

PLOTTED/REVISED: 6-APR-2023

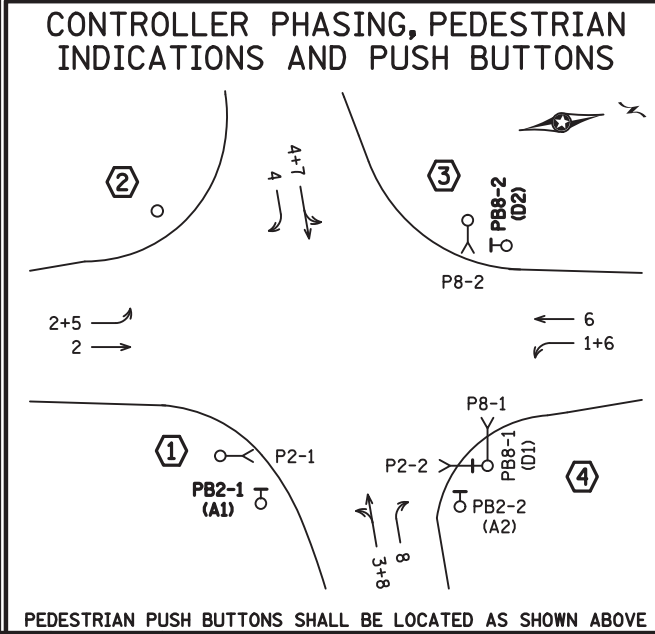
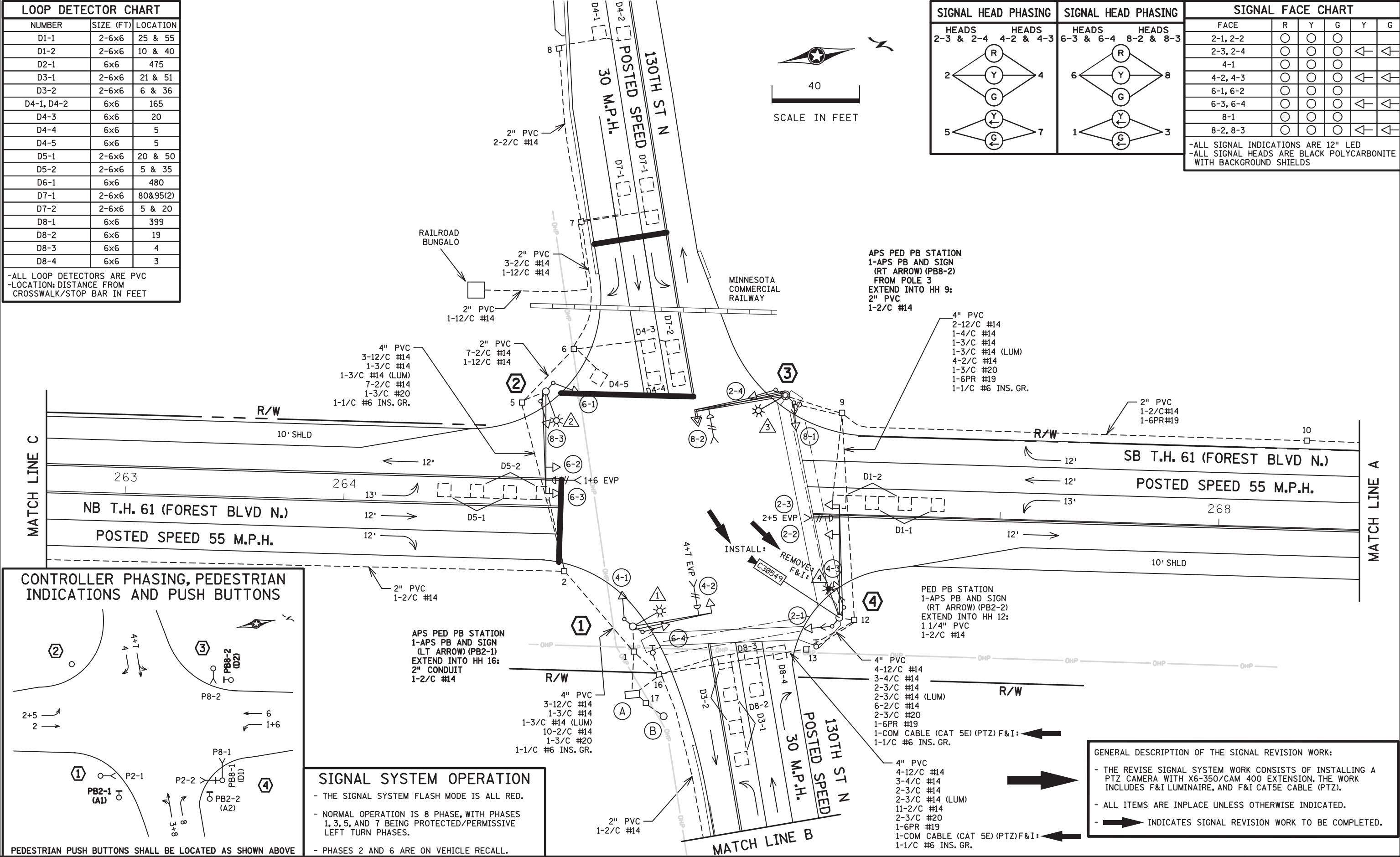
DISTRICT #: Metro  
PLOT NAME: Street\_29  
FILENAME: Projects\DM\_PROS\06100001Traffic\Signalis\50.55\_130TH ST - N-T36749\PENDING\T39113\_sgl.dgn

LOOP DETECTOR CHART		
NUMBER	SIZE (FT)	LOCATION
D1-1	2-6x6	25 & 55
D1-2	2-6x6	10 & 40
D2-1	6x6	475
D3-1	2-6x6	21 & 51
D3-2	2-6x6	6 & 36
D4-1, D4-2	6x6	165
D4-3	6x6	20
D4-4	6x6	5
D4-5	6x6	5
D5-1	2-6x6	20 & 50
D5-2	2-6x6	5 & 35
D6-1	6x6	480
D7-1	2-6x6	80&95(2)
D7-2	2-6x6	5 & 20
D8-1	6x6	399
D8-2	6x6	19
D8-3	6x6	4
D8-4	6x6	3

