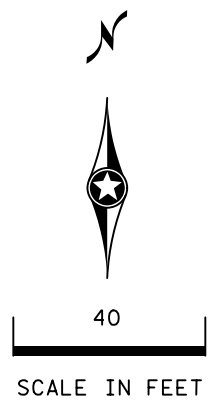


DISTRICT #: Metro
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 PLOTTED/REVISED: 8-DEC-2021

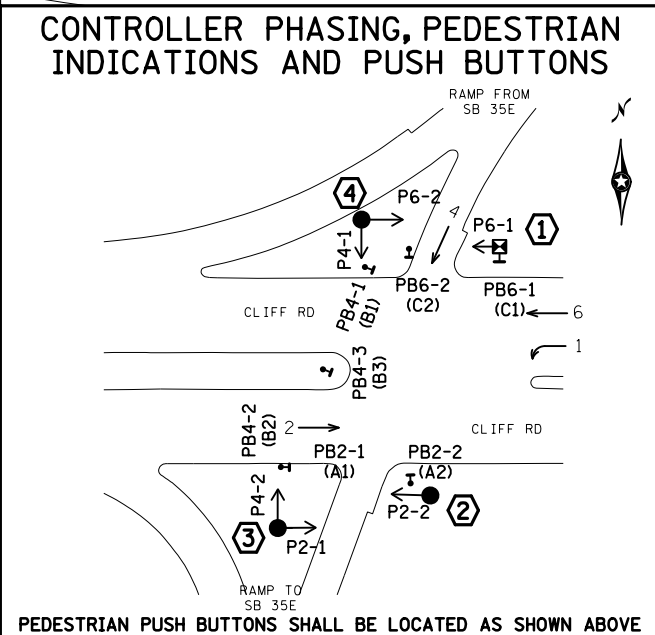
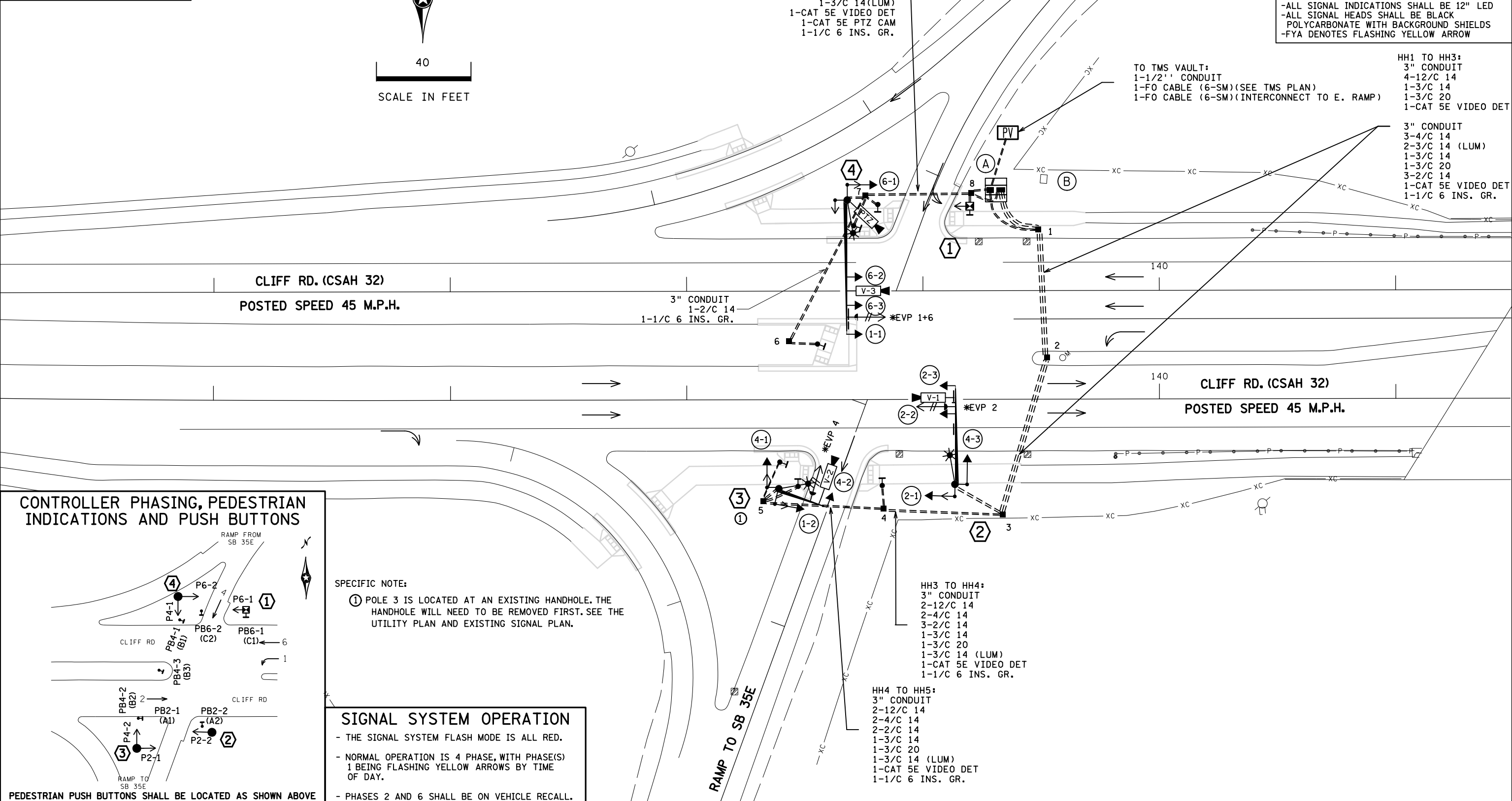
VIDEO DETECTOR CHART		
CAMERA NO.	LOCATION	PHASE
V-1	POLE 2	2
V-2	POLE 3	4
V-3	POLE 4	1 & 6

