11-21-14 LETTING ITEM 027

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	1
	ILLINOIS	CONTRACT NO. 61A55		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FAP 352 IL 137 (SHERIDAN ROAD)
GRAND AVENUE TO IL 173 (21ST ST)
TRAFFIC SIGNAL MODERNIZATION AND FIBER OPTIC COMMUNICATION SYSTEM
SECTION: 12-00999-29-TL
PROJECT: CMM-4003(372)
LAKE COUNTY
C-91-410-14

FOR INDEX OF SHEETS, SEE SHEET NO. 2

D-91-410-14

LOCATION OF SECTION INDICATED THUS: –

DESIGN DESIGNATION

SHERIDAN ROAD = MINOR ARTERIAL
IL 137 (SHERIDAN RD) = OTHER PRINCIPAL ARTERIAL

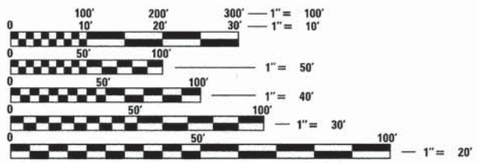
ADT:

IL 137 (SHERIDAN RD) = 19,200 (2013 YEAR)

POSTED SPEED LIMIT:

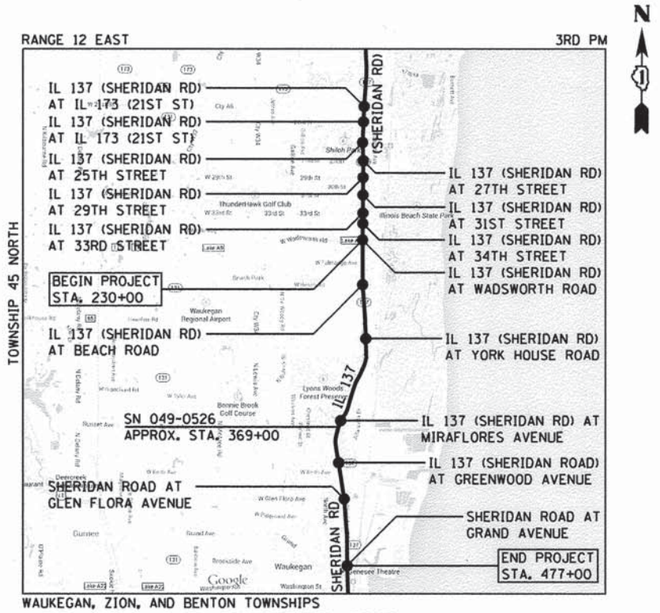
SHERIDAN ROAD = 30 MPH
IL 137 (SHERIDAN RD) = 40 MPH

PROJECT IS LOCATED IN THE CITY OF WAUKEGAN, THE VILLAGE OF BEACH PARK, AND THE CITY OF ZION



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



WAUKEGAN, ZION, AND BENTON TOWNSHIPS

LOCATION MAP
NO SCALE

GROSS LENGTH = 24,700 FT. = 4.68 MILE
NET LENGTH = 24,700 FT. = 4.68 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED Aug 12 20 14
Paula A. Trigg
DIRECTOR OF TRANSPORTATION, COUNTY ENGINEER

PASSED August 26 20 14
CHRISTOPHER HOLT
DISTRICT 1 ENGINEER OF LOCAL ROADS AND STREETS

RELEASING FOR BID BASED ON LIMITED REVIEW August 26 20 14
John Fortmann Jr.
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

SIGNED: _____
DANIEL P. BRINKMAN, EXP. 11/30/2015

DATE: 8-12-14

DANIEL P. BRINKMAN 062-055293 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

GHA GEWALT HAMILTON ASSOCIATES, INC.
850 Forest Edge Drive ▪ Vernon Hills, IL 60061
Consulting Engineers & Surveyors
PHONE: (847)478-9700 – FAX: (847)478-9701

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 61A55

FEDERAL AID PROGRAM ENGINEER: FAWAD AQUEEL, PE (847) 705-4021 SCHAUMBURG, IL

INDEX OF SHEETS

IDOT STANDARDS

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001006	DECIMAL OF AN INCH AND OF A FOOT
424001-07	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424006-01	DIAGONAL CURB RAMPS FOR SIDEWALKS
424011-01	CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
424021-02	DEPRESSED CORNER FOR SIDEWALKS
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701011-04	OFF-RD MOVING OPERATIONS 2L, 2W, DAY ONLY
701101-04	OFF-RD OPERATIONS, MULTILANE 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
701301-04	LANE CLOSURE, 2L, 2W SHORT TIME OPERATIONS
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701502-06	URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
701602-07	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701606-09	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-09	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-05	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-03	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNT DETAILS
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805001-01	ELECTRICAL SERVICE INSTALLATION DETAILS
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880001-01	SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION
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886001-01	DETECTOR LOOP INSTALLATIONS

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LC8900	VIDEO DETECTION DETAILS

GENERAL NOTES

THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", JANUARY 1, 2012; MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, LATEST EDITION; PROJECT SPECIFICATIONS; ALL APPLICABLE REQUIREMENTS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION; THE CITIES OF WAUKEGAN AND ZION; THE VILLAGE OF BEACH PARK; THE LAKE COUNTY DIVISION OF TRANSPORTATION; ALL APPLICABLE REQUIREMENTS OF THE ORDINANCES OF AUTHORITIES HAVING JURISDICTION; AND ALL ADDENDA THERETO SHALL GOVERN THIS WORK.

THE STANDARD SPECIFICATIONS, PROJECT SPECIFICATIONS, CONSTRUCTION PLANS, AND SUBSEQUENT DETAILS ARE ALL TO BE CONSIDERED AS PART OF THE CONTRACT. INCIDENTAL ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THIS WORK MAY NOT BE SPECIFICALLY NOTED BUT ARE TO BE CONSIDERED A PART OF THE CONTRACT.

WHENEVER, DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES, DITCHES, ETC. SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THE LOOSE MATERIAL WILL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OF UNSTABLE MATERIALS CREATED AS A RESULT THEREOF.

THE CONTRACTOR SHALL SOLEY BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS, TRAFFIC CONTROL DEVICES, AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC DURING ALL PHASES OF CONSTRUCTION.

THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL AREAS AFFECTED BY EQUIPMENT OR LABORERS TO EXISTING CONDITIONS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR PROTECTING ALL NEW WORK UNTIL COMPLETION OF THIS CONTRACT.

EXISTING UTILITIES: WHEN THE PLANS OR SPECIAL PROVISIONS INCLUDE INFORMATION PERTAINING TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES, SUCH INFORMATION IS BASED ON RECORD INFORMATION PROVIDED BY THE INDIVIDUAL UTILITY OWNERS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES. THE CONTRACTOR SHALL ALSO CONTACT J.U.L.I.E. TO OBTAIN LOCATES OF THE RESPECTIVE UTILITY COMPANIES UNDERGROUND FACILITIES.

RESTORATION OF WORK AREA: RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE COST OF THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC. AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD IN ACCORDANCE TO STANDARD SPECIFICATIONS ARTICLE 252 WHICH SHALL INCLUDE THE REQUIRED WATERING PER ARTICLE 252.08. ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS ARTICLE 250 AND 251, RESPECTIVELY.

THE GENERAL CONTRACTOR IS REQUIRED TO HIRE AN ENVIRONMENTAL FIRM WITH AT LEAST FIVE (5) DOCUMENTED LEAKING UNDERGROUND STORAGE TANK CLEANUPS OR THAT IS PRE-QUALIFIED IN HAZARDOUS WASTE BY THE DEPARTMENT TO REMEDIATE THE SOIL CONTAMINATION AND MONITOR FOR WORKER PROTECTION.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTH.

THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES, AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES, AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL 'JULIE' AT (800) 892-0123 OR 811, IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).

THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES, AND IDOT.

CONTROL POINT TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION	STATION	OFFSET
13	2087130.47	1120284.33	655.78	CP-FXCN-11	357+84.76	41.48'L
300	2074705.43	1120350.34	632.91	CP-SXTC-300	484+80.81	60.97'L
301	2075479.03	1120255.12	635.66	CP-SXSW-301	477+08.62	45.09'L
302	2076157.91	1120324.81	633.13	CP-SXSW-302	470+29.69	24.93'L
303	2077317.47	1120299.36	633.91	CP-SXTC-303	458+69.29	19.61'L
304	2078675.00	1120268.83	633.32	CP-SXTC-304	445+11.74	19.82'L
305	2080513.52	1120087.76	639.60	CP-SXTC-305	426+60.90	21.05'L
306	2081362.82	1119858.45	634.64	CP-SXSW-306	417+83.83	28.85'R
307	2083092.81	1119591.49	660.06	CP-SXSW-307	400+31.95	41.60'R
308	2083767.26	1119516.78	668.93	CP-SXCN-308	393+54.66	1.21'L
309	2086291.46	1119863.23	633.65	CP-SXTC-309	367+18.68	37.12'L
310	2087104.44	1120286.10	654.49	CP-SXSW-310	358+07.44	52.19'L
311	2088418.08	1120577.73	645.39	CP-SXTC-311	344+68.84	32.92'R
312	2089110.47	1120889.57	638.02	CP-SMN-312	337+11.42	34.43'R
314	2092340.06	1121548.27	630.35	CP-SXTC-314	303+59.76	36.25'R
315	2093196.06	1121590.02	630.67	CP-SMN-315	295+03.93	30.40'L
316	2095396.85	1121340.86	633.15	CP-SMN-316	272+90.13	31.53'R
317	2096337.34	1121285.77	634.46	CP-SMN-317	263+50.32	32.37'R
318	2097681.79	1121280.03	634.51	CP-SMN-318	250+05.95	31.44'R
319	2098330.84	1121277.09	633.85	CP-SMN-319	243+56.90	31.87'R

CONTROL POINT TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION	STATION	OFFSET
320	2099581.61	1121353.79	634.37	CP-SXTC-320	231+06.77	49.97'L
321	2100139.76	1121272.25	636.25	CP-SMN-321	225+48.85	37.13'R
322	2076754.68	1120306.56	635.70	CP-SXTC-322	464+32.11	19.24'L
323	2078285.12	1120281.41	631.96	CP-SXTC-323	449+01.83	19.85'L
400	2076540.99	1120264.16	635.47	CP-XSW-400	466+45.25	25.84'R
401	2077032.33	1120302.94	634.82	CP-XTC-401	461+54.46	19.34'L
402	2077715.56	1120294.11	633.10	CP-XTC-402	454+71.16	19.55'L
403	2078025.99	1120249.55	632.55	CP-XTC-403	451+59.89	19.16'R
404	2078479.99	1120235.65	632.85	CP-XTC-404	447+05.59	19.62'R
405	2078923.58	1120221.46	634.44	CP-XTC-405	442+61.78	19.49'R
406	2079242.80	1120250.03	635.33	CP-XTC-406	439+43.64	19.47'L
407	2079466.85	1120203.68	636.07	CP-XTC-407	437+18.20	19.58'R
408	2079714.29	1120234.68	636.76	CP-XTC-408	434+71.91	19.50'L
409	2080108.28	1120178.69	638.09	CP-XTC-409	430+76.20	19.64'L
410	2080818.53	1120016.47	638.76	CP-XTC-410	423+47.65	19.38'L
411	2081092.53	1119954.38	632.49	CP-XTC-411	420+66.86	19.71'L
412	2081475.86	1119891.85	636.21	CP-XTC-412	416+76.35	19.69'L
413	2081728.69	1119857.61	640.91	CP-XTC-413	414+21.21	19.45'L
414	2082163.42	1119797.01	647.96	CP-XTC-414	409+82.41	19.81'L
415	2082502.63	1119751.26	645.97	CP-XTC-415	406+40.26	22.98'L

CONTROL POINT TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION	STATION	OFFSET
416	2083175.92	1119946.23	651.98	CP-XCN-416	400+10.68	322.12'L
417	2083134.25	1119440.81	658.99	CP-XSW-417	399+65.38	182.99'R
418	2083448.22	1119579.55	667.38	CP-XCN-418	396+79.74	7.63'L
419	2084159.59	1119482.57	661.76	CP-XTC-419	389+63.97	35.51'L
420	2084280.07	1119455.89	662.33	CP-XSW-420	388+40.56	35.90'L
421	2084629.26	1119343.75	669.74	CP-XTC-421	384+78.32	28.14'R
422	2085007.24	1119429.66	669.61	CP-XSW-422	380+95.21	34.03'L
424	2085769.88	1119599.37	644.25	CP-XTC-424	373+06.45	28.63'L
425	2086038.39	1119661.85	634.07	CP-XTC-425	370+35.36	28.56'R
426	2086103.29	1120054.14	633.70	CP-XSW-426	368+00.58	292.36'L
427	2086534.37	1119993.64	640.14	CP-XSW-427	364+43.00	43.72'L
428	2086861.55	1120159.48	650.39	CP-XSW-428	360+76.20	43.75'L
7366	2083129.40	1119566.96	660.90	CP-XSW-3-BO	399+91.71	59.52'R

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

ANY EXPLORITORY POTHOLING FOR EXISTING BELOW GRADE UTILITIES IN HARD SURFACES OR GRASSED AREAS SHALL BE INCLUDED IN THE COST OF THE CONTRACT. ALL POTHOLE SHALL BE FILLED WITH SAND OR BENTONITE CHIPS AS APPROVED BY THE ENGINEER.

GHA #4571.800

FILE NAME = D161A55-002-gennote.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS & GENERAL NOTES		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - ZCW	REVISED -				2736	12-00999-29-00-TL	LAKE	73	2
	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -							CONTRACT NO. 61A55	
$MODELNAME$	PLOT DATE = 9/3/2014	DATE - 2/19/2014	REVISED -		SCALE: NONE	SHEET OF SHEETS STA. TO STA.			ILLINOIS	FED. AID PROJECT	

SUMMARY OF QUANTITIES

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	SHERIDAN ROAD AT GRAND AVENUE	SHERIDAN ROAD AT GLEN FLORA AVENUE	IL 137 (SHERIDAN RD) AT GREENWOOD AVENUE	IL 137 (SHERIDAN RD) AT MIRAFLORES AVENUE	IL 137 (SHERIDAN RD) AT YORK HOUSE ROAD	IL 137 (SHERIDAN RD) AT BEACH ROAD	IL 137 (SHERIDAN RD) AT WADSWORTH ROAD	IL 137 (SHERIDAN RD) AT 34TH STREET	IL 137 (SHERIDAN RD) AT 33RD STREET	IL 137 (SHERIDAN RD) AT 31ST STREET	IL 137 (SHERIDAN RD) AT 29TH STREET	IL 137 (SHERIDAN RD) AT 27TH STREET	IL 137 (SHERIDAN RD) AT 25TH STREET (SHILOH BLVD)	IL 137 (SHERIDAN RD) AT 23RD STREET	IL 137 (SHERIDAN RD) AT IL 173 (21ST ST)	INTERCONNECT- IL 137 (SHERIDAN RD) FROM GRAND AV TO WADSWORTH ROAD
					CONSTRUCTION CODES															
					0021															
					TRAFFIC SIGNALS															
*	20200100	EARTH EXCAVATION	CU YD	9		9														
*	42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SQ YD	18		18														
*	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	890		890														
*	42400800	DETECTABLE WARNINGS	SQ FT	88		88														
*	44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	18		18														
*	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	125		125														
*	44000600	SIDEWALK REMOVAL	SQ FT	830		830														
*	60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	10		10														
*	60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	115		115														
	67100100	MOBILIZATION	L SUM	1																
	72000100	SIGN PANEL - TYPE 1	SQ FT	40.50				19.50	21.00											

*SPECIALTY ITEM

GHA #4571.800

FILE NAME = D161A55-003-SQQ.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
MODELNAME	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES (SHEET 1 OF 8)

SCALE: NONE | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	3
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

	SUMMARY OF QUANTITIES	LOCATION OF WORK		SHERIDAN ROAD AT GRAND AVENUE	SHERIDAN ROAD AT GLEN FLORA AVENUE	IL 137 (SHERIDAN RD) AT GREENWOOD AVENUE	IL 137 (SHERIDAN RD) AT MIRAFLORES AVENUE	IL 137 (SHERIDAN RD) AT YORK HOUSE ROAD	IL 137 (SHERIDAN RD) AT BEACH ROAD	IL 137 (SHERIDAN RD) AT WADSWORTH ROAD	IL 137 (SHERIDAN RD) AT 34TH STREET	IL 137 (SHERIDAN RD) AT 33RD STREET	IL 137 (SHERIDAN RD) AT 31ST STREET	IL 137 (SHERIDAN RD) AT 29TH STREET	IL 137 (SHERIDAN RD) AT 27TH STREET	IL 137 (SHERIDAN RD) AT 25TH STREET (SHILOH BLVD)	IL 137 (SHERIDAN RD) AT 23RD STREET	IL 137 (SHERIDAN RD) AT IL 173 (21ST ST)	INTERCONNECT- IL 137 (SHERIDAN RD) FROM GRAND AV TO WADSWORTH ROAD
				CONSTRUCTION CODES															
		UNIT	TOTAL	0021															
CODE NO.	ITEM		QUANTITY	TRAFFIC SIGNALS															
72000200	SIGN PANEL - TYPE 2	SQ FT	60.00				15.00	45.00											
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	137		137														
* 78300100	PAVEMENT MARKING REMOVAL	SQ FT	70		70														
80500020	SERVICE INSTALLATION - POLE MOUNTED	EACH	3		1		1	1											
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	25,385		198		636	704											23,847
81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	132		36		63	33											
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	60				39	21											
81028230	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3 1/2" DIA.	FOOT	102		53		21	28											
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	898		283		294	321											
81400100	HANDHOLE	EACH	51		2		4	4											41
81400200	HEAVY-DUTY HANDHOLE	EACH	5				2	3											
81400300	DOUBLE HANDHOLE	EACH	6		2		2	2											
82102250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	4		4														
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	12	1		1			1	1	1	1	1	1	1	1	1	1	

* SPECIALTY ITEM

GHA #4571.800

FILE NAME = D161A55-004-SOQ.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES (SHEET 2 OF 8)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - ZCW	REVISED -			2736	12-00999-29-TL	LAKE	73	4
MODELNAME	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -					CONTRACT NO. 61A55		
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -		SCALE: NONE SHEET OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES		LOCATION OF WORK		SHERIDAN ROAD AT GRAND AVENUE	SHERIDAN ROAD AT GLEN FLORA AVENUE	IL 137 (SHERIDAN RD) AT GREENWOOD AVENUE	IL 137 (SHERIDAN RD) AT MIRAFLORES AVENUE	IL 137 (SHERIDAN RD) AT YORK HOUSE ROAD	IL 137 (SHERIDAN RD) AT BEACH ROAD	IL 137 (SHERIDAN RD) AT WADSWORTH ROAD	IL 137 (SHERIDAN RD) AT 34TH STREET	IL 137 (SHERIDAN RD) AT 33RD STREET	IL 137 (SHERIDAN RD) AT 31ST STREET	IL 137 (SHERIDAN RD) AT 29TH STREET	IL 137 (SHERIDAN RD) AT 27TH STREET	IL 137 (SHERIDAN RD) AT 25TH STREET (SHILOH BLVD)	IL 137 (SHERIDAN RD) AT 23RD STREET	IL 137 (SHERIDAN RD) AT IL 173 (21ST ST)	INTERCONNECT-IL 137 (SHERIDAN RD) FROM GRAND AV TO WADSWORTH ROAD
				CONSTRUCTION CODES															
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0021 TRAFFIC SIGNALS															
85100500	PAINT NEW SIGNAL POST	EACH	6		2		4												
85100600	PAINT NEW MAST ARM AND POLE, UNDER 40 FEET	EACH	2				2												
85100800	PAINT NEW COMBINATION MAST ARM POLE, UNDER 40 FOOT	EACH	5		4		1												
87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	25,820																25,820
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	955		955														
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	3,635		1,452	352	512	754	139	73					264			89	
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3,541		1,218		1,427	896											
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2,152		342		611	1,199											
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2,703				1,249	1,454											
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	311		220		34	57											
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	453					453											
87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	5		1		3		1										
87502490	TRAFFIC SIGNAL POST, GALVANIZED STEEL 15 FT.	EACH	2					2											
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4		1		1	2											

* SPECIALTY ITEM

GHA *4571.800

FILE NAME = D161A55-005-SOQ.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
MODELNAME	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES (SHEET 3 OF 8)

SCALE: NONE | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	5
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES		LOCATION OF WORK		SHERIDAN ROAD AT GRAND AVENUE	SHERIDAN ROAD AT GLEN FLORA AVENUE	IL 137 (SHERIDAN RD) AT GREENWOOD AVENUE	IL 137 (SHERIDAN RD) AT MIRAFLORES AVENUE	IL 137 (SHERIDAN RD) AT YORK HOUSE ROAD	IL 137 (SHERIDAN RD) AT BEACH ROAD	IL 137 (SHERIDAN RD) AT WADSWORTH ROAD	IL 137 (SHERIDAN RD) AT 34TH STREET	IL 137 (SHERIDAN RD) AT 33RD STREET	IL 137 (SHERIDAN RD) AT 31ST STREET	IL 137 (SHERIDAN RD) AT 29TH STREET	IL 137 (SHERIDAN RD) AT 27TH STREET	IL 137 (SHERIDAN RD) AT 25TH STREET (SHILOH BLVD)	IL 137 (SHERIDAN RD) AT 23RD STREET	IL 137 (SHERIDAN RD) AT IL 173 (21ST ST)	INTERCONNECT-IL 137 (SHERIDAN RD) FROM GRAND AV TO WADSWORTH ROAD
				CONSTRUCTION CODES															
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0021 TRAFFIC SIGNALS															
87502520	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1					1											
87700160	STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	1				1												
87700180	STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	1					1											
87700190	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1					1											
87700200	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1				1												
87702840	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 22 FT.	EACH	2		2														
87702860	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 26 FT.	EACH	1		1														
87702890	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT.	EACH	1				1												
87702900	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT.	EACH	2		1			1											
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	44		8		16	20											
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	12		4		4	4											
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	20				10	10											
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	104		60		22	22											
87900200	DRILL EXISTING HANDHOLE	EACH	8																8

*SPECIALTY ITEM

GHA #4571.800

FILE NAME = D161A55-006-SOQ.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES (SHEET 4 OF 8)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - ZCW	REVISED -			2736	12-00999-29-TL	LAKE	73	6
MODELNAME	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -					CONTRACT NO. 61A55		
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -		SCALE: NONE SHEET OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES		LOCATION OF WORK		SHERIDAN ROAD AT GRAND AVENUE	SHERIDAN ROAD AT GLEN FLORA AVENUE	IL 137 (SHERIDAN RD) AT GREENWOOD AVENUE	IL 137 (SHERIDAN RD) AT MIRAFLORES AVENUE	IL 137 (SHERIDAN RD) AT YORK HOUSE ROAD	IL 137 (SHERIDAN RD) AT BEACH ROAD	IL 137 (SHERIDAN RD) AT WADSWORTH ROAD	IL 137 (SHERIDAN RD) AT 34TH STREET	IL 137 (SHERIDAN RD) AT 33RD STREET	IL 137 (SHERIDAN RD) AT 31ST STREET	IL 137 (SHERIDAN RD) AT 29TH STREET	IL 137 (SHERIDAN RD) AT 27TH STREET	IL 137 (SHERIDAN RD) AT 25TH STREET (SHILOH BLVD)	IL 137 (SHERIDAN RD) AT 23RD STREET	IL 137 (SHERIDAN RD) AT IL 173 (21ST ST)	INTERCONNECT-IL 137 (SHERIDAN RD) FROM GRAND AV TO WADSWORTH ROAD
				CONSTRUCTION CODES															
				0021															
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS															
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	20		7		6	5	2										
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	8		3		3		2										
88030070	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	3					3											
88030080	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	1					1											
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	5		1		2	2											
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	5		1		2	2											
88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1						1										
88030310	SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1						1										
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6		4				2										
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2		2														
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	26		8		8	8	2										
88500100	INDUCTIVE LOOP DETECTOR	EACH	98			11	6	7	3	12	7	8	6	8	8	6	6	10	
88600100	DETECTOR LOOP, TYPE I	FOOT	1,096				477	619											
88700200	LIGHT DETECTOR	EACH	7		2		2	3											

* SPECIALTY ITEM

GHA #4571.800

FILE NAME = D161A55-007-SOQ.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES (SHEET 5 OF 8)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - ZCW	REVISED -			2736	12-00999-29-TL	LAKE	73	7
MODELNAME	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -					CONTRACT NO. 61A55		
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -		SCALE: NONE SHEET OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	SHERIDAN ROAD AT GRAND AVENUE	SHERIDAN ROAD AT GLEN FLORA AVENUE	IL 137 (SHERIDAN RD) AT GREENWOOD AVENUE	IL 137 (SHERIDAN RD) AT MIRAFLORES AVENUE	IL 137 (SHERIDAN RD) AT YORK HOUSE ROAD	IL 137 (SHERIDAN RD) AT BEACH ROAD	IL 137 (SHERIDAN RD) AT WADSWORTH ROAD	IL 137 (SHERIDAN RD) AT 34TH STREET	IL 137 (SHERIDAN RD) AT 33RD STREET	IL 137 (SHERIDAN RD) AT 31ST STREET	IL 137 (SHERIDAN RD) AT 29TH STREET	IL 137 (SHERIDAN RD) AT 27TH STREET	IL 137 (SHERIDAN RD) AT 25TH STREET (SHILOH BLVD)	IL 137 (SHERIDAN RD) AT 23RD STREET	IL 137 (SHERIDAN RD) AT IL 173 (21ST ST)	INTERCONNECT- IL 137 (SHERIDAN RD) FROM GRAND AV TO WADSWORTH ROAD
SUMMARY OF QUANTITIES		LOCATION OF WORK		CONSTRUCTION CODES																
				0021																
				TRAFFIC SIGNALS																
88700300	LIGHT DETECTOR AMPLIFIER	EACH	3		1		1	1												
88800100	PEDESTRIAN PUSH-BUTTON	EACH	10		8				2											
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	3		1		1	1												
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	10			1				1	1	1	1	1	1	1	1	1		
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	14		1	1	1	1	1	1	1	1	1	1	1	1	1	1		
89502380	REMOVE EXISTING HANDHOLE	EACH	14		5		4	5												
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	20		8		6	6												
XX008391	ELECTRIC CABLE IN CONDUIT, VIDEO NO. 20 4C	FOOT	1,634		249	352	272	196	139	73					264			89		
XX008683	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 2-1C NO. 10	FOOT	717		717															
XX008396	CAMERA MOUNTING ASSEMBLY, (SPECIAL)	EACH	1												1					
X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	1,309		239		512	558												
X0325462	MEDIA CONVERTER	EACH	2																	2
X6700405	ENGINEER'S FIELD OFFICE, TYPE A (MODIFIED)	CAL MO	7																	
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1																	

* SPECIALTY ITEM

IMPORTANT CONSTRUCTION NOTE:

(1) THE MEDIA CONVERTERS SHALL BE INSTALLED IN THE EXISTING LAKE COUNTY DIVISION OF TRANSPORTATION COMMUNICATION CABINET LOCATED AT IL 131 (GREEN BAY RD) AND WASHINGTON STREET. THE MAINTENANCE OF THE EXISTING COMMUNICATION CABINET SHALL BE INCLUDED IN THE MEDIA CONVERTER PAY ITEM AND NO EXTRA COMPENSATION SHALL BE ALLOWED.

GHA #4571.800

FILE NAME = D161A55-008-SOQ.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
$MODELNAME$	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES (SHEET 6 OF 8)

SCALE: NONE | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	8
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES		LOCATION OF WORK		SHERIDAN ROAD AT GRAND AVENUE	SHERIDAN ROAD AT GLEN FLORA AVENUE	IL 137 (SHERIDAN RD) AT GREENWOOD AVENUE	IL 137 (SHERIDAN RD) AT MIRAFLORES AVENUE	IL 137 (SHERIDAN RD) AT YORK HOUSE ROAD	IL 137 (SHERIDAN RD) AT BEACH ROAD	IL 137 (SHERIDAN RD) AT WADSWORTH ROAD	IL 137 (SHERIDAN RD) AT 34TH STREET	IL 137 (SHERIDAN RD) AT 33RD STREET	IL 137 (SHERIDAN RD) AT 31ST STREET	IL 137 (SHERIDAN RD) AT 29TH STREET	IL 137 (SHERIDAN RD) AT 27TH STREET	IL 137 (SHERIDAN RD) AT 25TH STREET (SHILOH BLVD)	IL 137 (SHERIDAN RD) AT 23RD STREET	IL 137 (SHERIDAN RD) AT IL 173 (21ST ST)	INTERCONNECT-IL 137 (SHERIDAN RD) FROM GRAND AV TO WADSWORTH ROAD
				CONSTRUCTION CODES															
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0021 TRAFFIC SIGNALS															
X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	14		1	1	1	1	1	1	1	1	1	1	1	1	1	1	
X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	4		1		1	1	1										
X8950212	MODIFY EXISTING CONTROLLER CABINET, SPECIAL	EACH	1	1															
X8730571	ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	1,634		249	352	272	196	139	73					264			89	
X0326885	VIDEO DETECTION SYSTEM	EACH	1		1														
XX005800	RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	10			1				1	1	1	1	1	1	1	1	1	
XX005937	LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4		4														
XX005940	REMOTE CONTROLLED VIDEO SYSTEM	EACH	8		1	1	1	1	1	1					1			1	
XX006655	LAYER II (DATALINK) SWITCH	EACH	14		1	1	1	1	1	1	1	1	1	1	1	1	1	1	
XX007017	TERMINATE FIBER IN CABINET	EACH	174																174
XX008246	FIBER OPTIC CABLE IN CONDUIT, 24 SINGLE MODE	FOOT	25,937																25,937
XX008251	SPLICE FIBER IN CABINET	EACH	6																6
XX008253	VIDEO ENCODER	EACH	8		1	1	1	1	1	1					1			1	
Z0010688	CAMERA MOUNTING ASSEMBLY	EACH	3			1				1								1	

* SPECIALTY ITEM

GHA #4571.800

FILE NAME = D161A55-009-S00.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES (SHEET 7 OF 8)	F.A.P. RTE. 2736 | SECTION 12-00999-29-TL | COUNTY LAKE | TOTAL SHEETS 73 | SHEET NO. 9
		DRAWN - ZCW	REVISED -			CONTRACT NO. 61A55
$MODELNAME$	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -		SCALE: NONE | SHEET OF SHEETS | STA. TO STA.	ILLINOIS | FED. AID PROJECT
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -			

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	SHERIDAN ROAD AT GRAND AVENUE	SHERIDAN ROAD AT GLEN FLORA AVENUE	IL 137 (SHERIDAN RD) AT GREENWOOD AVENUE	IL 137 (SHERIDAN RD) AT MIRAFLORES AVENUE	IL 137 (SHERIDAN RD) AT YORK HOUSE ROAD	IL 137 (SHERIDAN RD) AT BEACH ROAD	IL 137 (SHERIDAN RD) AT WADSWORTH ROAD	IL 137 (SHERIDAN RD) AT 34TH STREET	IL 137 (SHERIDAN RD) AT 33RD STREET	IL 137 (SHERIDAN RD) AT 31ST STREET	IL 137 (SHERIDAN RD) AT 29TH STREET	IL 137 (SHERIDAN RD) AT 27TH STREET	IL 137 (SHERIDAN RD) AT 25TH STREET (SHILOH BLVD)	IL 137 (SHERIDAN RD) AT 23RD STREET	IL 137 (SHERIDAN RD) AT IL 173 (21ST ST)	INTERCONNECT-IL 137 (SHERIDAN RD) FROM GRAND AV TO WADSWORTH ROAD
		SUMMARY OF QUANTITIES	LOCATION OF WORK		CONSTRUCTION CODES															
					0021															
					TRAFFIC SIGNALS															
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	51.40																51.40
	Z0033046	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	14																14
*	Z0042300	PORTLAND CEMENT CONCRETE SIDEWALK CURB	FOOT	55		55														
	Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	3		1		1	1											
#	Z0076600	TRAINEES	HOUR	1,000																
#	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	1,000																

* SPECIALTY ITEM
# CONSTRUCTION TYPE CODE 0042

GHA #4571.800

FILE NAME = D161A55-010-SOQ.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
MODELNAME	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES (SHEET 8 OF 8)

SCALE: NONE | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	10
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

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.

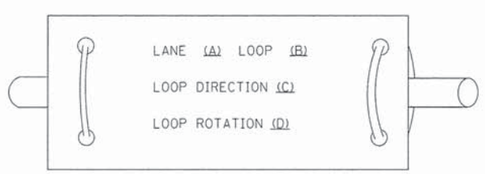
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

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

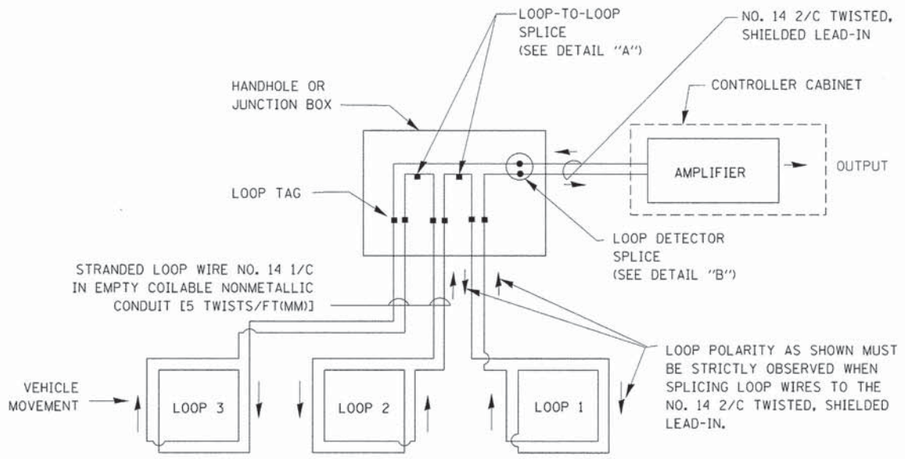


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

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

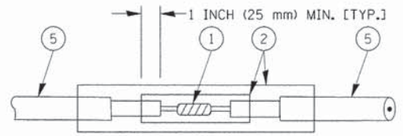
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

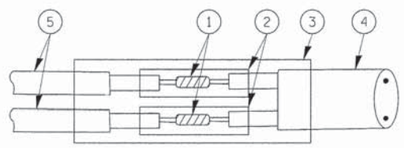


DETECTOR LOOP WIRING SCHEMATIC

- 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.

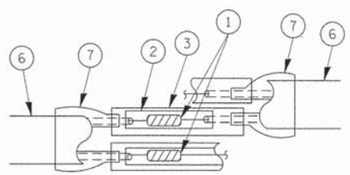


DETAIL "A"
LOOP-TO-LOOP SPLICE



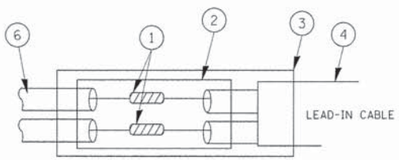
DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

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.

(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

GHA #4571.800

FILE NAME = D161A55-011-Details.dgn	USER NAME = ZWallsten	DESIGNED - DAD	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

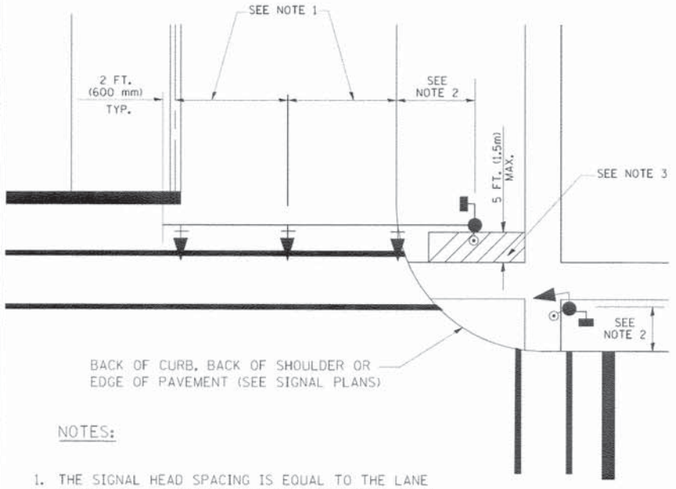
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 1 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-009999-29-TL	LAKE	73	11
	TS-05	CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

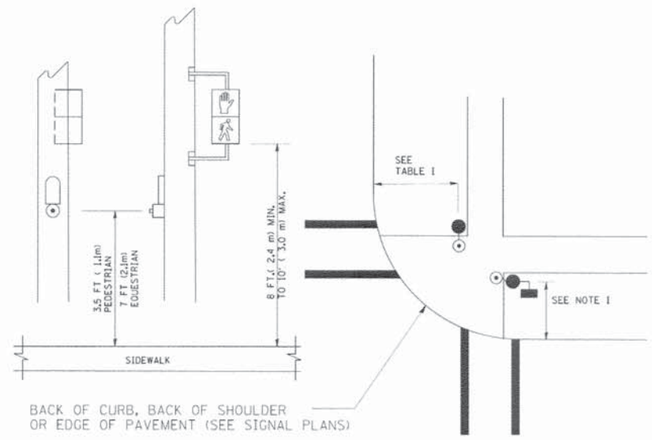
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

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

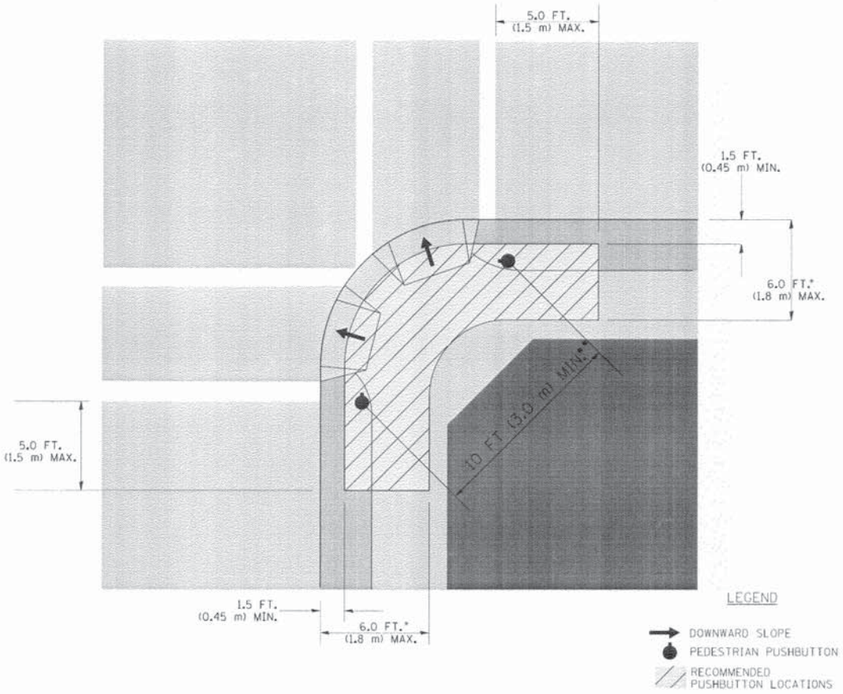
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

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

RECOMMENDED PUSHBUTTON LOCATIONS



* WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.

** WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

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

TRAFFIC SIGNAL EQUIPMENT OFFSET

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

NOTES:

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

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DISTRICT ONE
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SCALE: NONE | SHEET 2 OF 7 SHEETS | STA. | TO STA.

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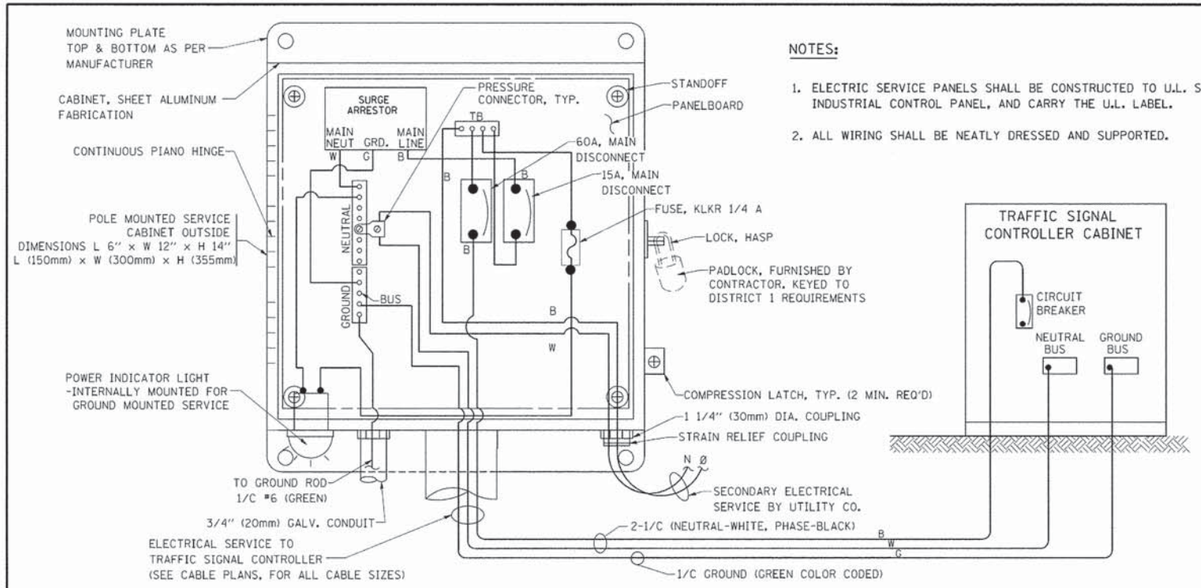
2736	12-009999-29-TL	LAKE	73	12
	TS-05	CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			



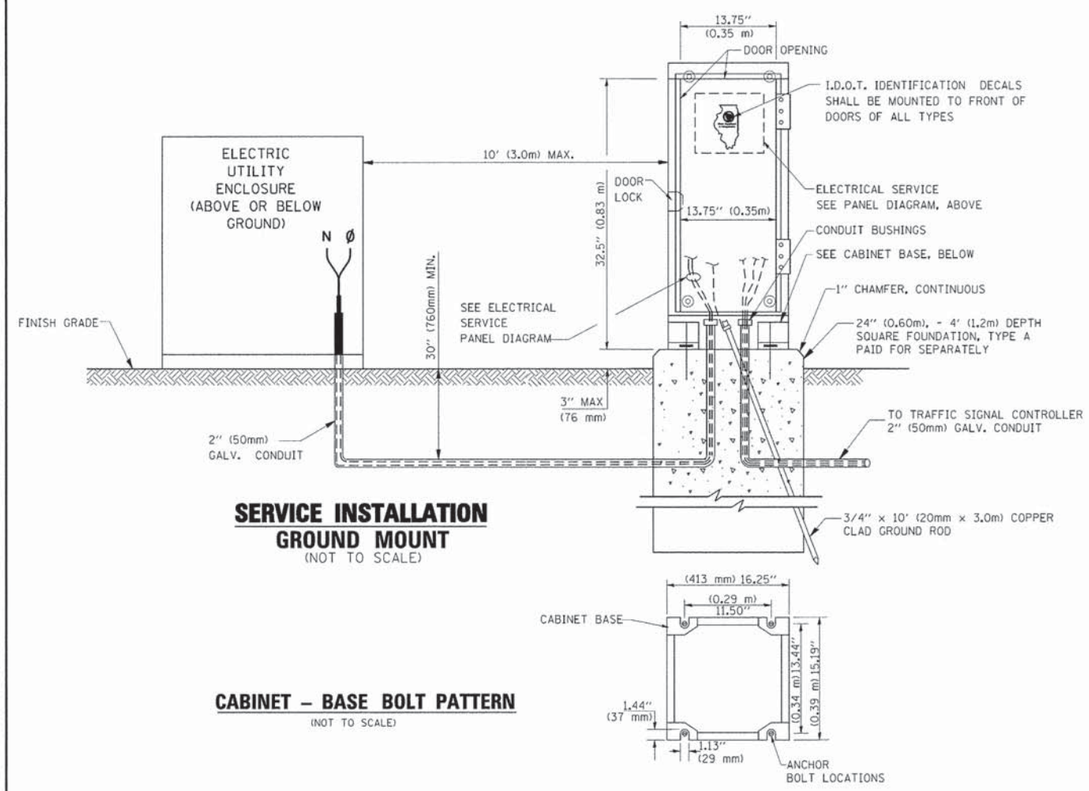
NOTES:

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)

SERVICE INSTALLATION POLE MOUNT (SHOWN)

(NOT TO SCALE)

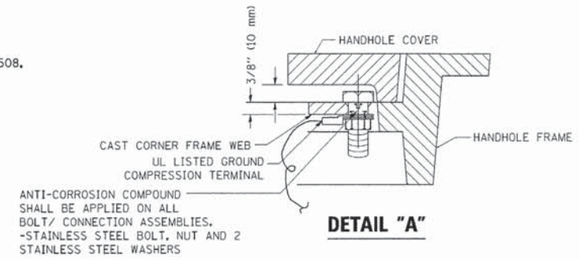


SERVICE INSTALLATION GROUND MOUNT

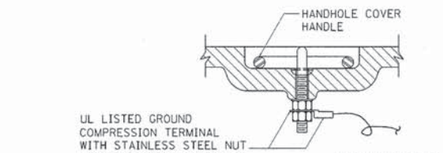
(NOT TO SCALE)

CABINET – BASE BOLT PATTERN

(NOT TO SCALE)



DETAIL "A"

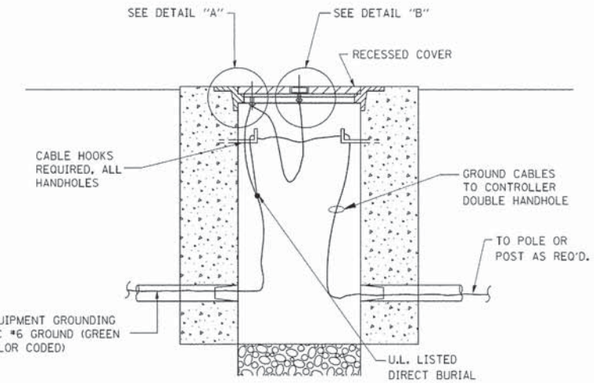


DETAIL "B"

NOTES:

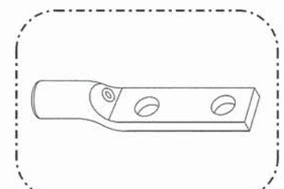
GROUNDING SYSTEM

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.



HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)

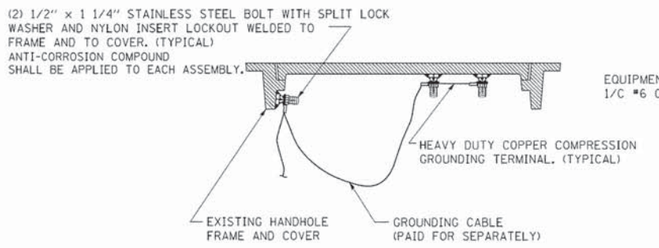


HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)

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

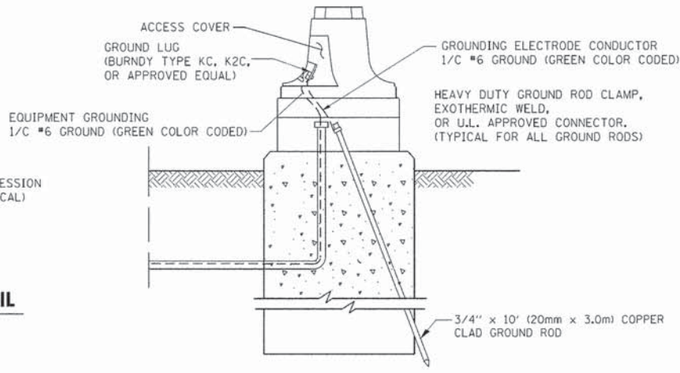
NOTES:

- 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.



EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



MAST ARM POLE / POST–GROUNDING DETAIL

(NOT TO SCALE)

GHA #4571.800

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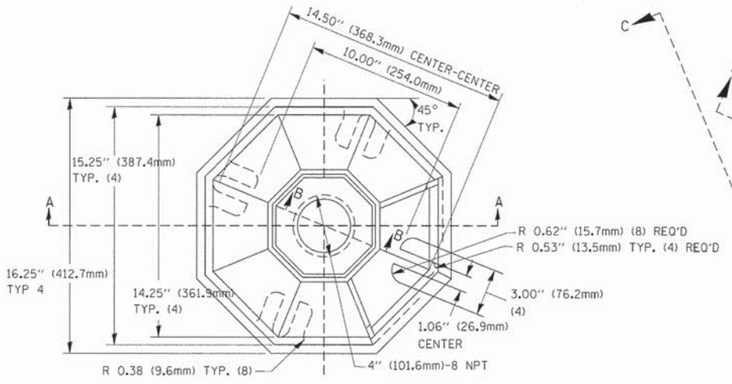
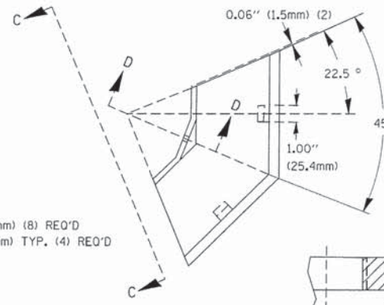
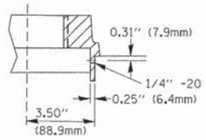
SCALE: NONE | SHEET 3 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-009999-29-TL	LAKE	73	13
	TS-05	CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

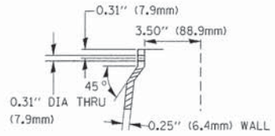


TOP VIEW

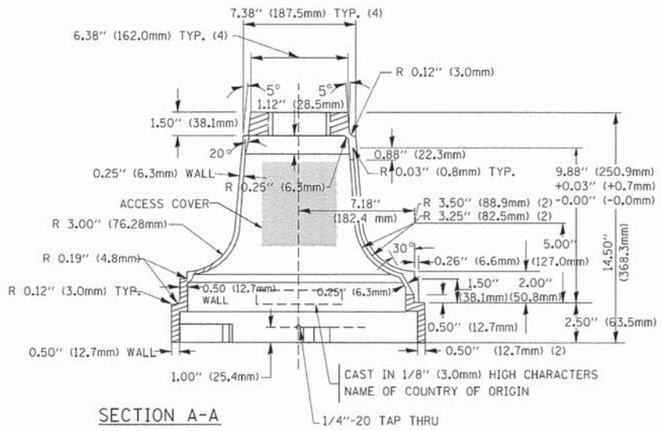




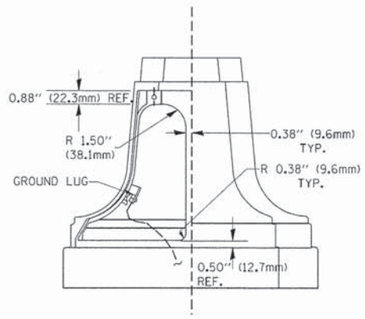
SECTION B-B



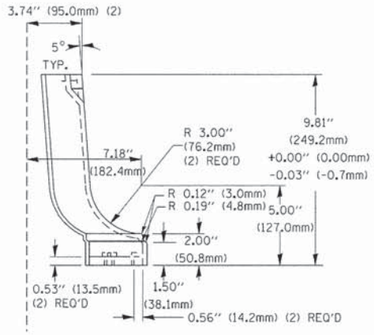
SECTION D-D



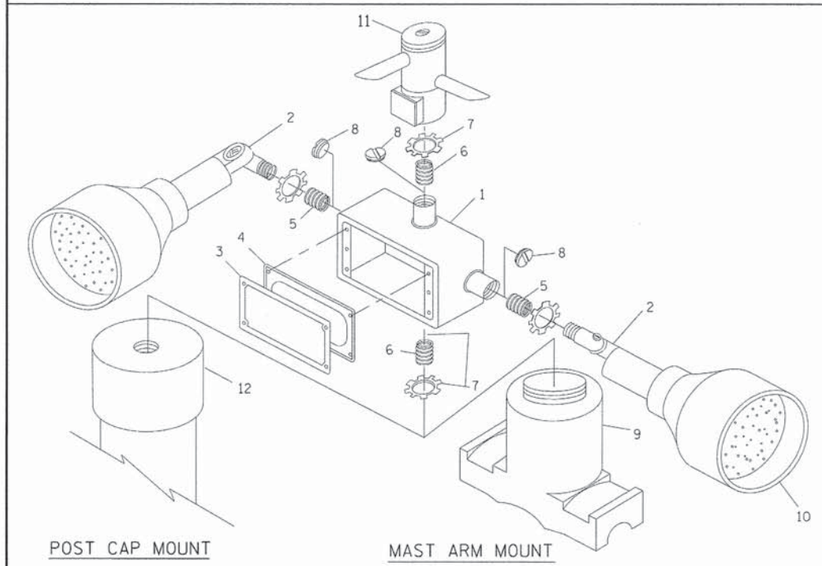
SECTION A-A



VIEW C-C



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



POST CAP MOUNT

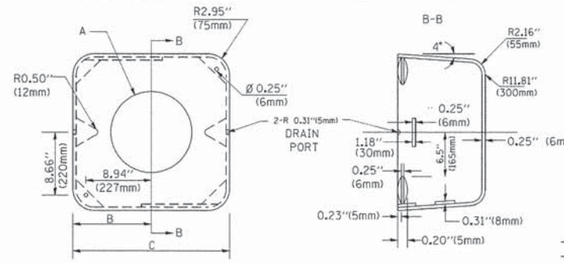
MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	¾"(19 mm) CLOSE NIPPLE
7	¾"(19 mm) LOCKNUT
8	¾"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	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 ¾"(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



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

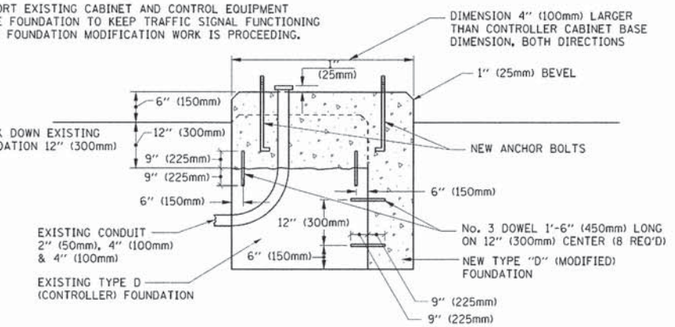
A	B	C	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57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

SHROUD

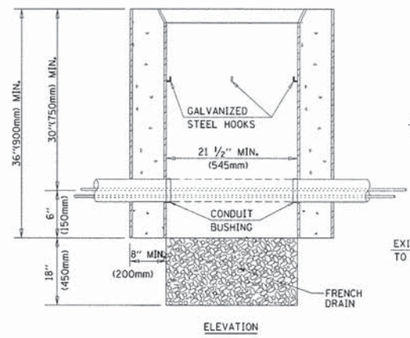
NOTES:

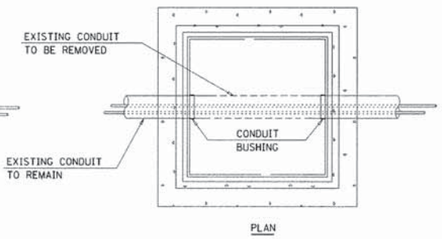
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE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





NOTES:

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

HANDHOLE TO INTERCEPT EXISTING CONDUIT

GHA #4571.800

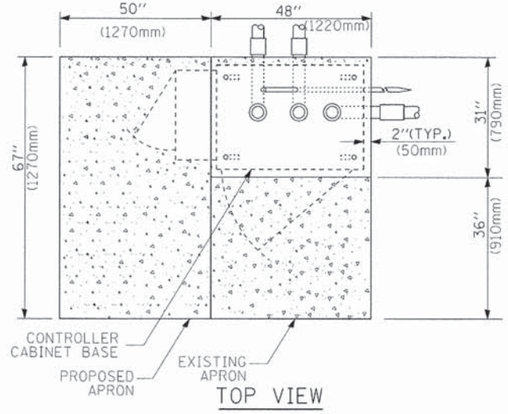
FILE NAME = D161A55-014-Details.dgn	USER NAME = ZWallsten	DESIGNED - DAD	REVISED -
		DRAWN - BCK	REVISED -
	PLOT SCALE = 1:20	CHECKED - DAD	REVISED -
Default	PLOT DATE = 8/14/2014	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

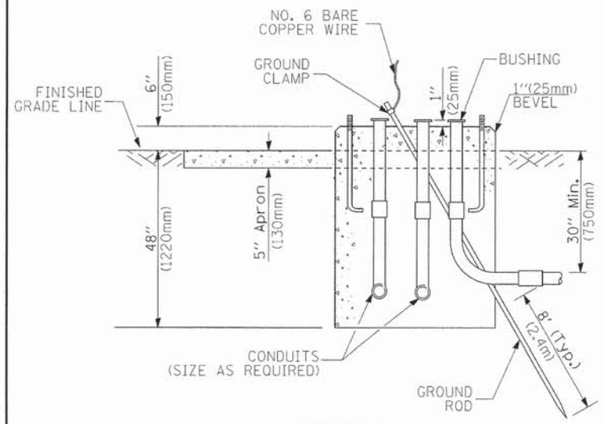
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 4 OF 7 SHEETS | STA. | TO STA.

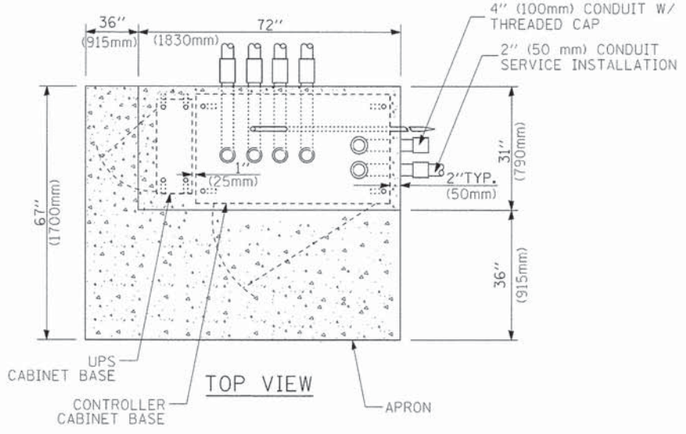
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-009999-29-TL	LAKE	73	14
	TS-05	CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			



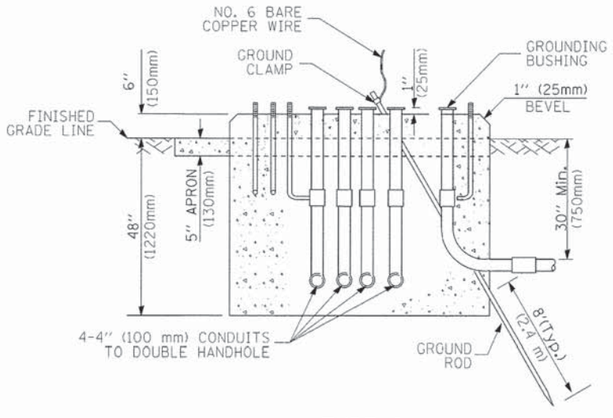
TOP VIEW



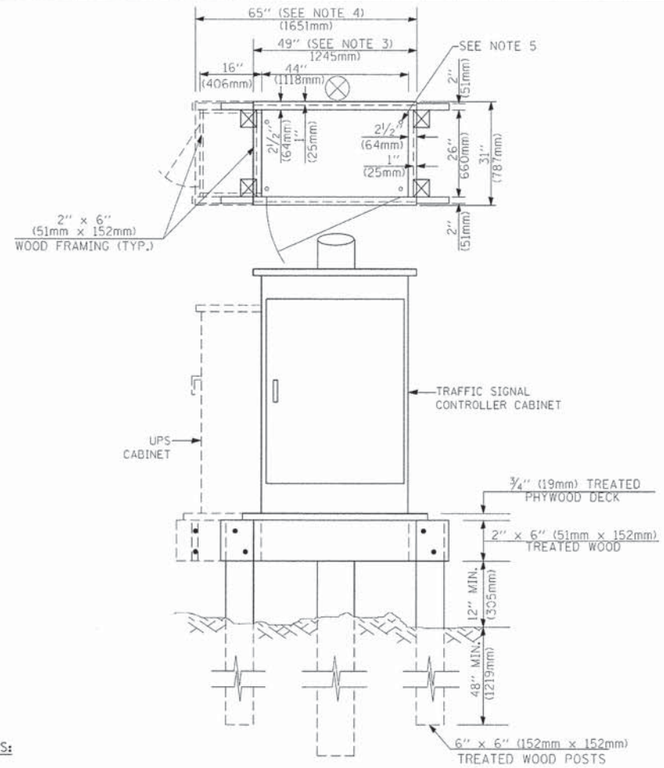
TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



TOP VIEW



TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



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

GHA #4571.800

FILE NAME = D161A55-015-Details.dgn	USER NAME = ZWallsten	DESIGNED - DAG	REVISED -
		DRAWN - BCK	REVISED -
Default	PLOT SCALE = 1:20	CHECKED - DAD	REVISED -
	PLOT DATE = 8/14/2014	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 5 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-009999-29-TL	LAKE	73	15
	TS-05	CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

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
UNINTERRUPTIBLE 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		
GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)			
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		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, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
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	RMF		
INTERSECTION & SAMPLING (SYSTEM) DETECTOR		IS	IS
SAMPLING (SYSTEM) DETECTOR		S	S
EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		P	
EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PP	
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		

GHA #4571.800

FILE NAME = D161A55-016-Details.dgn	USER NAME = ZWallsten	DESIGNED - DAC/BCK	REVISED -	
		DRAWN - BCK	REVISED -	
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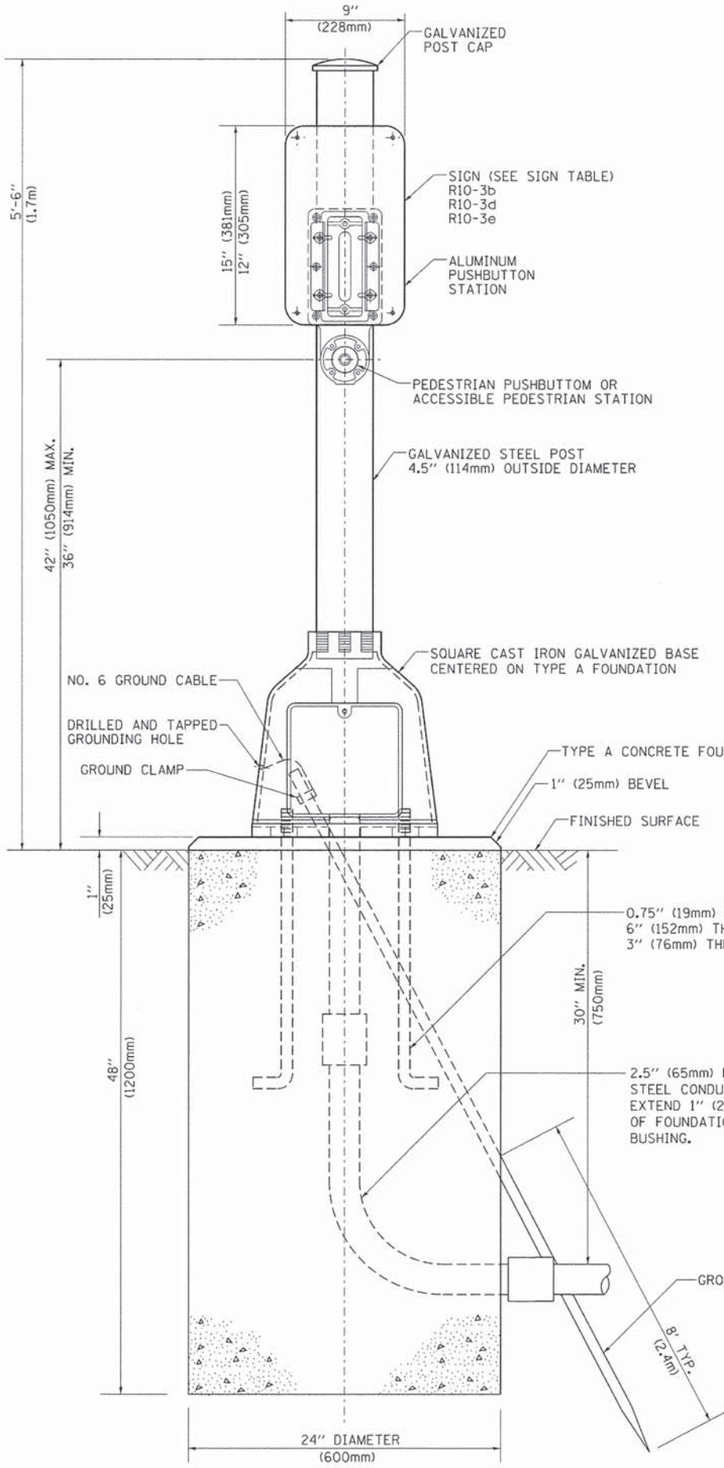
Default	PLOT DATE = 8/14/2014	DATE - 10-28-09	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

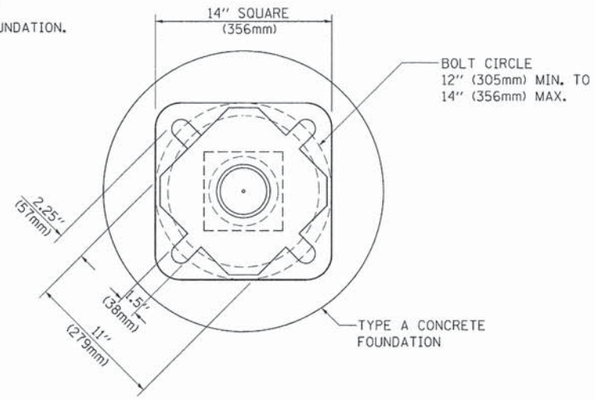
SCALE: NONE | SHEET 6 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-009999-29-TL	LAKE	73	16
	TS-05	CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			



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)

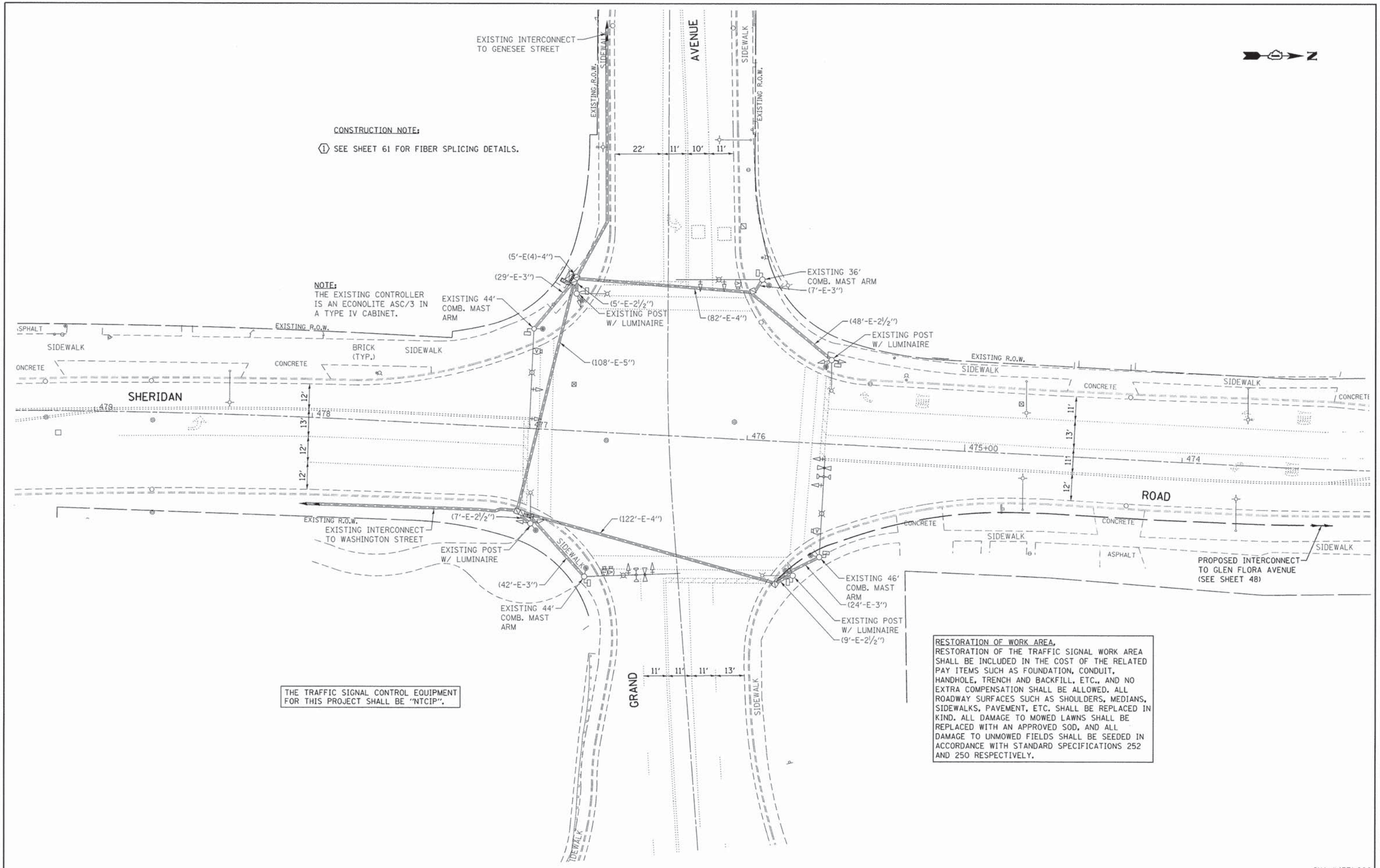


BOLT PATTERN

PEDESTRIAN PUSH BUTTON POST, TYPE A

GHA #4571.800

FILE NAME = D161A55-017-Details.dgn Default	USER NAME = ZWallsten	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.
		DRAWN - GND	REVISED -				2736	12-009999-29-TL	LAKE	73	17
	PLOT SCALE = 1:20	CHECKED - DAD	REVISED -					TS-05	CONTRACT NO. 61A55		
	PLOT DATE = 8/14/2014	DATE - 10/1/2012	REVISED -		SCALE: NONE	SHEET 7 OF 7 SHEETS STA. TO STA.		ILLINOIS FED. AID PROJECT			



GHA #4571.800

FILE NAME = D161A55-018-TS.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
$MODELNAME$	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

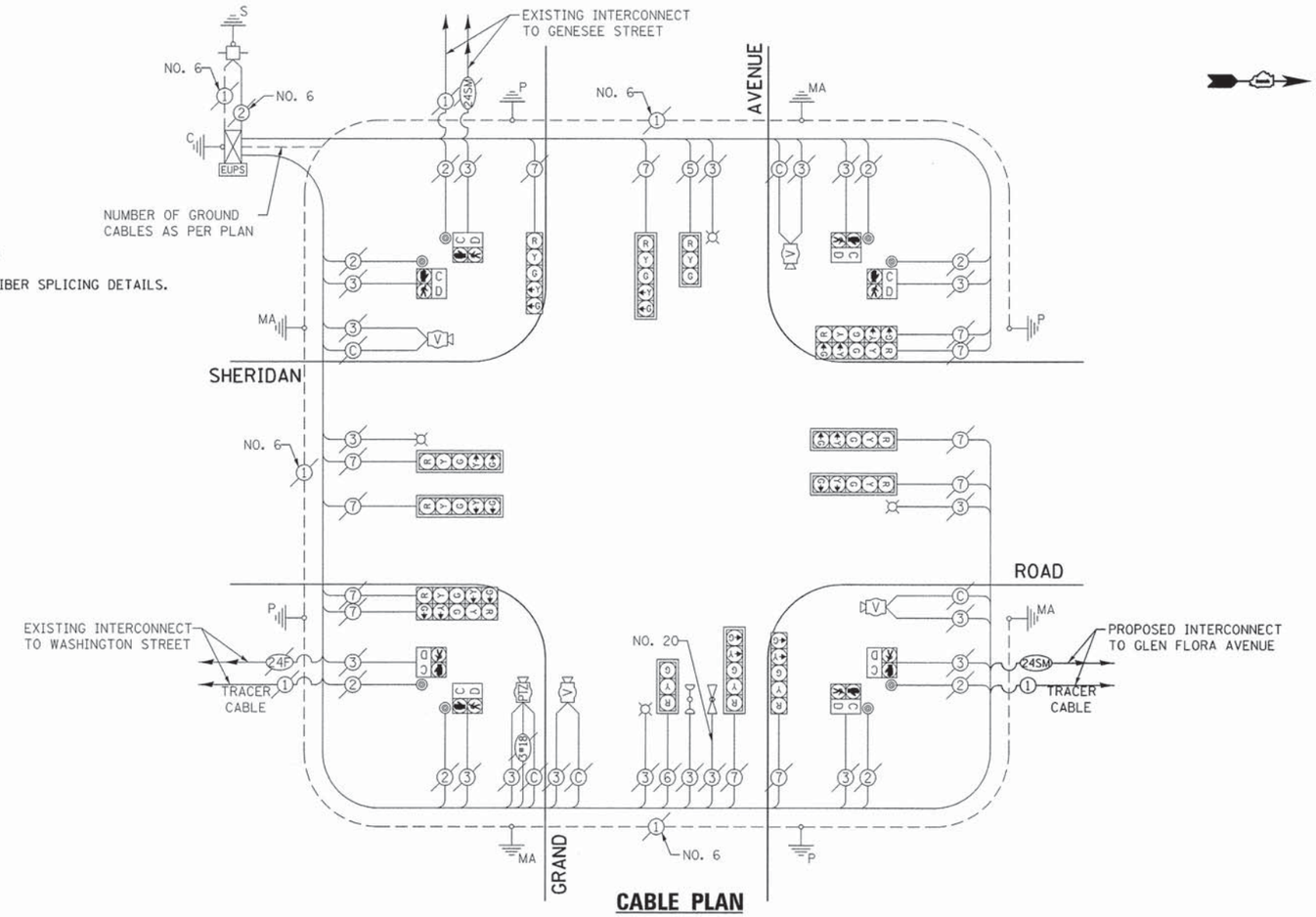
TRAFFIC SIGNAL MODIFICATION PLAN
SHERIDAN ROAD AT GRAND AVENUE

SCALE: 1"=20' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	18
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

SCHEDULE OF QUANTITIES
SHERIDAN ROAD AT GRAND AVENUE

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET, SPECIAL

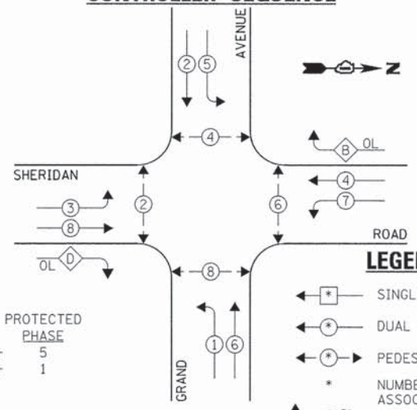


CONSTRUCTION NOTE:

(1) SEE SHEET 61 FOR FIBER SPLICING DETAILS.

CABLE PLAN

EXISTING CONTROLLER SEQUENCE



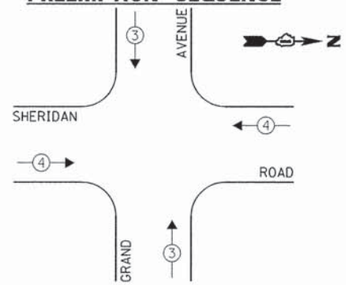
OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
B	=	4	+	5
D	=	8	+	1

LEGEND:

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

EXISTING PHASE DESIGNATION DIAGRAM

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

GHA #4571.800

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE L.E.D.	OPERATION	
SIGNAL (RED)	14	135	17	0.50	119.0
SIGNAL (YELLOW)	14	135	25	0.25	87.5
SIGNAL (GREEN)	14	135	15	0.25	52.5
ARROW	24	135	12	0.10	28.8
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	4	-	250	0.50	500.0
L.E.D. ST. NAME SIGN	4	-	64	0.50	128.0
VIDEO SYSTEM	1	-	150	1.00	150.0
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
				TOTAL =	1,390.8

ENERGY COSTS - BILLED TO: CITY OF WAUKEGAN
(ADDRESS) 100 N. MLK JR. AVENUE
(ADDRESS) WAUKEGAN, IL
ENERGY SUPPLY - CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY: COM-ED (LIBERTYVILLE)

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

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP".

FILE NAME = D161A55-019-TS.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
$MODELNAME$	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
SHERIDAN ROAD AT GRAND AVENUE

SCALE: NONE | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	19
		CONTRACT NO. 61A55		
	ILLINOIS	FED. AID PROJECT		

NOTES FOR TEMPORARY TRAFFIC SIGNALS:

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.

2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.

3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.

4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.

5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROLLER EQUIPMENT.•

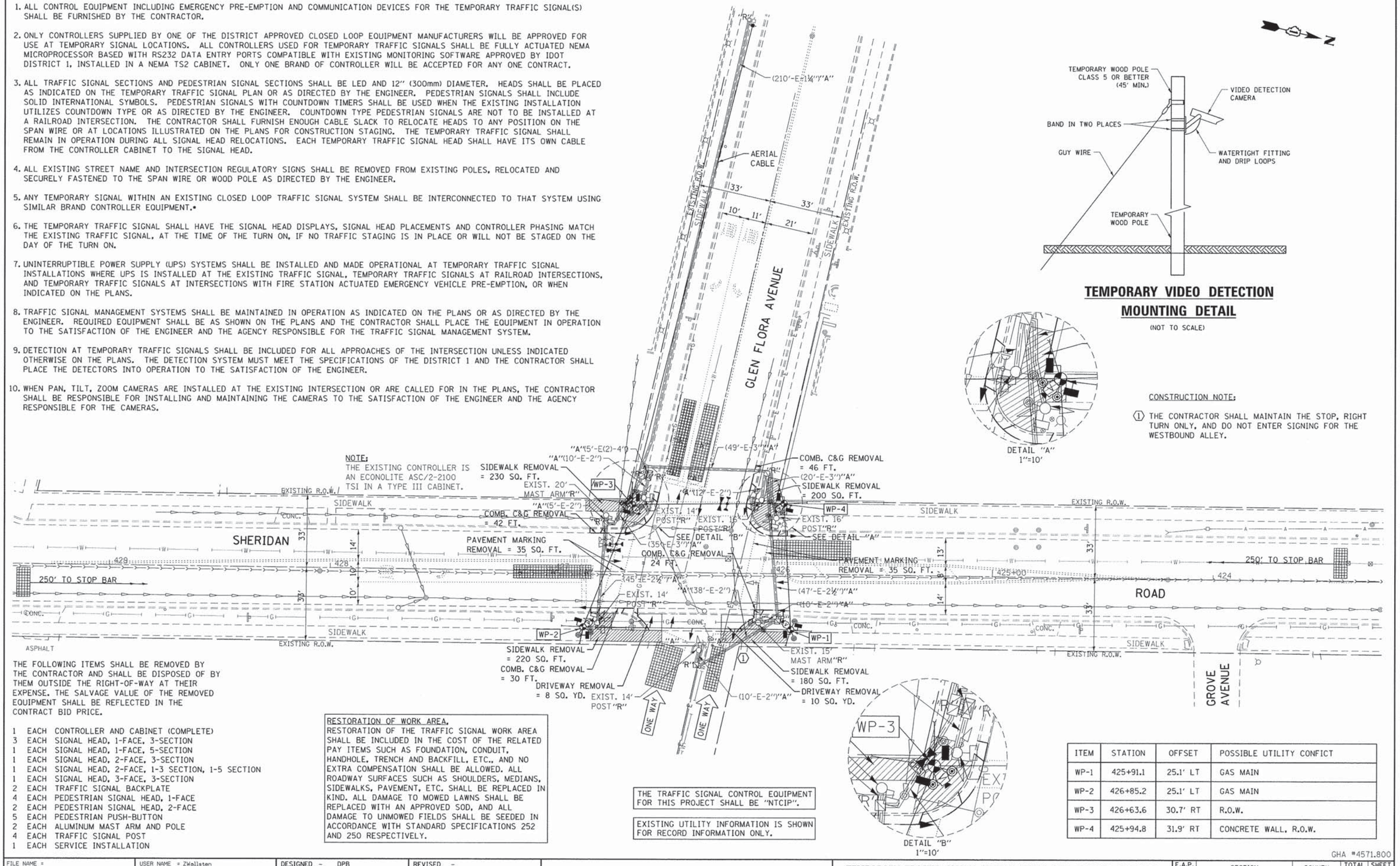
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.

8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.

9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF THE DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.

10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.



TEMPORARY VIDEO DETECTION MOUNTING DETAIL

(NOT TO SCALE)

DETAIL "A"
1"=10'

CONSTRUCTION NOTE:

① THE CONTRACTOR SHALL MAINTAIN THE STOP, RIGHT TURN ONLY, AND DO NOT ENTER SIGNING FOR THE WESTBOUND ALLEY.

DETAIL "B"
1"=10'

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM 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
1	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
1	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION
1	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
1	EACH	SIGNAL HEAD, 3-FACE, 3-SECTION
2	EACH	TRAFFIC SIGNAL BACKPLATE
4	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
2	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
5	EACH	PEDESTRIAN PUSH-BUTTON
2	EACH	ALUMINUM MAST ARM AND POLE
4	EACH	TRAFFIC SIGNAL POST
1	EACH	SERVICE INSTALLATION

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

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP".

EXISTING UTILITY INFORMATION IS SHOWN FOR RECORD INFORMATION ONLY.

ITEM	STATION	OFFSET	POSSIBLE UTILITY CONFICT
WP-1	425+91.1	25.1' LT	GAS MAIN
WP-2	426+85.2	25.1' LT	GAS MAIN
WP-3	426+63.6	30.7' RT	R.O.W.
WP-4	425+94.8	31.9' RT	CONCRETE WALL, R.O.W.

GHA #4571.800

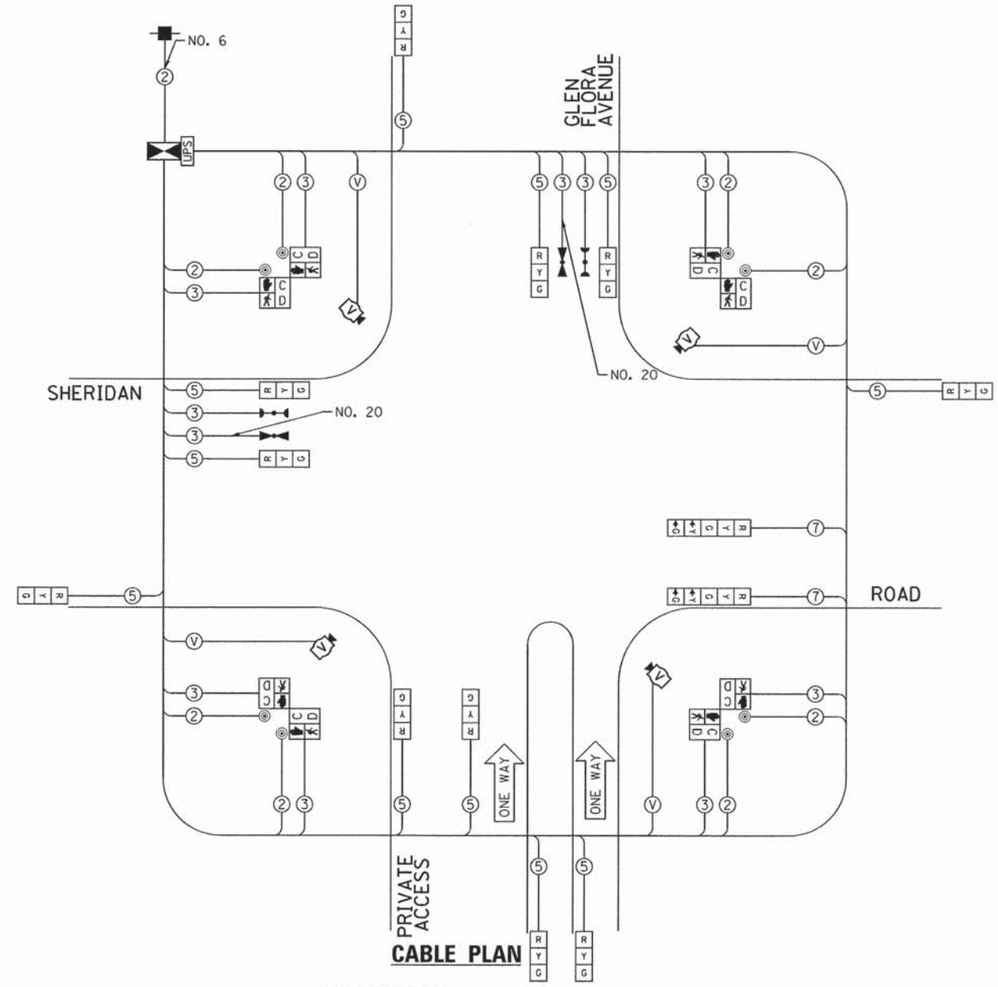
FILE NAME = D161A55-020-TS.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
$MODELNAME$	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT SHERIDAN ROAD AT GLEN FLORA AVENUE

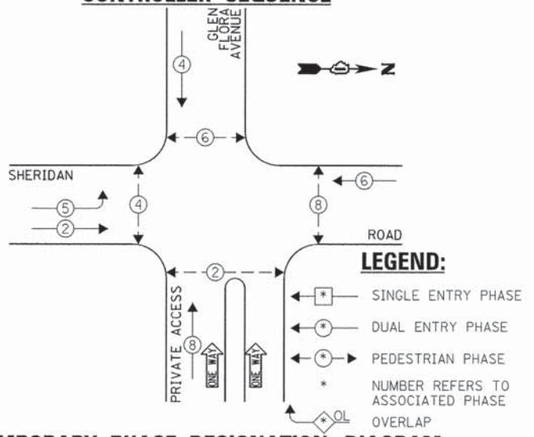
SCALE: 1"=20' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	20
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			



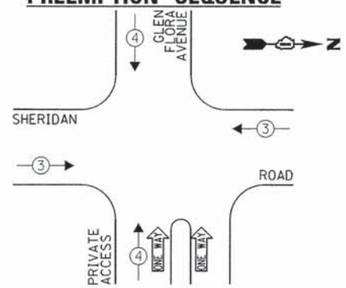
CABLE PLAN

TEMPORARY CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	⇄	⇅

L.C.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	13	135	10	0.50	13.0
SIGNAL (YELLOW)	13	135	19	0.10	24.7
SIGNAL (GREEN)	13	135	11	0.40	57.2
ARROW	4	135	9	0.10	3.6
PED. SIGNAL	8	90	9	1.00	72.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	1	-	150	1.00	150.0
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	84	0.10	-
				TOTAL =	445.5

ENERGY COSTS - BILLED TO: CITY OF WAUKEGAN
(ADDRESS) 100 N. MLK JR. AVENUE
(ADDRESS) WAUKEGAN, IL 60085
ENERGY SUPPLY - CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY: COM-ED (LIBERTYVILLE)

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

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP".

GHA #4571.800

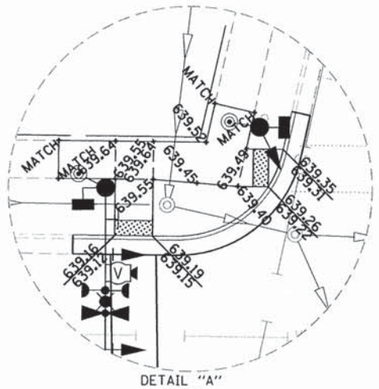
FILE NAME = D161A55-021-TS.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
$MODELNAME$	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

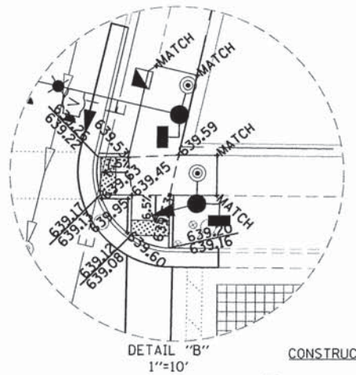
TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM, & TEMPORARY VEHICLE PREEMPTION SEQUENCE
SHERIDAN ROAD AT GLEN FLORA AVENUE

SCALE: NONE | SHEET OF SHEETS | STA. | TO STA.

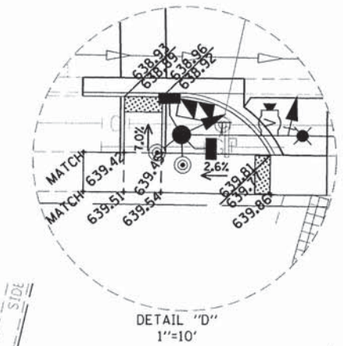
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	21
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		



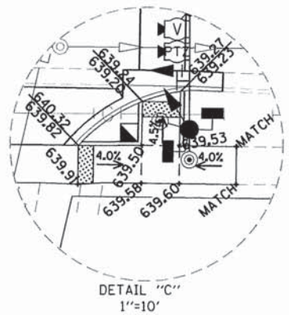
DETAIL "A"
1"=10'



DETAIL "B"
1"=10'



DETAIL "D"
1"=10'



DETAIL "C"
1"=10'

CONSTRUCTION NOTE:

(1) THE CONTRACTOR SHALL MAINTAIN THE STOP, RIGHT TURN ONLY, AND DO NOT ENTER SIGNING FOR THE WESTBOUND ALLEY.

(2) ALL DETECTABLE WARNINGS AT THE INTERSECTION OF SHERIDAN ROAD AND GLEN FLORA AVENUE SHALL BE RED AS REQUESTED BY THE CITY OF WAUKEGAN.

ITEM	STATION	OFFSET	POSSIBLE UTILITY CONFICT
MA-1	425+98.9	24.0' LT	GAS MAIN
MA-2	426+68.7	23.7' LT	GAS MAIN
MA-3	426+78.1	26.1' LT	STORM SEWER
MA-4	425+98.6	37.3' RT	CONCRETE WALL, R.O.W.
P-1	426+58.2	34.4' RT	-
P-2	425+96.2	25.5' RT	EXISTING FIRE HYDRANT
H-1	426+06.8	24.5' LT	-
H-2	426+66.8	20.5' LT	EXISTING MANHOLE, GAS MAIN
H-3	426+54.2	52.8' RT	-
H-4	426+03.6	41.9' RT	-

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

CONTROL POINT TABLE

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION	STATION	OFFSET
305	2080513.52	1120087.76	639+60	CP-SXTC-305	426+60.90	21.05' LT
410	2080818.52	1120016.47	638+76	CP-XTC-410	423+47.65	19.38' LT

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP".

EXISTING UTILITY INFORMATION IS SHOWN FOR RECORD INFORMATION ONLY.

