

PLANS SYMBOLS

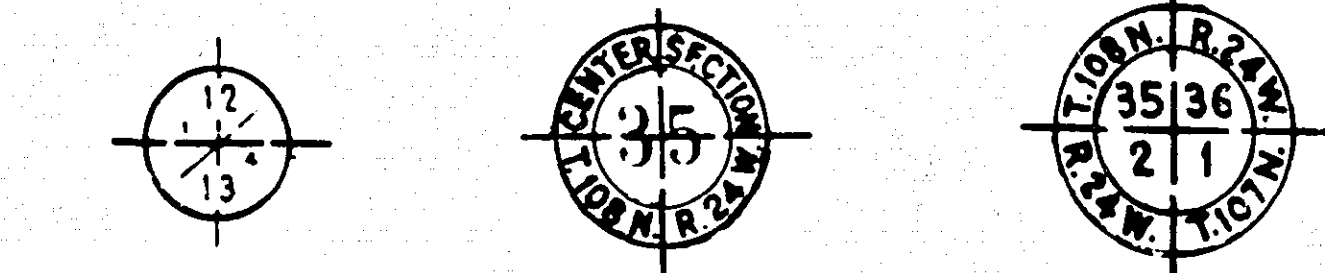
STATE LINE	----
COUNTY LINE	----
TOWNSHIP OR RANGE LINE	----
SECTION LINE	----
QUARTER LINE	----
SIXTEENTH LINE	----
RIGHT OF WAY LINE	----
PRESENT RIGHT-OF-WAY LINE	----
CONTROL OF ACCESS LINE	----
PROPERTY LINE (Except Land Lines)	----
VACATED PLATTED PROPERTY	----
CORPORATE OR CITY LIMITS	----
TRUNK HIGHWAY CENTER LINE	----
RETAINING WALL	----
RAILROAD	----
RAILROAD RIGHT-OF-WAY LINE	----
RIVER OR CREEK	----
DRY RUN	----
DRAINAGE DITCH	----
DRAIN TILE	----
CULVERT	----
DRAIN INLET	----
GUARD RAIL	----
BARBED WIRE FENCE	----
WOVEN WIRE FENCE	----
CHAIN LINK FENCE	----
RAILROAD SNOW FENCE	----
STONE WALL OR FENCE	----
HEDGE	----
RAILROAD CROSSING SIGN	----
RAILROAD CROSSING BELL	----
ELECTRIC WARNING SIGN	----
CROSSING GATE	----
MEANDER CORNER	----

SPRINGS	----
MARSH	----
TIMBER	----
ORCHARD	----
BRUSH	----
NURSERY	----
CATCH BASIN	----
FIRE HYDRANT	----
CATTLE GUARD	----
OVERPASS (Highway Over)	----
UNDERPASS (Highway Under)	----
BRIDGE	----
BUILDING (One Story Frame)	----
F-FRAME	----
S-STONE	----
B-BRICK	----
ST-STUCCO	----
IRON PIPE OR ROD	----
MONUMENT (STONE, CONCRETE, OR METAL)	----
WOODEN HUB	----
GRAVEL PIT	----
SAND PIT	----
BURROW PIT	----
ROCK QUARRY	----

UTILITIES SYMBOLS

POWER POLE LINE	----
TELEPHONE OR TELEGRAPH POLE LINE	----
JOINT TELEPHONE AND POWER OR POWER POLES	----
ON TELEPHONE POLES	----
ANCHOR	----
STEEL TOWER	----
STREET LIGHT	----
PEDESTAL TELEPHONE CABLE TERMINAL	----
GAS MAIN	----
WATER MAIN	----

CONDUIT	----
TELEPHONE CABLE IN CONDUIT	----
ELECTRIC CABLE IN CONDUIT	----
TELEPHONE MANHOLE	----
ELECTRIC MANHOLE	----
BURIED TELEPHONE CABLE	----
BURIED ELECTRIC CABLE	----
AERIAL TELEPHONE CABLE	----
SEWER, (SANITARY OR STORM)	----
SEWER MANHOLE	----



PIT DATA

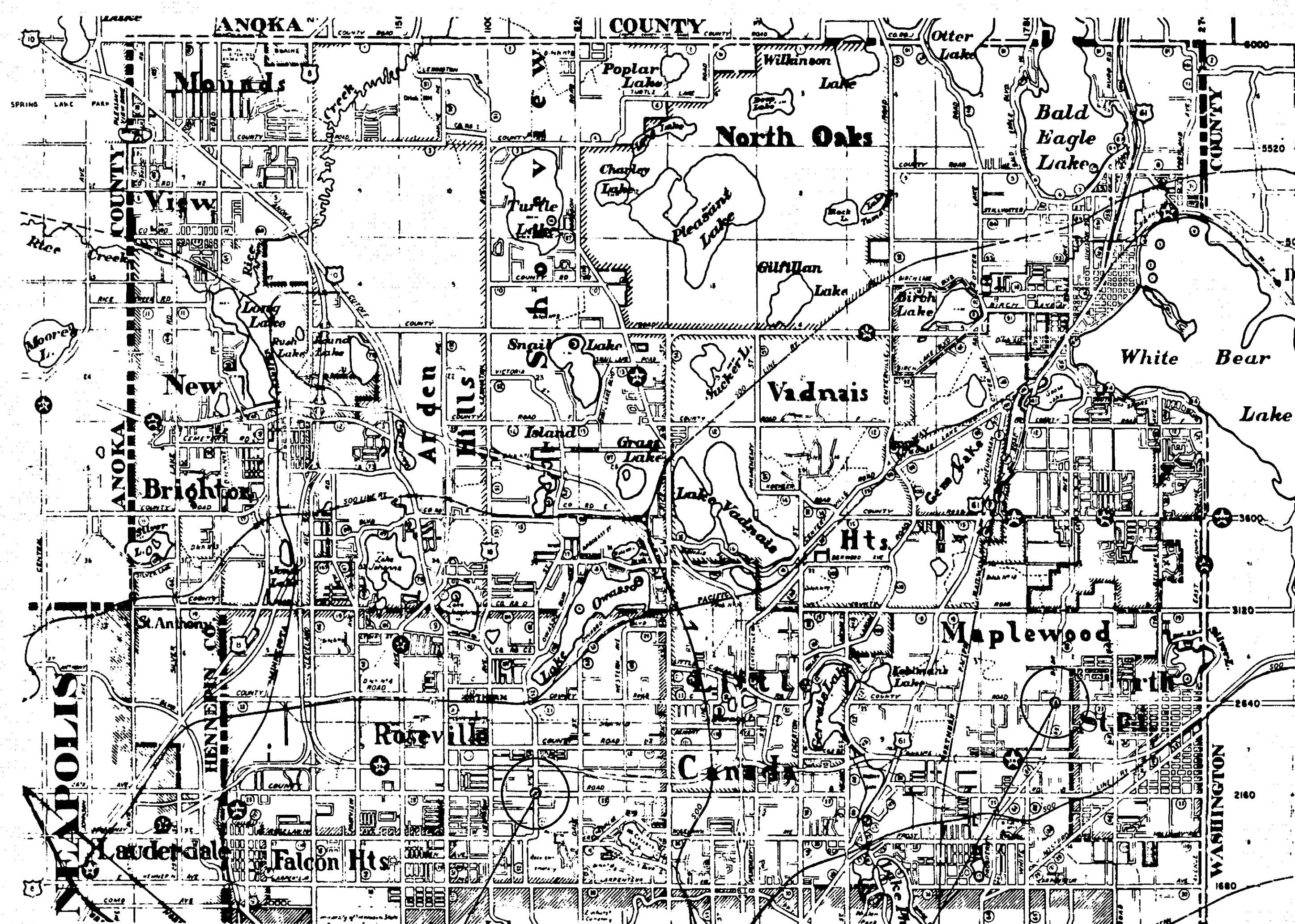
PIT NO.	Located in
PIT NO.	Dead Haul
PIT NO.	Located in
PIT NO.	Dead Haul

