

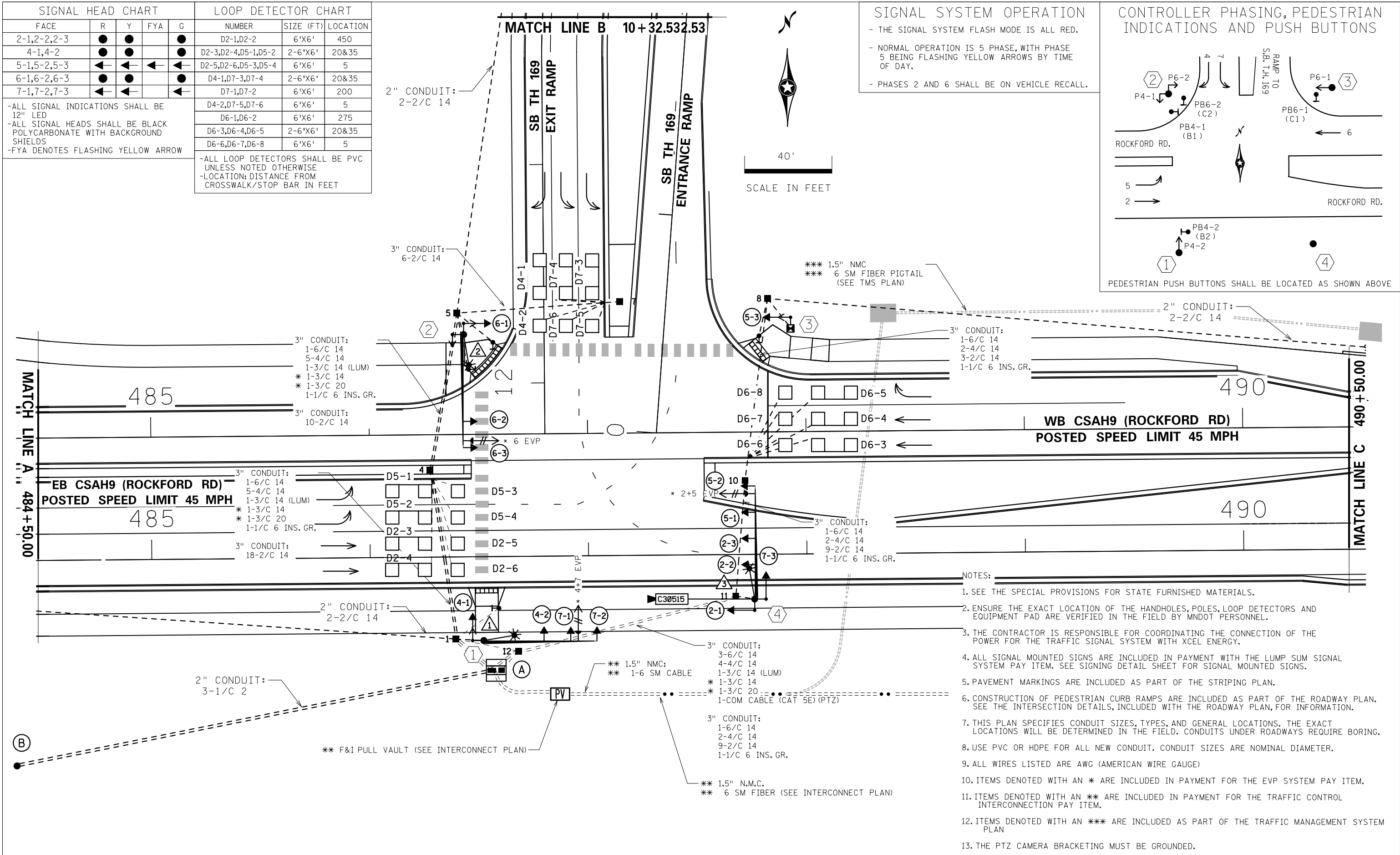
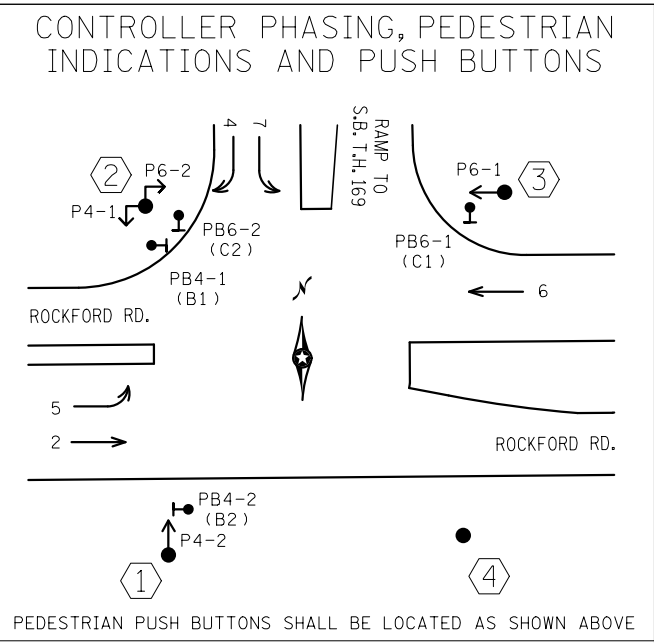
PLOTTED/REVISED: 14-MAY-2024

