

PLOTTED/REVISED: 2/1-DEC-2021

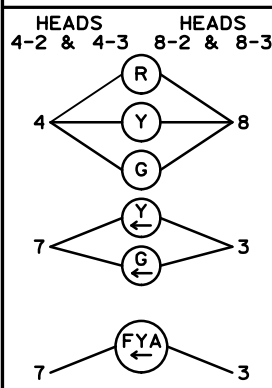
DISTRICT #: Metro
IPLOT NAME: 2405060.sgl
PATH & FILENAME: Projects\DM罗斯\065\0000\Traffic\Signal\6.22_2405060_41ST_AVE_NE\2405060.sgl.dgn

SIGNAL HEAD CHART

FACE	R	Y	FYA	G	YLA	GLA
1-1, 1-2	←	←	←	←		
2-1, 2-2, 2-3	●	●	●	●		
4-1	●	●	●	●	←	←
4-2 (A), 4-3 (A)	●	●	←	●	←	←
5-1, 5-2	←	←	←	←		
6-1, 6-2, 6-3	●	●	●	●		
8-1	●	●	●	●		
8-2 (A), 8-3 (A)	●	●	←	●	←	←

-ALL SIGNAL INDICATIONS ARE 12" LED
-ALL SIGNAL HEADS ARE BLACK POLYCARBONATE WITH BACKGROUND SHIELDS
-FYA DENOTES FLASHING YELLOW ARROW
-(A) DENOTES FIVE-HEAD CLUSTER SIGNAL (SEE SHEET 3)

SIGNAL HEAD PHASING



HH 7 TO HH 8
3" CONDUIT
3-12/C 14
2-6/C 14
4-4/C 14
4-2/C 14
2-3/C 14
2-3/C 14 (LUM)
2-3/C 20
2-3/C 14
1-1/C 6 INS. GR.
1-CAT 5E GRIDSMART

HH 8 TO CABINET
3" CONDUIT
3-12/C 14
2-6/C 14
4-4/C 14
4-2/C 14
2-3/C 20
2-3/C 14
1-1/C 6 INS. GR.
1-CAT 5E GRIDSMART

3" CONDUIT
2-12/C 14
1-6/C 14
2-4/C 14
1-2/C 14
1-3/C 14
1-3/C 14 (LUM)
1-3/C 14
1-3/C 20

3" CONDUIT
2-12/C 14
1-6/C 14
2-4/C 14
2-2/C 14
1-3/C 14
1-3/C 14 (LUM)
1-3/C 14
1-3/C 20

HH 5 TO HH 6
3" CONDUIT
1-12/C 14
1-6/C 14
2-4/C 14
2-2/C 14
1-3/C 14
1-3/C 14 (LUM)
1-3/C 20
1-3/C 14
1-1/C 6 INS. GR.

HH 1 TO CABINET
3" CONDUIT
3-12/C 14
2-6/C 14
4-4/C 14
4-2/C 14
2-3/C 14
2-3/C 20
1-3/C 14
1-1/C 6 INS. GR.

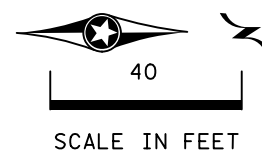
HH 2 TO HH 1
3" CONDUIT
2-12/C 14
1-6/C 14
2-4/C 14
4-2/C 14
1-3/C 14
1-3/C 14 (LUM)
1-3/C 20
1-3/C 14
1-1/C 6 INS. GR.

HH 8 TO SERV
3" CONDUIT
2-3/C 14
2-3/C 14 (LUM)

