

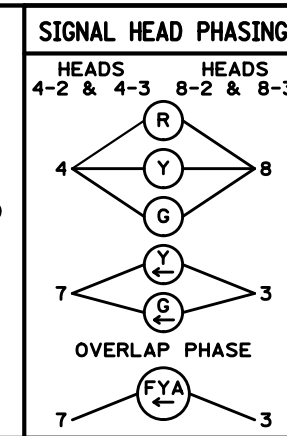
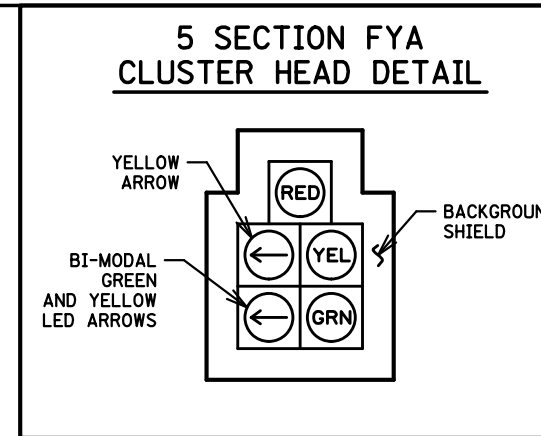
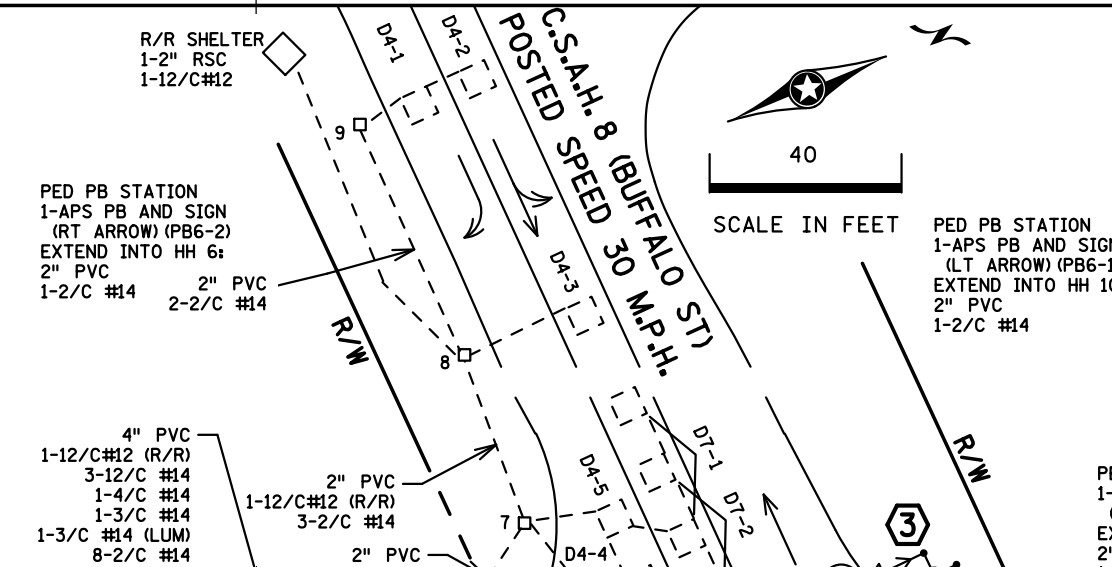
PLOTTED/REVISED: 11/6/2015

DISTRICT #: METRO
PLOT NAME: T21050R1.sgl
PATH & FILENAME: IP_PWP-d0779809Y21050R1.sgl.dgn

LOOP DETECTOR CHART

NUMBER	SIZE (FT)	LOCATION	TYPE
D1-1, D5-1	2-6x6	20 & 50	PVC
D1-2, D5-2	2-6x6	5 & 35	PVC
D2-1, D2-2	6x6	382	PVC
D3-1, D3-2	6x6	17 & 2	PVC
D3-1, D3-2	6x6	47 & 32	PVC
D4-1, D4-2	6x6	120	PVC
D4-3	6x6	66	PVC
D4-4	6x6	5	PVC
D4-5	2-6x6	5 & 20	PVC
D6-1, D6-2	6x6	475	PVC
D7-1	2-6x6	15 & 45	PVC
D7-2	2-6x6	0 & 30	PVC
D8-1, D8-2	6x6	117	PVC
D8-3, D8-4	2-6x6	2 & 17	PVC

