

PLOTTED/REVISED: 16-SEP-2021

DISTRICT \*: Metro  
PLOT NAME: (26 of 36) TH149 S Layout  
FILENAME: Projects\DM\_POS\055\0000\Traffic\Signals\2.9 TH55 @ 55-149 @ DODD RD S JCT-HOLIDAY 1735417\PENDING\E2Dseed.dgn

| SIGNAL FACE CHART  |   |   |     |   |
|--------------------|---|---|-----|---|
| FACE               | R | Y | FYA | G |
| 1-1, 1-2           | ← | ← | ←   | ← |
| 2-1, 2-2, 2-3      | ○ | ○ | ○   | ○ |
| 3-1, 3-2, 3-3      | ← | ← | ←   | ← |
| 4-1, 4-2, 4-3      | ○ | ○ | ○   | ○ |
| 5-1, 5-2           | ← | ← | ←   | ← |
| 6-1, 6-2, 6-3, 6-4 | ○ | ○ | ○   | ○ |
| 7-1, 7-2           | ← | ← | ←   | ← |
| 8-1, 8-2           | ○ | ○ | ○   | ○ |

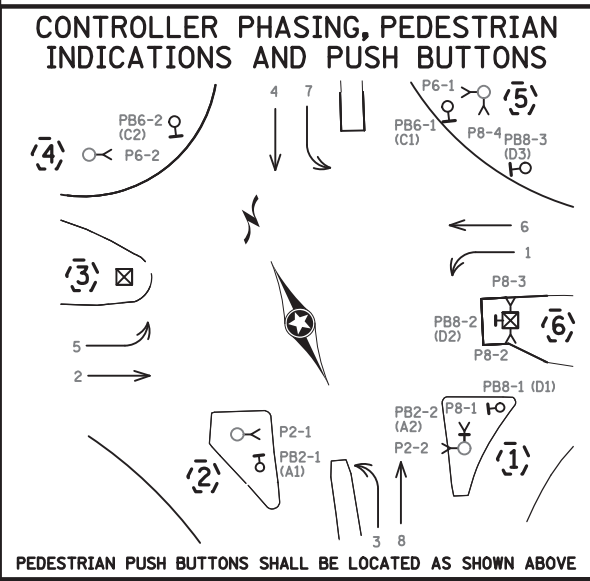
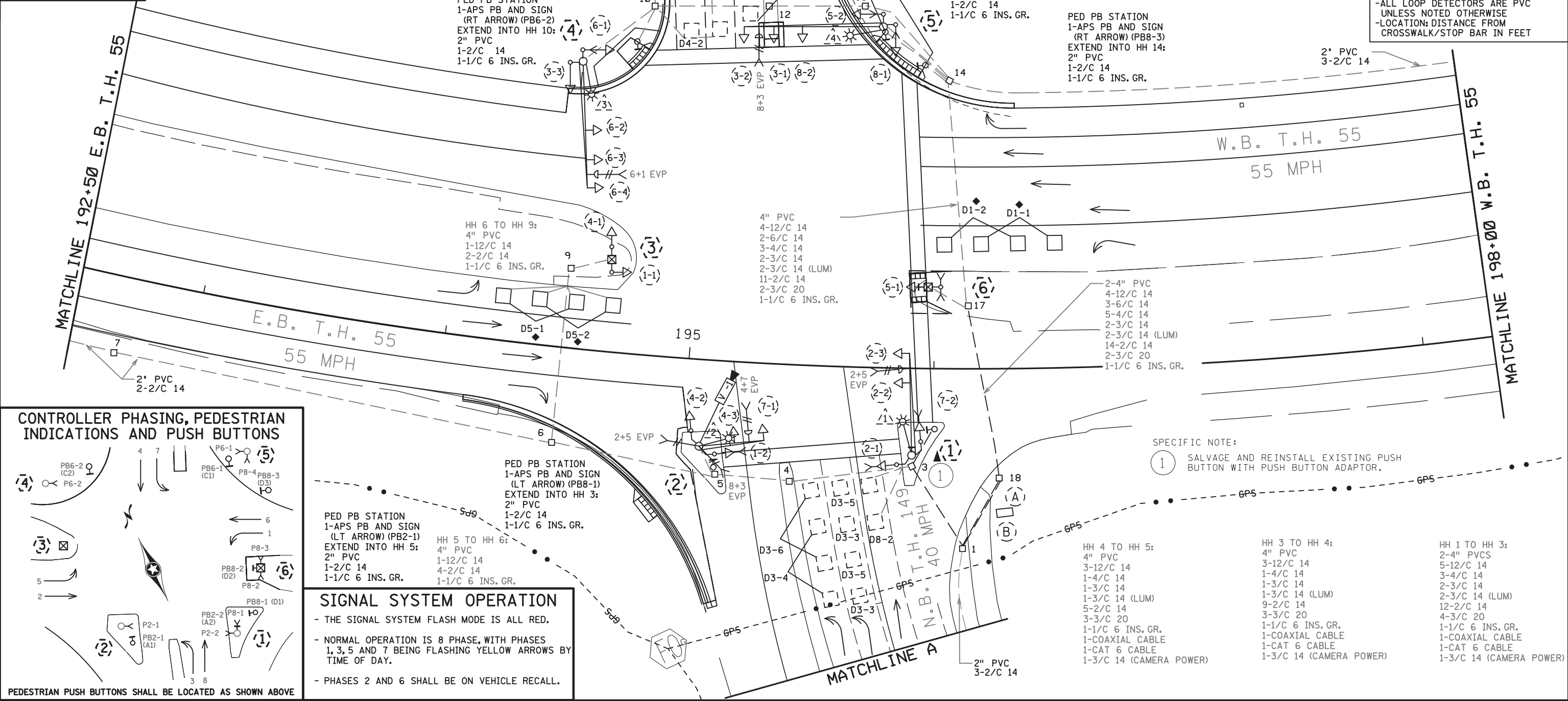
NOTES:

1. WORK AT SIGNAL CONSISTS OF INSTALL PB ADAPTORS ON POLE 1 AND SALVAGE AND REINSTALL EXISTING PB AND SIGN. LOOP REPLACEMENT WORK WILL BE PAID UNDER RIGID PVC LOOP DETECTOR 6' X 6' PAY ITEM.
2. ENSURE THE EXACT LOCATION OF THE HANDHOLES, POLES, LOOP DETECTORS AND EQUIPMENT PAD ARE VERIFIED IN THE FIELD BY MNDOT OFFICE PERSONNEL.
3. FOR PAVEMENT MARKINGS SEE PAVEMENT MARKING PLAN.
4. PAVEMENT MARKINGS ARE INCIDENTAL.
5. THIS PLAN SPECIFIES CONDUIT SIZES, TYPES, AND GENERAL LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD. CONDUITS UNDER THE ROADWAYS REQUIRE BORING.
6. USE PVC OR HDPE FOR ALL NEW CONDUIT.
7. CONDUIT SIZES ARE NOMINAL DIAMETER.
8. ALL WIRES LISTED ARE AWG (AMERICAN WIRE GAUGE).

