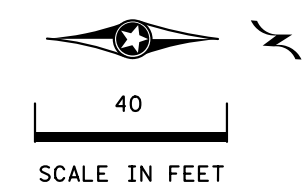


NUMBER	SIZE (FT)	LOCATION
D1-1, D1-2	6x6	30 & 10
D2-1	6x6	475
D2-2	6x6	200
D3-1	3-6x6	5, 20, 35
D3-2	2-6x6	0 & 15
D4-1	2-6x6	85 & 100
D4-2	3-6x6	5, 20, 35
D4-3	2-6x6	0 & 15
D5-1, D5-2	6x6	30 & 10
D5-3	6x6	60
D6-1	6x6	475
D6-2	6x6	200

-LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET  
 LOPS D4-1 AND D5-3 ARE PLACED 10' BEHIND R.R. GATE ARM

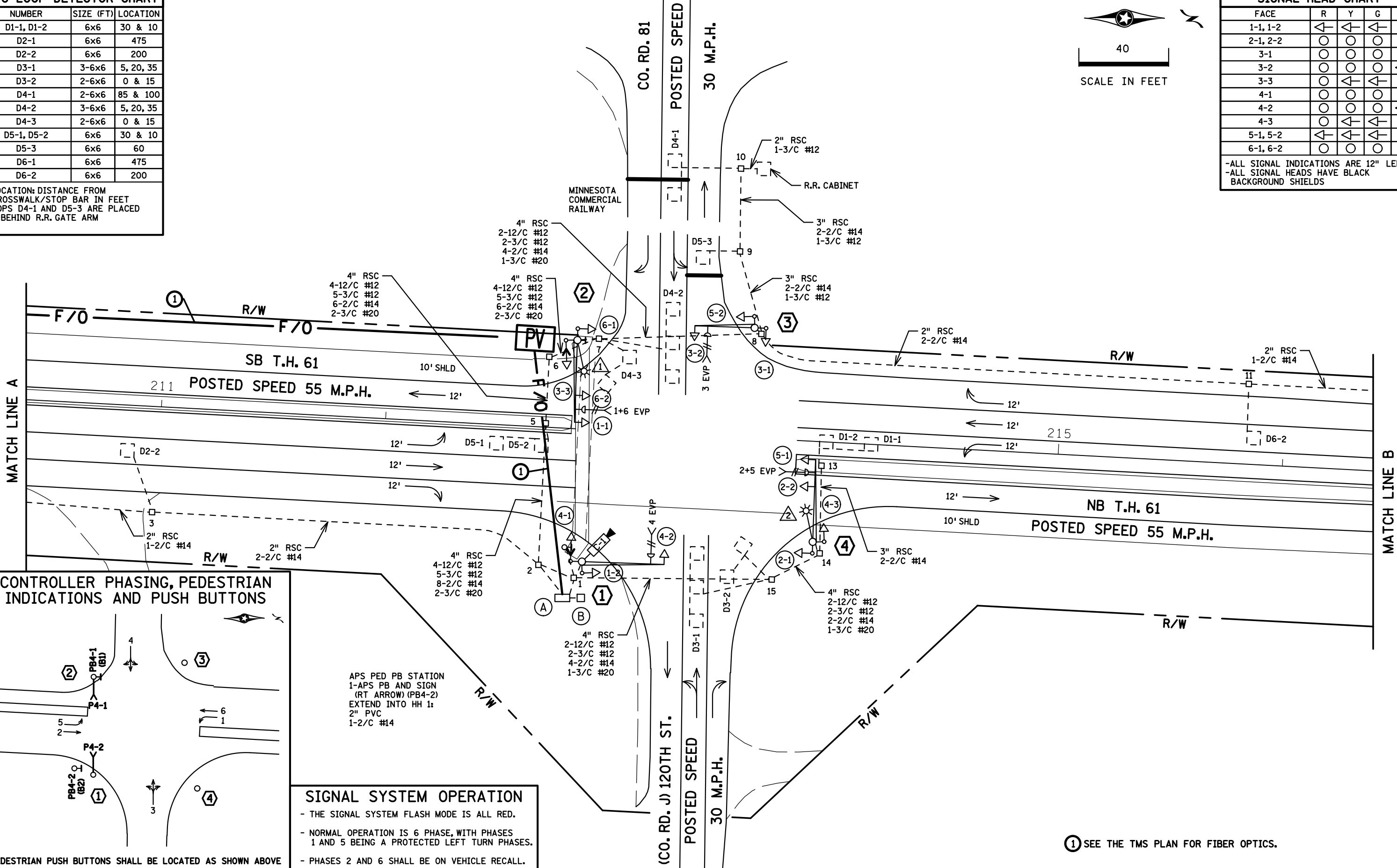
SIGNAL HEAD CHART				
FACE	R	Y	G	G
1-1, 1-2	←	←	←	
2-1, 2-2	○	○	○	
3-1	○	○	○	
3-2	○	○	○	←
3-3	○	←	←	
4-1	○	○	○	
4-2	○	○	○	←
4-3	○	←	←	
5-1, 5-2	←	←	←	
6-1, 6-2	○	○	○	