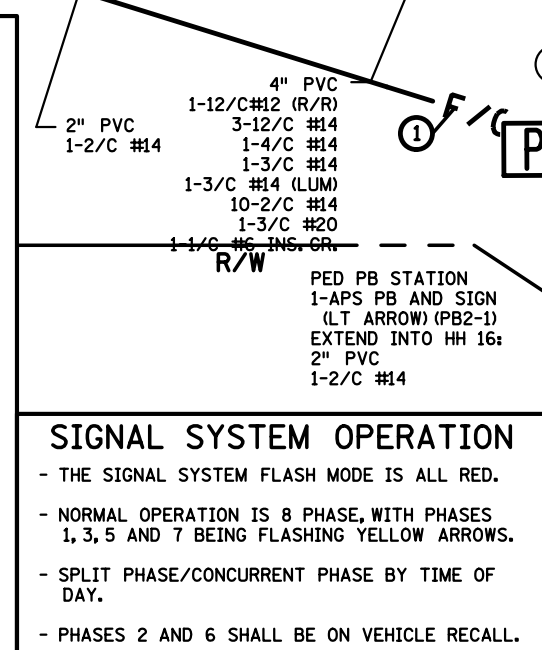
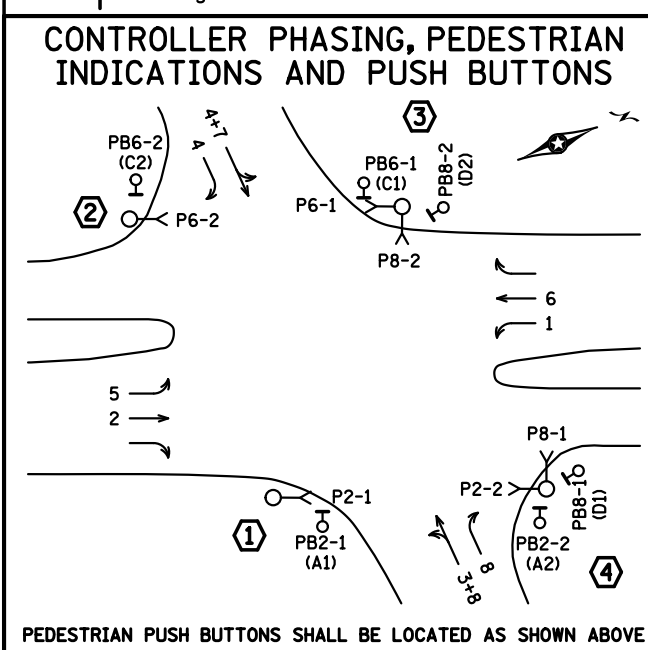
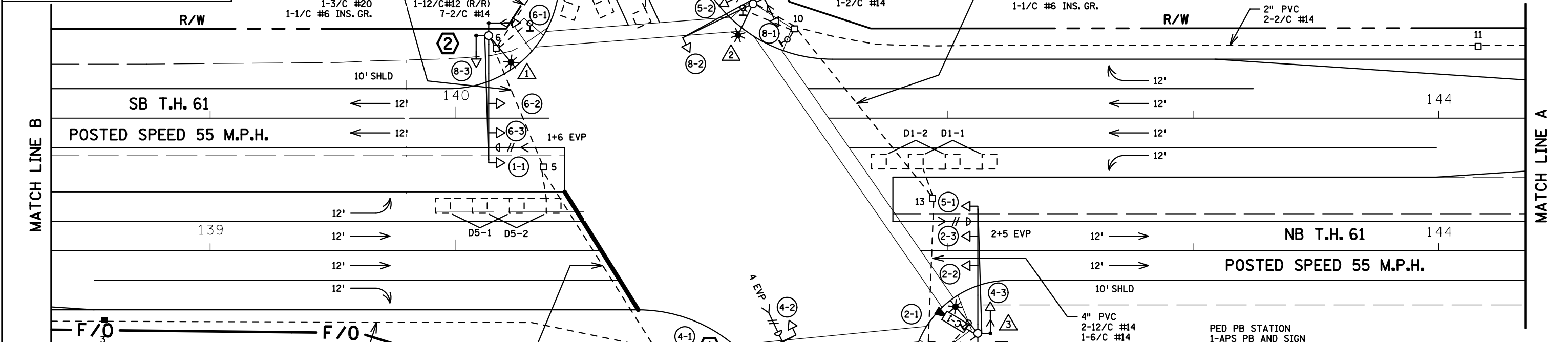
-LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET



SIGNAL HEAD CHART

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

-ALL SIGNAL INDICATIONS SRE 12" LED
-ALL SIGNAL HEADS ARE BLACK POLYCARBONITE WITH BACKGROUND SHIELDS
-FYA DENOTES FLASHING YELLOW ARROW



BY	DATE	REVISIONS
EJA	11-11-15	AS-BUILT OF SP 6222-168 FIBER & CAMERA

SYSTEM ID: 21050 1735497 T.E.
METER ADDRESS: 5400 HIGHWAY 61
MASTER ID: N/A T.E.

