

DRAWING
PLAN HOLD CORPORATION
REVISIONS BY TSP
ISSUED THE 6/4/48

DRAWING NUMBER
23-148
PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REDESIGNED BY RAMSEY COUNTY
REVISIONS BY TSP ON THE LINE

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NUMBER
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REDESIGNED BY RAMSEY COUNTY
REVISIONS BY TSP ON THE LINE

PLANS SYMBOLS

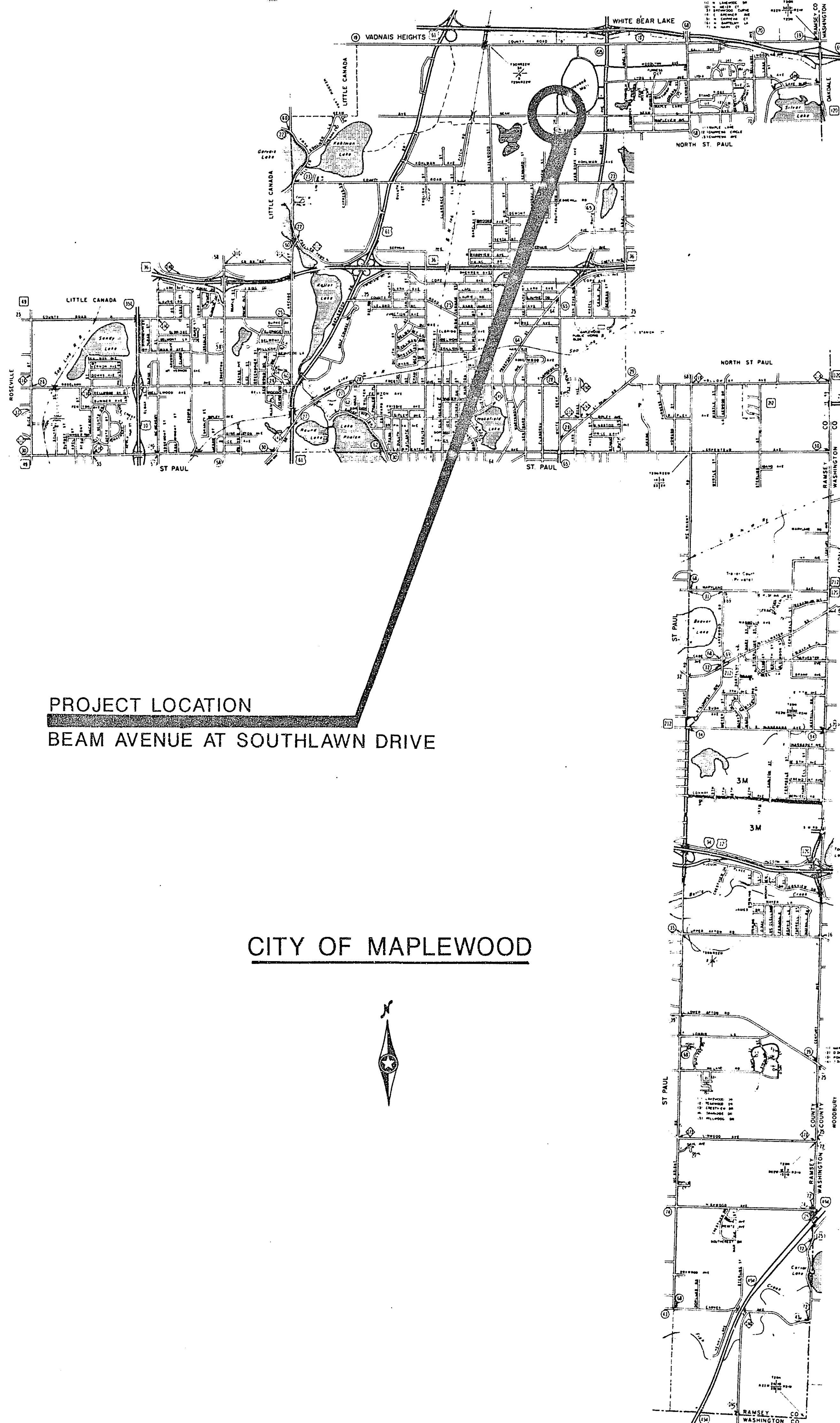
STATE LINE
COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
RIGHT OF WAY LINE
PRESENT RIGHT OF WAY LINE
CONTROL OF ACCESS LINE
PROPERTY LINE (EIGHT LINE LINES)
VACATED PLATTED PROPERTY
CORPORATE OR CITY LIMITS
TRUNK HIGHWAY CENTER LINE
RETAINING WALL
RAILROAD
RAILROAD RIGHT 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 SHOW FENCE
STONE WALL OR FENCE
HEDGE
RAILROAD CROSSING SIGN
RAILROAD CROSSING SIGN
ELECTRIC WARNING SIGN
CROSSING GATE
MEANES CORNER
SLOPE CASEMENT (CONST. LIMITS)

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 C CONCRETE
S STONE T TILE
B BRICK ST STUCCO
IRON PIPE OR ROD
MONUMENT (STONE, CONCRETE, OR METAL)
WOODEN HUB
GRAVEL PIT
SAND PIT
BORROW PIT
ROCK QUARRY

UTILITIES SYMBOLS

POWER POLE LINE
TELEPHONE OR TELEGRAPH
POLE LINE
JOINT TELEPHONE AND POWER
ON POWER POLES
ON TELEPHONE POLES
ANCHOR
STEEL TOWER
STREET LIGHT
PERMANENT TELEPHONE CABLE
TEMPORARY
GAS MAIN
WATER MAIN

CONDUIT
TELEPHONE CABLE IN CONDUIT
ELECTRIC CABLE IN CONDUIT
TELEPHONE WARMHOLE
ELECTRIC WARMHOLE
BURIED TELEPHONE CABLE
BURIED ELECTRIC CABLE
AERIAL TELEPHONE CABLE
SEWER (SANITARY OR STORM)
SEWER WARMHOLE



PROJECT LOCATION
BEAM AVENUE AT SOUTHLAWN DRIVE

CITY OF MAPLEWOOD

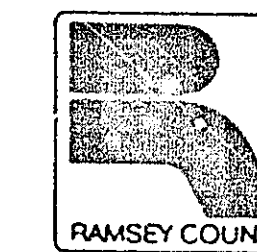
SPECIFICATIONS

THE 1988 EDITION OF THE MINNESOTA DEPARTMENT
OF TRANSPORTATION "STANDARD SPECIFICATIONS
FOR CONSTRUCTION" SHALL GOVERN.

BEAM AVENUE

SOUTHLAWN DRIVE

ADT CURRENT YEAR (1989)
ADT FUTURE YEAR (2009)
HEAVY COMMERCIAL ADT
EXISTING DESIGN STRENGTH
SOIL FACTOR %
DESIGN SPEED - MPH
POSTED SPEED - MPH
URBAN CLASSIFICATION



RAMSEY COUNTY DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION PLAN FOR TRAFFIC SIGNAL SYSTEM BEAM AVENUE AT SOUTHLAWN DRIVE

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ESTIMATED QUANTITIES AND DETAILS
3	SERVICE CABINET, EQUIPMENT PAD, EVP DETAILS
4	INTERSECTION LAYOUT (PERMANENT SYSTEM)
5-6	FIELD WIRING DIAGRAM (PERMANENT SYSTEM)
7	INTERSECTION LAYOUT (TEMPORARY SYSTEM)
8-9	FIELD WIRING DIAGRAM (TEMPORARY SYSTEM)
10	UTILITIES

RECOMMENDED FOR APPROVAL _____ DATE _____
CITY ENGINEER

RAMSEY COUNTY, MINNESOTA

SIGNAL SYSTEM
TITLE SHEET



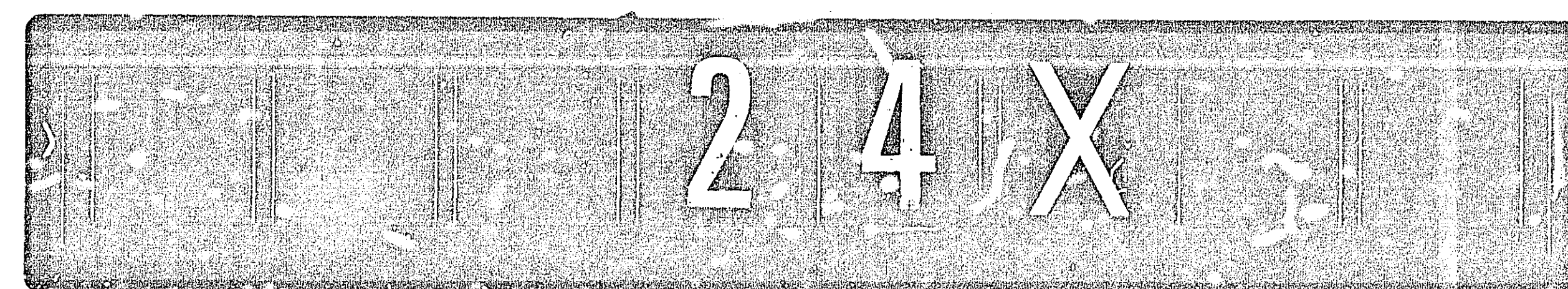
I hereby certify that this plan was prepared by me or
under my direct supervision and that I am a duly
Registered Professional Engineer under the laws of the
State of Minnesota.

Date 9/14/89 Reg No. 9089

FILE NO.
90046

1
10

23-148



23-148 Beam Avenue at Southlawn Drive 1/10

DRAWING

PLAN HOLD CORPORATION
DESIGNED BY: J. H. HARRIS
DRAWN BY: J. H. HARRIS
CHECKED BY: J. H. HARRIS
DATE: 9/11/89

BASE
OVERLAY
DRG. NO.

DRAWING NUMBER
23-148

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ABBREVIATIONS

- YEL - YELLOW
- GRN - GREEN
- WLK - WALK
- NEU - NEUTRAL
- DNK - 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
- 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"
- D1-2 - 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
- TDW - TELEPHONE DROP WIRE
- 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
- 3— - EVP DETECTOR DIRECTION
- (1-1) - SIGNAL BASE NO.
- 4 - SIGNAL FACE NO.
- △ - LUMINAIRE NO.