-ALL LOOP DETECTORS ARE PVC  
-LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET

SIGNAL HEAD PHASING		SIGNAL HEAD PHASING		SIGNAL FACE CHART					
HEADS	HEADS	HEADS	HEADS	FACE	R	Y	G	Y	G
2-3 & 2-4	4-2 & 4-3	6-3 & 6-4	8-2 & 8-3	2-1, 2-2	○	○	○	○	○
2	4	6	8	2-3, 2-4	○	○	○	◀	◀
(R)	(Y)	(R)	(Y)	4-1	○	○	○	○	○
(Y)	(G)	(Y)	(G)	4-2, 4-3	○	○	○	◀	◀
(G)	(R)	(G)	(R)	6-1, 6-2	○	○	○	○	○
(R)	(Y)	(R)	(Y)	6-3, 6-4	○	○	○	◀	◀
(Y)	(G)	(Y)	(G)	8-1	○	○	○	○	○
(G)	(R)	(G)	(R)	8-2, 8-3	○	○	○	◀	◀

-ALL SIGNAL INDICATIONS ARE 12" LED  
-ALL SIGNAL HEADS ARE BLACK POLYCARBONITE WITH BACKGROUND SHIELDS



### SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 8 PHASE, WITH PHASES 1, 3, 5, AND 7 BEING PROTECTED/PERMISSIVE LEFT TURN PHASES.
- PHASES 2 AND 6 ARE ON VEHICLE RECALL.

### GENERAL DESCRIPTION OF THE SIGNAL REVISION WORK:

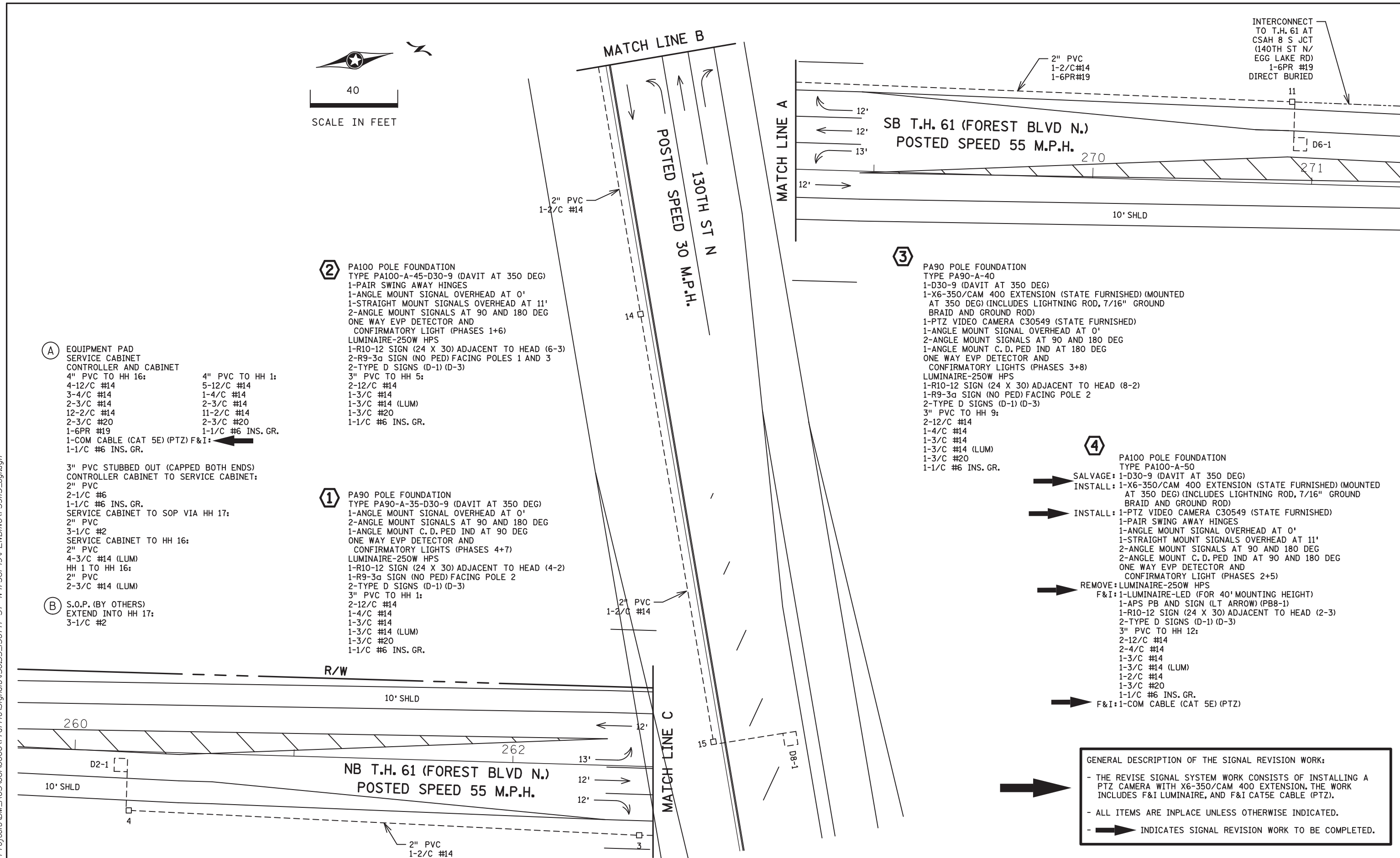
- THE REVISE SIGNAL SYSTEM WORK CONSISTS OF INSTALLING A PTZ CAMERA WITH X6-350/CAM 400 EXTENSION. THE WORK INCLUDES F&I LUMINAIRE, AND F&I CAT5E CABLE (PTZ).
- ALL ITEMS ARE INPLACE UNLESS OTHERWISE INDICATED.
- INDICATES SIGNAL REVISION WORK TO BE COMPLETED.