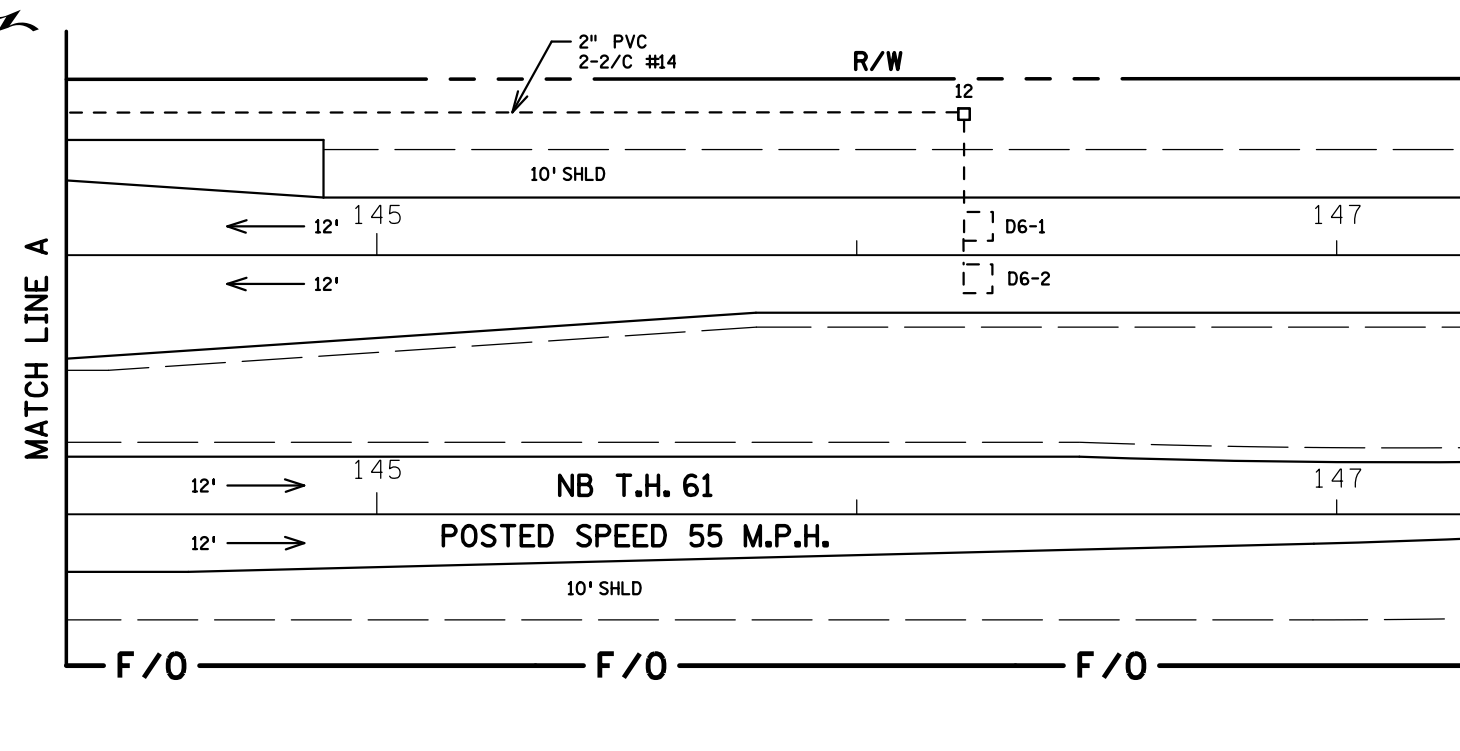
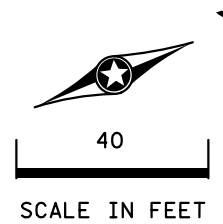
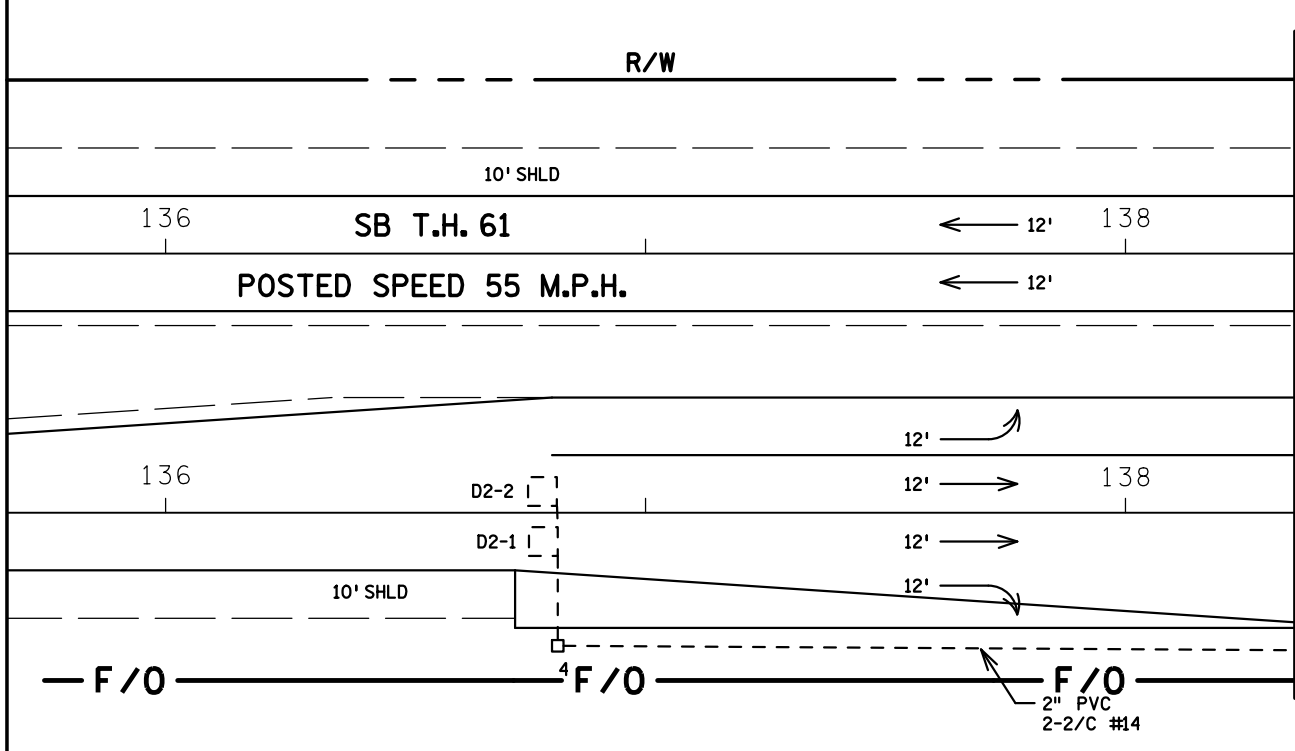
INTERSECTION LAYOUT
TH 61 AT CSAH 8 (BUFFALO ST.)
WHITE BEAR TOWNSHIP, RAMSEY COUNTY

