

C.T.H. "N" AND KENNEDY AVE. INTERSECTION

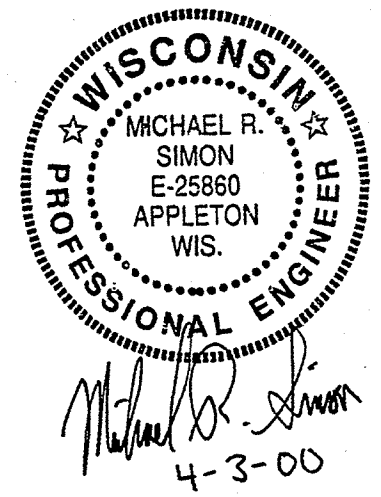
TRAFFIC SIGNALIZATION

TOWN OF BUCHANAN

OUTAGAMIE COUNTY, WISCONSIN

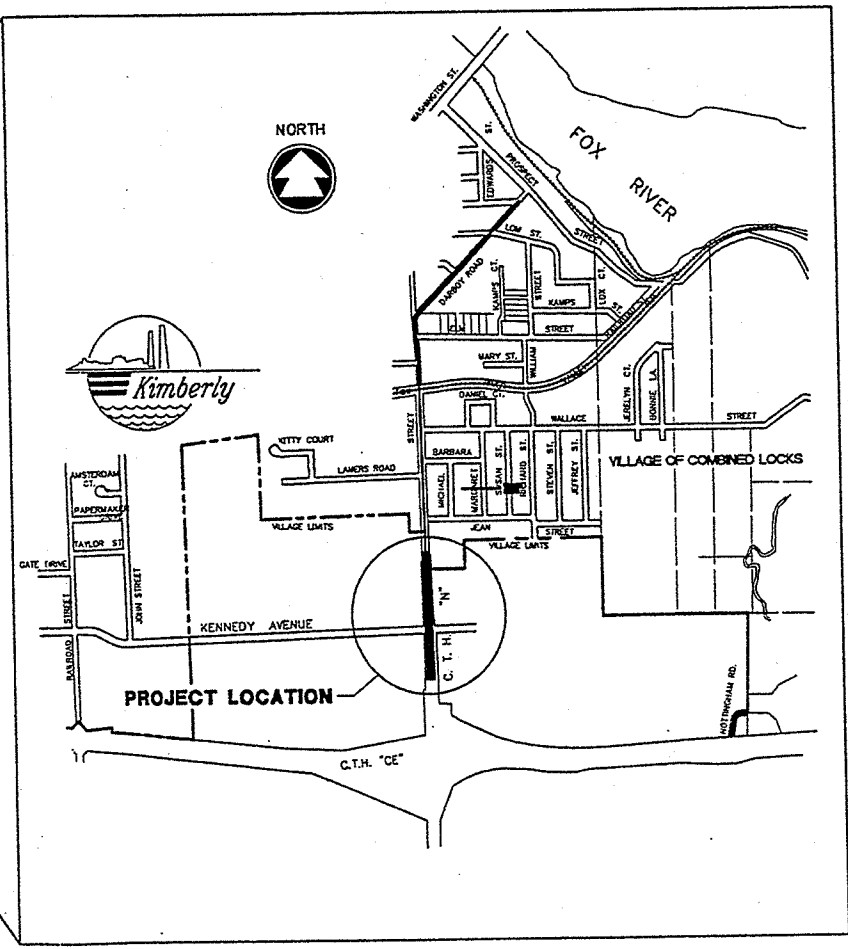
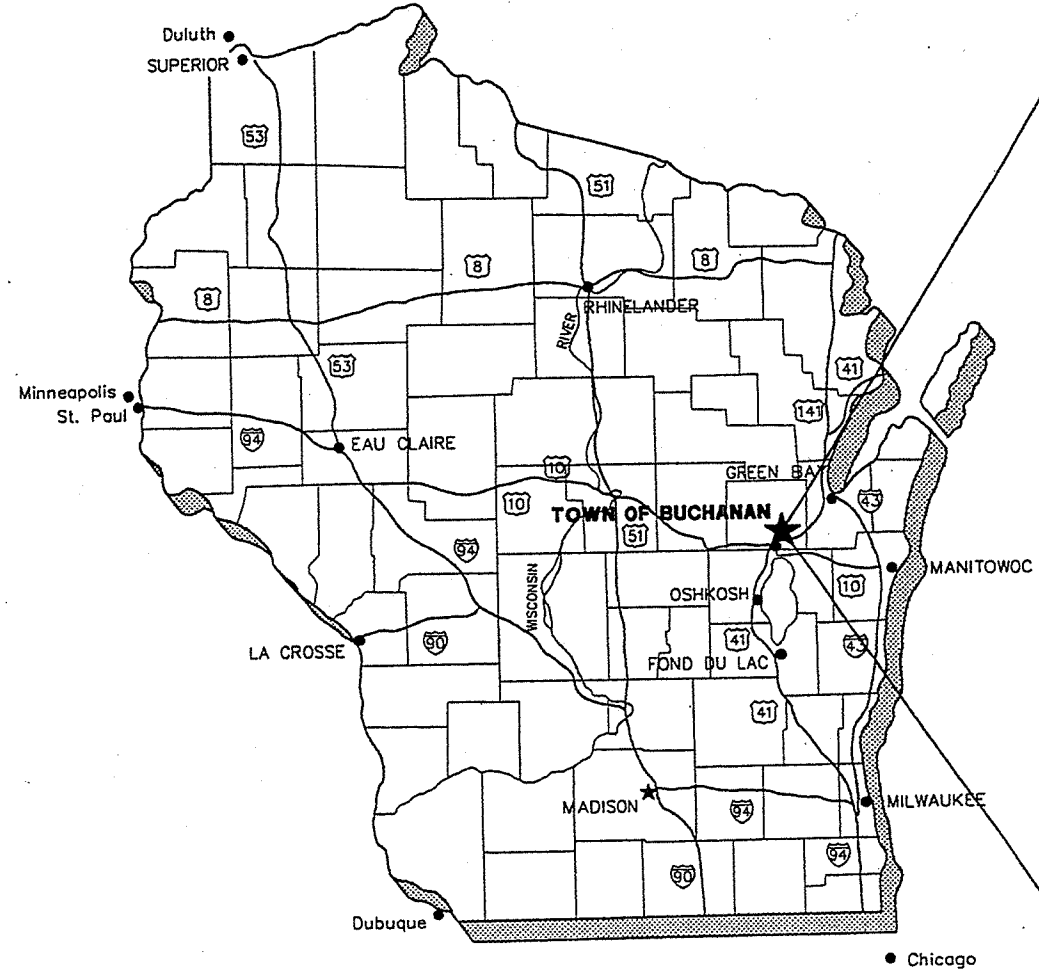
OCT 17 2003