BY	DATE	REVISIONS	SYSTEM ID: 1736749	T.E. 92824	S.A.P. NO.	DRAWN BY: HRL	CKD BY: CDB	DATE: 03/31/23
			METER ADDRESS:		CERTIFIED BY:	LIC. NO. 26829	DATE: 04/04/23	
			OLD SYSTEM ID: 39113		STATE PROJ. NO. 8825-1025 (T.H. 999) SHEET NO. 29 OF 121 SHEETS			

REVISE SIGNAL SYSTEM "H"  
INTERSECTION LAYOUT  
T.H. 61 AT 130TH ST. N.  
IN HUGO, WASHINGTON COUNTY

PLOTTED/REVISED: 6-APR-2023

DISTRICT #: Metro  
PLOT NAME: Sheet\_30  
FILENAME: Projects\DM\_FOS\06100001TrafficSignals\50.55\_130TH ST N-T36749PENDING\T39113\_sgl.dgn



- (A)** EQUIPMENT PAD  
SERVICE CABINET  
CONTROLLER AND CABINET  
4" PVC TO HH 16:  
4-12/C #14  
3-4/C #14  
2-3/C #14  
12-2/C #14  
2-3/C #20  
1-6PR #19  
1-COM CABLE (CAT 5E) (PTZ) F&I:  
1-1/C #6 INS. GR.
- 4" PVC TO HH 1:  
5-12/C #14  
1-4/C #14  
2-3/C #14  
11-2/C #14  
2-3/C #20  
1-1/C #6 INS. GR.
- 3" PVC STUBBED OUT (CAPPED BOTH ENDS)  
CONTROLLER CABINET TO SERVICE CABINET:  
2" PVC  
2-1/C #6  
1-1/C #6 INS. GR.  
SERVICE CABINET TO SOP VIA HH 17:  
2" PVC  
3-1/C #2  
SERVICE CABINET TO HH 16:  
2" PVC  
4-3/C #14 (LUM)  
HH 1 TO HH 16:  
2" PVC  
2-3/C #14 (LUM)

- (B)** S.O.P. (BY OTHERS)  
EXTEND INTO HH 17:  
3-1/C #2

- (2)** PA100 POLE FOUNDATION  
TYPE PA100-A-45-D30-9 (DAVIT AT 350 DEG)  
1-PAIR SWING AWAY HINGES  
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'  
1-STRAIGHT MOUNT SIGNALS OVERHEAD AT 11'  
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG  
ONE WAY EVP DETECTOR AND  
CONFIRMATORY LIGHT (PHASES 1+6)  
LUMINAIRE-250W HPS  
1-R10-12 SIGN (24 X 30) ADJACENT TO HEAD (6-3)  
2-R9-3a SIGN (NO PED) FACING POLES 1 AND 3  
2-TYPE D SIGNS (D-1) (D-3)  
3" PVC TO HH 5:  
2-12/C #14  
1-3/C #14  
1-3/C #14 (LUM)  
1-3/C #20  
1-1/C #6 INS. GR.

- (1)** PA90 POLE FOUNDATION  
TYPE PA90-A-35-D30-9 (DAVIT AT 350 DEG)  
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'  
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG  
1-ANGLE MOUNT C. D. PED IND AT 90 DEG  
ONE WAY EVP DETECTOR AND  
CONFIRMATORY LIGHTS (PHASES 4+7)  
LUMINAIRE-250W HPS  
1-R10-12 SIGN (24 X 30) ADJACENT TO HEAD (4-2)  
1-R9-3a SIGN (NO PED) FACING POLE 2  
2-TYPE D SIGNS (D-1) (D-3)  
3" PVC TO HH 1:  
2-12/C #14  
1-4/C #14  
1-3/C #14  
1-3/C #14 (LUM)  
1-3/C #20  
1-1/C #6 INS. GR.

- (3)** PA90 POLE FOUNDATION  
TYPE PA90-A-40  
1-D30-9 (DAVIT AT 350 DEG)  
1-X6-350/CAM 400 EXTENSION (STATE FURNISHED) (MOUNTED AT 350 DEG) (INCLUDES LIGHTNING ROD, 7/16" GROUND BRAID AND GROUND ROD)  
1-PTZ VIDEO CAMERA C30549 (STATE FURNISHED)  
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'  
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG  
1-ANGLE MOUNT C. D. PED IND AT 180 DEG  
ONE WAY EVP DETECTOR AND  
CONFIRMATORY LIGHTS (PHASES 3+8)  
LUMINAIRE-250W HPS  
1-R10-12 SIGN (24 X 30) ADJACENT TO HEAD (8-2)  
1-R9-3a SIGN (NO PED) FACING POLE 2  
2-TYPE D SIGNS (D-1) (D-3)  
3" PVC TO HH 9:  
2-12/C #14  
1-4/C #14  
1-3/C #14  
1-3/C #14 (LUM)  
1-3/C #20  
1-1/C #6 INS. GR.

- (4)** PA100 POLE FOUNDATION  
TYPE PA100-A-50  
SALVAGE: 1-D30-9 (DAVIT AT 350 DEG)  
INSTALL: 1-X6-350/CAM 400 EXTENSION (STATE FURNISHED) (MOUNTED AT 350 DEG) (INCLUDES LIGHTNING ROD, 7/16" GROUND BRAID AND GROUND ROD)  
INSTALL: 1-PTZ VIDEO CAMERA C30549 (STATE FURNISHED)  
1-PAIR SWING AWAY HINGES  
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'  
1-STRAIGHT MOUNT SIGNALS OVERHEAD AT 11'  
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG  
2-ANGLE MOUNT C. D. PED IND AT 90 AND 180 DEG  
ONE WAY EVP DETECTOR AND  
CONFIRMATORY LIGHT (PHASES 2+5)  
REMOVE: LUMINAIRE-250W HPS  
F&I: 1-LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)  
1-APS PB AND SIGN (LT ARROW) (PB8-1)  
1-R10-12 SIGN (24 X 30) ADJACENT TO HEAD (2-3)  
2-TYPE D SIGNS (D-1) (D-3)  
3" PVC TO HH 12:  
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.  
F&I: 1-COM CABLE (CAT 5E) (PTZ)

**GENERAL DESCRIPTION OF THE SIGNAL REVISION WORK:**

- THE REVISE SIGNAL SYSTEM WORK CONSISTS OF INSTALLING A PTZ CAMERA WITH X6-350/CAM 400 EXTENSION. THE WORK INCLUDES F&I LUMINAIRE, AND F&I CAT5E CABLE (PTZ).
- ALL ITEMS ARE INPLACE UNLESS OTHERWISE INDICATED.
- INDICATES SIGNAL REVISION WORK TO BE COMPLETED.

