

PLOTTED/REVISED: 27-AUG-2018

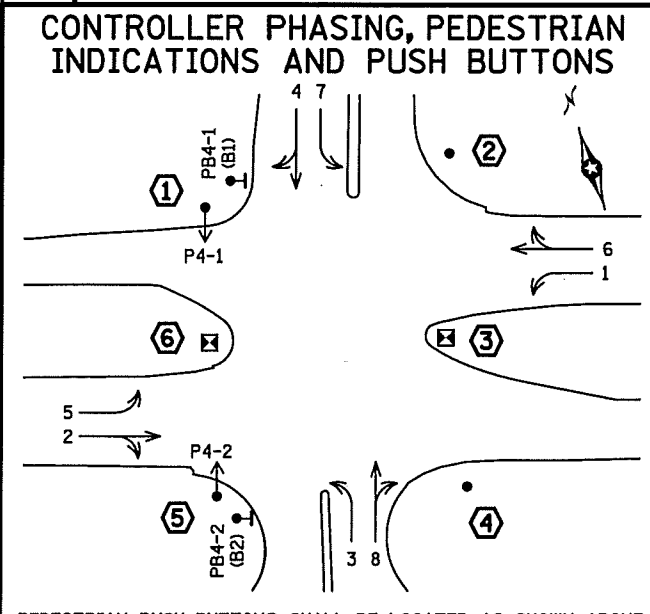
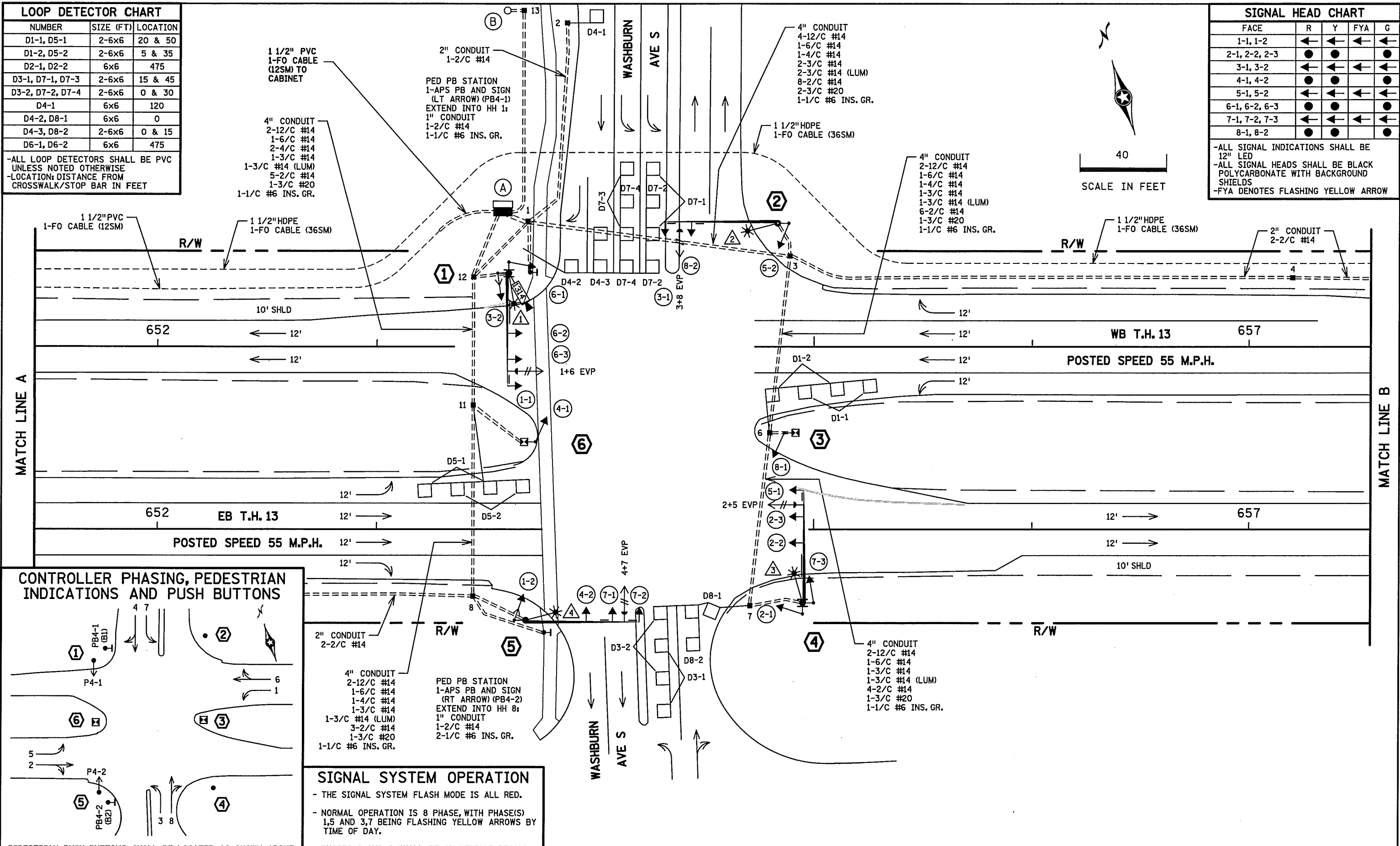
IPLOT NAME: layout PATH & FILENAME: Projects\DM_FOS\013\00000\Traffic\Signals\20291\Washburn Ave\T20291.spl.dgn