GHA #4571.800

FILE NAME = D161A55-022-TS.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
#MODELNAME#	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 9/4/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

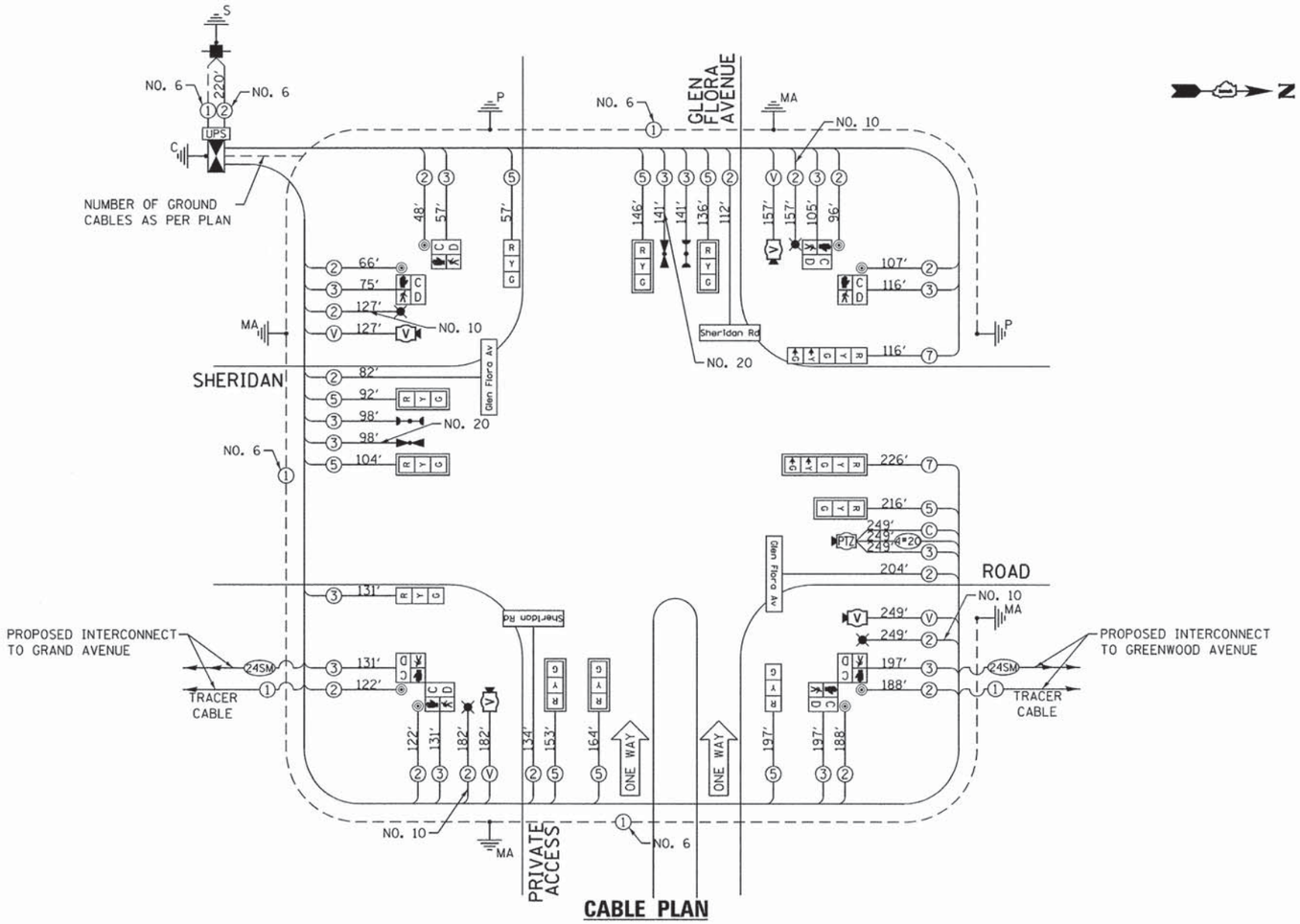
TRAFFIC SIGNAL MODERNIZATION PLAN –
SHERIDAN ROAD AT GLEN FLORA AVENUE

SCALE: 1"=20' | SHEET OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	22
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

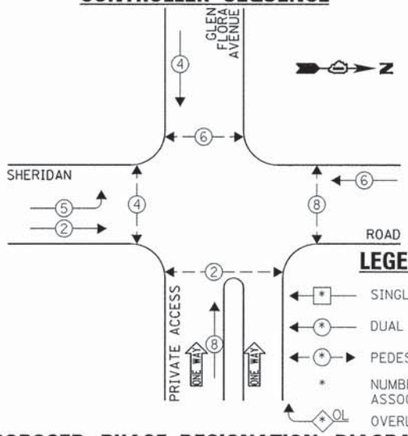
SCHEDULE OF QUANTITIES
SHERIDAN ROAD AT GLEN FLORA AVENUE

NO.	QUANT.	UNIT	
1.	9	CU YD	EARTH EXCAVATION
2.	18	SQ YD	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH
3.	890	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
4.	88	SQ FT	DETECTABLE WARNINGS
5.	18	SQ YD	DRIVEWAY PAVEMENT REMOVAL
6.	125	FOOT	COMBINATION CURB AND GUTTER REMOVAL
7.	830	SQ FT	SIDEWALK REMOVAL
8.	10	FOOT	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
9.	115	FOOT	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
10.	137	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 6"
11.	70	SQ FT	PAVEMENT MARKING REMOVAL
12.	1	EACH	SERVICE INSTALLATION - POLE MOUNTED
13.	198	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
14.	36	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.
15.	53	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3 1/2" DIA.
16.	283	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.
17.	2	EACH	HANDHOLE
18.	2	EACH	DOUBLE HANDHOLE
19.	4	EACH	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT
20.	2	EACH	PAINT NEW SIGNAL POST
21.	4	EACH	PAINT NEW COMBINATION MAST ARM POLE, UNDER 40 FOOT
22.	955	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
23.	1,452	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
24.	1,218	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
25.	342	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
26.	220	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C
27.	1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
28.	1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
29.	2	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 22 FT.
30.	1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 26 FT.
31.	1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT.
32.	8	FOOT	CONCRETE FOUNDATION, TYPE A
33.	4	FOOT	CONCRETE FOUNDATION, TYPE C
34.	60	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
35.	7	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
36.	3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
37.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
38.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
39.	4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
40.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
41.	8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
42.	2	EACH	LIGHT DETECTOR
43.	1	EACH	LIGHT DETECTOR AMPLIFIER
44.	8	EACH	PEDESTRIAN PUSH-BUTTON
45.	1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
46.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
47.	5	EACH	REMOVE EXISTING HANDHOLE
48.	8	EACH	REMOVE EXISTING CONCRETE FOUNDATION
49.	249	FOOT	ELECTRIC CABLE IN CONDUIT, VIDEO NO. 20 4C
50.	717	FOOT	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 2-1C NO. 10
51.	239	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C
52.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
53.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
54.	249	FOOT	ELECTRIC CABLE IN CONDUIT, COAXIAL
55.	1	EACH	VIDEO DETECTION SYSTEM
56.	4	EACH	LED INTERNALLY ILLUMINATED STREET NAME SIGN
57.	1	EACH	REMOTE CONTROLLED VIDEO SYSTEM
58.	1	EACH	LAYER II (DATALINK) SWITCH
59.	1	EACH	VIDEO ENCODER
60.	55	FOOT	PORTLAND CEMENT CONCRETE SIDEWALK CURB
61.	1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING



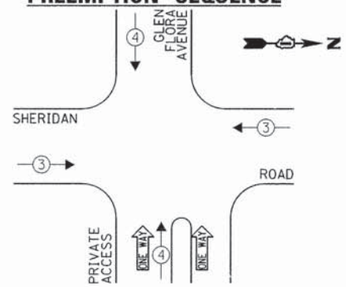
CABLE PLAN

PROPOSED CONTROLLER SEQUENCE



PROPOSED PHASE DESIGNATION DIAGRAM

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	⇄	⇅

L.C.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	12	135	10	0.50	60.0
SIGNAL (YELLOW)	12	135	19	0.10	22.8
SIGNAL (GREEN)	12	135	11	0.40	52.8
ARROW	4	135	9	0.10	3.6
PED. SIGNAL	8	90	9	1.00	72.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	4	-	250	0.50	500.0
L.E.D. ST. NAME SIGN	4	-	64	0.50	128.0
VIDEO SYSTEM	1	-	150	1.00	150.0
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	84	0.10	-
				TOTAL =	1,114.2

ENERGY COSTS - BILLED TO: CITY OF WAUKEGAN
(ADDRESS) 100 N. MLK JR. AVENUE
(ADDRESS) WAUKEGAN, IL 60085
ENERGY SUPPLY - CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY: COM-ED (LIBERTYVILLE)

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

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP".

GHA #4571.800

FILE NAME = D161A55-023-TS.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
$MODELNAME$	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
SHERIDAN ROAD AT GLEN FLORA AVENUE

SCALE: NONE | SHEET OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	23
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		

CONTSTRUCTION NOTES:

1. THE CONTRACTOR SHALL REMOVE THE CONTROLLER AND CABINET (COMPLETE) AND REPLACE IT WITH A FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL ON THE EXISTING TYPE D FOUNDATION. REINSTALL THE EXISTING UNINTERRUPTIBLE POWER SUPPLY AND EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT.
2. THE CONTRACTOR SHALL INSTALL A LAYER II (DATA LINK) SWITCH AND VIDEO ENCODER IN THE NEW CONTROLLER CABINET FOR CONNECTION TO THE LCDOT GIGABIT ETHERNET NETWORK.
3. THE CONTRACTOR SHALL INSTALL A REMOTE-CONTROLLED VIDEO SYSTEM AND CAMERA MOUNTING ASSEMBLY ON THIS EXISTING TRAFFIC SIGNAL MAST ARM ASSEMBLY AND POLE.

NOTE:
THE EXISTING CONTROLLER IS AN ECONOLITE ASC 8000 IN A TYPE IV CABINET.

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

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM 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)

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP".

GHA #4571.800

FILE NAME = D161A55-024-TS.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
$MODELNAME$	PLOT DATE = 9/3/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

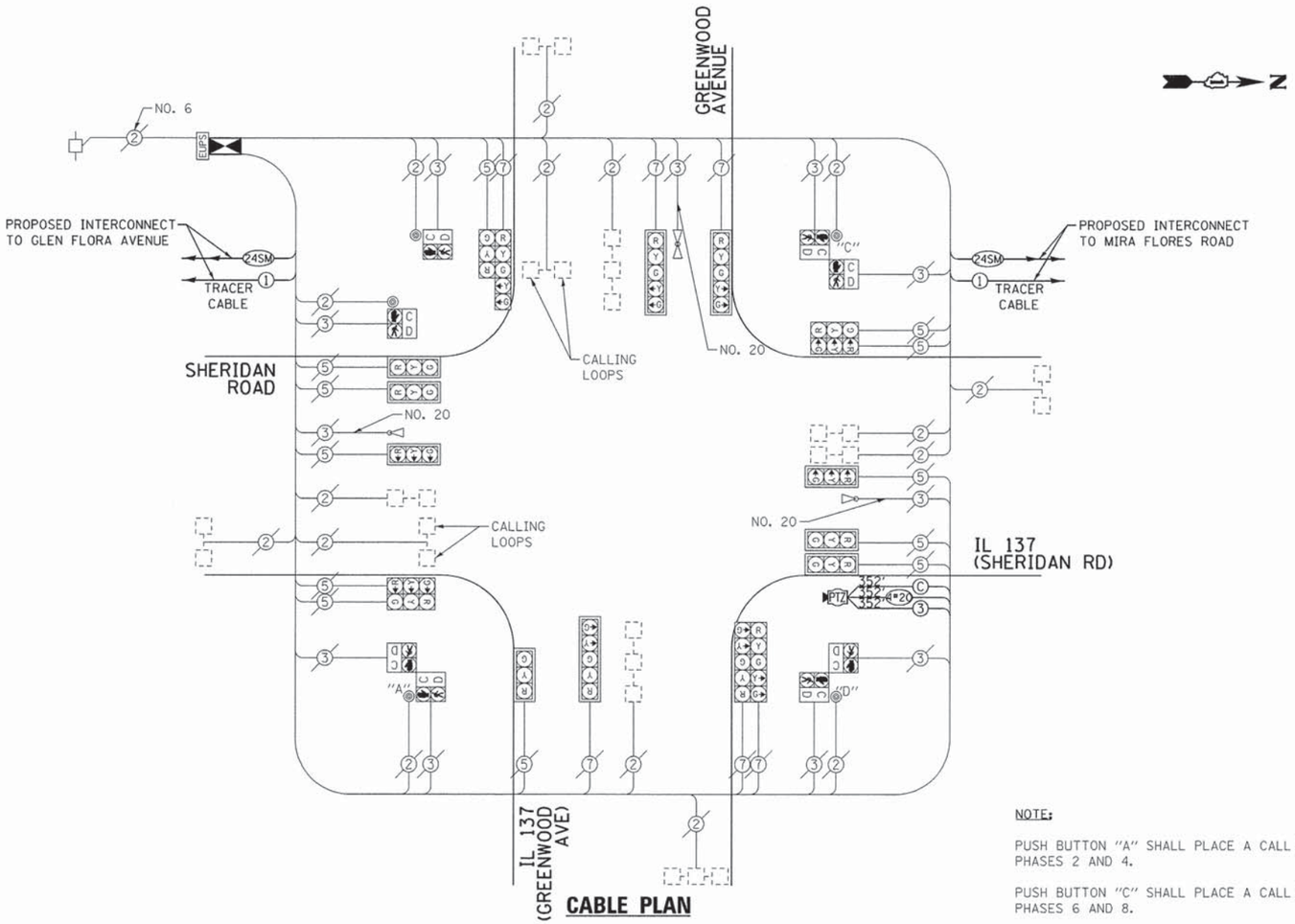
TRAFFIC SIGNAL MODIFICATION PLAN
IL 137 (SHERIDAN RD) AT GREENWOOD AVENUE

SCALE: 1"=20' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	24
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

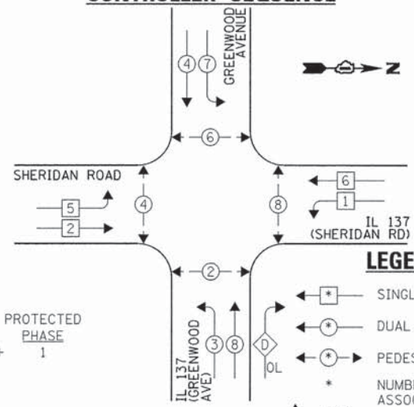
SCHEDULE OF QUANTITIES
IL 137 (SHERIDAN RD) AT GREENWOOD AVENUE

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	352	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
3.	11	EACH	INDUCTIVE LOOP DETECTOR
4.	1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
5.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6.	352	FOOT	ELECTRIC CABLE IN CONDUIT, VIDEO NO. 20 4C
7.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
8.	352	FOOT	ELECTRIC CABLE IN CONDUIT, COAXIAL
9.	1	EACH	RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM
10.	1	EACH	REMOTE CONTROLLED VIDEO SYSTEM
11.	1	EACH	LAYER II (DATALINK) SWITCH
12.	1	EACH	VIDEO ENCODER
13.	1	EACH	CAMERA MOUNTING ASSEMBLY



CABLE PLAN

EXISTING AND PROPOSED CONTROLLER SEQUENCE



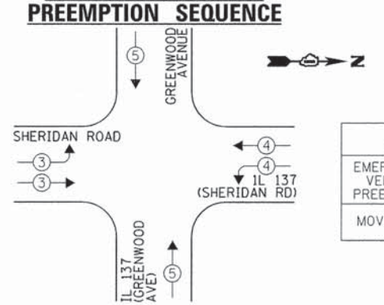
OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
D	=	8	+	1

LEGEND:

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

EXISTING AND PROPOSED PHASE DESIGNATION DIAGRAM

EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT			

NOTE:

PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.

PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.

PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE L.E.D.	OPERATION	
SIGNAL (RED)	18	135	17	0.50	153.0
SIGNAL (YELLOW)	18	135	25	0.25	112.5
SIGNAL (GREEN)	18	135	15	0.25	67.5
ARROW	12	135	12	0.10	14.4
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	1	-	150	1.00	150.0
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
				TOTAL =	822.4

ENERGY COSTS - BILLED TO: CITY OF WAUKEGAN
(ADDRESS) 100 N. MLK JR. AVENUE
(ADDRESS) WAUKEGAN, IL 60085
ENERGY SUPPLY - CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY: COM-ED (LIBERTYVILLE)

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

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP".

GHA #4571.800

FILE NAME = D161A55-025-TS.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
$MODELNAME$	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

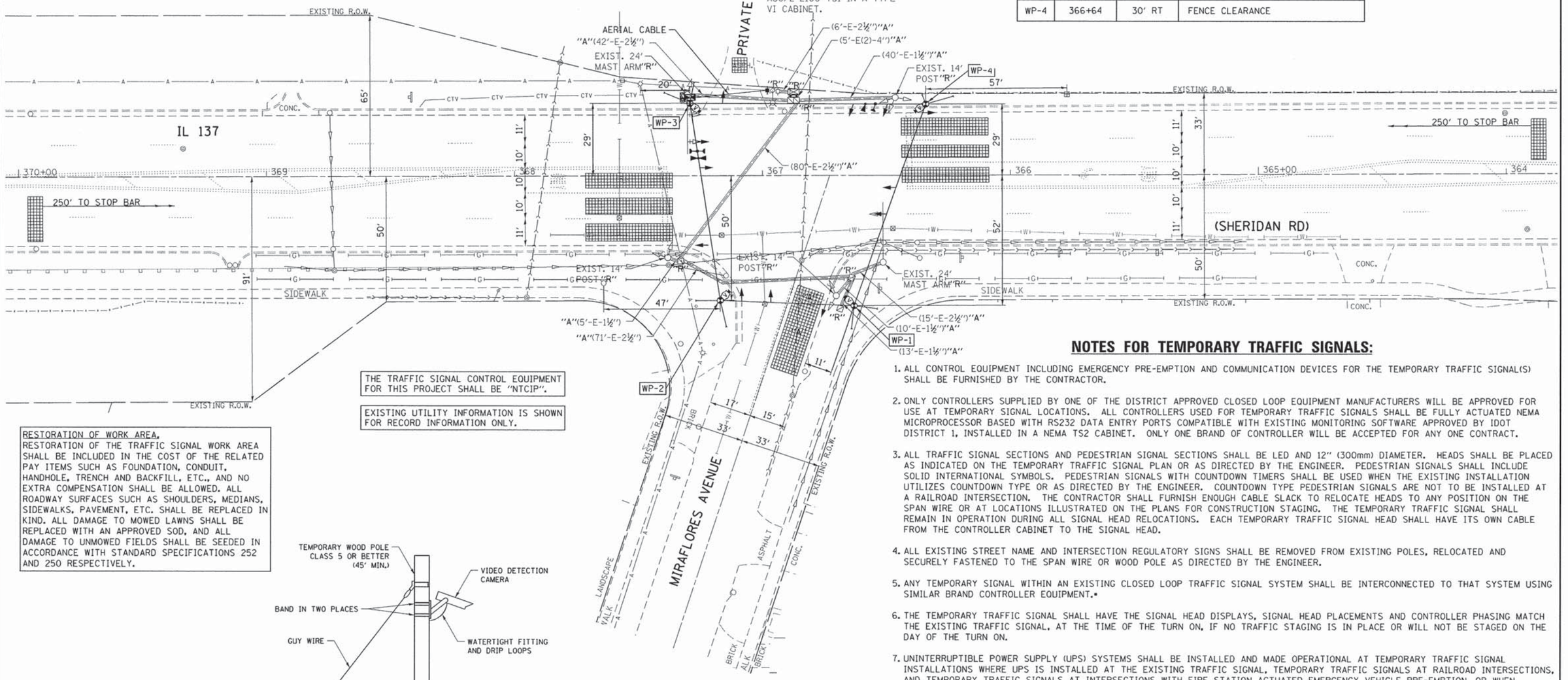
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL 137 (SHERIDAN RD) AT GREENWOOD AVENUE

SCALE: NONE | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	25
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		

ITEM	STATION	OFFSET	POSSIBLE UTILITY CONFICT
WP-1	366+63	52' LT	SANITARY SEWER
WP-2	367+17	50' LT	-
WP-3	367+30	30' RT	OVERHEAD
WP-4	366+64	30' RT	FENCE CLEARANCE



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP".

EXISTING UTILITY INFORMATION IS SHOWN FOR RECORD INFORMATION ONLY.

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

TEMPORARY VIDEO DETECTION MOUNTING DETAIL

(NOT TO SCALE)

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM 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)
5 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
2 EACH SIGNAL HEAD, 2-FACE, 3-SECTION
2 EACH SIGNAL HEAD, 3-FACE, 3-SECTION
2 EACH STEEL MAST ARM AND POLE
3 EACH TRAFFIC SIGNAL POST
1 EACH SERVICE INSTALLATION

NOTES FOR TEMPORARY TRAFFIC SIGNALS:

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

GHA #4571.800

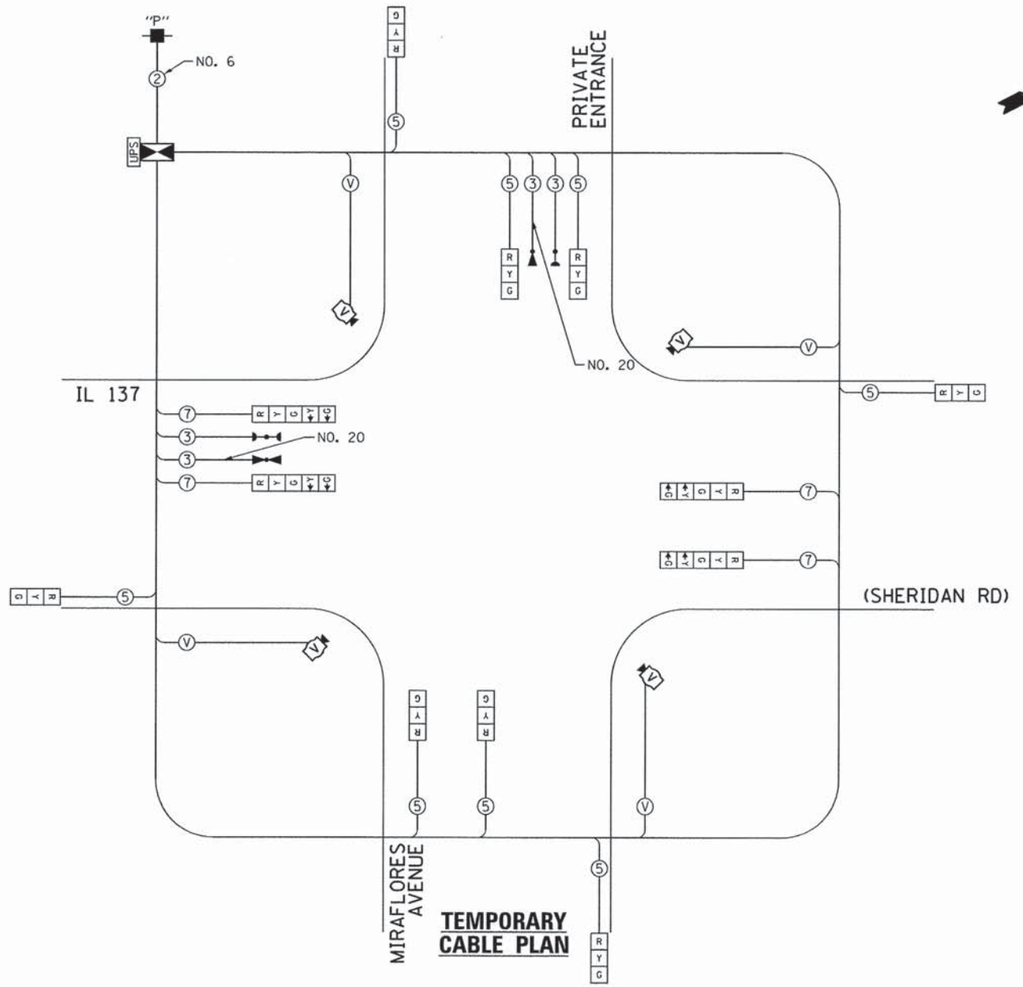
FILE NAME = D161A55-026-TS.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
MODELNAME	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIP. – IL 137 (SHERIDAN RD) AT MIRAFLORES AVE

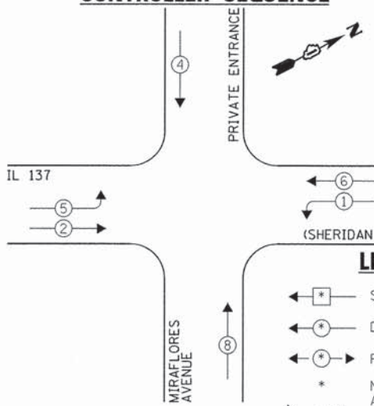
SCALE: 1"=20' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	26
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		

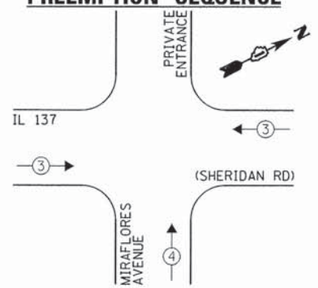


TEMPORARY CABLE PLAN

TEMPORARY CONTROLLER SEQUENCE



TEMPORARAY EMERGENCY VEHICLE PREEMPTION SEQUENCE



TEMPORARY EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	⇄	↑

LEGEND:

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

TEMPORARY PHASE DESIGNATION DIAGRAM

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
				TOTAL =	356.6

ENERGY COSTS - BILLED TO: CITY OF WAUKEGAN
(ADDRESS) 100 N. MLK JR. AVE
(ADDRESS) WAUKEGAN, IL 60085
ENERGY SUPPLY - CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY: COM-ED (LIBERTYVILLE)

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

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP".

GHA #4571.800

FILE NAME = D161A55-027-TS.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
MODELNAME	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM, & TEMPORARY VEHICLE PREEMPTION SEQUENCE
IL 137 (SHERIDAN RD) AT MIRAFLORES AVENUE

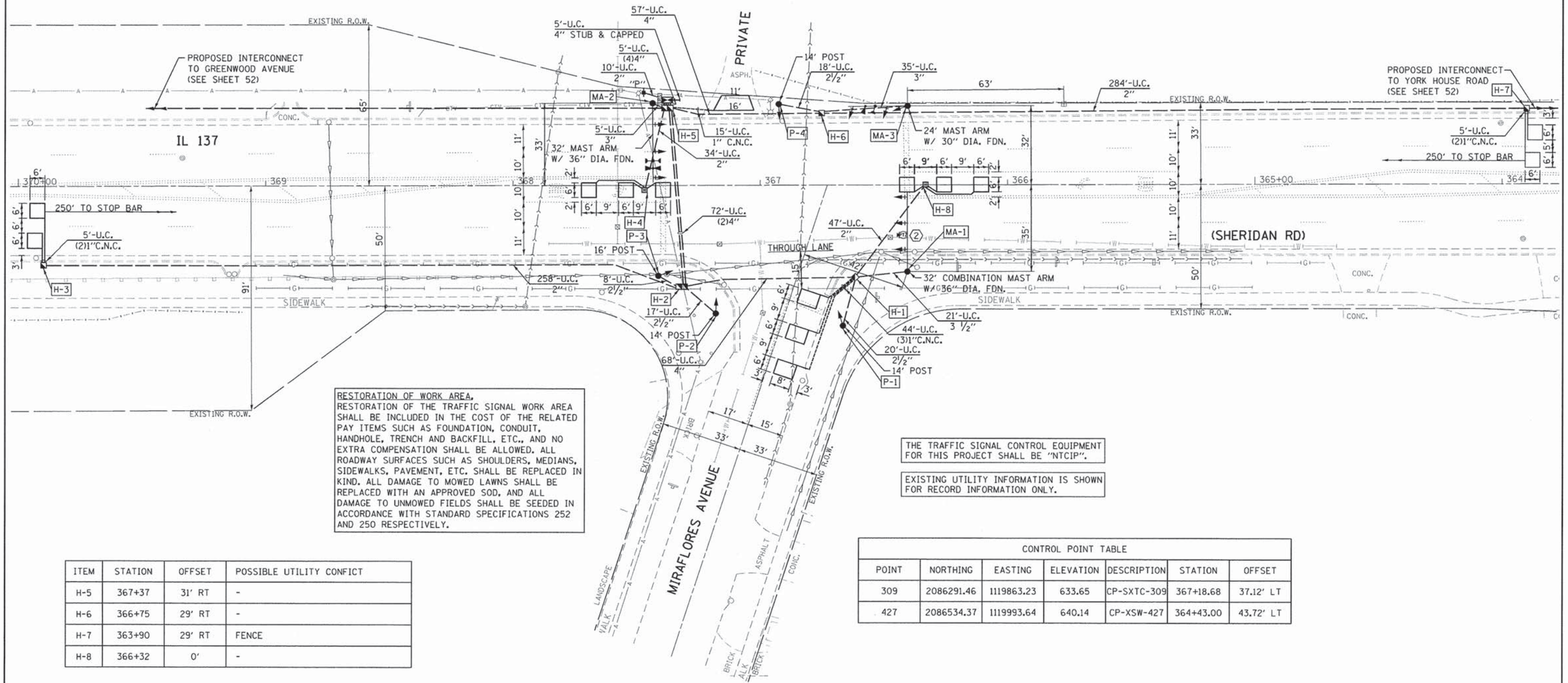
SCALE: N.A. | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	27
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		

ITEM	STATION	OFFSET	POSSIBLE UTILITY CONFICT
MA-1	366+41	35' LT	-
MA-2	367+43	33' RT	OVERHEAD UTILITY
MA-3	366+40	32' RT	R.O.W., FENCE
P-1	366+67	56' LT	-
P-2	367+18	52' LT	GAS MAIN, STORM SEWER
P-3	367+42	37' LT	-
P-4	366+92	33' RT	-
H-1	366+62	37' LT	-
H-2	367+32	40' LT	GAS MAIN
H-3	369+90	37' LT	GAS MAIN
H-4	367+47	2' LT	-

CONTSTRUCTION NOTES:

1. A MINIMUM OF SEVEN (7) WORKING DAYS PRIOR TO THE CONTRACTOR CUTTING LOOPS, THE CONTRACTOR SHALL HAVE THE PROPOSED LOOP LOCATIONS MARKED AND CONTACT THE AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER (847) 705-4424 TO INSPECT AND APPROVE THE LAYOUT AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.
2. THE CONTRACTOR SHALL MOUNT THE PTZ ON A 15 FT LUMINAIRE ARM THAT IS INSTALLED PARALLEL TO THE MAST ARM.



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

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP".

EXISTING UTILITY INFORMATION IS SHOWN FOR RECORD INFORMATION ONLY.

ITEM	STATION	OFFSET	POSSIBLE UTILITY CONFICT
H-5	367+37	31' RT	-
H-6	366+75	29' RT	-
H-7	363+90	29' RT	FENCE
H-8	366+32	0'	-

CONTROL POINT TABLE

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION	STATION	OFFSET
309	2086291.46	1119863.23	633.65	CP-SXTC-309	367+18.68	37.12' LT
427	2086534.37	1119993.64	640.14	CP-XSW-427	364+43.00	43.72' LT

GHA #4571.800

FILE NAME = D161A55-028-TS.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
$MODELNAME$	PLOT DATE = 9/3/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

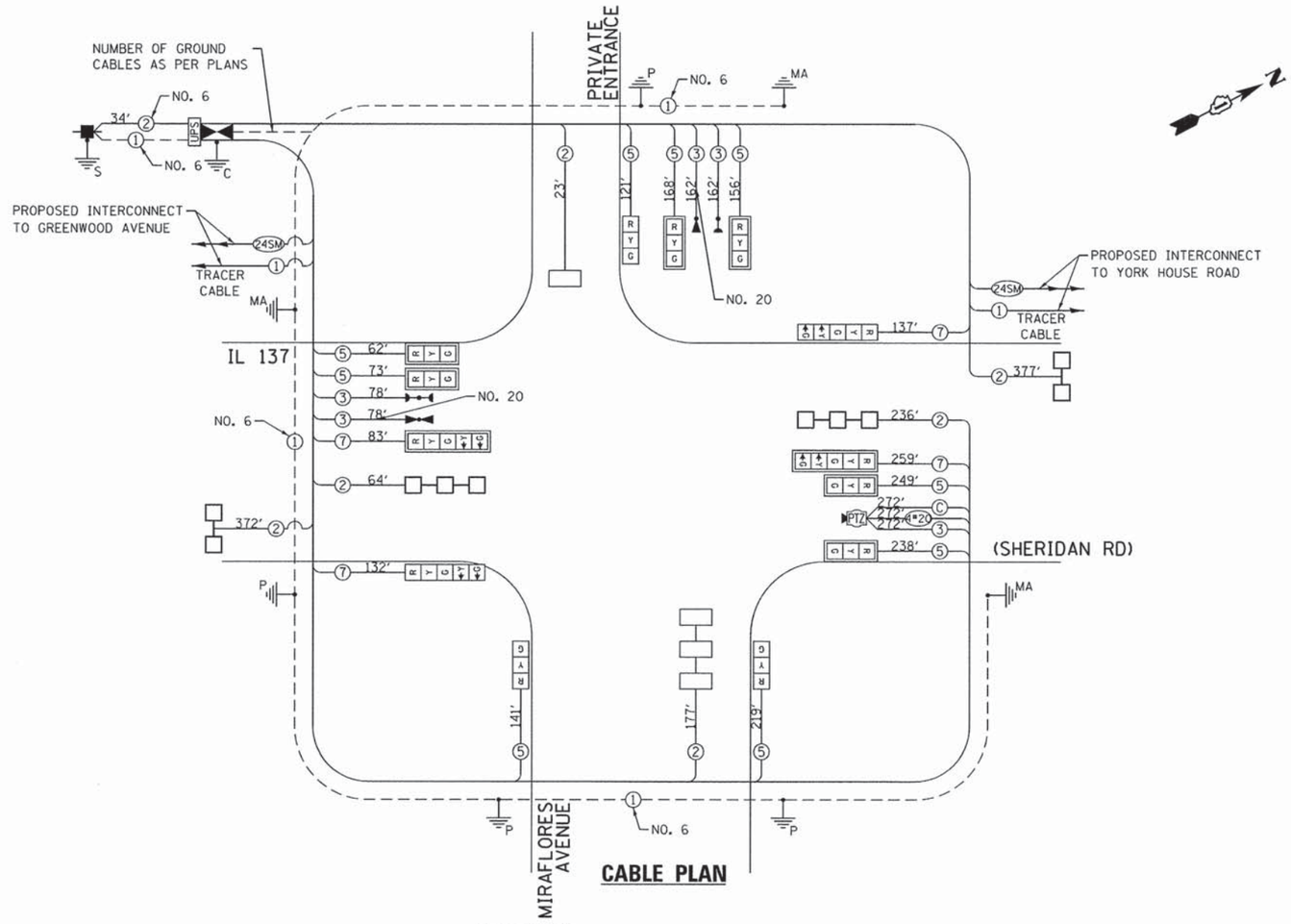
TRAFFIC SIGNAL MODERNIZATION PLAN
IL 137 (SHERIDAN RD) AT MIRAFLORES AVENUE

SCALE: 1"=20' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	28
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		

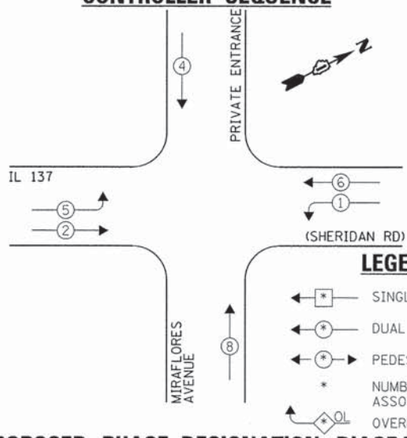
SCHEDULE OF QUANTITIES
IL 137 (SHERIDAN RD) AT MIRAFLORES AVENUE

NO.	QUANT.	UNIT	
1.	19.50	SQ FT	SIGN PANEL - TYPE 1
2.	15.00	SQ FT	SIGN PANEL - TYPE 2
3.	1	EACH	SERVICE INSTALLATION - POLE MOUNTED
4.	636	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
5.	63	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.
6.	39	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
7.	21	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3 1/2" DIA.
8.	294	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.
9.	4	EACH	HANDHOLE
10.	2	EACH	HEAVY-DUTY HANDHOLE
11.	2	EACH	DOUBLE HANDHOLE
12.	4	EACH	PAINT NEW SIGNAL POST
13.	2	EACH	PAINT NEW MAST ARM AND POLE, UNDER 40 FEET
14.	1	EACH	PAINT NEW COMBINATION MAST ARM POLE, UNDER 40 FOOT
15.	512	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
16.	1,427	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
17.	611	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
18.	1,249	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
19.	34	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C
20.	3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
21.	1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
22.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.
23.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.
24.	1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT.
25.	16	FOOT	CONCRETE FOUNDATION, TYPE A
26.	4	FOOT	CONCRETE FOUNDATION, TYPE C
27.	10	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
28.	22	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
29.	6	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
30.	3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
31.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
32.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
33.	8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
34.	6	EACH	INDUCTIVE LOOP DETECTOR
35.	477	FOOT	DETECTOR LOOP, TYPE I
36.	2	EACH	LIGHT DETECTOR
37.	1	EACH	LIGHT DETECTOR AMPLIFIER
38.	1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
39.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
40.	4	EACH	REMOVE EXISTING HANDHOLE
41.	6	EACH	REMOVE EXISTING CONCRETE FOUNDATION
42.	272	FOOT	ELECTRIC CABLE IN CONDUIT, VIDEO NO. 20 4C
43.	512	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C
44.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
45.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
46.	272	FOOT	ELECTRIC CABLE IN CONDUIT, COAXIAL
47.	1	EACH	REMOTE CONTROLLED VIDEO SYSTEM
48.	1	EACH	LAYER II (DATALINK) SWITCH
49.	1	EACH	VIDEO ENCODER
50.	1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING



CABLE PLAN

PROPOSED CONTROLLER SEQUENCE

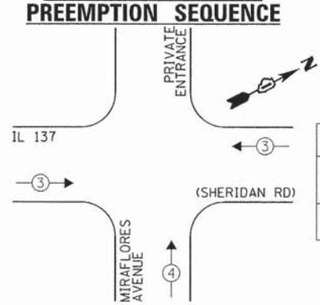


LEGEND:

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

PROPOSED PHASE DESIGNATION DIAGRAM

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↑

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	13	135	17	0.50	110.5
SIGNAL (YELLOW)	13	135	25	0.25	81.25
SIGNAL (GREEN)	13	135	15	0.25	48.75
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
PTZ CAMERA	-	-	75	1.00	75.0
				TOTAL =	450.1

ENERGY COSTS - BILLED TO: CITY OF WAUKEGAN
(ADDRESS) 100 N. MLK JR. AVE
(ADDRESS) WAUKEGAN, IL 60085
ENERGY SUPPLY - CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY: COM-ED (LIBERTYVILLE)

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

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP".

GHA #4571.800

FILE NAME = D161A55-029-TS.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
#MODELNAME#	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL 137 (SHERIDAN RD) AT MIRAFLORES AVENUE

SCALE: NONE | SHEET OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	29
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		

NOTES FOR TEMPORARY TRAFFIC SIGNALS:

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.

2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.

3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.

4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.

5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROLLER EQUIPMENT.•

6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

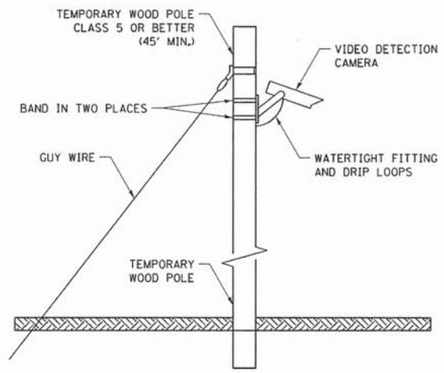
7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.

8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.

9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF THE DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.

10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

ITEM	STATION	OFFSET	POSSIBLE UTILITY CONFICT
WP-1	302+54	31' RT	OVERHEAD UTILITIES, R.O.W.
WP-2	303+42	31' RT	OVERHEAD UTILITIES, R.O.W.
WP-3	303+30	47' LT	-
WP-4	302+51	48' LT	-



TEMPORARY VIDEO DETECTION MOUNTING DETAIL

(NOT TO SCALE)

NOTE:
THE EXISTING CONTROLLER IS AN ECONOLITE ASC/2-2100 TS1 IN A TYPE IV TRACONEX CABINET.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP".

EXISTING UTILITY INFORMATION IS SHOWN FOR RECORD INFORMATION ONLY.

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

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM 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)
2 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
1 EACH SIGNAL HEAD, 1-FACE, 4-SECTION
1 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
2 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-4 SECTION
1 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
1 EACH SIGNAL HEAD, 3-FACE, 2-3 SECTION, 1-4 SECTION
2 EACH ALUMINUM MAST ARM AND POLE
4 EACH TRAFFIC SIGNAL POST
1 EACH SERVICE INSTALLATION
1 EACH MICROWAVE VEHICLE SENSOR

GHA #4571.800

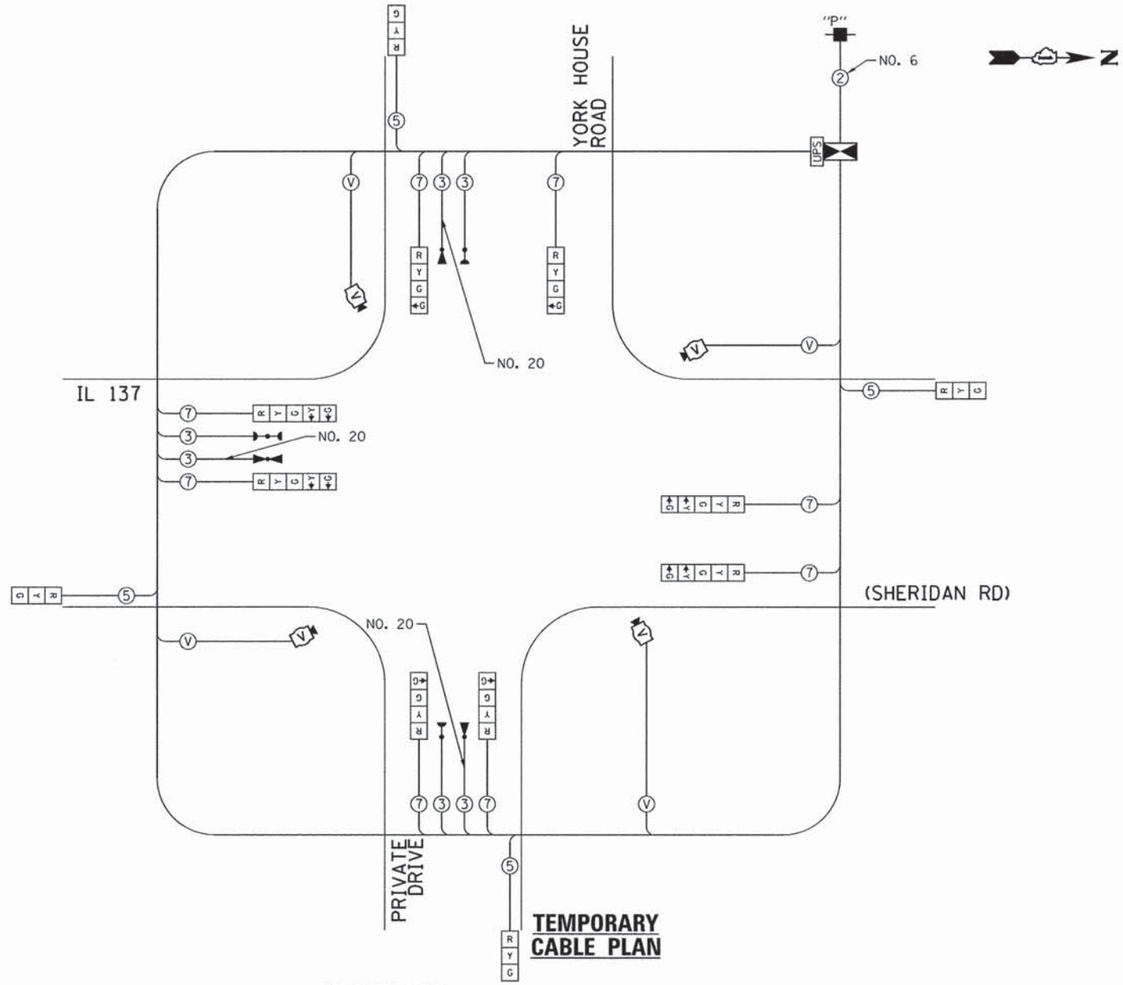
FILE NAME = D161A55-030-TS.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
$MODELNAME$	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIP. – IL 137 (SHERIDAN RD) AT YORK HOUSE ROAD

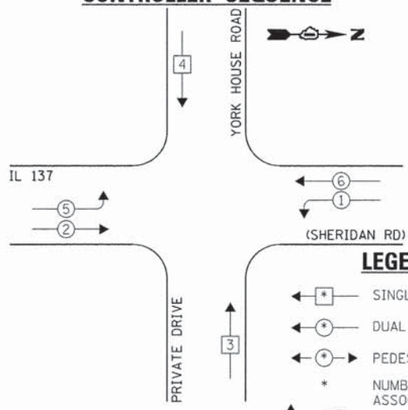
SCALE: 1"=20' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	30
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		



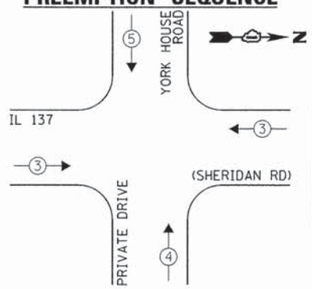
TEMPORARY CABLE PLAN

TEMPORARY CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



TEMPORARY EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	⇄	↑	↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	16	135	15	0.25	60.0
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
				TOTAL =	366.8

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION
(ADDRESS) 201 W. CENTER COURT
(ADDRESS) SCHAUMBURG, IL 60196-1096
ENERGY SUPPLY - CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY: COM-ED (LIBERTYVILLE)

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

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP".