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 - 2 TRAFFIC SIGNAL LAYOUT
 - 3 SEQUENCE OF OPERATIONS
 - 4-5 TRAFFIC SIGNAL QUANTITIES



MCM
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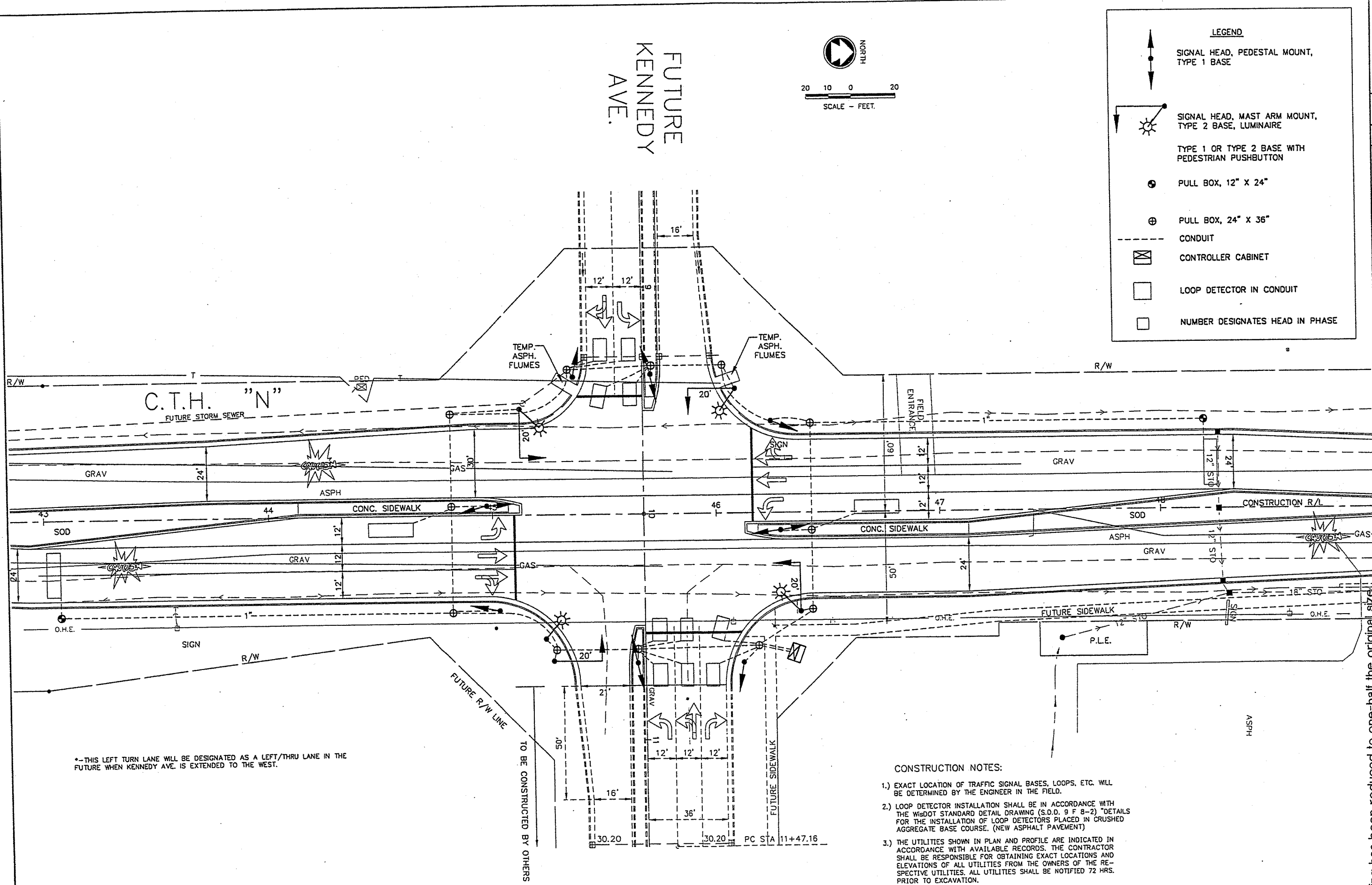
DATE	JAN., 2000
PROJECT NO.	0009-99663.08
SHEET NO.	T1
FILE NO.	CAD



