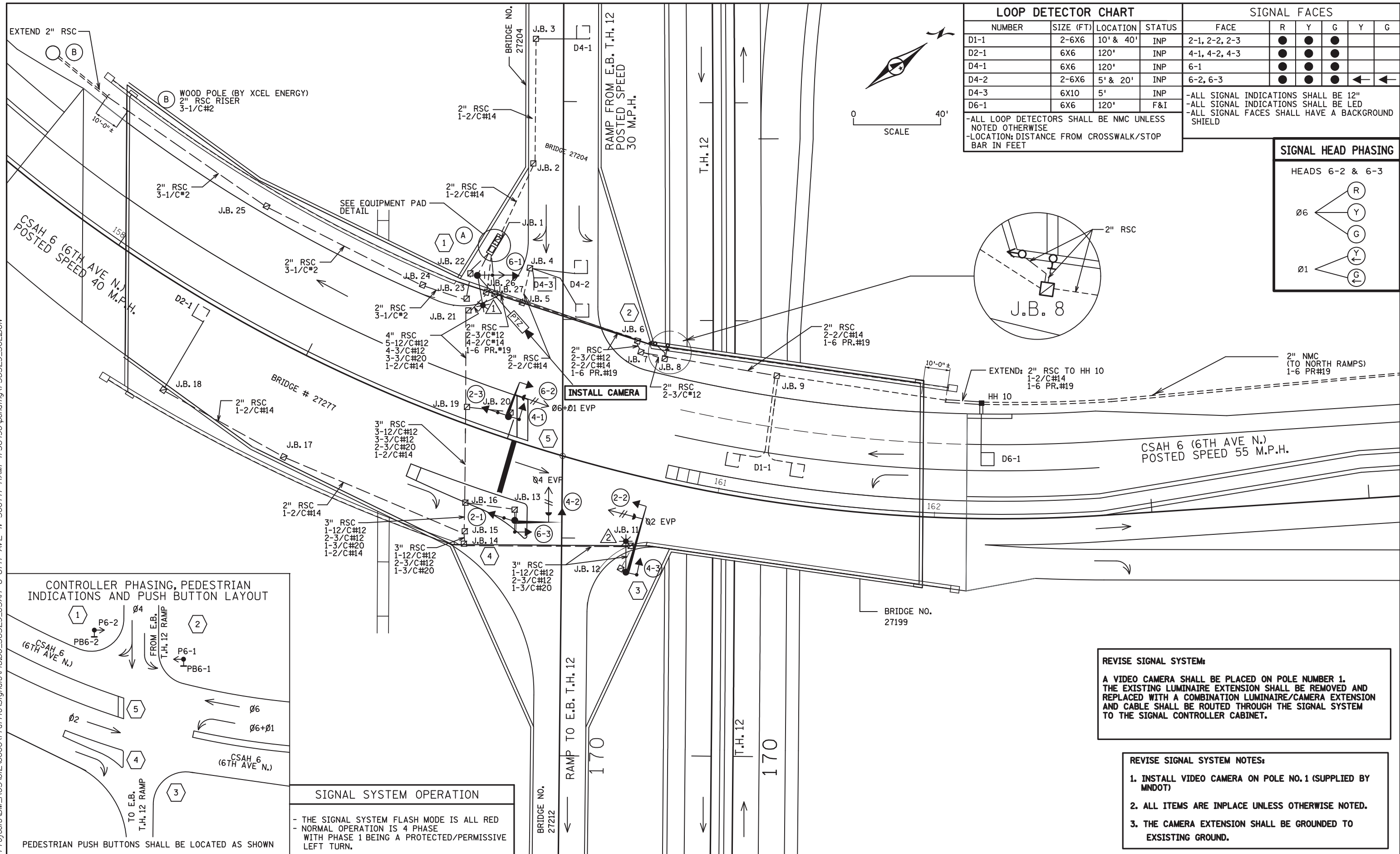


PLOTTED/REVISED: 13-OCT-2020

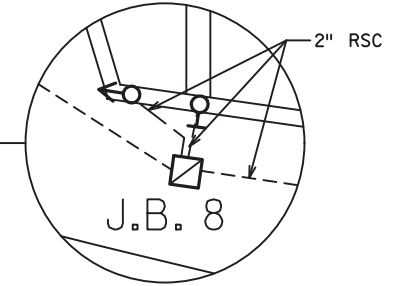
DISTRICT *: Metro
PLOT NAME: T38329_SGL18
FILENAME: Projects\DM_FOS\012\0000\Traffic\Signals\48.80_38329_CSAH 6 6TH AVE N SOUTH RAMP-T38329_SGL.DGN



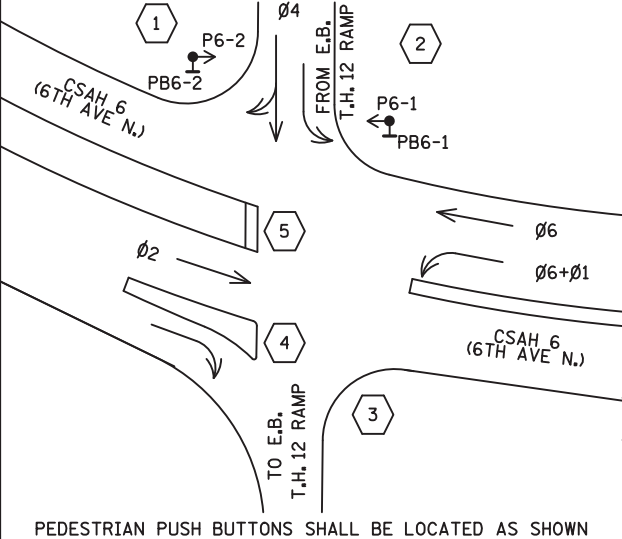
LOOP DETECTOR CHART				SIGNAL FACES					
NUMBER	SIZE (FT)	LOCATION	STATUS	FACE	R	Y	G	Y	G
D1-1	2-6X6	10' & 40'	INP	2-1, 2-2, 2-3	●	●	●		
D2-1	6X6	120'	INP	4-1, 4-2, 4-3	●	●	●		
D4-1	6X6	120'	INP	6-1	●	●	●		
D4-2	2-6X6	5' & 20'	INP	6-2, 6-3	●	●	●	←	←
D4-3	6X10	5'	INP						
D6-1	6X6	120'	F&I						

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

SIGNAL HEAD PHASING				
HEADS 6-2 & 6-3				
Ø6	←	↑	↓	→
Ø1	←	↑	↓	→



CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTON LAYOUT



SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED
- NORMAL OPERATION IS 4 PHASE WITH PHASE 1 BEING A PROTECTED/PERMISSIVE LEFT TURN.