STANDARD PLATES

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

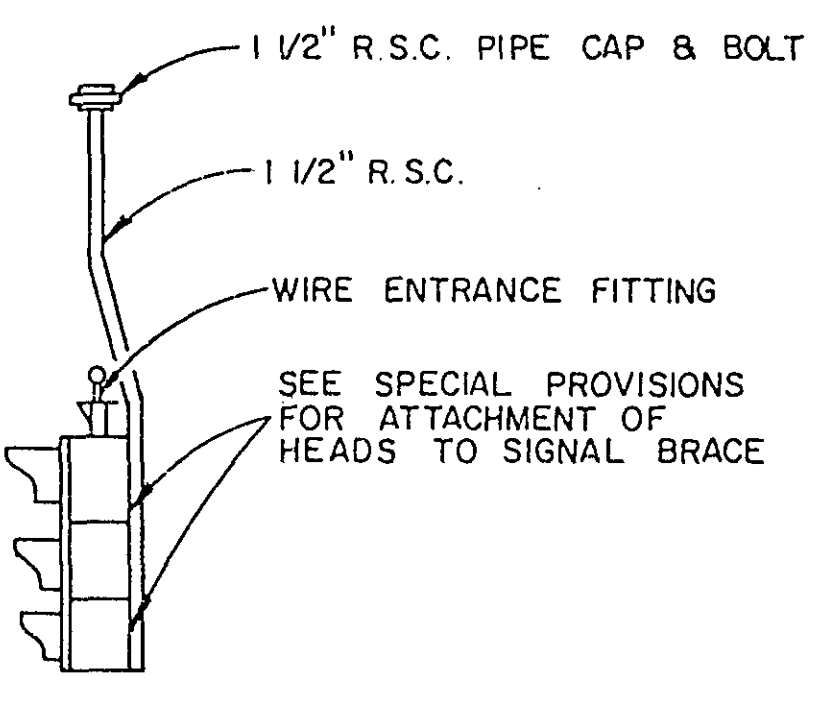
PLATE NO	DESCRIPTION
* 0005 A	SPECIFICATION REFERENCE TO STANDARD PLATES
7035 J	CONCRETE WALK & CURB RETURNS AT ENTRANCES
7036 C	PEDESTRIAN CURB RAMP
7100 F	CONCRETE CURB AND GUTTERS (DESIGN B & DESIGN V)
7103 C	PRECAST CONCRETE CURB
8000 I	STANDARD BARRICADES
* 8110 C	TRAFFIC SIGNAL BRACKETING (POLE MOUNTED)
* 8111 B	TRAFFIC SIGNAL BRACKETING (PEDESTAL MOUNTED)
8112 C	PEDESTAL FOUNDATION
* 8113 C	MAGNETIC VEHICLE DETECTOR INSTALLATION
* 8115 C	PEDESTRIAN PUSH BUTTON INSTALLATION
* 8117 F	PRECAST CONCRETE HANDHOLE
* 8118 C	SERVICE EQUIPMENT & POLE, TRAFFIC CONTROL SIGNALS
8119 C	GROUND MOUNTED CABINET FOUNDATION
* 8120 H	POLE FOUNDATION (P80 & P90)
* 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.

CONDUCTOR COLOR CODE

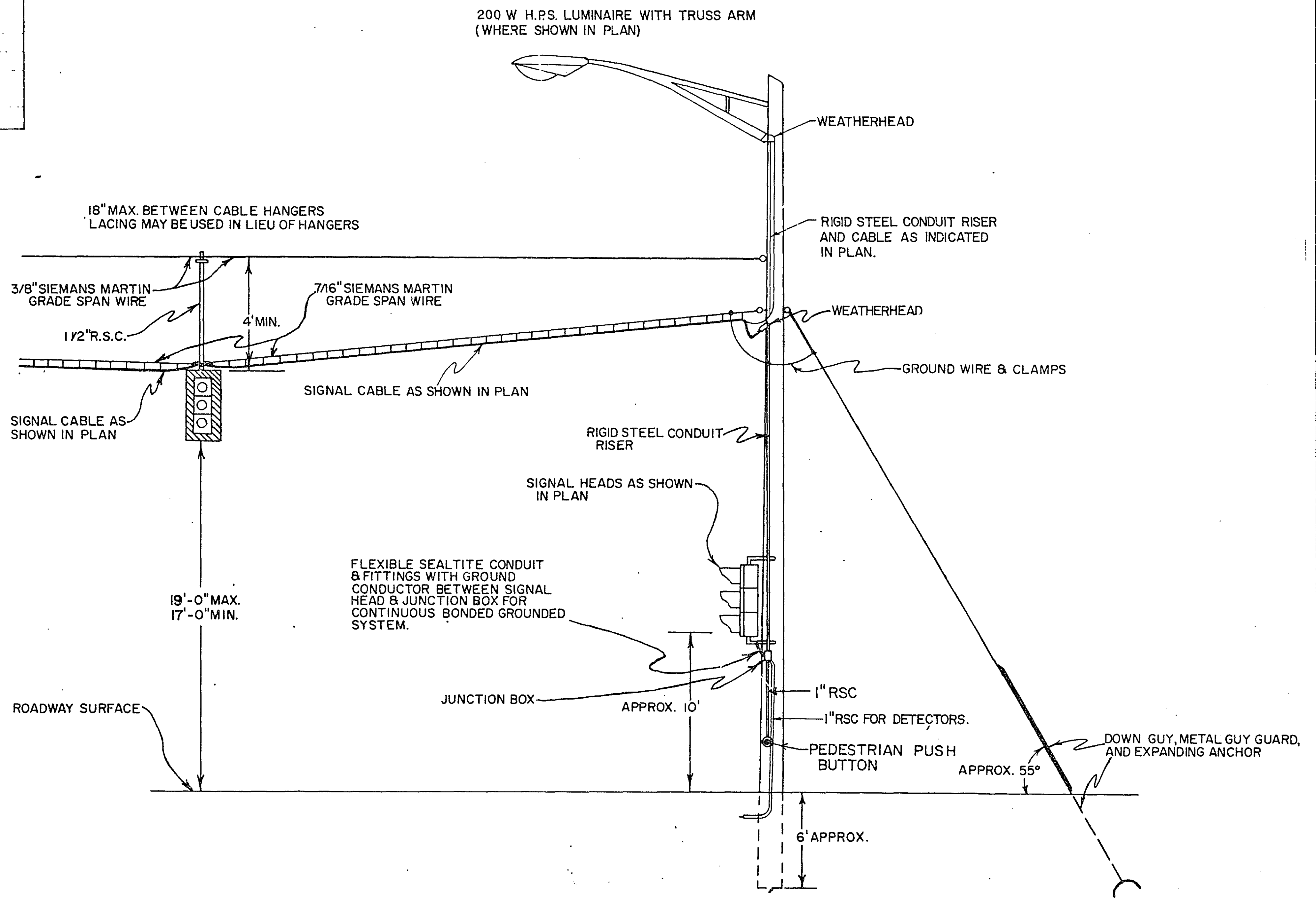
- R-RED
- O-ORANGE
- BL-BLUE
- WH-WHITE
- R/BLK-RED WITH BLACK TRACER
- O/BLK-ORANGE WITH BLACK TRACER
- BL/BLK-BLUE WITH BLACK TRACER
- WH/BLK-WHITE WITH BLACK TRACER
- BLK-BLACK
- BLK/WH-BLACK WITH WHITE TRACER
- G/BLK-GREEN WITH BLACK TRACER
- G-GREEN

OVERHEAD SIGNAL BRACE



ESTIMATED QUANTITIES

PROJECT NO.	ITEM NO.	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES
	2565.511	FULL TRAFFIC ACTUATED TRAFFIC CONTROL SIGNAL SYSTEM	SIGNAL SYSTEM	1
	0565.604	EMERGENCY VEHICLE PRE-EMPTION SYSTEM	SYSTEM	1



NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED

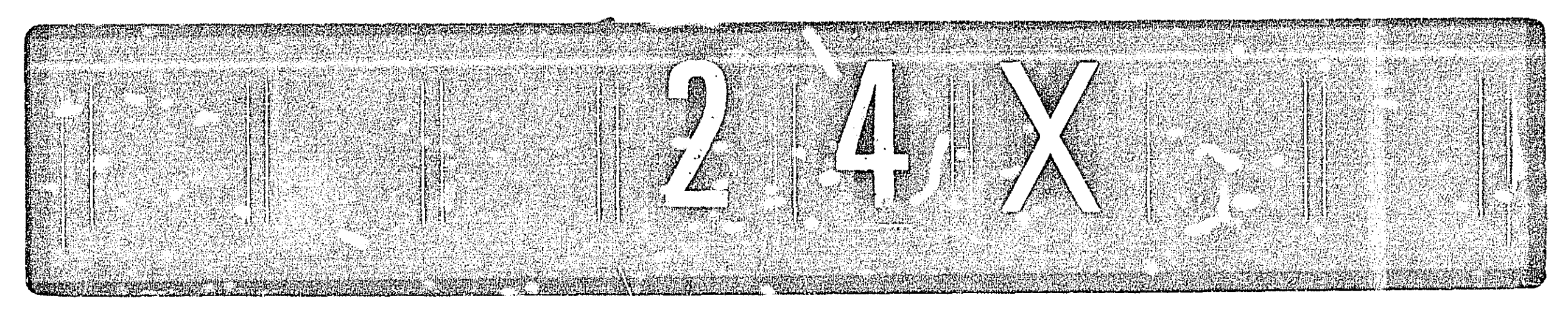
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

John Van Wagoner
Date: 9/14/89 Reg. No. 9089

RAMSEY COUNTY, MINNESOTA
CITY OF MAPLEWOOD

TRAFFIC SIGNAL SYSTEM
ESTIMATED QUANTITIES AND DETAILS
BEAM AVENUE AT SOUTHLAWN DRIVE

FILE NO. 90046	2
DATE 9/11/89	10



DRAWING

DRAWING NUMBER
23-148

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NUMBER

PLAN HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEER
MINNESOTA

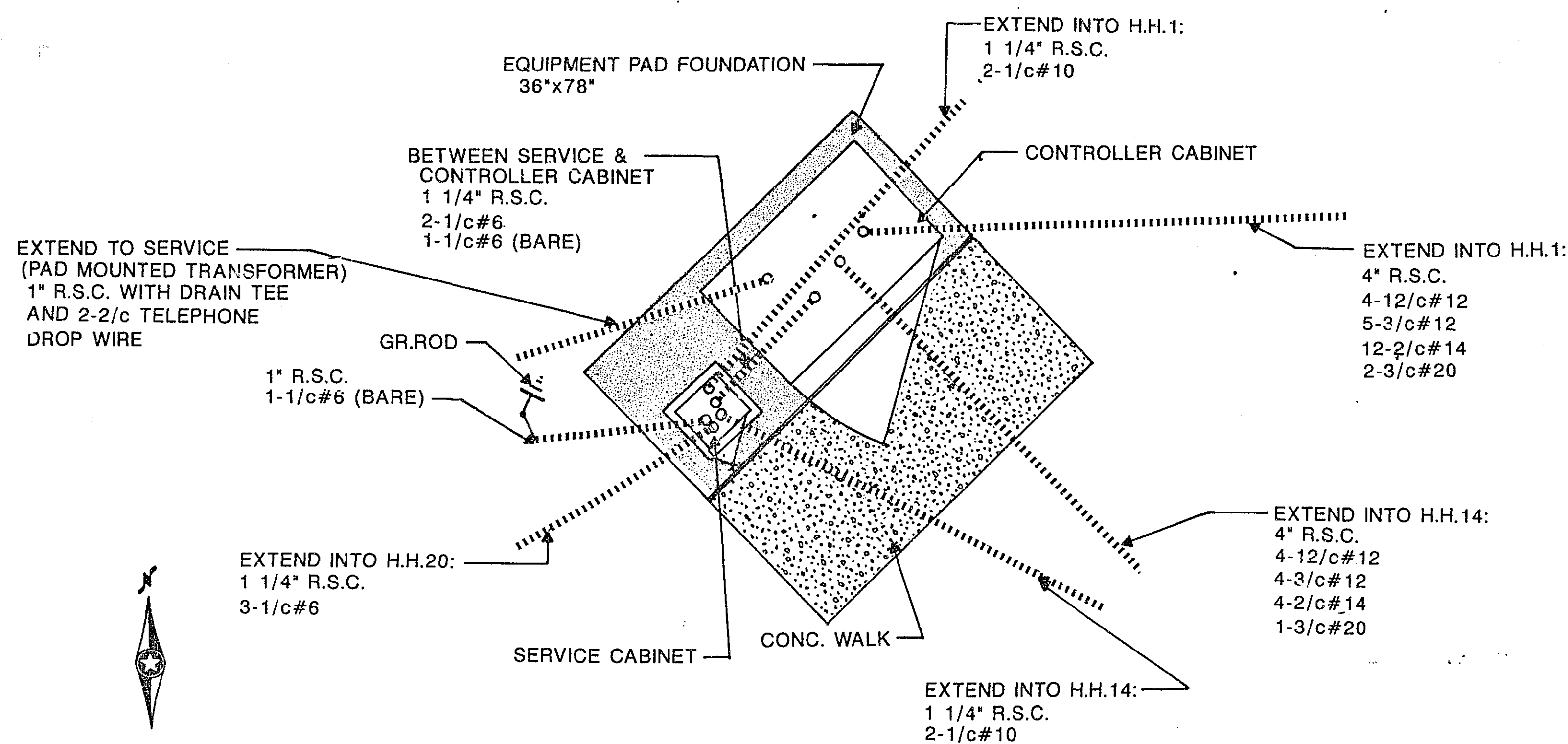
PLAN HOLD CORPORATION • IRVING, CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER
CALIFORNIA

PLAN HOLD CORPORATION • IRVING, CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER
CALIFORNIA

PLAN HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEER
MINNESOTA

BASE	OVERLAY	DRG. NO.