THE "MINNESOTA HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED JANUARY 1, 1972 AS AMENDED BY "SUPPLEMENTAL SPECIFICATIONS" DATED JANUARY 1, 1974 SHALL GOVERN.

OFFICE OF COUNTY ENGINEER RAMSEY COUNTY

PLAN OF TRAFFIC CONTROL SYSTEM FOR THE INTERSECTIONS OF

WHITE BEAR AVE. & COUNTY RD. C - SYSTEM A
CO. PROJ. NO. 1974-65-23-S
VICTORIA AVE. & COUNTY RD. B - SYSTEM B
CO. PROJ. NO. 1974-52-25-S



CITY OF ST. PAUL

WHITE BEAR AVE. & COUNTY RD. C SYSTEM A
CO. PROJ. NO. 1974-65-23-S

VICTORIA AVE. & COUNTY RD. B SYSTEM B
CO. PROJ. NO. 1974-52-25-S

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	DETAILS
3	INTERSECTION LAYOUT
4	FIELD WIRING DIAGRAM
5	INTERSECTION LAYOUT
6	FIELD WIRING DIAGRAM

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

William R. Goble

Date 9-24-74 Reg. No. 5031

RECOMMENDED FOR APPROVAL *Paul J. Schmidt* DATE 9-5-74

RECOMMENDED FOR APPROVAL *John T. Finley* DATE 9-24-74

APPROVED *John T. Finley* DATE 10-7-74

CHAIRMAN OF THE RAMSEY COUNTY BOARD

APPROVED *P. Vale Lindenberg* DATE 9-23-74

MAYOR, ROSEVILLE

APPROVED *Robert S. Brundage* DATE 9-6-74

MAYOR, MAPLEWOOD

MINNESOTA STATE HIGHWAY DEPARTMENT

RECOMMENDED FOR APPROVAL _____ DATE _____

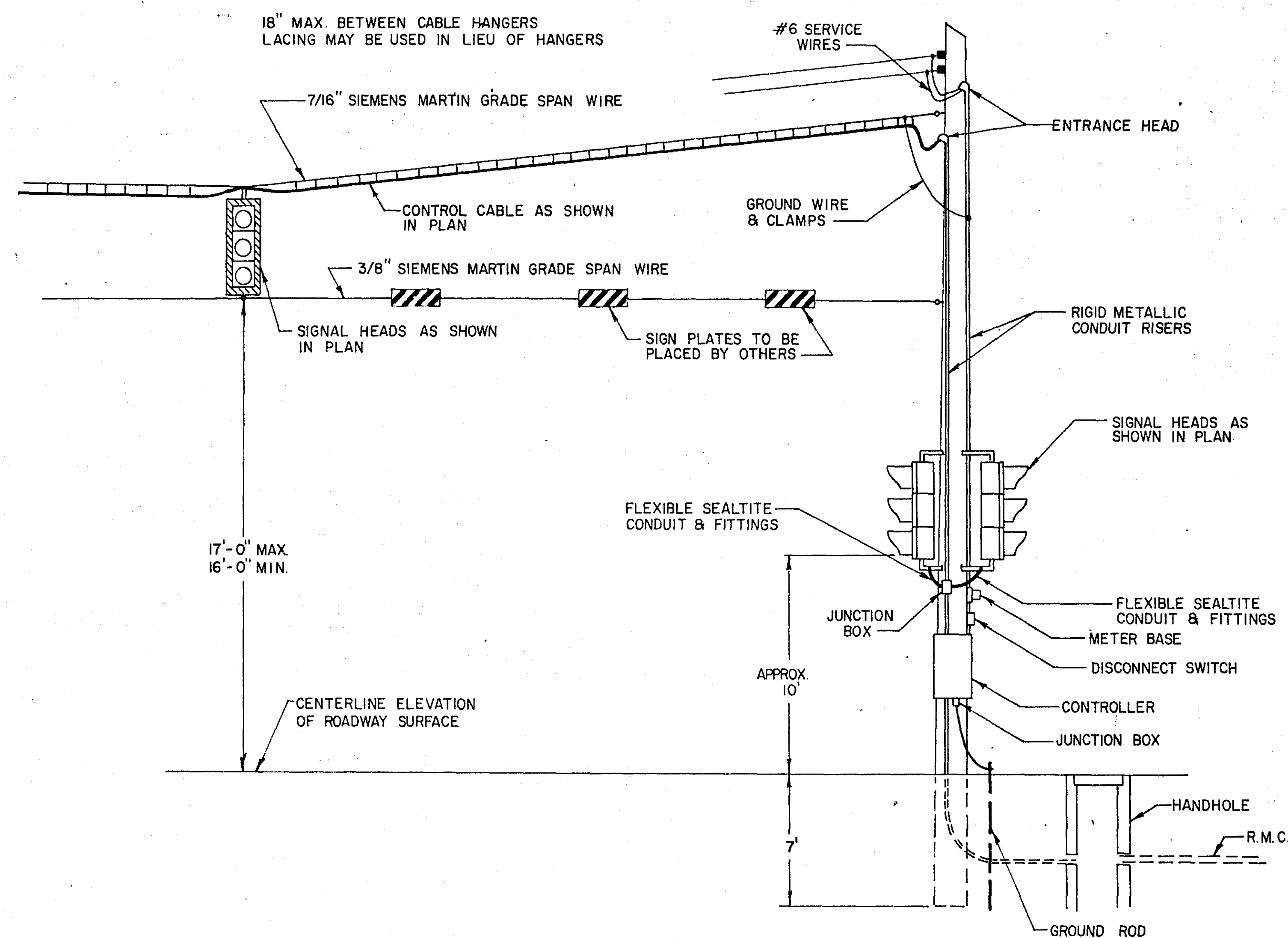
RECOMMENDED FOR APPROVAL _____ DATE _____