REVISE SIGNAL SYSTEM:

A VIDEO CAMERA SHALL BE PLACED ON POLE NUMBER 1. THE EXISTING LUMINAIRE EXTENSION SHALL BE REMOVED AND REPLACED WITH A COMBINATION LUMINAIRE/CAMERA EXTENSION AND CABLE SHALL BE ROUTED THROUGH THE SIGNAL SYSTEM TO THE SIGNAL CONTROLLER CABINET.

REVISE SIGNAL SYSTEM NOTES:

1. INSTALL VIDEO CAMERA ON POLE NO.1 (SUPPLIED BY MNDOT)
2. ALL ITEMS ARE INPLACE UNLESS OTHERWISE NOTED.
3. THE CAMERA EXTENSION SHALL BE GROUNDED TO EXISTING GROUND.

BY	DATE	REVISIONS	SYSTEM ID: 1736490	T.E. 27899	REVISE SIGNAL SYSTEM E INTERSECTION LAYOUT	S.A.P. NO. 027-690-002	DRAWN BY:HRL	CKD BY:CDB	DATE:10/3/20
			METER ADDRESS:		T.H. 12 AT C.S.A.H. 6/(6TH AVE) SOUTH RAMPS	CERTIFIED BY <i>Michael P. Sulimsky</i>	LIC. NO. 19863	DATE: 10/05/20	
			OLD SYSTEM ID: 38329		IN ORONO, HENNEPIN COUNTY	STATE PROJ.NO. 2713-122 (T.H.12) SHEET NO. SS18 OF SS23 SHEETS			

PLOTTED/REVISED: 13-OCT-2020

DISTRICT *: Metro
PLOT NAME: T38329_SGL19
FILENAME: Projects\DM_FOS\012\0000\Traffic\Signals\48.80_38329_CSAH 6 6TH AVE N SOUTH RAMP-1736490\pending\T38329_SGL.DGN

- 1
- ▲ REMOVE TYPE PA 85
D40-9 (DAVIT AT 350°)
- ▲ INSTALL 1-X6-350/CAM EXTENTION(MOUNTED AT 350 DEG)
INCLUDED LIGHTING ROD
- ▲ F&I 7/16" GROUND BRAID
- ▲ INSTALL 1-VIDEO CAMERA WITH MOUNT
TYPE 10B AT 270°
LUMINAIRE LED
1- PED PB AND R10-4b SIGN (RH)
1-R9-3a SIGN (NO PED) FACING POLE 5
EXTEND INTO CONTROLLER CABINET:
2" RSC
1-5/C#12
3-3/C#12
- ▲ F&I 1-7/16" GROUND BRAID
TO GROUND ROD
1-COM CABLE (CAT 5E)

- 5
- TYPE PA 85-A-15
1-ONE WAY SIGNAL OVERHEAD
(0' FROM THE END OF THE MAST ARM)
2-TYPE 10A POLE MOUNTED AT
90° AND 270°
ONE WAY EVP DETECTOR AND
CONFIRMATORY LIGHT
1-R10-12 SIGN (36" X 48")
1-R9-3a SIGN (NO PED) FACING
POLES 4 AND 1
TYPE D SIGN-SEE SIGN DETAILS
EXTEND INTO JB 19 VIA JB 20:
2" RSC
2-12/C#12
1-3/C#12
1-3/C#20

- 4
- TYPE PA 85-A-20
1-ONEWAY SIGNAL OVERHEAD (0' FROM THE END
OF THE MAST ARM)
2-TYPE 10A AT 90° AND 180°
ONE WAY EVP DETECTOR AND CONFIRMATORY
LIGHT
1-R9-3a SIGN (NO PED) FACING POLES 3 AND 5
TYPE D SIGN-SEE SIGN DETAILS
EXTEND INTO JB 16 VIA JB 13:
2" RSC
2-12/C#12
1-3/C#12
1-3/C#20

- A
- EQUIPMENT PAD
SERVICE CABINET
CONTROLLER AND CABINET
- 2" RSC TO JB 27: 4" RSC TO JB 26
2-3/C#12 VIA JB 1:
4-2/C#14 5-12/C#12
1-6PR#19 4-3/C#12
1-2/C#14
- 2" RSC TO POLE 1 3-3/C#20
1-5/C#12
3-3/C#12
- ▲ F&I 1-COM CABLE (CAT 5E)
▲ F&I 1-7/16" GROUND BRAID
- 2" RSC TO JB 2 VIA JB 1:
1-2/C#14
- 2" RSC TO SERVICE CABINET:
2-1/C#6
1-1/C#6 INS.GR.
- 2" RSC TO SERVICE CABINET:
2-3/C#12 (LUM.)
- SERVICE CABINET TO JB 23 VIA JB 22:
2" RSC
3-1/C#2

- 2
- 1-PEDESTRIAN INDICATION
(FACING POLE 1)- (MOUNTED ON FENCE POST)
2" RSC INTO J.B. 8:
1-3/C#12
1-1-PED PB AND R10-4b SIGN (LH) (MOUNTED ON FENCE POST)
1-R9-3a SIGN (NO PED) FACING POLE 3
2" RSC INTO JB 8:
1-3/C#12