| LOOP DETECTOR CHART |           |          |
|---------------------|-----------|----------|
| NUMBER              | SIZE (FT) | LOCATION |
| ◆ D1-1              | 2-6X6     | 20 & 50  |
| ◆ D1-2              | 2-6X6     | 5 & 35   |
| ◆ D2-1, D2-2        | 6X6       | 425      |
| D3-3, D3-4          | 2-6X6     | 20 & 50  |
| D3-5, D3-6          | 2-6X6     | 5 & 35   |
| D4-1                | 6X6       | 120      |
| D4-2                | 6X6       | 5        |
| D4-3                | 2-6X6     | 5 & 20   |
| ◆ D5-1              | 2-6X6     | 20 & 50  |
| ◆ D5-2              | 2-6X6     | 5 & 35   |
| ◆ D6-1, D6-2, D6-3  | 6X6       | 475      |
| D7-1                | 2-6X6     | 20 & 50  |
| D7-2                | 2-6X6     | 5 & 35   |
| D8-1, D3-1, D3-2    | 6X6       | 250      |
| D8-2                | 2-6X6     | 5 & 20   |

▲ DENOTES REVISE SIGNAL SYSTEM PAY ITEM WORK. ALL OTHER ITEMS SHOWN ARE INPLACE.

◆ DENOTES RIGID PVC LOOP DETECTOR 6'X6' PAY ITEM WORK.



**SIGNAL SYSTEM OPERATION**

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 8 PHASE, WITH PHASES 1, 3, 5 AND 7 BEING FLASHING YELLOW ARROWS BY TIME OF DAY.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

| BY | DATE | REVISIONS |
|----|------|-----------|
|    |      |           |
|    |      |           |

SYSTEM ID: 1735417 T.E.  
METER ADDRESS: 2879 HIGHWAY 55  
OLD SYSTEM ID:

**REVISE SIGNAL SYSTEM E INTERSECTION LAYOUT T.H. 55 AT T.H. 149, S. JCT. IN EAGAN, DAKOTA COUNTY**

|                                  |                |                               |               |
|----------------------------------|----------------|-------------------------------|---------------|
| S.A.P. NO.                       | DRAWN BY: MJB  | CKD BY:                       | DATE: 9/15/21 |
| CERTIFIED BY: <i>Gregory Kim</i> | LIC. NO. 26829 | DATE: 9/16/21                 |               |
| STATE PROJ. NO. 1909-99 (T.H.55) |                | SHEET NO. SS26 OF SS36 SHEETS |               |



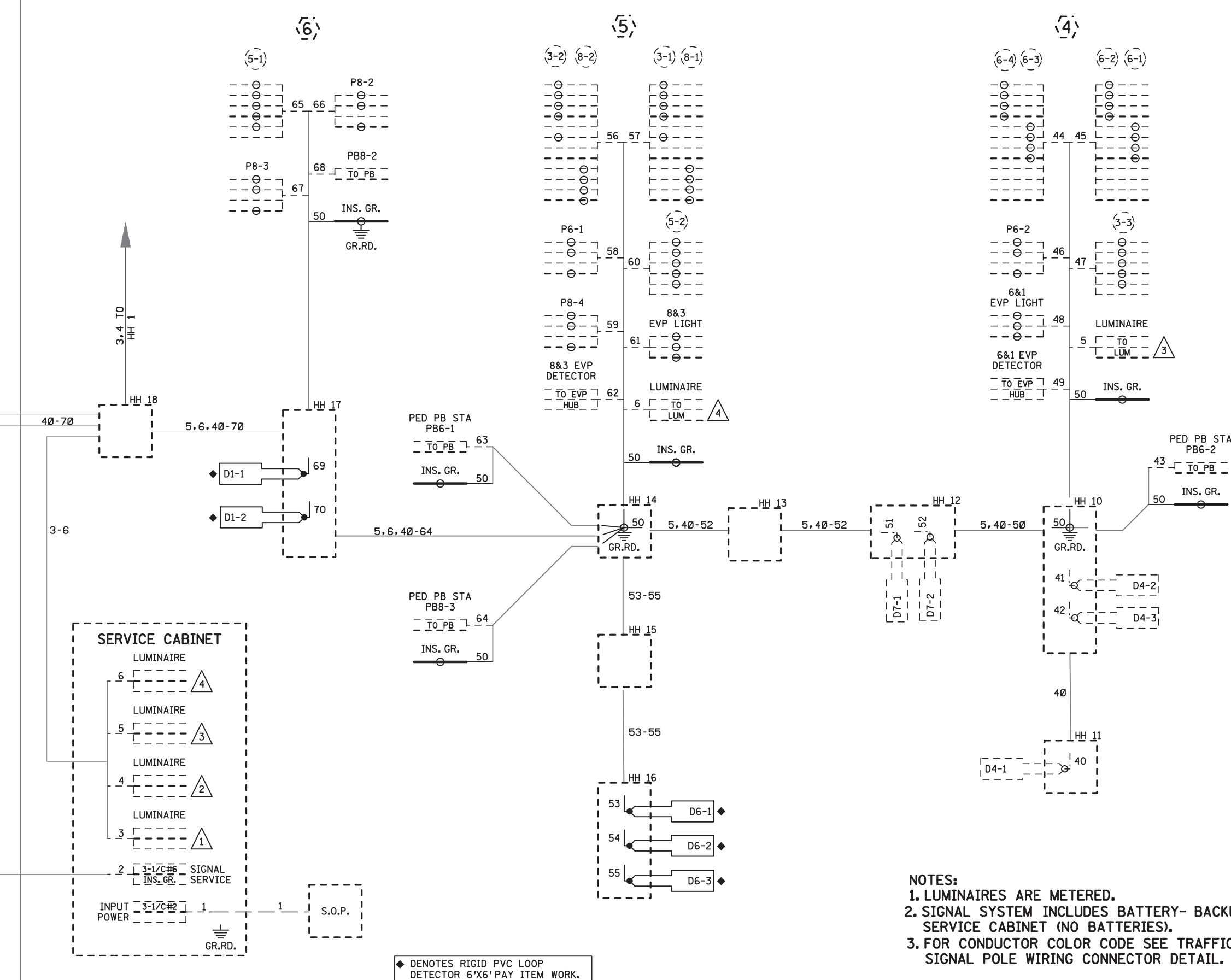
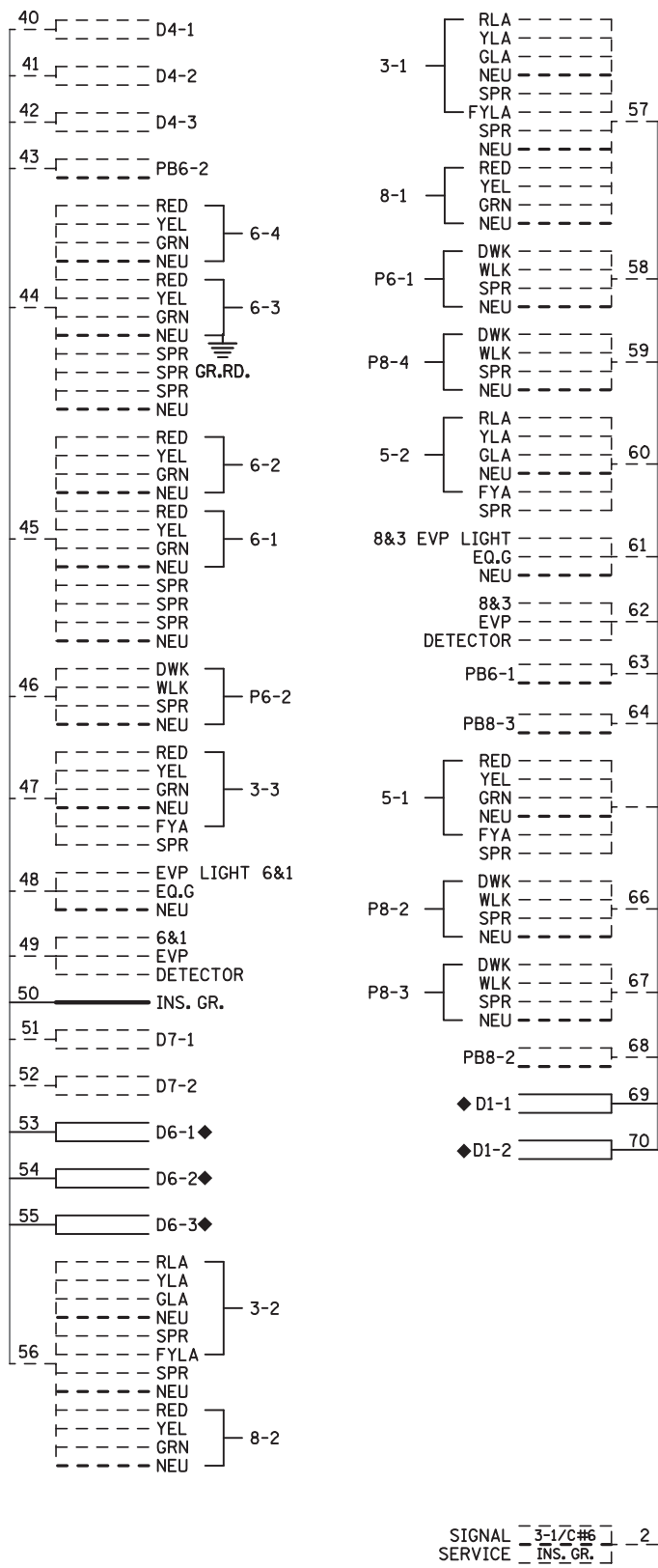




