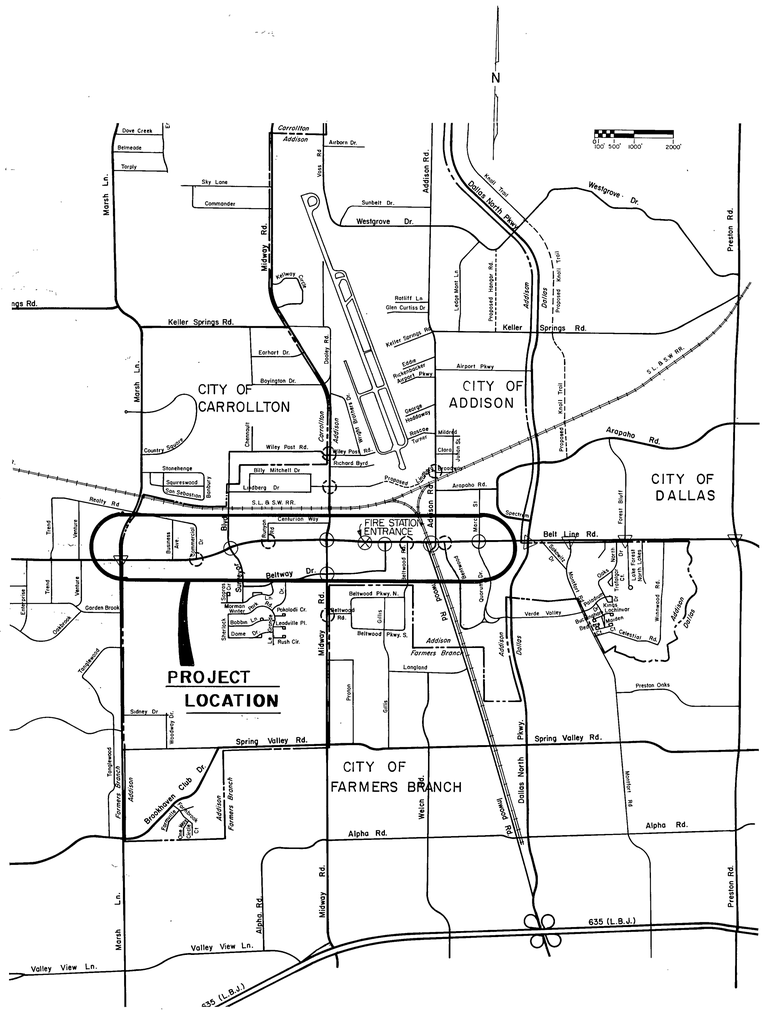
THE CITY OF ADDISON

CONSTRUCTION PLANS FOR :

TRAFFIC SIGNAL INSTALLATIONS

BELT LINE ROAD AND SURVEYOR ROAD
BELT LINE ROAD AND MIDWAY ROAD
BELT LINE ROAD AT FIRE HEADQUARTERS
BELT LINE ROAD AND BELTWAY DRIVE
BELT LINE ROAD AND INWOOD/ADDISON ROAD
BELT LINE ROAD AND QUORUM DRIVE/MARCY ROAD
MIDWAY ROAD AND BELTWAY DRIVE



LOCATION MAP
No Scale

▽ EXISTING SIGNAL
○ PROPOSED SIGNAL
◌ FUTURE SIGNAL

JERRY J. REDDING - MAYOR

COUNCILMEN :

JOHN B. ALLEN
RICHARD RODER
WILLIAM F. SELLMEYER
BARVO WALKER
TERRY ROBERTS

C.J. WEBSTER - CITY MANAGER

GEORGE DOWLING - Director Of Community Development

GINN, INC.
CONSULTING ENGINEERS
DALLAS, TEXAS
•1981•

CITY OF ADDISON
APPROVED BY: _____
DATE: 7-31-81

INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
1.	PHASING DIAGRAMS AND INTERVAL CHARTS
	INTERSECTION LAYOUTS:
2.	BELT LINE RD. & SURVEYOR BLVD.
3.	BELT LINE RD. & MIDWAY RD.
4.	BELT LINE RD. AT FIRE STATION
5.	BELT LINE RD. & BELTWAY RD.
6.	BELT LINE RD. & INWOOD/ADDISON
7.	BELT LINE RD. & QUORUM/MARCY
8.	MIDWAY RD. & BELTWAY RD.
9.	INTERCONNECT CABLE ROUTING & QUANTITIES MARSH LN. TO MIDWAY RD.
10.	INTERCONNECT CABLE ROUTING & QUANTITIES MIDWAY RD TO DALLAS NORTH PKWY & MIDWAY RD. FROM BELT LINE RD. TO BELTWAY RD.
11.	DETAILS - SIGNAL HEADS & PULL BOXES
12.	DETAILS - DETECTOR LOOPS, POLES AND CABINET FOUNDATIONS.
13.	DETAILS - PEDESTAL POLES, MAST ARMS , AND MAST ARM POLES
14.	BARRICADES, CONSTRUCTION SIGNING & CONSTRUCTION LAYOUTS

PROJECT QUANTITIES

ITEM INSTALLED		QUANTITIES AT: UNIT	SURVEYOR	MIDWAY	FIRE STATION	BELTWAY	INWOOD/ADDISON	QUORUM/MARCY	MIDWAY RD./BELTWAY	TOTALS
8 PHASE CONTROLLER, CABINET W/ 3M-OPTICOM SYSTEM	EA.		1			1			2	
5 PHASE CONTROLLER, CABINET W/ 3M-OPTICOM SYSTEM	EA.	1			1		1	1	4	
RELOCATE AND REWIRE EXISTING CONTROLLER	LS.			1					1	
MASTER CONTROL SYSTEM (Traffic Responsive)	L.S.								1	
SIGNAL PEDESTAL POLE	EA.	3	4		3		3	2	15	
MAST ARM POLE ASSY. W/15' ARM	EA.					2			2	
MAST ARM POLE ASSY. W/20' ARM	EA.				1			2	3	
MAST ARM POLE ASSY. W/25' ARM	EA.	1					2		3	
MAST ARM POLE ASSY. W/30' ARM	EA.	2	2		2		2	2	10	
MAST ARM POLE ASSY. W/35' ARM	EA.	1	2	1		4			8	
MAST ARM POLE ASSY. W/25' & 35' ARMS	EA.			1					1	
SIGNAL HEAD - 12", 3 SECTION	EA.	10	12	8	8	10	11	10	69	
SIGNAL HEAD - 12", 5 SECTION	EA.	2	4		2	6	2	2	18	
PEDESTRIAN SIGNAL HEAD W/12" LENS	EA	8	8		4	8	8	8	44	
COMMUNICATION CABLE (MASTER SYS.)	L.F.								13,487	
CABLE, #8 3C POWER	L.F.	65		40	75	50	55	50	335	
LOOP WIRE, #12 XHHW (IN PLACE)	L.F.	4360	6790		4250	5020	4640	4970	30,030	
CABLE, SHIELDED LOOP LEAD, 2C	L.F.		160		130	760	155		1,205	
CABLE, SHIELDED LOOP LEAD, 4C	L.F.	685	1110		560	1165	825	935	5,280	
CABLE, #12 5C	L.F.	1465	1710		720	1870	1725	1910	9,400	
CABLE, #12 7C	L.F.	320	745	760	480	1040	365	525	4,235	
CABLE #12 2C (PEDESTRIAN DETECTION)	L.F.	1220	1440		760	1620	1350	1620	8,010	
GROUND WIRE, #8 1C	L.F.	610	815	265	525	675	590	680	4,160	
CONDUIT, 1" PVC, IN TRENCH	L.F.	35		10	40	25	15	10	135	
CONDUIT, 3" PVC, IN TRENCH	L.F.		25	15				55	95	
CONDUIT, 1" P.V.C. - PUSHED	L.F.	60			105				165	
CONDUIT, 3" P.V.C. - PUSHED	L.F.							155	155	
CONDUIT, 2" P.V.C., IN TRENCH	L.F.							80	80	
LOOP DETECTOR AMPLIFIER (CHANNEL)	EA.	12	16		11	16	13	12	80	
PEDESTRIAN PUSH BUTTONS	PR.	4	4		2	4	4	4	22	
PULL BOX, IN PLACE	EA							4	4	
TYPE "C" FOUNDATION, IN PLACE	EA.	1			1			2	4	
TYPE "B" FOUNDATION, IN PLACE	EA.							2	2	
TYPE "A" FOUNDATION, IN PLACE	EA.							2	2	
CONTROLLER FOUNDATION, IN PLACE	EA.	1	1		1	1	1	1	6	
POWER SUPPLY ASSEMBLY	EA.	1			1		1	1	4	

ALTERNATE

MASTER CONTROL SYSTEM (TIME-BASED)	L.S.		1

CITY OF ADDISON

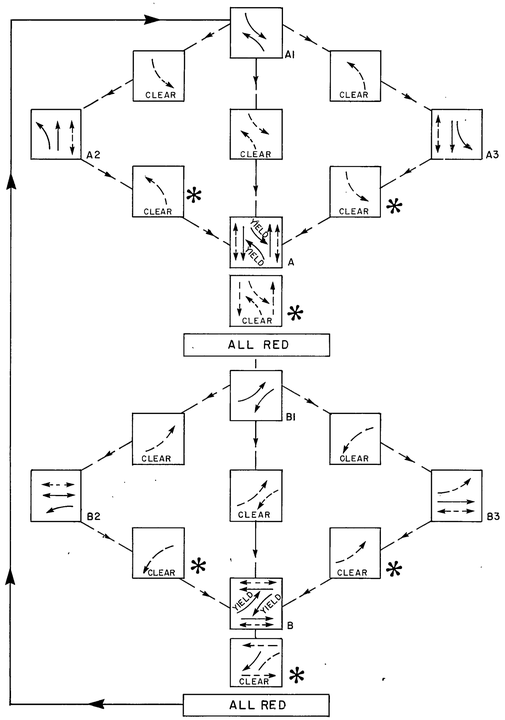
INDEX OF SHEETS AND PROJECT QUANTITIES

TRAFFIC SIGNAL INSTALLATION
BELT LINE ROAD

GINN, INC.

DESIGNED H.K.	DRAWN S.M.M.	DATE: JUNE, 1981	JOB No. J-188
APPROVED - H.B.J.	CHECKED - H.B.J.	SCALE = NONE	SHEET 0

PHASING DIAGRAM



* PEDESTRIAN CLEARANCE INTERVALS ASSOCIATED WITH STRAIGHT THROUGH MOVEMENTS NOT SHOWN (SEE INTERVAL CHART)

SIGNAL HEAD DISPLAYS / INTERVAL CHART

INTERVAL ↓	SIGNAL HEAD NO. ↓											
	1,2,3	4	9,10,11	12	5,6,7	8	13,14,15	16	19,20	23,24	17,18	21,22
A1	R	R/G	R	R/G	R	R	R	R	DW	DW	DW	DW
A1 CLEAR TO A2	R	R/G	R	R/Y	R	R	R	R	DW	DW	DW	DW
A1 CLEAR TO A3	R	R/Y	R	R/G	R	R	R	R	DW	DW	DW	DW
A1 CLEAR TO A	R	R/Y	R	R/Y	R	R	R	R	DW	DW	DW	DW
A2	G	G/G	R	R	R	R	R	R	DW	WK	DW	DW
A2 PED. CLEAR	G	G/G	R	R	R	R	R	R	DW	FL DW	DW	DW
A2 CLEAR TO A	G	G/Y	R	R	R	R	R	R	DW	WK	DW	DW
A3	R	R	G	G/G	R	R	R	R	WK	DW	DW	DW
A3 PED. CLEAR	R	R	G	G/G	R	R	R	R	FL DW	DW	DW	DW
A3 CLEAR TO A	R	R	G	G/Y	R	R	R	R	WK	DW	DW	DW
A	G	G	G	G	R	R	R	R	WK	WK	DW	DW
A PED. CLEAR	G	G	G	G	R	R	R	R	FL DW	FL DW	DW	DW
A CLEAR	Y	Y	Y	Y	R	R	R	R	DW	DW	DW	DW
ALL RED	R	R	R	R	R	R	R	R	DW	DW	DW	DW
B1	R	R	R	R	R	R/G	R	R/G	DW	DW	DW	DW
B1 CLEAR TO B2	R	R	R	R	R	R/G	R	R/Y	DW	DW	DW	DW
B1 CLEAR TO B3	R	R	R	R	R	R/Y	R	R/G	DW	DW	DW	DW
B1 CLEAR TO B	R	R	R	R	R	R/Y	R	R/Y	DW	DW	DW	DW
B2	R	R	R	R	G	G/G	R	R	DW	DW	WK	DW
B2 PED. CLEAR	R	R	R	R	G	G/G	R	R	DW	DW	FL DW	DW
B2 CLEAR TO B	R	R	R	R	G	G/Y	R	R	DW	DW	WK	DW
B3	R	R	R	R	R	R	G	G/G	DW	DW	DW	WK
B3 PED. CLEAR	R	R	R	R	R	R	G	G/G	DW	DW	DW	FL DW
B3 CLEAR TO B	R	R	R	R	R	R	G	G/Y	DW	DW	DW	WK
B	R	R	R	R	G	G	G	G	DW	DW	WK	WK
B PED. CLEAR	R	R	R	R	G	G	G	G	DW	DW	FL DW	FL DW
B CLEAR	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW
ALL RED	R	R	R	R	R	R	R	R	DW	DW	DW	DW

BELT LINE / MIDWAY (SHEET #3)

8 PHASE FULLY ACTUATED CONTROL
W/ 3M - OPTICOM SYSTEM - INTERVAL A & B

SIGNAL HEAD DISPLAYS / INTERVAL CHART

INTERVAL ↓	SIGNAL HEAD NO. ↓											
	9,10	11	1,2	3	12,13,14	15,16	4,5,6	7,8	23,24	19,20	21,22	17,18
A1	R	R/G	R	R/G	R	R	R	R	DW	DW	DW	DW
A1 CLEAR TO A2	R	R/G	R	R/Y	R	R	R	R	DW	DW	DW	DW
A1 CLEAR TO A3	R	R/Y	R	R/G	R	R	R	R	DW	DW	DW	DW
A1 CLEAR TO A	R	R/Y	R	R/Y	R	R	R	R	DW	DW	DW	DW
A2	G	G/G	R	R	R	R	R	R	DW	WK	DW	DW
A2 PED. CLEAR	G	G/G	R	R	R	R	R	R	DW	FL DW	DW	DW
A2 CLEAR TO A	G	G/Y	R	R	R	R	R	R	DW	WK	DW	DW
A3	R	R	G	G/G	R	R	R	R	WK	DW	DW	DW
A3 PED. CLEAR	R	R	G	G/G	R	R	R	R	FL DW	DW	DW	DW
A3 CLEAR TO A	R	R	G	G/Y	R	R	R	R	WK	DW	DW	DW
A	G	G	G	G	R	R	R	R	WK	WK	DW	DW
A PED. CLEAR	G	G	G	G	R	R	R	R	FL DW	FL DW	DW	DW
A CLEAR	Y	Y	Y	Y	R	R	R	R	DW	DW	DW	DW
ALL RED	R	R	R	R	R	R	R	R	DW	DW	DW	DW
B1	R	R	R	R	R	R/G	R	R/G	DW	DW	DW	DW
B1 CLEAR TO B2	R	R	R	R	R	R/G	R	R/Y	DW	DW	DW	DW
B1 CLEAR TO B3	R	R	R	R	R	R/Y	R	R/G	DW	DW	DW	DW
B1 CLEAR TO B	R	R	R	R	R	R/Y	R	R/Y	DW	DW	DW	DW
B2	R	R	R	R	G	G/G	R	R	DW	DW	WK	DW
B2 PED. CLEAR	R	R	R	R	G	G/G	R	R	DW	DW	FL DW	DW
B2 CLEAR TO B	R	R	R	R	G	G/Y	R	R	DW	DW	WK	DW
B3	R	R	R	R	R	R	G	G/G	DW	DW	DW	WK
B3 PED. CLEAR	R	R	R	R	R	R	G	G/G	DW	DW	DW	FL DW
B3 CLEAR TO B	R	R	R	R	R	R	G	G/Y	DW	DW	DW	WK
B	R	R	R	R	G	G	G	G	DW	DW	WK	WK
B PED. CLEAR	R	R	R	R	G	G	G	G	DW	DW	FL DW	FL DW
B CLEAR	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW
ALL RED	R	R	R	R	R	R	R	R	DW	DW	DW	DW

BELT LINE / INWOOD / ADDISON (SHEET #6)