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



SIGNAL HEAD CHART					
FACE	R	Y	G	FYA	GLA
1-1, 1-2	←	←	←		
2-1, 2-2, 2-3	●	●	●		
4-1	●	●	●		
4-2	●	●	●		←
4-3	●	←			←
6-1, 6-2, 6-3	●	●	●		

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



BY	DATE	REVISIONS	SYSTEM ID: 3816048	T.E. 17867	S.A.P. NO. 019-632-046	DRAWN BY: RMV	CKD BY: CDB	DATE: 7/10/20
HRL	07-26-21	RECORD PLAN	METER ADDRESS:		CERTIFIED BY: <i>Michael P. Subirsky</i>	LIC. NO. 19863	DATE: 8/6/20	
SJK	12/8/21	AS-BUILT PLAN	OLD SYSTEM ID: 20532, 1735244		STATE PROJ. NO. 1982-206 (T.H.35E) SHEET NO. 30 OF 50 SHEETS			

INTERSECTION NOTES

4 PA100 POLE FOUNDATION
 TYPE PA100-A-55-X6-350/CAM (DAVIT AT 350 DEG)
 1-PAIR SWING AWAY HINGES
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0' (1-1)
 2-STRAIGHT MOUNT SIGNAL OVERHEAD
 AT 11' AND 23' (6-3, 6-2)
 1-ANGLE MOUNT SIGNAL AT 90 DEG (6-1)
 2-ANGLE MOUNT C.D. PED HEADS
 AT 90 AND 180 DEG (P4-1, P6-2)
 1-ONE WAY EVP DETECTOR AND
 CONFIRMATORY LIGHT (PHASES 1+6)(EXTEND ABOVE SIGN)
 1-VIDEO DETECTION CAMERA (STATE FURNISHED)
 MOUNTED ON 6' EXTENSION AT 17' FROM END
 OF MAST ARM
 LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
 1-PTZ CAMERA WITH MOUNT (STATE FURNISHED)
 1-R10-X12 SIGN ADJACENT TO HEAD (1-1)(SEE SIGN DETAILS)
 1-TYPE D SIGN (D-1)(SEE SIGN DETAILS)
 3" CONDUIT TO HH 7:
 2-12/C 14
 2-4/C 14
 1-3/C 14
 1-3/C 20
 1-3/C 14 (LUM)
 1-CAT 5E VIDEO DET
 1-CAT 5E PTZ CAMERA
 1-7/16" GROUND BRAID TO GROUND ROD
 1-1/C 6 INS. GR.

PED PB STATION
 1- APS PB AND SIGN
 (RT ARROW) (PB6-2)
 EXTEND INTO HH 7:
 1" NOM.DIA. 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 7:
 1" NOM.DIA. CONDUIT
 1-2/C 14
 1-1/C 6 INS. GR.

PED PB STATION
 1- APS PB AND SIGN
 (RT & LT ARROW)(PB4-3)
 EXTEND INTO HH 6:
 1" NOM.DIA. 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 5:
 1" NOM.DIA. CONDUIT
 1-2/C 14
 1-1/C 6 INS. GR.

