr.
HOT–MIX ASPHALT BINDER COURSE, IL–19.0, N50, 8" (IN 3 LIFTS)	4% @ 50 Gyr.
CURB PATCH	
HOT–MIX ASPHALT PATCH (HMA BINDER IL–19.0mm): 7" (IN 2 LIFTS)	4% @ 70 Gyr.

NOTES:

1. THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76–22" AND FOR NON–POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64–22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.

NOTE:
CLASS D PATCHES, TYPE I, II, III & IV AT APPROXIMATE STATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

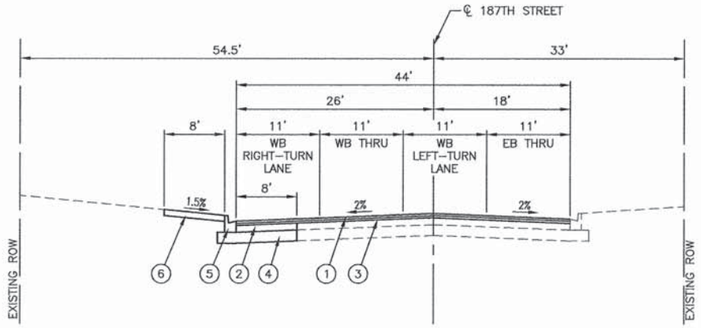
FILE NAME = 12602_02-TYPX-01 - P01	USER NAME =	DESIGNED – JPH	REVISED –
		CHECKED – PKB	REVISED –
	PLOT SCALE =	DRAWN – RG	REVISED –
	PLOT DATE = 8-31-15	CHECKED – AG	REVISED –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
TYPICAL CROSS SECTIONS

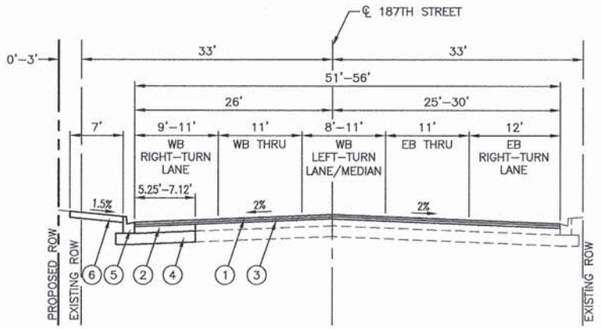
SCALE: NONE | SHEET NO. 8 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	8
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		



PROPOSED TYPICAL SECTION

187TH STREET - EAST LEG
STA. 100+79 TO STA. 100+92



PROPOSED TYPICAL SECTION

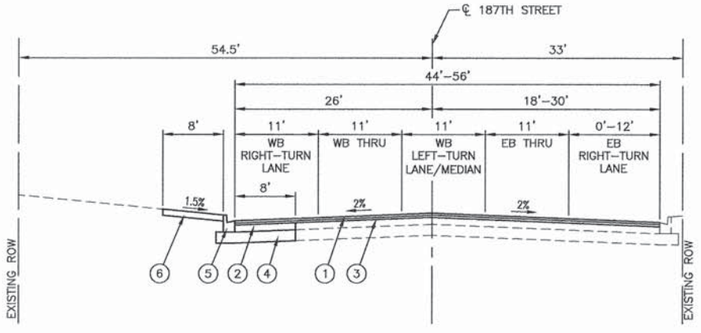
187TH STREET - EAST LEG
STA. 102+40 TO STA. 103+21

EXISTING LEGEND

- (A) EXISTING 6" HMA PAVEMENT & VARIES
- (B) EXISTING 12" HMA PAVEMENT & VARIES
- (C) EXISTING SUBGRADE
- (D) EXISTING CONCRETE CURB & GUTTER
- (E) EXISTING PCC SIDEWALK
- (F) EXISTING PCC MEDIAN REMOVAL AND REPLACEMENT
- (G) HOT-MIX ASPHALT SURFACE REMOVAL – 2½"

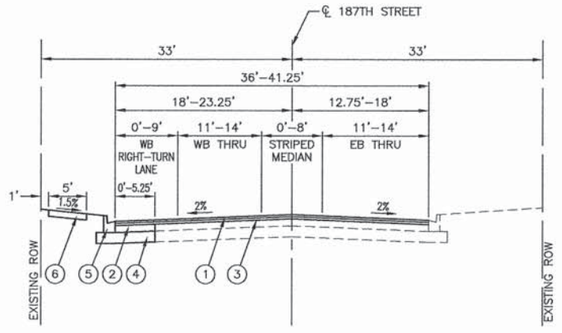
PROPOSED LEGEND

- (1) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2"
- (2) HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 – 5½" (IN 2 LIFTS)
- (3) POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 – ¾"
- (4) SUB-BASE GRANULAR MATERIAL, TYPE B-6"
- (5) COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12
- (6) PORTLAND CEMENT CONCRETE SIDEWALK, 5" WITH 4" SUB-BASE GRANULAR MATERIAL



PROPOSED TYPICAL SECTION

187TH STREET - EAST LEG
STA. 100+92 TO STA. 102+40



PROPOSED TYPICAL SECTION

187TH STREET - EAST LEG
STA. 103+21 TO STA. 104+23

FILE NAME = 12602_02-TYPX-01 - P02	USER NAME =	DESIGNED – JPH	REVISED –
		CHECKED – PKB	REVISED –
	PLOT SCALE =	DRAWN – RG	REVISED –
	PLOT DATE = 8-31-15	CHECKED – AG	REVISED –

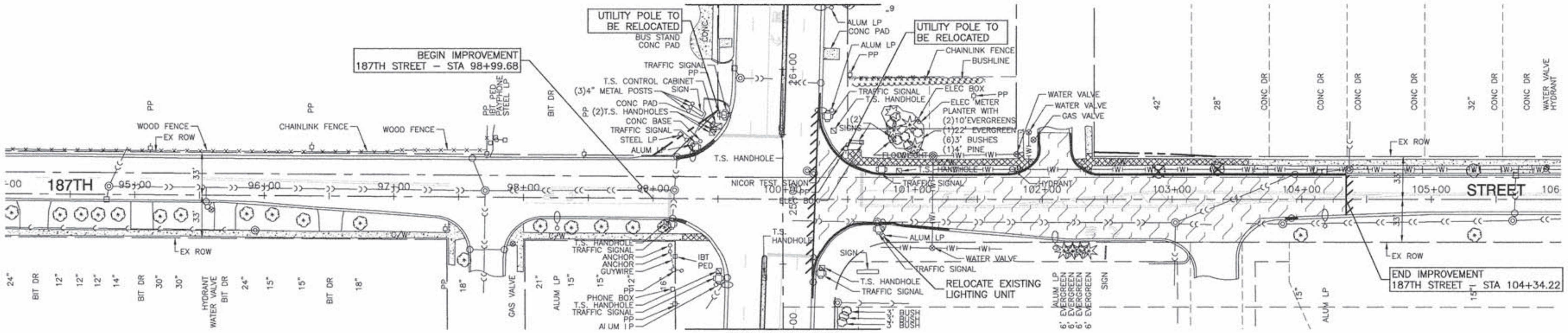
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
TYPICAL CROSS SECTIONS

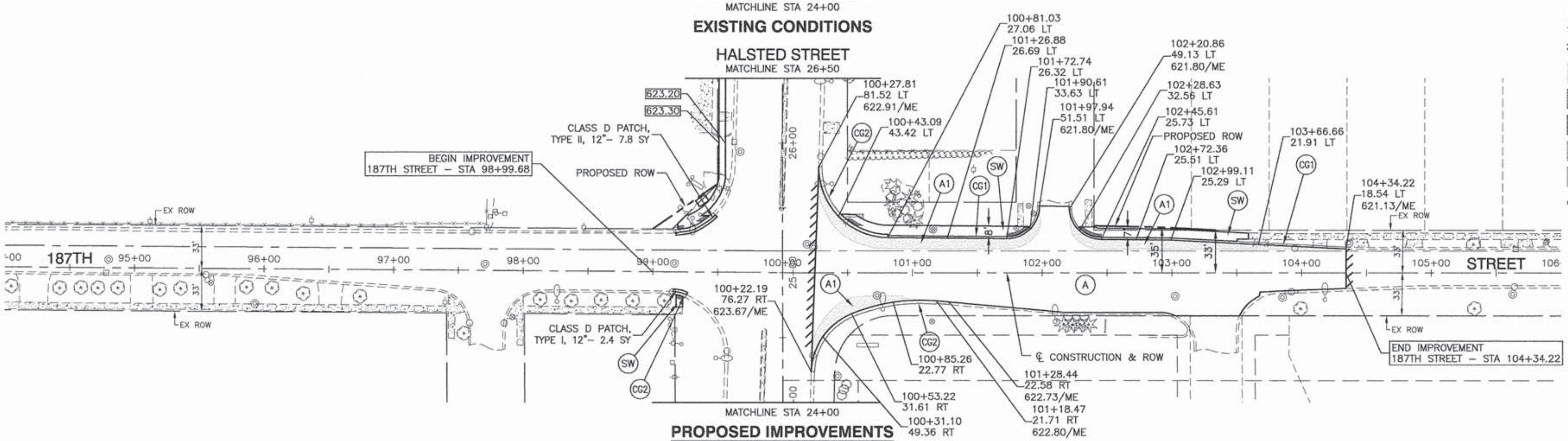
SCALE: NONE | SHEET NO. 9 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	9
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

SECTION 4, TOWNSHIP 35, RANGE 14



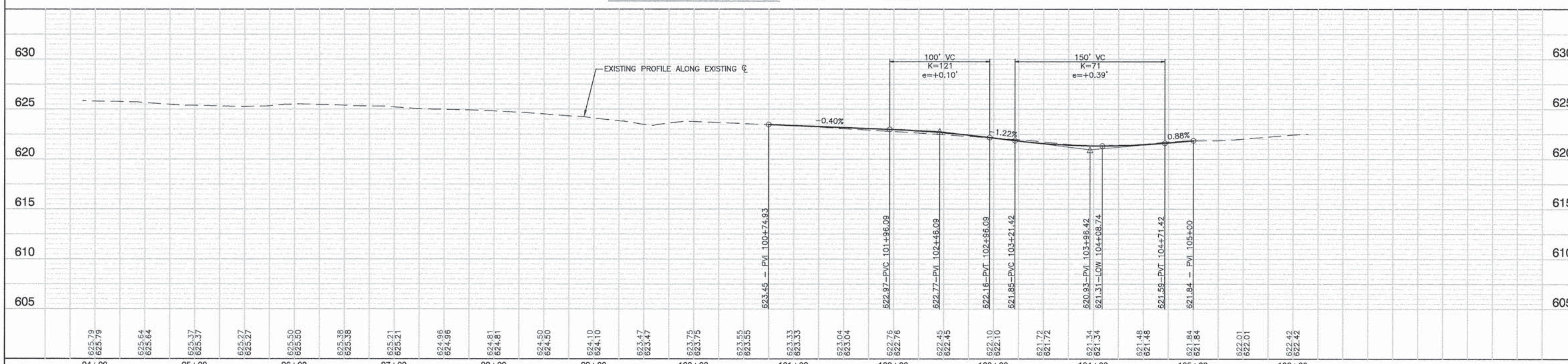
EXISTING CONDITIONS



PROPOSED IMPROVEMENTS

LEGEND

Symbol	Description
	BUTT JOINT
	PAVEMENT WIDENING
	SIDEWALK REMOVAL
	MEDIAN REMOVAL
	PAVEMENT REMOVAL
	HOT-MIX ASPHALT SURFACE REMOVAL – 2½"
	COMBINATION CONCRETE CURB AND GUTTER REMOVAL
	TREE REMOVAL
	DETECTABLE WARNINGS
SW	P.C.C. SIDEWALK, 5" AGGREGATE BASE COURSE, TYPE B, 4"
CG1	CURB AND GUTTER, TYPE B-6.12
CG2	CURB AND GUTTER, TYPE B-6.24
A	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2" POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 – ¾"
A1	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2" POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 – ¾" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 – 5½" SUB-BASE GRANULAR MATERIAL, TYPE B – 6"



FILE NAME = 12602_02-PLPR-01 - IDOT PLPR01

USER NAME =	DESIGNED – JPH	REVISED –
	CHECKED – PKB	REVISED –
PLOT SCALE =	DRAWN – RG	REVISED –
PLOT DATE = 8-31-15	CHECKED – AG	REVISED –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
PLAN & PROFILE

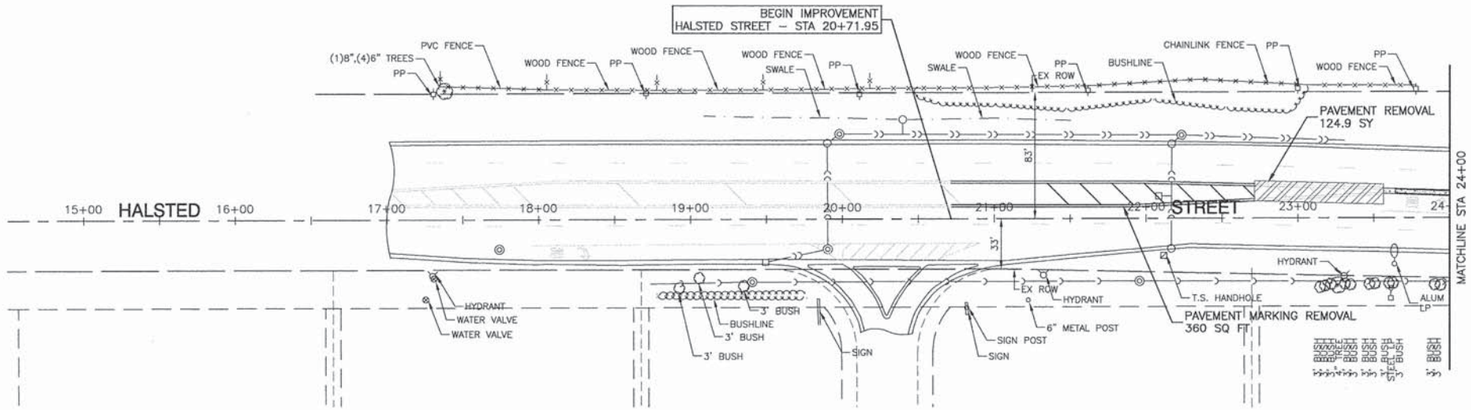
SCALE: H 1"=50' V 1"=5' | SHEET NO. 10 OF 61 SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	10

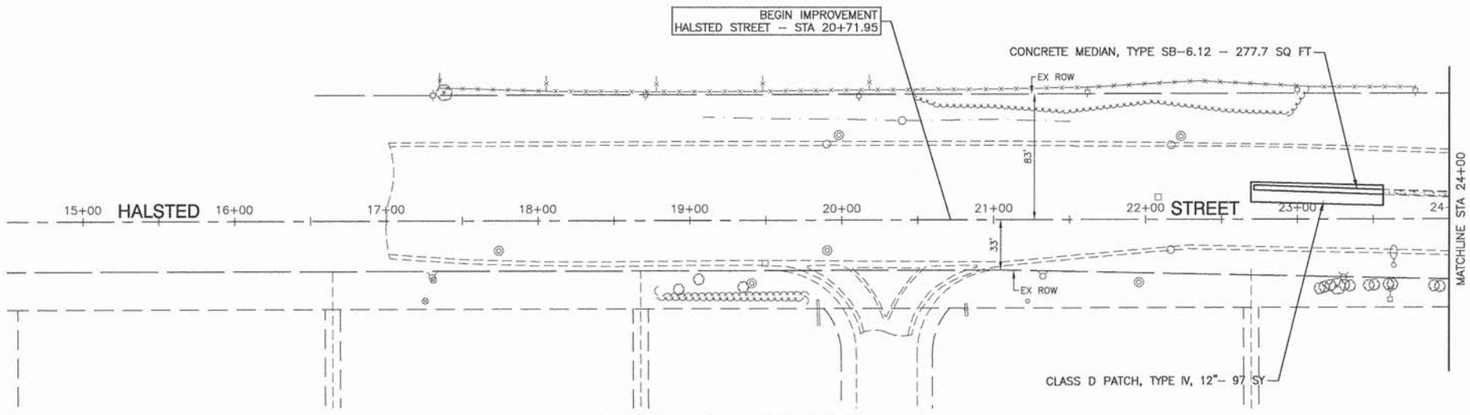
CONTRACT NO. 61B77

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT M-4003(121)

SECTION 4, TOWNSHIP 35, RANGE 14



EXISTING CONDITIONS



PROPOSED IMPROVEMENTS

N

LEGEND

- BUTT JOINT
- PAVEMENT WIDENING
- SIDEWALK REMOVAL
- MEDIAN REMOVAL
- PAVEMENT REMOVAL
- HOT–MIX ASPHALT SURFACE REMOVAL – 2½"
- COMBINATION CONCRETE CURB AND GUTTER REMOVAL
- TREE REMOVAL
- DETECTABLE WARNINGS
- (SW) P.C.C. SIDEWALK, 5" AGGREGATE BASE COURSE, TYPE B, 4"
- (CG1) CURB AND GUTTER, TYPE B–6.12
- (CG2) CURB AND GUTTER, TYPE B–6.24
- (A) HOT–MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2" POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL–4.75, N50 – ¾"
- (A1) HOT–MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2" POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL–4.75, N50 – ¾" HOT–MIX ASPHALT BINDER COURSE, IL–19.0, N50 – 5½" SUB–BASE GRANULAR MATERIAL, TYPE B – 6"

PLAN: SURVEYED, PLOTTED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO., BY, DATE

PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, NOTE BOOK, BY, DATE

FILE NAME = 12602_02-PLPR-01 - IDOT PLPR02	USER NAME =	DESIGNED – JPH	REVISED –
		CHECKED – PKB	REVISED –
	PLOT SCALE =	DRAWN – RG	REVISED –
	PLOT DATE = 8-31-15	CHECKED – AG	REVISED –

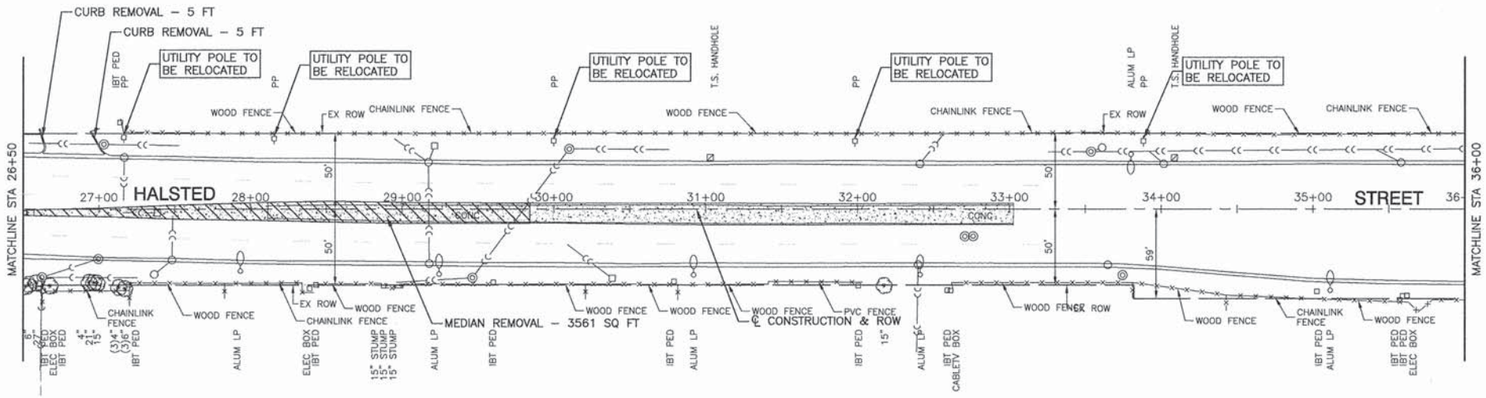
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
PLAN & PROFILE

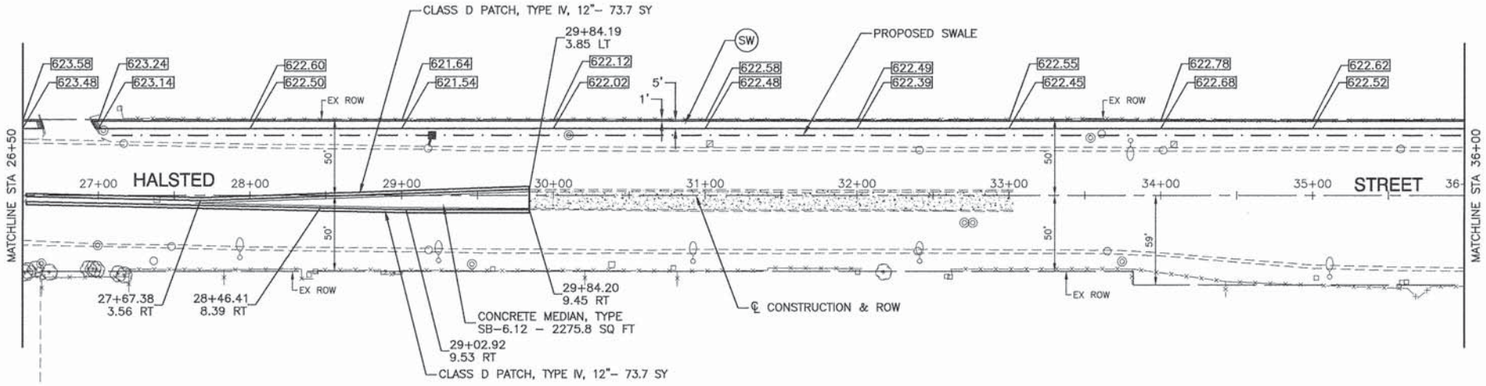
SCALE: H 1"=50' V 1"=5' | SHEET NO. 11 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	11
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

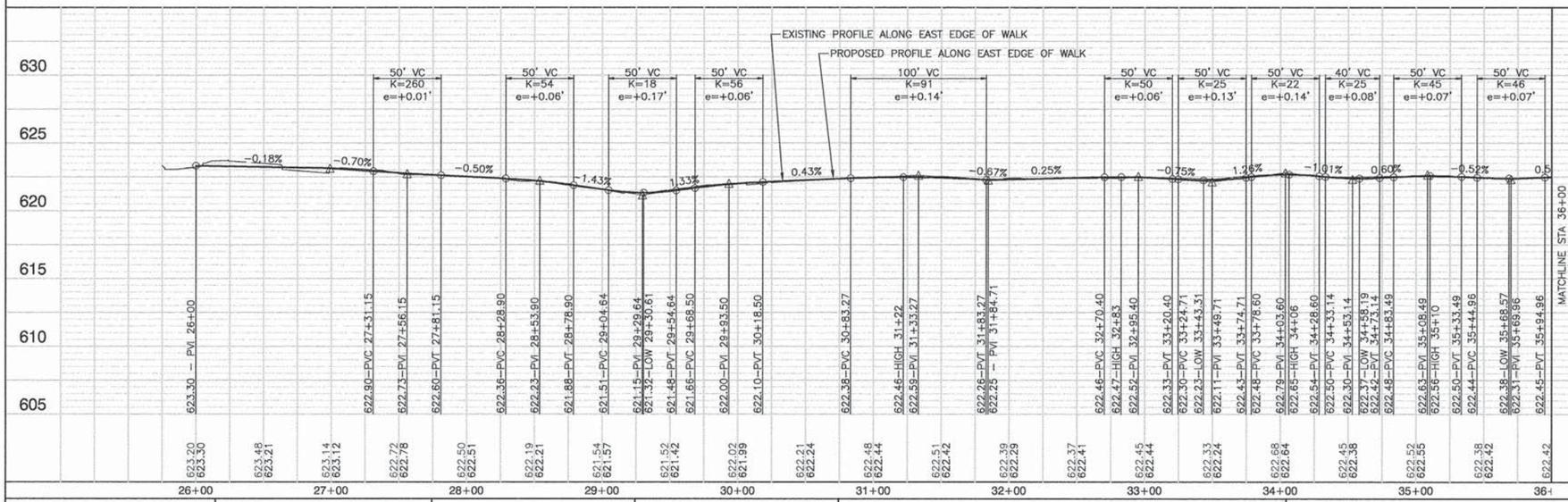
SECTION 4, TOWNSHIP 35, RANGE 14



EXISTING CONDITIONS



PROPOSED IMPROVEMENTS



LEGEND

- BUTT JOINT
- PAVEMENT WIDENING
- SIDEWALK REMOVAL
- MEDIAN REMOVAL
- PAVEMENT REMOVAL
- HOT–MIX ASPHALT SURFACE REMOVAL – 2½"
- COMBINATION CONCRETE CURB AND GUTTER REMOVAL
- TREE REMOVAL
- DETECTABLE WARNINGS
- (SW) P.C.C. SIDEWALK, 5" AGGREGATE BASE COURSE, TYPE B, 4"
- (CG1) CURB AND GUTTER, TYPE B–6.12
- (CG2) CURB AND GUTTER, TYPE B–6.24
- (A) HOT–MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2" POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL–4.75, N50 – ¾"
- (A1) HOT–MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2" POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL–4.75, N50 – ¾" HOT–MIX ASPHALT BINDER COURSE, IL–19.0, N50 – 5½" SUB–BASE GRANULAR MATERIAL, TYPE B – 6"

N

PLAN — BY / DATE — SURVEYED, PLOTTED, ALIGNMENT CHECKED, GRADES CHECKED, B.M. NOTED, CADD FILE NAME — NOTE BOOK — NO.

PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED — NOTE BOOK

FILE NAME = 12602_02-PLPR-01 - IDOT PLPR03	USER NAME =	DESIGNED — JPH	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — RG	REVISED —
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —

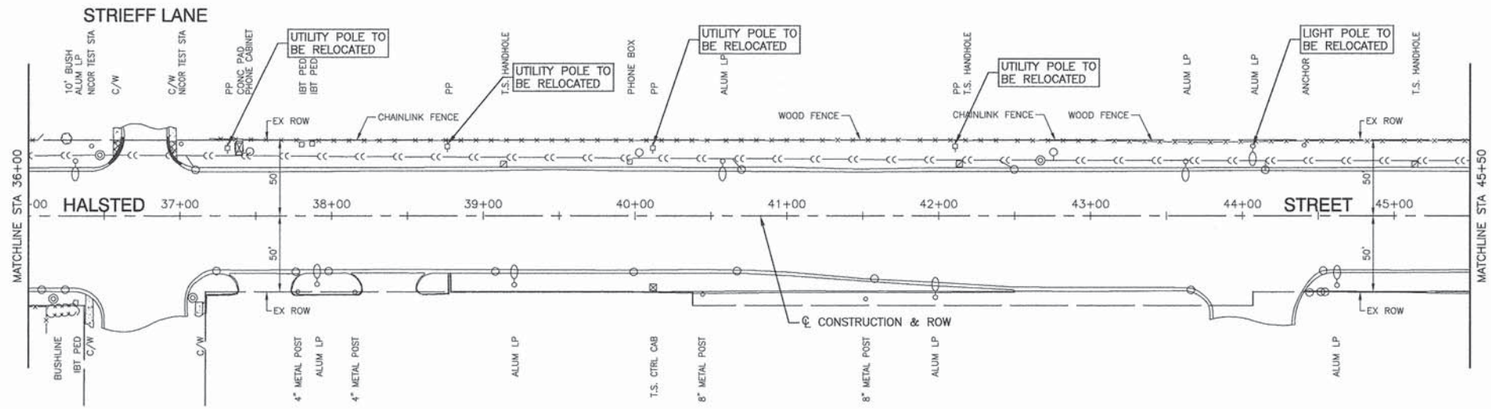
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
PLAN & PROFILE

SCALE: H 1"=50' V 1"=5' | SHEET NO. 12 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	12
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

SECTION 4, TOWNSHIP 35, RANGE 14



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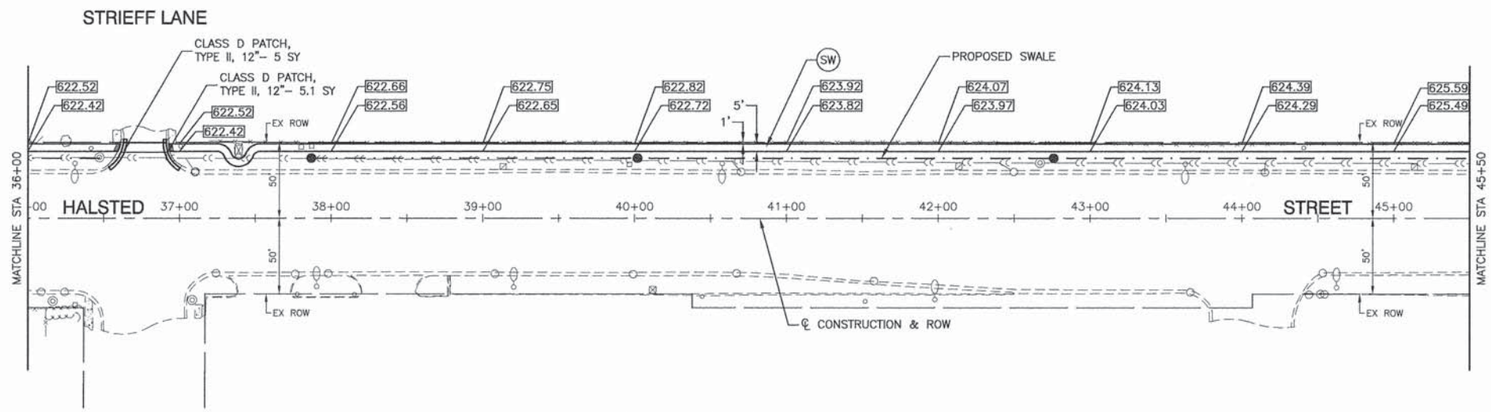
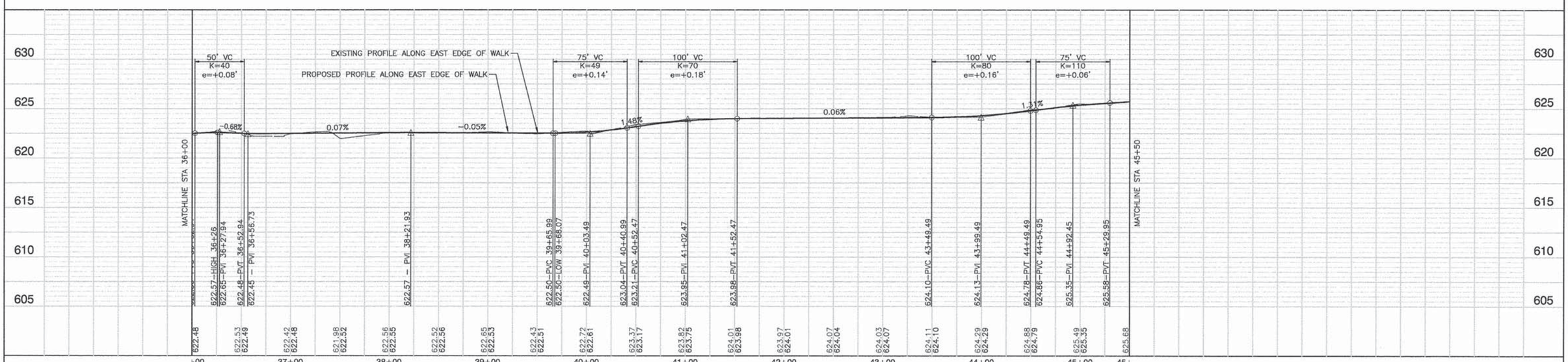