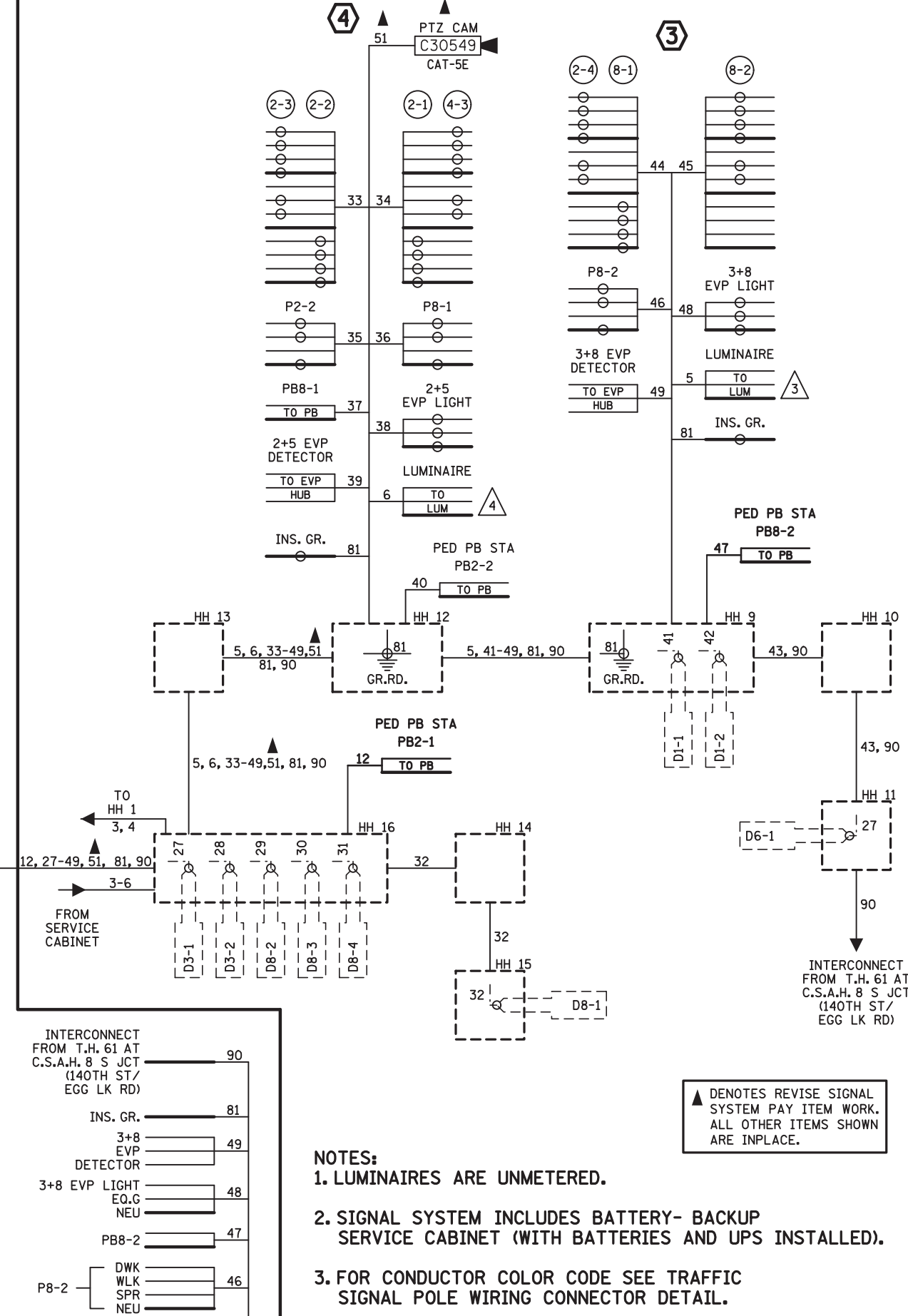
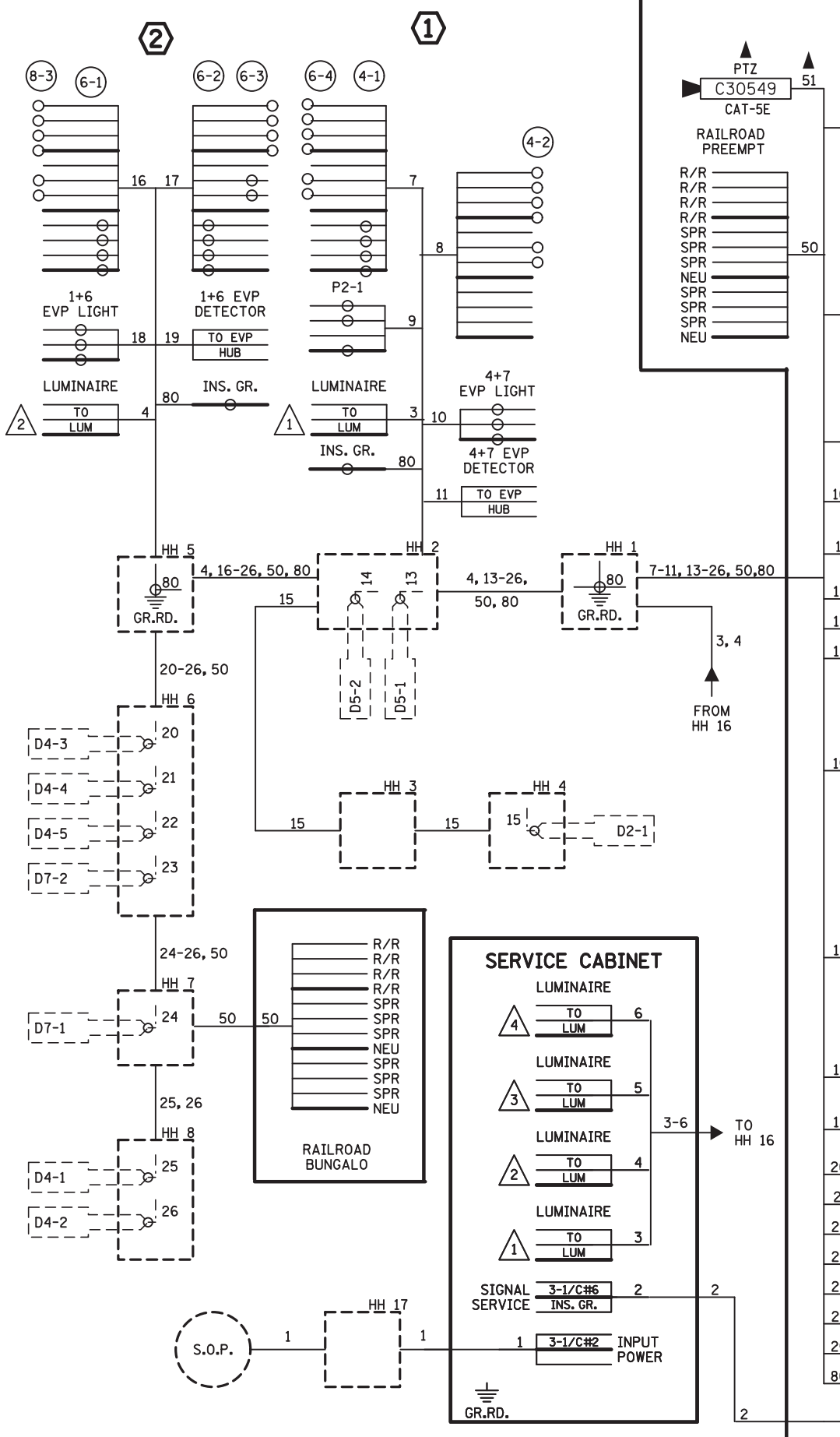
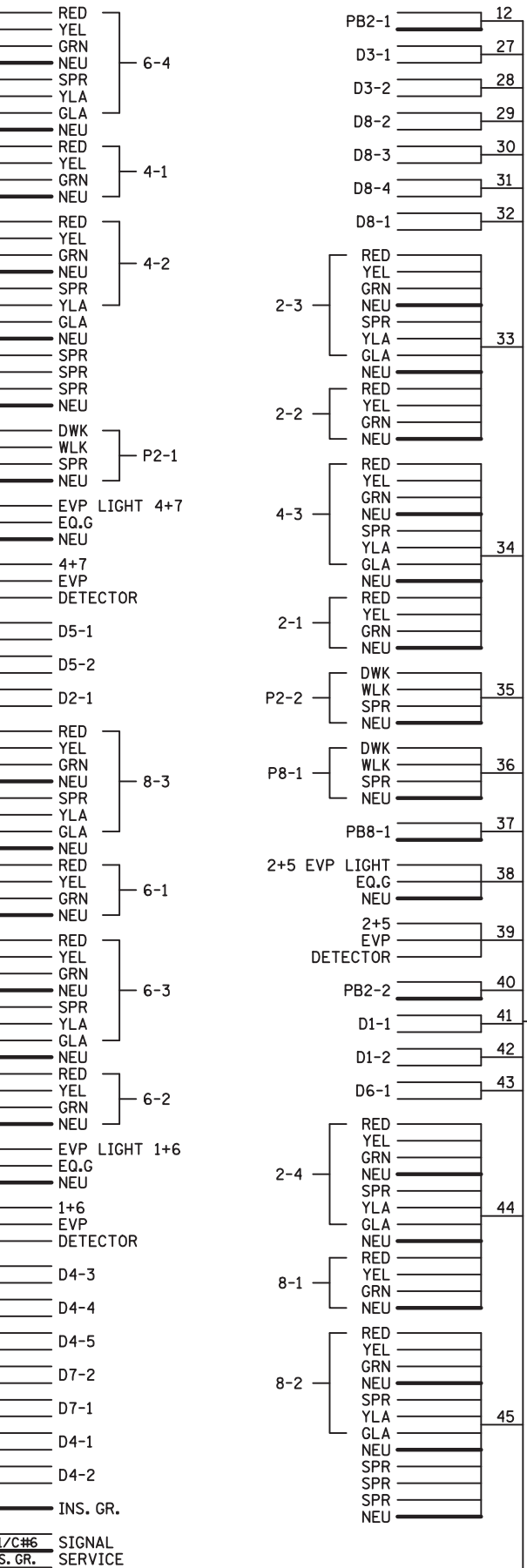
BY	DATE	REVISIONS	SYSTEM ID: 1736749	T.E. 92824	S.A.P. NO.	DRAWN BY: HRL	CKD BY: CDB	DATE: 03/31/23
			METER ADDRESS:		CERTIFIED BY:	LIC. NO. 26829	DATE: 04/04/23	
			OLD SYSTEM ID: 39113		STATE PROJ. NO. 8825-1025 (T.H. 999) SHEET NO. 30 OF 121 SHEETS			

