

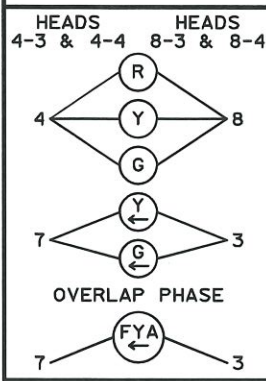
PLOTTED/REVISED: 27-DEC-2021

DISTRICT #: Metro  
 IPLOT NAME: LAYOUT  
 PATH & FILENAME: Projects\DM\_FOS\065\0000\Traffic\Signals\3097\_22207\_237thAve NE 1736135\T122207\_sgl.dgn

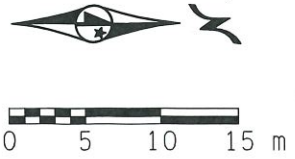
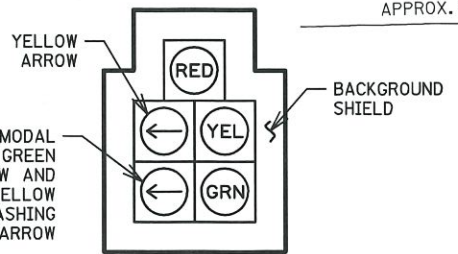
**PVC LOOP DETECTORS**

NUMBER	SIZE (FEET)	LOCATION
D1-1	2-6 x 6	20 & 50
D1-2	2-6 x 6	5 & 35
D2-1	6 x 6	625
D2-2	6 x 6	625
D4-1	6 x 6	250
D4-2	2-6 x 6	-5 & 30
D4-3	2-6 x 6	10 & 40
D5-1	6 x 6	20 & 50
D5-2	6 x 6	5 & 35
D6-1	6 x 6	625
D6-2	6 x 6	625
D8-1	6 x 6	250
D8-2	2-6 x 6	-5 & 30
D8-3	3-6 x 6	10, 40, 55