PROPOSED IMPROVEMENTS



LEGEND

- BUTT JOINT
- PAVEMENT WIDENING
- SIDEWALK REMOVAL
- MEDIAN REMOVAL
- PAVEMENT REMOVAL
- HOT–MIX ASPHALT SURFACE REMOVAL – 2½"
- COMBINATION CONCRETE CURB AND GUTTER REMOVAL
- TREE REMOVAL
- DETECTABLE WARNINGS
- (SW) P.C.C. SIDEWALK, 5" AGGREGATE BASE COURSE, TYPE B, 4"
- (CG1) CURB AND GUTTER, TYPE B–6.12
- (CG2) CURB AND GUTTER, TYPE B–6.24
- (A) HOT–MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2" POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL–4.75, N50 – ¾"
- (A1) HOT–MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2" POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL–4.75, N50 – ¾" HOT–MIX ASPHALT BINDER COURSE, IL–19.0, N50 – 5½" SUB–BASE GRANULAR MATERIAL, TYPE B – 6"

PLAN: SURVEYED, PLOTTED, ALIGNMENT CHECKED, GRADES CHECKED, B.M. NOTED, NOTE BOOK, NO., BY, DATE, CADD FILE NAME

PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, NOTE BOOK, BY, DATE

FILE NAME = 12602_02-PLPR-01 - IDOT PLPR04	USER NAME =	DESIGNED – JPH	REVISED –
		CHECKED – PKB	REVISED –
	PLOT SCALE =	DRAWN – RG	REVISED –
	PLOT DATE = 8-31-15	CHECKED – AG	REVISED –

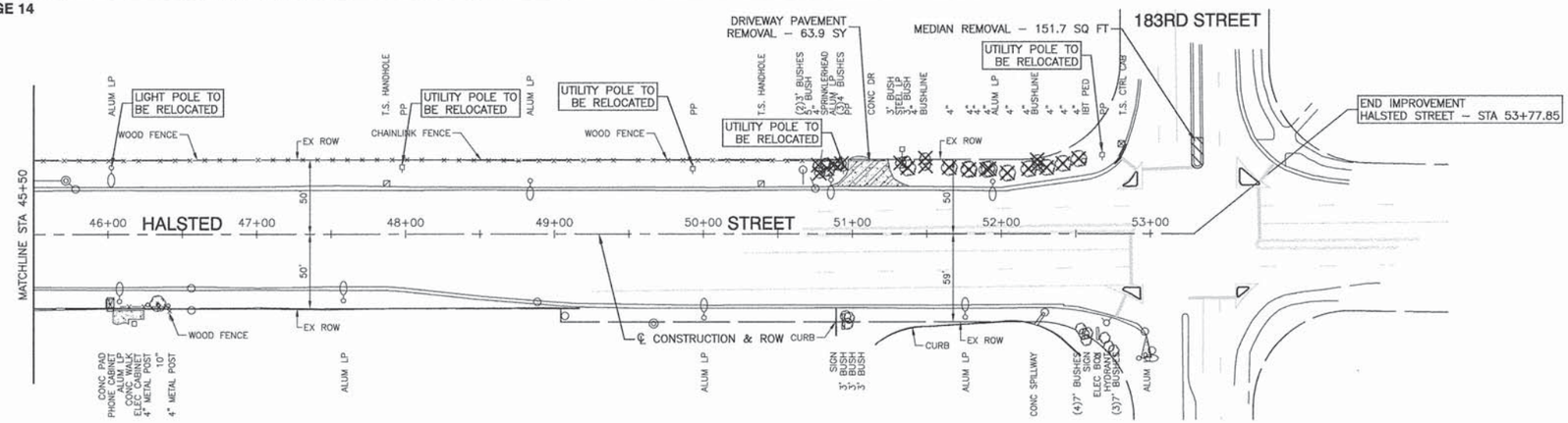
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
PLAN & PROFILE

SCALE: H 1"=50' V 1"=5' | SHEET NO. 13 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	13
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

SECTION 4, TOWNSHIP 35, RANGE 14



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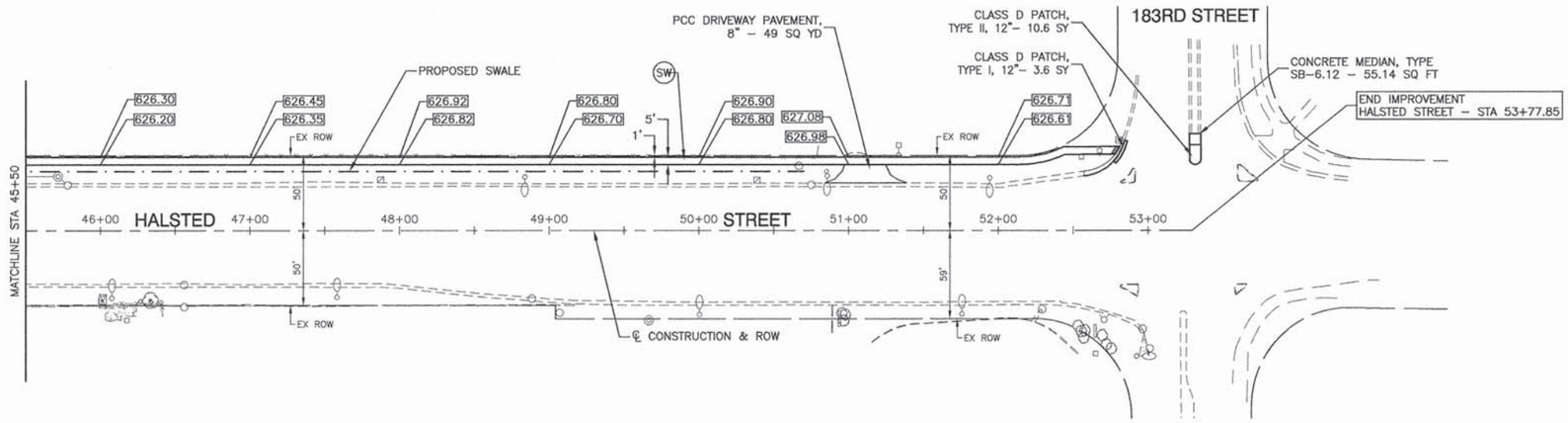
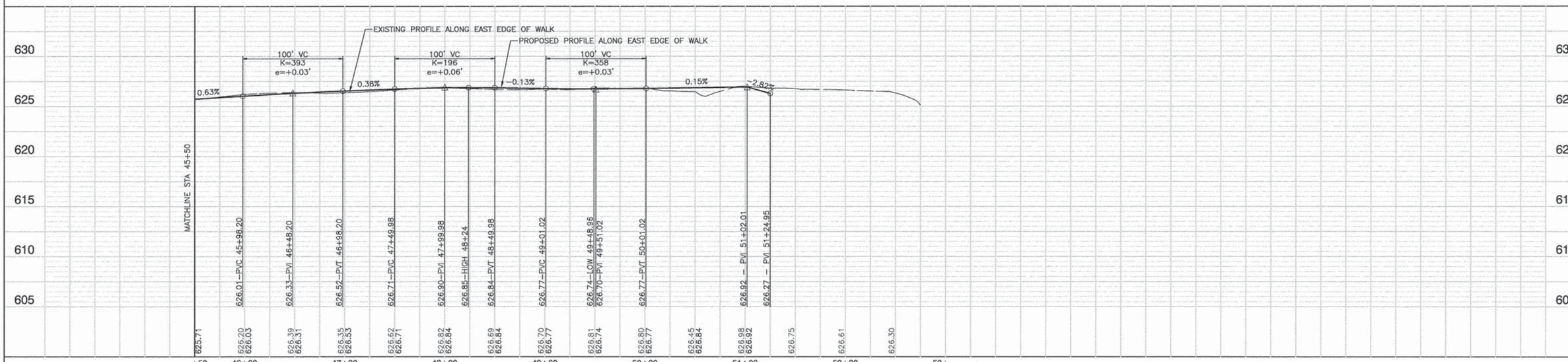


PROPOSED IMPROVEMENTS



LEGEND

- BUTT JOINT
- PAVEMENT WIDENING
- SIDEWALK REMOVAL
- MEDIAN REMOVAL
- PAVEMENT REMOVAL
- HOT–MIX ASPHALT SURFACE REMOVAL – 2½"
- COMBINATION CONCRETE CURB AND GUTTER REMOVAL
- TREE REMOVAL
- DETECTABLE WARNINGS
- (SW) P.C.C. SIDEWALK, 5" AGGREGATE BASE COURSE, TYPE B, 4"
- (CG1) CURB AND GUTTER, TYPE B–6.12
- (CG2) CURB AND GUTTER, TYPE B–6.24
- (A) HOT–MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2" POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL–4.75, N50 – ¾"
- (A1) HOT–MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2" POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL–4.75, N50 – ¾" HOT–MIX ASPHALT BINDER COURSE, IL–19.0, N50 – 5½" SUB–BASE GRANULAR MATERIAL, TYPE B – 6"

PLAN — DATE / BY / SURVEYED / PLOTTED / ALIGNMENT CHECKED / RT. OF WAY CHECKED / CADD FILE NAME / NOTE BOOK / NO.

PROFILE — SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / NOTE BOOK

FILE NAME = 12602_02-PLPR-01 - IDOT PLPR05	USER NAME =	DESIGNED – JPH	REVISED –
		CHECKED – PKB	REVISED –
	PLOT SCALE =	DRAWN – RG	REVISED –
	PLOT DATE = 8-31-15	CHECKED – AG	REVISED –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
PLAN & PROFILE

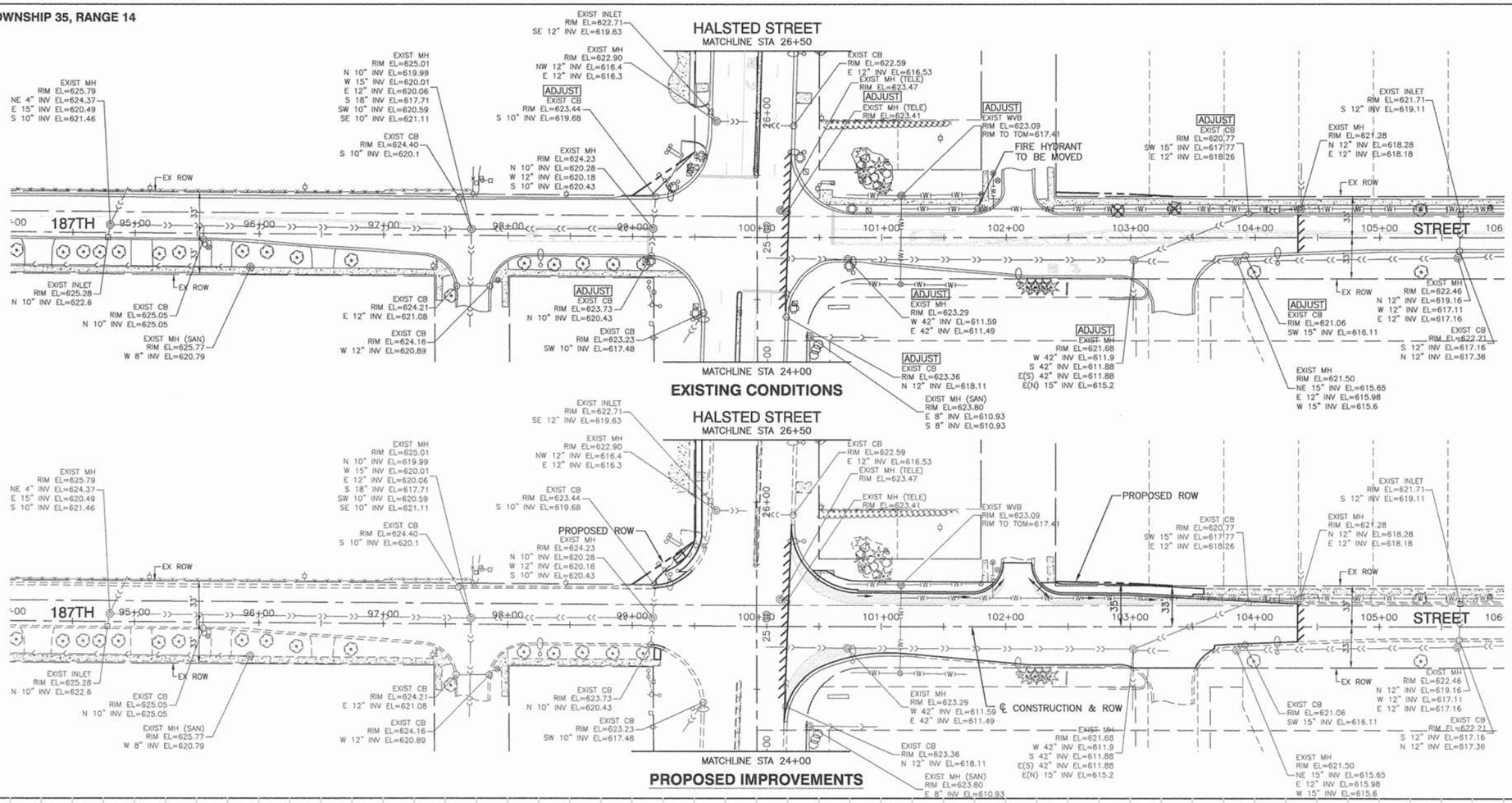
SCALE: H 1"=50' V 1"=5' | SHEET NO. 14 OF 61 SHEETS | STA. | TO STA.

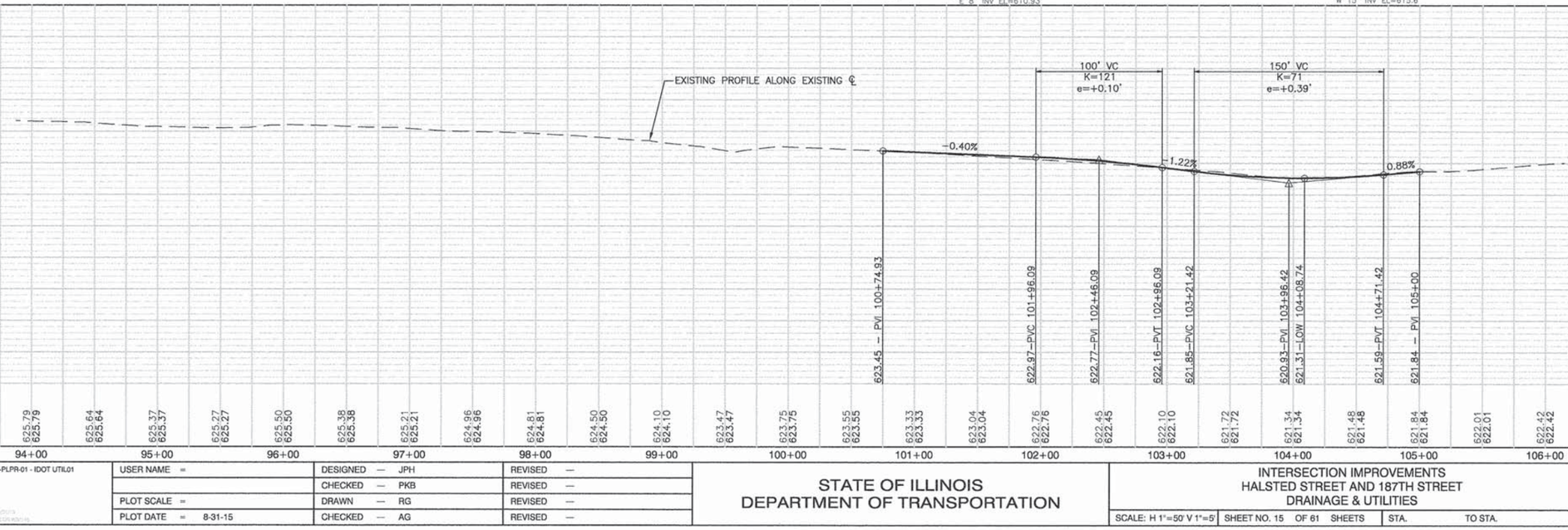
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	14
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

SECTION 4, TOWNSHIP 35, RANGE 14

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
GRADES CHECKED
B.M. NOTED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
NOTE BOOK





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		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — RG	REVISED —
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —

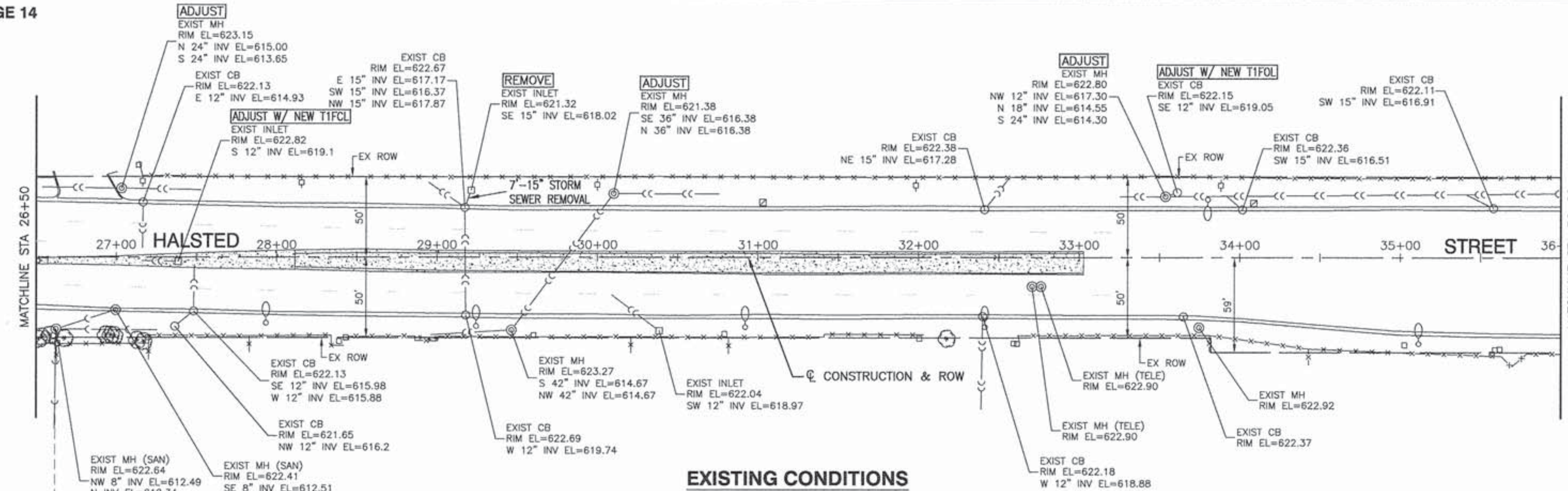
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
DRAINAGE & UTILITIES

SCALE: H 1"=50' V 1"=5' | SHEET NO. 15 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	15
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

SECTION 4, TOWNSHIP 35, RANGE 14



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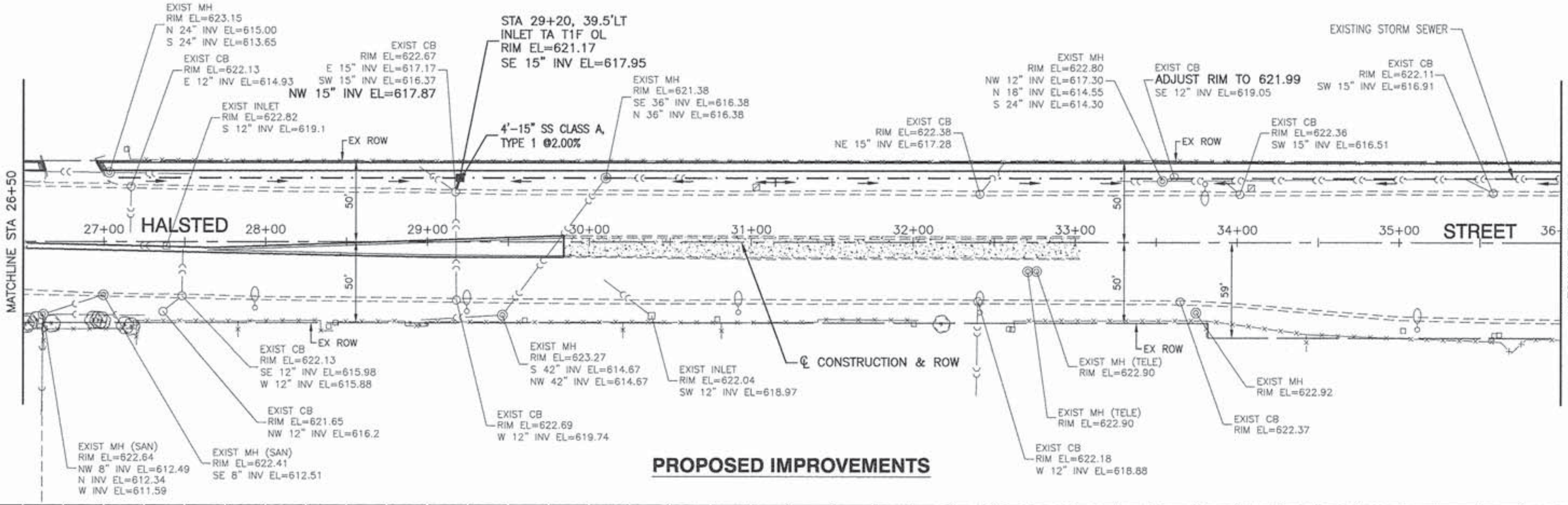
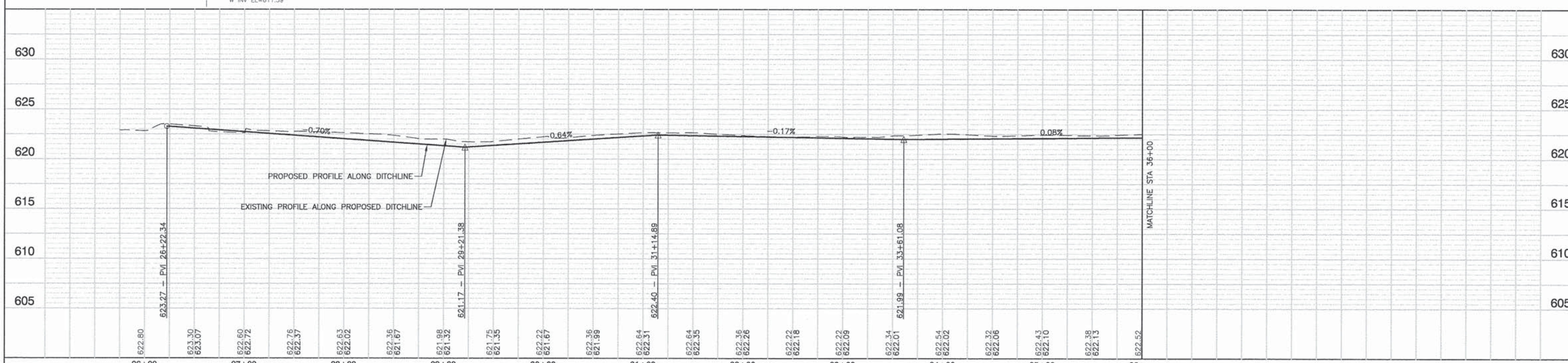


PROPOSED IMPROVEMENTS



FILE NAME = 12602_02-PLPR-01 - IDOT UTIL03

USER NAME =	DESIGNED — JPH	REVISED —	
	CHECKED — PKB	REVISED —	
PLOT SCALE =	DRAWN — RG	REVISED —	
PLOT DATE = 8-31-15	CHECKED — AG	REVISED —	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
DRAINAGE & UTILITIES

SCALE: H 1"=50' V 1"=5' | SHEET NO. 16 OF 61 SHEETS | STA. TO STA.

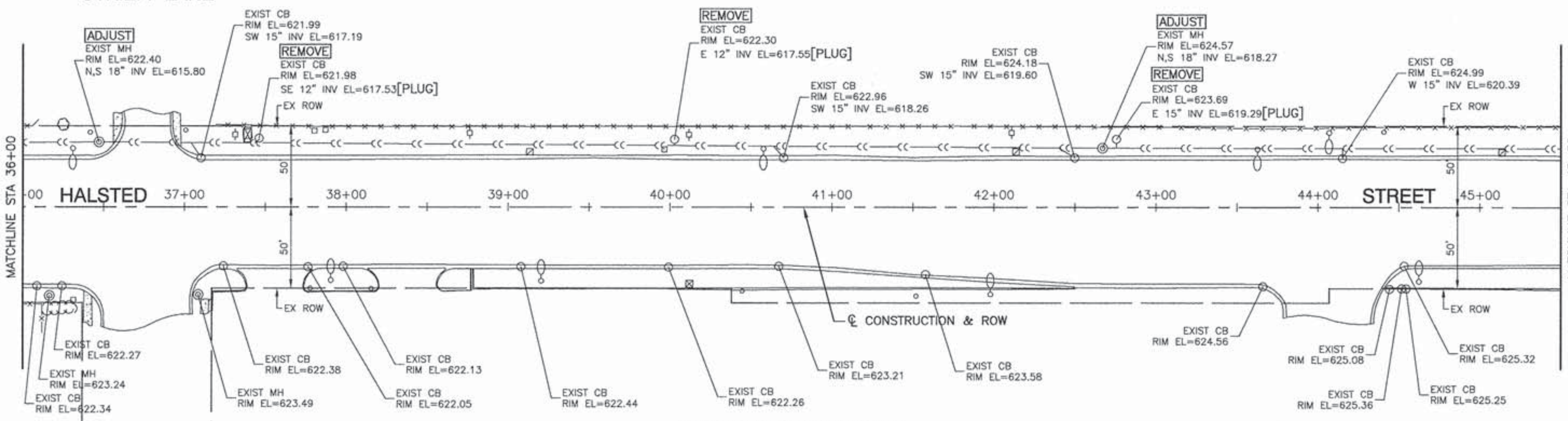
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	16
		CONTRACT NO. 61B77		

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT M-4003(121)

PLAN: NOTE BOOK, NO., SURVEYED, PLOTTED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, CADD FILE NAME, BY, DATE

PROFILE: NOTE BOOK, SURVEYED, PLOTTED, GRADE CHECKED, B.M. NOTED, BY, DATE

SECTION 4, TOWNSHIP 35, RANGE 14



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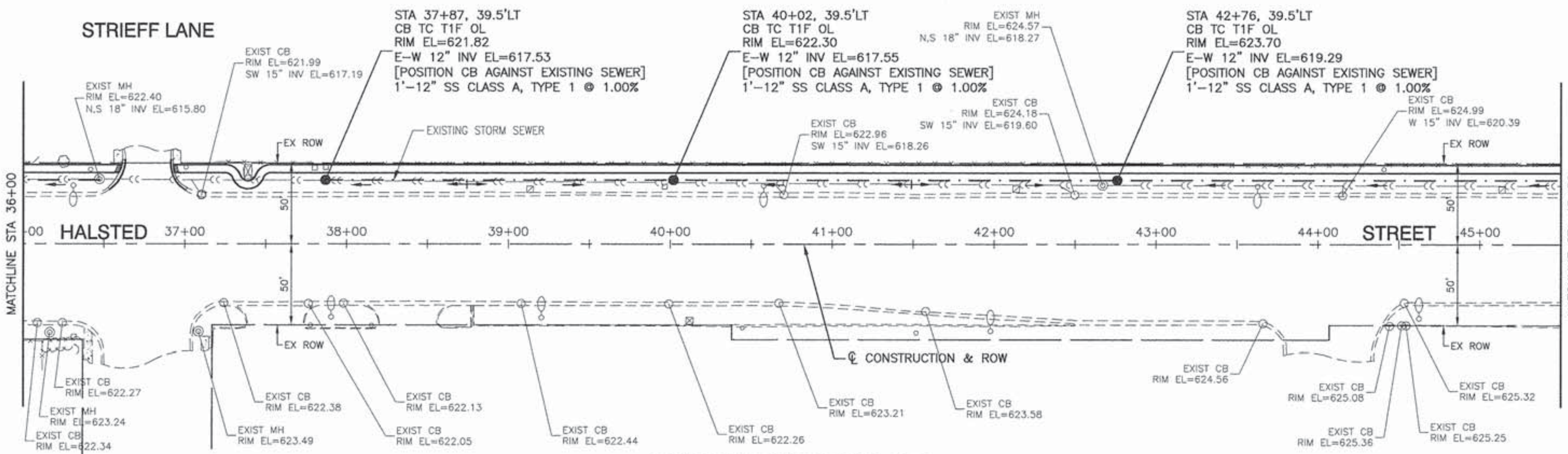
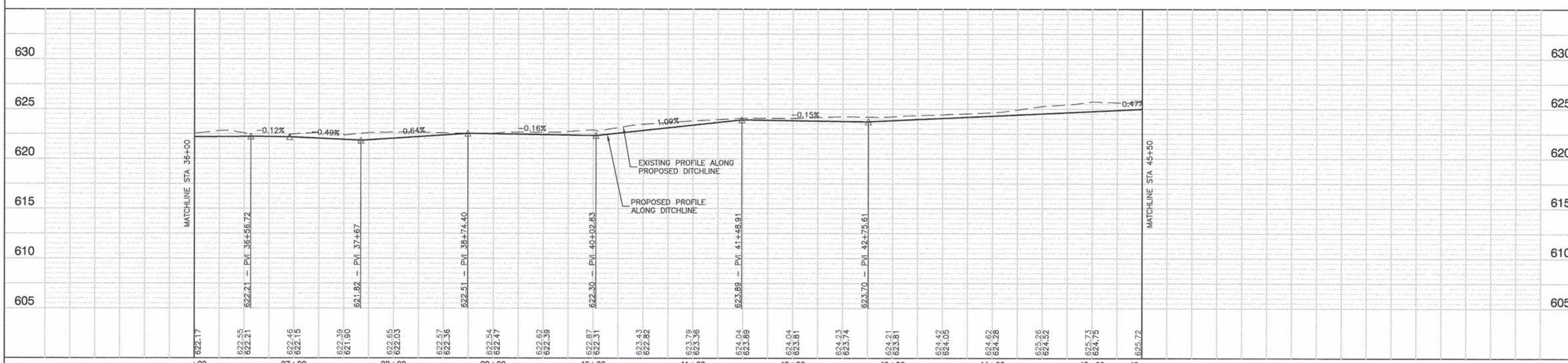


PROPOSED IMPROVEMENTS



FILE NAME = 12602_02-PLPR-01 - IDOT UTIL04

USER NAME =	DESIGNED — JPH	REVISED —
	CHECKED — PKB	REVISED —
PLOT SCALE =	DRAWN — RG	REVISED —
PLOT DATE = 8-31-15	CHECKED — AG	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
DRAINAGE & UTILITIES