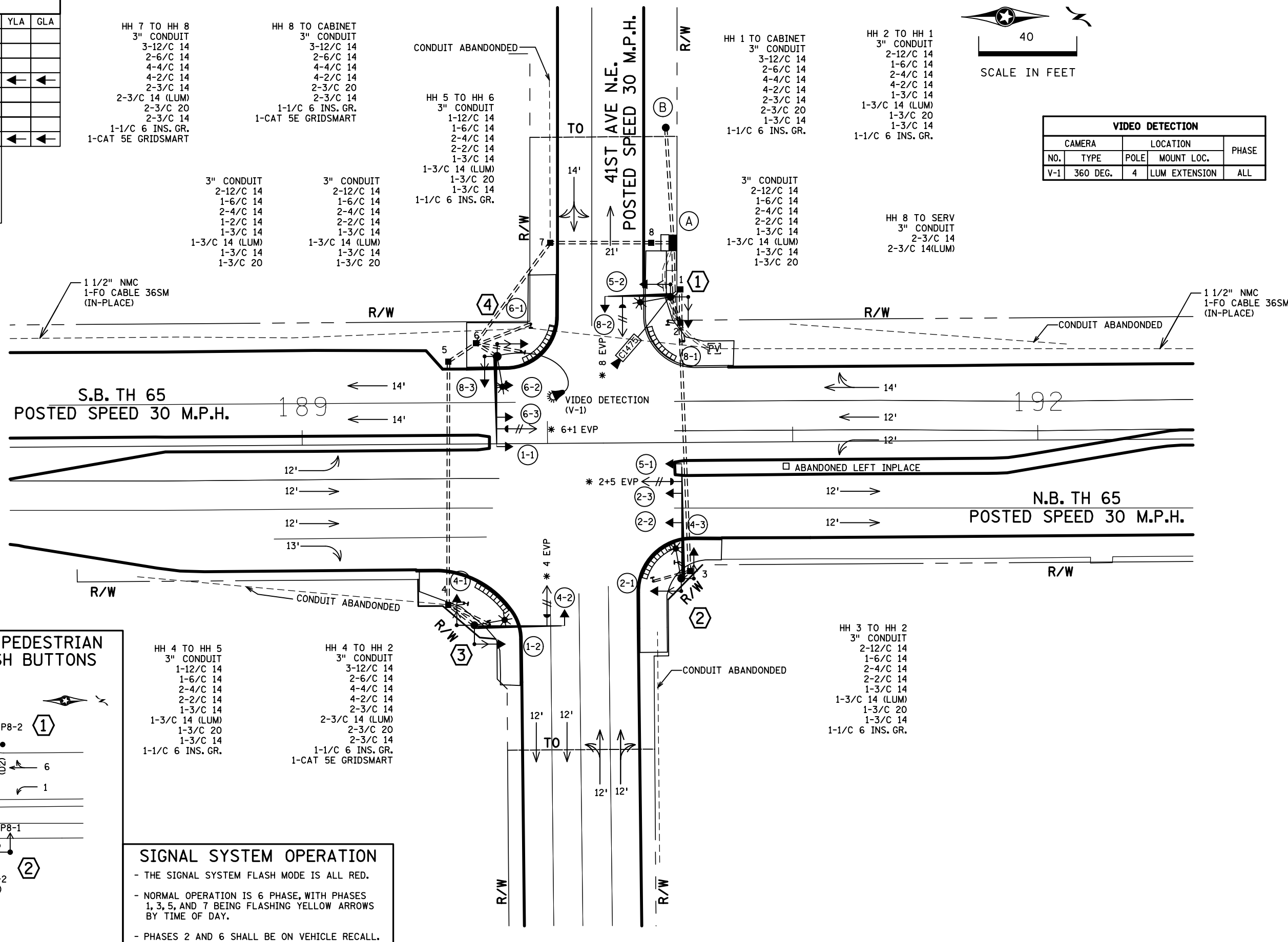
HH 4 TO HH 5
3" CONDUIT
1-12/C 14
1-6/C 14
2-4/C 14
2-2/C 14
1-3/C 14
1-3/C 14 (LUM)
1-3/C 20
1-3/C 14
1-1/C 6 INS. GR.

HH 4 TO HH 2
3" CONDUIT
3-12/C 14
2-6/C 14
4-4/C 14
4-2/C 14
2-2/C 14
2-3/C 14
2-3/C 14 (LUM)
2-3/C 20
2-3/C 14
1-1/C 6 INS. GR.
1-CAT 5E GRIDSMART

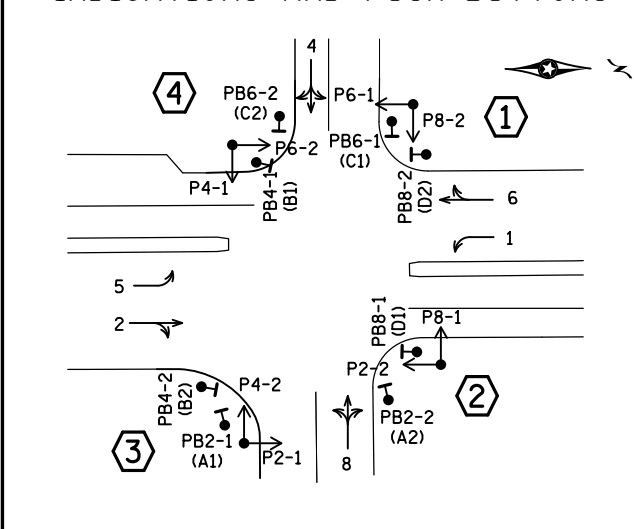
HH 3 TO HH 2
3" CONDUIT
2-12/C 14
1-6/C 14
2-4/C 14
2-2/C 14
1-3/C 14
1-3/C 14 (LUM)
1-3/C 20
1-3/C 14
1-1/C 6 INS. GR.