S.A.P. NO. _____
DRAWN BY: SJK CKD BY: EJA DATE: 06-14-12
CERTIFIED BY _____ LIC. NO. _____ DATE: _____
STATE PROJ. NO. (T.H.61) SHEET NO. 1 OF 4 SHEETS

① SEE THE TMS PLAN FOR FIBER OPTICS.

PLOTTED/REVISED: 11/6/2015

DISTRICT #: METRO
IPLOT NAME: T21050RL.sgl
PATH & FILENAME: IP_PWP-d079809Y T21050RL.sgl.dgn



- ② PA100 POLE FOUNDATION
TYPE PA100-A-50-D40-9 (DAVIT AT 350 DEG)
1-LUMINAIRE-250W HPS
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
2-STRAIGHT MOUNT SIGNALS OVERHEAD AT 11' AND 23'
1-SPECIAL MOUNT SIGNAL AT 90 DEG
1-ANGLE MOUNT SIGNAL AT 180 DEG
1-ANGLE MOUNT C. D. PED HEAD AT 180 DEG
ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 1+6)
1-R9-3 SIGN (NO PEDS) FACING POLE 1
1-R10-X12 SIGN ADJACENT TO HEAD (1-1)
1-R6-1R SIGN (ONE WAY)
1-R6-1L SIGN (ONE WAY)
1-TYPE D SIGN (D-2)
3" PVC TO HH 6:
3-12/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-30-D40-9 (DAVIT AT 350 DEG)
1-LUMINAIRE-250W HPS
1-SPECIAL MOUNT SIGNAL OVERHEAD AT 0'
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
2-ANGLE MOUNT C. D. PED HEADS AT 90 AND 180 DEG
1-R10-X12 SIGN ADJACENT TO HEAD (8-2)
1-TYPE D SIGN (D-1)
3" PVC TO HH 10:
2-12/C #14
1-6/C #14
2-4/C #14
1-3/C #14 (LUM)
1-1/C #6 INS. GR.

- ① PA90 POLE FOUNDATION
TYPE PA90-A-35
1-SPECIAL MOUNT SIGNAL OVERHEAD AT 0'
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
1-ANGLE MOUNT C. D. PED HEAD AT 90 DEG
TWO WAY EVP DETECTOR AND CONFIRMATORY LIGHTS (PHASES 4+8)
1-R9-3 SIGN (NO PEDS) FACING POLE 2
1-R10-X12 SIGN ADJACENT TO HEAD (4-2)
1-TYPE D SIGN (D-1)
3" PVC TO HH 2:
2-12/C #14
1-6/C #14
1-4/C #14
2-3/C #14
2-3/C #20
1-1/C #6 INS. GR.

- ④ SOP-WOOD POLE (XCEL ENERGY)
2" PVC RISER AND WEATHERHEAD
2" PVC INTO HH 1:
3-1/C #2

POLE AND CABINET NOTES

- ① EQUIPMENT PAD (SEE DETAIL SHEET)
SERVICE CABINET (SSB)
CONTROLLER AND CABINET
4" PVC TO HH 2:
3-12/C #14
1-4/C #14
1-3/C #14
10-2/C #14
1-3/C #20
1-1/C #6 INS. GR.
4" PVC TO HH 2:
2-12/C #14
1-6/C #14
1-4/C #14
2-3/C #14
2-2/C #14
2-3/C #20
2-2" AND 3" PVC STUBBED OUT (CAPPED BOTH ENDS)
3/4" PVC STUBBED OUT (FOR TELEPHONE LINE)
1 1/2" PVC STUBBED OUT FOR FUTURE FIBER OPTIC PIGTAIL
CONTROLLER CABINET TO SERVICE CABINET:
2" PVC
2-1/C #6
1-1/C #6 INS. GR.
CONTROLLER CABINET TO SERVICE CABINET (COMMS):
2" PVC
SERVICE CABINET TO SOP VIA HH 1:
2" PVC
3-1/C #2
SERVICE CABINET TO HH 2:
2" PVC
3-3/C #14 (LUM)
HH 2 TO HH 16:
2" PVC
2-3/C #14 (LUM)
CONTROLLER CABINET TO TMS PULL VAULT
1.5" PVC INSIDE EXISTING 3" PVC:
1-6SM FIBER OPTIC