- 3
- TYPE PA 85-A-30-D40-9 (DAVIT AT 350°)
1-ONEWAY SIGNAL OVERHEAD (0' FROM
THE END OF THE MAST ARM)
1-TYPE 10A AT 90°
ONE WAY EVP DETECTOR AND
CONFIRMATORY LIGHT
LUMINAIRE LED
1-R9-3a SIGN (NO PED) FACING
POLES 2 AND 4
EXTEND INTO JB 12:
3" RSC
1-12/C#12
1-3/C#12
1-3/C#20

TO SIGNAL CABINET		TO DEVICE	
	R	R	RED
	O	O	YEL
	BL	BL	GRN
	WH	WH	NEU
	R/BLK	Y	YLTA
	O/BLK	BLK	GLTA
	BL/BLK	BRN	SPR
	WH/BLK	R	RED
	BLK	O	YEL
	BLK/WH	BL	GRN
	G/BLK	WH	NEU
	G	BLK	GLTA
	R	R	DWK
	O	BL	WLK
	BL	WH	NEU
	WH	BLK	SPR
	G	BLK	EVP/PB/FLASHER
	R	WH	NEU
	BL		

NOTE:
ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE.

NOTES:
ALL ITEMS ARE INPLACE UNLESS OTHERWISE NOTED.
▲ DENOTES REVISE SIGNAL SYSTEM PAY ITEM WORK. ALL OTHER ITEMS SHOWN ARE INPLACE

BY	DATE	REVISIONS

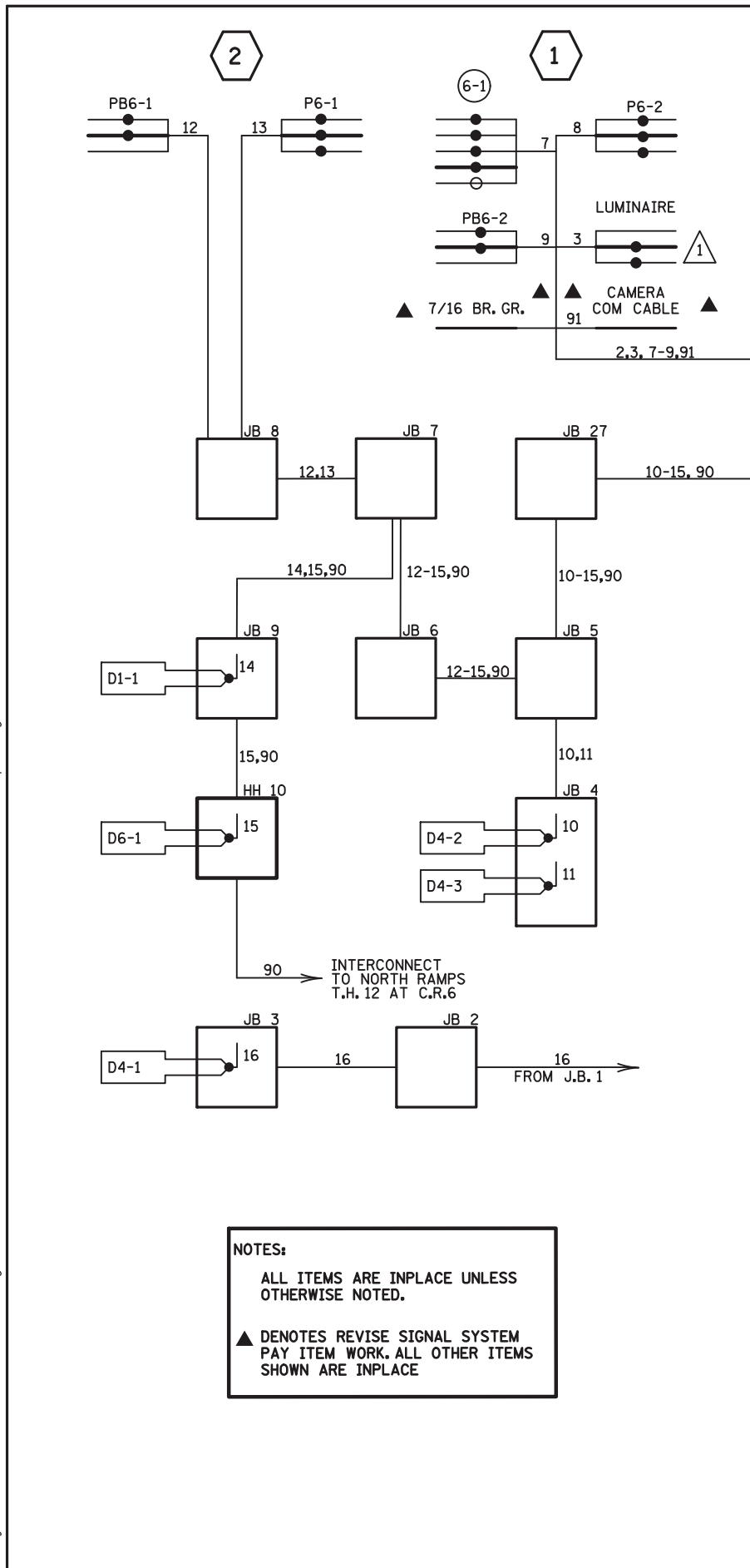
SYSTEM ID: 1736490 T.E. 27899
METER ADDRESS:
OLD SYSTEM ID: 38329

