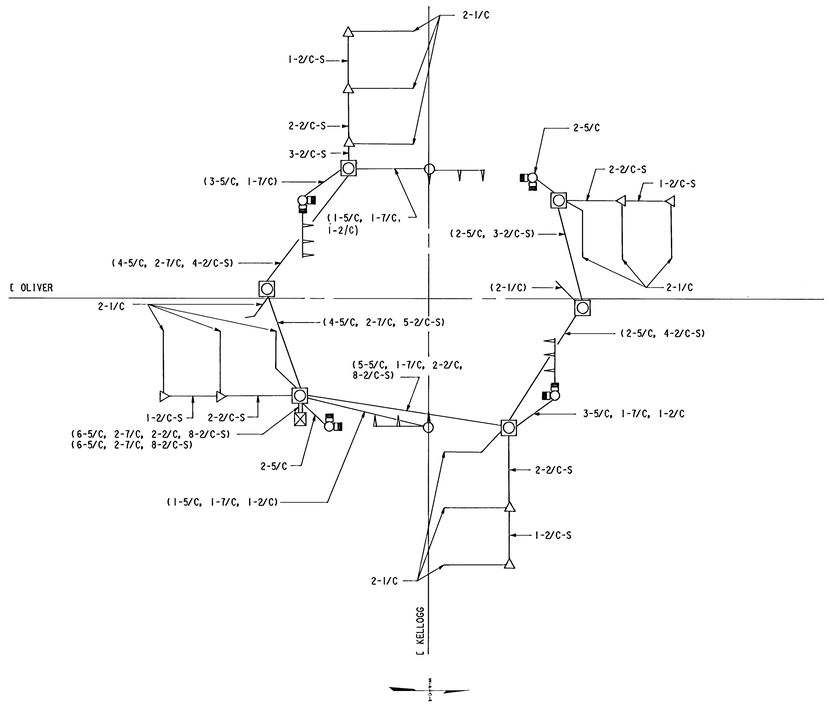

CONTROL CABLE LAYOUT

TRAFFIC SIGNAL HEAD SUMMARY				
NUMBER	TYPE	SIZE	MOUNTING BRACKET TYPE	QUANTITY
1	1	3'-8", 2-12"	A	1
2	A	12"	A	1
3	A	12"	A	1
4	K	9"	B	2
5 ≠	1	3'-8", 2-12"	A	1
6 ≠	A	12"	A	1
7 ≠	A	12"	A	1
8	K	9"	D	2
9	1	3'-8", 2-12"	A	1
10	A	12"	A	1
11	A	12"	A	1
12	K	9"	B	2
13 ≠	1	12"	A	1
14 ≠	A	12"	A	1
15 ≠	A	12"	A	1
16	K	9"	D	2

BRACKET TYPES
A ASTRO BRAC
B SIDE OF POLE (TWO WAY)
C NOT USED
D POST TOP (TWO WAY)

≠ UTILIZE EXISTING SIGNAL HEADS

SERVICE AND JUNCTION BOX SUMMARY				
STATION	SIDE		JUNCTION BOX	SERVICE BOX
6+90	38'	RT	1	
8+10	38'	RT	1	
9+36.5	5.5'	LT		1
9+42	36'	LT		1
9+45	36'	RT		1
9+65	29.5'	LT	1	
9+65	16.5'	LT	1	
9+65	65'	LT	1	
10+34	17.5'	RT	1	
10+34	30.0'	RT	1	
10+36.5	52.5'	RT		1
10+54.5	39'	LT		1
10+61.5	5.5'	RT		1
11+75	38'	LT	1	
13+10	38'	LT	1	
TOTALS			9	6