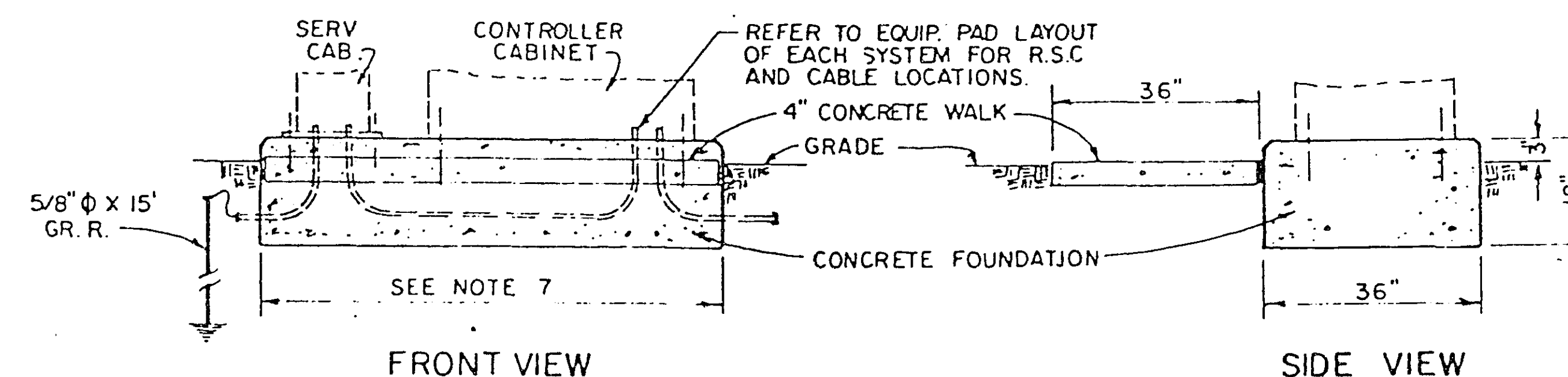
EQUIPMENT PAD LAYOUT



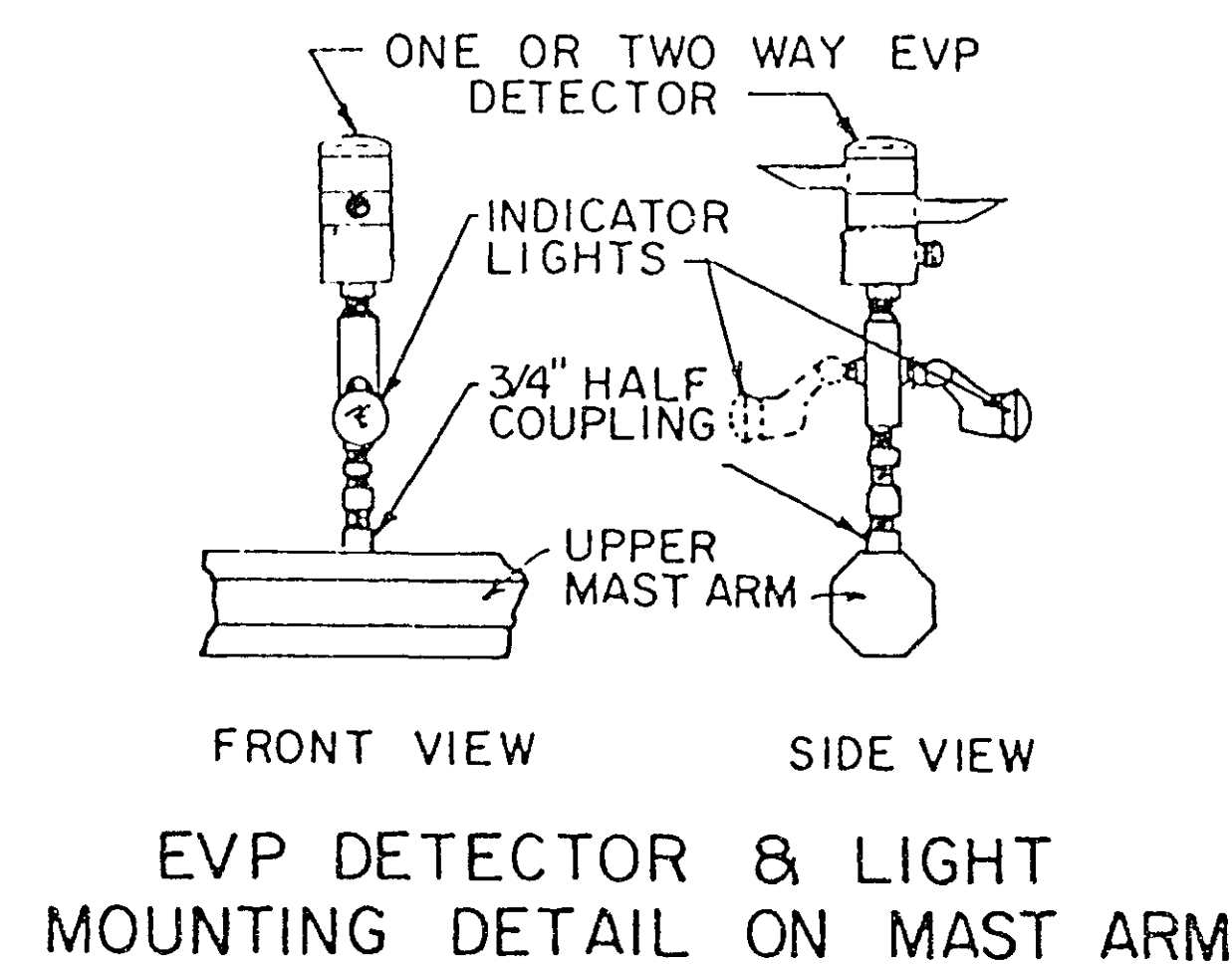
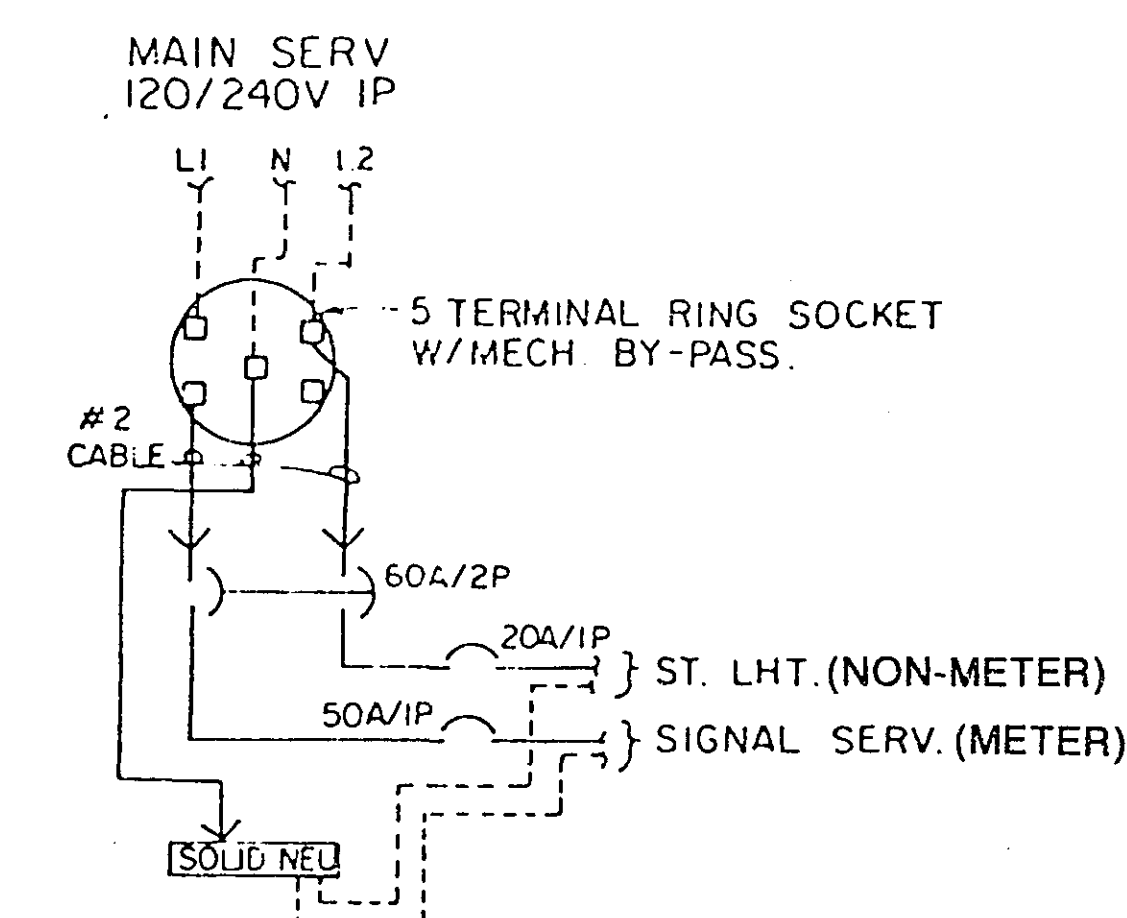
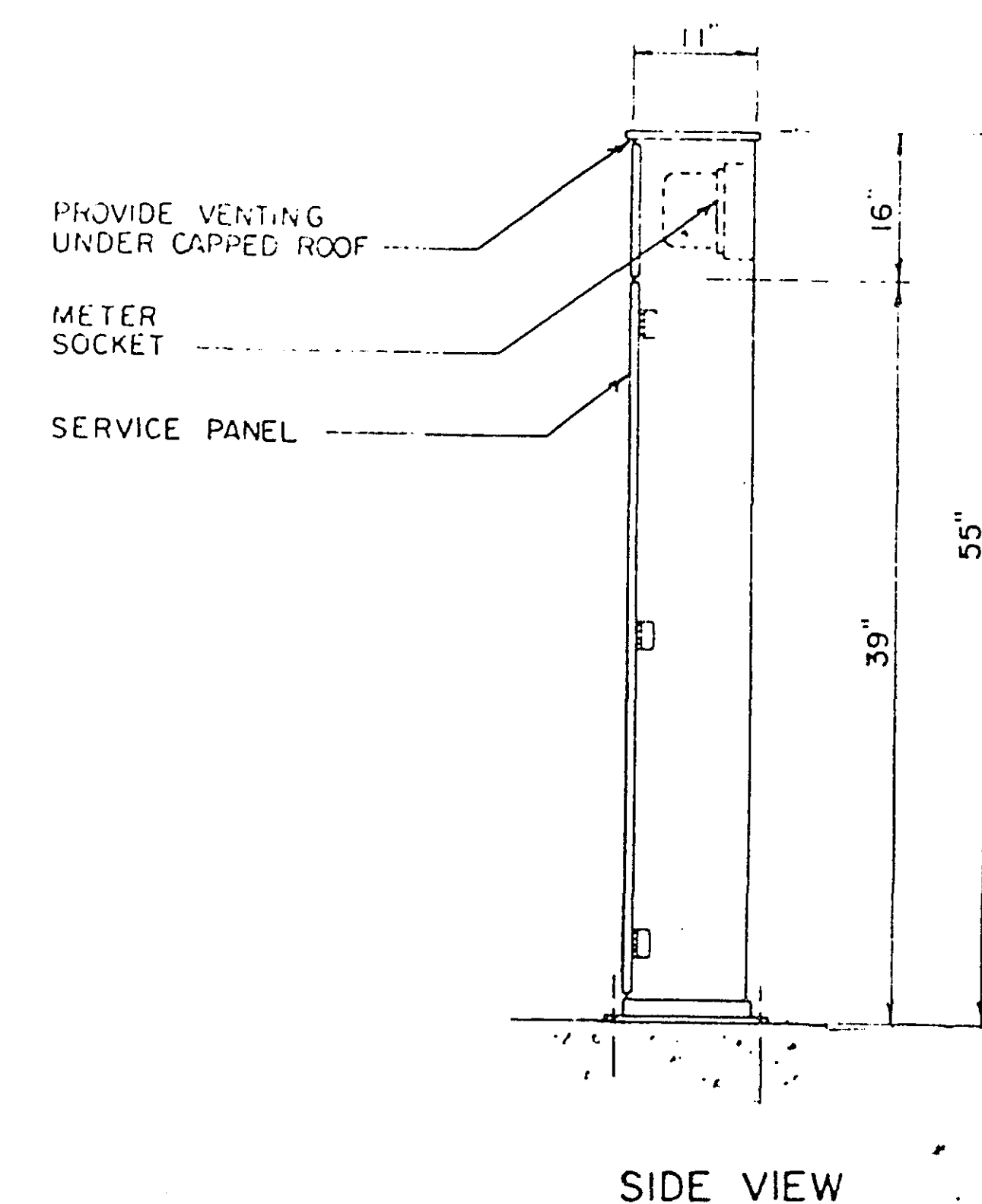
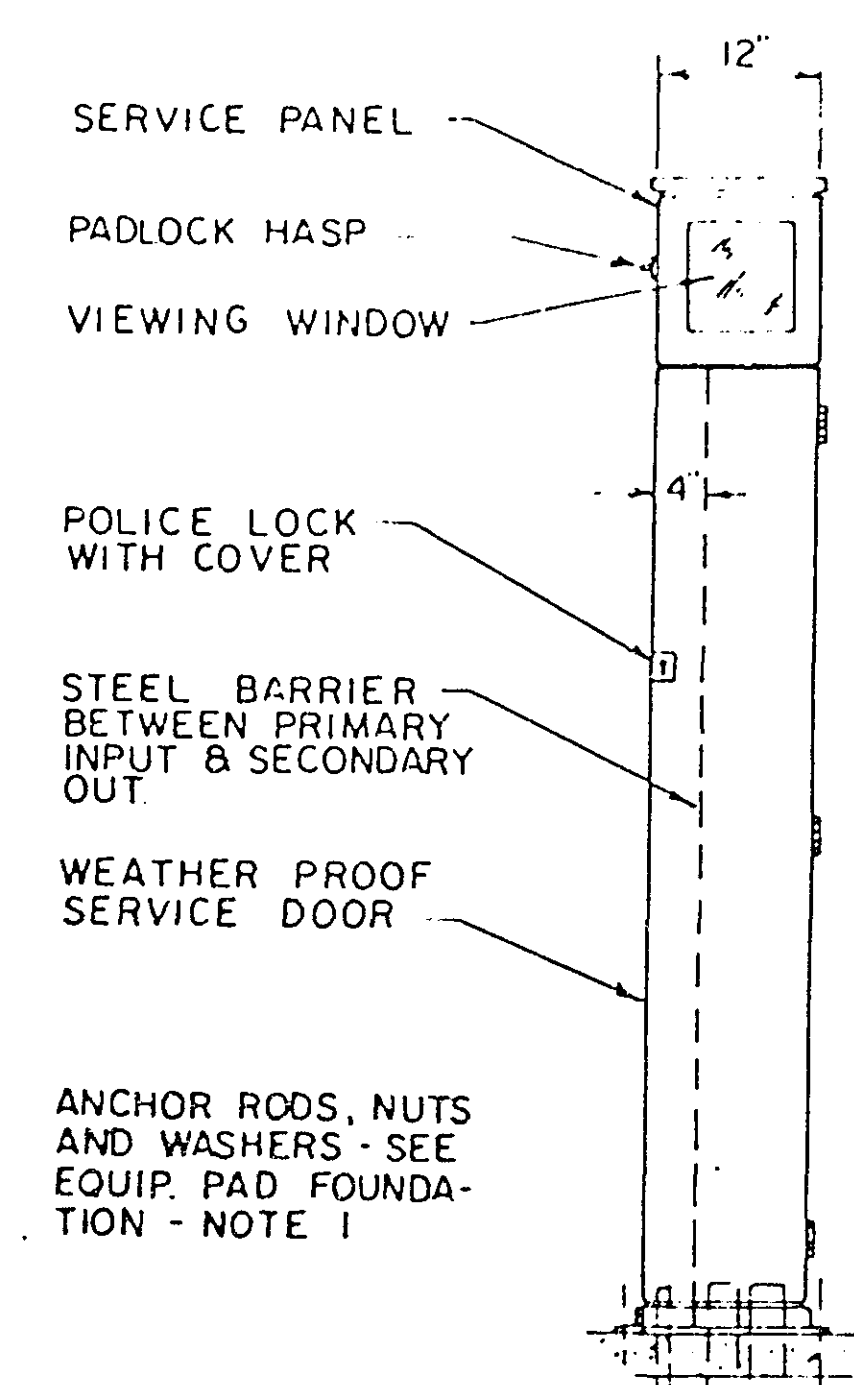
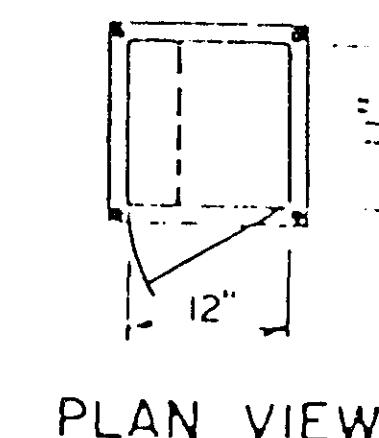
EQUIPMENT PAD FOUNDATION