- LEGEND
- MANHOLE
 - ⊞ INLET
 - ⊞ ROUND INLET
 - HYDRANT
 - ⊞ TEE
 - ⊞ CROSS
 - ⊞ VALVE
 - ⊞ REDUCER
 - ⊞ TELEPHONE PEDESTAL
 - ⊞ POWER POLE WITH GUY
 - ⊞ LIGHT POLE
 - ⊞ ROCK
 - ⊞ FENCE LINE
 - ⊞ EROSION CONTROL BALE
 - ⊞ UNDERGROUND GAS LINE
 - ⊞ UNDERGROUND TELEPHONE
 - ⊞ UNDERGROUND ELECTRIC

N23a

\\VPC\QA\Draws\99663-00\99663.dwg 03/28/00 12:25 PM



*-THIS LEFT TURN LANE WILL BE DESIGNATED AS A LEFT/THRU LANE IN THE FUTURE WHEN KENNEDY AVE. IS EXTENDED TO THE WEST.

CONSTRUCTION NOTES:

- 1.) EXACT LOCATION OF TRAFFIC SIGNAL BASES, LOOPS, ETC. WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
- 2.) LOOP DETECTOR INSTALLATION SHALL BE IN ACCORDANCE WITH THE WisDOT STANDARD DETAIL DRAWING (S.D.D. 9 F 8-2) "DETAILS FOR THE INSTALLATION OF LOOP DETECTORS PLACED IN CRUSHED AGGREGATE BASE COURSE. (NEW ASPHALT PAVEMENT)"
- 3.) THE UTILITIES SHOWN IN PLAN AND PROFILE ARE INDICATED IN ACCORDANCE WITH AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING EXACT LOCATIONS AND ELEVATIONS OF ALL UTILITIES FROM THE OWNERS OF THE RESPECTIVE UTILITIES. ALL UTILITIES SHALL BE NOTIFIED 72 HRS. PRIOR TO EXCAVATION.
- 4.) CONDUIT BETWEEN PULL BOXES SHALL BE 3-INCH, EXCEPT AS SHOWN.
- 5.) CONDUIT BETWEEN PULL BOX AND SIGNAL BASE SHALL BE 2-INCH.
- 6.) CONDUIT BETWEEN PULL BOX AND CONTROLLER SHALL BE TWO RUNS OF 3-INCH.

LEGEND

SIGNAL HEAD, PEDESTAL MOUNT, TYPE 1 BASE

SIGNAL HEAD, MAST ARM MOUNT, TYPE 2 BASE, LUMINAIRE

TYPE 1 OR TYPE 2 BASE WITH PEDESTRIAN PUSHBUTTON

PULL BOX, 12" X 24"

PULL BOX, 24" X 36"