APPROVAL _____ DATE _____

STATE AID ENGINEER

RECOMMENDED FOR APPROVAL _____ DATE _____
DIRECTOR OF SAFETY
RECOMMENDED FOR APPROVAL *MDK* DATE 9/17/74
MAINTENANCE ENGINEER
RECOMMENDED FOR APPROVAL *KEW* DATE 9-17-74
CONSTRUCTION ENGINEER
RECOMMENDED FOR APPROVAL *WLR* DATE 9-17-74
RECOMMENDED FOR APPROVAL _____ DATE _____
APPROVED _____ DATE _____
COUNTY ENGINEER

TEMPORARY WOOD POLE TRAFFIC SIGNAL



ABBREVIATIONS

EQUIPMENT & INDICATIONS

RED - RED
YEL - YELLOW
GRN - GREEN
LTA - LEFT TURN ARROW
THA - THRU ARROW
RTA - RIGHT TURN ARROW
TRA - THRU AND RIGHT ARROW
WLK - WALK
NEU - NEUTRAL
DWK - DON'T WALK
SW - SWITCH
SWD - SWITCHED
LUM - LUMINAIRE
PA1(eg) - PEDESTRIAN INDICATION - "A" PHASE
PBB2(eg) - PUSH BUTTON - "B" PHASE
C3(eg) - SIGNAL HEAD - "C" PHASE
DA4(eg) - DETECTOR - "A" PHASE
H.H. - HANDHOLE
GR.R. - GROUND ROD
SERV. - SERVICE
EVP - EMERGENCY VEHICLE OPTICAL PRE-EMPTION

DNL - DOWNLIGHT
P.E.C. - PHOTOELECTRIC CELL
ST. LHT. - STREET LIGHT
CH. - CHECK
S.O.P. - SOURCE OF POWER
EQ.G. - EQUIPMENT GROUND
SPR - SPARE CONDUCTOR

COLOR CODING OF CONDUCTORS

R - RED
O - ORANGE
BL - BLUE
WH - WHITE
R/BLK - RED WITH BLACK TRACER
O/BLK - ORANGE WITH BLACK TRACER
BL/BLK - BLUE WITH BLACK TRACER
WH/BLK - WHITE WITH BLACK TRACER
BLK - BLACK
BLK/WH - BLACK WITH WHITE TRACER
G/BLK - GREEN WITH BLACK TRACER
G - GREEN

STANDARD PLATES *

PLATE NO.	DESCRIPTION
8117D	PRECAST CONCRETE HANDHOLE
8118B	SERVICE EQUIPMENT & POLE TRAFFIC CONTROL SIGNALS
8130B	SAW CUT LOOP DETECTORS
8115B	PEDESTRIAN PUSH BUTTON INSTALLATION
8112B	PEDESTAL FOUNDATION
8119B	GROUND MOUNTED CABINET FOUNDATION
8112B	TRAFFIC SIGNAL BRACKETING

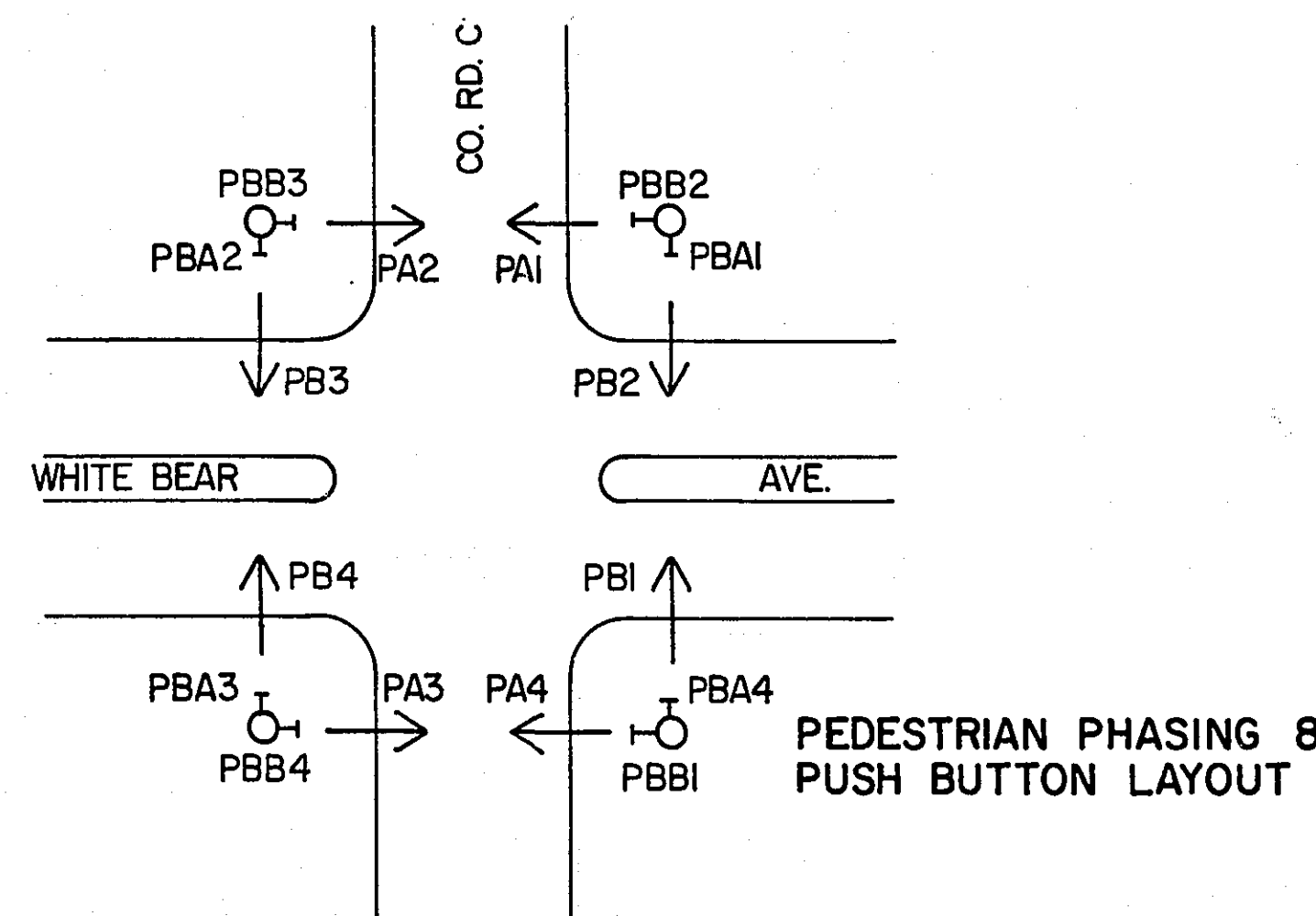
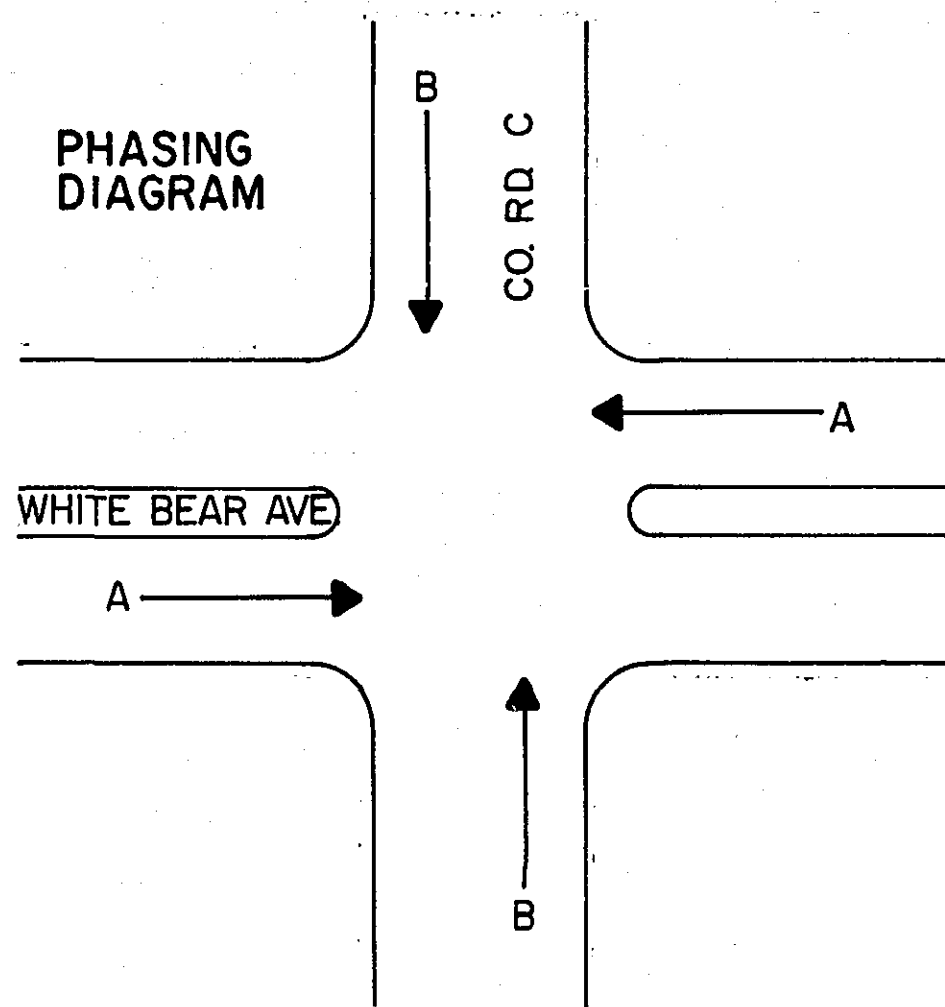
* STATE OF MINNESOTA, DEPT. OF HIGHWAYS
STANDARD PLATES MANUAL 5-296