- ④ PA100 POLE FOUNDATION
TYPE PA100-A-50-X6-350/CAM 400 (X6 AT 350 DEG)
1-LUMINAIRE-250W HPS
1-VIDEO CAMERA
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
2-STRAIGHT MOUNT SIGNALS OVERHEAD AT 11' AND 23'
1-SPECIAL MOUNT SIGNAL AT 90 DEG
1-ANGLE MOUNT SIGNAL AT 180 DEG
2-ANGLE MOUNT C. D. PED HEADS AT 90 AND 180 DEG
ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 2+5)
1-R10-X12 SIGN ADJACENT TO HEAD (5-1)
1-R6-1R SIGN (ONE WAY)
1-R6-1L SIGN (ONE WAY)
1-TYPE D SIGN (D-2)
3" PVC TO HH 14:
3-12/C #14
2-4/C #14
1-3/C #14
1-3/C #14 (LUM)
1-3/C #20
1-1/C #6 INS. GR.
1-7/16" GROUNDING BRAID TO GROUND ROD IN H.H.14
1-3/C#14 (CAMERA POWER)
1-COM CABLE
1-COAXIAL CABLE

① SEE THE TMS PLAN FOR FIBER OPTICS.

BY	DATE	REVISIONS
EJA	0710-14	AS-BUILT OF SP 6222-168 FIBER & CAMERA

SYSTEM ID: 21050	1735497	T.E.
METER ADDRESS: 5400 HIGHWAY 61		
MASTER ID: N/A		T.E.

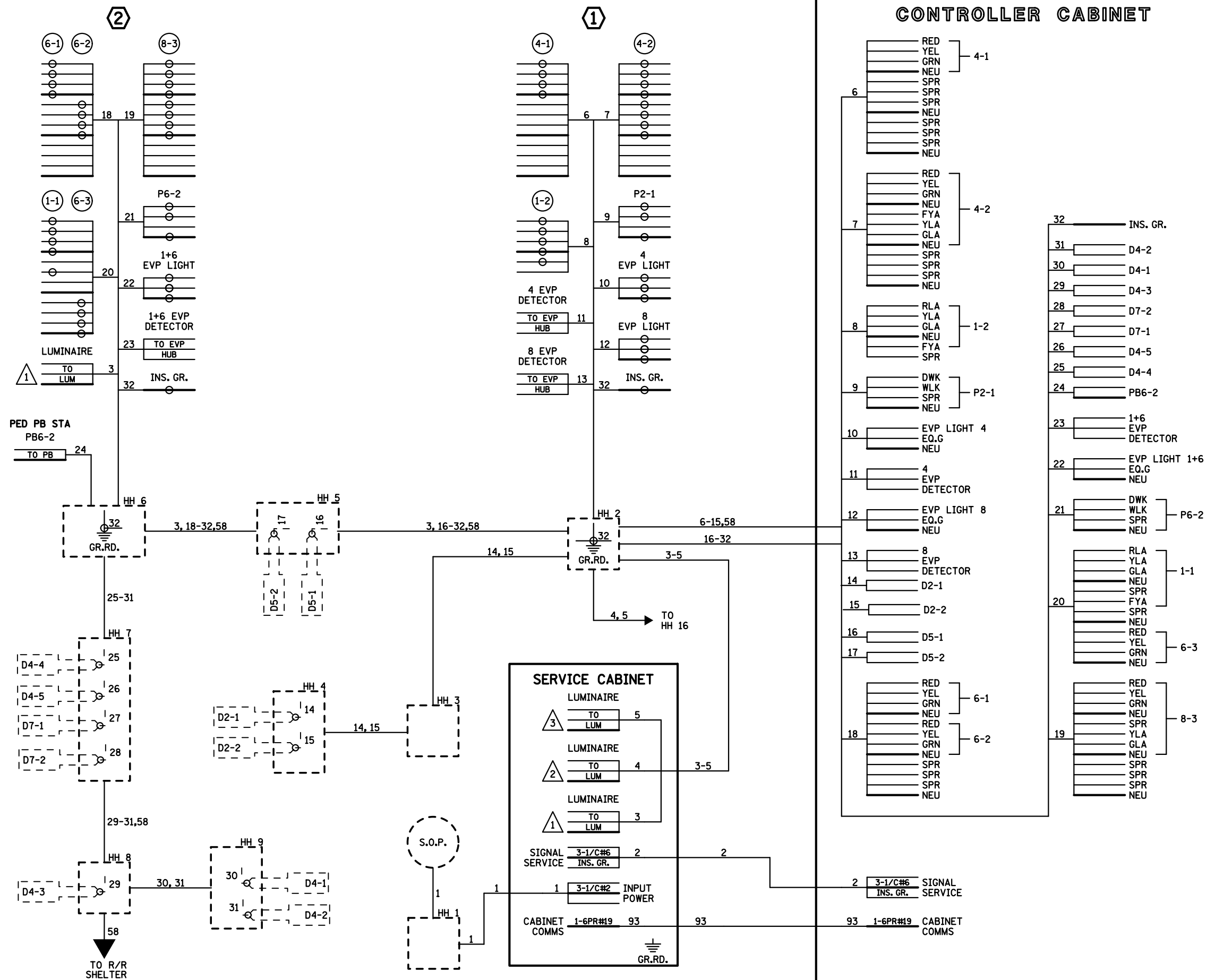
MATCH LINES AND POLE NOTES
TH 61 AT CSAH 8 (BUFFALO ST.)
WHITE BEAR TOWNSHIP, RAMSEY COUNTY