REVISE SIGNAL SYSTEM E
INTERSECTION NOTES
T.H. 12 AT C.S.A.H. 6/(6TH AVE) SOUTH RAMPS
IN ORONO, HENNEPIN COUNTY

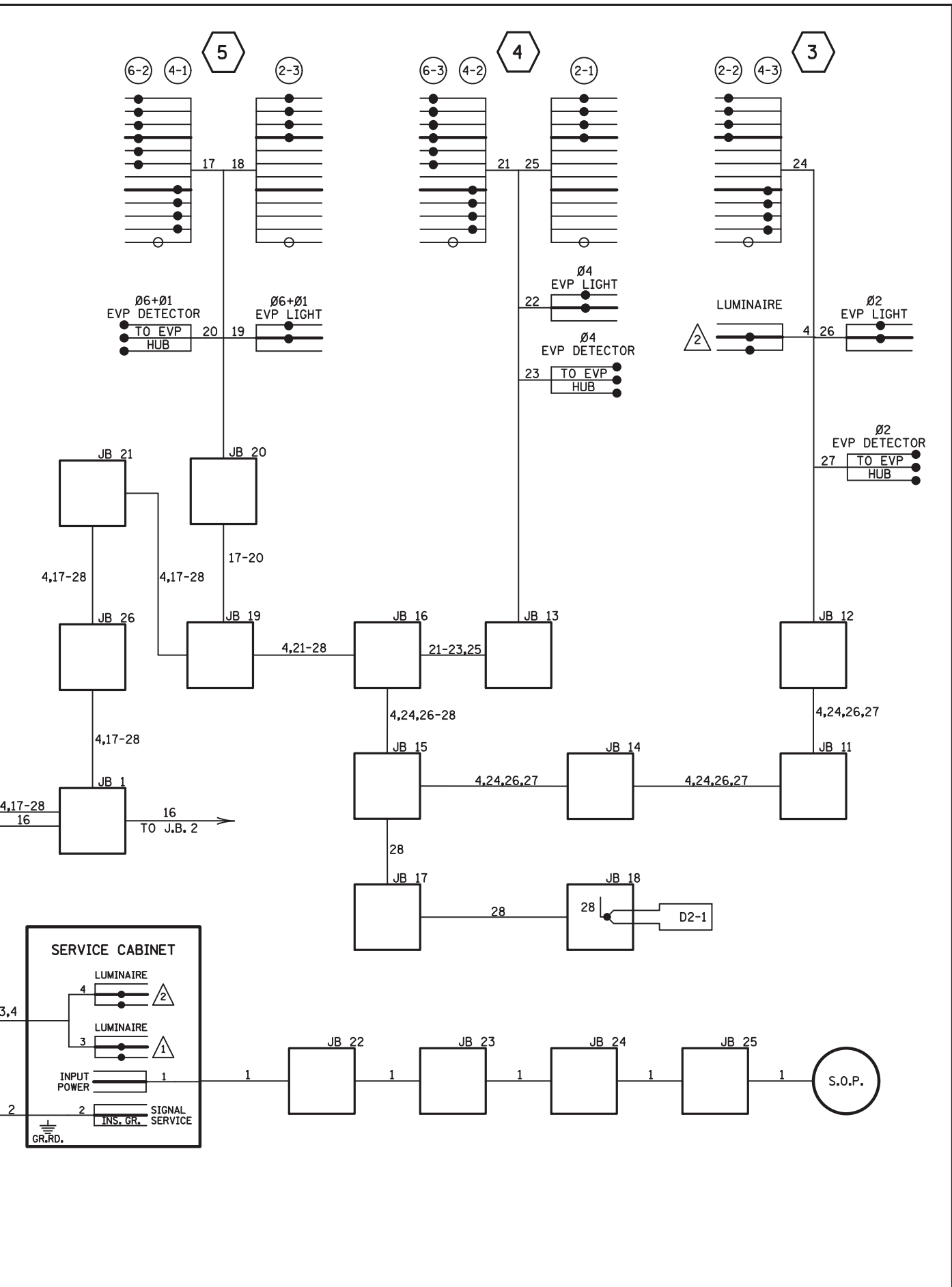
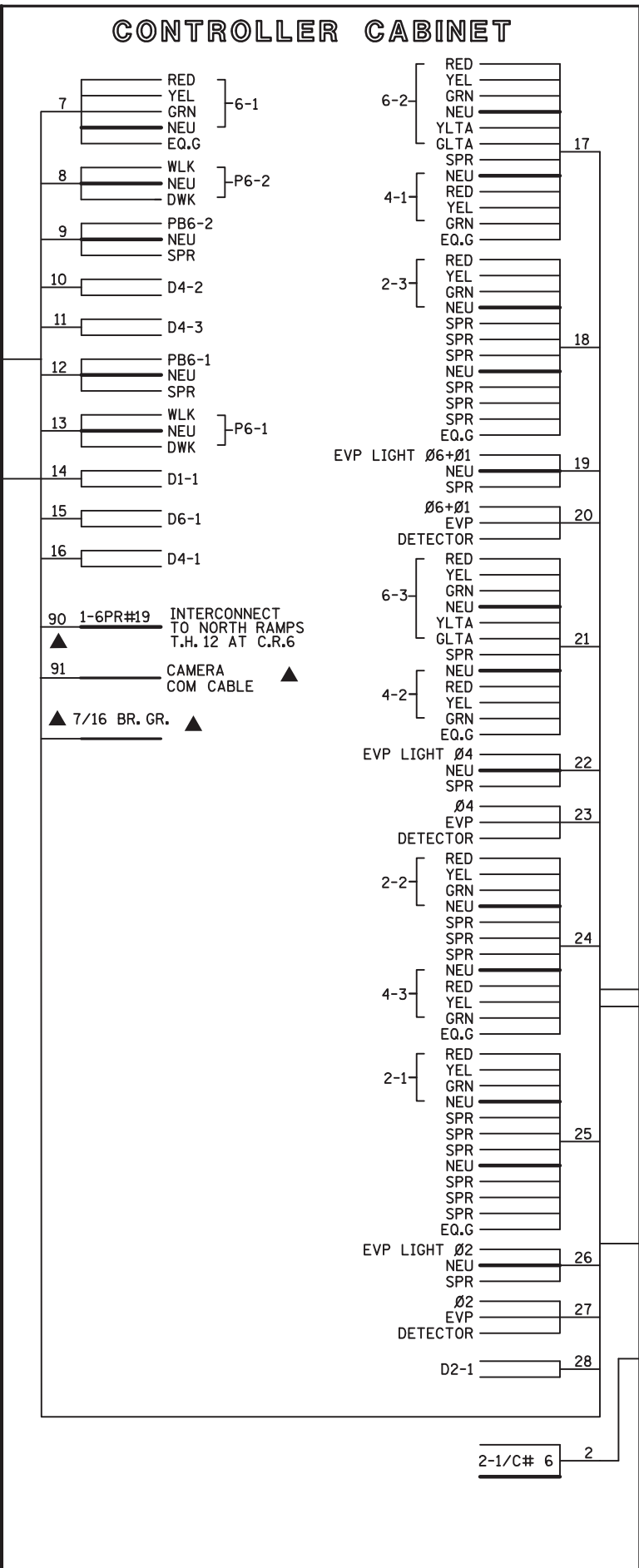
S.A.P. NO. 027-690-002
DRAWN BY:HRL CKD BY:CDB DATE:10/3/20
CERTIFIED BY *Michael P. Sulway* LIC. NO. 19863 DATE: 10/05/20
STATE PROJ.NO. 2713-122 (T.H.12) SHEET NO. SS19 OF SS23 SHEETS

