

SIGNAL DIRECTION	SIGNAL HEAD	φ1 & φ5		φ1 & φ6		φ2 & φ5		φ2 & φ6		φ3 & φ7		φ3 & φ8		φ4 & φ7		φ4 & φ8		FLASH	DWELL
		R/W	CLEAR	R/W	CLEAR	R/W	CLEAR	R/W	CLEAR	R/W	CLEAR	R/W	CLEAR	R/W	CLEAR	R/W	CLEAR		
WESTBOUND S.R. 84	A	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
	B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
	K	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
	L	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
NORTHBOUND S.R. 306	C	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G
	D	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
EASTBOUND S.R. 84	E	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
	F	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
	J	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
SOUTHBOUND S.R. 306	G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G	R/G
	H	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
NORTH	X-X	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
EAST	Y-Y	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
WEST	Z-Z	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW

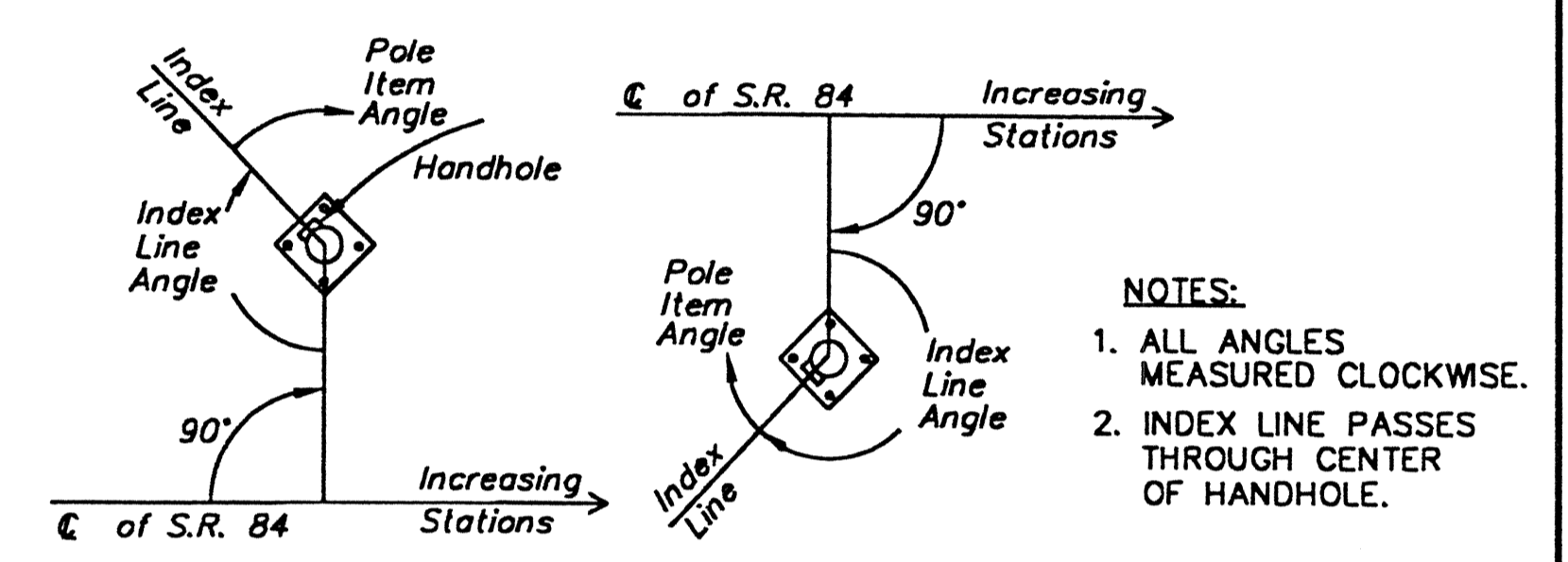
(a) R/φ IF φ2 & φ5 IS NEXT (d) G IF φ2 & φ6 IS NEXT (g) R/φ IF φ2 & φ5 IS NEXT (j) W IF φ4 & φ8 IS NEXT  
 (b) R/φ IF φ1 & φ6 IS NEXT (e) φ IF φ3 & φ8 IS NEXT (h) G IF φ4 & φ8 IS NEXT (k) R/φ IF φ3 & φ8 IS NEXT  
 (c) G/φ IF φ2 & φ6 IS NEXT (f) R/φ IF φ4 & φ7 IS NEXT (i) W IF φ2 & φ8 IS NEXT (l) G/φ IF φ4 & φ8 IS NEXT

