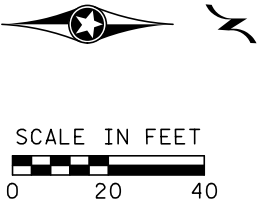


- NOTES:
- SEE SPECIAL PROVISIONS FOR DEPARTMENT FURNISHED MATERIALS.
 - THE EXACT LOCATION OF HANDHOLES, POLES, PEDESTAL POLES, LOOP DETECTORS, AND PUSH BUTTON STATIONS, SHALL BE VERIFIED IN THE FIELD BY TRAFFIC OFFICE PERSONNEL.
 - THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE CONNECTION OF THE POWER FOR THE TRAFFIC SIGNAL.
 - FOR TYPE D SIGNS SEE DETAIL SHEET. ALL SIGNS REQUIRED ARE INCLUDED IN PAYMENT FOR THE TRAFFIC CONTROL SIGNAL SYSTEM PAY ITEM.
 - PAVEMENT MARKINGS ARE INCLUDED IN PAVEMENT MARKING PLAN.
 - CONSTRUCTION OF PEDESTRIAN CURB RAMP ARE PART OF THE CONSTRUCTION PLAN AND ARE NOT INCLUDED IN PAYMENT FOR THE SIGNAL SYSTEM.
 - THIS PLAN SPECIFIES CONDUIT SIZES, TYPES, AND GENERAL LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD. CONDUITS UNDER THE ROADWAYS MAY REQUIRE BORING.
 - ALL NEW CONDUIT SHALL BE PVC - SCHEDULE 80 OR HDPE SCHEDULE 80 AND SHALL CARRY 1/C#6 GREEN INSULATED GROUNDING CONDUCTOR AS SHOWN IN THE PLAN.
 - ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.
 - SALVAGE AND INSTALL VIDEO CAMERA AND CAMERA EXTENSION.



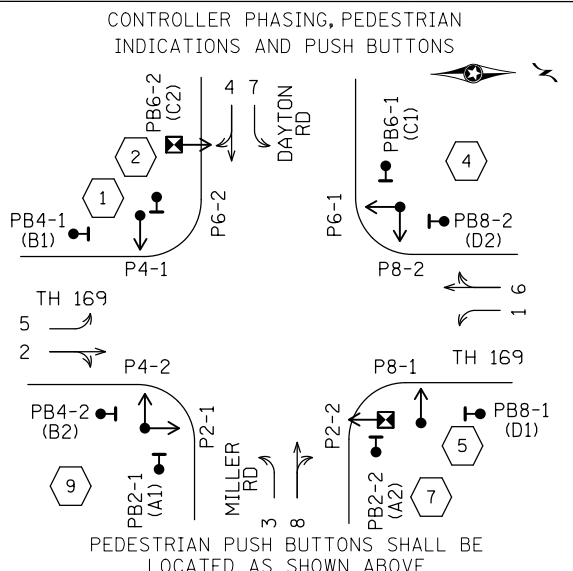
SIGNAL FACE CHART							
FACE	R	Y	G	RLA	YLA	FYA	GLA
1-1, 1-2				←	←	←	←
2-1, 2-2, 2-3	●	●	●				
3-1, 3-2				←	←	←	←
4-1, 4-2, 4-3	●	●	●				
5-1, 5-2, 5-3				←	←	←	←
6-1, 6-2, 6-3	●	●	●				
7-1, 7-2, 7-3				←	←	←	←
8-1, 8-2, 8-3	●	●	●				

-ALL SIGNAL INDICATIONS SHALL BE 12" LED
-ALL SIGNAL HEADS SHALL BE BLACK POLYCARBONATE WITH BACKGROUND SHIELDS

DISTRICT #: Metro
I/PLOT NAME: T21523.sgl
PATH & FILENAME: Projects\DM_R05V690000\TrafficSignals\429 TH169 @ (12) MILLER RD-DAYTON RD 1935920\T21523.sgl

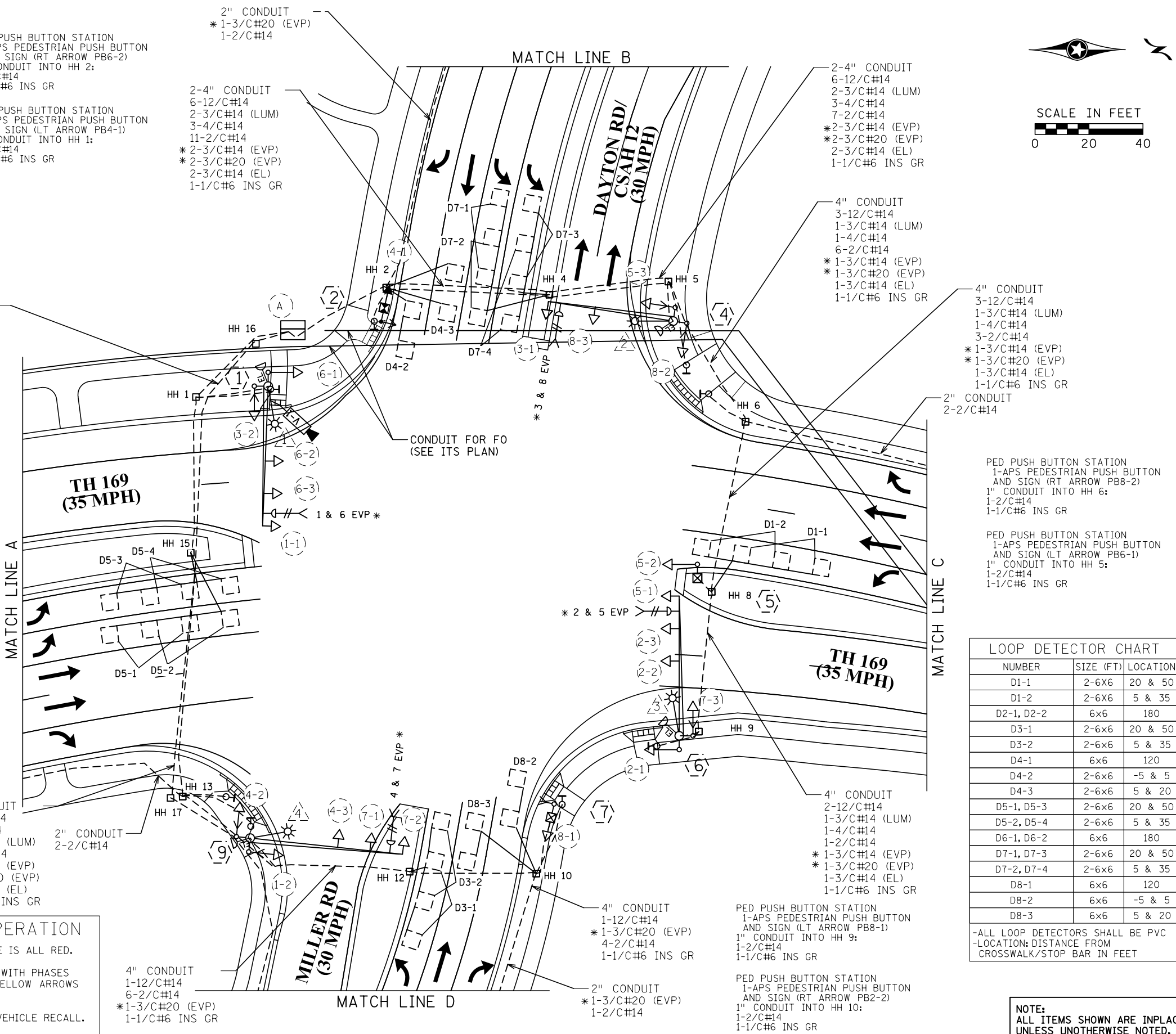
PED PUSH BUTTON STATION
1-APS PEDESTRIAN PUSH BUTTON
AND SIGN (RT ARROW PB4-2)
1" CONDUIT INTO HH 13:
1-2/C#14
1-1/C#6 INS GR