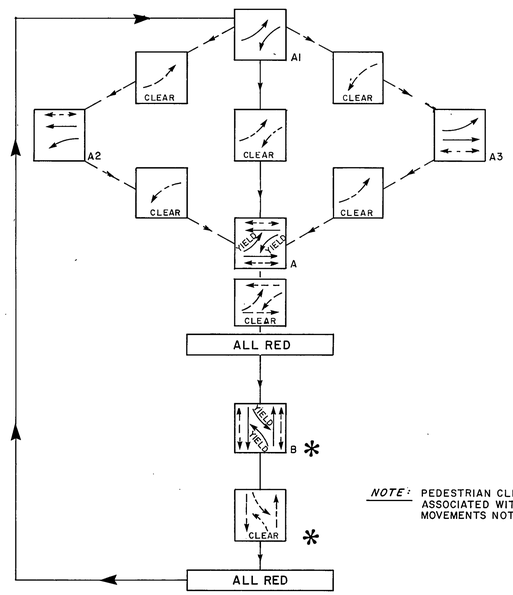
8 PHASE FULLY ACTUATED CONTROL
W/ 3M - OPTICOM SYSTEM - INTERVAL A & B

SIGNAL HEAD DISPLAYS / INTERVAL CHART

INTERVAL ↓	SIGNAL HEAD NO. ↓											
	15,16,17	18	5,6,7	8	1,2	11,12	4,9	13,19	3,20, 10,14			
A1	R	R/G	R	R/G	R	R	DW	DW	DW			
A1 CLEAR TO A2	R	R/G	R	R/Y	R	R	DW	DW	DW			
A1 CLEAR TO A3	R	R/Y	R	R/G	R	R	DW	DW	DW			
A1 CLEAR TO A	R	R/Y	R	R/Y	R	R	DW	DW	DW			
A2	G	G/G	R	R	R	R	DW	WK	DW			
A2 PED. CLEAR	G	G/G	R	R	R	R	DW	FL DW	DW			
A2 CLEAR TO A	G	G/Y	R	R	R	R	DW	WK	DW			
A3	R	R	G	G/G	R	R	WK	DW	DW			
A3 PED. CLEAR	R	R	G	G/G	R	R	FL DW	DW	DW			
A3 CLEAR TO A	R	R	G	G/Y	R	R	WK	DW	DW			
A	G	G	G	G	R	R	WK	WK	DW			
A PED. CLEAR	G	G	G	G	R	R	FL DW	FL DW	DW			
A CLEAR	Y	Y	Y	Y	R	R	DW	DW	DW			
ALL RED	R	R	R	R	R	R	DW	DW	DW			
B	R	R	R	R	G	G	DW	DW	WK			
B PED. CLEAR	R	R	R	R	G	G	DW	DW	FL DW			
B CLEAR	R	R	R	R	Y	Y	DW	DW	DW			
ALL RED	R	R	R	R	R	R	DW	DW	DW			

MIDWAY RD. / BELTWAY (SHEET #8)

5 PHASE FULLY ACTUATED CONTROL
W/ 3M-OPTICOM SYSTEM - INTERVAL A & B



* SOUTHBOUND BØ MOVEMENTS AT BELTWAY DO NOT EXIST DUE TO "T" CONFIGURATION OF INTERSECTION

SIGNAL HEAD DISPLAYS / INTERVAL CHART

INTERVAL ↓	SIGNAL HEAD NO. ↓								
	9,10,11	12	3,4,5	6	1,2	7,8	14,15	18,19	13,20 16,17
A1	R	R/G	R	R/G	R	R	DW	DW	DW
A1 CLEAR TO A2	R	R/G	R	R/Y	R	R	DW	DW	DW
A1 CLEAR TO A3	R	R/Y	R	R/G	R	R	DW	DW	DW
A1 CLEAR TO A	R	R/Y	R	R/Y	R	R	DW	DW	DW
A2	G	G/G	R	R	R	R	WK	DW	DW
A2 PED. CLEAR	G	G/G	R	R	R	R	FL DW	DW	DW
A2 CLEAR TO A	G	G/Y	R	R	R	R	WK	DW	DW
A3	R	R	G	G/G	R	R	DW	WK	DW
A3 PED. CLEAR	R	R	G	G/G	R	R	DW	FL DW	DW
A3 CLEAR TO A	R	R	G	G/Y	R	R	DW	WK	DW
A	G	G	G	G	R	R	WK	WK	DW
A PED. CLEAR	G	G	G	G	R	R	FL DW	FL DW	DW
A CLEAR	Y	Y	Y	Y	R	R	DW	DW	DW
ALL RED	R	R	R	R	R	R	DW	DW	DW
B	R	R	R	R	G	G	DW	DW	WK
B PED. CLEAR	R	R	R	R	G	G	DW	DW	FL DW
B CLEAR	R	R	R	R	Y	Y	DW	DW	DW
ALL RED	R	R	R	R	R	R	DW	DW	DW

BELT LINE / SURVEYOR (SHEET #2)

5 PHASE FULLY ACTUATED CONTROL
W/3M-OPTICOM SYSTEM (INTERVAL A)

NOTE: PEDESTRIAN CLEARANCE INTERVALS ASSOCIATED WITH STRAIGHT THROUGH MOVEMENTS NOT SHOWN (SEE INTERVAL CHART)

SIGNAL HEAD DISPLAYS / INTERVAL CHART

INTERVAL ↓	SIGNAL HEAD NO. ↓								
	10,11,12	13	4,5,6	7	8,9	1,2,3	18,19	14,15	16,17, 20,21
A1	R	R/G	R	R/G	R	R	DW	DW	DW
A1 CLEAR TO A2	R	R/G	R	R/Y	R	R	DW	DW	DW
A1 CLEAR TO A3	R	R/Y	R	R/G	R	R	DW	DW	DW
A1 CLEAR TO A	R	R/Y	R	R/Y	R	R	DW	DW	DW
A2	G	G/G	R	R	R	R	WK	DW	DW
A2 PED. CLEAR	G	G/G	R	R	R	R	FL DW	DW	DW
A2 CLEAR TO A	G	G/Y	R	R	R	R	WK	DW	DW
A3	R	R	G	G/G	R	R	DW	WK	DW
A3 PED. CLEAR	R	R	G	G/G	R	R	DW	FL DW	DW
A3 CLEAR TO A	R	R	G	G/Y	R	R	DW	WK	DW
A	G	G	G	G	R	R	WK	WK	DW
A PED. CLEAR	G	G	G	G	R	R	FL DW	FL DW	DW
A CLEAR	Y	Y	Y	Y	R	R	DW	DW	DW
ALL RED	R	R	R	R	R	R	DW	DW	DW
B	R	R	R	R	G	G	DW	DW	WK
B PED. CLEAR	R	R	R	R	G	G	DW	DW	FL DW
B CLEAR	R	R	R	R	Y	Y	DW	DW	DW
ALL RED	R	R	R	R	R	R	DW	DW	DW

BELT LINE / QUORUM / MARCY (SHEET #7)

5 PHASE FULLY ACTUATED CONTROL
W/ 3M-OPTICOM SYSTEM (INTERVAL A)

SIGNAL HEAD DISPLAYS / INTERVAL CHART

INTERVAL ↓	SIGNAL HEAD NO. ↓							
	7,8,9	10	1,2,3	4	5,6	11,12	13,14	
A1	R	R/G	R	R/G	R	DW	DW	
A1 CLEAR TO A2	R	R/G	R	R/Y	R	DW	DW	
A1 CLEAR TO A3	R	R/Y	R	R/G	R	DW	DW	
A1 CLEAR TO A	R	R/Y	R	R/Y	R	DW	DW	
A2	G	G/G	R	R	R	DW	DW	
A2 CLEAR TO A	G	G/Y	R	R	R	DW	DW	
A3	R	R	G	G/G	R	WK	DW	
A3 PED. CLEAR	R	R	G	G/G	R	FL DW	DW	
A3 CLEAR TO A	R	R	G	G/Y	R	WK	DW	
A	G	G	G	G	R	WK	DW	
A PED. CLEAR	G	G	G	G	R	FL DW	DW	
A CLEAR	Y	Y	Y	Y	R	DW	DW	
ALL RED	R	R	R	R	R	DW	DW	
B	R	R	R	R	G	DW	WK	
B PED. CLEAR	R	R	R	R	G	DW	FL DW	
B CLEAR	R	R	R	R	Y	DW	DW	
ALL RED	R	R	R	R	R	DW	DW	

BELT LINE / BELTWAY (SHEET #5)

5 PHASE FULLY ACTUATED CONTROL
W/ 3M-OPTICOM SYSTEM (INTERVAL A)

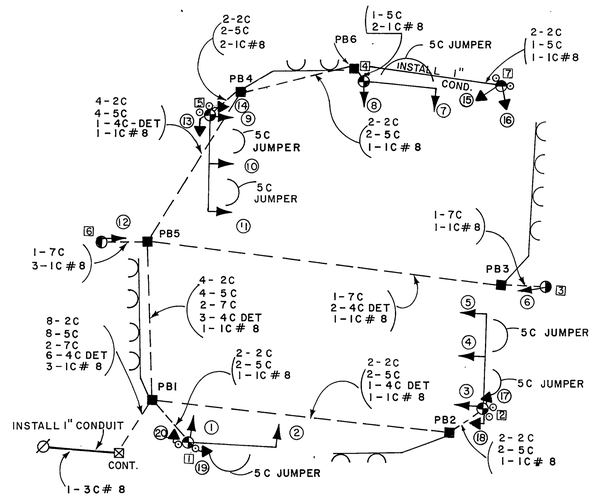
CITY OF ADDISON

TRAFFIC SIGNAL INSTALLATIONS
BELT LINE ROAD

PHASING DIAGRAMS AND
INTERVAL CHARTS

GINN, INC.

DESIGNED-H.B.J.	DRAWN- S.M.M.	DATE- JUNE, 1981	JOB No. J188
APPROVED-H.W.G.	CHECKED- A.G.F	SCALE= NONE	SHEET 1 OF 14



WIRING DIAGRAM

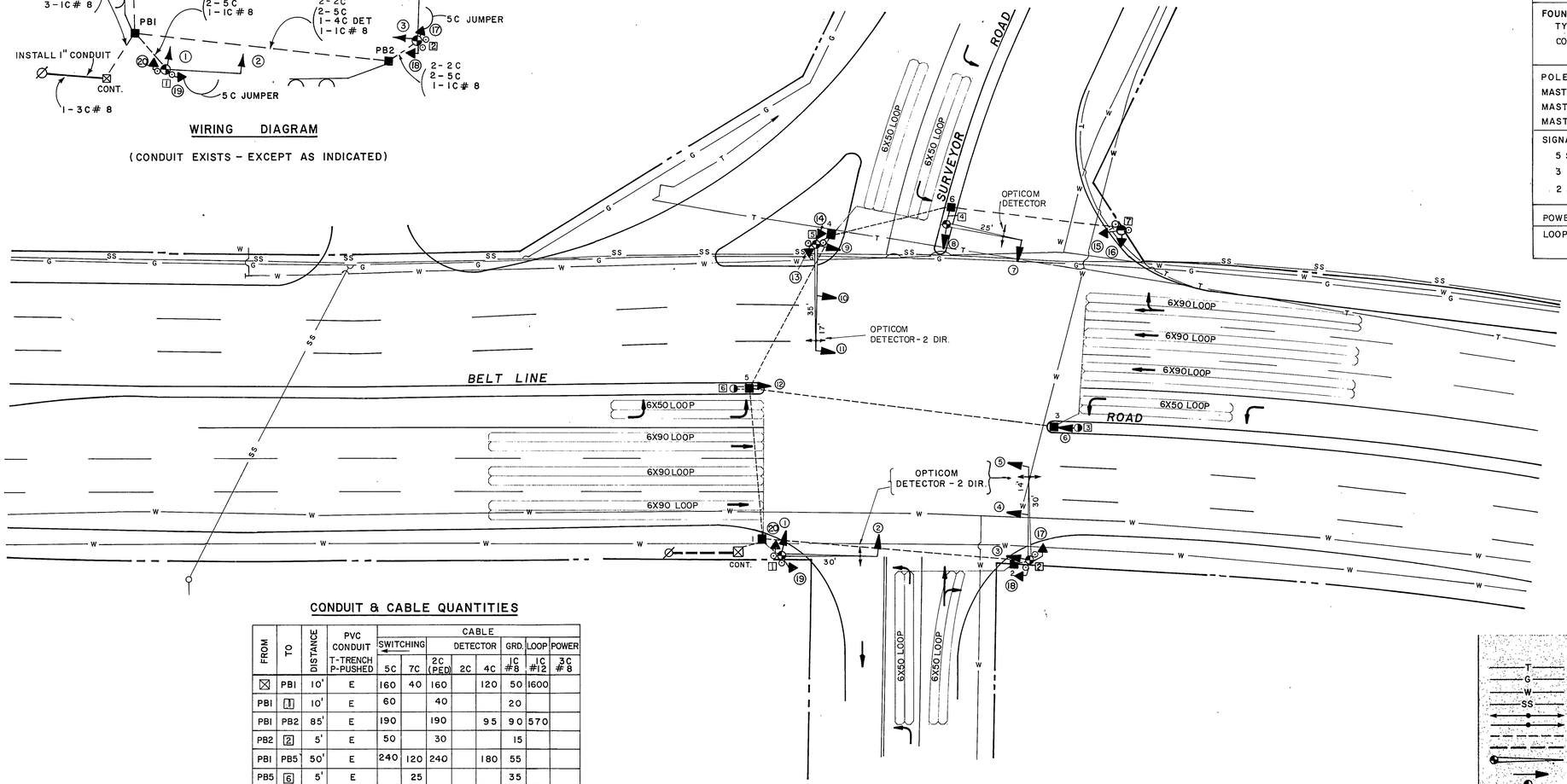
(CONDUIT EXISTS - EXCEPT AS INDICATED)

SIGNAL HEAD ARRAYS

HEAD NUMBERS →	3,4,5 9,10,11	6,12	1,2 7,8	13,14 15,16	17,18 19,20
LENS SIZE →	12"	12"	12"	12"	12"
TYPE →	CONV.	CONV.	CONV.	CONV. PED.	CONV. PED.
LENS CONFIGURATION	R	R	R	DW	DW
	Y	Y	Y	WALK	WALK
	G	G	G		
		← Y			
		← G			
TOTAL NUMBER OF UNITS →	6	2	4	4	4

QUANTITIES

ITEM	UNIT	QUAN.
PULL BOX (EXIST.)		
CONDUIT :		
1-INCH P.V.C. (IN TRENCH)	L.F.	35
1-INCH P.V.C. (PUSHED)	L.F	60
PEDESTRIAN PUSH BUTTONS	PR.	4
CABLE - WIRE :		
5 CONDUCTOR #12	L.F.	1465
7 CONDUCTOR #12	L.F.	320
2 CONDUCTOR DETECTOR	L.F.	—
4 CONDUCTOR DETECTOR	L.F.	685
1 CONDUCTOR # 8 - GROUND	L.F.	610
2 CONDUCTOR # 12 (PED. DET.)	L.F	1220
XHHW DETECTOR LOOP	L.F.	4360
3 CONDUCTOR # 8 - POWER	L.F.	65
FOUNDATIONS :		
TYPE C (PEDESTAL N.E. CORNER)	EA.	1
CONTROLLER, IN PLACE	EA.	1
POLES : SIGNAL PEDESTALS	EA.	3
MAST ARM POLE W/25' ARM	EA.	1
MAST ARM POLE W/30' ARM	EA.	2
MAST ARM POLE W/35' ARM	EA.	1
SIGNAL HEADS :		
5 SECTION - 12" LENS	EA.	2
3 SECTION - 12" LENS	EA.	10
2 SECTION - 12" PEDESTRIAN	EA.	8
POWER SUPPLY	EA.	1
LOOP DETECTOR AMPLIFIER	EA.	12



CONDUIT & CABLE QUANTITIES

FROM	TO	DISTANCE	PVC CONDUIT T-TRENCH P-PUSHED	CABLE SWITCHING 5C	7C	DETECTOR 2C (PED)	2C	4C	GRD. #8	LOOP #12	POWER 3C #8
⊠	PB1	10'	E	160	40	160		120	50	1600	
PB1	1	10'	E	60		40			20		
PB1	PB2	85'	E	190		190		95	90	570	
PB2	2	5'	E	50		30			15		
PB1	PB5	50'	E	240	120	240		180	55		
PB5	6	5'	E		25				35		
PB5	PB3	100'	E		110			220	105	1640	
PB3	3	5'	E		25				15		
PB5	PB4	60'	E	280		280		70	65	550	
PB4	5	10'	E	60		40			30		
PB4	PB6	40'	E	100		100			45		
∅	⊠	25'	1"T-35'								65
PB6	4	5'		25					20		
PB6	7	60'	1"P-60'	80		140			65		
(JUMPERS)				220							
TOTALS			1"T-35'	1465	320	1220		685	610	4360	65
			1"P-60'								

E = EXISTING

LEGEND

- T — TELEPHONE DUCT OR U.G. CABLE
- G — GAS MAIN OR SERVICE LINE
- W — WATER MAIN OR SERVICE LINE
- SS — SANITARY OR STORM SEWER
- INSTALL OPTICOM DETECTOR - 2 DIRECTIONS
- INSTALL OPTICOM DETECTOR - 1 DIRECTION
- EXISTING CONDUIT FOR SIGNAL CABLE
- INSTALL CONDUIT - IN TRENCH
- INSTALL SIGNAL MAST ARM & POLE
- INSTALL TRAFFIC SIGNAL HEAD
- INSTALL SIGNAL PEDESTAL POLE
- EXISTING PULL BOX
- INSTALL PULL BOX
- SERVICE POLE - A.C. SOURCE
- INSTALL PEDESTRIAN SIGNAL HEAD
- INSTALL PEDESTRIAN PUSH BUTTON W/INTEGRAL ILLUMINATED SIGN

5 PHASE FULLY ACTUATED SIGNAL CONTROL

SEE SHEET 1 FOR PHASING DIAGRAM AND INTERVAL CHART.