**REVISE SIGNAL SYSTEM "H"  
MATCH LINE LAYOUTS AND NOTES  
T.H. 61 AT 130TH ST. N.  
IN HUGO, WASHINGTON COUNTY**

PLOTTED/REVISED: 6-APR-2023

DISTRICT #: Metro  
PLOT NAME: Sheet\_31  
FILENAME: Projects\DM\_FOS\06100001Traffic\Signal\50.55\_130TH ST N-T36749PENDING\T39131\_sgl.dgn

### CONTROLLER CABINET



**NOTES:**

- LUMINAIRES ARE UNMETERED.
- SIGNAL SYSTEM INCLUDES BATTERY- BACKUP SERVICE CABINET (WITH BATTERIES AND UPS INSTALLED).
- FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.

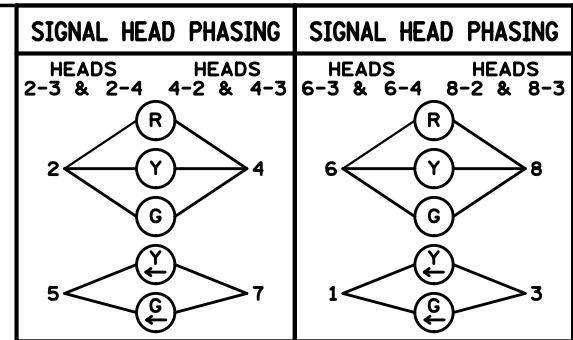
▲ DENOTES REVISE SIGNAL SYSTEM PAY ITEM WORK. ALL OTHER ITEMS SHOWN ARE INPLACE.