PED PUSH BUTTON STATION
1-APS PEDESTRIAN PUSH BUTTON
AND SIGN (LT ARROW PB2-1)
1" CONDUIT INTO HH 13:
1-2/C#14
1-1/C#6 INS GR



SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 8 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.



LOOP DETECTOR CHART		
NUMBER	SIZE (FT)	LOCATION
D1-1	2-6x6	20 & 50
D1-2	2-6x6	5 & 35
D2-1, D2-2	6x6	180
D3-1	2-6x6	20 & 50
D3-2	2-6x6	5 & 35
D4-1	6x6	120
D4-2	2-6x6	-5 & 5
D4-3	2-6x6	5 & 20
D5-1, D5-3	2-6x6	20 & 50
D5-2, D5-4	2-6x6	5 & 35
D6-1, D6-2	6x6	180
D7-1, D7-3	2-6x6	20 & 50
D7-2, D7-4	2-6x6	5 & 35
D8-1	6x6	120
D8-2	6x6	-5 & 5
D8-3	6x6	5 & 20

-ALL LOOP DETECTORS SHALL BE PVC
-LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET

NOTE:
ALL ITEMS SHOWN ARE INPLACE,
UNLESS OTHERWISE NOTED.

BY	DATE	REVISIONS	SYSTEM ID: 1935920	T.E. 1521	INTERSECTION LAYOUT TRAFFIC CONTROL SIGNAL SYSTEM TH 169 AT CSAH 12 (DAYTON RD) / MILLER RD IN CHAMPLIN, HENNEPIN COUNTY	S.A.P. NO.	DRAWN BY:	CKD BY:	DATE:
JBA	7/8/19	AS BUILT CHANGES	METER ADDRESS: UNKNOWN			CERTIFIED BY _____	LIC. NO. _____		DATE: _____
MJB	5/16/22	FIXED ROAD NAMING CONVENTION	OLD SYSTEM ID: 21523			STATE PROJ.NO. 2750-88 (T.H.169)	SHEET NO. 1 OF 5 SHEETS		

DISTRICT *: Metro
 I/PLOT NAME: T21523.sgl
 PATH & FILENAME: Projects\DM_R05V690000TrafficSignals\429 TH169 @ (12) MILLER RD-DAYTON RD 1935920\T21523.sgl
 PROJECT: T21523.sgl
 DATE: 16-MAY-2022

1 PA100 POLE FOUNDATION
 TYPE PA100-A-50-X6-350/CAM 400 EXTENSION (DAVIT AT 350 DEG)
 1-PAIR SWING AWAY HINGES
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 2-STRAIGHT MOUNT SIGNAL OVERHEAD AT 12' AND 24'
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
 1-ANGLE MOUNT C.D.PED IND AT 90 DEG
 * 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 1 & 6)
 LED LUMINAIRE
 1-LAW ENFORCEMENT CONFIRMATORY LIGHT (EL)
 2-SIGNS D-1, D-7
 1-SIGN R10-X12 MOUNTED
 ADJACENT TO HEAD 1-1
 1-R6-1L & 1-R6-1R
 3" CONDUIT TO HH 1:
 3-12/C#14
 1-4/C#14
 1-3/C#14 (LUM)
 * 1-3/C#14 (EVP)
 * 1-3/C#20 (EVP)
 1-3/C#14 (EL)
 1-1/C#6 INS GR
 1- VIDEO CAMERA WITH MOUNT (CAM 347)
 1-7/16" GROUND BRAID TO GROUND ROD
 1-3/C#14 (CAMERA POWER)
 1-COM CABLE
 1-COAXIAL CABLE

2 PEDESTAL FOUNDATION
 10'SIGNAL PEDESTAL POLE AND BASE
 1-1B POLE MOUNTED
 1-C.D.PED IND
 3" CONDUIT INTO HH 2:
 1-12/C#14
 1-1/C#6 INS GR

3 PEDESTAL FOUNDATION
 10'SIGNAL PEDESTAL POLE AND BASE
 * 1-ONE WAY EVP DETECTOR (PHASES 4 & 7)
 3" CONDUIT INTO HH 3:
 * 1-3/C#20
 1-1/C#6 INS GR

4 PA100 POLE FOUNDATION
 TYPE PA100-A-45-D40-9 (DAVIT AT 350 DEG)
 1-PAIR SWING AWAY HINGES
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 18'
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
 2-ANGLE MOUNT C.D.PED IND AT 90 AND 180 DEG
 * 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 3 & 8)
 LED LUMINAIRE
 1-LAW ENFORCEMENT CONFIRMATORY LIGHT (EL)
 1-SIGN D-3
 1-SIGN R10-X12 MOUNTED ADJACENT TO HEAD 3-1
 1-R6-1L & 1-R6-1R
 3" CONDUIT TO HH 5:
 3-12/C#14
 2-4/C#14
 1-3/C#14 (LUM)
 * 1-3/C#14 (EVP)
 * 1-3/C#20 (EVP)
 1-3/C#14 (EL)
 1-1/C#6 INS GR

5 PEDESTAL FOUNDATION
 10'SIGNAL PEDESTAL POLE AND BASE
 1-10B POLE MOUNTED
 3" CONDUIT INTO HH 8:
 1-12/C#14
 1-1/C#6 INS GR

6 PA100 POLE FOUNDATION
 TYPE PA100-A-50-D40-9 (DAVIT AT 350 DEG)
 1-PAIR SWING AWAY HINGES
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 3-STRAIGHT MOUNT SIGNAL OVERHEAD AT 12', 24' AND 36'
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
 1-ANGLE MOUNT C.D.PED IND AT 90 DEG
 * 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 2 & 5)
 1-LAW ENFORCEMENT CONFIRMATORY LIGHT (EL)
 2-SIGNS D-2, D-6
 1-SIGN R10-X12 MOUNTED
 ADJACENT TO HEAD 5-2
 1-R6-1L & 1-R6-1R
 3" CONDUIT TO HH 9:
 3-12/C#14
 1-4/C#14
 1-3/C#14 (LUM)
 * 1-3/C#14 (EVP)
 * 1-3/C#20 (EVP)
 1-3/C#14 (EL)
 1-1/C#6 INS GR