PLOTTED/REVISED: 13-OCT-2020

DISTRICT *: Metro
PLOT NAME: T38329_SGL20
FILENAME: Projects\DM_FOS\012\0000\Traf\Signal\48.80_38329_CSAH 6 6TH AVE N SOUTH RAMP-1736490\pending\T38329_SGL.DGN



NOTES:
 ALL ITEMS ARE INPLACE UNLESS OTHERWISE NOTED.
 ▲ DENOTES REVISE SIGNAL SYSTEM PAY ITEM WORK. ALL OTHER ITEMS SHOWN ARE INPLACE



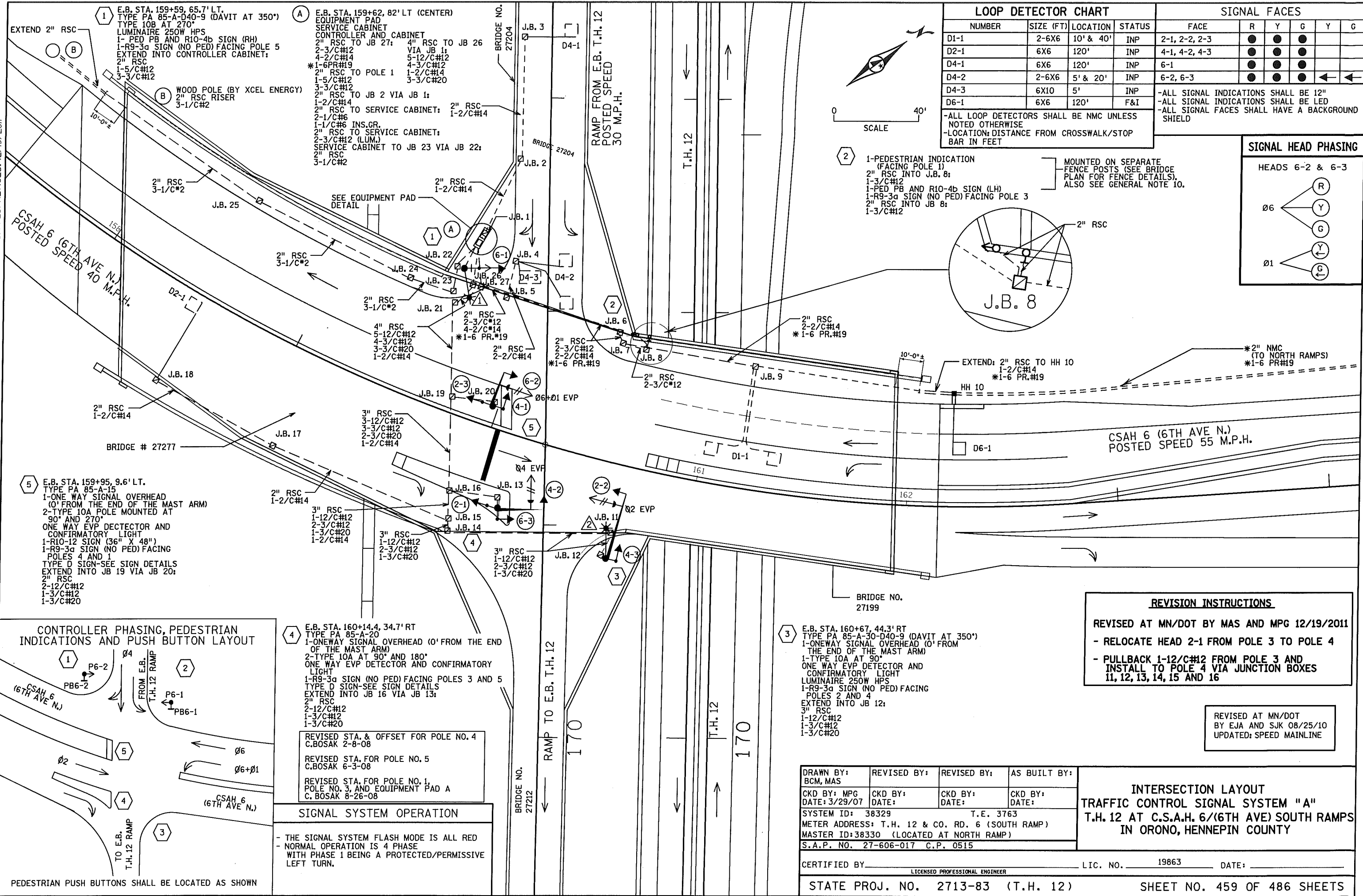
BY	DATE	REVISIONS

SYSTEM ID: 1736490 T.E. 27899
 METER ADDRESS:
 OLD SYSTEM ID: 38329

**REVISE SIGNAL SYSTEM E
 FIELD WIRING DIAGRAM
 T.H. 12 AT C.S.A.H. 6/(6TH AVE) SOUTH RAMPS
 IN ORONO, HENNEPIN COUNTY**

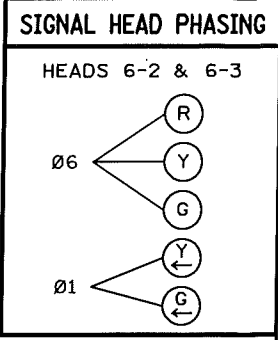
S.A.P. NO. 027-690-002
 DRAWN BY:HRL CKD BY:CDB DATE:10/3/20
 CERTIFIED BY *Michael P. Sulway* LIC. NO. 19863 DATE: 10/05/20
 STATE PROJ.NO. 2713-122 (T.H.12) SHEET NO. SS20 OF SS23 SHEETS