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

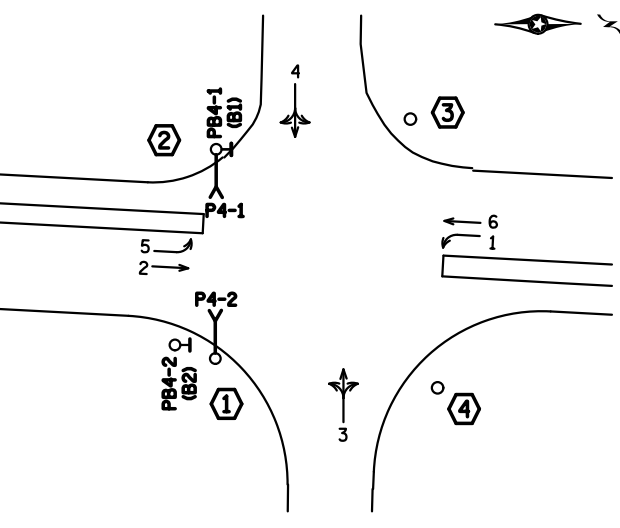


PLOTTED/REVISED: 11/13/2015

DISTRICT #: METRO  
 IPLOT NAME: layout  
 PATH & FILENAME: IP\_PWP-d07984N122392RV\_sgl.dgn



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



APS PED PB STATION  
 1-APS PB AND SIGN  
 (RT ARROW) (PB4-2)  
 EXTEND INTO HH 1:  
 2" PVC  
 1-2/C #14

**SIGNAL SYSTEM OPERATION**  
 - THE SIGNAL SYSTEM FLASH MODE IS ALL RED.  
 - NORMAL OPERATION IS 6 PHASE, WITH PHASES 1 AND 5 BEING A PROTECTED LEFT TURN PHASES.  
 - PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

① SEE THE TMS PLAN FOR FIBER OPTICS.