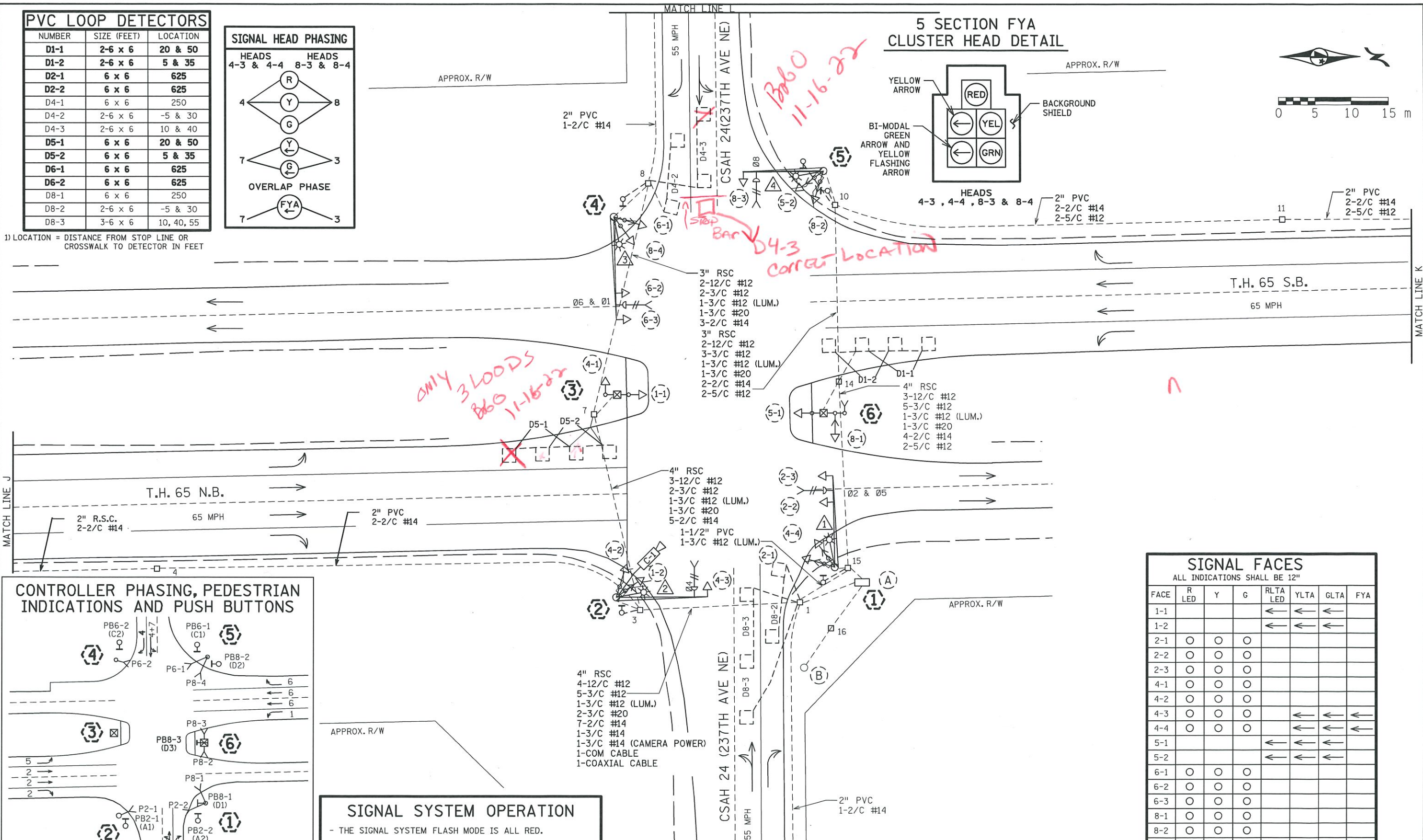
**SIGNAL HEAD PHASING**



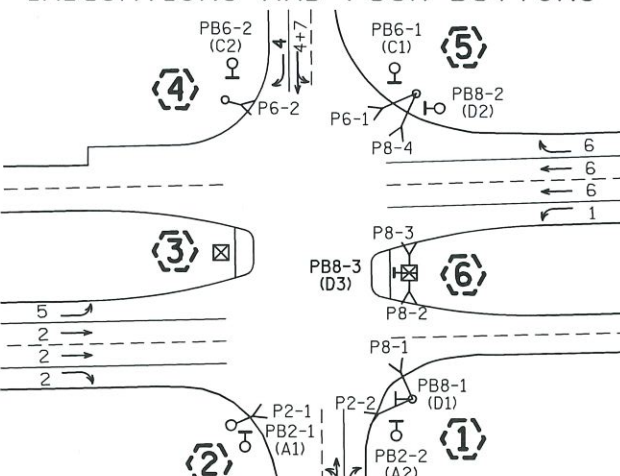
**5 SECTION FYA CLUSTER HEAD DETAIL**



1) LOCATION = DISTANCE FROM STOP LINE OR CROSSWALK TO DETECTOR IN FEET



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



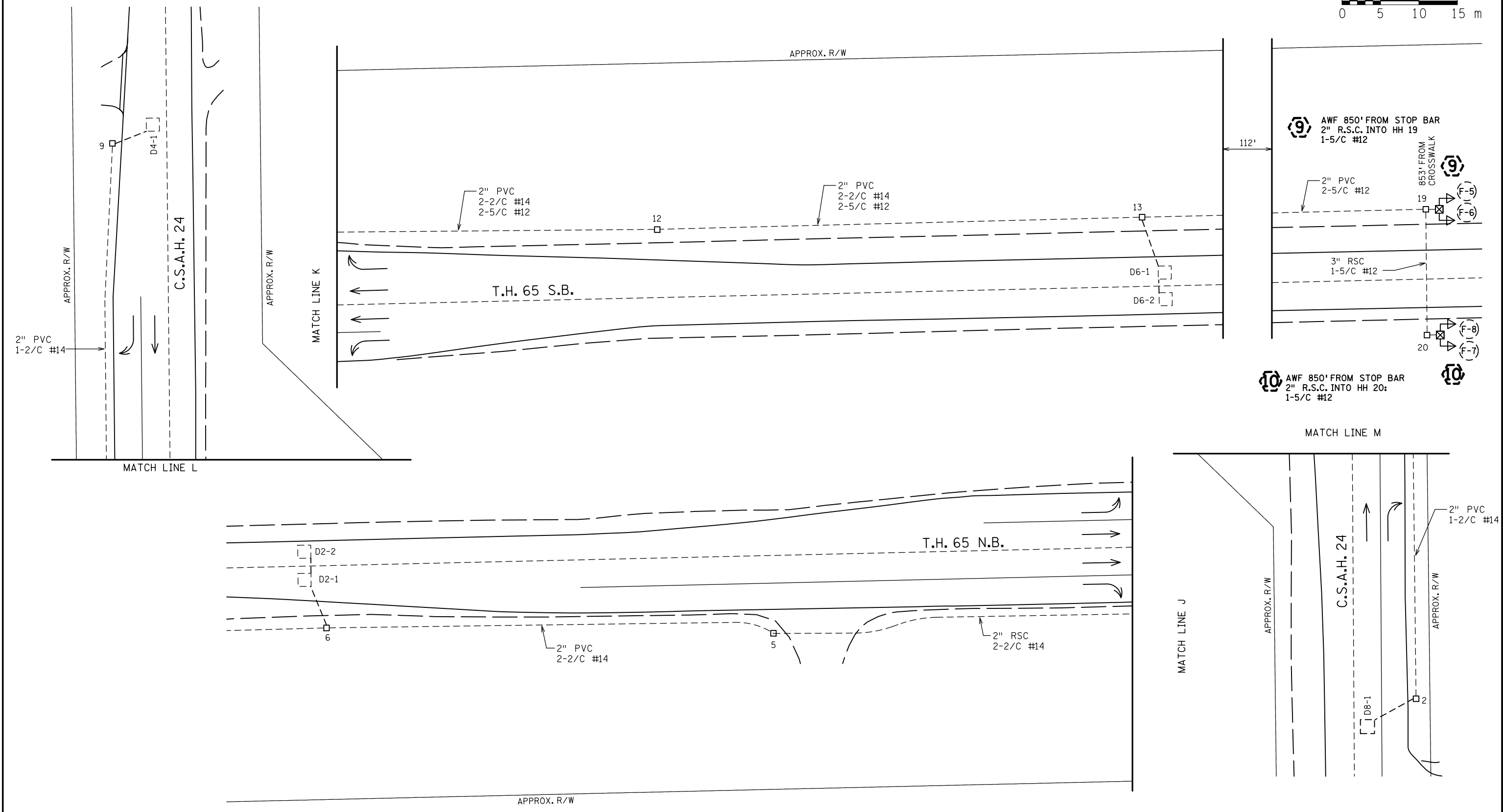
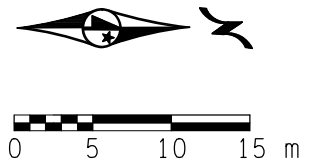
**SIGNAL SYSTEM OPERATION**

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 6 PHASE, WITH PHASES 1 AND 5 BEING PROTECTED LEFT TURN PHASES AND 4+8 FYA BY

**SIGNAL FACES**  
 ALL INDICATIONS SHALL BE 12"

FACE	R LED	Y	G	RLTA LED	YLTA	GLTA	FYA
1-1				←	←	←	
1-2				←	←	←	
2-1	○	○	○				
2-2	○	○	○				
2-3	○	○	○				
4-1	○	○	○				
4-2	○	○	○				
4-3	○	○	○		←	←	←
4-4	○	○	○		←	←	←
5-1				←	←	←	
5-2				←	←	←	
6-1	○	○	○				
6-2	○	○	○				
6-3	○	○	○				
8-1	○	○	○				
8-2	○	○	○				
8-3	○	○	○		←	←	←
8-4	○	○	○		←	←	←

DISTRICT #: Metro  
 IPLOT NAME: MATCHLINES  
 PATH & FILENAME: Projects\DM\_FOS\065\0000\Traffic\Signalis\30.97\_22207\_237thAve NE\_1736135\T122207\_sol.dgn PLOTTED/REVISED: 27-DEC-2021