PLOTTED/REVISED: 16-SEP-2021

DISTRICT \*: Metro  
PLOT NAME: (30 of 36) TH149 S Wiring 2  
FILENAME: Projects\DM\_POS\055\0000\Traffic\Signals\2.9 TH55 @ 55-149 @ DODD RD S JCT-HOLIDAY 1735417-PENDING\E2dseed.dgn

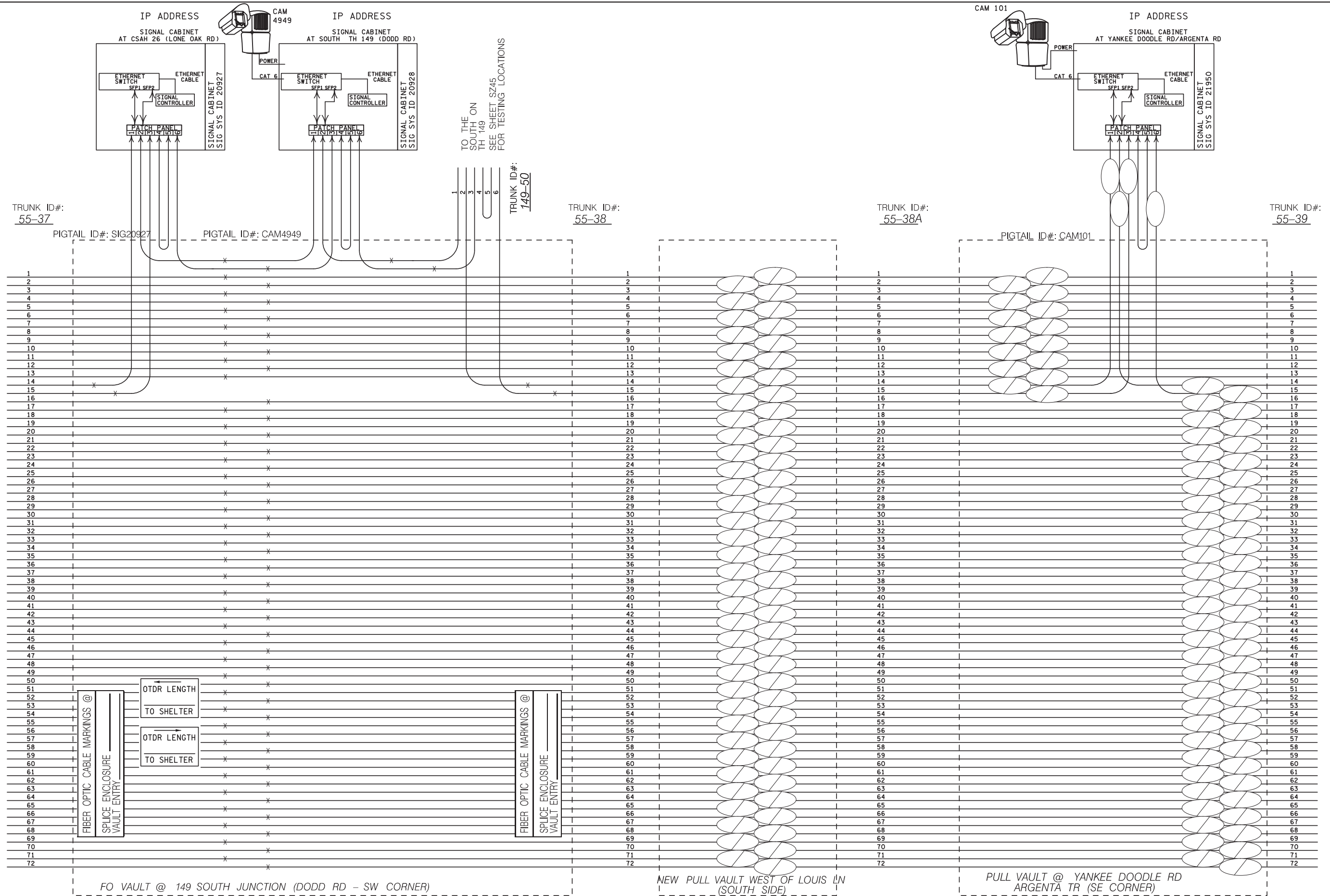
# CONTROLLER CABINET



◆ DENOTES RIGID PVC LOOP DETECTOR 6'X6' PAY ITEM WORK.