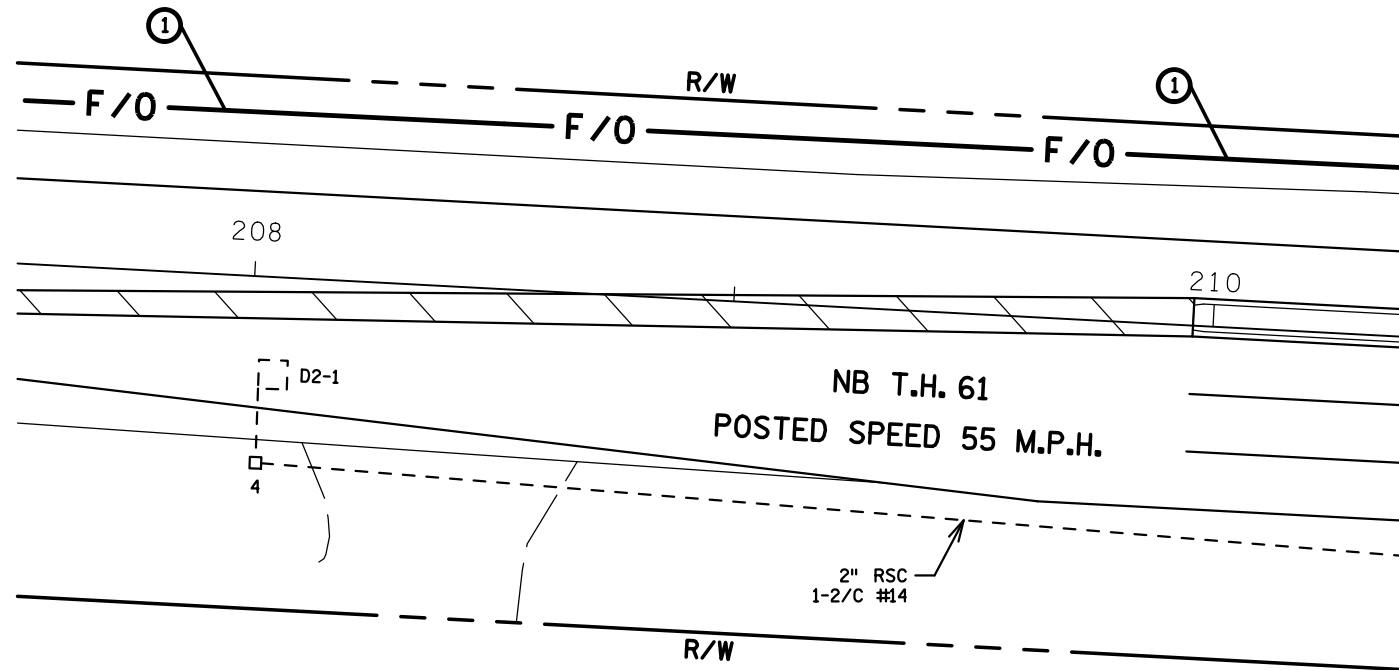
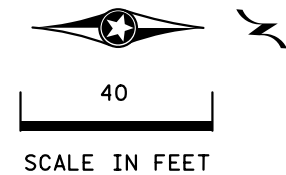
BY: EJA	DATE: 11-13-15	REVISIONS: AS-BUILT OF SP 6222-168 FIBER & CAMERA	SYSTEM ID: 22392	T.E.	<b>INTERSECTION LAYOUT</b> TH 61 AT CO RD 81 (CO RD J) 120TH ST N WHITE BEAR TOWNSHIP, RAMSEY COUNTY	S.A.P. NO.	DRAWN BY: SJK	CKD BY: EJA	DATE: 06-14-12
			METER ADDRESS: 5980 TH 61			CERTIFIED BY: _____	LIC. NO. _____	DATE: _____	
			MASTER ID:	T.E.		STATE PROJ. NO.	(T.H.61)	SHEET NO.	1 OF 3 SHEETS