BY	DATE	REVISIONS	SYSTEM ID: 1736749	T.E. 92824	REVISE SIGNAL SYSTEM "H" FIELD WIRING DIAGRAM T.H. 61 AT 130TH ST. N. IN HUGO, WASHINGTON COUNTY	S.A.P. NO.	DRAWN BY:HRL	CKD BY:CDB	DATE:03/31/23
			METER ADDRESS:			CERTIFIED BY <i>Gregory Kern</i>	LIC. NO. 26829		DATE: 04/04/23
			OLD SYSTEM ID: 39113						
						STATE PROJ.NO. 8825-1025(T.H.999)	SHEET NO. 31 OF 121 SHEETS		

PLOTTED/REVISED: 9/3/2013

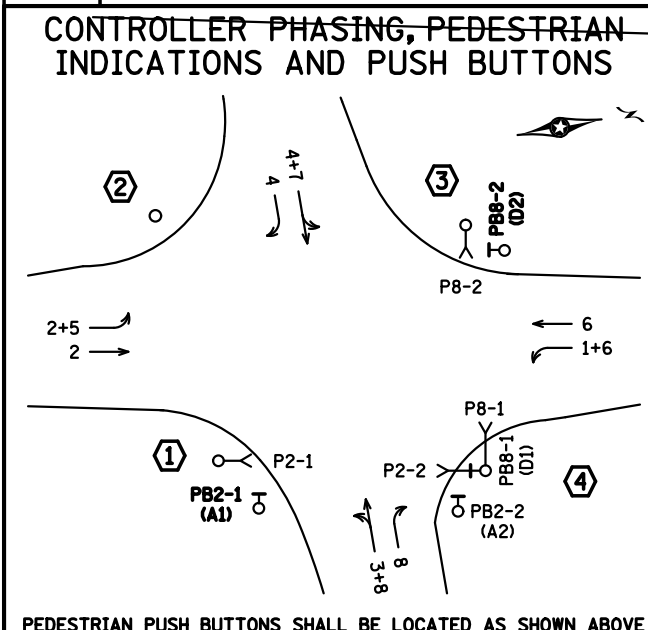
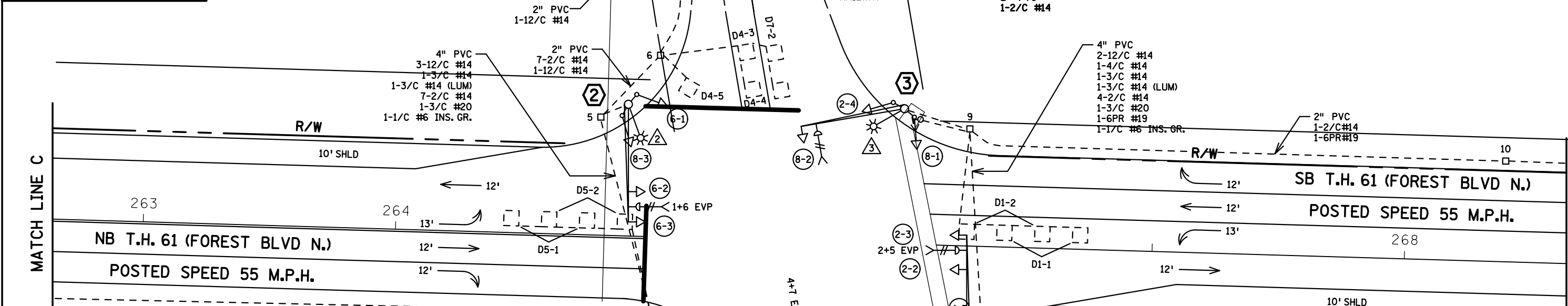
LOOP DETECTOR CHART		
NUMBER	SIZE (FT)	LOCATION
D1-1	2-6x6	25 & 55
D1-2	2-6x6	10 & 40
D2-1	6x6	475
D3-1	2-6x6	21 & 51
D3-2	2-6x6	6 & 36
D4-1, D4-2	6x6	165
D4-3	6x6	20
D4-4	6x6	5
D4-5	6x6	5
D5-1	2-6x6	20 & 50
D5-2	2-6x6	5 & 35
D6-1	6x6	480
D7-1	2-6x6	80&95(2)
D7-2	2-6x6	5 & 20
D8-1	6x6	399
D8-2	6x6	19
D8-3	6x6	4
D8-4	6x6	3

-ALL LOOP DETECTORS ARE PVC  
-LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET



SIGNAL FACE CHART						
FACE	R	Y	G	Y	G	
2-1, 2-2	○	○	○			
2-3, 2-4	○	○	○	◀	◀	
4-1	○	○	○			
4-2, 4-3	○	○	○	◀	◀	
6-1, 6-2	○	○	○			
6-3, 6-4	○	○	○	◀	◀	
8-1	○	○	○			
8-2, 8-3	○	○	○	◀	◀	

-ALL SIGNAL INDICATIONS ARE 12" LED  
-ALL SIGNAL HEADS ARE BLACK POLYCARBONITE WITH BACKGROUND SHIELDS



**CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS**

**SIGNAL SYSTEM OPERATION**

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 8 PHASE, WITH PHASES 1, 3, 5, AND 7 BEING PROTECTED/PERMISSIVE LEFT TURN PHASES.
- PHASES 2 AND 6 ARE ON VEHICLE RECALL.

BY	DATE	REVISIONS
EJA	11-19-12	AS-BUILT OF SP 6222-165 PLUS ADDITION OF R/R PREMPT
EJA	09-3-13	ADD A THIRD LOOP TO D7-1

SYSTEM ID: 39113 T.E.  
METER ADDRESS:  
MASTER ID: T.E.