DISTRICT #: METRO
 IPLOT NAME: T38329_SGL
 PATH & FILENAME: IP_PWP-d0780148VT38329_SGL.DGN
 PLOTTED/REVISED: 12/19/2011



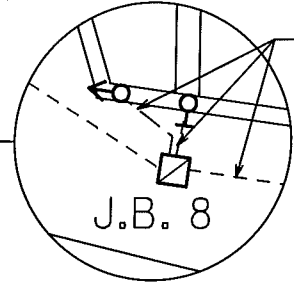
LOOP DETECTOR CHART				SIGNAL FACES					
NUMBER	SIZE (FT)	LOCATION	STATUS	FACE	R	Y	G	Y	G
D1-1	2-6X6	10' & 40'	INP	2-1, 2-2, 2-3	●	●	●		
D2-1	6X6	120'	INP	4-1, 4-2, 4-3	●	●	●		
D4-1	6X6	120'	INP	6-1	●	●	●		
D4-2	2-6X6	5' & 20'	INP	6-2, 6-3	●	●	●	←	←
D4-3	2-6X6	5'	INP						
D6-1	6X6	120'	F&I						

-ALL SIGNAL INDICATIONS SHALL BE 12"
 -ALL SIGNAL INDICATIONS SHALL BE LED
 -ALL SIGNAL FACES SHALL HAVE A BACKGROUND SHIELD
 -ALL LOOP DETECTORS SHALL BE NMC UNLESS NOTED OTHERWISE
 -LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET



1-PEDESTRIAN INDICATION (FACING POLE 1)
 2" RSC INTO J.B. 8:
 1-3/C#12
 1-PED PB AND RIO-4b SIGN (LH)
 1-R9-3a SIGN (NO PED) FACING POLE 3
 2" RSC INTO JB 8:
 1-3/C#12

MOUNTED ON SEPARATE FENCE POSTS (SEE BRIDGE PLAN FOR FENCE DETAILS), ALSO SEE GENERAL NOTE 10.



1 E.B. STA. 159+59, 65.7' LT.
 TYPE PA 85-A-040-9 (DAVIT AT 350°)
 LUMINAIRE 250W HPS
 1-PED PB AND RIO-4b SIGN (RH)
 1-R9-3a SIGN (NO PED) FACING POLE 5
 EXTEND INTO CONTROLLER CABINET:
 2" RSC
 1-5/C#12
 3-3/C#12

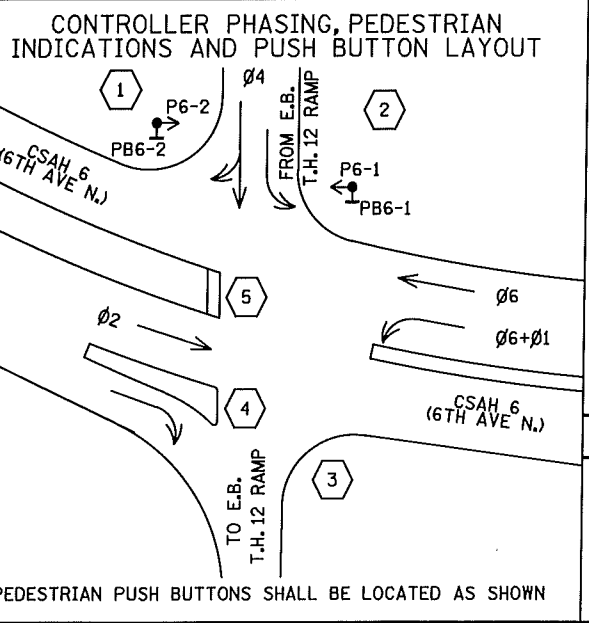
2 WOOD POLE (BY XCEL ENERGY)
 2" RSC RISER
 3-1/C#2

A E.B. STA. 159+62, 82' LT (CENTER)
 EQUIPMENT PAD
 SERVICE CABINET
 CONTROLLER AND CABINET
 2" RSC TO JB 27:
 4" RSC TO JB 26
 2-3/C#12 VIA JB 1:
 5-12/C#12
 4-2/C#14
 4-3/C#12
 *1-6 PR.#19
 2" RSC TO POLE 1
 1-2/C#14
 3-3/C#20
 1-5/C#12
 3-3/C#12
 2" RSC TO JB 2 VIA JB 1:
 1-2/C#14
 2" RSC TO SERVICE CABINET:
 1-2/C#14
 2-1/C#6
 1-1/C#6 INS.GR.
 2" RSC TO SERVICE CABINET:
 2-3/C#12 (LUM.)
 SERVICE CABINET TO JB 23 VIA JB 22:
 2" RSC
 3-1/C#2

5 E.B. STA. 159+95, 9.6' LT.
 TYPE PA 85-A-15
 1-ONE WAY SIGNAL OVERHEAD (Ø' FROM THE END OF THE MAST ARM)
 2-TYPE 10A POLE MOUNTED AT 90° AND 270°
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 1-RIO-12 SIGN (36" X 48")
 1-R9-3a SIGN (NO PED) FACING POLES 4 AND 1
 TYPE D SIGN-SEE SIGN DETAILS
 EXTEND INTO JB 19 VIA JB 20:
 2" RSC
 2-12/C#12
 1-3/C#12
 1-3/C#20

4 E.B. STA. 160+14.4, 34.7' RT
 TYPE PA 85-A-20
 1-ONEWAY SIGNAL OVERHEAD (Ø' FROM THE END OF THE MAST ARM)
 2-TYPE 10A AT 90° AND 180°
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 1-R9-3a SIGN (NO PED) FACING POLES 3 AND 5
 TYPE D SIGN-SEE SIGN DETAILS
 EXTEND INTO JB 16 VIA JB 13:
 2" RSC
 2-12/C#12
 1-3/C#12
 1-3/C#20