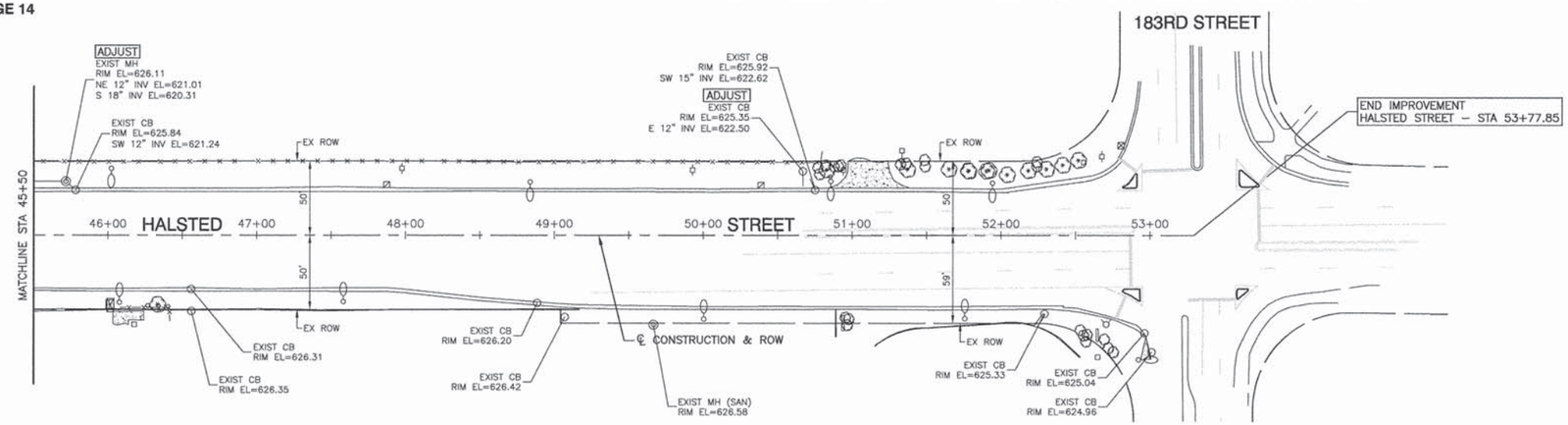
SCALE: H 1"=50' V 1"=5' | SHEET NO. 17 OF 61 SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	17

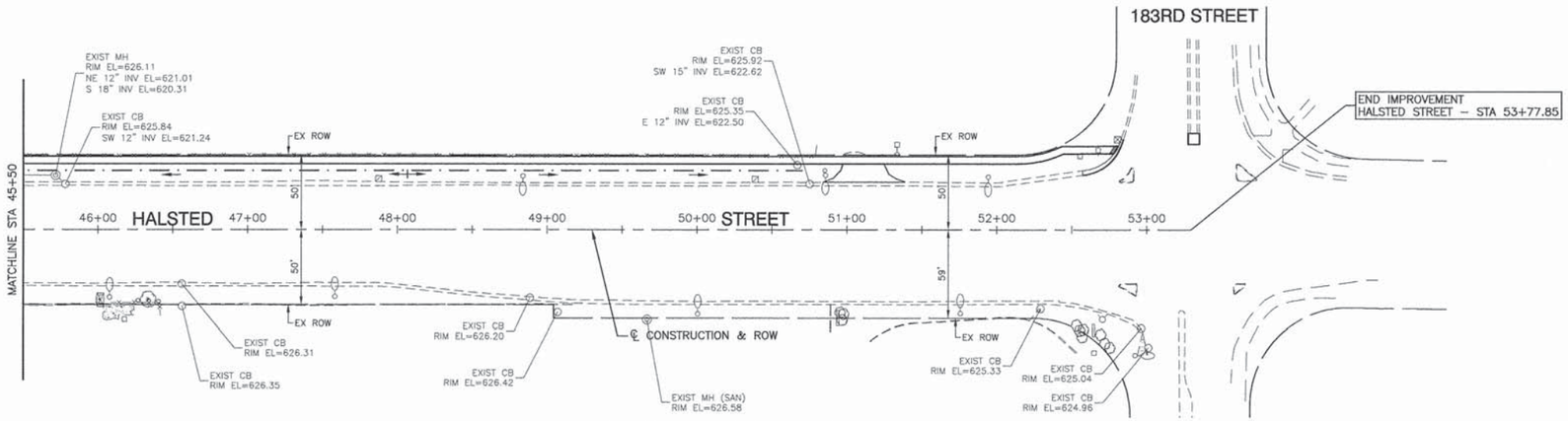
CONTRACT NO. 61B77

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT M-4003(121)

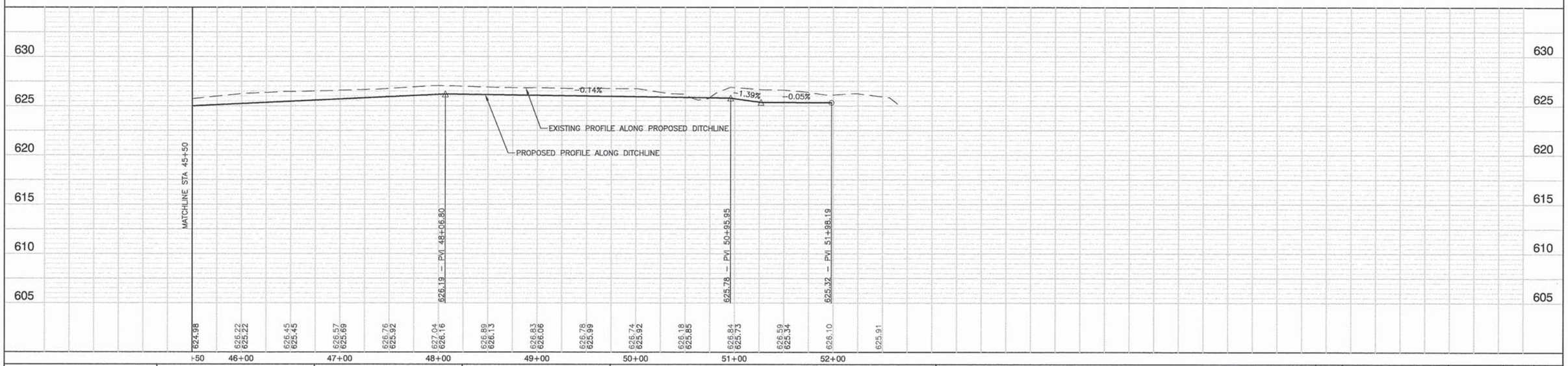
SECTION 4, TOWNSHIP 35, RANGE 14



EXISTING CONDITIONS



PROPOSED IMPROVEMENTS



PLAN
NOTE BOOK
NO.
SURVEYED
PLOTTED
ALIGNMENT CHECKED
BY
DATE
PLOTTED BY
CADD FILE NAME

PROFILE
NOTE BOOK
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
BY
DATE

FILE NAME = 12602_02-PLPR-01 - IDOT UTIL05	USER NAME =	DESIGNED — JPH	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — RG	REVISED —
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —

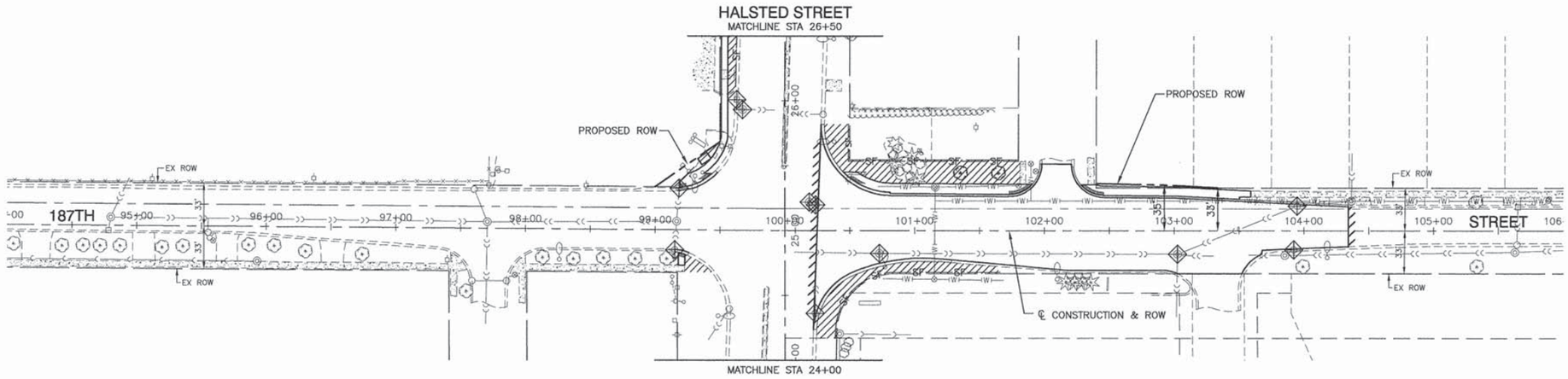
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

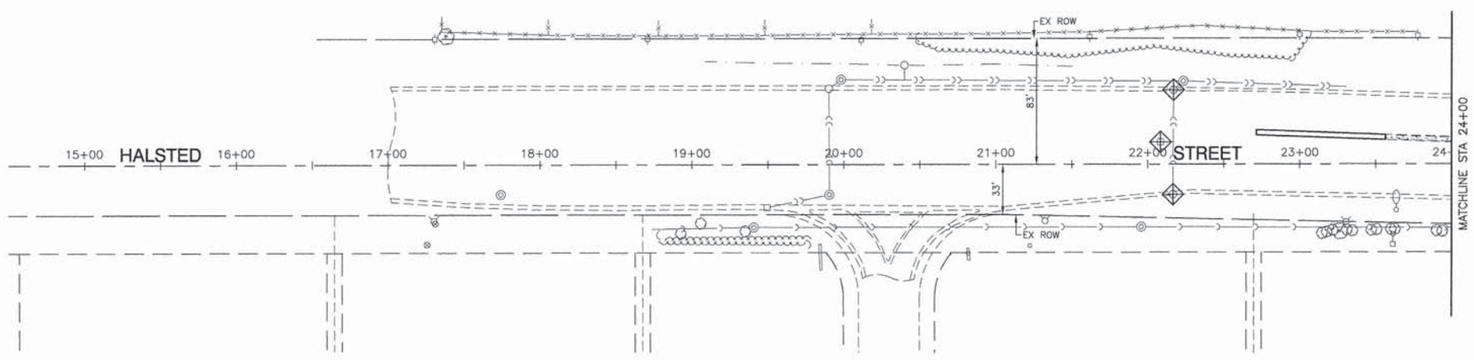
INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
DRAINAGE & UTILITIES

SCALE: H 1"=50' V 1"=5' | SHEET NO. 18 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	18
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

SECTION 4, TOWNSHIP 35, RANGE 14





N

LEGEND

—SF— PERIMETER EROSION BARRIER

INLET FILTER

PROPOSED TREE

SEEDING, CLASS 2A
TOPSOIL FURNISH AND PLACE, 4"

FILE NAME = 12602_02-PLPR-01 - EROS01	USER NAME =	DESIGNED — JPH	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — RG	REVISED —
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —

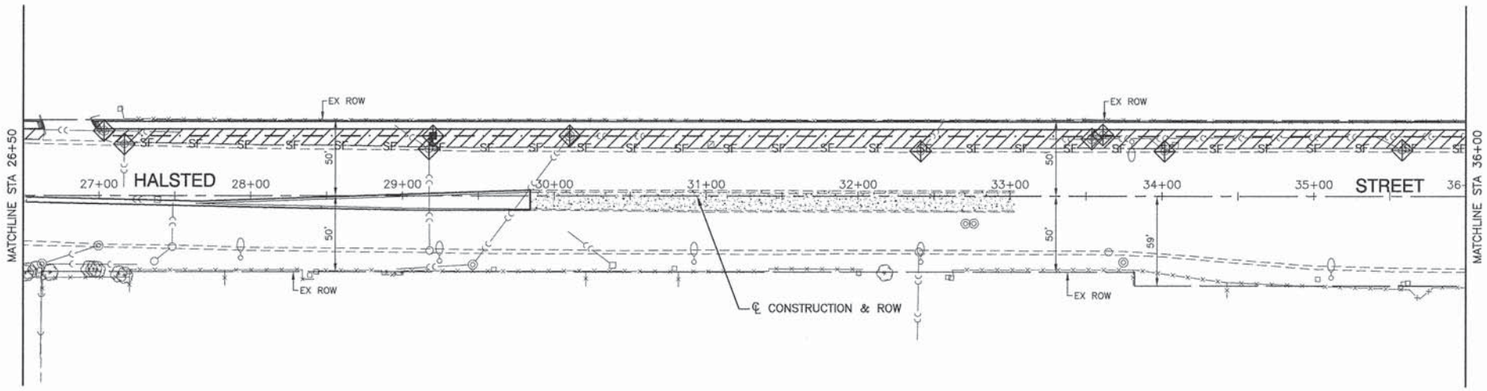
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

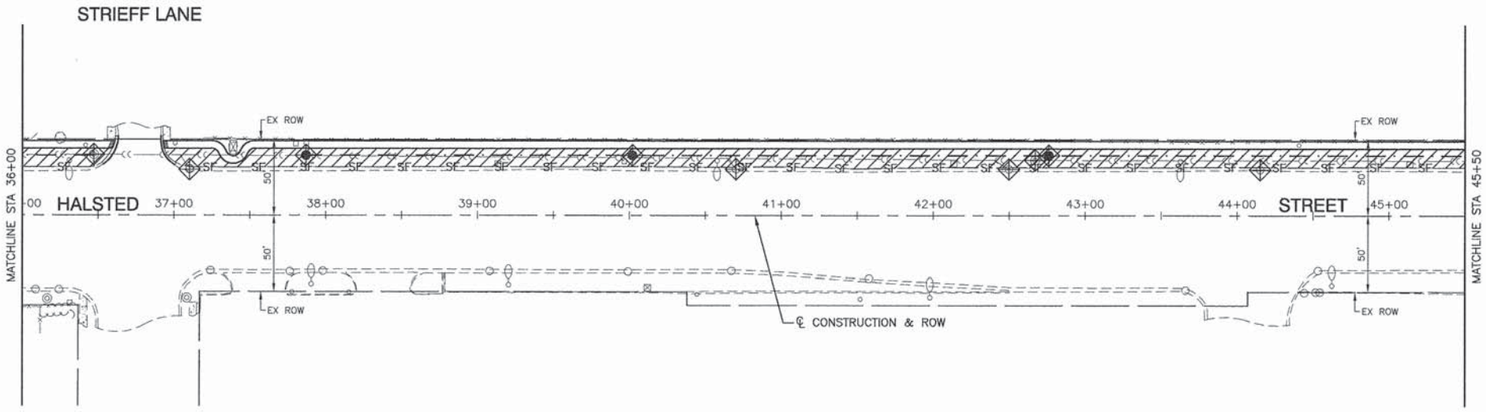
INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
LANDSCAPING & EROSION CONTROL

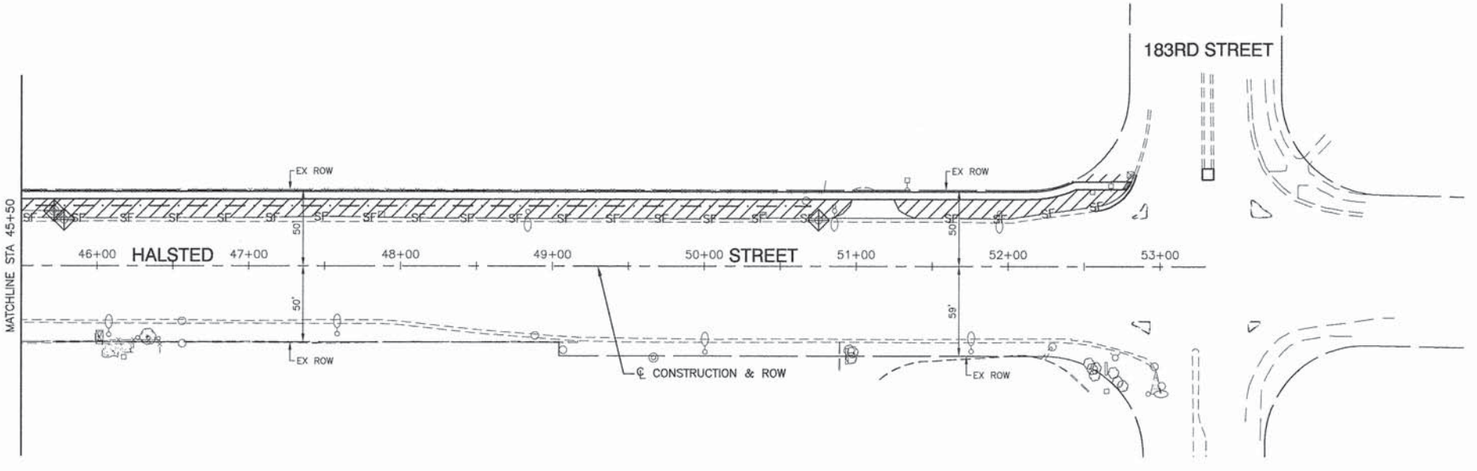
SCALE: 1"=50' | SHEET NO. 19 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	19
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

SECTION 4, TOWNSHIP 35, RANGE 14







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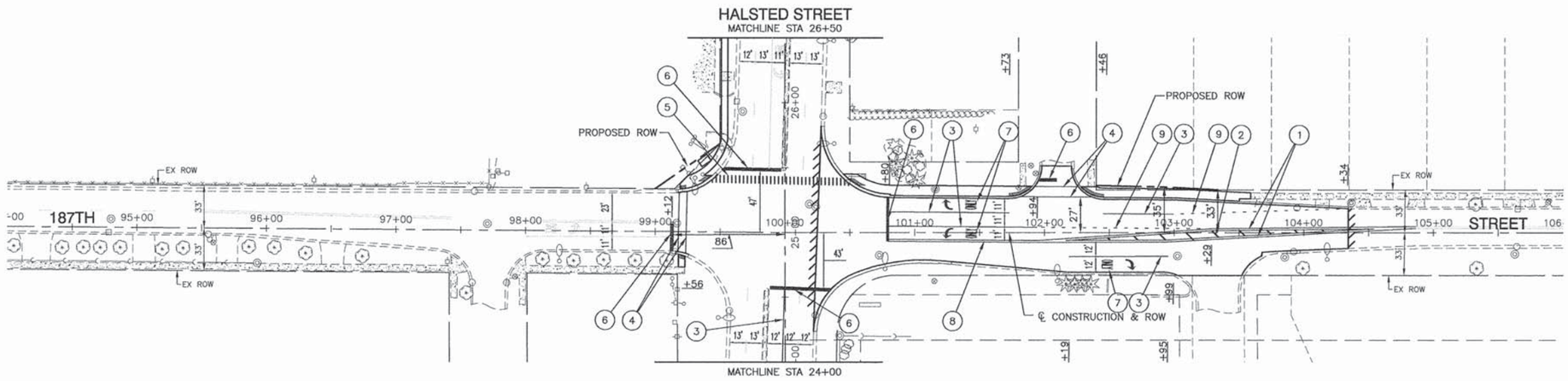
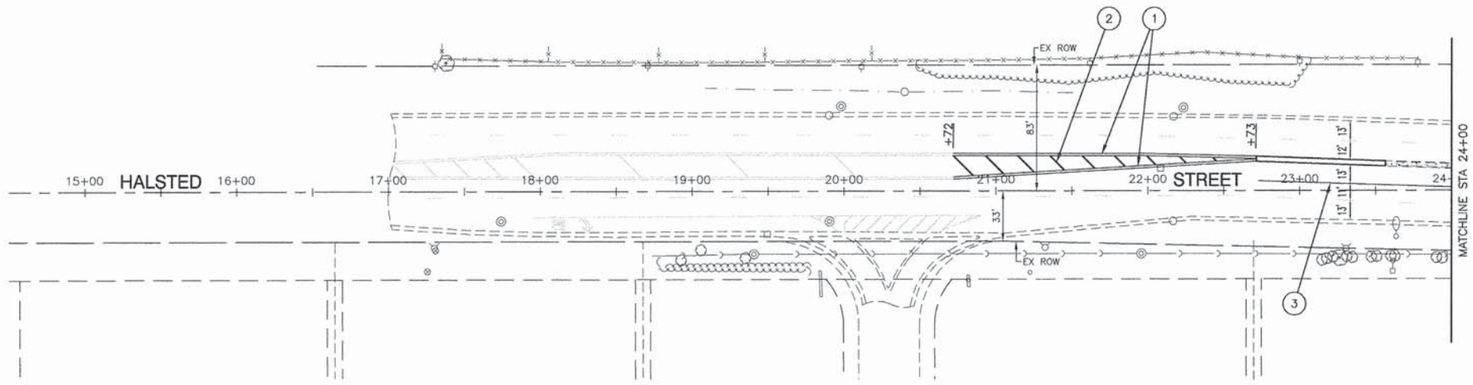
LEGEND

—SF—	PERIMETER EROSION BARRIER
	INLET FILTER
	PROPOSED TREE
	SEEDING, CLASS 2A TOPSOIL FURNISH AND PLACE, 4"

FILE NAME = 12602_02-PLPR-01 - EROS02	USER NAME =	DESIGNED — JPH	REVISED —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERSECTION IMPROVEMENTS HALSTED STREET AND 187TH STREET LANDSCAPING & EROSION CONTROL			F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED — PKB	REVISED —					876	12-00055-00-CH	COOK	61	20
	PLOT SCALE =	DRAWN — RG	REVISED —							CONTRACT NO. 61B77		
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —		SCALE: 1"=50'	SHEET NO. 20 OF 61 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

SECTION 4, TOWNSHIP 35, RANGE 14





N

N

PAVEMENT MARKING LEGEND

1. DOUBLE YELLOW MEDIAN OUTLINE (11" C/C)
2. 12" YELLOW DIAGONAL LINE (15' C/C)
3. 6" WHITE LANE LINE
4. 6" WHITE CROSSWALK LINE (6' C/C)
5. 12" WHITE CROSSWALK LINE (3' C/C)
6. 24" WHITE STOP BAR
7. WHITE LETTERS & SYMBOLS
8. DOUBLE 4" YELLOW CENTERLINE (11" C/C)
9. 6" WHITE SKIP–DASH LINE (2' LINE – 6' SPACE/BLANK)

NOTE: ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC

FILE NAME = 12602_02-PLPR-01 - PVMK01	USER NAME =	DESIGNED — JPH	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — RG	REVISED —
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —

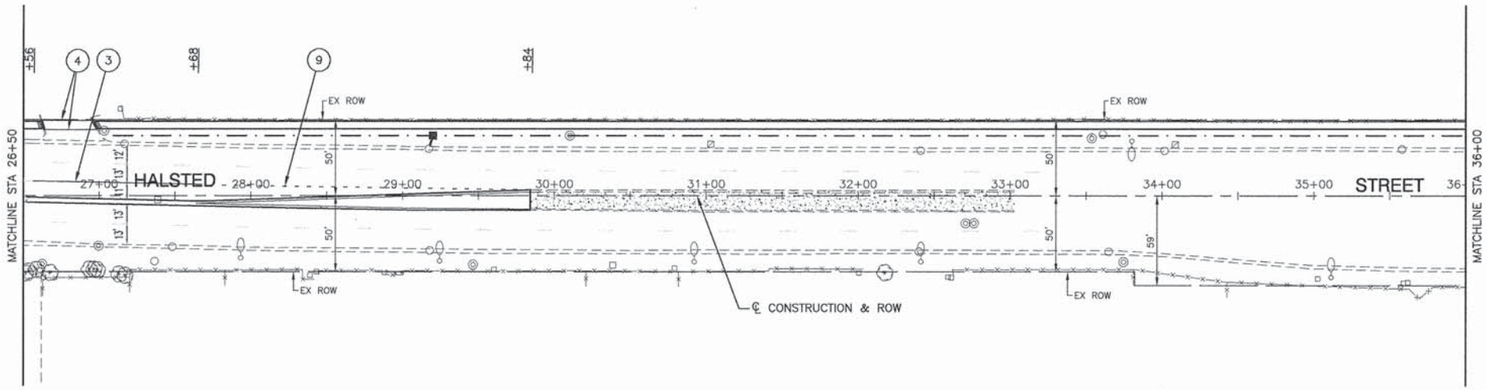
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

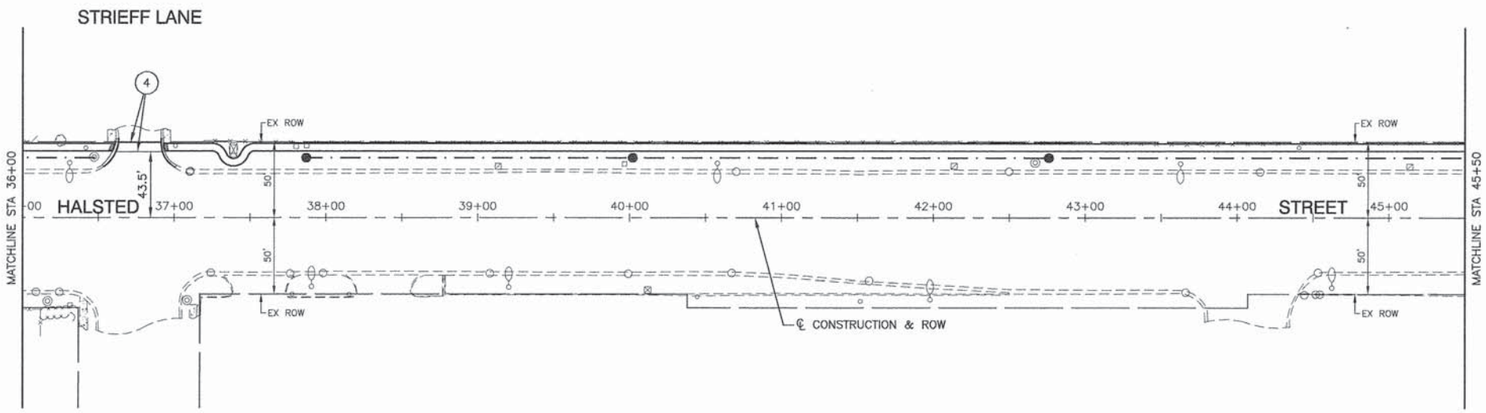
INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
PAVEMENT MARKING & SIGNING

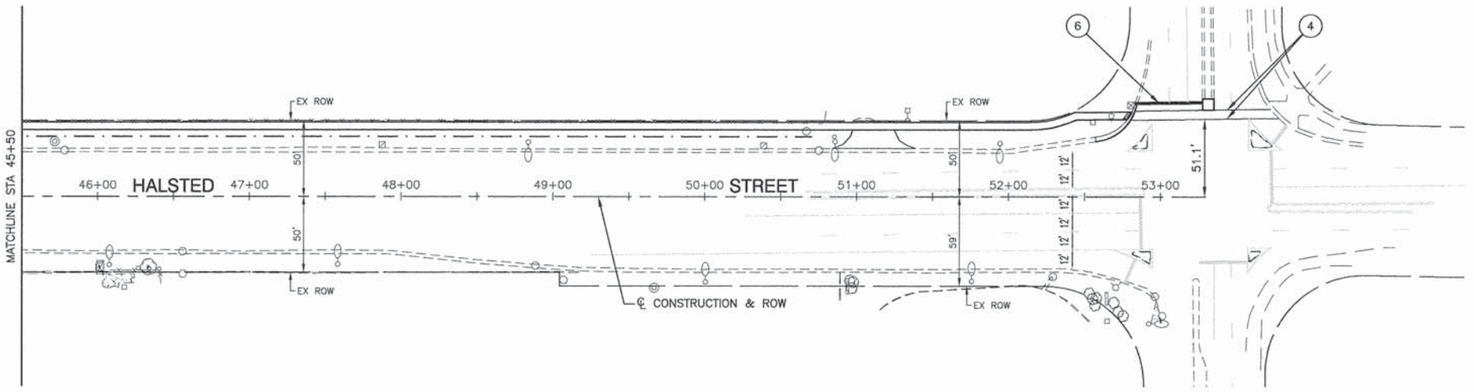
SCALE: 1"=50' | SHEET NO. 21 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	21
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

SECTION 4, TOWNSHIP 35, RANGE 14







N

PAVEMENT MARKING LEGEND

1. DOUBLE YELLOW MEDIAN OUTLINE (11" C/C)
2. 12" YELLOW DIAGONAL LINE (15' C/C)
3. 6" WHITE LANE LINE
4. 6" WHITE CROSSWALK LINE (6' C/C)
5. 12" WHITE CROSSWALK LINE (3' C/C)
6. 24" WHITE STOP BAR
7. WHITE LETTERS & SYMBOLS
8. DOUBLE 4" YELLOW CENTERLINE (11" C/C)
9. 6" WHITE SKIP–DASH LINE (2' LINE – 6' SPACE/BLANK)

NOTE: ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC

FILE NAME = 12602_02-PLPR-01 - PVMK02	USER NAME =	DESIGNED — JPH	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — RG	REVISED —
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
PAVEMENT MARKING & SIGNING

SCALE: 1"=50' | SHEET NO. 22 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	22
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET	R		
RAILROAD CONTROL CABINET		RR	RR
COMMUNICATIONS CABINET	R CC	ECC	CC
MASTER CONTROLLER		EMC	MC
MASTER MASTER CONTROLLER		EMMC	MMC
UNINTERRUPTABLE POWER SUPPLY	R UPS	EUPS	UPS
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	R	P	P
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT	R T	P T	P T
STEEL MAST ARM ASSEMBLY AND POLE	R		
ALUMINUM MAST ARM ASSEMBLY AND POLE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA	R PTZ	PTZ	PTZ
SIGNAL POST	R		
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM	R		
GUY WIRE	R		
SIGNAL HEAD	R		
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)			2
SIGNAL HEAD WITH BACKPLATE	R		
SIGNAL HEAD OPTICALLY PROGRAMMED	R "P"	"P"	"P"
FLASHER INSTALLATION (S DENOTES SOLAR POWER)	R "F"	"F"	"F"
PEDESTRIAN SIGNAL HEAD	R		
PEDESTRIAN PUSHBUTTON DETECTOR	R		
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR	R APS	APS	APS
ILLUMINATED SIGN "NO LEFT TURN"	R		
ILLUMINATED SIGN "NO RIGHT TURN"	R		
DETECTOR LOOP, TYPE I			
PREFORMED DETECTOR LOOP		P	P
MICROWAVE VEHICLE SENSOR	R M	M	M
VIDEO DETECTION CAMERA	R V	V	V
VIDEO DETECTION ZONE			
PAN, TILT, ZOOM CAMERA	R PTZ	PTZ	PTZ
WIRELESS DETECTOR SENSOR	R W	W	W
WIRELESS ACCESS POINT	R		

ITEM	REMOVAL	EXISTING	PROPOSED
EMERGENCY VEHICLE LIGHT DETECTOR	R		
CONFIRMATION BEACON	R		
HANDHOLE	R		
HEAVY DUTY HANDHOLE	R H	H	H
DOUBLE HANDHOLE	R		
JUNCTION BOX	R		
UNDERGROUND CONDUIT, GALVANIZED STEEL (UC)			
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE	R		
COMMON TRENCH			CT
COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC
SYSTEM ITEM		S	S
INTERSECTION ITEM		I	IP
REMOVE ITEM	R		
RELOCATE ITEM	RL		
ABANDON ITEM	A		
12" (300mm) TRAFFIC SIGNAL SECTION		R	R
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		R Y G	
SIGNAL FACE		R Y G ◄Y ◄G	R Y G ◄Y ◄G
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD "RB" INDICATES REFLECTIVE BACKPLATE		R Y G ◄Y ◄G "P"	R Y G ◄Y ◄G "P"
12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL		DW W	
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED			
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID			
PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER		C D	C D
RADIO INTERCONNECT	R		
RADIO REPEATER	R ERR	ERR	RR
DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED		5	5
GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)		1	1

ITEM	REMOVAL	EXISTING	PROPOSED
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE		1	1
COAXIAL CABLE		C	C
VENDOR CABLE FOR CAMERA		V	V
COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED		6	6
FIBER OPTIC CABLE NO. 62.5/125, MM12F		12F	
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F		24F	24F
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM24F		36F	36F
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE		C	C
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED	RCF		
STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED	RMF		
SIGNAL POST AND FOUNDATION TO BE REMOVED	RPF		
INTERSECTION & SAMPLING (SYSTEM) DETECTOR		IS	IS
SAMPLING (SYSTEM) DETECTOR		S	S
QUEUE DETECTOR		Q	Q
PREFORMED QUEUE DETECTOR		PQ	PQ
PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PIS	PIS
PREFORMED SAMPLING (SYSTEM) DETECTOR		PS	PS

RAILROAD SYMBOLS

	EXISTING	PROPOSED
RAILROAD CONTROL CABINET	RR	RR
RAILROAD CANTILEVER MAST ARM		
FLASHING SIGNAL		
CROSSING GATE		
CROSSBUCK		

FILE NAME = 12602_02-DTLS-TS05 - P01	USER NAME = footemj	DESIGNED — DAG/BCK	REVISED — DAG 1-1-14	
		CHECKED — BCK	REVISED —	
	PLOT SCALE = 50.0000 ' / in.	DRAWN — DAD	REVISED —	
	PLOT DATE = 1/13/2014	CHECKED — 10-28-09	REVISED —	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 23 OF 61 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	23
	TS-05	CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.