- NOTES:**
- LUMINAIRE ARE METERED.
  - SIGNAL SYSTEM INCLUDES BATTERY- BACKUP SERVICE CABINET (NO BATTERIES).
  - FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.

| BY | DATE | REVISIONS | SYSTEM ID: 1735417             | T.E. | S.A.P. NO.   | DRAWN BY: MJB  | CKD BY: | DATE: 9/15/21 |
|----|------|-----------|--------------------------------|------|--|----------------|---------|---------------|
|    |      |           | METER ADDRESS: 2879 HIGHWAY 55 |      | CERTIFIED BY: <i>Gregory Ken</i>                               | LIC. NO. 26829 |         | DATE: 9/16/21 |
|    |      |           | OLD SYSTEM ID:                 |      | STATE PROJ. NO. 1909-99 (T.H.55) SHEET NO. SS30 OF SS36 SHEETS |                |         |               |

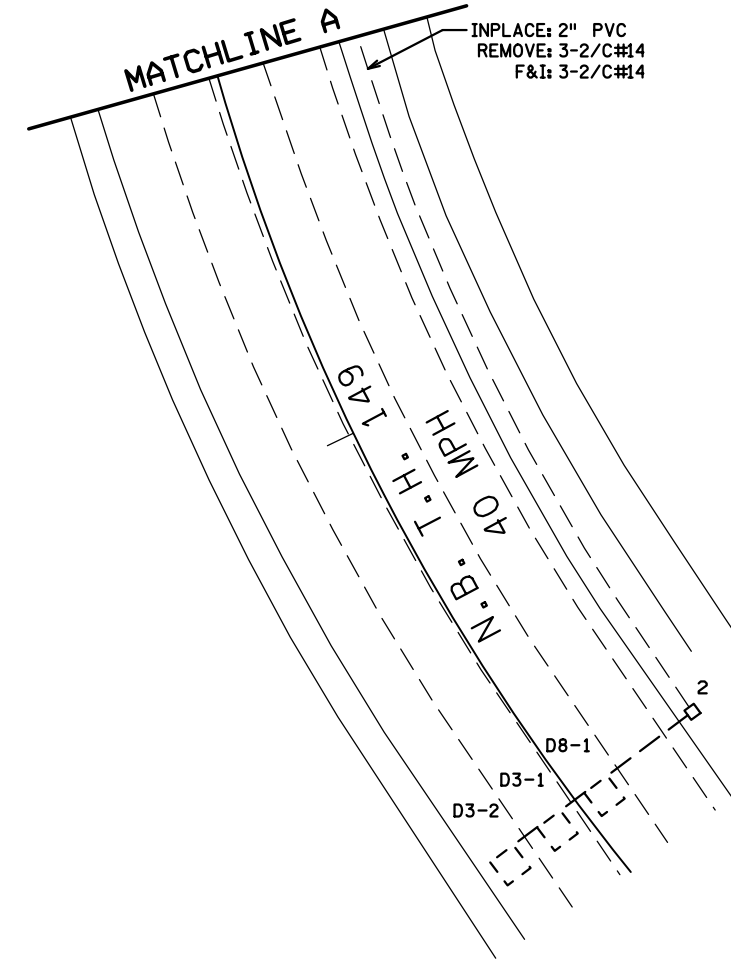
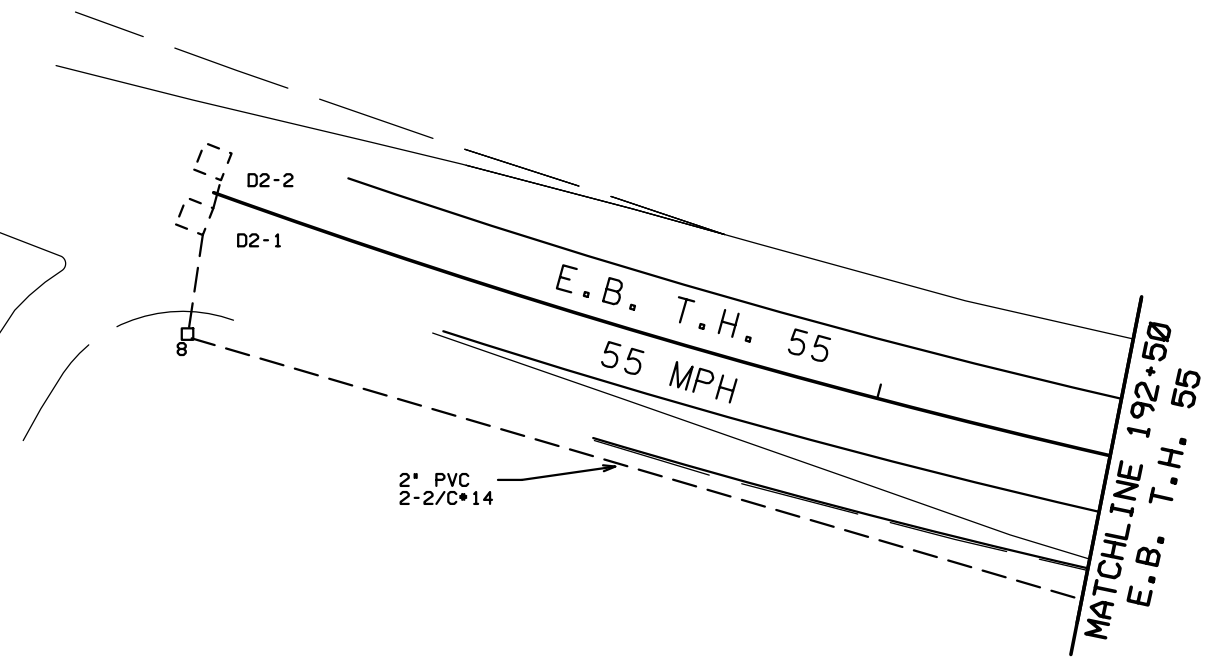
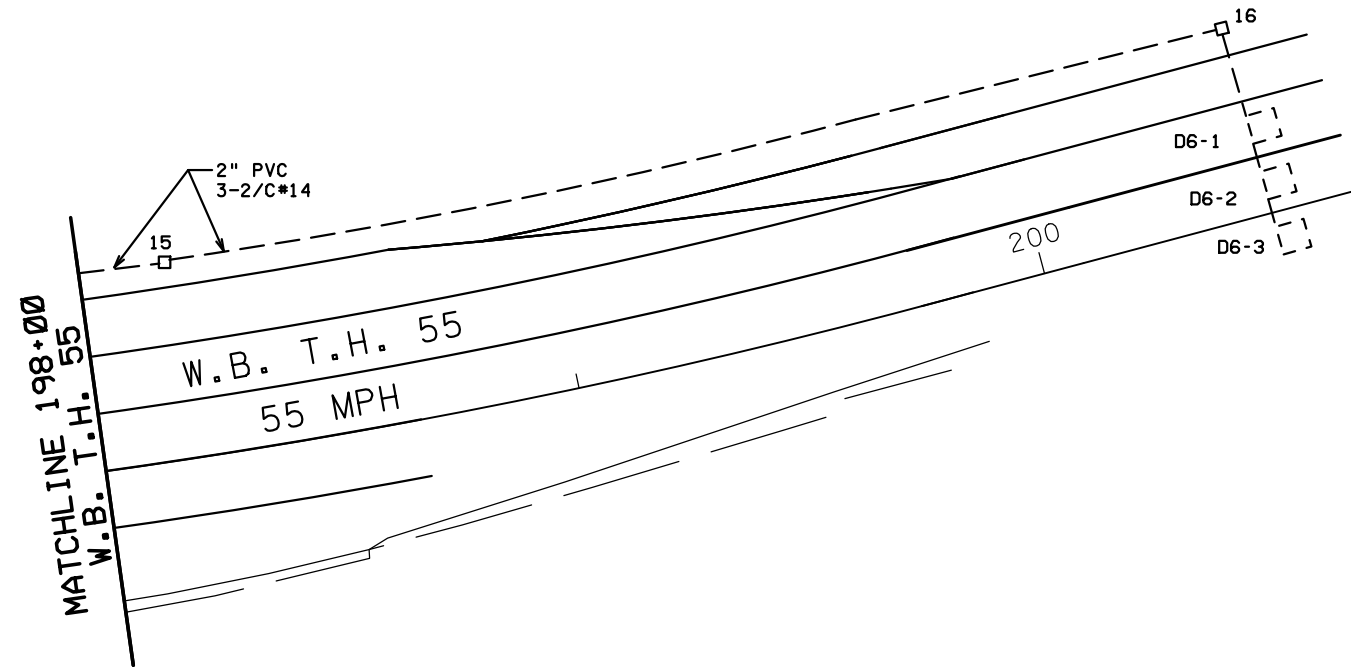