CONDUIT

CONTROLLER CABINET

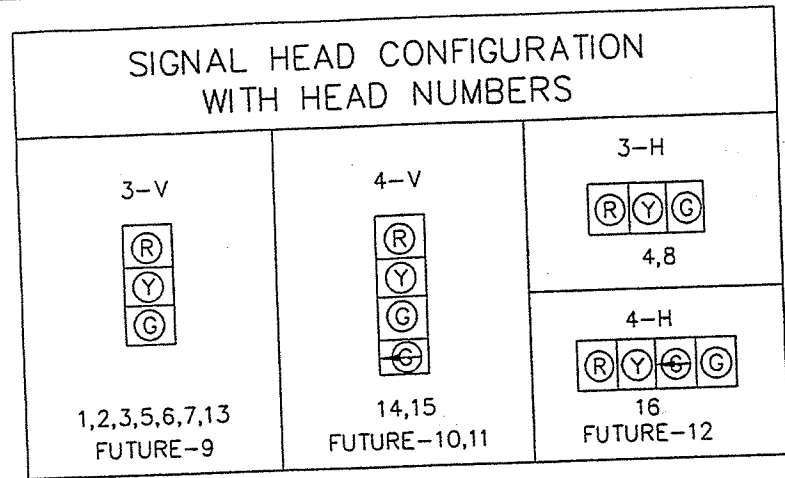
LOOP DETECTOR IN CONDUIT

NUMBER DESIGNATES HEAD IN PHASE

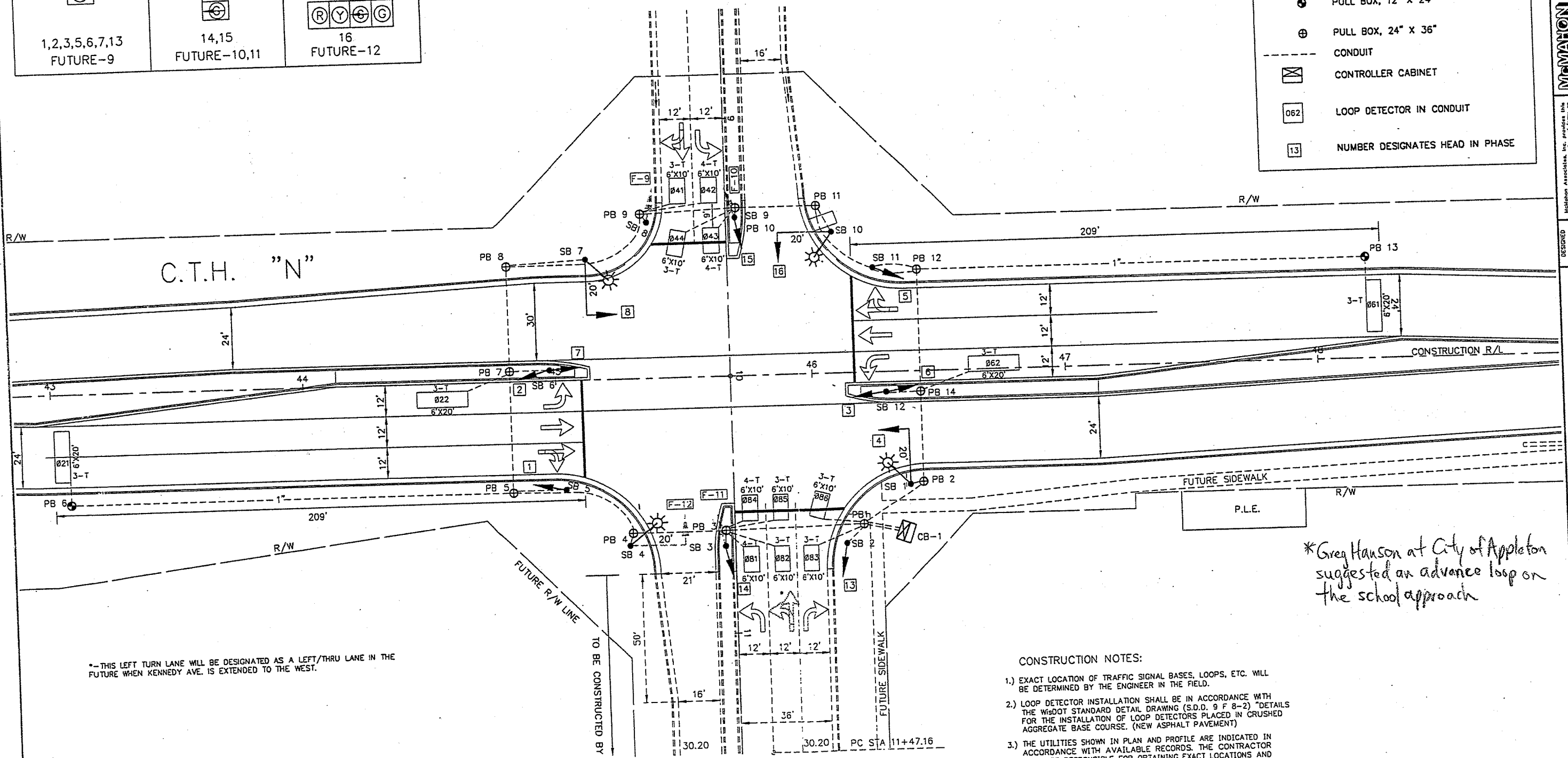
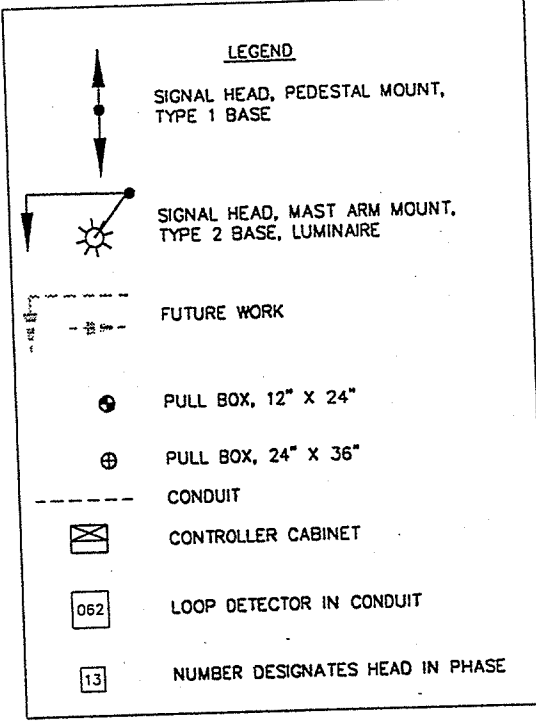
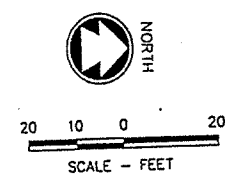
C.T.H. N / FUTURE KENNEDY AVE.