CONTROLLER FRAME TO BE OF AMPLE CAPACITY FOR FUTURE EXPANSION TO 6 PHASE OPERATION.

EMERGENCY VEHICLE PRE-EMPT SYSTEM (3M OPTICOM) WILL BE INCLUDED WITH THE CONTROLLER. IT WILL BE DETECTED FROM ALL 4 DIRECTIONS, PHASE 4 & 8.

CITY OF ADDISON

TRAFFIC SIGNAL INSTALLATIONS

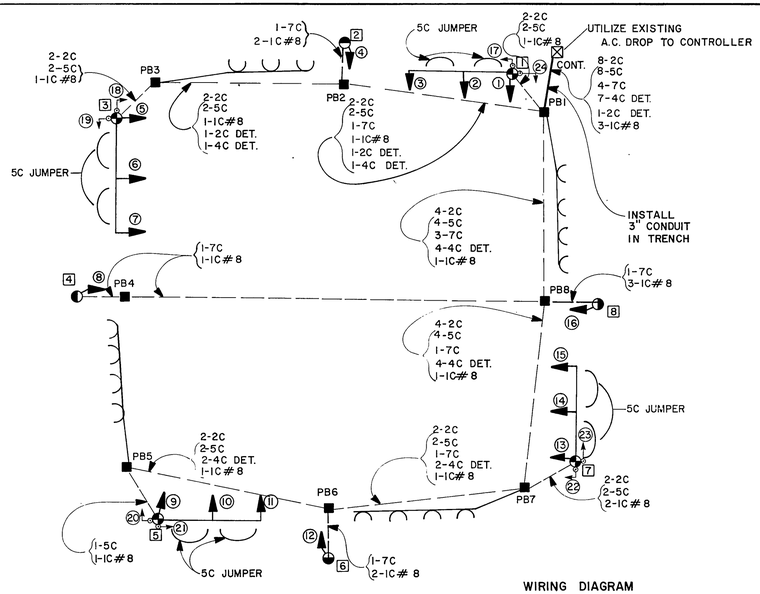
BELT LINE ROAD

INTERSECTION LAYOUT

BELT LINE ROAD AND SURVEYOR ROAD

GINN, INC.

DESIGNED-	DRAWN-	DATE- JUNE, 1980	FILE-
APPROVED-	CHECKED-	SCALE- (PLAN) 1"= 20'	SHEET- 2 OF- 14



WIRING DIAGRAM
(CONDUIT EXISTS - EXCEPT AS INDICATED)

QUANTITIES

ITEM	UNIT	QUAN.
PULL BOX (EXISTING)		—
CONDUIT:		
3-INCH P.V.C. (IN TRENCH)		25
PEDESTRIAN PUSH BUTTON	PR.	4
LOOP DETECTOR AMPLIFIER	EA.	16
CABLE-WIRE:		
5 CONDUCTOR # 12	L.F.	1710
7 CONDUCTOR # 12	L.F.	745
2 CONDUCTOR # 12 (PED. DET.)	L.F	1440
2 CONDUCTOR DETECTOR	L.F.	160
4 CONDUCTOR DETECTOR	L.F.	1110
1 CONDUCTOR # 8-GROUND	L.F.	815
XHHW DETECTOR LOOP	L.F.	6790
FOUNDATIONS:		
CONTROLLER, IN PLACE	EA.	1
POLES: SIGNAL PEDESTAL	EA.	4
MAST ARM POLE W/30' ARM	EA.	2
MAST ARM POLE W/35' ARM	EA	2
SIGNAL HEADS:		
5 SECTION - 12" LENS	EA.	4
3 SECTION - 12" LENS	EA.	12
2 SECTION - 12" PEDESTRIAN	EA.	8

CONDUIT & CABLE QUANTITIES

FROM	TO	DISTANCE	PVC CONDUIT T-TRENCH P-PUSHED	CABLE							
				SWITCHING ←		DETECTOR			GRD.	LOOP WIRE	
				5C	7C	2C (PED)	2C	4C	1C #8	1C #12	
⊠	PB1	15'	3T-25'	200	100	200	25	175	65	1650	
PB1	1	10'	E	50		40			20		
PB1	PB2	55'	E	130	65	130	65	65	60		
PB2	2	5'	E		20				35		
PB2	PB3	60'	E	140		140	70	70	65	1760	
PB3	3	10'	E	50		40			15		
PB1	PB8	65'	E	300	225	300		300	70		
PB8	8	5'	E		20				50		
PB8	PB4	135'	E		145				140		
PB4	4	5'	E		20				10		
PB8	PB7	45'	E	220	55	220		220	50	1730	
PB7	7	10'	E	50		40			45		
PB7	PB6	65'	E	150	75	150		150	70		
PB6	6	5'	E		20				35		
PB6	PB5	55'	E	130		130		130	60	1650	
PB5	5	15'	E	60		50			25		
(JUMPERS)				230							
TOTALS			3"T-25'	1710	745	1440	160	1110	815	6790	

E = EXISTING

SIGNAL HEAD ARRAYS

HEAD NUMBERS →	1,2,3 9,10,11	5,6,7 13,14,15	4,8, 12,16	17,18, 19,20	21,22, 23,24
LENS SIZE →	12"	12"	12"	12"	12"
TYPE →	CONV.	CONV.	CONV.	CONV. PED.	CONV. PED.
LENS CONFIGURATION	R	R	R	DW	DW
	Y	Y	Y	WALK	WALK
	G	G	G		
			←Y		
			←G		
TOTAL NUMBER OF UNITS →	6	6	4	4	4

LEGEND

- T — TELEPHONE DUCT OR U.G. CABLE
- G — GAS MAIN OR SERVICE LINE
- W — WATER MAIN OR SERVICE LINE
- SS — SANITARY OR STORM SEWER
- INSTALL OPTICOM DETECTOR 2-DIRECTION
- INSTALL OPTICOM DETECTOR 1-DIRECTION
- EXISTING CONDUIT FOR SIGNAL CABLE
- INSTALL CONDUIT-IN TRENCH
- INSTALL SIGNAL MAST ARM & POLE
- INSTALL TRAFFIC SIGNAL HEAD
- INSTALL SIGNAL PEDESTAL POLE
- EXISTING PULL BOX
- INSTALL PULL BOX
- SERVICE POLE - A.C. SOURCE
- INSTALL PEDESTRIAN SIGNAL HEAD
- INSTALL PEDESTRIAN PUSH BUTTON W/INTEGRAL ILLUMINATED SIGN

8 PHASE FULLY ACTUATED SIGNAL CONTROL

SEE SHEET 1 FOR PHASING DIAGRAM AND INTERVAL CHART

THE EMERGENCY VEHICLE PRE-EMPT SYSTEM (3M-OPTICOM) EXIST. IN ONE DIRECTION. THE EQUIPMENT WILL BE RELOCATED IN NEW CONTROLLER AND EXPANDED TO 4 DIRECTIONS PHASE A & B.

CITY OF ADDISON

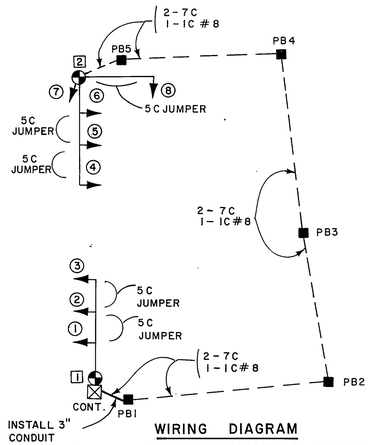
TRAFFIC SIGNAL MODIFICATION
BELT LINE ROAD

INTERSECTION LAYOUT

BELT LINE ROAD AND MIDWAY ROAD

GINN, INC.

DESIGNED-	DRAWN-	DATE- JUNE, 1980	FILE-
APPROVED-	CHECKED-	SCALE- (PLAN) 1"= 20'	SHEET- 3 OF- 14



WIRING DIAGRAM

(CONDUIT EXISTS - EXCEPT AS INDICATED)

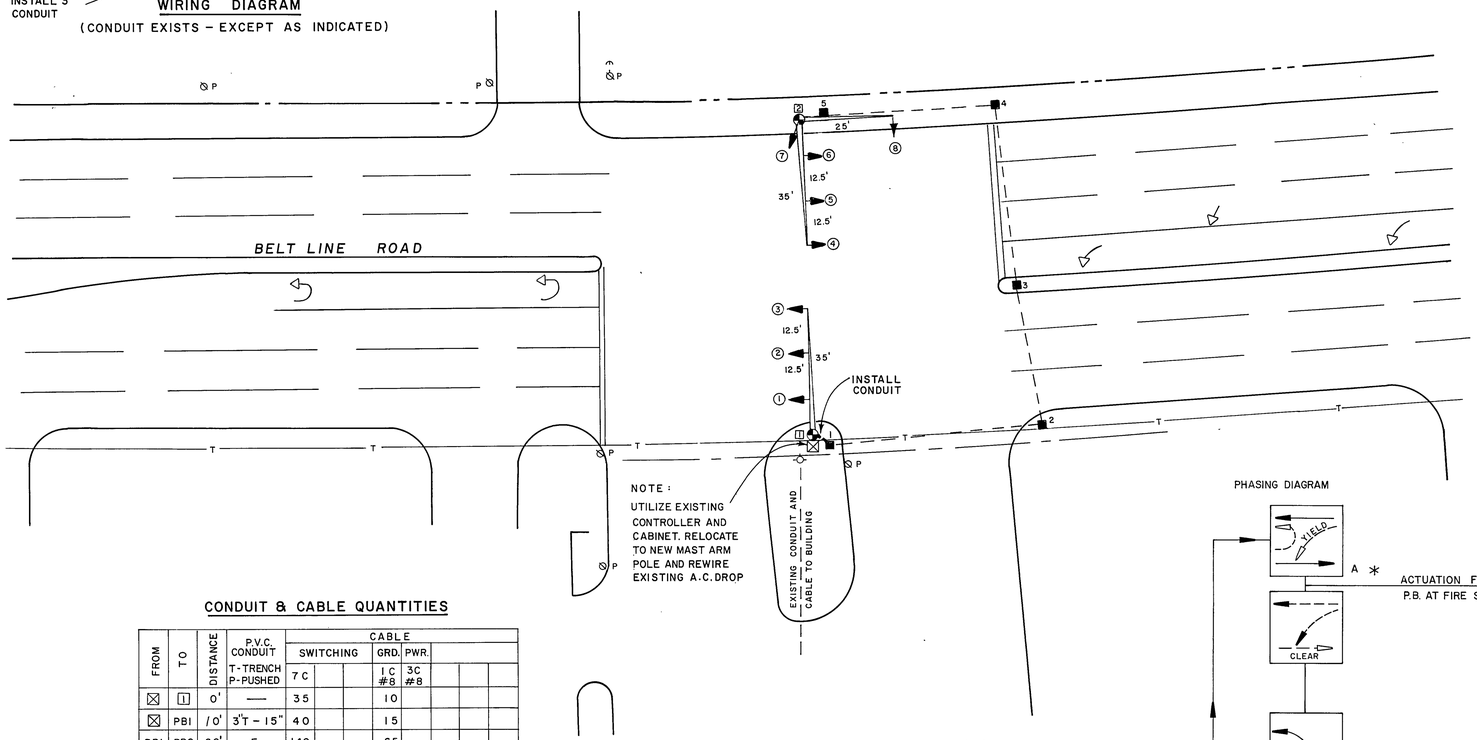
SIGNAL HEAD ARRAYS

HEAD NUMBERS →	1,2,3, 4,5,6	7,8			
LENS SIZE →	12"	12"			
TYPE →	CONV.	CONV.			
LENS CONFIGURATION	R	R			
	Y	Y			
	Y	G			
TOTAL NUMBER OF UNITS →	6	2			

N

QUANTITIES

ITEM	UNIT	QUAN.
PULL BOX (EXISTS)	—	—
CONDUIT: 3" P.V.C. - TRENCH	L.F.	15
1" P.V.C. - TRENCH	L.F.	10
CABLE - WIRE:		
7 CONDUCTOR # 12	L.F.	760
1 CONDUCTOR # 8 - GROUND	L.F.	265
3 CONDUCTOR # 8 - POWER	L.F.	40
FOUNDATIONS: (EXIST)	—	—
POLES:		
MAST ARM POLE W/35' ARM	EA.	1
MAST ARM POLE W/25' & 35' ARMS	EA.	1
SIGNAL HEADS:		
3 SECTION - 12" LENS	EA.	8



FIRE STATION AND MUNICIPAL BUILDINGS

SIGNAL DISPLAYS/INTERVAL CHART

(EXISTING)

INTERVAL ↓	SIGNAL HEAD # 1,2,3	4,5,6	7,8	
A (DWELL)	FL Y	FL Y	FL R	
A CLEAR	Y	Y	R	
B	R	R	G	
B CLEAR	R	R	Y	

PHASING DIAGRAM

* CONTROLLER DWELLS IN ØA

CONDUIT & CABLE QUANTITIES

FROM	TO	DISTANCE	P.V.C. CONDUIT T-TRENCH P-PUSHED	CABLE SWITCHING 7C			GRD. 1C #8	PWR. 3C #8			
⊠	1	0'	—	35			10				
⊠	PB1	10'	3"T - 15"	40			15				
PB1	PB2	60'	E	140			65				
PB2	PB3	40'	E	100			45				
PB3	PB4	55'	E	130			60				
PB4	PB5	50'	E	120			55				
PB5	2	10'	E	85			15				
◯	⊠	10	1"T-10"					40			
(JUMPERS)				110							
TOTALS			3" T-15", 1" T-10"	760			265	40			

E = EXISTING

LEGEND

- T — TELEPHONE DUCT OR U.G. CABLE
- G — GAS MAIN OR SERVICE LINE
- W — WATER MAIN OR SERVICE LINE
- SS — SANITARY OR STORM SEWER
- EXISTING CONDUIT FOR SIGNAL CABLE
- INSTALL CONDUIT-IN TRENCH
- INSTALL SIGNAL MAST ARM & POLE
- INSTALL TRAFFIC SIGNAL HEAD
- INSTALL SIGNAL PEDESTAL POLE
- EXISTING PULL BOX
- INSTALL PULL BOX
- SERVICE POLE - A.C. SOURCE
- INSTALL PEDESTRIAN SIGNAL HEAD
- INSTALL PEDESTRIAN PUSH BUTTON W/INTEGRAL ILLUMINATED SIGN

PUSH BUTTON, SEMI-ACTUATED SIGNAL CONTROL

EXISTING CONTROLLER TO BE UTILIZED AND RELOCATED BY CONTRACTOR.

RANDOM ACTUATION BY PUSH BUTTON FROM INSIDE FIRE HEADQUARTERS BLDG.

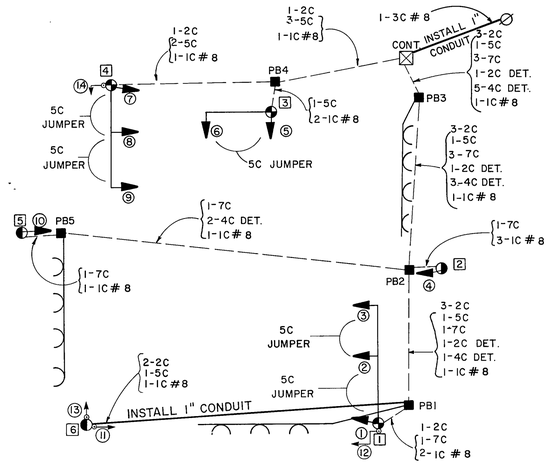
CITY OF ADDISON

TRAFFIC SIGNAL MODIFICATION
BELT LINE ROAD

INTERSECTION LAYOUT
BELT LINE ROAD AT
FIRE STATION AND MUNICIPAL DRIVE

GINN, INC.