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

James L. Amble
Date 9-24-74 Reg. No. 5031

LEGEND OF SYMBOLS	
	CONTROLLER
	PEDESTAL
	HANDHOLE (PULLBOX)
	RIGID STEEL CONDUIT (R.S.C.)
	SIGNAL FACE
	PEDESTRIAN INDICATION
	SOURCE OF POWER (S.O.P.)
	HANDHOLE (PULLBOX) INPLACE
	RIGID STEEL CONDUIT (R.S.C.) INPLACE
	WOOD POLE

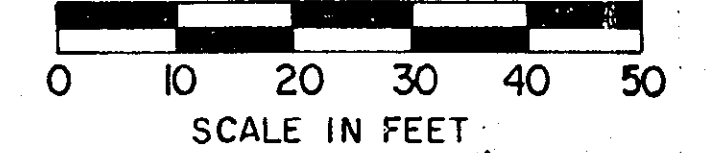
PHASING DIAGRAM



PEDESTRIAN PHASING & PUSH BUTTON LAYOUT

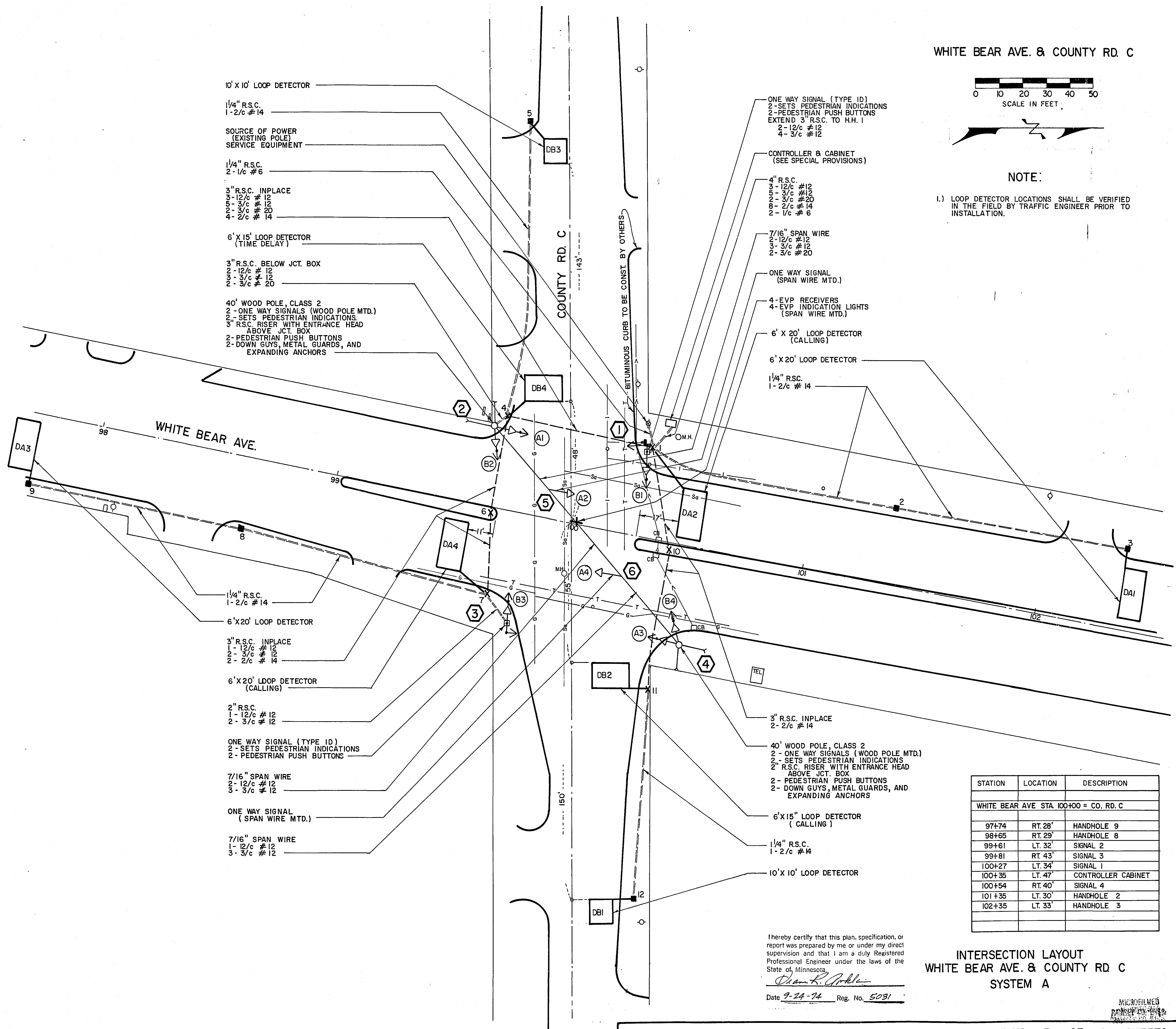
FACE	PHASE	FLASH	INDICATION SIZE					
			R	Y	G	←	↑	→
A1	A	R	12"	12"	12"	-	-	-
A2	A	R	12"	12"	12"	-	-	-
A3	A	R	12"	12"	12"	-	-	-
A4	A	R	12"	12"	12"	-	-	-
B1	B	R	12"	12"	12"	-	-	-
B2	B	R	12"	12"	12"	-	-	-
B3	B	R	12"	12"	12"	-	-	-
B4	B	R	12"	12"	12"	-	-	-