7 PEDESTAL FOUNDATION
 10'SIGNAL PEDESTAL POLE AND BASE
 1-1B POLE MOUNTED
 1-C.D.PED IND
 3" CONDUIT INTO HH 10:
 1-12/C#14
 1-1/C#6 INS GR

8 PEDESTAL FOUNDATION
 10'SIGNAL PEDESTAL POLE AND BASE
 * 1-ONE WAY EVP DETECTOR (PHASES 3 & 8)
 3" CONDUIT INTO HH 11:
 * 1-3/C#20
 1-1/C#6 INS GR

9 PA100 POLE FOUNDATION
 TYPE PA100-A-55-D40-9 (DAVIT AT 350 DEG)
 1-PAIR SWING AWAY HINGES
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 2-STRAIGHT MOUNT SIGNAL OVERHEAD AT 12' AND 24'
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
 2-ANGLE MOUNT C.D.PED IND AT 90 AND 180 DEG
 * 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 4 & 7)
 1-LAW ENFORCEMENT CONFIRMATORY LIGHT (EL)
 1-SIGN D-3
 1-SIGN R10-X12 MOUNTED
 ADJACENT TO HEAD 7-2
 1-R6-1L & 1-R6-1R
 3" CONDUIT TO HH 13:
 3-12/C#14
 2-4/C#14
 1-3/C#14 (LUM)
 * 1-3/C#14 (EVP)
 * 1-3/C#20 (EVP)
 1-3/C#14 (EL)
 1-1/C#6 INS GR

A EQUIPMENT PAD (SEE DETAIL SHEET)
 SERVICE CABINET (SSB)
 CONTROLLER AND CABINET
 4" CONDUIT TO HH 1:
 4-12/C#14
 2-4/C#14
 * 1-3/C#14 (EVP)
 * 2-3/C#20 (EVP)
 14-2/C#14
 2-3/C#14 (EL)
 4" CONDUIT TO HH 1:
 3-12/C#14
 * 1-4/C#14
 * 1-3/C#14 (EVP)
 1-3/C#20 (EVP)
 1-2/C#14
 1-1/C#6 INS. GR.
 1-3/C#14 (CAMERA POWER)
 1-COM CABLE
 1-COAXIAL CABLE
 4" CONDUIT TO HH 2:
 3-12/C #14
 1-4/C#14
 * 1-3/C#14 (EVP)
 * 1-3/C#20 (EVP)
 8-2/C#14
 2-3/C#14 (EL)
 4" CONDUIT TO HH 2:
 4-12/C#14
 * 2-4/C#14
 * 1-3/C#14 (EVP)
 2-3/C#20 (EVP)
 7-2/C#14
 1-1/C#6 INS. GR.

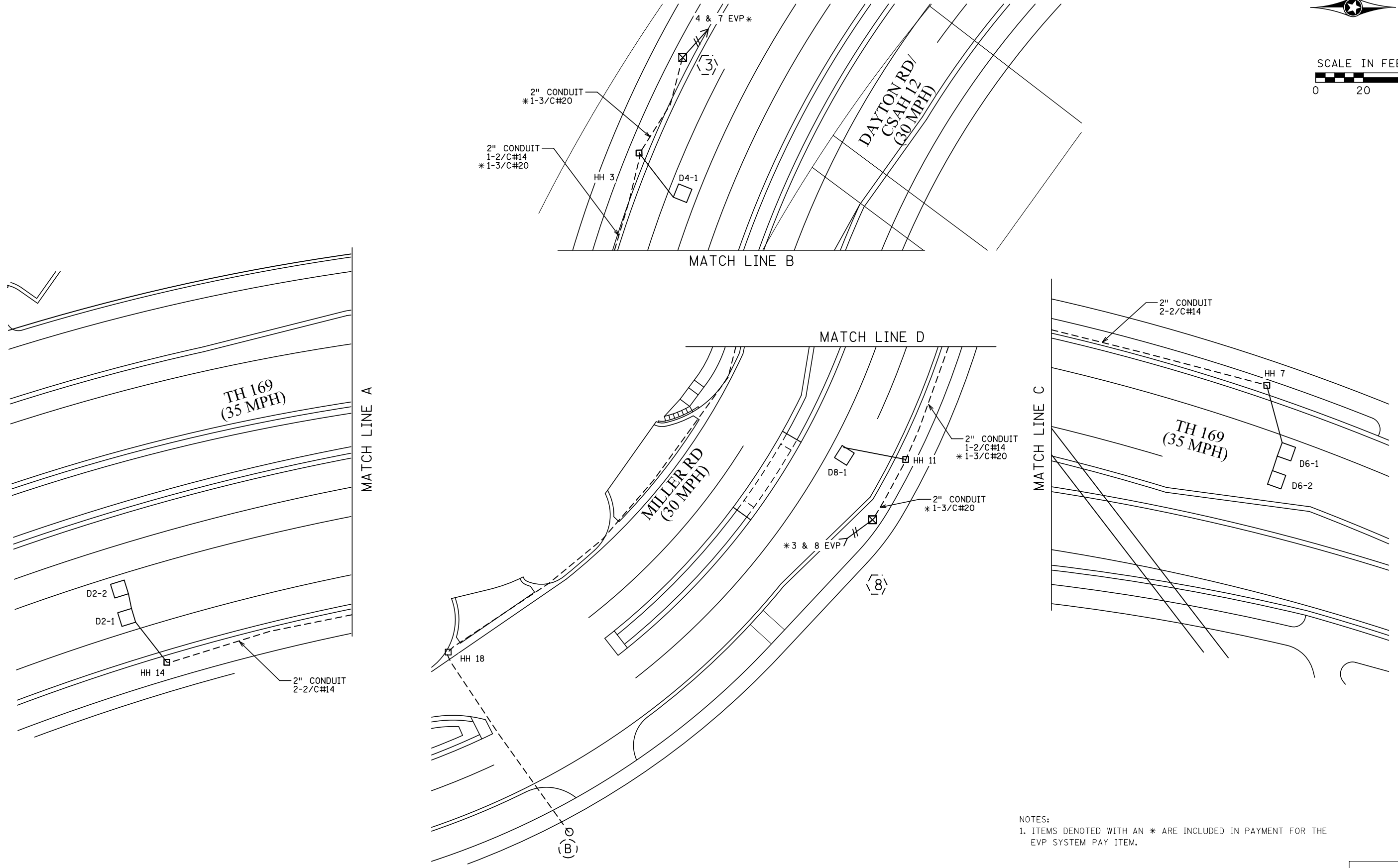
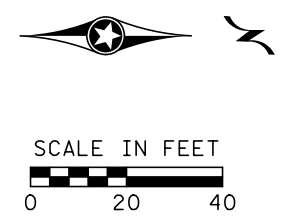
GROUND WIRE AND GROUND ROD - MIN 8' OUT FROM PAD
 2-2" AND 1-3" CONDUIT STUBBED OUT (CAPPED BOTH ENDS)
 3/4" CONDUIT STUBBED OUT (FOR TELEPHONE LINE)
 CONTROLLER CABINET TO SERVICE CABINET:
 2" CONDUIT
 2-1/C #6
 1-1/C #6 INS. GR.
 SERVICE CABINET TO HH 16:
 2" CONDUIT
 3-1/C #2
 SERVICE CABINET TO HH 1:
 2" CONDUIT
 2-3/C #14 (LUM)
 SERVICE CABINET TO HH 2:
 2" CONDUIT
 2-3/C#14 (LUM)
 SERVICE CABINET TO EXTERNAL GR. RD.:
 1" CONDUIT
 1-1/C #6 INS. GR.

