

SIGNAL HEAD CHART

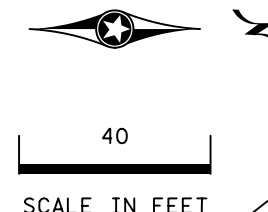
FACE	R	Y	FYA	G
1-1, 1-2	←	←	←	←
2-1, 2-2, 2-3	●	●		●
6-1, 6-2, 6-3	●	●		●
8-1, 8-2	●	→		→
8-3, 8-4, 8-5	←	←		←

-ALL SIGNAL INDICATIONS SHALL BE 12" LED
 -ALL SIGNAL HEADS SHALL BE BLACK POLYCARBONATE WITH BACKGROUND SHIELDS
 -FYA DENOTES FLASHING YELLOW ARROW

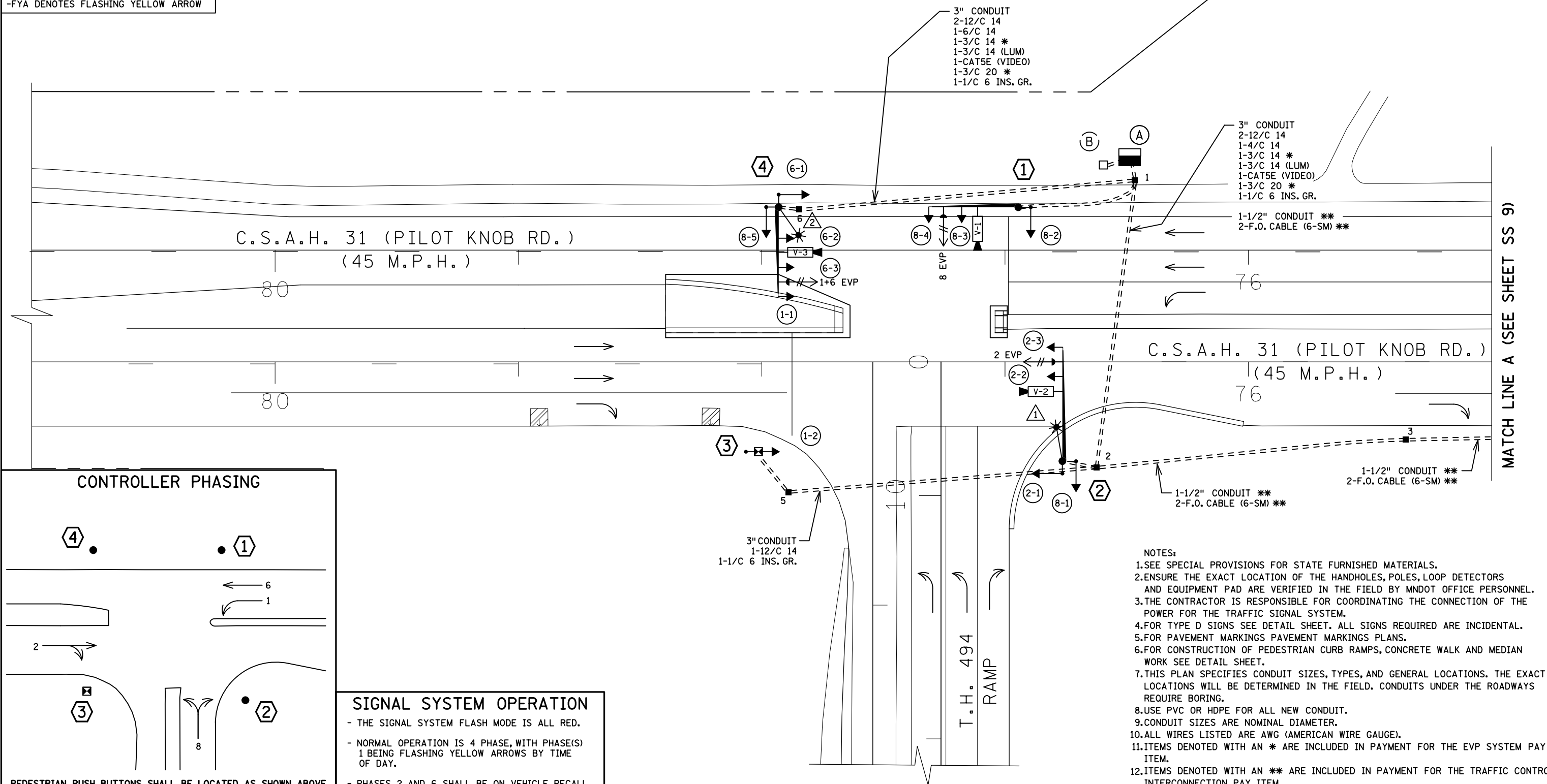
