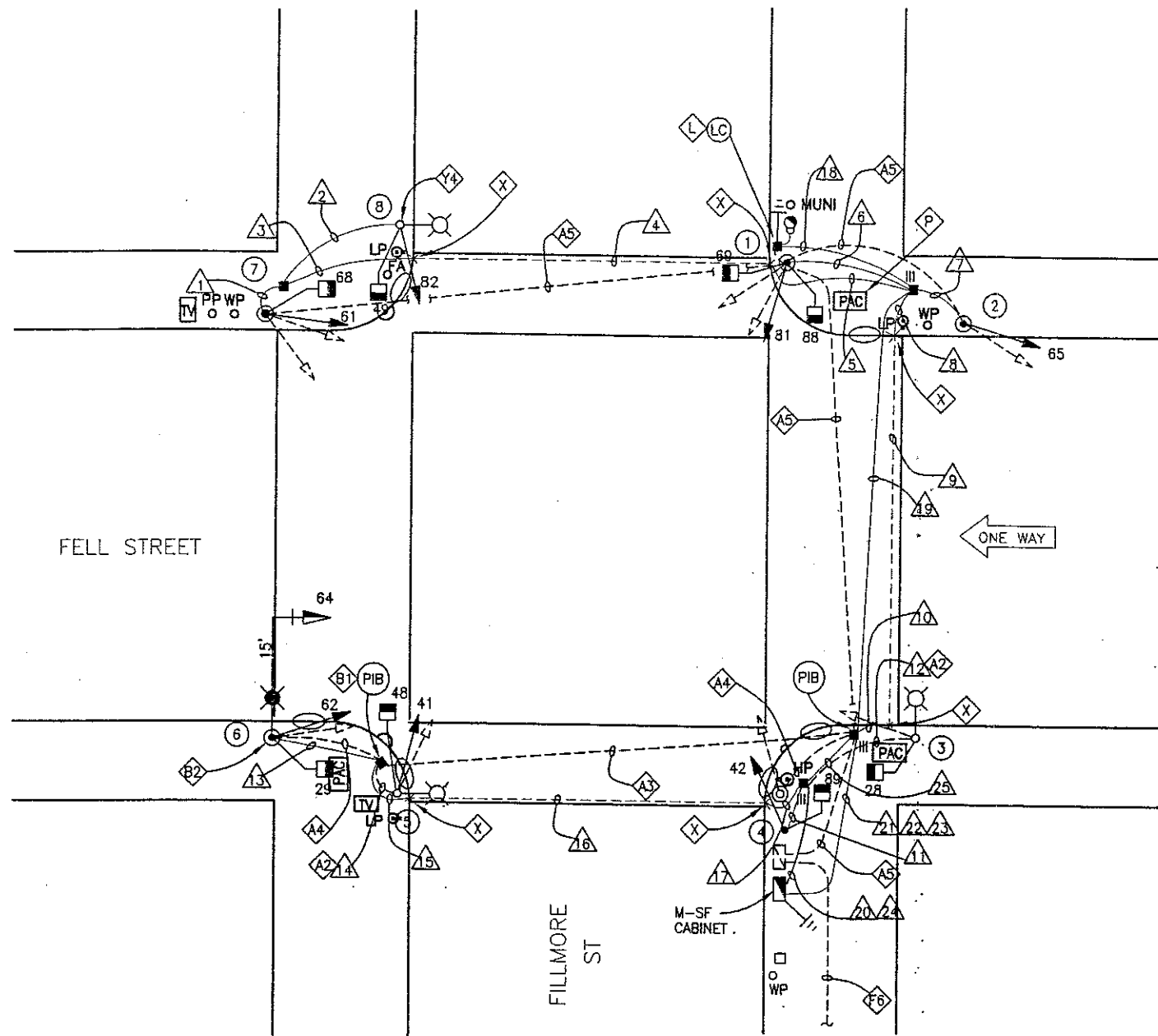
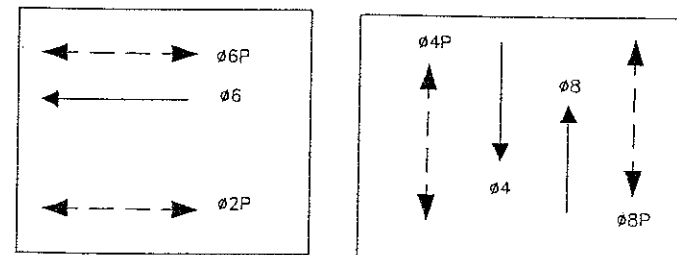