PLOTTED/REVISED: 1/13/2015



40  
SCALE IN FEET



DISTRICT #: METRO  
PLOT NAME: SS57MATCHLINES  
PATH & FILENAME: IP\_PWP:d0781964\NEW20928.dgn

| BY | DATE     | REVISIONS              |
|----|----------|------------------------|
|    | 01-13-15 | AS-BUILT OF SP 1909-95 |
|    |          |                        |
|    |          |                        |

SYSTEM ID: 20928 T.E. 6032  
 METER ADDRESS: 2879 HIGHWAY 55  
 MASTER ID: T.E.

**MATCHLINE LAYOUT**  
**T.H. 55 AT T.H. 149, S. JCT.**  
**IN EAGAN, DAKOTA COUNTY**

CERTIFIED BY: *Michael P. Lubinsky*  
 LICENSED PROFESSIONAL ENGINEER  
 DRAWN BY: MAS CKD BY: GAK DATE: 1/10/14  
 LIC. NO. 19863 DATE: 1/16/14  
 T.H. 55) SHEET NO. 2 OF 5 SHEETS



PLOTTED/REVISED: 11/13/2015

DISTRICT #: METRO  
PLOT NAME: SS56POLENOTES  
PATH & FILENAME: IP\_PWP-d0781964\NEWWT20928.dgn

① PA100 POLE FOUNDATION  
 TYPE PA100-40-A-D40-9 (DAVIT AT 350 DEG)  
 LUMINAIRE-250 HPS  
 2-ONE-WAY SIGNALS OVERHEAD AT 0' AND 11'  
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (2+5)  
 2-POLE MOUNTED SIGNALS AT 45 AND 225 DEG  
 2-POLE MOUNTED C.D. PED HEADS AT 45 AND 225 DEG  
 1-APS PB AND SIGN (RT ARROW) (PB2-2)  
 1" PVC STUBOUT AND 5/8 " X 15' GROUND ROD  
 EXTEND INTO HH 3  
 3" PVC  
 2-12/C#14  
 2-4/C#14  
 1-3/C#14  
 1-3/C#14 (LUM)  
 1-2/C#14  
 1-3/C#20  
 1-1/C#6 INS. GR.

② PA90 POLE FOUNDATION  
 TYPE PA90-25-X6-350/CAM400 (AT 350 DEG)  
 LUMINAIRE-250 HPS  
 VIDEO CAMERA (V-1)  
 1-ONE WAY SIGNAL OVERHEAD AT 0'  
 1-R10-X12 SIGN ADJACENT TO HEAD 7-1  
 2-ONE WAY SIGNALS OVERHEAD AT 0' AND 11'  
 ONE-WAY EVP DETECTOR AND CONFIRMATORY LIGHT (4&7)  
 ONE WAY EVP DETECTOR (2+5) POLE MOUNTED AT 225 DEG  
 ONE WAY EVP DETECTOR (8+3) POLE MOUNTED AT 45 DEG  
 2-POLE MOUNTED SIGNALS AT 45 AND 225 DEG  
 1-POLE MOUNTED C.D. PED HEAD AT 45 DEG  
 1-R9-3 SIGN (FACING POLE 3)  
 TYPE D SIGN  
 1" PVC STUBOUT AND 5/8 " X 15' GROUND ROD  
 EXTEND INTO HH 5  
 3" PVC  
 2-12/C#14  
 1-4/C#14  
 1-3/C#14  
 1-3/C#14 (LUM)  
 3-3/C#20  
 1-1/C#6 INS. GR.  
 1-COAXIAL CABLE  
 1-CAT 6 CABLE  
 1-3/C#14 (CAMERA POWER)  
 1-7/16" BRAIDED GROUND

④ PA100 POLE FOUNDATION  
 TYPE PA100-A-50-D40-9 (DAVIT AT 350 DEG)  
 LUMINAIRE-LED  
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'  
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (6+1)  
 2-STRAIGHT MOUNT SIGNALS OVERHEAD AT 11' AND 23'  
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG  
 1-ANGLE MOUNT C.D. PED HEAD AT 180 DEG  
 1- SIGN R9-3 (FACING POLE 3)  
 2-TYPE D SIGNS (SEE SIGNING DETAIL)  
 1-R6-1R SIGN  
 1-R6-1L SIGN  
 EXTEND INTO HH 10  
 3" PVC  
 2-12/C#14  
 1-6/C#14  
 1-4/C#14  
 1-3/C#14  
 1-3/C#14(LUM)  
 1-3/C#20  
 1-1/C#6 INS GRD