BILL OF MATERIALS		
ITEM	UNIT	QUANTITY
TRAFFIC SIGNAL CONTROLLER W/CABINET AS PER SPEX	EA.	1
CONCRETE BASE FOR TRAFFIC SIGNAL CONTROLLER (SEE DTL)	EA.	1
TRAFFIC SIGNAL POLE W/MAST ARM (STEEL) AS PER SPEX	EA.	2
TRAFFIC SIGNAL POLE (ALUMINUM) AS PER SPEX	EA.	2
CONCRETE BASE FOR TRAFFIC SIGNAL POLE (SEE DTL)	EA.	4
5-SECTION TRAFFIC SIGNAL HEAD (308", 2012") AS PER SPEX	EA.	2
3-SECTION TRAFFIC SIGNAL HEAD (12") AS PER SPEX	EA.	4
2-SECTION TRAFFIC SIGNAL HEAD (9" PEDESTRIAN) AS PER SPEX	EA.	8
TRAFFIC SIGNAL HEAD MOUNTING BRACKET FOR MAST ARM MOUNT (ASTRO-BRAC)	EA.	6
TRAFFIC SIGNAL HEAD MOUNTING BRACKET FOR POST TOP MOUNTING (FR2C POLE BRACKETS)	EA.	2
TRAFFIC SIGNAL HEAD MOUNTING BRACKET FOR SIDE OF POLE MOUNT (FR2J MOUNTING BRACKET)	EA.	2
TRAFFIC SIGNAL LAMP	EA.	38
PEDESTRIAN PUSHBUTTON (VEPED #O-PD-1 OR APPROVED EQUAL)	EA.	8
LOOP DETETECTOR AMPLIFIER AS PER SPEX	EA.	16
GROUND ROD AND CLAMP	EA.	5
MULTI-CONDUCTOR CABLE 2/C #14 AWG	L.F.	250
MULTI-CONDUCTOR CABLE 3/C #14 AWG	L.F.	150
MULTI-CONDUCTOR CABLE 5/C #14 AWG	L.F.	1900
MULTI-CONDUCTOR CABLE 7/C #14 AWG	L.F.	800
POWER SUPPLY WIRE (TYPE U.S.E.) #10 AWG	L.F.	200
LOOP DETECTOR WIRE (TYPE THHN) #14 AWG	L.F.	3800
SHIELDED LOOP DETECTOR LEAD-IN CABLE (BELDEN TYPE 8720) #14 AWG	L.F.	3500
SERVICE BOX (SEE DETAIL AND SUMMARY)	EA.	6
JUNCTION BOX (SEE DETAIL AND SUMMARY)	EA.	9
MOUNTING HARDWARE FOR PUSHBUTTON WAIT FOR WALK SIGNAL SIGN	EA.	8
MOUNTING HARDWARE FOR PROTECTED TURN ON ARROW ONLY SIGN	EA.	2
INTERNALLY ILLUMINATED STREET NAME SIGN AS PER SPEX	EA.	1 ≠≠
3" RIGID CONDUIT	L.F.	350
2" RIGID CONDUIT	L.F.	300
1 1/4" RIGID CONDUIT	L.F.	1000
3/4" RIGID CONDUIT	L.F.	250

NOTE: ≠≠ INSTALL ONLY.

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO FURNISH AND INSTALL ALL MATERIALS AS MAY BE REQUIRED TO EFFECT SATISFACTORY INSTALLATION OF THE SIGNAL SYSTEM WHETHER OR NOT THESE ITEMS ARE REFLECTED IN THE BILL OF MATERIALS

SIGNAL POLE SUMMARY											
POLE NO.	STATION	SIDE		TYPE	NO. OF ARMS	LENGTH	NO. SIGNALS ON ARM	X_1	X_2	OTHER EQUIPMENT	SIGNALS ON POLE NO.	SIGNALS ON POLE TYPE
1	9+45	40'	LT	A	1	36'	3	10'-3"	11'-3"	D	2	K
2	10+04	58'	LT	EXIST	1	-	3	-	-	D, EXIST	-	-
3	10+45	53'	LT	B	-	-	-	-	-	-	2	K
4	10+55	40'	RT	A	1	36'	3	10'-3"	11'-3"	D.E.	2	K
5	9+95	59'	RT	EXIST	1	-	3	-	-	D,E EXIST	-	-
6	9+55	53'	RT	B	-	-	-	-	-	-	2	K