B EXISTING WOOD POLE
 2" CONDUIT RISER W/WEATHERHEAD
 2" CONDUIT TO HH 18:
 3-1/C#2
 2" CONDUIT TO HH 17:
 3-1/C#2
 2" CONDUIT TO HH 16:
 3-1/C#2

NOTES:
 1. ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.

BY	DATE	REVISIONS	SYSTEM ID: 1935920	T.E. 1521	POLE NOTES TRAFFIC CONTROL SIGNAL SYSTEM TH 169 AT CSAH 12 (DAYTON RD) / MILLER RD IN CHAMPLIN, HENNEPIN COUNTY	S.A.P. NO.	DRAWN BY:	CKD BY:	DATE:	
JBA	7/8/19	AS BUILT CHANGES	METER ADDRESS: UNKNOWN			CERTIFIED BY _____	LIC. NO. _____	DATE: _____		
MJB	5/16/22	FIXED ROAD NAMING CONVENTION	OLD SYSTEM ID: 21523			LICENSED PROFESSIONAL ENGINEER				
						STATE PROJ.NO. 2750-88 (T.H.169)	SHEET NO. 2 OF	5 SHEETS		

DISTRICT *: Metro
 PLOT NAME: T21523.sgl
 PATH & FILENAME: Projects\DM_R05\690000\TrafficSignals\429 TH169 @ (12) MILLER RD-DAYTON RD 1935920\T21523.sgl.dwg01TTED/REVISED: 16-MAY-2022



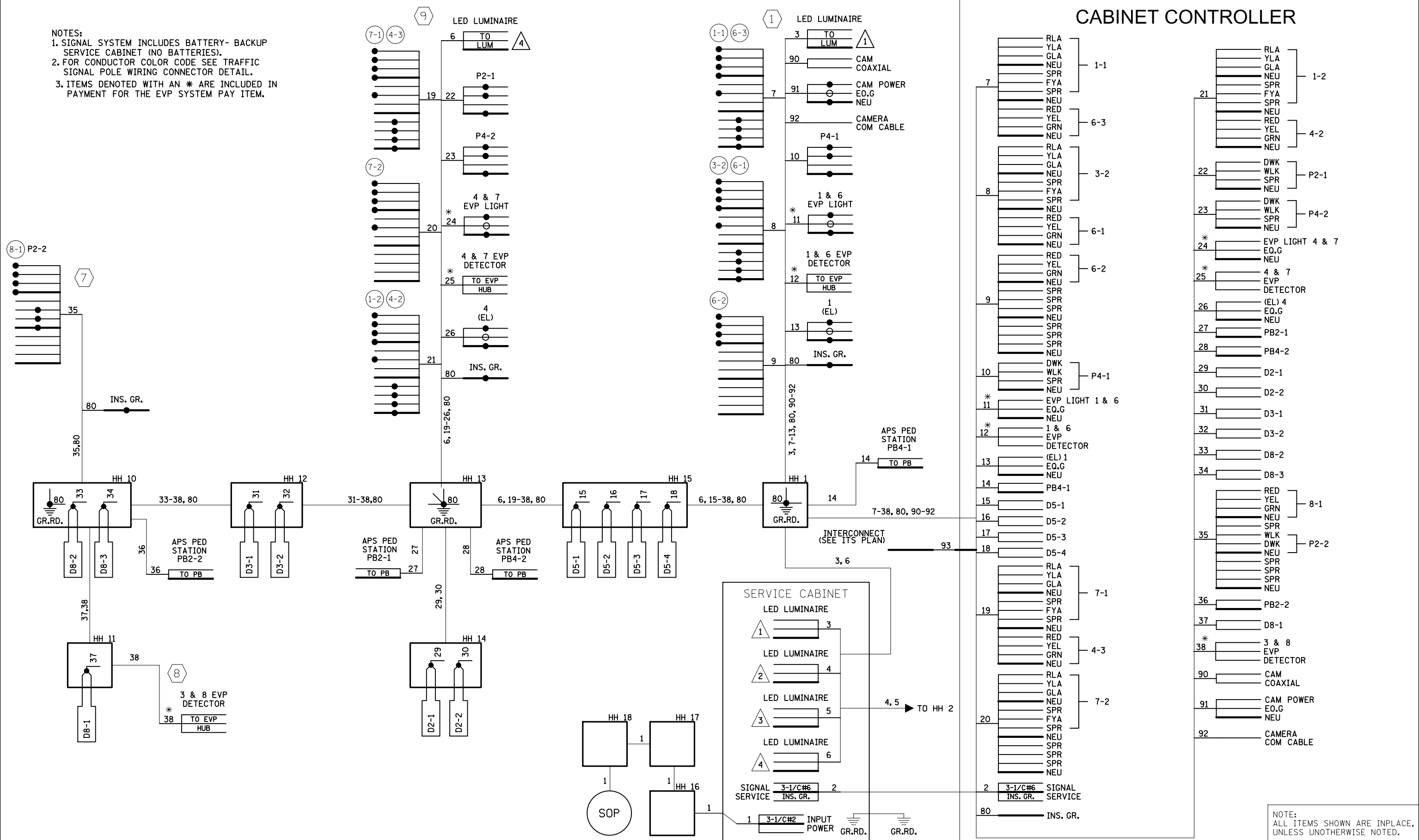
NOTES:
 1. ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE
 EVP SYSTEM PAY ITEM.

NOTE:
 ALL ITEMS SHOWN ARE INPLACE,
 UNLESS UNOTHERWISE NOTED.