3 E.B. STA. 160+67, 44.3' RT
 TYPE PA 85-A-30-D40-9 (DAVIT AT 350°)
 1-ONEWAY SIGNAL OVERHEAD (Ø' FROM THE END OF THE MAST ARM)
 1-TYPE 10A AT 90°
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 LUMINAIRE 250W HPS
 1-R9-3a SIGN (NO PED) FACING POLES 2 AND 4
 EXTEND INTO JB 12:
 3" RSC
 1-12/C#12
 1-3/C#12
 1-3/C#20



REVISED STA. & OFFSET FOR POLE NO. 4
 C.BOSAK 2-8-08
 REVISED STA. FOR POLE NO. 5
 C.BOSAK 6-3-08
 REVISED STA. FOR POLE NO. 1,
 POLE NO. 3, AND EQUIPMENT PAD A
 C.BOSAK 8-26-08

SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED
 - NORMAL OPERATION IS 4 PHASE
 WITH PHASE 1 BEING A PROTECTED/PERMISSIVE LEFT TURN.

REVISION INSTRUCTIONS

REVISED AT MN/DOT BY MAS AND MPG 12/19/2011
 - RELOCATE HEAD 2-1 FROM POLE 3 TO POLE 4
 - PULLBACK 1-12/C#12 FROM POLE 3 AND INSTALL TO POLE 4 VIA JUNCTION BOXES 11, 12, 13, 14, 15 AND 16

REVISED AT MN/DOT
 BY EJA AND SJK 08/25/10
 UPDATED: SPEED MAINLINE

DRAWN BY: BCM, MAS	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY: MPG DATE: 3/29/07	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:
SYSTEM ID: 38329	T.E. 3763		
METER ADDRESS: T.H. 12 & CO. RD. 6 (SOUTH RAMP)			
MASTER ID: 38330 (LOCATED AT NORTH RAMP)			
S.A.P. NO. 27-606-017 C.P. 0515			

INTERSECTION LAYOUT
TRAFFIC CONTROL SIGNAL SYSTEM "A"
T.H. 12 AT C.S.A.H. 6/(6TH AVE) SOUTH RAMPS
IN ORONO, HENNEPIN COUNTY