PED PB STATION
 1- APS PB AND SIGN
 (RT ARROW) (PB2-1)
 EXTEND INTO HH 5:
 1" NOM.DIA. CONDUIT
 1-2/C 14
 1-1/C 6 INS. GR.

1 PEDESTAL FOUNDATION
 TYPE 4A - 1-C.D. PED HEAD (P6-1)
 8' PEDESTAL POLE PLUS BASE
 1-APS PB AND SIGN (LT ARROW) (PB6-1)
 AND APS PB MOUNTING SPACERS
 1-R9-3 (NO PED) SIGN (FACING POLE 2)
 (SEE SIGN DETAILS)
 3" CONDUIT TO HH 8:
 1-4/C 14
 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 4:
 1" NOM.DIA. CONDUIT
 1-2/C 14
 1-1/C 6 INS. GR.

3 PA85 POLE FOUNDATION
 TYPE PA85-A-20-D40-9 (DAVIT AT 350 DEG)
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0' (4-2)
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG (1-2, 4-1)
 2-ANGLE MOUNT C.D. PED HEADS AT
 90 AND 180 DEG (P2-1, P4-2)
 1-ONE WAY EVP DETECTOR AND
 CONFIRMATORY LIGHT (PHASE 4)
 1-VIDEO DETECTION CAMERA (V-2)(STATE FURNISHED)
 MOUNTED ON 6' EXTENSION AT 5' FROM END
 OF MAST ARM
 LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
 2-SIGNS (ONE-WAY) R6-1R & R6-2L (SEE SIGN DETAILS)
 3" CONDUIT TO HH 5:
 2-12/C 14
 2-4/C 14
 1-3/C 14
 1-3/C 20
 1-3/C 14 (LUM)
 1-CAT 5E VIDEO DET
 1-1/C 6 INS. GR.

2 PA100 POLE FOUNDATION
 TYPE PA100-A-40-D40-9 (DAVIT AT 350 DEG)
 1-PAIR SWING AWAY HINGES
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0' (2-3)
 1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 11' (2-2)
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG (4-3, 2-1)
 1-ANGLE MOUNT C.D. PED HEAD AT 180 DEG (P2-2)
 1-ONE WAY EVP DETECTOR AND
 CONFIRMATORY LIGHT (PHASE 2)
 1-VIDEO DETECTION CAMERA (V-1) (STATE FURNISHED)
 MOUNTED ON 6' EXTENSION AT 5' FROM END
 OF MAST ARM (EXTENDS OVER SIGN)
 LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
 1-R9-3 (NO PED) SIGN (FACING POLE 1)
 2-TYPE D SIGNS (D-2, D-3) (SEE SIGN DETAILS)
 3" CONDUIT TO HH 3:
 2-12/C 14
 1-4/C 14
 1-3/C 14
 1-3/C 20
 1-3/C 14 (LUM)
 1-CAT 5E VIDEO DET
 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)
 3" CONDUIT TO HH 1:
 4-12/C 14
 1-3/C 14
 1-3/C 20
 1-CAT 5E VIDEO DET
 3" CONDUIT TO HH 1:
 3-4/C 14
 1-3/C 14
 3-2/C 14
 1-CAT 5E VIDEO DET
 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 STUB OUT:
 1-1/2" CONDUIT TO TMS VAULT:
 1-FO PIGTAIL (6-SM) (SEE TMS PLAN)
 1-FO PIGTAIL (6-SM) (INTERCONNECT TO EAST RAMP VIA TMS VAULT
 SEE INTERCONNECT LAYOUT)

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 HH1:
 2" CONDUIT
 2-3/C 14 (LUM)

SERVICE CABINET TO HH8:
 2" CONDUIT
 1-3/C 14 (LUM)

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

SERVICE CABINET TO EXTERNAL GR. RD.:
 1" CONDUIT
 1-1/C 6 INS. GR.