NOTES:

- 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.)
- UPPER PART OF FOUNDATION SHALL BE BEVELED OR CHAMFERED IN A NEAT MANNER AS DIRECTED BY THE ENGINEER IN THE FIELD.
- 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.)
- CONCRETE MIX 3A32 OR EQUAL SHALL BE USED FOR FOUNDATION AND CONCRETE WALK.
- CONDUITS WHICH HAVE BOTH ENDS TERMINATING WITHIN THE PAD SHALL NOT BE INSTALLED BELOW THE CONCRETE.
- EXACT LOCATIONS OF CONDUIT WITHIN THE PAD SHALL BE AS DETERMINED BY THE ENGINEER IN THE FIELD.
- REFER TO EQUIPMENT PAD LAYOUT OF EACH SYSTEM FOR FOUNDATION SIZE, CONDUIT PLACEMENT AND EQUIPMENT TO BE INSTALLED.



SERVICE CABINET DETAILS



NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED

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John Van Gorp

Date 9/12/89 Reg No. 9089



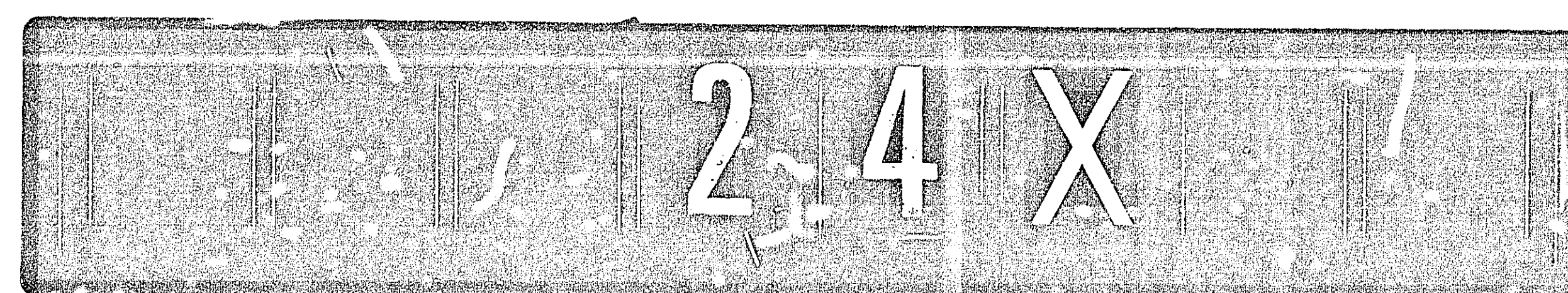
RAMSEY COUNTY, MINNESOTA
CITY OF MAPLEWOOD

TRAFFIC SIGNAL SYSTEM
SERVICE CABINET, EQUIPMENT PAD & EVP DETAILS
BEAM AVENUE AT SOUTHLAWN DRIVE

FILE NO. 90046	3
DATE 9/11/89	10

23-148

23-148 Beam Avenue at Southlawn Drive 1/10



LEGEND OF SYMBOLS

SIGNAL BASE NO.	⑤
SIGNAL FACE NO.	④
CONTROLLER AND CABINET	⑥
CONDUIT - IN PLACE	⑦
HANDHOLE - IN PLACE	⑧
SIGNAL FACE	⑨
SIGNAL FACE WITH BACKGROUND SHIELD	⑩
TRAFFIC SIGNAL PEDESTAL - IN PLACE	⑪
PEDESTRIAN INDICATIONS - IN PLACE	⑫
PEDESTRIAN PUSH BUTTON ON PEDESTAL OR POLE	⑬
TRAFFIC SIGNAL PEDESTAL	⑭
TRAFFIC SIGNAL PEDESTAL - IN PLACE	⑮
TRAFFIC SIGNAL POLE AND MAST ARM	⑯
TRAFFIC SIGNAL POLE AND MAST ARM - IN PLACE	⑰
MAST ARM AND LUMINAIRE	⑱
MAST ARM AND LUMINAIRE - IN PLACE	⑲
WOOD POLE	⑳
WOOD POLE - IN PLACE	㉑
SOURCE OF POWER	㉒
EMERGENCY VEHICLE PRE-EMPTION DETECTOR	㉓