PROJECT OVERVIEW

This drawing has been reduced to one-half the original size.		SCALE 1" = 20'		DATE FEB., 2000		PROJECT NO. 0006-99663.0B	
DESIGNED MRS		DRAWN PHAM		CHECKED DRB		SHEET NO. 1	
NO. 1		DATE		PROJECT NO.		FILE NO. CAD	
REVISION		NO.		DATE		PROJECT NO.	
McMATH ENGINEERS ARCHITECTS & ENGINEERS ASSOCIATES, INC. SURVEYORS 1445 McKittrick Drive Neshanic, WI 54956 P.O. Box 1025 Neshanic, WI 54956 TEL: 920-751-4200 FAX: 920-751-4284		NO.		DATE		PROJECT NO.	



FUTURE KENNEDY AVE.



*-THIS LEFT TURN LANE WILL BE DESIGNATED AS A LEFT/THRU LANE IN THE FUTURE WHEN KENNEDY AVE. IS EXTENDED TO THE WEST.

**Greg Hanson at City of Appleton suggested an advance loop on the school approach*

- ### CONSTRUCTION NOTES:
- 1.) EXACT LOCATION OF TRAFFIC SIGNAL BASES, LOOPS, ETC. WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
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McMATHON ASSOCIATES, INC. ENGINEERS, ARCHITECTS, SCIENTISTS, SURVEYORS 1445 McMathon Drive, Neenah, WI 54956 P.O. Box 1025, Neenah, WI 54957-1025 TEL: 920-751-4200 FAX: 920-751-4284	
DESIGNED	MRS.
DRAWN	PMM
CHECKED	DRB
C.T.H. N / FUTURE KENNEDY AVE. TRAFFIC SIGNAL LAYOUT	
SCALE	1" = 20'
DATE	FEB., 2000
PROJECT NO.	0006-99663.08
SHEET NO.	2
FILE NO.	CAD

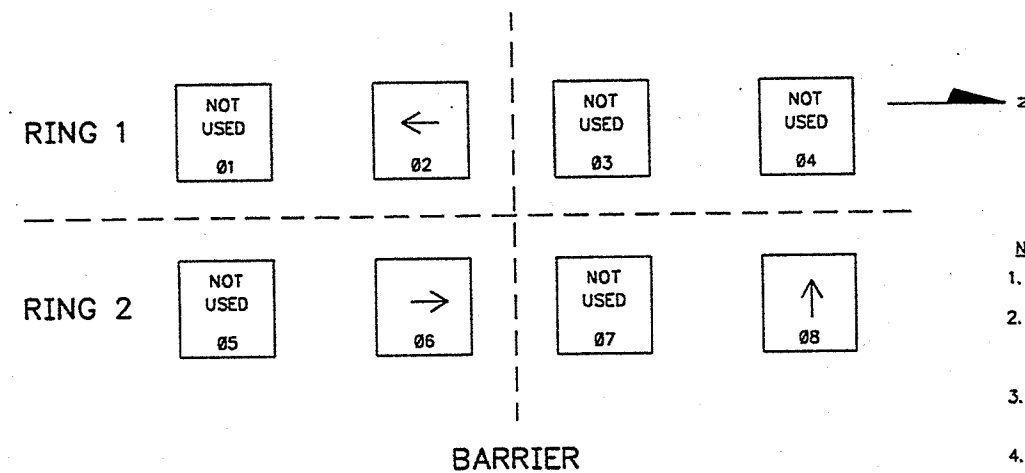
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CHART 1