VIDEO DETECTOR CHART

CAMERA NO.	LOCATION	PHASE
V-1	POLE 1	8
V-2	POLE 2	2
V-3	POLE 4	1 & 6

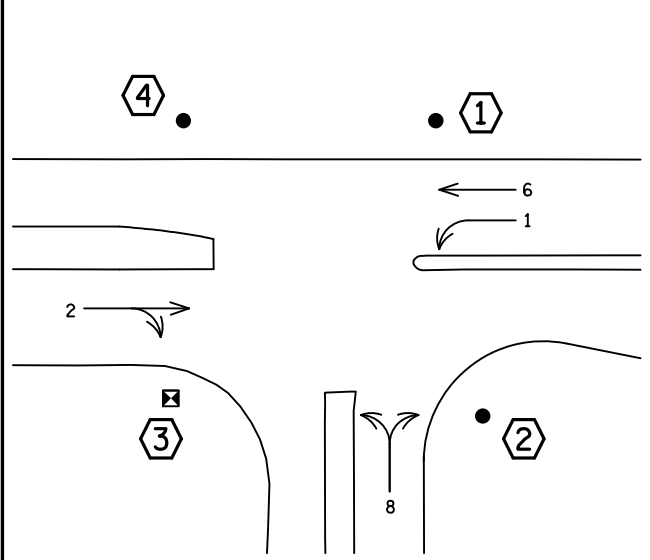
-ALL VIDEO DETECTORS SHALL BE MAST ARM MOUNTED UNLESS NOTED OTHERWISE



DISTRICT #: Metro
 I/PLOT NAME: LAYOUT
 PATH & FILENAME: Projects\DM罗斯49400000\Traffic\Signal\7.17 TH494 @ (31)\PILOT KNOB RD S RAMP 2405058\2405058.dwg/REVISED: 28-DEC-2021