B SOP-120/240V GROUND MOUNTED
 TRANSFORMER (BY DAKOTA ELECTRIC)
 2" CONDUIT INTO SERVICE CABINET:
 3-1/C 2

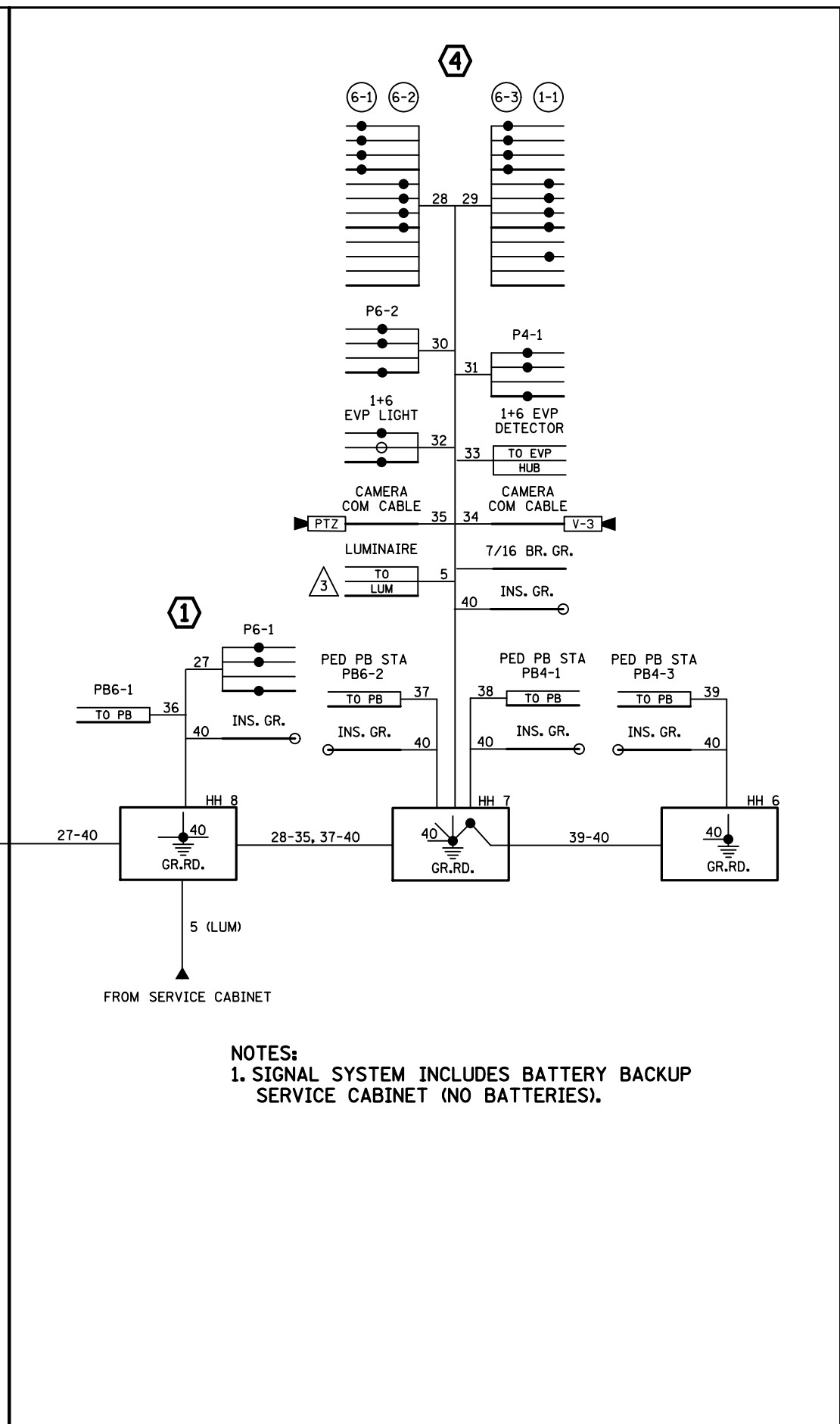
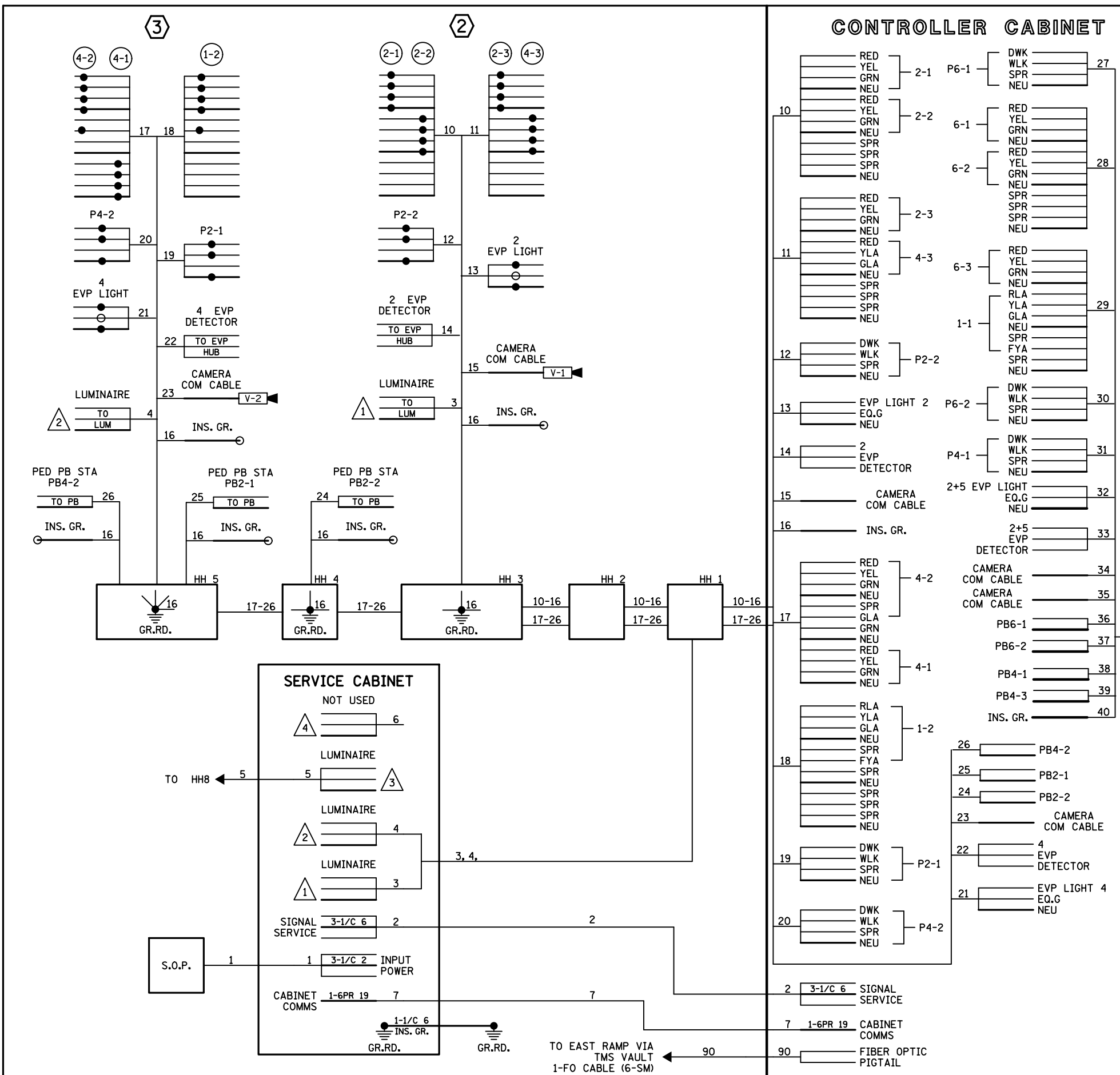
NOTE: A RACK MOUNTED STEP DOWN TRANSFORMER PROVIDES POWER FOR THE EXISTING SIGNAL CABINET VIA A 240/480V GROUND MOUNTED TRANSFORMER. DAKOTA ELECTRIC WILL SET A NEW 120/240V GROUND MOUNTED TRANSFORMER NEAR (3-5') THE EXISTING 240/480V TRANSFORMER FOR THE NEW SIGNAL SERVICE CABINET. THE 240/480V TRANSFORMER WILL REMAIN FOR ROADWAY LIGHTING.