DESIGNED -	DRAWN -	DATE: JUNE, 1980	FILE -
APPROVED -	CHECKED -	SCALE: (PLAN) 1"=20'	SHEET 4 OF 14

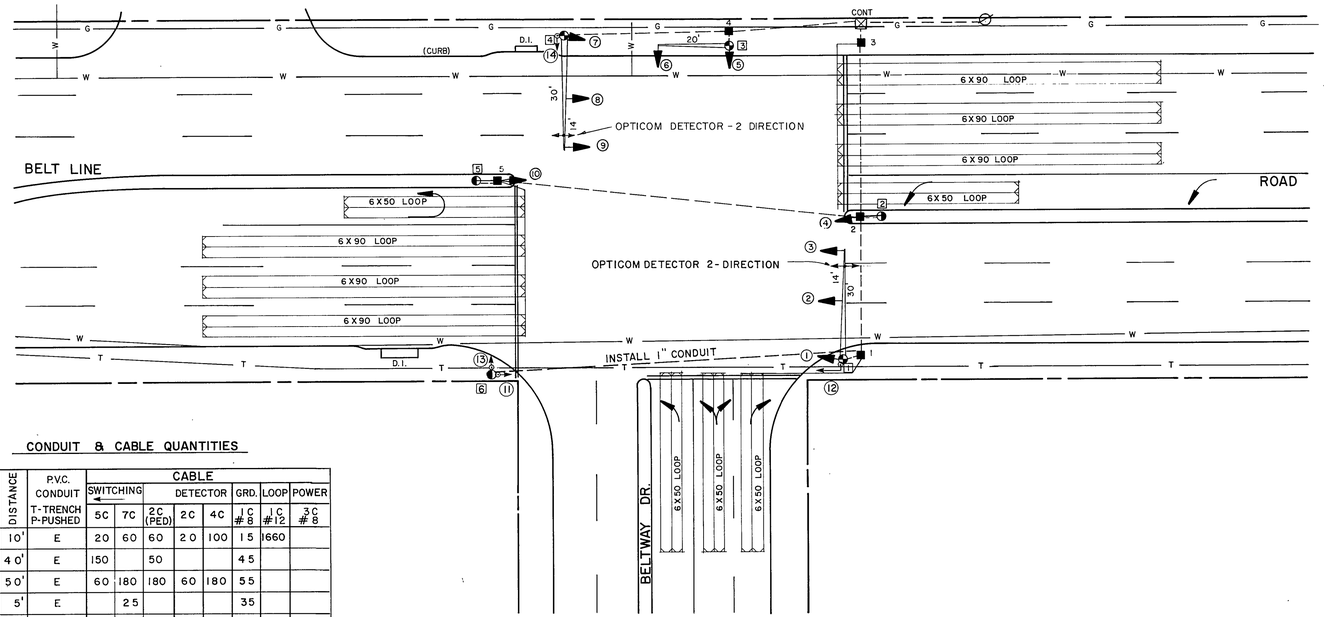


WIRING DIAGRAM

(CONDUIT EXISTS - EXCEPT AS INDICATED)

SIGNAL HEAD ARRAYS

HEAD NUMBERS →	1,2,3 7,8,9	5,6	4,10	11,12	13,14
LENS SIZE →	12"	12"	12"	12"	12"
TYPE →	CONV.	CONV.	CONV.	CONV. PED.	CONV. PED.
LENS CONFIGURATION	R	R	R	DW	DW
	Y	Y	Y	WALK	WALK
	G	G	G		
			← Y		
			← G		
TOTAL NUMBER OF UNITS →	6	2	2	2	2



N

QUANTITIES

ITEM	UNIT	QUAN.
PULL BOX (EXISTS)	—	—
CONDUIT:		
1 INCH P.V.C. (IN TRENCH)	L.F.	40
1 INCH P.V.C (PUSHED)	L.F	105
PEDESTRIAN PUSH BUTTON	PR.	2
CABLE - WIRE:		
5 CONDUCTOR # 12	L.F.	720
7 CONDUCTOR # 12	L.F.	480
2 CONDUCTOR - DETECTOR	L.F.	130
4 CONDUCTOR - DETECTOR	L.F.	560
1 CONDUCTOR # 8 GROUND	L.F.	525
2 CONDUCTOR # 12 (PED. DET.)	L.F.	760
XHHW DETECTOR LOOP	L.F.	4250
3 CONDUCTOR # 8 POWER	L.F.	75
FOUNDATIONS:		
TYPE C (PEDESTAL-S.W. CORNER)	EA.	1
CONTROLLER, IN PLACE	EA.	1
POLES: SIGNAL PEDESTAL	EA.	3
MAST ARM POLE W/20' ARM	EA.	1
MAST ARM POLE W/30' ARM	EA.	2
SIGNAL HEADS:		
5 SECTION - 12" LENS	EA.	2
3 SECTION - 12" LENS	EA.	8
2 SECTION - 12" PEDESTRIAN	EA.	4
POWER SUPPLY ASSEMBLY	EA.	1
LOOP DETECTOR AMPLIFIER	EA.	11

CONDUIT & CABLE QUANTITIES

FROM	TO	DISTANCE	P.V.C. CONDUIT T-TRENCH P-PUSHED	CABLE SWITCHING 5C	7C	2C (PED)	DETECTOR 2C	4C	GRD. #8	LOOP #12	POWER #8
⊠	PB3	10'	E	20	60	60	20	100	15	1660	
⊠	PB4	40'	E	150		50			45		
PB3	PB2	50'	E	60	180	180	60	180	55		
PB2	2	5'	E		25				35		
PB2	PB5	105'	E		115			230	110	1620	
PB5	5	5'	E		25				10		
PB2	PB1	40'	E	50	50	150	50	50	45	970	
PB1	1	5'	E		25	20			20		
PB4	5	5'	E	25					20		
PB4	4	50'	E	140		60			55		
∅	⊠		1"T- 40								75
PB1	6	105'	1"P-105	125		240			115		
(JUMPERS)				150							
TOTALS			1"T- 40' 1"P-105'	720	480	760	130	560	525	4250	75

LEGEND

- T — TELEPHONE DUCT OR U.G. CABLE
- G — GAS MAIN OR SERVICE LINE
- W — WATER MAIN OR SERVICE LINE
- SS — SANITARY OR STORM SEWER
- INSTALL OPTICOM DETECTOR - 2 DIRECTION
- INSTALL OPTICOM DETECTOR - 1 DIRECTION
- EXISTING CONDUIT FOR SIGNAL CABLE
- INSTALL CONDUIT - IN TRENCH
- INSTALL SIGNAL MAST ARM & POLE
- INSTALL TRAFFIC SIGNAL HEAD
- INSTALL SIGNAL PEDESTAL POLE
- EXISTING PULL BOX
- INSTALL PULL BOX
- SERVICE POLE - A.C. SOURCE
- INSTALL PEDESTRIAN SIGNAL HEAD
- INSTALL PEDESTRIAN PUSH BUTTON W/INTEGRAL ILLUMINATED SIGN

5 PHASE FULLY ACTUATED SIGNAL CONTROL

SEE SHEET 1 FOR PHASING DIAGRAM AND INTERVAL CHART

EMERGENCY VEHICLE PRE-EMPT SYSTEM (3M-OPTICOM) WILL BE INCLUDED WITH THE CONTROLLER. IT WILL BE DETECTED FROM 2 - DIRECTIONS (EAST & WEST) PHASE A.

CITY OF ADDISON

TRAFFIC SIGNAL INSTALLATIONS

BELT LINE ROAD

INTERSECTION LAYOUT

BELT LINE ROAD AND BELTWAY DRIVE

GINN, INC.

DESIGNED-	DRAWN-	DATE- JUNE, 1980	FILE-
APPROVED-	CHECKED-	SCALE- (PLAN) 1"= 20'	SHEET- 5 OF- 14

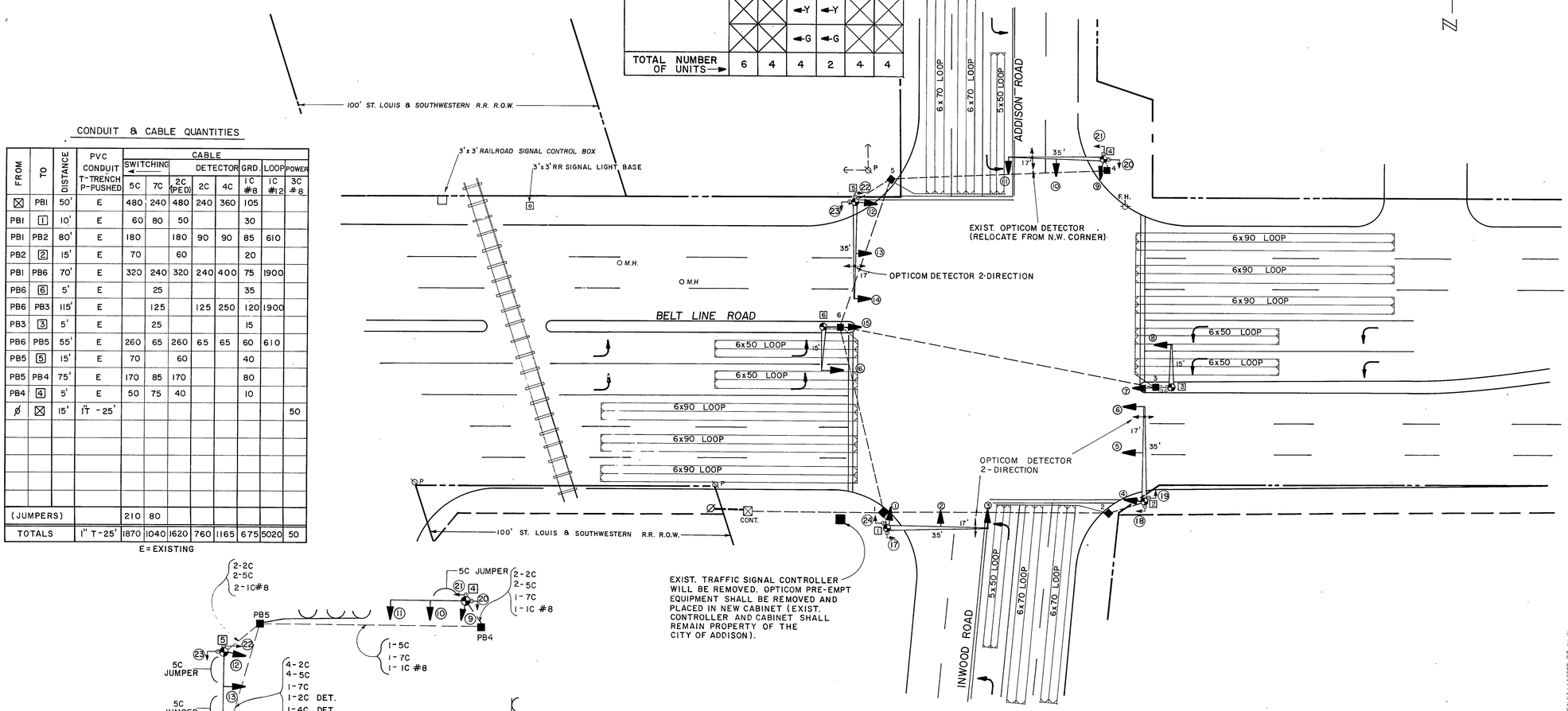
SIGNAL HEAD ARRAYS

HEAD NUMBERS →	4,5,6, 12,13,14	1,2, 9,10	7,8, 15,16	3, 11	17,18 19,20	21,22 23,24
LENS SIZE →	12"	12"	12"	12"	12"	12"
TYPE →	CONV.	CONV.	CONV.	CONV.	CONV. PED.	CONV. PED.
LENS CONFIGURATION	R	R	R	R	DW	DW
	Y	Y	Y	Y	WALK	WALK
	G	G	G	G		
			◄Y	◄Y		
			◄G	◄G		
TOTAL NUMBER OF UNITS →	6	4	4	2	4	4

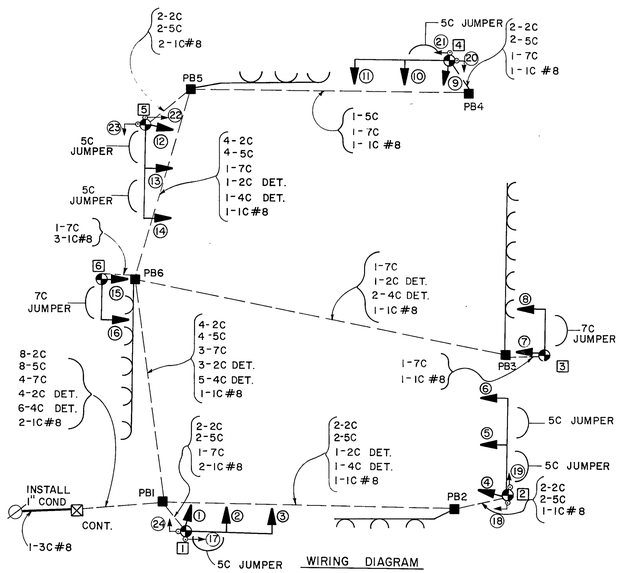
CONDUIT & CABLE QUANTITIES

FROM	TO	DISTANCE	PVC CONDUIT T-TRENCH P-PUSHED	CABLE SWITCHING 5C	SWITCHING 7C	DETECTOR 2C (PED)	DETECTOR 2C	DETECTOR 4C	GRD. 1C #8	LOOP 1C #12	POWER 3C #8
⊠	PB1	50'	E	480	240	480	240	360	105		
PB1	1	10'	E	60	80	50			30		
PB1	PB2	80'	E	180		180	90	90	85	610	
PB2	2	15'	E	70		60			20		
PB1	PB6	70'	E	320	240	320	240	400	75	1900	
PB6	6	5'	E		25				35		
PB6	PB3	115'	E		125		125	250	120	1900	
PB3	3	5'	E		25				15		
PB6	PB5	55'	E	260	65	260	65	65	60	610	
PB5	5	15'	E	70		60			40		
PB5	PB4	75'	E	170	85	170			80		
PB4	4	5'	E	50	75	40			10		
⌀	⊠	15'	1"T - 25'								50
(JUMPERS)				210	80						
TOTALS		1" T-25'		1870	1040	1620	760	1165	675	5020	50

E = EXISTING



EXIST. TRAFFIC SIGNAL CONTROLLER WILL BE REMOVED. OPTICOM PRE-EMPT EQUIPMENT SHALL BE REMOVED AND PLACED IN NEW CABINET (EXIST. CONTROLLER AND CABINET SHALL REMAIN PROPERTY OF THE CITY OF ADDISON).



WIRING DIAGRAM

(CONDUIT EXISTS-EXCEPT AS INDICATED)

QUANTITIES

ITEM	UNIT	QUAN.
PULL BOX (EXISTS)		—
CONDUIT: 1-INCH P.V.C. (IN TRENCH)	L.F.	25
PEDESTRIAN PUSH BUTTONS	PR.	4
CABLE - WIRE:		
5 CONDUCTOR #12	L.F.	1870
7 CONDUCTOR #12	L.F.	1040
2 CONDUCTOR DETECTOR	L.F.	760
4 CONDUCTOR	L.F.	1165
1 CONDUCTOR #8-GROUND	L.F.	675
2 CONDUCTOR #12 (PED. DET.)	L.F	1620
XHHW DETECTOR LOOP	L.F.	5020
3 CONDUCTOR #8-POWER	L.F	50
FOUNDATIONS: CONTROLLER, IN-PLACE	EA.	1
POLE:		
MAST ARM POLE W/15' ARM	EA.	2
MAST ARM POLE W/35'ARM	EA.	4
SIGNAL HEADS:		
5 SECTION - 12" LENS	EA.	6
3 SECTION - 12" LENS	EA.	10
2 SECTION - 12" PEDESTRIAN	EA.	8
LOOP DETECTOR AMPLIFIER	EA.	16

LEGEND

- T — TELEPHONE DUCT OR U.G. CABLE
- G — GAS MAIN OR SERVICE LINE
- W — WATER MAIN OR SERVICE LINE
- SS — SANITARY OR STORM SEWER
- INSTALL OPTICOM DETECTOR 2-DIRECTION
- INSTALL OPTICOM DETECTOR 1-DIRECTION
- EXISTING CONDUIT FOR SIGNAL CABLE
- INSTALL CONDUIT-IN TRENCH
- INSTALL SIGNAL MAST ARM & POLE
- INSTALL TRAFFIC SIGNAL HEAD
- INSTALL SIGNAL PEDESTAL POLE
- EXISTING PULL BOX
- INSTALL PULL BOX
- SERVICE POLE-A.C. SOURCE
- INSTALL PEDESTRIAN SIGNAL HEAD
- INSTALL PEDESTRIAN PUSH BUTTON W/INTEGRAL ILLUMINATED SIGN

8 PHASE FULLY ACTUATED SIGNAL CONTROL

EMERGENCY VEHICLE PRE-EMPT SYSTEM (3M-OPTICOM) EXIST. FOR ONE DERECTION. THE EQUIPMENT WILL BE RELOCATED TO NEW CONTROLLER AND EXPANDED TO 4 DIRECTIONS PHASE A & B.

SEE SHEET 1 FOR PHASING DIAGRAM AND INTERVAL CHART. CONTROLLER FRAME AND CABINET TO BE AMPLE CAPACITY FOR FUTURE RAILROAD PRE-EMPT WHEN NEEDED.