GHA #4571.800

FILE NAME = D161A55-031-TS.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
$MODELNAME$	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM, & TEMPORARY VEHICLE PREEMPTION SEQUENCE
IL 137 (SHERIDAN RD) AT YORK HOUSE ROAD

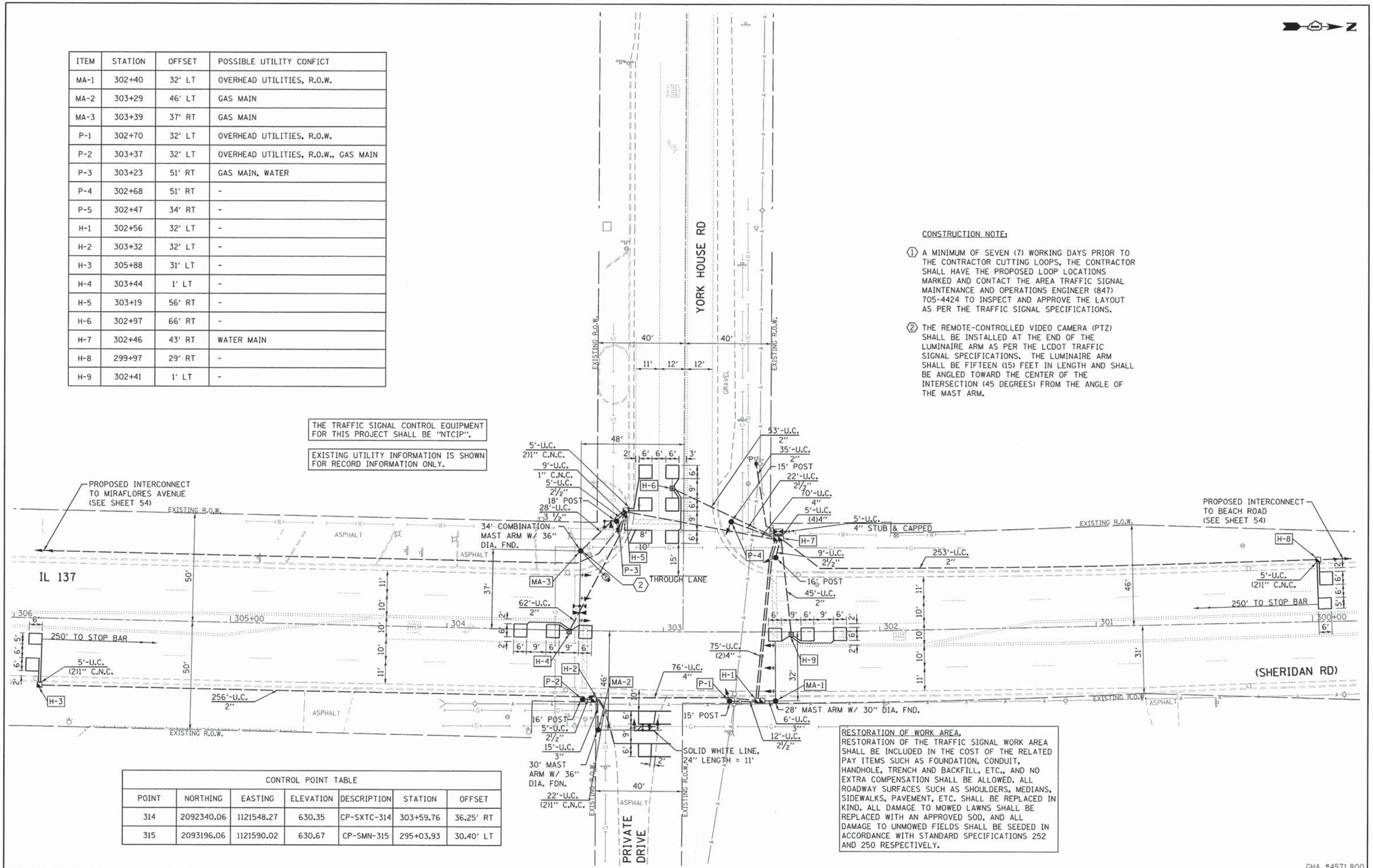
SCALE: N.A. | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	31
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		

ITEM	STATION	OFFSET	POSSIBLE UTILITY CONFICT
MA-1	302+40	32' LT	OVERHEAD UTILITIES, R.O.W.
MA-2	303+29	46' LT	GAS MAIN
MA-3	303+39	37' RT	GAS MAIN
P-1	302+70	32' LT	OVERHEAD UTILITIES, R.O.W.
P-2	303+37	32' LT	OVERHEAD UTILITIES, R.O.W., GAS MAIN
P-3	303+23	51' RT	GAS MAIN, WATER
P-4	302+68	51' RT	-
P-5	302+47	34' RT	-
H-1	302+56	32' LT	-
H-2	303+32	32' LT	-
H-3	305+88	31' LT	-
H-4	303+44	1' LT	-
H-5	303+19	56' RT	-
H-6	302+97	66' RT	-
H-7	302+46	43' RT	WATER MAIN
H-8	299+97	29' RT	-
H-9	302+41	1' LT	-

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP".

EXISTING UTILITY INFORMATION IS SHOWN FOR RECORD INFORMATION ONLY.



CONTROL POINT TABLE						
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION	STATION	OFFSET
314	2092340.06	1121548.27	630.35	CP-SXTC-314	303+59.76	36.25' RT
315	2093196.06	1121590.02	630.67	CP-SMN-315	295+03.93	30.40' LT

CONSTRUCTION NOTE:

(1) A MINIMUM OF SEVEN (7) WORKING DAYS PRIOR TO THE CONTRACTOR CUTTING LOOPS, THE CONTRACTOR SHALL HAVE THE PROPOSED LOOP LOCATIONS MARKED AND CONTACT THE AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER (847) 705-4424 TO INSPECT AND APPROVE THE LAYOUT AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

(2) THE REMOTE-CONTROLLED VIDEO CAMERA (PTZ) SHALL BE INSTALLED AT THE END OF THE LUMINAIRE ARM AS PER THE LCDOT TRAFFIC SIGNAL SPECIFICATIONS. THE LUMINAIRE ARM SHALL BE FIFTEEN (15) FEET IN LENGTH AND SHALL BE ANGLED TOWARD THE CENTER OF THE INTERSECTION (45 DEGREES) FROM THE ANGLE OF THE MAST ARM.

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

GHA #4571.800

FILE NAME = D161A55-032-TS.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
$MODELNAME$	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 9/4/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

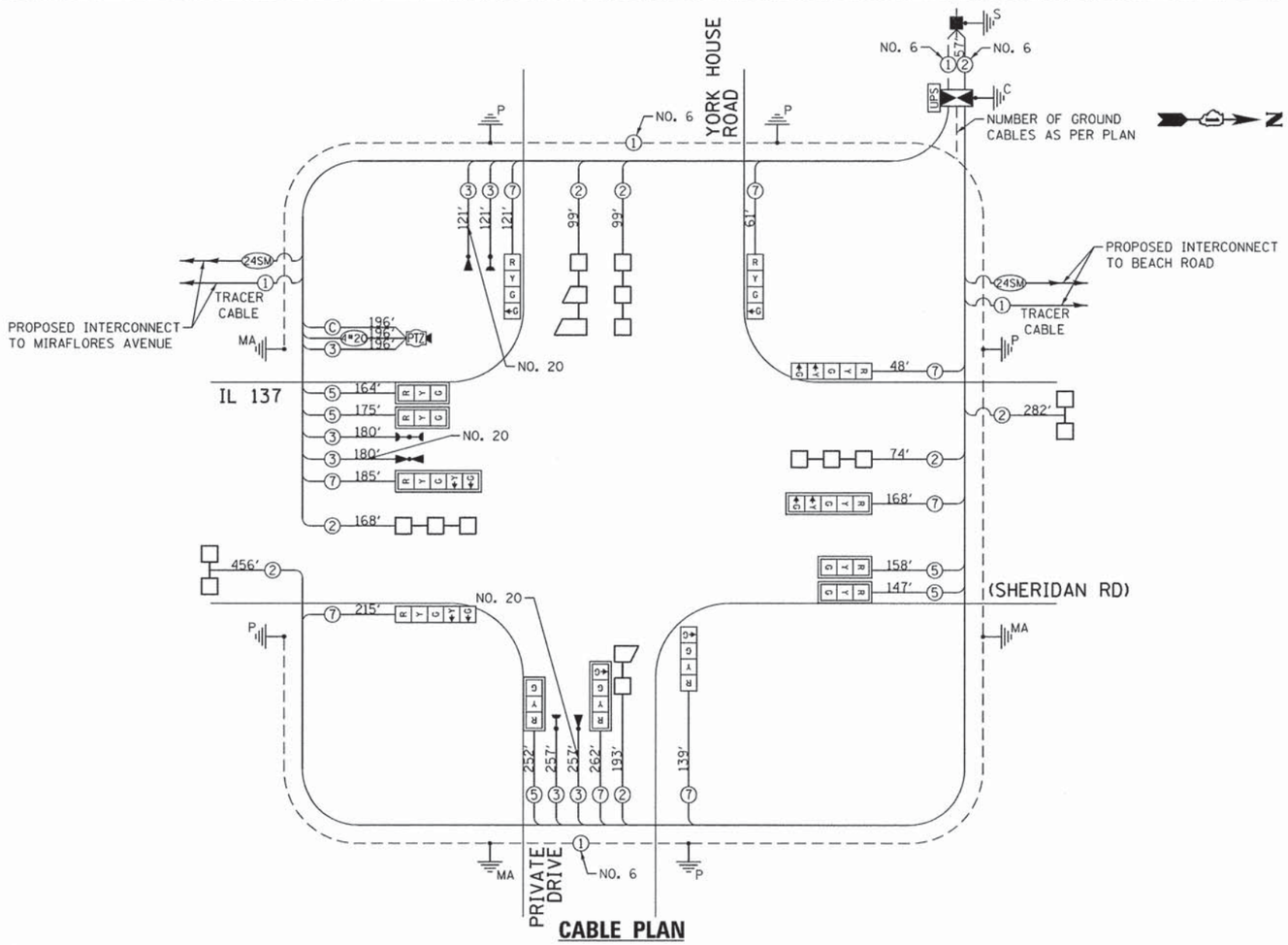
TRAFFIC SIGNAL MODERNIZATION PLAN
IL 137 (SHERIDAN RD) AT YORK HOUSE ROAD

SCALE: 1"=20' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	32
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

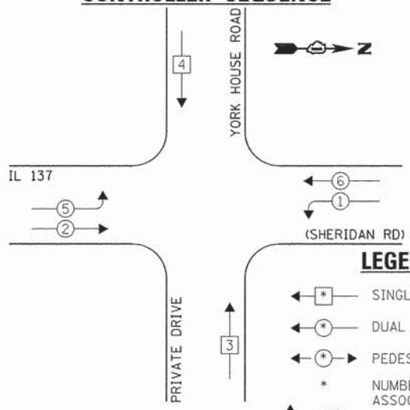
SCHEDULE OF QUANTITIES
IL 137 (SHERIDAN RD) AT YORK HOUSE ROAD

NO.	QUANT.	UNIT	
1.	21.00	SQ FT	SIGN PANEL - TYPE 1
2.	45.00	SQ FT	SIGN PANEL - TYPE 2
3.	1	EACH	SERVICE INSTALLATION - POLE MOUNTED
4.	704	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
5.	33	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.
6.	21	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
7.	28	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3 1/2" DIA.
8.	321	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.
9.	4	EACH	HANDHOLE
10.	3	EACH	HEAVY-DUTY HANDHOLE
11.	2	EACH	DOUBLE HANDHOLE
12.	754	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
13.	896	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
14.	1,199	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
15.	1,454	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
16.	57	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C
17.	453	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
18.	2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 15 FT.
19.	2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
20.	1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.
21.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.
22.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.
23.	1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT.
24.	20	FOOT	CONCRETE FOUNDATION, TYPE A
25.	4	FOOT	CONCRETE FOUNDATION, TYPE C
26.	10	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
27.	22	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
28.	5	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
29.	3	EACH	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED
30.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED
31.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
32.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
33.	8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
34.	7	EACH	INDUCTIVE LOOP DETECTOR
35.	619	FOOT	DETECTOR LOOP, TYPE I
36.	3	EACH	LIGHT DETECTOR
37.	1	EACH	LIGHT DETECTOR AMPLIFIER
38.	1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
39.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
40.	5	EACH	REMOVE EXISTING HANDHOLE
41.	6	EACH	REMOVE EXISTING CONCRETE FOUNDATION
42.	196	FOOT	ELECTRIC CABLE IN CONDUIT, VIDEO NO. 20 4C
43.	558	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C
44.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
45.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
46.	196	FOOT	ELECTRIC CABLE IN CONDUIT, COAXIAL
47.	1	EACH	REMOTE CONTROLLED VIDEO SYSTEM
48.	1	EACH	LAYER II (DATALINK) SWITCH
49.	1	EACH	VIDEO ENCODER
50.	1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING

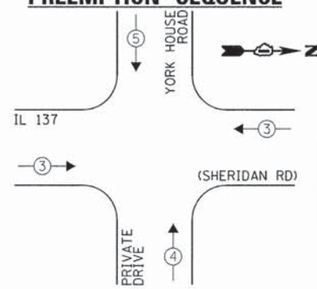


CABLE PLAN

PROPOSED CONTROLLER SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	⇄	↑	↓

LEGEND:

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

PROPOSED PHASE DESIGNATION DIAGRAM

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	13	135	17	0.50	110.5
SIGNAL (YELLOW)	13	135	25	0.25	81.25
SIGNAL (GREEN)	17	135	15	0.25	63.75
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	1	-	150	1.00	150.0
BATTERY BACKUP	1	-	25	1.00	25.0
PTZ CAMERA	1	-	75	0.05	75.0
				TOTAL =	615.1

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION
(ADDRESS) 201 W. CENTER COURT
(ADDRESS) SCHAUMBURG, IL 60196-1096
ENERGY SUPPLY - CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY: COM-ED (LIBERTYVILLE)

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

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP".

GHA #4571.800

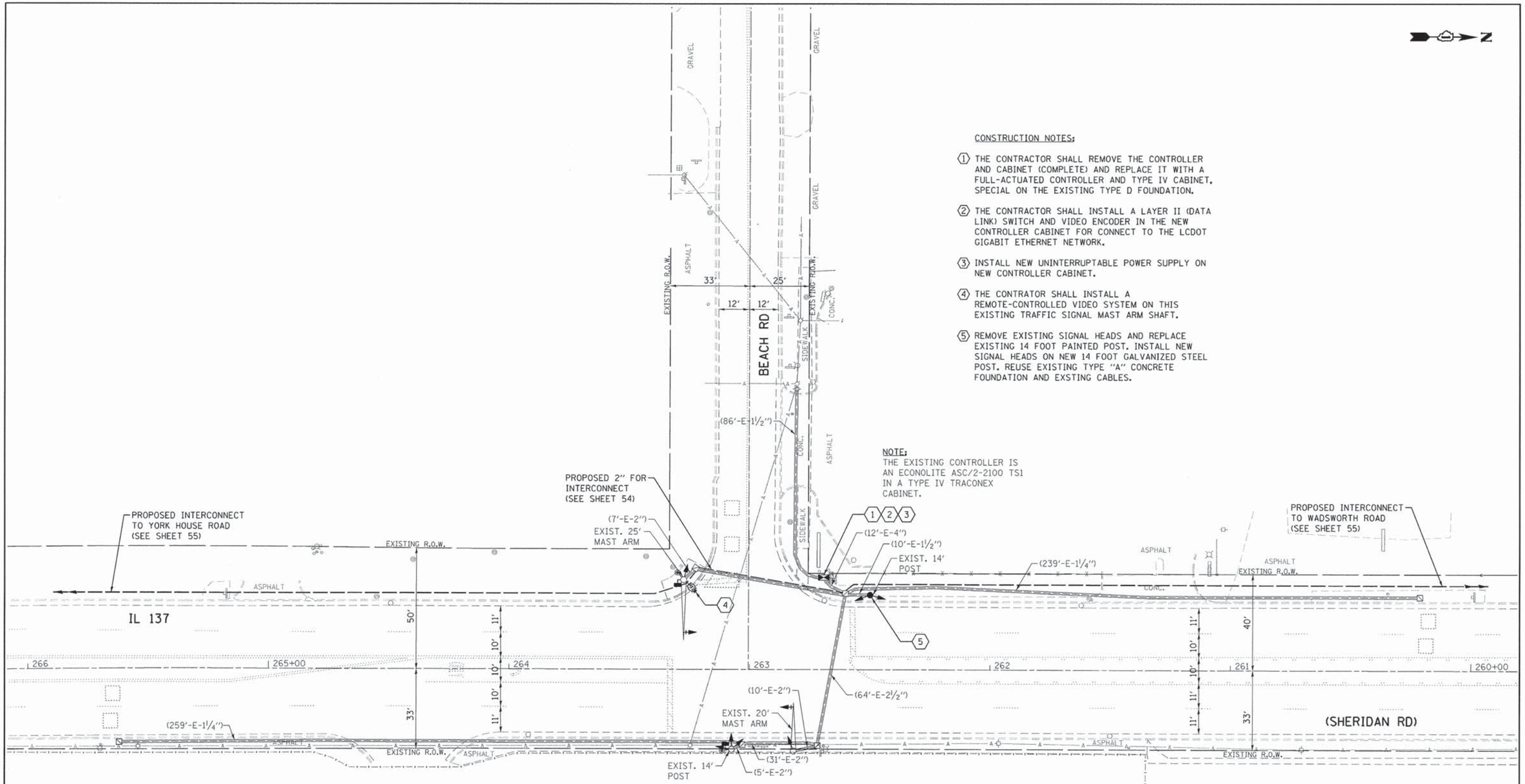
FILE NAME = D161A55-033-TS.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
$MODELNAME$	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL 137 (SHERIDAN RD) AT YORK HOUSE ROAD

SCALE: NONE | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	33
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL REMOVE THE CONTROLLER AND CABINET (COMPLETE) AND REPLACE IT WITH A FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL ON THE EXISTING TYPE D FOUNDATION.
2. THE CONTRACTOR SHALL INSTALL A LAYER II (DATA LINK) SWITCH AND VIDEO ENCODER IN THE NEW CONTROLLER CABINET FOR CONNECT TO THE LCDOT GIGABIT ETHERNET NETWORK.
3. INSTALL NEW UNINTERRUPTABLE POWER SUPPLY ON NEW CONTROLLER CABINET.
4. THE CONTRATOR SHALL INSTALL A REMOTE-CONTROLLED VIDEO SYSTEM ON THIS EXISTING TRAFFIC SIGNAL MAST ARM SHAFT.
5. REMOVE EXISTING SIGNAL HEADS AND REPLACE EXISTING 14 FOOT PAINTED POST. INSTALL NEW SIGNAL HEADS ON NEW 14 FOOT GALVANIZED STEEL POST. REUSE EXISTING TYPE "A" CONCRETE FOUNDATION AND EXSTING CABLES.

NOTE:
THE EXISTING CONTROLLER IS AN ECONOLITE ASC/2-2100 TS1 IN A TYPE IV TRACONEX CABINET.

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

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM 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)
4	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
1	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION
1	EACH	SIGNAL HEAD, 3-FACE, 3-SECTION
2	EACH	PEDESTRIAN SIGNAL HEAD
2	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TRAFFIC SIGNAL POST
2	EACH	TRAFFIC SIGNAL BACKPLATE

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP".

GHA #4571.800

FILE NAME = D161A55-034-TS.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
#MODELNAME#	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 9/4/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

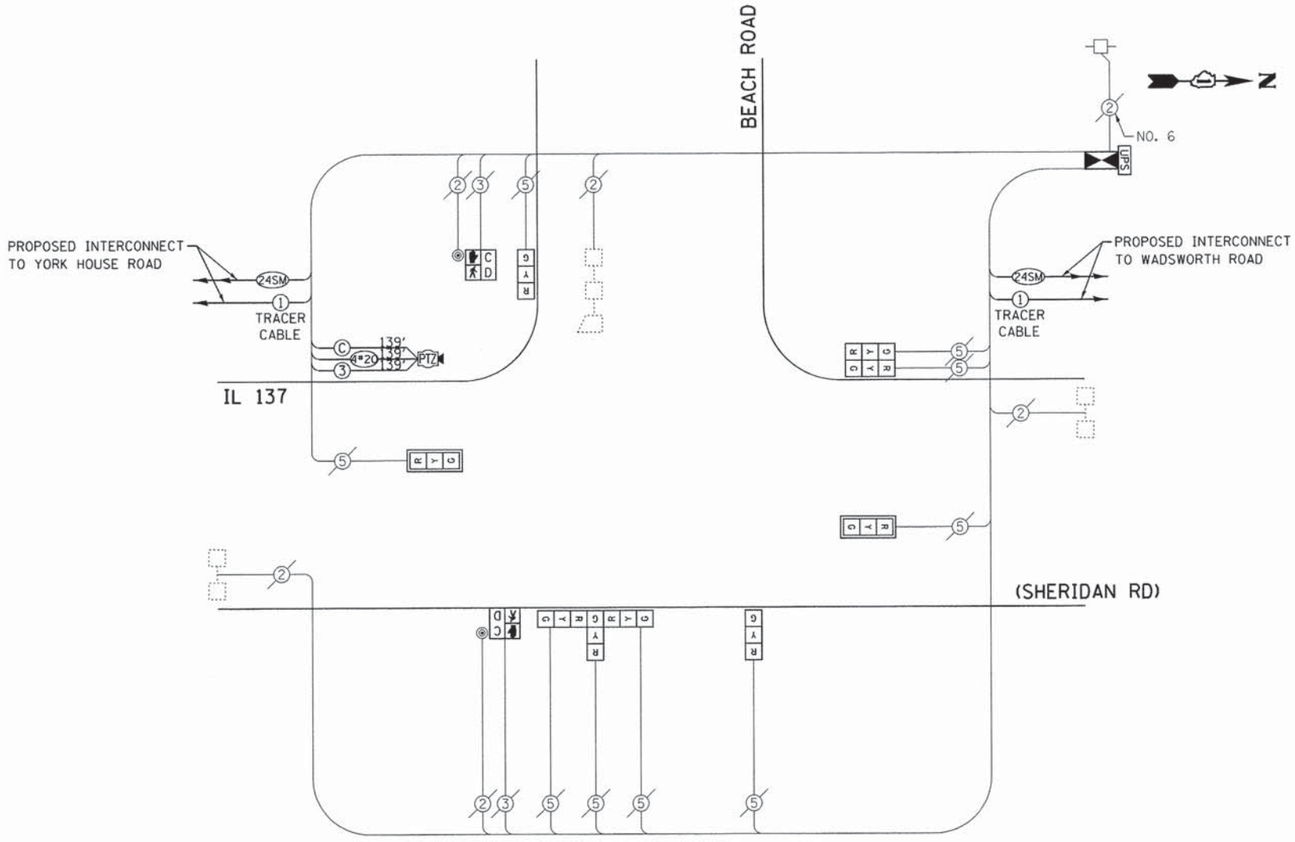
TRAFFIC SIGNAL MODIFICATION PLAN – IL 137 (SHERIDAN RD) AT BEACH ROAD

SCALE: 1"=20' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	34
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		

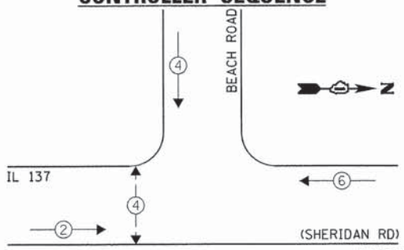
SCHEDULE OF QUANTITIES
IL 137 (SHERIDAN RD) AT BEACH ROAD

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	139	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
3.	1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
4.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
5.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
6.	1	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
7.	1	EACH	SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED
8.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
9.	2	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
10.	3	EACH	INDUCTIVE LOOP DETECTOR
11.	2	EACH	PEDESTRIAN PUSH-BUTTON
12.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
13.	139	FOOT	ELECTRIC CABLE IN CONDUIT, VIDEO NO. 20 4C
14.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
15.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
16.	139	FOOT	ELECTRIC CABLE IN CONDUIT, COAXIAL
17.	1	EACH	REMOTE CONTROLLED VIDEO SYSTEM
18.	1	EACH	LAYER II (DATALINK) SWITCH
19.	1	EACH	VIDEO ENCODER



CABLE PLAN

EXISTING AND PROPOSED CONTROLLER SEQUENCE



LEGEND:

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

EXISTING AND PROPOSED PHASE DESIGNATION DIAGRAM

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE L.E.D.	OPERATION	
SIGNAL (RED)	9	135	17	0.50	76.5
SIGNAL (YELLOW)	9	135	25	0.25	56.25
SIGNAL (GREEN)	9	135	15	0.25	33.75
ARROW	-	135	12	0.10	-
PED. SIGNAL	2	90	25	1.00	50.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	1	-	150	1.00	150.0
BATTERY BACKUP	1	-	25	1.00	25.0
PTZ CAMERA	1	-	75	1.00	75.0
				TOTAL =	566.5

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION
(ADDRESS) 201 W. CENTER COURT
(ADDRESS) SCHAUMBURG, IL 60196-1096
ENERGY SUPPLY - CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY: COM-ED (LIBERTYVILLE)

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

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP".

GHA #4571.800

FILE NAME = D161A55-035-TS.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
Default	PLOT DATE = 9/3/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, & PHASE DESIGNATION DIAGRAM
IL 137 (SHERIDAN RD) AT BEACH ROAD

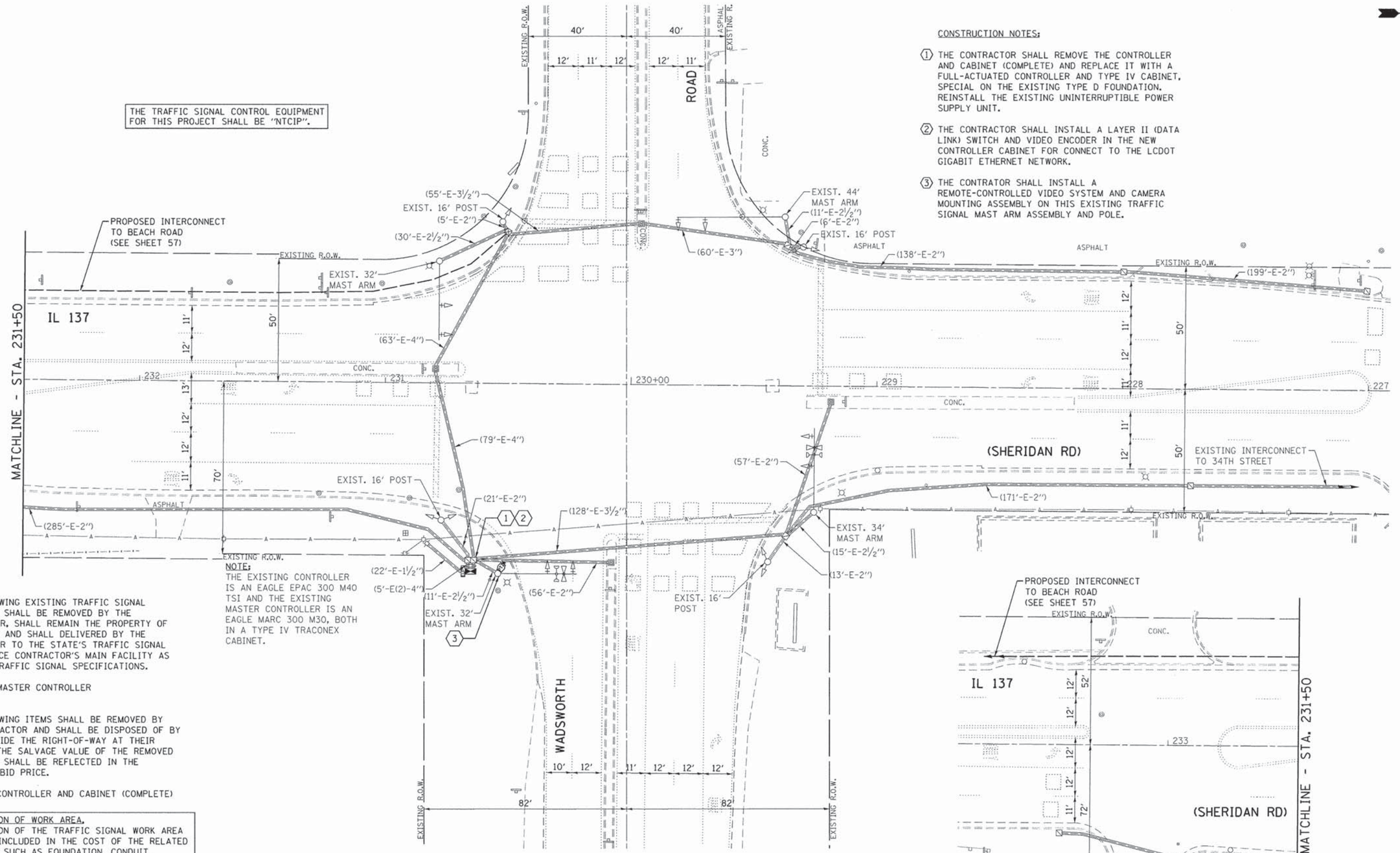
SCALE: NONE | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	35
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP".

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL REMOVE THE CONTROLLER AND CABINET (COMPLETE) AND REPLACE IT WITH A FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL ON THE EXISTING TYPE D FOUNDATION. REINSTALL THE EXISTING UNINTERRUPTIBLE POWER SUPPLY UNIT.
2. THE CONTRACTOR SHALL INSTALL A LAYER II (DATA LINK) SWITCH AND VIDEO ENCODER IN THE NEW CONTROLLER CABINET FOR CONNECT TO THE LCDOT GIGABIT ETHERNET NETWORK.
3. THE CONTRATOR SHALL INSTALL A REMOTE-CONTROLLED VIDEO SYSTEM AND CAMERA MOUNTING ASSEMBLY ON THIS EXISTING TRAFFIC SIGNAL MAST ARM ASSEMBLY AND POLE.



NOTE:
THE EXISTING CONTROLLER IS AN EAGLE EPAC 300 M40 TSI AND THE EXISTING MASTER CONTROLLER IS AN EAGLE MARC 300 M30, BOTH IN A TYPE IV TRACONEX CABINET.

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH MASTER CONTROLLER

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM 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)

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

GHA #4571.800

FILE NAME = D161A55-036-TS.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
$MODELNAME$	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

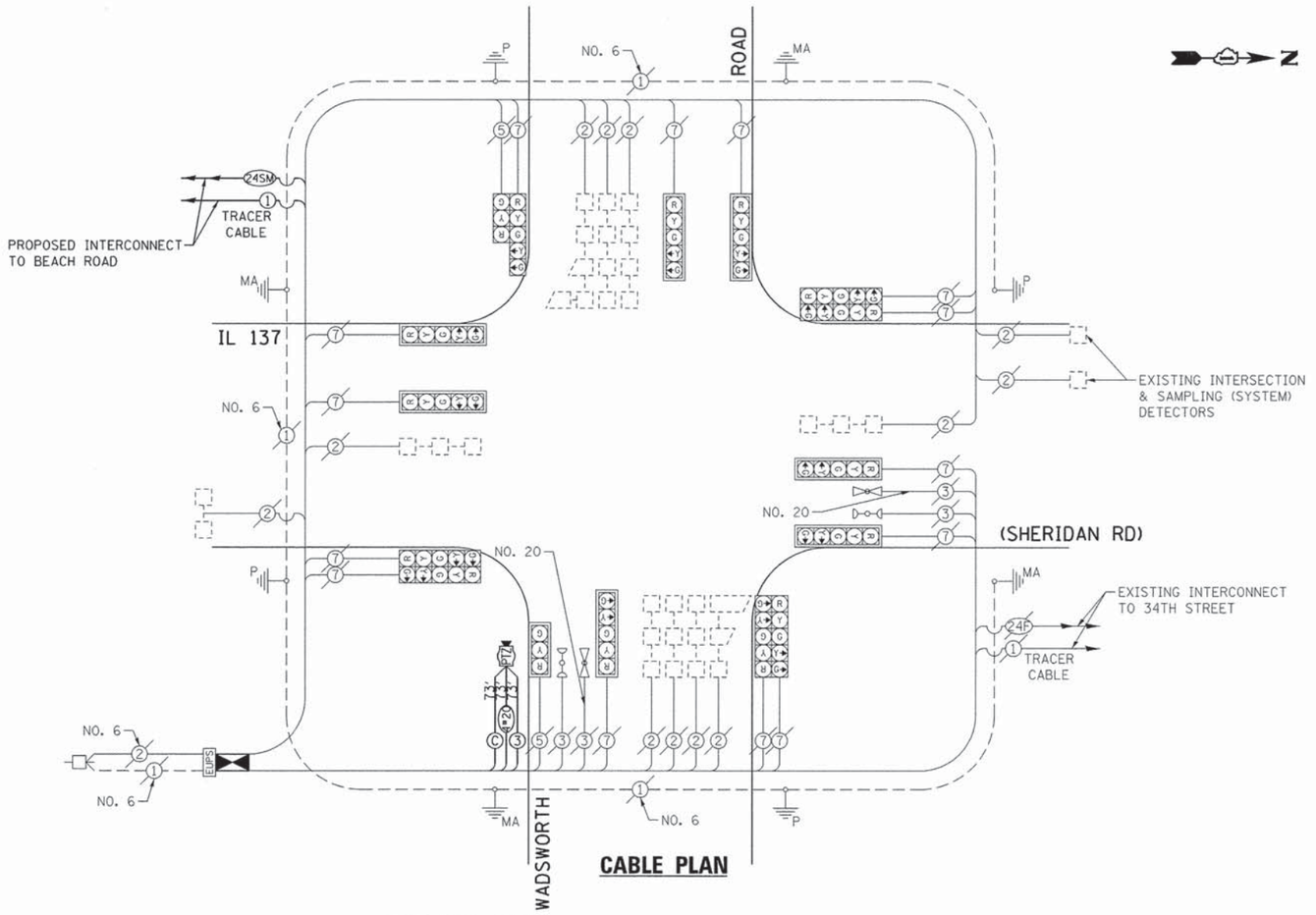
TRAFFIC SIGNAL MODIFICATION PLAN –
IL 137 (SHERIDAN RD) AT WADSWORTH ROAD

SCALE: 1"=20' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	36
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

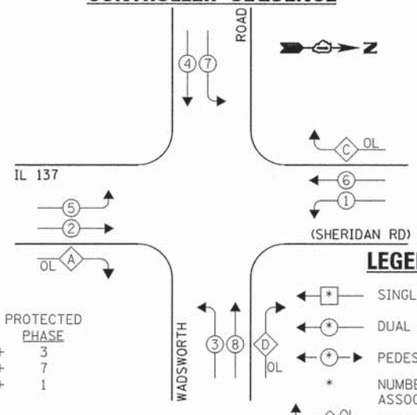
SCHEDULE OF QUANTITIES
IL 137 (SHERIDAN RD) AT WADSWORTH ROAD

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	73	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
3.	12	EACH	INDUCTIVE LOOP DETECTOR
4.	1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
5.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6.	73	FOOT	ELECTRIC CABLE IN CONDUIT, VIDEO NO. 20 4C
7.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
8.	73	FOOT	ELECTRIC CABLE IN CONDUIT, COAXIAL
9.	1	EACH	RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM
10.	1	EACH	REMOTE CONTROLLED VIDEO SYSTEM
11.	1	EACH	LAYER II (DATALINK) SWITCH
12.	1	EACH	VIDEO ENCODER
13.	1	EACH	CAMERA MOUNTING ASSEMBLY



CABLE PLAN

EXISTING AND PROPOSED CONTROLLER SEQUENCE



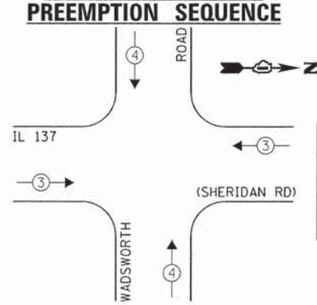
OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
A	=	2	+	3
C	=	6	+	7
D	=	8	+	1

LEGEND:

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

EXISTING AND PROPOSED PHASE DESIGNATION DIAGRAM

EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	16	135	17	0.50	136.0
SIGNAL (YELLOW)	16	135	25	0.25	100.0
SIGNAL (GREEN)	16	135	15	0.25	60.0
ARROW	28	135	12	0.10	33.6
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	1	-	150	1.00	150.0
BATTERY BACKUP	1	-	25	1.00	25.0
PTZ CAMERA	1	-	75	1.00	75.0
				TOTAL =	679.6

ENERGY COSTS - BILLED TO: VILLAGE OF ZION
(ADDRESS) 2828 SHERIDAN ROAD
(ADDRESS) ZION, ILLINOIS 60099
ENERGY SUPPLY - CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY: COM-ED (LIBERTYVILLE)

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

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP".

GHA #4571.800

FILE NAME = D161A55-037-TS.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
$MODELNAME$	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL 137 (SHERIDAN RD) AT WADSWORTH ROAD

SCALE: NONE | SHEET OF SHEETS | STA. | TO STA.

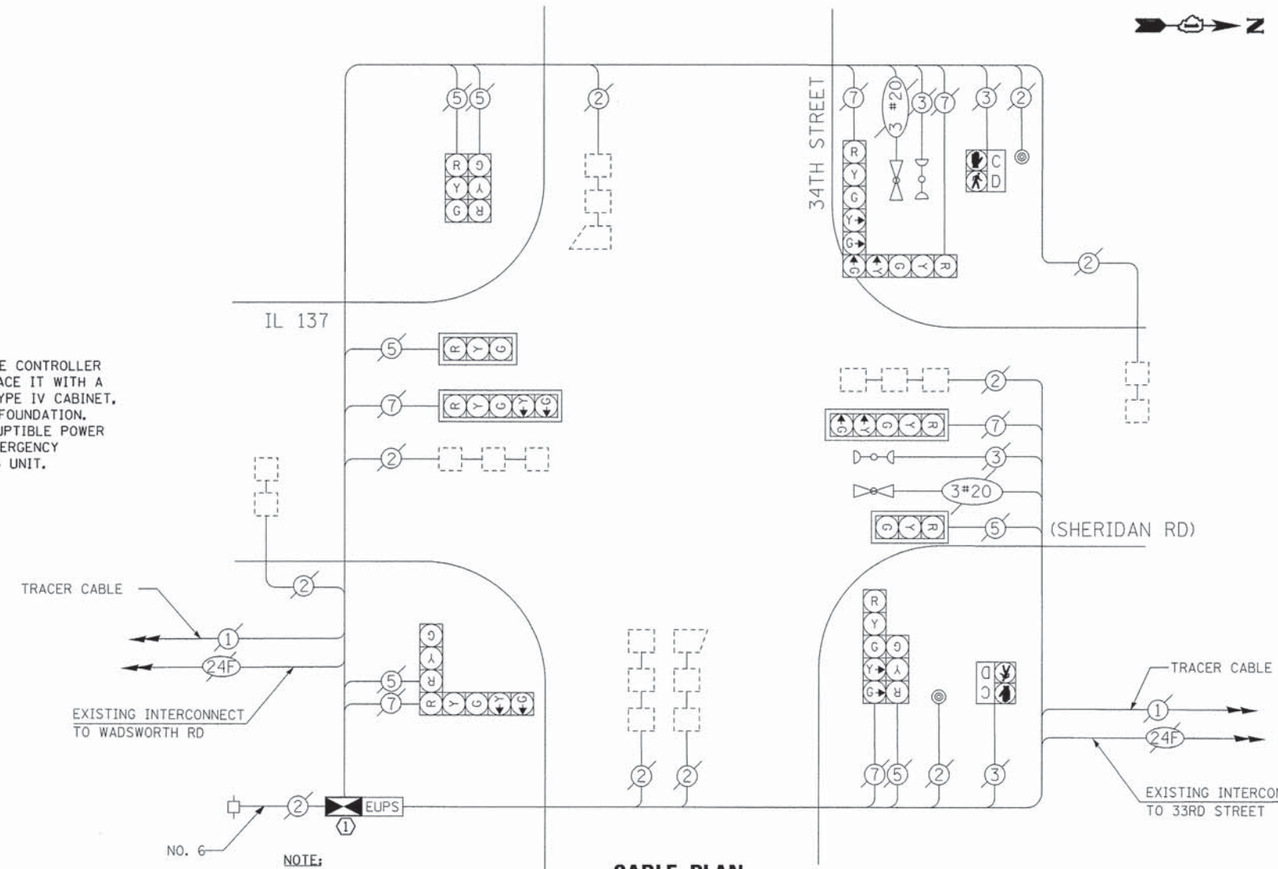
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	37
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		

SCHEDULE OF QUANTITIES
IL 137 (SHERIDAN RD) AT 34TH STREET

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	7	EACH	INDUCTIVE LOOP DETECTOR
3.	1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
4.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
5.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
6.	1	EACH	RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM
7.	1	EACH	LAYER II (DATALINK) SWITCH

CONSTRUCTION NOTE:

(1) THE CONTRACTOR SHALL REMOVE THE CONTROLLER AND CABINET (COMPLETE) AND REPLACE IT WITH A FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL ON THE EXISTING TYPE D FOUNDATION. REINSTALL THE EXISTING UNINTERRUPTIBLE POWER SUPPLY UNIT AND THE EXISTING EMERGENCY VEHICLE PRIORTIY SYSTEM, PHASING UNIT.



NOTE:

THE EXISTING CONTROLLER IS AN EAGLE M40 TS-1 IN A TYPE IV TRACONEX CABINET.

CABLE PLAN

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

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM 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)

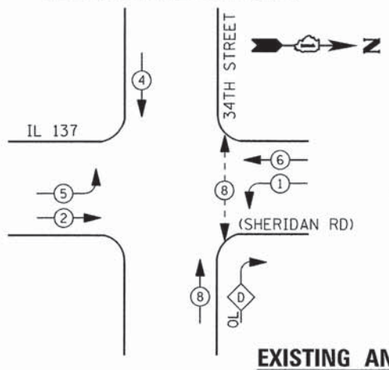
I. D. O. T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	12	135	12	0.10	14
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
FLASHER LED					
				TOTAL =	386

ENERGY COSTS- BILLED TO: CITY OF ZION
2828 SHERIDAN RD
ZION, IL 60099

ENERGY SUPPLY - CONTACT TERRI BLECK
PHONE 847-816-5239
COMMONWEALTH EDISON

EXISTING AND PROPOSED CONTROLLER SEQUENCE



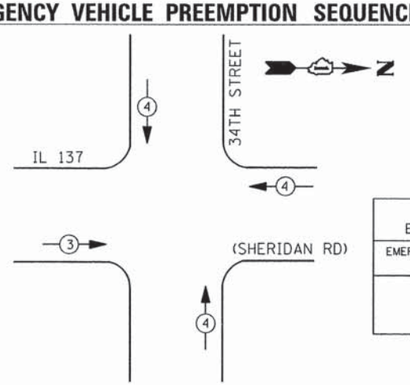
LEGEND

- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- * NUMBER REFERS TO ASSOCIATED PHASE

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
D	=	8	+	1

EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

EXISTING AND PROPOSED PHASE DESIGNATION DIAGRAM

GHA #4571.800

FILE NAME = D161A55-038-TS.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE IL 137 (SHERIDAN RD) AT 34TH STREET	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - ZCW	REVISED -			2736	12-00999-29-TL	LAKE	73	38
Default	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -		SCALE: NONE SHEET OF SHEETS STA. TO STA.			CONTRACT NO. 61A55		
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -					ILLINOIS FED. AID PROJECT		

SCHEDULE OF QUANTITIES
IL 137 (SHERIDAN RD) AT 33RD STREET

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	8	EACH	INDUCTIVE LOOP DETECTOR
3.	1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
4.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
5.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
6.	1	EACH	RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM
7.	1	EACH	LAYER II (DATALINK) SWITCH

NOTE;

THE EXISTING CONTROLLER IS AN EAGLE M40 TS-1 IN A TYPE IV TRACONEX CABINET.

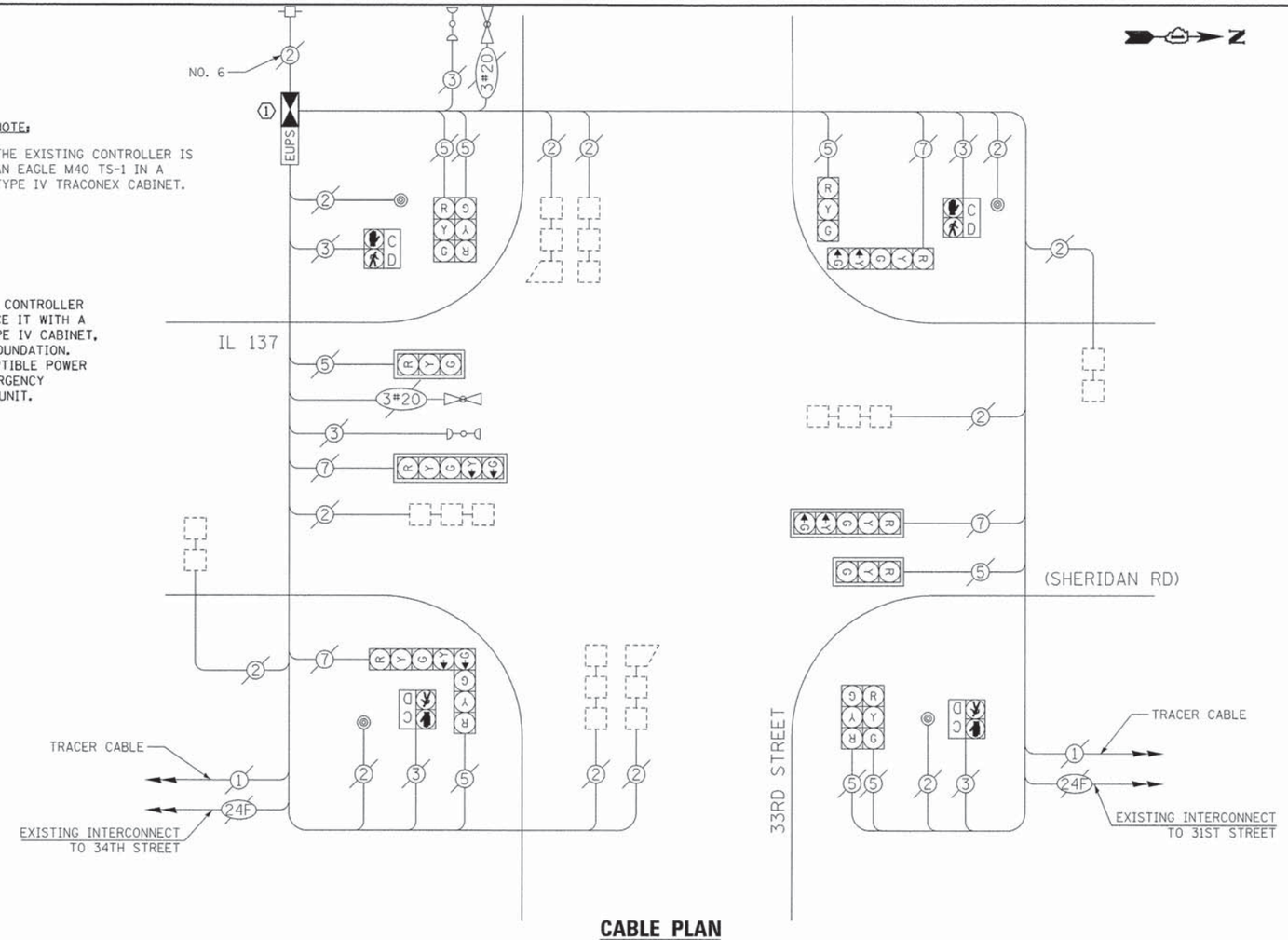
CONSTRUCTION NOTE;

(1) THE CONTRACTOR SHALL REMOVE THE CONTROLLER AND CABINET (COMPLETE) AND REPLACE IT WITH A FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL ON THE EXISTING TYPE D FOUNDATION. REINSTALL THE EXISTING UNINTERRUPTIBLE POWER SUPPLY UNIT AND THE EXISTING EMERGENCY VEHICLE PRIORTIY SYSTEM, PHASING UNIT.