LOOP DETECTOR CHART		
NUMBER	SIZE (FT)	LOCATION
D1-1, D5-1	2-6x6	20 & 50
D1-2, D5-2	2-6x6	5 & 35
D2-1, D2-2	6x6	475
D3-1, D7-1, D7-3	2-6x6	15 & 45
D3-2, D7-2, D7-4	2-6x6	0 & 30
D4-1	6x6	120
D4-2, D8-1	6x6	0
D4-3, D8-2	2-6x6	0 & 15
D6-1, D6-2	6x6	475

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

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

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



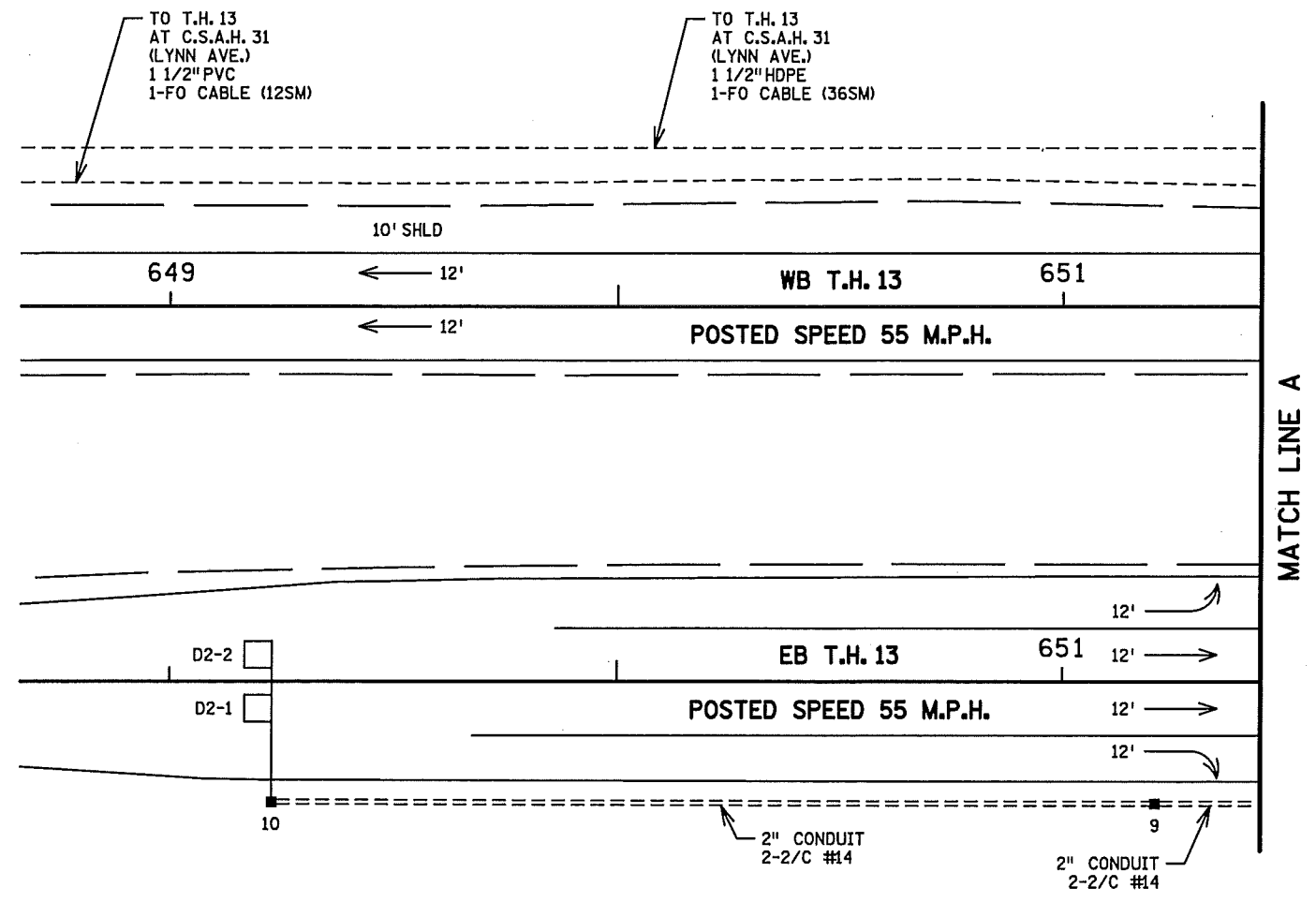
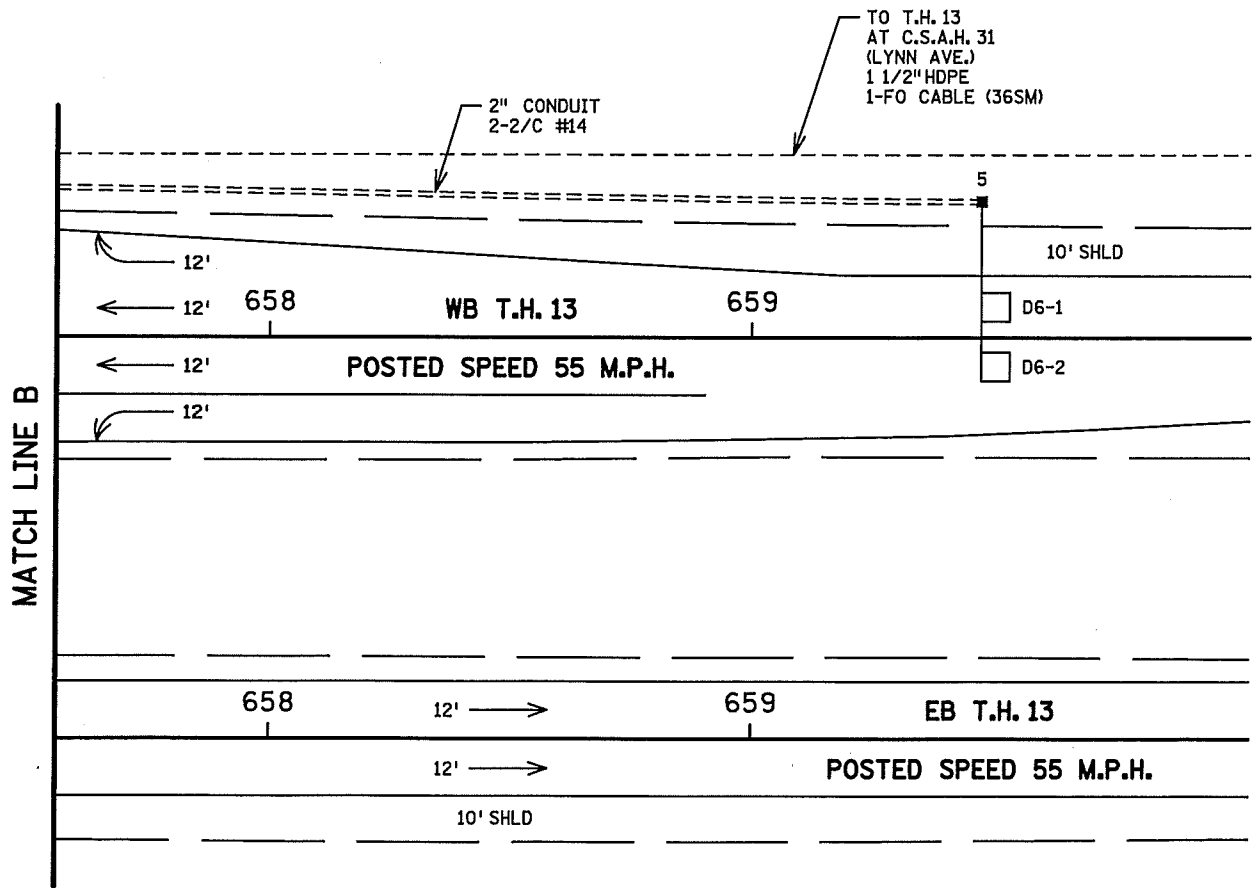
SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 8 PHASE, WITH PHASE(S) 1,5 AND 3,7 BEING FLASHING YELLOW ARROWS BY TIME OF DAY.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