CONTROLLER PHASING



PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

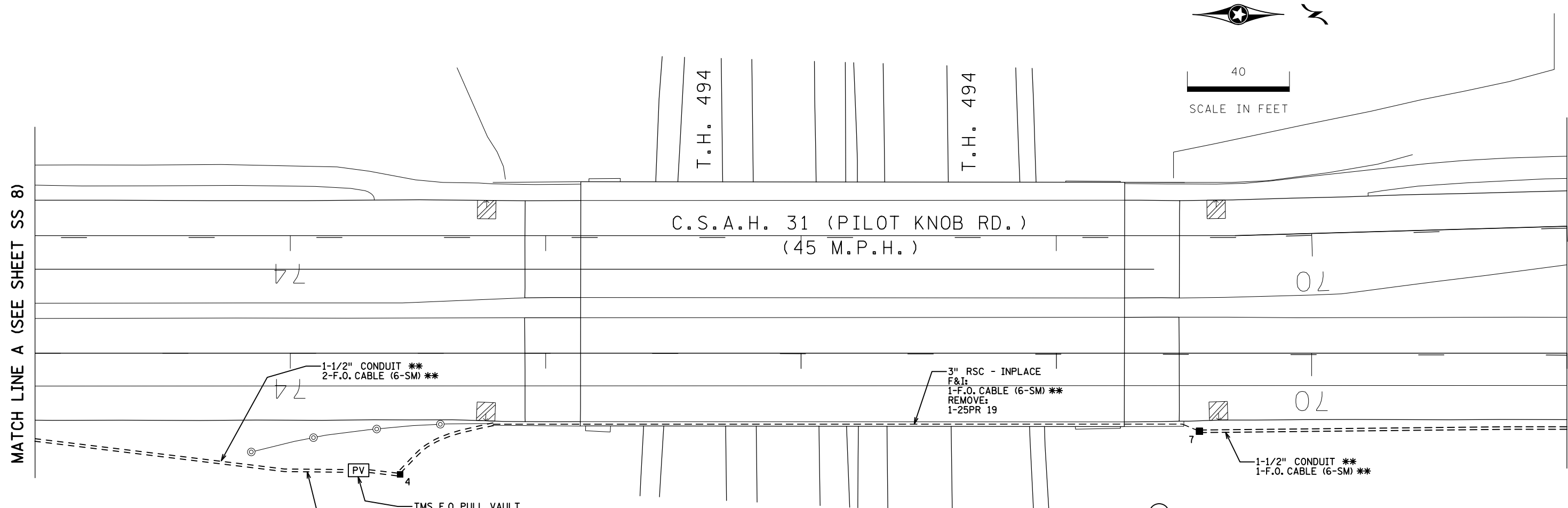
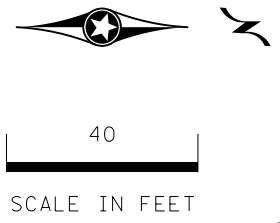
SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 4 PHASE, WITH PHASE(S) 1 BEING FLASHING YELLOW ARROWS BY TIME OF DAY.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

- NOTES:**
- SEE SPECIAL PROVISIONS FOR STATE FURNISHED MATERIALS.
 - ENSURE THE EXACT LOCATION OF THE HANDHOLES, POLES, LOOP DETECTORS AND EQUIPMENT PAD ARE VERIFIED IN THE FIELD BY MNDOT OFFICE PERSONNEL.
 - THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE CONNECTION OF THE POWER FOR THE TRAFFIC SIGNAL SYSTEM.
 - FOR TYPE D SIGNS SEE DETAIL SHEET. ALL SIGNS REQUIRED ARE INCIDENTAL.
 - FOR PAVEMENT MARKINGS PAVEMENT MARKINGS PLANS.
 - FOR CONSTRUCTION OF PEDESTRIAN CURB RAMPS, CONCRETE WALK AND MEDIAN WORK SEE DETAIL SHEET.
 - THIS PLAN SPECIFIES CONDUIT SIZES, TYPES, AND GENERAL LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD. CONDUITS UNDER THE ROADWAYS REQUIRE BORING.
 - USE PVC OR HDPE FOR ALL NEW CONDUIT.
 - CONDUIT SIZES ARE NOMINAL DIAMETER.
 - ALL WIRES LISTED ARE AWG (AMERICAN WIRE GAUGE).
 - ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.
 - ITEMS DENOTED WITH AN ** ARE INCLUDED IN PAYMENT FOR THE TRAFFIC CONTROL INTERCONNECTION PAY ITEM.

BY	DATE	REVISIONS	SYSTEM ID: 2405058 T.E. 7050	INTERSECTION LAYOUT TRAFFIC CONTROL SIGNAL SYSTEM A T.H. 494 AT C.S.A.H. 31 (PILOT KNOB RD.) S. RAMP IN EAGAN, DAKOTA COUNTY	S.A.P. NO. 019-631-052	DRAWN BY: JBA	CKD BY: BPV	DATE: 12/20/18
SJK	12/28/21	SP 1985-148 AS-BUILT PLAN	METER ADDRESS: 2625 PILOT KNOB RD OLD SYSTEM ID: 21726		CERTIFIED BY _____ LICENSED PROFESSIONAL ENGINEER	LIC. NO. _____	DATE: _____	
STATE PROJ. NO. 1985-148 (T.H. 494)					SHEET NO. SS1 OF SS3 SHEETS			