BY	DATE	REVISIONS	SYSTEM ID: 1736135	T.E. 5579	S.A.P. NO.	DRAWN BY: BAM	CKD BY: CDB	DATE: 02-23-12
EJA	05-08-13	AS-BUILT OF SP 0208-146	METER ADDRESS:		CERTIFIED BY _____	LIC. NO. 19863	DATE: 02-23-12	
SJK	12/27/21	REVISED PHASE 8 LOOP DETECTORS	SYSTEM ID:	T.E.	<b>STATE PROJ. NO. 0208-146 (T.H.65) SHEET NO. 2 OF 4 SHEETS</b>			
<b>MATCH LINES</b>			<b>TH 65 AT CSAH 24 (237TH AVE NE)</b>					
<b>EAST BETHEL, ANOKA COUNTY</b>								

PLOTTED/REVISED: 27-DEC-2021

DISTRICT #: Metro  
I-PLOT NAME: POLE NOTES  
PATH & FILENAME: Projects\DM\_POS\065\0000\Traffic\Signals\3097\_22207\_237thAve NE\_1736135\T122207\_spl.dgn

① PA100 POLE FOUNDATION  
 TYPE PA100-A-40-D40-9 (DAVIT AT 350 DEG)  
 2-SWING AWAY HINGES  
 2-ONE WAY SIGNALS OVERHEAD AT 0' AND 11'  
 2-TYPE 10B POLE MOUNTED AT 0 DEG AND 270 DEG  
 2-C.D.PED IND  
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT PHASES 2&5  
 LUMINAIRE-200 W HPS  
 RADIO INTERCONNECT ANTENNA (ETHERNET)  
 1-APS PB AND SIGN (LT ARROW) (PB8-1)  
 EXTEND INTO HH 15  
 3" RSC  
 2-12/C #12  
 3-3/C #12  
 2-3/C #12 (LUM.)  
 1-3/C #20  
 1-3/C #14  
 1-2/C #14  
 1-COM CABLE (ANTENNA)

APS PED PB STA (PB2-2)  
 1-APS PB AND SIGN (RT ARROW)  
 EXTEND INTO HH 15:  
 1-1/4" PVC  
 1-2/C #14

② PA100 POLE FOUNDATION  
 TYPE PA100-A-40-D40-9 (DAVIT AT 350 DEG)  
 1-X6-350/CAM 400 EXTENSION (MOUNTED AT 350 DEG) (INCLUDES LIGHTNING ROD, 7/16" GROUND BRAID AND GROUND ROD)  
 1-VIDEO CAMERA WITH MOUNT  
 2-SWING AWAY HINGES  
 ONE WAY SIGNAL OVERHEAD AT 0'  
 TYPE 10A POLE MOUNTED AT 270 DEG  
 TYPE 10B POLE MOUNTED AT 0 DEG  
 1-C.D.PED IND  
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT PHASE 4  
 LUMINAIRE-200 W HPS  
 1-R10-X12 SIGN ADJACENT TO HEAD (4-3)  
 EXTEND INTO HH 3  
 3" RSC  
 1-12/C #12  
 3-3/C #12  
 2-3/C #12 (LUM.)  
 1-3/C #20  
 1-3/C #14  
 1-2/C #14  
 1-7/16" GROUNDING BRAID TO GROUND ROD IN HH 3  
 1-3/C #14 (CAMERA POWER)  
 1-COM CABLE  
 1-COAXIAL CABLE

APS PED PB STA (PB2-1)  
 1-APS PB AND SIGN (LT ARROW)  
 EXTEND INTO HH 3:  
 1-1/4" PVC  
 1-2/C #14

③

PEDESTAL FOUNDATION  
 10' PEDESTAL POLE PLUS BASE  
 2-STRAIGHT MOUNT SIGNALS AT 0 AND 180 DEG  
 3" PVC TO HH 7:  
 1-12/C #12

④ PA100 POLE FOUNDATION  
 TYPE PA100-A-45-D40-9 (DAVIT AT 350 DEG)  
 2-SWING AWAY HINGES  
 2-ONE WAY SIGNALS OVERHEAD AT 0 AND 11'  
 TYPE 10A POLE MOUNTED AT 0 DEG  
 TYPE 10B POLE MOUNTED AT 270 DEG  
 1-C.D.PED IND  
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT PHASES 6&1  
 LUMINAIRE-200 W HPS  
 EXTEND INTO HH 8  
 3" RSC  
 2-12/C #12  
 2-3/C #12  
 1-3/C #12 (LUM.)  
 1-2/C #14  
 1-3/C #20