BY	DATE	REVISIONS	SYSTEM ID: 1862614	T.E. 692	S.A.P. NO. 179-010-015	DRAWN BY:GDS	CKD BY:CDB	DATE:12-22-16
SJK	09/18	AS-BUILT PLAN SP 7001-112	METER ADDRESS: 3148 HWY 13		CERTIFIED BY: <i>Michael P. Lubinsky</i>			LIC. NO. 19863 DATE: 12-22-16
			OLD SYSTEM ID: 20291		STATE PROJ.NO. 7001-112 (T.H.13) SHEET NO. 1 OF 5 SHEETS			

PLOTTED/REVISED: 27-AUG-2018

IPLOT NAME: match lines
PATH & FILENAME: Projects\DM_R05\03\0000\Traffic\Signal\20291\Washburn Ave\T20291_sgl.dgn



BY	DATE	REVISIONS
SJK	09/18	AS-BUILT PLAN SP 7001-112

SYSTEM ID: 1862614 T.E. 692
 METER ADDRESS: 3148 HWY 13
 OLD SYSTEM ID: 20291

MATCHLINE LAYOUT
TRAFFIC CONTROL SIGNAL SYSTEM
T.H. 13 AT WASHBURN AVE. S.
IN BURNSVILLE, DAKOTA COUNTY

S.A.P. NO. 179-010-015
 DRAWN BY: GDS CKD BY: CDB DATE: 12-22-16
 CERTIFIED BY: *Michael P. Gubinsky* L.I.C. NO. 19863 DATE: 12-22-16
 LICENSED PROFESSIONAL ENGINEER
 STATE PROJ. NO. 7001-112 (T.H.13) SHEET NO. 2 OF 5 SHEETS

① PA100 POLE FOUNDATION
 TYPE PA100-A-50
 1-PTZ VIDEO CAMERA WITH MOUNT (CAM 1314)
 X6-350/CAM 400 (AT 350 DEG)
 1-PAIR SWING AWAY HINGES
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 2-STRAIGHT MOUNT SIGNALS OVERHEAD
 AT 11' AND 23'
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
 1-ANGLE MOUNT C.D. PED HEAD AT 90 DEG
 1-ONE WAY EVP DETECTOR AND
 CONFIRMATORY LIGHT (PHASES 1+6)
 LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
 1-R10-X12 SIGN ADJACENT TO HEAD (1-1)
 1-R6-1L SIGN (ONE WAY)
 1-R6-1R SIGN (ONE WAY)
 1-R9-3 SIGN (FACING POLE 2)
 1-TYPE D SIGN (D-2) (SEE SIGN DETAILS)
 3" CONDUIT TO HH 12:
 2-12/C #14
 1-6/C #14
 1-4/C #14
 1-3/C #14
 1-3/C #14 (LUM)
 1-3/C #20
 1-1/C #6 INS. GR.
 1-7/16" GROUNDING BRAID
 TO GROUND ROD IN HH 18
 1-3/C #14 (SPARE)
 1-CAT 5E COM CABLE

⑥ PEDESTAL FOUNDATION
 10' PEDESTAL POLE PLUS BASE
 1-STRAIGHT MOUNT SIGNAL
 3" CONDUIT TO HH 11:
 1-4/C #14
 2-1/C #6 INS. GR.

⑤ PA100 POLE FOUNDATION
 TYPE PA100-A-50-D40-9 (DAVIT AT 350 DEG)
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 2-STRAIGHT MOUNT SIGNALS OVERHEAD
 AT 11' AND 23'
 1-ANGLE MOUNT SIGNAL AT 180 DEG
 1-ANGLE MOUNT C.D. PED HEAD AT 180 DEG
 1-ONE WAY EVP DETECTOR AND
 CONFIRMATORY LIGHT (PHASES 4+7)
 LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
 1-R10-X12 SIGN ADJACENT TO HEAD (7-2)
 1-R9-3 SIGN (FACING POLE 4)
 1-TYPE D SIGN (D-1) (SEE SIGN DETAILS)
 3" CONDUIT TO HH 8:
 2-12/C #14
 1-6/C #14
 1-4/C #14
 1-3/C #14
 1-3/C #14 (LUM)
 1-3/C #20
 1-1/C #6 INS. GR.