DISTRICT #: Metro
 PLOT NAME: MATCH LINES
 PATH & FILENAME: Projects\DM罗斯49400000\Traffic\Signal\T.H.494 @ (31) PILOT KNOB RD S RAMP 2405058\2405058.dwg/REVISED: 28-DEC-2021



- ① PA90 POLE FOUNDATION
 TYPE PA90-A-35
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 13'
 1-ANGLE MOUNT SIGNAL AT 180 DEG
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 8)
 1-VIDEO DETECTION CAMERA ON 6' EXTENSION MOUNTED AT 5'
 3" CONDUIT TO HH 1:
 2-12/C 14
 1-3/C 14 *
 1-CAT5E (VIDEO)
 1-3/C 20 *
 1-1/C 6 INS. GR.

- ③ PEDESTAL FOUNDATION
 13" PEDESTAL POLE PLUS BASE
 1-STRAIGHT MOUNT SIGNALS AT 90 DEG
 3" CONDUIT TO HH 5:
 1-12/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'
 1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 12'
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 2)
 1-VIDEO DETECTION CAMERA ON 6' EXTENSION MOUNTED AT 5'
 LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
 2-TYPE D SIGNS (D-1) (D-2) (SEE SIGN DETAILS)
 3" CONDUIT TO HH 2:
 1-12/C 14
 2-4/C 14
 1-3/C 14 *
 1-3/C 14 (LUM)
 1-CAT5E (VIDEO)
 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'
 2-STRAIGHT MOUNT SIGNALS OVERHEAD AT 12' AND 24'
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 1+6)
 1-VIDEO DETECTION CAMERA ON 6' EXTENSION MOUNTED AT 5'
 LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
 1-R10-X12 SIGN ADJACENT TO HEAD (1-1)
 1-TYPE D SIGN (D-3) (SEE SIGN DETAILS)
 3" CONDUIT TO HH 6:
 2-12/C 14
 1-6/C 14
 1-3/C 14 *
 1-3/C 14 (LUM)
 1-CAT5E (VIDEO)
 1-3/C 20 *
 1-1/C 6 INS. GR.

- ⓑ SOP-INPLACE GROUND MOUNTED TRANSFORMER (XCEL ENERGY)
 F&I:
 2" CONDUIT, RISER, AND WEATHERHEAD INTO SERVICE CABINET:
 3-1/C 2

- NOTES:
 1. ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.
 2. ITEMS DENOTED WITH AN ** ARE INCLUDED IN PAYMENT FOR THE TRAFFIC CONTROL INTERCONNECTION PAY ITEM.

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

- | | |
|--------------------|---------------------|
| 3" CONDUIT TO HH1: | 3" CONDUIT TO HH 1: |
| 2-12/C 14 | 2-12/C 14 |
| 2-4/C 14 | 1-6/C 14 |
| * 1-3/C 14 | * 1-3/C 14 |
| 1-CAT5E (VIDEO) | 1-CAT5E (VIDEO) |
| * 1-3/C 20 | * 1-3/C 20 |
| 1-1/C 6 INS. GR. | 1-1/C 6 INS. GR. |

- 3" CONDUIT TO HH 1:
 2-12/C 14
 * 1-3/C 14
 1-CAT5E (VIDEO)
 * 1-3/C 20
 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)
 ** 1-1/2" CONDUIT TO HH 1:
 ** 2-FO CABLE (6-SM)