S.A.P. NO.	DRAWN BY: SJK	CKD BY: EJA	DATE: 06-14-12
CERTIFIED BY _____	LIC. NO. _____	DATE: _____	
STATE PROJ. NO.	(T.H. 61)	SHEET NO.	2 OF 4 SHEETS

PLOTTED/REVISED: 11/6/2015

DISTRICT #: METRO
PLOT NAME: T21050R1.sgl
PATH & FILENAME: IP_PWP-d079809Y T21050R1.sgl.dgn

CONTROLLER CABINET



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

BY	DATE	REVISIONS
EJA	8-3-12	CORRECTED WIRING FOR 1-1
EJA	07-10-14	AS-BUILT OF SP 6222-168 FIBER & CAMERA

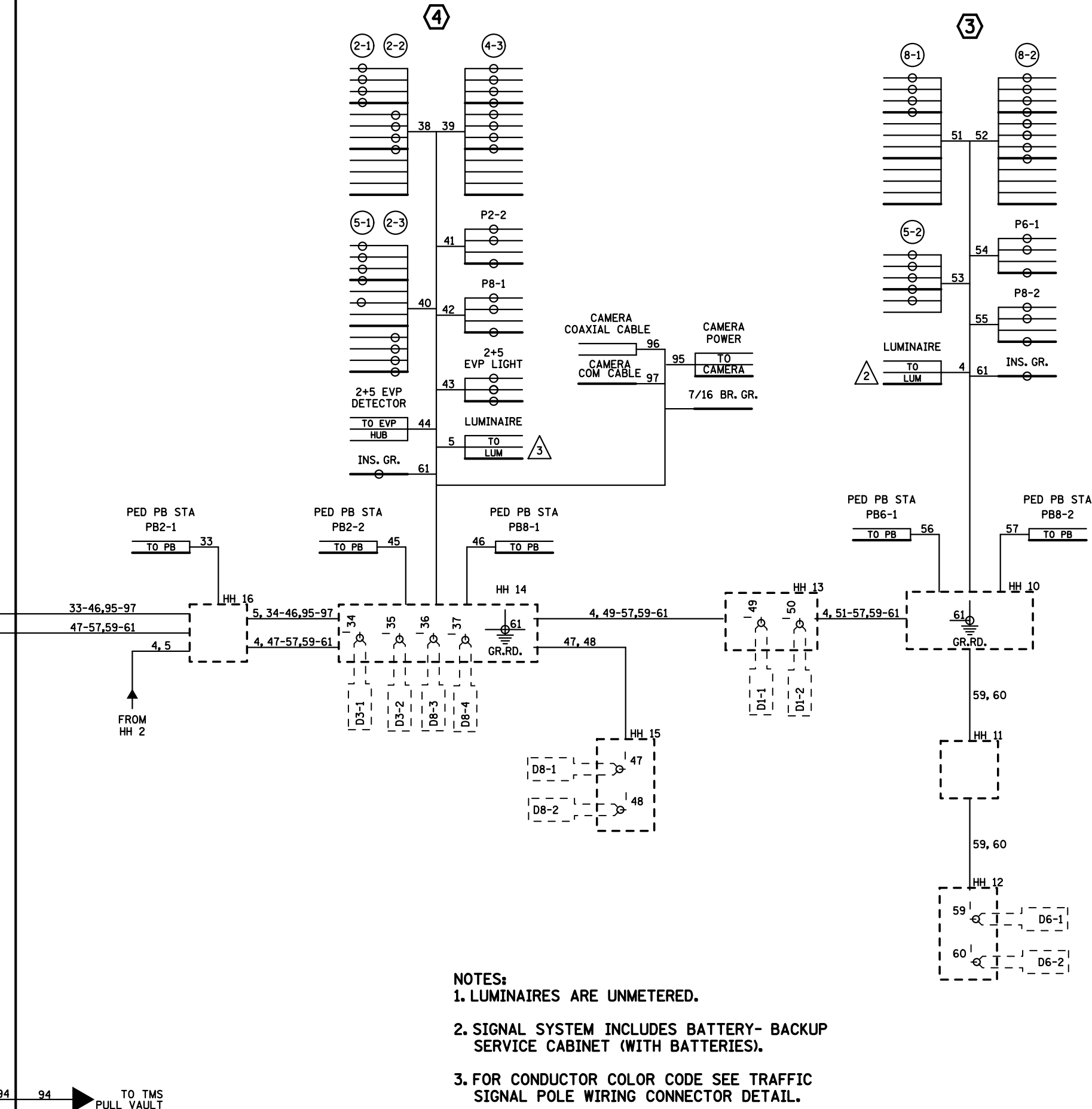
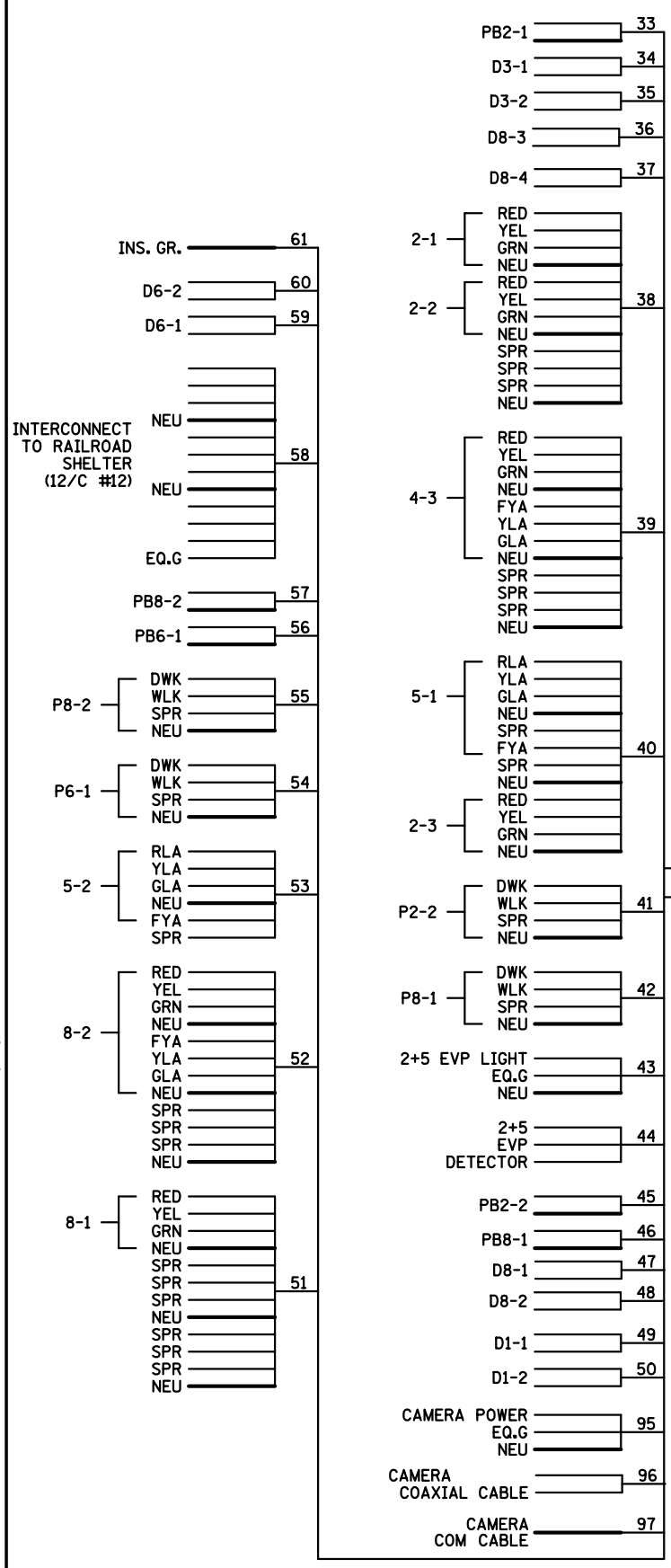
SYSTEM ID: 21050 **1735497** T.E.
 METER ADDRESS: 5400 HIGHWAY 61
 MASTER ID: N/A T.E.