**SIGNAL SEQUENCE CHART**

POLE NUMBER	STATION (S.R. 84)	OFFSET	COMBINATION	2" RISER (EACH)	SUPPORT TYPE & DESIGN NUMBER		POLE HEIGHT (ft)	ATTACHMENT HEIGHT (ft)	INDEX LINE ANGLE (deg)	ANGLES (deg) FROM INDEX LINE							
					8" PEDESTAL TRANSFORMER BASE	TC-81.10 STRAIN POLE				POWER SERVICE 1-1/2" BHC, 30" FROM BASE	PEDESTRIAN PUSH BUTTON	PEDESTRIAN SIGNAL HEAD	CONDUIT ELL SIZE & ANGLE	CABLE ENTRANCE, 2" BHC (2'-0" FROM TOP)	CABLE ENTRANCE, 3" BHC (3'-0" FROM TOP)	2" CAPPED CONDUIT, ELL (FUTURE USE)	10" LUMINAIRE BRACKET ARM
1	45+74.5	60.0' RT	YES	1	-	5	30'	25'	130°	90°	-	-	2-3" @ 272' 2-2" @ 300'	-	90°, 270°	120°	180°
2	46+48.5	48.0' LT	YES	-	-	6	30'	26'	250°	-	X = 106 Y = 239	X = 106 Y = 239	-	180°	-	256°	180°
3	44+84.0	40.5' LT	YES	-	-	5	30'	25'	117°	-	X = 242 Z = 187	X = 62' Z = 187	-	-	180°	318°	180°
4	44+12.0	63.0' RT	YES	-	-	6	30'	26'	244°	-	Z = 244'	Z = 244'	-	180°	-	69°	180°
5	45+80	36' RT	-	-	YES	-	8'	-	180°	-	Y = 225'	Y = 225'	0°	-	-	270°	-

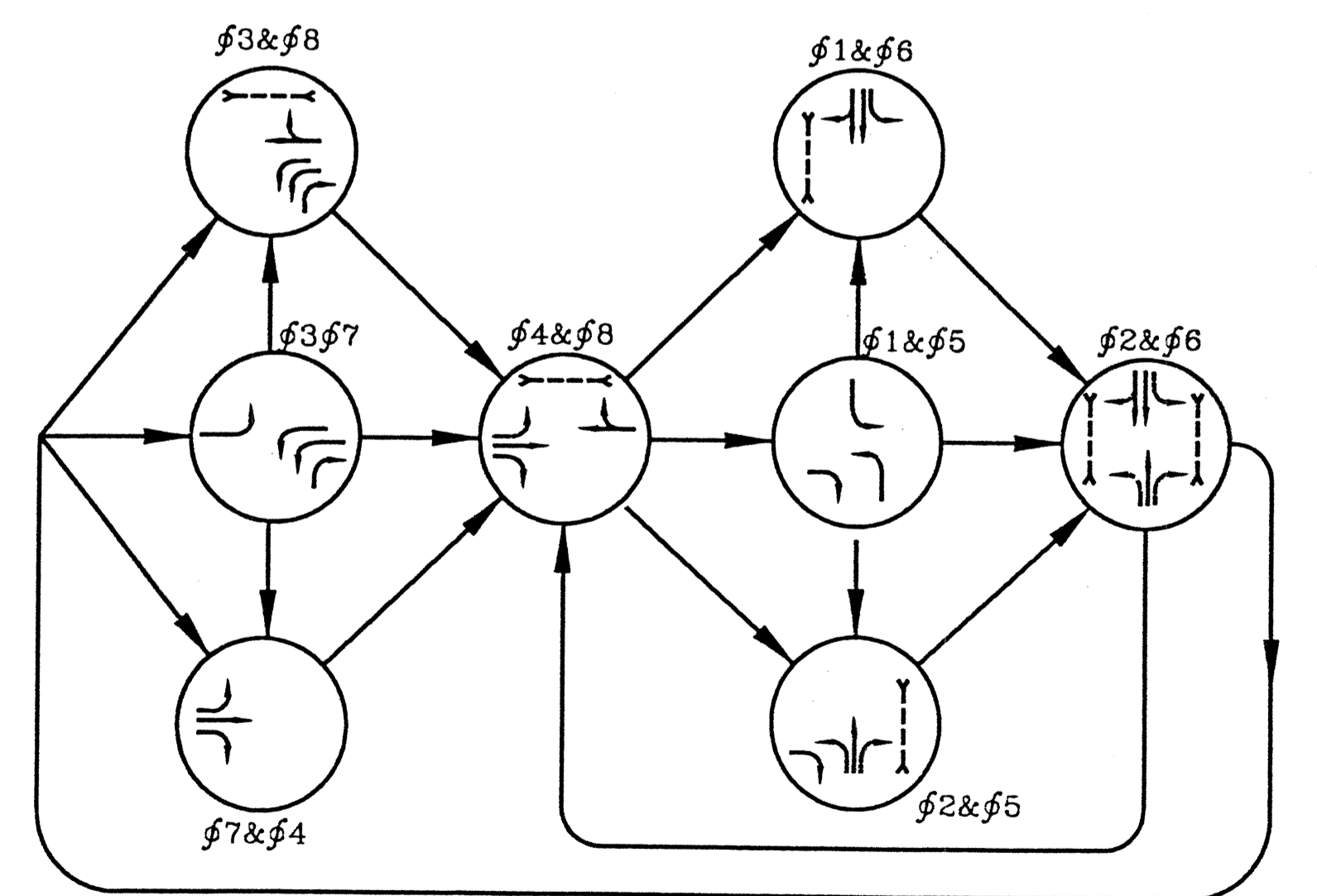
\* VIDEO DETECTION CAMERAS SHALL BE ATTACHED TO 10' LUMINAIRE BRACKET ARM. SEE VIDEO DETECTION CHART FOR APPROACH ALIGNMENT.