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

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM 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)



CABLE PLAN

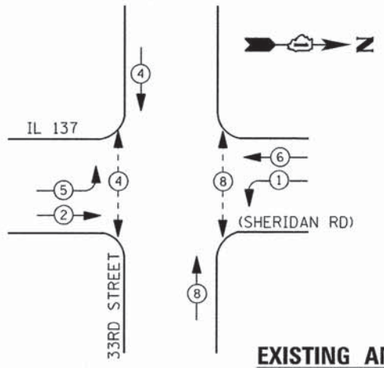
I. D. O. T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	10
PED. SIGNAL	4	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
FLASHER LED					
				TOTAL =	432

ENERGY COSTS- BILLED TO: CITY OF ZION
2828 SHERIDAN RD
ZION, IL 60099

ENERGY SUPPLY - CONTACT TERRI BLECK
PHONE 847-816-5239
COMMONWEALTH EDISON

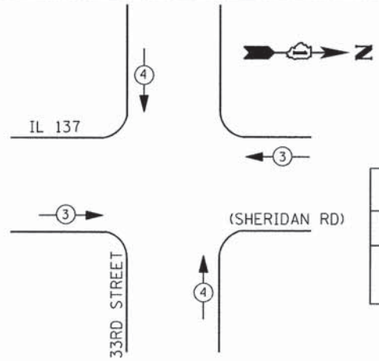
EXISTING AND PROPOSED CONTROLLER SEQUENCE



LEGEND

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

EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↓ ↑

EXISTING AND PROPOSED PHASE DESIGNATION DIAGRAM

GHA #4571.800

FILE NAME = D161A55-039-TS.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
Default	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL 137 (SHERIDAN RD) AT 33RD STREET

SCALE: NONE | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	39
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		

SCHEDULE OF QUANTITIES
IL 137 (SHERIDAN RD) AT 31ST STREET

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	6	EACH	INDUCTIVE LOOP DETECTOR
3.	1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
4.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
5.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
6.	1	EACH	RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM
7.	1	EACH	LAYER II (DATALINK) SWITCH

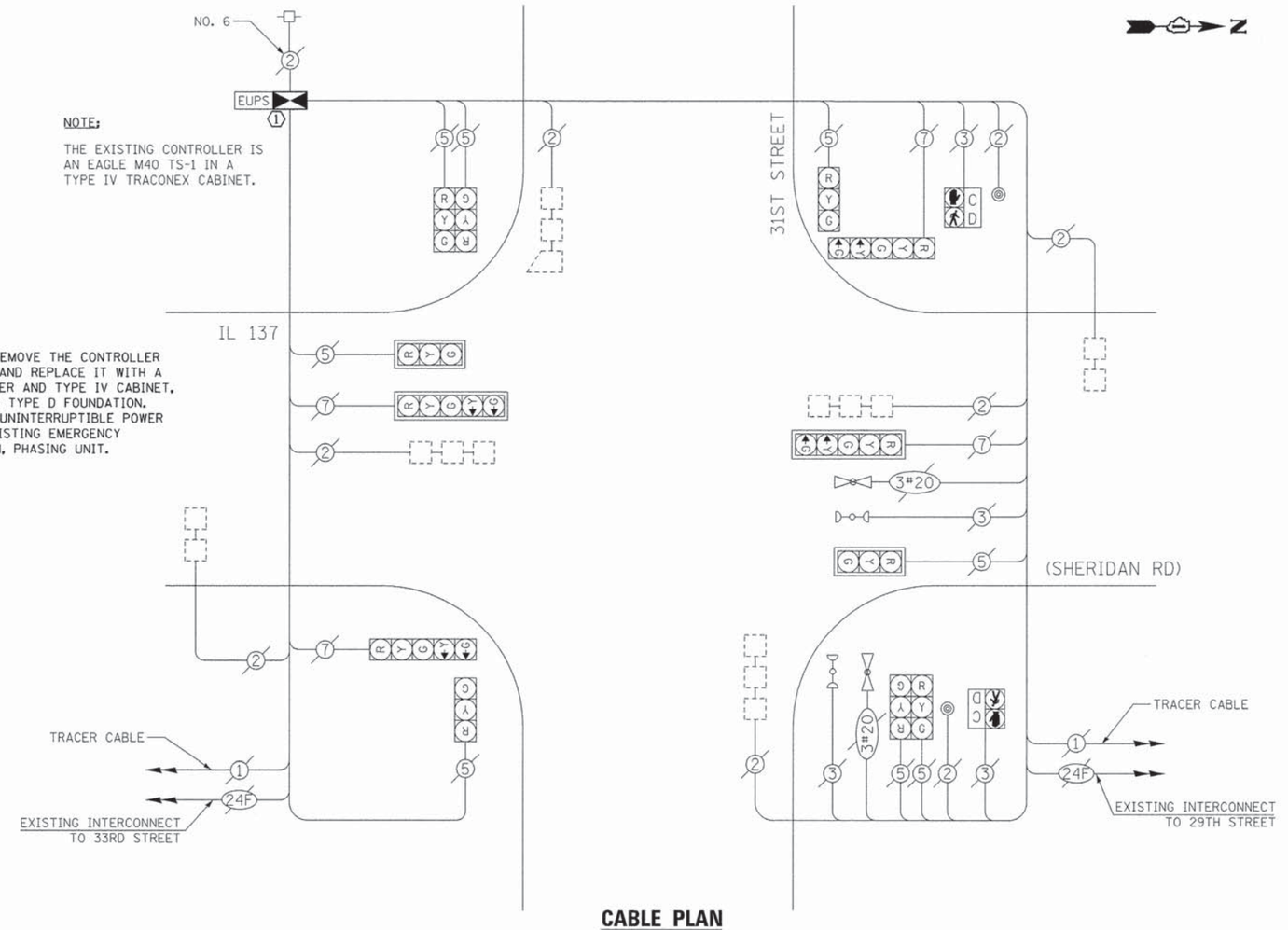
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

1 EACH CONTROLLER AND CABINET (COMPLETE)

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

NOTE:
THE EXISTING CONTROLLER IS AN EAGLE M40 TS-1 IN A TYPE IV TRACONEX CABINET.

CONSTRUCTION NOTE:
(1) THE CONTRACTOR SHALL REMOVE THE CONTROLLER AND CABINET (COMPLETE) AND REPLACE IT WITH A FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL ON THE EXISTING TYPE D FOUNDATION. REINSTALL THE EXISTING UNINTERRUPTIBLE POWER SUPPLY UNIT AND THE EXISTING EMERGENCY VEHICLE PRIORTIY SYSTEM, PHASING UNIT.



CABLE PLAN

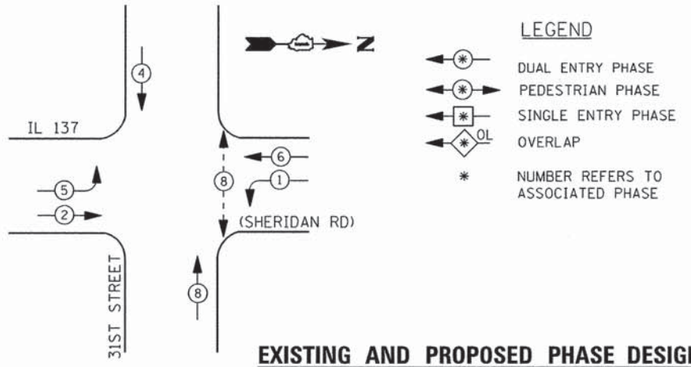
I. D. O. T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	10
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
FLASHER LED					
				TOTAL =	382

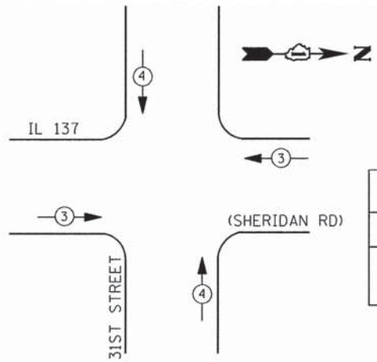
ENERGY COSTS- BILLED TO: CITY OF ZION
2828 SHERIDAN RD
ZION, IL 60099

ENERGY SUPPLY - CONTACT TERRI BLECK
PHONE 847-816-5239
COMMONWEALTH EDISON

EXISTING AND PROPOSED CONTROLLER SEQUENCE



EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↓ ↑

EXISTING AND PROPOSED PHASE DESIGNATION DIAGRAM

GHA #4571.800

FILE NAME = D161A55-040-TS.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
Default	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL 137 (SHERIDAN RD) AT 31ST STREET
SCALE: NONE | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	40
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

SCHEDULE OF QUANTITIES
IL 137 (SHERIDAN RD) AT 29TH STREET

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	8	EACH	INDUCTIVE LOOP DETECTOR
3.	1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
4.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
5.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
6.	1	EACH	RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM
7.	1	EACH	LAYER II (DATALINK) SWITCH

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM 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)

CONSTRUCTION NOTE;

① THE CONTRACTOR SHALL REMOVE THE CONTROLLER AND CABINET (COMPLETE) AND REPLACE IT WITH A FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL ON THE EXISTING TYPE D FOUNDATION. REINSTALL THE EXISTING UNINTERRUPTIBLE POWER SUPPLY UNIT AND THE EXISTING EMERGENCY VEHICLE PRIORTIY SYSTEM, PHASING UNIT.

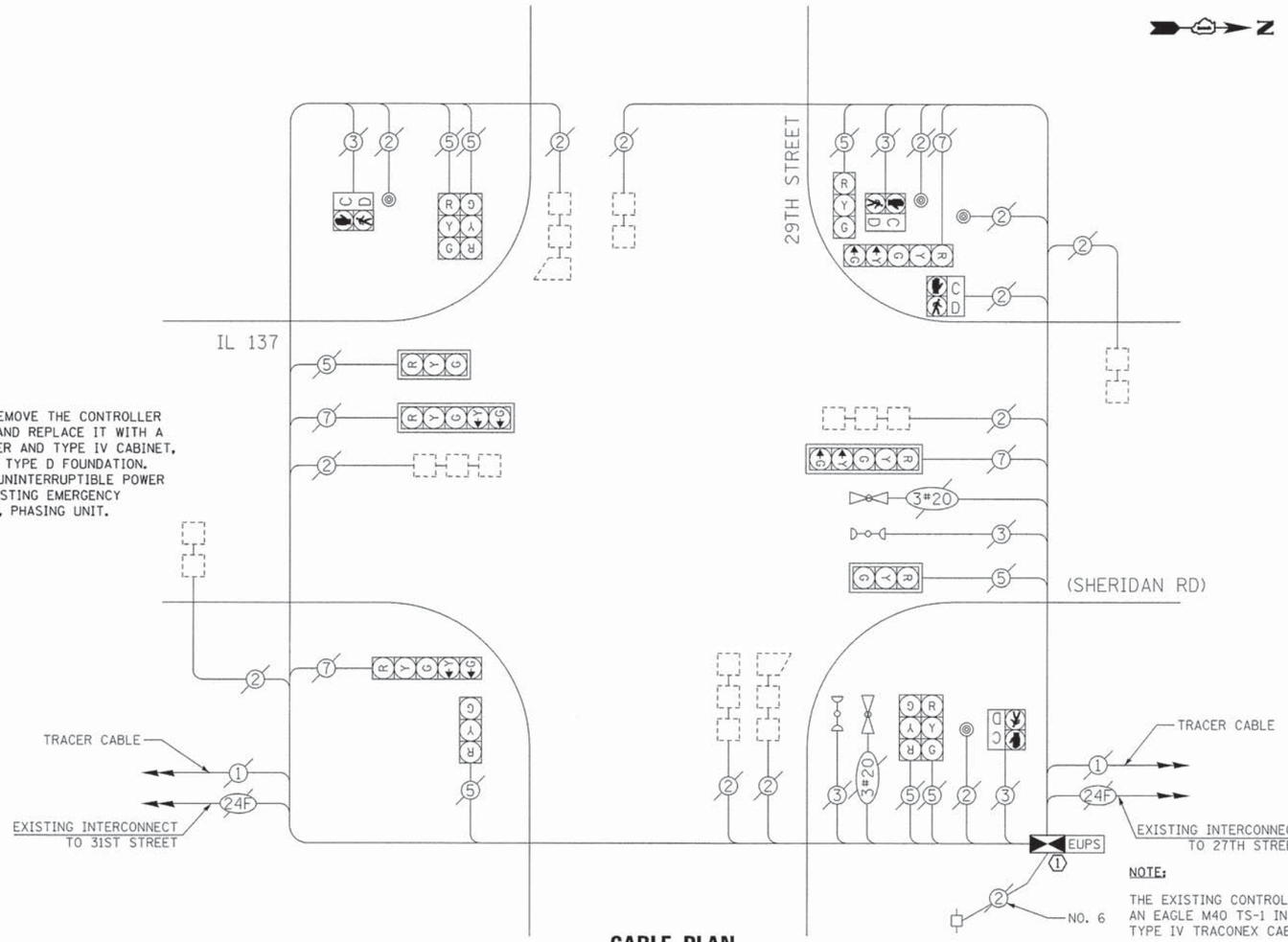
RESTORATION OF WORK AREA,
RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE COST OF THE RELATED PAY ITEMS SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT,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

I. D. O. T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	10
PED. SIGNAL	4	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
FLASHER LED					
				TOTAL =	432

ENERGY COSTS- BILLED TO: CITY OF ZION
2828 SHERIDAN RD
ZION, IL 60099

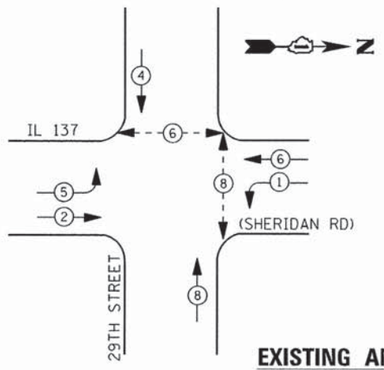
ENERGY SUPPLY - CONTACT TERRI BLECK
PHONE 847-816-5239
COMMONWEALTH EDISON



NOTE:
THE EXISTING CONTROLLER IS AN EAGLE M40 TS-1 IN A TYPE IV TRACONEX CABINET.

CABLE PLAN

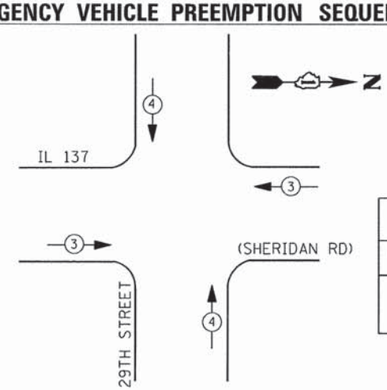
EXISTING AND PROPOSED CONTROLLER SEQUENCE



LEGEND

- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- * NUMBER REFERS TO ASSOCIATED PHASE

EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↓ ↑

EXISTING AND PROPOSED PHASE DESIGNATION DIAGRAM

GHA #4571.800

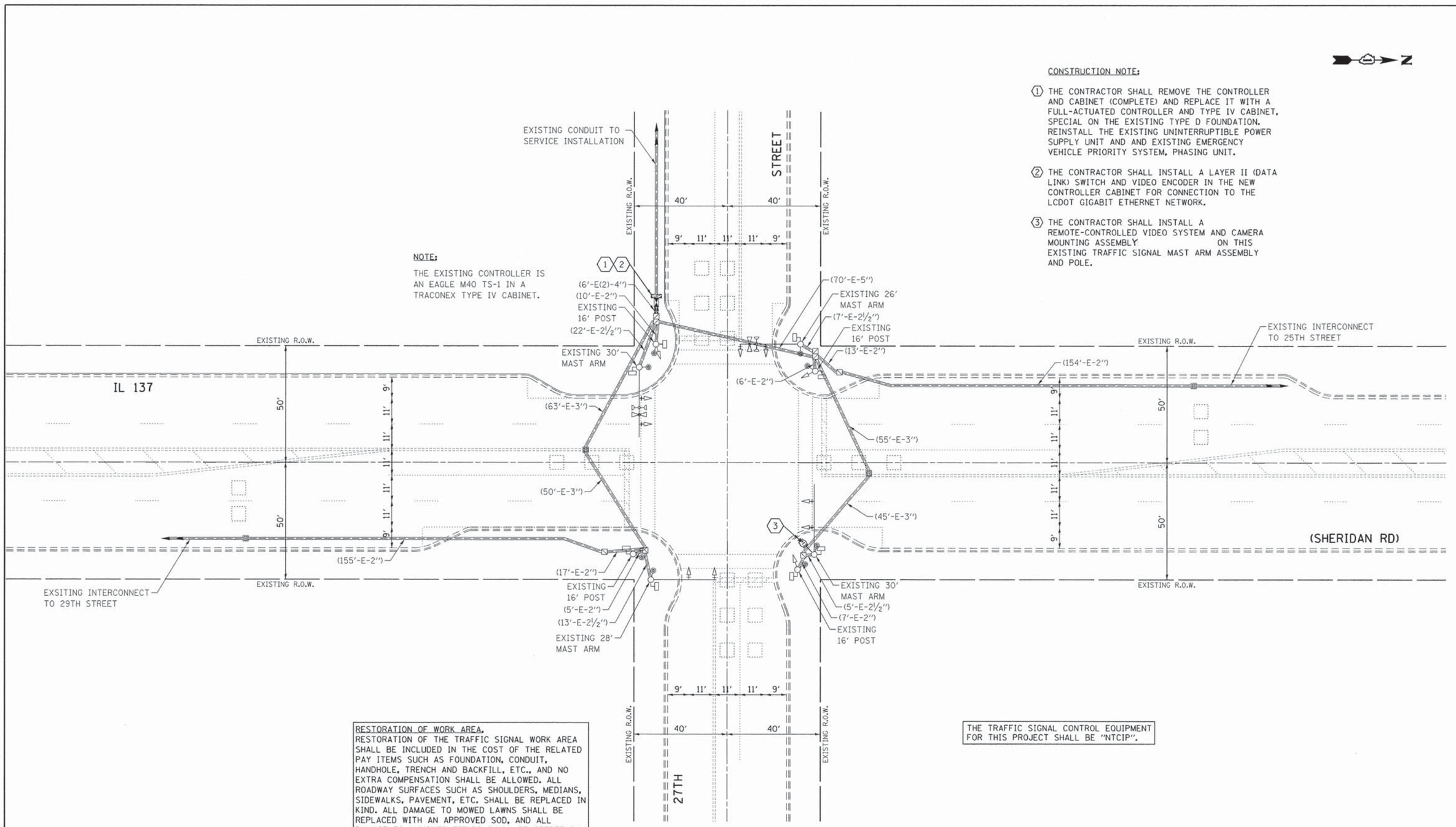
FILE NAME = D161A55-041-TS.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
Default	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL 137 (SHERIDAN RD) AT 29TH STREET

SCALE: NONE | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	41
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			



THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM 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)

FILE NAME = D161A55-042-TS.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
Default	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
IL 137 (SHERIDAN RD) AT 27TH STREET

SCALE: 1"=20' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	42
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

SCHEDULE OF QUANTITIES
IL 137 (SHERIDAN RD) AT 27TH STREET

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	264	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
3.	8	EACH	INDUCTIVE LOOP DETECTOR
4.	1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
5.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6.	264	FOOT	ELECTRIC CABLE IN CONDUIT, VIDEO NO. 20 4C
7.	1	EACH	CAMERA MOUNTING ASSEMBLY (SPECIAL)
8.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
9.	264	FOOT	ELECTRIC CABLE IN CONDUIT, COAXIAL
10.	1	EACH	RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM
11.	1	EACH	REMOTE CONTROLLED VIDEO SYSTEM
12.	1	EACH	LAYER II (DATALINK) SWITCH
13.	1	EACH	VIDEO ENCODER

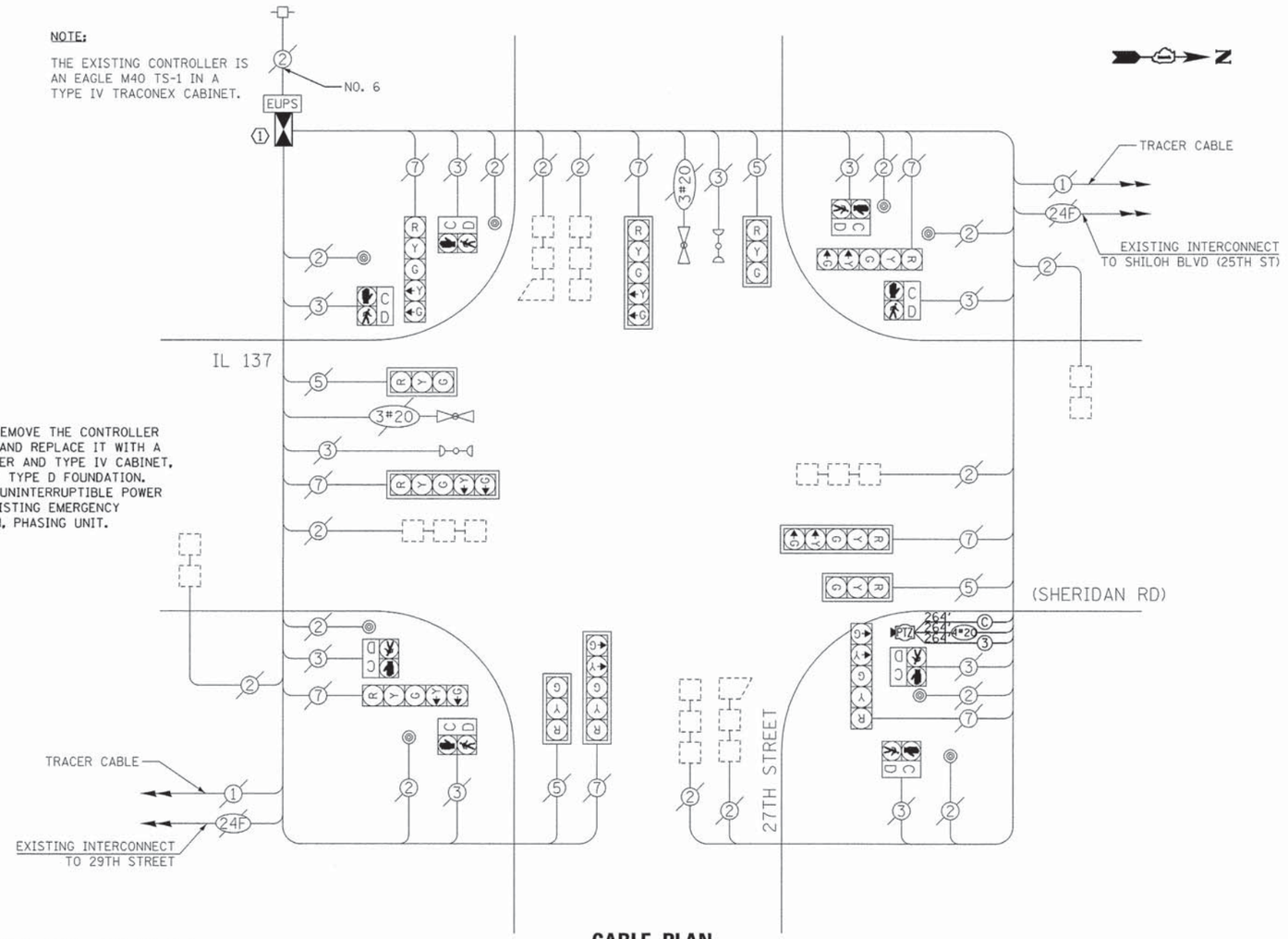
NOTE:

THE EXISTING CONTROLLER IS AN EAGLE M40 TS-1 IN A TYPE IV TRACONEX CABINET.

CONSTRUCTION NOTE:

(1) THE CONTRACTOR SHALL REMOVE THE CONTROLLER AND CABINET (COMPLETE) AND REPLACE IT WITH A FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL ON THE EXISTING TYPE D FOUNDATION. REINSTALL THE EXISTING UNINTERRUPTIBLE POWER SUPPLY UNIT AND THE EXISTING EMERGENCY VEHICLE PRIORTIY SYSTEM, PHASING UNIT.

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



CABLE PLAN

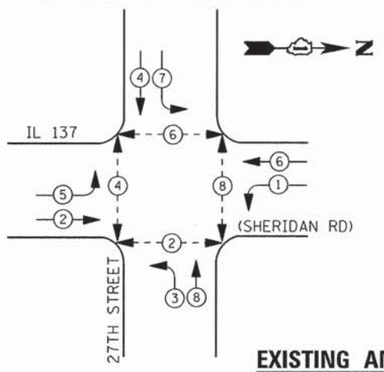
I. D. O. T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
PTZ CAMERA		-	75	1.00	75
FLASHER LED					
				TOTAL =	616

ENERGY COSTS- BILLED TO: CITY OF ZION
2828 SHERIDAN RD
ZION, IL 60099

ENERGY SUPPLY - CONTACT TERRI BLECK
PHONE 847-816-5239
COMMONWEALTH EDISON

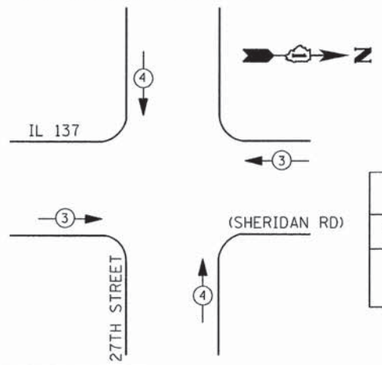
EXISTING AND PROPOSED CONTROLLER SEQUENCE



LEGEND

- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- * NUMBER REFERS TO ASSOCIATED PHASE

EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↓ ↑

EXISTING AND PROPOSED PHASE DESIGNATION DIAGRAM

GHA #4571.800

FILE NAME = D161A55-043-TS.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE IL 137 (SHERIDAN RD) AT 27TH STREET
		DRAWN - ZCW	REVISED -		
	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -		SCALE: NONE SHEET OF SHEETS STA. TO STA.
Default	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	43
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

SCHEDULE OF QUANTITIES
IL 137 (SHERIDAN RD) AT 25TH STREET (SHILOH BLVD)

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	6	EACH	INDUCTIVE LOOP DETECTOR
3.	1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
4.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
5.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
6.	1	EACH	RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM
7.	1	EACH	LAYER II (DATALINK) SWITCH

CONSTRUCTION NOTE;

(1) THE CONTRACTOR SHALL REMOVE THE CONTROLLER AND CABINET (COMPLETE) AND REPLACE IT WITH A FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL ON THE EXISTING TYPE D FOUNDATION. REINSTALL THE EXISTING UNINTERRUPTIBLE POWER SUPPLY UNIT AND THE EXISTING EMERGENCY VEHICLE PRIORTIY SYSTEM, PHASING UNIT.

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

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

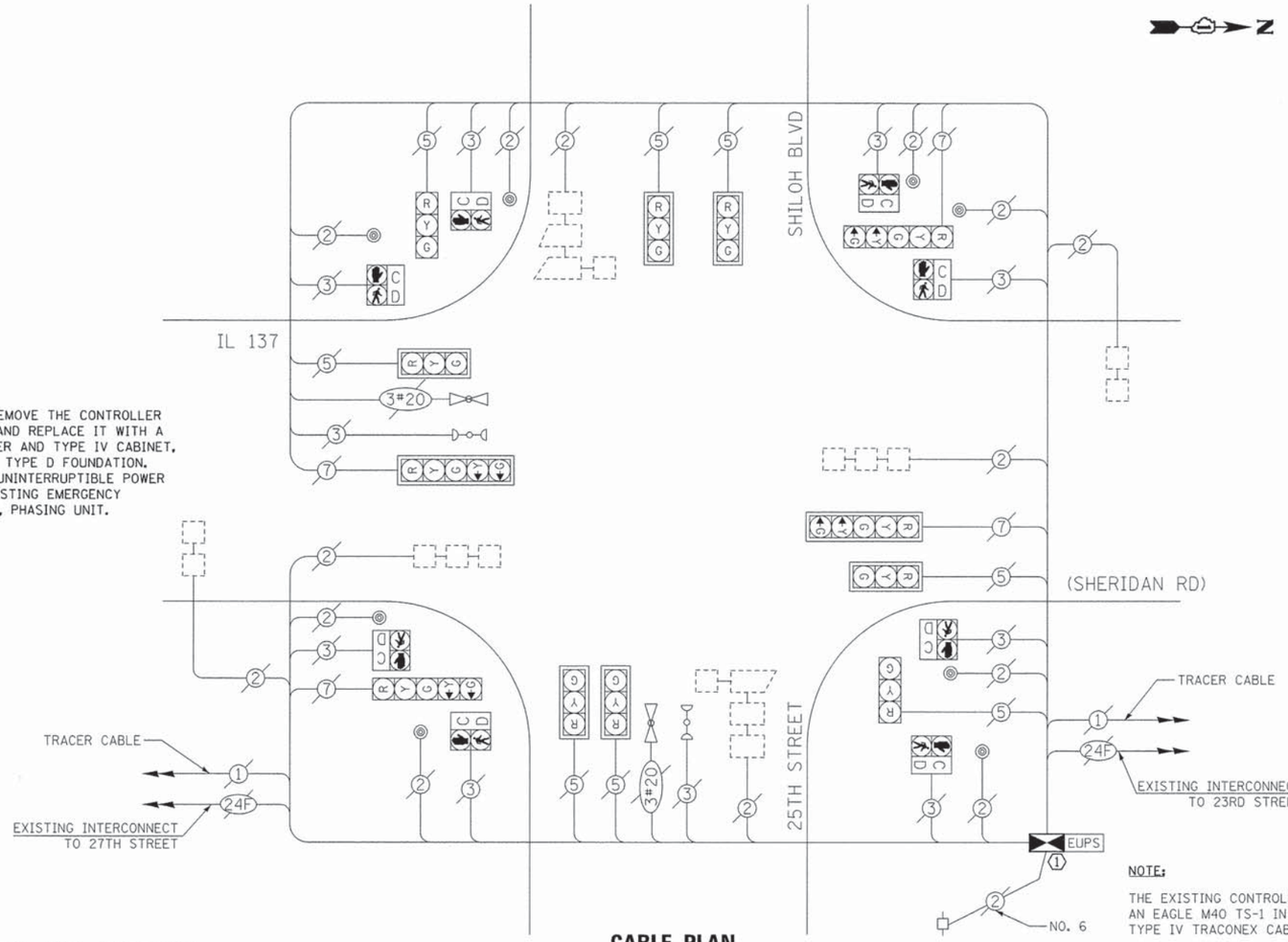
1 EACH CONTROLLER AND CABINET (COMPLETE)

I. D. O. T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	10
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
FLASHER LED					
				TOTAL =	532

ENERGY COSTS- BILLED TO: CITY OF ZION
2828 SHERIDAN RD
ZION, IL 60099

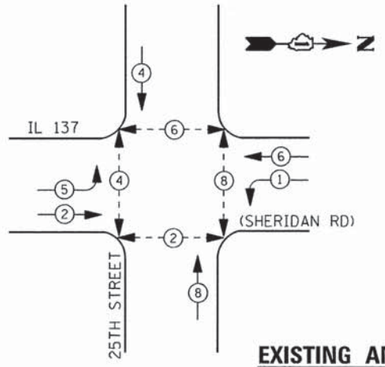
ENERGY SUPPLY - CONTACT TERRI BLECK
PHONE 847-816-5239
COMMONWEALTH EDISON



CABLE PLAN

NOTE;
THE EXISTING CONTROLLER IS AN EAGLE M40 TS-1 IN A TYPE IV TRACONEX CABINET.

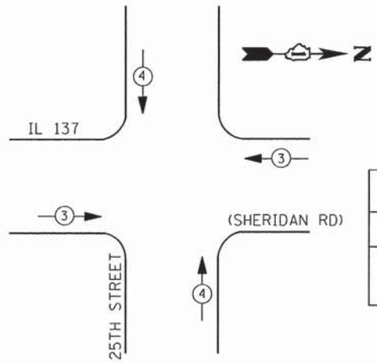
EXISTING AND PROPOSED CONTROLLER SEQUENCE



LEGEND

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

EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↓ ↑

EXISTING AND PROPOSED PHASE DESIGNATION DIAGRAM

GHA #4571.800

FILE NAME = D161A55-044-TS.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE IL 137 (SHERIDAN RD) AT 25TH STREET (SHILOH BLVD)		
		DRAWN - ZCW	REVISED -				
Default	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -		SCALE: NONE	SHEET OF SHEETS	STA. TO STA.
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -				

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	44
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		

SCHEDULE OF QUANTITIES
IL 137 (SHERIDAN RD) AT 23RD STREET

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	6	EACH	INDUCTIVE LOOP DETECTOR
3.	1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
4.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
5.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
6.	1	EACH	RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM
7.	1	EACH	LAYER II (DATALINK) SWITCH

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM 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)

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

I. D. O. T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	10
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
PTZ CAMERA		-	75	1.00	75
FLASHER LED					
				TOTAL =	640

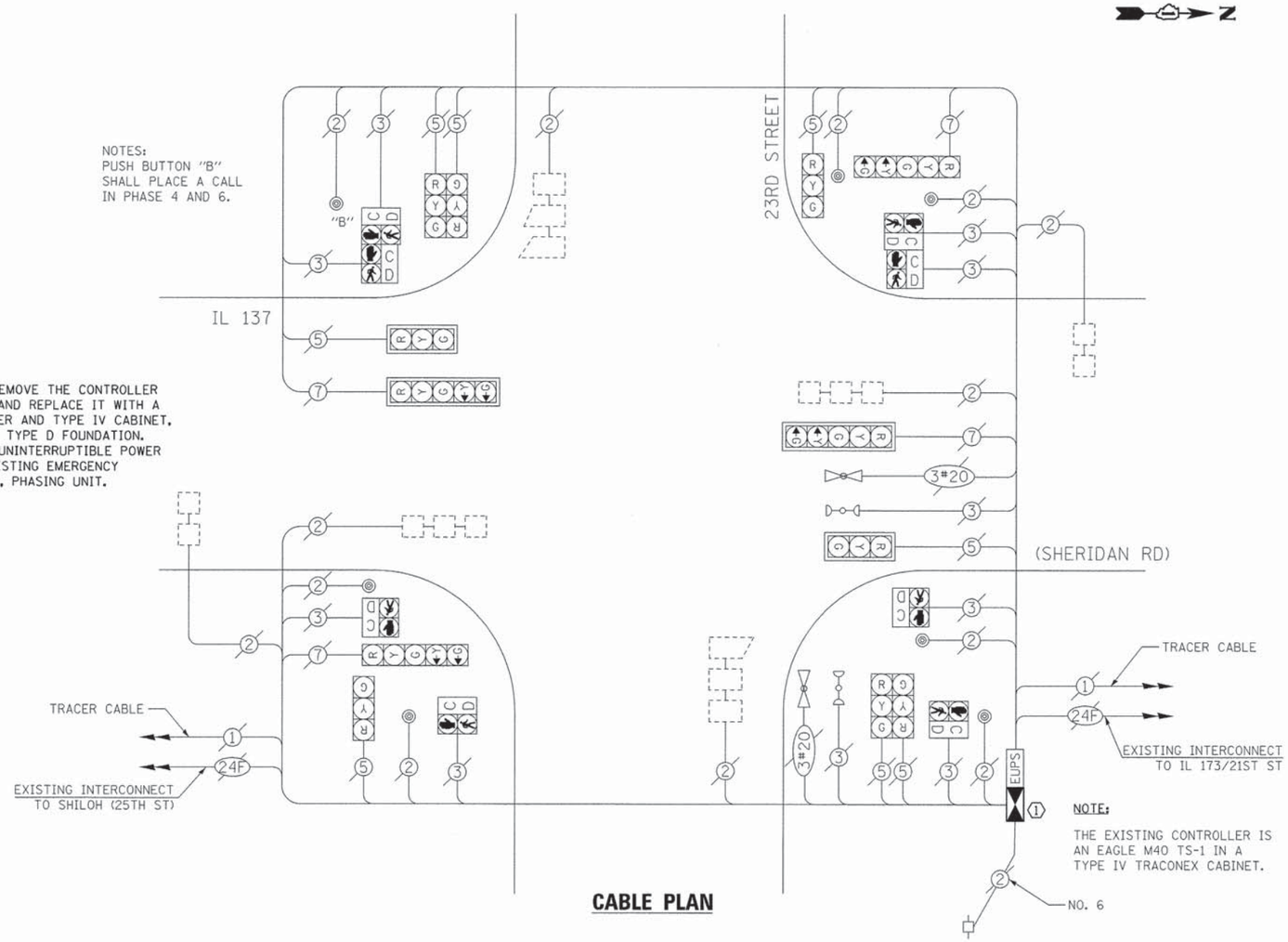
ENERGY COSTS- BILLED TO: CITY OF ZION
2828 SHERIDAN RD
ZION, IL 60099

ENERGY SUPPLY - CONTACT TERRI BLECK
PHONE 847-816-5239
COMMONWEALTH EDISON

NOTES:
PUSH BUTTON "B" SHALL PLACE A CALL IN PHASE 4 AND 6.

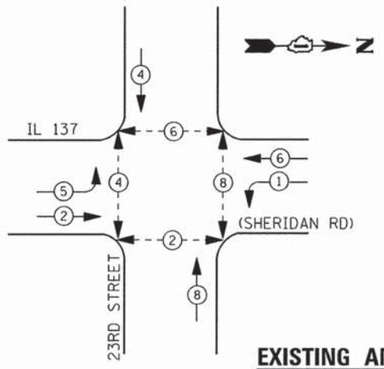
CONSTRUCTION NOTE:

(1) THE CONTRACTOR SHALL REMOVE THE CONTROLLER AND CABINET (COMPLETE) AND REPLACE IT WITH A FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL ON THE EXISTING TYPE D FOUNDATION. REINSTALL THE EXISTING UNINTERRUPTIBLE POWER SUPPLY UNIT AND THE EXISTING EMERGENCY VEHICLE PRIORTIY SYSTEM, PHASING UNIT.



CABLE PLAN

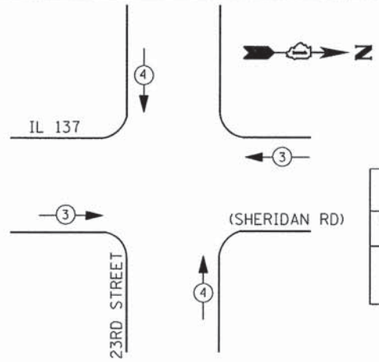
EXISTING AND PROPOSED CONTROLLER SEQUENCE



LEGEND

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

EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↓ ↑

EXISTING AND PROPOSED PHASE DESIGNATION DIAGRAM

GHA #4571.800

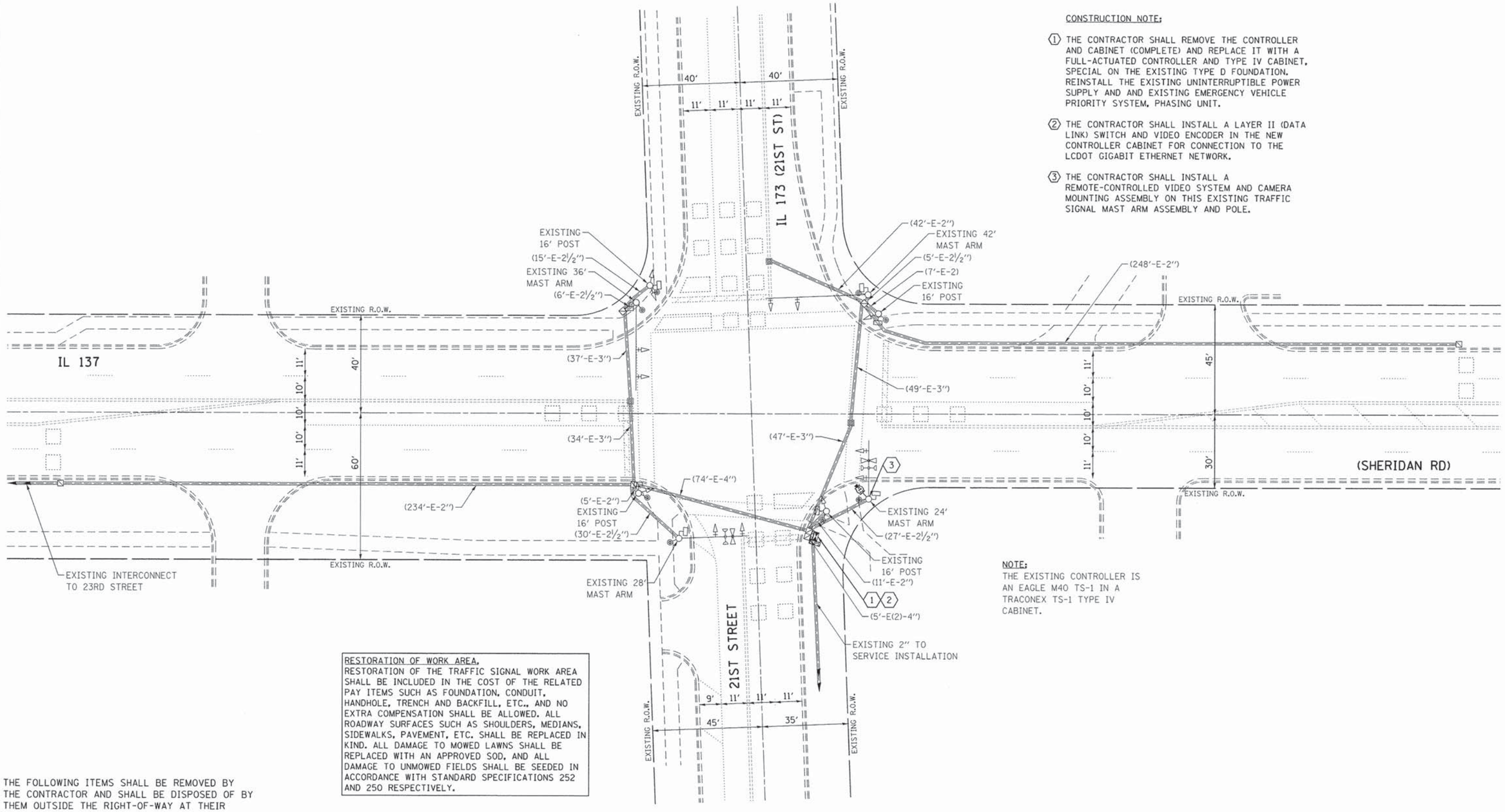
FILE NAME = D161A55-045-TS.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
Default	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL 137 (SHERIDAN RD) AT 23RD STREET

SCALE: NONE | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	45
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			



CONSTRUCTION NOTE:

1. THE CONTRACTOR SHALL REMOVE THE CONTROLLER AND CABINET (COMPLETE) AND REPLACE IT WITH A FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL ON THE EXISTING TYPE D FOUNDATION. REINSTALL THE EXISTING UNINTERRUPTIBLE POWER SUPPLY AND AND EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM. PHASING UNIT.
2. THE CONTRACTOR SHALL INSTALL A LAYER II (DATA LINK) SWITCH AND VIDEO ENCODER IN THE NEW CONTROLLER CABINET FOR CONNECTION TO THE LCDOT GIGABIT ETHERNET NETWORK.
3. THE CONTRACTOR SHALL INSTALL A REMOTE-CONTROLLED VIDEO SYSTEM AND CAMERA MOUNTING ASSEMBLY ON THIS EXISTING TRAFFIC SIGNAL MAST ARM ASSEMBLY AND POLE.

NOTE:
THE EXISTING CONTROLLER IS AN EAGLE M40 TS-1 IN A TRACONEX TS-1 TYPE IV CABINET.

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

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM 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)

GHA #4571.800

FILE NAME = D161A55-046-TS.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
Default	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
IL 137 (SHERIDAN RD) AT IL 173 (21ST ST)

SCALE: 1"=20' | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	12-00999-29-TL	LAKE	73	46
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

SCHEDULE OF QUANTITIES
IL 173 (SHERIDAN RD) AT IL 173 (21ST STREET)

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	89	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
3.	10	EACH	INDUCTIVE LOOP DETECTOR
4.	1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
5.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6.	89	FOOT	ELECTRIC CABLE IN CONDUIT, VIDEO NO. 20 4C
7.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
8.	89	FOOT	ELECTRIC CABLE IN CONDUIT, COAXIAL
9.	1	EACH	RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM
10.	1	EACH	REMOTE CONTROLLED VIDEO SYSTEM
11.	1	EACH	LAYER II (DATALINK) SWITCH
12.	1	EACH	VIDEO ENCODER
13.	1	EACH	CAMERA MOUNTING ASSEMBLY

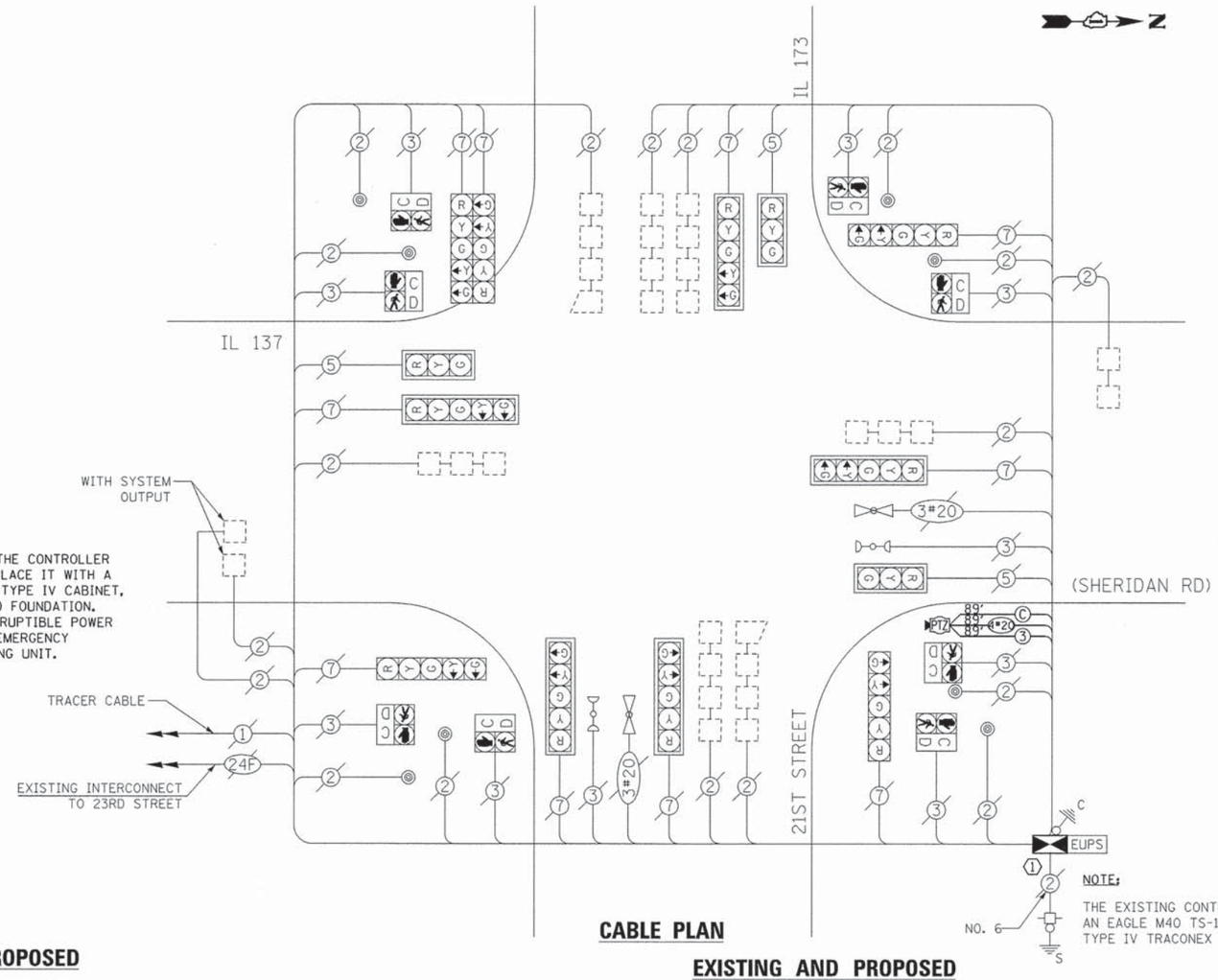
RESTORATION OF WORK AREA,
RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE COST OF THE RELATED PAY ITEMS SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT,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

I. D. O. T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	13	135	17	0.50	111
(YELLOW)	13	135	25	0.25	81
(GREEN)	13	135	15	0.25	49
ARROW	20	135	12	0.10	24
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
FLASHER LED					
				TOTAL =	565

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
201 WEST CENTER COURT
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT TERRI BLECK
PHONE 847-816-5239
COMMONWEALTH EDISON



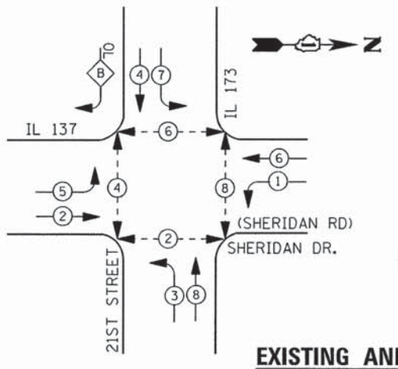
CONSTRUCTION NOTE;

① THE CONTRACTOR SHALL REMOVE THE CONTROLLER AND CABINET (COMPLETE) AND REPLACE IT WITH A FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL ON THE EXISTING TYPE D FOUNDATION. REINSTALL THE EXISTING UNINTERRUPTIBLE POWER SUPPLY UNIT AND THE EXISTING EMERGENCY VEHICLE PRIORTIY SYSTEM, PHASING UNIT.