CITY OF ADDISON

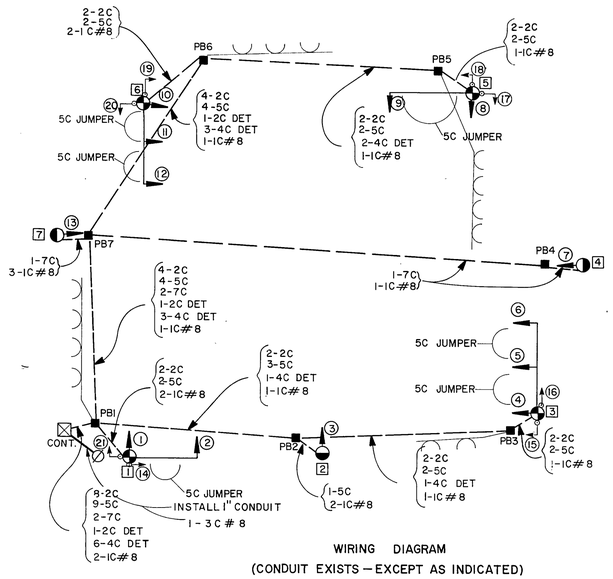
TRAFFIC SIGNAL MODIFICATION
BELT LINE ROAD

INTERSECTION LAYOUT

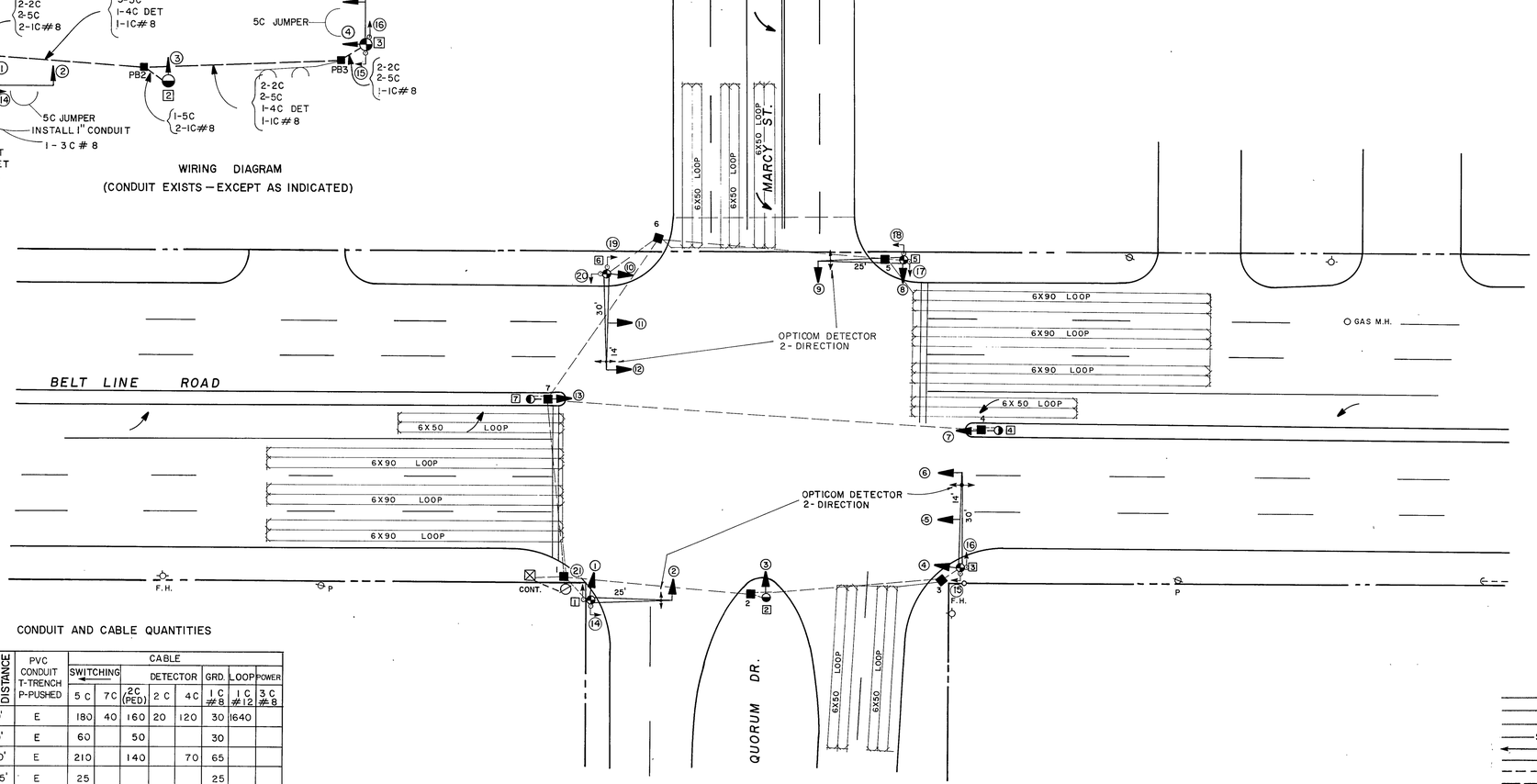
BELT LINE ROAD AND
ADDISON ROAD-INWOOD ROAD

GINN, INC.

DESIGNED	DRAWN	DATE: JUNE, 1980	FILE
APPROVED	CHECKED	SCALE: (PLAN) 1"= 20'	SHEET 6 OF 14



WIRING DIAGRAM
(CONDUIT EXISTS — EXCEPT AS INDICATED)



QUANTITIES

ITEM	UNIT	QUAN.
PULL BOX: (EXISTS)	—	—
CONDUIT:		
1 - INCH P.V.C. CONDUIT	L.F.	15
PEDESTRIAN PUSH BUTTON	EA.	4
CABLE - WIRE :		
5 CONDUCTOR # 12	L.F.	1725
7 CONDUCTOR # 12	L.F.	365
2 CONDUCTOR DETECTOR	L.F.	155
4 CONDUCTOR DETECTOR	L.F.	825
1 CONDUCTOR #8 GROUND	L.F.	590
2 CONDUCTOR #12 (PED. DET.)	L.F.	1350
XHHW DETECTOR LOOP	L.F.	4640
3 CONDUCTOR #8 POWER	L.F.	55
FOUNDATIONS :		
CONTROLLER, IN PLACE	EA.	1
POLES : SIGNAL PEDESTAL	EA.	3
MAST ARM POLE W/25' ARM	EA.	2
MAST ARM POLE W/30' ARM	EA.	2
SIGNAL HEADS :		
5 SECTION — 12" LENS	EA.	2
3 SECTION — 12" LENS	EA.	11
2 SECTION — 12" PEDESTRIAN	EA.	8
POWER SUPPLY ASSEMBLY	EA.	1
LOOP DETECTOR AMPLIFIER	EA.	13

CONDUIT AND CABLE QUANTITIES

FROM	TO	DISTANCE	PVC CONDUIT T-TRENCH P-PUSHED	CABLE							
				SWITCHING		DETECTOR			GRD.	LOOP	POWER
				5 C	7C	2C (PED)	2 C	4C	1 C #8	1 C #12	3 C #8
☒	PB1	10'	E	180	40	160	20	120	30	1640	
PB1	1	10'	E	60		50			30		
PB1	PB2	60'	E	210		140		70	65		
PB	2	5'	E	25					25		
PB2	PB3	60'	E	140		140		70	65	550	
PB3	3	10'	E	60		50			15		
PB1	PB7	55'	E	260	130	260	65	195	60		
PB7	7	5'	E		25				10		
PB7	PB4	135'	E		145				140		
PB	4	5'	E		25				10		
PB7	PB6	60'	E	280		280	70	210		810	
PB6	6	20'	E	80		60			50		
PB6	PB5	70'	E	160		160		160	75	1640	
PB5	5	10'	E	60		50			15		
ø	☒		1T - 15								55
(JUMPERS)				210							
TOTALS			1" T-15'	1725	365	1350	155	825	590	4640	55

E = EXISTING

SIGNAL HEAD ARRAYS

HEAD NUMBERS →	4,5,6 10,11,12	1,2,3 8,9	7,13	14,15, 16,17	18,19, 20,21
LENS SIZE →	12"	12"	12"	12"	12"
TYPE →	CONV.	CONV.	CONV.	CONV. PED.	CONV. PED.
LENS CONFIGURATION	R	R	R	DW	DW
	Y	Y	Y	WALK	WALK
	G	G	G		
			~~Y~~		
			~~G~~		
TOTAL NUMBER OF UNITS →	6	5	2	4	4

5 PHASE FULLY ACTUATED SIGNAL CONTROL

SEE SHEET 1 FOR PHASING DIAGRAM AND INTERVAL CHART.

CONTROLLER FRAME TO BE OF AMPLE CAPACITY FOR FUTURE EXPANSION TO 8 PHASE OPERATION.

EMERGENCY VEHICLE PRE-EMPT SYSTEM (3M-OPTICOM) WILL BE INCLUDED WITH THE CONTROLLER. IT WILL BE DETECTOR FROM 4 - DIRECTIONS
PHASE A & B.

LEGEND

- T — TELEPHONE DUCT OR U.G. CABLE
- G — GAS MAIN OR SERVICE LINE
- W — WATER MAIN OR SERVICE LINE
- SS — SANITARY OR STORM SEWER
- INSTALL OPTICOM DETECTOR 2-DIRECTION
- INSTALL OPTICOM DETECTOR 1-DIRECTION
- EXISTING CONDUIT FOR SIGNAL CABLE
- INSTALL CONDUIT-IN TRENCH
- INSTALL SIGNAL MAST ARM & POLE
- INSTALL TRAFFIC SIGNAL HEAD
- INSTALL SIGNAL PEDESTAL POLE
- EXISTING PULL BOX
- INSTALL PULL BOX
- SERVICE POLE - A.C. SOURCE
- INSTALL PEDESTRIAN SIGNAL HEAD
- INSTALL PEDESTRIAN PUSH BUTTON W/INTEGRAL ILLUMINATED SIGN

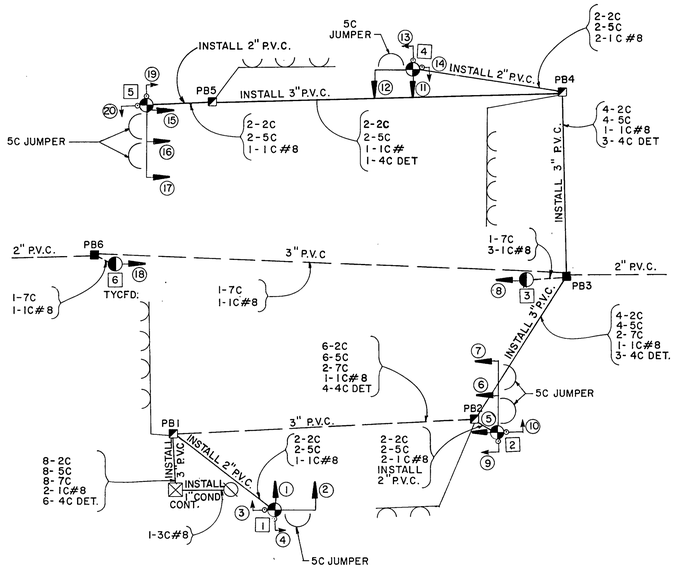
CITY OF ADDISON

TRAFFIC SIGNAL INSTALLATIONS
BELT LINE ROAD

INTERSECTION LAYOUT
BELT LINE ROAD AND
QUORUM DRIVE — MARCY STREET

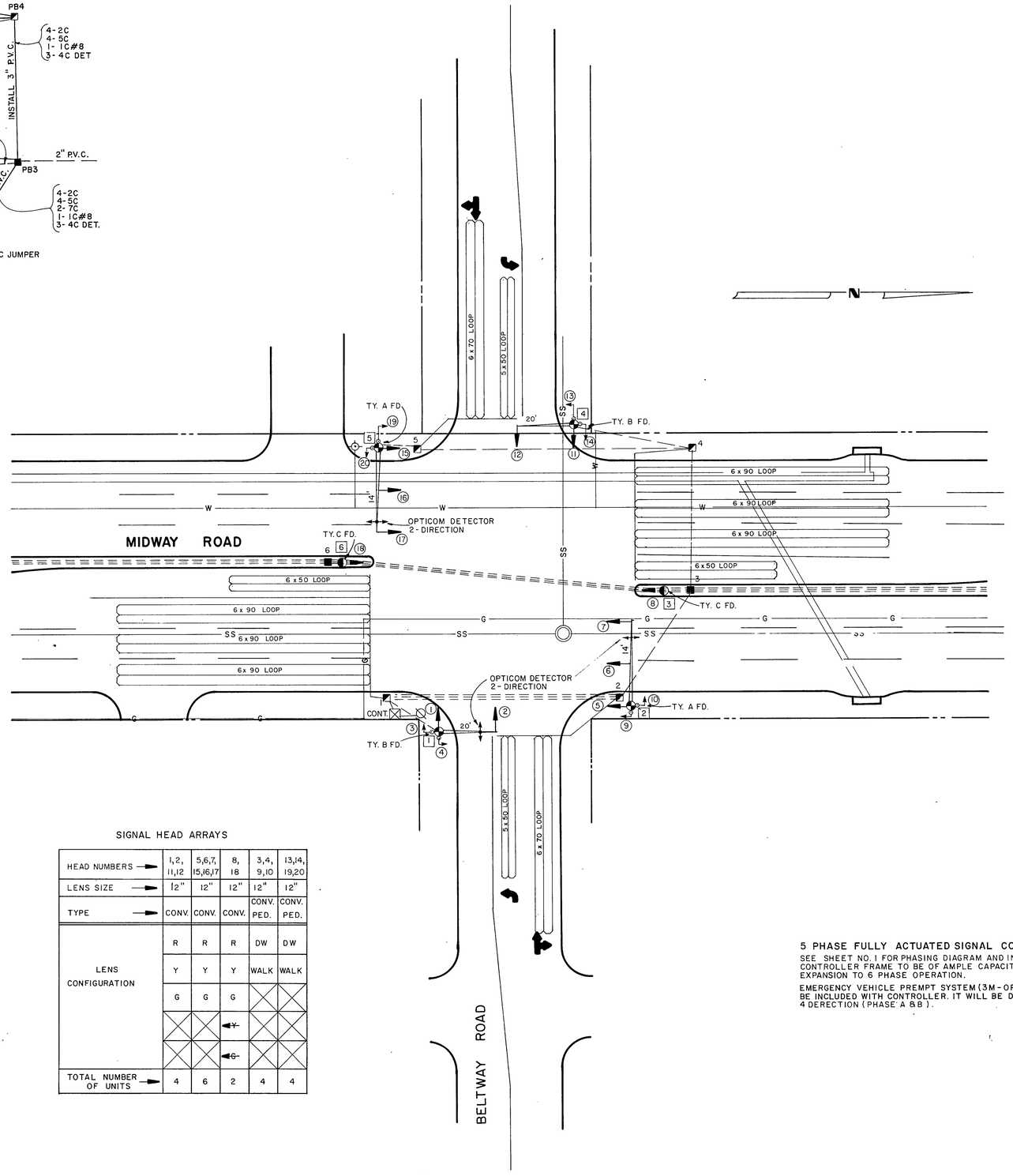
GINN, INC.

DESIGNED:	DRAWN:	DATE: JUNE, 1980	FILE:
APPROVED:	CHECKED:	SCALE: (PLAN) 1"= 20'	SHEET: 7 OF 14



WIRING DIAGRAM

(CONDUIT AND PULL BOX EXIST WHERE INDICATED)



QUANTITIES

ITEM	UNIT	QUAN.
PULL BOX	EA.	4
CONDUIT:		
1-INCH P.V.C. IN TRENCH	L.F.	10
2-INCH P.V.C. IN TRENCH	L.F.	80
3-INCH P.V.C. IN TRENCH	L.F.	55
3-INCH P.V.C. PUSHED	L.F.	155
PEDESTRIAN PUSH BUTTON	PR.	4
CABLE-WIRE:		
5 CONDUCTOR #12	L.F.	1910
7 CONDUCTOR #12	L.F.	525
2 CONDUCTOR #12 (PED. DET.)	L.F.	1620
4 CONDUCTOR (DETECTOR)	L.F.	935
1 CONDUCTOR #8 (GROUND)	L.F.	680
XHHW DETECTOR LOOP	L.F.	4970
3 CONDUCTOR #8 POWER	L.F.	50
FOUNDATIONS:		
CONTROLLER (IN-PLACE)	EA.	1
TYPE A	EA.	2
TYPE B	EA.	2
TYPE C	EA.	2
POLES:		
SIGNAL PEDESTAL	EA.	2
MAST ARM POLE W/20' ARM	EA	2
MAST ARM POLE W/30' ARM	EA.	2
SIGNAL HEADS:		
5 SECTION - 12" LENS	EA.	2
3 SECTION - 12" LENS	EA.	10
2 SECTION - 12" PEDESTRIAN	EA.	8
POWER SUPPLY ASSEMBLY	EA.	1
LOOP DETECTOR AMPLIFIER	EA.	12

CONDUIT & CABLE QUANTITIES

FROM	TO	DISTANCE	PVC CONDUIT T-TRENCH P-PUSHED	CABLE: SWITCHING 5C	SWITCHING 7C	DETECTOR 2C (PED)	DETECTOR 2C	DETECTOR 4C	GRD. 1C #8	LOOP 1C #12	PWR. 3C #8
⊠	PB1	10'	3"T- 15'	160	40	160		120	40	1690	
PB1	1	25'	2"T- 25'	90		70			30		
PB1	PB2	80'	E	540	180	540		360	85	760	
PB2	2	5'	2"T- 5'	50		30			20		
PB2	PB3	45'	3"P- 45'	220	110	220		165	50		
PB3	3	10'	E		30				45		
PB3	PB6	130'	E		140				135		
PB6	6	5'	E		25				10		
PB3	PB4	50'	3"P- 50'	240		240		180	55	1740	
PB4	4	40'	2"T- 40'	120		100			90		
PB4	PB5	100	3"P- 60' 3"T- 40'	220		220		110	105	780	
PB5	5	10	2"T- 10'	60		40			15		
⊘	⊠	10	1"T- 10'								50
(JUMPERS)				210							
TOTALS			1"T- 10', 2"T- 80', 3"T- 55', 3"P- 155'	1910	525	1620	—	935	680	4970	50

E = EXISTING

SIGNAL HEAD ARRAYS

HEAD NUMBERS →	1,2, 11,12	5,6,7, 15,16,17	8, 18	3,4, 9,10	13,14, 19,20
LENS SIZE →	12"	12"	12"	12"	12"
TYPE →	CONV.	CONV.	CONV.	CONV. PED.	CONV. PED.
LENS CONFIGURATION	R	R	R	DW	DW
	Y	Y	Y	WALK	WALK
	G	G	G		
			~~Y~~		
			~~G~~		
TOTAL NUMBER OF UNITS →	4	6	2	4	4

5 PHASE FULLY ACTUATED SIGNAL CONTROL

SEE SHEET NO. 1 FOR PHASING DIAGRAM AND INTERVAL CHART. CONTROLLER FRAME TO BE OF AMPLE CAPACITY FOR FUTURE EXPANSION TO 6 PHASE OPERATION.