PLOT NAME: layout
FILENAME: Projects\DM罗斯690000\Traffic\Signals\320 TH 169 @ (9) ROCKFORD RD W RAMP 4344814\4_sgl

SIGNAL HEAD CHART				LOOP DETECTOR CHART		
FACE	R	Y	FYA	NUMBER	SIZE (FT)	LOCATION
2-1,2-2,2-3	●	●	●	D2-1,D2-2	6'X6'	450
4-1,4-2	●	●	●	D2-3,D2-4,D5-1,D5-2	2-6'X6'	20&35
5-1,5-2,5-3	←	←	←	D2-5,D2-6,D5-3,D5-4	6'X6'	5
6-1,6-2,6-3	●	●	●	D4-1,D7-3,D7-4	2-6'X6'	20&35
7-1,7-2,7-3	←	←	←	D7-1,D7-2	6'X6'	200
-ALL SIGNAL INDICATIONS SHALL BE 12" LED -ALL SIGNAL HEADS SHALL BE BLACK POLYCARBONATE WITH BACKGROUND SHIELDS -FYA DENOTES FLASHING YELLOW ARROW				D4-2,D7-5,D7-6	6'X6'	5
				D6-1,D6-2	6'X6'	275
				D6-3,D6-4,D6-5	2-6'X6'	20&35
				D6-6,D6-7,D6-8	6'X6'	5
				-ALL LOOP DETECTORS SHALL BE PVC UNLESS NOTED OTHERWISE -LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET		

SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 5 PHASE, WITH PHASE 5 BEING FLASHING YELLOW ARROWS BY TIME OF DAY.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

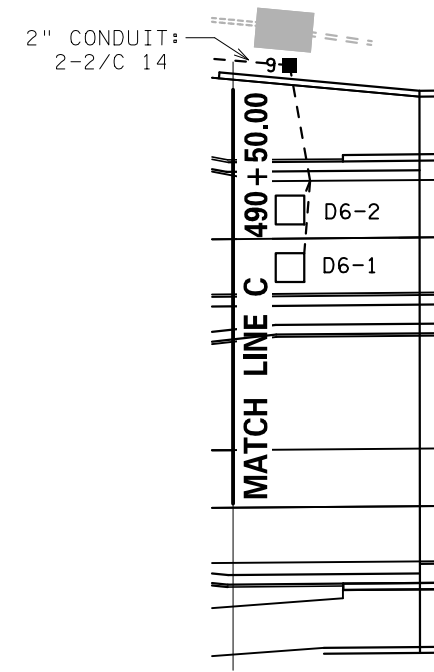
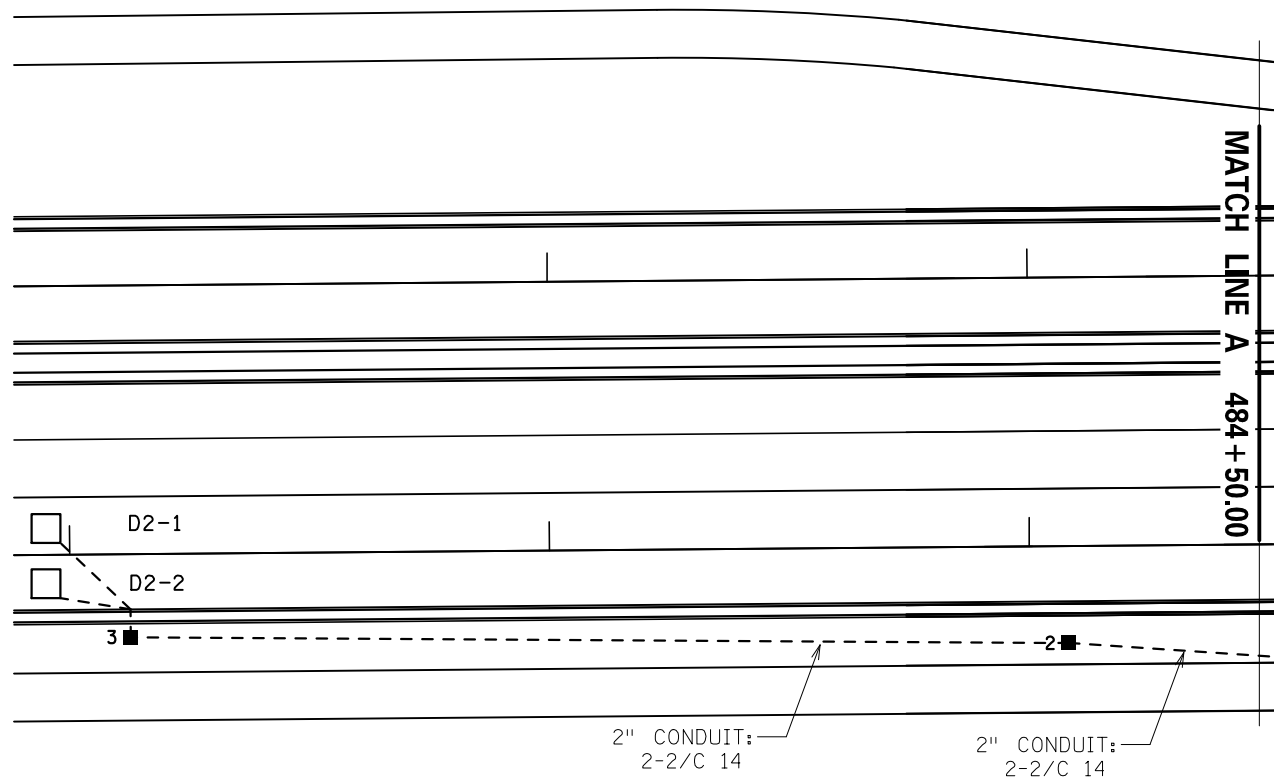
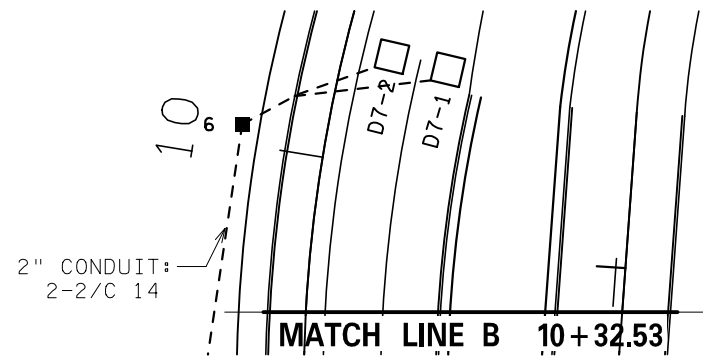