APS PED PB STA (PB6-2)  
 1-APS PB AND SIGN (RT ARROW)  
 EXTEND INTO HH 8:  
 1-1/4" PVC  
 1-2/C #14

④

PEDESTAL FOUNDATION  
 10' PEDESTAL POLE PLUS BASE  
 2-STRAIGHT MOUNT SIGNALS AT 0 AND 180 DEG  
 2-STRAIGHT MOUNT C.D.PED IND AT 90 AND 270 DEG  
 1-APS PB AND SIGN (DLB ARROW) (PB8-3)  
 3" CONDUIT TO HH 14:  
 1-12/C #12  
 2-3/C #12

⑤

PA90 POLE FOUNDATION  
 TYPE PA90-A-35-D40-9 (DAVIT AT 350 DEG)  
 2-SWING AWAY HINGES  
 ONE WAY SIGNAL OVERHEAD AT 0'  
 2-TYPE 10B POLE MOUNTED AT 0 DEG AND 270 DEG  
 2-C.D.PED IND  
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT PHASE 8  
 LUMINAIRE-200 W HPS  
 1-R10-X12 SIGN ADJACENT TO HEAD (8-3)  
 EXTEND INTO HH 10  
 3" RSC  
 2-12/C #12  
 3-3/C #12  
 1-3/C #12 (LUM.)  
 2-2/C #14  
 1-3/C #20

APS PED PB STA (PB6-1)  
 1-APS PB AND SIGN (LT ARROW)  
 EXTEND INTO HH 10:  
 1-1/4" PVC  
 1-2/C #14

APS PED PB STA (PB8-2)  
 1-APS PB AND SIGN (LT ARROW)  
 EXTEND INTO HH 10:  
 1-1/4" PVC  
 1-2/C #14

⑥

SOP - INPLACE WOOD POLE  
 2" RSC RISER WITH WEATHERHEAD  
 2" RSC TO HH 16  
 WITH 3-1/C #2

⑦

EQUIPMENT PAD  
 CONTROLLER AND CABINET  
 SERVICE EQUIPMENT (PAD MOUNTED)

LOAD CENTER TO CABINET  
 1" RSC  
 2-1/C #6  
 1-1/C #6 INS. GR.

LOAD CENTER TO HH 15  
 2" RSC  
 2-3/C #12 (LUM.)

METER TO HH 16  
 2" RSC  
 3-1/C #2

CONTROLLER CABINET TO HH 15  
 4" RSC  
 5-12/C #12  
 8-3/C #12  
 2-3/C #20  
 4-2/C #14  
 1-3/C #14  
 2-5/C #12  
 1-COM CABLE (ANTENNA)

CONTROLLER CABINET TO HH 1  
 4" RSC  
 4-12/C #12  
 5-3/C #12  
 2-3/C #20  
 10-2/C #14  
 1-3/C #14  
 1-3/C #14 (CAMERA POWER)  
 1-COM CABLE (CAMERA)  
 1-COAXIAL CABLE