A STEEL POLE W/MAST ARM
B ALUMINUM POLE (10')
C PEDESTRIAN SIGNAL W/PUSHBUTTON
D PROTECTED TURN SIGN
E STREET NAME SIGN
F LUMINAIRE BRACKET FITTING

INTERNALLY ILLUMINATED STREET NAME SIGNS	
LEGEND	QUANTITY
OLIVER	1 ≠
KELLOGG	1 ≠
TOTAL	0 NEW

≠ UTILIZE EXISTING STREET NAME SIGN

WIRING NOTES:

7/C, 5/C, 2/C INDICATES TRAFFIC SIGNAL CABLE
2/C-S INDICATES SHIELDED LOOP DETECTOR LEAD-IN CABLE
1/C INDICATES THHN LOOP DETECTOR WIRE

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL LOOP WIRE, SHIELDED LOOP LEAD-IN WIRE, POWER SUPPLY CABLE AND TRAFFIC SIGNAL CABLE FOR THE COMPLETE OPERATION OF THE TRAFFIC SIGNALS.

ONE 5-CONDUCTOR CABLE SHALL BE RUN FROM THE CONTROLLER TO EACH SIGNAL POLE FOR EACH PEDESTRIAN MOVEMENT. THE FOLLOWING COLOR CODE SHALL BE USED.

BLACK	PUSHBUTTON
WHITE	COMMON (SIGNAL)
RED	DON'T WALK
GREEN	WALK
ORANGE	COMMON (PUSHBUTTON)

ONE 5-CONDUCTOR CABLE SHALL BE RUN FROM THE CONTROLLER TO EACH SIGNAL POLE FOR THE THROUGH MOVEMENT INDICATIONS. THE FOLLOWING COLOR CODE SHALL BE USED.

BLACK	NOT USED
WHITE	COMMON
RED	RED BALL
GREEN	GREEN BALL
ORANGE	YELLOW BALL

ONE 7-CONDUCTOR CABLE SHALL BE RUN FROM THE CONTROLLER TO EACH SIGNAL POLE SUPPORTING A LEFT TURN SIGNAL. THE FOLLOWING COLOR CODE SHALL BE USED:

BLACK	YELLOW ARROW
WHITE	COMMON
RED	RED BALL
GREEN	GREEN BALL
ORANGE	YELLOW BALL
BLUE	GREEN ARROW
WHITE WITH BLACK TRACER	STREET SIGN (IF APPLICABLE)

EACH SIGNAL HEAD MOUNTED ON A SIGNAL POLE OR MAST SHALL HAVE ONE CONTINUOUS MULTI-CONDUCTOR CABLE RUN FROM THE POLE BASE TO THE SIGNAL HEAD. A FIVE SECTION SIGNAL HEAD (LEFT TURN SIGNAL) SHALL HAVE A 7-CONDUCTOR CABLE. EACH THREE SECTION SIGNAL HEAD (THROUGH MOVEMENT) SHALL HAVE A 5-CONDUCTOR CABLE. EACH PEDESTRIAN SIGNAL HEAD SHALL HAVE A THREE CONDUCTOR CABLE AND EACH PUSHBUTTON OR STREET NAME SIGN SHALL HAVE A TWO CONDUCTOR CABLE.

NOTE:

12" TRAFFIC SIGNALS SHALL BE ILLUMINATED WITH 150W, 130V TRAFFIC SIGNAL LAMPS. 8" TRAFFIC SIGNAL HEADS AND 9" PEDESTRIAN SIGNAL HEADS SHALL BE ILLUMINATED WITH 67W, 130V TRAFFIC SIGNAL LAMPS.

CITY OF WICHITA PROJECT NO. 472-76-245-81101-000-000-001

REVISION	DATE	BY

WICHITA, KANSAS
OLIVER AT KELLOGG INTERSECTION IMPROVEMENTS
TRAFFIC SIGNALIZATION PLAN

DESIGN	DRAWN
RAS	DLJ

WILSON & COMPANY
ENGINEERS & ARCHITECTS
WICHITA — KANSAS

DATE: JAN. 1982
FILE NO. 81-323B
SHEET NO. 14A OF 22

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