PHASE ON	NON-CONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
2	6	8
6	2	8
8	-	2,6

DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
021	1			X		2				6'x20'	3
022	2	X			2	2				6'x20'	3
*041	3	X			4	4		X		6'x10'	3
*042	4	X			4	4				6'x10'	4
*043	4	X			4	4				6'x10'	4
*044	3	X			4	4		X		6'x10'	3
061	5			X		6				6'x20'	3
062	6	X			6	6				6'x20'	3
81	7	X			8	8				6'x10'	4
82	8	X			8	8				6'x10'	3
83	9	X			8	8		X		6'x10'	3
84	7	X			8	8				6'x10'	4
85	8	X			8	8				6'x10'	3
86	9	X			8	8		X		6'x10'	3

*-SEE NOTE 5



PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL
2		W/6	MIN
6		W/2	MIN
8			

NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NON-CONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL (SEE CHART 1 AT LEFT).
3. IF ANY OPPOSING THRU PHASES ARE TIMED CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.
4. PROVIDE FOR HAND CONTROL OPERATION.
5. DETECTORS 043 AND 044 WILL BE INSTALLED AS PART OF THIS PROJECT FOR FUTURE USE. DETECTORS 041 AND 042 WILL BE INSTALLED WHEN KENNEDY AVE. IS EXTENDED TO THE WEST (FUTURE).

TYPE OF INTERCONNECT	
NONE	
TBC (FUTURE USE)	☒
CLOSED LOOP	
HARDWIRE	
TONE (FREQ)	

TYPE OF PRE-EMPT	
NONE	☒
RAILROAD	☐
EMERGENCY VEHICLE	☐
	☐
	☐
	☐
	☐

TYPE OF LIGHTING	
NONE	
IN TRAFFIC CONTROL CABINET	
IN SEPARATE CONTROL CABINET	

C.T.H. N / FUTURE KENNEDY AVE.
VILLAGE OF KIMBERLY
SEQUENCE OF OPERATIONS

SCALE	NONE
DATE	MARCH, 2000
PROJECT NO.	00006--99663.08

SHEET NO.

3

FILE NO.
CAD

\\PWCMAIL\OUT\990605-108\05-SIGSO.DWG
OGONE: "Y" COWMARI 03/28/00 12:26 PM

NO.	LOCATION, REMARKS	12" x 24" EACH	24" x 36" EACH
PB1	NE QUAD. C.T.H. 'N' & KENNEDY	-	1
PB2	NE QUAD. C.T.H. 'N' & KENNEDY	-	1
PB3	KENNEDY AVE., WB MEDIAN	-	1
PB4	SE QUAD C.T.H. 'N' & KENNEDY	-	1
PB5	SE QUAD C.T.H. 'N' & KENNEDY	-	1
PB6	C.T.H. 'N', NB	1	-
PB7	C.T.H. 'N', NB MEDIAN	-	1
PB8	SW QUAD C.T.H. 'N' & KENNEDY AVE.	-	1
PB9	SW QUAD C.T.H. 'N' & KENNEDY AVE.	-	1
PB10	KENNEDY AVE., EB MEDIAN	-	1
PB11	NW QUAD C.T.H. 'N' & KENNEDY AVE.	-	1
PB12	NW QUAD C.T.H. 'N' & KENNEDY AVE.	-	1
PB13	C.T.H. 'N' SB	1	-
PB14	C.T.H. 'N SB MEDIAN	-	1
		<u>2</u>	<u>12</u>

ROUTING	SIGNAL HEAD No.	9-C, NO. 14 (I.F.)	12-C, NO. 14 (I.F.)
1-PB2-SB1	4	-	55
1-PB1-SB2	13	29	-
1-PB3-SB3	F-11 14	-	86
3-PB4-SB4	F-12	F	-
4-PB5-SB5	1	208	-
5-PB7-SB6	2 7	-	256
7-PB8-SB7	8	-	317
8-PB9-SB8	F-9	F	-
1-PB10-SB9	F-10 15	-	250
1-PB11-SB10	16	-	226
1-PB12-SB11	5	160	-
1-PB14-SB12	3 6	-	105
		397	1295

F= FUTURE

LOCATION	• SIGNAL HEAD No.	5-C, NO. 14 (L.F.)
SB1	4	50
SB2	13	15
SB3	F-11 14	15 + F
SB4	F-12	F
SB5	1	15
SB6	2 7	30 (15+15)
SB7	8	50
SB8	F-9	F
SB9	F-10 15	15 + F
SB10	16	50
SB11	5	15
SB12	3 6	30 (15+15)
		285

F=FUTURE

FROM	TO	NONMETALLIC CONDUIT 1-INCH (L.F.)	NONMETALLIC CONDUIT 2-INCH (L.F.)	NONMETALLIC CONDUIT 3-INCH (L.F.)
CB1	PB1	-	-	24 (2x12)
PB1	PB2	-	-	26
PB1	PB3	-	-	56
PB3	PB4	-	-	35
PB4	PB5	-	-	55
PB5	PB6	175	-	-
PB5	PB7	-	-	47
PB7	PB8	-	-	40
PB8	PB9	-	-	66
PB9	PB10	-	-	37
PB10	PB11	-	-	32
PB11	PB12	-	-	58
PB12	PB13	177	-	-
PB12	PB14	-	-	47
PB14	PB2	-	-	35
PB2	PB1	-	-	27
PB1	SB2	-	11	-
PB2	SB1	-	5	-
PB3	SB3	-	6	-
PB4	SB4	-	6	-
PB5	SB5	-	20	-
PB7	SB6	-	16	-
PB8	SB7	-	31	-
PB9	SB8	-	3	-
PB10	SB9	-	3	-
PB11	SB10	-	11	-
PB12	SB11	-	16	-
PB14	SB12	-	13	-
		352	141	585

LOCATION	ELECTRIC SERVICE METER BREAKER PEDESTAL (LUMP SUM)
NE CORNER OF C.T.H. 'N' & KENNEDY AVE.	1

No.	LOCATION	LOOP DETECTOR WIRE (L.F.)	LOOP DETECTOR LEAD-IN CABLE (L.F.)	SIZE	TURNS	LOOP DETECTOR CONDUIT (L.F.)
021	NB C.T.H. 'N', THRU LANES	172	334	6' x 20'	3	68
022	EB AMERICAN DRIVE, LEFT TURN LANE	190	212	6' x 20'	3	86
041	EB KENNEDY AVE., RIGHT/THRU LANE	F	F	F	F	F
042	EB KENNEDY AVE., LEFT TURN LANE	F	F	F	F	F
043	EB KENNEDY AVE., LEFT TURN LANE	148	208	6' x 10'	4	52
044	EB KENNEDY AVE., RIGHT/THRU LANE	138	208	6' x 10'	3	74
061	SB C.T.H. 'N', THRU LANES	172	300	6' x 20'	3	68
062	SB C.T.H. 'N', LEFT TURN LANE	196	74	6' x 20'	3	92
061	WB KENNEDY AVE., LEFT TURN LANE	144	68	6' x 10'	4	48
082	WB KENNEDY AVE., LEFT TURN/THRU LANE (F)	134	68	6' x 10'	3	68
083	WB KENNEDY AVE., RIGHT TURN LANE	137	12	6' x 10'	3	74
084	WB KENNEDY AVE., LEFT TURN LANE	140	68	6' x 10'	4	44
085	WB KENNEDY AVE., LEFT TURN/THRU LANE (F)	132	68	6' x 10'	3	68
086	WB KENNEDY AVE., RIGHT TURN LANE	132	12	6' x 10'	3	66
		1835	1632			808

C.T.H. 'N' / KENNEDY AVE. INTERSECTION
OUTAGAMIE COUNTY
TRAFFIC SIGNAL QUANTITIES

SCALE NONE	SHEET NO. 4	FILE NO. CAD
DATE MARCH., 2000		PROJECT NO. 0006-99663,08

[illegible][illegible]

ELECTRICAL WIRE, TRAFFIC SIGNALS

FROM	TO	ELECTRICAL WIRE, TRAFFIC SIGNALS, NO. 10, GROUNDED CONDUCTOR (L.F.)	ELECTRICAL WIRE, TRAFFIC SIGNALS, NO. 10, EQUIPMENT GROUNDING CONDUCTOR (L.F.)	* ELECTRICAL WIRE TRAFFIC SIGNALS, NO. 14 (L.F.)
CB1	PB1	12	12	-
PB1	SB2	20 (10x2)	20 (10x2)	-
PB1	PB3	56	56	-
PB3	SB3	12 (6x2)	12 (6x2)	-
PB3	PB4	36	36	-
PB4	SB4	14 (7x2)	14 (7x2)	-
PB4	PB5	58	58	-
PB5	SB5	42 (21x2)	42 (21x2)	-
PB5	PB7	47	47	-
PB7	SB6	32 (16x2)	32 (16x2)	-
PB7	PB8	40	40	-
PB8	SB7	62 (31x2)	62 (31x2)	-
PB8	PB9	68	68	-
PB9	SB8	8 (4x2)	8 (4x2)	-
PB9	PB10	37	37	-
PB10	SB9	8 (4x2)	8 (4x2)	-
PB10	PB11	32	32	-
PB11	SB10	22 (11x2)	22 (11x2)	-
PB11	PB12	60	60	-
PB12	SB11	34 (17x2)	34 (17x2)	-
PB12	PB14	47	47	-
PB14	SB12	26 (13x2)	26 (13x2)	-
PB14	PB2	35	35	-
PB2	SB1	10 (5x2)	10 (5x2)	-
PB2	PB1	27	27	-
PB1	CB1	12	12	-
SB1	4	-	-	50
SB2	13	-	-	15
SB3	11 14	-	-	15 + F
SB4	12	-	-	F
SB5	1	-	-	15
SB6	2 7	-	-	30 (15+15)
SB7	8	-	-	50
SB8	9	-	-	F
SB9	10 15	-	-	15 + F
SB10	16	-	-	50
SB11	5	-	-	15
SB12	3 6	-	-	30 (15+15)
TOTALS		857	857	285