BY	DATE	REVISIONS	SYSTEM ID: 4344814	T.E. 49095	STATE PROJ. NO. 182-020-027,155-020-021,027-609-042	DRAWN BY:RMV	CKD BY:MJB	DATE:12/08/22
SJK	5/14/24	NEW SOP	METER ADDRESS: 9409 42ND AVE N		CERTIFIED BY: <i>Gregory Ken</i>	LIC. NO. 26829	DATE: 12/08/22	
			OLD SYSTEM ID:		STATE PROJ.NO. 2772-115 (T.H.169) SHEET NO. SS13 OF SS24 SHEETS			

INTERSECTION LAYOUT
TRAFFIC CONTROL SIGNAL SYSTEM A
TH 169 @ CSAH 9 (ROCKFORD RD) WEST RAMP
IN PLYMOUTH, HENNEPIN COUNTY

PLOTTED/REVISED: 14-MAY-2024

I/PLOT NAME: match lines
 FILENAME: Projects\DM_FROSV69\0000\Traffic\Signals\320 TH 169 @ (9) ROCKFORD RD W RAMP 434481\T4344814.sgl



** 1.5" NMC:
 ** 1-6 SM CABLE

BY	DATE	REVISIONS
SJK	5/14/24	NEW SOP

SYSTEM ID: 4344814 T.E. 49095
 METER ADDRESS: 9409 42ND AVE N
 OLD SYSTEM ID:

MATCHLINES
 TRAFFIC CONTROL SIGNAL SYSTEM A
 TH 169 @ CSAH 9 (ROCKFORD RD) WEST RAMP
 IN PLYMOUTH, HENNEPIN COUNTY

STATE PROJ. NO. 182-020-027,155-020-021,027-609-042 DRAWN BY:RMV CKD BY:MJB DATE:12/08/22
 CERTIFIED BY *Gregory Ken* LIC. NO. 26829 DATE: 12/08/22
 STATE PROJ.NO. 2772-115 (T.H.169) SHEET NO. SS14 OF SS24 SHEETS

PLOTTED/REVISED: 14-MAY-2024

PLOT NAME: pole notes
FILENAME: Projects\DM_FROSV69\0000\Traffic\Signals\320 TH 169 @ (9)\ROCKFORD RD W RAMP 434481\4344814.sgl

② X=494942.9387 Y=188379.7992
 PA100 POLE FOUNDATION
 TYPE PA100-50-A-D40-9 (DAVIT AT 350 DEG)
 1-LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0' (6-3)
 1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 12' (6-2)
 1-ANGLE MOUNT SIGNAL AT 180° (6-1)
 2-ANGLE MOUNT C.D. PED HEADS AT 90° AND 180° (P6-2, P4-1)
 * 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 6)
 1-SIGN (SOUTH US 169 NORTH ARROW) (SEE SIGN DETAILS)
 3" CONDUIT TO HH 5:
 1-6/C 14
 5-4/C 14
 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
 (RT ARROW) (PB6-2)
 EXTEND INTO HH 5:
 1" CONDUIT
 1-2/C 14
 1-1/C 6 INS. GR.

PED PB STATION
 1-APS PB AND SIGN
 (LT ARROW) (PB4-1)
 EXTEND INTO HH 5:
 1" CONDUIT
 1-2/C 14
 1-1/C 6 INS. GR.