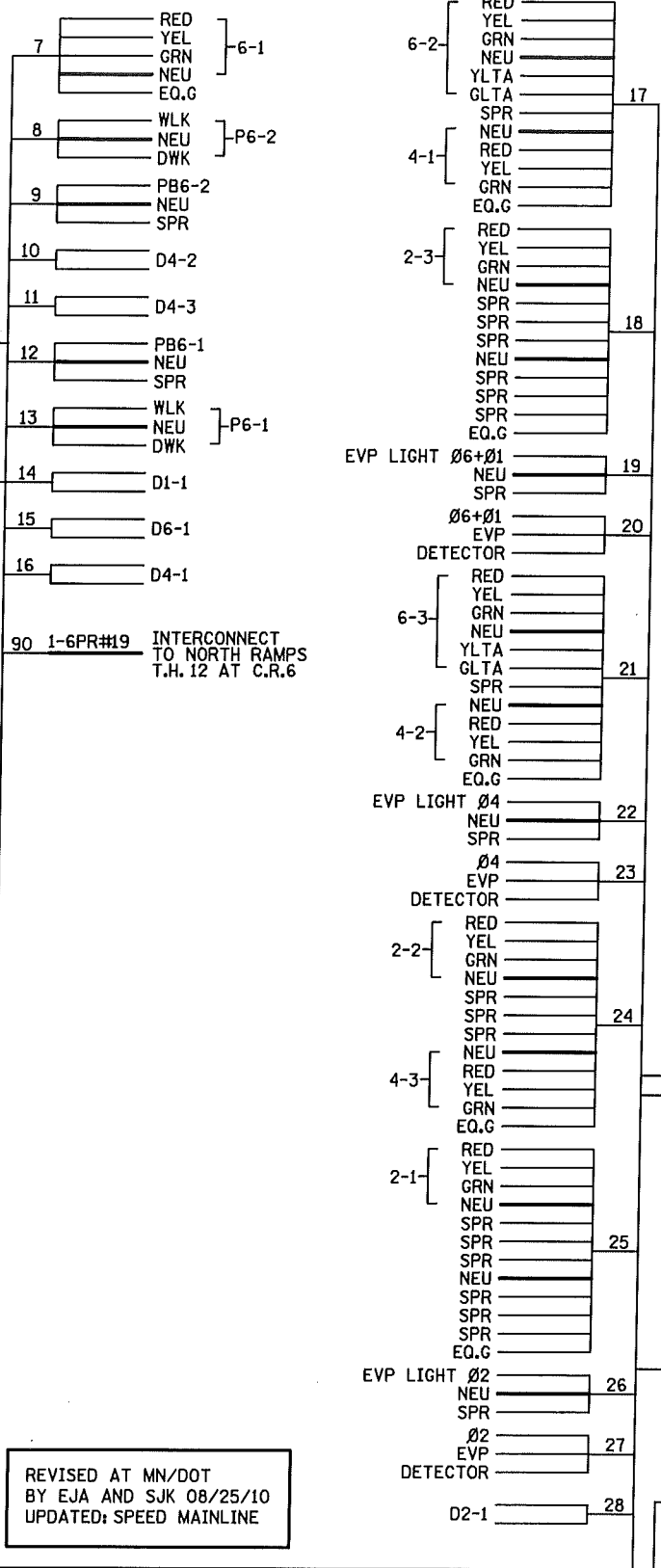
CERTIFIED BY _____ LIC. NO. 19863 DATE: _____
 LICENSED PROFESSIONAL ENGINEER

STATE PROJ. NO. 2713-83 (T.H. 12) SHEET NO. 459 OF 486 SHEETS

PLOTTED/REVISED: 12/19/2011

DISTRICT #: METRO
PLOT NAME: T38329_SGL
PATH & FILENAME: IP_PWP-d0780148-T38329_SGL.DGN

CONTROLLER CABINET

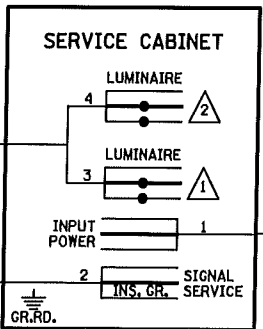
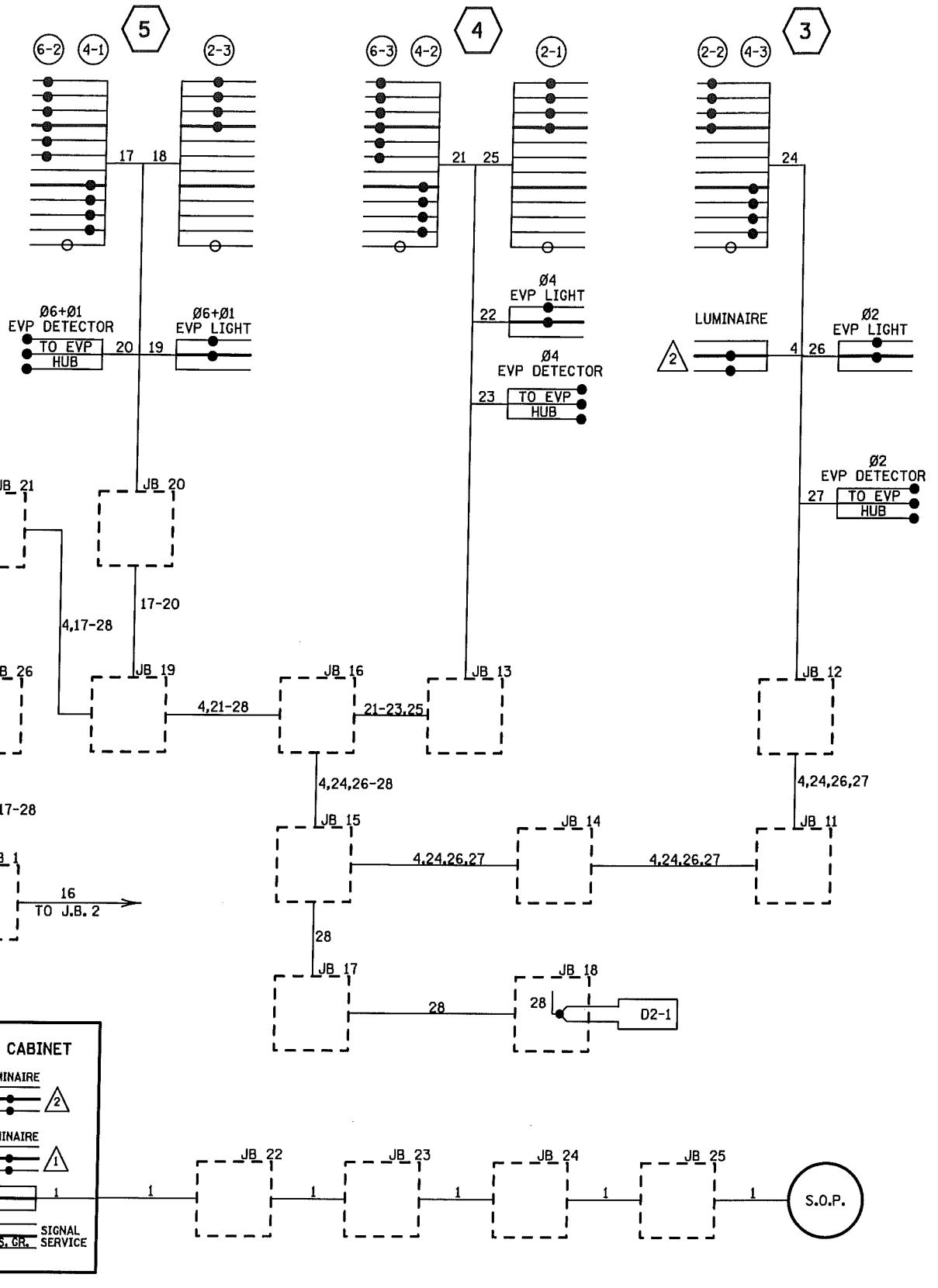


REVISED AT MN/DOT BY EJA AND SJK 08/25/10
UPDATED: SPEED MAINLINE

REVISION INSTRUCTIONS

REVISED AT MN/DOT BY MAS AND MPG 12/19/2011

- RELOCATE HEAD 2-1 FROM POLE 3 TO POLE 4
- PULLBACK 1-12/C#12 FROM POLE 3 AND INSTALL TO POLE 4 VIA JUNCTION BOXES 11, 12, 13, 14, 15 AND 16



DRAWN BY: MAS	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY:MPG DATE:3/29/07	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:
SYSTEM ID: 38329		T.E. 3763	
METER ADDRESS: T.H. 12 & CO. RD 6 (SOUTH RAMP)			
MASTER ID: 38330 (LOCATED AT N RAMPS)			
S.A.P. NO. 27-606-017 C.P. 0515			

CERTIFIED BY _____ LIC. NO. 19863 DATE: _____

2

1

5

4

3

CONDUCTOR COLOR CODE

TO SIGNAL CABINET	TO DEVICE
R	R RED
O	O YEL
BL	BL GRN
WH	WH NEU
R/BLK	Y YLTA
O/BLK	BLK GLTA
BL/BLK	BRN SPR
WH/BLK	R RED
BLK/WH	O YEL
G/BLK	BL GRN
G	WH NEU
R	BLK GLTA
O	R DWK
BL	WH WLK
WH	G NEU
G	BLK SPR
R	WH NEU
BL	BLK EVAP/PB/FLASHER
WH	WH NEU
BLK	

NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE.