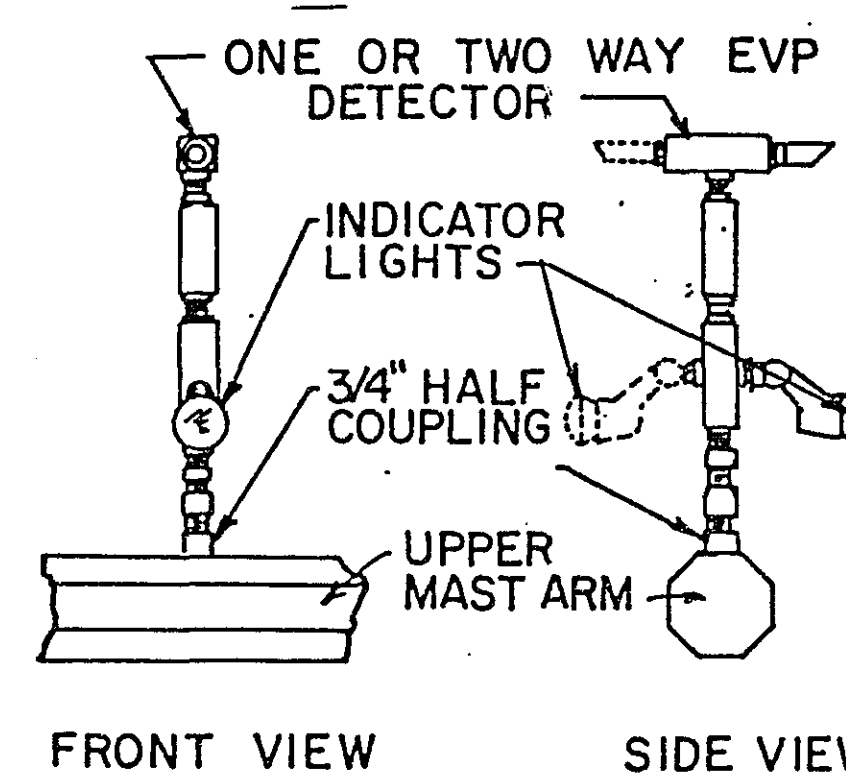
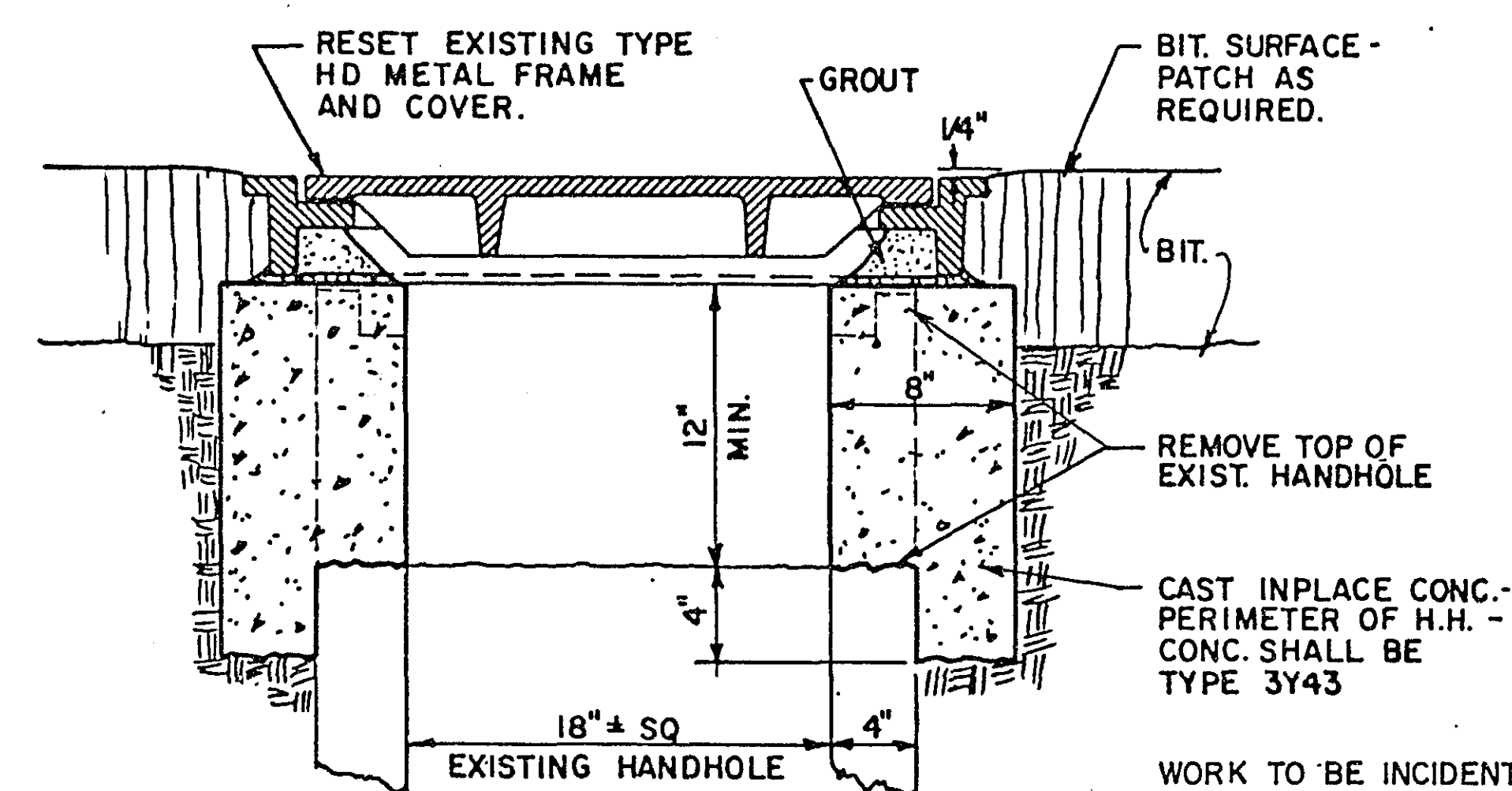




FRONT VIEW SIDE VIEW
EVP DETECTOR & LIGHT
MOUNTING DETAIL ON MAST ARM



SECTION

DETAIL
RESET METAL FRAME & COVER
HANDHOLE No. 8 - SYSTEM D

YEL - YELLOW
GRN - GREEN
WLK - WALK
NEU - NEUTRAL
DMK - DON'T WALK
LUM - LUMINAIRE
DNL - DOWNLIGHT
SW - SWITCH
SWD - SWITCHED
CH.SW. - CHECK SWITCH
H.H. - HANDHOLE
J.B. - JUNCTION BOX
GR.R. - GROUND ROD
SERV. - SERVICE
SPLICE - SPLICE
THA - THRU ARROW
LTA - LEFT TURN ARROW
RTA - RIGHT TURN ARROW
TRA - THRU AND RIGHT ARROW
RTHA (EG) - THRU ARROW - RED
GLTA (EG) - LEFT TURN ARROW - GREEN
YRTA (EG) - RIGHT TURN ARROW - YELLOW
PI-1 (EG) - PEDESTRIAN INDICATIONS - PHASE "1"
PB2-2 (EG) - PUSH BUTTON - PHASE "2"
3-2 (EG) - SIGNAL HEADS - PHASE "3"
DI-2 - DETECTOR - PHASE "1"
P.E.C. - PHOTOELECTRIC CELL
ST.LHT. - STREET LIGHT
S.O.P. - SOURCE OF POWER
EGG - EQUIPMENT GROUND
SPR - SPARE CONDUCTORS
R.S.C. - RIGID STEEL CONDUIT
N.M.C. - NON METALLIC CONDUIT
E.V.P. - EMERGENCY VEHICLE PRE-EMPTION
EGG CONNECTION - EGG CONNECTION
TDW - TELEPHONE DROP WIRE

ABBREVIATIONS

F&I - FURNISH AND INSTALL
R&S - REMOVE AND SALVAGE
FL - FLASH/FLASHING
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
CLR. - CLEAR
BR.GR. - BARE GROUND

H.P.S. - HIGH PRESSURE SODIUM
EVP DETECTOR DIRECTION
SIGNAL BASE NO.
SIGNAL FACE NO.
LUMINAIRE NO.

STANDARD PLATES

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY
ADMINISTRATION, SHALL APPLY ON THIS PROJECT.

PLATE NO.	DESCRIPTION
* 0005 A	SPECIFICATION REFERENCE TO STANDARD PLATES
* 7105 C	CONCRETE MEDIAN (MOUNTABLE TYPE)
* 8110 C	TRAFFIC SIGNAL BRACKETING (POLE MOUNTED)
8111 B	TRAFFIC SIGNAL BRACKETING (PEDESTAL MOUNTED)
8112 C	PEDESTAL FOUNDATION
8113 C	MAGNETIC VEHICLE DETECTOR INSTALLATION
* 8115 C	PEDESTRIAN PUSH BUTTON INSTALLATION
8116 C	STEEL GUARD POST
* 8117 F	PRECAST CONCRETE HANDHOLE
* 8118 C	SERVICE EQUIPMENT & POLE, TRAFFIC CONTROL SIGNALS
8119 C	GROUND MOUNTED CABINET FOUNDATION
* 8120 H	POLE FOUNDATION (P-80 & P-90)
* 8121 B	TRANSFORMER BASE WITH POLE BASE PLATE
8222 C	PEDESTAL AND PEDESTAL BASE
* 8123 B	POLE AND MAST ARM (LUMINAIRE AND TRAFFIC LIGHTS)
* 8124 D	MAST ARM SIGNAL HEAD MOUNTS
* 8126 C	P-100 POLE FOUNDATION
* 8130 D	SAW CUT LOOP DETECTORS

* STANDARD PLATES APPLICABLE TO THIS PROJECT.

ITEM NO.	ITEM	UNIT	ESTIMATED QUANTITY	PARTICIPATION (%)				
				C.S.A.H.	COUNTY R & B	CITY ST. PAUL	CITY ROSEVILLE	CITY FALCON HTS
2565.511	FULL T ACT T CONTROL SIGNAL SYSTEM B	SIG SYS	1	50	0	25	25	0
2565.511	FULL T ACT T CONTROL SIGNAL SYSTEM C	SIG SYS	1	50	0	25	25	0
0565.601	TRAFFIC CONTROL INTERCONNECTION	L. SUM	1	62.50	6.25	18.75	12.50	0
0565.602	HANDHOLE TYPE C (INTERCONNECT)	EACH	6					
0565.603	2" NON-METALLIC CONDUIT (INTERCONNECT)	L.F.	1550					
0565.603	12 PAIR #19 CABLE (INTERCONNECT)	L.F.	3010					
0565.604	REVISE SIGNAL SYSTEM A	SYSTEM	1	75	25	0	0	0
0565.604	REVISE SIGNAL SYSTEM D	SYSTEM	1	75	0	25	0	0
0565.604	EMERGENCY VEHICLE PRE-EMPTION SYSTEM A	SYSTEM	1	0	0	25	25	50
0565.604	EMERGENCY VEHICLE PRE-EMPTION SYSTEM B	SYSTEM	1	0	0	50	50	0
0565.604	EMERGENCY VEHICLE PRE-EMPTION SYSTEM C	SYSTEM	1	0	0	50	50	0
0565.604	EMERGENCY VEHICLE PRE-EMPTION SYSTEM D	SYSTEM	1	0	0	50	50	0

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 _____ Reg. No. _____

ESTIMATED QUANTITIES

ASBUILT PLAN
CONFORMING TO
CONSTR. RECORDS

DONE BY: JPH
DATE: 3-22-91

S.A.P. No. 62-630-24

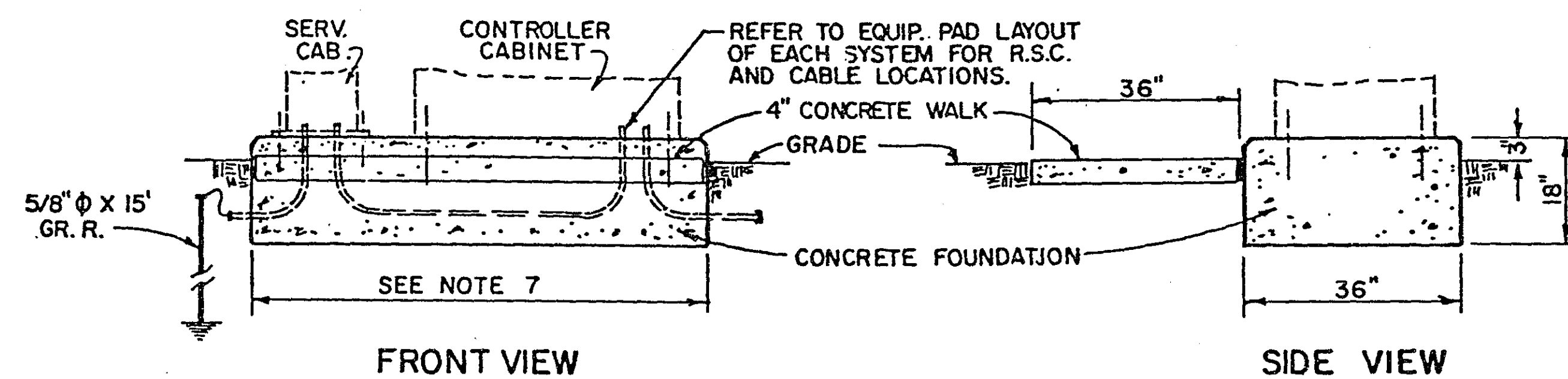
Sheet No. 2 of 24 Sheets

23-146

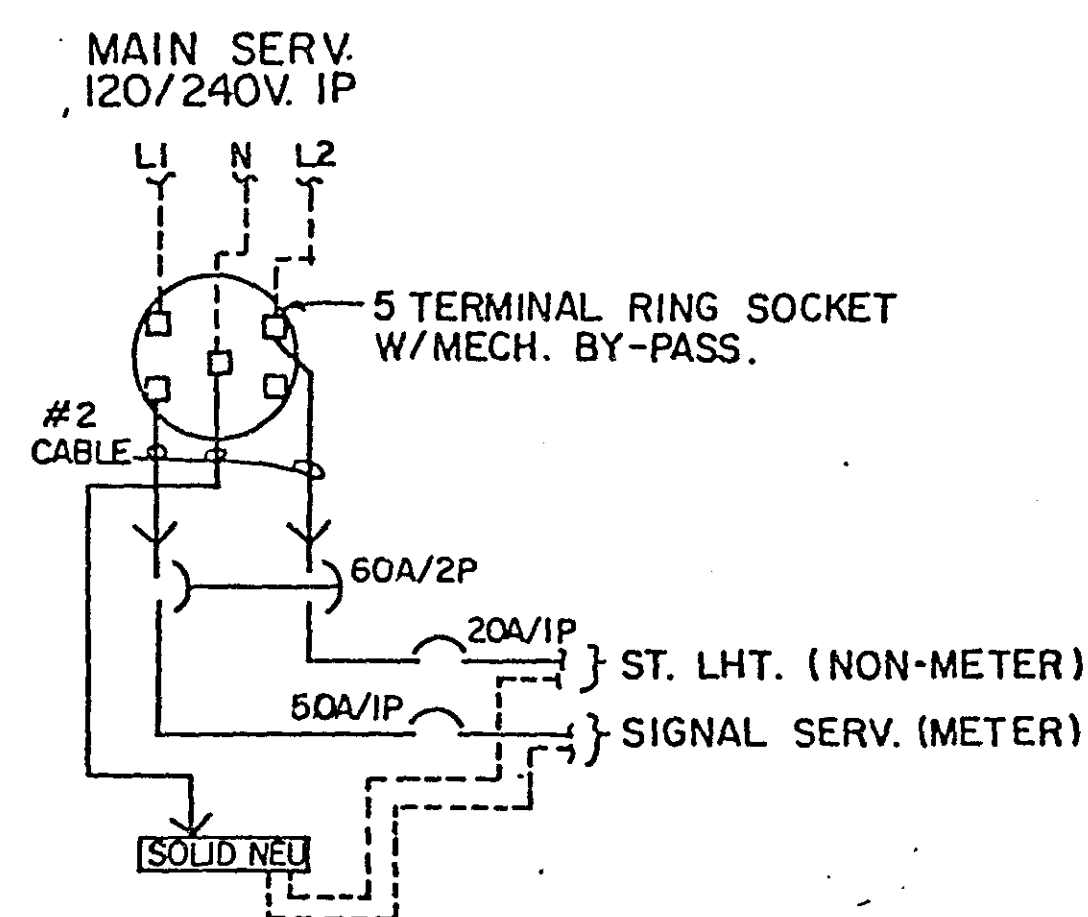
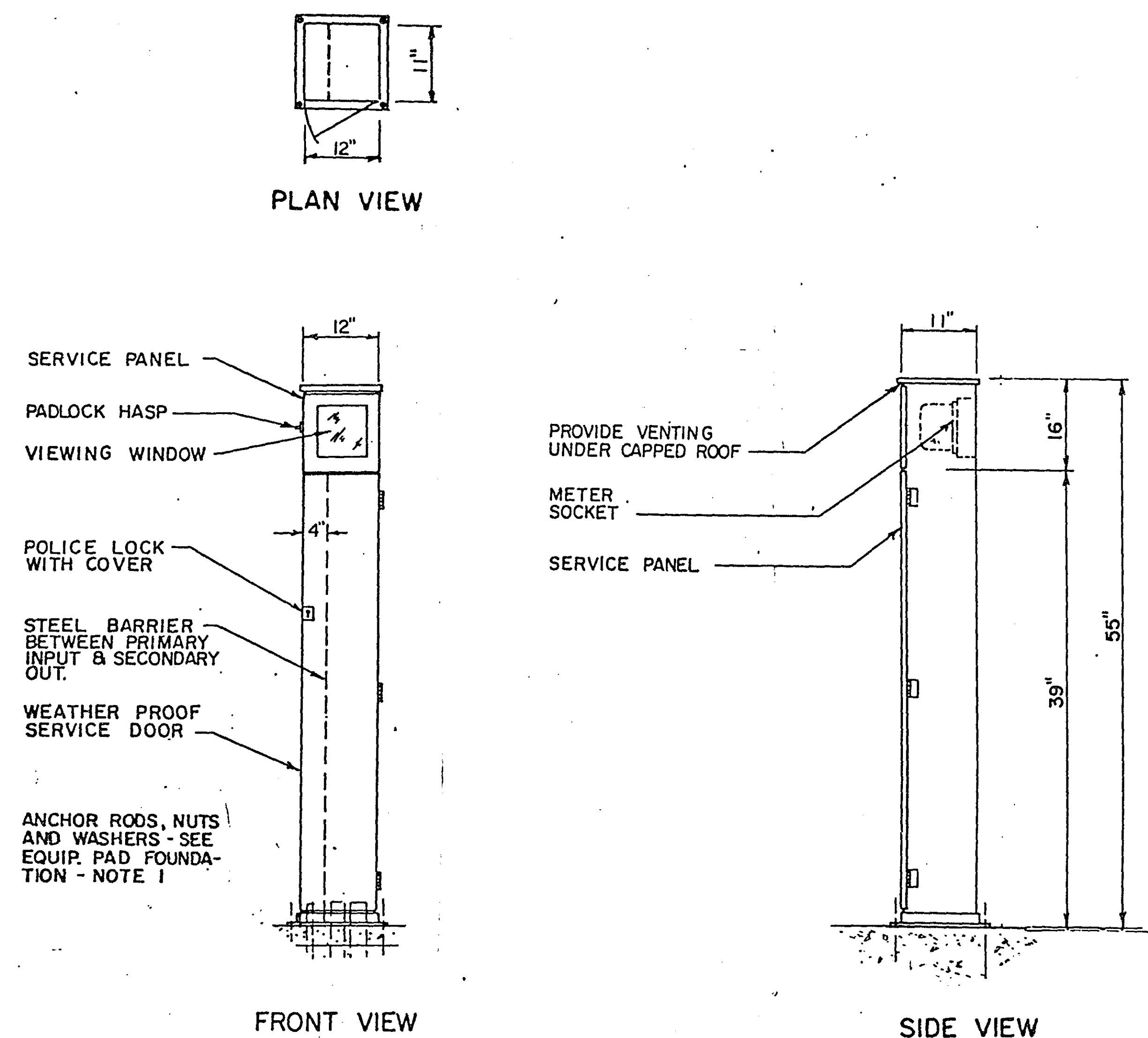
EQUIPMENT PAD FOUNDATION

NOTES:

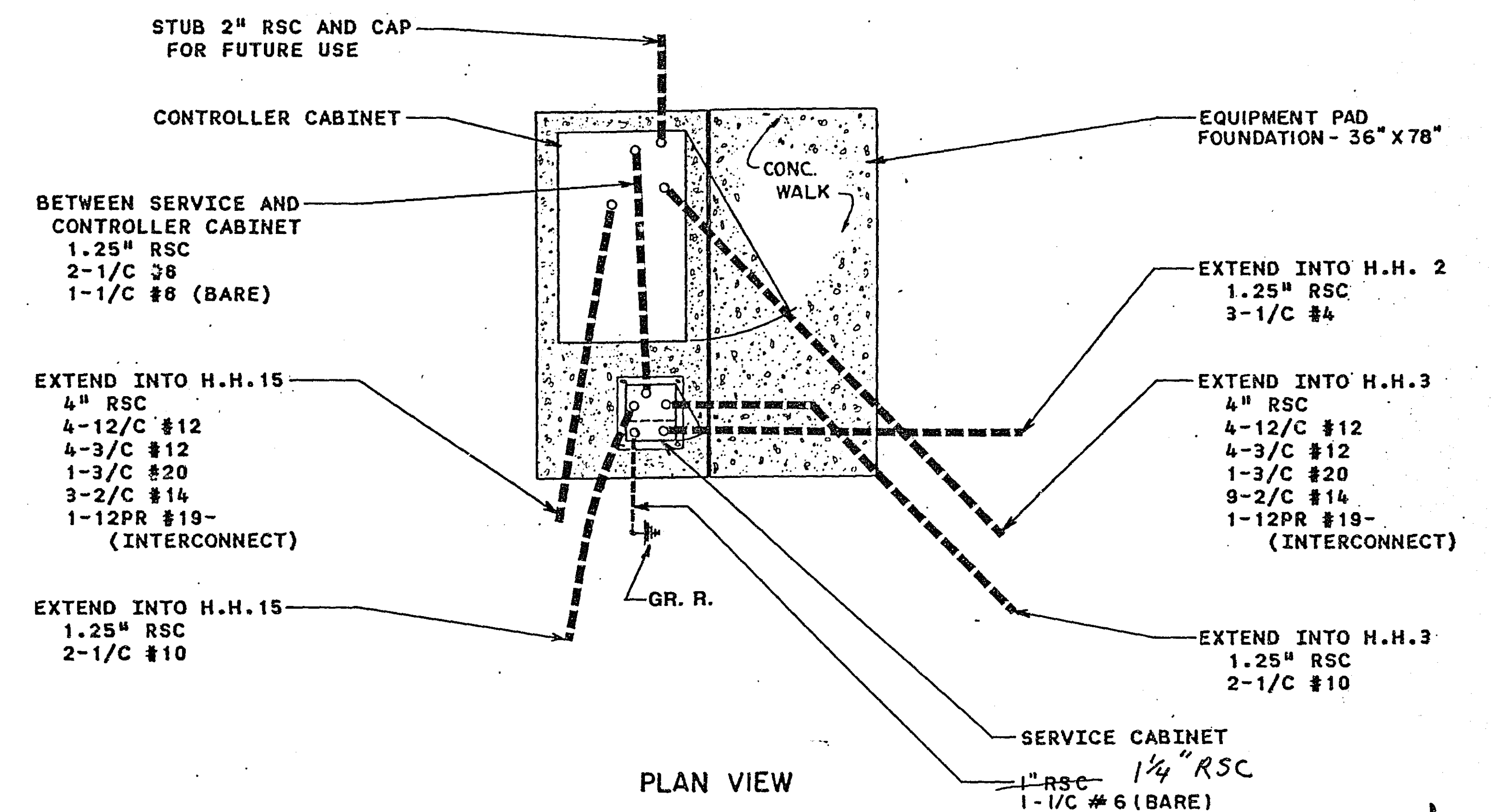
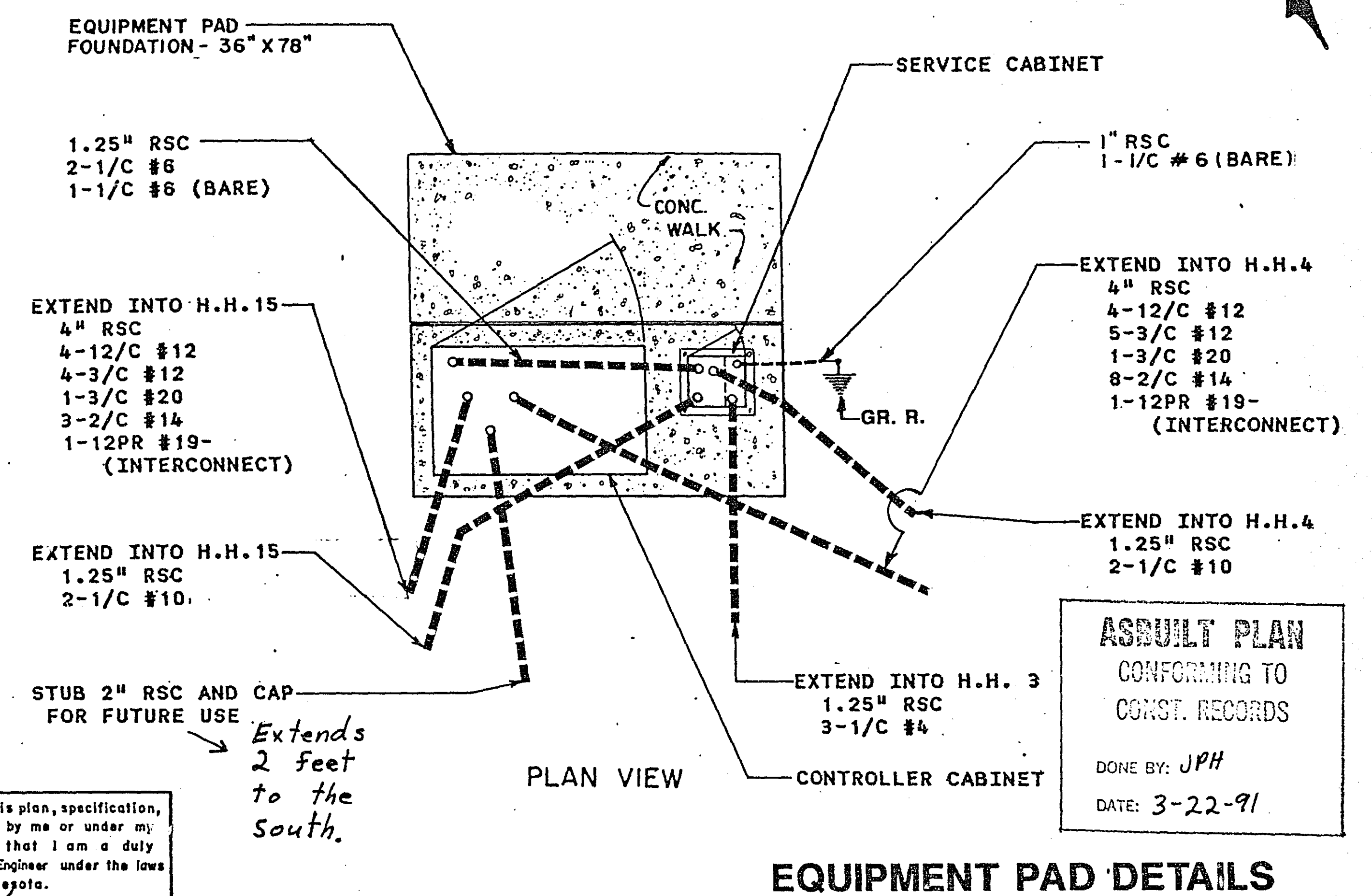
1. ANCHOR RODS, NUTS AND WASHERS PER MN/DOT 3385 OR APPROVED EQUAL SET AS RECOMMENDED BY CABINET MANUFACTURER (NUMBER, SIZE AND LENGTH OF ANCHOR RODS) SHALL BE AS REQUIRED BY THE CABINET (MANUFACTURER.)
2. UPPER PART OF FOUNDATION SHALL BE BEVELED OR CHAMFERED IN A NEAT MANNER AS DIRECTED BY THE ENGINEER IN THE FIELD.
3. TOP OF CONDUITS SHALL BE THREADED AND CAPPED AFTER INSTALLATION (UNTIL CABLES ARE INSTALLED) CONDUIT SHALL PROJECT A MINIMUM OF 2" ABOVE CONCRETE AND SHALL BE LOCATED INSIDE THE CABINET WHERE DIRECTED BY THE ENGINEER BUT SHALL NOT INTERFERE WITH CABINET FUNCTIONS. (SUPPORTING MEMBERS, ETC.)
4. CONCRETE MIX 3A32 OR EQUAL SHALL BE USED FOR FOUNDATION AND CONCRETE WALK.
5. CONDUITS WHICH HAVE BOTH ENDS TERMINATING WITHIN THE PAD SHALL NOT BE INSTALLED BELOW THE CONCRETE.
6. EXACT LOCATIONS OF CONDUIT WITHIN THE PAD SHALL BE AS DETERMINED BY THE ENGINEER IN THE FIELD.
7. REFER TO EQUIPMENT PAD LAYOUT OF EACH SYSTEM FOR FOUNDATION SIZE, CONDUIT PLACEMENT AND EQUIPMENT TO BE INSTALLED.



SERVICE CABINET DETAILS



SERVICE CABINET WIRING DIAGRAM

LARPEN TEUR AVE. & FERNWOOD ST.
SYSTEM BLARPEN TEUR AVE & DUNLAP ST.
SYSTEM C

EQUIPMENT PAD DETAILS

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.

Paul Roberts

Date 2-3-87 Reg. No. 2703

S.A.P. No. 62-630-24

Sheet No. 3 of 24 Sheets

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LEGEND OF SYMBOLS

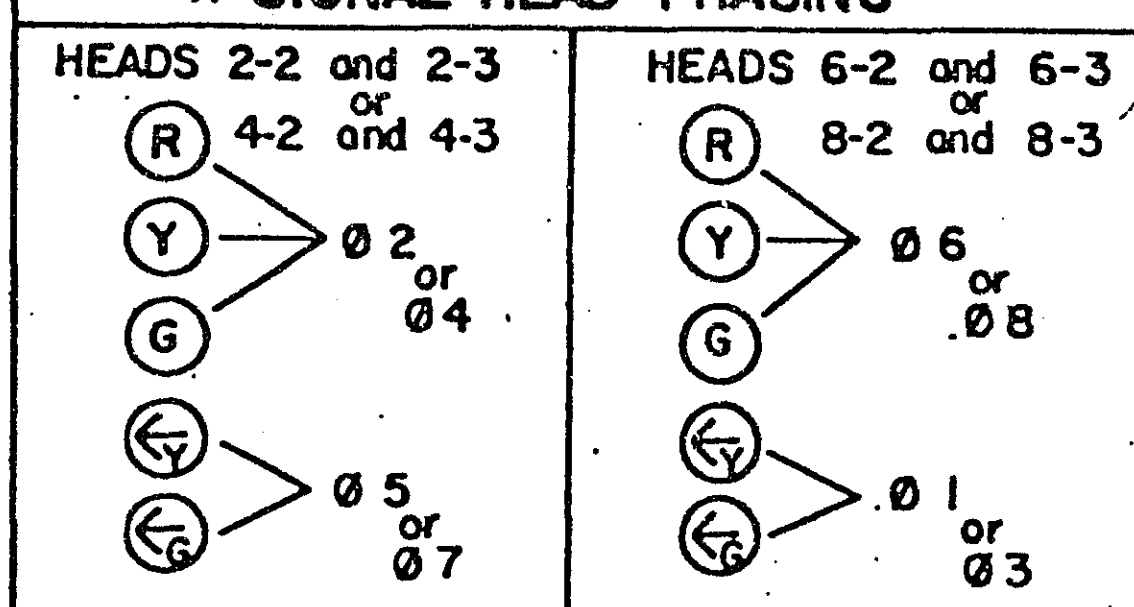
SIGNAL BASE NO.	
SIGNAL FACE NO.	
CONTROLLER AND CABINET	
CONTROLLER AND CABINET-INPLACE	
HANDHOLE	
HANDHOLE-INPLACE	
RIGID STEEL CONDUIT (RSC)/NON-METALLIC CONDUIT (NMC)	
RIGID STEEL CONDUIT (RSC)-INPLACE	
SIGNAL FACE WITH BACKGROUND SHIELD	
SIGNAL FACE-INPLACE	
PEDESTRIAN INDICATIONS	
PEDESTRIAN INDICATIONS-INPLACE	
PEDESTRIAN PUSH BUTTON ON PEDESTAL OR POLE	
PEDESTRIAN PUSH BUTTON STATION	
TRAFFIC SIGNAL PEDESTAL	
TRAFFIC SIGNAL PEDESTAL-INPLACE	
TRAFFIC SIGNAL POLE AND MAST ARM	
TRAFFIC SIGNAL POLE AND MAST ARM-INPLACE	
MAST ARM AND LUMINAIRE	
MAST ARM AND LUMINAIRE-INPLACE	
WOOD POLE	
WOOD POLE-INPLACE	
SOURCE OF POWER	
EMERGENCY VEHICLE PRE-EMPTION DETECTOR LOCATION	

SIGNAL INDICATION CHART

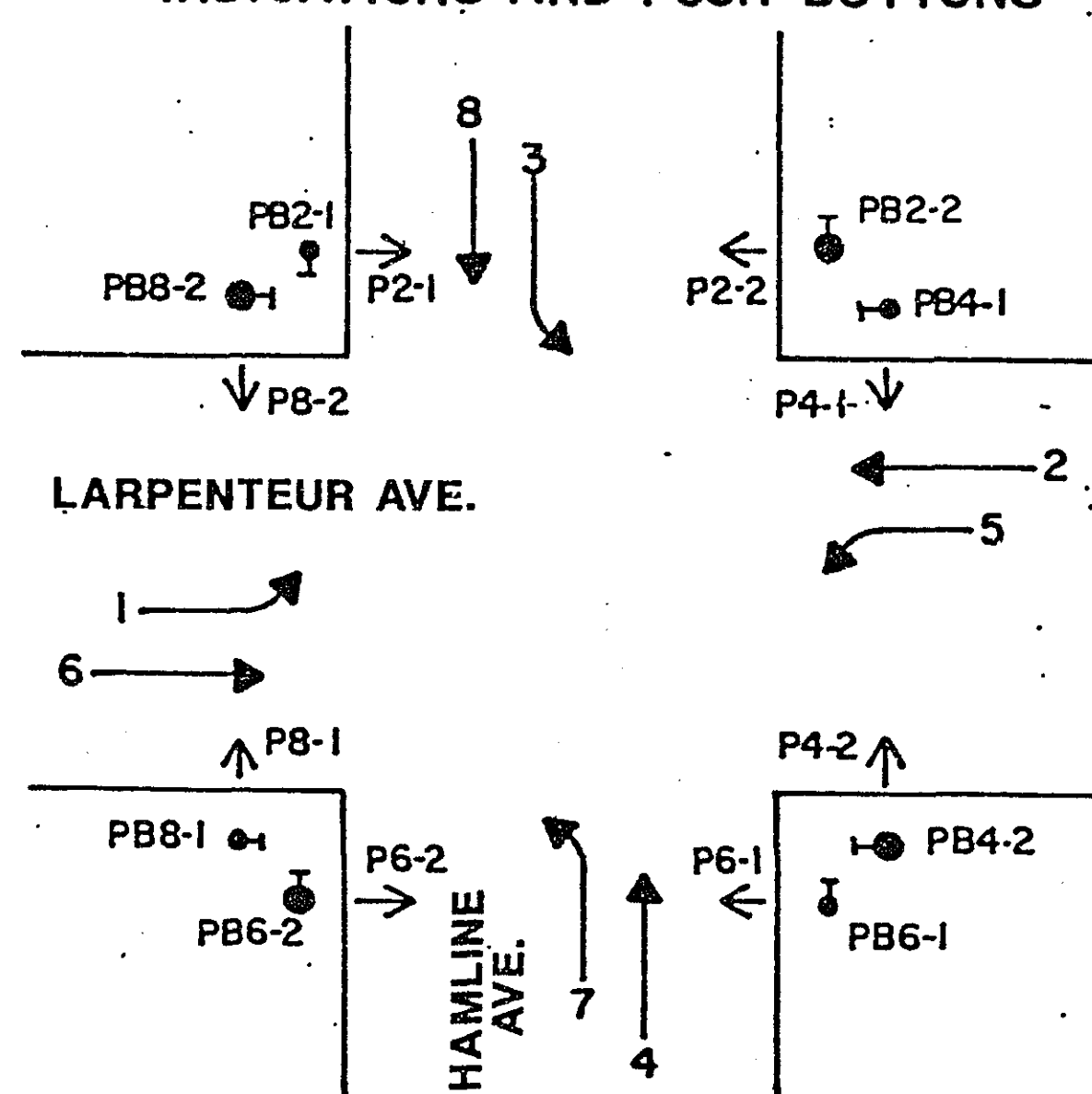
FACE	PHASE	INDICATION SIZE					
		R	Y	G	Y	G	G
* 2-1	2	12"	12"	12"	-	-	-
* 2-2	2 and 5	12"	12"	12"	12"	12"	12"
* 2-3	2 and 5	12"	12"	12"	12"	12"	12"
* 2-4	2	12"	12"	12"	-	-	-
* 4-1	4	12"	12"	12"	-	-	-
* 4-2	4 and 7	12"	12"	12"	12"	12"	12"
* 4-3	4 and 7	12"	12"	12"	12"	12"	12"
* 6-1	6	12"	12"	12"	-	-	-
* 6-2	1 and 6	12"	12"	12"	12"	12"	12"
* 6-3	1 and 6	12"	12"	12"	12"	12"	12"
* 6-4	6	12"	12"	12"	-	-	-
* 8-1	8	12"	12"	12"	-	-	-
* 8-2	3 and 8	12"	12"	12"	12"	12"	12"
* 8-3	3 and 8	12"	12"	12"	12"	12"	12"

FLASH MODE = ALL RED

* SIGNAL HEAD PHASING



CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS

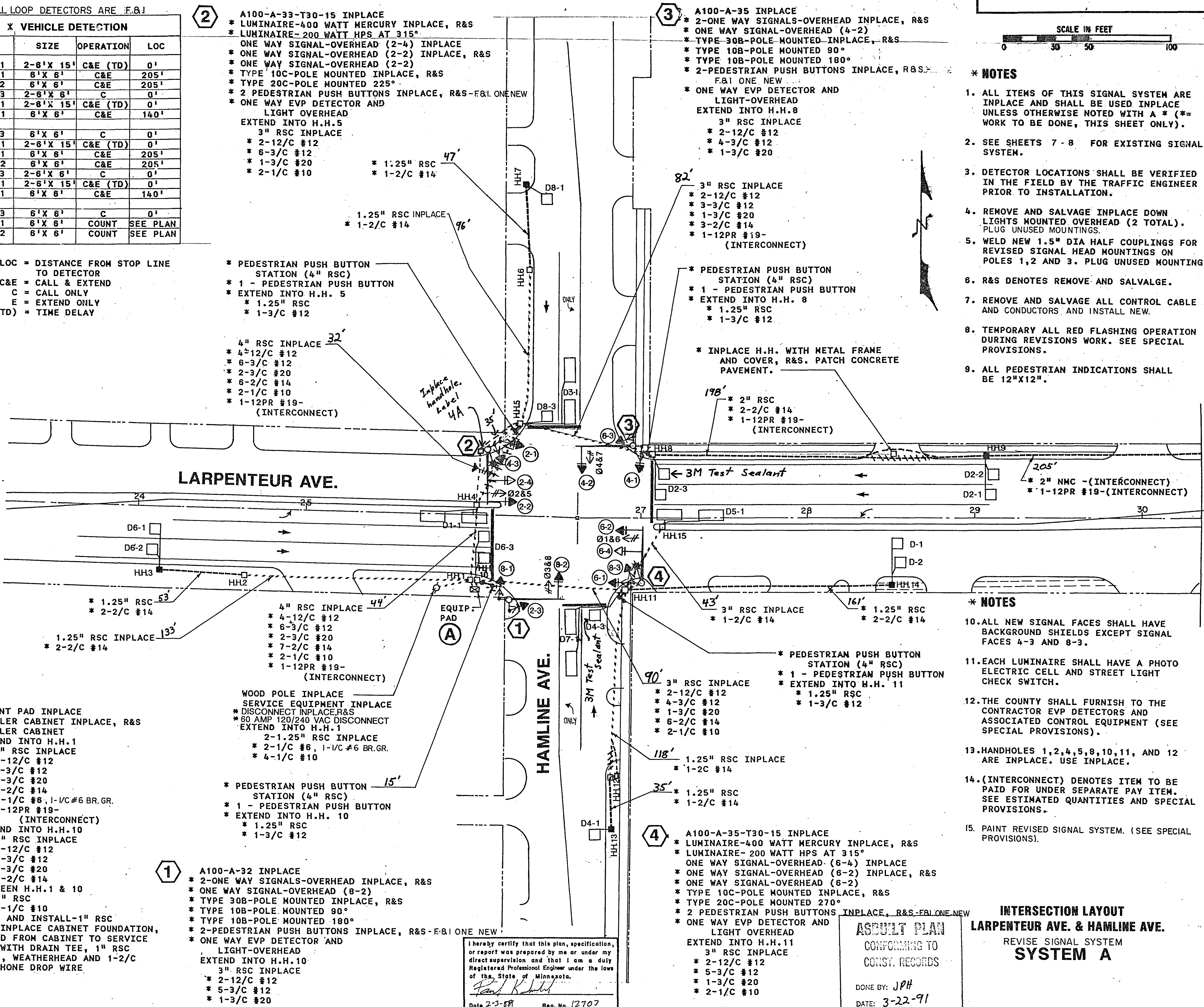


ALL LOOP DETECTORS ARE F&I

X VEHICLE DETECTION

NO	SIZE	OPERATION	LOC
* D1-1	2-8'X 15'	C&E (TD)	0'
* D2-1	8'X 6'	C&E	205'
* D2-2	8'X 6'	C&E	205'
* D2-3	2-8'X 6'	C	0'
* D3-1	2-8'X 15'	C&E (TD)	0'
* D4-1	8'X 6'	C&E	140'
* D4-3	8'X 6'	C	0'
* D5-1	2-8'X 15'	C&E (TD)	0'
* D6-1	8'X 6'	C&E	205'
* D6-2	8'X 6'	C&E	205'
* D6-3	2-8'X 6'	C	0'
* D7-1	2-8'X 15'	C&E (TD)	0'
* D8-1	8'X 6'	C&E	140'
* D8-3	8'X 6'	C	0'
* D-1	8'X 6'	COUNT	SEE PLAN
* D-2	8'X 6'	COUNT	SEE PLAN

LOC = DISTANCE FROM STOP LINE TO DETECTOR
 C&E = CALL & EXTEND
 C = CALL ONLY
 E = EXTEND ONLY
 (TD) = TIME DELAY



* NOTES

- ALL ITEMS OF THIS SIGNAL SYSTEM ARE INPLACE AND SHALL BE USED INPLACE UNLESS OTHERWISE NOTED WITH A * (*=WORK TO BE DONE, THIS SHEET ONLY).
- SEE SHEETS 7-8 FOR EXISTING SIGNAL SYSTEM.
- DETECTOR LOCATIONS SHALL BE VERIFIED IN THE FIELD BY THE TRAFFIC ENGINEER PRIOR TO INSTALLATION.
- REMOVE AND SALVAGE INPLACE DOWN LIGHTS MOUNTED OVERHEAD (2 TOTAL). PLUG UNUSED MOUNTINGS.
- WELD NEW 1.5" DIA HALF COUPLINGS FOR REVISED SIGNAL HEAD MOUNTINGS ON POLES 1, 2 AND 3. PLUG UNUSED MOUNTINGS.
- R&S DENOTES REMOVE AND SALVAGE.
- REMOVE AND SALVAGE ALL CONTROL CABLE AND CONDUCTORS AND INSTALL NEW.
- TEMPORARY ALL RED FLASHING OPERATION DURING REVISIONS WORK. SEE SPECIAL PROVISIONS.
- ALL PEDESTRIAN INDICATIONS SHALL BE 12"X12".

* NOTES

- ALL NEW SIGNAL FACES SHALL HAVE BACKGROUND SHIELDS EXCEPT SIGNAL FACES 4-3 AND 8-3.
- EACH LUMINAIRE SHALL HAVE A PHOTO ELECTRIC CELL AND STREET LIGHT CHECK SWITCH.
- THE COUNTY SHALL FURNISH TO THE CONTRACTOR EVP DETECTORS AND ASSOCIATED CONTROL EQUIPMENT (SEE SPECIAL PROVISIONS).
- HANDHOLES 1, 2, 4, 5, 8, 10, 11, AND 12 ARE INPLACE. USE INPLACE.
- (INTERCONNECT) DENOTES ITEM TO BE PAID FOR UNDER SEPARATE PAY ITEM. SEE ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
- PAINT REVISED SIGNAL SYSTEM. (SEE SPECIAL PROVISIONS).

INTERSECTION LAYOUT

LARPENTEUR AVE. & HAMLINE AVE.

REVISE SIGNAL SYSTEM
SYSTEM AASBUILT PLAN
CONFORMING TO
CONST. RECORDSDONE BY: JPH
DATE: 3-22-91

S.A.P. No. 62-630-24

Sheet No. 4 of 24 Sheets

23-146

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.
 Paul R. Kubit
 Date 2-3-91 Reg. No. 12707

23-146 Larpenteur Avenue & Dunlap Street
SAP 62-630-24

0-24

124X

DRAWING

DRAWING NUMBER
23-146

DRAWING NUMBER

NUMBER

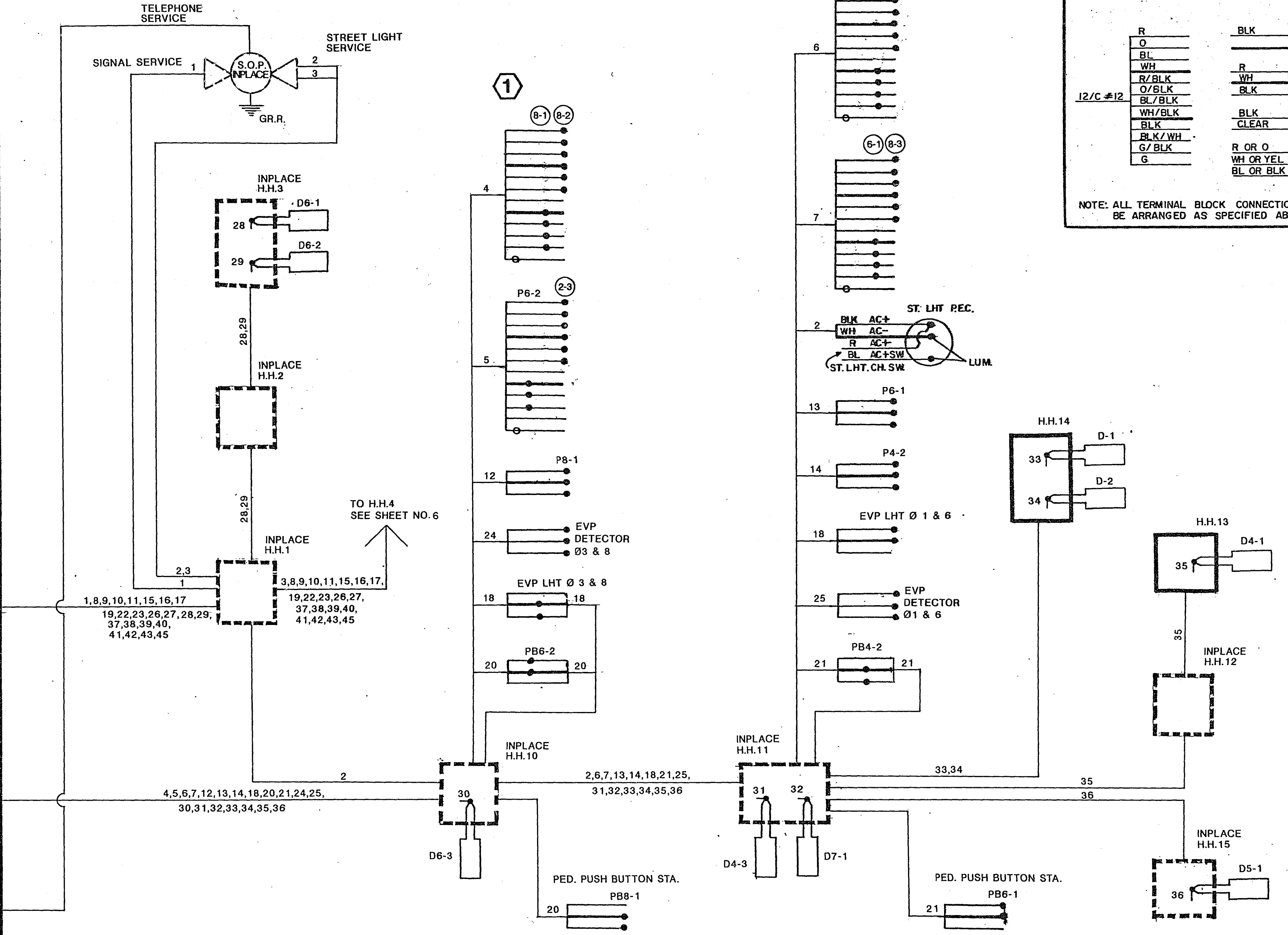
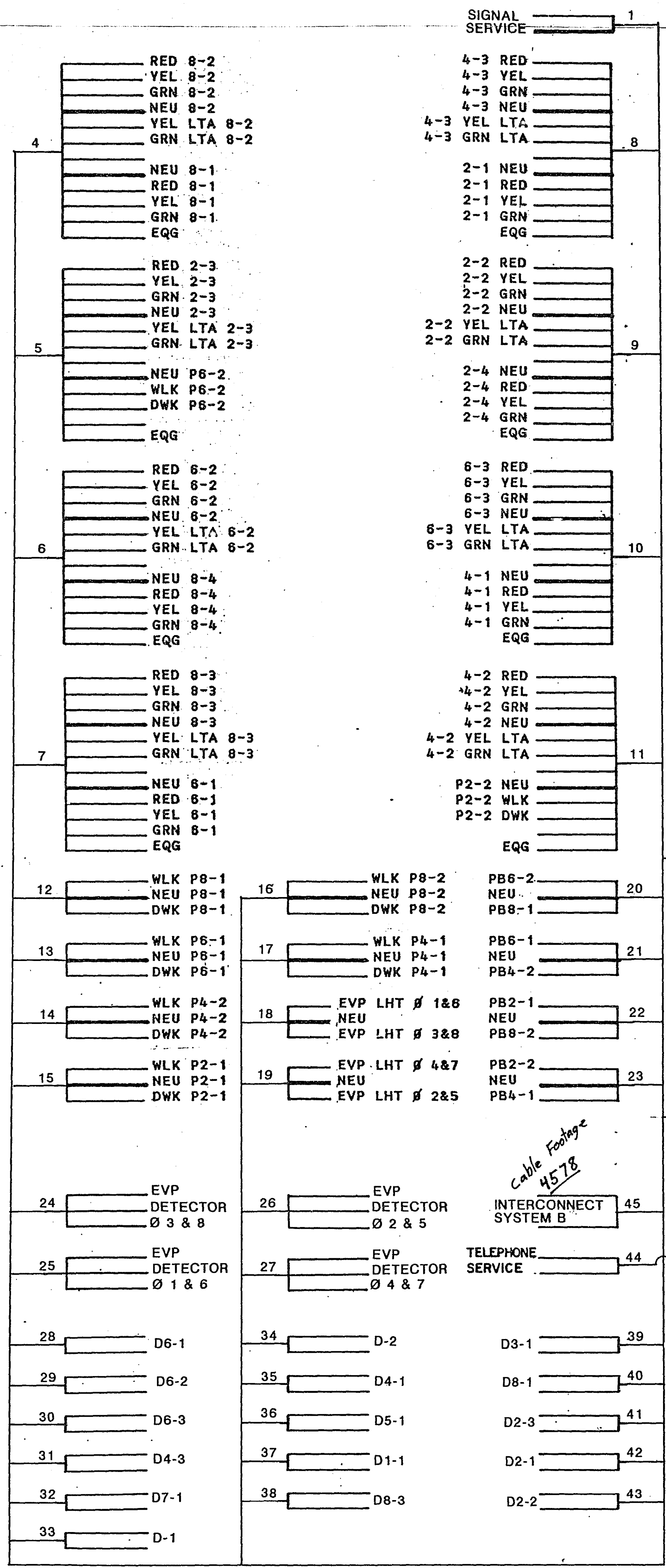
PLAN HOLD CORPORATION
DESIGNED BY
MINNEAPOLIS

PLAN HOLD CORPORATION
DESIGNED BY
MINNEAPOLIS

PLAN HOLD CORPORATION
DESIGNED BY
MINNEAPOLIS

PLAN HOLD CORPORATION
DESIGNED BY
MINNEAPOLIS

CONTROLLER CABINET



CONDUCTOR COLOR CODING

R	BLK	2-1/C #6
O	BLK	2-1/C #10
BL		
WH	R	3/C #12
R/BLK	WH	
O/BLK	BLK	
BL/BLK	BLK	2/C #14
WH/BLK	BLK	
BLK/WH	R OR O	
O/BLK	WH OR YEL	3/C #20
G	BL OR BLK	

NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE.

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 2-3-89 Reg. No. 12703

ASBUILT PLAN
CONFORMING TO
CROSS RECORDS
DONE BY JPH
DATE 3-22-91

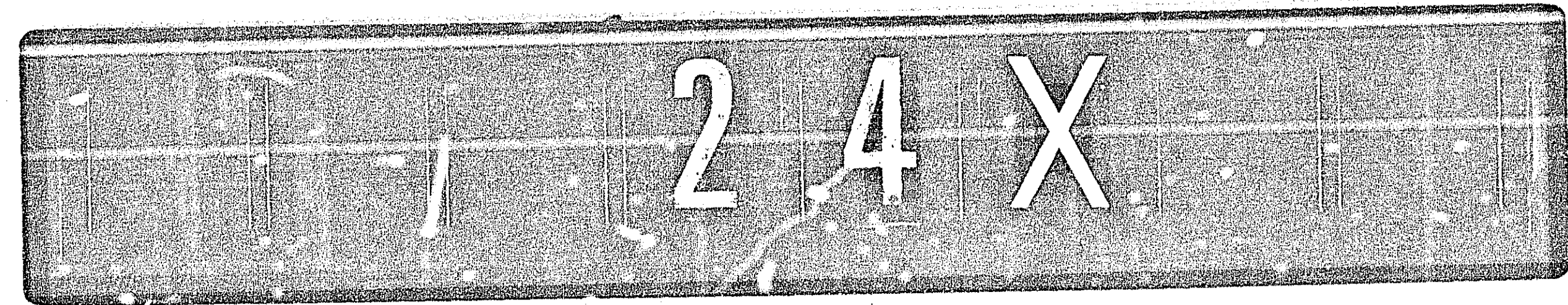
FIELD WIRING DIAGRAM
LARPENTEUR AVE. & HAMLINE AVE.
SYSTEM A

S.A.P. No. 62-630-24

Sheet No. 5 of 24 Sheets

23-146

23-146 Larpenteur Avenue & Dunlap Street
SAP 62-630-24 0-24



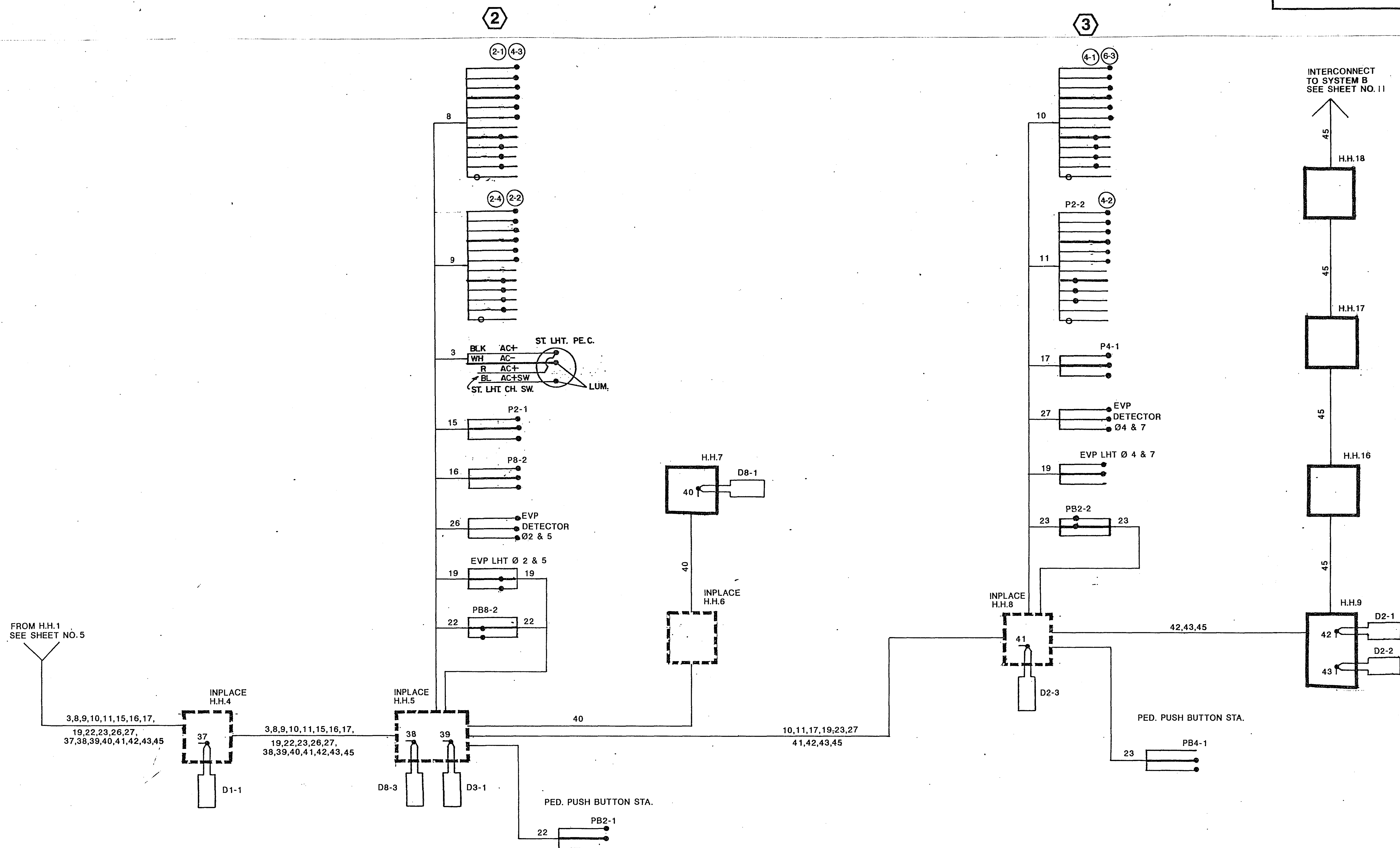
DRAWING

DRAWING NUMBER

23-146

DRAWING NUMBER

NUMBER

PLAN HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEER
REGISTERED IN THE STATE OF MINNESOTAPLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER
REGISTERED IN THE STATE OF CALIFORNIAPLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER
REGISTERED IN THE STATE OF CALIFORNIAPLAN HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEER
REGISTERED IN THE STATE OF MINNESOTA

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Date: 2-3-88 Reg. No. 12703

ASBUILT PLAN
CONFORMING TO
CONTRACT REQUIREMENTS

DONE BY: JPH
DATE: 3-22-91

FIELD WIRING DIAGRAM
LARPEN TEUR AVE. & HAMLINE AVE.
SYSTEM A

S.A.P. No. 62-630-24

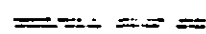
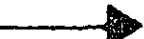
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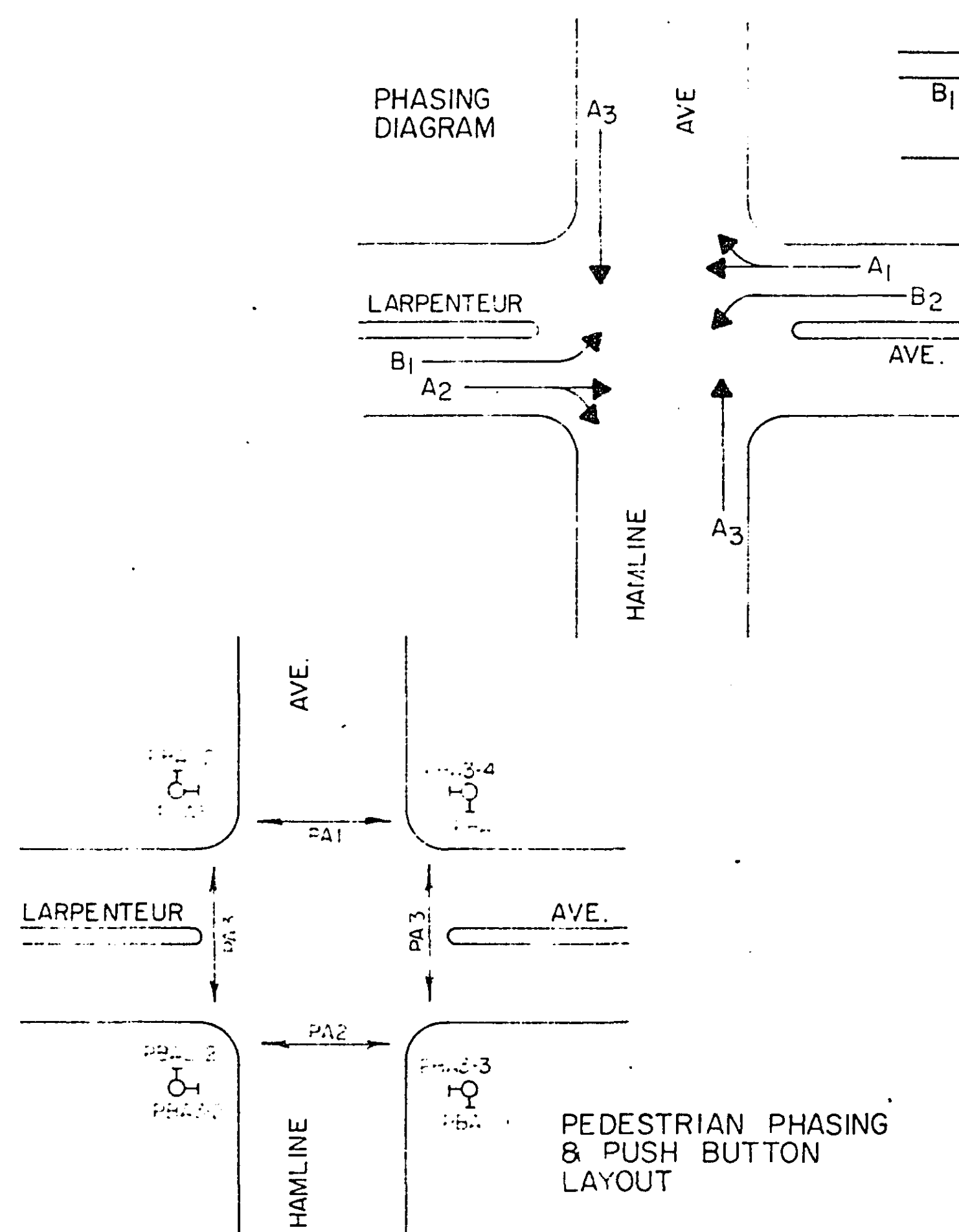
23-146

23-146 Larpenteur Avenue & Dunlap Street
SAP 62-630-24

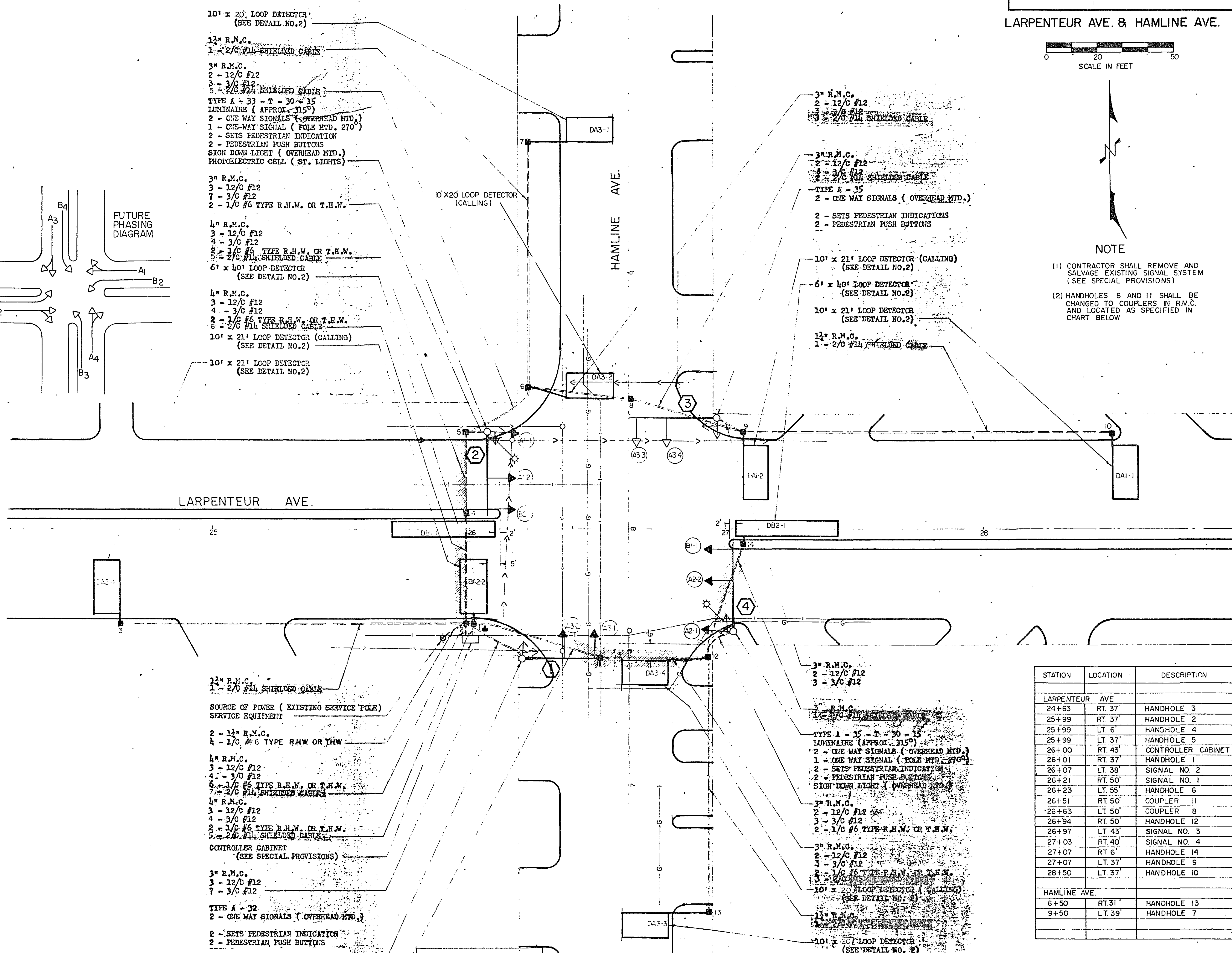
0-24

24X

LEGEND OF SYMBOLS	
	CONTROLLER
	HANDHOLE (PULLBOX)
	RIGID METALLIC CONDUIT (R.M.C.)
	MAST ARM & POLE
	SIGNAL FACE
	SIGNAL FACE WITH BACKGROUND SHIELD
	MAST ARM & LUMINAIRE
	PEDESTRIAN INDICATION
	SOURCE OF POWER (S.O.P.)
	EXISTING CONCRETE PAVEMENT

[illegible]

* SEE SPECIAL PROVISIONS



LARPEN TEUR AVE. & HAMLINE AVE.

0 20
SCALE IN FEET

NOTE

- (1) CONTRACTOR SHALL REMOVE AND SALVAGE EXISTING SIGNAL SYSTEM (SEE SPECIAL PROVISIONS)
- (2) HANDHOLES 8 AND 11 SHALL BE CHANGED TO COUPLERS IN R.M.C. AND LOCATED AS SPECIFIED IN CHART BELOW

STATION	LOCATION	DESCRIPTION
LARPENTEUR	AVE	
24+63	RT 37	HANDHOLE 3
25+99	RT 37	HANDHOLE 2
25+99	LT 6	HANDHOLE 4
25+99	LT 37	HANDHOLE 5
26+00	RT 43	CONTROLLER CABINE
26+01	RT 37	HANDHOLE 1
26+07	LT 38	SIGNAL NO 2
26+21	RT 50	SIGNAL NO. 1
26+23	LT 55	HANDHOLE 6
26+51	RT 50	COUPLER 11
26+63	LT 50	COUPLER 8
26+94	RT 50	HANDHOLE 12
26+97	LT 43	SIGNAL NO. 3
27+03	RT 40	SIGNAL NO. 4
27+07	RT 6	HANDHOLE 14
27+07	LT 37	HANDHOLE 9
28+50	LT 37	HANDHOLE 10
HAMLIN	AVE	
6+50	RT 31	HANDHOLE 13
9+50	LT 39	HANDHOLE 7

LARPEN TEUR AVE. & HAMLINE AVE.
SYSTEM A

REVISÉ 3-22-73 R.W.W.
CHECKED Wm V. Chanoweth DATE 5/16/73

Sheet No. 7 of 24 Sheets

FOR INFORMATION ONLY

INPLACE SYSTEM

S.A.P. No. 62-630-24

ADULT PLAN
CONFORMING TO
CONS. RECORDS

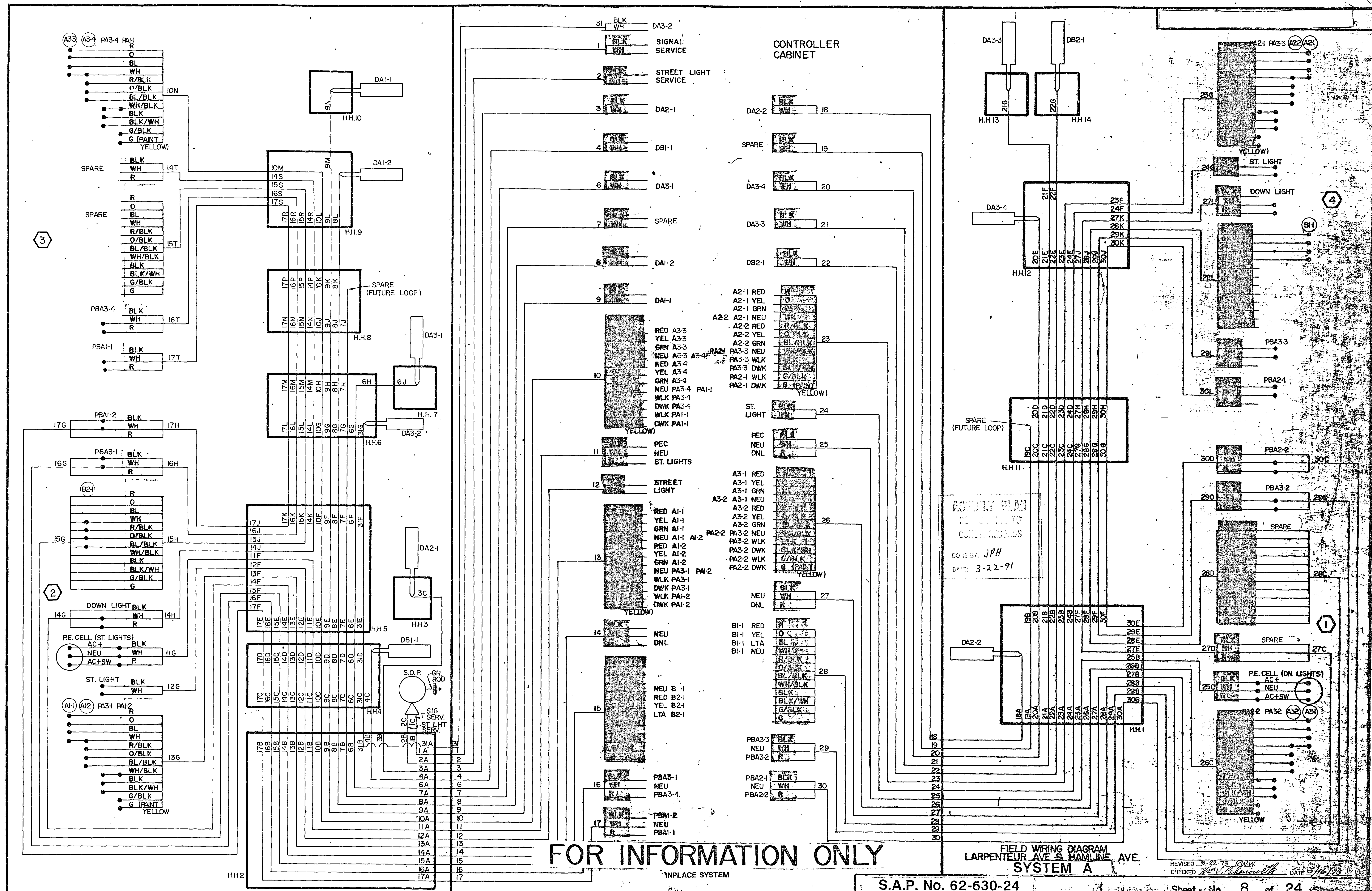
DONE BY: JPH
DATE: 3-22-91

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23-146 Larpenteur Avenue + Dunlap Street
SAP 62-630-24

0-24

23-146



DRAWING

DRAWING NUMBER

23-146

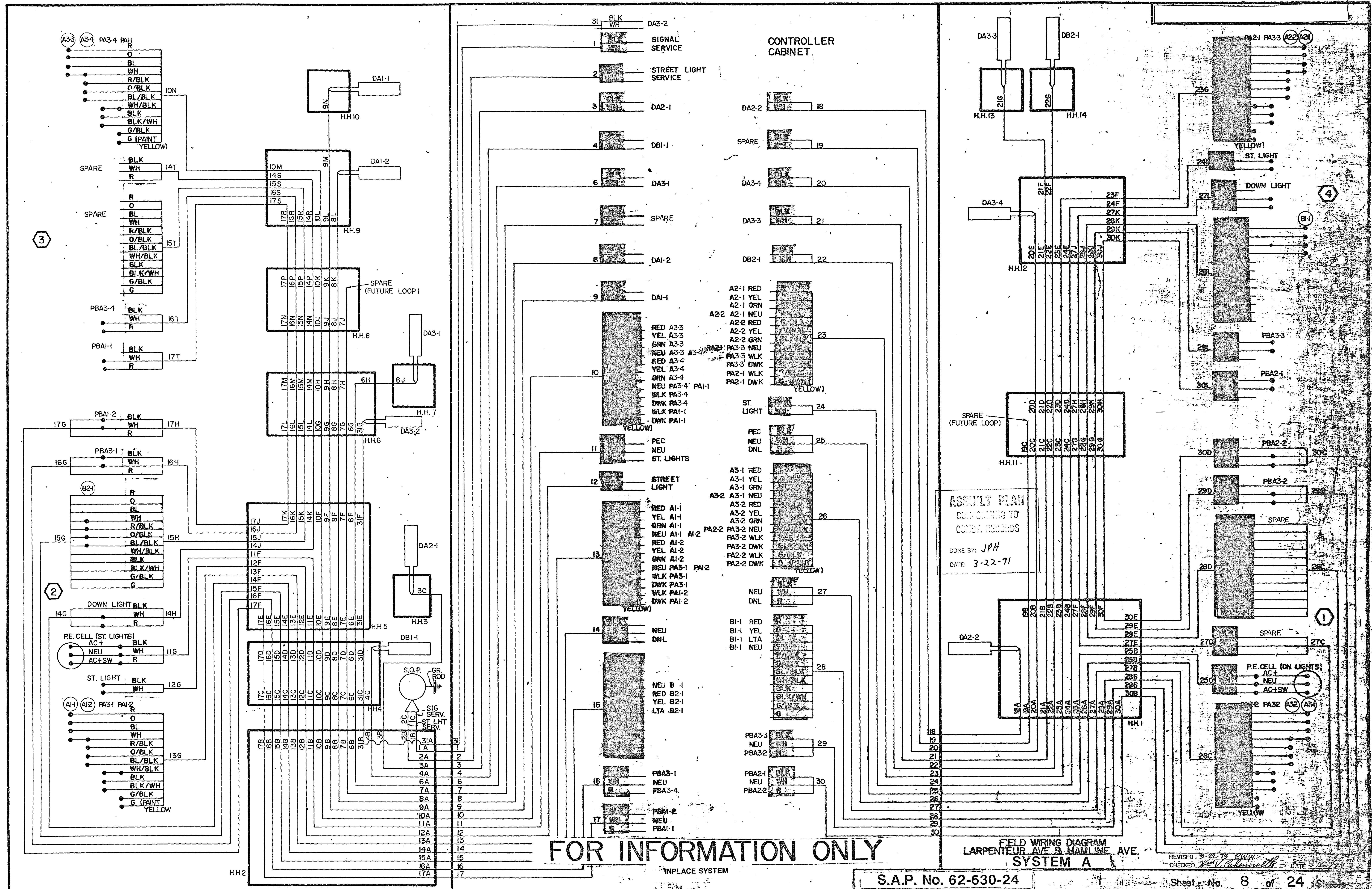
DRAWING NUMBER

NUMBER

PLAN HOLD CORPORATION
REVISED BY 104

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REVISION NUMBER 07/84

IRVINE, CALIFORNIA
08/10/84



23-146 Larpenteur Avenue & Dunlap Street
SAP 62-630-24

0-24

24X

DRAWING

PLAN HOLD CORPORATION
REGISTERED BY RA

DRAWING NUMBER

23-146

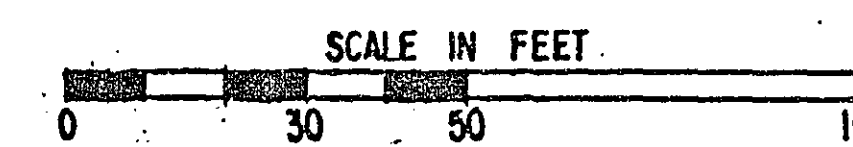
PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED BY RA

DRAWING NUMBER

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED BY RA

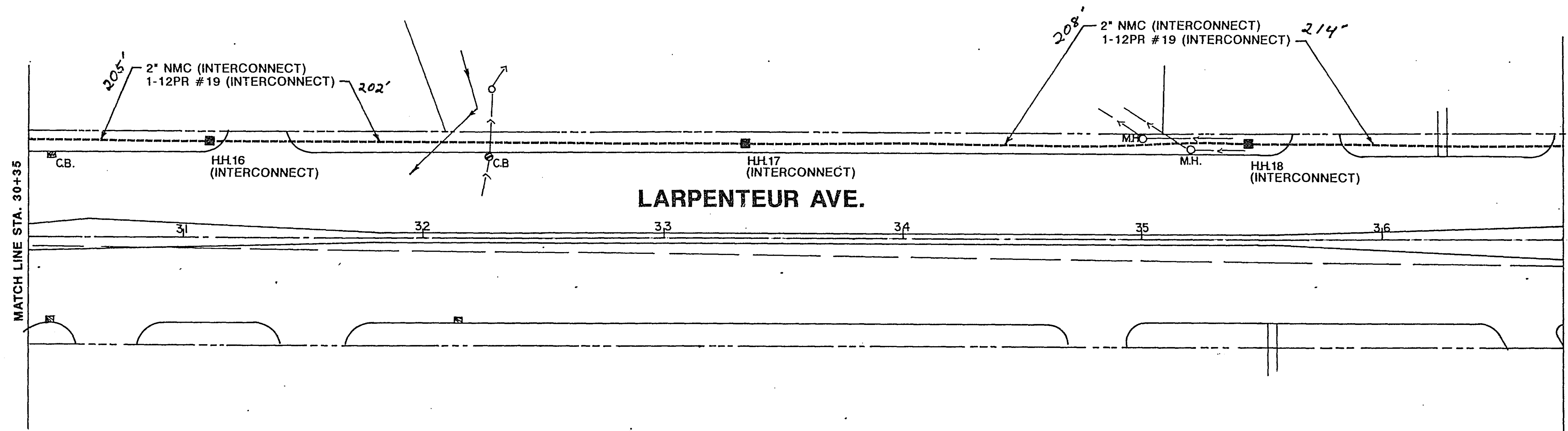
NUMBER

IRVINE, CALIFORNIA
REGISTERED BY RA



NOTES

1. (INTERCONNECT) DENOTES ITEM TO BE PAID FOR UNDER SEPARATE PAY ITEM. SEE ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: JPH
DATE: 3-22-91

SYS. A to SYS. B
INTERCONNECT

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.
Paul K. [Signature]
Date 2-3-89 Reg. No. 12703

S.A.P. No. 62-630-24

Sheet No. 9 of 24 Sheets

23-146

23-146 Larpen Avenue + Dunlap Street
SAP 62-630-24

0-24

24X

DRAWING

DRAWING NUMBER
23-146

DRAWING NUMBER

NUMBER

PLAN HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEER
MINNESOTA

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER
CALIFORNIA

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER
CALIFORNIA

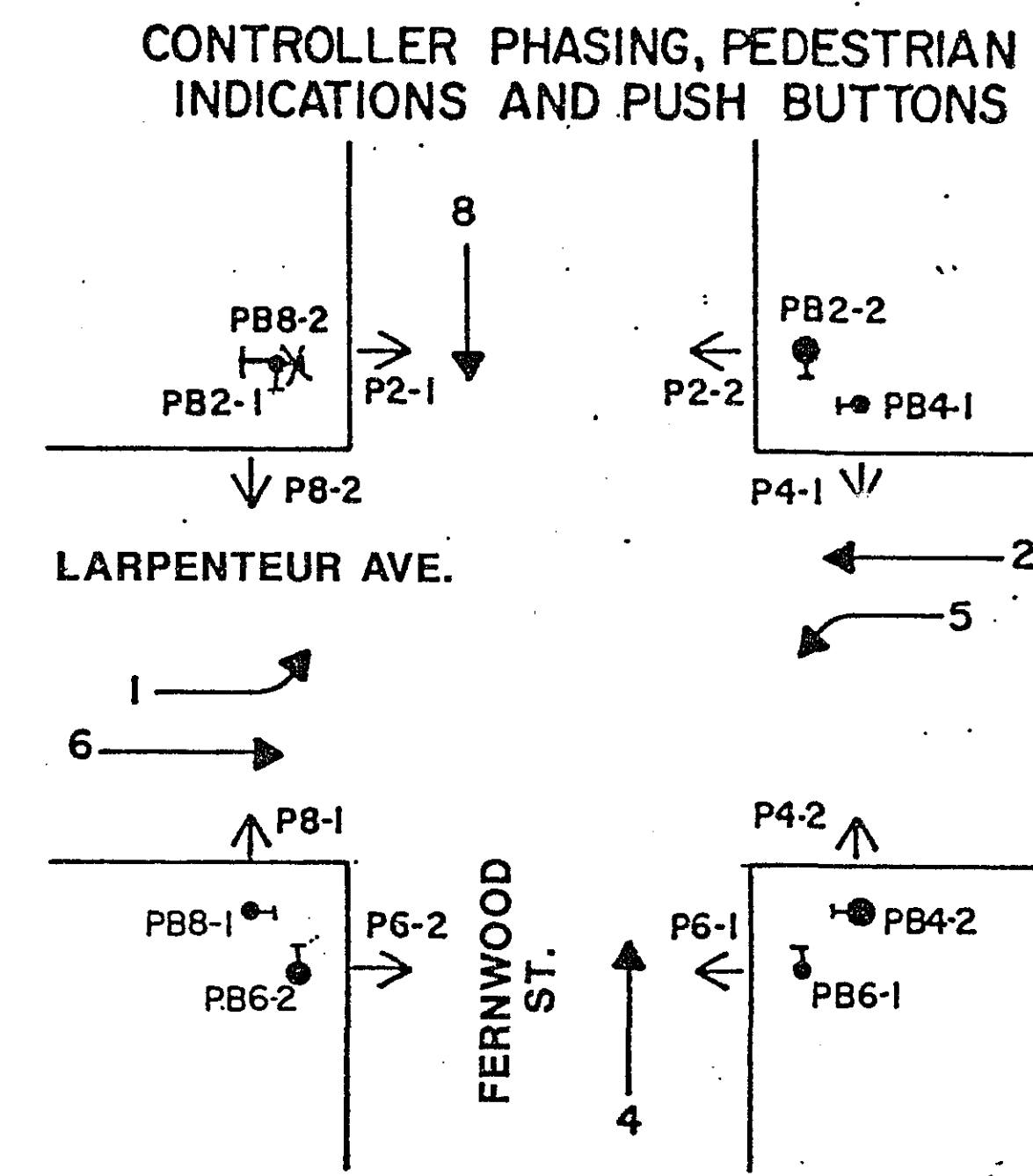
PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER
CALIFORNIA

LEGEND OF SYMBOLS	
SIGNAL BASE NO.	5
SIGNAL FACE NO.	4
CONTROLLER AND CABINET	
CONTROLLER AND CABINET - INPLACE	
HANDHOLE	
HANDHOLE - INPLACE	
RIGID STEEL CONDUIT (RSC)/NON-METALLIC CONDUIT (NMC)	
RIGID STEEL CONDUIT (RSC) - INPLACE	
SIGNAL FACE	
SIGNAL FACE WITH BACKGROUND SHIELD	
SIGNAL FACE - INPLACE	
PEDESTRIAN INDICATIONS	
PEDESTRIAN INDICATIONS - INPLACE	
PEDESTRIAN PUSH BUTTON ON PEDESTAL OR POLE	
PEDESTRIAN PUSH BUTTON STATION	
TRAFFIC SIGNAL PEDESTAL	
TRAFFIC SIGNAL PEDESTAL - INPLACE	
TRAFFIC SIGNAL POLE AND MAST ARM	
TRAFFIC SIGNAL POLE AND MAST ARM - INPLACE	
MAST ARM AND LUMINAIRE	
MAST ARM AND LUMINAIRE - INPLACE	
WOOD POLE	
WOOD POLE - INPLACE	
SOURCE OF POWER	
EMERGENCY VEHICLE PRE-EMPTION DETECTOR LOCATION	

SIGNAL INDICATION CHART							
FACE	PHASE	INDICATION SIZE					
		R	Y	G	Y	G	
2-1	2	12"	12"	12"	—	—	
2-2	2 and 5	12"	12"	12"	12"	12"	
2-3	2 and 5	12"	12"	12"	12"	12"	
2-4	2	12"	12"	12"	—	—	
4-1	4	12"	12"	12"	—	—	
4-2	4	12"	12"	12"	—	—	
4-3	4	12"	12"	12"	—	—	
6-1	6	12"	12"	12"	—	—	
6-2	1 and 6	12"	12"	12"	12"	12"	
6-3	1 and 6	12"	12"	12"	12"	12"	
6-4	6	12"	12"	12"	—	—	
8-1	8	12"	12"	12"	—	—	
8-2	8	12"	12"	12"	—	—	
8-3	8	12"	12"	12"	—	—	

FLASH MODE = ALL RED

SIGNAL HEAD PHASING	
HEADS 2-2 and 2-3	HEADS 6-2 and 6-3



VEHICLE DETECTION			
NO	SIZE	OPERATION	LOC
D1-1	2'-6" X 15'	C&E (TD)	0'
D2-1	6' X 6'	C&E	240'
D2-2	6' X 6'	C&E	240'
D4-1	6' X 6'	C&E	140'
D4-2	6' X 6'	C&E	65'
D4-3	6' X 15'	C&E (TD)	0'
D5-1	2'-6" X 15'	C&E (TD)	0'
D6-1	6' X 6'	C&E	240'
D6-2	6' X 6'	C&E	240'
D8-1	2'-6" X 6'	C&E	140'
D8-2	2'-6" X 6'	C&E	65'
D8-3	2'-6" X 15'	C&E (TD)	0'

LOC = DISTANCE FROM STOP LINE
TO DETECTOR
C&E = CALL & EXTEND
C = CALL ONLY
E = EXTEND ONLY
(TD) = TIME DELAY

A EQUIPMENT PAD - SEE DETAILS
SERVICE CABINET
EXTEND INTO H.H. 2
1.25" RSC
3-1/C #4
EXTEND INTO H.H.3
1.25" RSC
2-1/C #10
EXTEND INTO H.H.15
1.25" RSC
2-1/C #10
CONTROLLER CABINET
STUB 2" RSC AND CAP
FOR FUTURE USE
EXTEND INTO H.H.3
4" RSC
4-12/C #12
4-3/C #12
1-3/C #20
9-2/C #14
1-12PR #19-
(INTERCONNECT)
EXTEND INTO H.H.15
4" RSC
4-12/C #12
4-3/C #12
1-3/C #20
3-2/C #14
1-12PR #19-
(INTERCONNECT)
BETWEEN SERVICE AND
CONTROLLER CABINET
1.25" RSC
2-1/C #6
1-1/C #6 (BARE)

REMOVE CONCRETE PAVEMENT (4'X18')
AND CONSTRUCT CONCRETE MEDIAN
(MOUNTABLE TYPE) PER MN/DOT STD.
PLATE NO. 7105C. WORK TO BE
INCIDENTAL TO CONSTRUCTION OF
SYSTEM B.

1 P80-A-30-T30-10
LUMINAIRE - 200 WATT HPS AT 350°
2-ONE WAY SIGNALS - OVERHEAD
TYPE 20C - POLE MOUNTED 270°
1 - PEDESTRIAN PUSH BUTTON AT 270°
ONE-WAY EVP DETECTOR AND
LIGHT - OVERHEAD
EXTEND INTO H.H. 15
3" RSC
2-12/C #12
4-3/C #12
1-3/C #20
2-1/C #10

2 P80-A-15
ONE WAY SIGNAL - OVERHEAD
TYPE 20C - POLE MOUNTED 270°
1 - PEDESTRIAN PUSH BUTTON AT 270°
EXTEND INTO H.H. 6
3" RSC
2-12/C #12
2-3/C #12

S.O.P. - (NSP POLE INPLACE)
1.25" RSC RISER WITH WEATHER HEAD
EXTEND INTO H.H. 1
1.25" RSC
3-1/C #4

3" RSC
2-12/C #12
4-3/C #12
1-3/C #20
6-2/C #14
2-1/C #10
1-12PR #19-
(INTERCONNECT)

PEDESTRIAN PUSH BUTTON
STATION (4" RSC)
1 - PEDESTRIAN PUSH BUTTON
EXTEND INTO H.H. 7
1.25" RSC
1-3/C #12

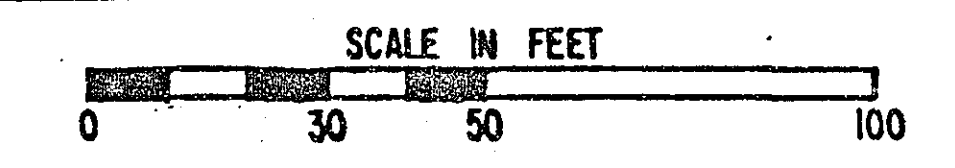
2" NMC - RSC
2-2/C #14
1-12PR #19-
(INTERCONNECT)

PEDESTRIAN PUSH BUTTON
STATION (4" RSC)
1 - PEDESTRIAN PUSH BUTTON
EXTEND INTO H.H. 12
1.25" RSC
1-3/C #12

3 P80-A-30-T30-10
LUMINAIRE - 200 WATT HPS AT 350°
2-ONE WAY SIGNALS - OVERHEAD
TYPE 20C - POLE MOUNTED 270°
1 - PEDESTRIAN PUSH BUTTON AT 270°
ONE-WAY EVP DETECTOR AND
LIGHT - OVERHEAD
EXTEND INTO H.H. 11
3" RSC
2-12/C #12
4-3/C #12
1-3/C #20
2-1/C #10

4 P80-A-15
ONE WAY SIGNAL - OVERHEAD
TYPE 10B - POLE MOUNTED 80°
TYPE 10B - POLE MOUNTED 180°
1 - PEDESTRIAN PUSH BUTTON AT 270°
EXTEND INTO H.H. 17
3" RSC
2-12/C #12
2-3/C #12

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.
Paul K. Kell
Date 2-3-88 Reg. No. 12703



NOTES

- POLE AND DETECTOR LOCATIONS SHALL BE VERIFIED IN THE FIELD BY THE TRAFFIC ENGINEER PRIOR TO INSTALLATION.
- THE COUNTY SHALL FURNISH TO THE CONTRACTOR EVP DETECTORS AND ASSOCIATED CONTROL EQUIPMENT (SEE SPECIAL PROVISIONS).
- A 3/4 INCH HALF COUPLING SHALL BE FURNISHED APPROX. 2 FT. AND 4 FT. FROM END OF THE MAST ON EACH POLE PER MN/DOT 3831.2C
- A MID-ARM MOUNT SHALL BE FURNISHED AND INSTALLED 12 FEET FROM THE END OF MAST ARM AT POLES 1 AND 3.
- ALL PEDESTRIAN INDICATIONS SHALL BE 12"X12".
- ALL SIGNAL FACES SHALL HAVE BACKGROUND SHIELDS EXCEPT SIGNALS FACES 4-3, 6-3 AND 8-3.
- EACH LUMINAIRE SHALL HAVE A PHOTO ELECTRIC CELL AND STREET LIGHT CHECK SWITCH.
- (INTERCONNECT) DENOTES ITEM TO BE PAID FOR UNDER SEPARATE PAY ITEM. SEE ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.

ASBUILT PLAN
CONFORMING TO
CONTRACT RECORDS
DONE BY: JPH
DATE: 3-22-91

INTERSECTION LAYOUT
LARPEUR AVE. & FERNWOOD ST.
SYSTEM B

S.A.P. No. 62-630-24

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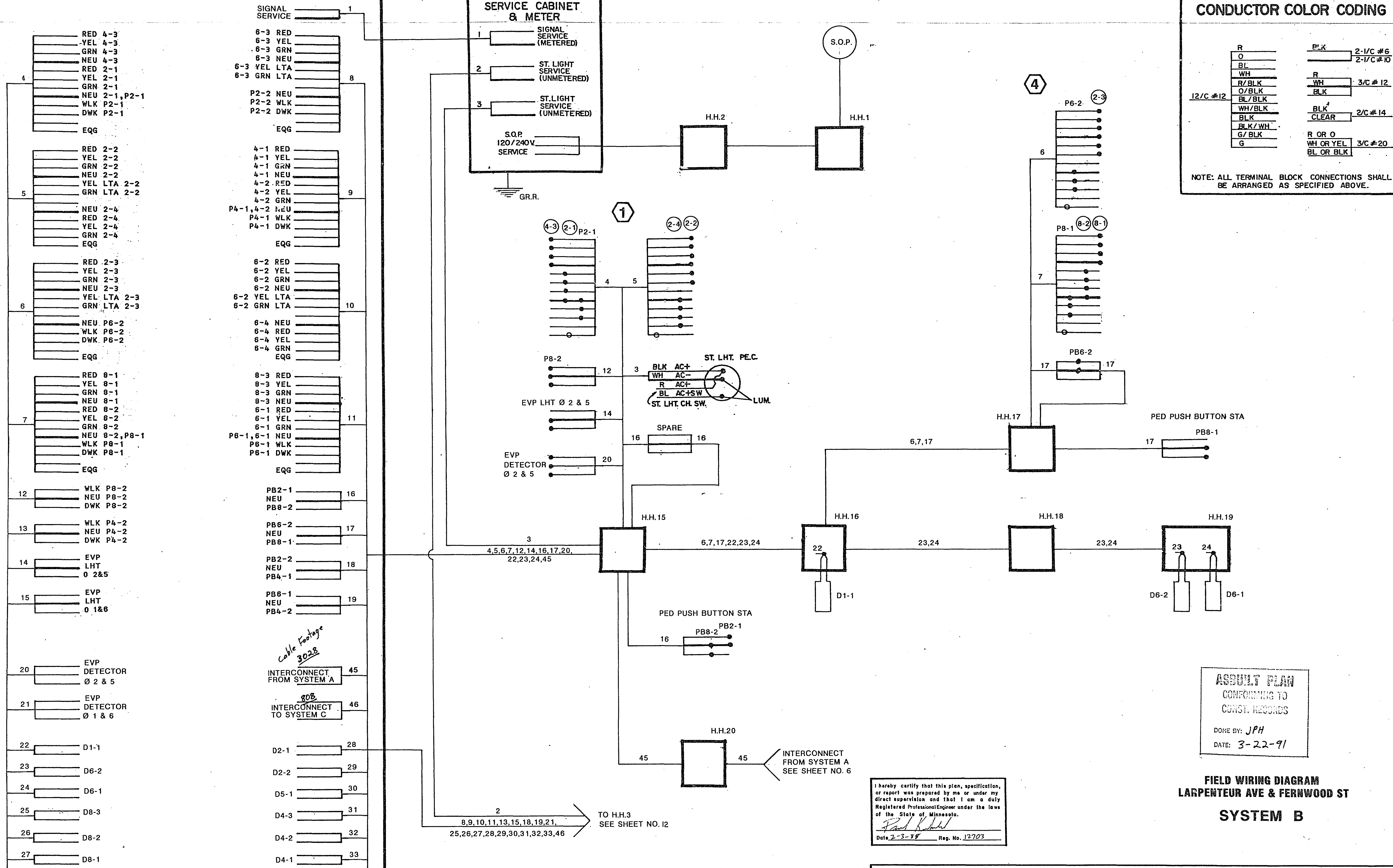
23-146

23-146 Larpeur Avenue & Dunlap Street
SAP 62-630-24

0-24

24X

CONDUCTOR COLOR CODING



Sheet No. 11 of 24 Sheets

23-146

23-146 Larpenleur Avenue + Dunlap Street
SAP 62-630-24

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2 4 X

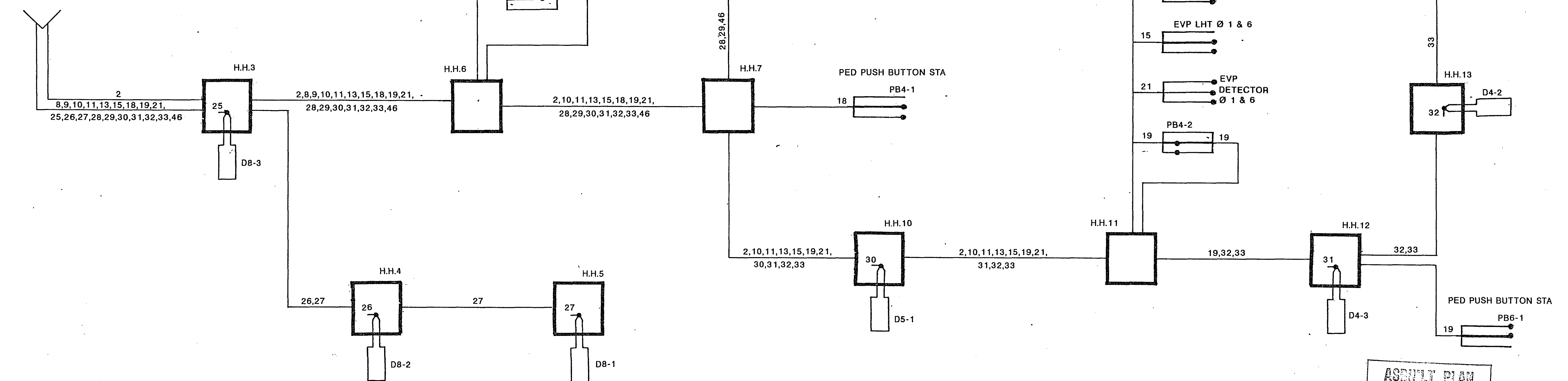
DRAWING

DRAWING NUMBER

23-146

DRAWING NUMBER

NUMBER

PLAN HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEERPLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED PROFESSIONAL ENGINEERPLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED PROFESSIONAL ENGINEERPLAN HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEERFROM
SERVICE AND
CONTROLLER CABINET
SEE SHEET NO. 11INTERCONNECT
TO SYSTEM C
SEE SHEET NO. 14ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: JPH
DATE: 3-22-91FIELD WIRING DIAGRAM
LARPEN TEUR AVE & FERNWOOD ST
SYSTEM BI 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 2-3-88 Reg. No. 12703

S.A.P. No. 62-630-24

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23-146 Larpenteur Avenue & Dunlap Street
SAP 62-630-24 0-24

24X

LEGEND OF SYMBOLS

SIGNAL BASE NO.	
SIGNAL FACE NO.	
CONTROLLER AND CABINET	
CONTROLLER AND CABINET - INPLACE	
HANDHOLE - INPLACE	
RIGID STEEL CONDUIT (RSC)/NON-METALLIC CONDUIT (NMC)	
RIGID STEEL CONDUIT (RSC) - INPLACE	
SIGNAL FACE	
SIGNAL FACE WITH BACKGROUND SHIELD	
SIGNAL FACE - INPLACE	
PEDESTRIAN INDICATIONS	
PEDESTRIAN INDICATIONS - INPLACE	
PEDESTRIAN PUSH BUTTON ON PEDESTAL OR POLE	
PEDESTRIAN PUSH BUTTON STATION	
TRAFFIC SIGNAL PEDESTAL	
TRAFFIC SIGNAL PEDESTAL - INPLACE	
TRAFFIC SIGNAL POLE AND MAST ARM	
TRAFFIC SIGNAL POLE AND MAST ARM - INPLACE	
MAST ARM AND LUMINAIRE	
MAST ARM AND LUMINAIRE - INPLACE	
WOOD POLE	
WOOD POLE - INPLACE	
SOURCE OF POWER	
EMERGENCY VEHICLE PRE-EMPTION DETECTOR LOCATION	

SIGNAL INDICATION CHART

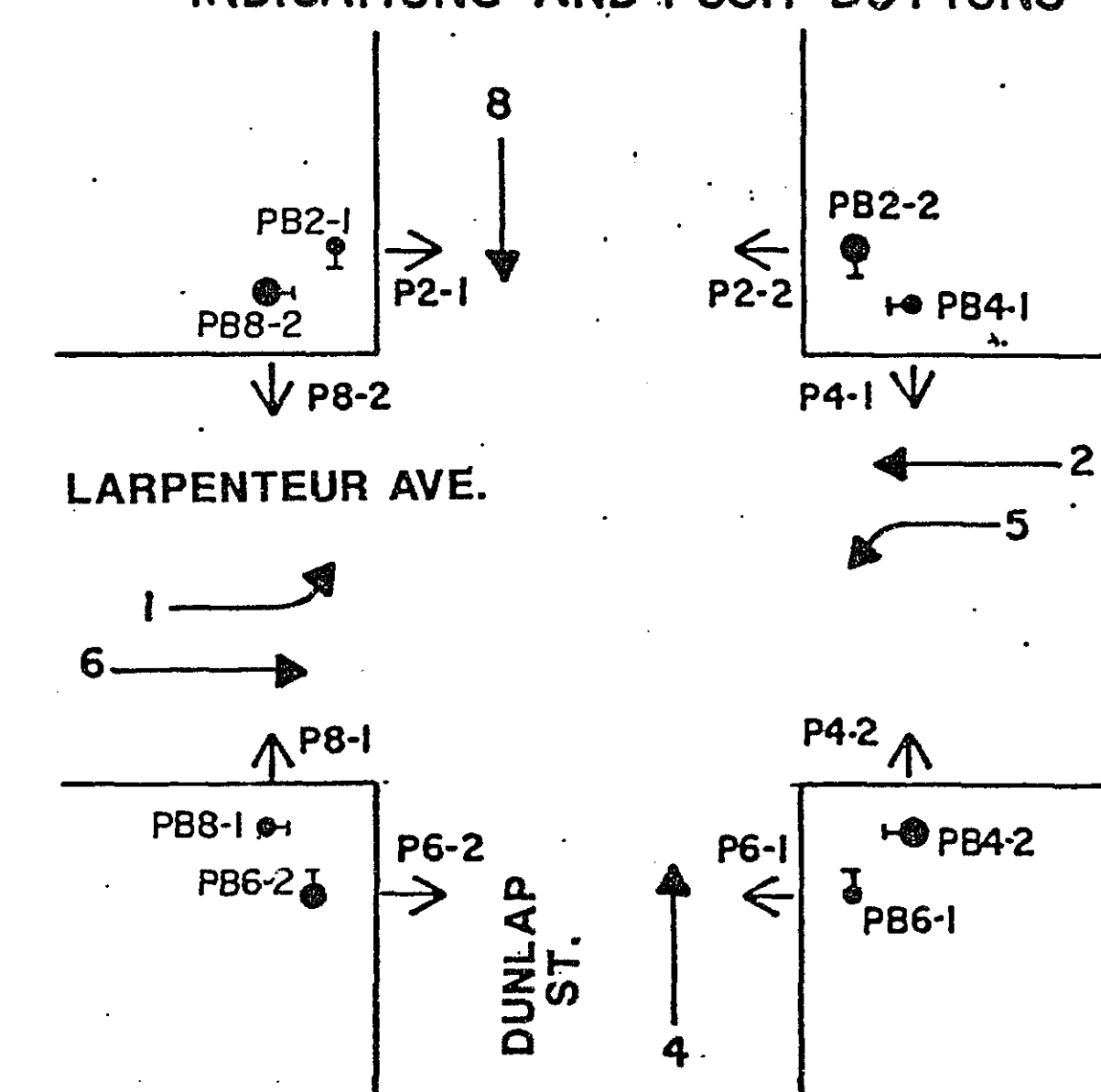
FACE	PHASE	INDICATION SIZE					
		R	Y	G	Y	G	Y
2-1	2	12"	12"	12"	-	-	-
2-2	2 and 5	12"	12"	12"	12"	12"	12"
2-3	2 and 5	12"	12"	12"	12"	12"	12"
2-4	2	12"	12"	12"	-	-	-
4-1	4	12"	12"	12"	-	-	-
4-2	4	12"	12"	12"	-	-	-
4-3	4	12"	12"	12"	-	-	-
6-1	6	12"	12"	12"	-	-	-
6-2	1 and 6	12"	12"	12"	12"	12"	12"
6-3	1 and 6	12"	12"	12"	12"	12"	12"
6-4	6	12"	12"	12"	-	-	-
8-1	8	12"	12"	12"	-	-	-
8-2	8	12"	12"	12"	-	-	-
8-3	8	12"	12"	12"	-	-	-

FLASH MODE = ALL RED

SIGNAL HEAD PHASING

HEADS 2-2 and 2-3	HEADS 6-2 and 6-3
(R) → 0 2	(R) → 0 6
(Y) → 0 2	(Y) → 0 6
(G) → 0 5	(G) → 0 1
(Y) → 0 5	(Y) → 0 1
(G) → 0 1	(G) → 0 1

CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



VEHICLE DETECTION			
NO	SIZE	OPERATION	LOC
D1-1	2'-6" X 15"	C&E (TD)	0'
D2-1	6' X 6'	C&E	240'
D2-2	6' X 6'	C&E	240'
D4-1	6' X 6'	C&E	140'
D4-2	6' X 6'	C&E	65'
D4-3	6' X 15"	C&E (TD)	0'
D5-1	2'-6" X 15"	C&E (TD)	0'
D6-1	6' X 6'	C&E	240'
D6-2	6' X 6'	C&E	240'
D8-2	6' X 6'	C&E	60'
D8-3	6' X 15"	C&E (TD)	0'

LOC = DISTANCE FROM STOP LINE
TO DETECTOR
C&E = CALL & EXTEND
C = CALL ONLY
E = EXTEND ONLY
(TD) = TIME DELAY

A EQUIPMENT PAD - SEE DETAILS
SERVICE CABINET
EXTEND INTO H.H. 3
1.25" RSC
3-1/C #4
EXTEND INTO H.H. 4
1.25" RSC
2-1/C #10
EXTEND INTO H.H. 15
1.25" RSC
2-1/C #10
CONTROLLER CABINET
STUB 2" RSC AND CAP
FOR FUTURE USE
EXTEND INTO H.H. 4
4" RSC
4-12/C #12
5-3/C #12
1-3/C #20
8-2/C #14
1-12PR #19-
(INTERCONNECT)
EXTEND INTO H.H. 15
4" RSC
4-12/C #12
4-3/C #12
1-3/C #20
3-2/C #14
1-12PR #19-
(INTERCONNECT)
BETWEEN SERVICE AND
CONTROLLER CABINET
1.25" RSC
2-1/C #6
1-1/C #6 (BARE)

S.O.P. - (NSP POLE INPLACE)
1.25" RSC RISER WITH WEATHER HEAD
EXTEND INTO H.H. 1
1.25" RSC
3-1/C #4

PEDESTRIAN PUSH BUTTON
STATION (4" RSC)
1 - PEDESTRIAN PUSH BUTTON
EXTEND INTO H.H. 17
1.25" RSC
1-3/C #12

4 P80-A-15
ONE WAY SIGNAL - OVERHEAD
TYPE 10B - POLE MOUNTED 90°
TYPE 10B - POLE MOUNTED 180°
1 - PEDESTRIAN PUSH BUTTON AT 270°
EXTEND INTO H.H. 17
3" RSC
2-12/C #12
2-3/C #12

1 P100-A-40-T30-10
LUMINAIRE - 200 WATT HPS AT 350°
2-ONE WAY SIGNALS - OVERHEAD
TYPE 20C - POLE MOUNTED 270°
1 - PEDESTRIAN PUSH BUTTON AT 270°
ONE-WAY EVP DETECTOR AND
LIGHT - OVERHEAD
EXTEND INTO H.H. 15
3" RSC
2-12/C #12
3-3/C #12
1-3/C #20
2-1/C #10

2 P80-A-15
ONE WAY SIGNAL - OVERHEAD
TYPE 10B - POLE MOUNTED 90°
TYPE 10B - POLE MOUNTED 180°
1 - PEDESTRIAN PUSH BUTTON AT 270°
EXTEND INTO H.H. 6
3" RSC
2-12/C #12
2-3/C #12

PEDESTRIAN PUSH BUTTON
STATION (4" RSC)
1 - PEDESTRIAN PUSH BUTTON
EXTEND INTO H.H. 6
1.25" RSC
1-3/C #12

3" RSC
2-12/C #12
3-3/C #12
1-3/C #20
6-2/C #14
2-1/C #10
1-12PR #19-
(INTERCONNECT)

2" RSC
2-2/C #14
1-12PR #19-
(INTERCONNECT)

3" RSC
2-12/C #12
3-3/C #12
1-3/C #20
3-2/C #14
4-2/C #14
2-1/C #10

PEDESTRIAN PUSH BUTTON
STATION (4" RSC)
1 - PEDESTRIAN PUSH BUTTON
EXTEND INTO H.H. 12
1.25" RSC
1-3/C #12

3 P100-A-35-T30-10
LUMINAIRE - 200 WATT HPS AT 350°
2-ONE WAY SIGNALS - OVERHEAD
TYPE 20C - POLE MOUNTED 270°
1 - PEDESTRIAN PUSH BUTTON AT 270°
ONE-WAY EVP DETECTOR AND
LIGHT - OVERHEAD
EXTEND INTO H.H. 11
3" RSC
2-12/C #12
4-3/C #12
1-3/C #20
2-1/C #10

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.
Paul Kuhn
Date 2-3-87 Reg. No. 12103

SCALE IN FEET
0 30 60 90 120

NOTES

- POLE AND DETECTOR LOCATIONS SHALL BE VERIFIED IN THE FIELD BY THE TRAFFIC ENGINEER PRIOR TO INSTALLATION.
- THE COUNTY SHALL FURNISH TO THE CONTRACTOR EVP DETECTORS AND ASSOCIATED CONTROL EQUIPMENT (SEE SPECIAL PROVISIONS).
- A 3/4 INCH HALF COUPLING SHALL BE FURNISHED APPROX. 2 FT. AND 4 FT. FROM END OF THE MAST ON EACH POLE PER MN/DOT 3831.2C
- A MID-ARM MOUNT SHALL BE FURNISHED AND INSTALLED AS FOLLOWS:
A. 13 FEET FROM END OF MAST ARM AT POLE 1.
B. 14 FEET FROM END OF MAST ARM AT POLE 3
- ALL PEDESTRIAN INDICATIONS SHALL BE 12" X 12".
- ALL SIGNAL FACES SHALL HAVE BACKGROUND SHIELDS EXCEPT SIGNALS FACES 4-3 AND 8-3.

NOTES

- EACH LUMINAIRE SHALL HAVE A PHOTO ELECTRIC CELL AND STREET LIGHT CHECK SWITCH.
- (INTERCONNECT) DENOTES ITEM TO BE PAID FOR UNDER SEPARATE PAY ITEM. SEE ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.

ASBUILT PLAN
CONFORMING TO
CONS. RECORDS

DONE BY: JPH
DATE: 3-22-91

INTERSECTION LAYOUT
LARPEUTEUR AVE. & DUNLAP ST.

SYSTEM C

S.A.P. No. 62-630-24

Sheet No. 13 of 24 Sheets

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23-146 Larpeuteur Avenue & Dunlap Street
SAP 62-630-24

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24 X

DRAWING

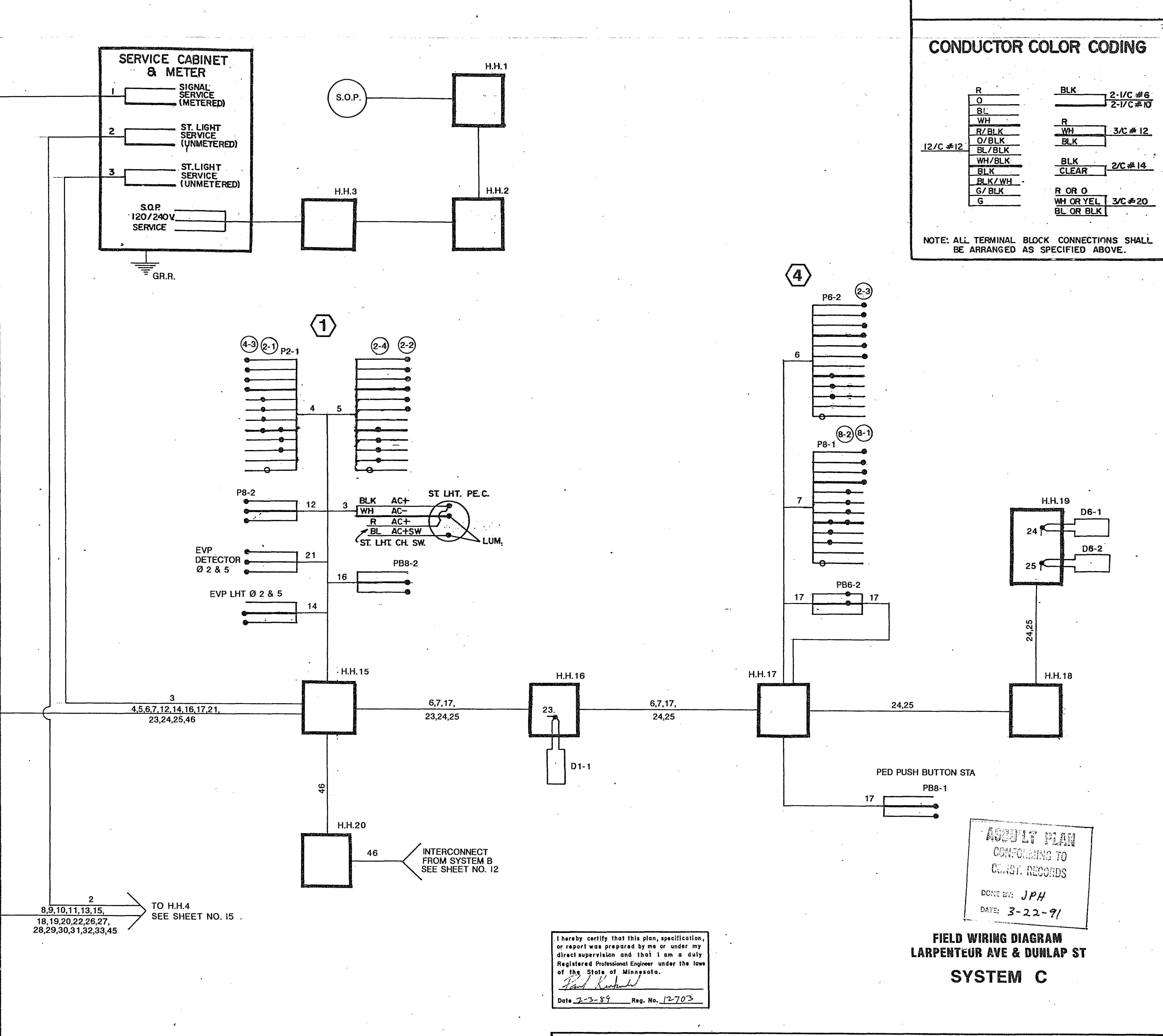
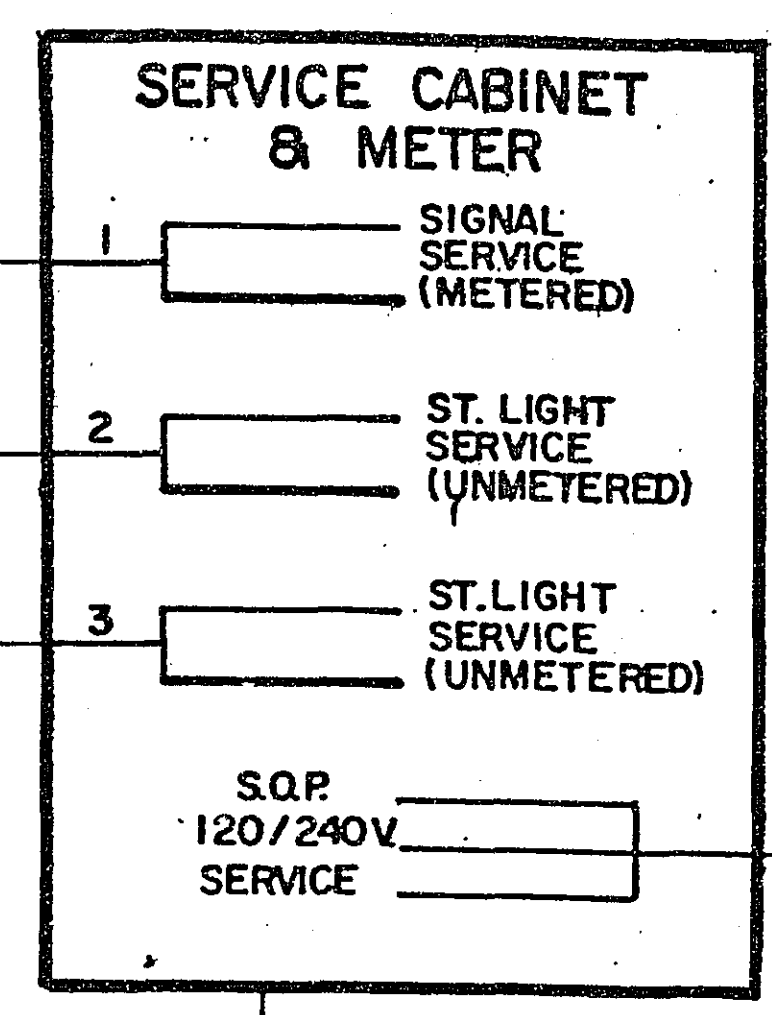
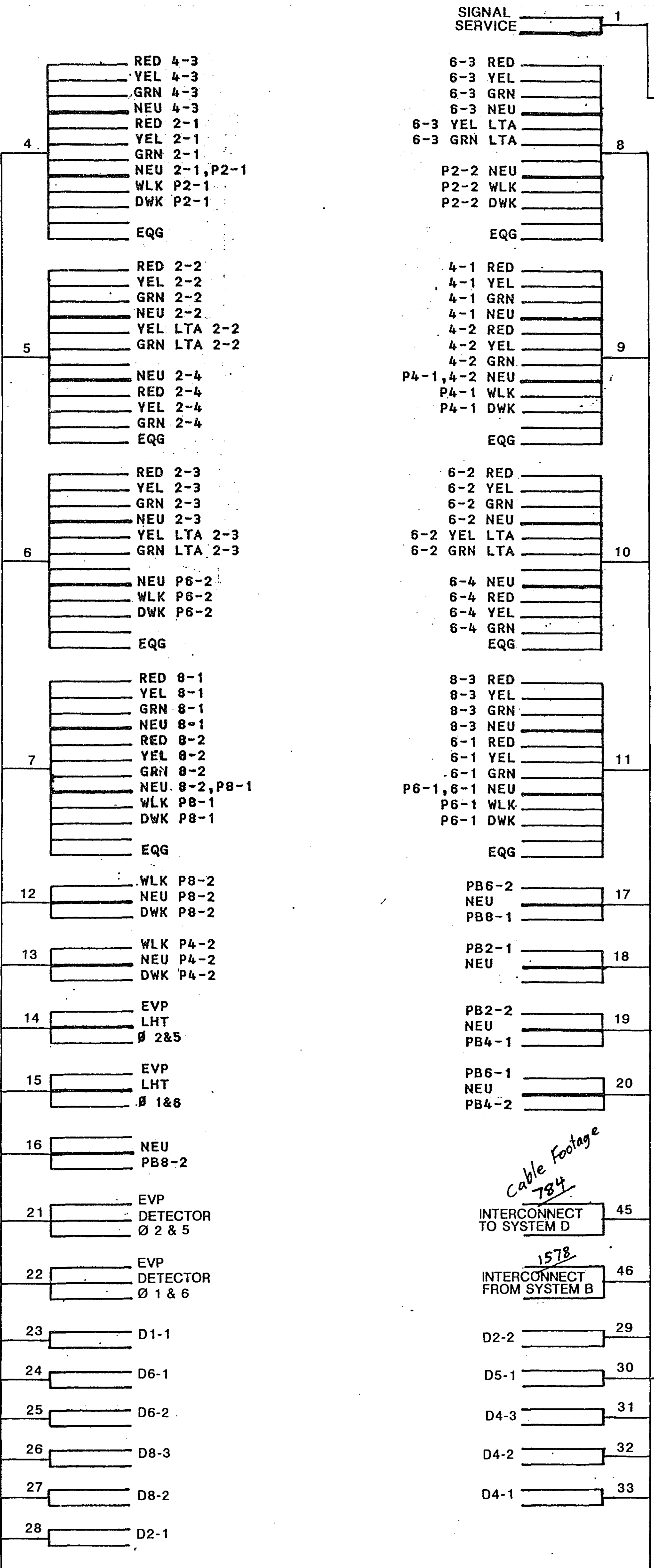
DRAWING NUMBER
23-146

DRAWING NUMBER

NUMBER

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER
REGISTERED NUMBER 17504

CONTROLLER CABINET



CONDUCTOR COLOR CODING

R	BLK	2-1/C #6
O		2-1/C #10
BL		
WH	R	3/C #12
R/BLK	WH	
O/BLK	BLK	
BL/BLK	BLK	2/C #14
WH/BLK	CLEAR	
BLK		
BLK/WH	R OR O	
G/BLK	WH OR YEL	3/C #20
G	BL OR BLK	

NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE.

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.
Paul R. Hubert
Date 2-3-89 Reg. No. 12703

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY JPH
DATE 3-22-91

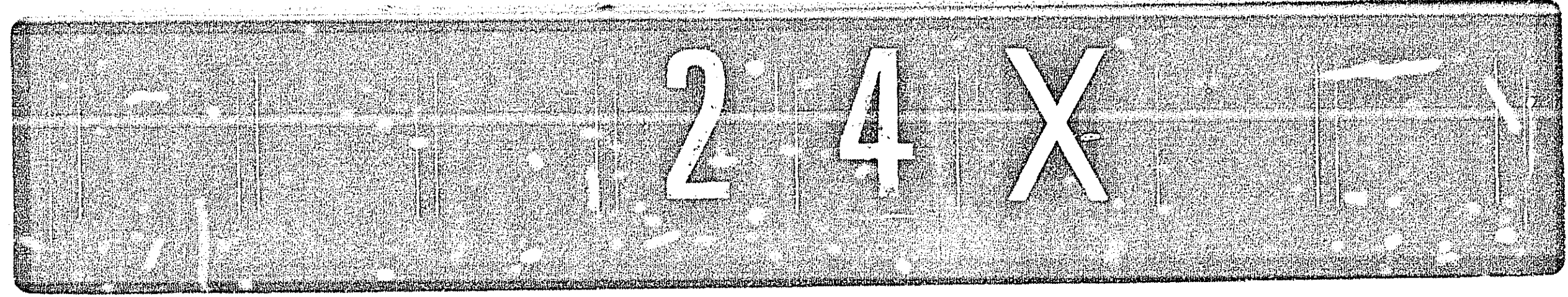
FIELD WIRING DIAGRAM
LARPEN TEUR AVE & DUNLAP ST
SYSTEM C

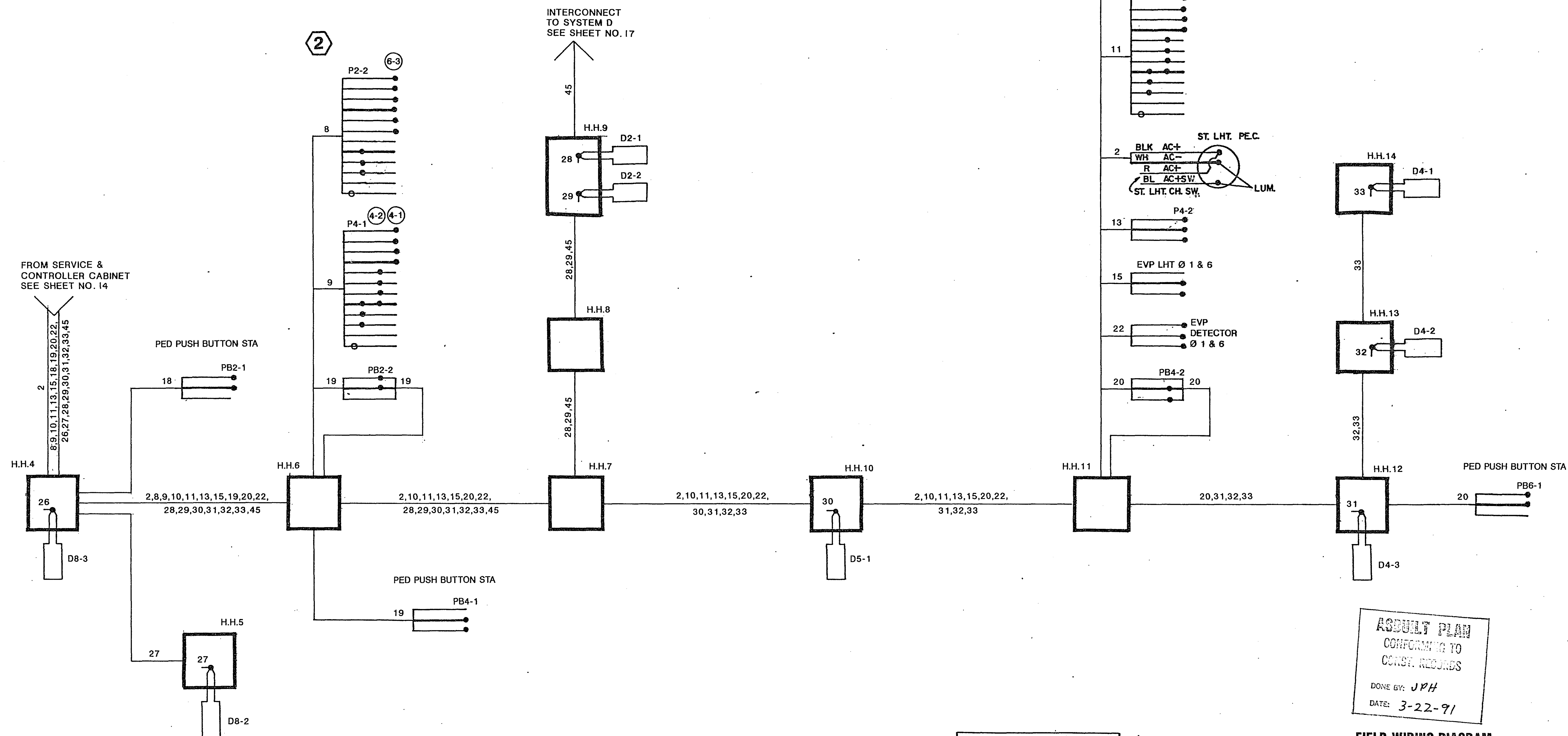
S.A.P. No. 62-630-24

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23-146 Larpenteur Avenue & Dunlap Street
SAP 62-630-24 0-24





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Paul Schmidt

Date 2-3-89 Reg. No. 12703

ADULT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: JPH
DATE: 3-22-91

**FIELD WIRING DIAGRAM
LARPEN TEUR AVE & DUHLAP ST
SYSTEM C**

S.A.P. No. 62-630-24

Sheet No. 15 of 24 Sheets

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23-146 *Largenteur Avenue & Dunlap Street*
SAP 62-630-24

0-24

2 4 X

LEGEND OF SYMBOLS

SIGNAL BASE No.	
SIGNAL FACE No.	
CONTROLLER AND CABINET	
CONTROLLER AND CABINET-INPLACE	
HANDHOLE	
HANDHOLE-INPLACE	
RIGID STEEL CONDUIT (RSC)/NON-METALLIC CONDUIT (NMC)	
RIGID STEEL CONDUIT (RSC)-INPLACE	
SIGNAL FACE	
SIGNAL FACE WITH BACKGROUND SHIELD	
SIGNAL FACE - INPLACE	
PEDESTRIAN INDICATIONS	
PEDESTRIAN INDICATIONS-INPLACE	
PEDESTRIAN PUSH BUTTON ON PEDESTAL OR POLE	
PEDESTRIAN PUSH BUTTON STATION	
TRAFFIC SIGNAL PEDESTAL	
TRAFFIC SIGNAL PEDESTAL-INPLACE	
TRAFFIC SIGNAL POLE AND MAST ARM	
TRAFFIC SIGNAL POLE AND MAST ARM-INPLACE	
MAST ARM AND LUMINAIRE	
MAST ARM AND LUMINAIRE-INPLACE	
WOOD POLE - INPLACE	
SOURCE OF POWER	
EMERGENCY VEHICLE PRE-EMPTION DETECTOR LOCATION	

SIGNAL INDICATION CHART

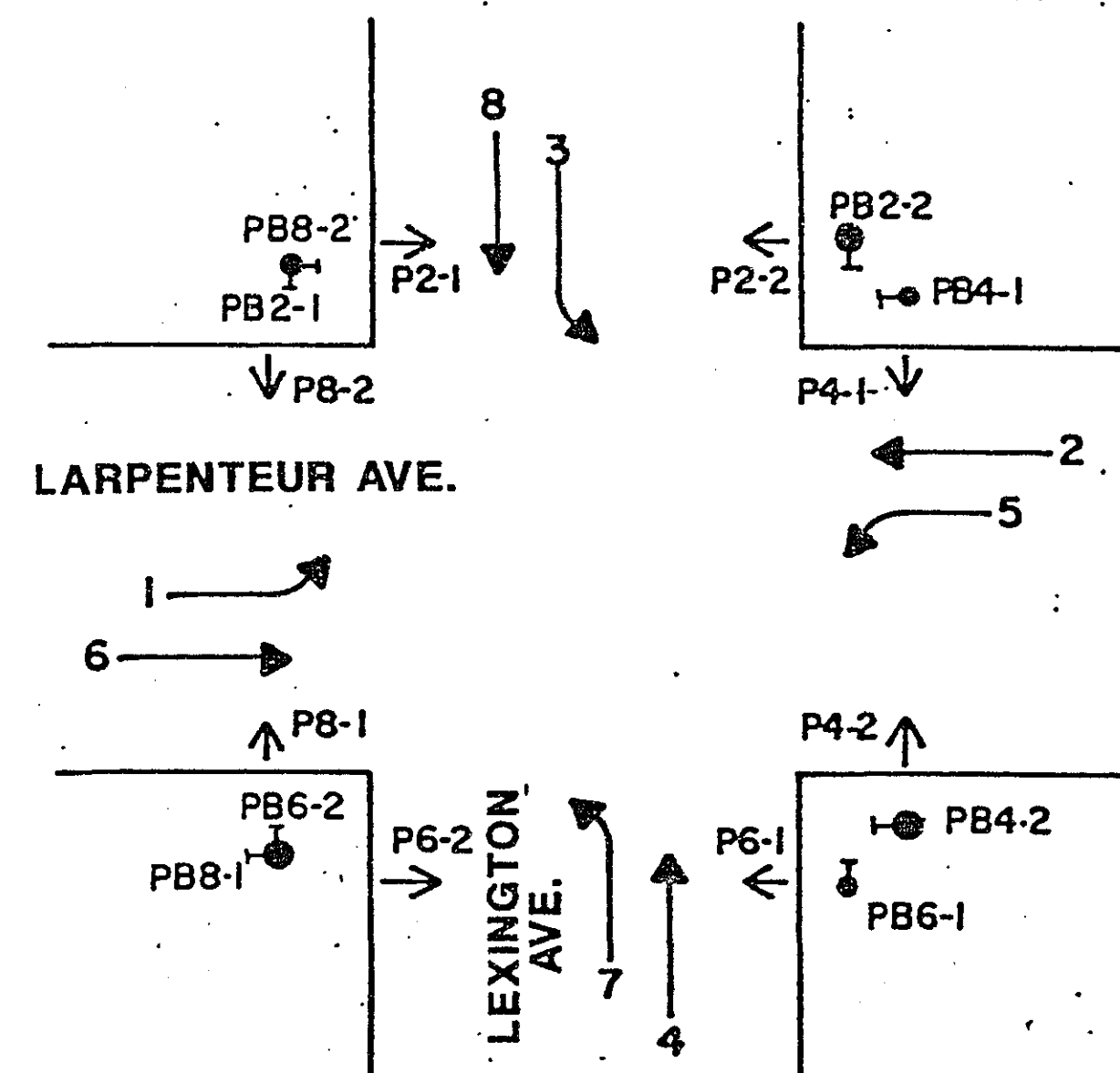
	FACE	PHASE	INDICATION SIZE					
			R	Y	G	Y	G	
*	2-1	2	12"	12"	12"	-	-	
	2-2	2 and 5	12"	12"	12"	12"	12"	
*	2-3	2 and 5	12"	12"	12"	12"	12"	
	2-4	2	12"	12"	12"	-	-	
*	4-1	4	12"	12"	12"	-	-	
	4-2	4 and 7	12"	12"	12"	12"	12"	
*	4-3	4 and 7	12"	12"	12"	12"	12"	
*	6-1	6	12"	12"	12"	-	-	
*	6-2	1 and 6	12"	12"	12"	12"	12"	
*	6-3	1 and 6	12"	12"	12"	12"	12"	
	6-4	6	12"	12"	12"	-	-	
*	8-1	8	12"	12"	12"	-	-	
*	8-2	3 and 8	12"	12"	12"	12"	12"	
*	8-3	3 and 8	12"	12"	12"	12"	12"	
	8-4	8	12"	12"	12"	-	-	

FLASH MODE = ALL RED

* SIGNAL HEAD PHASING

HEADS 2-2 and 2-3 OR 4-2 and 4-3	HEADS 6-2 and 6-3 OR 8-2 and 8-3
(R) 02 or 04	(R) 06 or 08
(Y) 05 or 07	(Y) 01 or 03
(G) 03 or 05	(G) 09 or 11

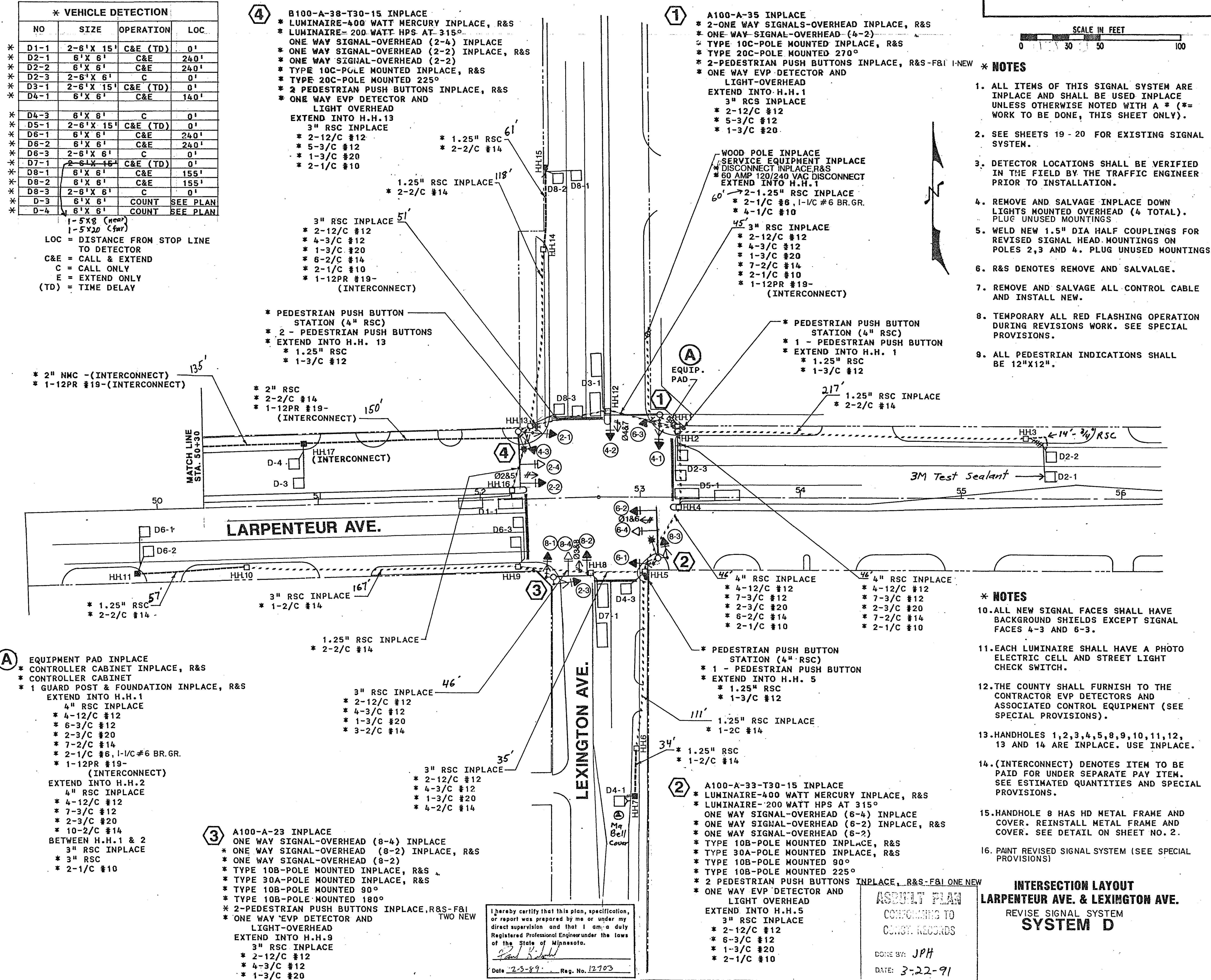
CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



* VEHICLE DETECTION

NO	SIZE	OPERATION	LOC.
* D1-1	2-6' X 15'	C&E (TD)	0'
* D2-1	6' X 6'	C&E	240'
* D2-2	6' X 6'	C&E	240'
* D2-3	2-6' X 6'	C	0'
* D3-1	2-6' X 15'	C&E (TD)	0'
* D4-1	6' X 6'	C&E	140'
* D4-3	6' X 6'	C	0'
* D5-1	2-6' X 15'	C&E (TD)	0'
* D6-1	6' X 6'	C&E	240'
* D6-2	6' X 6'	C&E	240'
* D6-3	2-6' X 6'	C	0'
* D7-1	2-6' X 15'	C&E (TD)	0'
* D8-1	6' X 6'	C&E	155'
* D8-2	6' X 6'	C&E	155'
* D8-3	2-6' X 6'	C	0'
* D-3	6' X 6'	COUNT	SEE PLAN
* D-4	6' X 6'	COUNT	SEE PLAN

LOC = DISTANCE FROM STOP LINE TO DETECTOR
C&E = CALL & EXTEND
C = CALL ONLY
E = EXTEND ONLY
(TD) = TIME DELAY



S.A.P. No. 62-630-24

Sheet No. 16 of 24 Sheets

23-146 Larpenieur Avenue + Dunlap Street
SAP 62-630-24

0-24

2 1/2 X

DRAWING NUMBER

PLAN HOLD CORPORATION
REGISTERED IN
MINNESOTA

DRAWING NUMBER

23-146

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED NUMBER 00084

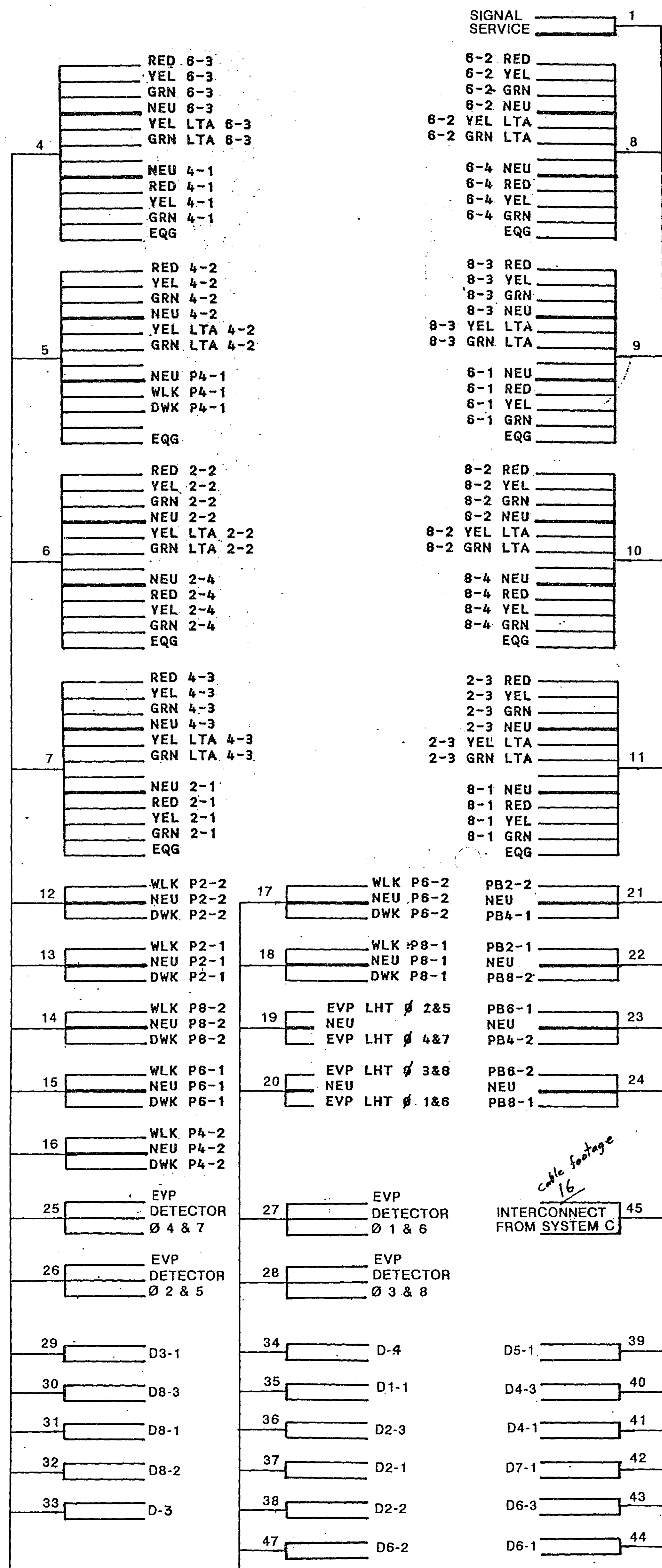
DRAWING NUMBER

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED NUMBER 00084

NUMBER

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED NUMBER 00084

CONTROLLER CABINET



DRAWING

PLAN HOLD CORPORATION
REGISTERED BY ILL.

DRAWING NUMBER
23-146

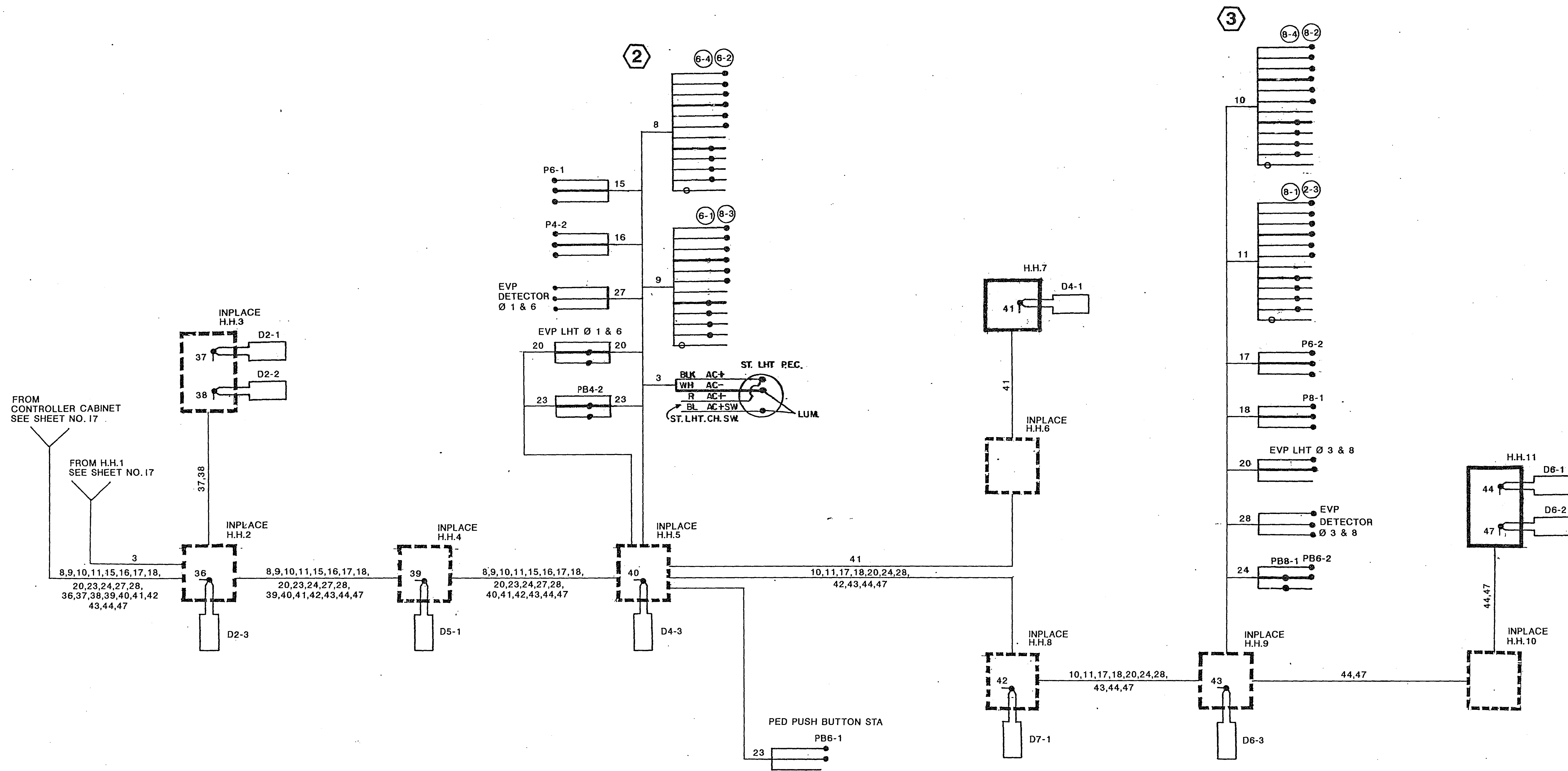
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REGISTERED BY NUMBER 07548

DRAWING NUMBER

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED BY NUMBER 07548

NUMBER

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED BY NUMBER 07548



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 2-23-91 Reg. No. 12703

ASSEMBLY PLAN
CONFORMING TO
CONV. RECORDS
DONE BY: JPH
DATE: 3-22-91

FIELD WIRING DIAGRAM
LARPENTEUR AVE & LEXINGTON AVE
SYSTEM D

S.A.P. No. 62-630-24

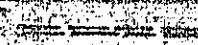
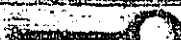
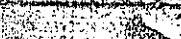
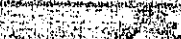
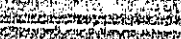
Sheet No. 18 of 24 Sheets

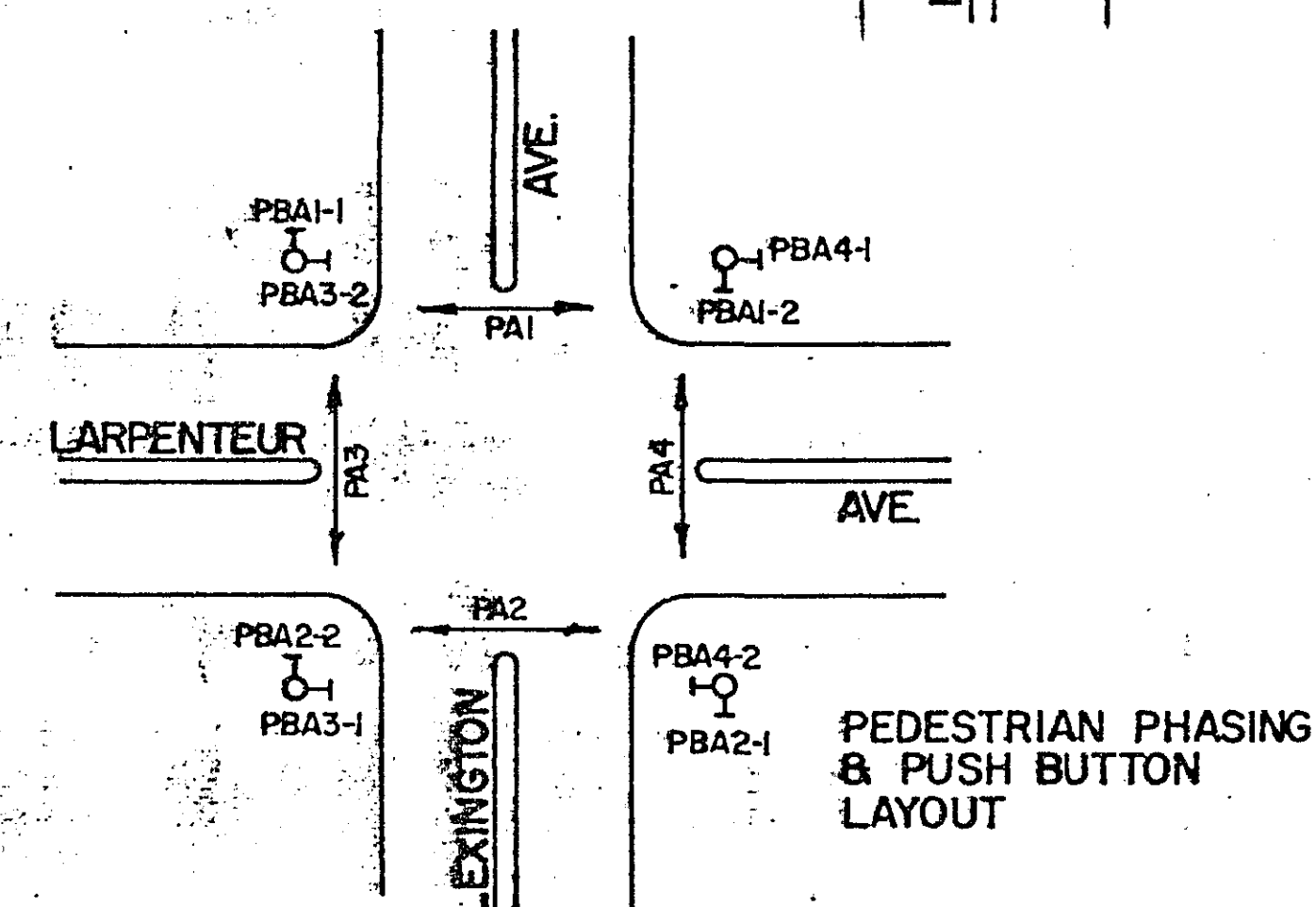
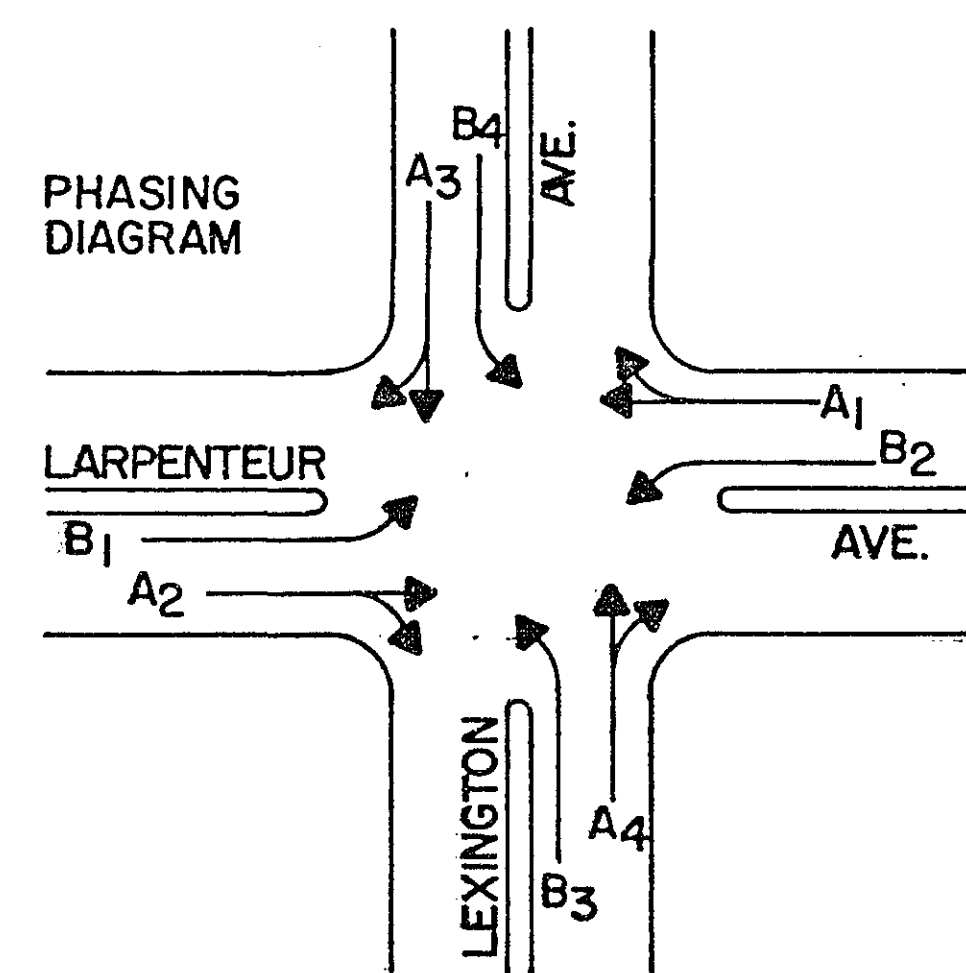
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23-146 Larpenteur Avenue + Dunlap Street
SAP 62-630-24

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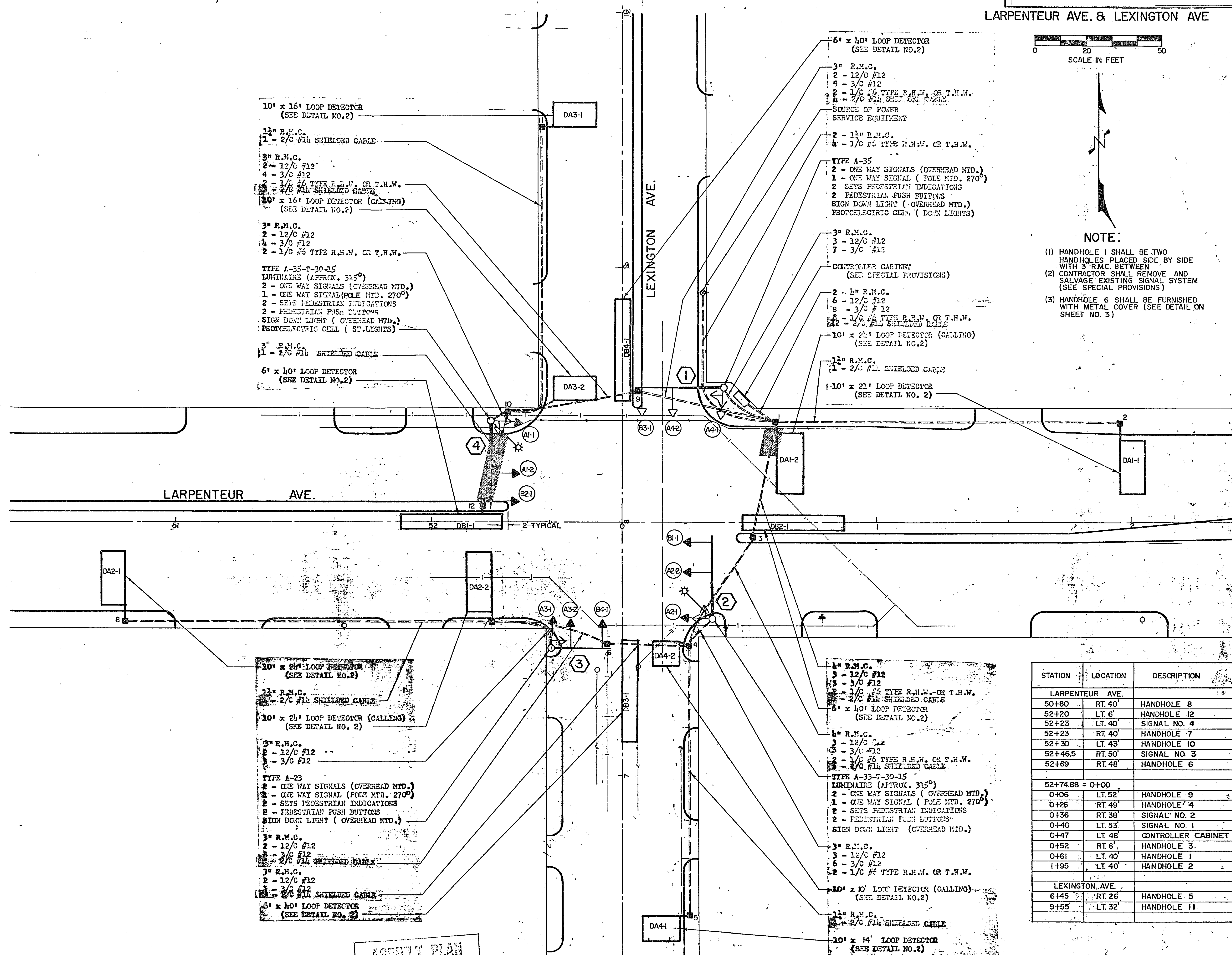
24X

LEGEND OF SYMBOLS	
	CONTROLLER
	NANDHOLE (PULLBOX)
	RIGID METALLIC CONDUIT (R.M.C.)
	MAST ARM & POLE
	SIGNAL FACE
	SIGNAL FACE WITH BACKGROUND SHIELD
	MAST ARM & LUMINAIRE
	PEDESTRIAN INDICATION
	SOURCE OF POWER (S.O.P.)
	EXISTING CONCRETE PAVEMENT



FACE	FILE	FLAME	Y 012					
			R	Y	G	B	V	W
A-1	A ₁	R						
A-2	A ₂	R	12 ¹	2 ¹	12 ²	+	-	-
B-1	B ₁	R	12 ¹	12 ²	12 ³	+	-	-
B-2	B ₂	R	12 ¹	12 ²	12 ³	+	-	-
C-1	C ₁	R	12 ¹	12 ²	12 ³	+	-	-
C-2	C ₂	R	12 ¹	12 ²	12 ³	+	-	-
D-1	D ₁	R	12 ¹	12 ²	12 ³	+	-	-
D-2	D ₂	R	12 ¹	12 ²	12 ³	+	-	-
E-1	E ₁	R	12 ¹	12 ²	12 ³	+	-	-
E-2	E ₂	R	12 ¹	12 ²	12 ³	+	-	-
F-1	F ₁	R	12 ¹	12 ²	12 ³	+	-	-
F-2	F ₂	R	12 ¹	12 ²	12 ³	+	-	-
G-1	G ₁	R	12 ¹	12 ²	12 ³	+	-	-
G-2	G ₂	R	12 ¹	12 ²	12 ³	+	-	-
H-1	H ₁	R	12 ¹	12 ²	12 ³	+	-	-
H-2	H ₂	R	12 ¹	12 ²	12 ³	+	-	-
I-1	I ₁	R	12 ¹	12 ²	12 ³	+	-	-
I-2	I ₂	R	12 ¹	12 ²	12 ³	+	-	-
J-1	J ₁	R	12 ¹	12 ²	12 ³	+	-	-
J-2	J ₂	R	12 ¹	12 ²	12 ³	+	-	-
K-1	K ₁	R	12 ¹	12 ²	12 ³	+	-	-
K-2	K ₂	R	12 ¹	12 ²	12 ³	+	-	-
L-1	L ₁	R	12 ¹	12 ²	12 ³	+	-	-
L-2	L ₂	R	12 ¹	12 ²	12 ³	+	-	-
M-1	M ₁	R	12 ¹	12 ²	12 ³	+	-	-
M-2	M ₂	R	12 ¹	12 ²	12 ³	+	-	-
N-1	N ₁	R	12 ¹	12 ²	12 ³	+	-	-
N-2	N ₂	R	12 ¹	12 ²	12 ³	+	-	-
O-1	O ₁	R	12 ¹	12 ²	12 ³	+	-	-
O-2	O ₂	R	12 ¹	12 ²	12 ³	+	-	-
P-1	P ₁	R	12 ¹	12 ²	12 ³	+	-	-
P-2	P ₂	R	12 ¹	12 ²	12 ³	+	-	-
Q-1	Q ₁	R	12 ¹	12 ²	12 ³	+	-	-
Q-2	Q ₂	R	12 ¹	12 ²	12 ³	+	-	-
R-1	R ₁	R	12 ¹	12 ²	12 ³	+	-	-
R-2	R ₂	R	12 ¹	12 ²	12 ³	+	-	-
S-1	S ₁	R	12 ¹	12 ²	12 ³	+	-	-
S-2	S ₂	R	12 ¹	12 ²	12 ³	+	-	-
T-1	T ₁	R	12 ¹	12 ²	12 ³	+	-	-
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U-1	U ₁	R	12 ¹	12 ²	12 ³	+	-	-
U-2	U ₂	R	12 ¹	12 ²	12 ³	+	-	-
V-1	V ₁	R	12 ¹	12 ²	12 ³	+	-	-

* SEE SPECIAL PROVISIONS



NOTE

- (1) HANDHOLE 1 SHALL BE TWO HANDHOLES PLACED SIDE BY SIDE WITH 3" R.M.C. BETWEEN
- (2) CONTRACTOR SHALL REMOVE AND SALVAGE EXISTING SIGNAL SYSTEM (SEE SPECIAL PROVISIONS)
- (3) HANDHOLE 6 SHALL BE FURNISHED WITH METAL COVER (SEE DETAIL ON SHEET NO. 3)

STATION	LOCATION	DESCRIPTION
LARPENTEUR AVE.		
50+80	RT. 40'	HANDHOLE 8
52+20	LT. 6'	HANDHOLE 12
52+23	LT. 40'	SIGNAL NO. 4
52+23	RT. 40'	HANDHOLE 7
52+30	LT. 43'	HANDHOLE 10
52+46.5	RT. 50'	SIGNAL NO. 3
52+69	RT. 48'	HANDHOLE 6
52+74.88 = 0+00		
0+06	LT. 52'	HANDHOLE 9
0+26	RT. 49'	HANDHOLE 4
0+36	RT. 38'	SIGNAL NO. 2
0+40	LT. 53'	SIGNAL NO. 1
0+47	LT. 48'	CONTROLLER CABINET
0+52	RT. 6'	HANDHOLE 3
0+61	LT. 40'	HANDHOLE 1
1+95	LT. 40'	HANDHOLE 2
LEXINGTON, AVE.		
6+45	RT. 26	HANDHOLE 5
9+55	LT. 32'	HANDHOLE 11

LARPENTEUR AVE. & LEXINGTON AVE
SYSTEM D

FOR INFORMATION ONLY

INPLACE SYSTEM

S.A.P. No. 62-630-24

Sheet No. 19 of 24 Sheets

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23-146 *Larpen Tour Avenue + Dunlop Street*
SAB 62-630-24

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24x

DRAWING

DRAWING NUMBER
23-146

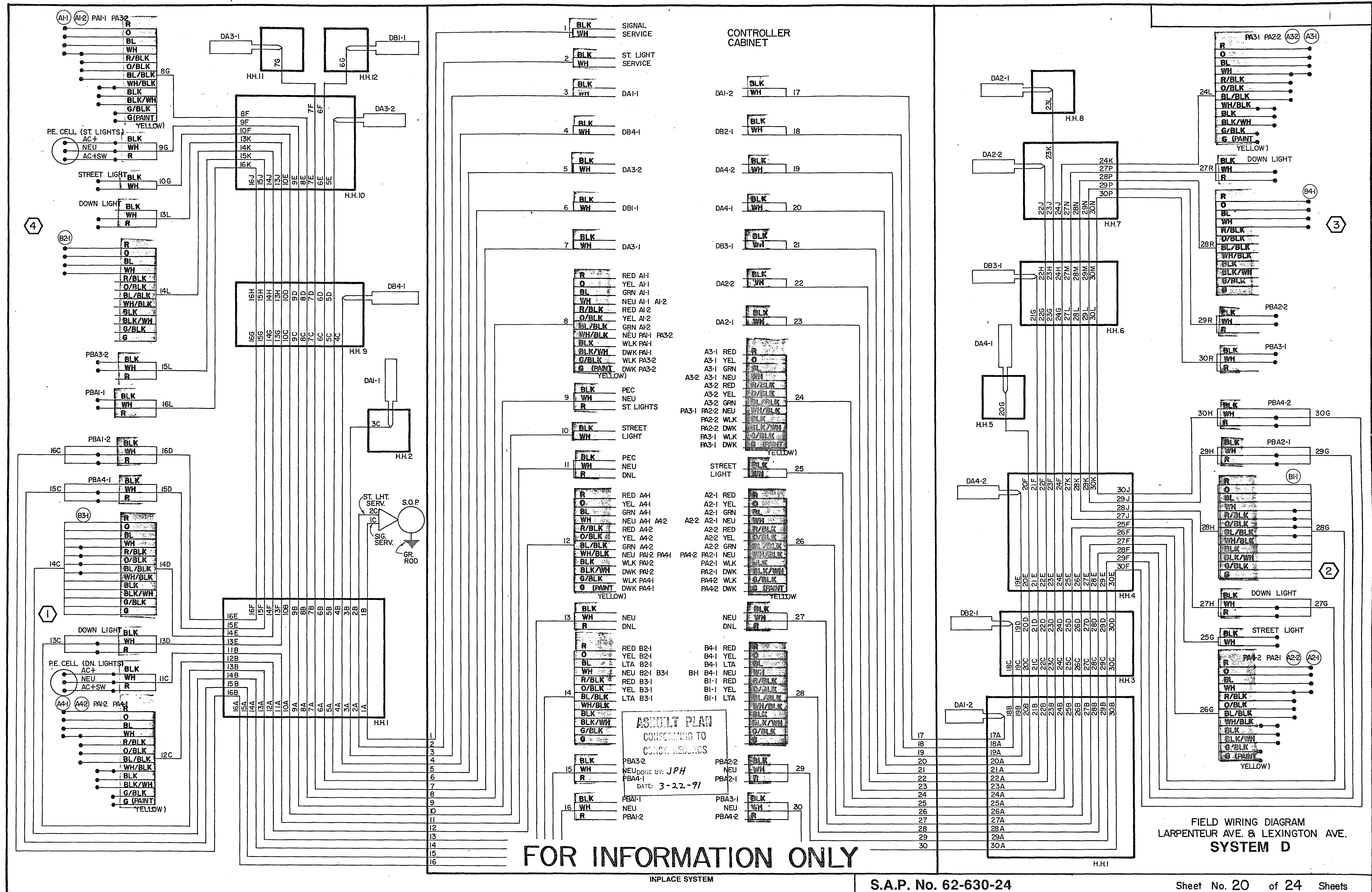
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3 NUMBER

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REVISION BY NAME/DATE

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REVISION BY NAME/DATE

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REVISION BY NAME/DATE



23-146 Larpen Avenue & Dunlap Street
SAP 62-630-24 0-24

24X

DRAWING

PLAN FIELD CORPORATION
REGISTERED IN
CALIFORNIA

DRAWING NUMBER
23-146

PLAN FIELD CORPORATION • IRVINE, CALIFORNIA
REGISTERED NUMBER 00-00-00

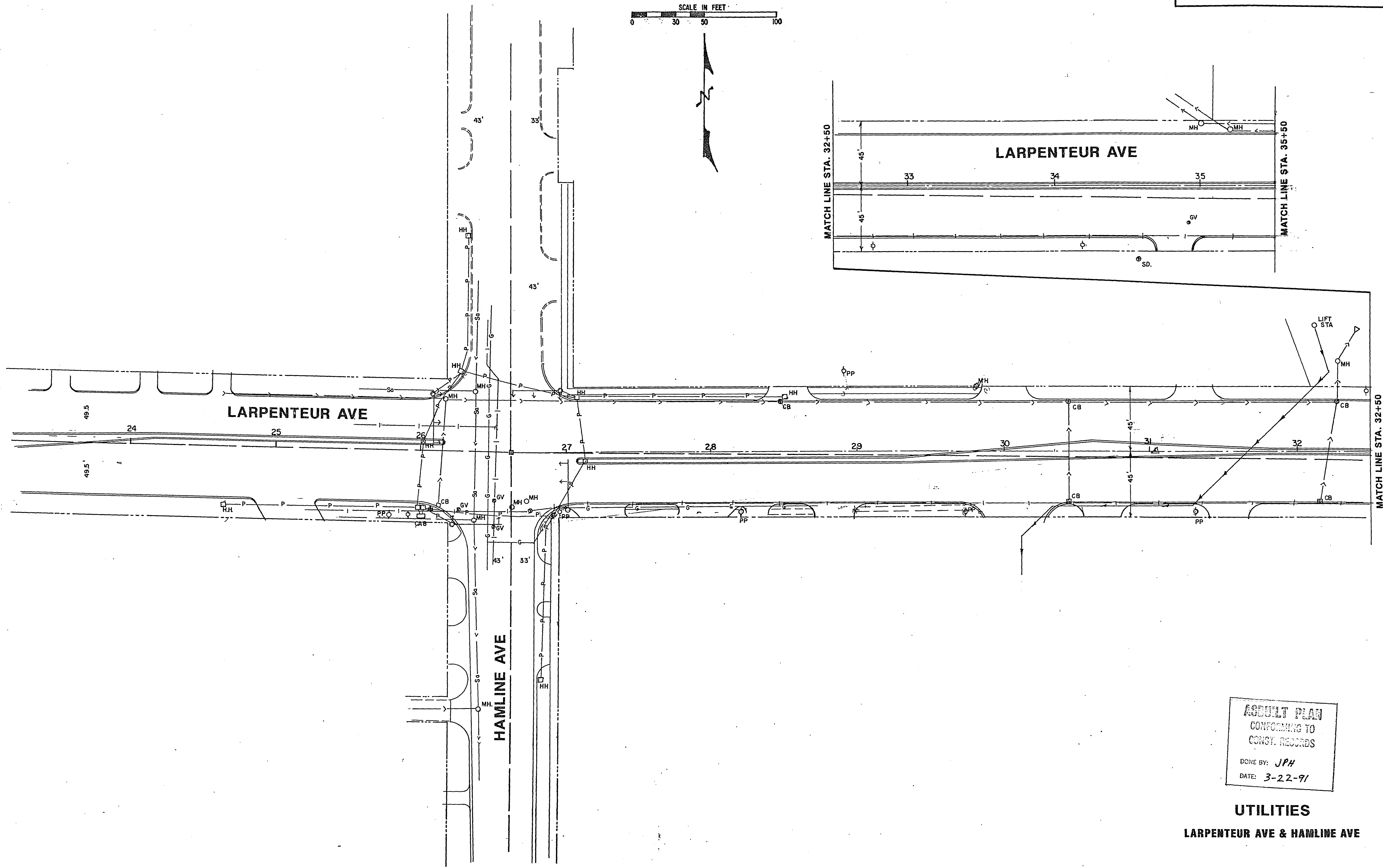
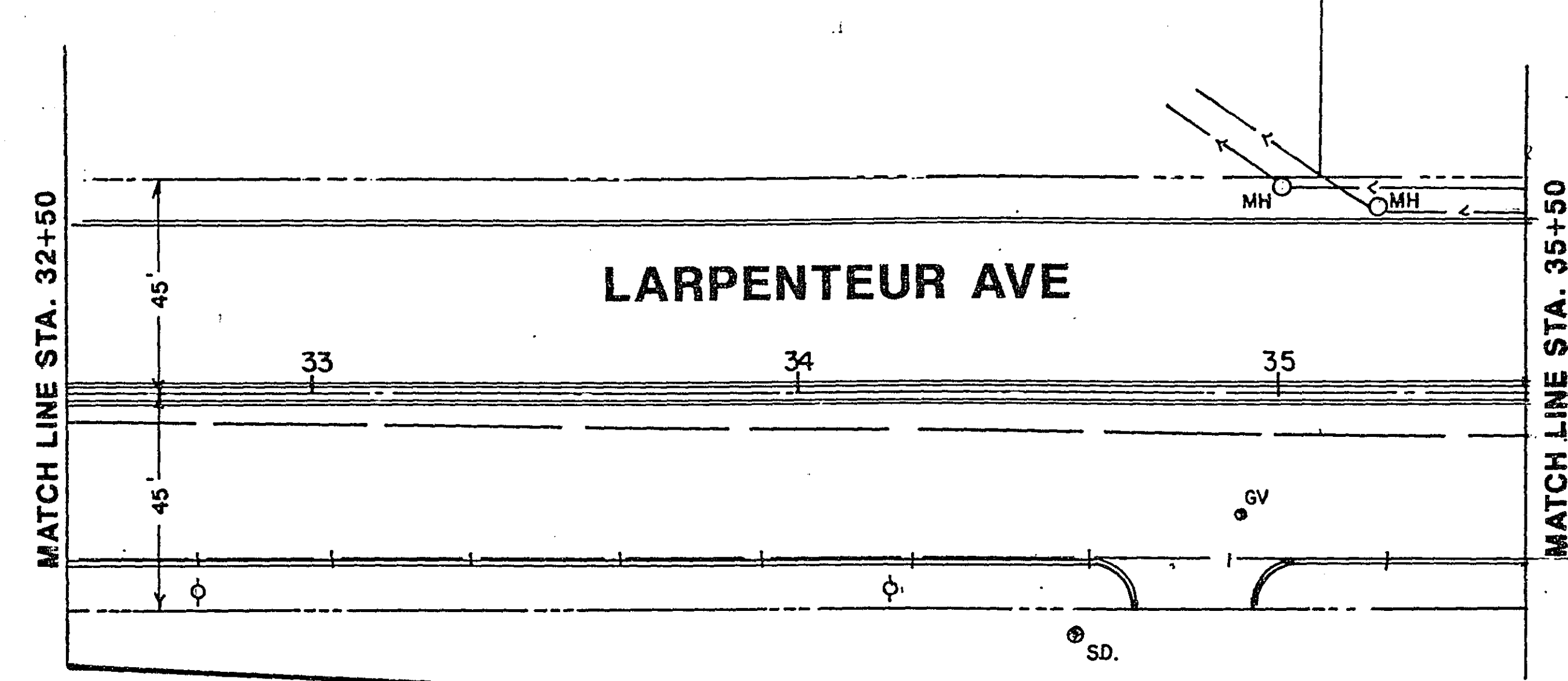
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REGISTERED NUMBER 00-00-00

NUMBER

PLAN FIELD CORPORATION
REGISTERED IN
CALIFORNIA

SCALE IN FEET
0 30 50 100



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: JPH
DATE: 3-22-91

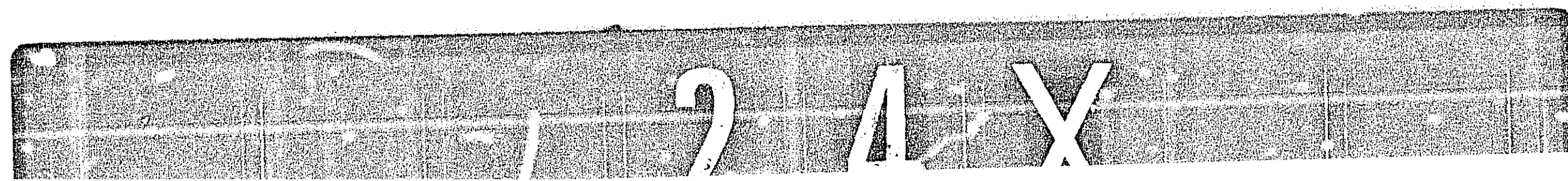
UTILITIES
LARPENTEUR AVE & HAMLINE AVE

S.A.P. No. 62-630-24

Sheet No. 21 of 24 Sheets

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23-146 Larpenteur Avenue & Dunlap Street
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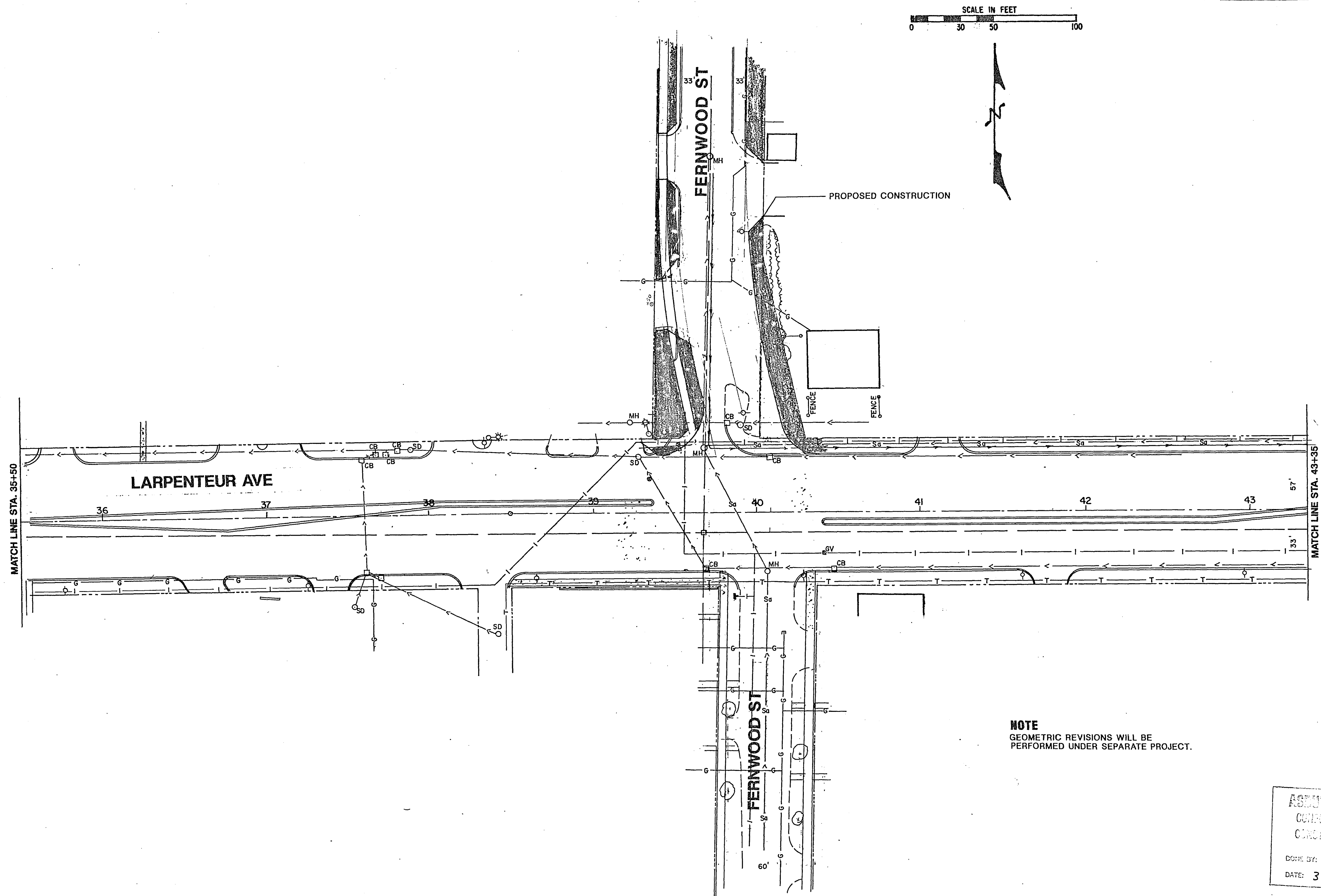


DRAWING
PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER
NO. 10000

DRAWING NUMBER
23-146

DRAWING NUMBER

NUMBER



NOTE
GEOMETRIC REVISIONS WILL BE
PERFORMED UNDER SEPARATE PROJECT.

ASBUILT PLAN
CONFORMING TO
CONTRACT REQUIREMENTS
DONE BY: JPH
DATE: 3-22-91

UTILITIES & CONSTRUCTION
LARPENTEUR AVE. & FERNWOOD ST.

S.A.P. No. 62-630-24

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23-146 Larpenteur Avenue & Dunlap Street
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DRAWING

DRAWING NUMBER

23-146

DRAWING NUMBER

NUMBER

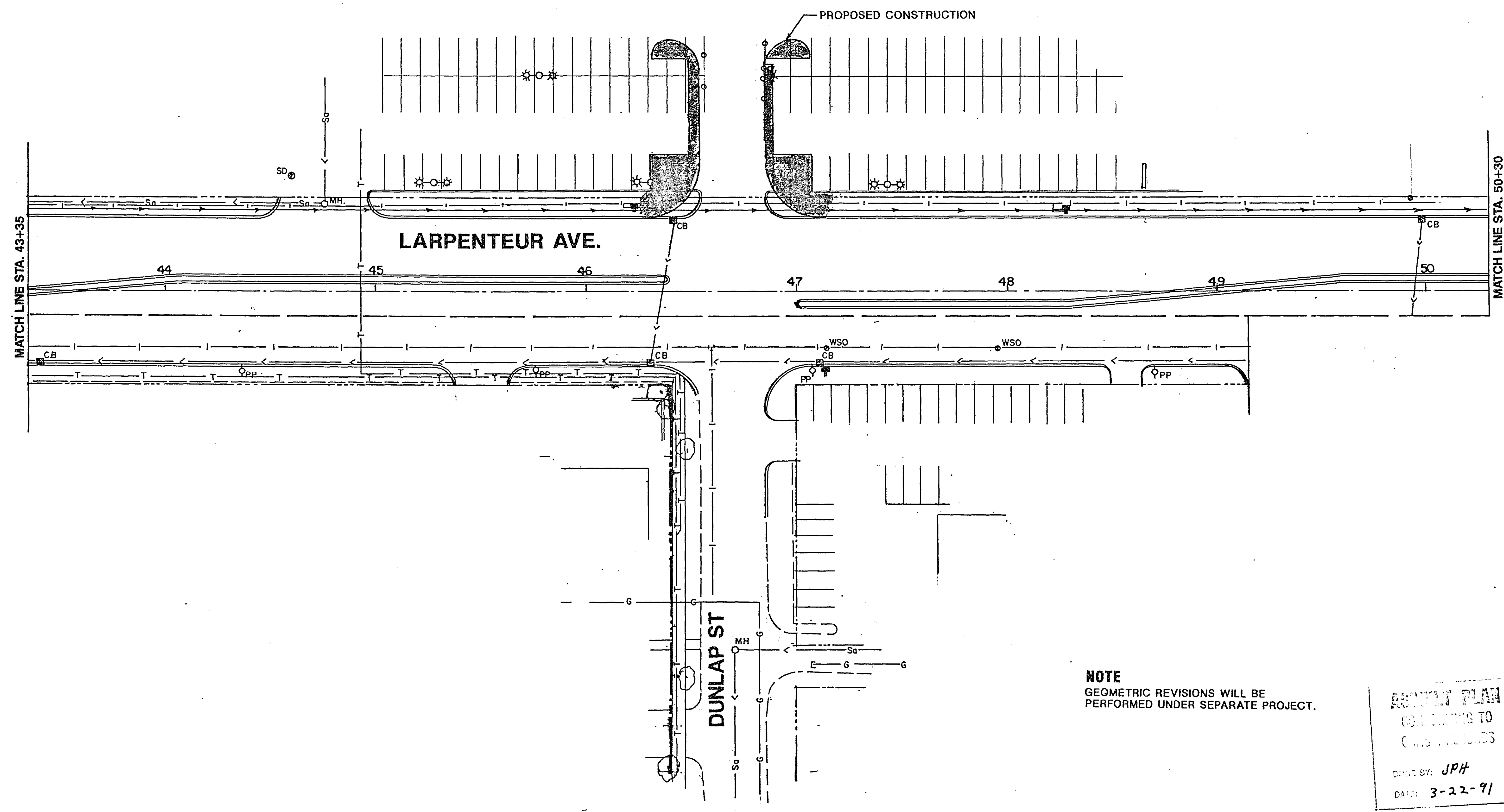
PLAN HOLD CORPORATION
IRVINE, CALIFORNIA
REGISTERED IN CA

PLAN HOLD CORPORATION
IRVINE, CALIFORNIA
REGISTERED IN CA

PLAN HOLD CORPORATION
IRVINE, CALIFORNIA
REGISTERED IN CA

IRVINE, CALIFORNIA
REGISTERED IN CA

SCALE IN FEET
0 30 50 100



NOTE
GEOMETRIC REVISIONS WILL BE
PERFORMED UNDER SEPARATE PROJECT.

ASSET PLAN
CONFORMING TO
C.S. 100-100-05
DRAWN BY: JPH
DATE: 3-22-91

UTILITIES & CONSTRUCTION
LARPENIEUR AVE. & DUNLAP ST.

S.A.P. No. 62-630-24

Sheet No. 23 of 24 Sheets

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23-146 Larpenieur Avenue + Dunlap Street
SAP 62-630-24 0-24

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DRAWING NUMBER

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PLAN FIELD DIRECTION
RANGE CALIFORNIA
REVISION NUMBER

DRAWING NUMBER

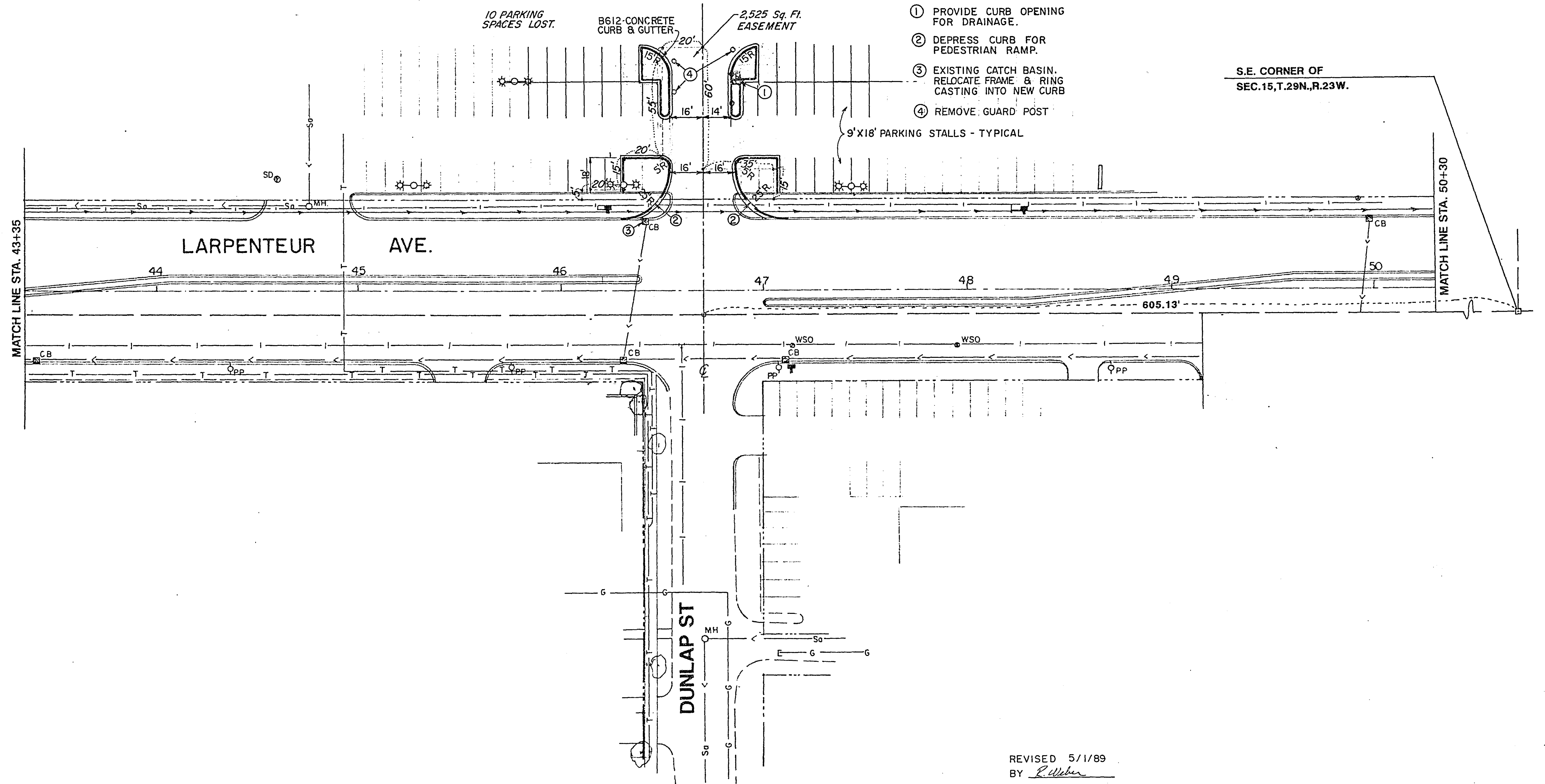
NUMBER

PLAN FIELD DIRECTION
RANGE CALIFORNIA
REVISION NUMBERRANGE CALIFORNIA
REVISION NUMBERSCALE IN FEET
0 10 20 30 40 50 100

ROSEVILLE CENTER

NOTES:

- 1 PROVIDE CURB OPENING FOR DRAINAGE.
- 2 DEPRESS CURB FOR PEDESTRIAN RAMP.
- 3 EXISTING CATCH BASIN. RELOCATE FRAME & RING CASTING INTO NEW CURB
- 4 REMOVE GUARD POST

S.E. CORNER OF
SEC. 15, T. 29N., R. 23W.REVISED 5/1/89
BY *R. Miller*PLAN
LARPENTEUR AVE & DUNLAP ST

Sheet No. of Sheets

23-146

24X

23-146 Larpenteur Avenue & Dunlap Street
SAB 62-630-24

0-24