**INTERSECTION LAYOUT**  
**T.H. 61 AT 130TH ST. N.**  
**IN HUGO, WASHINGTON COUNTY**

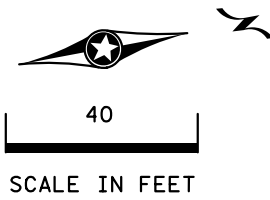
S.A.P. NO. DRAWN BY: GDS CKD BY: EJA DATE: 02-01-12  
CERTIFIED BY: *Michael P. Gelinsky* LIC. NO. 19863 DATE: 02-01-12  
STATE PROJ. NO. (T.H.61) SHEET NO. 1 OF 3 SHEETS

DISTRICT #: METRO  
PLOT NAME: layout  
PATH & FILENAME: IP\_PWP-d1428196T39113\_sgl.dgn



PLOTTED/REVISED: 9/3/2013

DISTRICT #: METRO  
PLOT NAME: match lines and pole notes  
PATH & FILENAME: IP\_PWP-d1428196T39113\_sgl.dgn



MATCH LINE B

POSTED SPEED 30 M.P.H.  
130TH ST N

2" PVC  
1-2/C #14

MATCH LINE A

SB T.H. 61 (FOREST BLVD N.)  
POSTED SPEED 55 M.P.H.

2" PVC  
1-2/C#14  
1-6PR#19

INTERCONNECT  
TO T.H. 61 AT  
CSAH 8 S JCT  
(140TH ST N/  
EGG LAKE RD)  
1-6PR #19  
DIRECT BURIED

- ② PA100 POLE FOUNDATION  
TYPE PA100-A-45-D30-9 (DAVIT AT 350 DEG)  
1-PAIR SWING AWAY HINGES  
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'  
1-STRAIGHT MOUNT SIGNALS OVERHEAD AT 11'  
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG  
ONE WAY EVP DETECTOR AND  
CONFIRMATORY LIGHT (PHASES 1+6)  
LUMINAIRE-250W HPS  
1-R10-12 SIGN (24 X 30) ADJACENT TO HEAD (6-3)  
2-R9-3a SIGN (NO PED) FACING POLES 1 AND 3  
2-TYPE D SIGNS (D-1) (D-3)  
3" PVC TO HH 5:  
2-12/C #14  
1-3/C #14  
1-3/C #14 (LUM)  
1-3/C #20  
1-1/C #6 INS. GR.

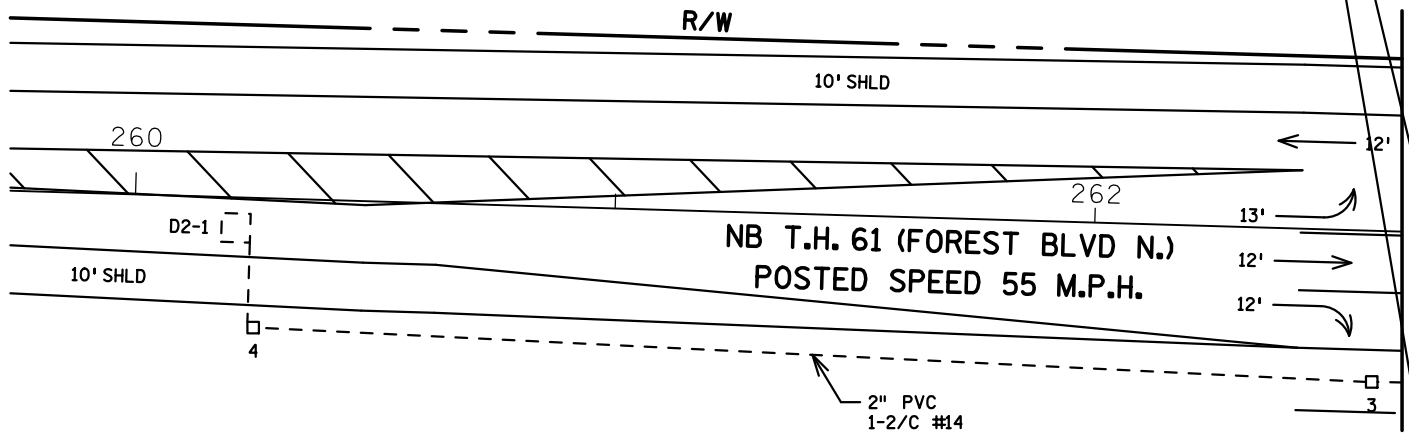
- Ⓐ EQUIPMENT PAD  
SERVICE CABINET  
CONTROLLER AND CABINET  
4" PVC TO HH 16:  
4-12/C #14  
3-4/C #14  
2-3/C #14  
12-2/C #14  
2-3/C #20  
1-6PR #19  
1-1/C #6 INS. GR.

- ③ PA90 POLE FOUNDATION  
TYPE PA90-A-40-D30-9 (DAVIT AT 350 DEG)  
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'  
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG  
1-ANGLE MOUNT C. D. PED IND AT 180 DEG  
ONE WAY EVP DETECTOR AND  
CONFIRMATORY LIGHTS (PHASES 3+8)  
LUMINAIRE-250W HPS  
1-R10-12 SIGN (24 X 30) ADJACENT TO HEAD (8-2)  
1-R9-3a SIGN (NO PED) FACING POLE 2  
2-TYPE D SIGNS (D-1) (D-3)  
3" PVC TO HH 9:  
2-12/C #14  
1-4/C #14  
1-3/C #14  
1-3/C #14 (LUM)  
1-3/C #20  
1-1/C #6 INS. GR.

- ① PA90 POLE FOUNDATION  
TYPE PA90-A-35-D30-9 (DAVIT AT 350 DEG)  
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'  
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG  
1-ANGLE MOUNT C. D. PED IND AT 90 DEG  
ONE WAY EVP DETECTOR AND  
CONFIRMATORY LIGHTS (PHASES 4+7)  
LUMINAIRE-250W HPS  
1-R10-12 SIGN (24 X 30) ADJACENT TO HEAD (4-2)  
1-R9-3a SIGN (NO PED) FACING POLE 2  
2-TYPE D SIGNS (D-1) (D-3)  
3" PVC TO HH 1:  
2-12/C #14  
1-4/C #14  
1-3/C #14  
1-3/C #14 (LUM)  
1-3/C #20  
1-1/C #6 INS. GR.

- Ⓑ S.O.P. (BY OTHERS)  
EXTEND INTO HH 17:  
3-1/C #2

- ④ PA100 POLE FOUNDATION  
TYPE PA100-A-50-D30-9 (DAVIT AT 350 DEG)  
1-PAIR SWING AWAY HINGES  
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'  
1-STRAIGHT MOUNT SIGNALS OVERHEAD AT 11'  
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG  
2-ANGLE MOUNT C. D. PED IND AT 90 AND 180 DEG  
ONE WAY EVP DETECTOR AND  
CONFIRMATORY LIGHT (PHASES 2+5)  
LUMINAIRE-250W HPS  
1-APS PB AND SIGN (LT ARROW) (PB8-1)  
1-R10-12 SIGN (24 X 30) ADJACENT TO HEAD (2-3)  
2-TYPE D SIGNS (D-1) (D-3)  
3" PVC TO HH 12:  
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.