PLOTTED/REVISED: 11/13/2015

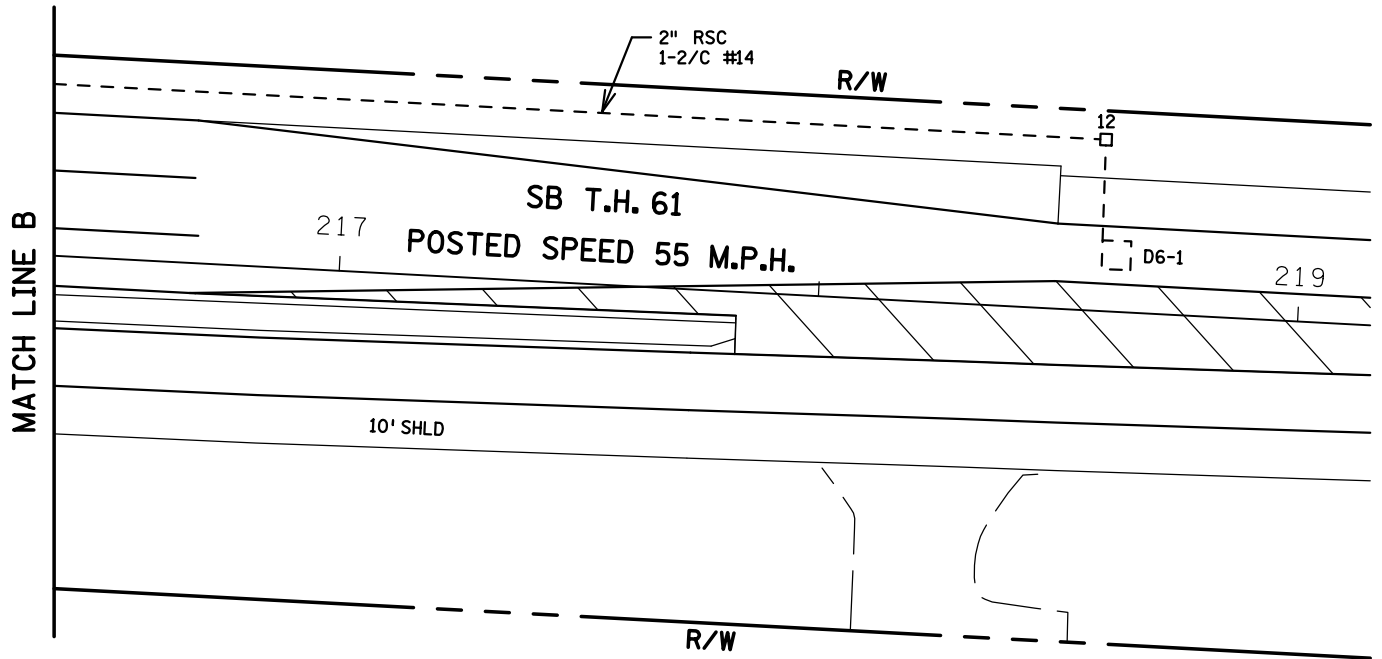
DISTRICT #: METRO  
IPLOT NAME: match lines  
PATH & FILENAME: IP\_PWP-d07984N\22392RV\_sgl.dgn

- ② PA90 POLE FOUNDATION  
TYPE PA90-A-35-D40-9 (DAVIT AT 350 DEG)  
LUMINAIRE - 250 W HPS  
1-PAIR SWING AWAY HINGES  
2-ONE WAY SIGNALS AT 0' AND 12'  
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 1+6) AT 6'  
1-TYPE 10A AT 180 DEG  
1-TYPE 10B AT 90 DEG  
1-C.D. PED HEAD AT 90 DEG (P4-1)  
1-APS PUSH BUTTON AND SIGN (RT ARROW) (PB4-1)  
1-R9-3 SIGN (FACING POLE 3)  
EXTEND INTO HH 7:  
3" RSC  
2-12/C #12  
3-3/C #12  
1-3/C #20

- ③ PA90 POLE FOUNDATION  
TYPE PA90-A-25  
1-PAIR SWING AWAY HINGES  
1-ONE WAY SIGNAL AT 0'  
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 3) AT 6'  
2-TYPE 10A AT 90 AND 180 DEG  
2-R9-3 SIGNS (FACING POLES 2 AND 4)  
EXTEND INTO HH 8:  
3" RSC  
2-12/C #12  
1-3/C #12  
1-3/C #20



MATCH LINE A



MATCH LINE B

- Ⓐ EQUIPMENT PAD  
SERVICE CABINET  
CONTROLLER & CABINET  
4" RSC TO HH 1: 4" RSC TO HH 2:  
3-12/C #14 4-12/C #12  
5-3/C #12 5-3/C #12  
2-3/C #20 2-3/C #20  
4-2/C #14 10-2/C #14  
1-3/C#14 (CAMERA POWER)  
1-COM CABLE  
1-COAXIAL CABLE  
  
3/4" RSC STUBBED OUT  
(THREADED AND CAPPED BOTH ENDS)  
  
SERVICE CABINET TO CONTROLLER CABINET  
2" RSC  
2-1/C #6  
1-1/C # 6 INS. GR.  
  