③ X=495092.6582 Y=188382.5901
 SIGNAL HEAD PEDESTAL POLE FOUNDATION
 SIGNAL HEAD PEDESTAL POLE (APPROVED PRODUCTS LIST)
 1-ANGLE MOUNT SIGNAL AT 90° (5-3)
 1-ANGLE MOUNT C.D. PED HEAD AT 90° (P6-1)
 1-TYPE R9-3 (NO PEDS) FACING POLE 4
 3" CONDUIT TO HH 8:
 2-6/C 14
 1-4/C 14
 1-1/C 6 INS. GR.

PED PB STATION
 1-APS PB AND SIGN
 (LT ARROW) (PB6-1)
 EXTEND INTO HH 8:
 1" CONDUIT
 1-2/C 14
 1-1/C 6 INS. GR.

① X=494952.2385 Y=188239.7338
 PA100 POLE FOUNDATION
 TYPE PA100-50-A-D40-9 (DAVIT AT 350 DEG)
 1-LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0' (7-2)
 2-STRAIGHT MOUNT SIGNALS OVERHEAD AT 12' AND 24' (7-1, 4-2)
 1-ANGLE MOUNT SIGNAL AT 180° (4-1)
 1-ANGLE MOUNT C.D. PED HEADS AT 180° (P4-2)
 * 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 4+7)
 2-SIGNS (CSAH 9 DOUBLE ARROW)
 (LEFT ARROW 42ND AVE - ROCKFORD RD RIGHT ARROW)
 (SEE SIGN DETAILS)
 3" CONDUIT TO HH 1:
 1-6/C 14
 5-4/C 14
 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) (PB4-2)
 EXTEND INTO HH 1:
 1" CONDUIT
 1-2/C 14
 1-1/C 6 INS. GR.

④ X=495076.2492 Y=188258.7300
 PA100 POLE FOUNDATION
 TYPE PA100-A-50-X6-350/CAM 400 EXTENSION (DAVIT AT 350 DEG)
 (INCLUDES LIGHTING ROD, 7/16" GROUND BRAID AND GROUND ROD)
 1-LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
 1-PTZ VIDEO CAMERA (STATE FURNISHED)
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0' (5-2)
 3-STRAIGHT MOUNT SIGNALS OVERHEAD AT 12', 24'
 AND 36' (5-1, 2-3, 2-2)
 2-ANGLE MOUNT SIGNALS AT 90° AND 180° (7-3, 2-1)
 * 1-ONE WAY EVP DETECTOR AND
 CONFIRMATORY LIGHT (PHASES 2 AND 5)
 1-TYPE R9-3 SIGN (NO PEDS) FACING POLE 3
 1-R10-X12 SIGN ADJACENT TO HEAD (5-2)
 2-SIGNS (SOUTH US 169 LEFT ARROW)
 (NORTH US 169 STRAIGHT ARROW) (SEE SIGN DETAILS)
 3" CONDUIT TO HH 11:
 3-6/C 14
 4-4/C 14
 1-3/C 14 (LUM)
 * 1-3/C 14
 * 1-3/C 20
 1-COM CABLE (CAT 5E) (PTZ)
 1-7/16" GROUNDING BRAID (LIGHTING ROD TO GROUND ROD)
 1-1/C 6 INS. GR.

Ⓐ EQUIPMENT PAD (SEE DETAIL SHEET)
 SERVICE CABINET (SSB)
 NO BATTERY BACKUP SYSTEM OR BATTERIES
 CONTROLLER AND CABINET (STATE FURNISHED)
 3" CONDUIT TO HH 1:
 1-6/C 14
 5-4/C 14
 * 1-3/C 14
 * 1-3/C 20

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

3" CONDUIT TO HH 12:
 3-6/C 14
 4-4/C 14
 * 1-3/C 14
 * 1-3/C 20
 1-COM CABLE (CAT 5E) (PTZ)
 3" CONDUIT TO HH 12:
 1-6/C 14
 2-4/C 14
 9-2/C 14
 1-1/C 6 INS. GR.

GROUND WIRE AND GROUND ROD
 - MIN 8' OUT FROM PAD
 2-2" AND 1-3" CONDUIT STUBBED OUT
 (CAPPED BOTH ENDS)
 ** 1.5" CONDUIT TO PULL VAULT:
 *** 1-FO PIGTAIL (6-SM) (DONE BY OTHERS)
 ** 1-6 SM FIBER (TO ROCKFORD RD E RAMPS)
 CONTROLLER CABINET TO SERVICE CABINET:
 2" CONDUIT
 3-1/C 6
 CONTROLLER CABINET TO SERVICE CABINET (COMMS):
 1-6PR 19
 SERVICE CABINET TO GROUND MOUNTED TRANSFORMER:
 2" CONDUIT:
 3-1/C 2

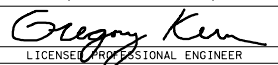
SERVICE CABINET TO HH 12:
 2" CONDUIT
 3-3/C 14 (LUM)
 SERVICE CABINET TO EXTERNAL GR. RD.:
 1" CONDUIT
 1-1/C 6 INS. GR.
 (SEE EQUIPMENT PAD LAYOUT)
 HH 1 TO HH 12:
 2" CONDUIT
 2-3/C 14 (LUM)