② PA100 POLE FOUNDATION
 TYPE PA100-A-50-D40-9 (DAVIT AT 350 DEG)
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 11'
 1-ANGLE MOUNT SIGNAL AT 180 DEG
 1-ONE WAY EVP DETECTOR AND
 CONFIRMATORY LIGHT (PHASES 3+8)
 LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
 1-R10-X12 SIGN ADJACENT TO HEAD (3-1)
 2-R9-3 SIGNS (FACING POLES 1 AND 4)
 1-TYPE D SIGN (D-1) (SEE SIGN DETAILS)
 3" CONDUIT TO HH 3:
 2-12/C #14
 1-3/C #14
 1-3/C #14 (LUM)
 1-3/C #20
 1-1/C #6 INS. GR.

③ PEDESTAL FOUNDATION
 10' PEDESTAL POLE PLUS BASE
 1-STRAIGHT MOUNT SIGNAL
 3" CONDUIT TO HH 6:
 1-4/C #14
 2-1/C #6 INS. GR.

④ 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'
 2-STRAIGHT MOUNT SIGNALS OVERHEAD
 AT 11' AND 23'
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
 1-ONE WAY EVP DETECTOR AND
 CONFIRMATORY LIGHT (PHASES 2+5)
 LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
 1-R10-X12 SIGN ADJACENT TO HEAD (5-1)
 1-R6-1L SIGN (ONE WAY)
 1-R6-1R SIGN (ONE WAY)
 2-R9-3 SIGNS (FACING POLES 2 AND 5)
 1-TYPE D SIGN (D-2) (SEE SIGN DETAILS)
 3" CONDUIT TO HH 7:
 2-12/C #14
 1-6/C #14
 1-3/C #14
 1-3/C #14 (LUM)
 1-3/C #20
 1-1/C #6 INS. GR.

Ⓐ EQUIPMENT PAD
 SERVICE CABINET (SSB) BATTERY BACKUP
 SYSTEM WITH BATTERIES OR U.P.S.
 CONTROLLER AND CABINET

4" CONDUIT TO HH 12:	4" CONDUIT TO HH 1:
4-12/C #14	4-12/C #14
2-6/C #14	1-6/C #14
3-4/C #14	1-4/C #14
2-3/C #14	2-3/C #14
5-2/C #14	16-2/C #14
2-3/C #20	2-3/C #20
1-1/C #6 INS. GR.	1-1/C #6 INS. GR.
1-3/C #14 (SPARE)	
1-CAT 5E COM CABLE	

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)

1-1/2" CONDUIT TO TMS VAULT
 WITH 1-(12-SM)

CONTROLLER CABINET TO SERVICE CABINET:
 2" CONDUIT
 2-1/C #6
 1-1/C #6 INS. GR.

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

SERVICE CABINET TO SOP VIA HH 13:
 2" CONDUIT
 3-1/C #2

SERVICE CABINET TO HH 1:
 2" CONDUIT
 4-3/C #14 (LUM)