⑤ PA100 POLE FOUNDATION  
 TYPE PA100-A-55-D40-9 (DAVIT AT 350 DEG)  
 LUMINAIRE-LED  
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'  
 1-R10-X12 SIGN ADJACENT TO HEAD 3-2  
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (8+3)  
 2-STRAIGHT MOUNT SIGNALS OVERHEAD AT 11' AND 23'  
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG  
 2-ANGLE MOUNT C.D. PED HEADS AT 90 AND 180 DEG  
 2-TYPE D SIGNS  
 EXTEND INTO HH 14  
 3" PVC  
 2-12/C#14  
 1-6/C#14  
 2-4/C#14  
 1-3/C#14  
 1-3/C#14(LUM)  
 1-3/C#20  
 1-1/C#6 INS GRD

① EQUIPMENT PAD  
 POWER COMPANY TRANSFORMER  
 SIGNAL SERVICE CABINET  
 CONTROLLER AND CABINET  
 2-4" PVCS 2-4" PVCS  
 TO HH 18 WITH: TO HH 1 WITH:  
 4-12/C#14 5-12/C#14  
 3-6/C#14 3-4/C#14  
 5-4/C#14 2-3/C#14  
 2-3/C#14 15-2/C#14  
 14-2/C#14 4-3/C#20  
 2-3/C#20 1-1/C#6 INS. GR.  
 1-1/C#6 INS. GR. 1-COAXIAL CABLE  
 1-CAT 6 CABLE  
 1-3/C#14 (CAMERA POWER)

CONTROLLER TO SERVICE CABINET  
 2" PVC  
 2-1/C#6  
 1-1/C#6 INS GRD  
 2-1/C#12(CONVENIENCE OUTLET)  
 SERVICE CABINET TO HH 18  
 2" PVC  
 4-3/C#12 (LUM)

2" PVC FROM  