BY	DATE	REVISIONS	SYSTEM ID: 1935920	T.E. 1521	S.A.P. NO.	DRAWN BY:	CKD BY:	DATE:
JBA	7/8/19	AS BUILT CHANGES	METER ADDRESS: UNKNOWN		CERTIFIED BY _____	LIC. NO. _____		DATE: _____
MJB	5/16/22	FIXED ROAD NAMING CONVENTION	OLD SYSTEM ID: 21523		STATE PROJ.NO. 2750-88 (T.H.169) SHEET NO. 3 OF 5 SHEETS			

DISTRICT #: Metro
 IPLOT NAME: T21523.sgl
 PATH & FILENAME: Projects\DM_ROSV690000\TrafficSignals\429 TH169 @ (12) MILLER RD-DAYTON RD 1935920\T21523.sgl
 REVISED: 16-MAY-2022

NOTES:
 1. SIGNAL SYSTEM INCLUDES BATTERY- BACKUP SERVICE CABINET (NO BATTERIES).
 2. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.
 3. ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.

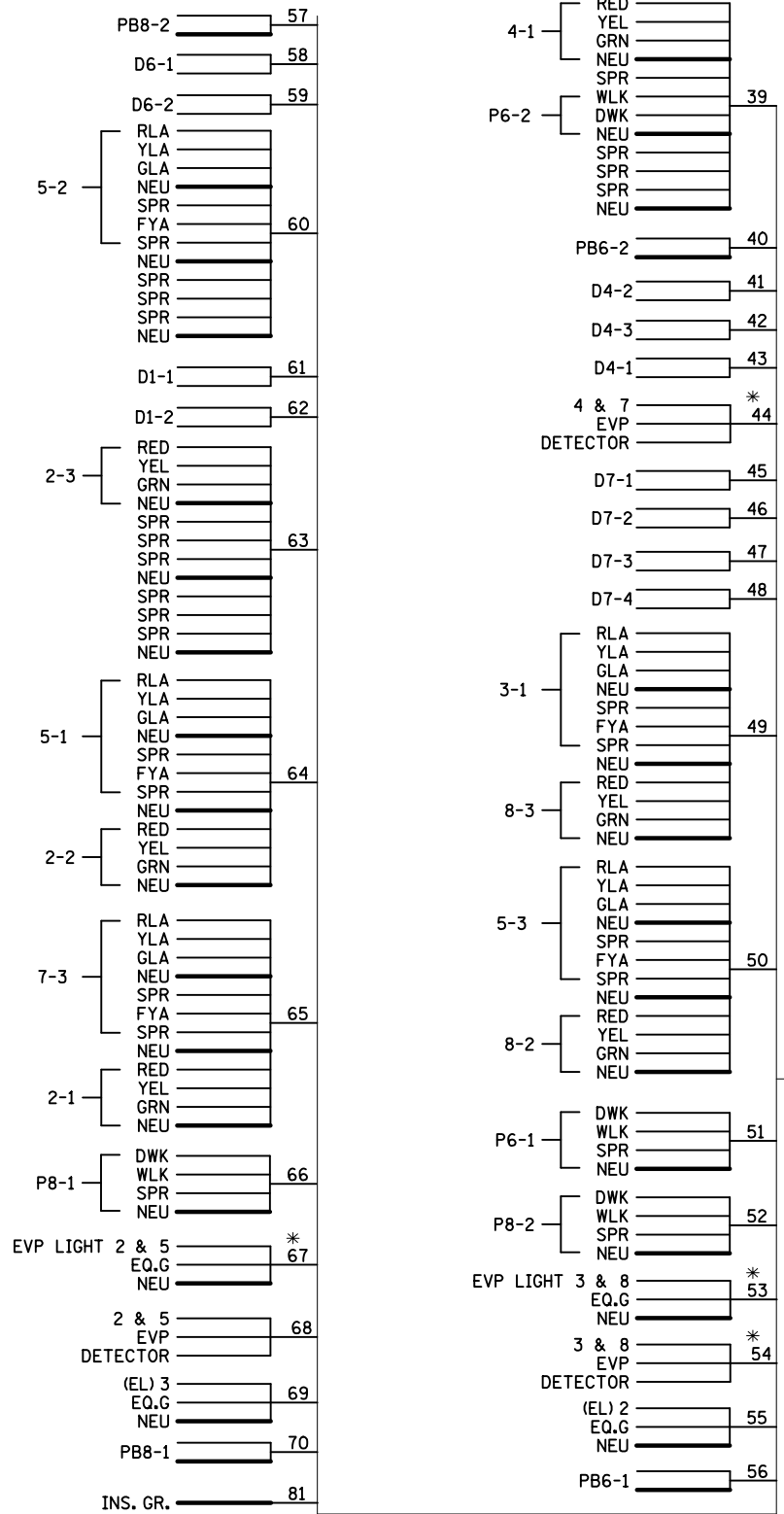


NOTE:
 ALL ITEMS SHOWN ARE INPLACE,
 UNLESS OTHERWISE NOTED.

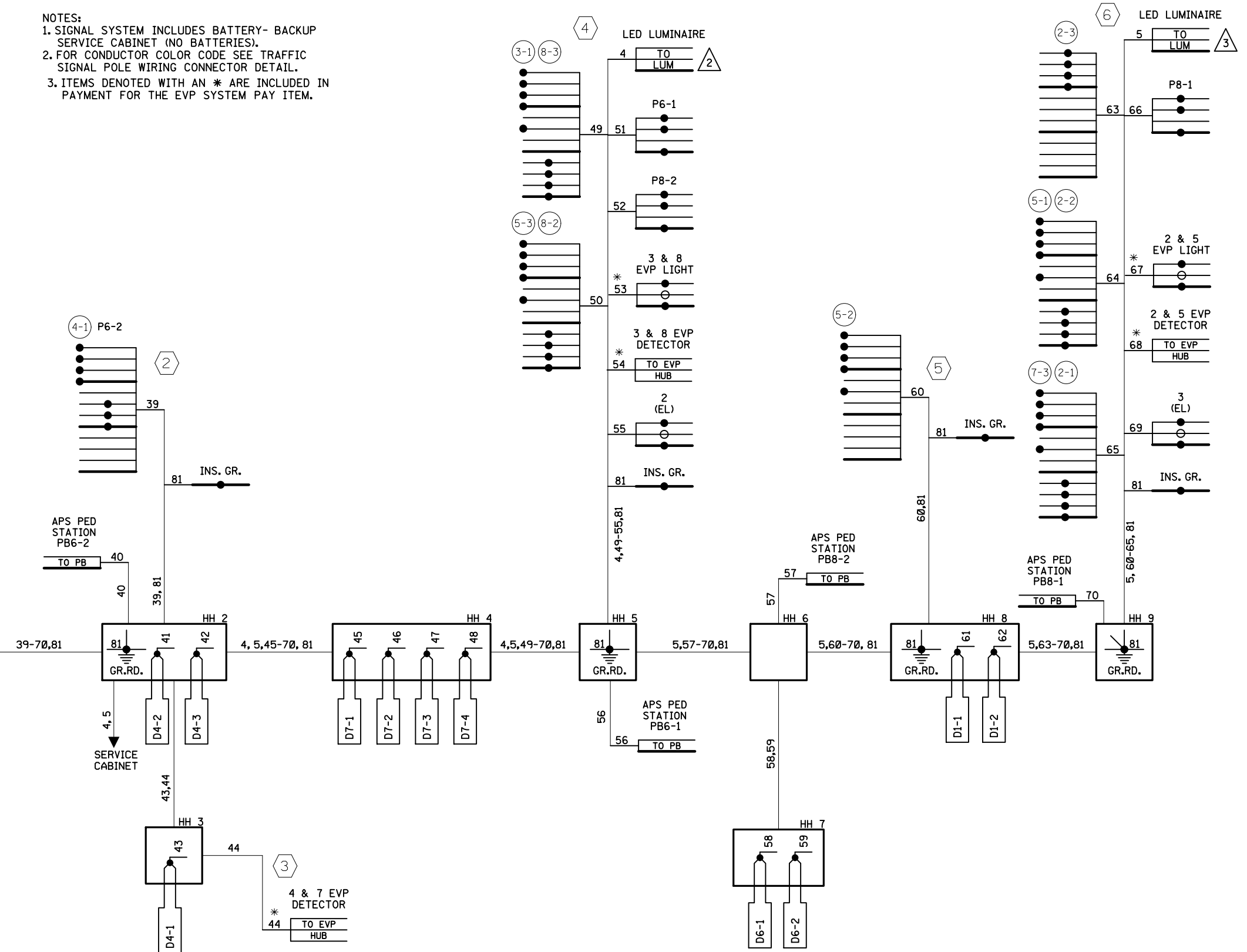
BY	DATE	REVISIONS	SYSTEM ID: 1935920	T.E. 1521	WIRING DIAGRAM (1 OF 2) TRAFFIC CONTROL SIGNAL SYSTEM TH 169 AT CSAH 12 (DAYTON RD) / MILLER RD IN CHAMPLIN, HENNEPIN COUNTY	S.A.P. NO.	DRAWN BY:	CKD BY:	DATE:
JBA	7/8/19	AS BUILT CHANGES	METER ADDRESS: UNKNOWN			CERTIFIED BY _____	LIC. NO. _____		DATE: _____
MJB	5/16/22	FIXED ROAD NAMING CONVENTION	OLD SYSTEM ID: 21523			STATE PROJ.NO. 2750-88 (T.H.169) SHEET NO. 4 OF 5 SHEETS			