STUB OUT THREAD AND CAP  
 3" RSC

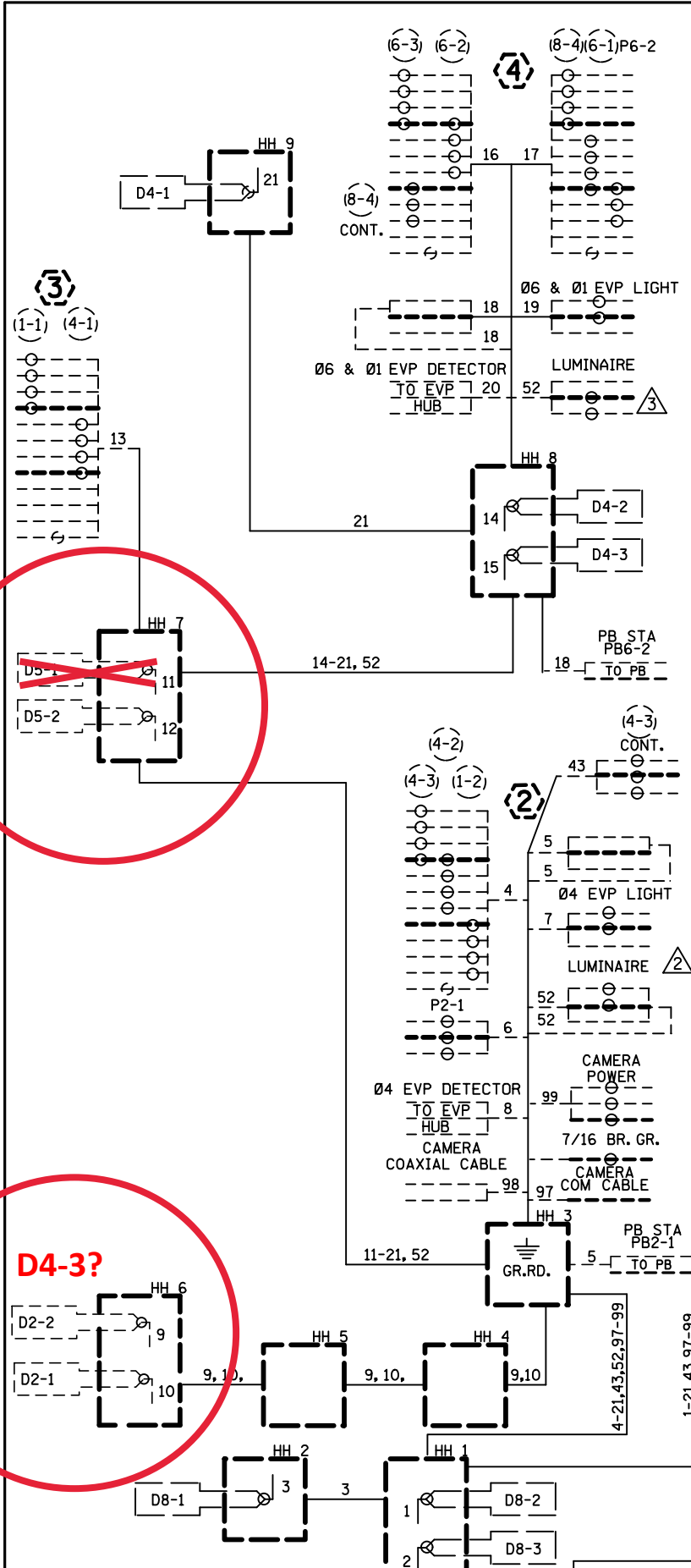
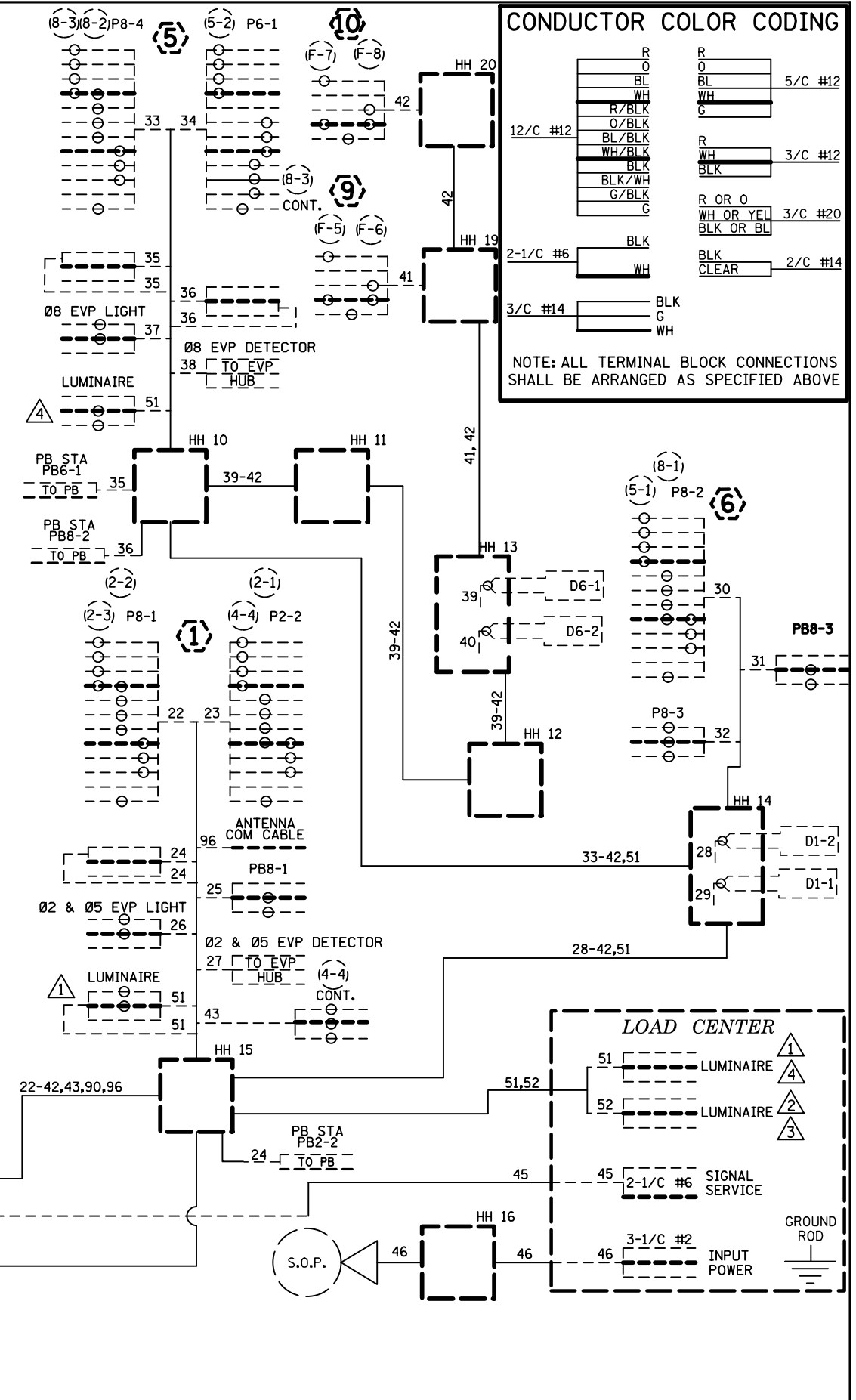
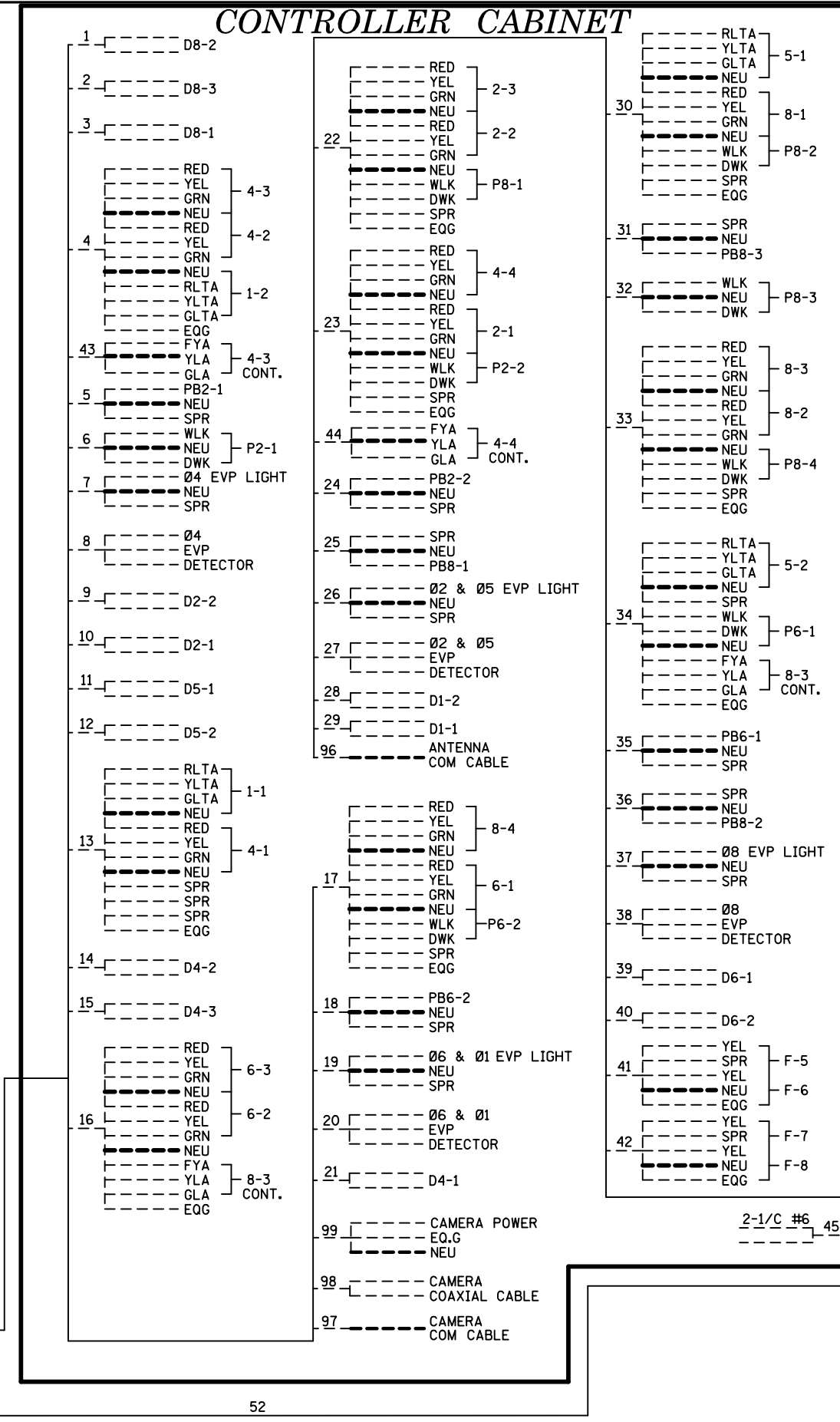
BY	DATE	REVISIONS	SYSTEM ID: 1736135	T.E. 5579	<b>POLE NOTES</b> <b>TH 65 AT CSAH 24 (237TH AVE NE)</b> <b>EAST BETHEL, ANOKA COUNTY</b>	S.A.P. NO.	DRAWN BY: BAM	CKD BY: CDB	DATE: 02-23-12
EJA	05-08-13	AS-BUILT OF SP 0208-146	METER ADDRESS:			CERTIFIED BY _____	LIC. NO. 19863	DATE: 02-23-12	