VEHICLE DETECTION

NO.	SIZE	OPERATION	LOC.
D1-1	2'-6" x 15'	1, 4	0'
D1-2	8' x 25'	3	80'
D2-1	6' x 6'	1	260'
D2-2	6' x 6'	1	260'
D4-1	2'-6" x 6'	1	165'
D4-2	2'-6" x 6'	1	70'
D4-3	2'-6" x 15'	1, 4	0'
D5-1	2'-6" x 15'	1, 4	0'
D5-2	6' x 25'	3	80'
D6-1	6' x 6'	1	260'
D6-2	6' x 6'	1	260'
D8-1	2'-6" x 6'	1	155'
D8-2	2'-6" x 6'	1	70'
D8-3	6' x 15'	1, 4	0'
D1	6' x 6'	5	SEE PLAN
D2	6' x 6'	5	SEE PLAN

OPERATIONS

1. CALL & EXTEND
2. CALL ONLY
3. EXTEND ONLY
4. TIME DELAY
5. COUNT

NOTE: LOCATION=DISTANCE FROM STOP BAR TO DETECTOR

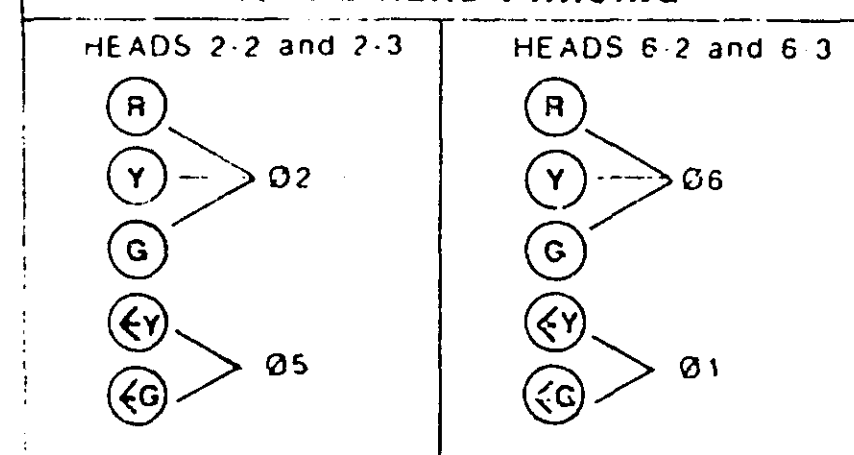
SIGNAL INDICATION CHART

FACE	PHASE	R	Y	G	YLTA	GLTA
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		

NOTES:

- 1) FLASH MODE= ALL RED
- 2) ALL SIZES ARE IN INCHES.

SIGNAL HEAD PHASING



1 JMG 10/11 RECORD DRAWING

2 DES 4/90 AS-BUILT

NO. BY DATE

REVISIONS

ITEM

DESIGN

CHECKED

DATE

Reg No. 9089

I hereby certify that this plan 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.

Shay Van Wormer
Date 7/14/89

SEH
ENGINEERS ARCHITECTS PLANNERS

RAMSEY COUNTY MINNESOTA
CITY OF MAPLEWOOD

TRAFFIC SIGNAL SYSTEM
INTERSECTION LAYOUT
BEAM AVENUE AT SOUTHLAWN DRIVE

FILE NO.

90046

DATE

9/11/89

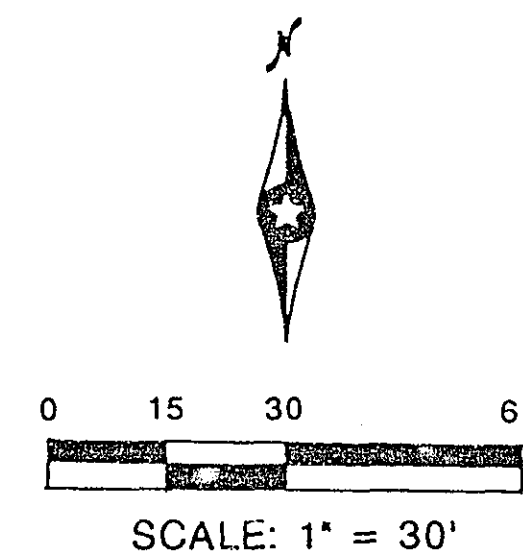
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10

23-148

Notes:

- 1) POLE AND DETECTOR LOCATIONS SHALL BE VERIFIED IN THE FIELD BY THE TRAFFIC ENGINEER PRIOR TO INSTALLATION.
- 2) SEE SPECIAL PROVISIONS FOR COUNTY FURNISHED EQUIPMENT.
- 3) A 3/4 INCH HALF COUPLING SHALL BE FURNISHED APPROX. 2 FEET AND 4 FEET FROM END OF MAST ARM ON EACH POLE PER Mn/DOT 3831.2C.
- 4) A MID ARM MOUNT SHALL BE FURNISHED AND INSTALLED 14 FEET FROM THE END OF MAST ARM AT POLES ① AND ③.
- 5) ALL PEDESTRIAN INDICATIONS SHALL BE 12"x12".
- 6) ALL SIGNAL FACES SHALL HAVE BACKGROUND SHIELDS EXCEPT SIGNAL FACES 2-3, 4-3, 6-3 AND 8-3.
- 7) EACH LUMINAIRE WITH P.E.C. AND STREET LIGHT CHECK SWITCH.
- 8) ALL HANDHOLES SHALL BE CONCRETE HANDHOLES WITH TYPE "C" COVERS.
- 9) PEDESTRIAN CURB RAMPS AND INTERCONNECTION WITH TRAFFIC SIGNALS AT EAST MALL ENTRANCE AND AT HAZELWOOD AVE. TO BE FURNISHED AND INSTALLED BY OTHERS AS PART OF FUTURE CONTRACT. SEE SPECIAL PROVISIONS.
- 10) SEE SPECIAL PROVISIONS FOR CONTRACTORS RESPONSIBILITY FOR LOCATION OF UTILITIES.
- 11) SEE SPECIAL PROVISIONS FOR TEMPORARY SIGNAL PROVISIONS.



EQUIPMENT PAD-SEE DETAILS

SERVICE CABINET

EXTEND INTO H.H.20:

1 1/4" R.S.C.

3-1/c#8

EXTEND INTO H.H.1:

1 1/4" R.S.C.

2-1/c#10

EXTEND INTO H.H.14:

1 1/4" R.S.C.

2-1/c#10

CONTROLLER AND CABINET

EXTEND TO PAD MOUNTED SERVICE

1" R.S.C. WITH DRAIN TEE AND

2-2/c# TELEPHONE DROP WIRE

EXTEND INTO H.H.1:

4" R.S.C.

4-12/c#12

5-3/c#12

10-2/c#14

2-3/c#20

2-1/c#10

EXTEND INTO H.H.14:

4" R.S.C.

4-12/c#12

4-3/c#12

4-2/c#14

1-3/c#20

BETWEEN SERVICE AND CONTROLLER CABINET

1 1/4" R.S.C.

2-1/c#8

1-1/c#6 (BARE)

STUB OUT 2" R.S.C.

(FOR INTERCONNECT)

AS-BUILT PLAN

CONFORM TO

CONTRACT

DONE BY: *Shay Van Wormer*

DATE: 12/91

CONTROLLER PHASING, PEDESTRIAN

INDICATIONS AND PUSH BUTTONS

Beam Avenue

PB8-2

PB2-1

PB2-2

PB4-1

PB8-1

PB2-2

PB4-2

PB6-1

PB6-2

PB6-1

PB6-2

PB6-1

PB6-2

PB6-1

PB6-2

PB6-1

PB6-2

PB6-1

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PB6-1

PB6-2

PB6-1

PB6-2

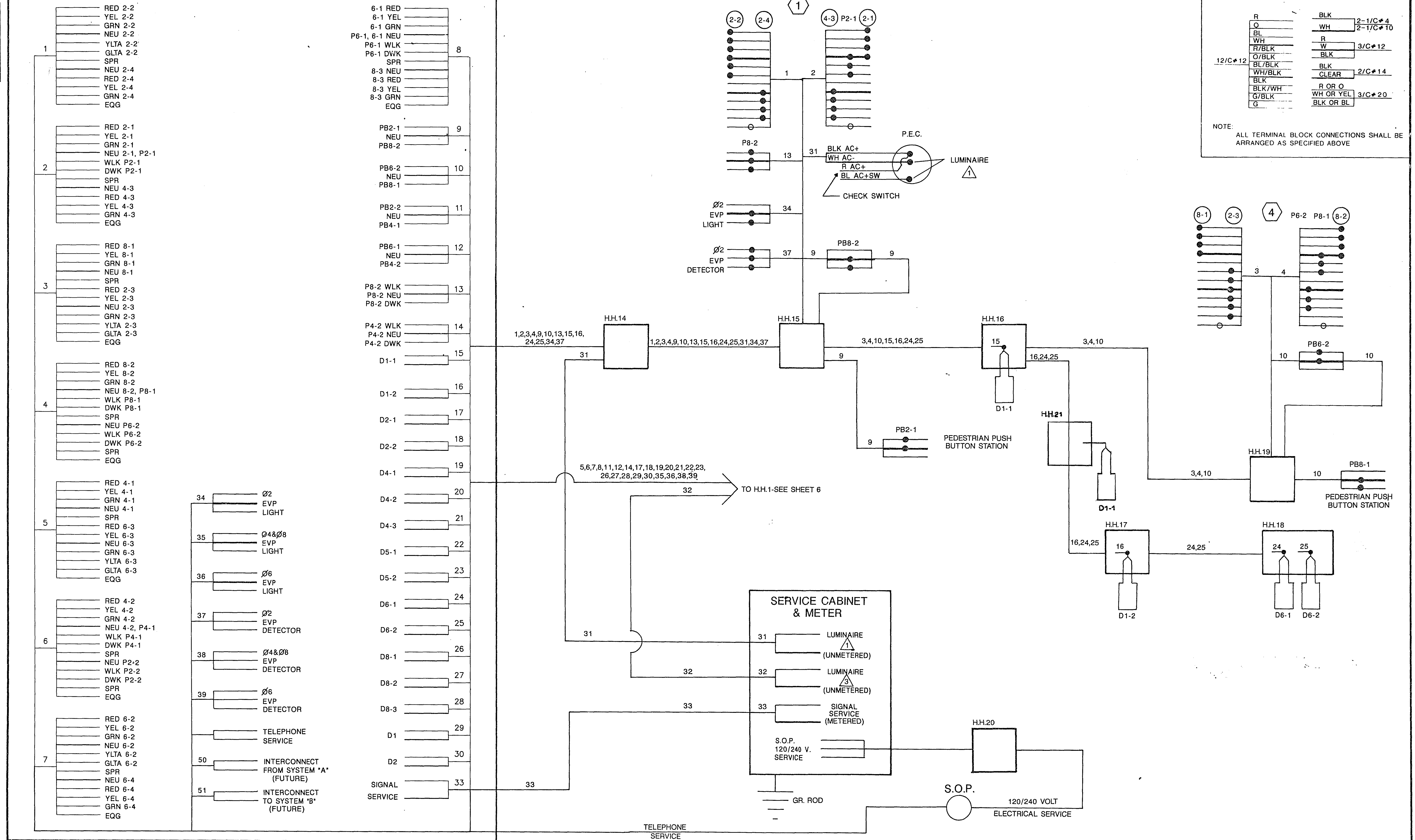
PB6-1

PB6-2

CONDUCTOR COLOR CODING

R	BLK	2- 1/C #4
O	WH	2- 1/C #10
BL	R	
WH	W	3/C #12
R/BLK	BLK	
O/BLK	BLK	
BL/BLK	BLK	
WH/BLK	CLEAR	2/C #14
BLK	R OR O	
BLK/WH	WH OR YEL	3/C #20
G/BLK	BLK OR BL	
G		