2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.

3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.

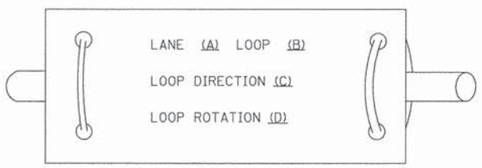
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.

6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.

7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

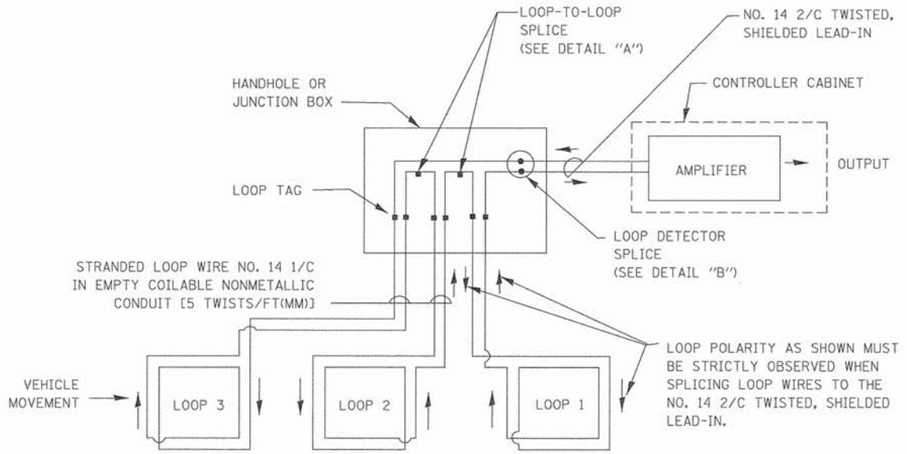


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

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

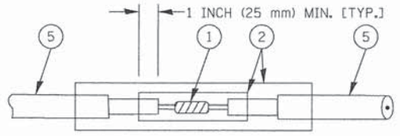
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

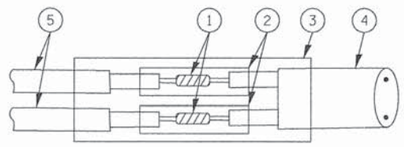


DETECTOR LOOP WIRING SCHEMATIC

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

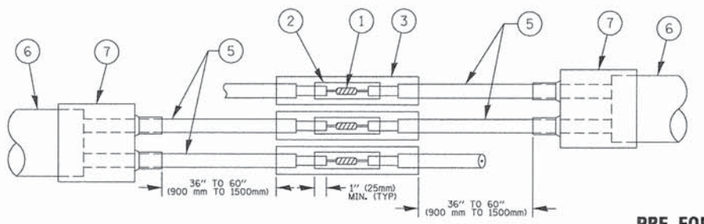


DETAIL "A"
LOOP-TO-LOOP SPLICE



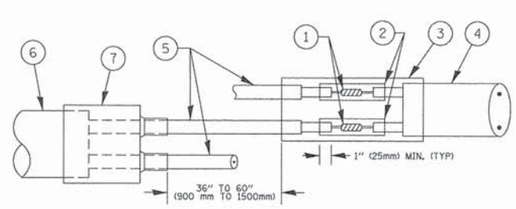
DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE

PRE-FORMED LOOP



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. THE WESTERN UNION SPLICES SHALL BE STAGGERED.

(2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.

(3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.

(4) NO. 14 2/C TWISTED, SHIELDED CABLE.

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

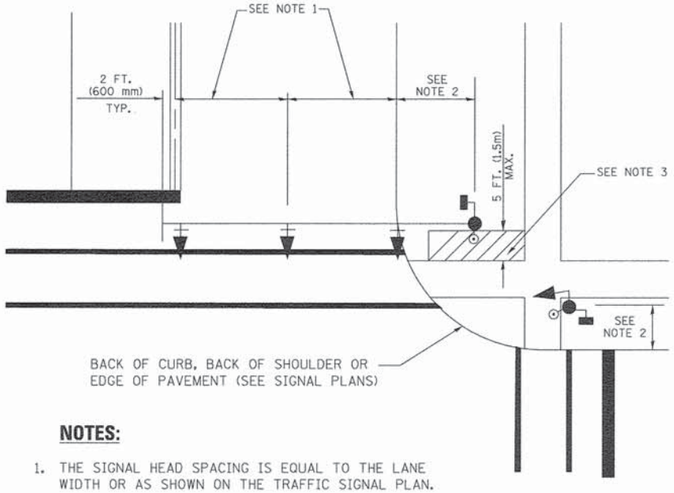
(6) PRE-FORMED LOOP

(7) XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

FILE NAME = 12602_02-DTLS-TS05 - P02	USER NAME = footemj	DESIGNED — DAD	REVISED — DAG 1-1-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS			F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED — BCK	REVISED —					876	12-00055-00-CH	COOK	61	24
	PLOT SCALE = 50.0000 ' / in.	DRAWN — DAD	REVISED —						TS-05	CONTRACT NO. 61B77		
	PLOT DATE = 1/13/2014	CHECKED — 10-28-09	REVISED —		SCALE: NONE	SHEET NO. 24 OF 61 SHEETS	STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS	FED. AID PROJECT M-4003(121)		

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

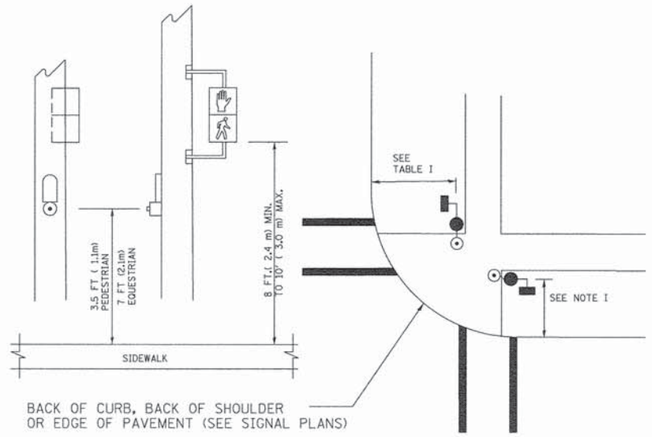
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



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."

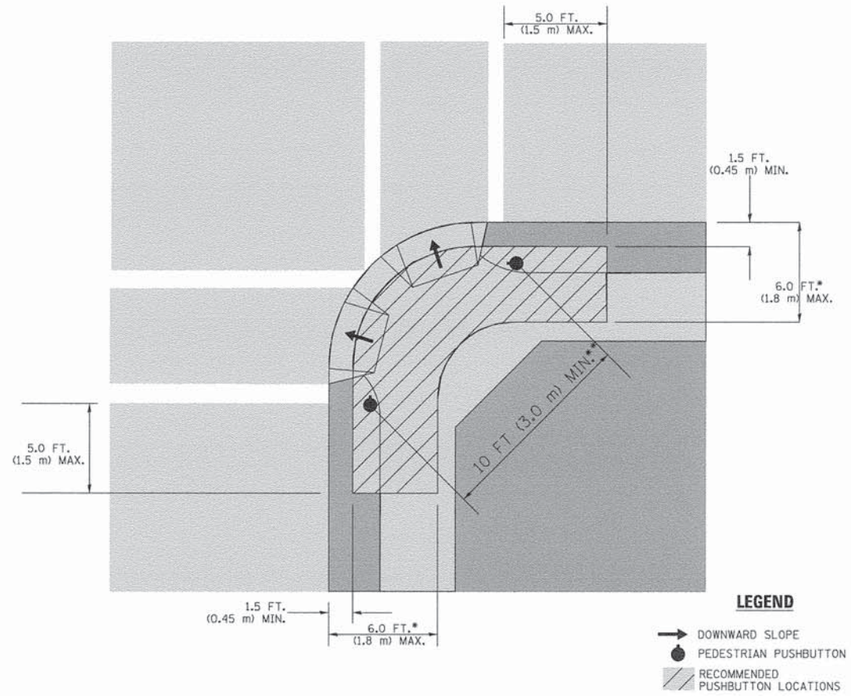
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



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:

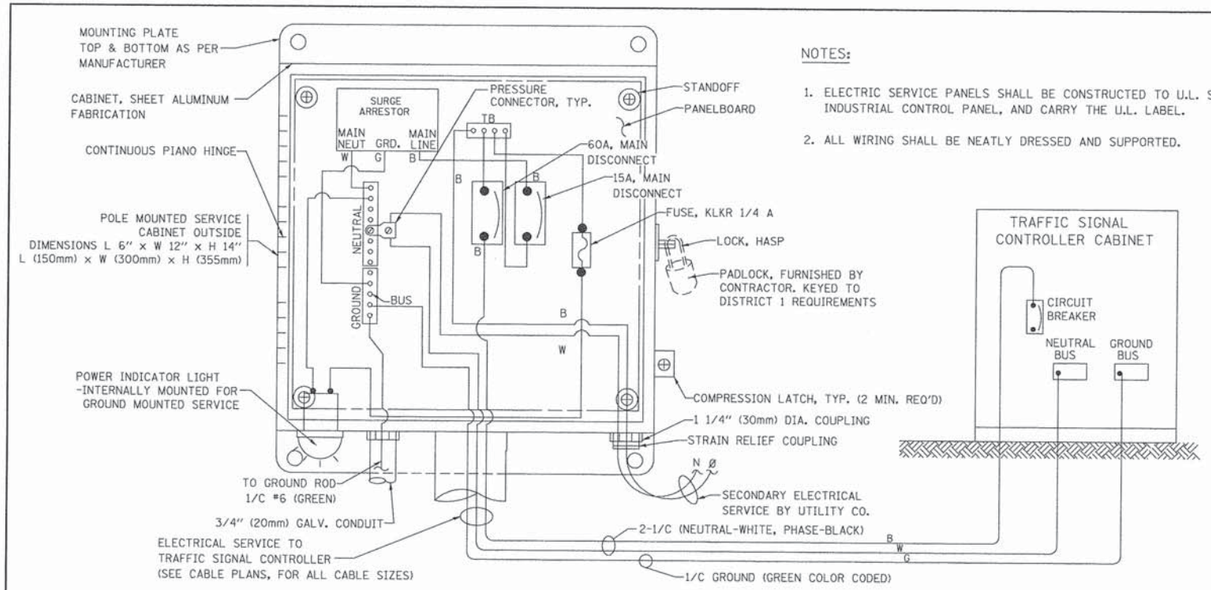
1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TOTHE 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 = 12602_02-DTLS-TS05 - P03	USER NAME = footemj	DESIGNED — DAD	REVISED — DAG 1-1-14
		CHECKED — BCK	REVISED —
	PLOT SCALE = 50.2000 ' / in.	DRAWN — DAD	REVISED —
	PLOT DATE = 1/13/2014	CHECKED — 10-28-09	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS
SCALE: NONE | SHEET NO. 25 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	25
	TS-05	CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

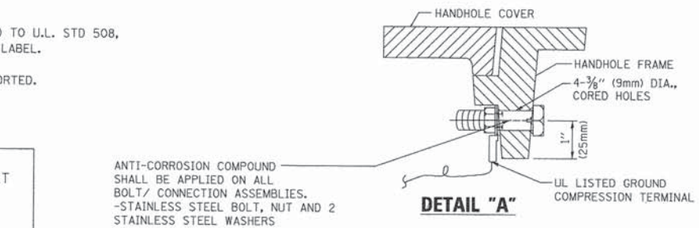


NOTES:

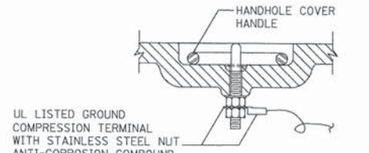
1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

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

(NOT TO SCALE)



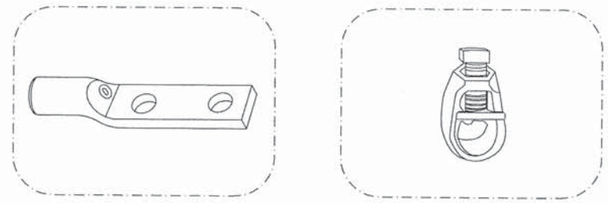
DETAIL "A"



DETAIL "B"

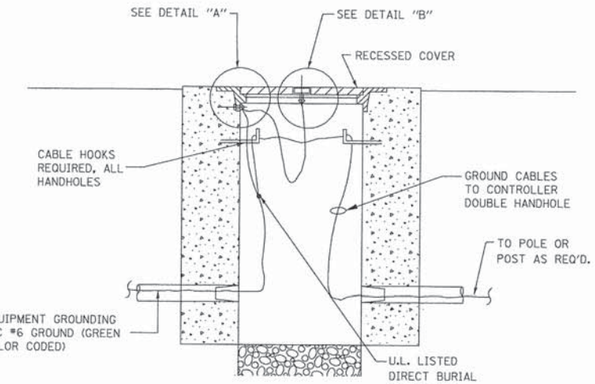
NOTES:
GROUNDING SYSTEM

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.



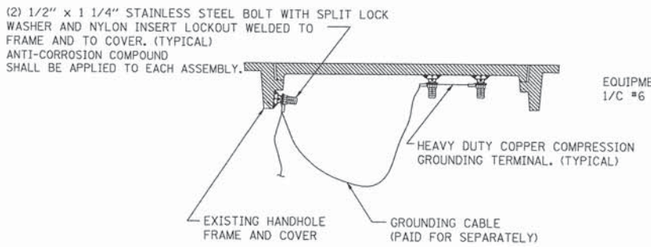
NOTES:

- 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.



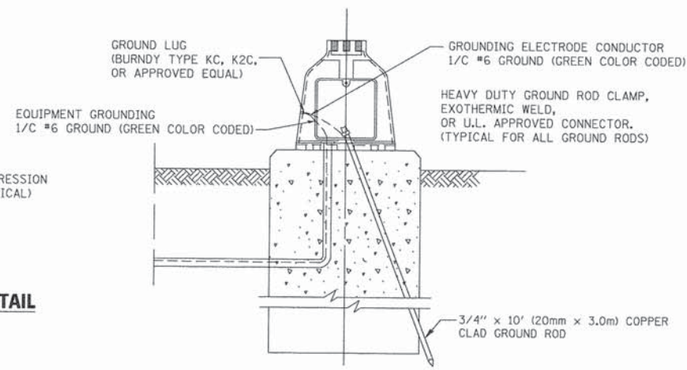
HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



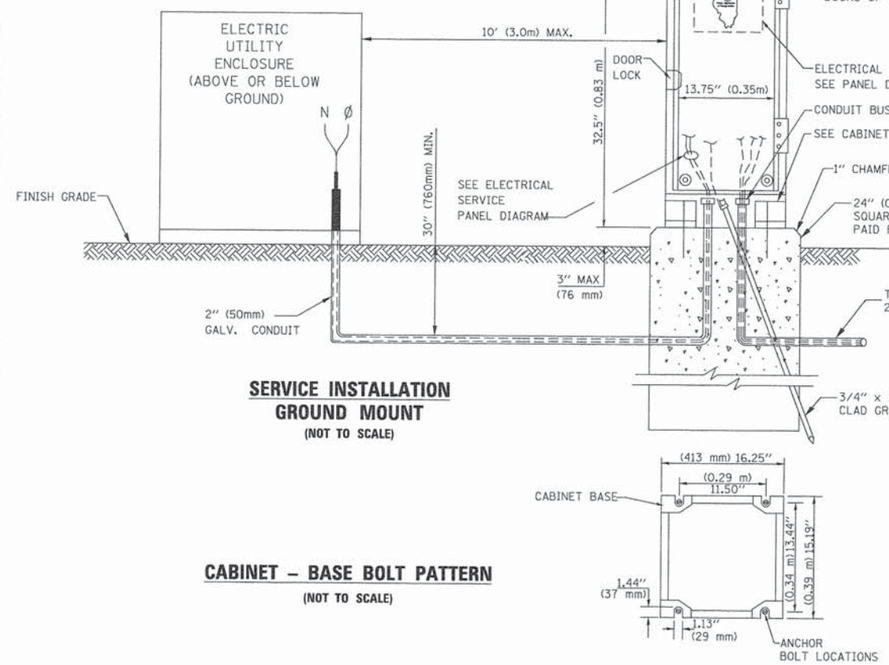
EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



MAST ARM POLE / POST–GROUNDING DETAIL

(NOT TO SCALE)



SERVICE INSTALLATION GROUND MOUNT

(NOT TO SCALE)

CABINET – BASE BOLT PATTERN

(NOT TO SCALE)

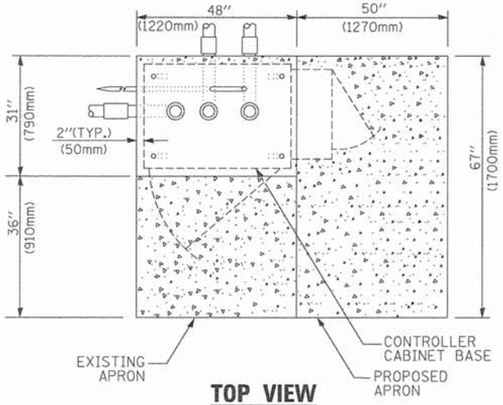
FILE NAME = 12602_02-DTLS-TS05 - P04	USER NAME = footemj	DESIGNED — DAD	REVISED — DAG 1-1-14
		CHECKED — BCK	REVISED —
	PLOT SCALE = 50.0000 ' / in.	DRAWN — DAD	REVISED —
	PLOT DATE = 1/13/2014	CHECKED — 10-28-09	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

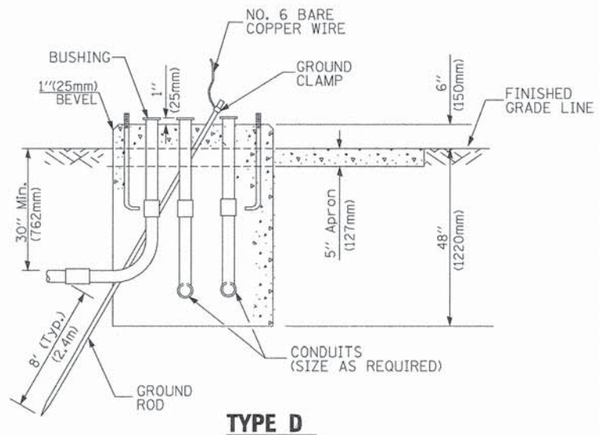
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 26 OF 61 SHEETS | STA. | TO STA.

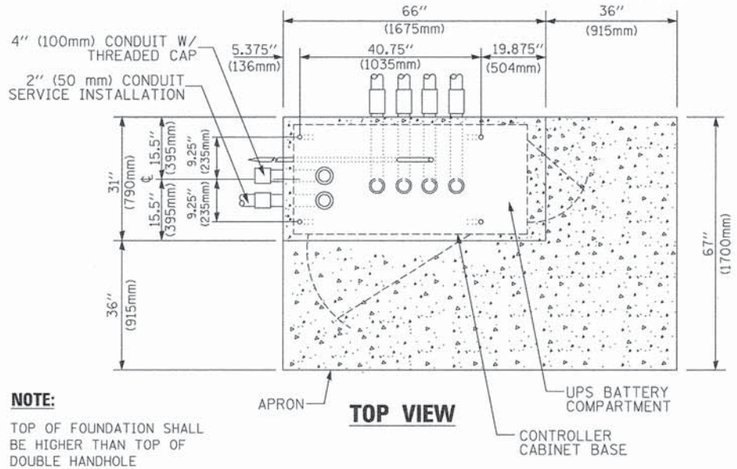
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	26
	TS-05	CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		



TOP VIEW



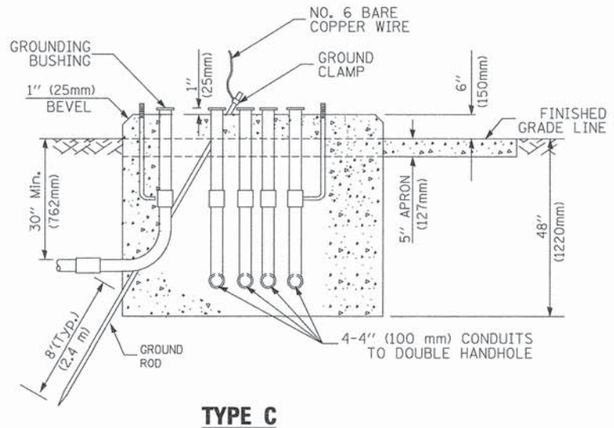
TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



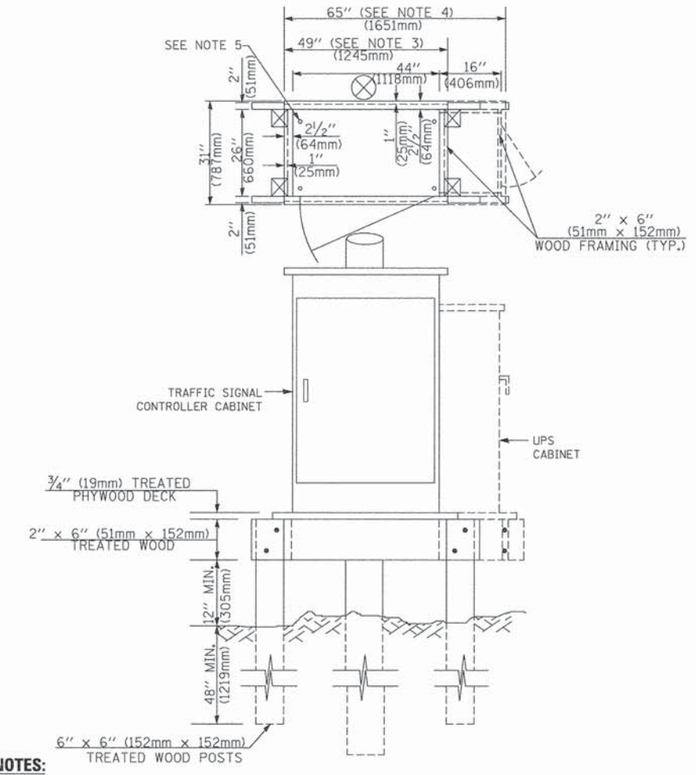
NOTE:

TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE

TOP VIEW



TYPE C
FOR GROUND MOUNTED
SUPER P (TYPE IV) AND SUPER R (TYPE V)
CONTROLLER CABINETS



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

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	① 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)
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)
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

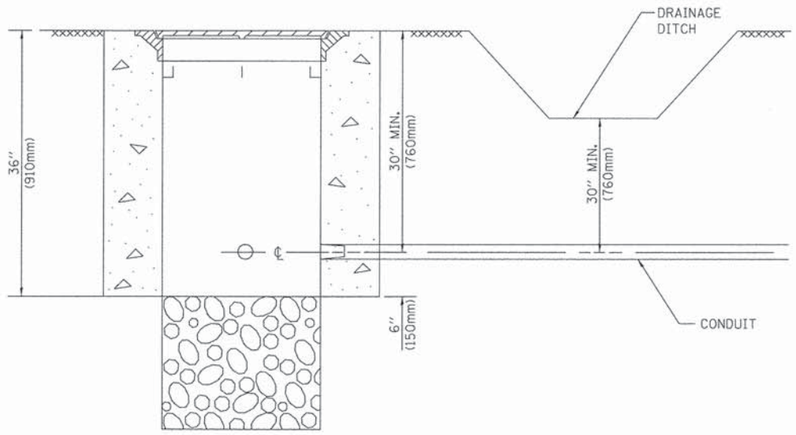
FILE NAME = 12602_02-DTLS-TS05 - P05	USER NAME = footemj	DESIGNED — DAG	REVISED — DAG 1-1-14
		CHECKED — BCK	REVISED —
	PLOT SCALE = 50.0000 '/ in.	DRAWN — DAD	REVISED —
	PLOT DATE = 1/13/2014	CHECKED — 10-28-09	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 27 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	27
	TS-05	CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

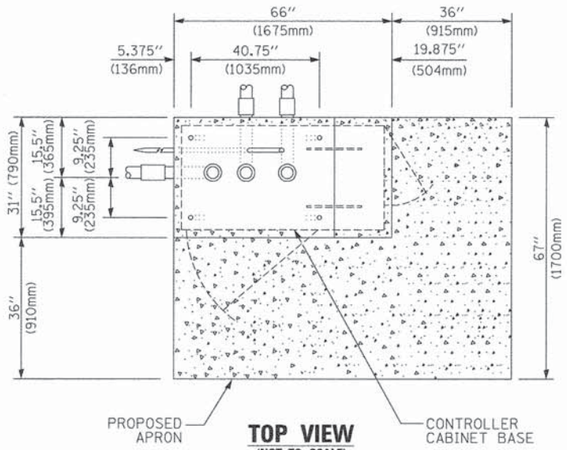


NOTES:

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

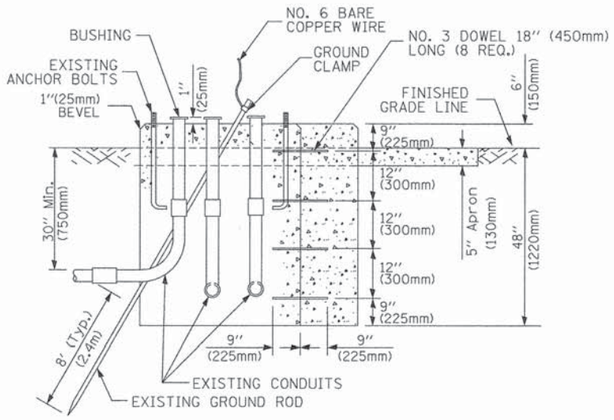
HANDHOLE WITH MINIMUM CONDUIT DEPTH

(NOT TO SCALE)



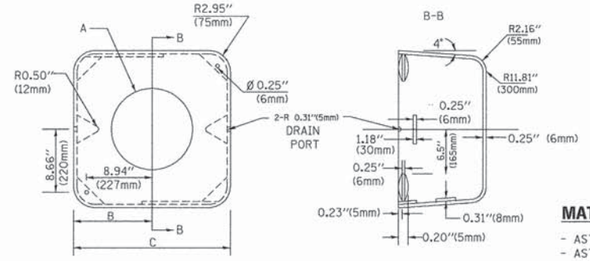
TOP VIEW

(NOT TO SCALE)



MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION

(NOT TO SCALE)



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)

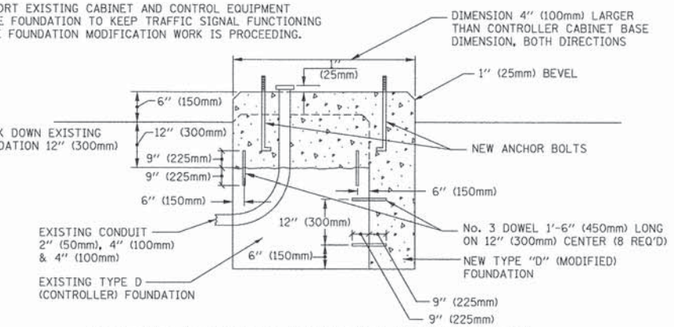
SHROUD

NOTES:

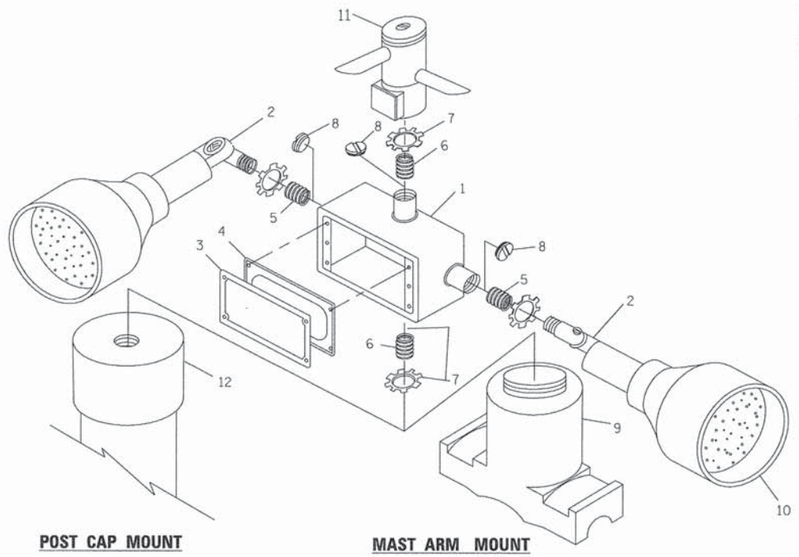
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE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



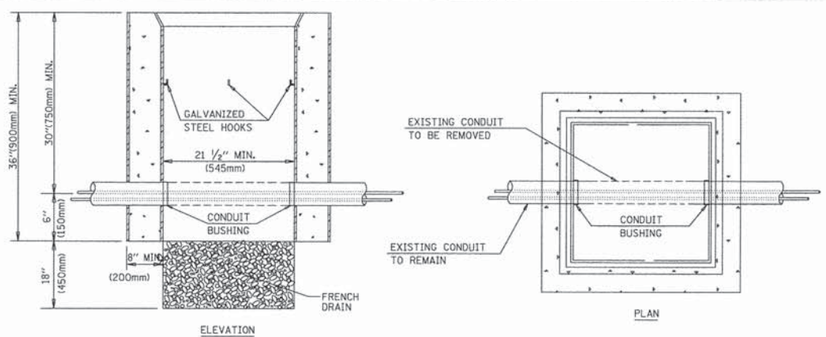
POST CAP MOUNT **MAST ARM MOUNT**

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 INCLUDED WITH THE COST OF THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