SERVICE CABINET TO HH 2:  
2" RSC  
2-3/C #12  
  
SERVICE CABINET TO SOP:  
2" RSC  
3-1/C #0  
  
HH 2 TO HH 1:  
2" RSC  
1-3/C #12  
  
CONTROLLER CABINET TO TMS PULL VAULT  
1 1/2" PVC INSIDE 3" RSC STUBOUT:  
1-6SM FIBER OPTIC

- ① PA90 POLE FOUNDATION  
TYPE PA90-A-35-X400 CAMERA EXTENSION  
VIDEO CAMERA WITH MOUNT  
1-PAIR SWING AWAY HINGES  
ONE WAY SIGNAL AT 0'  
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 4) AT 6'  
1-TYPE 10A AT 90 DEG  
1-TYPE 10B AT 180 DEG  
1-CD PED HEAD AT 180 DEG (P4-2)  
1-R9-3 SIGN (FACING POLE 4)  
EXTEND INTO HH 1:  
3" RSC  
1-12/C #12  
3-3/C #12  
1-3/C #20  
1-7/16" GROUNDING BRAID TO GROUND ROD IN H.H.1  
1-3/C#14 (CAMERA POWER)  
1-COM CABLE  
1-COAXIAL CABLE

- ④ PA90 POLE FOUNDATION  
TYPE PA90-A-35-D40-9 (DAVIT AT 350 DEG)  
LUMINAIRE - 250 W HPS  
1-PAIR SWING AWAY HINGES  
2-ONE WAY SIGNALS AT 0' AND 13'  
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 2+5) AT 6'  
2-TYPE 10A AT 90 AND 180 DEG  
2-R9-3 SIGNS (FACING POLE 1 AND 3)  
EXTEND INTO HH 13:  
3" RSC  
2-12/C #12  
2-3/C #12  
1-3/C #20

- Ⓑ S.O.P. - PAD MOUNTED TRANSFORMER (XCEL ENERGY)  
WITH 120/240 VOLT DISCONNECT  
2" RSC TO SIGNAL SERVICE CABINET:  
3-1/C #0