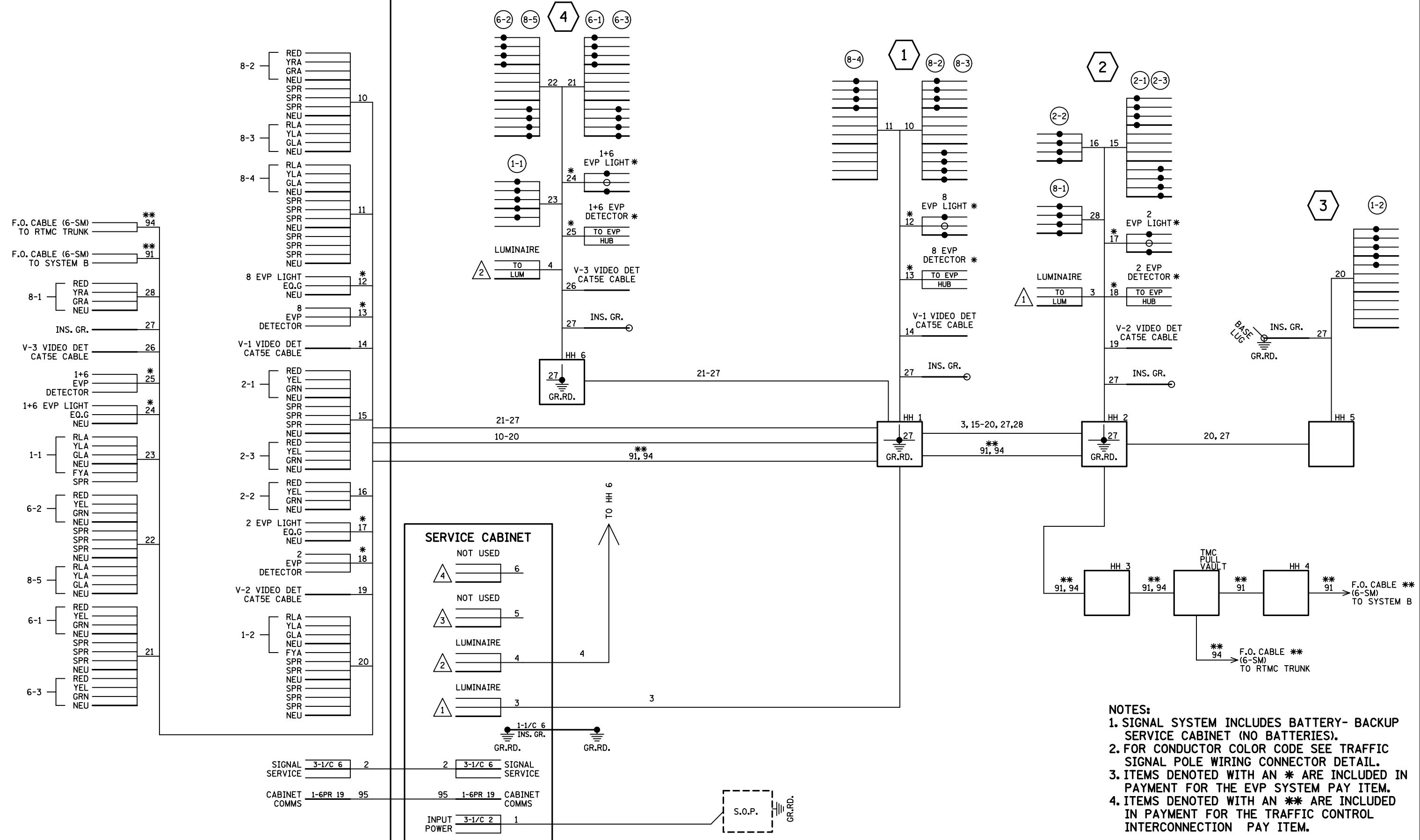
- CONTROLLER CABINET TO SERVICE CABINET:
 2" CONDUIT
 3-1/C 6
 CONTROLLER CABINET TO SERVICE CABINET (COMMS):
 2" CONDUIT
 1-6PR 19

- SERVICE CABINET TO GROUND MOUNTED TRANSFORMER:
 2" CONDUIT
 3-1/C 2
 SERVICE CABINET TO HH 1:
 2" CONDUIT
 1-3/C 14 (LUM)
 SERVICE CABINET TO HH 6:
 2" CONDUIT
 1-3/C 14 (LUM)
 SERVICE CABINET TO EXTERNAL GR. RD.:
 1" CONDUIT
 1-1/C 6 INS. GR.