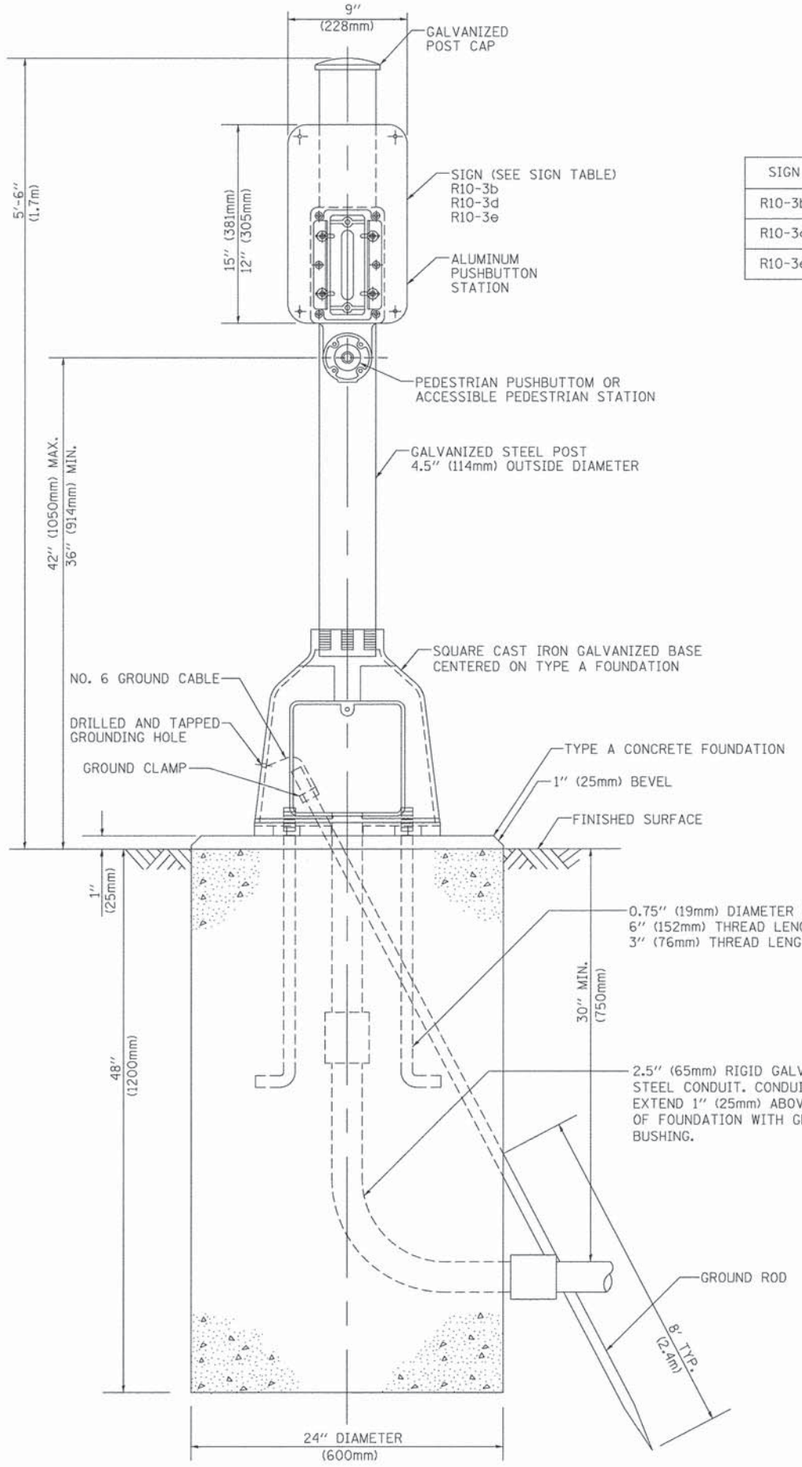
FILE NAME = 12602_02-DTLS-TS05 - P06	USER NAME = footemj	DESIGNED — DAD	REVISED — DAG 1-1-14
		CHECKED — BCK	REVISED —
	PLOT SCALE = 50.0000 ' / in.	DRAWN — DAD	REVISED —
	PLOT DATE = 1/13/2014	CHECKED — 10-28-09	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

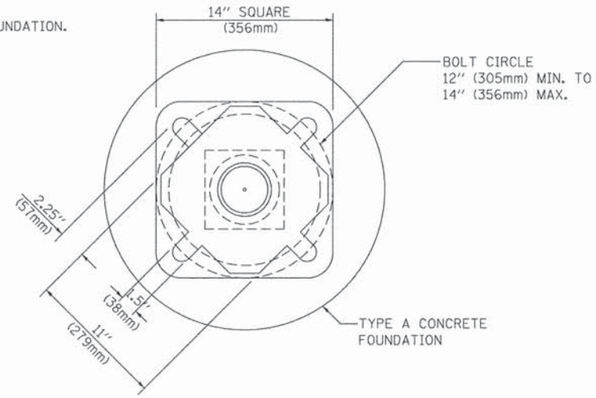
SCALE: NONE | SHEET NO. 28 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	28
	TS-05	CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		



SIGN TABLE

SIGN	DIMENSIONS
R10-3b	9″ (228mm) X 12″ (305mm)
R10-3d	9″ (228mm) X 12″ (305mm)
R10-3e	9″ (228mm) X 15″ (381mm)

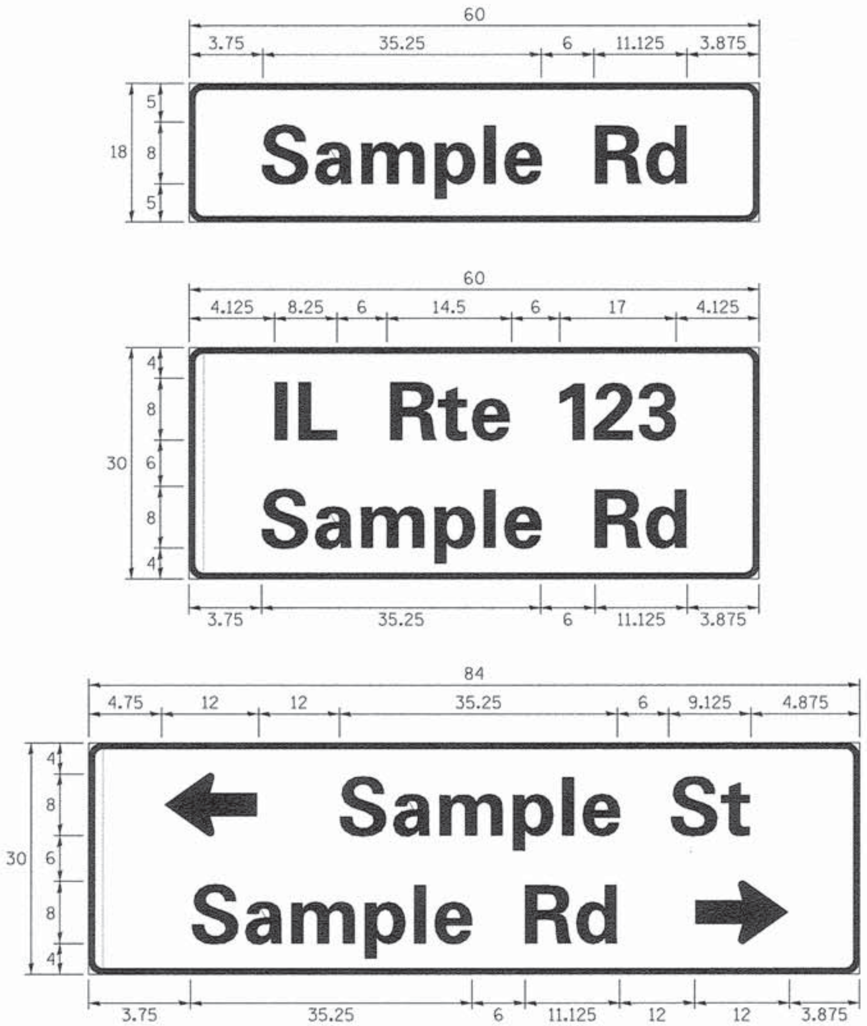


BOLT PATTERN

PEDESTRIAN PUSH BUTTON POST, TYPE A

FILE NAME = 12602_02-DTLS-TS05 - P07	USER NAME = footemj	DESIGNED — DAG	REVISED — DAG 1-1-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS			F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED — GND	REVISED —					876	12-00055-00-CH	COOK	61	29
	PLOT SCALE = 50.0000 ' / in.	DRAWN — DAD	REVISED —						TS-05	CONTRACT NO. 61B77		
	PLOT DATE = 1/13/2014	CHECKED — 10/1/2012	REVISED —		SCALE: NONE	SHEET NO. 29 OF 61 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

SIGN PANEL – TYPE 1 OR TYPE 2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D OR C	-	1 OR 2	ZZ	-

COMMON STREET NAME ABBREVIATIONS AND WIDTHS

NAME	ABBREVATION	WIDTH (INCH)	
		SERIES "C"	SERIES "D"
AVENUE	Ave	15.000	18.250
BOULEVARD	Blvd	17.125	20.000
CIRCLE	Cir	11.125	13.000
COURT	Ct	8.250	9.625
DRIVE	Dr	8.625	10.125
HIGHWAY	Hwy	18.375	22.000
ILLINOIS	IL	7.000	8.250
LANE	Ln	9.125	10.750
PARKWAY	Pkwy	23.375	27.375
PLACE	Pl	7.125	7.750
ROAD	Rd	9.625	11.125
ROUTE	Rte	12.625	14.500
STREET	St	8.000	9.125
TERRACE	Ter	12.625	14.625
TRAIL	Tr	7.750	9.125
UNITED STATES	US	10.375	12.250

GENERAL NOTES

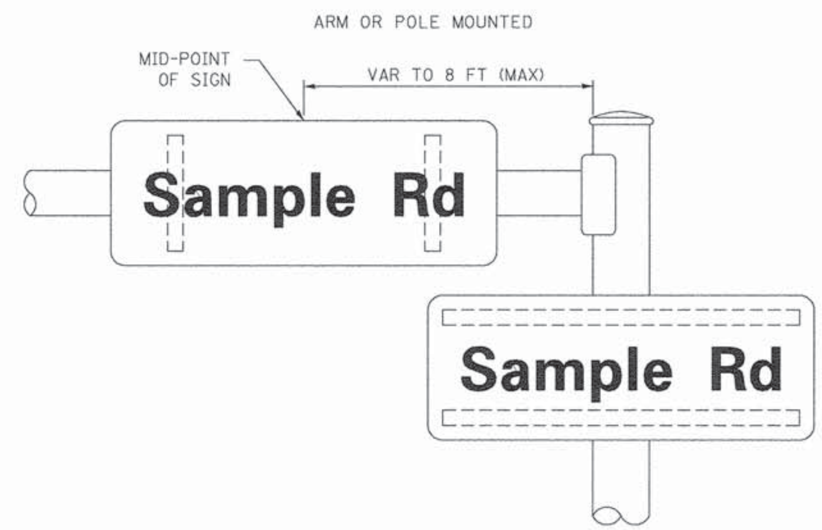
1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
2. ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ SHEETING)
3. THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-0". ALL BORDERS SHALL BE 3/4" WIDE. CORNER RADIUS SHALL BE 1-7/8". THE SPACING BETWEEN THE WORDS SHOULD BE 6", IF POSSIBLE, BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
4. A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18" IN HEIGHT AND A MAXIMUX OF 8'-0" IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8"-0" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-0" SIGN, A 30" HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THERE IS SPACE AVAILABLE.
5. LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLOGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
6. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

LOCAL SUPPLIERS:	PARTS LISTING:	
- J.O. HERBERT COMPANY, INC MIDLOTHIAN, VA	SIGN CHANNEL	PART #HPN053 (MED. CHANNEL)
	SIGN SCREWS	1/4" x 14 x 1" H.W.H. #3 SELF TAPPING WITH NEOPRENE WASHER
- WESTERN REMAC, INC. WOODRIDGE, IL	BRACKETS	PART #HPN034 (UNIVERSAL) CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

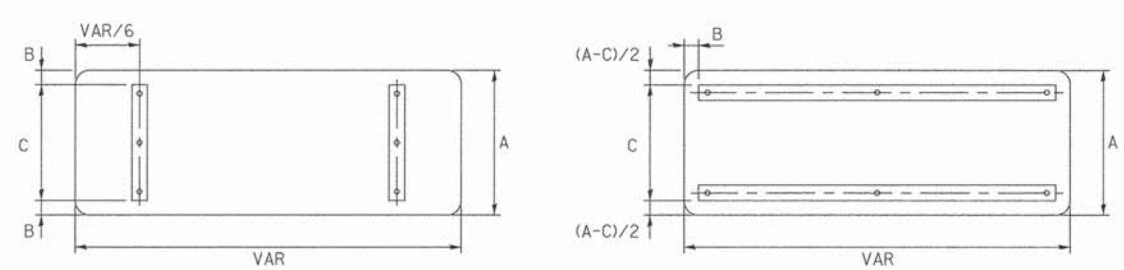
OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

MOUNTING LOCATION

ARM OR POLE MOUNTED



SUPPORTING CHANNELS



A	B	C
18"	2"	14"
30"	2"	24"

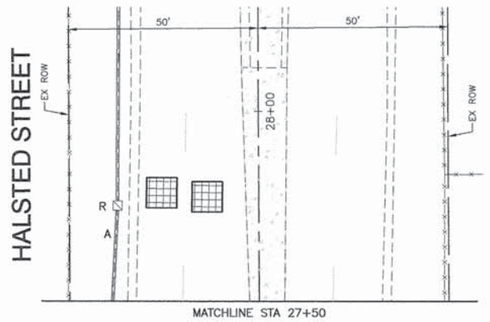
A	B	C
18"	2"	12"
30"	2"	22"

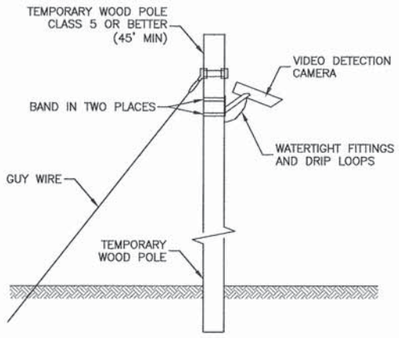
STANDARD ALPHABETS SPACING CHART

(8") UPPER CASE AND (6") LOWER CASE

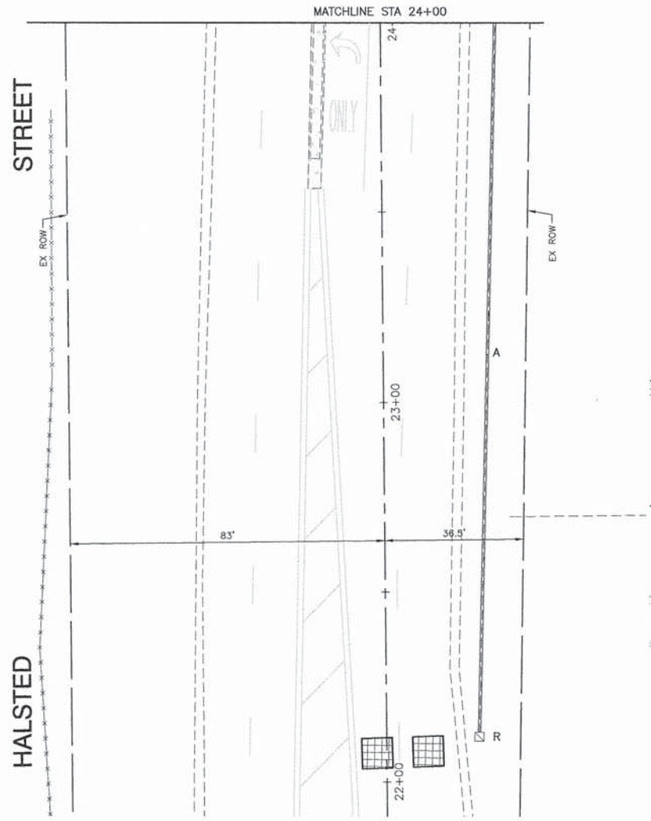
FHWA SERIES "C"				FHWA SERIES "D"			
CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)	CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)
A	0.240	5.122	0.240	A	0.240	6.804	0.240
B	0.880	4.482	0.480	B	0.960	5.446	0.400
C	0.720	4.482	0.720	C	0.800	5.446	0.800
D	0.880	4.482	0.720	D	0.960	5.446	0.800
E	0.880	4.082	0.480	E	0.960	4.962	0.400
F	0.880	4.082	0.240	F	0.960	4.962	0.240
G	0.720	4.482	0.720	G	0.800	5.446	0.800
H	0.880	4.482	0.880	H	0.960	5.446	0.960
I	0.880	1.120	0.880	I	0.960	1.280	0.960
J	0.240	4.082	0.880	J	0.240	5.122	0.960
K	0.880	4.482	0.480	K	0.960	5.604	0.400
L	0.880	4.082	0.240	L	0.960	4.962	0.240
M	0.880	5.284	0.880	M	0.960	6.244	0.960
N	0.880	4.482	0.880	N	0.960	5.446	0.960
O	0.720	4.722	0.720	O	0.800	5.684	0.800
P	0.880	4.482	0.720	P	0.960	5.446	0.240
Q	0.720	4.722	0.720	Q	0.800	5.684	0.800
R	0.880	4.482	0.480	R	0.960	5.446	0.400
S	0.480	4.482	0.480	S	0.400	5.446	0.400
T	0.240	4.082	0.240	T	0.240	4.962	0.240
U	0.880	4.482	0.880	U	0.960	5.446	0.960
V	0.240	4.962	0.240	V	0.240	6.084	0.240
W	0.240	6.084	0.240	W	0.240	7.124	0.240
X	0.240	4.722	0.240	X	0.400	5.446	0.400
Y	0.240	5.122	0.240	Y	0.240	6.884	0.240
Z	0.480	4.482	0.480	Z	0.400	5.446	0.400
a	0.320	3.842	0.640	a	0.400	4.562	0.720
b	0.720	4.082	0.480	b	0.800	4.802	0.480
c	0.480	4.002	0.240	c	0.480	4.722	0.240
d	0.480	4.082	0.720	d	0.480	4.802	0.800
e	0.480	4.082	0.320	e	0.480	4.722	0.320
f	0.320	2.480	0.160	f	0.320	2.882	0.160
g	0.480	4.082	0.720	g	0.480	4.802	0.800
h	0.720	4.082	0.640	h	0.800	4.722	0.720
i	0.720	1.120	0.720	i	0.800	1.280	0.800
j	0.000	2.320	0.720	j	0.000	2.642	0.800
k	0.720	4.322	0.160	k	0.800	5.122	0.160
l	0.720	1.120	0.720	l	0.800	1.280	0.800
m	0.720	6.724	0.640	m	0.800	7.926	0.720
n	0.720	4.082	0.640	n	0.800	4.722	0.720
o	0.480	4.082	0.480	o	0.480	4.882	0.480
p	0.720	4.082	0.480	p	0.800	4.802	0.480
q	0.480	4.082	0.720	q	0.480	4.802	0.800
r	0.720	2.642	0.160	r	0.800	3.042	0.160
s	0.320	3.362	0.240	s	0.320	3.762	0.240
t	0.080	2.882	0.080	t	0.080	3.202	0.080
u	0.640	4.082	0.720	u	0.720	4.722	0.800
v	0.160	4.722	0.160	v	0.160	5.684	0.160
w	0.160	7.524	0.160	w	0.160	9.046	0.160
x	0.000	5.202	0.000	x	0.000	6.244	0.000
y	0.160	4.962	0.160	y	0.160	6.004	0.160
z	0.240	3.362	0.240	z	0.240	4.002	0.240
1	0.720	1.680	0.880	1	0.800	2.000	0.960
2	0.480	4.482	0.480	2	0.800	5.446	0.800
3	0.480	4.482	0.480	3	1.440	5.446	0.800
4	0.240	4.962	0.720	4	0.160	6.004	0.960
5	0.480	4.482	0.480	5	0.800	5.446	0.800
6	0.720	4.482	0.720	6	0.800	5.446	0.800
7	0.240	4.482	0.720	7	0.560	5.446	0.560
8	0.480	4.482	0.480	8	0.800	5.446	0.800
9	0.480	4.482	0.480	9	0.800	5.446	0.800
0	0.720	4.722	0.720	0	0.800	5.684	0.800
-	0.240	2.802	0.240	-	0.240	2.802	0.240

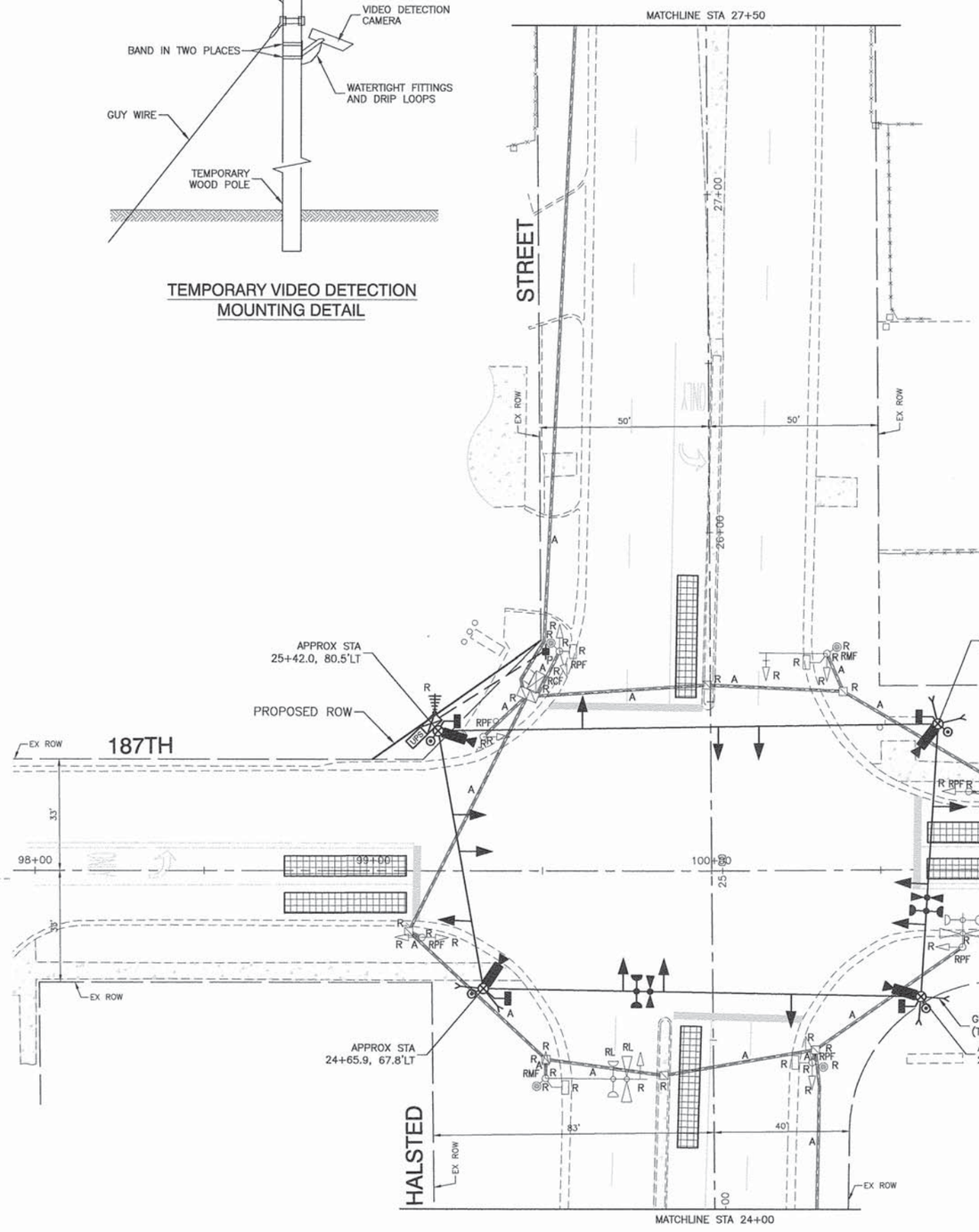
SECTION 4, TOWNSHIP 35, RANGE 14





TEMPORARY VIDEO DETECTION
MOUNTING DETAIL





REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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:

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

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED, AND RELOCATED TO THE PROPOSED MAST ARMS AND TRAFFIC SIGNAL CONTROLLER:

2	EACH	CONFIRMATION BEACON
2	EACH	LIGHT DETECTOR
2	EACH	LIGHT DETECTOR AMPLIFIER

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

TS 1840

FILE NAME = 12602_02-SGNL-02 - P01	USER NAME =	DESIGNED — JPH	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — PS	REVISED —
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —

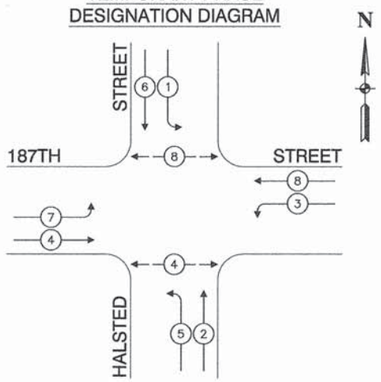
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
TEMPORARY TRAFFIC SIGNAL INSTALLATION

SCALE: 1"=20' | SHEET NO. 31 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	31
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

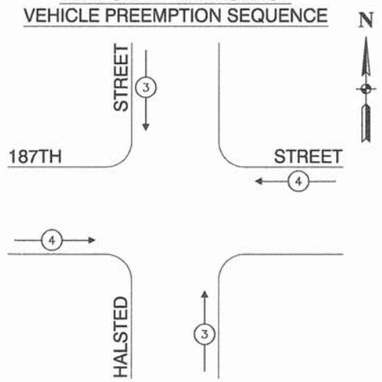
TEMPORARY PHASE DESIGNATION DIAGRAM



LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OL — OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

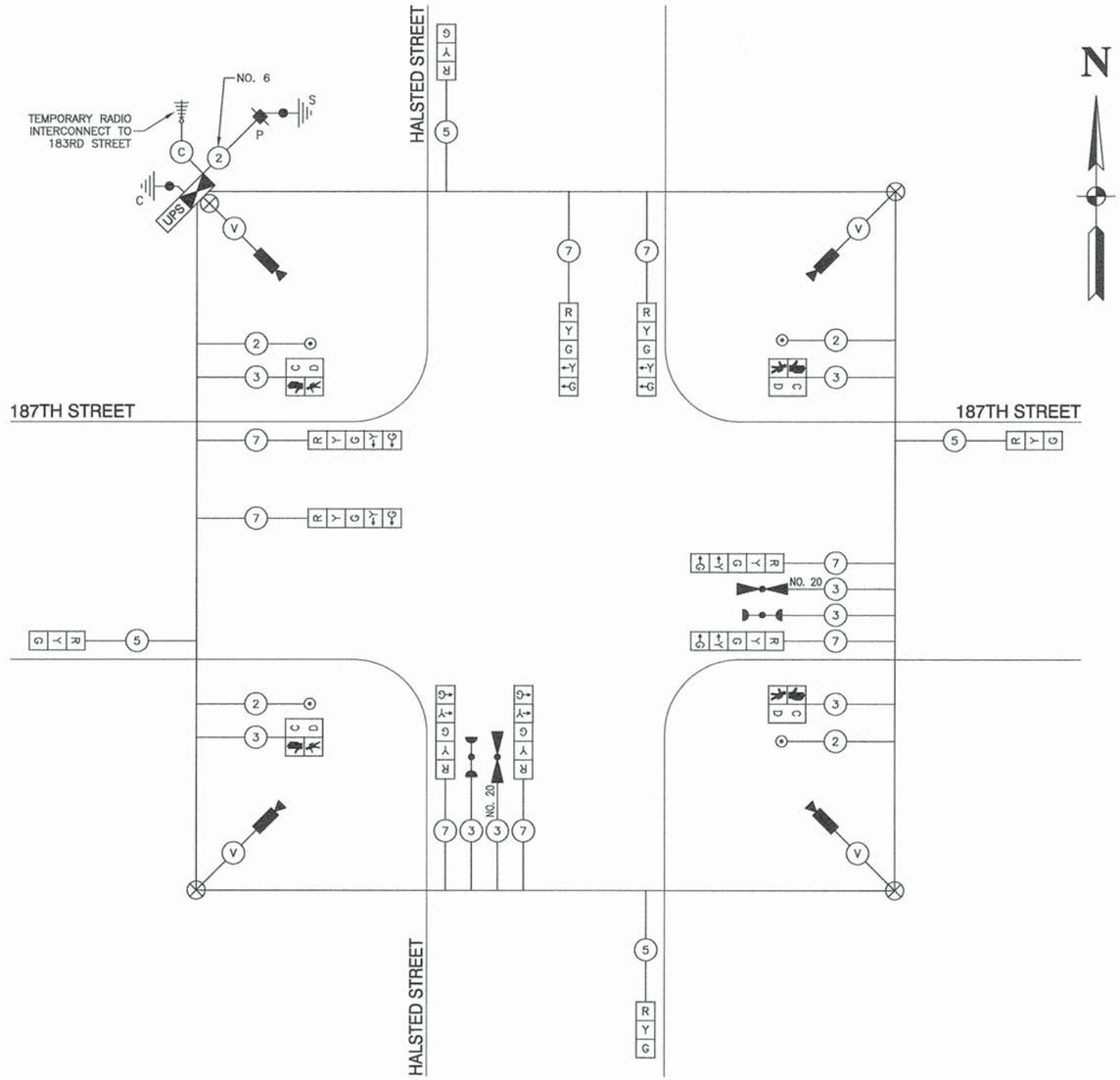
TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE 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	19.20
PED. SIGNAL	4		25	1.00	100
CONTROLLER	1		100	1.00	100
ILLUM. SIGN	0		25	0.05	0
VIDEO SYSTEM	1	150		1.00	150
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	591.20

VILLAGE OF HOMEWOOD
2020 CHESTNUT ROAD
HOMEWOOD, IL 60430

ENERGY SUPPLY CONTACT: BRAD SHINABARGAR
PHONE: (708)235-2692
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: ----------



TEMPORARY CABLE PLAN

NOT TO SCALE

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

TS 1840

FILE NAME = 12602_02-SGNL-CBLE-02 - P01	USER NAME =	DESIGNED — JPH	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — PS	REVISED —
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —

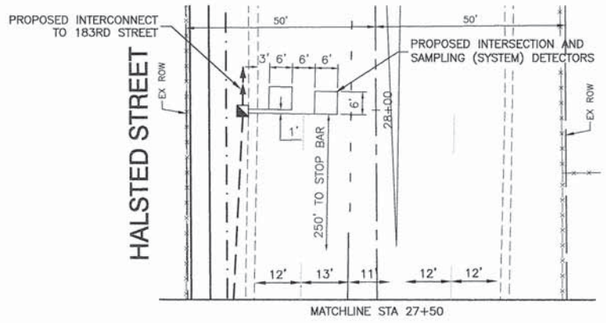
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

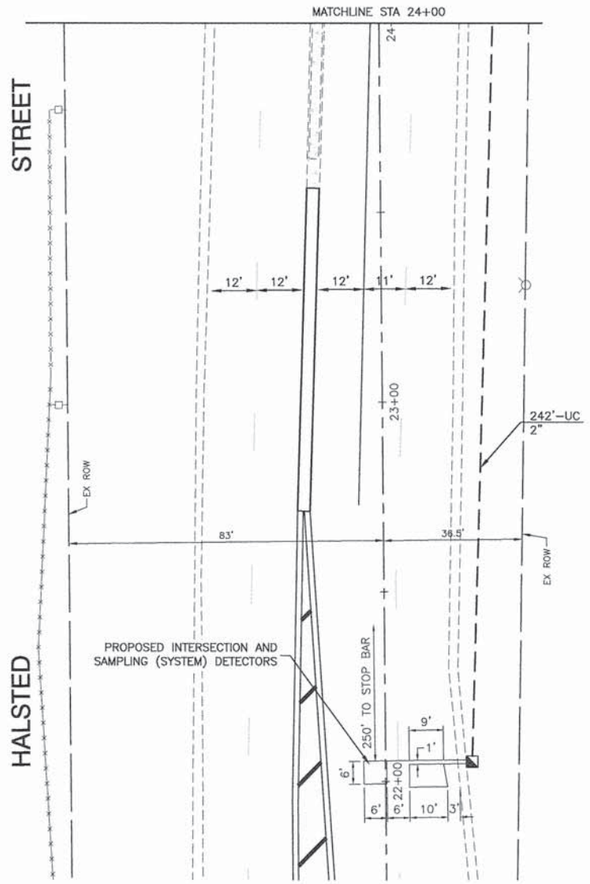
INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET - TEMPORARY CABLE PLAN
PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE

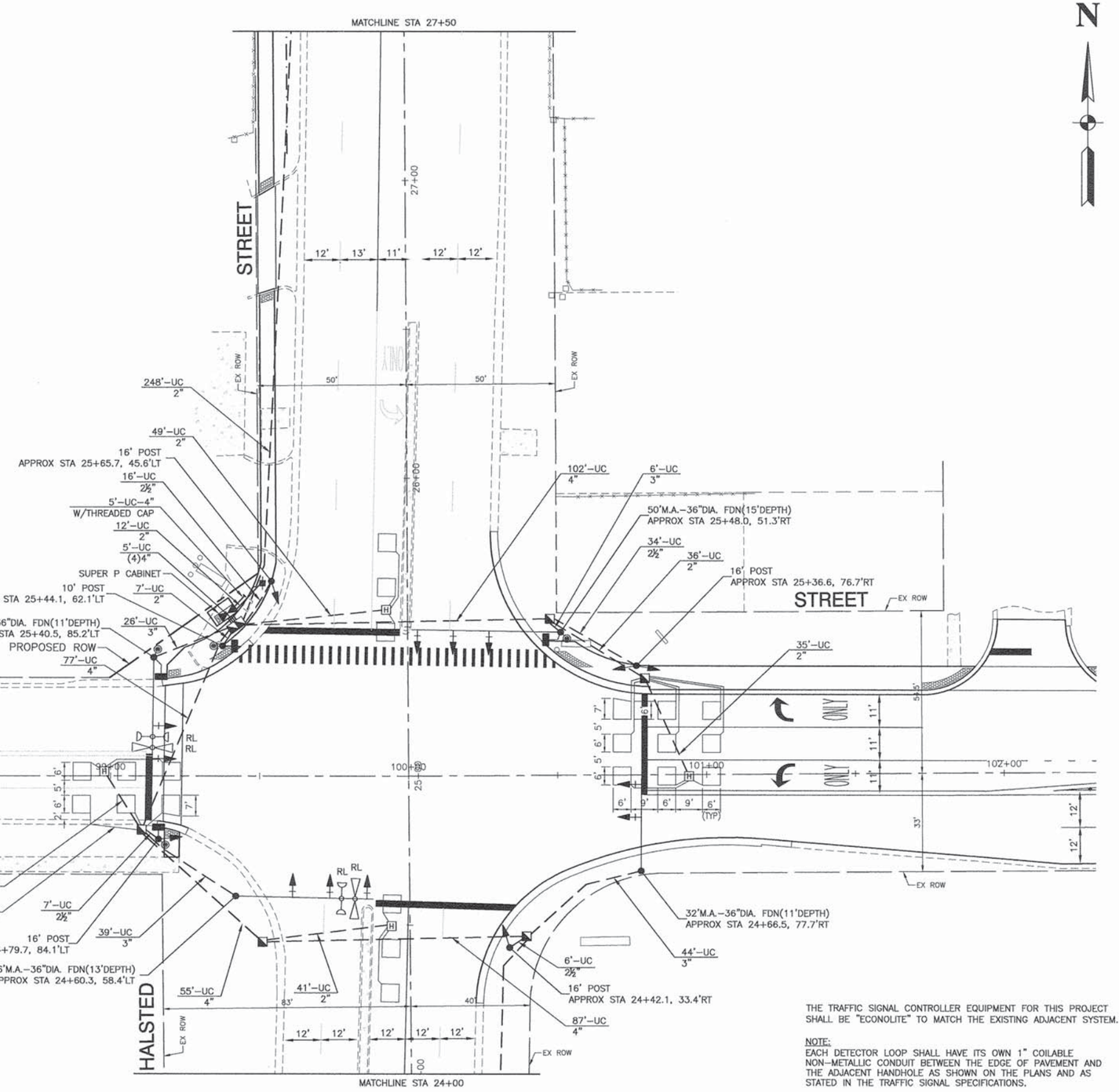
SCALE: NONE | SHEET NO. 32 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	32
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

SECTION 4, TOWNSHIP 35, RANGE 14







CONSTRUCTION NOTES:
1. RELOCATE EXISTING LIGHT DETECTORS AND CONFIRMATION BEACONS TO THE NEW MAST ARMS
2. RELOCATE EXISTING LIGHT DETECTOR AMPLIFIER TO THE NEW CONTROLLER CABINET

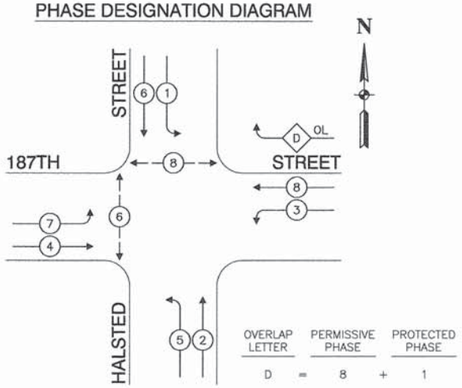
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

NOTE:
EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.

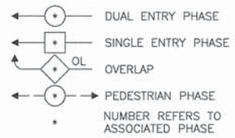
TS 1840

FILE NAME = 12602_02-SGNL-01 - P01	USER NAME =	DESIGNED — JPH	REVISED —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERSECTION IMPROVEMENTS HALSTED STREET AND 187TH STREET TRAFFIC SIGNAL INSTALLATION	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED — PKB	REVISED —			876	12-00055-00-CH	COOK	61	33
	PLOT SCALE =	DRAWN — PS	REVISED —					CONTRACT NO. 61B77		
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —		SCALE: 1"=20' SHEET NO. 33 OF 61 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

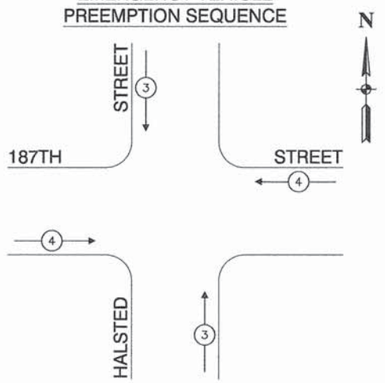
PHASE DESIGNATION DIAGRAM



LEGEND



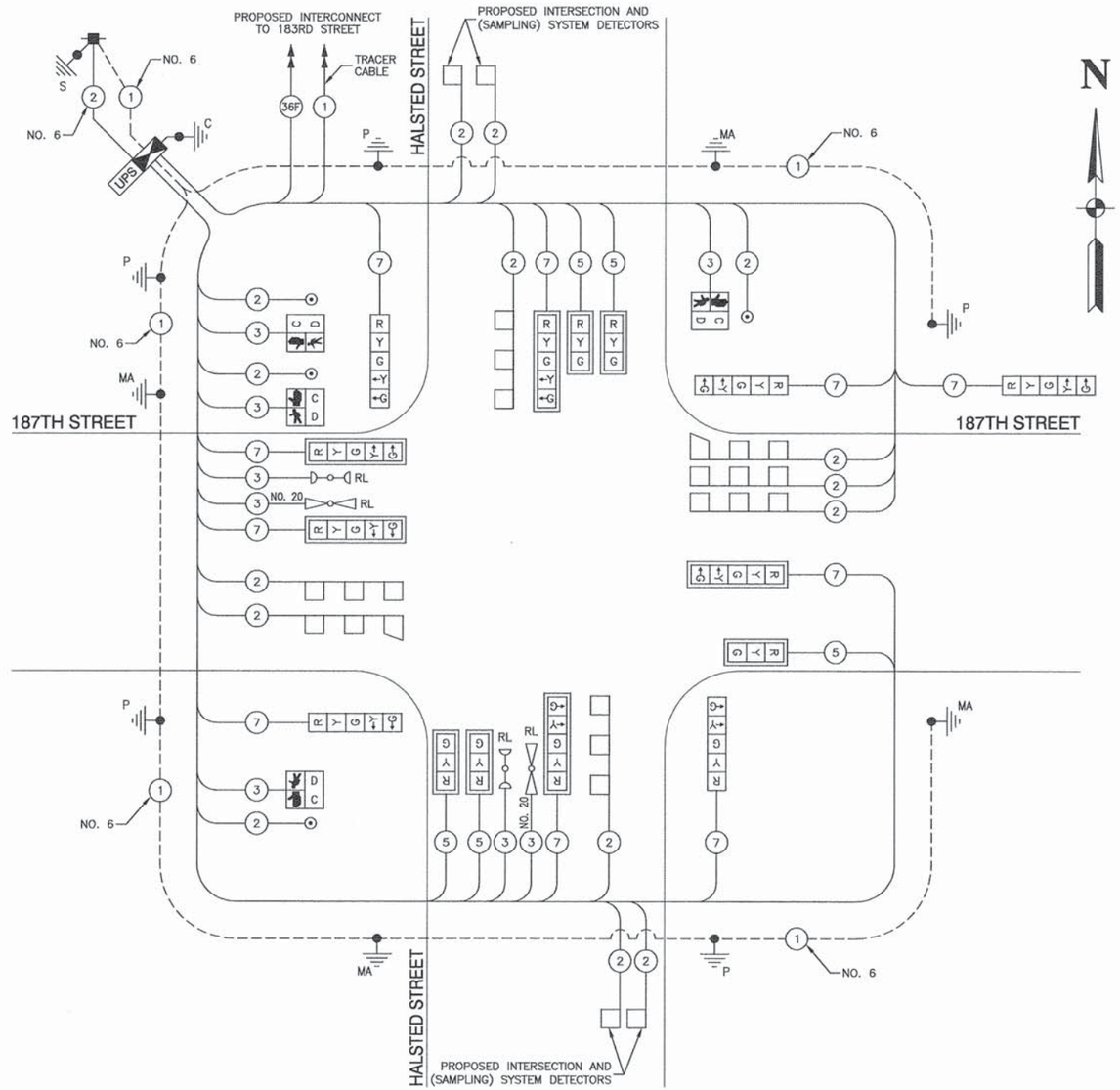
EMERGENCY VEHICLE PREEMPTION SEQUENCE



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	x WATTAGE INCAND.	LED	x %OPERATION	
SIGNAL (RED)	15		17	0.50	127.5
(YELLOW)	15		25	0.25	93.75
(GREEN)	15		15	0.25	56.25
ARROW	20		12	0.10	24
PED. SIGNAL	4		25	1.00	100
CONTROLLER	1		100	1.00	100
ILLUM. SIGN	0		25	0.05	0
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	501.5

VILLAGE OF HOMEWOOD
2020 CHESTNUT ROAD
HOMEWOOD, IL 60430

ENERGY SUPPLY CONTACT: BRAD SHINABARGAR
PHONE: (708)235-2692
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: ~~~~~



CABLE PLAN

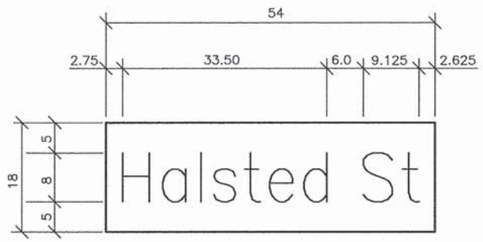
NOT TO SCALE

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

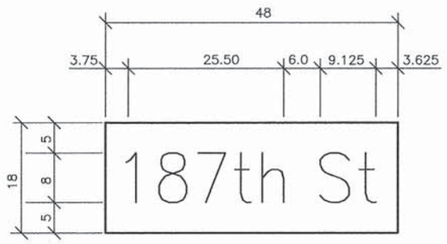
TS 1840

FILE NAME = 12602_02-SGNL-CBLE-01 - P01	USER NAME =	DESIGNED — JPH	REVISED —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERSECTION IMPROVEMENTS HALSTED STREET AND 187TH STREET - CABLE PLAN, PHASE DESIGNATION PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE			F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED — PKB	REVISED —					876	12-00055-00-CH	COOK	61	34
	PLOT SCALE =	DRAWN — PS	REVISED —							CONTRACT NO. 61B77		
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —		SCALE: NONE	SHEET NO. 34 OF 61 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

SIGN PANEL – TYPE 1 OR TYPE 2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	6.75	TYPE 1	ZZ	2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	6.00	TYPE 1	ZZ	2

NOTE:
FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS DETAIL.

SCHEDULE OF QUANTITIES		
ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	25.5
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	690
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	63
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	115
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	346
HANDHOLE	EACH	7
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	372
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	710
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1131
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1827
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2856
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	44
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	603
TRAFFIC SIGNAL POST, 10 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 50 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	20
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	50
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	5
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	5
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	5
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	10
INDUCTIVE LOOP DETECTOR	EACH	11
DETECTOR LOOP, TYPE I	FOOT	1026
PEDESTRIAN PUSH-BUTTON	EACH	4
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT	EACH	2
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	2
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	10
REMOVE EXISTING DOUBLE HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	310
FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

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

TS 1840

FILE NAME = 12602_02-DTLS-TS02 - P02

USER NAME =
PLOT SCALE =
PLOT DATE = 8-31-15

DESIGNED — JPH | REVISED —
CHECKED — PKB | REVISED —
DRAWN — PS | REVISED —
CHECKED — AG | REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

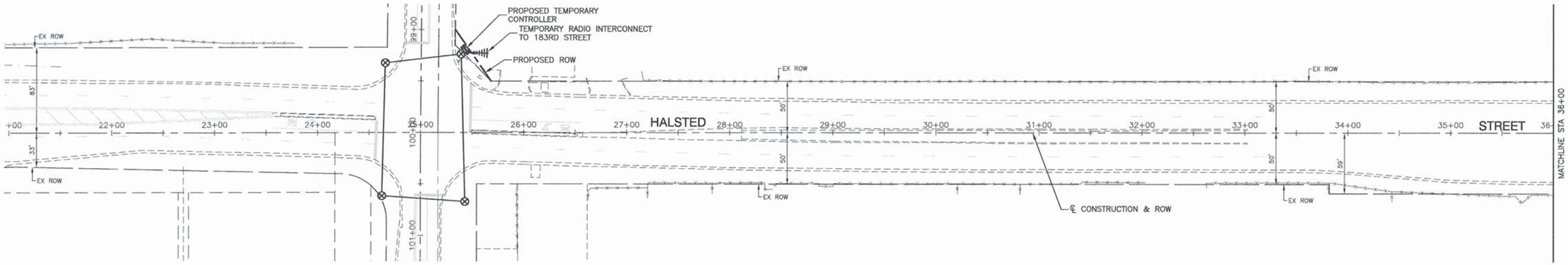
INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
MAST ARM MOUNTED STREET NAME SIGNS & SCHEDULE OF QUANTITIES

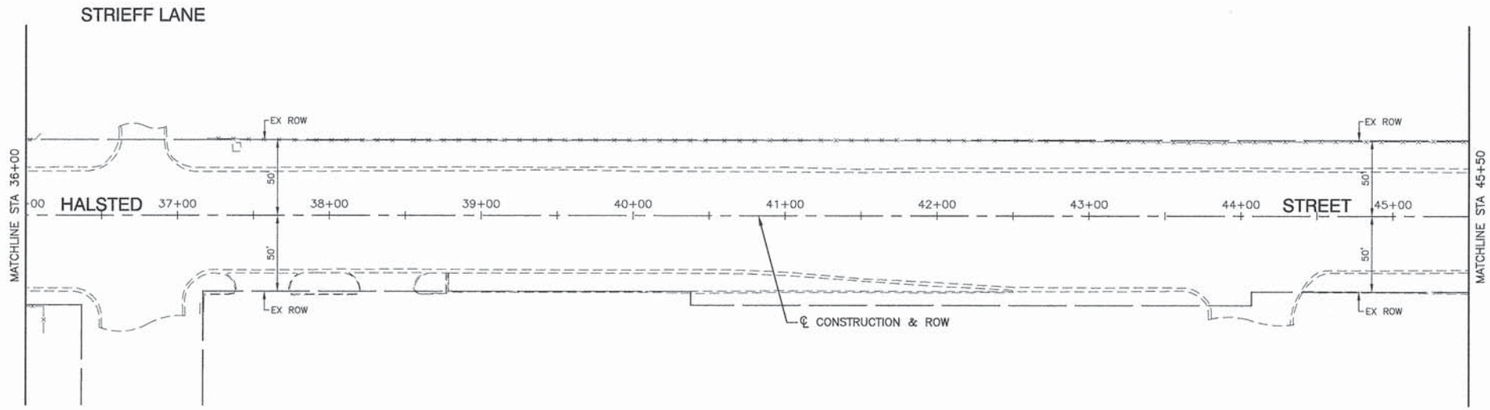
SCALE: NONE | SHEET NO. 35 OF 61 SHEETS | STA. | TO STA.

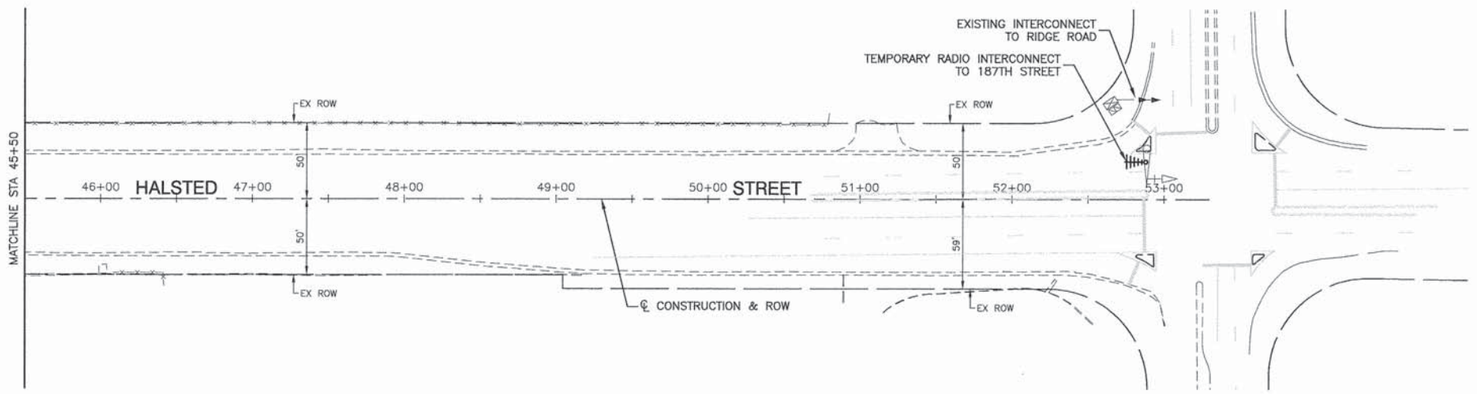
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	35
		CONTRACT NO. 61B77		

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT M-4003(121)

SECTION 4, TOWNSHIP 35, RANGE 14







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

ECON 60

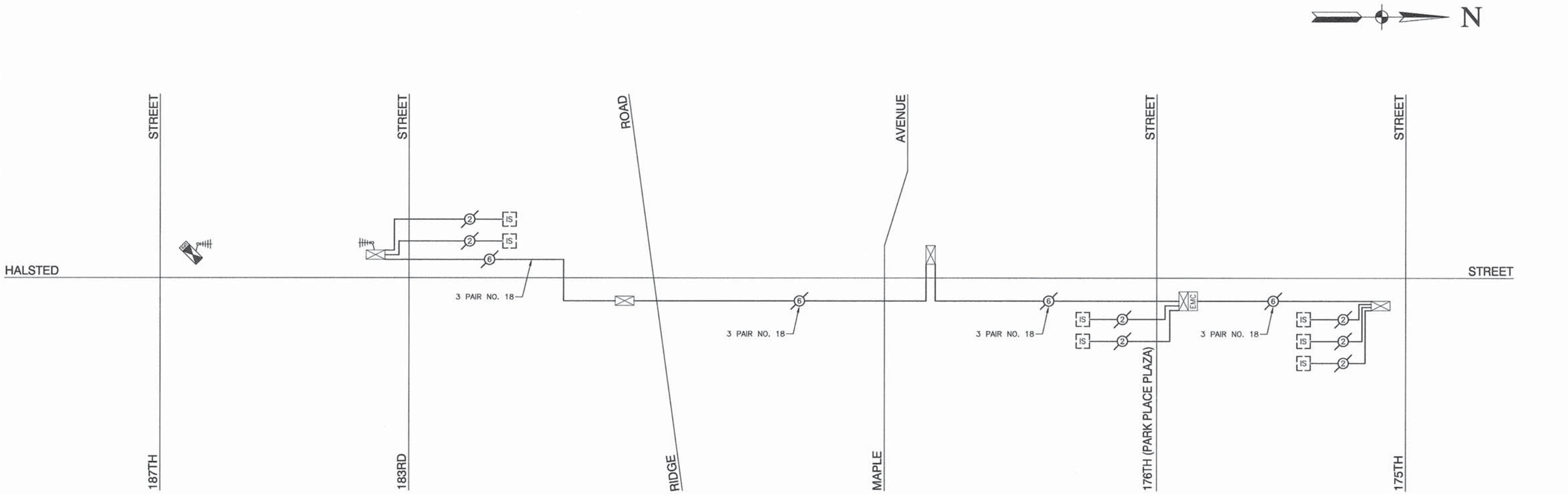
FILE NAME = 12602_02-SGNL-06 - P01	USER NAME =	DESIGNED — JPH	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — RG	REVISED —
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
TEMPORARY RADIO INTERCONNECT PLAN

SCALE: 1"=50' | SHEET NO. 36 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	36
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		



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

ECON 60

FILE NAME = 12602_02-SGNL-03 - P01	USER NAME =	DESIGNED — JPH	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — JJB	REVISED —
	PLOT DATE = 8-31-15	CHECKED — EA	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

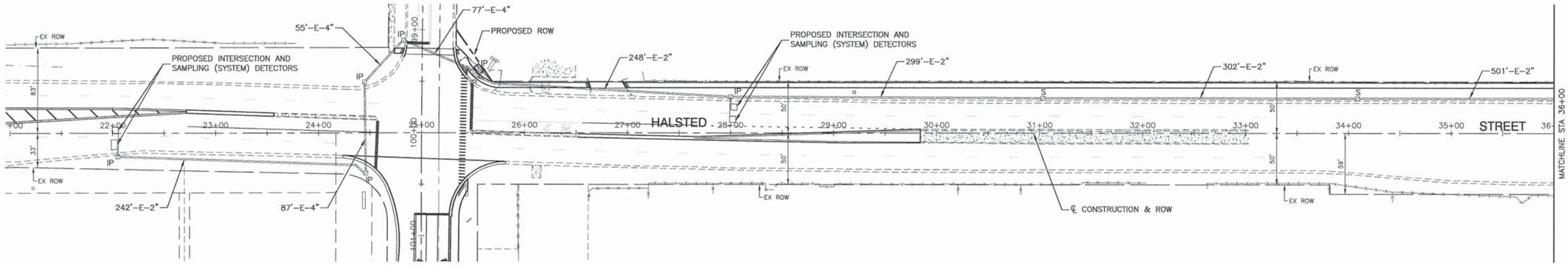
INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
TEMPORARY RADIO INTERCONNECT SCHEMATIC

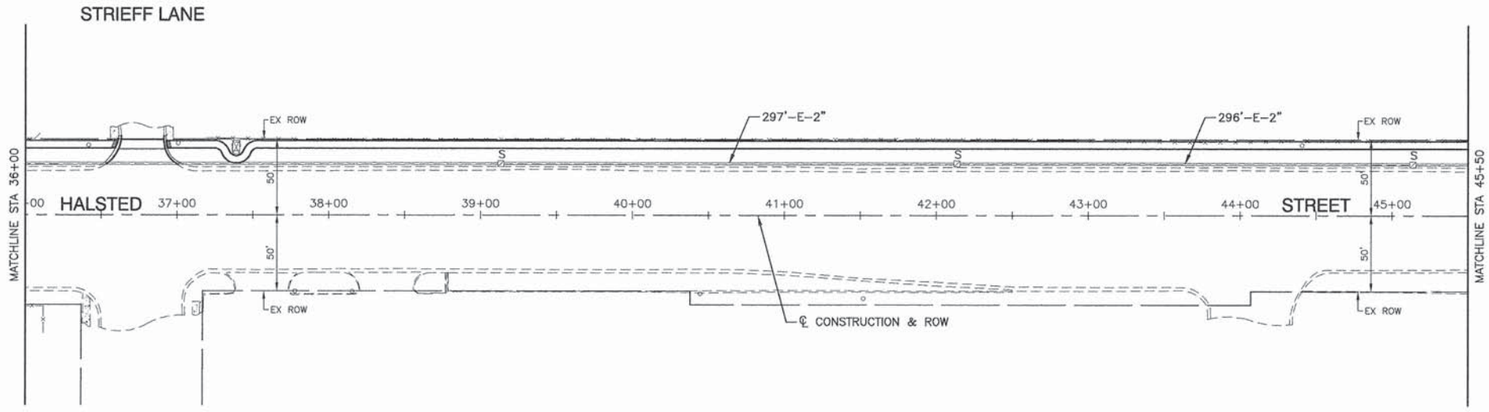
SCALE: NONE | SHEET NO. 37 OF 61 SHEETS | STA. | TO STA.

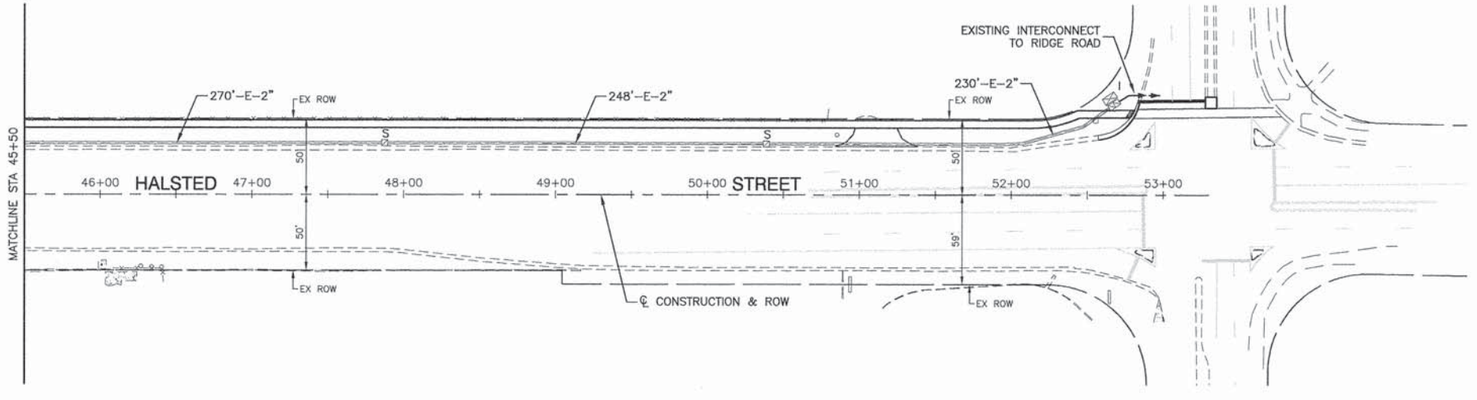
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	37
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

SECTION 4, TOWNSHIP 35, RANGE 14

N







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

ECON 60

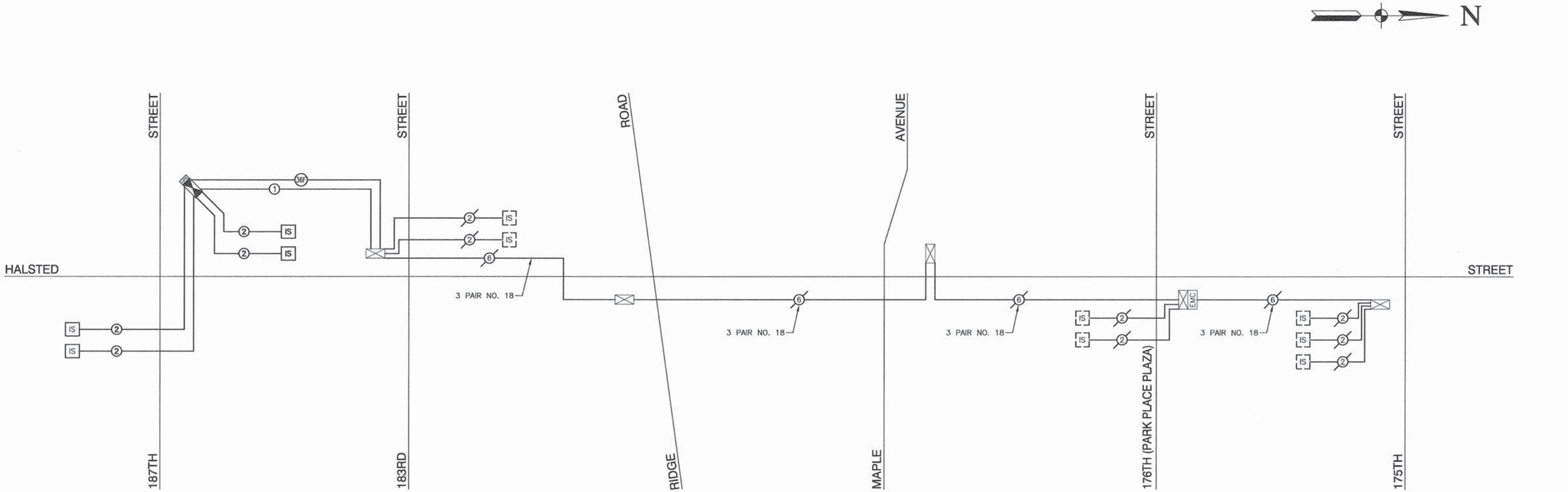
FILE NAME = 12602_02-SGNL-04 - P01	USER NAME =	DESIGNED — JPH	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — RG	REVISED —
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
TRAFFIC SIGNAL INTERCONNECT PLAN

SCALE: 1"=50' | SHEET NO. 38 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	38
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		



SCHEDULE OF QUANTITIES			
	ITEM DESCRIPTION	UNITS	TOTAL QTY.
	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
	TRANSCEIVER - FIBER OPTIC	EACH	1
	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	2811
	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2811
	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM 12F SM24F	FOOT	2811
	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1
*	ROD AND CLEAN EXISTING CONDUIT	FOOT	200

* NOTE: THE QUANTITY PROVIDED FOR ROD AND CLEAN EXISTING CONDUIT SHALL BE A NOMINAL QUANTITY TO BE USED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

ECON 60

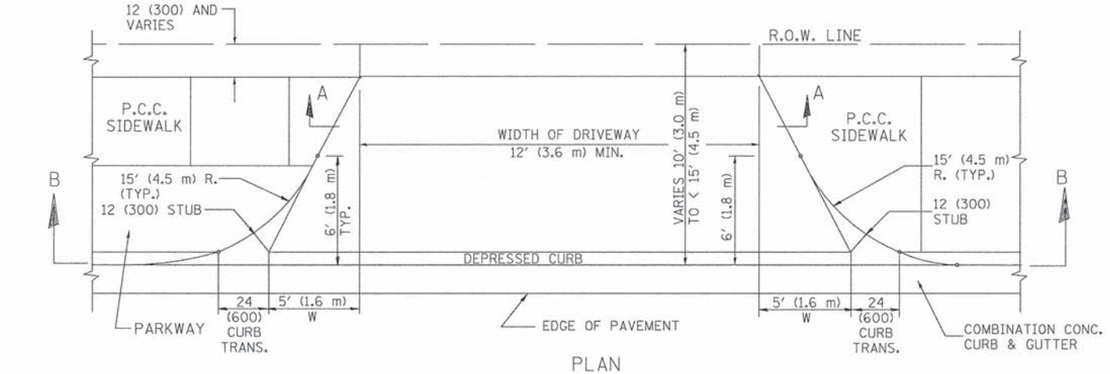
FILE NAME = 12602_02-SGNL-05 - P01	USER NAME =	DESIGNED — JPH	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — JJB	REVISED —
	PLOT DATE = 8-31-15	CHECKED — EA	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
PROPOSED INTERCONNECT SCHEMATIC