EMERGENCY VEHICLE PREMPT SYSTEM (3M-OPTICOM) WILL BE INCLUDED WITH CONTROLLER. IT WILL BE DETECTED FROM 4 DERECTION (PHASE A &B).

LEGEND

- T — TELEPHONE DUCT OR U.G. CABLE
- G — GAS MAIN OR SERVICE LINE
- W — WATER MAIN OR SERVICE LINE
- SS — SANITARY OR STORM SEWER
- INSTALL OPTICOM DETECTOR 2-DIRECTION
- INSTALL OPTICOM DETECTOR 1-DIRECTION
- EXISTING CONDUIT FOR SIGNAL CABLE
- INSTALL CONDUIT-IN TRENCH
- INSTALL SIGNAL MAST ARM & POLE
- INSTALL TRAFFIC SIGNAL HEAD
- INSTALL SIGNAL PEDESTAL POLE
- EXISTING PULL BOX
- INSTALL PULL BOX
- SERVICE POLE-A.C. SOURCE
- INSTALL PEDESTRIAN SIGNAL HEAD
- INSTALL PEDESTRIAN PUSH BUTTON W/INTEGRAL ILLUMINATED SIGN.

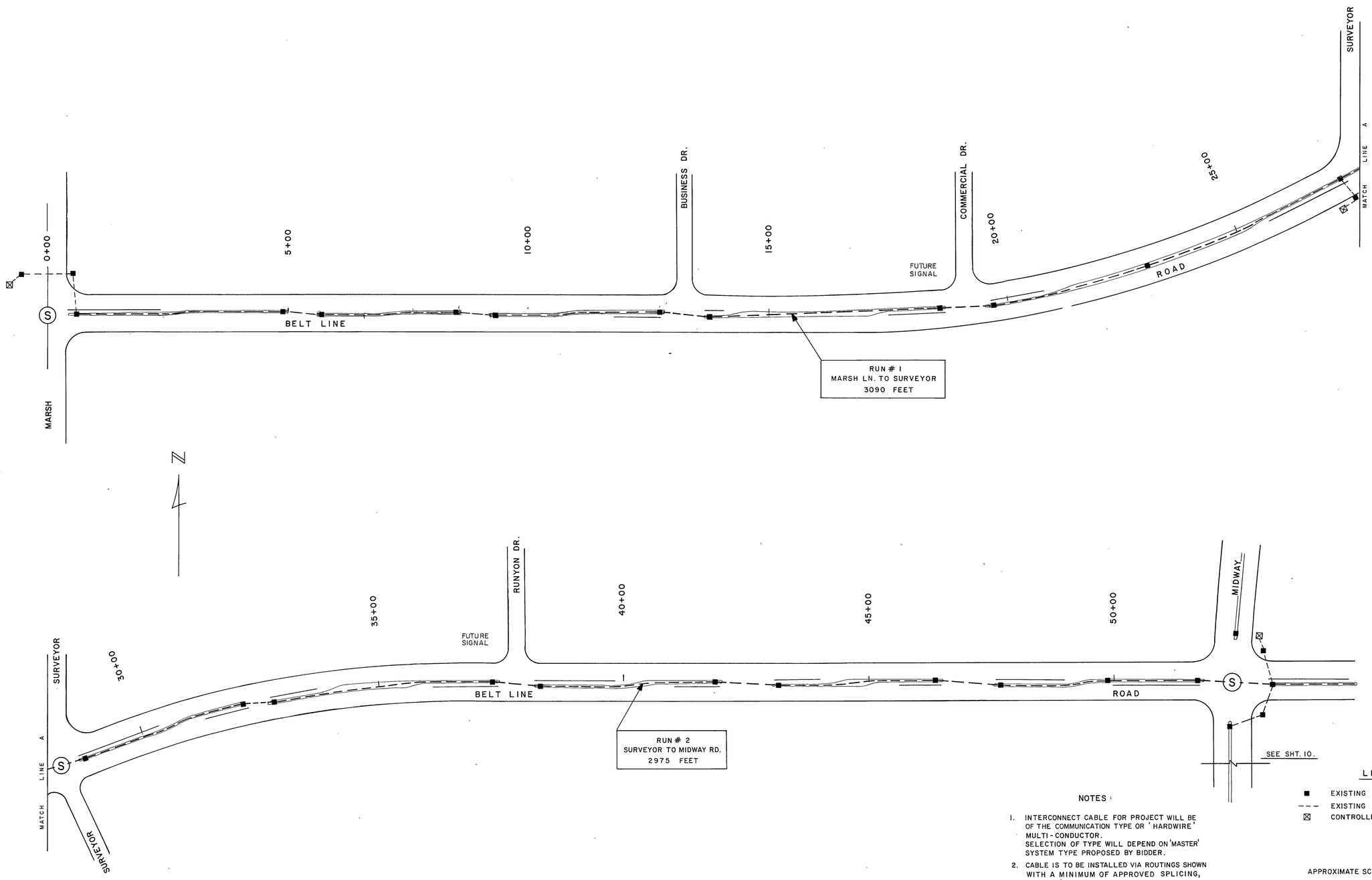
CITY OF ADDISON
DALLAS COUNTY, TEXAS

TRAFFIC SIGNAL INSTALLATIONS

MIDWAY ROAD AND BELTWAY ROAD

GINN, INC.
Consulting Engineers Dallas, Texas

DESIGNED-H.J.	DRAWN-S.M.M.	DATE-	JOB No. J188
APPROVED-H.W.G.	CHECKED-A.G.F.	SCALE- 1"=20'	SHEET 8 OF 14



NOTES :

1. INTERCONNECT CABLE FOR PROJECT WILL BE OF THE COMMUNICATION TYPE OR 'HARDWIRE' MULTI-CONDUCTOR. SELECTION OF TYPE WILL DEPEND ON 'MASTER' SYSTEM TYPE PROPOSED BY BIDDER.
2. CABLE IS TO BE INSTALLED VIA ROUTINGS SHOWN WITH A MINIMUM OF APPROVED SPLICING, LINKING THE FOLLOWING SIGNALS:
   (a) MARSH LANE TO SURVEYOR DRIVE
   (b) SURVEYOR BLVD TO MIDWAY ROAD
   (c) MIDWAY RD(SOUTH) BELT LINE TO BELTWAY
3. A CABLE LOOP OF A MINIMUM LENGTH OF 5 FEET SHALL BE PROVIDED IN EACH PULL BOX IN EACH CABLE RUN.
4. SEE QTY'S SHT. FOR SUMMARY OF CABLE.

LEGEND

- ■ EXISTING PULL BOX
- – – – EXISTING PVC CONDUIT
- ⊠ CONTROLLER CABINET - LOCAL

APPROXIMATE SCALE : 1 INCH = 100 FEET

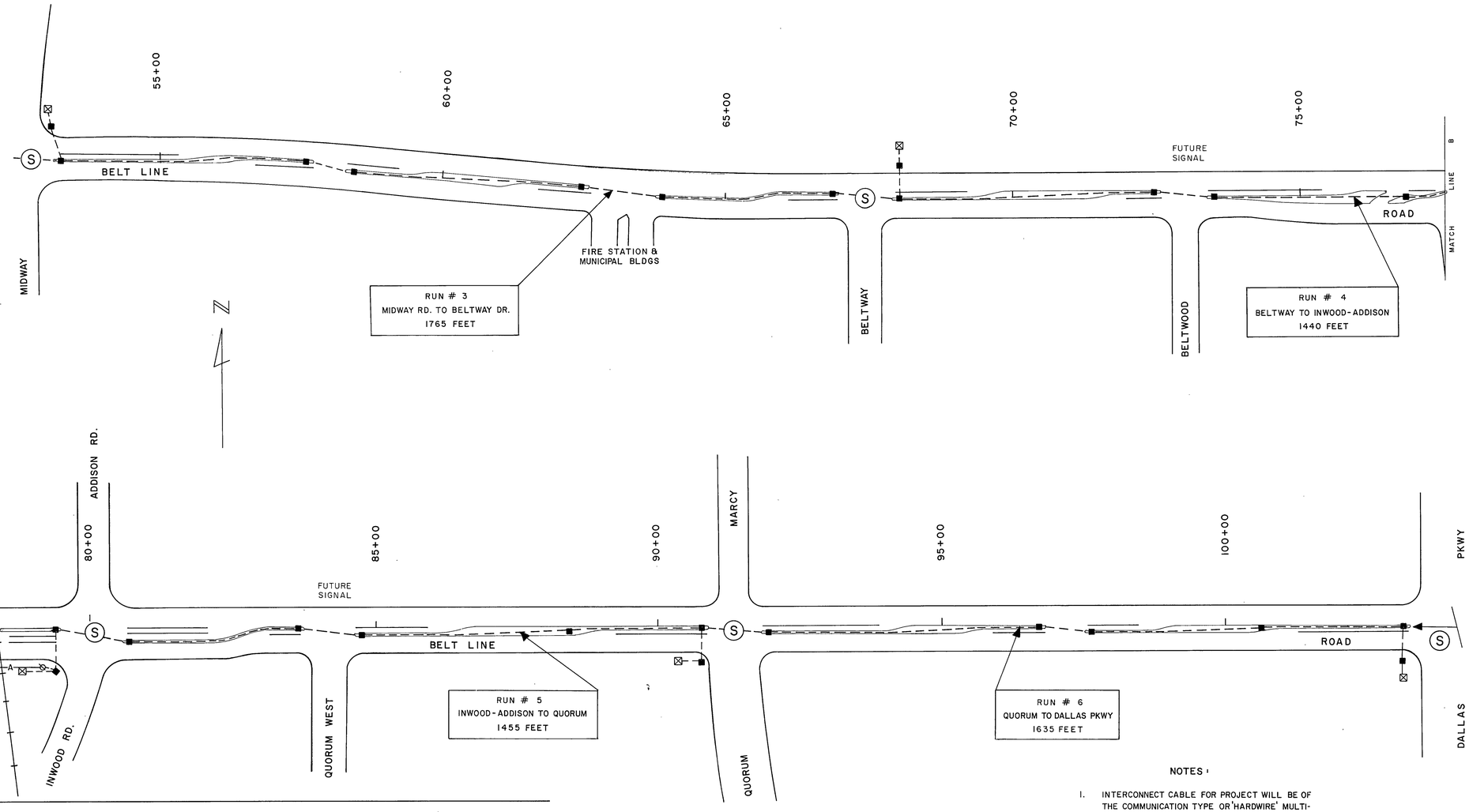
CITY OF ADDISON

TRAFFIC SIGNAL INSTALLATIONS
BELT LINE ROAD

INTERCONNECT CABLE ROUTING & QUANTITIES
BELT LINE ROAD
MARSH LANE TO MIDWAY ROAD

GINN, INC.

DESIGNED -	DRAWN -	DATE - JUNE, 1980	FILE -
APPROVED -	CHECKED -	SCALE - 1" = 100'	SHEET - 9 OF - 14 -



LEGEND

- EXISTING PULL BOX
- EXISTING PVC CONDUIT
- CONTROLLER CABINET - LOCAL

NOTES :

1. INTERCONNECT CABLE FOR PROJECT WILL BE OF THE COMMUNICATION TYPE OR 'HARDWIRE' MULTI-CONDUCTOR.
   SELECTION OF TYPE WILL DEPEND ON 'MASTER' SYSTEM TYPE PROPOSED BY BIDDER.
2. CABLE IS TO BE INSTALLED VIA ROUTINGS SHOWN WITH A MINIMUM OF APPROVED SPLICING, LINKING THE FOLLOWING SIGNALS:
   (a) MIDWAY ROAD TO BELTWAY DRIVE
   (b) BELTWAY DRIVE TO INWOOD - ADDISON
   (c) INWOOD - ADDISON TO QUORUM - MARCY
   (d) QUORUM - MARCY TO DALLAS PKWY.
3. A CABLE LOOP OF A MINIMUM LENGTH OF 5 FEET SHALL BE PROVIDED IN EACH PULL BOX IN EACH CABLE RUN.
4. SEE QTY. SHEET FOR SUMMARY OF CABLE QUANTITIES.

APPROXIMATE SCALE : 1 INCH = 100 FEET

CITY OF ADDISON

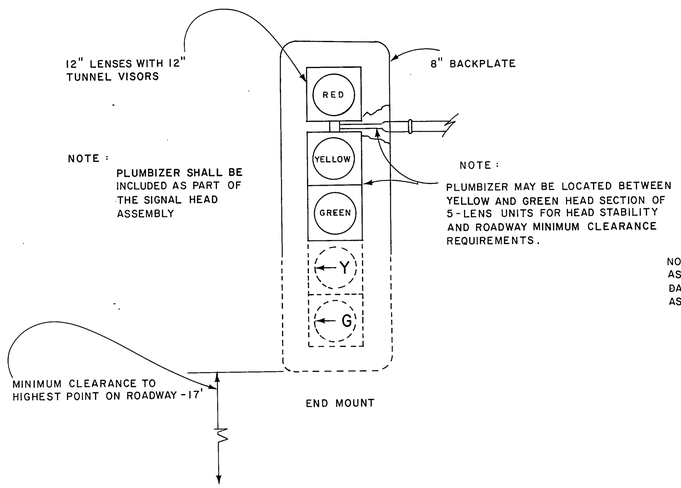
TRAFFIC SIGNAL INSTALLATIONS
BELT LINE ROAD

INTERCONNECT CABLE ROUTING & QUANTITIES

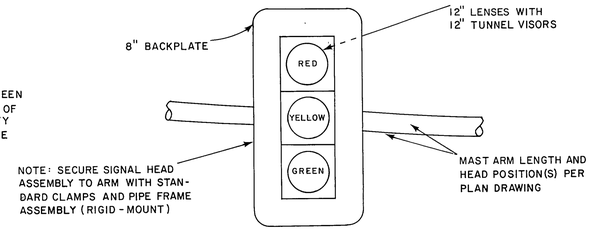
BELT LINE RD. - MIDWAY RD TO DALLAS PARKWAY
MIDWAY RD. - BELT LINE RD. TO BELTWAY RD.

GINN, INC.