F= FUTURE

* NOTE: NO. 14 WIRE EXTENDS FROM TERMINAL STRIP IN SIGNAL HEAD TO MOUNTING BASE

ELECTRICAL WIRE, LIGHTING

FROM	TO	ELECTRICAL WIRE, LIGHTING NO. 12, (L.F.)	TYPE WF CABLE 2 CONDUCTOR NO. 12 GROUNDED (L.F.)
CB1	SB1	-	55
CB1	SB10	-	226
CB1	SB4	-	128
CB1	SB7	-	317
SB1	LUMINAIRE	126 (42 X 3)	-
SB10	LUMINAIRE	126 (42 X 3)	-
SB4	LUMINAIRE	126 (42 X 3)	-
SB7	LUMINAIRE	126 (42 X 3)	-
		504	726

STANDARDS, POLES, MAST ARMS, BASES, SIGNAL FACES, CONTROLLER

LOCATION	LUMINAIRE ARMS, TRUSS TYPE, 41/2-INCH CLAMP, 12-FOOT LONG (EACH)	**LUMINAIRES, UTILITY, 250 WATTS (EACH)	PEDESTAL BASES EACH	TRANSFORMER BASES, 11 1/2-INCH BOLT CIRCLE EACH	TRAFFIC SIGNAL STD., ALUMINUM, 15' EACH	POLES, SPECIAL EACH	*TRAFFIC SIGNAL FACES, 3-12 VERT. EACH	*TRAFFIC SIGNAL FACES, 4-12 VERT. EACH	*TRAFFIC SIGNAL FACES, 3-12 HORIZ. EACH	*TRAFFIC SIGNAL FACES, 4-12 HORIZ. EACH	CONC. BASE, TYPE 1 EACH	CONC. BASE, TYPE 2 EACH	CONTROLLER CABINET BASE TYPE 9 EACH	TRAFFIC SIGNAL CONTROLLER, FULLY ACTUATED, 8 PHASE LUMP SUM	TROMBONE ARMS 20-FOOT LONG EACH	BACKPLATES, 4-SECTION 12-INCH SIGNAL FACES EACH	BACKPLATES, 3-SECTION 12-INCH SIGNAL FACES EACH
CB 1	-	-	-	-	-	-	-	-	1 4	-	-	1	1	-	-	-	1
SB 1	1	1	-	1	-	1	13 1	F-11 4	-	-	1	-	-	-	-	-	1
SB 2	-	-	1	-	1	-	-	-	-	-	1	-	-	-	-	-	-
SB 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB 4	1	1	-	1	-	1	1 1	-	-	-	1	-	-	-	-	-	1
SB 5	-	-	1	-	1	-	2 7 2	-	-	-	1	-	-	-	-	-	2
SB 6	-	-	-	-	-	-	-	-	1 8	-	-	1	-	-	-	-	1
SB 7	1	1	-	1	-	1	-	-	-	-	1	-	-	-	-	-	F
SB 8	-	-	-	-	F	-	F-9 F	F-10 15	-	-	1	-	-	-	-	1	-
SB 9	-	-	1	-	1	1	-	-	1 16	-	-	1	-	-	1	-	1
SB 10	1	1	-	1	-	-	5 1	-	-	-	1	-	-	-	-	-	2
SB 11	-	-	-	-	1	-	3 6 2	-	-	-	1	-	-	-	-	-	-
SB 12	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
TOTALS	4	4	7	4	7	4	7	2	2	1	8	4	1	1	14	3	9

- 13 - DESIGNATES SIGNAL HEAD NUMBER
 ** - A PHOTOCELL SHALL BE PROVIDED ON EACH LUMINAIRE
 F - FUTURE

C.T.H. N / FUTURE KENNEDY AVE.
 VILLAGE OF KIMBERLY
 TRAFFIC SIGNAL QUANTITIES

SCALE: NONE
 DATE: FEB., 2000
 PROJECT NO.:
 SHEET NO.: 5
 FILE NO.: CAD

INFORMATION
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DESIGNED: MRS.
 DRAWN: MJA
 CHECKED: MRS.