NOTE;
THE EXISTING CONTROLLER IS AN EAGLE M40 TS-1 IN A TYPE IV TRACONEX CABINET.

CABLE PLAN

EXISTING AND PROPOSED CONTROLLER SEQUENCE



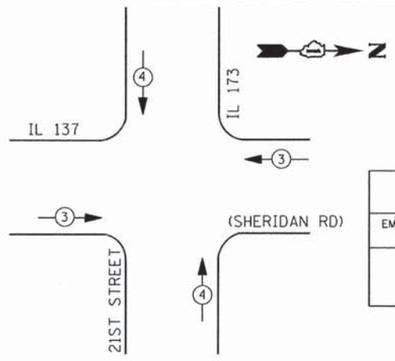
LEGEND

- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- * NUMBER REFERS TO ASSOCIATED PHASE

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
B	=	4	+	5

EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



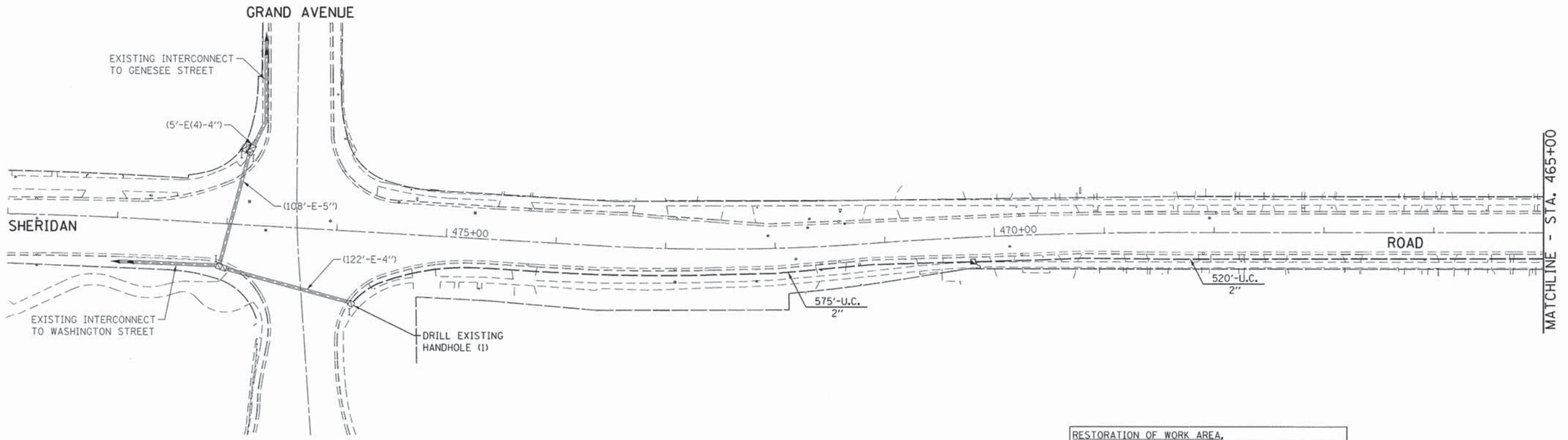
EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↓ ↑

EXISTING AND PROPOSED PHASE DESIGNATION DIAGRAM

GHA #4571.800

FILE NAME = D161A55-047-TS.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE IL 137 (SHERIDAN RD) AT IL 173 (21ST ST)
		DRAWN - ZCW	REVISED -		
	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -		SCALE: NONE | SHEET OF SHEETS | STA. TO STA.
Default	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	47
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		



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

GHA #4571.800

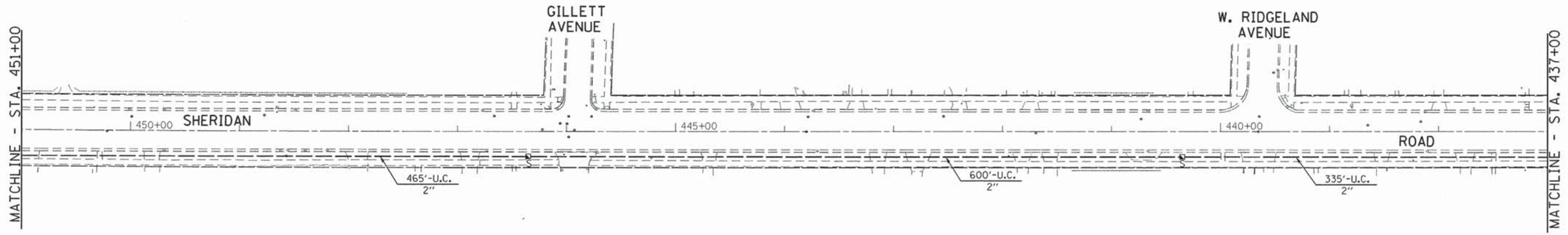
FILE NAME = D161A55-048-TS.dgn Default	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1:50	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

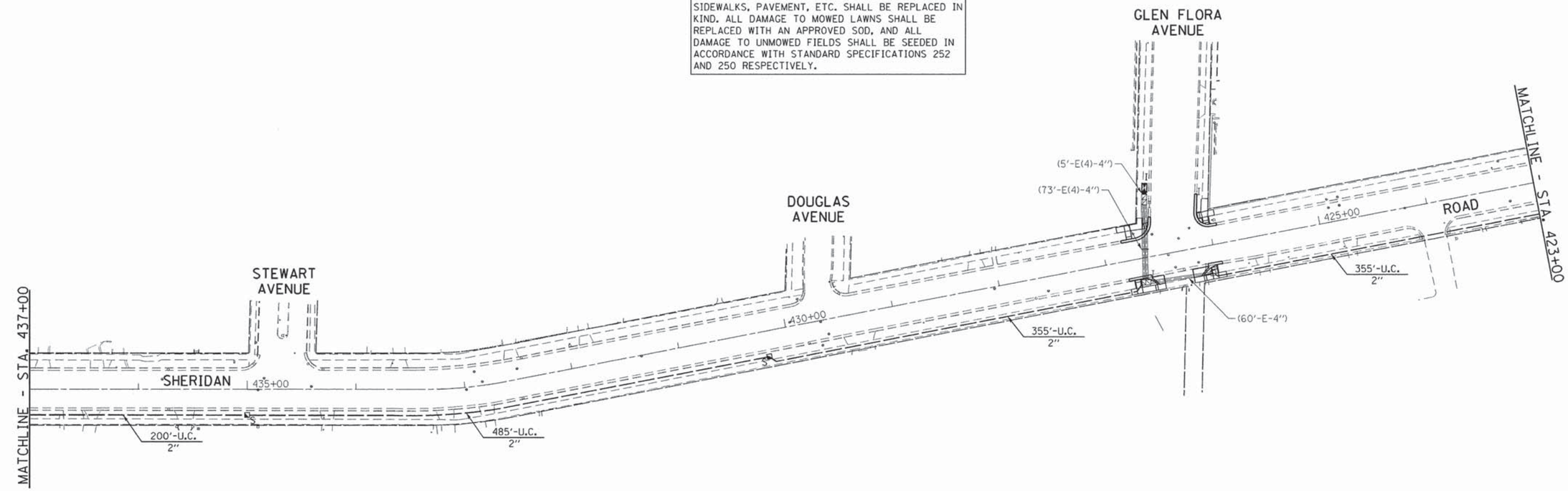
INTERCONNECT PLAN
(SHEET 1 OF 10)
GRAND AVENUE TO WADSWORTH ROAD

SCALE: 1"=50' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	48
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			



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



GHA #4571.800

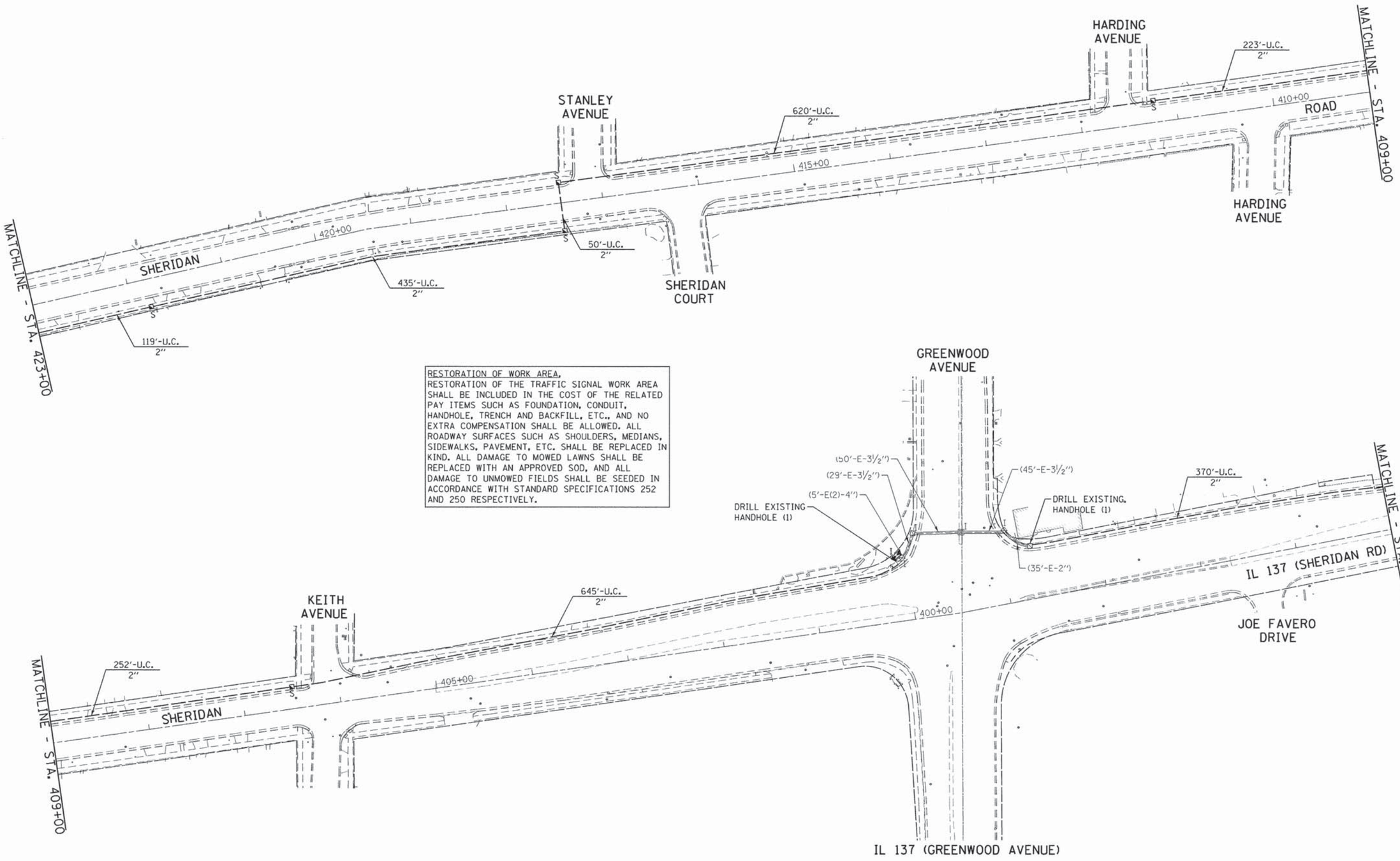
FILE NAME = D161A55-049-TS.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
Default	PLOT SCALE = 1:50	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
(SHEET 2 OF 10)
GRAND AVENUE TO WADSWORTH ROAD

SCALE: 1"=50' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	49
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			



GHA #4571.800

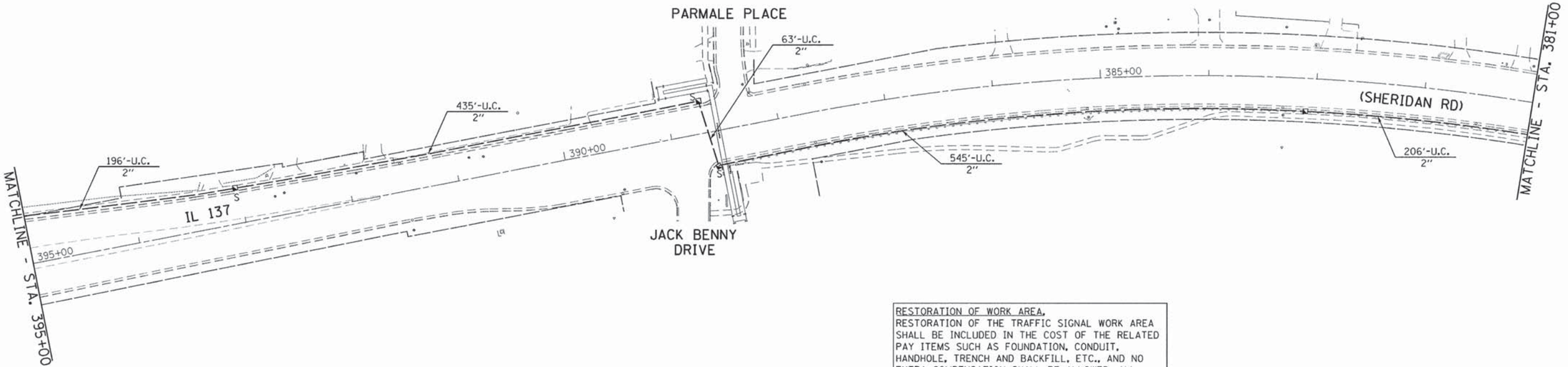
FILE NAME = D161A55-050-TS.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
Default	PLOT SCALE = 1:50	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

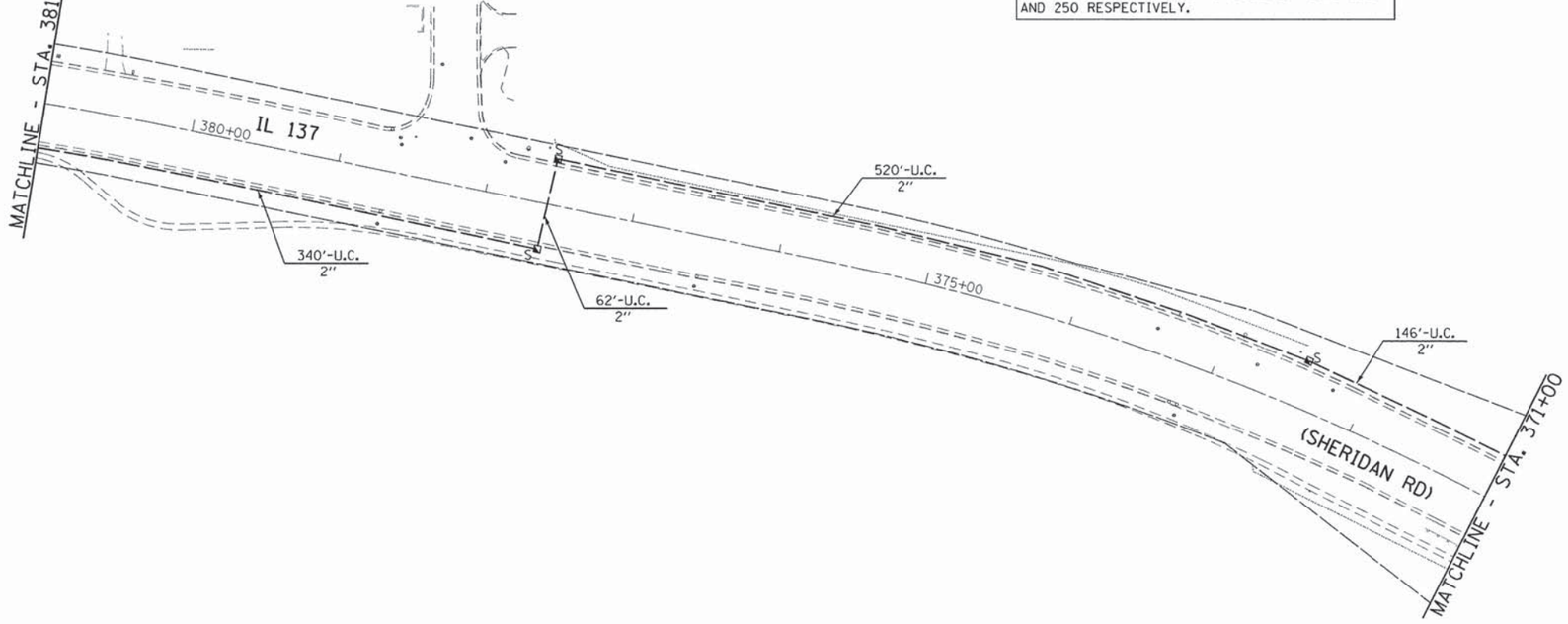
INTERCONNECT PLAN
(SHEET 3 OF 10)
GRAND AVENUE TO WADSWORTH ROAD

SCALE: 1"=50' | SHEET | OF | SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	50
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			



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



GHA #4571.800

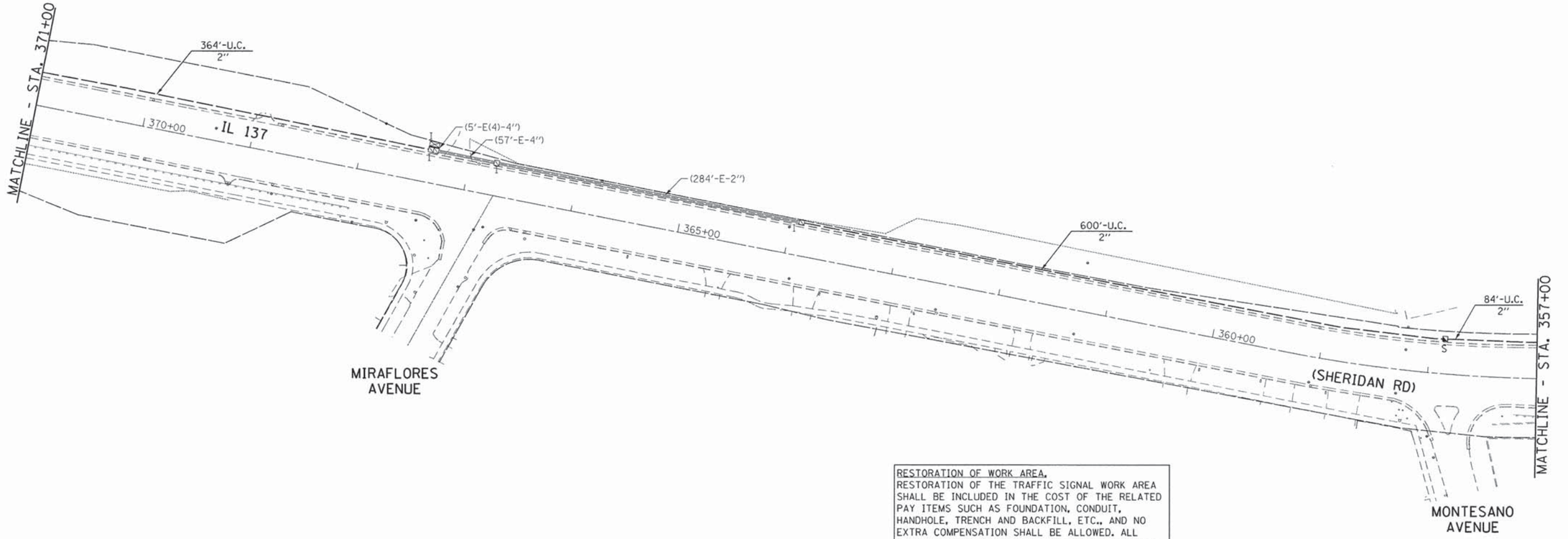
FILE NAME = D161A55-051-TS.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
Default	PLOT SCALE = 1:50	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

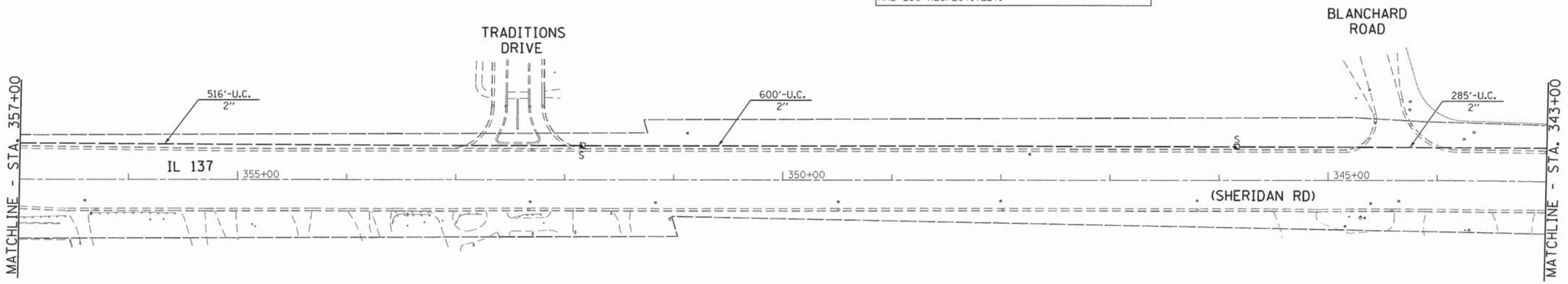
INTERCONNECT PLAN
(SHEET 4 OF 10)
GRAND AVENUE TO WADSWORTH ROAD

SCALE: 1"=50' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	51
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		



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



GHA #4571.800

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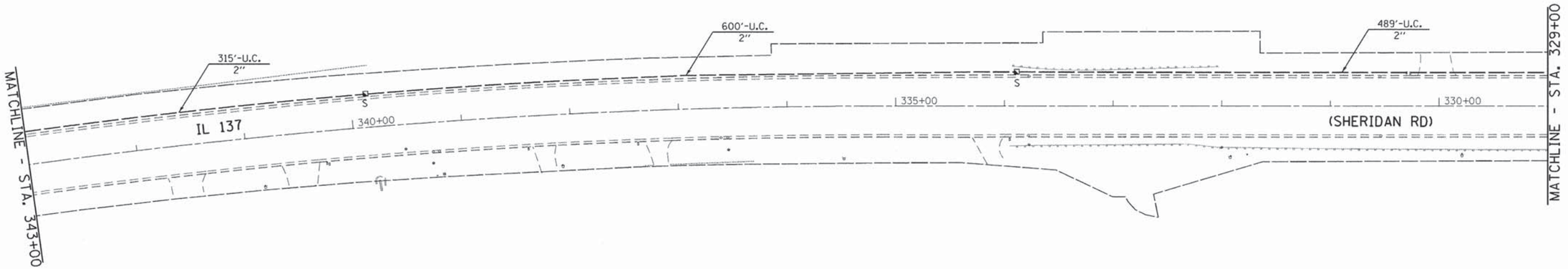
		DRAWN - ZCW	REVISED -
Default	PLOT SCALE = 1:50	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
(SHEET 5 OF 10)
GRAND AVENUE TO WADSWORTH ROAD

SCALE: 1"=50' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	52
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			



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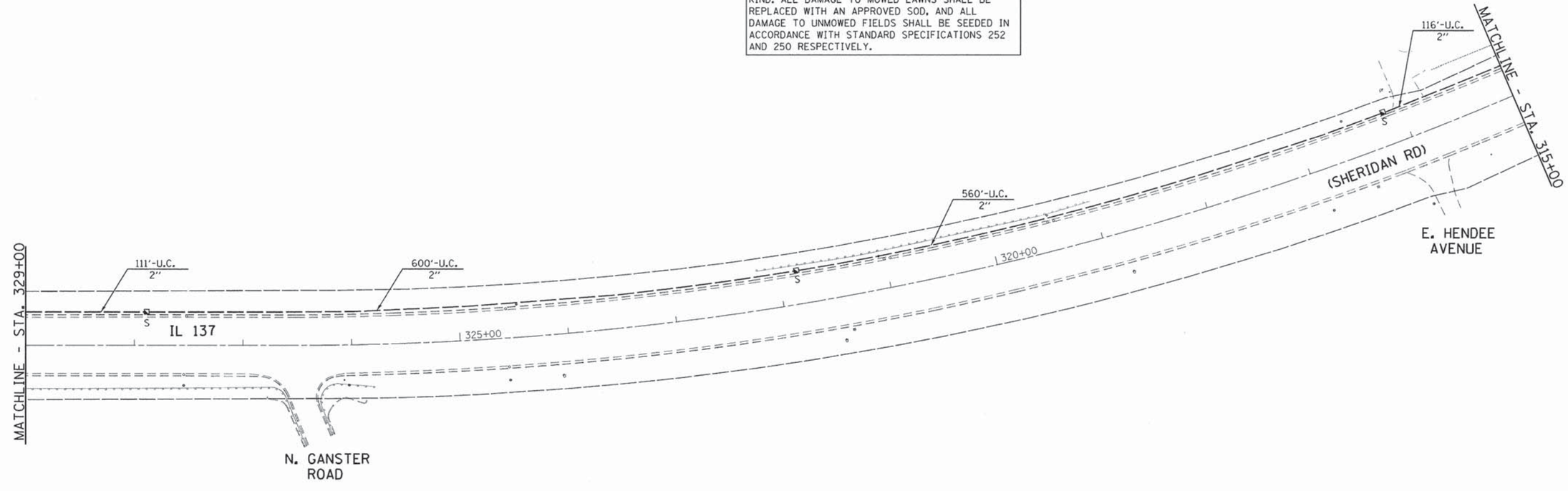

GHA *4571.800

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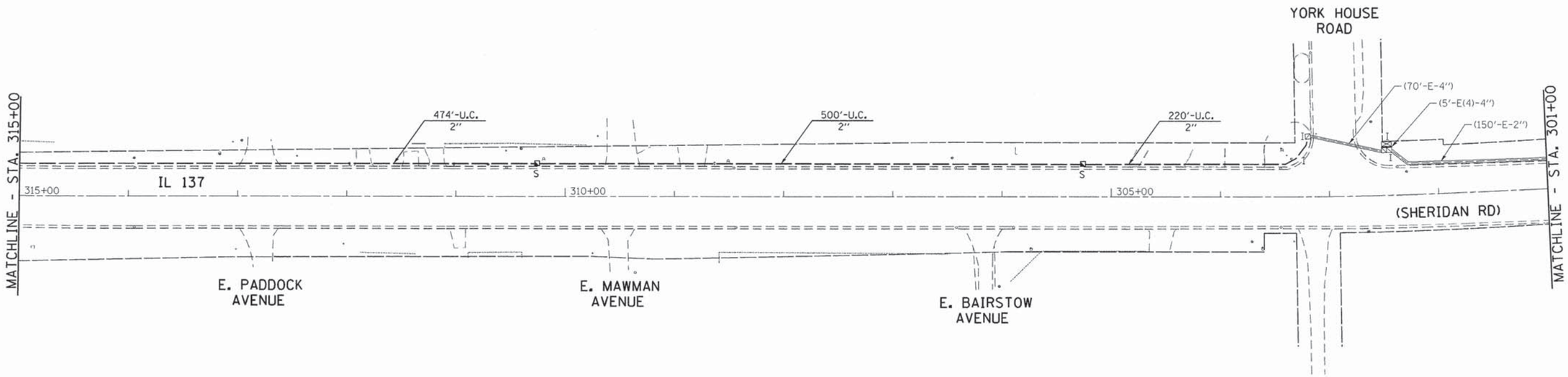
Default	PLOT SCALE = 1:50	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
(SHEET 6 OF 10)
GRAND AVENUE TO WADSWORTH ROAD

SCALE: 1"=50' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	53
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			



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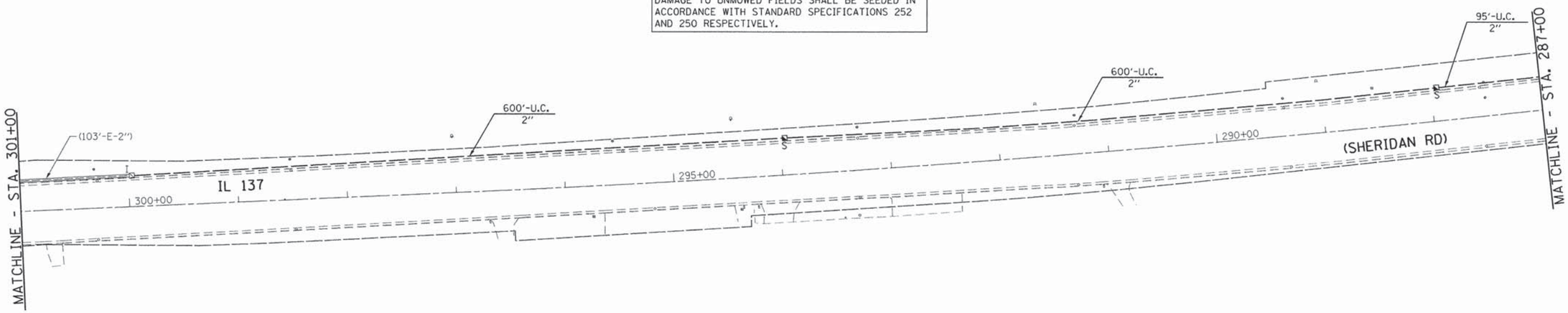

GHA #4571.800

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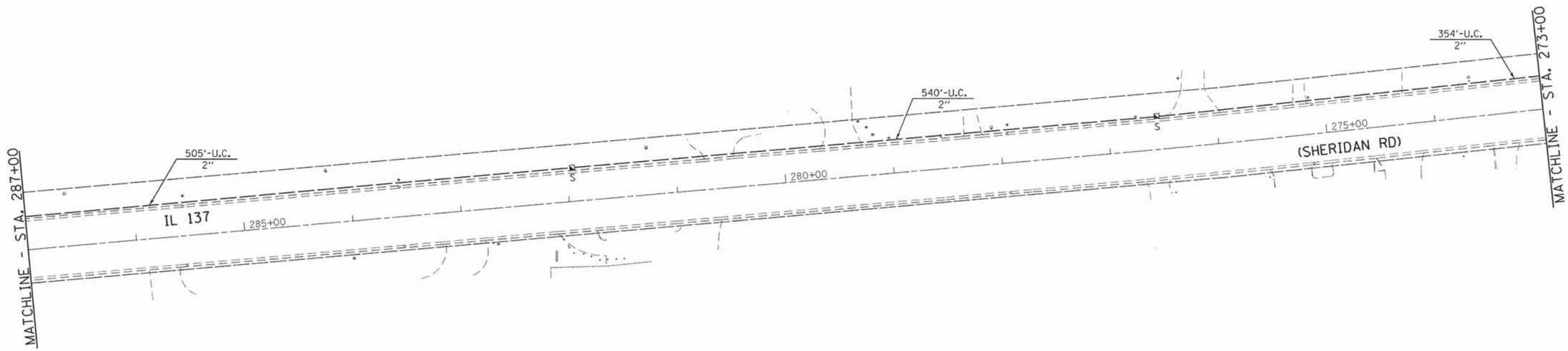
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1:50	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
(SHEET 7 OF 10)
GRAND AVENUE TO WADSWORTH ROAD

SCALE: 1"=50' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	54
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		



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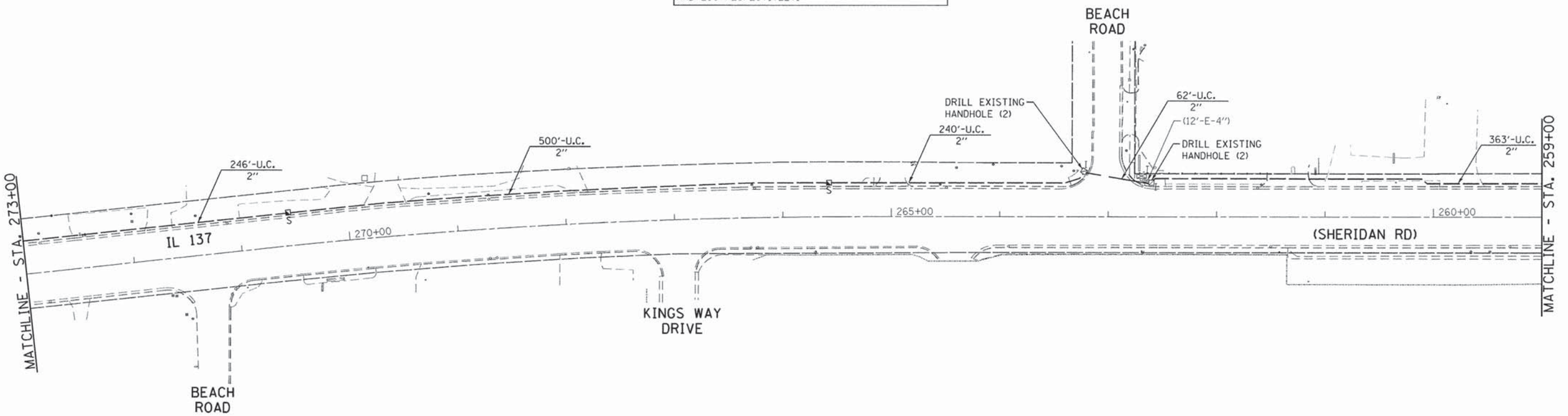

GHA =4571.800

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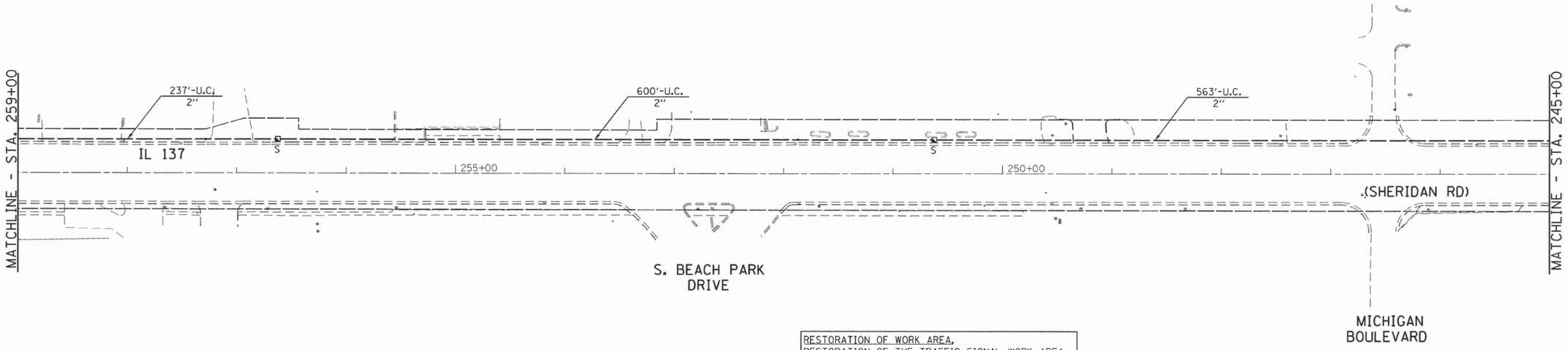
		DRAWN - ZCW	REVISED -
Default	PLOT SCALE = 1:50	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
(SHEET 8 OF 10)
GRAND AVENUE TO WADSWORTH ROAD

SCALE: 1"=50' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	55
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		



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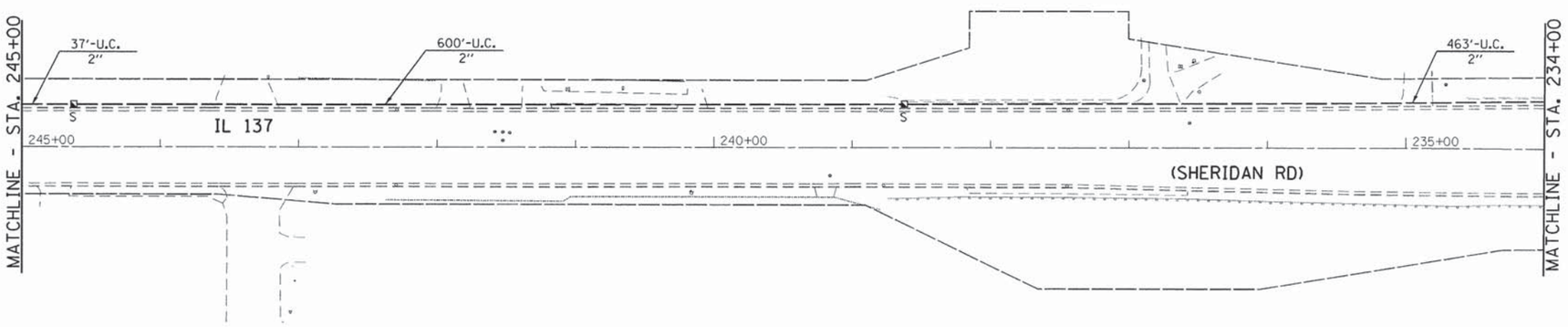

GHA #4571.800

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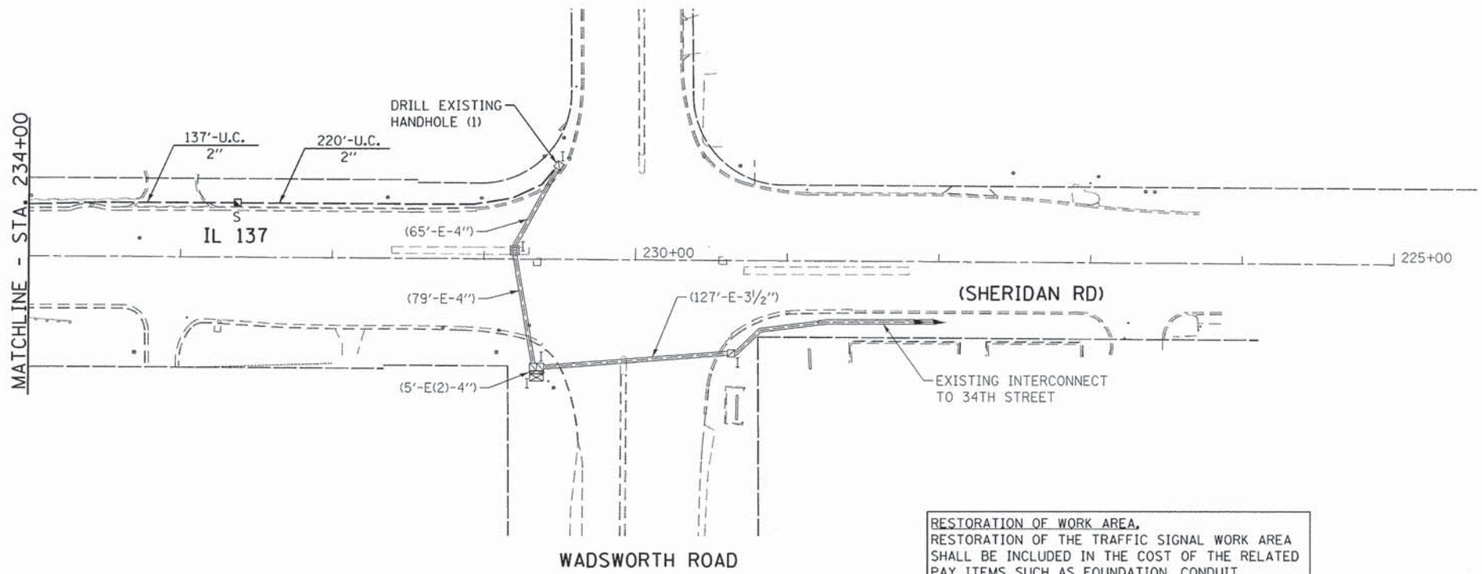
Default	PLOT SCALE = 1:50	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
(SHEET 9 OF 10)
GRAND AVENUE TO WADSWORTH ROAD

SCALE: 1"=50' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	56
		CONTRACT NO. 61A55		
		ILLINOIS FED. AID PROJECT		



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GHA *4571.800

FILE NAME = D161A55-057-TS.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
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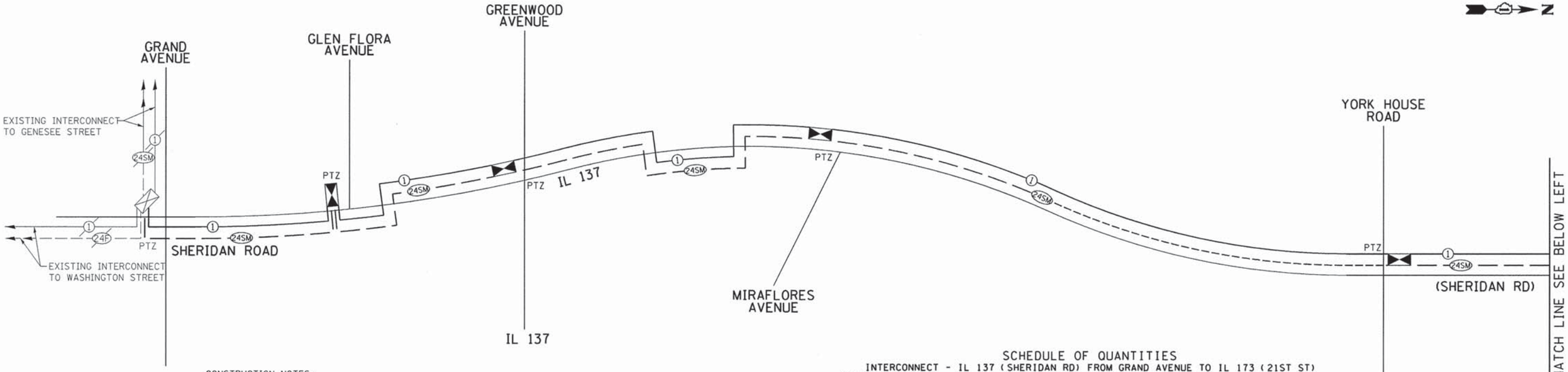
Default	PLOT DATE = 8/15/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
(SHEET 10 OF 10)
GRAND AVENUE TO WADSWORTH ROAD

SCALE: 1"=50' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	57
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			



CONSTRUCTION NOTES:

(1) THE FOLLOWING INTERSECTIONS SHALL BE INCLUDED IN THE PAY ITEM "RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL II":

1. SHERIDAN ROAD AT GLEN FLORA AVENUE
2. IL 137 (SHERIDAN RD) AT GREENWOOD AVENUE
3. IL 137 (SHERIDAN RD) AT MIRAFLORES AVENUE
4. IL 137 (SHERIDAN RD) AT YORK HOUSE ROAD
5. IL 137 (SHERIDAN RD) AT BEACH ROAD
6. IL 137 (SHERIDAN RD) AT WADSWORTH ROAD
7. IL 137 (SHERIDAN RD) AT 34TH STREET
8. IL 137 (SHERIDAN RD) AT 33RD STREET
9. IL 137 (SHERIDAN RD) AT 31ST STREET
10. IL 137 (SHERIDAN RD) AT 29TH STREET
11. IL 137 (SHERIDAN RD) AT 27TH STREET
12. IL 137 (SHERIDAN RD) AT 25TH STREET (SHILOH BLVD)
13. IL 137 (SHERIDAN RD) AT 23RD STREET
14. IL 137 (SHERIDAN RD) AT IL 173 (21ST ST)

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

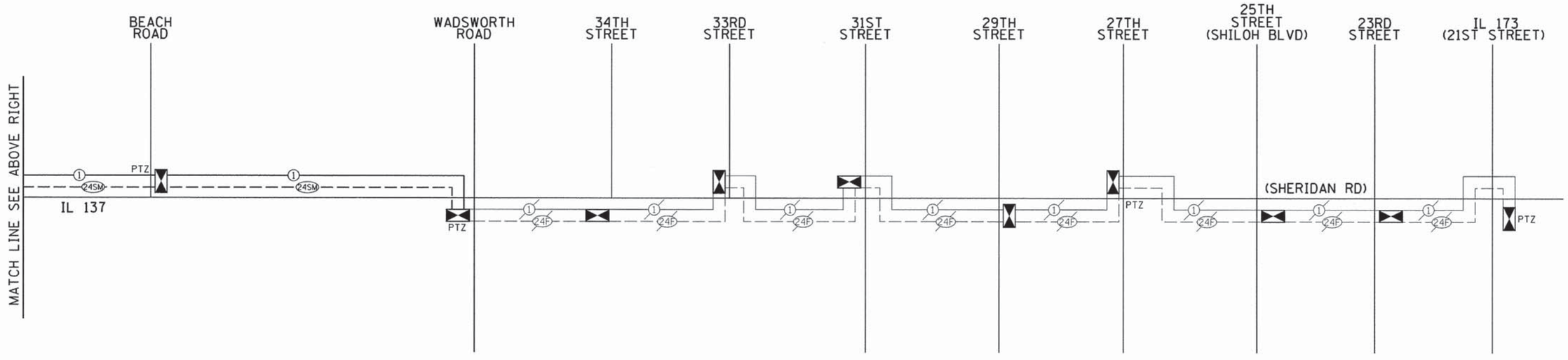
SCHEDULE OF QUANTITIES

INTERCONNECT - IL 137 (SHERIDAN RD) FROM GRAND AVENUE TO IL 173 (21ST ST)

NO.	QUANT.	UNIT	
1.	23,847	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
2.	41	EACH	HANDHOLE
3.	25,820	FOOT	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
4.	8	EACH	DRILL EXISTING HANDHOLE
5.	2	EACH	MEDIA CONVERTER
6.	174	EACH	TERMINATE FIBER IN CABINET
7.	25,937	FOOT	FIBER OPTIC CABLE IN CONDUIT, 24 SINGLE MODE
8.	6	EACH	SPLICE FIBER IN CABINET
9.	51.40	SQ FT	TEMPORARY INFORMATION SIGNING
10.	14	EACH	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2

IMPORTANT CONSTRUCTION NOTE:

(1) THE MEDIA CONVERTERS SHALL BE INSTALLED IN THE EXISTING LAKE COUNTY DIVISION OF TRANSPORTATION COMMUNICATION CABINET LOCATED AT IL 131 (GREEN BAY RD) AND WASHINGTON STREET. THE MAINTENANCE OF THE EXISTING COMMUNICATION CABINET SHALL BE INCLUDED IN THE MEDIA CONVERTER PAY ITEM AND NO EXTRA COMPENSATION SHALL BE ALLOWED.