 HH 18 TO HH 1  
 2-3/C#12 (LUM)

② SOP-GROUND MOUNTED  
 TRANSFORMER (XCEL ENERGY)  
 2" PVC INTO SERVICE CABINET:  
 3-1/C#2

③ PEDESTAL FOUNDATION  
 15' PEDESTAL POLE PLUS BASE  
 2-STRAIGHT MOUNT SIGNALS  
 AT 0 AND 270 DEG  
 1-R10-X12 SIGN  
 2-R9-3 SIGNS (FACING POLES 2&4)  
 EXTEND INTO HH 9  
 3" PVC  
 1-12/C#14  
 1-1/C#6 INS. GR.

⑥ PEDESTAL FOUNDATION  
 15' PEDESTAL POLE PLUS BASE  
 1-STRAIGHT MOUNT SIGNAL AT 0 DEG  
 2-STRAIGHT MOUNT C.D. PED HEADS  
 AT 90 AND 270 DEG  
 1-APS PB AND SIGN (DBL ARROW) (PB8-2)  
 1-R10-X12 SIGN  
 EXTEND INTO HH 17  
 3" PVC  
 1-6/C#14  
 2-4/C#14  
 1-2/C#14  
 1-1/C#6 INS GRD

| BY  | DATE     | REVISIONS              |
|-----|----------|------------------------|
| EJA | 01-13-15 | AS-BUILT OF SP 1909-95 |
|     |          |                        |
|     |          |                        |

SYSTEM ID: 20928 T.E. 6032  
 METER ADDRESS: 2879 HIGHWAY 55  
 MASTER ID: T.E.

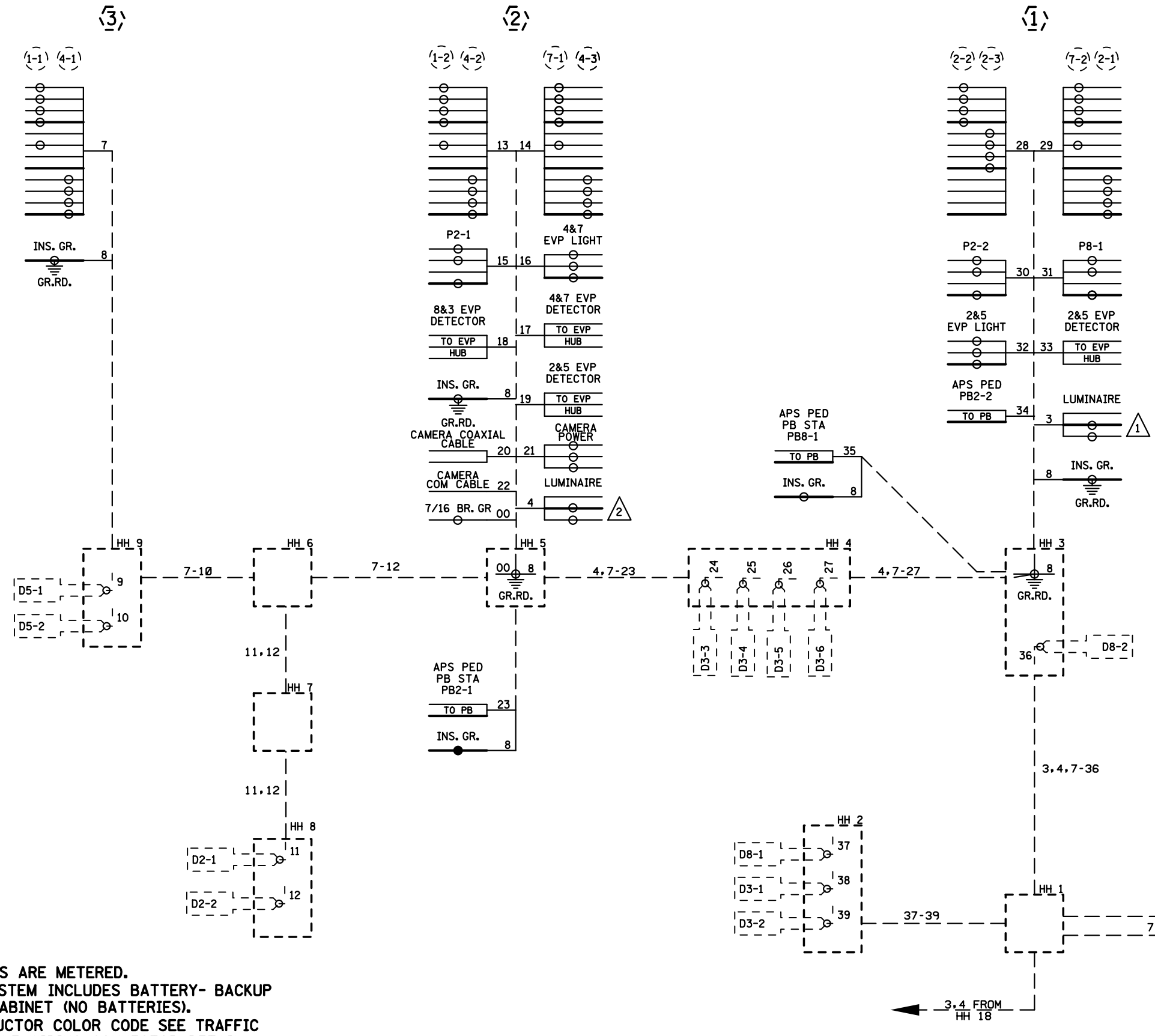
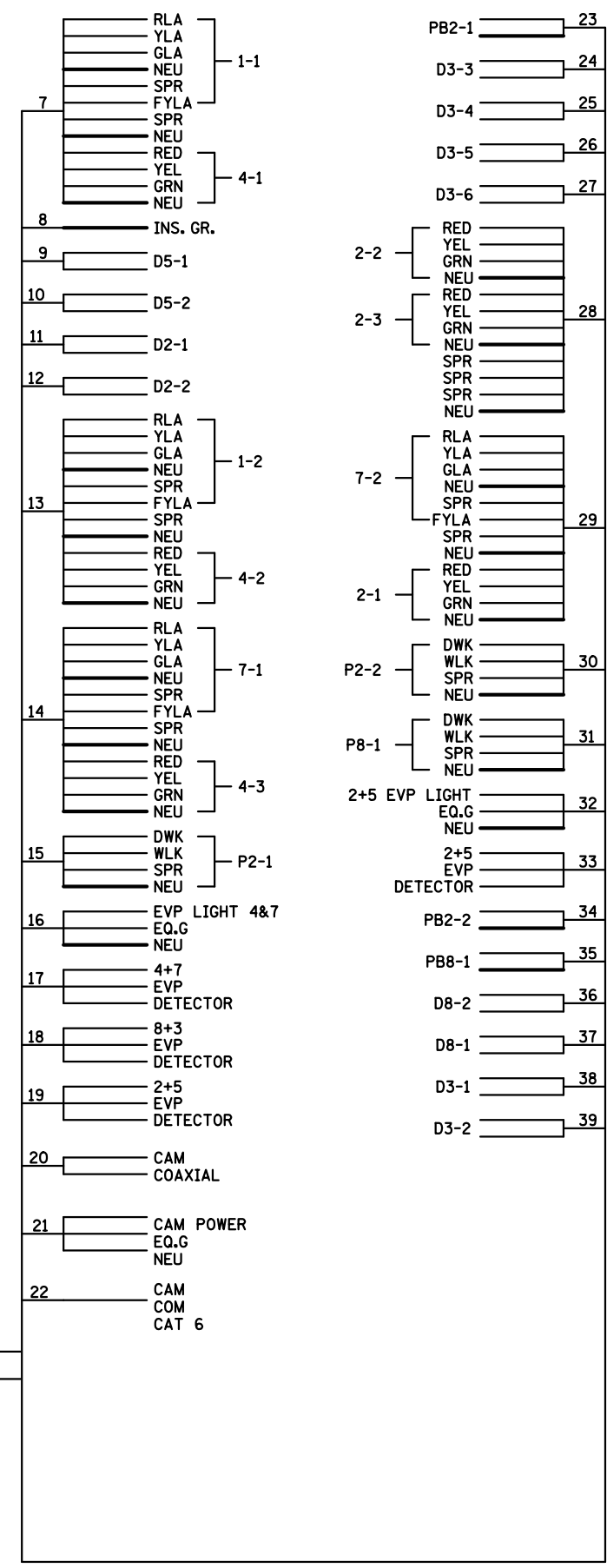
POLE NOTES  
 T.H. 55 AT T.H. 149, S. JCT.  
 IN EAGAN, DAKOTA COUNTY