WIRING DIAGRAM (1 OF 2)
TH 61 AT CSAH 8 (BUFFALO ST.)
WHITE BEAR TOWNSHIP, RAMSEY COUNTY

S.A.P. NO. _____ DRAWN BY: SJK CKD BY: EJA DATE: 06-14-12
 CERTIFIED BY _____ LIC. NO. _____ DATE: _____
 STATE PROJ. NO. (T.H. 61) SHEET NO. 3 OF 4 SHEETS

CONTROLLER CABINET

PLOTTED/REVISED: 11/6/2015



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

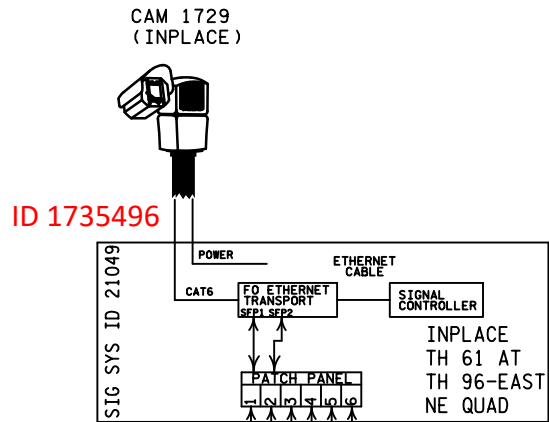
DISTRICT #: METRO
 IPLOT NAME: T21050R1.sgl
 PATH & FILENAME: IP_PWP-d0779809\T21050R1.sgl.dgn