DESIGNED-	DRAWN-	DATE- JUNE, 1980	FILE-
APPROVED-	CHECKED-	SCALE- 1" = 100'	SHEET- 10 OF- 14

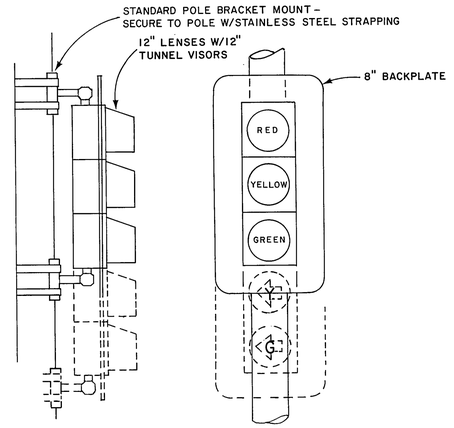


END MOUNT

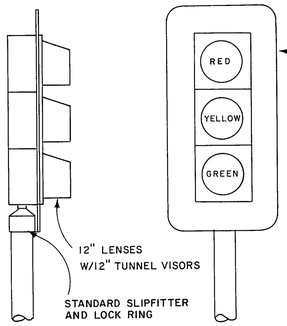


MID - MOUNT

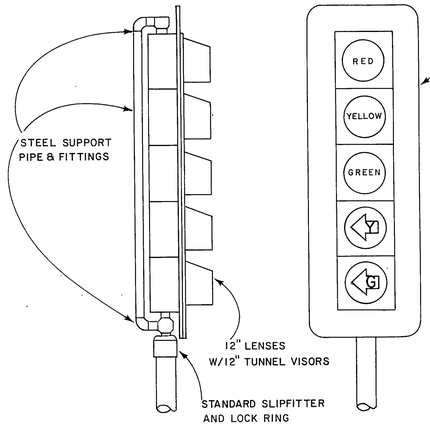
TYPICAL MAST-ARM MOUNTINGS



TYPICAL POLE MOUNT
3-LENS OR 5-LENS HEAD



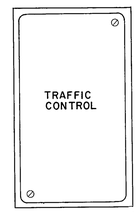
TYPICAL SIGNAL PEDESTAL
TOP MOUNT - 3- LENS HEAD

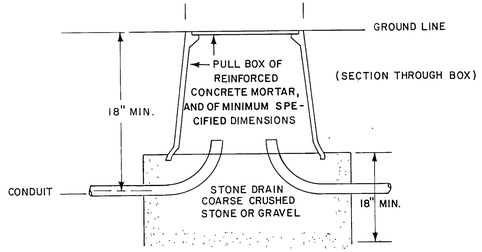


TYPICAL SIGNAL PEDESTAL
TOP MOUNT - 5- LENS HEAD

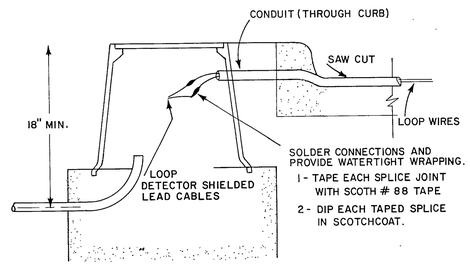
GENERAL NOTES FOR SIGNAL HEADS

1. PEDESTAL TOP-MOUNTED SIGNAL HEADS TO BE FURNISHED AS COMPLETE UNITS INCLUDING SLIP-FITTER, LOCK RING ATTACHMENT AND OTHER NECESSARY MOUNTING HARDWARE, PER DETAILS.
2. POLE MOUNTED SIGNAL HEADS TO BE FURNISHED AS COMPLETE UNITS INCLUDING FITTINGS, POLE-MOUNT BRACKETS, STAINLESS STEEL STRAPPING AND OTHER NECESSARY MOUNTING HARDWARE, PER DETAIL.
3. BOTTOM SECTION OF SIGNAL HEADS MUST HAVE CORRUGATIONS TO INSURE POSITIVE RADIAL POSITION LOCKING.
4. POST AND PEDESTAL TOP MOUNTED HEADS ARE TO HAVE A MINIMUM CLEARANCE TO GROUND LINE OF 7 FEET.
5. ALL MAST-ARM MOUNTED HEADS ARE TO HAVE A MINIMUM CLEARANCE TO HIGHEST POINT OF ROADWAY OF 17 FEET.
6. ALL SIGNAL HEADS TO BE EQUIPPED WITH 8" BACKPLATES, PER DETAILS.
7. CONTRACTOR SHALL PROVIDE SAME COLOR FOR THE SIGNAL HEADS AND HARDWARE AS IS CHOSEN FOR MAST ARMS AND POLES.





TYPICAL PULL BOX AND CONDUIT INSTALLATION



CONNECTION METHOD FOR LOOP WIRES AND LOOP DETECTOR LEAD-IN(S)

NOT TO SCALE

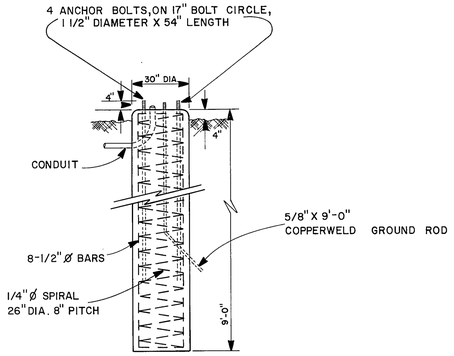
CITY OF ADDISON

TRAFFIC SIGNAL INSTALLATIONS
BELT LINE ROAD

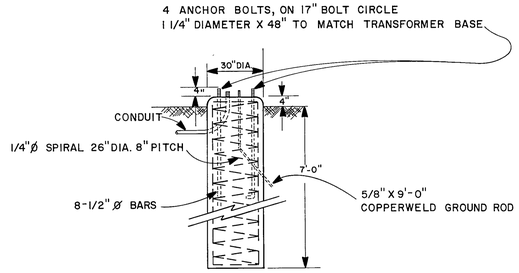
DETAILS
TRAFFIC SIGNAL HEADS
PULL BOXES- CONDUIT- LOOP CONNECTIONS

GINN, INC.

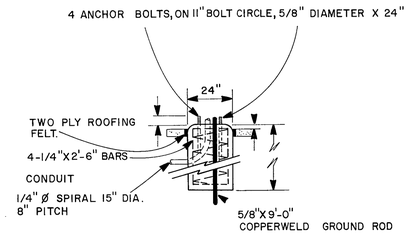
DESIGNED-	DRAWN-	DATE- JUNE 1980	FILE-
APPROVED-	CHECKED-	SCALE- NOT TO SCALE	SHEET- 11 OF- 14



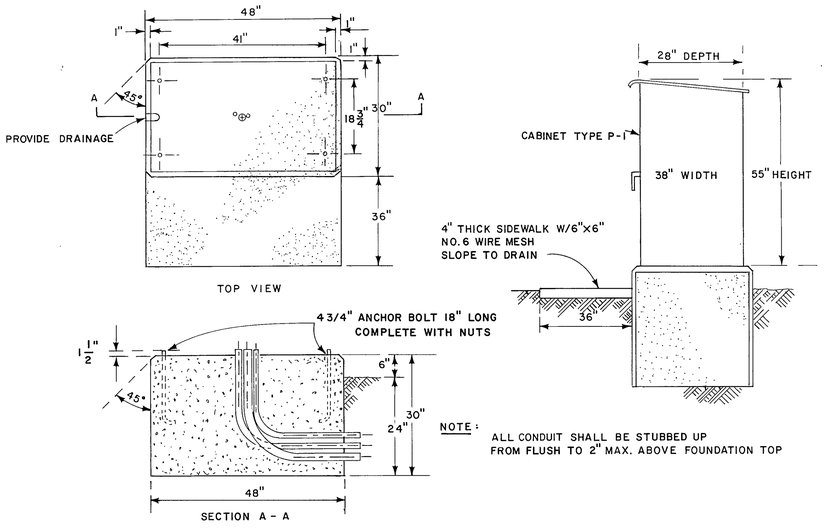
CONCRETE FOUNDATION
TYPE A



CONCRETE FOUNDATION
TYPE B



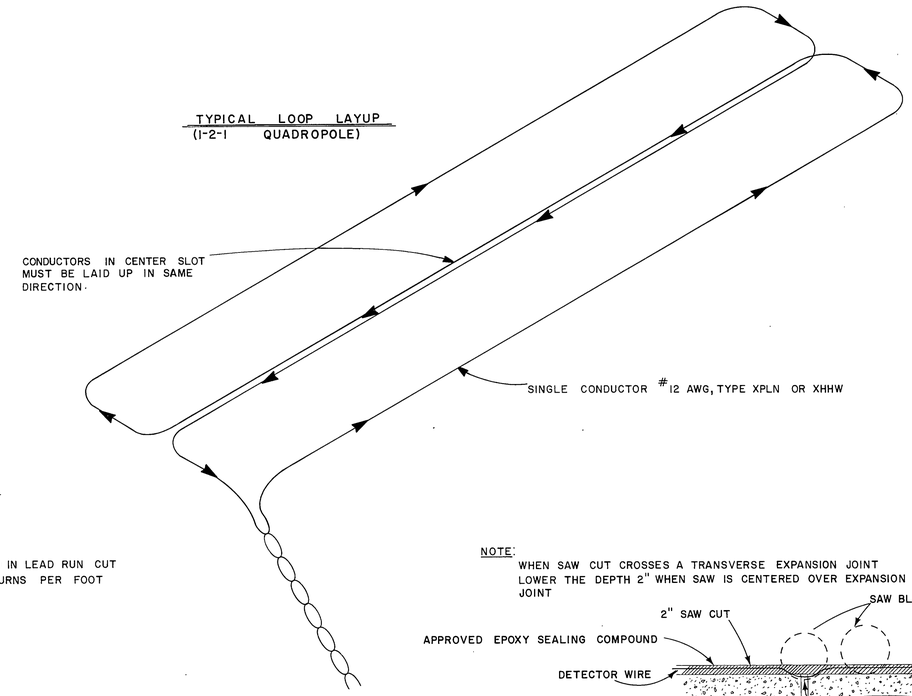
CONCRETE FOUNDATION
TYPE C



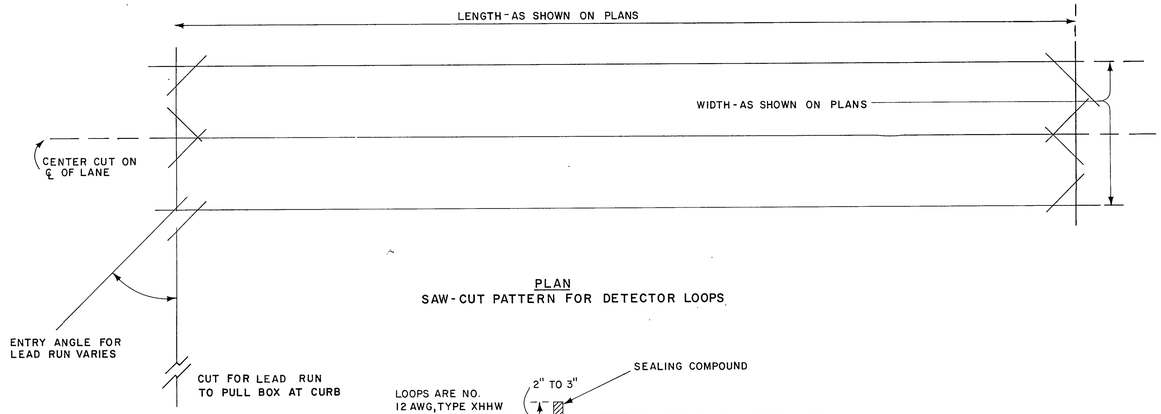
NOTE: ALL CONDUIT SHALL BE STUBBED UP FROM FLUSH TO 2" MAX. ABOVE FOUNDATION TOP

CONTROLLER CABINET & FOUNDATION

TYPICAL LOOP LAYUP
(1-2-1 QUADROPOLE)



NOTE:
WHEN SAW CUT CROSSES A TRANSVERSE EXPANSION JOINT LOWER THE DEPTH 2" WHEN SAW IS CENTERED OVER EXPANSION JOINT



PLAN
SAW-CUT PATTERN FOR DETECTOR LOOPS

LOOPS ARE NO. 12 AWG, TYPE XHHW OR XPLN, STRANDED SINGLE CONDUCTOR WIRE.

NOT TO SCALE

1. INSTALLATION OF WIRE LOOPS IS TO BE MADE IN THE SHORTEST TIME PRACTICAL, NOT TO EXCEED A 4 HR MAX. AND SCHEDULED DURING OFF PEAK HOURS TO MINIMIZE DELAY TO VEHICLE TRAFFIC.
2. THE PAVEMENT CUT IS TO BE CUT WITH A CONCRETE SAW TO NEAT LINES AND LOOSE MATERIAL REMOVED. THE CUT SHOULD BE CLEAN AND DRY WHEN THE SEALING COMPOUND IS PLACED.
3. THE LEAD-IN WIRES ARE TO BE TWISTED A MINIMUM OF TWO TURNS PER FOOT AND REMAIN UNDISTURBED AFTER THE LOOP HAS BEEN TUNED.
4. EACH LOOP IS TO BE RETURNED TO CONTROLLER VIA ONE PAIR OF UNSPLICED SHIELDED LEAD-IN WIRES. MULTIPLE, TWISTED LEADS TO MORE THAN ONE LOOP IN SINGLE LEAD RUN SAW SLOT ARE PERMISSIBLE. HOWEVER, DEPTH OF SUCH SLOTS MUST BE INCREASED TO PROVIDE A MINIMUM COVER THICKNESS FOR EPOXY SEALANT OF $1\frac{1}{2}$ INCHES.

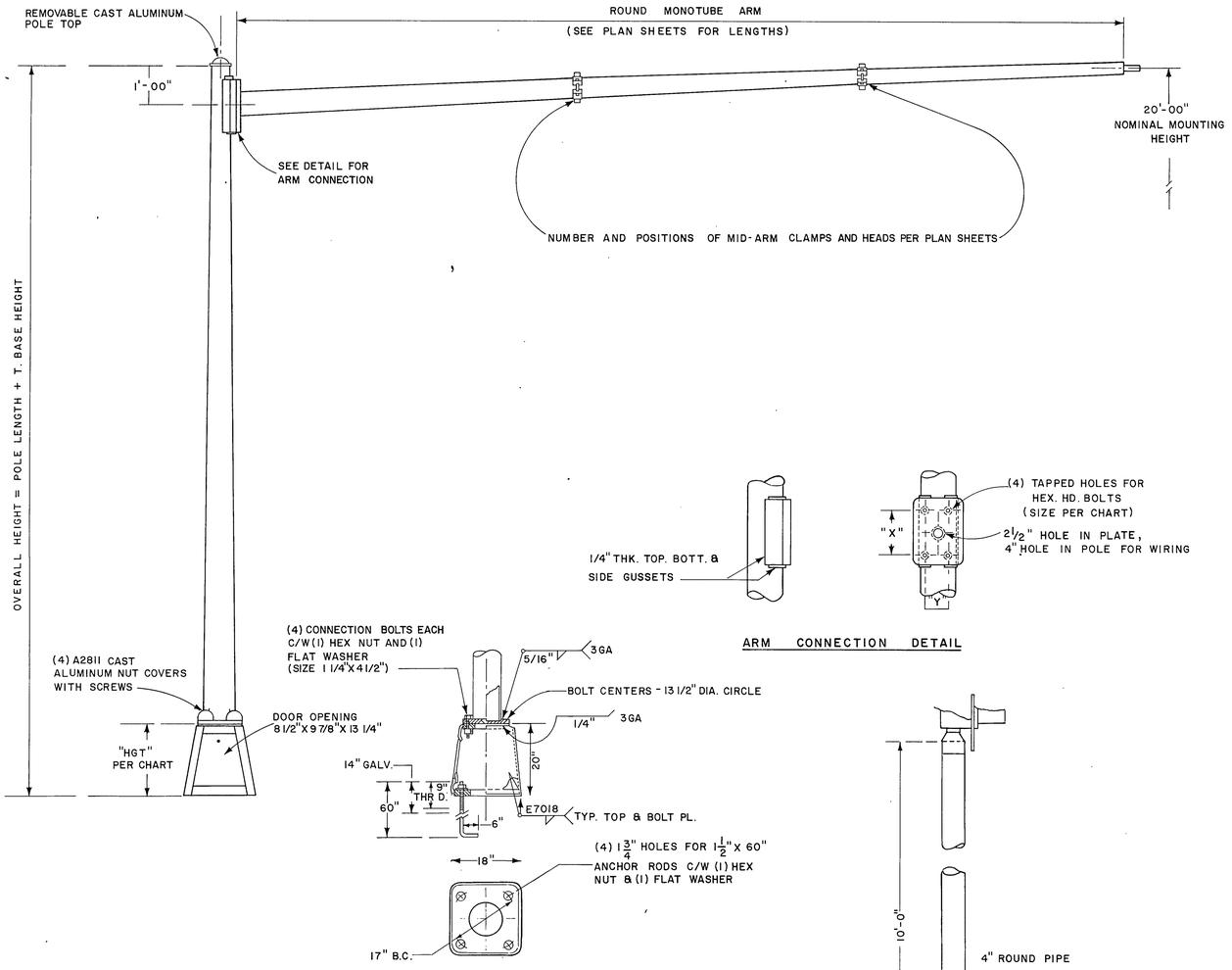
CITY OF ADDISON

TRAFFIC SIGNAL INSTALLATIONS
BELT LINE ROAD

DETAILS
INDUCTION DETECTOR LOOPS
POLE FOUNDATIONS - CONTROLLER CABINET & FOUNDATION

GINN, INC.

DESIGNED-	DRAWN-	DATE- JUNE, 1980	FILE-
APPROVED-	CHECKED-	SCALE- NOT TO SCALE	SHEET- 12 OF- 14

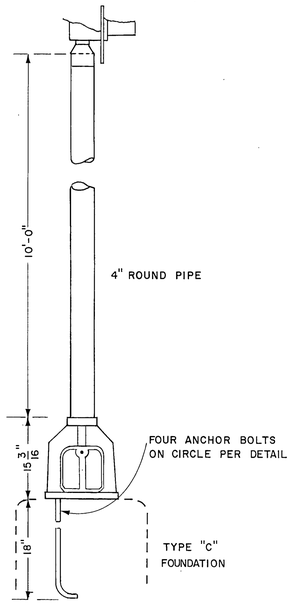


ARM CONNECTION DETAIL

MAST ARM POLES AND MAST ARMS TO BE DESIGNED TO WITHSTAND DEAD LOADS AND THEORETICAL DYNAMIC LOADS DEVELOPED BY 80 MILE PER HOUR WINDS, BASED ON TOTAL WEIGHT AND SQUARE FOOTAGE AREA OF TRAFFIC SIGNAL HEADS AND BACK PLATES SPECIFIED FOR RESPECTIVE ASSEMBLIES. SEE POLE SCHEDULE IN UPPER RIGHT-HAND CORNER FOR HEAD ARRAYS ON EACH MAST ARM POLE ASSEMBLY AND SUGGESTED DESIGNS.