DISTRICT #: Metro
 PLOT NAME: 120532.sgl
 PATH & FILENAME: Projects\DM_POS\035E\0000\Traffic\Sig\120532.sgl
 PLOTTED/REVISED: 8-DEC-2021
 PLOT NAME: 120532.sgl
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 RD W RAMP-3816048\3816048.sgl.dgn

BY	DATE	REVISIONS	SYSTEM ID: 3816048	T.E. 17867	S.A.P. NO. 019-632-046	DRAWN BY:RMV	CKD BY:CDB	DATE:7/10/20
HRL	07-26-21	RECORD PLAN	METER ADDRESS:		CERTIFIED BY: <i>Michael P. Sulimsky</i>	LIC. NO. 19863	DATE: 7/16/20	
SJK	12/8/21	AS-BUILT PLAN	OLD SYSTEM ID: 20532, 1735244		STATE PROJ.NO. 1982-206 (T.H.35E)		SHEET NO. 31 OF 50 SHEETS	

INTERSECTION NOTES
TRAFFIC CONTROL SIGNAL SYSTEM A
T.H. 35E AT C.S.A.H. 32 (CLIFF ROAD) W. RAMP
IN EAGAN, DAKOTA COUNTY

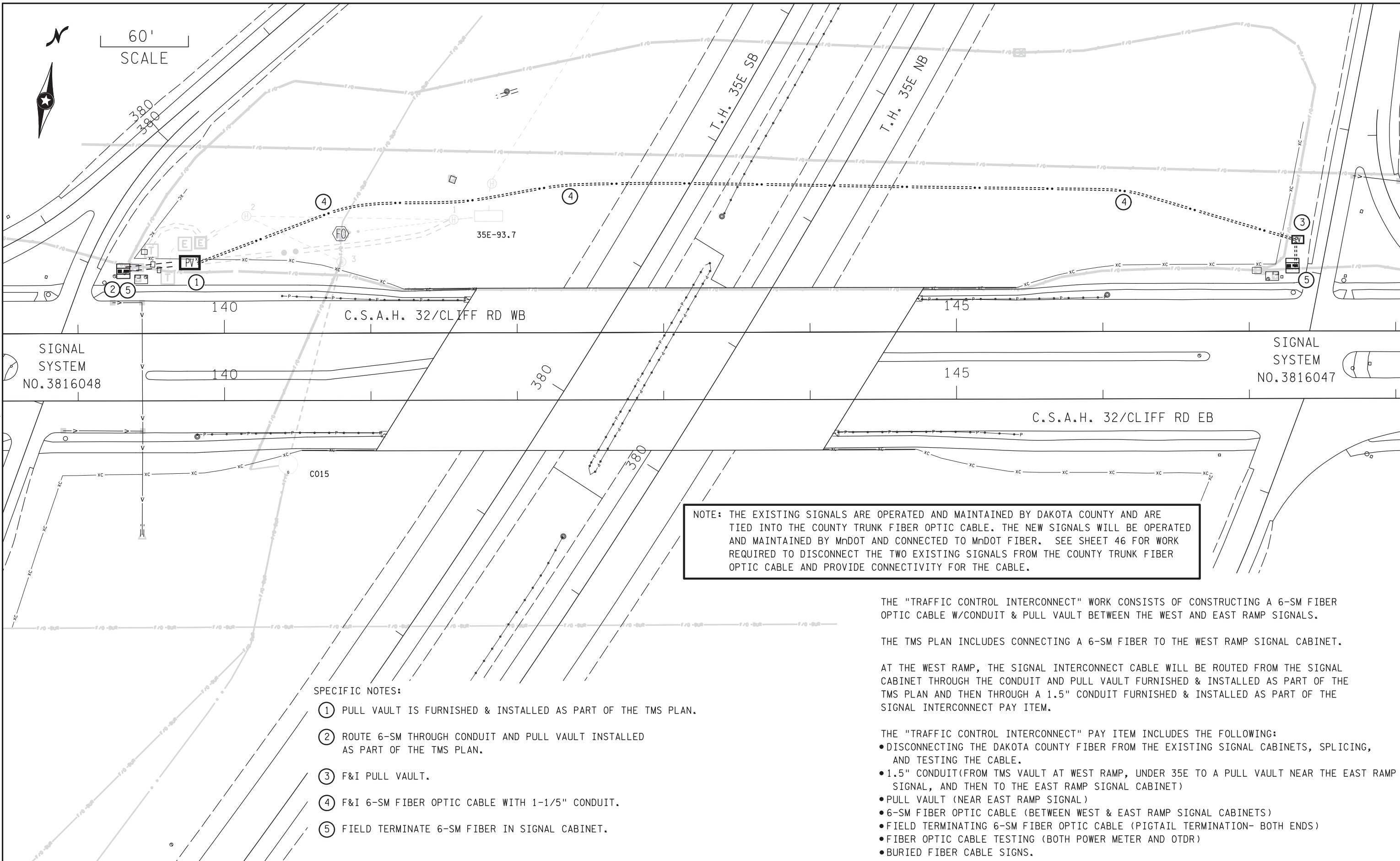
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 PLOTTED/REVISED: 8-DEC-2021



BY	DATE	REVISIONS	SYSTEM ID: 3816048	T.E. 17867	S.A.P. NO. 019-632-046	DRAWN BY:RMV	CKD BY:CDB	DATE:7/10/20
HRL	07-26-21	RECORD PLAN	METER ADDRESS:		CERTIFIED BY: <i>Michael P. Selinsky</i>	LIC. NO. 19863	DATE: 7/16/20	
SJK	12/8/21	AS-BUILT PLAN	OLD SYSTEM ID: 20532, 1735243		STATE PROJ.NO. 1982-206 (T.H.35E) SHEET NO. 32 OF 50 SHEETS			