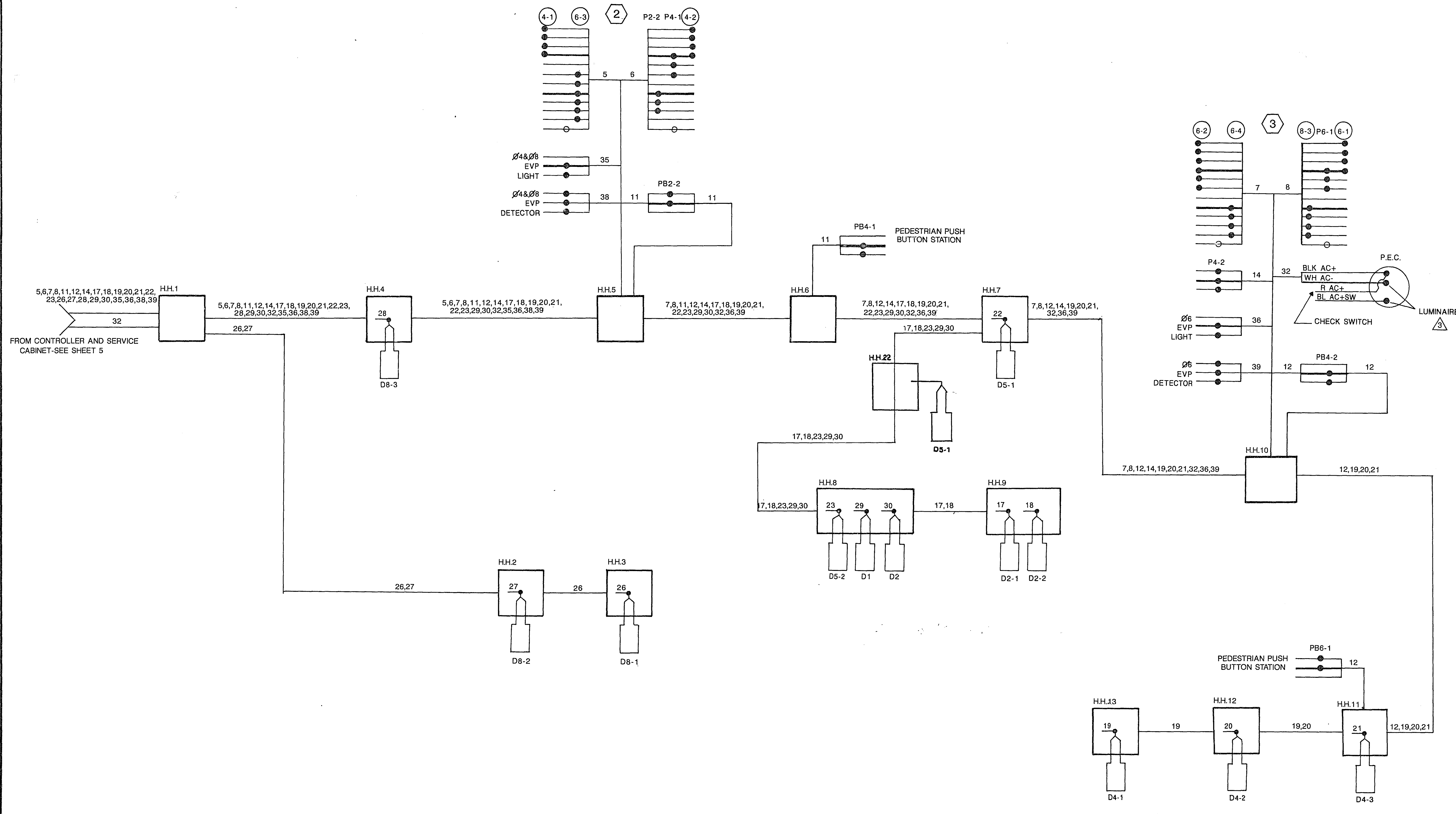
NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE

[illegible]

23-148

23-148 Beam Avenue at Southlawn Drive 1/10

BASE	OVERLAY	DRG. NO.



1	DES	4/90	AS BUILT				
NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED	

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Eden Van Worman

Date 9/14/89 Reg No 9089



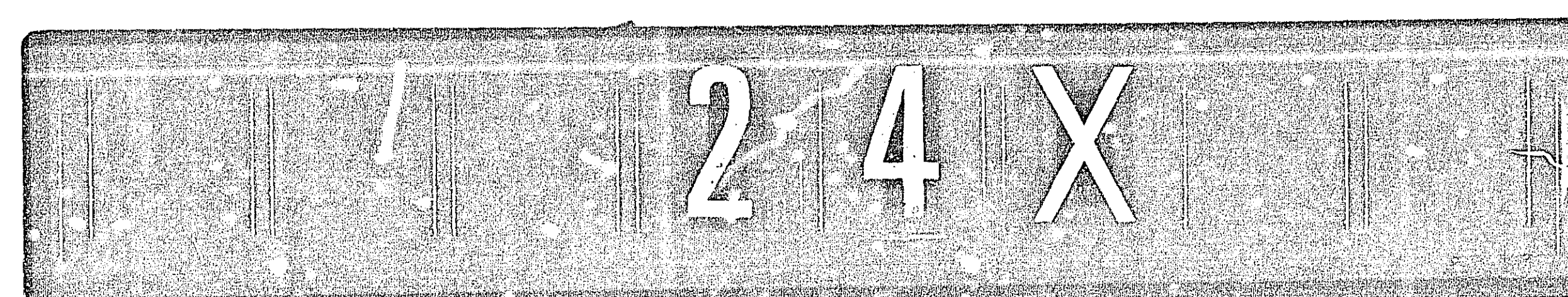
RAMSEY COUNTY, MINNESOTA
CITY OF MAPLEWOOD

TRAFFIC SIGNAL SYSTEM
FIELD WIRING DIAGRAM
BEAM AVENUE AT SOUTHLAWN DRIVE

FILE NO.
90046
DATE
9/11/89

6	10
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23-142



DRAWING

DRAWING NUMBER
23-148

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NUMBER

REVISIONS
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LEGEND OF SYMBOLS

SIGNAL BASE NO. 1
SIGNAL FACE NO. 2
CONTROLLER AND CABINET IN PLACE
HANDHOLE IN PLACE
CONDUIT IN PLACE
PEDESTRIAN INDICATIONS IN PLACE
PEDESTRIAN INDICATIONS IN PLACE
PEDESTRIAN PUSH BUTTON ON PEDESTAL OR POLE IN PLACE
PEDESTRIAN PUSH BUTTON STATION IN PLACE
TRAFFIC SIGNAL PEDESTAL IN PLACE
TRAFFIC SIGNAL POLE AND MAST ARM IN PLACE
MAST ARM AND LUMINAIRE IN PLACE
WOOD POLE IN PLACE
WOOD POLE IN PLACE
SOURCE OF POWER
EMERGENCY VEHICLE PRE-EMPTION DETECTOR

VEHICLE DETECTION				
NO.	SIZE	OPERATION	LOC.	
D1-1	2-6'X 15'	1-4	0'	
D1-2	6'X 25'	1	250'	
D2-1	6'X 6'	1	250'	
D2-2	6'X 6'	1	250'	
D4-1	2-6'X 6'	1	165'	
D4-2	2-6'X 6'	1	70'	
D4-3	2-6'X 15'	1-4	0'	
D5-1	2-6'X 15'	1-4	0'	
D5-2	6'X 25'	3	80'	
D6-1	6'X 6'	1	250'	
D6-2	6'X 6'	1	155'	
D8-1	2-6'X 6'	1	155'	
D8-2	2-6'X 6'	1	70'	
D8-3	6'X 6'	1-4	0'	
D1	6'X 6'	5	SEE PLAN	
D2	6'X 6'	5	SEE PLAN	

OPERATIONS:

- 1- CALL & EXTEND
- 2- CALL ONLY
- 3- EXTEND ONLY
- 4- TIME DELAY
- 5- COUNT

NOTE: LOCATION = DISTANCE FROM STOP BAR TO DETECTOR

BEAM AVENUE (45 MPH)

EQUIPMENT PAD-SEE DETAILS
SERVICE CABINET
EXTEND INTO H.H.20:
1 1/4" R.S.C.
3-12/c#12
EXTEND INTO H.H.1:
1 1/4" R.S.C.
2-12/c#12
EXTEND INTO H.H.14:
1 1/4" R.S.C.
2-12/c#12

CONTROLLER AND CABINET
EXTEND TO PAD MOUNTED SERVICE
1" R.S.C. WITH DRAIN TEE AND
2-2/c#12 TELEPHONE DROP WIRE
EXTEND INTO H.H.1:
4" R.S.C.
4-12/c#12
5-3/c#12
12-2/c#14
2-3/c#20
EXTEND INTO H.H.14:
4" R.S.C.
4-12/c#12
4-3/c#12
4-2/c#14
1-3/c#20

BETWEEN SERVICE AND CONTROLLER CABINET
1 1/4" R.S.C.
2-12/c#12
1-1/c#6 (BARE)

SIGNAL INDICATION CHART

FACE	PHASE	R	Y	G
T1-1	1	12	12	12
T1-2	1	12	12	12
T1-3	1	12	12	12
T1-4	1	12	12	12
T1-5	1	12	12	12
T1-6	1	12	12	12
T2-1	2	12	12	12
T2-2	2	12	12	12
T2-3	2	12	12	12
T2-4	2	12	12	12
T2-5	2	12	12	12
T2-6	2	12	12	12

- NOTES:
1) FLASH MODE=ALL RED
2) ALL SIZES ARE IN INCHES

T1 45' WOOD POLE-CLASS 2
2-DOWN GUYS, METAL GUARDS AND
EXPANDING ANCHORS
TYPE 10B-WOOD POLE MOUNTED (T1-4)
TYPE 10B-WOOD POLE MOUNTED (T2-3)
1-PEDESTRIAN PUSH BUTTON AND SIGN
LUMINAIRE-200 WATT H.P.S. AND MAST ARM
METAL JUNCTION BOX
2" R.S.C. RISER AND WEATHERHEAD
ABOVE JUNCTION BOX
1-12/c#12
EXTEND INTO H.H.15:
3" R.S.C. BELOW JUNCTION BOX
2-12/c#12
3-3/c#12
2-1/c#10

PEDESTRIAN PUSH BUTTON STATION (4" R.S.C.)
ONE-PEDESTRIAN PUSH BUTTON AND SIGN
EXTEND INTO H.H.15:
1 1/4" R.S.C.
1-3/c#12

4" R.S.C.
4-12/c#12
5-3/c#12
10-2/c#14
2-1/c#10

TYPE 10B-WOOD POLE MOUNTED (T1-4)
TYPE 10B-WOOD POLE MOUNTED (T2-3)
ONE WAY V.P. DETECTOR AND LIGHT OVERHEAD
LUMINAIRE-200 WATT H.P.S. AT 350'
1-PEDESTRIAN PUSH BUTTON AND SIGN AT 270'
EXTEND INTO H.H.15:
1" R.S.C.