DISTRICT *: Metro
 PLOT NAME: T21523.sgl
 PATH & FILENAME: Projects\DM_ROSV690000\Traffic\Signals\429 TH169 @ (12) MILLER RD-DAYTON RD 1935920\T21523.sgl
 REVISED: 16-MAY-2022

CABINET CONTROLLER

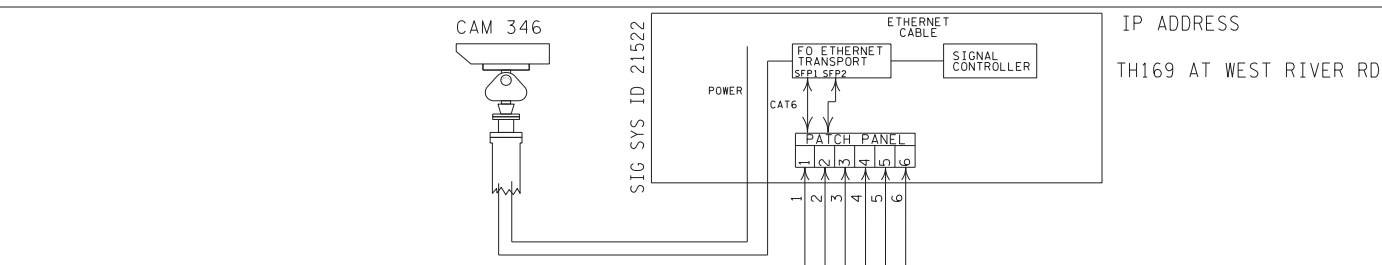


- NOTES:
1. SIGNAL SYSTEM INCLUDES BATTERY- BACKUP SERVICE CABINET (NO BATTERIES).
 2. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.
 3. ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.

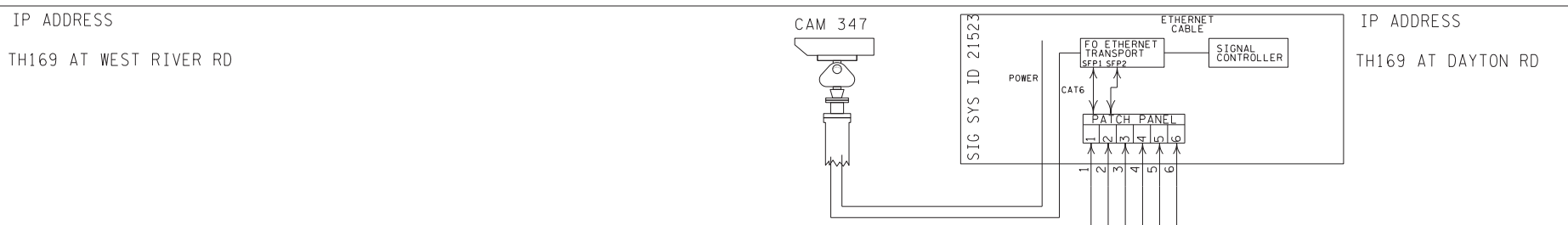


NOTE:
ALL ITEMS SHOWN ARE INPLACE,
UNLESS OTHERWISE NOTED.