BY	DATE	REVISIONS	SYSTEM ID: 2405058 T.E. 7050	MATCH LINE LAYOUT/INTERSECTION NOTES TRAFFIC CONTROL SIGNAL SYSTEM A T.H. 494 AT C.S.A.H. 31 (PILOT KNOB RD.) S. RAMP IN EAGAN, DAKOTA COUNTY	S.A.P. NO. 019-631-052	DRAWN BY: JBA	CKD BY: BPV	DATE: 12/20/18
SJK	12/28/21	SP 1985-148 AS-BUILT PLAN	METER ADDRESS: 2625 PILOT KNOB RD		CERTIFIED BY _____	LIC. NO. _____	DATE: _____	
			OLD SYSTEM ID: 21726		STATE PROJ. NO. 1985-148 (T.H. 494) SHEET NO. SS2 OF SS3 SHEETS			

DISTRICT #: Metro
 PLOT NAME: WIRING DIAGRAM
 PATH & FILENAME: Projects\DM罗斯4940000\Traffic\Signal\717 TH494 @ (31) PILOT KNOB RD S RAMP 2405058\2405058.Brdg\REVISED: 28-DEC-2021

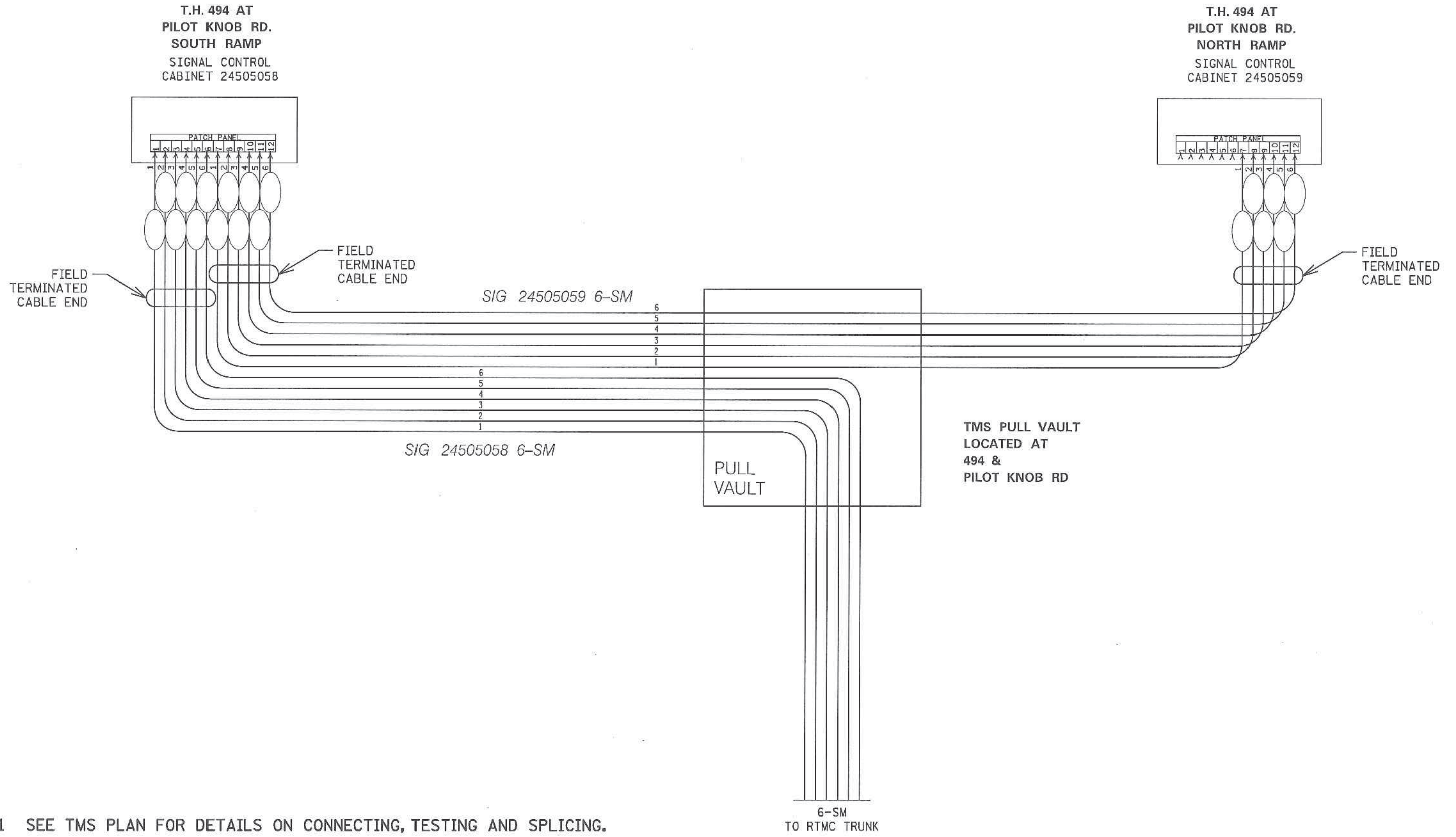
CONTROLLER CABINET



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

BY	DATE	REVISIONS	SYSTEM ID: 2405058 T.E. 7050	FIELD WIRING DIAGRAM TRAFFIC CONTROL SIGNAL SYSTEM A T.H. 494 AT C.S.A.H. 31 (PILOT KNOB RD.) S. RAMP IN EAGAN, DAKOTA COUNTY	S.A.P. NO. 019-631-052	DRAWN BY: JBA	CKD BY: BPV	DATE: 12/20/18	