VIDEO DETECTION				
CAMERA		LOCATION		PHASE
NO.	TYPE	POLE	MOUNT LOC.	
V-1	360 DEG.	4	LUM EXTENSION	ALL



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, 3, 5, AND 7 BEING FLASHING YELLOW ARROWS BY TIME OF DAY.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

BY	DATE	REVISIONS	SYSTEM ID: 2405060	T.E. 7057	S.A.P. NO. 113-010-020	DRAWN BY: J3T	CKD BY: MPG	DATE: 11-30-18
SJK	12/22/21	AS-BUILT PLAN	METER ADDRESS: 4100 CENTRAL AVE NE	OLD SYSTEM ID: 1735523	CERTIFIED BY: <i>Michael P. Lubinsky</i>	LIC. NO. 19863	DATE: 12-14-2018	
					STATE PROJ. NO. 0207-99 (T.H. 65) SHEET NO. 19 OF 26 SHEETS			

INTERSECTION LAYOUT
TRAFFIC CONTROL SIGNAL SYSTEM
T.H. 65 AT 41ST AVE NE
COLUMBIA HEIGHTS, ANOKA COUNTY

DISTRICT #: Metro
 PLOT NAME: 2405060.sgl
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1 PA85 POLE FOUNDATION
 TYPE PA85-A-25
 1-ANGLE MOUNT SIGNAL W/CLUSTER ADAPTER 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-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE B)
 S&I X6-350/CAM 400 EXTENSION (DAVIT AT 350 DEG) FROM POLE 4
 1-VIDEO CAMERA W/MOUNT (C1475)
 1-R10-12 SIGN ADJACENT TO HEAD (8-2)
 1-INTERNALLY ILLUMINATED SIGN ((D-2), SEE SIGN DETAILS)
 1-TYPE "D" SIGN (D3), SEE SIGN DETAILS
 3" CONDUIT TO HH 1:
 1-12/C 14
 1-6/C 14
 2-4/C 14
 1-3/C 14 (SIGN)
 1-3/C 14 (LUM)
 1-3/C 14
 1-3/C 20
 1-CAT 5E
 1-7/16 GR. BRAID
 1-1/C 6 INS. GR.

3 PA90 POLE FOUNDATION
 TYPE PA90-A-35-D40-9
 1-ANGLE MOUNT SIGNAL W/CLUSTER ADAPTER 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-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 4)
 1-R10-12 SIGN ADJACENT TO HEAD (4-2)
 1-INTERNALLY LIT SIGN ((D-2), SEE SIGN DETAILS)
 1-TYPE "D" SIGN (D-3), SEE SIGN DETAILS
 3" CONDUIT TO HH 4:
 1-12/C 14
 1-6/C 14
 2-4/C 14
 1-3/C 14 (SIGN)
 1-3/C 14 (LUM)
 1-3/C 14
 1-3/C 20
 1-1/C 6 INS. GR.

PED PB STATION
 1-APS PB AND SIGN
 (LT ARROW) (PB6-1)
 EXTEND INTO HH 2:
 2" CONDUIT
 1-2/C 14
 1-1/C 6 INS. GR.

PED PB STATION
 1-APS PB AND SIGN
 (RT ARROW) (PB8-2)
 EXTEND INTO HH 2:
 2" CONDUIT
 1-2/C 14
 1-1/C 6 INS. GR.

PED PB STATION
 1-APS PB AND SIGN
 (RT ARROW) (PB2-2)
 EXTEND INTO HH 3:
 2" CONDUIT
 1-2/C 14
 1-1/C 6 INS. GR.

PED PB STATION
 1-APS PB AND SIGN
 (LT ARROW) (PB8-1)
 EXTEND INTO HH 3:
 2" CONDUIT
 1-2/C 14
 1-1/C 6 INS. GR.

PED PB STATION
 1-APS PB AND SIGN
 (RT ARROW) (PB4-2)
 EXTEND INTO HH 4:
 2" CONDUIT
 1-2/C 14
 1-1/C 6 INS. GR.

PED PB STATION
 1-APS PB AND SIGN
 (LT ARROW) (PB2-1)
 EXTEND INTO HH 4:
 2" CONDUIT
 1-2/C 14
 1-1/C 6 INS. GR.

2 PA100 POLE FOUNDATION
 TYPE PA100-A-45-D40-9
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 2-STRAIGHT MOUNTS SIGNAL 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
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 2+5)
 1-R10-X12 SIGN ADJACENT TO HEAD (2-3)
 1-INTERNALLY LIT SIGN ((D-1), SEE SIGN DETAILS)
 3" CONDUIT TO HH 3:
 2-12/C 14
 1-6/C 14
 2-4/C 14
 1-3/C 14 (SIGN)
 1-3/C 14 (LUM)
 1-3/C 14
 1-3/C 20
 1-1/C 6 INS. GR.

4 PA100 POLE FOUNDATION
 TYPE PA100-A-35-D40-9
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 1-VIDEO DETECTION CAMERA (V-1)
 2-STRAIGHT MOUNTS SIGNAL 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
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 6+1)
 1-R10-X12 SIGN ADJACENT TO HEAD (6-3)
 1-INTERNALLY LIT SIGN ((D-1), SEE SIGN DETAILS)
 3" CONDUIT TO HH 6:
 2-12/C 14
 1-6/C 14
 2-4/C 14
 1-3/C 14 (SIGN)
 1-3/C 14 (LUM)
 1-3/C 14
 1-3/C 20
 1-1/C 6 INS. GR.
 1-CAT 5E GRIDSMART

PED PB STATION
 1-APS PB AND SIGN
 (RT ARROW) (PB6-2)
 EXTEND INTO HH 6:
 2" CONDUIT
 1-2/C 14
 2-1/C 6 INS. GR.

PED PB STATION
 1-APS PB AND SIGN
 (LT ARROW) (PB4-1)
 EXTEND INTO HH 6:
 2" CONDUIT
 1-2/C 14
 1-1/C 6 INS. GR.

A EQUIPMENT PAD (SEE DETAIL SHEET)
 SERVICE CABINET (SSB) NO BATTERY BACKUP SYSTEM OR BATTERIES
 CONTROLLER AND CABINET (STATE FURNISHED)

CONTROLLER CABINET TO HH 8: 3" CONDUIT 2-12/C 14 1-6/C 14 2-4/C 14 2-2/C 14 1-3/C 14 1-3/C 20	CONTROLLER CABINET TO HH 1: 3" CONDUIT 1-12/C 14 1-6/C 14 2-4/C 14 2-2/C 14 1-3/C 14 1-3/C 20 1-CAT 5E
CONTROLLER CABINET TO HH 16" 3" CONDUIT TO HH 16: 1-12/C 14 1-6/C 14 2-4/C 14 2-2/C 14 1-3/C 14 1-3/C 20 1-1/C 6 INS. GR.	CONTROLLER CABINET TO HH 1: 3" CONDUIT 2-12/C 14 1-6/C 14 2-4/C 14 2-2/C 14 1-3/C 14 1-3/C 20 1-1/C 6 INS. GR.
CONTROLLER CABINET TO HH 16: 3" CONDUIT 10-2/C 14	CONTROLLER CABINET TO HH 1: 3" CONDUIT 10-2/C 14

GROUND WIRE AND GROUND ROD - MIN 8' OUT FROM PAD
 2-2" AND 1-3" CONDUIT STUBBED OUT (CAPPED BOTH ENDS)

CONTROLLER CABINET TO TMS VAULT:
 1 1/4" PVC
 1-FIBER OPTIC CABLE (6-SM) WITH PRE-TERMINATED CABLE END (SEE SHEET 19, NOTE 15)

CONTROLLER CABINET TO SERVICE CABINET:
 2" CONDUIT
 3-1/C 6

SERVICE CABINET TO POLE MOUNTED TRANSFORMER:
 2" CONDUIT
 3-1/C 2

SERVICE CABINET TO HH 16:
 2" CONDUIT
 2-3/C 14 (SIGN)
 2-3/C 14 (LUM)

SERVICE CABINET TO HH 1:
 2" CONDUIT
 2-3/C 14 (SIGN)
 2-3/C 14 (LUM)

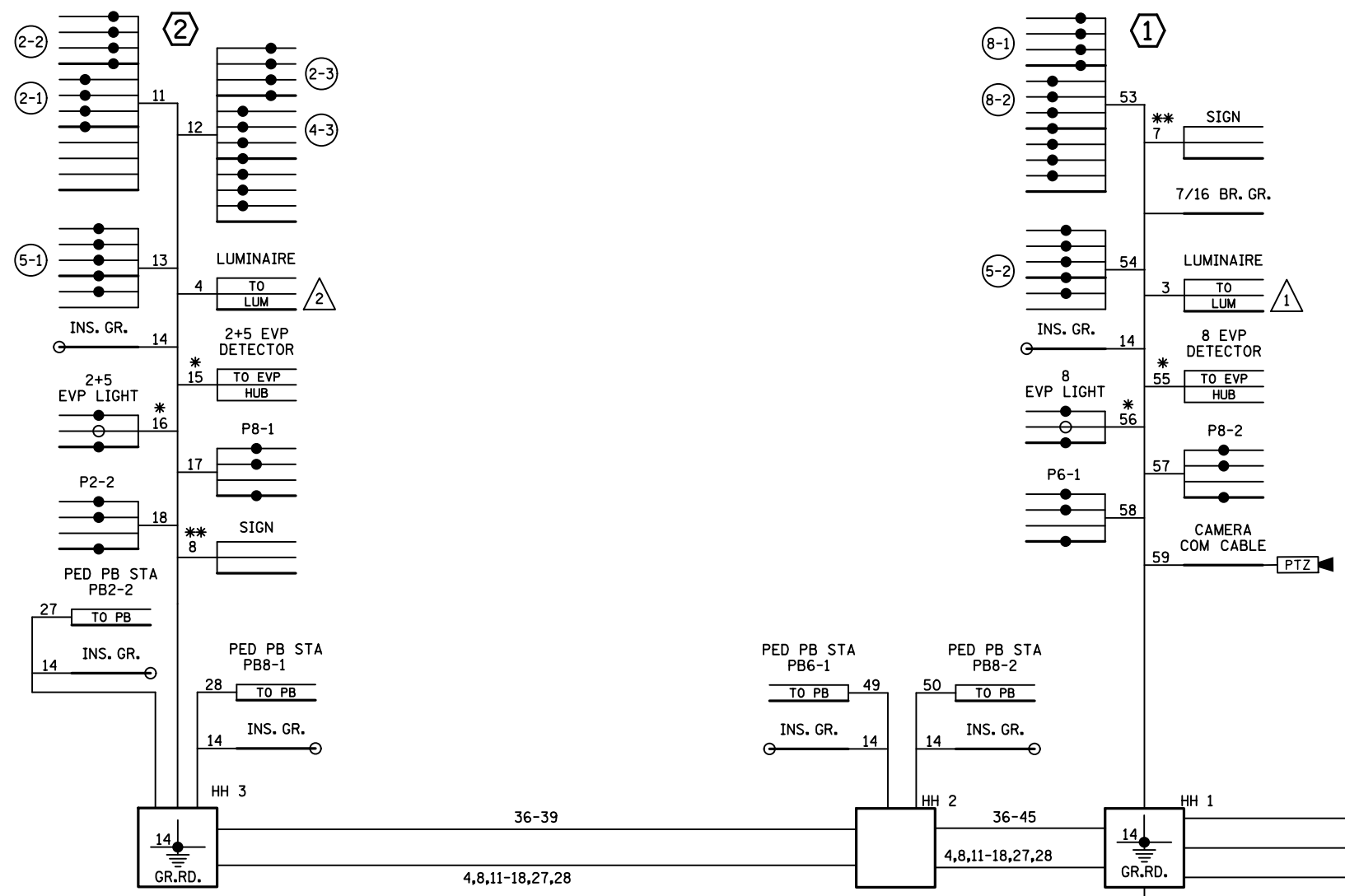
SERVICE CABINET TO EXTERNAL GR. RD.:
 1" CONDUIT
 1-1/C 6 INS. GR.
 (SEE EQUIPMENT PAD LAYOUT)

B SOP-POLE MOUNTED TRANSFORMER (XCEL ENERGY)
 2" CONDUIT INTO SERVICE CABINET:
 3-1/C 2

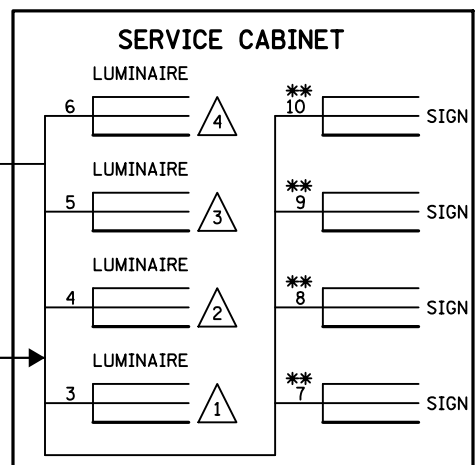
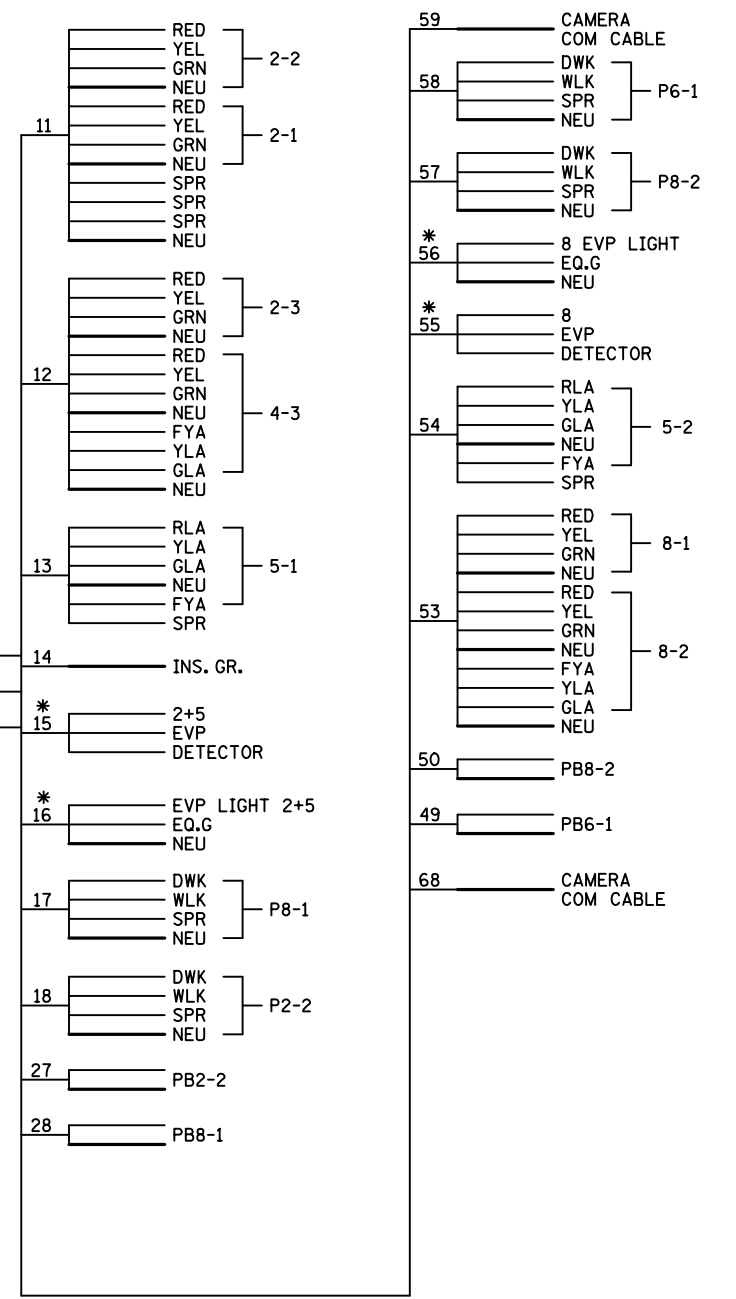
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SJK	12/22/21	AS-BUILT PLAN	METER ADDRESS: 4100 CENTRAL AVE NE		CERTIFIED BY: <i>Michael P. Lubinsky</i>	LIC. NO. 19863	DATE: 12-14-2018	
			OLD SYSTEM ID: 1735523		STATE PROJ. NO. 0207-99 (T.H. 65)		SHEET NO. 20 OF 26 SHEETS	
INTERSECTION NOTES TRAFFIC CONTROL SIGNAL SYSTEM T.H. 65 AT 41ST AVE NE COLUMBIA HEIGHTS, ANOKA COUNTY								