**STRAIN POLE & PEDESTAL SIGNAL SUPPORT CHART**



FUNCTION	φ1	φ2	φ3	φ4	φ5	φ6	φ7	φ8
INITIAL GREEN	10	20	10	20	10	20	10	20
MINIMUM GREEN	-	-	-	-	-	-	-	-
VEHICLE EXTENSION	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
MAXIMUM GREEN	20	40	30	40	20	40	20	40
PEDESTRIAN WALK	-	7.0	-	7.0	-	7.0	-	7.0
PEDESTRIAN CLEARANCE	-	25.0	-	29.0	-	25.0	-	29.0
VEHICLE YELLOW CLEARANCE	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
VEHICLE ALL RED CLEARANCE	3.0	3.0	4.0	4.0	3.0	3.0	4.0	4.0
RECALL	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
MEMORY	N.L.	N.L.	N.L.	N.L.	N.L.	N.L.	N.L.	N.L.

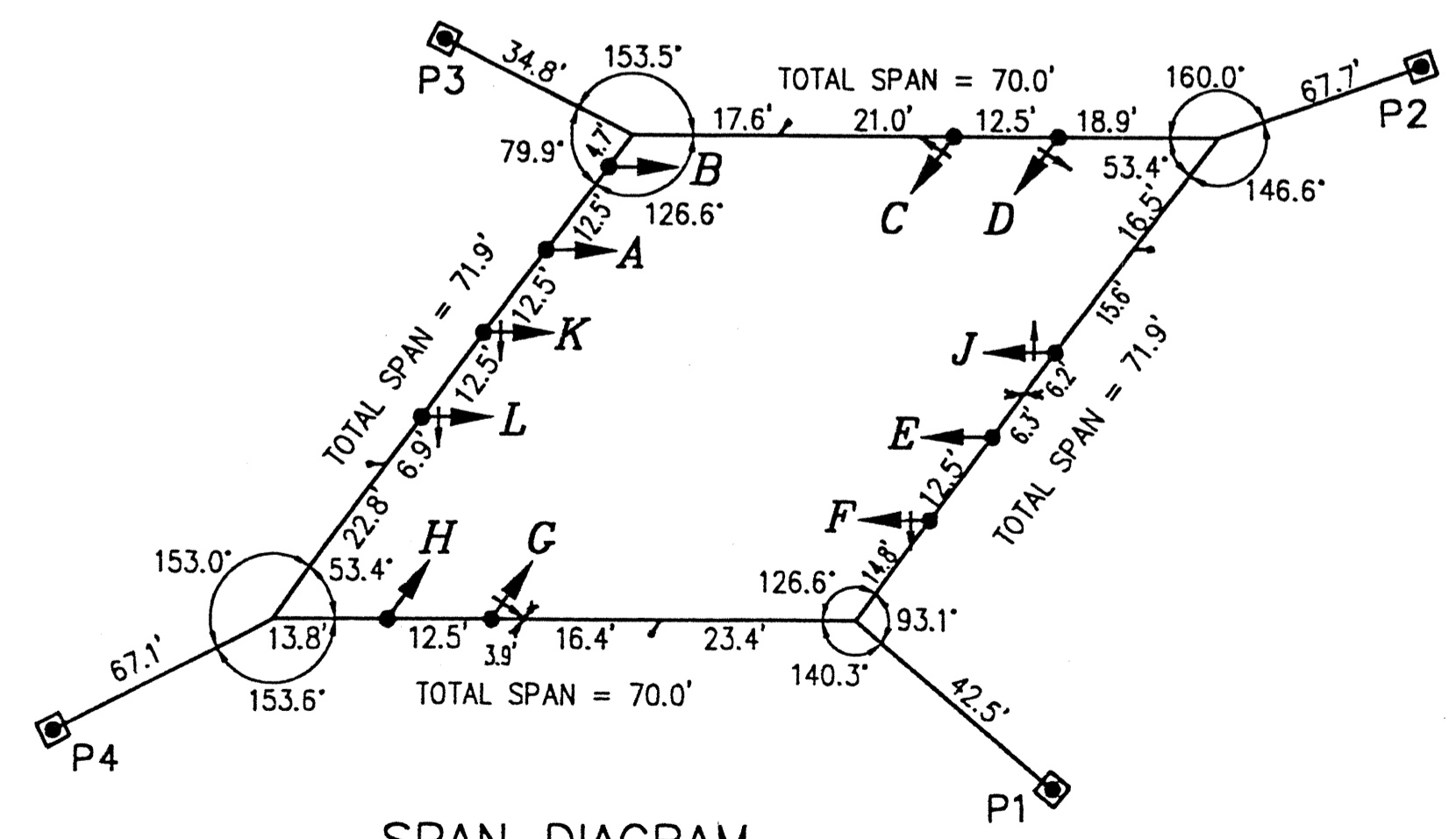
**SIGNAL TIMING CHART**



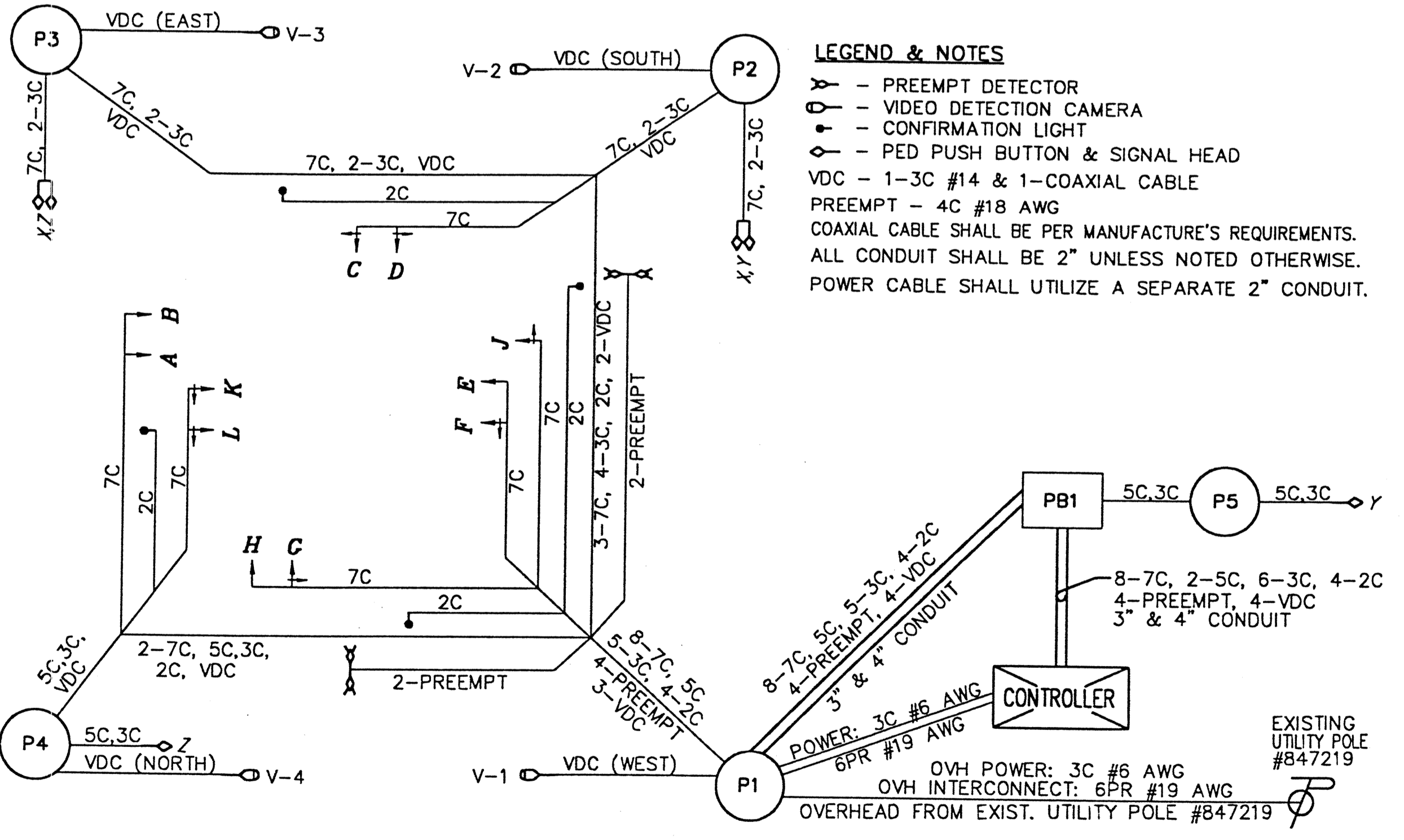
**PHASING DIAGRAM**

VIDEO	POLE #	APPROACH ALIGNMENT
V-1	1	S.R. 84 WEST APPROACH
V-2	2	S.R. 306 SOUTH APPROACH
V-3	3	S.R. 84 EAST APPROACH
V-4	4	S.R. 306 NORTH APPROACH

**VIDEO DETECTION CHART**



**SPAN DIAGRAM**



**WIRING DIAGRAM**

**LEGEND & NOTES**

Y - PREEMPT DETECTOR  
 ○ - VIDEO DETECTION CAMERA  
 - - CONFIRMATION LIGHT  
 ○ - PED PUSH BUTTON & SIGNAL HEAD  
 VDC - 1-3C #14 & 1-COAXIAL CABLE  
 PREEMPT - 4C #18 AWG  
 COAXIAL CABLE SHALL BE PER MANUFACTURE'S REQUIREMENTS.  
 ALL CONDUIT SHALL BE 2" UNLESS NOTED OTHERWISE.  
 POWER CABLE SHALL UTILIZE A SEPARATE 2" CONDUIT.

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REV. NO.	DESCRIPTION	DATE	BY	CHK'D.

**STATE ROUTE 84  
 INTERIM WIDENING & RESURFACING  
 IMPROVEMENTS**  
 CITY OF MENTOR, LAKE COUNTY, OHIO

DATE: AUGUST, 2000  
 DRAWN BY: T.E.B.  
 CHECKED BY: A.E.P.  
 APPROVED BY: C.C.H./M.H.  
 F.B. No. PG. --

**SIGNALIZATION PLAN  
 S.R. 84 / S.R. 306 INTERSECTION**

SCALE	
HOR.	1" = 20'
VERT.	--
CONTRACT No.	
00123	
SHEET No.	68
OF	74