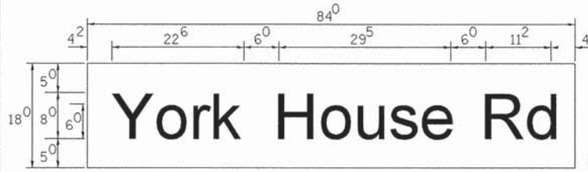


GHA #4571.800

FILE NAME = D161A55-058-TS.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT SCHEMATIC IL 137 (SHERIDAN RD) FROM GRAND AVENUE TO IL 173 (21ST ST)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - ZCW	REVISED -			2736	12-00999-29-TL	LAKE	73	58
Default	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -					CONTRACT NO. 61A55		
	PLOT DATE = 9/3/2014	DATE - 2/19/2014	REVISED -		SCALE: NONE SHEET OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

PANEL SIGN DESIGN TYPE 1

___ Sq. M. each
10.5 Sq. Ft. each
2 Required
Design Series D



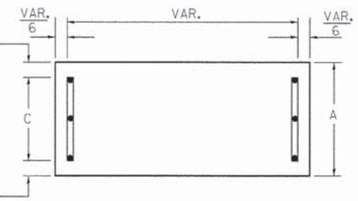
___ Sq. M. each
10.5 Sq. Ft. each
2 Required
Design Series D

NOTE: SIGN DIMENSIONS ARE IN ENGLISH UNITS

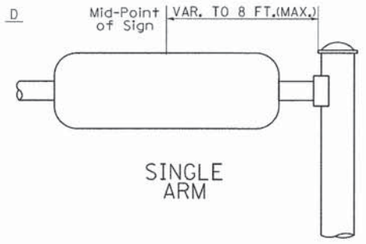
PANEL SIGN DESIGN TYPE 2

___ Sq. M. each
15 Sq. Ft. each
3 Required
Design Series D

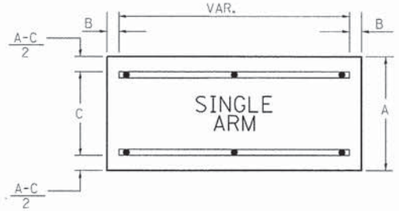
SUPPORTING CHANNELS



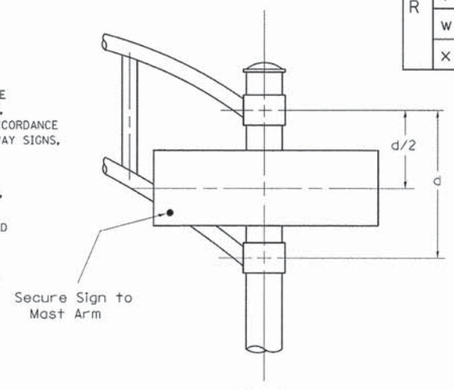
A	B	C
18"	2"	14"



SUPPORTING CHANNELS



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



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 HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
3. THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 8'-0".
4. ALL BORDERS SHALL BE ¾" WIDE AND CORNER RADIUS SHALL BE 2-1/4 ".
5. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS. LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:

* J.O. HERBERT CO.
MIDLOTHIAN, VA.

* WESTERN REMAC INC.
WOODRIDGE, IL.

PARTS LISTING:
SIGN CHANNEL — PART #HPN053 (MED. CHANNEL)
SIGN SCREWS — ¼" x 14 x 1" H.W.H. #3
SELF TAPPING WITH NEOPRENE WASHER
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.

SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM
shall be used. See Note #5.

Upper Case To Lower Case
Spacing Chart 8-6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER: acdegoq		bhiklmnpru		fw		j		st		vy		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
A W X	1^2	1^4	1^4	1^5	1^2	1^4	0^6	1^0	1^1	1^4	0^6	1^0	1^1	1^2	1^2	1^4
B	1^4	1^5	2^0	2^1	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4	1^2	1^4	1^6	1^7
C E G	1^4	1^5	2^0	2^1	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
D O Q R	1^4	1^5	2^0	2^1	1^4	1^5	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
F	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^6	1^0	0^6	1^0	0^6	1^0	1^1	1^2
H I M N	2^0	2^1	2^2	2^4	2^0	2^1	1^4	1^5	1^6	1^7	1^6	1^7	2^0	2^1	2^0	2^1
J U	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1
K L	1^1	1^2	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
P	1^2	1^4	1^4	1^5	1^2	1^4	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
S	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
T	1^1	1^2	1^6	1^7	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
V	0^6	1^0	1^4	1^5	1^1	1^2	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
Y	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^5	0^7	0^5	0^6	0^6	1^0	1^1	1^2
Z	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1

Lower Case To Lower Case
Spacing Chart 6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER: acdegoq		bhiklmnpru		fw		j		st		vy		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
adhgijlmnqu	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^6	1^7
bfkops	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
c e	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
r	0^6	1^0	1^2	1^4	0^6	1^0	0^3	0^3	0^5	0^6	0^5	0^6	0^6	1^0	0^6	1^0
t z	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
v y	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2
w	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
x	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4

Number To Number
Spacing Chart 8 Inch Series "C & D"

FIRST NUMBER	SECOND NUMBER: 0		1		2		3		4		5		6		7		8		9	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7
1	2^0	2^1	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	2^0	2^1	2^0	2^1	1^4	1^5	2^0	2^1	2^0	2^1
2 3 4	1^4	1^5	1^4	1^5	1^4	1^5	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^6	1^7	1^4	1^5
5	1^4	1^5	1^4	1^5	1^4	1^5	1^1	1^2	1^1	1^2	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
6	1^6	1^7	1^4	1^5	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
7	1^2	1^4	1^2	1^4	1^4	1^5	1^2	1^5	0^5	0^6	1^2	1^4	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4
8	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^4	1^5

EXAMPLE, $2^{(3)}$ — DENOTES $\frac{3}{8}$"

UPPER AND LOWER CASE LETTER WIDTHS

LETTERS	6 INCH UPPER CASE LETTERS SERIES C	6 INCH UPPER CASE LETTERS SERIES D	8 INCH UPPER CASE LETTERS SERIES C	8 INCH UPPER CASE LETTERS SERIES D	LETTERS	6 INCH LOWER CASE LETTERS SERIES C	6 INCH LOWER CASE LETTERS SERIES D
A	3^6	5^0	5^0	6^5	a	3^5	4^2
B	3^2	4^0	4^3	5^3	b	3^5	4^2
C	3^2	4^0	4^3	5^3	c	3^5	4^1
D	3^2	4^0	4^3	5^3	d	3^5	4^2
E	3^0	3^5	4^0	4^7	e	3^5	4^2
F	3^0	3^5	4^0	4^7	f	2^3	2^6
G	3^2	4^0	4^3	5^3	g	3^5	4^2
H	3^2	4^0	4^3	5^3	h	3^5	4^2
I	0^7	0^7	1^1	1^2	i	1^1	1^1
J	3^0	3^6	4^0	5^0	j	2^0	2^2
K	3^2	4^1	4^3	5^4	k	3^5	4^2
L	3^0	3^5	4^0	4^7	l	1^1	1^1
M	3^7	4^5	5^1	6^1	m	6^0	7^0
N	3^2	4^0	4^3	5^3	n	3^5	4^2
O	3^4	4^2	4^5	5^5	o	3^6	4^3
P	3^2	4^0	4^3	5^3	p	3^5	4^2
Q	3^4	4^2	4^5	5^5	q	3^5	4^2
R	3^2	4^0	4^3	5^3	r	2^6	3^2
S	3^2	4^0	4^3	5^3	s	3^6	4^2
T	3^0	3^5	4^0	4^7	t	2^7	3^2
U	3^2	4^0	4^3	5^3	u	3^5	4^2
V	3^5	4^4	4^7	6^0	v	4^2	4^7
W	4^4	5^2	6^0	7^0	w	5^5	6^4
X	3^4	4^0	4^5	5^3	x	4^4	5^1
Y	3^6	5^0	5^0	6^6	y	4^6	5^3
Z	3^2	4^0	4^3	5^3	z	3^6	4^3

NUMBER	6 INCH SERIES C	6 INCH SERIES D	8 INCH SERIES C	8 INCH SERIES D
1	1^2	1^4	1^5	2^0
2	3^2	4^0	4^3	5^3
3	3^2	4^0	4^3	5^3
4	3^5	4^3	4^7	5^7
5	3^2	4^0	4^3	5^3
6	3^2	4^0	4^3	5^3
7	3^2	4^0	4^3	5^3
8	3^2	4^0	4^3	5^3
9	3^2	4^0	4^3	5^3
0	3^4	4^2	4^5	5^5

GHA #4571.800

FILE NAME = D161A55-059-Details.dgn	USER NAME = ZWallsten	DESIGNED - DAG/BCK	REVISED - DAG 10/28/09
		DRAWN - BCK	REVISED - LP 01/01/14
Default	PLOT SCALE = 1:20	CHECKED - DAG/DAD	REVISED -
	PLOT DATE = 8/14/2014	DATE - 03-15-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
MAST ARM MOUNTED STREET NAME SIGNS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	59
	TS-02	CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

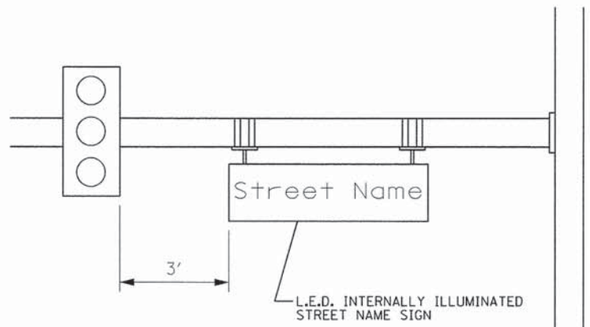
PANEL DESIGN TYPE 1

ALL DIMENSIONS SHOWN IN INCHES

12.0 SQ. FT. EACH
___ SINGLE SIDED REQUIRED
2 DOUBLE SIDED REQUIRED
DESIGN SERIES D
CLEARVIEW FONT

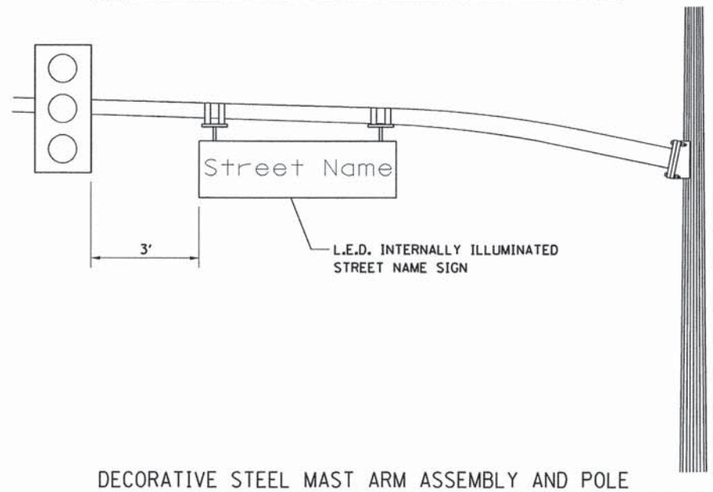
ALL DIMENSIONS SHOWN IN INCHES

12.0 SQ. FT. EACH
___ SINGLE SIDED REQUIRED
2 DOUBLE SIDED REQUIRED
DESIGN SERIES D
CLEARVIEW FONT



REGULAR STEEL MAST ARM ASSEMBLY AND POLE

NOTE: L.E.D. ILLUMINATED STREET NAME SIGNS AVAILABLE ONLY IN 2 FOOT INCREMENTS.



DECORATIVE STEEL MAST ARM ASSEMBLY AND POLE

REVISIONS	
NAME	DATE
COMBINED SHEETS	2/1/07

LakeCounty
Division of Transportation

MAST ARM MOUNTED
STREET NAME SIGNS

SCALE: NONE SHEET 1 OF 4 DESIGNED BY: JPS
DATE: 7/26/06 CHECKED BY: ANK
GHA #457+800

FILE NAME = D161A55-060-Details.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
Default	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL SHEET

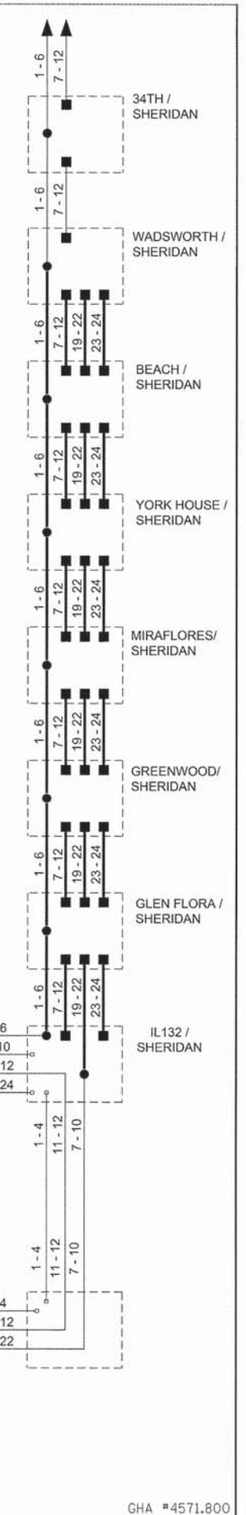
SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	60
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

FIBER OPTIC CABLE TERMINATION/SPLICING QUANTITIES
(BY INTERSECTION/LOCATION)

INTERSECTION/LOCATION	INCLUDED		BID ITEM	
	T	S	T	S
SHERIDAN ROAD AT GRAND AVENUE	8	10		
SHERIDAN ROAD AT GLEN FLORA AVENUE	24	6		
IL 137 (SHERIDAN RD) AT GREENWOOD AVENUE	24	6		
IL 137 (SHERIDAN RD) AT MIRAFLORES AVENUE	24	6		
IL 137 (SHERIDAN RD) AT YORK HOUSE ROAD	24	6		
IL 137 (SHERIDAN RD) AT BEACH ROAD	24	4		
IL 137 (SHERIDAN RD) AT WADSWORTH ROAD	12	6	6	
IL 137 (SHERIDAN RD) AT 34TH STREET			12	6
IL 137 (SHERIDAN RD) AT 33RD STREET			24	
IL 137 (SHERIDAN RD) AT 31ST STREET			24	
IL 137 (SHERIDAN RD) AT 29TH STREET			24	
IL 137 (SHERIDAN RD) AT 27TH STREET			24	
IL 137 (SHERIDAN RD) AT 25TH STREET (SHILOH BLVD)			24	
IL 137 (SHERIDAN RD) AT 23RD STREET			24	
IL 173 (SHERIDAN RD) AT IL 173 (21ST STREET)			12	
TOTAL FOR CONTRACT	140	46	174	6

T = TERMINATE FIBER IN CABINET
S = SPLICE FIBER IN CABINET



EXISTING FIBER / EXISTING TERMINATION
EXISTING FIBER / **PROPOSED TERMINATION**
EXISTING FIBER / EXISTING SPLICE
EXISTING FIBER / **PROPOSED SPLICE**
PROPOSED FIBER / PROPOSED TERMINATION
PROPOSED FIBER / PROPOSED SPLICE

GHA #4571.800

	DESIGNED - DG	REVISED -	
	DRAWN - YM	REVISED -	
	CHECKED - DG	REVISED -	
	DATE 2014/02/17	REVISED -	

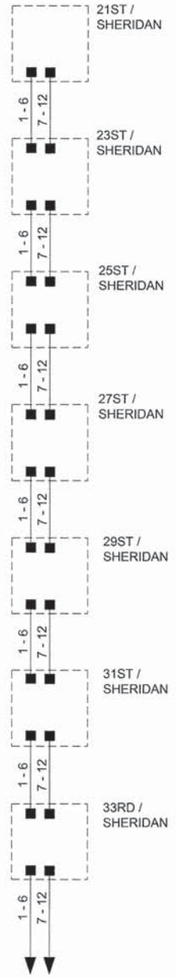
LAKE COUNTY
DIVISION OF TRANSPORTATION

FIBER SPLICING DIAGRAM 1
IL132 / SHERIDAN

SCALE N/A

ROUTE	SECTION	ROUTE SECTION	SHEET	SHEETS
2736		12-009999-29-TL	61	73

Contract No. 61A55



EXISTING FIBER / EXISTING TERMINATION

EXISTING FIBER / **PROPOSED TERMINATION**

EXISTING FIBER / EXISTING SPLICE

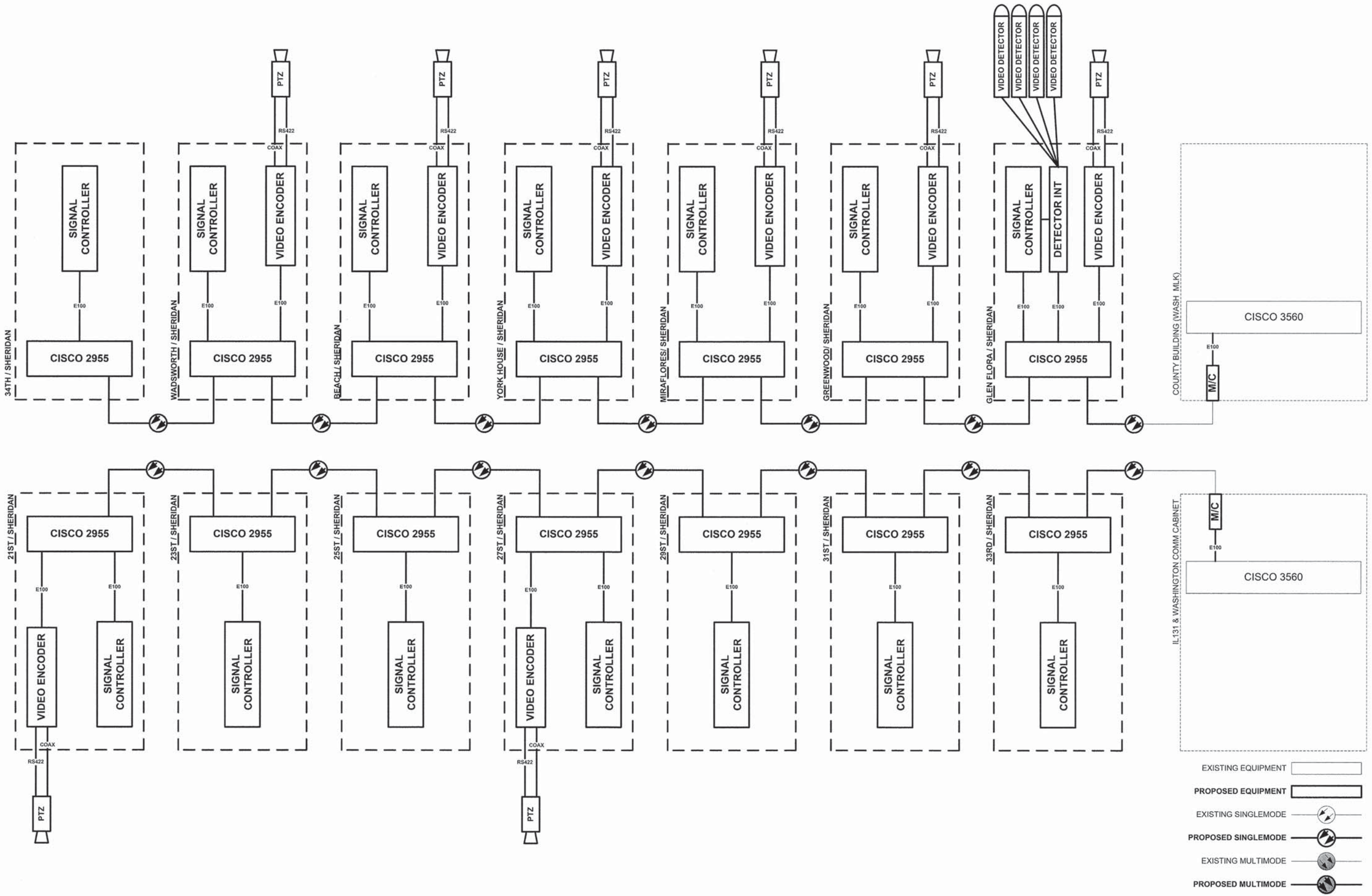
EXISTING FIBER / **PROPOSED SPLICE**

PROPOSED FIBER / PROPOSED TERMINATION

PROPOSED FIBER / PROPOSED SPLICE

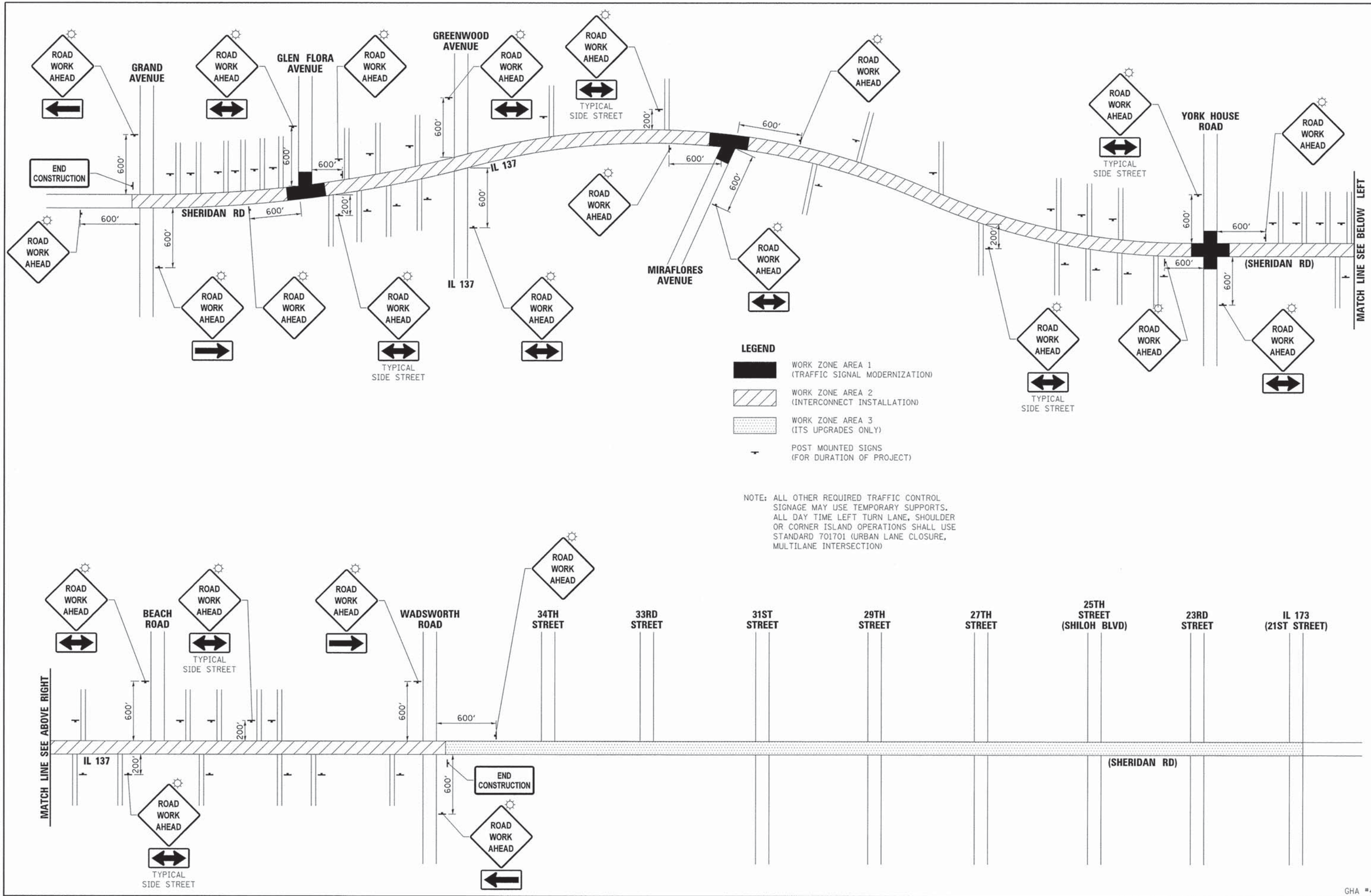
GHA =4571.800

	DESIGNED - DG	REVISED -	LAKE COUNTY DIVISION OF TRANSPORTATION	FIBER SPLICING DIAGRAM 2 IL132 / SHERIDAN	ROUTE	SECTION	ROUTE SECTION	SHEET	SHEETS
	DRAWN - YM	REVISED -			2736		12-009999-29-TL	62	73
	CHECKED - DG	REVISED -							
	DATE 2014/02/17	REVISED -		SCALE N/A			CONTRACT No. 61A55		



GHA #4571.800

	DESIGNED - DG	REVISED -	LAKE COUNTY DIVISION OF TRANSPORTATION	CABINET DETAIL IL132 / SHERIDAN	ROUTE	SECTION	ROUTE SECTION	SHEET	SHEETS
	DRAWN - YM	REVISED -			2736		12-009999-29-TL	63	73
	CHECKED - DG	REVISED -							
	DATE 2014/02/17	REVISED -		SCALE N/A			CONTRACT No. 61A55		



NOTE: ALL OTHER REQUIRED TRAFFIC CONTROL SIGNAGE MAY USE TEMPORARY SUPPORTS. ALL DAY TIME LEFT TURN LANE, SHOULDER OR CORNER ISLAND OPERATIONS SHALL USE STANDARD 701701 (URBAN LANE CLOSURE, MULTILANE INTERSECTION)

GHA #4571.800

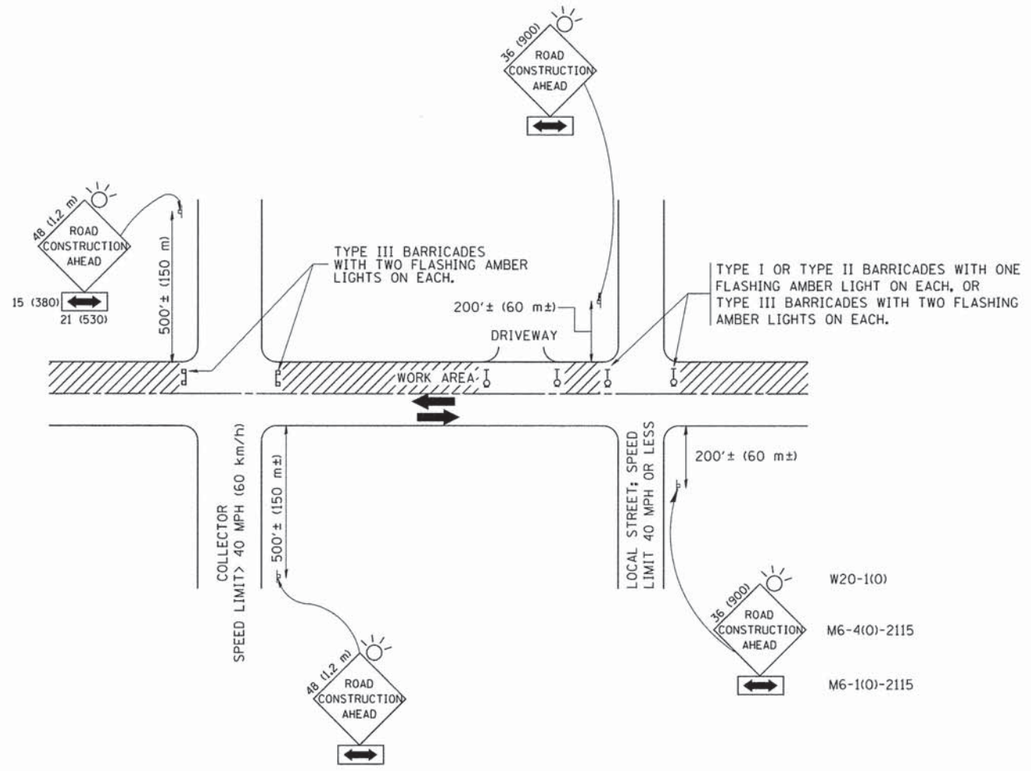
FILE NAME = D161A55-064-Staging.dgn	USER NAME = ZWallsten	DESIGNED - DPB	REVISED -
		DRAWN - ZCW	REVISED -
$MODELNAME$	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED TRAFFIC CONTROL PLAN
IL 137 (SHERIDAN RD) FROM GRAND AVENUE TO IL 173 (21ST ST)

SCALE: NONE | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-00-TL	LAKE	73	64
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			



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.

GHA #4571.800

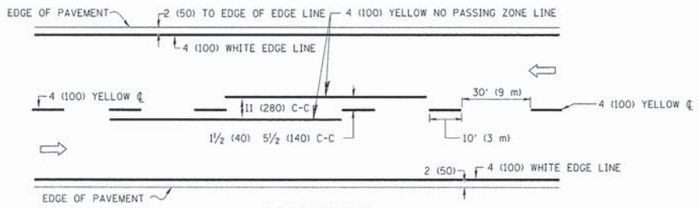
FILE NAME = D161A55-065-Details.dgn	USER NAME = ZWallsten	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
Default	PLOT SCALE = 1:20	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 8/14/2014	DATE - 06-89	REVISED -T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

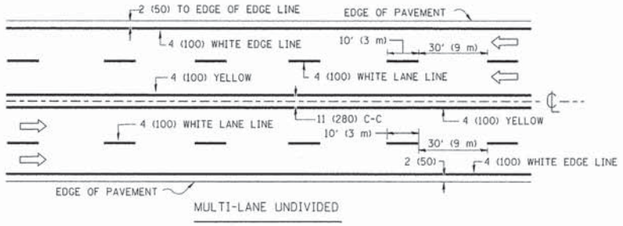
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

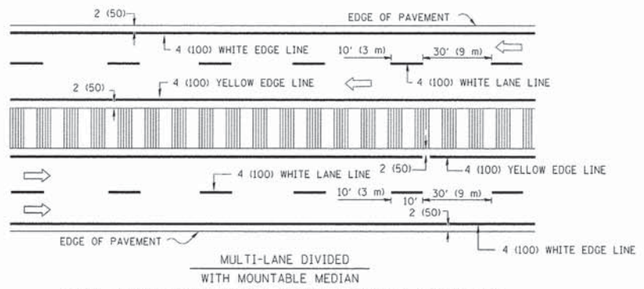
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-009999-29-TL	LAKE	73	65
	TC-10	CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			



2-LANE ROADWAY



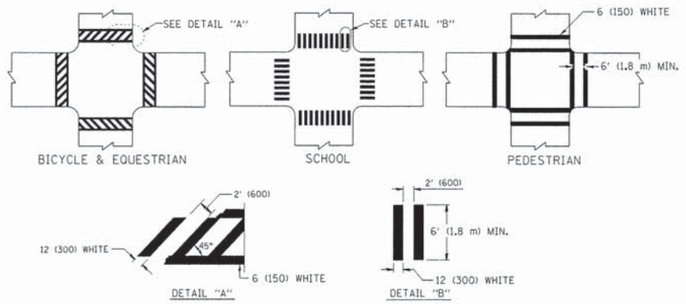
MULTI-LANE UNDIVIDED



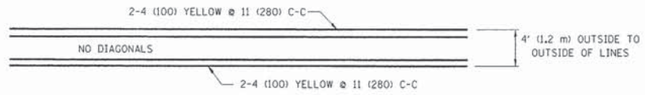
MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

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

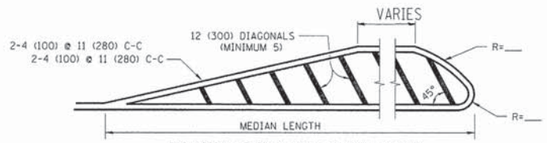
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



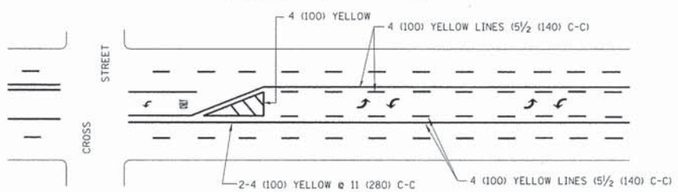
4' (1.2 m) WIDE MEDIANS ONLY



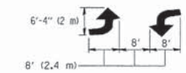
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

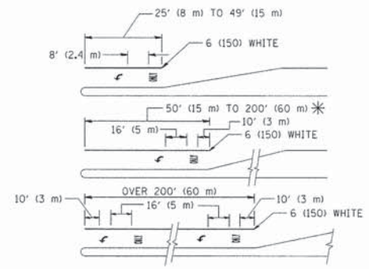


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

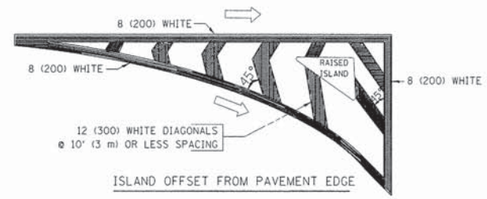


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m^2) **ONLY** AREA = 20.8 SQ. FT. (1.9 m^2)

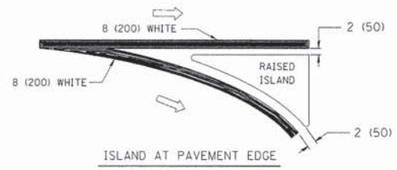
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

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 m^2) EACH "X"=54.0 SQ. FT. (5.0 m^2)
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.

GHA #4571.800

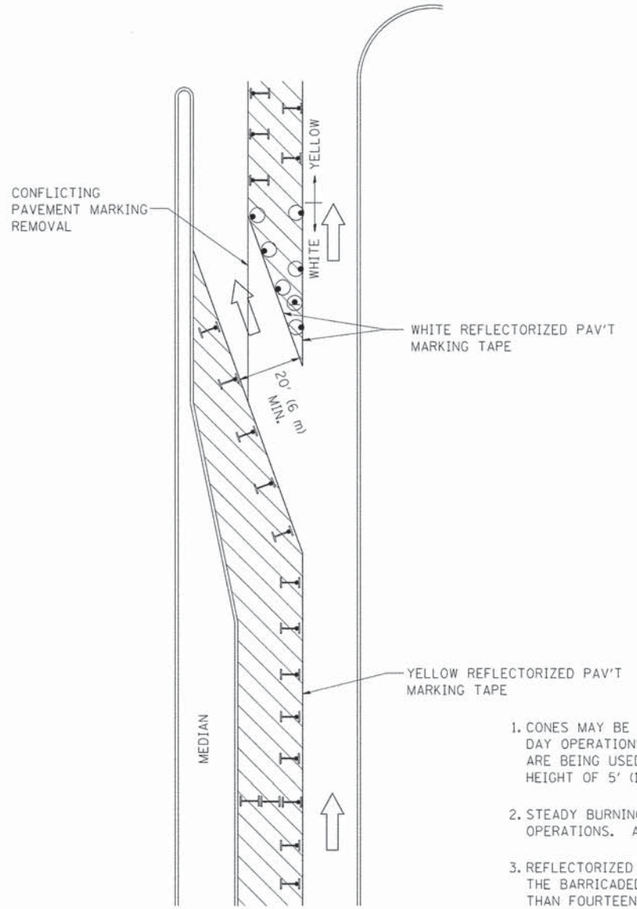
FILE NAME = D161A55-666-Details.dgn	USER NAME = ZWallsten	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94
		DRAWN -	REVISED -C. JUCIUS 09-09-09
	PLOT SCALE = 1x2	CHECKED -	REVISED -
Default	PLOT DATE = 8/15/2014	DATE - 03-19-90	REVISED -

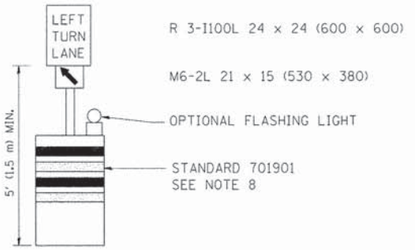
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-009999-29-TL	LAKE	73	66
	TC-13	CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			





GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM OPER 725 IS REQUIRED.
8. IF A DRUM OR TYPE II BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHR 350 PREQUIREMENTS.
9. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

LEGEND

WORK AREA

LANE OPEN TO TRAFFIC

TYPE I OR II BARRICADE WITH STEADY BURN LIGHT

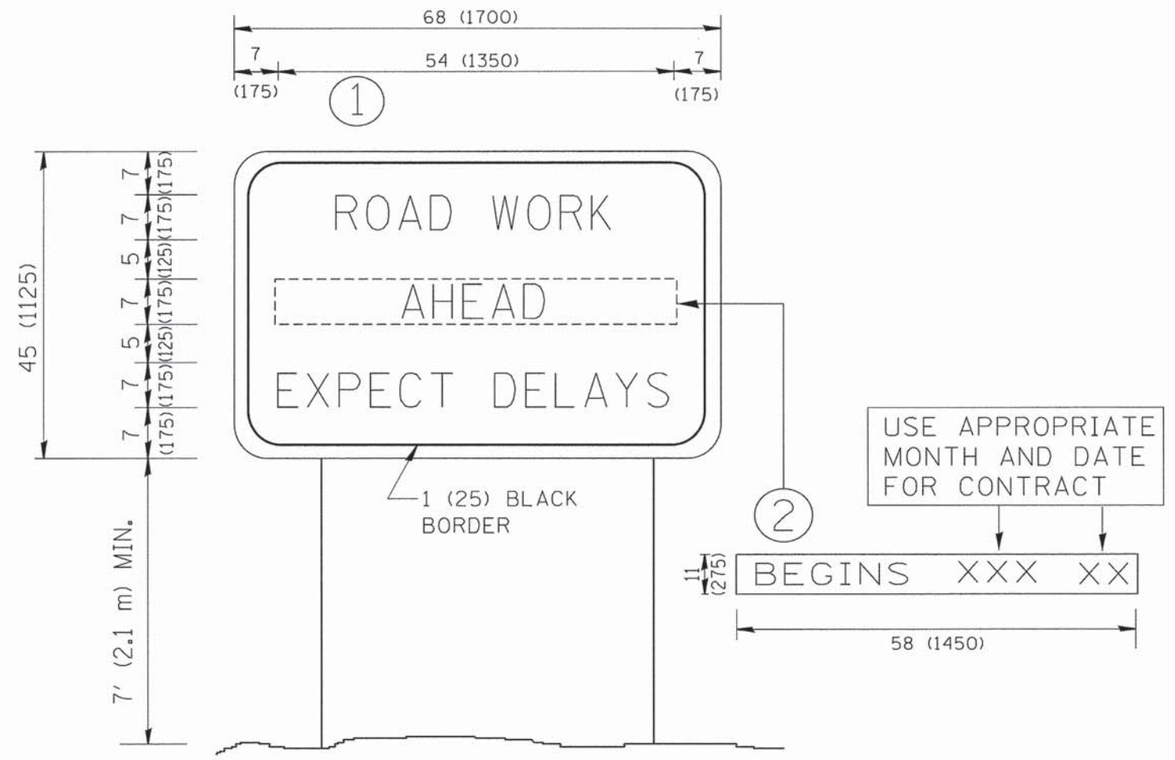
DRUM WITH STEADY BURN LIGHT

DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL

TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

GHA =4571.800

FILE NAME = D161A55-067-Details.dgn	USER NAME = ZWallsten	DESIGNED -T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)**	F.A.P. RTE.	SECTION / COUNTY / TOTAL SHEETS / SHEET NO.
		DRAWN - A. HOUSEH 11-07-95	REVISED -			2736	12-009999-29-TL / LAKE / 73 / 67
Default	PLOT SCALE = 1:20	CHECKED - A. HOUSEH 10-12-96	REVISED -				TC-14 / CONTRACT NO. 61A55
	PLOT DATE = 8/14/2014	DATE -T. RAMMACHER 01-06-00	REVISED -		SCALE: NONE / SHEET 1 OF 1 SHEETS / STA. / TO STA.		ILLINOIS / FED. AID PROJECT



NOTES:

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

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

GHA *4571.800

FILE NAME = D161A55-068-Details.dgn	USER NAME = ZWallsten	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
Default	PLOT SCALE = 1:20	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 8/14/2014	DATE -	REVISED - C. JUCIUS 01-31-07

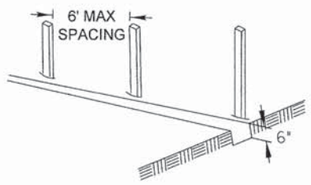
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

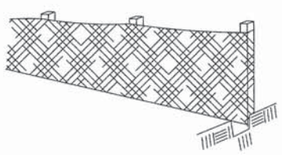
SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-009999-29-TL	LAKE	73	68
	TC-22	CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

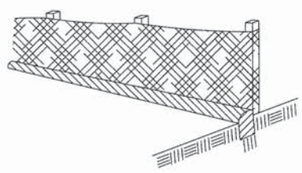
1. SET POSTS AND EXCAVATE OR SLIT-TRENCH A 6-INCH DEEP TRENCH UPSLOPE ALONG THE LINE OF POSTS



2. ATTACH GEOTEXTILE FILTER FABRIC TO EACH POST WITH A MINIMUM OF 3 (THREE) FASTENERS PER POST AND EXTEND FABRIC TO THE BOTTOM OF THE TRENCH

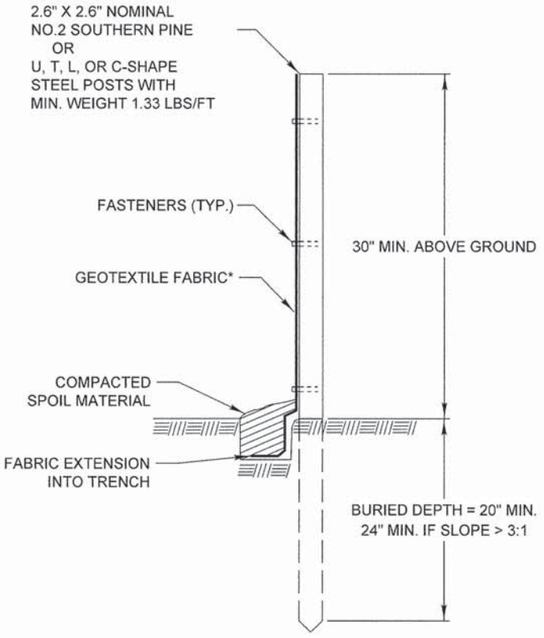


3. BACKFILL AND COMPACT THE EXCAVATED MATERIALS



Requirements	Test Methods	Wire Backed Supported Silt Fence [a]	Unsupported Silt Fence	
			Geotextile Elongation >=50% [b]	Geotextile Elongation <50% [b]
Maximum Post Spacing		4 feet	4 feet	6 feet
Grab Strength	ASTM D 4632			
Machine direction		90 lbs	124 lbs	124 lbs
X-Machine direction		90 lbs	100 lbs	100lbs
Permittivity [c]	ASTM D 4491	0.05 sec^{-1}	0.05 sec^{-1}	0.05 sec^{-1}
Apparent Opening Size	ASTM D 4751	0.024in maximum average roll value		
Ultraviolet stability (retained strength)	ASTM D 4355	70% after 500 hours of exposure		

POSTS - CHOICE OF:
1.2" X 1.2" NOMINAL HARDWOOD POSTS
2.6" X 2.6" NOMINAL NO.2 SOUTHERN PINE
OR
U, T, L, OR C-SHAPE STEEL POSTS WITH MIN. WEIGHT 1.33 LBS/FT



* NOTE: OPTIONAL WIRE SUPPORT
- MIN. 30" HEIGHT
- MIN. 14 GAUGE WIRE
- MIN. 6 HORIZ. WIRES
- MIN. 6" VERTICAL SPACING

SCALE 1" = 1'

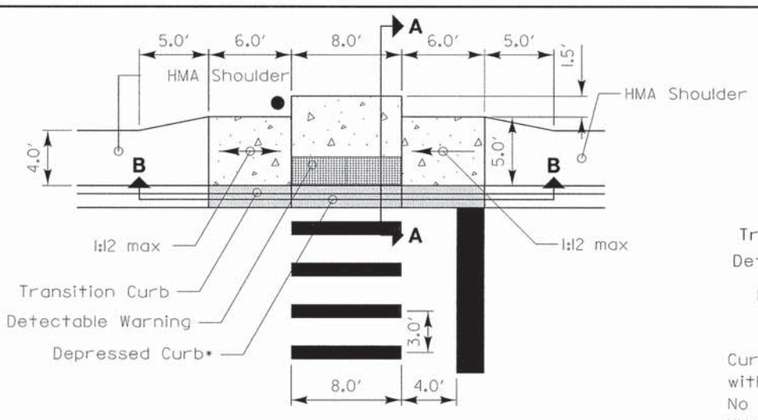
REVISIONS	DATE
ORIG. by LCSMC	4/21/08
Update Text	7/15/11

LakeCounty Division of Transportation

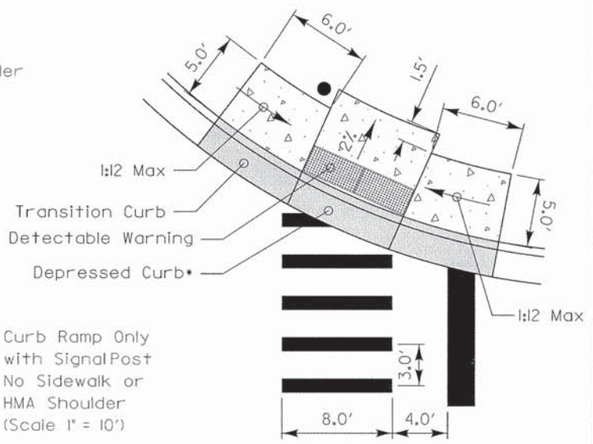
APPROVED BY: M. G. ZEMAITIS
DATE: JUNE 20, 2008

PERIMETER EROSION BARRIER INSTALLATION

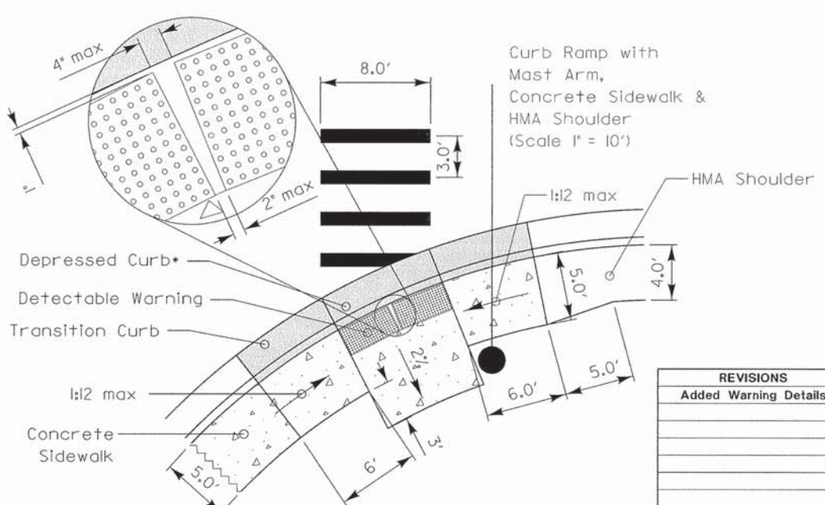
LC2051



Curb Ramp with Signal Post & Transitions to HMA Shoulders (Scale 1" = 10')



Curb Ramp Only with Signal Post No Sidewalk or HMA Shoulder (Scale 1" = 10')



*GENERAL NOTES:

1. The gutter slope for the DEPRESSED CURB adjacent to the curb ramp is a maximum of 5% (standard curb and gutter is 6%). The back of curb rise is ½" (standard depressed curb is 1½"). See Section A-A (Sheet 2) and IDOT standard 606001 for the different curb dimensions.