WHITE BEAR AVE. & COUNTY RD. C



NOTE:

1.) LOOP DETECTOR LOCATIONS SHALL BE VERIFIED IN THE FIELD BY TRAFFIC ENGINEER PRIOR TO INSTALLATION.

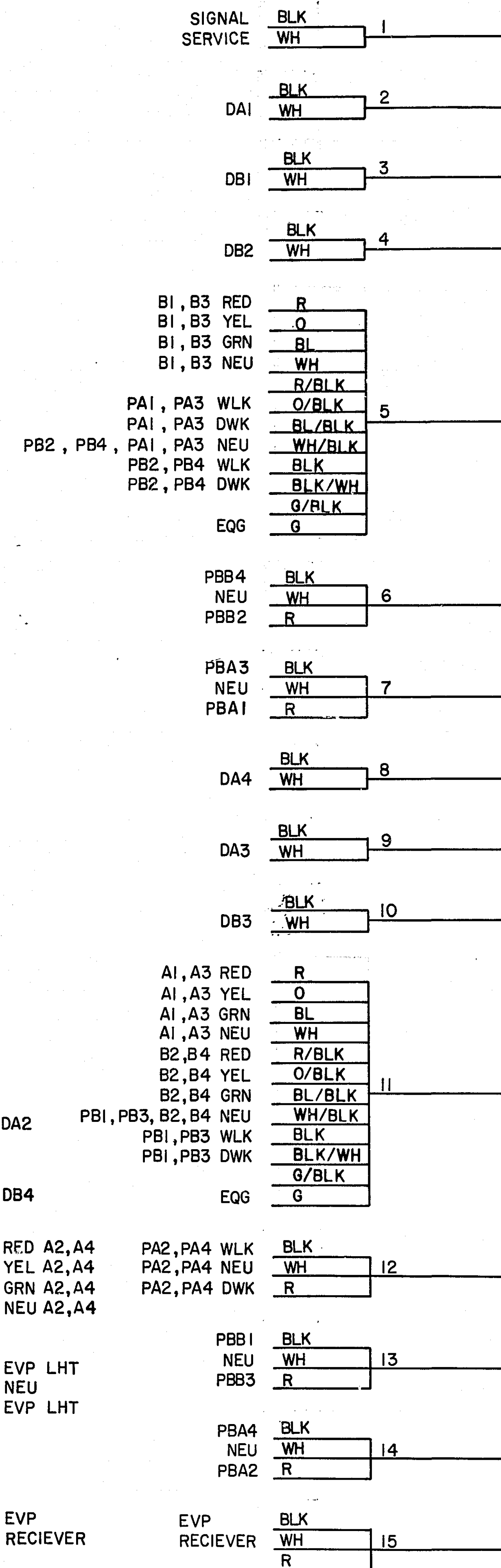


STATION	LOCATION	DESCRIPTION
WHITE BEAR AVE STA. 100+00 = CO. RD. C		
97+74	RT. 28'	HANDHOLE 9
98+65	RT. 29'	HANDHOLE 8
99+61	LT. 32'	SIGNAL 2
99+81	RT. 43'	SIGNAL 3
100+27	LT. 34'	SIGNAL 1
100+35	LT. 47'	CONTROLLER CABINET
100+54	RT. 40'	SIGNAL 4
101+35	LT. 30'	HANDHOLE 2
102+35	LT. 33'	HANDHOLE 3

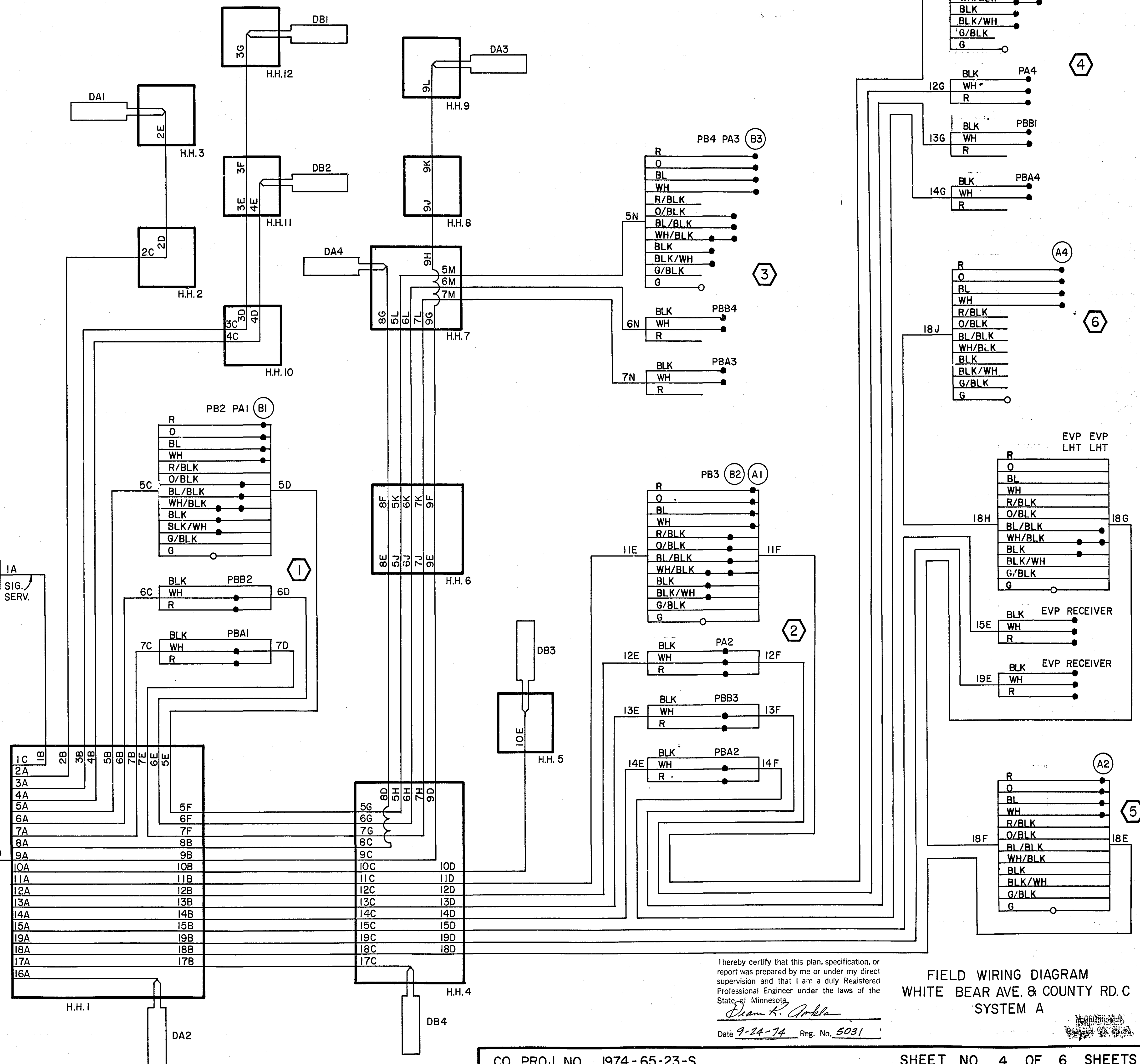
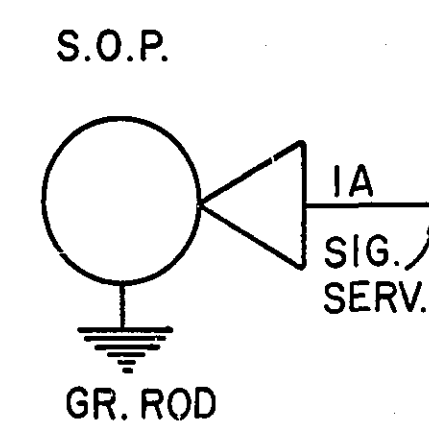
INTERSECTION LAYOUT WHITE BEAR AVE. & COUNTY RD. C SYSTEM A

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Cham K. Arkin
Date 9-24-74 Reg. No. 5031

CONTROLLER CABINET



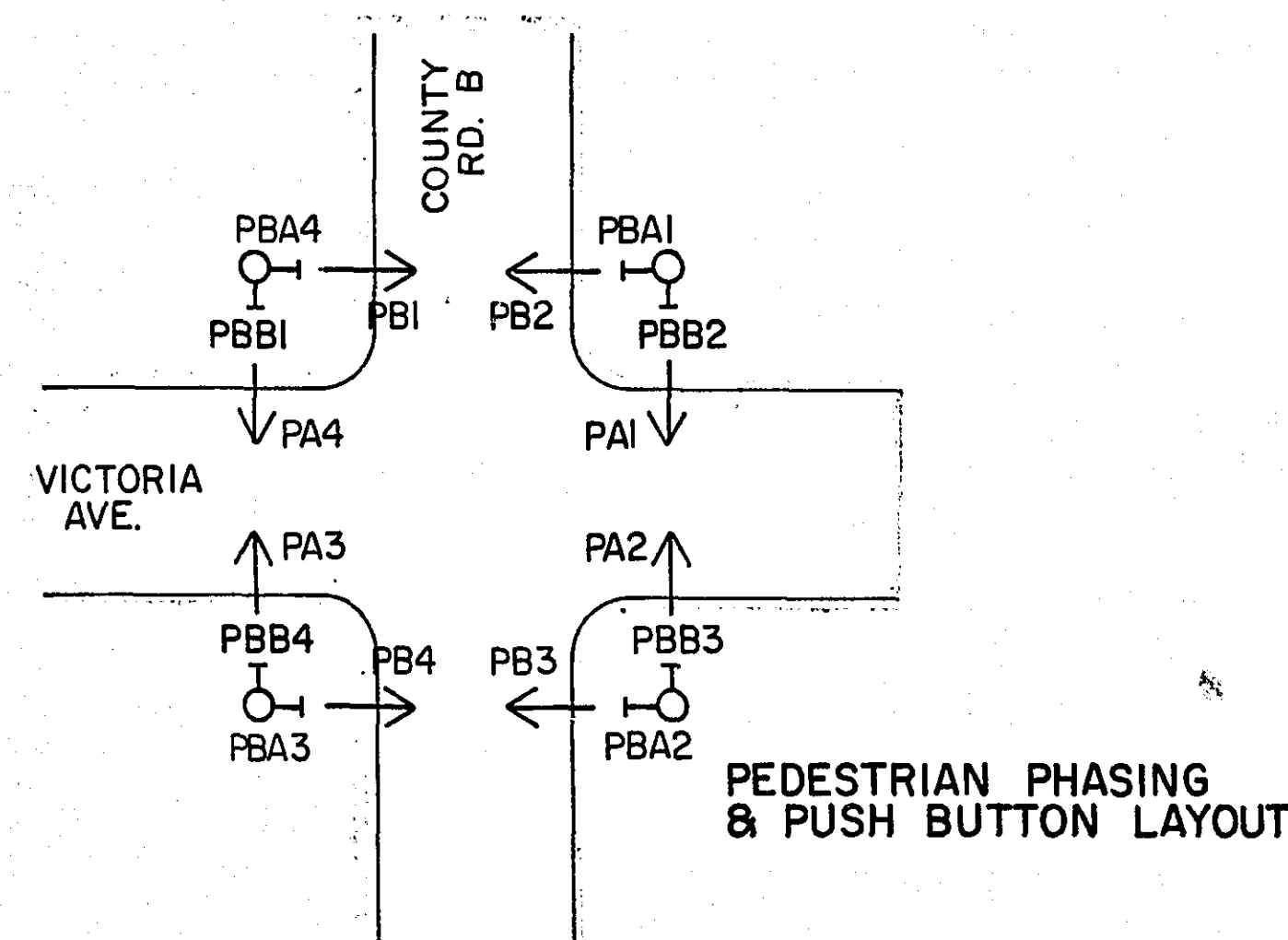
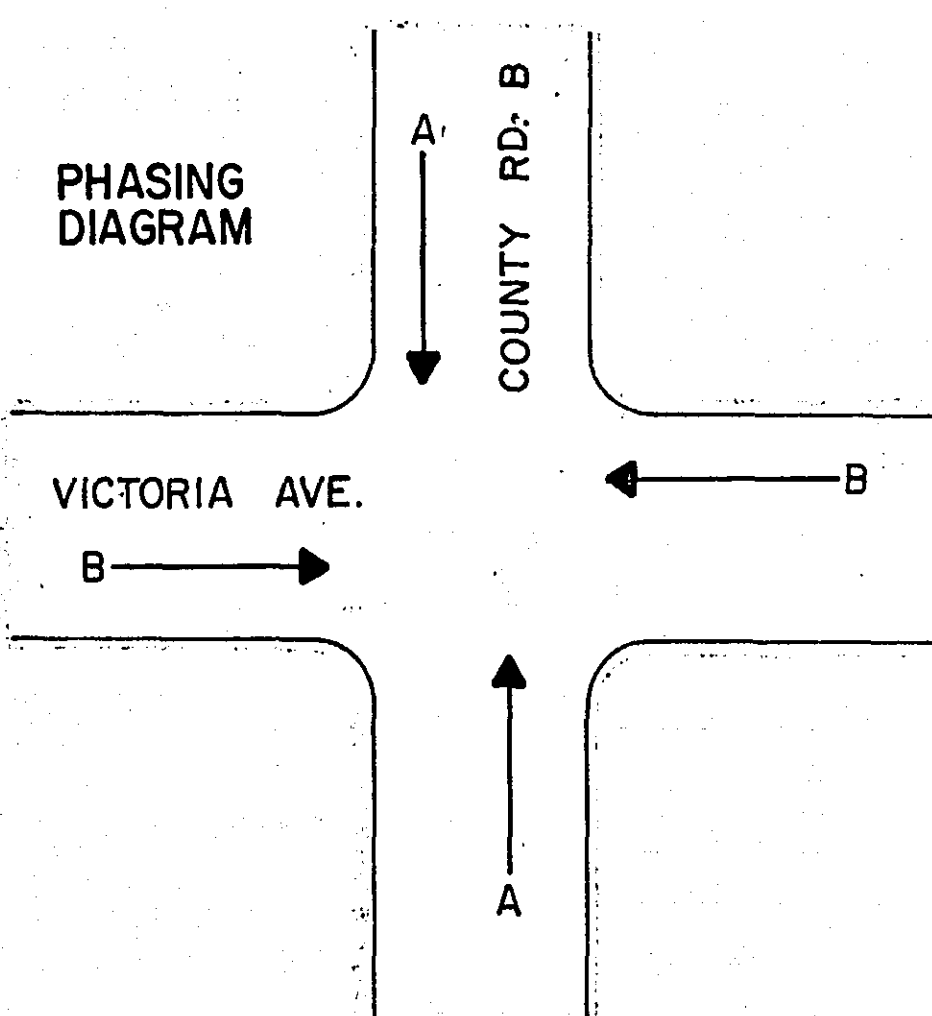
1,2,3,4,5,6,7,8,9,10
11,12,13,14,15,16,17,18,19



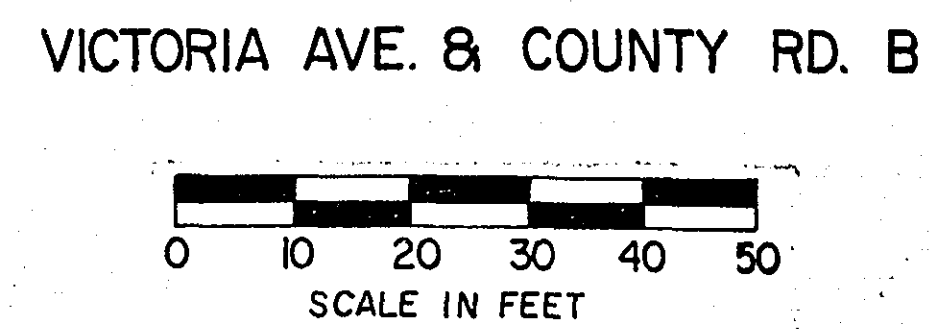
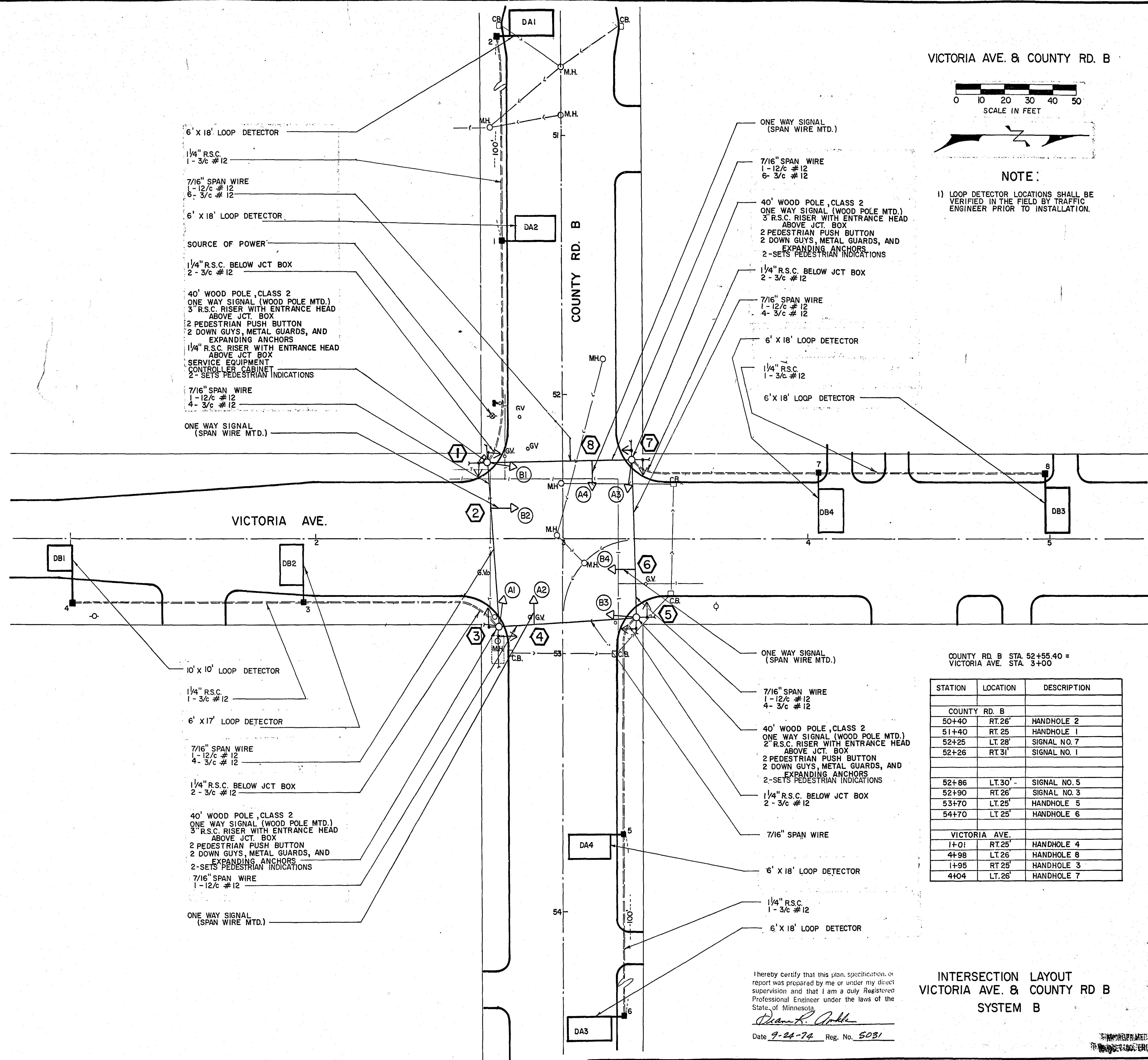
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Dean K. Apple
 Date 9-24-74 Reg. No. 5031

FIELD WIRING DIAGRAM
 WHITE BEAR AVE. & COUNTY RD. C
 SYSTEM A

LEGEND OF SYMBOLS	
	CONTROLLER
	HANDHOLE (PULLBOX)
	RIGID STEEL CONDUIT (R.S.C.)
	SIGNAL FACE
	PEDESTRIAN INDICATION
	SOURCE OF POWER (S.O.P.)
	WOOD POLE



FACE	PHASE	FLASH	INDICATION SIZE					
			R	Y	G	←	↑	→
A1	A	R	12"	12"	12"	-	-	-
A2	A	R	12"	12"	12"	-	-	-
A3	A	R	12"	12"	12"	-	-	-
A4	A	R	12"	12"	12"	-	-	-
B1	B	R	12"	12"	12"	-	-	-
B2	B	R	12"	12"	12"	-	-	-
B3	B	R	12"	12"	12"	-	-	-
B4	B	R	12"	12"	12"	-	-	-



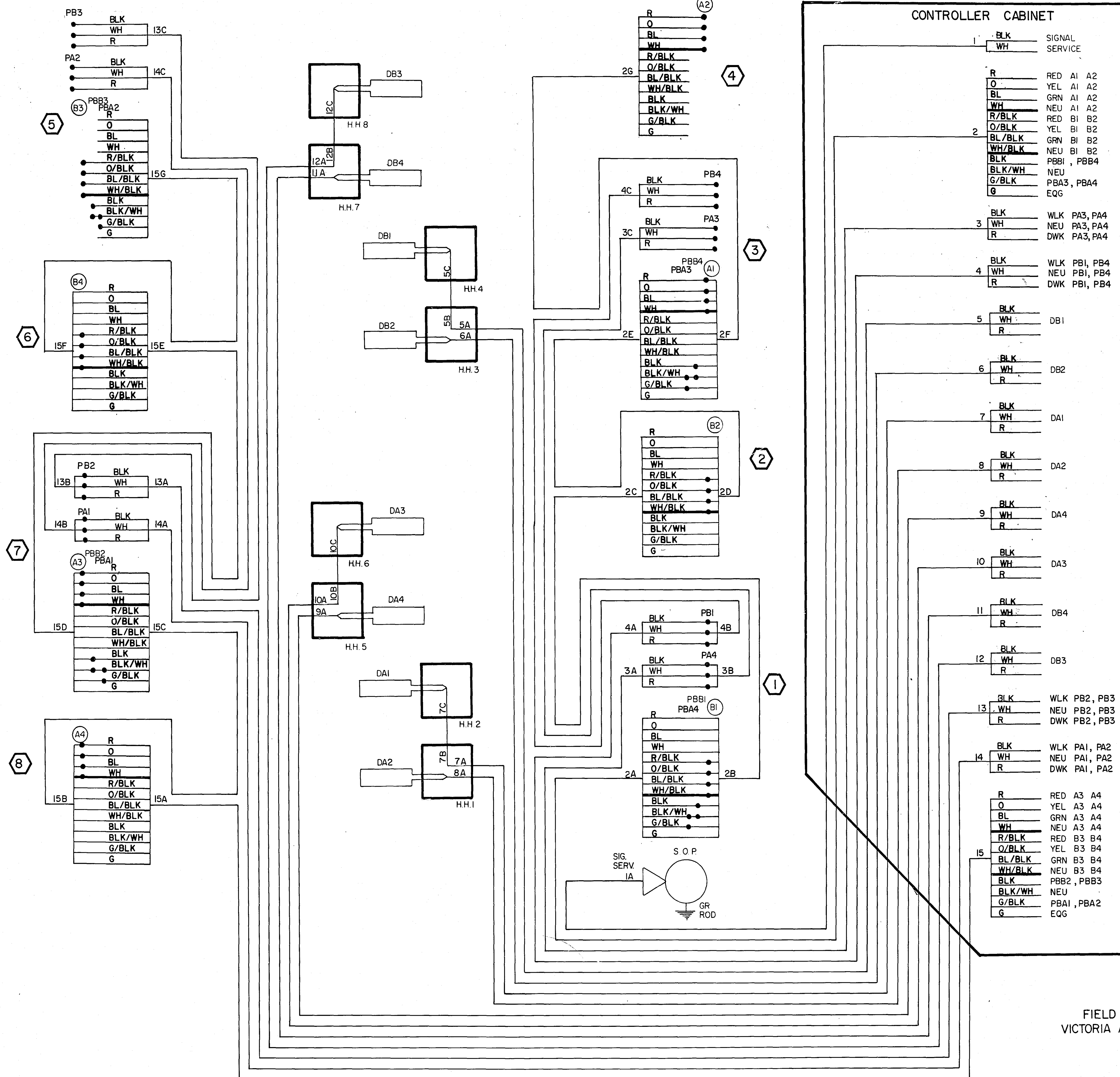
NOTE:
1) LOOP DETECTOR LOCATIONS SHALL BE VERIFIED IN THE FIELD BY TRAFFIC ENGINEER PRIOR TO INSTALLATION.

COUNTY RD. B STA 52+55.40 = VICTORIA AVE. STA 3+00

STATION	LOCATION	DESCRIPTION
COUNTY RD. B		
50+40	RT. 26'	HANDHOLE 2
51+40	RT. 25	HANDHOLE 1
52+25	LT. 28'	SIGNAL NO. 7
52+26	RT. 31'	SIGNAL NO. 1
52+86	LT. 30'	SIGNAL NO. 5
52+90	RT. 26'	SIGNAL NO. 3
53+70	LT. 25'	HANDHOLE 5
54+70	LT. 25'	HANDHOLE 6
VICTORIA AVE.		
1+01	RT. 25'	HANDHOLE 4
4+98	LT. 26'	HANDHOLE 8
1+95	RT. 25'	HANDHOLE 3
4+04	LT. 26'	HANDHOLE 7

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

Date 9-24-74 Reg. No. 5031



Thereby certify that this map, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

Diana R. Goble

Date 9-24-74 Reg. No. 5031

FIELD WIRING DIAGRAM
VICTORIA AVE. & COUNTY RD. B
SYSTEM B