PAD MOUNTED
TRANSFORMER (S.O.P.)
HH.20
HH.14
HH.15
HH.16
HH.17
HH.18
HH.19
HH.12
HH.13
HH.11
HH.10
HH.9
HH.8
HH.7
HH.6
HH.5
HH.4
HH.3
HH.2
HH.1

2-7/16" SPAN WIRES
1-12/c#12

4" R.S.C.
4-12/c#12
4-3/c#12
4-2/c#14
1-3/c#20
2-1/c#10

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2-2/c#14

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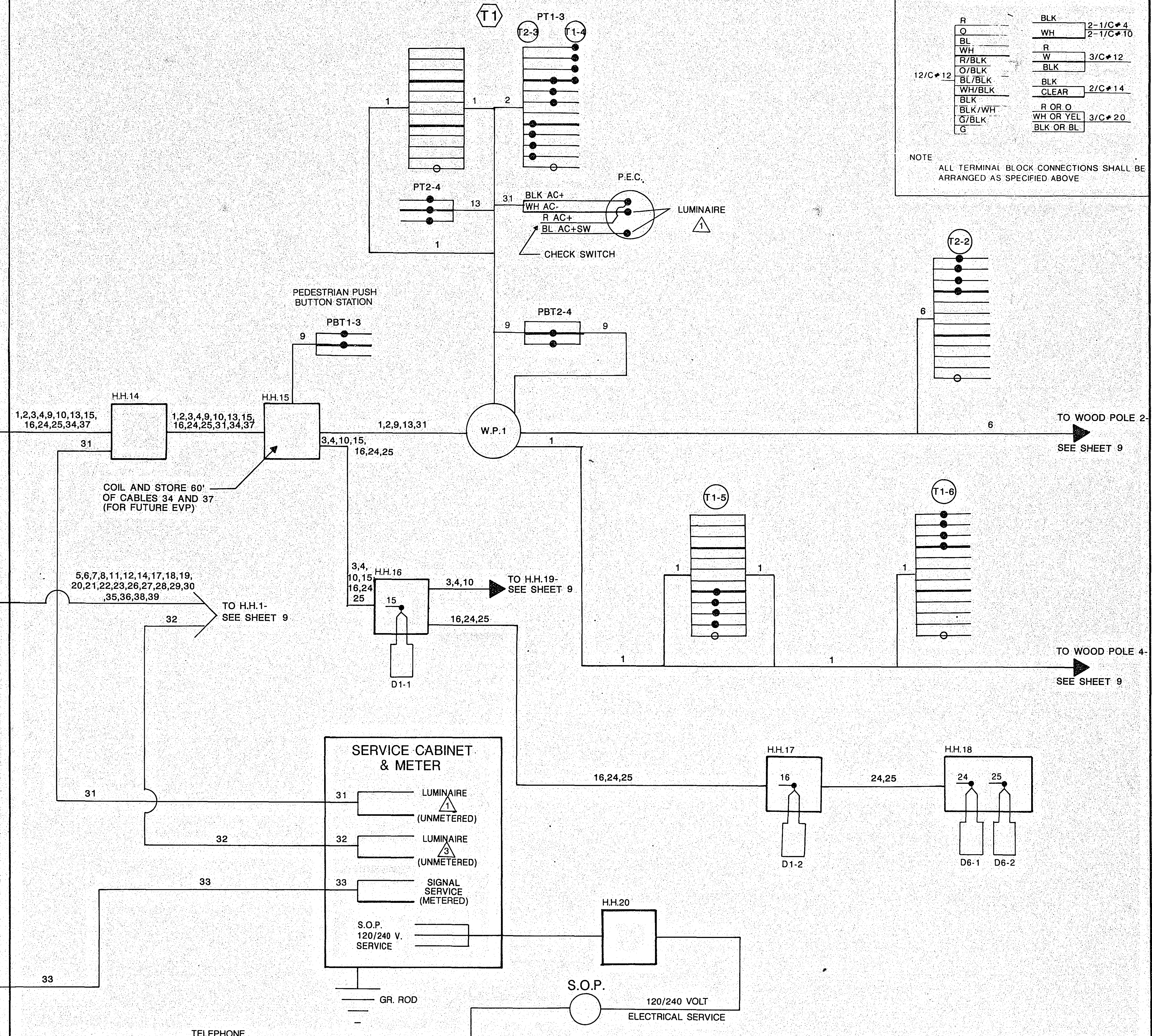
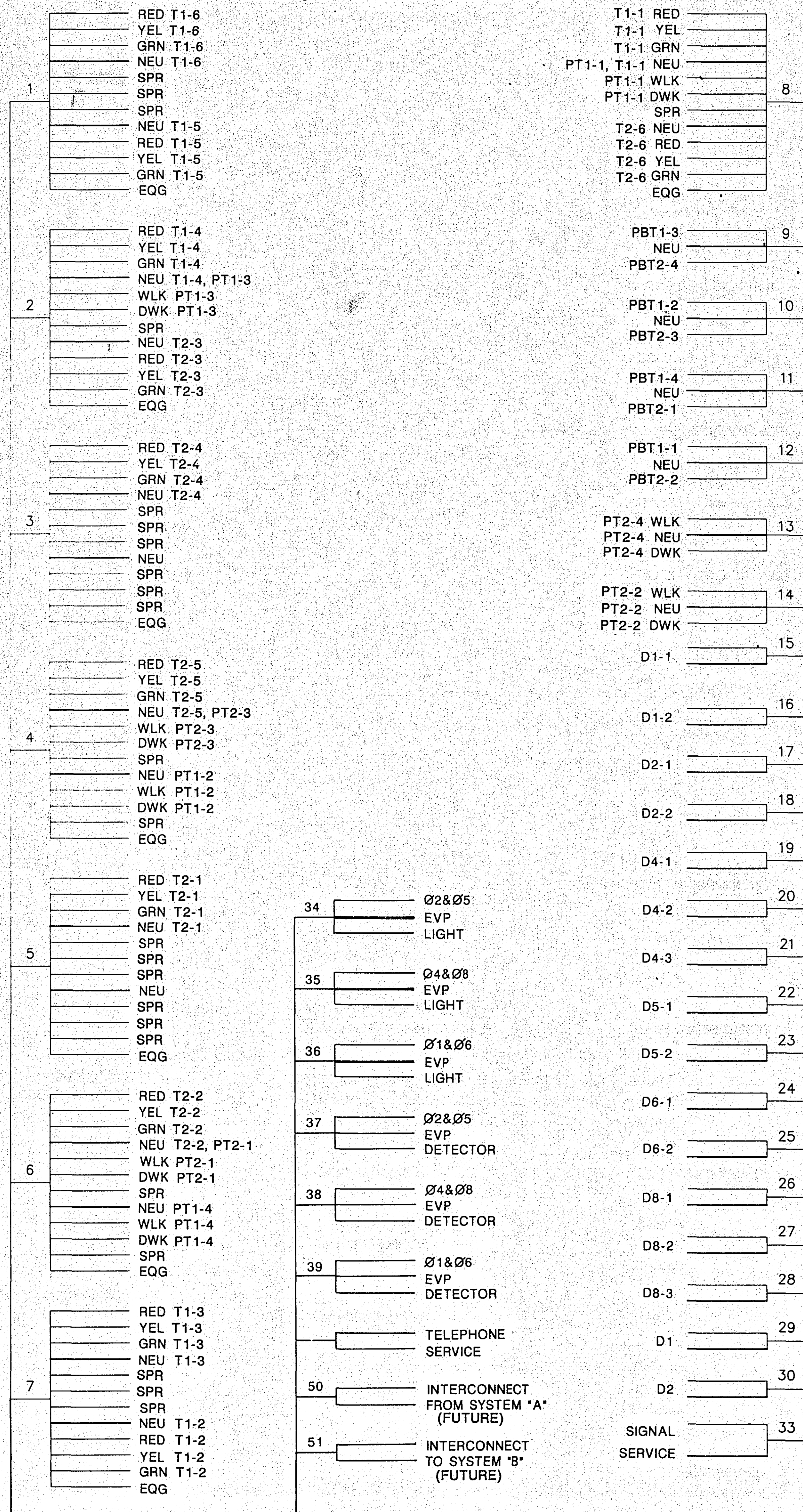
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2-2/c#14

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1-3/c#20
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2" R.S.C.
2-

CONTROLLER CABINET



CONDUCTOR COLOR CODING

R	BLK	2-1/C#4
O	WH	2-1/C#10
BL	R	3/C#12
WH	W	3/C#12
R/BLK	BLK	2/C#14
O/BLK	CLEAR	2/C#14
BL/BLK	R OR O	3/C#20
WH/BLK	WH OR YEL	3/C#20
BLK/WH	BLK OR BL	3/C#20
G/BLK		
G		

NOTE
ALL TERMINAL BLOCK CONNECTIONS SHALL BE
ARRANGED AS SPECIFIED ABOVE

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED	I hereby certify that this plan 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 <i>John V. V. V. V.</i> Date <i>9/14/89</i> Reg No. <i>9089</i>		 ENGINEERS ■ ARCHITECTS ■ PLANNERS	RAMSEY COUNTY, MINNESOTA CITY OF MAPLEWOOD	TRAFFIC SIGNAL SYSTEM TEMP. FIELD WIRING DIAGRAM BEAM AVENUE AT SOUTHLAWN DRIVE	FILE NO. 90046	8
							Date <i>9/14/89</i> Reg No. <i>9089</i>	DATE 9/11/89				10	