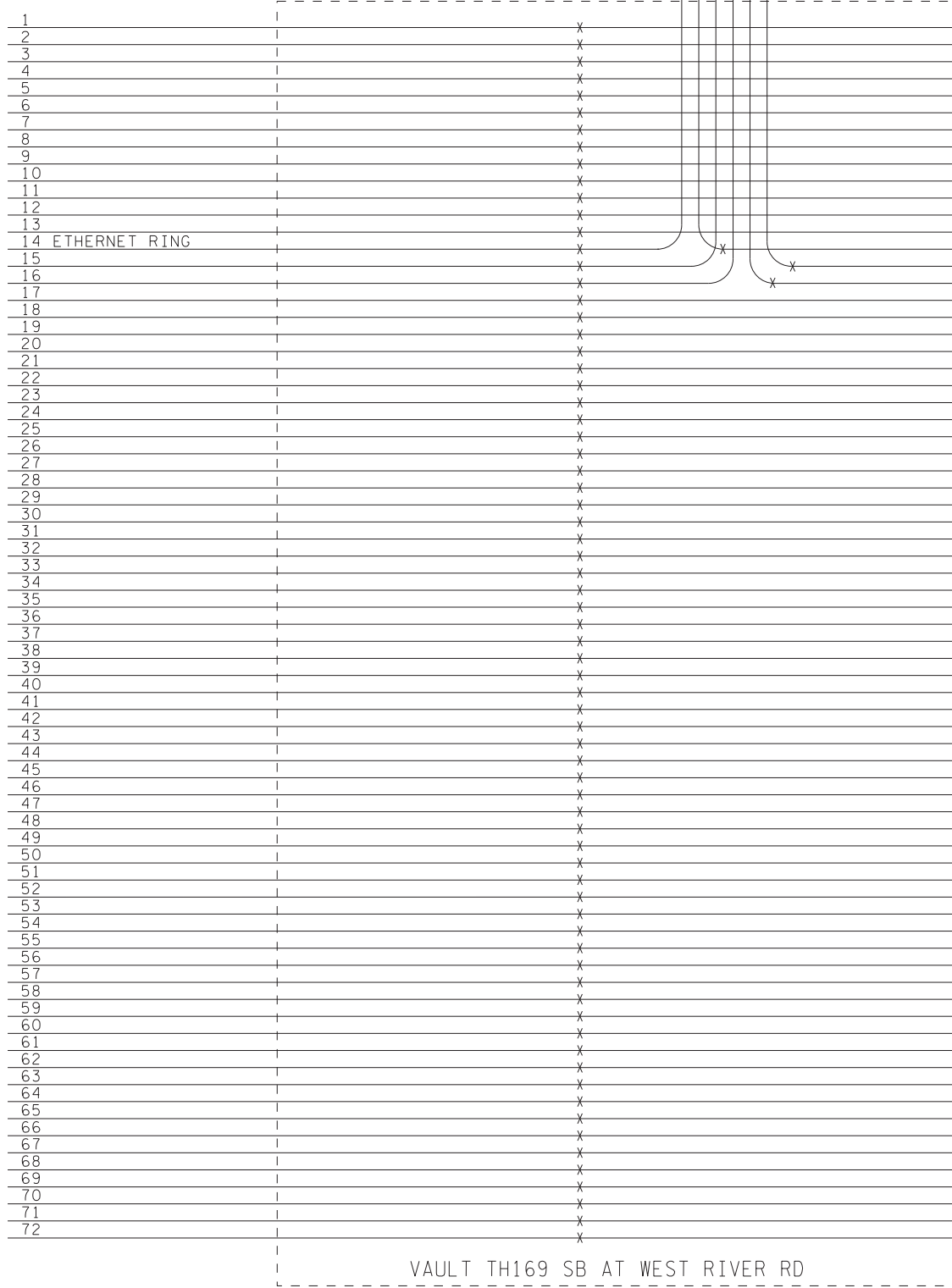
BY	DATE	REVISIONS	SYSTEM ID: 1935920	T.E. 1521	S.A.P. NO.	DRAWN BY:	CKD BY:	DATE:
JBA	7/8/19	AS BUILT CHANGES	METER ADDRESS: UNKNOWN		CERTIFIED BY _____	LIC. NO. _____		DATE: _____
MJB	5/16/22	FIXED ROAD NAMING CONVENTION	OLD SYSTEM ID: 21523		STATE PROJ.NO. 2750-88 (T.H.169) SHEET NO. 5 OF 5 SHEETS			



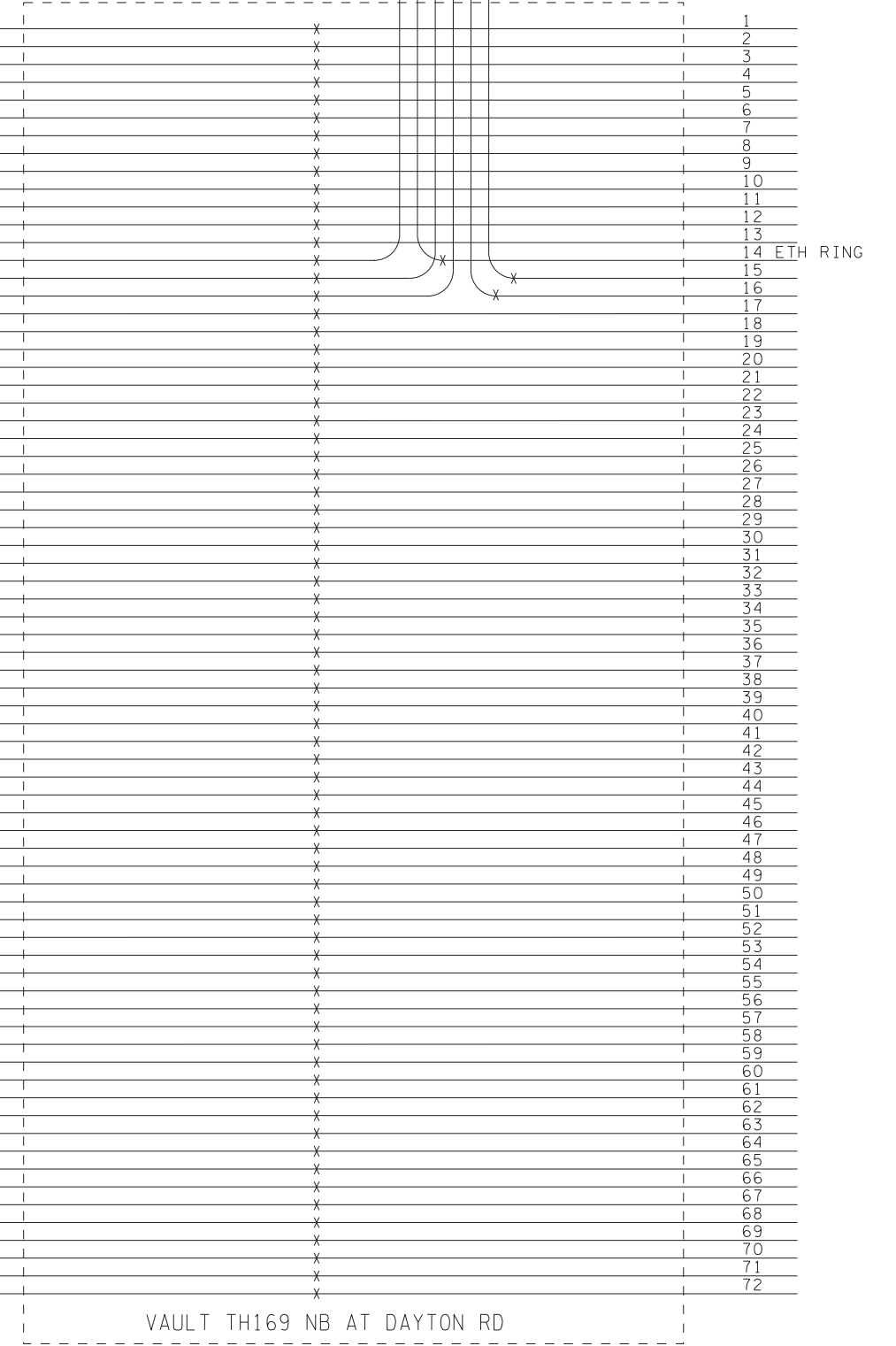
TRUNK ID# 169-29
 PIGTAIL ID#: ID 1935921 SIG21522