PHASE DIAGRAM



PHASES 2 & 6

PHASES 4 & 8

PHASE SEQUENCE

G	Y	R	FELL STREET
R	G	Y	FILLMORE STREET
WM	FRH	RH	PED XING FILLMORE STREET
RH	WM	FRH	PED XING FELL STREET

DETAIL NOTES

- A2 EX CONDUIT AND WIRING. R/C EX TS WIRING. SL AND OTHER WIRING TO REMAIN. F/I NEW WIRING AS NOTED.
- A3 EX CONDUIT AND WIRING. R/C EX TS WIRING. SL AND OTHER WIRING TO REMAIN.
- A4 EX CONDUIT AND WIRING. R/C EX WIRING AND CONDUIT. REPAIR SIDEWALK TO MATCH EX.
- A5 EX CONDUIT AND WIRING. R/C EX WIRING. CUT CONDUIT FLUSH TO PULL BOX WALL OR 12" DEPTH, CAP OR DUCT SEAL END(S).
- B1 SPLICE NEW WIRING TO EX SL WIRING TO ACTIVATE NEW SL CIRCUIT.
- B2 F/I WITH INTEGRAL BALLAST AND PHOTOELECTRIC CONTROL. F/I FUSE AND FUSE HOLDER PER SFDPWSP #49,092.
- F6 EX CONDUIT AND 12/C. R/C EX 12/C. CUT CONDUIT FLUSH TO PULL BOX WALL OR 12" DEPTH, CAP OR DUCT SEAL END(S). FOR CONTINUOUS DISTANCE BETWEEN THE CONTROLLERS FROM OAK STREET TO FELL STREET, SEE DWG. E-43.1.
- L F/I IN-LINE FUSE HOLDER WITH 40A FUSE FOR IC SERVICE. SPLICE NEW WIRES TO THE EX CITY SERVICE TO SUPPORT NEW IC. F/I GROUND ROD.
- P PAC BELL TO RELOCATE THE PULL BOX. CONTRACTOR SHALL COORDINATE WITH PAC BELL AND CONTACT BOB PICKARD AT 330-1771.
- X EX 2 1/2" GRSC TERMINATED AND CAPPED 1 FT INSIDE EACH CURB. THE LOCATION OF THE EX CONDUIT IS MARKED WITH A "T" AT THE CURB. F/I 2 1/2" GRSC TO EXTEND THE EX CONDUIT TO THE NEW PULL BOX LOCATIONS AS SHOWN ON THIS DRAWING.
- Y4 F/I EXTERNAL GRSC.

AS BUILT DRAWING
APPROVAL SIGNATURES ON ORIGINAL CONTRACT DRAWINGS.

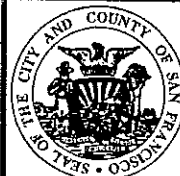
SHEET NOTES

- ADDITIONAL PULL BOXES, CONDUIT AND 12/C TO BE FURNISHED AND INSTALLED AT THIS INTERSECTION ARE SHOWN ON DWG E-43.1.
- CONTRACTOR SHALL VERIFY THE VOLTAGE OF EACH EXISTING STREET LIGHT LUMINAIRE SO THE NEW STREET LIGHT LUMINAIRE REPLACING THE OLD LUMINAIRE SHALL HAVE THE SAME VOLTAGE.

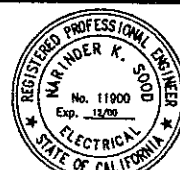
6/03	AS-BUILT	DW	SL
5/01	CHANGE ORDER #3 MSF- HOMERUN	JP	SL
2/00	ISSUED FOR BID	JM	NKS
NO.	DATE	DESCRIPTION	BY APP.

TABLE OF REVISIONS
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION

REFERENCE INFORMATION
& FILE NO. OF SURVEYS



BUREAU OF ENGINEERING
DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF SAN FRANCISCO



DESIGNED: DATE:
DVS/EF 02/00
DRAWN: DATE:
EF 02/00
CHECKED: DATE:
NKS 02/00

APPROVED
SECTION MANAGER DATE:
DIVISION MANAGER DATE:
CITY ENGINEER DATE:

SCALE:
1" = 10'-0"
SHEET OF SHEETS
56 OF 89

OAK AND FELL STREETS	SPECIFICATION NO. 1660N
TRAFFIC SIGNAL UPGRADE	DRAWING NO. E-28.0
FILLMORE AND FELL STREETS	FILE NO. 74197
	REV. NO. 1

EXTERNAL REFERENCES: B34422.dwg
FIRMS: TSPH, RUMANT, CH, RUMANT, CH, RUMANT, CH

SCALE FACTOR: 120
PLOT SCALE: 1"=1'