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CONTROLLER CABINET



- NOTES:**
1. SIGNAL SYSTEM INCLUDES BATTERY BACKUP SERVICE CABINET (NO BATTERIES).
 2. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.
 3. TRAFFIC CONTROL INTERCONNECT IS INCLUDED IN PAYMENT FOR TH "TRAFFIC CONTROL SIGNAL SYSTEM" PAY ITEM.
 4. ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE "EMERGENCY VEHICLE PREEMTION SYSTEM" PAY ITEM.
 5. ITEMS DENOTED WITH AN ** ARE INCLUDED IN PAYMENT FOR THE "INTERNALLY ILLUMINATED SIGN" PAY ITEM.

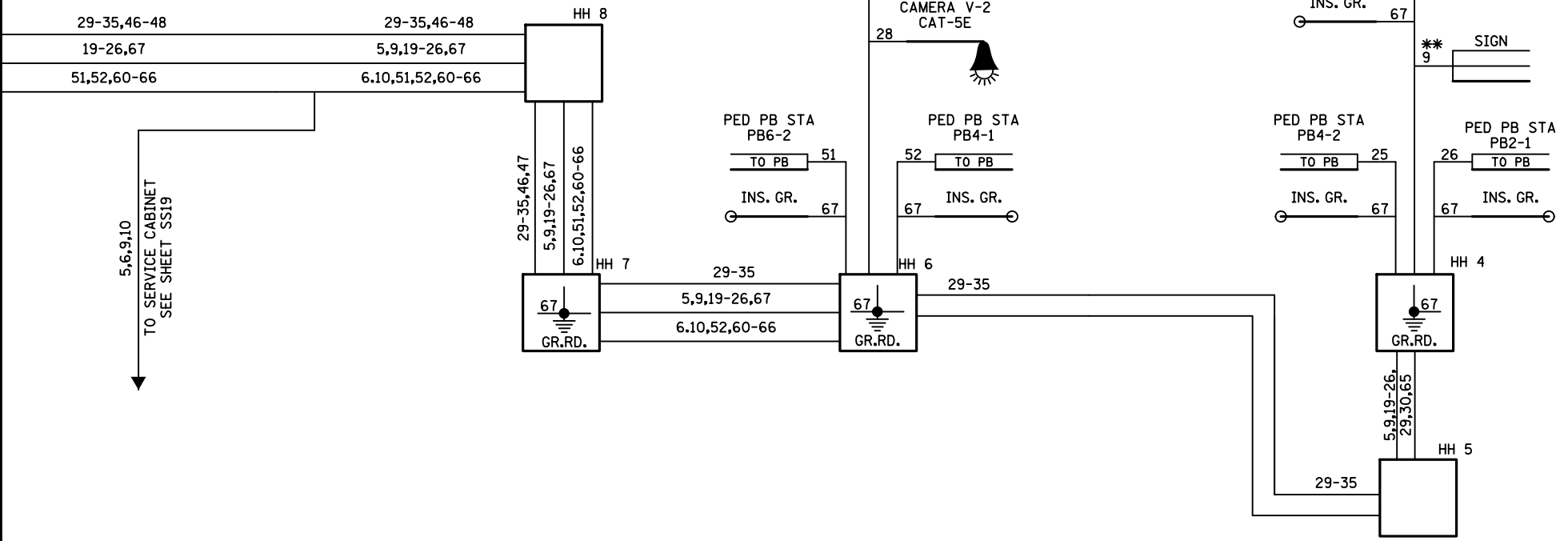
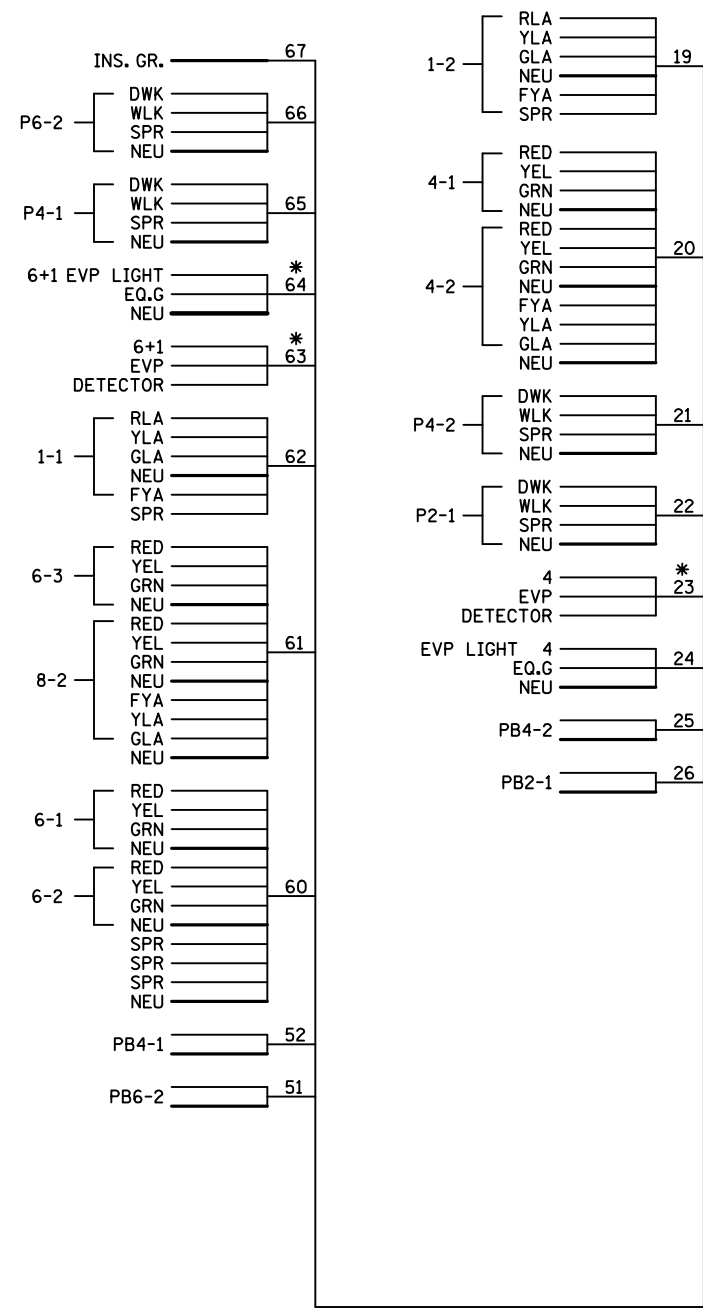
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			OLD SYSTEM ID: 1735523		STATE PROJ. NO. 0207-99 (T.H. 65)		SHEET NO. 21 OF 26 SHEETS	