Ⓑ SOP-WOOD POLE
 (COORDINATE WITH XCEL ENERGY)
 2" CONDUIT INTO SERVICE CABINET:
 3-1/C 2

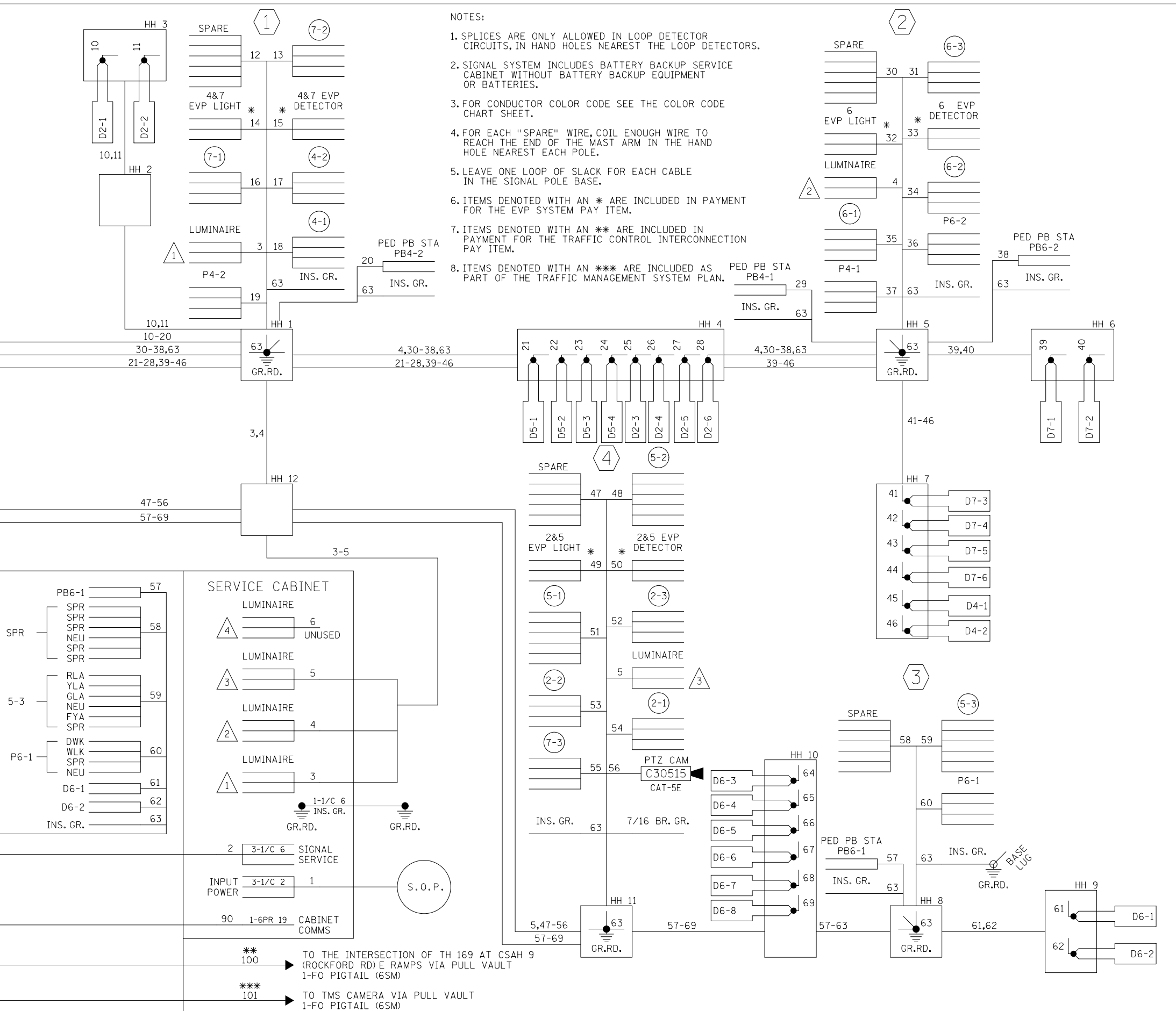
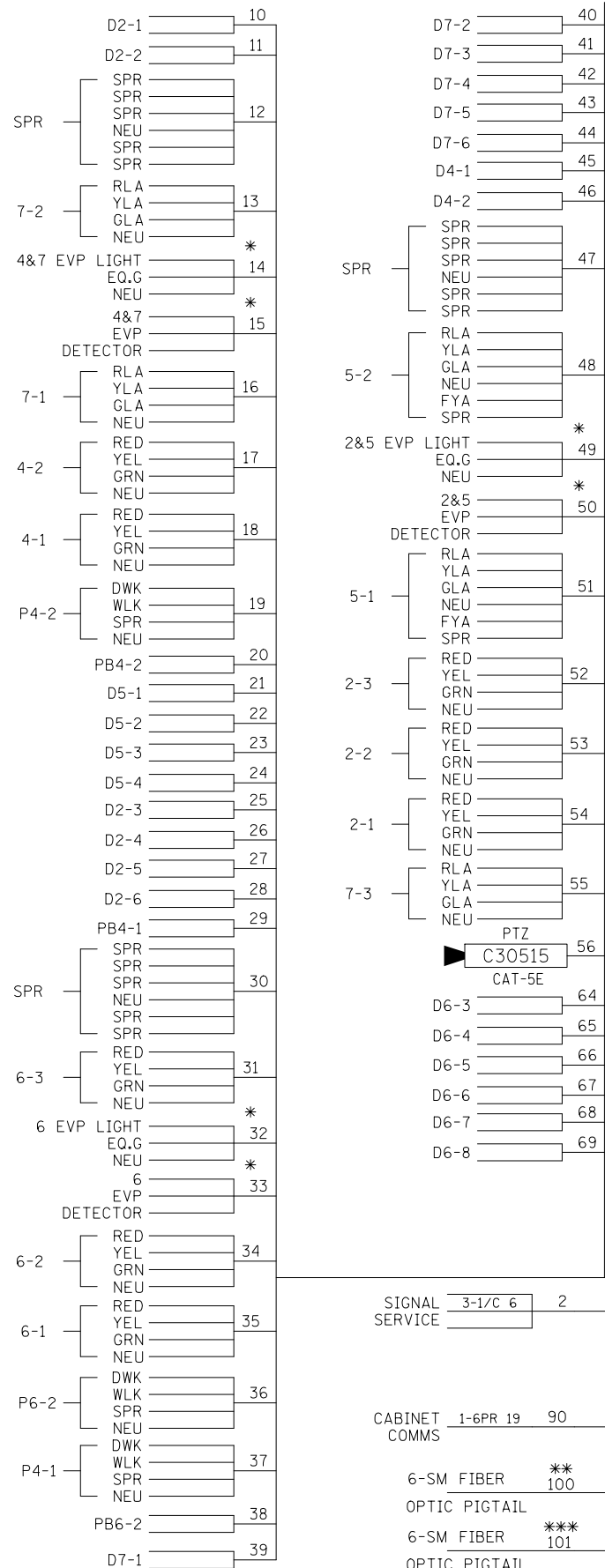
BY	DATE	REVISIONS
SJK	5/14/24	NEW SOP