BY	DATE	REVISIONS
EJA	8-3-12	CORRECTED WIRING FOR 5-1
EJA	7-10-14	AS-BUILT OF SP 6222-168 FIBER & CAMERA

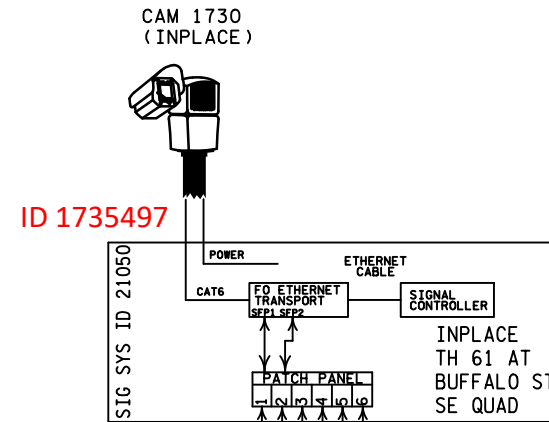
SYSTEM ID: 21050 **1735497** T.E.
 METER ADDRESS: 5400 HIGHWAY 61
 MASTER ID: N/A T.E.

WIRING DIAGRAM (2 OF 2)
 TH 61 AT CSAH 8 (BUFFALO ST.)
 WHITE BEAR TOWNSHIP, RAMSEY COUNTY

S.A.P. NO.	DRAWN BY: SJK	CKD BY: EJA	DATE: 06-14-12
CERTIFIED BY _____	LIC. NO. _____	DATE: _____	
STATE PROJ. NO.	(T.H.61)	SHEET NO.	4 OF 4 SHEETS



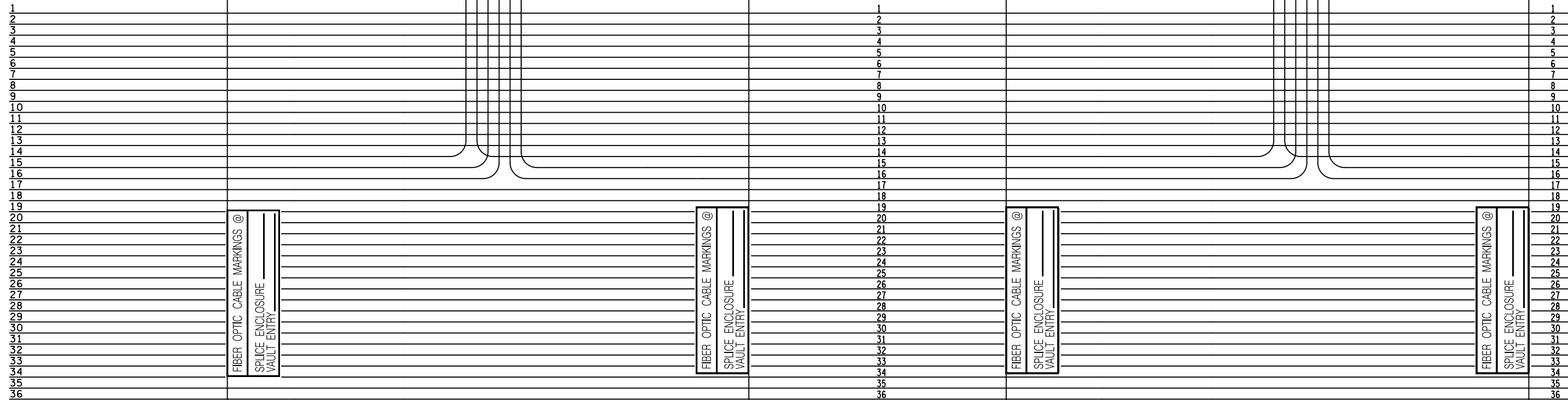
NOTE: THIS PLAN SHEET IS BEING PROVIDED FOR INFORMATIONAL PURPOSES. ALL FIBER INTERCONNECT CABLES, CAMERAS, AND VAULTS SHOWN ON THIS PAGE ARE INPLACE AND SHALL BE REUSED AND MAINTAINED INPLACE (EXCEPT FOR FIBER-OPTIC CABLE TESTING AT ALL SPLICE LOCATION TO BE COMPLETED BY THE CONTRACTOR AND PAID FOR UNDER THE "TRAFFIC CONTROL INTERCONNECT" PAY ITEM (ITEM NO. 2565). SEE SPECIAL PROVISIONS.



TRUNK
ID# 61-197

TRUNK
ID# 61-198

TRUNK
ID# 61-199



DESIGN TEAM				REVISIONS
DRAWN BY:	MRB			
DESIGNER:	MRB			
CHECKED BY:	JMG			
NO.	BY	DATE	REVISIONS	

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

Certified By: *John M. Gray* Lic. No. 22457

Printed Name: JOHN M. GRAY Date: 12/22/2023



RAMSEY COUNTY, MINNESOTA

T.H. 61

S.P. 6222-197

SIGNAL PLAN

FIBER OPTIC SCHEMATIC

TRUNK HIGHWAY 61 (TH 96 TO BUFFALO STREET)

SEH FILE NO. ISDWB170688	86
SG18 OF 5627	101