SJK	12/28/21	SP 1985-148 AS-BUILT PLAN	METER ADDRESS: 2625 PILOT KNOB RD		CERTIFIED BY _____	LIC. NO. _____	DATE: _____		
			OLD SYSTEM ID: 21726		STATE PROJ. NO. 1985-148 (T.H. 494) SHEET NO. SS3 OF SS3 SHEETS				

FIBER OPTIC SCHEMATIC
(FOR SIGNAL COMMUNICATIONS)



1 SEE TMS PLAN FOR DETAILS ON CONNECTING, TESTING AND SPLICING.

PLOTTED/REVISED: 29-MAR-2019

DISTRICT #: Metro
PROJECT NAME: Fiber Optic Schematics
PATH & FILENAME: Projects\DM_ROMS\494\985\48\Traffic\Signals\Details.dgn

BY	DATE	REVISIONS	SYSTEM ID: 2405058 T.E. 7050 METER ADDRESS: 2625 PILOT KNOB RD OLD SYSTEM ID: 21726	FIBER OPTIC SCHEMATIC T.H. 494 AT C.S.A.H. 31 (PILOT KNOB RD) IN EAGAN, DAKOTA COUNTY	S.A.P. NO. 019-631-052	DRAWN BY: JBA	CKD BY: BPV	DATE: 12/20/18
			SYSTEM ID: 2405059 T.E. 7051 METER ADDRESS: 2575 PILOT KNOB RD OLD SYSTEM ID: 21725		CERTIFIED BY: <i>B.P. Vitek</i> LICENSED PROFESSIONAL ENGINEER	LIC. NO. 40444	DATE: 3/29/19	
					STATE PROJ. NO. 1985-148 (T.H. 494) SHEET NO. SS6 OF SS30 SHEETS			