SYSTEM ID: 4344814 T.E. 49095
 METER ADDRESS: 9409 42ND AVE N
 OLD SYSTEM ID:

POLE NOTES
 TRAFFIC CONTROL SIGNAL SYSTEM A
 TH 169 @ CSAH 9 (ROCKFORD RD) WEST RAMP
 IN PLYMOUTH, HENNEPIN COUNTY

STATE PROJ. NO. 182-020-027,155-020-021,027-609-042 DRAWN BY:RMV CKD BY:MJB DATE:10/28/22
 CERTIFIED BY  LIC. NO. 26829 DATE: 10/28/22
 STATE PROJ.NO. 2772-115 (T.H.169) SHEET NO. SS15 OF SS24 SHEETS

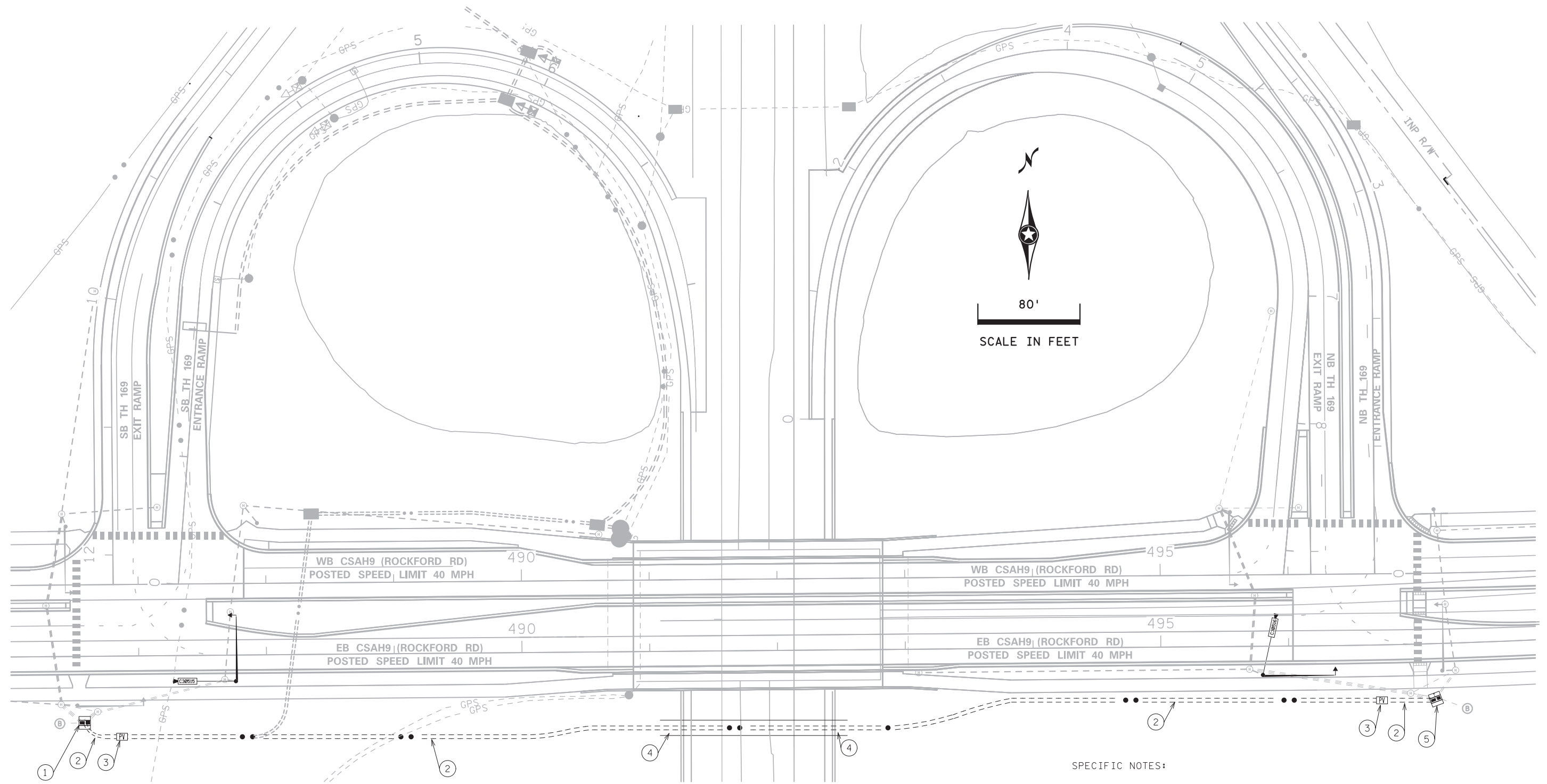
CONTROLLER CABINET



PLOTTED/REVISED: 14-MAY-2024

PLOT NAME: wiring diagram
 FILENAME: Projects\DM_ROS\690000TrafficSignals\320 TH 169 @ (9) ROCKFORD RD W RAMP 434481\4344814.sgl

BY	DATE	REVISIONS	SYSTEM ID: 4344814	T.E. 49095	STATE PROJ. NO. 182-020-027,155-020-021,027-609-042	DRAWN BY:RMV	CKD BY:MJB	DATE:10/28/22
SJK	5/14/24	NEW SOP	METER ADDRESS: 9409 42ND AVE N	WIRING DIAGRAM	CERTIFIED BY <i>Gregory Ken</i>		LIC. NO. 26829	DATE: 10/28/22
			OLD SYSTEM ID:	TRAFFIC CONTROL SIGNAL SYSTEM A	LICENSED PROFESSIONAL ENGINEER			
				TH 169 @ CSAH 9 (ROCKFORD RD) WEST RAMP	STATE PROJ.NO. 2772-115 (T.H.169)		SHEET NO. SS16 OF SS24 SHEETS	
				IN PLYMOUTH, HENNEPIN COUNTY				



GENERAL NOTES:

1. ALL WORK AND MATERIALS (INCLUDING FIELD TERMINATING AND TESTING THE 6-SM CABLE) REQUIRED TO CONSTRUCT THE TRAFFIC SIGNAL INTERCONNECT IS INCLUDED IN THE LUMP SUM PAYMENT FOR THE "TRAFFIC CONTROL INTERCONNECT" PAY ITEM.
2. SEE THE TMS PLAN FOR INFORMATION ABOUT THE PROPOSED FIBER PIGTAIL, TWO PULL VAULTS, AND 1.5" NMC CONNECTING THE TMS CAMERA TO SIG SYS 4344814.
3. FIELD TERMINATIONS OF 6 SM CABLE REQUIRE BOTH POWER METER AND OTDR TESTING.

SPECIFIC NOTES:

- ① PROPOSED SIGNAL CABINET (SIG SYS 4344814)
F&I 1-F0 PIGTAIL TERMINATION
- ② F&I 1.5" NMC & 1-F0 PIGTAIL (6-SM)
- ③ F&I PULL VAULT
- ④ F&I 1.5" NMC BORE & 1-F0 PIGTAIL (6 SM)
- ⑤ PROPOSED SIGNAL CABINET (SIG SYS 4344813)
F&I 1-F0 PIGTAIL TERMINATION