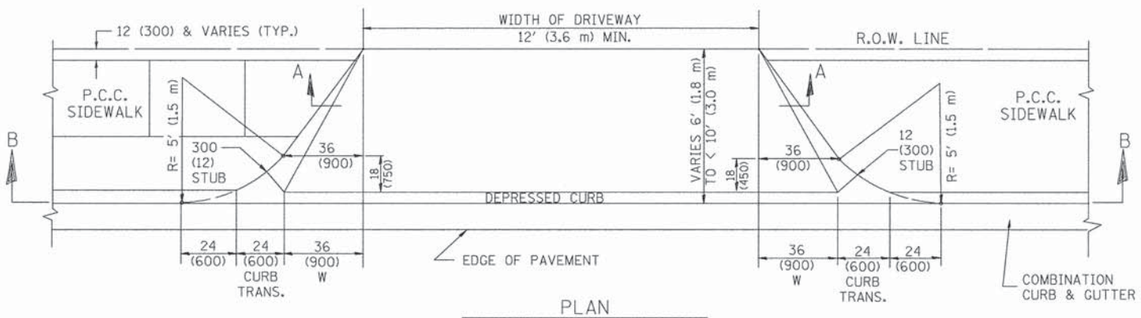
SCALE: NONE | SHEET NO. 39 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	39
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		



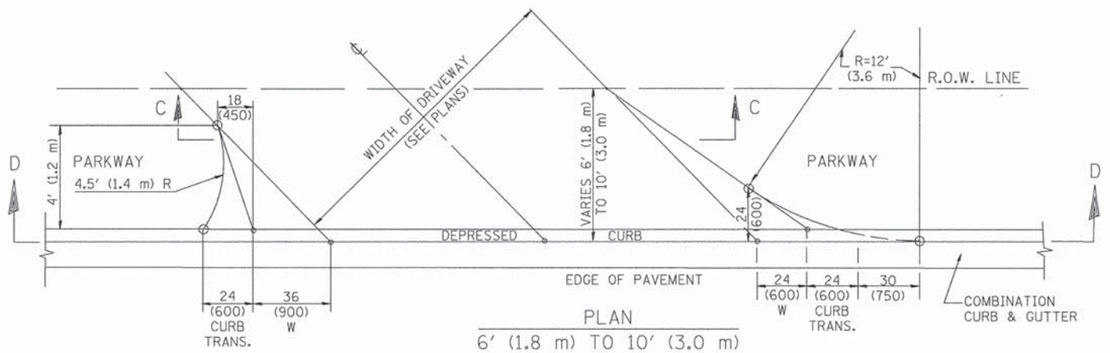
PLAN

10' (3.0 m) TO < 15' (4.5 m)



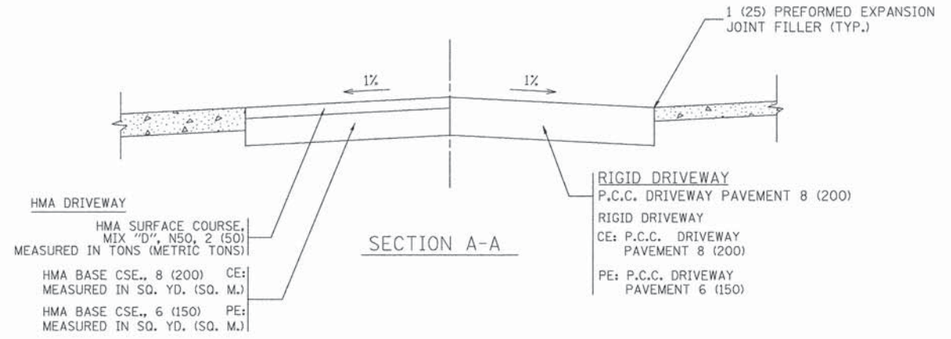
PLAN

6' (1.8 m) TO < 10' (3.0 m)

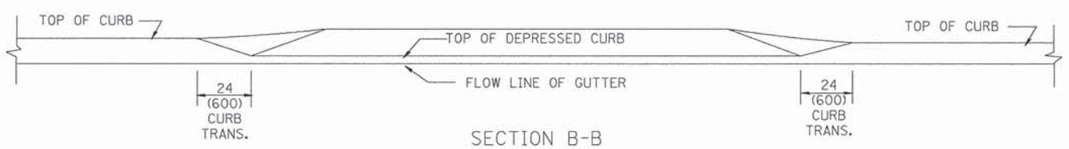


PLAN

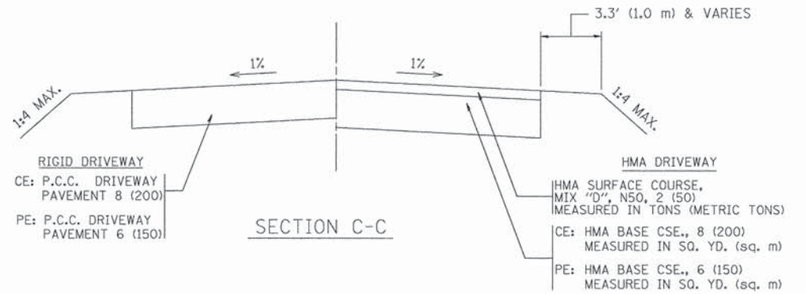
6' (1.8 m) TO 10' (3.0 m)



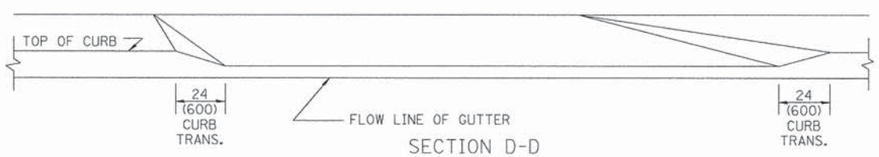
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

GENERAL NOTES

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATION 10 IN THE PERMIT HANDBOOK. WHERE SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED WITH RIGID PAVEMENT. WHERE NO SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED IN KIND. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

WHEN THE DISTANCE BETWEEN R.O.W. AND THE BACK OF CURB IS EQUAL TO OR LESS THAN 8' (2.4 m), THE P.C.C. SIDEWALK SHALL EXTEND TO THE BACK OF CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

THE 1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

"W" VARIES FROM 36 (900) TO 5' (1.5 m) PROPORTIONAL TO THE LENGTH (L), FROM 6' (1.8 m) TO 10' (3 m).

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

FILE NAME = 12602_02-DTLS-01 - BD02	USER NAME = leysa	DESIGNED — R. SHAH	REVISED — M. GOMEZ 04-06-01
		CHECKED —	REVISED — P. LaFLEUR 04-15-03
	PLOT SCALE = 50.0000 ' / in.	DRAWN —	REVISED — R. BORO 01-01-07
	PLOT DATE = 10/28/2011	CHECKED — 11-06-95	REVISED — R. BORO 09-06-11

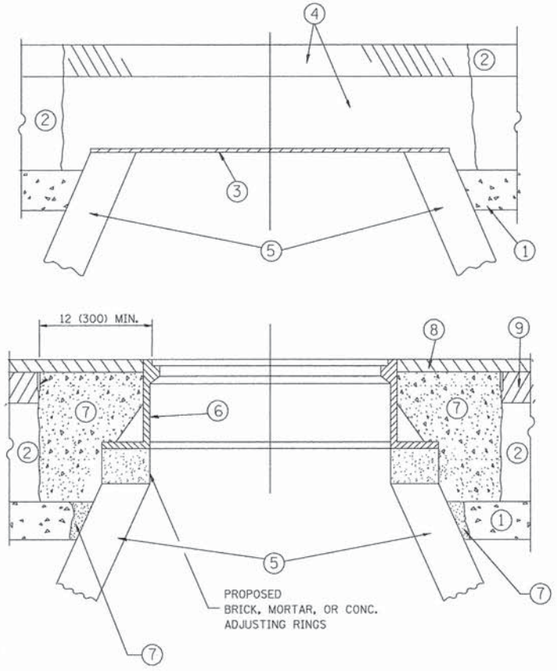
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS

DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5 m)

SCALE: NONE | SHEET NO. 40 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	40
	BD400-02 (BD-02)	CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		



CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

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

STAGE 2 (AFTER PAVEMENT MILLING)

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

*UNLESS OTHERWISE SPECIFIED IN THE PLANS.

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

LEGEND

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

NOTES:

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

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

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

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

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

LOCATION OF STRUCTURES:

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

BASIS OF PAYMENT:

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

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

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

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

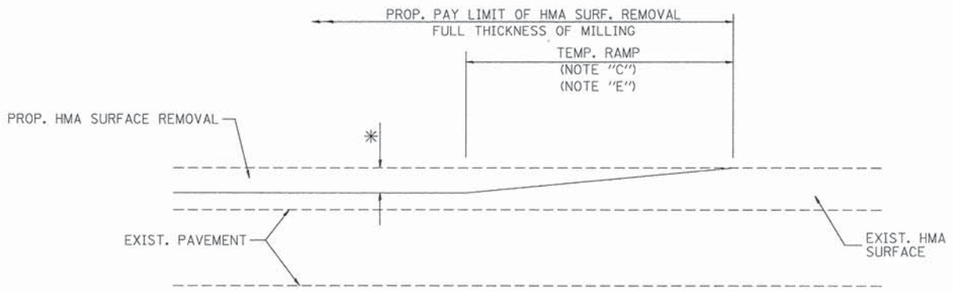
FILE NAME = 12602_02-DTLS-01 - BD08	USER NAME = bauerdl	DESIGNED — R. SHAH	REVISED — R. WIEDEMAN 05-14-04
		CHECKED —	REVISED — R. BORO 01-01-07
	PLOT SCALE = 1968.5000 ' / m	DRAWN —	REVISED — R. BORO 03-09-11
	PLOT DATE = 12/6/2011	CHECKED — 10-25-94	REVISED — R. BORO 12-06-11

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS FOR
FRAMES AND LIDS ADJUSTMENT WITH MILLING

SCALE: NONE | SHEET NO. 41 OF 61 SHEETS | STA. | TO STA.

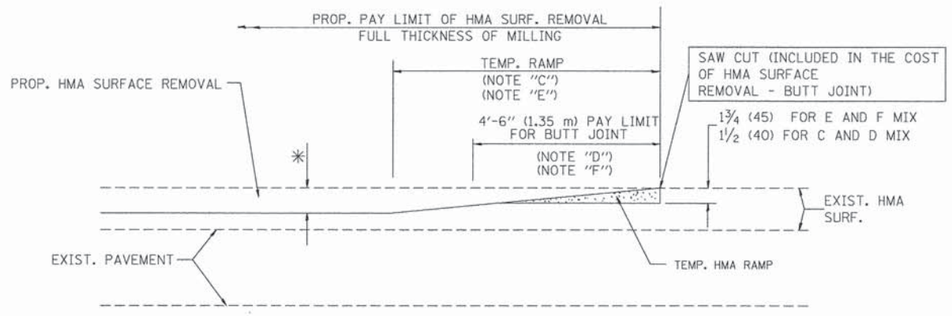
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	41
	BD600-03 (BD-8)	CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

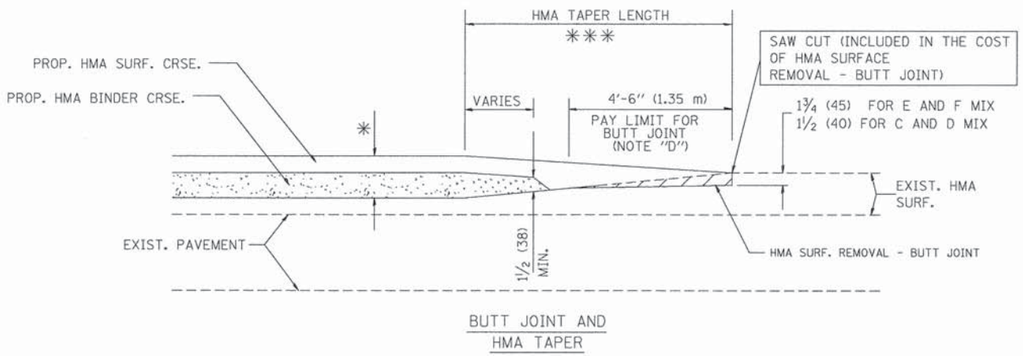


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

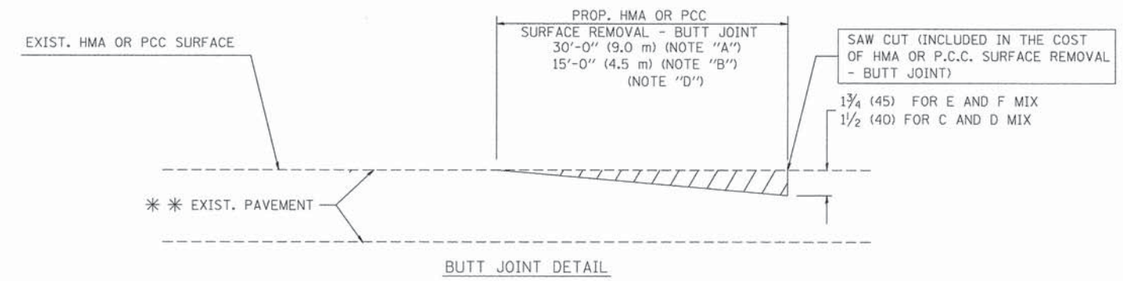
OPTION 2

TYPICAL TEMPORARY RAMP

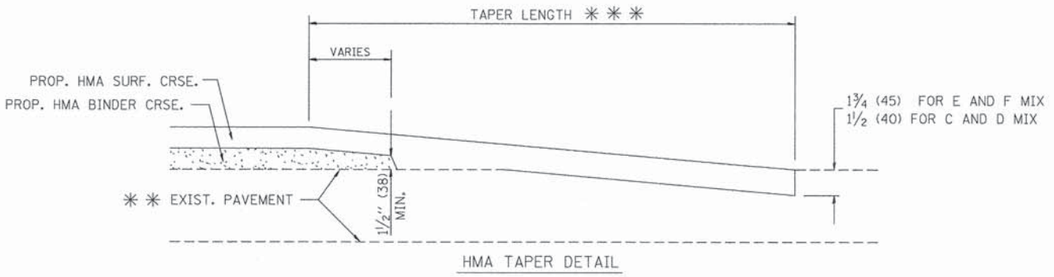


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B: MINOR SIDE ROADS.

C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.

F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT

G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

*** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

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

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

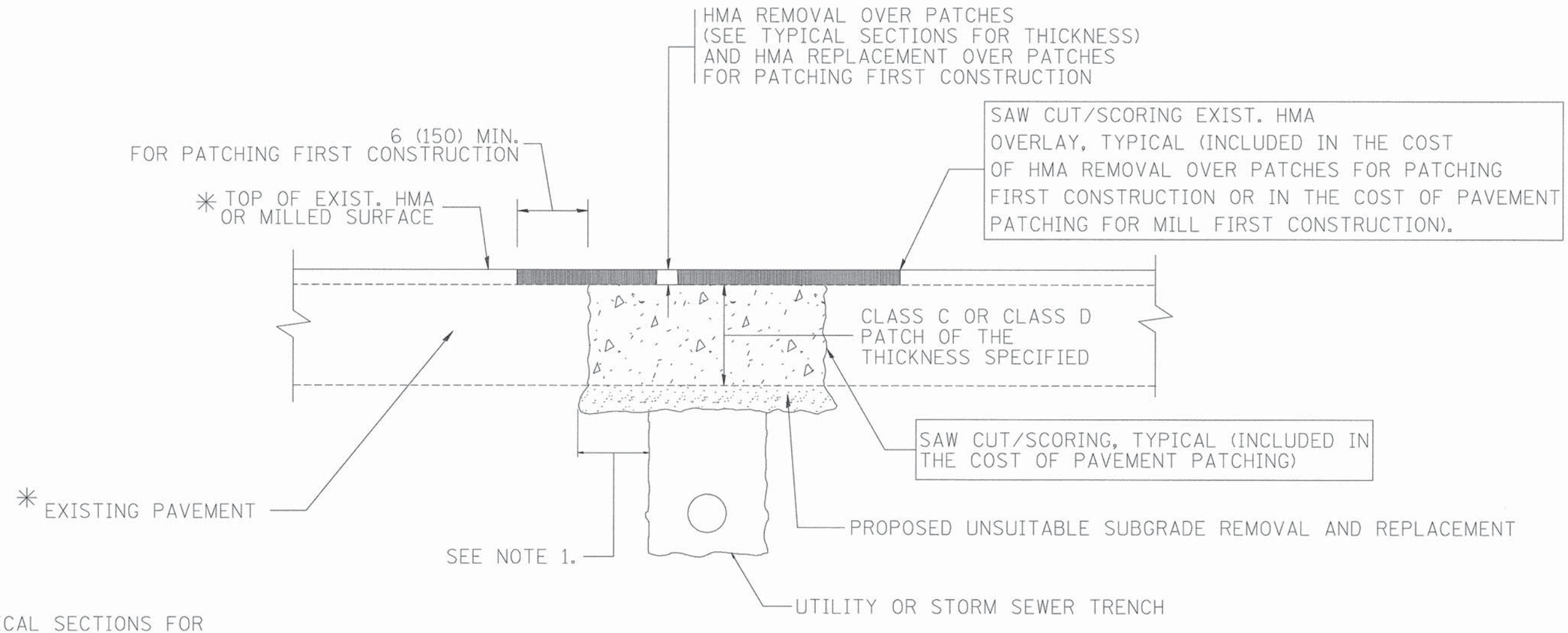
FILE NAME = 12602_02-DTLS-01 - BD32	USER NAME = gaglianobt	DESIGNED — M. DE YONG	REVISED — R. SHAH 10-25-94
		CHECKED —	REVISED — A. ABBAS 03-21-97
	PLOT SCALE = 50.0000 ' / IN.	DRAWN —	REVISED — M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	CHECKED — 06-13-90	REVISED — R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS

SCALE: NONE | SHEET NO. 42 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	42
	BD400-05 BD32	CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

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

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

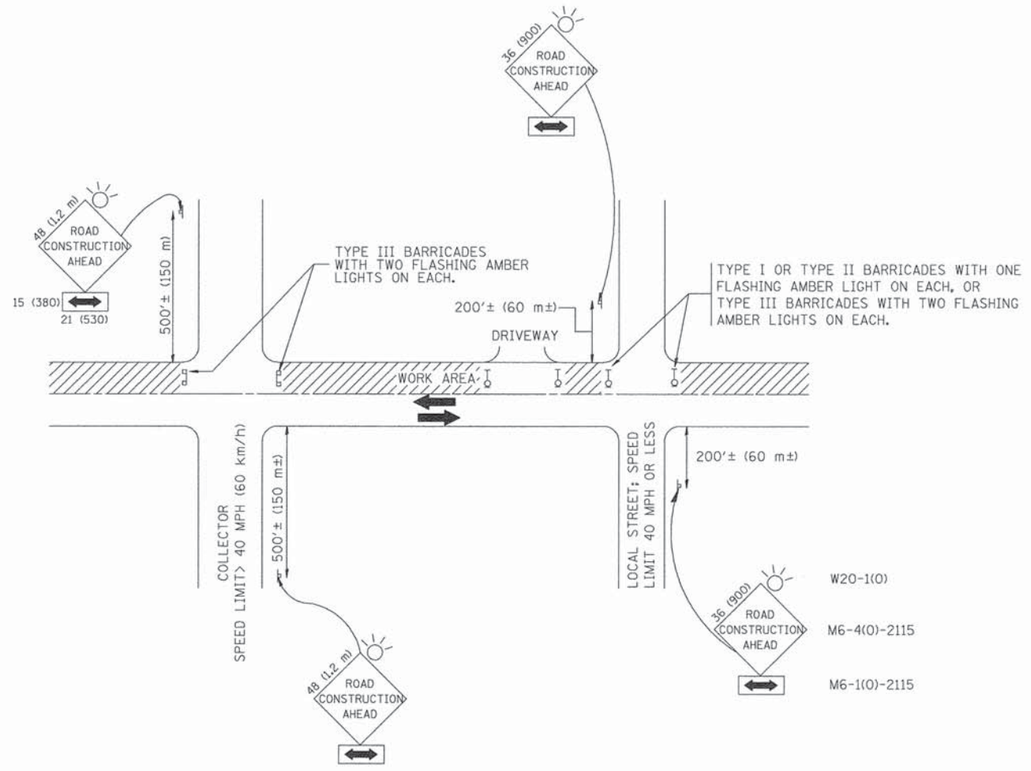
1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4½ INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

FILE NAME = 12602_02-DTLS-01 - BD22	USER NAME = bauerdl	DESIGNED — R. SHAH	REVISED — A. ABBAS 04-27-98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT			F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED —	REVISED — R. BORO 01-01-07					876	12-00055-00-CH	COOK	61	43
	PLOT SCALE = 50.000 ' / IN.	DRAWN —	REVISED — R. BORO 09-04-07						BD400-04 (BD-22)		CONTRACT NO. 61B77	
	PLOT DATE = 10/27/2008	CHECKED — 10-25-94	REVISED — K. ENG 10-27-08		SCALE: NONE	SHEET NO. 43 OF 61 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		



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.

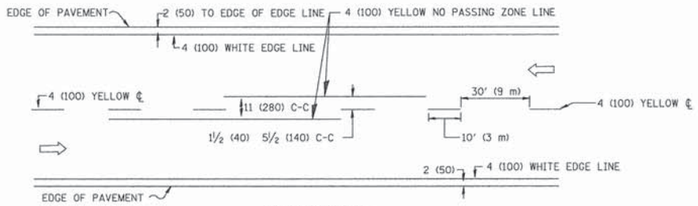
FILE NAME = 12602_02-DTLS-01 - TC10	USER NAME = gaglianobt	DESIGNED — LHA	REVISED — J. OBERLE 10-18-95
		CHECKED —	REVISED — A. HOUSEH 03-06-96
	PLOT SCALE = 50.000 ' / IN.	DRAWN —	REVISED — A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	CHECKED — 06-89	REVISED —. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

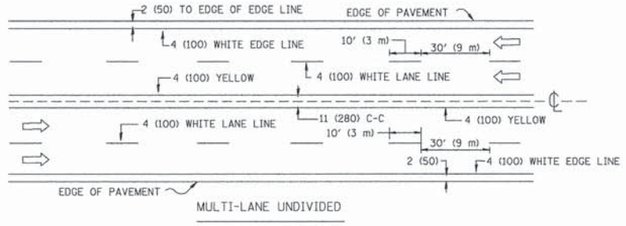
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE | SHEET NO. 44 OF 61 SHEETS | STA. | TO STA.

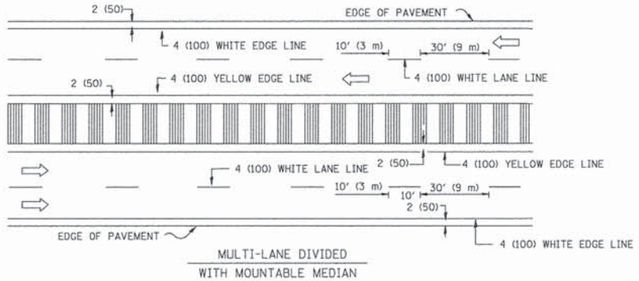
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	44
	TC-10	CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		



2-LANE ROADWAY



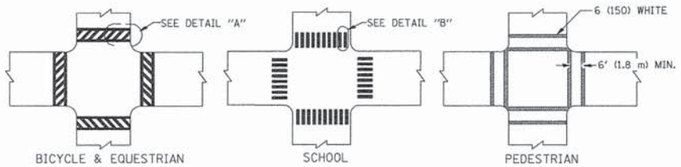
MULTI-LANE UNDIVIDED



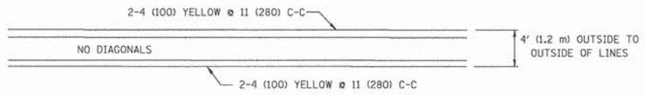
MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

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

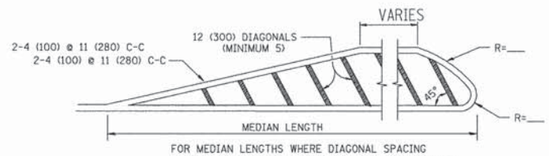
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



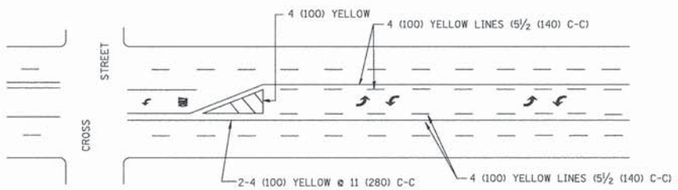
4' (1.2 m) WIDE MEDIANS ONLY



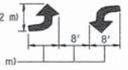
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

MEDIANS OVER 4' (1.2 m) WIDE

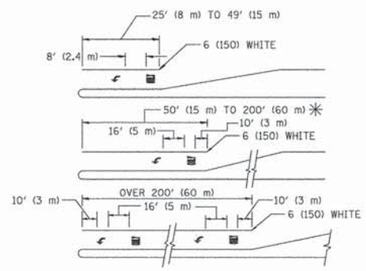


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

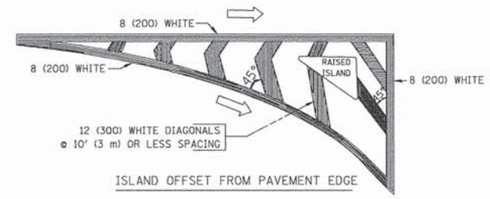


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m²) **ONLY** AREA = 20.8 SQ. FT. (1.9 m²)

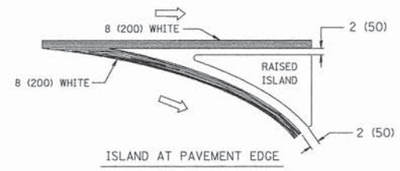
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 ⌀ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 ⌀ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (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; 5½ (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 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 ⌀ 4 (100) WITH 12 (300) DIAGONALS ⌀ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS ⌀ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
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 = 12602_02-DTLS-01 - TC13	USER NAME = drivakosgn	DESIGNED — EVERS	REVISED —T. RAMMACHER 10-27-94
		CHECKED —	REVISED —C. JUCIUS 09-09-09
	PLOT SCALE = 50.000 ' / IN.	DRAWN —	REVISED —
	PLOT DATE = 9/9/2009	CHECKED — 03-19-90	REVISED —

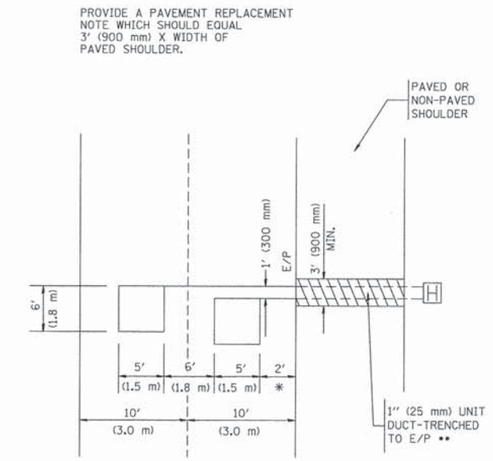
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE | SHEET NO. 45 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	45
	TC-13	CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

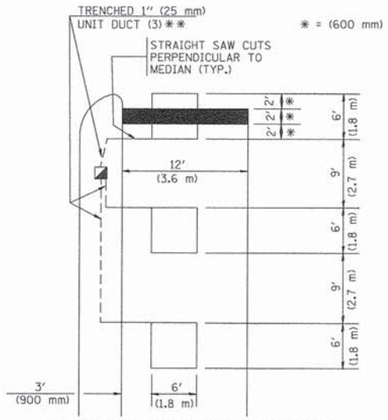
LOOPS NEXT TO SHOULDERS



* = (600 mm)

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

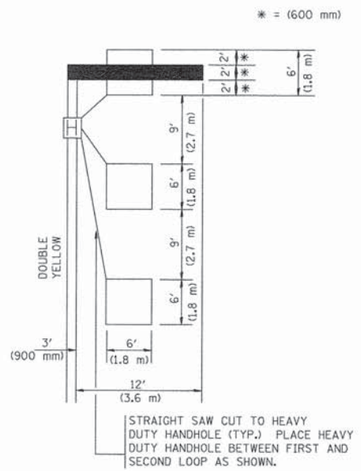
LEFT TURN LANES WITH MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)



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

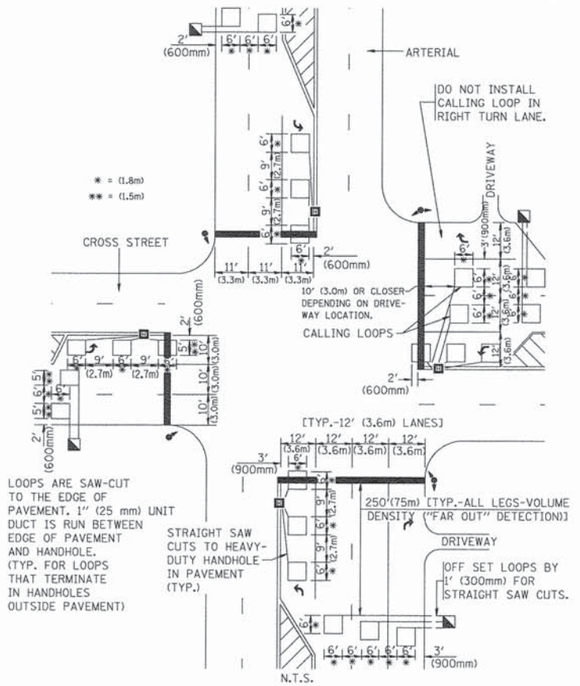
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



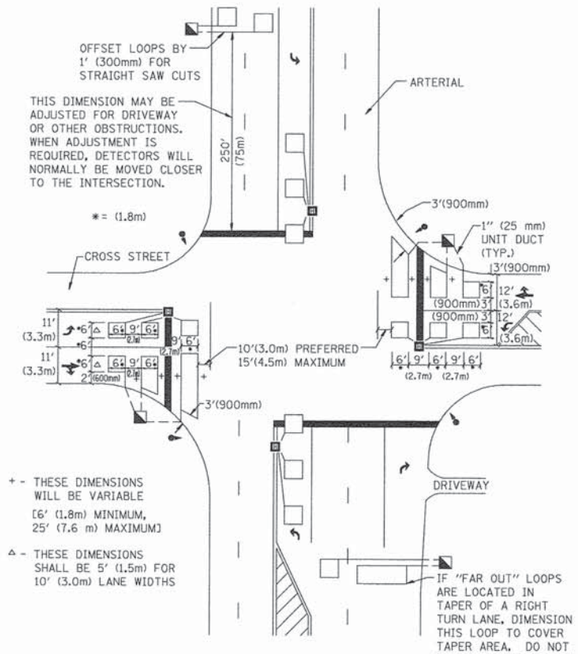
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



DETAIL 1
N.T.S.