23-148 Beam Avenue at Southlawn Drive 1/10



DRAWING

DRAWING NUMBER
23-148

DRAWING NUMBER

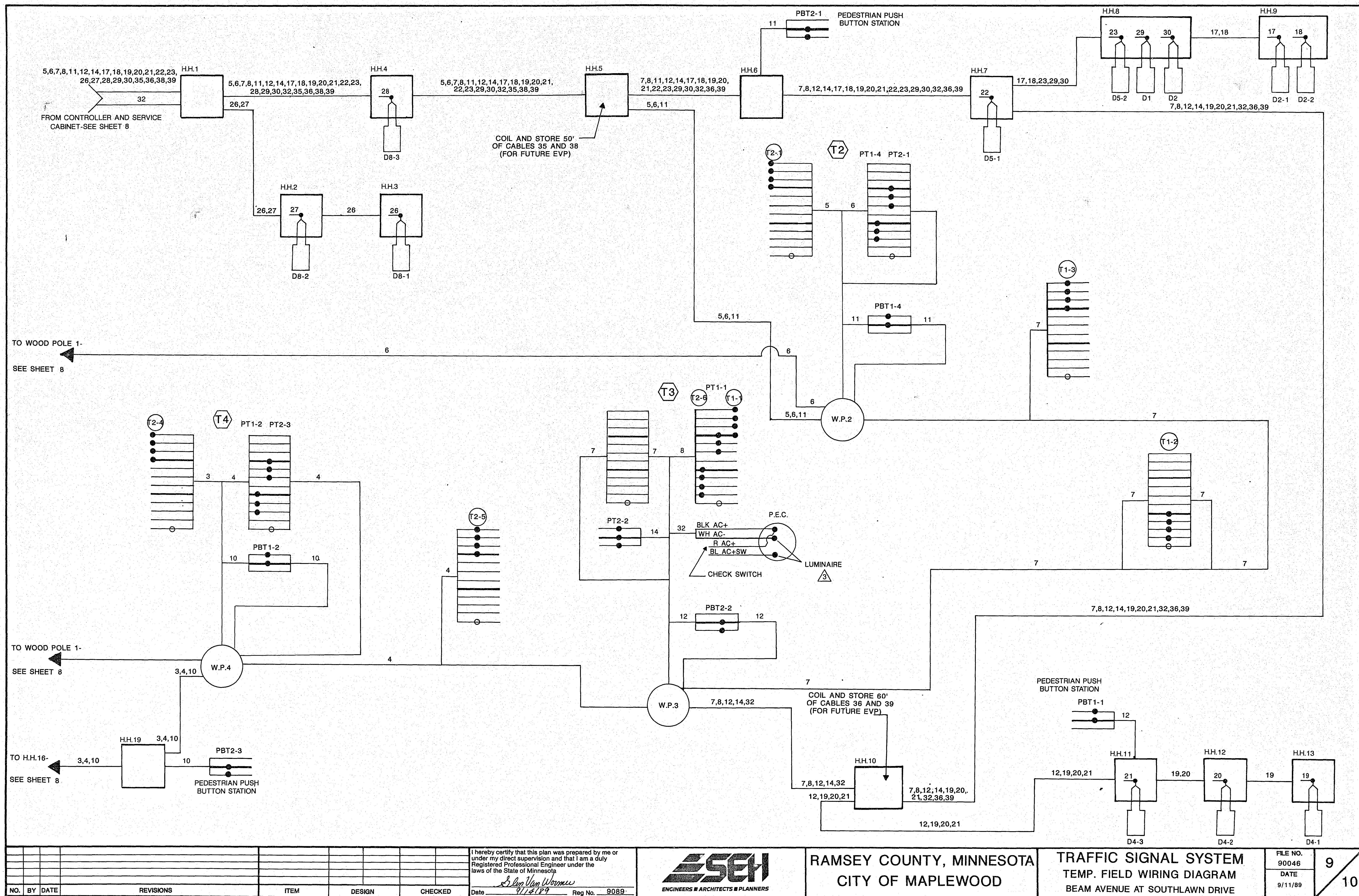
NUMBER

PLAN HOLD CORPORATION
DESIGNED BY NDA
REVIEWED BY NDA
DATE 10/1/89

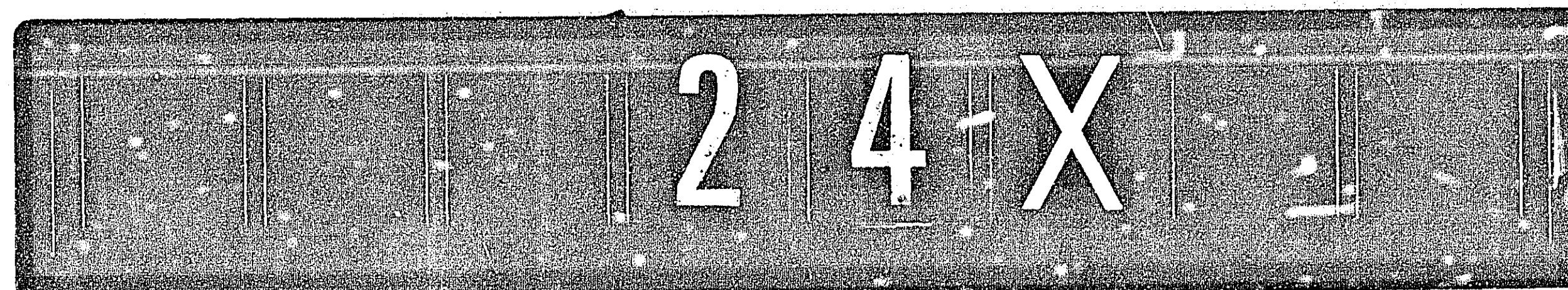
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23-148 Beam Avenue at Southlawn Drive 1/10



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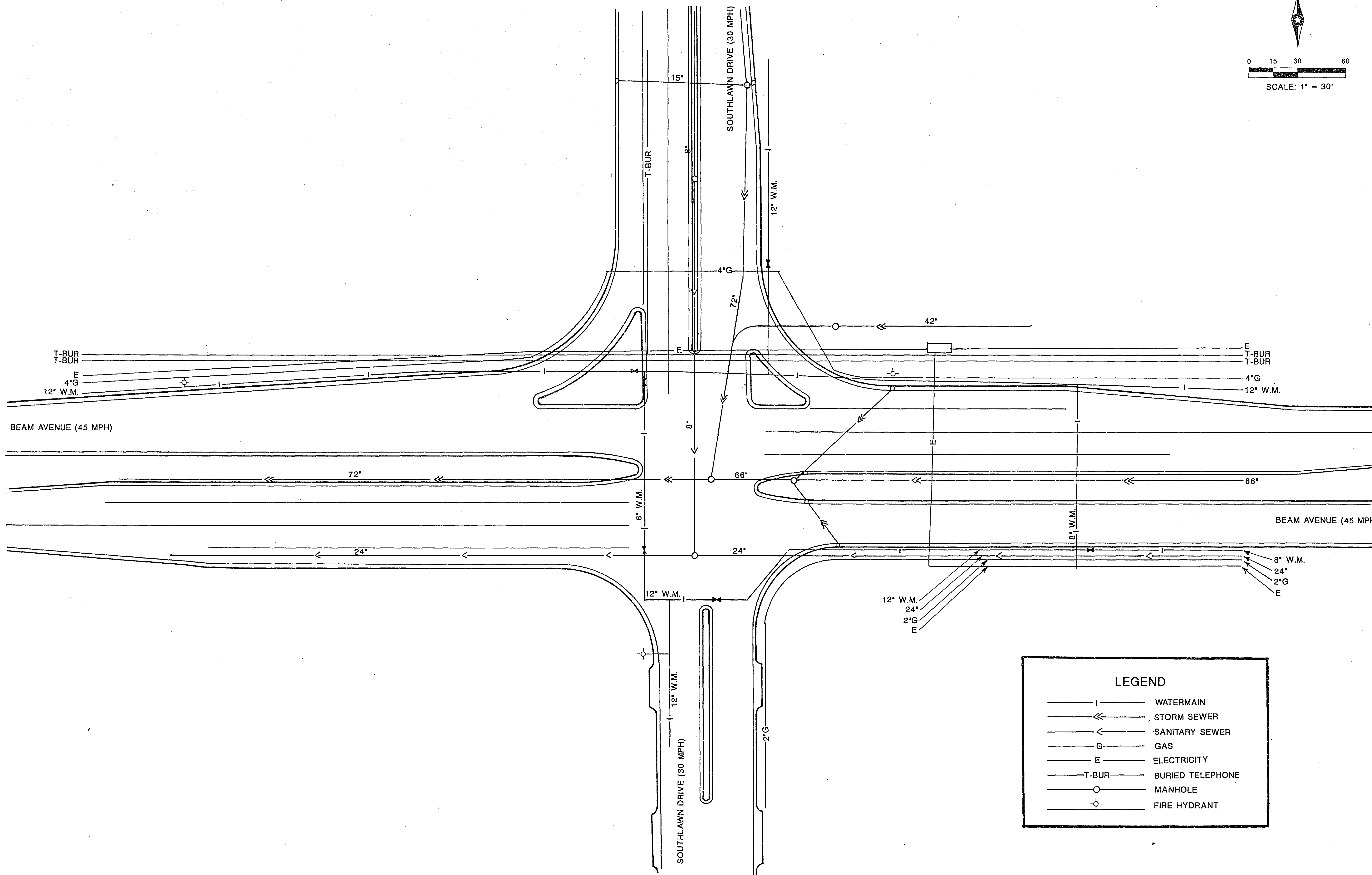
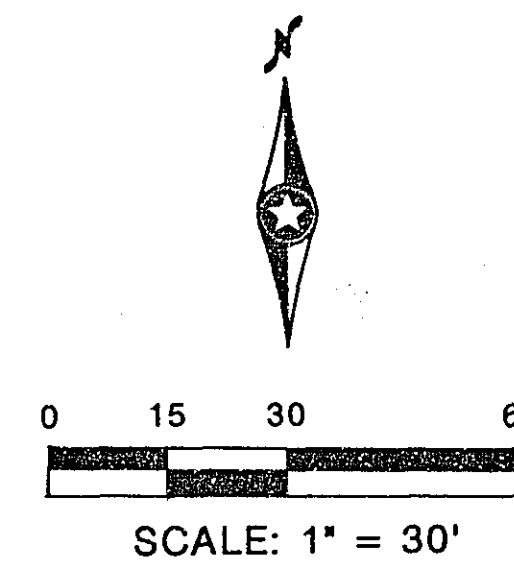
PLAN HOLD CORPORATION
REGISTERED PROFESSIONAL ENGINEER
IRVINE, CALIFORNIA

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BASE	OVERLAY	DRG. NO.



LEGEND	
— I —	WATERMAIN
— << —	STORM SEWER
— < —	SANITARY SEWER
— G —	GAS
— E —	ELECTRICITY
— T-BUR —	BURIED TELEPHONE
○	MANHOLE
◇	FIRE HYDRANT

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED

I hereby certify that this plan 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.

Edgar Van Wormer
Date 9/14/89 Reg. No. 9089



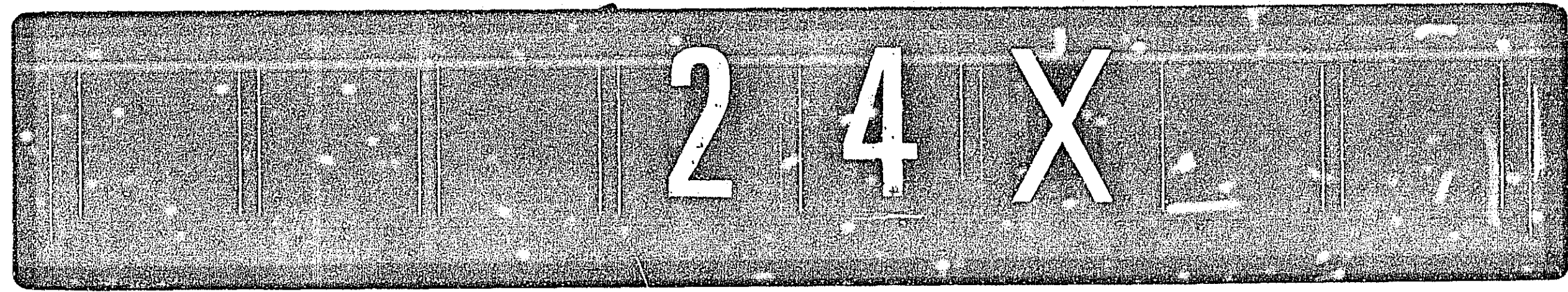
RAMSEY COUNTY, MINNESOTA
CITY OF MAPLEWOOD

TRAFFIC SIGNAL SYSTEM
UTILITY MAP
BEAM AVENUE AT SOUTHLAWN DRIVE

FILE NO.
90046
DATE
9/11/89

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23-148



23-148 Beam Avenue at Southlawn Drive 1/10