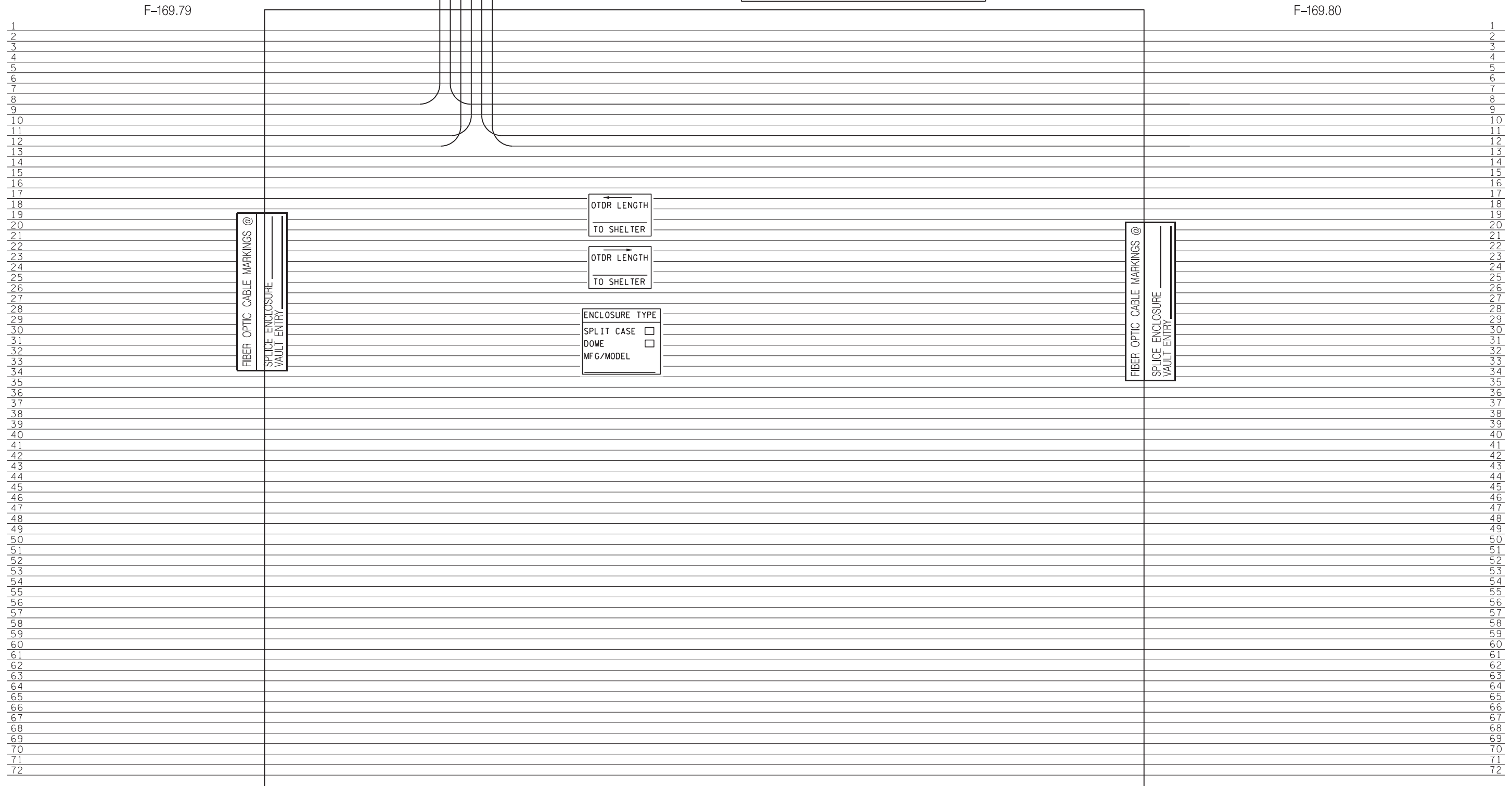
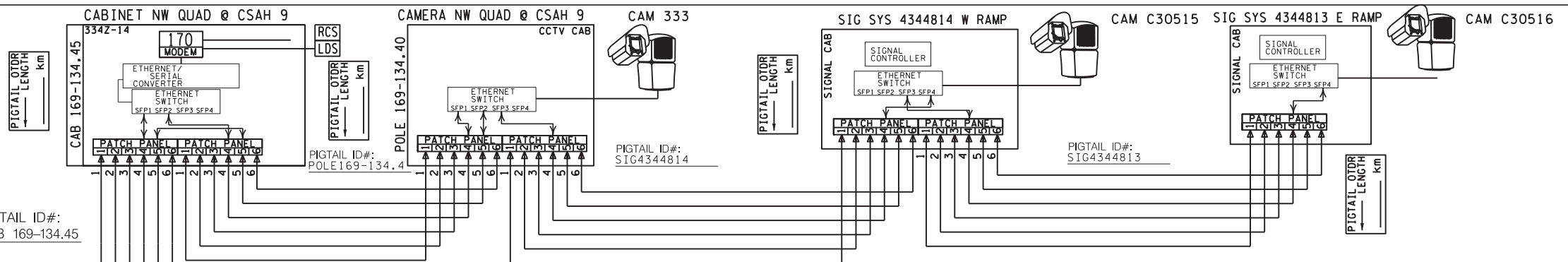
BY	DATE	REVISIONS

SYSTEM ID: 4344813 to 4344814
METER ADDRESS:
OLD SYSTEM ID:

TRAFFIC CONTROL INTERCONNECT

STATE PROJ. NO. 182-020-027,155-020-021,027-609-042	DRAWN BY: MJB	CKD BY:	DATE: 10/28/22
CERTIFIED BY: <i>Gregory Kim</i>	LIC. NO. 26829	DATE: 10/28/22	
STATE PROJ. NO. 2772-115 (T.H.169) SHEET NO. SS11 OF SS24 SHEETS			

- FD = FIBER DISTRIBUTION FRAME
- = DIRECT PIGTAIL TERMINATION FROM TRUNK LINE TO FRONT OF FDF
- = FDF TERMINATED FIBER
- = FDF TERMINATED FIBER W/ PATCHCORD CONNECTION
- = SINGLE-MODE (MAIN FIBERS ONLY)
- = MULTI-MODE (MAIN FIBERS ONLY)
- = BAD FIBER (DON'T USE)
- D = DROPPED FIBER (DON'T USE)
- = DENOTES 1550 LASER FOR DV 6000



PROPOSED VAULT @
 ROCKFORD RD NW QUAD