TRUNK ID# 169-31
 PIGTAIL ID#: ID 1935920 SIG21523



TRUNK ID# 169-30



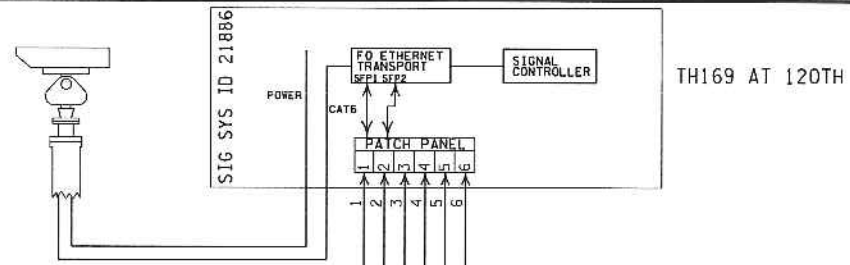
VAULT TH169 SB AT WEST RIVER RD

VAULT TH169 NB AT DAYTON RD

REV. NO. 1	DATE: 12/12/17
REV. NO.	DATE: / /

CERTIFIED BY *Michael P. Mandy* LIC. NO. 43957 SEP 27 2021
 LICENSED PROFESSIONAL ENGINEER

STATE PROJ. NO. 0215-76 (TH 10) SHEET NO. SZ53 OF SZ55 SHEETS

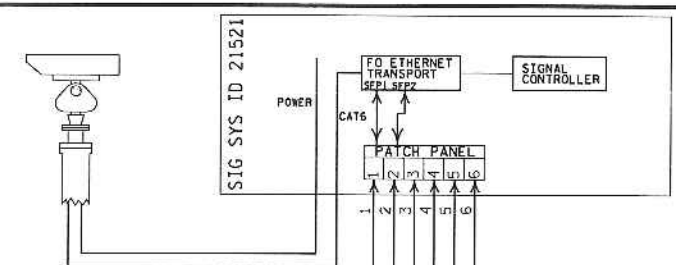


TH169 AT 120TH

TRUNK
ID# 169-27

PIGTAIL ID#:
SIG21886

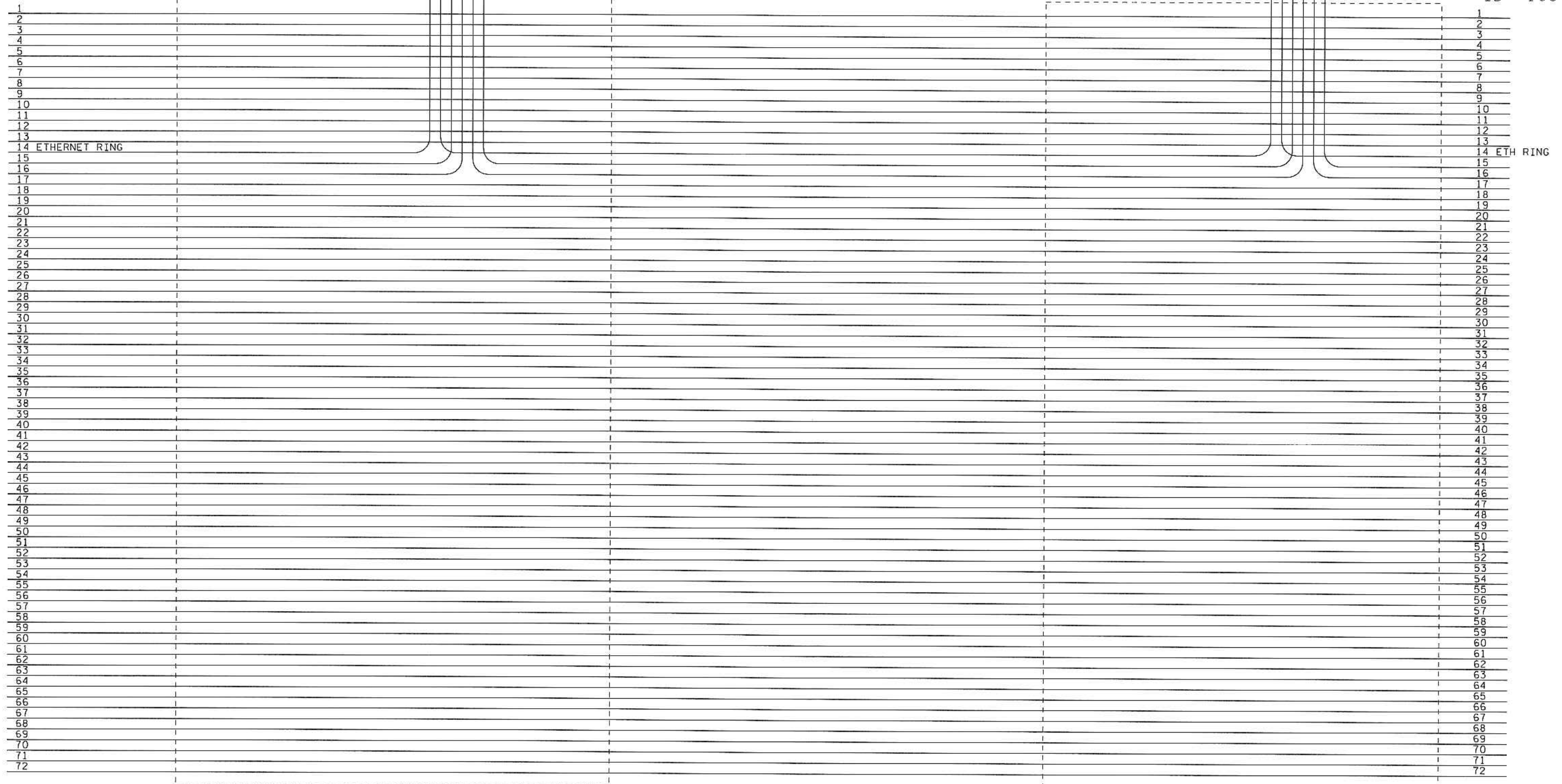
TRUNK
ID# 169-28



TH169 AT HAYDEN LAKE RD

PIGTAIL ID#:
SIG21521

TRUNK
ID# 169-29



9:05:48 PM 8/13/2019 D:\sr-f-pw\benf.esy.com.srf-pw\Documents\Projects\11431\03_DasIgnP\an\F Ina P\an\11431_1mc36.dgn

NO	DATE	BY	CKD	APPR	REVISION

I hereby certify that this plan, specification, or report 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.

Print Name: JACOB FOLKERINGA
Jacob Folkeringa
 Date: 8/2-19 License #: 50911

STATE PROJECT NO.
2750-92
110-129-006
189-113-005
CIP 4042

DRAWN BY
O. AL DIK
DESIGNED BY
O. AL DIK
CHECKED BY
J. FOLKERINGA
COMM. NO. 1811431



CITY OF BROOKLYN PARK
TRAFFIC MANAGEMENT SYSTEM
TH 169 AND 101ST AVE INTERCHANGE
COMMUNICATION SCHEMATICS

SHEET
303
OF
425