PLOTTED/REVISED: 7-AUG-2020

DISTRICT *: Metro
I/PLOT NAME: Fiber Interconnect Layout44
PATH & FILENAME: Projects\DM_ROS\035E\1982\206\Traffic\Signals\Fiber Interconnect Layout.dgn



NOTE: THE EXISTING SIGNALS ARE OPERATED AND MAINTAINED BY DAKOTA COUNTY AND ARE TIED INTO THE COUNTY TRUNK FIBER OPTIC CABLE. THE NEW SIGNALS WILL BE OPERATED AND MAINTAINED BY MnDOT AND CONNECTED TO MnDOT FIBER. SEE SHEET 46 FOR WORK REQUIRED TO DISCONNECT THE TWO EXISTING SIGNALS FROM THE COUNTY TRUNK FIBER OPTIC CABLE AND PROVIDE CONNECTIVITY FOR THE CABLE.

SPECIFIC NOTES:

- ① PULL VAULT IS FURNISHED & INSTALLED AS PART OF THE TMS PLAN.
- ② ROUTE 6-SM THROUGH CONDUIT AND PULL VAULT INSTALLED AS PART OF THE TMS PLAN.
- ③ F&I PULL VAULT.
- ④ F&I 6-SM FIBER OPTIC CABLE WITH 1-1/5" CONDUIT.
- ⑤ FIELD TERMINATE 6-SM FIBER IN SIGNAL CABINET.

THE "TRAFFIC CONTROL INTERCONNECT" WORK CONSISTS OF CONSTRUCTING A 6-SM FIBER OPTIC CABLE W/CONDUIT & PULL VAULT BETWEEN THE WEST AND EAST RAMP SIGNALS.

THE TMS PLAN INCLUDES CONNECTING A 6-SM FIBER TO THE WEST RAMP SIGNAL CABINET.

AT THE WEST RAMP, THE SIGNAL INTERCONNECT CABLE WILL BE ROUTED FROM THE SIGNAL CABINET THROUGH THE CONDUIT AND PULL VAULT FURNISHED & INSTALLED AS PART OF THE TMS PLAN AND THEN THROUGH A 1.5" CONDUIT FURNISHED & INSTALLED AS PART OF THE SIGNAL INTERCONNECT PAY ITEM.

THE "TRAFFIC CONTROL INTERCONNECT" PAY ITEM INCLUDES THE FOLLOWING:

- DISCONNECTING THE DAKOTA COUNTY FIBER FROM THE EXISTING SIGNAL CABINETS, SPLICING, AND TESTING THE CABLE.
- 1.5" CONDUIT (FROM TMS VAULT AT WEST RAMP, UNDER 35E TO A PULL VAULT NEAR THE EAST RAMP SIGNAL, AND THEN TO THE EAST RAMP SIGNAL CABINET)
- PULL VAULT (NEAR EAST RAMP SIGNAL)
- 6-SM FIBER OPTIC CABLE (BETWEEN WEST & EAST RAMP SIGNAL CABINETS)
- FIELD TERMINATING 6-SM FIBER OPTIC CABLE (PIGTAIL TERMINATION- BOTH ENDS)
- FIBER OPTIC CABLE TESTING (BOTH POWER METER AND OTDR)
- BURIED FIBER CABLE SIGNS.