FIELD WIRING DIAGRAM (1 OF 2)
 TRAFFIC CONTROL SIGNAL SYSTEM
 T.H. 65 AT 41ST AVE NE
 COLUMBIA HEIGHTS, ANOKA COUNTY

CONTROLLER CABINET

NOTES:

1. SIGNAL SYSTEM INCLUDES BATTERY BACKUP SERVICE CABINET (NO BATTERIES).
2. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.
3. TRAFFIC CONTROL INTERCONNECT IS INCLUDED IN PAYMENT FOR TH "TRAFFIC CONTROL SIGNAL SYSTEM" PAY ITEM.
4. ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE "EMERGENCY VEHICLE PREEMPTION SYSTEM" PAY ITEM.
5. ITEMS DENOTED WITH AN ** ARE INCLUDED IN PAYMENT FOR THE "INTERNALLY ILLUMINATED SIGN" PAY ITEM.



FIBER OPTIC PIGTAIL ** 90 TO TMS VAULT 1-FO CABLE (6-SM) (PULL BACK AND RE-INSTALL)

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BY	DATE	REVISIONS	SYSTEM ID: 2405060 T.E. 7057	FIELD WIRING DIAGRAM (2 OF 2)	S.A.P. NO. 113-010-020	DRAWN BY: J3T	CKD BY: MPG	DATE: 11-30-18
SJK	12/22/21	AS-BUILT PLAN	METER ADDRESS: 4100 CENTRAL AVE NE	TRAFFIC CONTROL SIGNAL SYSTEM	CERTIFIED BY: <i>Michael P. Lubinsky</i>	LIC. NO. 19863	DATE: 12-14-2018	
			OLD SYSTEM ID: 1735523	T.H. 65 AT 41ST AVE NE	STATE PROJ. NO. 0207-99 (T.H. 65)			SHEET NO. 22 OF 26 SHEETS
				COLUMBIA HEIGHTS, ANOKA COUNTY				