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

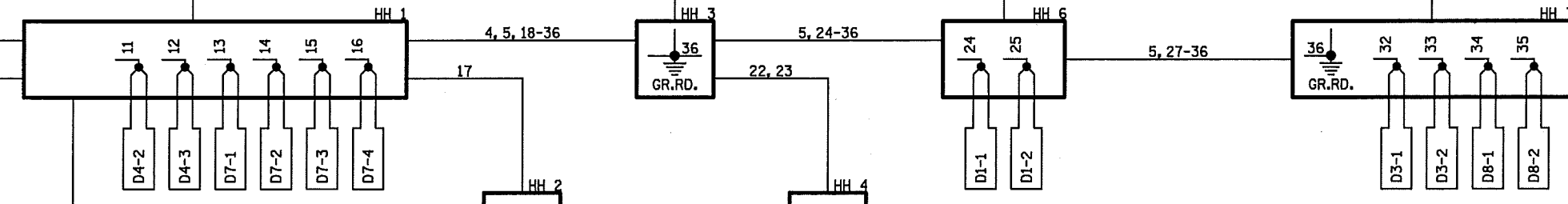
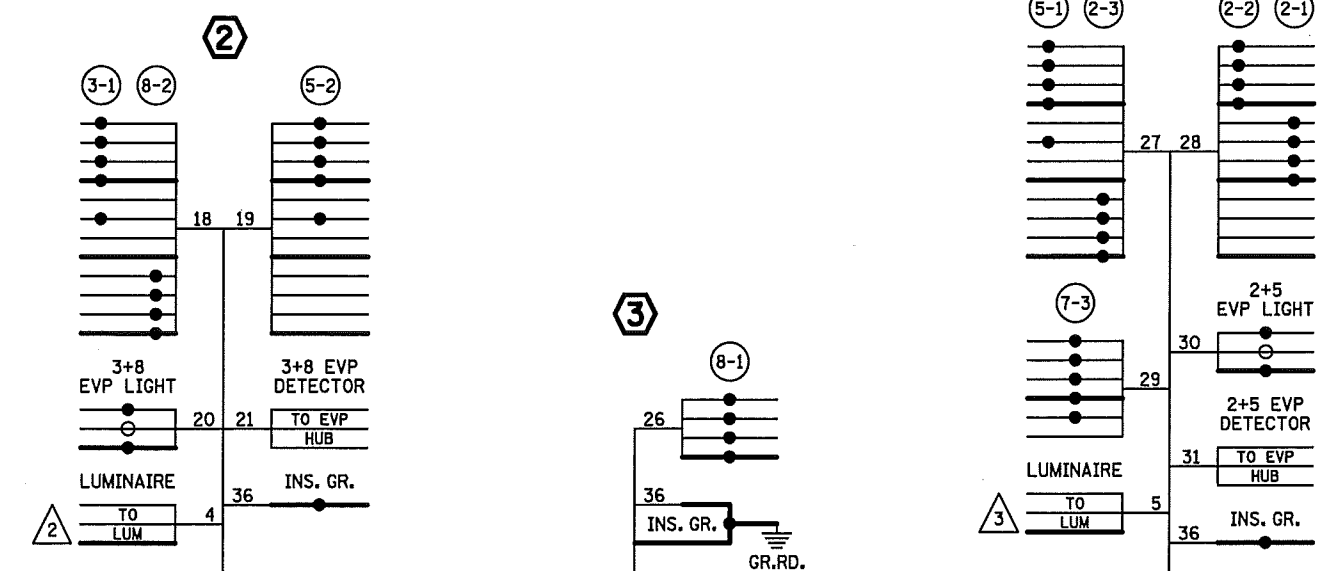
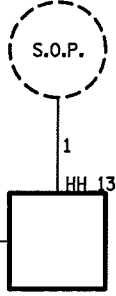
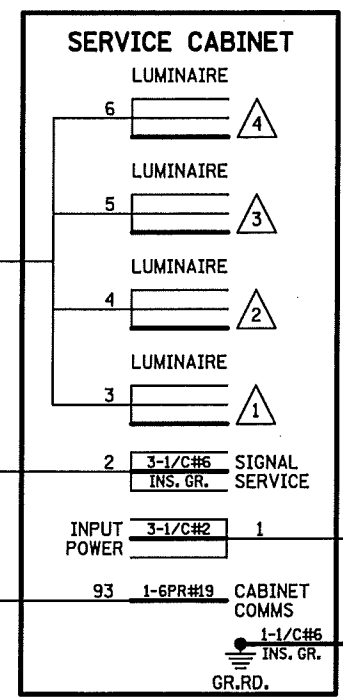
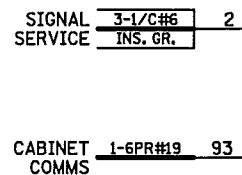
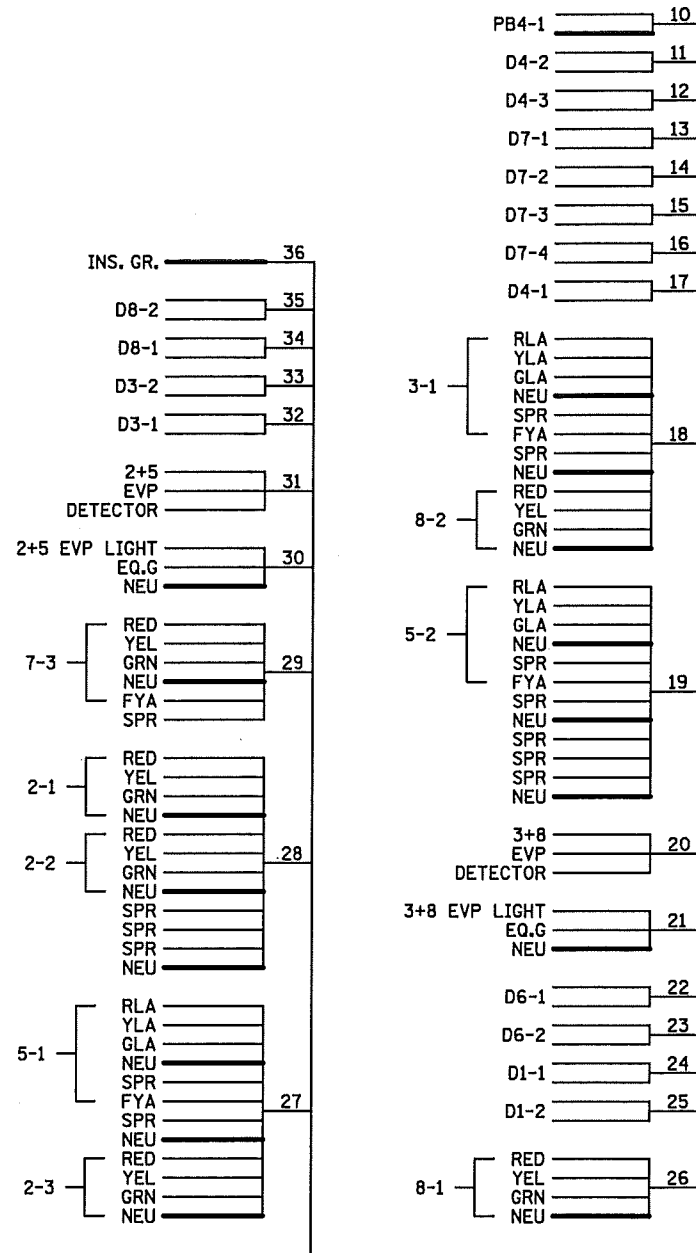
HH 1 TO HH 12:
 2" CONDUIT
 2-3/C #14 (LUM)