ORIGIN: ELECTRICAL

FILE NAME: E-28-0.dwg
DATE: Jul 10 1999 11:01

CONDUIT AND WIRING SCHEDULE

CONDUIT RUN NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CONDUIT SIZE IN INCHES (MM)	2 (53)	2 (53)	2 1/2 (64)	EX	2 1/2 (64)	2 (53)	2 (53)	2 1/2 (64)	EX	2 1/2 (64)	2 (53)	EX	2 (53)	EX	2 1/2 (64)	EX	2 1/2 (64)	1 1/2 (41.8)	1 1/2 (41.8)	2 (53)	2 (53)	1 1/2 (41.8)	2 (53)	2 (53)	2 (53)
NOTES																								C.O.	C.O.
#14 WRES																									
SIGNAL 61	3		3	3	3			3	3	3											3				
SIGNAL 68	2		2	2	2			2	2	2											2				
SIGNAL 82		3	3	3	3			3	3	3											3				
SIGNAL 49		2	2	2	2			2	2	2											2				
SIGNAL 81						3		3	3	3											3				
SIGNAL 88						2		2	2	2											2				
SIGNAL 69						2		2	2	2											2				
SIGNAL 65							3	3	3	3											3				
SIGNAL 42											3														
SIGNAL 89											2										2				
SIGNAL 28												2													
SIGNAL 64													3		3	3	3				3				
SIGNAL 62													3		3	3	3				3				
SIGNAL 29													2		2	2	2				2				
SIGNAL 41														3	3	3	3				3				
SIGNAL 48														2	2	2	2				2				
SPARE			3	3	3			3	3	3					3	3	3				3	3			
#14 WRES NEUTRAL	2	2				3	1				2	1	3	2											
TOTAL #14 WRES	7	7	13	13	13	10	4	23	23	23	7	3	11	7	16	16	16				23	23			
#10 WRES NEUTRAL			1	1	1			2	2	2						1	1	1			2	2			
#8 WRES (120V SERVICE)																		2	2				2		
#8 WRES (STREET LIGHT)													2												
#6 BSCW																									
1/4" NYLON PULL ROPE			1	1	1			1	1	1					1	1	1				1	1			

POLE AND EQUIPMENT SCHEDULE

POLE ID	POLES TYPE	LUMINAIRE (HPS) VOLTAGE/WATTS	VEHICULAR SIGNALS			PEDESTRIAN SIGNALS			REMARKS
			NO	TYPE	MOUNTING (F/I)	NO	TYPE	MOUNTING (F/I)	
1	1-A (10')		81	3S8"	TV-1	69	1S-IN	SP-1	
2	1-A (10')		65	3S8"	TV-1	88	1S-IN	SP-1	
3	EXIST. STREETLIGHT					28	1S-IN	SP-1	
4	1-A (10')		42	3S8"	TV-1	89	1S-IN	SP-1	
5	EXIST. STREETLIGHT		41	3S8"	TV-1	48	1S-IN	SP-1	
6	17-1-70 15' MASTARM	240V/200W	62	3S8"	SV-1-T MAS	29	1S-IN	SP-1	BACKPLATE
7	1-A (10')		61	3S8"	SV-1-T	68	1S-IN	SP-1	
8	EXISTING STANDARD		82	3S8"	SV-1-T	49	1S-IN	SP-1	

DETAIL NOTES

- A2 EX CONDUIT AND WIRING. R/C EX TS WIRING. SL AND OTHER WIRING TO REMAIN. F/I NEW WIRING AS NOTED.
 B2 F/I WITH INTEGRAL BALLAST AND PHOTOELECTRIC CONTROL. F/I FUSE AND FUSE HOLDER PER SFDPWSP #49,092.

AS BUILT DRAWING
APPROVAL SIGNATURES ON ORIGINAL CONTRACT DRAWINGS.

6/03	AS-BUILT	DW	SL	REFERENCE INFORMATION & FILE NO. OF SURVEYS	 BUREAU OF ENGINEERING DEPARTMENT OF PUBLIC WORKS CITY AND COUNTY OF SAN FRANCISCO		DESIGNED: DATE: 02/00	APPROVED	SCALE:	OAK AND FELL STREETS	SPECIFICATION NO. 1660N
5/01	CHANGE ORDER #3 NSF- HOMERUN	JP	SL	DRAWN: DATE: 02/00			SECTION MANAGER DATE:	NONE	TRAFFIC SIGNAL UPGRADE		DRAWING NO. E-28.1
2/00	ISSUED FOR BID	JM	NKS	CHECKED: DATE: 02/00	DIVISION MANAGER DATE:				FILE NO. 74198		
TABLE OF REVISIONS CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION										REV. NO. 0	

EXTERNAL REFERENCES: H:\31\22\409 ROMANS.dwg
 FONTS USED: dclh1b11d ROMANS.SHA ROMANS.dsh ROMANT SIMPLEX SANS11T.tst
 SCALE FACTOR: 1
 PLOT SCALE: NONE
 ORIGIN ELECTRICAL
 FILE NAME: E-28-1.dwg
 DATE: JUN 02 1999 13:50