BY	DATE	REVISIONS

SYSTEM ID: 3816047, 3816048
T.E. 17867, 17866

TRAFFIC CONTROL INTERCONNECT

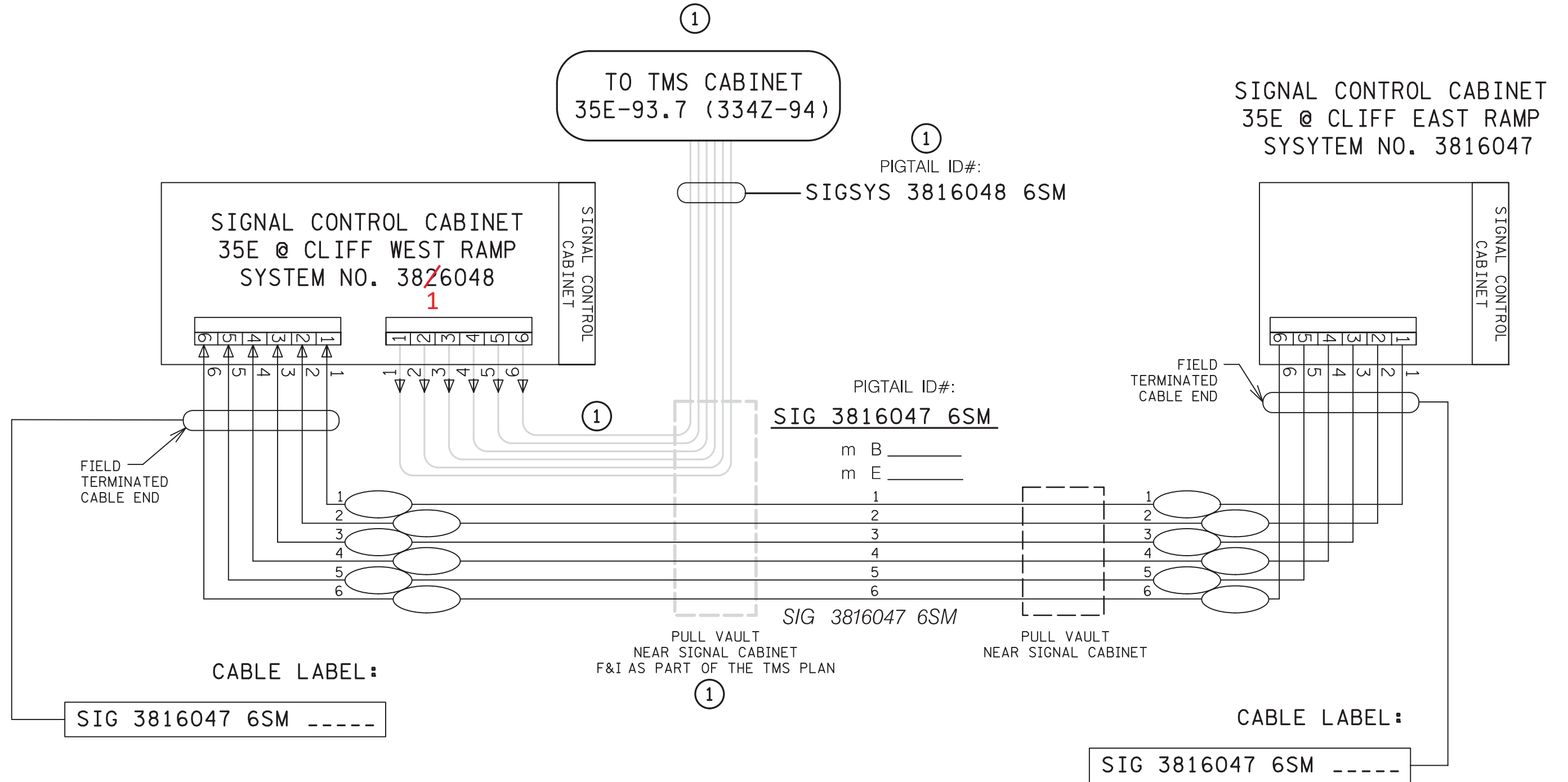
S.A.P. NO. 019-632-046 DRAWN BY: CDB CKD BY: CDB DATE: 5/30/20

CERTIFIED BY: *Michael P. Selinsky* LIC. NO. 19863 DATE: 8/6/20
LICENSSED PROFESSIONAL ENGINEER

STATE PROJ. NO. 1982-206 (T.H.35E) SHEET NO. 44 OF 50 SHEETS

FIBER OPTIC SCHEMATIC
(FOR SIGNAL COMMUNICATIONS)

① THE PIGTAIL FROM TMS CABINET TO SIGNAL CABINET AND THE PULL VAULT IS INCLUDED AS PART OF THE TMS PLAN.



DISTRICT #: Metro
 PLOT NAME: 1982-206_tst45
 PATH & FILENAME: Projects\DM_R0S\035E\1982\206\Traffic\Signal\1982-206_tshdgn

BY	DATE	REVISIONS	SYSTEM ID: 3816048, 3816047 T.E. METER ADDRESS: OLD SYSTEM ID: 1735244, 1735243	FIBER OPTIC SCHEMATIC TRAFFIC CONTROL SIGNAL SYSTEM T.H. 35E AT CLIFF ROAD WEST & EAST RAMPS IN EAGAN, DAKOTA COUNTY	S.A.P. NO. 019-632-046 CERTIFIED BY: <i>Michael P. Gubinsky</i> LIC. NO. 19863 DATE: 7/16/20	DRAWN BY: HRL CKD BY: CDB DATE: 7/10/20
			STATE PROJ. NO. 1982-206 (T.H. 35E)		SHEET NO. 45 OF 50 SHEETS	