BY	DATE	REVISIONS
EJA	11-19-20	AS-BUILT OF SP 6222-165 PLUS ADDITION OF R/R PREMPT

SYSTEM ID: 39113	T.E.
METER ADDRESS:	
MASTER ID:	T.E.

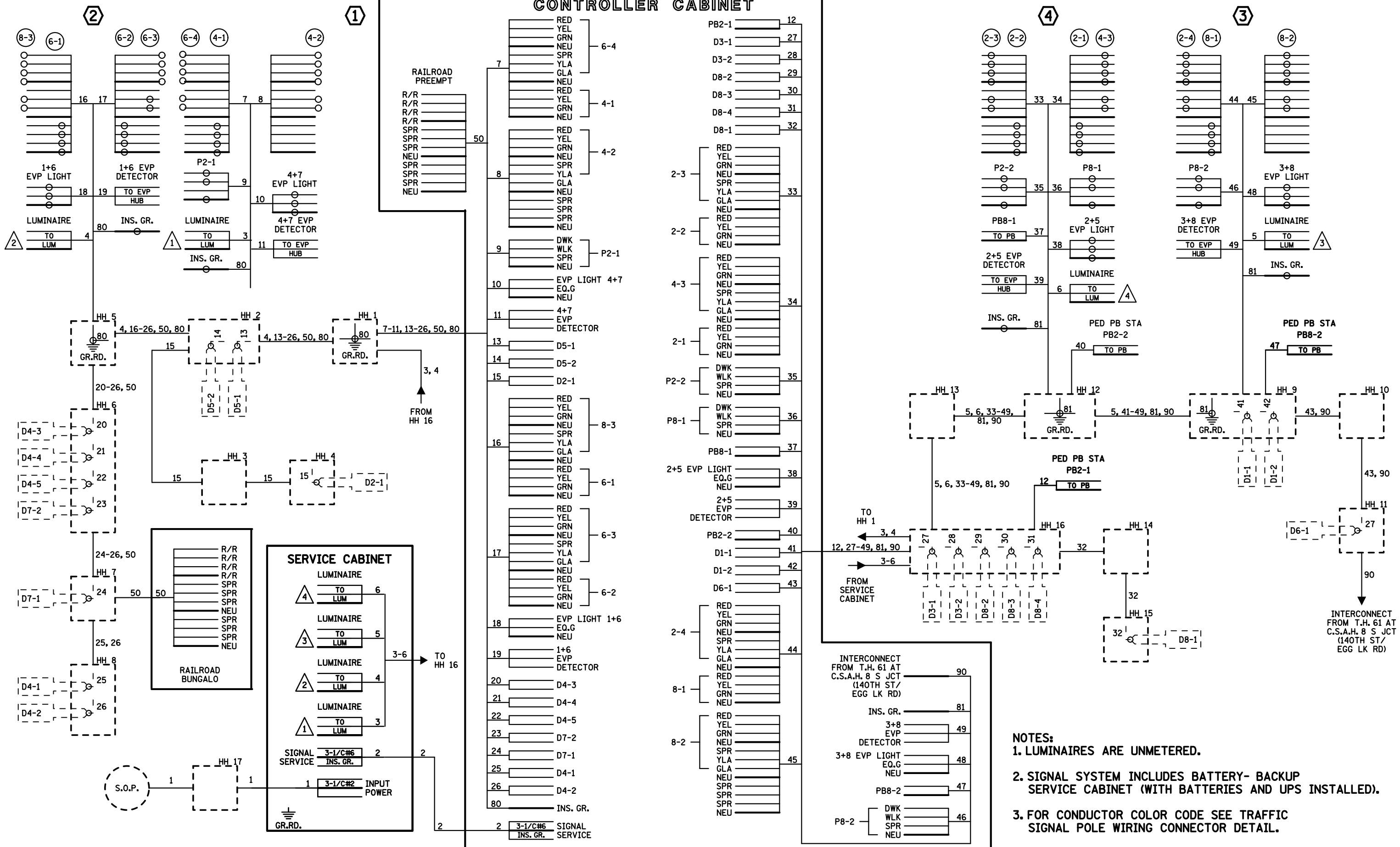
**MATCH LINE LAYOUTS AND NOTES**  
T.H. 61 AT 130TH ST. N.  
IN HUGO, WASHINGTON COUNTY

S.A.P. NO.	DRAWN BY: GDS	CKD BY: EJA	DATE: 02-01-12
CERTIFIED BY: <i>Michael P. Gubinsky</i>	LIC. NO. 19863	DATE: 02-01-12	
STATE PROJ. NO. (T.H. 61)	SHEET NO. 2 OF 3 SHEETS		

PLOTTED/REVISED: 9/3/2013

DISTRICT #: METRO  
IPLOT NAME: wiring  
PATH & FILENAME: IP\_PWP-d1428196T39113\_sgl.dgn

# CONTROLLER CABINET



- NOTES:**
1. LUMINAIRES ARE UNMETERED.
  2. SIGNAL SYSTEM INCLUDES BATTERY- BACKUP SERVICE CABINET (WITH BATTERIES AND UPS INSTALLED).
  3. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.

BY	DATE	REVISIONS	SYSTEM ID: 39113	T. E.	S.A.P. NO.	DRAWN BY: GDS	CKD BY: EJA	DATE: 02-01-12
EJA	11-19-12	AS-BUILT OF SP 6222-165 PLUS ADDITION OF R/R PREMPT	METER ADDRESS:		CERTIFIED BY: <i>Michael P. Gubinsky</i>	LIC. NO. 19863	DATE: 02-01-12	
			MASTER ID:	T. E.	STATE PROJ. NO. (T.H.61)	SHEET NO. 3 OF 3 SHEETS		
<b>FIELD WIRING DIAGRAM REVISE SIGNAL SYSTEM B T.H. 61 AT 130TH ST. N. IN HUGO, WASHINGTON COUNTY</b>								