Ⓑ SOP-WOOD POLE (INPLACE - XCEL ENERGY POLE)
 2" CONDUIT RISER, WEATHERHEAD
 AND CONDUIT TO HH 13:
 3-1/C #2

BY	DATE	REVISIONS	SYSTEM ID: 1862614	T.E. 692	S.A.P. NO.	DRAWN BY:	CKD BY:	DATE:
J3T	10-31-18	AS-BUILT PLAN SP. 7001-112	METER ADDRESS: 3148 HWY 13		CERTIFIED BY _____	LIC. NO. _____	DATE: _____	
			OLD SYSTEM ID: 20291		STATE PROJ. NO.	(T.H. 13)	SHEET NO. 3 OF 5 SHEETS	

INTERSECTION NOTES
TRAFFIC CONTROL SIGNAL SYSTEM
T.H. 13 AT WASHBURN AVE. S.
BURNSVILLE, DAKOTA COUNTY

CONTROLLER CABINET



- NOTES:**
1. SIGNAL SYSTEM INCLUDES BATTERY- BACKUP SERVICE CABINET (WITH BATTERIES OR U.P.S.).
 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.

PLOT NAME: wiring diagram 1 of 2
 PATH & FILENAME: Projects\DM_ROM\013\0000\Traffic\Signal\2029\ Washburn Ave\NT20291_sgl.dgn
 PLOTTED/REVISED: 27-AUG-2018