SJK	12/27/21	REVISED PHASE 8 LOOP DETECTORS	MASTER ID:	T.E.		STATE PROJ.NO. 0208-146 (T.H.65) SHEET NO. 3 OF 4 SHEETS			

# CONTROLLER CABINET

# CONDUCTOR COLOR CODING

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

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



DISTRICT #: Metro  
 IP/PROJECT NAME: WIRING DIAGRAM  
 PATH & FILENAME: Projects\DM...SOS\065\00000\Traffic\Signalis\30.97\_22207\_237 Ave NE\_1736135\T122207\_sq.dgn  
 PLOTTED/REVISED: 27-DEC-2021

BY	DATE	REVISIONS
EJA	05-08-13	AS-BUILT OF SP 0208-146
SJK	12/27/21	REVISED PHASE 8 LOOP DETECTORS

SYSTEM ID: 1736135  
 METER ADDRESS:  
 MASTER ID:  
 T.E. 5579  
 T.E.

FIELD WIRING DIAGRAM  
 TH 65 AT CSAH 24 (237TH AVE NE)  
 EAST BETHEL, ANOKA COUNTY

S.A.P. NO.	DRAWN BY: BAM	CKD BY: CDB	DATE: 02-23-12
CERTIFIED BY _____	LIC. NO. 19863	DATE: 02-23-12	
STATE PROJ. NO. 0208-146 (T.H.65)		SHEET NO. 4 OF 4 SHEETS	