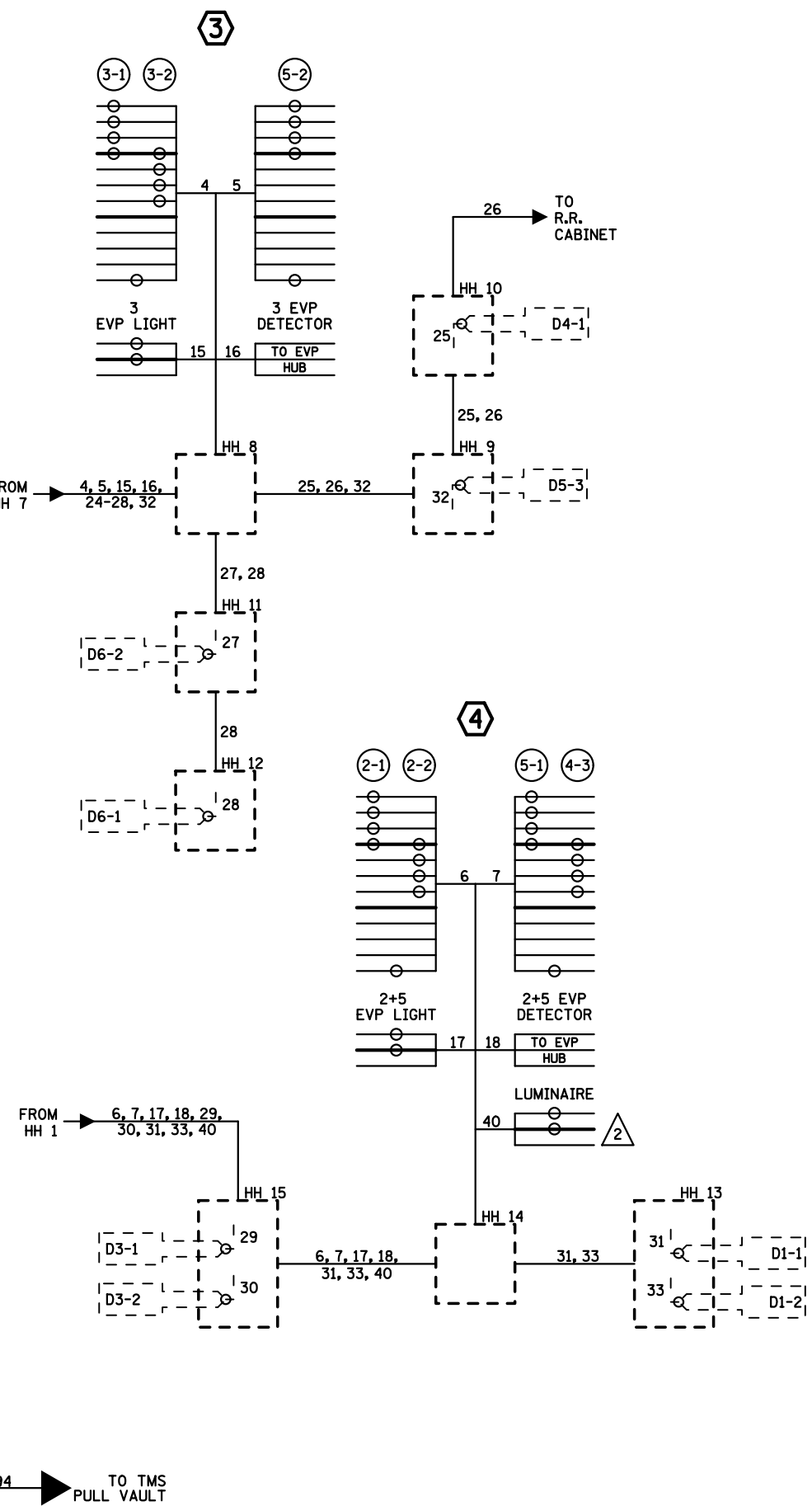
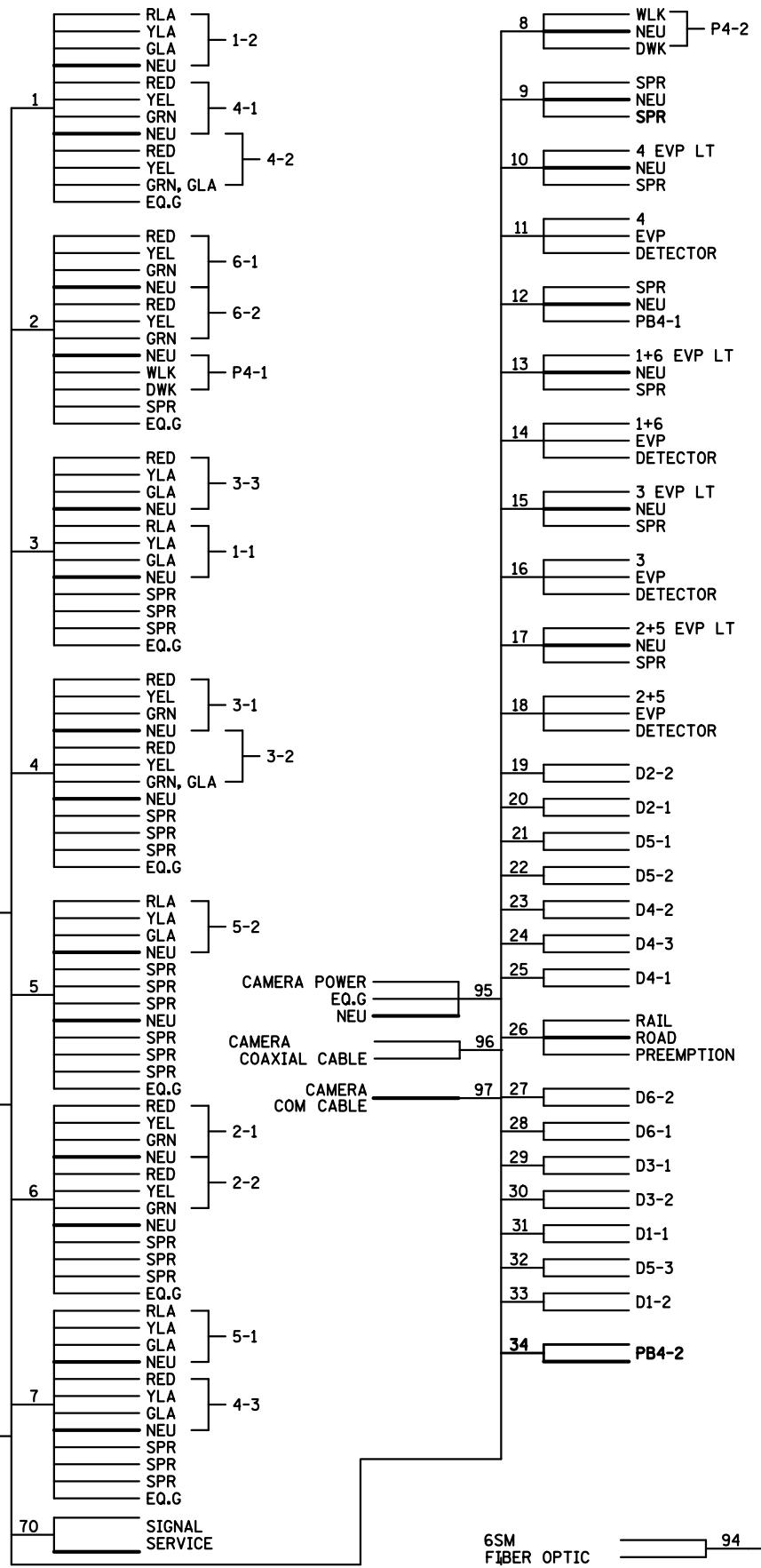