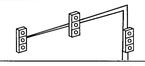
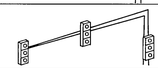
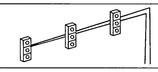
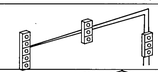
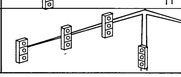
ALL SIGNAL MAST ARMS AND POLES SHALL HAVE PAINTED FINISH. THE CONTRACTOR SHALL SUBMIT THE TYPE AND COLOR SELECTION TO THE ENGINEER FOR APPROVAL (THE CITY PREFERENCE IS A BRONZE OR BROWN COLOR.)

MAST ARM POLES AND TRANSFORMER BASES



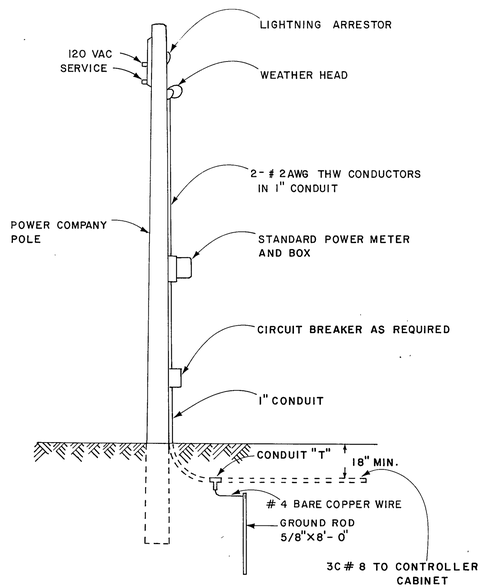
SIGNAL PEDESTAL POLE

SIGNAL PEDESTAL AND MAST ARM POLE SCHEDULE

UNIT DESCRIPTION	SIGNAL HEAD, ARRAY	SUGGESTED POLE DESIGN	NUMBER OF UNITS BY LOCATION: MIDWAY - BELTWAY	SURVEYOR	MIDWAY	FIRE STATION MUNI.-BLDG.	BELTWAY	ADDISON INWOOD	QUORUM MARCY	TOTALS
SIGNAL PEDESTAL W/3 SECTION SIGNAL HEAD	(SEE DETAIL SHEET)	UA 240	1	—	—	—	1	—	1	3
SIGNAL PEDESTAL W/5 SECTION SIGNAL HEAD	(SEE DETAIL SHEET)	U 240	2	2	4	—	2	—	2	12
MAST ARM POLE ASSY. 15' MAST ARM W/2 - 5 SECTION SIGNAL HEADS		50700 Y161	—	—	—	—	—	2	—	2
MAST ARM POLE ASSY. 20' MAST ARM W/2 - 3 SECTION SIGNAL HEADS		50700 Y163	2	—	—	—	1	—	—	3
MAST ARM POLE ASSY. 25' MAST ARM W/2 - 3 SECTION SIGNAL HEADS		50700 Y166	—	1	—	—	—	—	2	3
MAST ARM POLE ASSY. 30' MAST ARM W/2 - 3 SECTION SIGNAL HEADS		50700 Y168	—	1	—	—	—	—	—	1
MAST ARM POLE ASSY. 30' MAST ARM W/3 - 3 SECTION SIGNAL HEADS		50700 Y168	2	1	2	—	2	—	2	9
MAST ARM POLE ASSY. 35' MAST ARM W/3 - 3 SECTION SIGNAL HEADS		50700 Y171	—	1	2	—	—	2	—	5
MAST ARM POLE ASSY. 35' MAST ARM W/3 MAST ARM MTD. 3 - SECTION HEADS		50700 Y171	—	—	—	1	—	—	—	1
MAST ARM POLE ASSY. 35' MAST ARM W/2 - 3 SEC. & 1 - 5 SEC. SIGNAL HEAD		50700 Y171	—	—	—	—	—	2	—	2
MAST ARM POLE ASSY. 25' & 35' MAST ARMS. W/5 - 3 SECTION SIGNAL HEADS		50700 SPECIAL	—	—	—	1	—	—	—	1

* SUGGESTED POLE DESIGN # S FOR PEDESTALS ARE EAGLE SIGNAL CORP. PART NUMBERS. SUGGESTED POLE DESIGN # S FOR MAST ARM POLES ARE FROM UNION METAL MFG CO., SERIES 50700.

REFER TO SPECIFICATION "MA-POL" FOR REQUIREMENTS FOR SUBMITTAL OF DESIGN DRAWINGS FOR ALL POLES, BY CONTRACTOR, AFTER AWARD OF CONTRACT.



POWER SOURCE DETAILS

THE CONTRACTOR SHALL MOUNT EQUIPMENT ON POLES AS DIRECTED BY THE POWER COMPANY.

CITY OF ADDISON

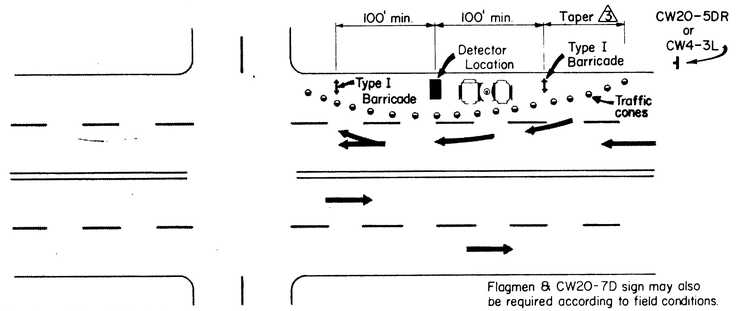
TRAFFIC SIGNAL INSTALLATIONS
BELT LINE ROAD

DETAILS

SIGNAL MAST ARMS AND POLES
PEDESTAL POLES AND POWER SUPPLY

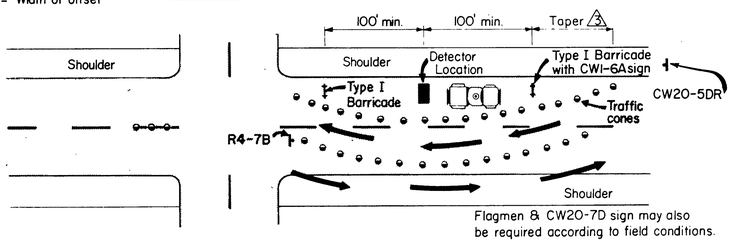
GINN, INC.

DESIGNED-	DRAWN-	DATE- JUNE, 1980	FILE-
APPROVED-	CHECKED-	SCALE- NOT TO SCALE	SHEET- 13 OF- 14,



S = Speed (Numerical value)
W = Width of offset

Daytime - Four Lane Roadway



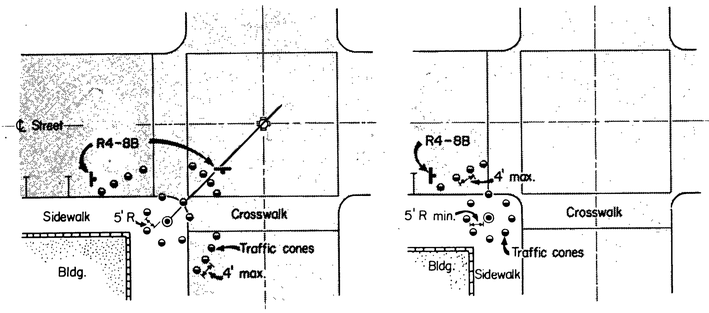
Daytime - Two Lane Roadway

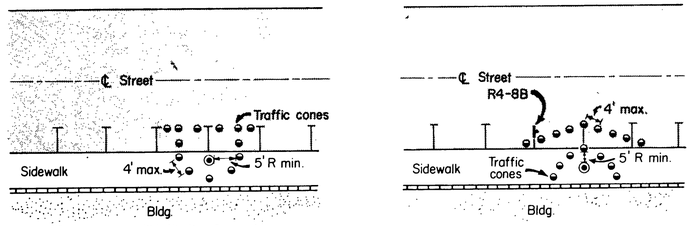
TYPICAL DETECTOR INSTALLATION

At Night - 1. Steady burn lamps for delineation instead of cones.
2. Flashers on barricades.

⚠3 TAPER = $\frac{WS^2}{60}$ FOR 40MPH OR LESS

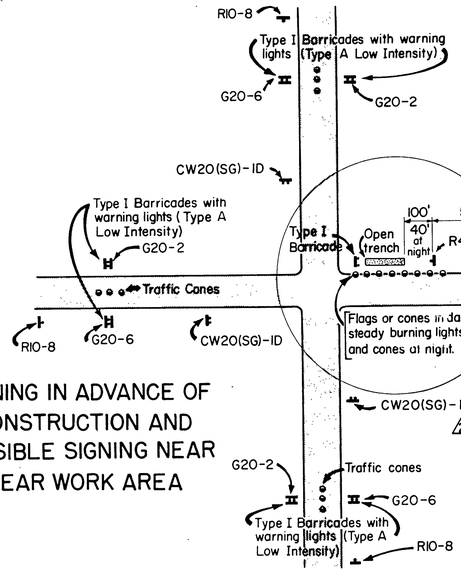
TAPER = WS FOR 45MPH OR GREATER





TYPICAL RESTRICTED PEDESTRIAN MOVEMENTS

Where pedestrian movements are anticipated at night, all holes, trenches or other hazardous areas shall be adequately protected by use of barricades, lights or other protective devices.



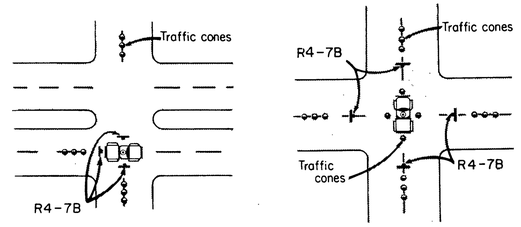
SIGNING IN ADVANCE OF CONSTRUCTION AND POSSIBLE SIGNING NEAR NEAR WORK AREA

NOTE: For several closely adjoining intersections on the same project, advance signing may not be required in advance of each intersection, but only in advance of the intersections at the project limits. If this is the case, see details elsewhere in the plans for advance signing requirements.

* Distance varies with speed of traffic. Distance can be less than shown in urban areas.

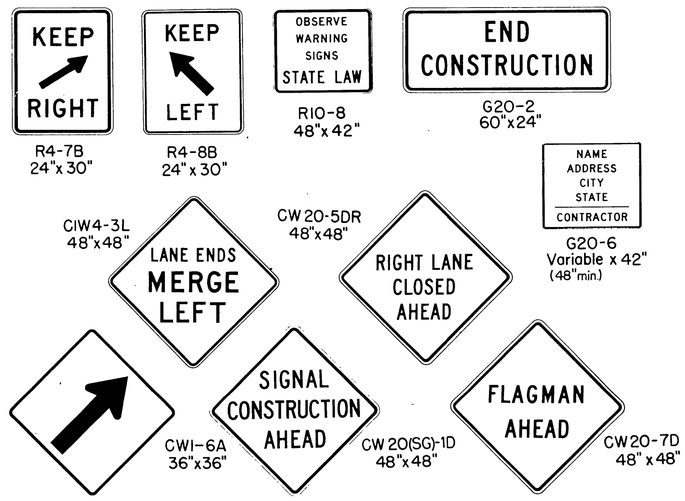
** Change to type I barricades with arrows at night.

⚠2 The advance signs and barricades shall be in place when signal construction operations are in progress. The contractor with the approval of the engineer may remove the advance signs and barricades when there are no construction operations under way. Any obstructions or hazards at the work area shall be clearly marked and delineated at all times.



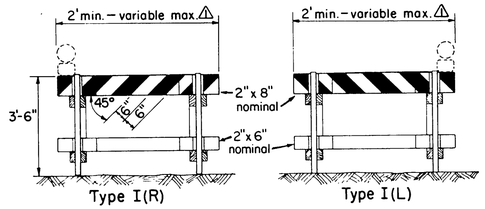
TYPICAL HANGING SIGNAL INSTALLATIONS

NOTES
1. Flagmen & CW20-7D sign may also be required according to field conditions.
2. Use vehicle equipped with yellow rotating beacon.



TYPICAL SIGNS USED IN TRAFFIC SIGNAL CONSTRUCTION AREAS

For Type I Barricades, both sides of the top rail shall have reflective orange and reflective white striping.



TYPE I BARRICADES

⚠1 Where a sign is to be mounted on a barricade, the barricade length should not be less than the horizontal dimension of the sign. If lights are also to be mounted on the barricade, the barricade should not be less than the sign width plus about 12" for each light to be attached. Barricades of a greater length than the above will be satisfactory.

GENERAL NOTES

Reflectorized signs shall be constructed of retro-reflective sheeting and shall be maintained to meet the requirements for appearance, color and retro-reflectivity of the Item FLAT SURFACE FLEXIBLE REFLECTIVE SHEETING in the Department's specifications. Paints and coloration of signs shall be equal to the Department's standards. Signs shall comply with the general requirements specified in the "Standard Specifications for Construction of Highways, Streets and Bridges" in effect at the time of contract award.

All traffic control devices shall conform with the "Texas Manual on Uniform Traffic Control Devices for Streets and Highways". Contractors shall furnish a copy of a certification from the manufacturer of the lights that the warning lights meet the requirements of the ITE Standard for Flashing and Steady Burn Warning Lights as contained in the lastest edition of the "Texas Manual on Uniform Traffic Control Devices for Streets and Highways".

All signs shown have black letters and borders on a reflective orange background except the R10-8, R4-7B, R4-8B, and G20-6 signs which have a reflective white background.

Signs erected on portable supports for use on construction projects normally mean signs which are used during the day to warn or guide traffic through and/or around the actual construction area, but at the end of the workday such signs are either removed or turned away from the view of traffic. Portable supports shall be as shown on this sheet or as approved by the Engineer. The bottom of the sign shall be a minimum of one (1) foot above the pavement edge. Signs required for nighttime usage should not normally be mounted on portable supports, except when approved by the Engineer.

Signs erected on fixed supports for use on construction projects normally mean signs that are to remain in place for both day and night usage to regulate, warn and guide traffic in advance of and within the limits of the project including the crossroad approaches. However, under certain conditions, such as where a sign may be required for a few days duration and then is no longer needed or where a sign is moved from location to location every few days or where it is not practical or desirable to provide a fixed mounting, such signs may be erected on a temporary type of support. Temporary supports shall be as shown on this sheet or as approved by the Engineer. Signs erected on temporary supports should be at a minimum height of three (3) feet. Signs erected on fixed supports should be at a minimum height of five (5) feet in rural areas and seven (7) feet in urban areas and other rural locations where sight distance obstructions are present. Regardless of the type of support used, regulatory signs should not be erected at height less than the 5 or 7 foot minimum specified above unless a lower height is approved by the Engineer. Posts for fixed supports should be set in the ground without concrete footings.

Where portable or temporary supports require the use of weights to keep a sign or barricade from turning over, the use of some type of sandbag is recommended. The use of pieces of concrete, rocks, iron, steel or other solid objects will not be permitted.

For additional information and guidelines on barricades and construction signs see the Texas Manual on Uniform Traffic Control Devices.

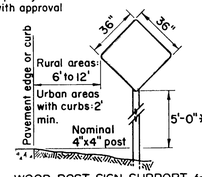
Signing shown is typical and may be adjusted to fit field conditions by the engineer.

TYPICAL SIGN SUPPORTS

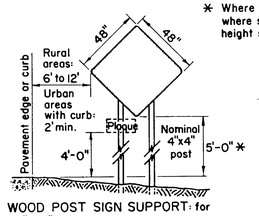
⚠ Other type of portable or temporary sign supports may be used with approval of the ENGINEER.

* Where sight distance obstructions are present, or where signs are erected in urban areas, the 5'-0" height should be increased to 7'-0".

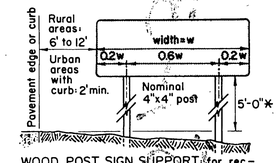
FIXED SUPPORTS



WOOD POST SIGN SUPPORT: for 36"x36" and smaller warning signs, and other signs having an area not exceeding 9sq. ft.

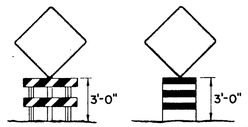


WOOD POST SIGN SUPPORT: for 48"x48" warning signs.



WOOD POST SIGN SUPPORT: for rectangular regulatory signs, guide signs, and D 20 signs.

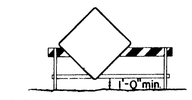
TEMPORARY SUPPORTS ⚠



TYPE II BARRICADE SIGN SUPPORT

DRUM SIGN SUPPORT

PORTABLE SUPPORTS ⚠



TYPE I BARRICADE SIGN SUPPORT
Barricade Types I, II or III may be used.

CITY OF ADDISON

TRAFFIC SIGNAL INSTALLATIONS
BELT LINE ROAD

CONSTRUCTION PROCEDURES

BARRICADES, SIGNING AND CONSTRUCTION LAYOUTS

GINN, INC.

DESIGNED-	DRAWN-	DATE- JUNE 1980	FILE-
APPROVED-	CHECKED-	SCALE: NOT TO SCALE	SHEET- 14 OF- 14