DRAWN BY: MAS CKD BY: GAK DATE: 1/10/14  
 CERTIFIED BY: *Michael P. Lubinsky* LIC. NO. 19863 DATE: 1/16/14  
 (T.H. 55) SHEET NO. 3 OF 5 SHEETS

PLOTTED/REVISED: 1/13/2015

DISTRICT #: METRO  
IPLOT NAME: SS58WI  
PATH & FILENAME: IP\_PWP-d0781964\NEW20928.dgn

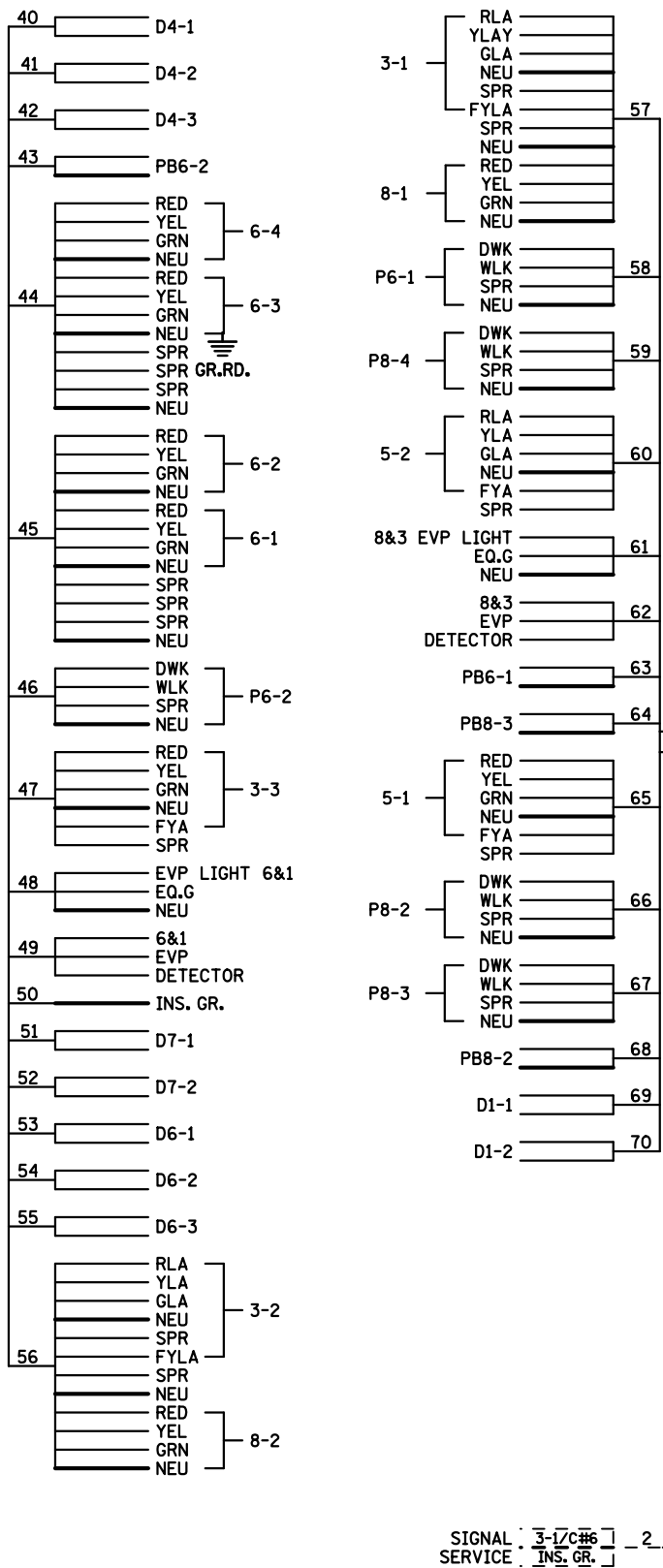
### CONTROLLER CABINET



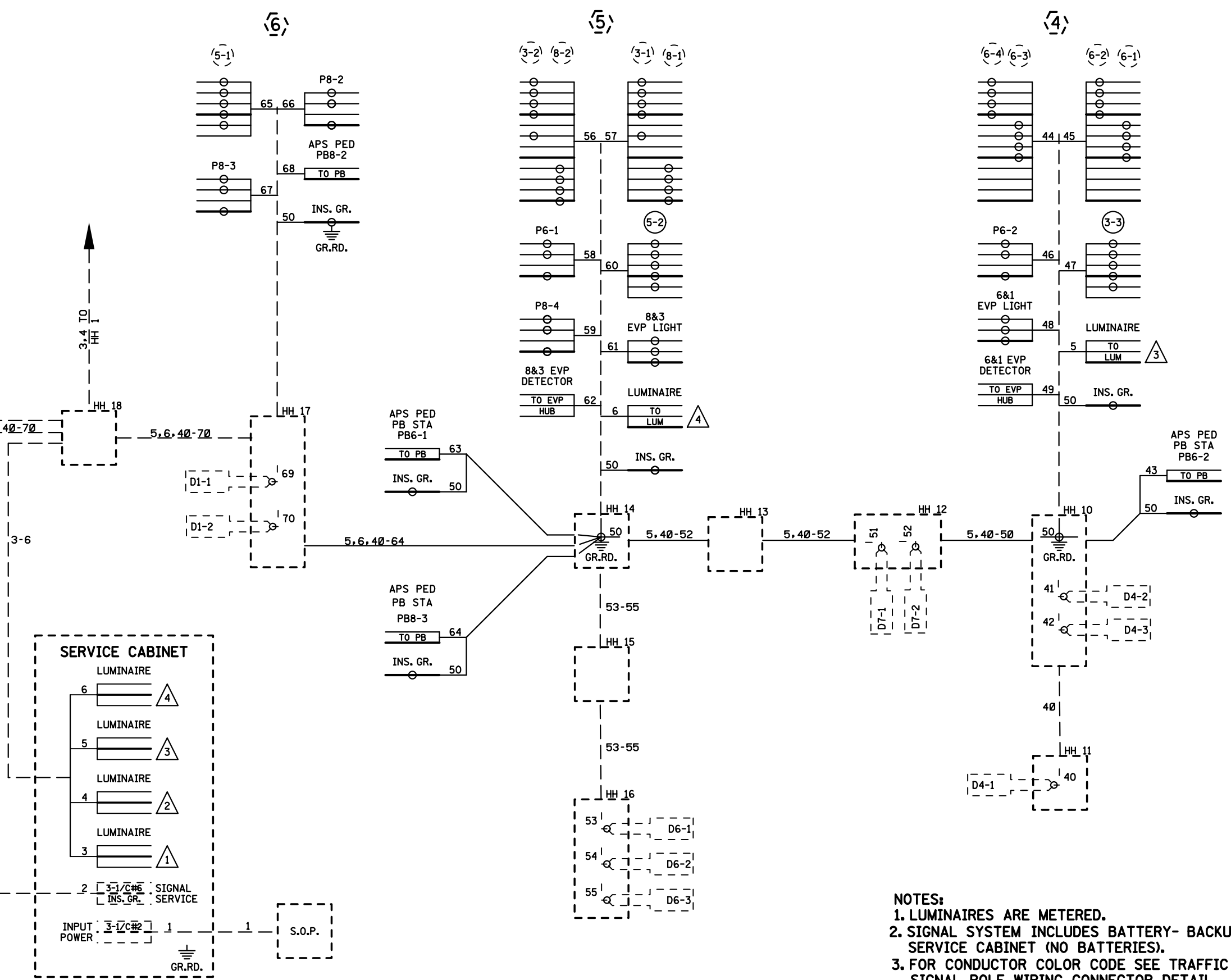
**NOTES:**  
 1. LUMINAIRES ARE METERED.  
 2. SIGNAL SYSTEM INCLUDES BATTERY- BACKUP SERVICE CABINET (NO BATTERIES).  
 3. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.

|         |                |                                   |                            |                                |            |      |  |   |   |           |                         |
|---------|----------------|-----------------------------------|----------------------------|--------------------------------|------------|------|--|---|---|-----------|-------------------------|
| BY: EJA | DATE: 01-13-15 | REVISIONS: AS-BUILT OF SP 1909-95 | SYSTEM ID: 20928 T.E. 6032 | METER ADDRESS: 2879 HIGHWAY 55 | MASTER ID: | T.E. | WIRING DIAGRAM (1 OF 2)<br>T.H. 55 AT T.H. 149, S. JCT.<br>IN EAGAN, DAKOTA COUNTY | CERTIFIED BY: <i>Michael P. Subrany</i><br>LIC. NO. 19863 DATE: 1/16/14 | DRAWN BY: MAS CKD BY: GAK DATE: 1/10/14 | (T.H. 55) | SHEET NO. 4 OF 5 SHEETS |
|---------|----------------|-----------------------------------|----------------------------|--------------------------------|------------|------|--|---|---|-----------|-------------------------|

# CONTROLLER CABINET



SIGNAL SERVICE 3-1/C#6 2  
INS. GR.



- NOTES:**
1. LUMINAIRE ARE METERED.
  2. SIGNAL SYSTEM INCLUDES BATTERY- BACKUP SERVICE CABINET (NO BATTERIES).
  3. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.

PLOTTED/REVISED: 1/13/2015

DISTRICT #: METRO  
IPLOT NAME: SS59W2  
PATH & FILENAME: IP\_PWP-d0781964\NEWWT20928.dgn

| BY  | DATE     | REVISIONS              |
|-----|----------|------------------------|
| EJA | 01-13-15 | AS-BUILT OF SP 1909-95 |

SYSTEM ID: 20928 T.E. 6032  
METER ADDRESS: 2879 HIGHWAY 55  
MASTER ID: T.E.

**WIRING DIAGRAM (2 OF 2)**  
T.H. 55 AT T.H. 149, S. JCT.  
IN EAGAN, DAKOTA COUNTY

|  |  |                         |               |
|--|--|-------------------------|---------------|
| DRAWN BY: MAS                            |  | CKD BY: GAK             | DATE: 1/10/14 |
| CERTIFIED BY: <i>Michael P. Gubinsky</i> |  | LIC. NO. 19863          | DATE: 1/16/14 |
| (T.H. 55)                                |  | SHEET NO. 5 OF 5 SHEETS |               |