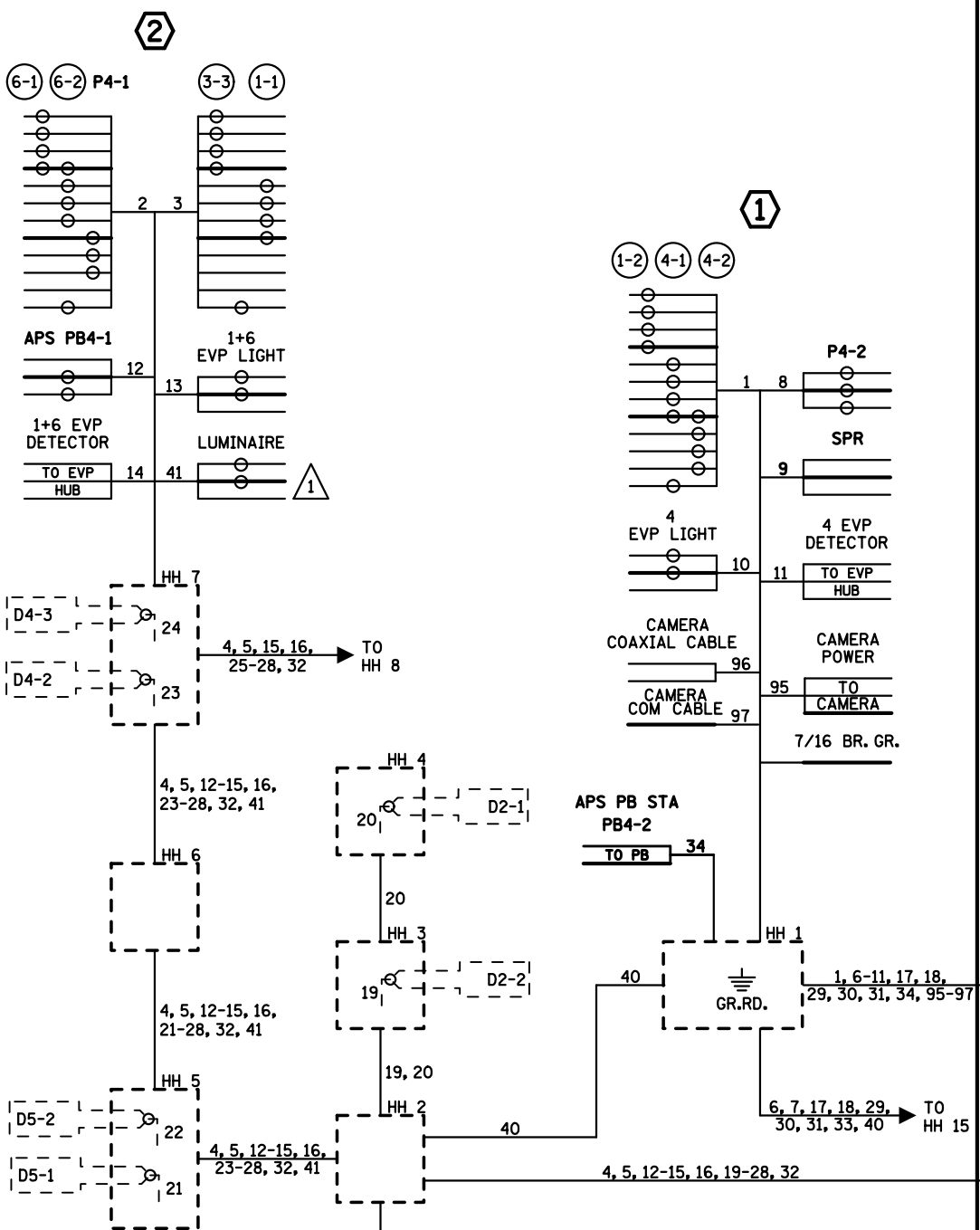
① SEE THE TMS PLAN FOR FIBER OPTICS.