2. The Depressed Curb and the Transition Curb will be paid for as COMBINATION CONCRETE CURB AND GUTTER of the type adjacent to the curb ramp.

3. The concrete area consisting of the landing (2% slope) and the side ramps (behind the transition curb) along with the continuation of the 5' concrete between adjacent ramps (if any) will be measured in square feet and paid for as PORTLAND CEMENT CONCRETE SIDEWALK of the thickness specified.

4. The detectable warnings shall be installed in accordance with Article 424.09 of the IDOT Standard Specifications and the LCDOT specification 42400800 DETECTABLE WARNINGS and shall be measured and paid for per square foot.

5. Since the width of the flag doesn't affect the construction of the ramp, both B-6.12 and B-6.24 Curb & Gutter are portrayed in this standard.

REVISIONS	DATE
Added Warning Details	8/1/2009

LakeCounty Division of Transportation

APPROVED BY: M. G. ZEMAITIS
DATE: APRIL 1, 2007

CURB RAMPS with TRAFFIC SIGNAL POSTS & MAST ARMS
(SHEET 1 OF 2)

LC4201

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LAKE COUNTY DIVISION OF TRANSPORTATION
STANDARD DETAILS

SCALE: NONE | SHEET | OF | SHEETS | STA. | TO STA.

F.A.P. RTE. 2736 | SECTION 12-00999-29-TL | COUNTY LAKE | TOTAL SHEETS 73 | SHEET NO. 69

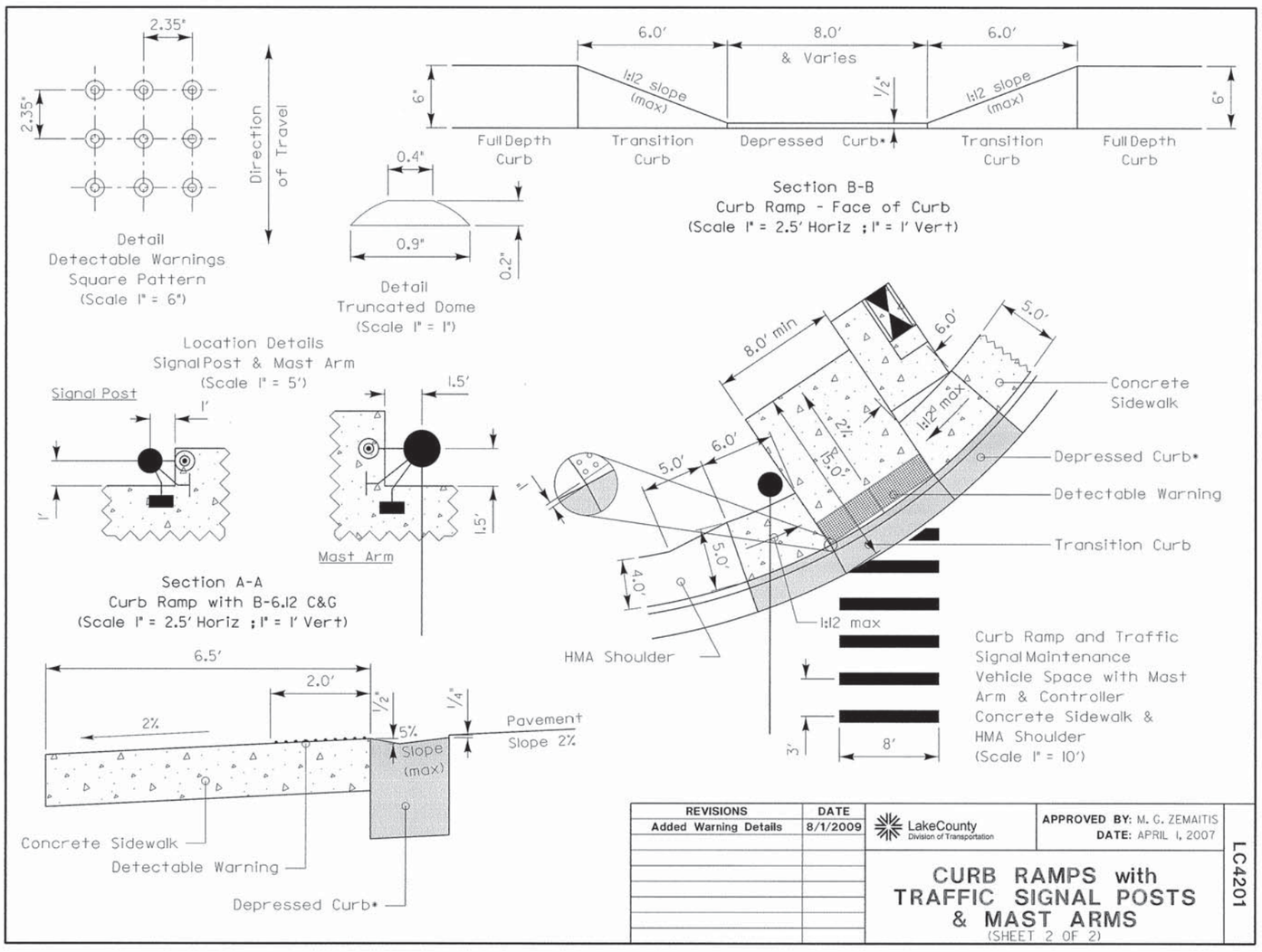
ILLINOIS FED. AID PROJECT | CONTRACT NO. 61A55

GHA #4571,800

FILE NAME = D:\61A55-089-Details.dgn
USER NAME = Zheiksen
PLOT SCALE = 1:20
PLOT DATE = 8/14/2014
Default

DESIGNED - JRD
DRAWN - ZCW
CHECKED - DPB
DATE - 2/19/2014

REVISED -
REVISED -
REVISED -
REVISED -



REVISIONS	DATE
Added Warning Details	8/1/2009

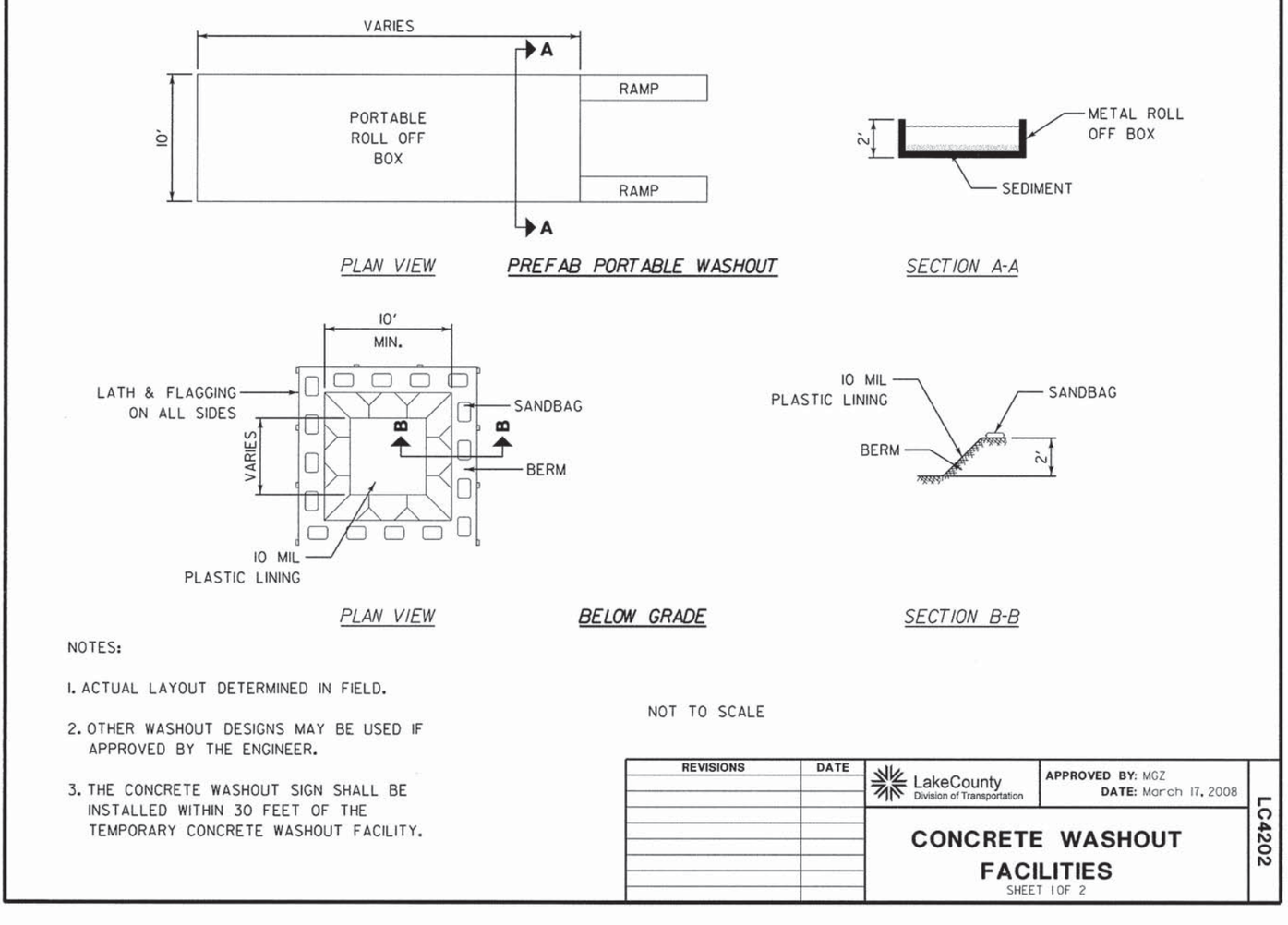
LakeCounty Division of Transportation

APPROVED BY: M. G. ZEMAITIS
DATE: APRIL 1, 2007

CURB RAMPS with TRAFFIC SIGNAL POSTS & MAST ARMS

(SHEET 2 OF 2)

LC4201



NOTES:

1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. OTHER WASHOUT DESIGNS MAY BE USED IF APPROVED BY THE ENGINEER.
3. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

NOT TO SCALE

REVISIONS	DATE

LakeCounty Division of Transportation

APPROVED BY: MGZ
DATE: March 17, 2008

CONCRETE WASHOUT FACILITIES

SHEET 1 OF 2

LC4202

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LAKE COUNTY DIVISION OF TRANSPORTATION
STANDARD DETAILS

SCALE: NONE | SHEET | OF | SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	70

ILLINOIS FED. AID PROJECT

CONTRACT NO. 61A55

GHA #4571,800

FILE NAME = D:\61A55-070-Details.dgn

USER NAME = ZMaisten

PLOT SCALE = 1.28

PLOT DATE = 8/14/2014

Default

	DESIGNED	-	JRD	REVISED	-
	DRAWN	-	ZCW	REVISED	-
	CHECKED	-	DPB	REVISED	-
DATE	-		2/19/2014	REVISED	-

GHA #4571.800

FILE NAME = D161A55-071-Details.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1:20	CHECKED - DPB	REVISED -
Default	PLOT DATE = 8/14/2014	DATE - 2/19/2014	REVISED -

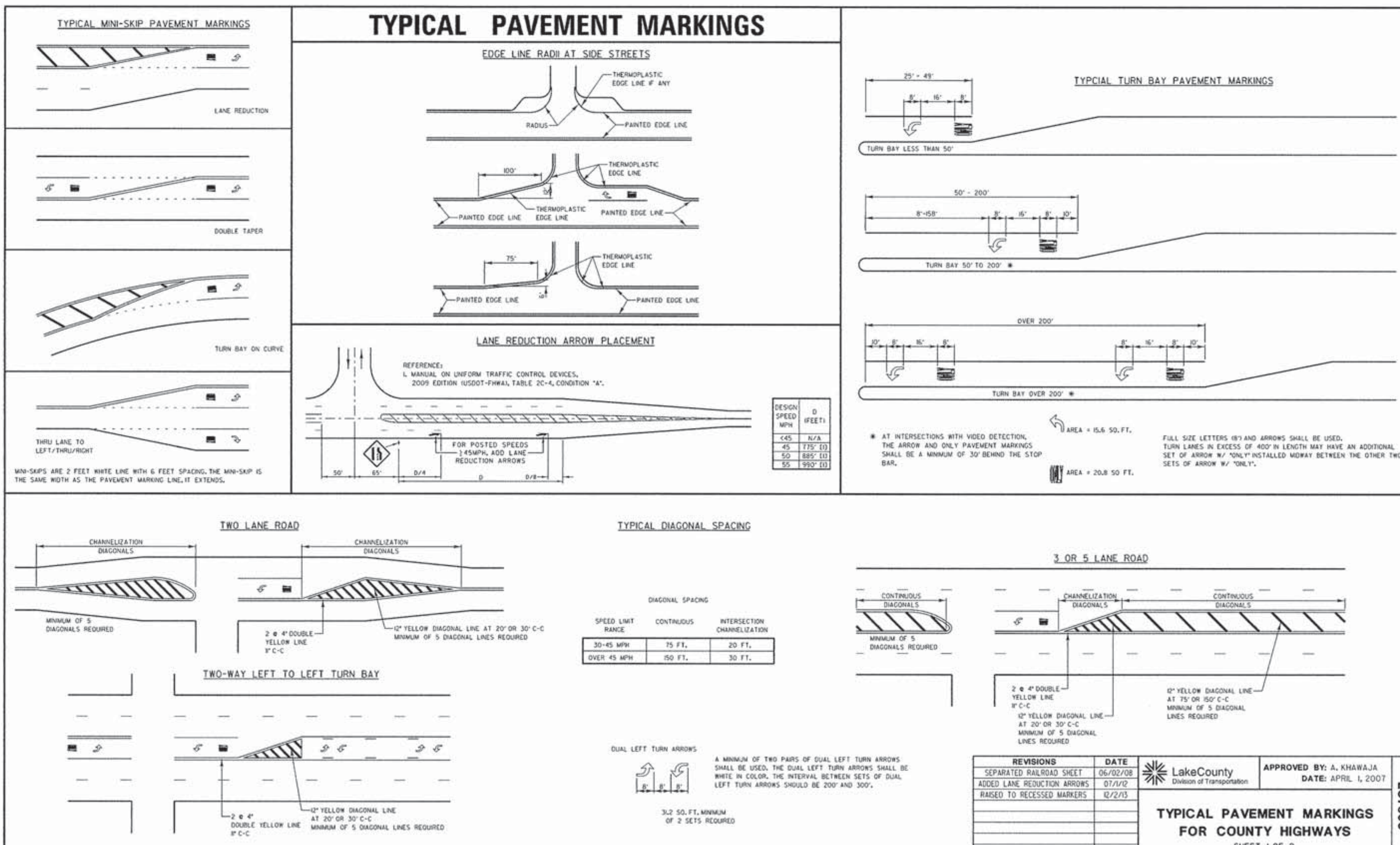
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LAKE COUNTY DIVISION OF TRANSPORTATION
STANDARD DETAILS

SCALE: NONE | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	71
		CONTRACT NO. 61A55		
	ILLINOIS FED. AID PROJECT			

TYPICAL PAVEMENT MARKINGS


TYPICAL MINI-SKIP PAVEMENT MARKINGS
LANE REDUCTION
DOUBLE TAPER
TURN BAY ON CURVE
THRU LANE TO LEFT/THRU/RIGHT
MINI-SKIPS ARE 2 FEET WHITE LINE WITH 6 FEET SPACING. THE MINI-SKIP IS THE SAME WIDTH AS THE PAVEMENT MARKING LINE, IT EXTENDS.
EDGE LINE RADII AT SIDE STREETS
THERMOPLASTIC EDGE LINE IF ANY
RADIUS
PAINTED EDGE LINE
THERMOPLASTIC EDGE LINE
LANE REDUCTION ARROW PLACEMENT
REFERENCE:
1. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 EDITION (USDOT-FHWA), TABLE 2C-4, CONDITION "A".
FOR POSTED SPEEDS ≥45MPH, ADD LANE REDUCTION ARROWS
TYPCIAL TURN BAY PAVEMENT MARKINGS
TURN BAY LESS THAN 50'
TURN BAY 50' TO 200' *
OVER 200'
TURN BAY OVER 200' *
* AT INTERSECTIONS WITH VIDEO DETECTION, THE ARROW AND ONLY PAVEMENT MARKINGS SHALL BE A MINIMUM OF 30' BEHIND THE STOP BAR.
AREA = 15.6 SQ. FT.
AREA = 20.8 SQ FT.
FULL SIZE LETTERS (8') AND ARROWS SHALL BE USED. TURN LANES IN EXCESS OF 400' IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW W/ "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW W/ "ONLY".
TWO LANE ROAD
CHANNELIZATION DIAGONALS
MINIMUM OF 5 DIAGONALS REQUIRED
2 @ 4" DOUBLE YELLOW LINE 9" C-C
12" YELLOW DIAGONAL LINE AT 20' OR 30' C-C MINIMUM OF 5 DIAGONAL LINES REQUIRED
TYPICAL DIAGONAL SPACING
DIAGONAL SPACING
SPEED LIMIT RANGE
CONTINUOUS
INTERSECTION CHANNELIZATION
30-45 MPH
75 FT.
20 FT.
OVER 45 MPH
150 FT.
30 FT.
TWO-WAY LEFT TO LEFT TURN BAY
DUAL LEFT TURN ARROWS
A MINIMUM OF TWO PAIRS OF DUAL LEFT TURN ARROWS SHALL BE USED. THE DUAL LEFT TURN ARROWS SHALL BE WHITE IN COLOR. THE INTERVAL BETWEEN SETS OF DUAL LEFT TURN ARROWS SHOULD BE 200' AND 300'.
31.2 SQ. FT. MINIMUM OF 2 SETS REQUIRED
3 OR 5 LANE ROAD
CONTINUOUS DIAGONALS
12" YELLOW DIAGONAL LINE AT 75' OR 150' C-C MINIMUM OF 5 DIAGONAL LINES REQUIRED

REVISIONS	DATE
SEPARATED RAILROAD SHEET	06/02/08
ADDED LANE REDUCTION ARROWS	07/1/12
RAISED TO RECESSED MARKERS	12/2/13

APPROVED BY: A. KHAWAJA
DATE: APRIL 1, 2007

LakeCounty Division of Transportation

TYPICAL PAVEMENT MARKINGS FOR COUNTY HIGHWAYS
SHEET 1 OF 2

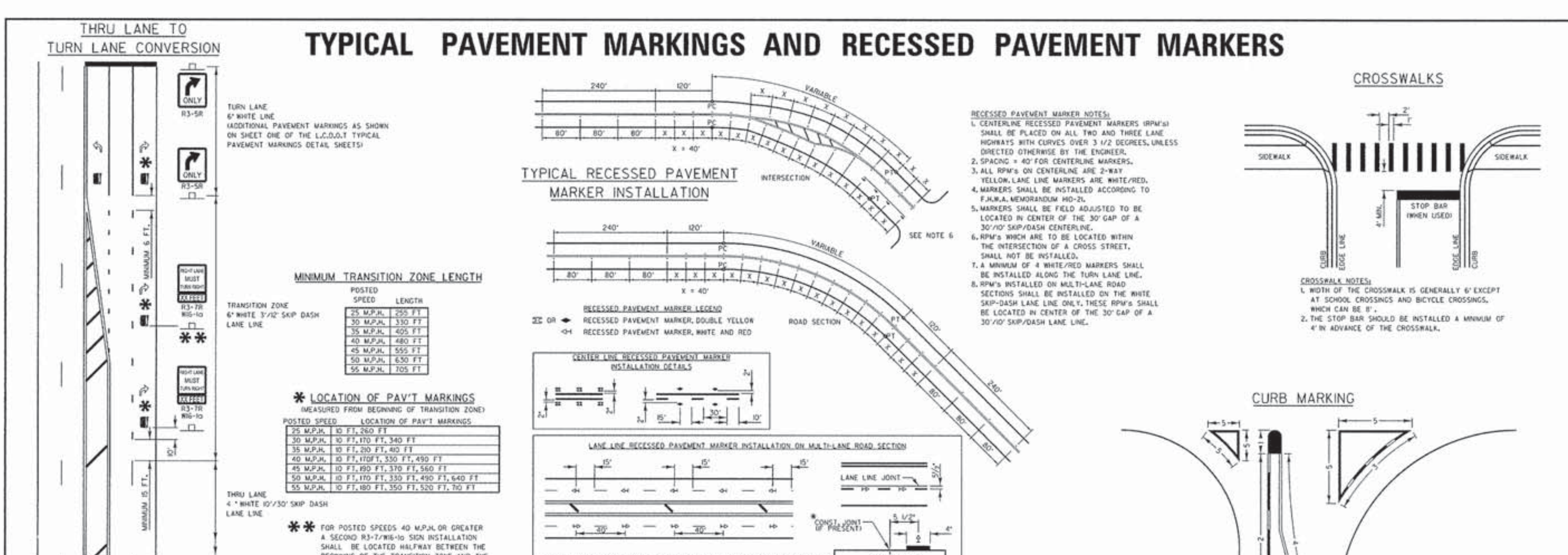
LC7800

PROJECT NAME
LAKE COUNTY STANDARDS & DETAILS

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
CHXX	XXX	XX-XXXXX-XX-XX	XXX	XXX

FILE NAME: C:\Users\hdrmc\Desktop\LC7800 TYPICAL PAVEMENT MARKINGS FOR COUNTY HIGHWAYS.dgn

TYPICAL PAVEMENT MARKINGS AND RECESSED PAVEMENT MARKERS


THRU LANE TO TURN LANE CONVERSION
TURN LANE
6" WHITE LINE
(ADDITIONAL PAVEMENT MARKINGS AS SHOWN ON SHEET ONE OF THE L.C.D.O.T TYPICAL PAVEMENT MARKINGS DETAIL SHEETS)
TRANSITION ZONE
6" WHITE 3'/12' SKIP DASH LANE LINE
THRU LANE
4" WHITE 10'/30' SKIP DASH LANE LINE
TYPICAL RECESSED PAVEMENT MARKER INSTALLATION
INTERSECTION
ROAD SECTION
SEE NOTE 6
RECESSED PAVEMENT MARKER LEGEND
RECESSED PAVEMENT MARKER, DOUBLE YELLOW
RECESSED PAVEMENT MARKER, WHITE AND RED
CENTER LINE RECESSED PAVEMENT MARKER INSTALLATION DETAILS
LANE LINE RECESSED PAVEMENT MARKER INSTALLATION ON MULTI-LANE ROAD SECTION
LANE LINE JOINT
ROAD SURFACE
* LANE LINE MARKINGS AND RECESSED PAVEMENT MARKERS MAY BE CENTERED ON THE LANE LINE IF NO PAVEMENT JOINT IS PRESENT AT THE LANE LINE.
CROSSWALKS
SIDEWALK
STOP BAR (WHEN USED)
CURB
EDGE LINE
CURB MARKING
NORMAL SPACING
REDUCED SPACING
PAVEMENT CROSS SECTION SHOWING TYPICAL PAVEMENT MARKINGS (2-LANE ROADWAY)
Road Surface
11' LANE WIDTH
12' LANE WIDTH
* INLAYED PREFORMED PLASTIC STATION NUMBER
STATIONING DETAIL
1+00
WHITE EDGE LINE
EDGE OF PAVEMENT
VARIABLE
DOUBLE STRIPE CENTERLINE DETAIL
SINGLE STRIPE CENTERLINE DETAIL
NOTE:
CENTERLINE MARKINGS ARE 4" LINES AT 9" CENTERS.

MINIMUM TRANSITION ZONE LENGTH

POSTED SPEED	LENGTH
25 M.P.H.	255 FT
30 M.P.H.	330 FT
35 M.P.H.	405 FT
40 M.P.H.	480 FT
45 M.P.H.	555 FT
50 M.P.H.	630 FT
55 M.P.H.	705 FT

* LOCATION OF PAV'T MARKINGS

(MEASURED FROM BEGINNING OF TRANSITION ZONE)

POSTED SPEED	LOCATION OF PAV'T MARKINGS
25 M.P.H.	10 FT, 260 FT
30 M.P.H.	10 FT, 170 FT, 340 FT
35 M.P.H.	10 FT, 210 FT, 410 FT
40 M.P.H.	10 FT, 170FT, 330 FT, 490 FT
45 M.P.H.	10 FT, 190 FT, 370 FT, 560 FT
50 M.P.H.	10 FT, 170 FT, 330 FT, 490 FT, 640 FT
55 M.P.H.	10 FT, 180 FT, 350 FT, 520 FT, 710 FT

** FOR POSTED SPEEDS 40 M.P.H. OR GREATER A SECOND R3-7/W16-1a SIGN INSTALLATION SHALL BE LOCATED HALFWAY BETWEEN THE BEGINNING OF THE TRANSITION ZONE AND THE BEGINNING OF THE TURN LANE

RECESSED PAVEMENT MARKER NOTES:
1. CENTERLINE RECESSED PAVEMENT MARKERS (RPM's) SHALL BE PLACED ON ALL TWO AND THREE LANE HIGHWAYS WITH CURVES OVER 3 1/2 DEGREES, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
2. SPACING = 40' FOR CENTERLINE MARKERS.
3. ALL RPM's ON CENTERLINE ARE 2-WAY YELLOW. LANE LINE MARKERS ARE WHITE/RED.
4. MARKERS SHALL BE INSTALLED ACCORDING TO F.H.W.A. MEMORANDUM HIO-21.
5. MARKERS SHALL BE FIELD ADJUSTED TO BE LOCATED IN CENTER OF THE 30' GAP OF A 30'/10' SKIP/DASH CENTERLINE.
6. RPM's WHICH ARE TO BE LOCATED WITHIN THE INTERSECTION OF A CROSS STREET, SHALL NOT BE INSTALLED.
7. A MINIMUM OF 4 WHITE/RED MARKERS SHALL BE INSTALLED ALONG THE TURN LANE LINE.
8. RPM's INSTALLED ON MULTI-LANE ROAD SECTIONS SHALL BE INSTALLED ON THE WHITE SKIP-DASH LANE LINE ONLY. THESE RPM's SHALL BE LOCATED IN CENTER OF THE 30' GAP OF A 30'/10' SKIP/DASH LANE LINE.

CROSSWALK NOTES:
1. WIDTH OF THE CROSSWALK IS GENERALLY 6' EXCEPT AT SCHOOL CROSSINGS AND BICYCLE CROSSINGS, WHICH CAN BE 8'.
2. THE STOP BAR SHOULD BE INSTALLED A MINIMUM OF 4' IN ADVANCE OF THE CROSSWALK.

CURB MARKING NOTES:
1. PAINT CURB AND NOSE SOLID FOR 10' OR RADIUS OF NOSE, WHICHEVER IS GREATER.
2. PAINT MINIMUM OF 3 STRIPES, AT NORMAL SPACING, IN DIRECTION OF TRAFFIC.
3. REDUCED SPACING USED TO OBTAIN 3 STRIPE MINIMUM.
4. STRIPING RECOMMENDED ONLY WHERE OPERATIONAL PROBLEMS DICTATE.
5. PAINT SOLID WHERE A MINIMUM OF 3 STRIPES CANNOT BE PLACED.

PAVEMENT MARKING GUIDELINES

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE OF 2 LANE PAVEMENT	4 IN.	SKIP-DASH	YELLOW	10 FT. LINE WITH 30 FT. SPACE
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 IN. 2 @ 4 IN.	SOLID SOLID	YELLOW YELLOW	5 1/2 IN. C-C FROM SKIP-DASH CENTERLINE 11 IN. C-C (OMIT SKIP-DASH CENTERLINE BETWEEN)
CENTERLINE ON MULTI-LANE UNDIVIDED	2 @ 4 IN.	SOLID	YELLOW	11 IN. C-C
LANE LINES	4 IN.	SKIP-DASH	WHITE	10 FT. LINE WITH 30 FT. SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2 FT. LINE WITH 6 FT. SPACE
EDGE LINES	5 IN. WHITE 4 IN. YELLOW	SOLID	WHITE - RIGHT YELLOW - LEFT	OUTLINE RAISED MEDIANS IN YELLOW
TURN LANE MARKINGS	6 IN. LINE FULL SIZE LETTERS AND SYMBOLS (8 FT.)	SOLID	WHITE	TURN ARROW 15.6 SQ. FT. STRAIGHT ARROW 11.5 SQ. FT. ONLY 20.8 SQ. FT. COMB. ARROW 26.0 SQ. FT.
TWO WAY LEFT TURN MARKING	2 @ 4 IN. EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10 FT. LINE WITH 30 FT. SPACE FOR SKIP-DASH 5 1/2 IN. C-C BETWEEN SKIP-DASH LINE AND SOLID LINE
	8 FT. LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK	12 IN. @ 90°	SOLID	WHITE	12 IN. LONGITUDINAL BAR WITH 24 IN. SPACE 6 FT. TO 12 FT. WIDE SEE TYPICAL CROSSWALK MARKING DETAIL
STOP BARS	24 IN.	SOLID	WHITE	PLACE 4 FT. IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE PLACE AT DESIRED STOPPING POINT.
PAINTED MEDIANS	2 @ 4 IN. & 11 IN. C-C 12 IN. DIAGONALS @ 45° NO DIAGONALS USED FOR 4 FT. WIDE MEDIAN	SOLID	YELLOW: 2-WAY TRAFFIC WHITE: 1-WAY TRAFFIC	11 IN. C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING DETAIL MINIMUM OF 5 DIAGONALS
GORE MARKING AND CHANNELIZING LINES	8 IN. WITH 12 IN. DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS 15 FT. C-C (LESS THAN 30 M.P.H.) 20 FT. C-C (30 TO 45 M.P.H.) 30 FT. C-C (OVER 45 M.P.H.) MINIMUM OF 5 DIAGONALS
R.R. CROSSING	24 IN. TRANSVERSE LINES RR IS 6 FT. LETTER 16 IN. LINE FOR "X"	SOLID	WHITE	SEE I.D.O.T. STD. 780001 SQ. FT. AREA OF: "R" = 3.6 SQ. FT. / "R" "X" = 54.0 SQ. FT.
SHOULDER DIAGONALS	12 IN. @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50 FT. C-C (LESS THAN 30 M.P.H.) 75 FT. C-C (30 TO 45 M.P.H.) 150 FT. C-C (OVER 45 M.P.H.) MINIMUM OF 5 DIAGONALS

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO PART III "MARKINGS" IN THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", AND THE LATEST I.D.O.T. HIGHWAY STANDARD 780001.

REVISIONS	DATE
SEPARATED RAILROAD SHEET	06/02/08
REVISED RPM DETAILS	07/1/12
RAISED TO RECESSED MARKERS	12/2/13

APPROVED BY: A. KHAWAJA
DATE: APRIL 1, 2007

TYPICAL PAVEMENT MARKINGS FOR COUNTY HIGHWAYS
SHEET 2 OF 2

LC7800

PROJECT NAME
LAKE COUNTY STANDARDS & DETAILS

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
CHXX	XXX	XX-XXXXX-XX-XX	XXX	XXX

FILE NAME: C:\Users\hdrmc\Desktop\LC7800 TYPICAL PAVEMENT MARKINGS FOR COUNTY HIGHWAYS.dgn

GHA #4571.800

FILE NAME = D161A55-072-Details.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -
Default	PLOT SCALE = 1:20	DRAWN - ZCW	REVISED -
	PLOT DATE = 8/14/2014	CHECKED - DPB	REVISED -
		DATE - 2/19/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LAKE COUNTY DIVISION OF TRANSPORTATION
STANDARD DETAILS

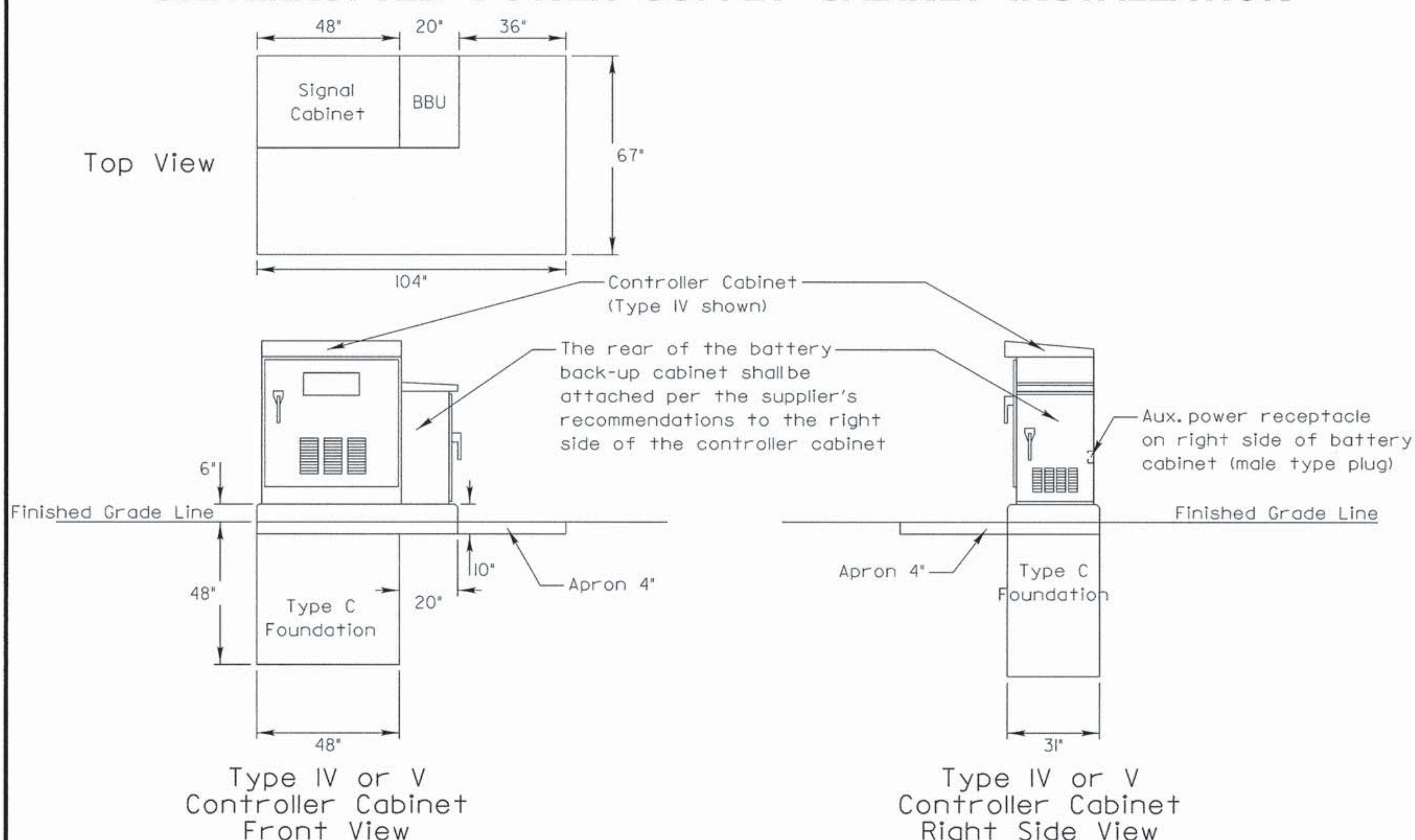
SCALE: NONE | SHEET OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2736	12-00999-29-TL	LAKE	73	72

CONTRACT NO. 61A55

ILLINOIS FED. AID PROJECT

UNITERRUPTED POWER SUPPLY CABINET INSTALLATION



48"
20"
36"
Signal Cabinet
BBU
Top View
67"
104"
Controller Cabinet (Type IV shown)
The rear of the battery back-up cabinet shallbe attached per the supplier's recommendations to the right side of the controller cabinet
Aux. power receptacle on right side of battery cabinet (male type plug)
6"
Finished Grade Line
Finished Grade Line
10"
Apron 4"
Apron 4"
48"
Type C Foundation
20"
Type C Foundation
48"
31"
Type IV or V Controller Cabinet Front View
Type IV or V Controller Cabinet Right Side View

Note: The full depth (54") foundation is only required under the controller cabinet.

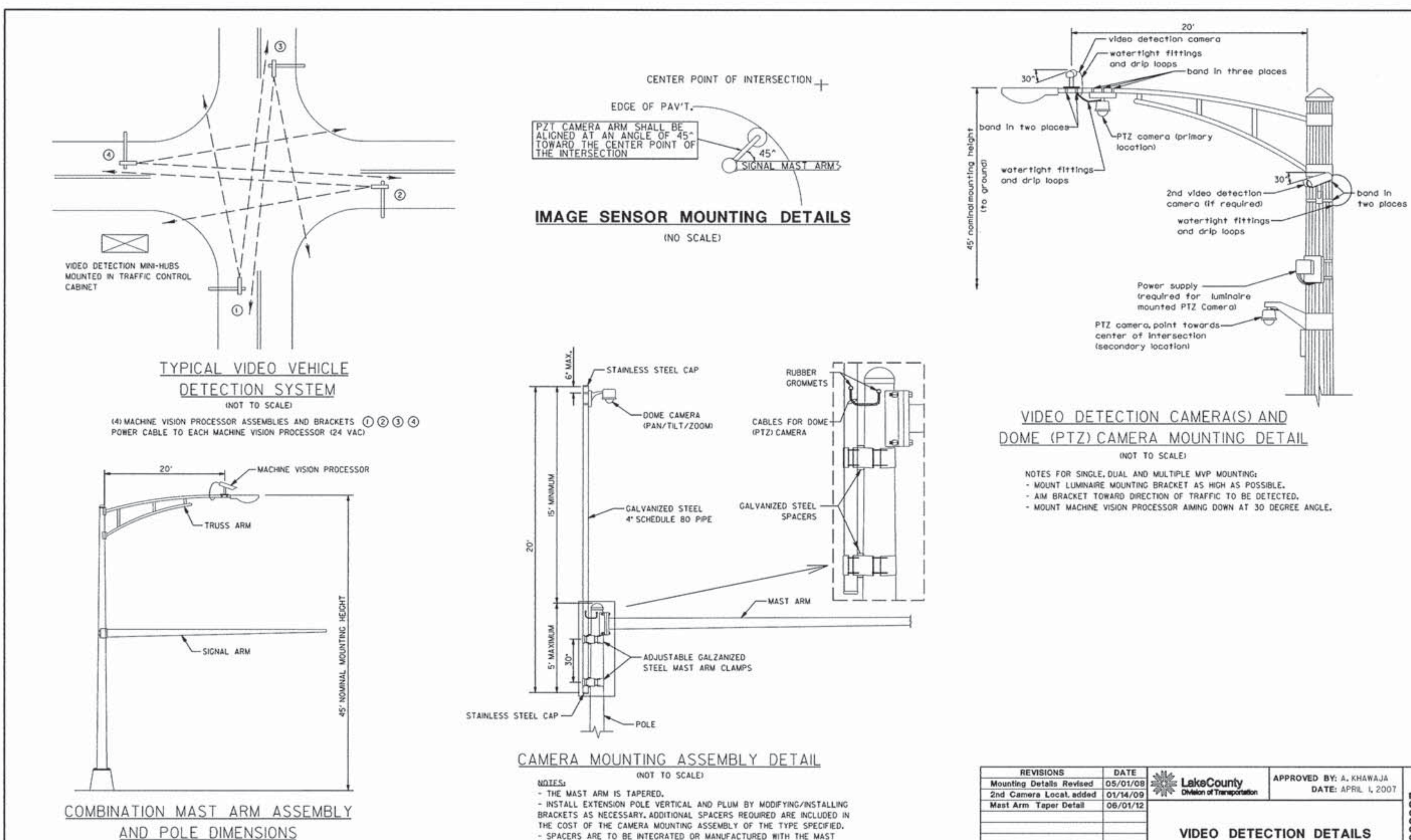
REVISIONS	DATE
Reclassified Foundation from Mod D to C - JPS	08/28/07

LakeCounty Division of Transportation

APPROVED BY: A. KHAWAJA
DATE: APRIL 1, 2007

Type C (SPECIAL) Foundation for Traffic Signal Controller Cabinet and U.P.S. Cabinet

LC8501



VIDEO DETECTION MINI-HUBS MOUNTED IN TRAFFIC CONTROL CABINET
TYPICAL VIDEO VEHICLE DETECTION SYSTEM
(NOT TO SCALE)
(4) MACHINE VISION PROCESSOR ASSEMBLIES AND BRACKETS ① ② ③ ④
POWER CABLE TO EACH MACHINE VISION PROCESSOR (24 VAC)
CENTER POINT OF INTERSECTION
EDGE OF PAV'T.
PZT CAMERA ARM SHALL BE ALIGNED AT AN ANGLE OF 45° TOWARD THE CENTER POINT OF THE INTERSECTION
45°
SIGNAL MAST ARM
IMAGE SENSOR MOUNTING DETAILS
(NO SCALE)
20'
video detection camera
watertight fittings and drip loops
band in three places
30°
band in two places
PTZ camera (primary location)
watertight fittings and drip loops
45' nominal mounting height (to ground)
2nd video detection camera (if required)
band in two places
watertight fittings and drip loops
Power supply (required for luminaire mounted PTZ Camera)
PTZ camera, point towards center of intersection (secondary location)
VIDEO DETECTION CAMERA(S) AND DOME (PTZ) CAMERA MOUNTING DETAIL
(NOT TO SCALE)
NOTES FOR SINGLE, DUAL AND MULTIPLE MVP MOUNTING:
- MOUNT LUMINAIRE MOUNTING BRACKET AS HIGH AS POSSIBLE.
- AIM BRACKET TOWARD DIRECTION OF TRAFFIC TO BE DETECTED.
- MOUNT MACHINE VISION PROCESSOR AIMING DOWN AT 30 DEGREE ANGLE.
20'
MACHINE VISION PROCESSOR
TRUSS ARM
SIGNAL ARM
45' NOMINAL MOUNTING HEIGHT
COMBINATION MAST ARM ASSEMBLY AND POLE DIMENSIONS
(NOT TO SCALE)
6" MAX.
STAINLESS STEEL CAP
DOME CAMERA (PAN/TILT/ZOOM)
15' MINIMUM
20'
GALVANIZED STEEL 4" SCHEDULE 80 PIPE
5' MAXIMUM
30"
ADJUSTABLE GALZANIZED STEEL MAST ARM CLAMPS
STAINLESS STEEL CAP
POLE
RUBBER GROMMETS
CABLES FOR DOME (PTZ) CAMERA
GALVANIZED STEEL SPACERS
MAST ARM
CAMERA MOUNTING ASSEMBLY DETAIL
(NOT TO SCALE)
NOTES:
- THE MAST ARM IS TAPERED.
- INSTALL EXTENSION POLE VERTICAL AND PLUM BY MODIFYING/INSTALLING BRACKETS AS NECESSARY. ADDITIONAL SPACERS REQUIRED ARE INCLUDED IN THE COST OF THE CAMERA MOUNTING ASSEMBLY OF THE TYPE SPECIFIED.
- SPACERS ARE TO BE INTEGRATED OR MANUFACTURED WITH THE MAST ARM BRACKETS

REVISIONS	DATE
Mounting Details Revised	05/01/08
2nd Camera Locat. added	01/14/09
Mast Arm Taper Detail	06/01/12

LakeCounty Division of Transportation

APPROVED BY: A. KHAWAJA
DATE: APRIL 1, 2007

VIDEO DETECTION DETAILS

LC8900

PROJECT NAME
LAKE COUNTY STANDARDS & DETAILS

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
CHXX	XXX	XX-XXXXX-XX-XX	XXX	XXX

FILE NAME: C:\Documents and Settings\hdrmc\Desktop\LC8900.DGN

GHA #4571.800

FILE NAME = D161A55-073-Details.dgn	USER NAME = ZWallsten	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LAKE COUNTY DIVISION OF TRANSPORTATION STANDARD DETAILS	F.A.P. RTE. 2736	SECTION 12-00999-29-TL	COUNTY LAKE	TOTAL SHEETS 73	SHEET NO. 73
Default	PLOT SCALE = 1:20	DRAWN - ZCW	REVISED -		SCALE: NONE SHEET OF SHEETS STA. TO STA.			CONTRACT NO. 61A55		
	PLOT DATE = 8/14/2014	CHECKED - DPB	REVISED -			ILLINOIS FED. AID PROJECT				
		DATE - 2/19/2014	REVISED -							