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



DETAIL 2
N.T.S.

NOTES:

VEHICLES LOOP DETECTORS

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

PLACEMENT OF DETECTORS

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

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

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

NOTE:

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

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

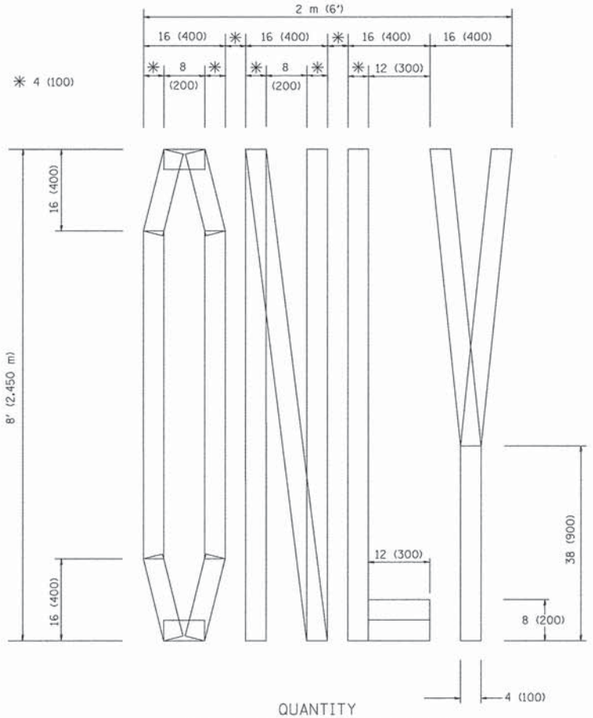
FILE NAME = 12602_02-DTLS-01 - TS07	USER NAME = gaglionobt	DESIGNED —	REVISED —
		CHECKED —	REVISED —
	PLOT SCALE = 50.0000 ' / IN.	DRAWN — R.K.F.	REVISED —
	PLOT DATE = 1/4/2008	CHECKED —	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

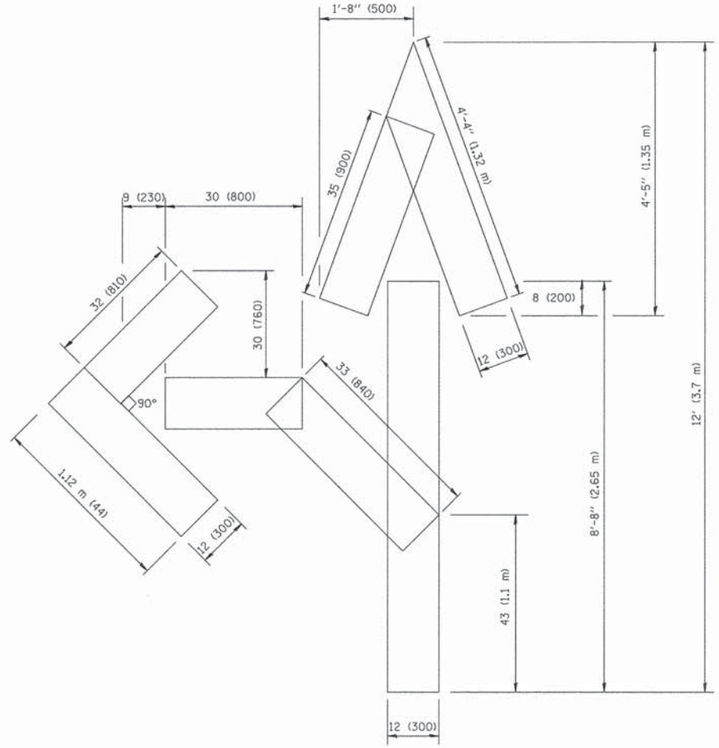
DISTRICT 1 – DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING

SCALE: NONE | SHEET NO. 46 OF 61 SHEETS | STA. | TO STA.

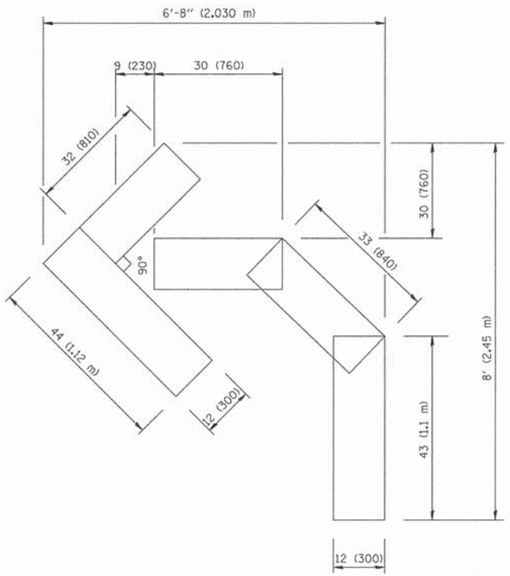
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	46
	TS-07	CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		



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



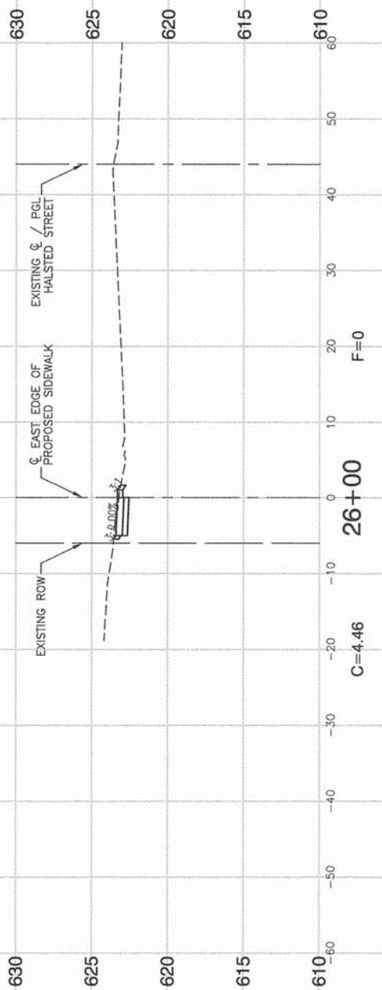
QUANTITY
4 (100) LINE = 82.5 ft. (25.3 m)
27.5 sq. ft. (2.53 sq. m)



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 = 12602_02-DTLS-01 - TC16	USER NAME = gegliarobt	DESIGNED —	REVISED -T. RAMMACHER 06-05-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING			F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED —	REVISED -T. RAMMACHER 11-04-97					876	12-00055-00-CH	COOK	61	47
	PLOT SCALE = 50.0000 ' / IN.	DRAWN —	REVISED -T. RAMMACHER 03-02-98						TC-16	CONTRACT NO. 61B77		
	PLOT DATE = 1/4/2008	CHECKED — 09-18-94	REVISED -E. GOMEZ 08-28-00		SCALE: NONE	SHEET NO. 47 OF 61 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		



FILE NAME = 12602_02-XSEC-01 - X01	USER NAME =	DESIGNED — JPH	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — MED	REVISED —
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
CROSS SECTIONS

SCALE: H 1"=10' V1"=5' | SHEET NO. 48 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	48
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

FILE NAME = 12602_02-XSEC-01 - X02	USER NAME =	DESIGNED — JPH	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — MED	REVISED —
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
CROSS SECTIONS

SCALE: H 1"=10' V1"=5' | SHEET NO. 49 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	49
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

FILE NAME = 12602_02-XSEC-01 - X03	USER NAME =	DESIGNED — JPH	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — MED	REVISED —
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
CROSS SECTIONS

SCALE: H 1"=10' V1"=5' | SHEET NO. 50 OF 61 SHEETS | STA. | TO STA.

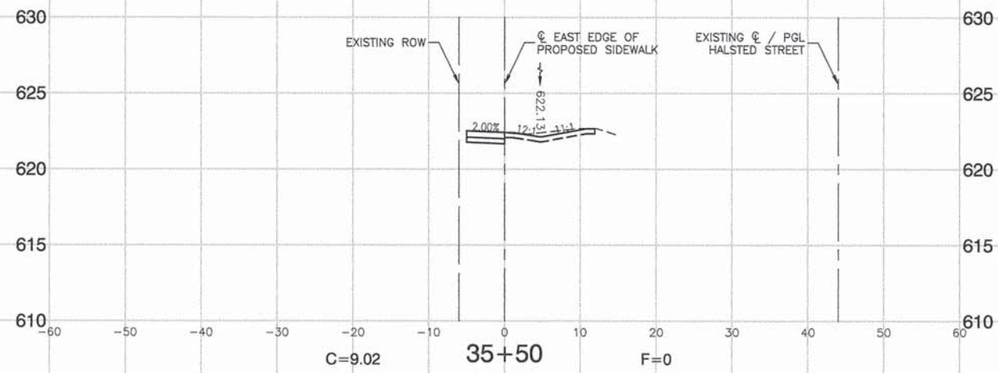
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	50
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

FILE NAME = 12602_02-XSEC-01 - X04	USER NAME =	DESIGNED — JPH	REVISED —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERSECTION IMPROVEMENTS HALSTED STREET AND 187TH STREET CROSS SECTIONS
		CHECKED — PKB	REVISED —		
	PLOT SCALE =	DRAWN — MED	REVISED —		SCALE: H 1"=10' V1"=5' | SHEET NO. 51 OF 61 SHEETS | STA. TO STA.
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —		

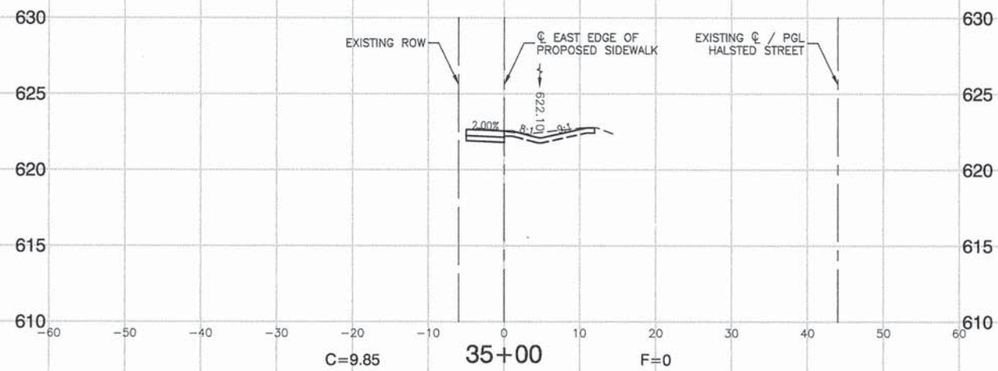
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	51
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

FILE NAME = 12602_02-XSEC-01 - X05	USER NAME =	DESIGNED — JPH	REVISED —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERSECTION IMPROVEMENTS HALSTED STREET AND 187TH STREET CROSS SECTIONS
		CHECKED — PKB	REVISED —		
	PLOT SCALE =	DRAWN — MED	REVISED —		
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —		SCALE: H 1"=10' V1"=5' | SHEET NO. 52 OF 61 SHEETS | STA. TO STA.

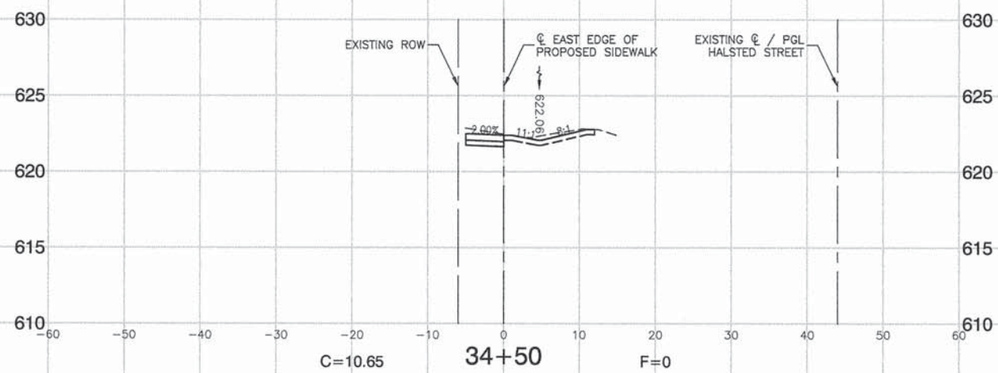
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	52
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		



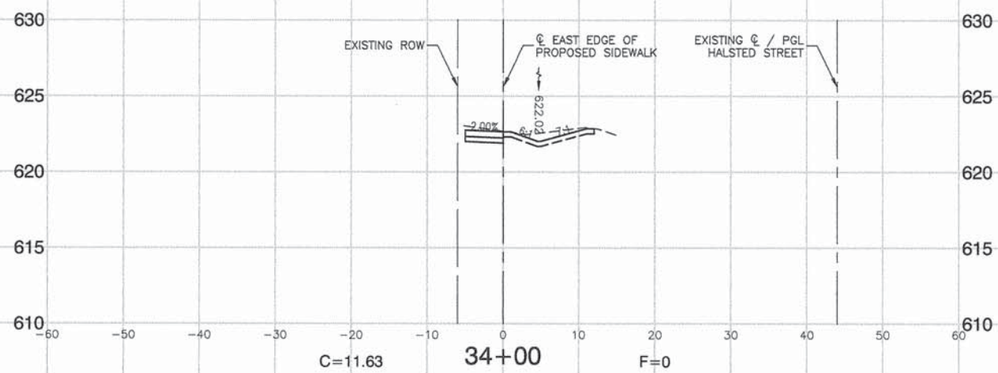
C=9.02 **35+50** F=0



C=9.85 **35+00** F=0



C=10.65 **34+50** F=0



C=11.63 **34+00** F=0

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
CROSS SECTIONS

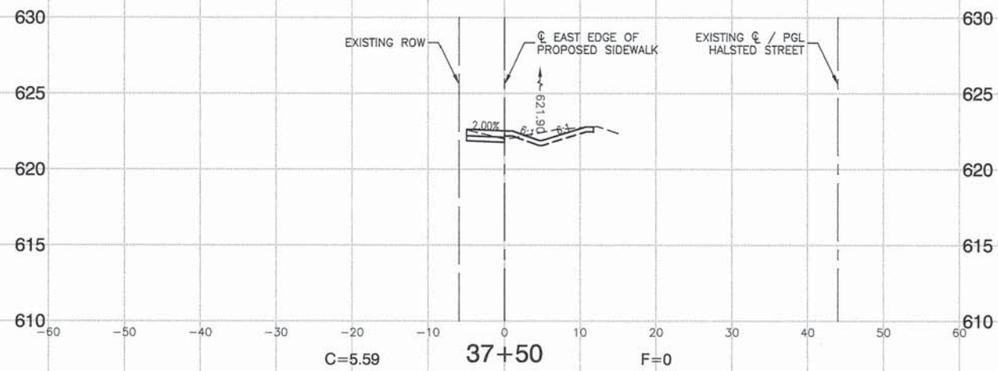
SCALE: H 1"=10' V1"=5' | SHEET NO. 53 OF 61 SHEETS | STA. | TO STA.

FILE NAME = 12b02_02-XSEC-01 -X06
USER NAME =
PLOT SCALE =
PLOT DATE = 8/31/15

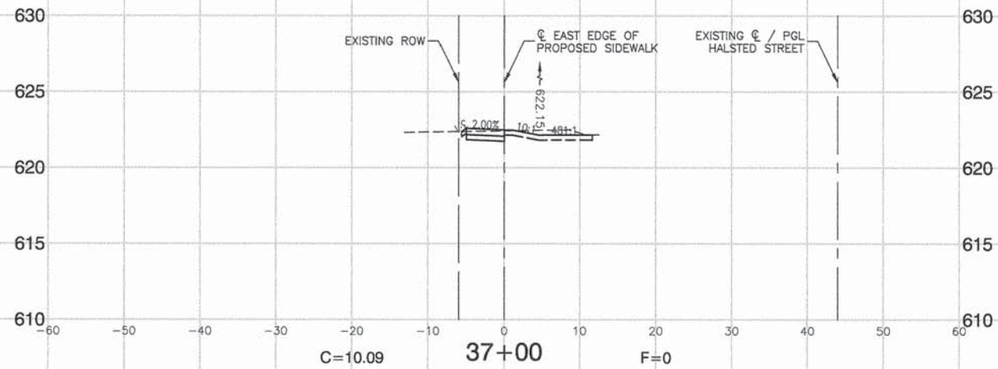
	DESIGNED	-	JPH
	CHECKED	-	PKB
	DRAWN	-	MED
	CHECKED	-	AG

REVISED	-
REVISED	-
REVISED	-
REVISED	-

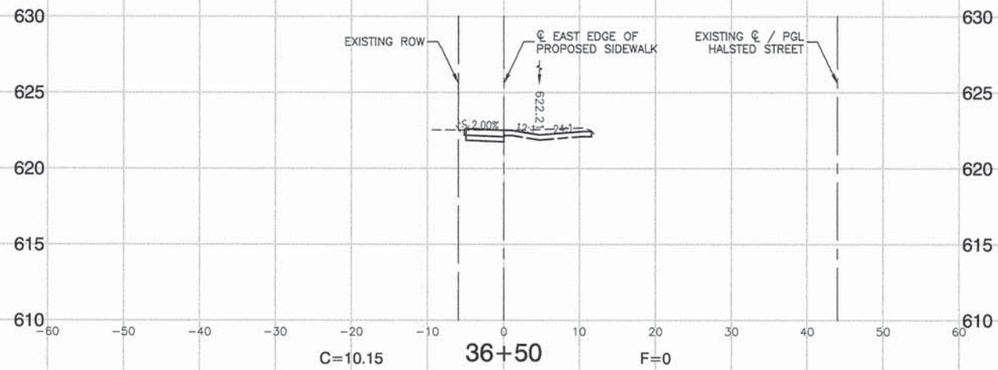
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
875	12-00055-00-CH	COOK	61	53
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 61B77		
FED. AID PROJECT: M-4003(121)				



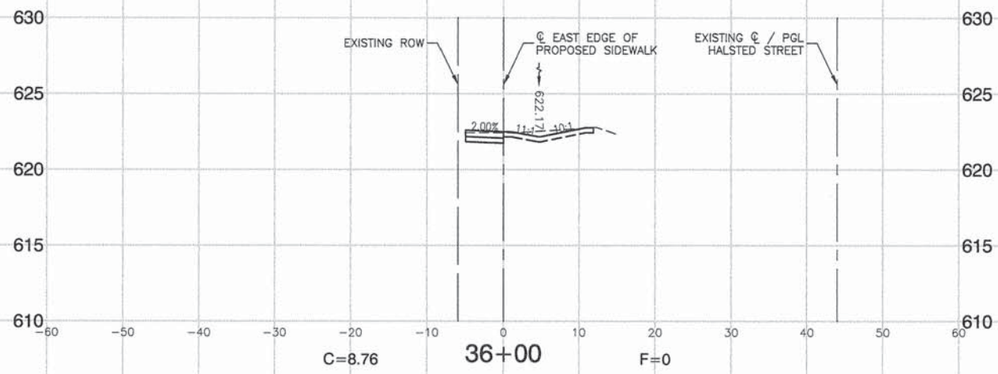
C=5.59 **37+50** F=0



C=10.09 **37+00** F=0



C=10.15 **36+50** F=0



C=8.76 **36+00** F=0

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
CROSS SECTIONS

SCALE: H 1"=10' V1"=5'	SHEET NO. 54 OF 61 SHEETS	STA.	TO STA.	

FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)	SECTION 12-00055-00-CH	COUNTY COOK	TOTAL SHEETS 61	SHEET NO. 54
				CONTRACT NO. 61B77		

F.A.P. RTE. 876

USER NAME =		DESIGNED - JPH	REVISED -
PLOT SCALE =		CHECKED - PKB	REVISED -
PLOT DATE = 8/31/16		DRAWN - MED	REVISED -
		CHECKED - AG	REVISED -

FILE NAME = 12602_02-XSEC-01 -X07

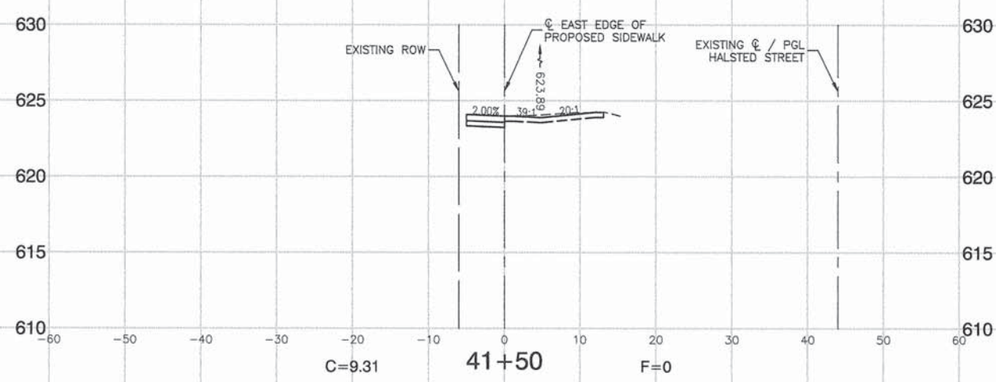
FILE NAME = 12602_02-XSEC-01 - X08	USER NAME =	DESIGNED — JPH	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — MED	REVISED —
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —

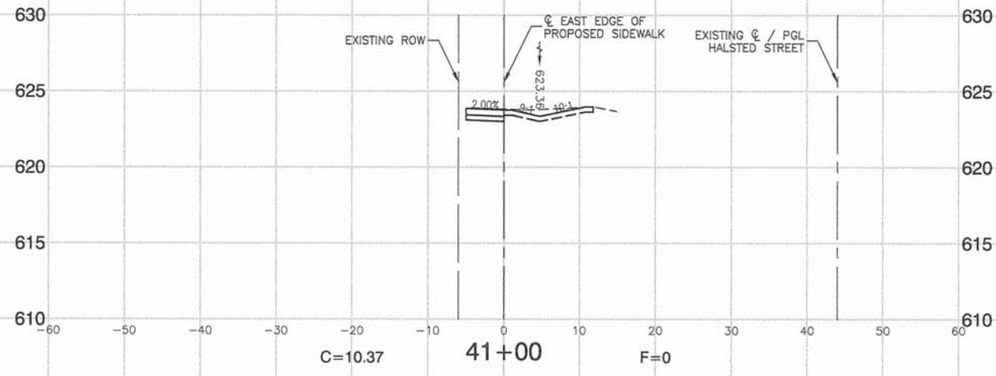
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

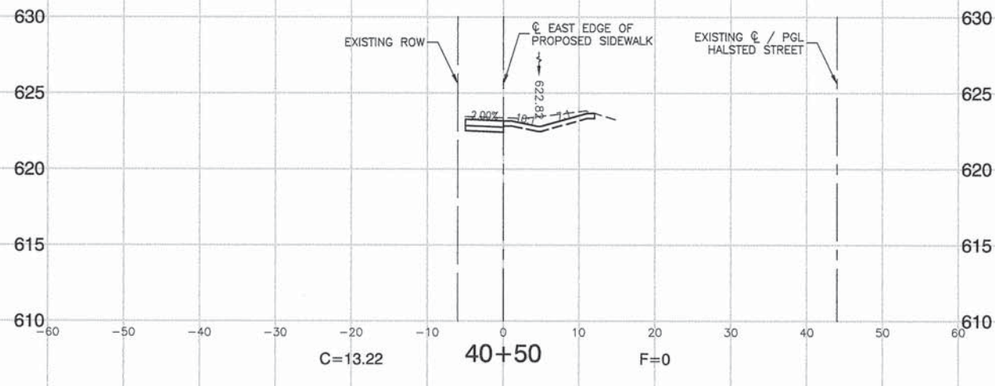
INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
CROSS SECTIONS

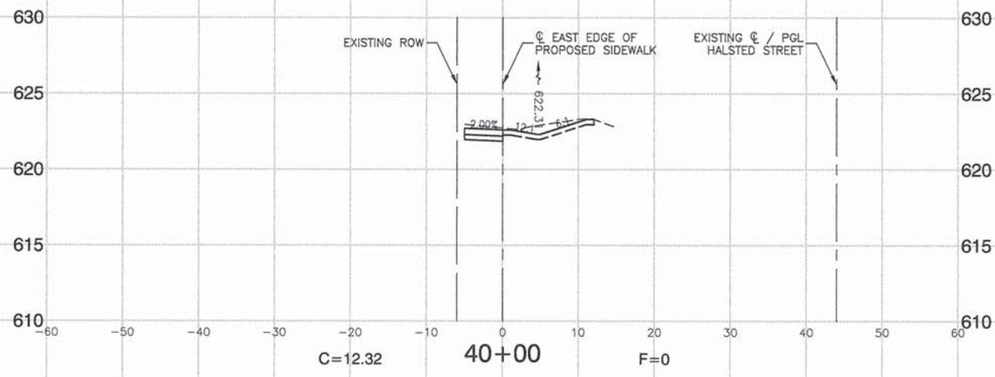
SCALE: H 1"=10' V1"=5' | SHEET NO. 55 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	55
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		









STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
CROSS SECTIONS

SCALE: H 1"=10' V1"=5' | SHEET NO. 56 OF 61 SHEETS | STA. | TO STA.

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT M-4009(121)

F.A.P. RTE. 876 | SECTION 12-00056-00-CH | COUNTY COOK | CONTRACT NO. 61B77 | TOTAL SHEETS 61 | SHEET NO 56

	USER NAME =	DESIGNED - JPH	REVISED -
PLOT SCALE =		CHECKED - PKB	REVISED -
PLOT DATE = 8-31-15		DRAWN - MED	REVISED -
		CHECKED - AG	REVISED -

FILE NAME = 12602_02-XSEC-01 - X09

FILE NAME = 12602_02-XSEC-01 - X10	USER NAME =	DESIGNED — JPH	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — MED	REVISED —
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
CROSS SECTIONS

SCALE: H 1"=10' V1"=5' | SHEET NO. 57 OF 61 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	57
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

FILE NAME = 12602_02-XSEC-01 - X11	USER NAME =	DESIGNED — JPH	REVISED —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERSECTION IMPROVEMENTS HALSTED STREET AND 187TH STREET CROSS SECTIONS
		CHECKED — PKB	REVISED —		
	PLOT SCALE =	DRAWN — MED	REVISED —		
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —		SCALE: H 1"=10' V1"=5' | SHEET NO. 58 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	58
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

FILE NAME = 12602_02-XSEC-01 - X12	USER NAME =	DESIGNED — JPH	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — MED	REVISED —
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
CROSS SECTIONS

SCALE: H 1"=10' V1"=5' | SHEET NO. 59 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	59
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		

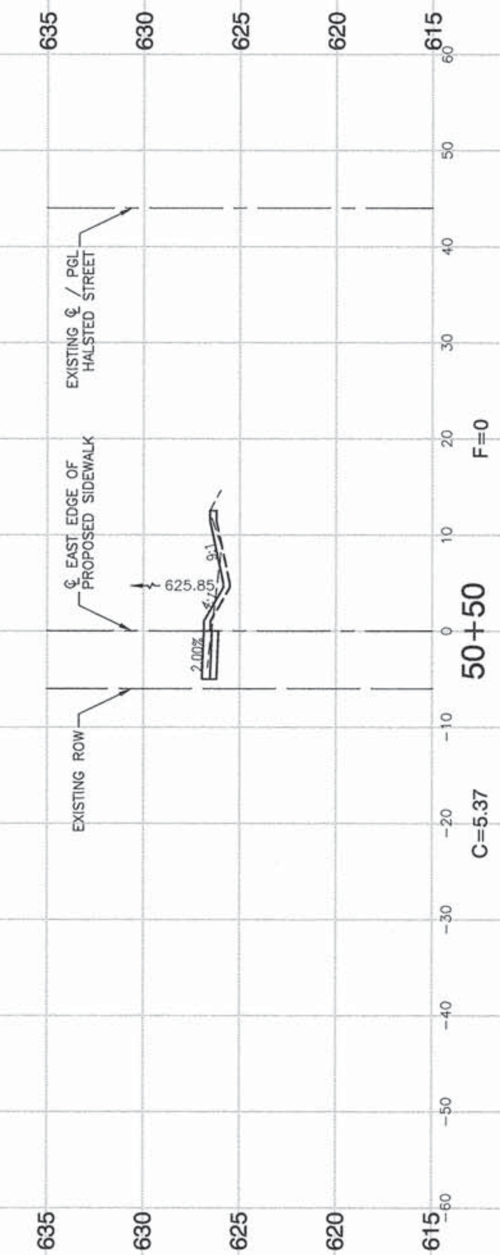
FILE NAME = 12602_02-XSEC-01 - X13	USER NAME =	DESIGNED — JPH	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — MED	REVISED —
	PLOT DATE = 8-31-15	CHECKED — AG	REVISED —

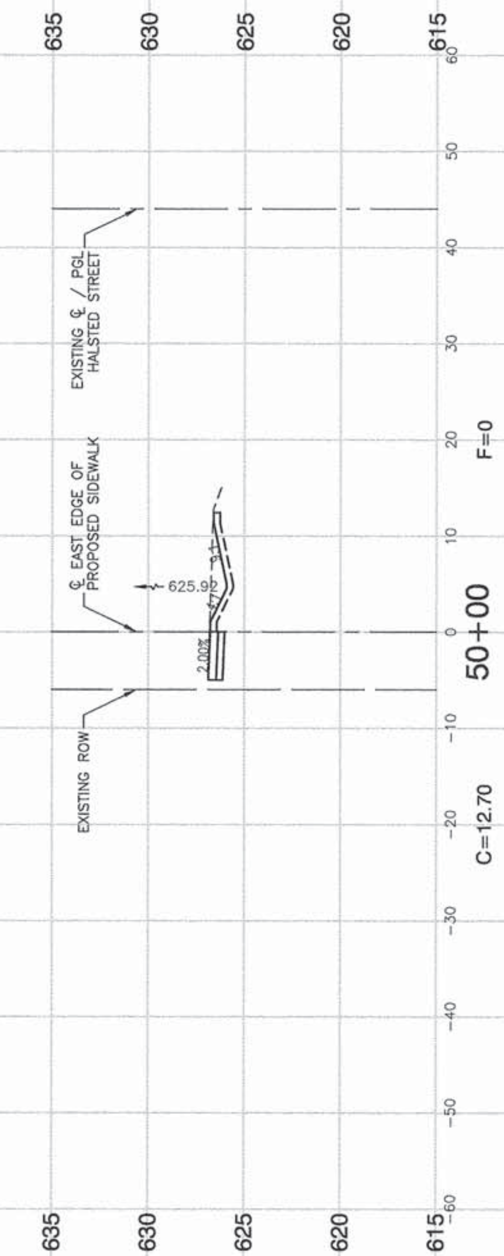
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
CROSS SECTIONS

SCALE: H 1"=10' V1"=5' | SHEET NO. 60 OF 61 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	60
		CONTRACT NO. 61B77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(121)		





FILE NAME = 12602_02-XSEC-01 - X14

USER NAME =	DESIGNED — JPH	REVISED —
	CHECKED — PKB	REVISED —
PLOT SCALE =	DRAWN — MED	REVISED —
PLOT DATE = 8-31-15	CHECKED — AG	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION IMPROVEMENTS
HALSTED STREET AND 187TH STREET
CROSS SECTIONS

SCALE: H 1"=10' V1"=5' | SHEET NO. 61 OF 61 SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
876	12-00055-00-CH	COOK	61	61
		CONTRACT NO. 61B77		

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT M-4003(121)