BY	DATE	REVISIONS	SYSTEM ID: 22392	T.E.	<b>MATCH LINES AND POLE NOTES</b> <b>TH 61 AT CO RD 81 (CO RD J) 120TH ST N</b> <b>WHITE BEAR TOWNSHIP, RAMSEY COUNTY</b>	S.A.P. NO.	DRAWN BY: SJK	CKD BY: EJA	DATE: 06-14-12	
EJA	11-13-15	AS-BUILT OF SP 6222-168 FIBER & CAMERA	METER ADDRESS: 5980 TH 61			CERTIFIED BY _____	LIC. NO. _____	DATE: _____		
			MASTER ID:	T.E.		STATE PROJ. NO.	(T.H. 61)	SHEET NO.	2 OF	3 SHEETS

PLOTTED/REVISED: 11/13/2015

DISTRICT #: METRO  
PLOT NAME: wiring diagram  
PATH & FILENAME: IP\_PWP-d07984N122392RV\_sgl.dgn

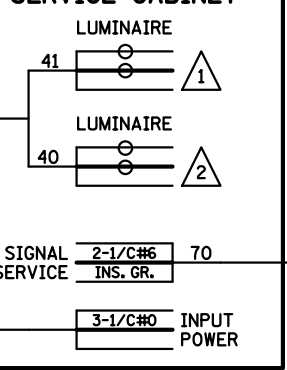
# CONTROLLER CABINET



## CONDUCTOR COLOR CODING

BLK	3/C#14
W	5/C#12
R	3/C#12
WH	3/C#20
BLK	2/C#14
WH	2/C#14
R OR O	3/C#20
WH OR YEL	3/C#20
BLK OR BL	3/C#20
BLK	2/C#14
WH	2/C#14

## SERVICE CABINET



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

BY	DATE	REVISIONS
EJA	11-13-15	AS-BUILT OF SP 6222-168 FIBER & CAMERA

SYSTEM ID: 22392	T.E.
METER ADDRESS: 5980 TH 61	T.E.
MASTER ID:	

FIELD WIRING DIAGRAM  
TH 61 AT CO RD 81 (CO RD J) 120TH ST N  
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 3 SHEETS