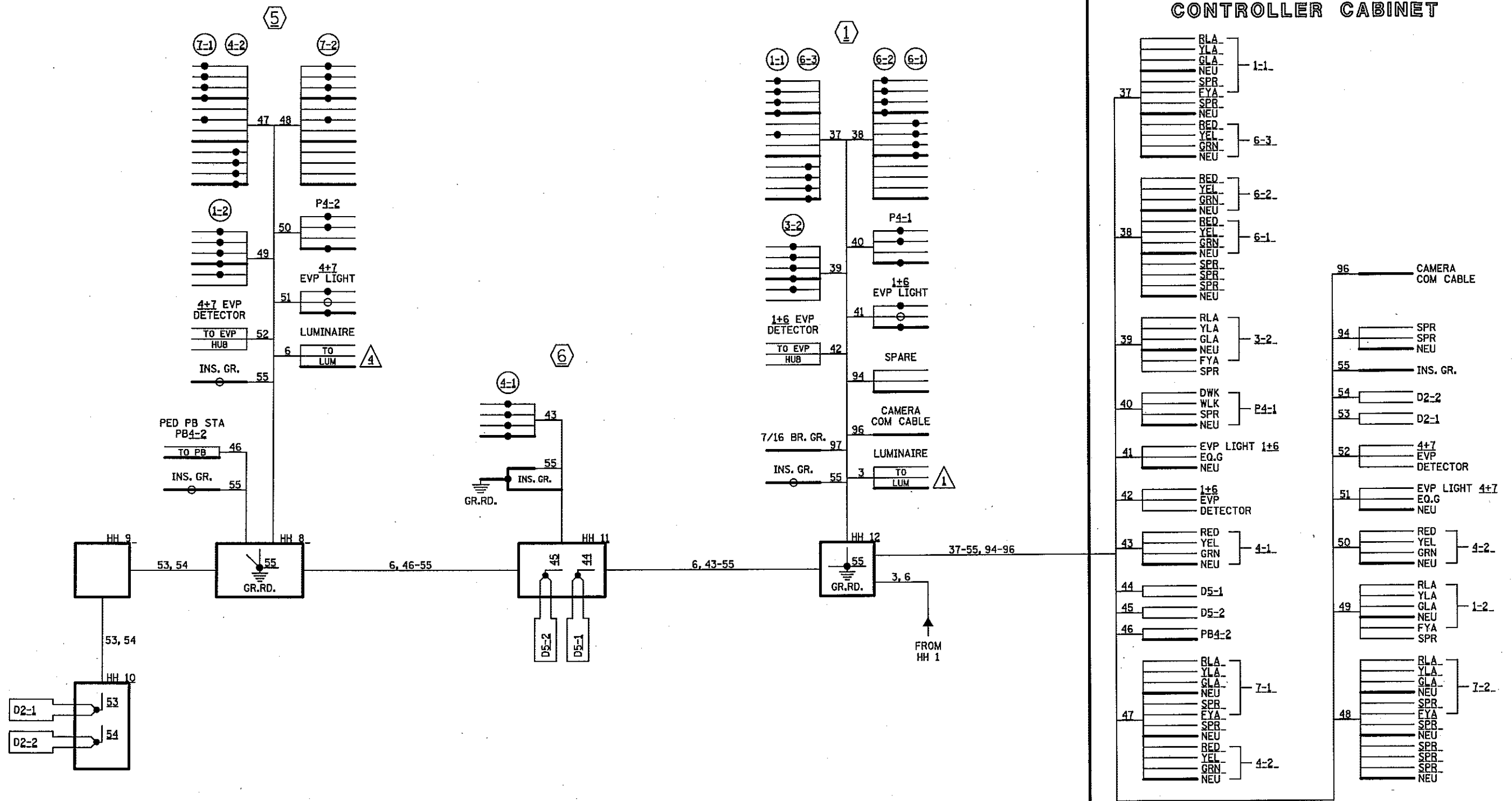
BY	DATE	REVISIONS
SJK	09/18	AS-BUILT PLAN SP 7001-112

SYSTEM ID: 1862614 T.E. 692
 METER ADDRESS: 3148 HWY 13
 OLD SYSTEM ID: 20291

FIELD WIRING DIAGRAM (1 OF 2)
TRAFFIC CONTROL SIGNAL SYSTEM
T.H. 13 AT WASHBURN AVE. S.
IN BURNSVILLE, DAKOTA COUNTY

S.A.P. NO. 179-010-015	DRAWN BY: GDS	CKD BY: CDB	DATE: 12-22-16
CERTIFIED BY: <i>Michael P. Gubinsky</i>	LIC. NO. 19863	DATE: 12-22-16	
STATE PROJ. NO. 7001-112 (T.H.13)		SHEET NO. 4 OF 5 SHEETS	

PLOT NAME: 1862614R
 PATH & FILENAME: Projects\DM罗斯\3000007Traffic\Signalis\20291\Washburn Ave\1862614R.dgn
 PLOTTED/REVISED: 31-OCT-2018



- NOTES:**
1. SIGNAL SYSTEM INCLUDES BATTERY- BACKUP SERVICE CABINET (WITH BATTERIES OR U.P.S.).
 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.

TO TMS VAULT
1-FO CABLE (12-SM) ← FIBER OPTIC PIGTAIL

BY	DATE	REVISIONS	SYSTEM ID: 1862614	T.E. 692	S.A.P. NO.	DRAWN BY:	CKD BY:	DATE:
J3T	10-31-18	AS-BUILT PLAN SP 7001-112	METER ADDRESS: 3148 HWY 13					
			OLD SYSTEM ID: 20291					
FIELD WIRING DIAGRAM TRAFFIC CONTROL SIGNAL SYSTEM T.H. 13 AT WASHBURN AVE. S. BURNSVILLE, DAKOTA COUNTY					CERTIFIED BY _____ <small>LICENSED PROFESSIONAL ENGINEER</small>		LIC. NO. _____ DATE: _____	
					STATE PROJ.NO.	(T.H. 13)	SHEET NO. 5 OF 5 SHEETS	