

**SIGNAL FACE CHART**

FACE	R	Y	G
1-1, 1-2, 1-3	←	←	←
2-1, 2-2, 2-3	○	○	○
3-1, 3-2, 3-3	○	▷	▷
4-1, 4-2, 4-3, 4-4	○	○	○
5-1, 5-2, 5-3	←	←	←
6-1, 6-2, 6-3	○	○	○
8-1, 8-2, 8-3, 8-4	○	○	○

HH 5 TO HH 6:  
 2-4" RSC  
 8-12/C #12  
 12-3/C #12  
 11-2/C #14  
 2-3/C #20

-ALL SIGNAL INDICATIONS ARE 12" LED  
 -ALL SIGNAL HEADS HAVE BACKGROUND SHIELDS

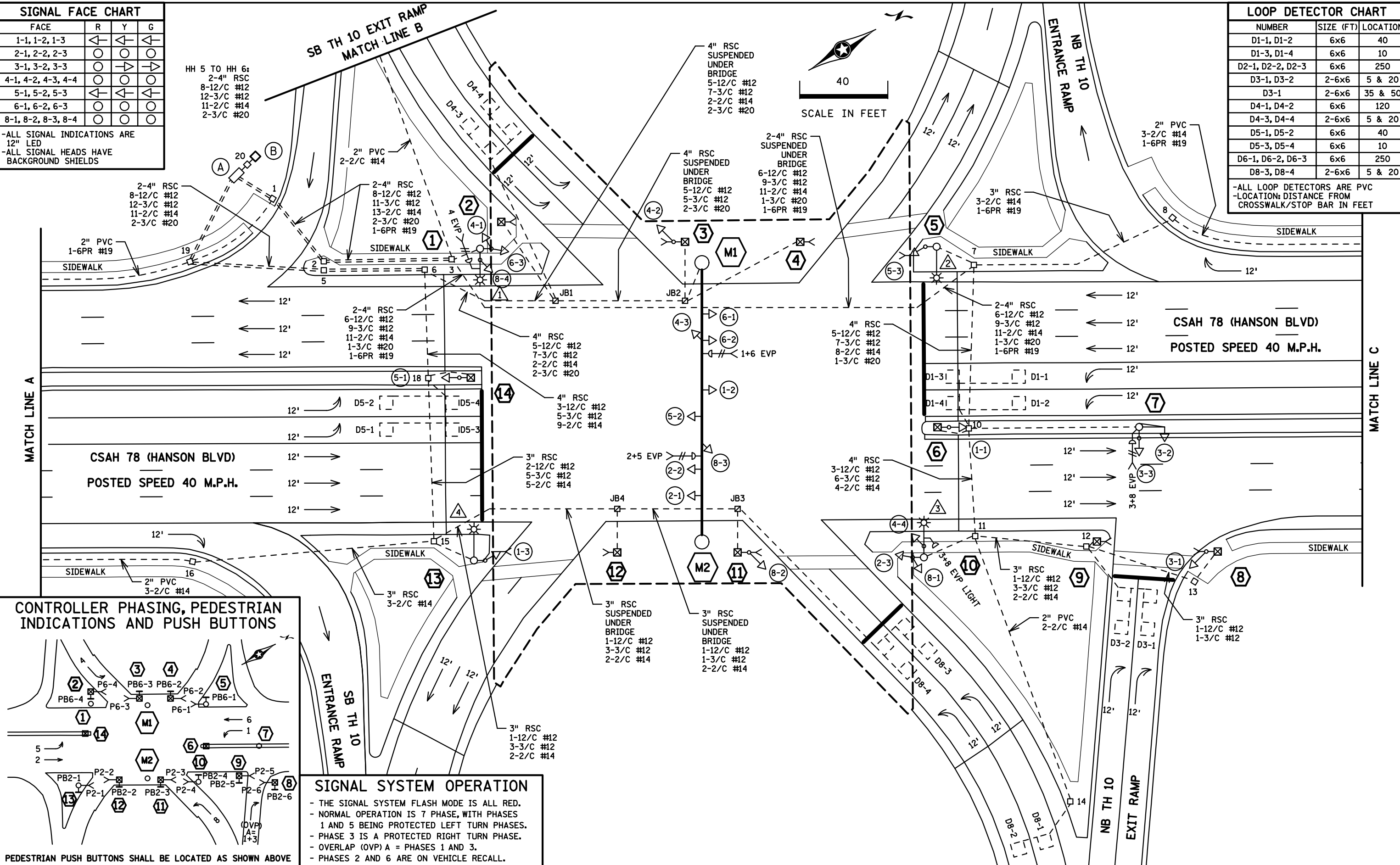
**LOOP DETECTOR CHART**

NUMBER	SIZE (FT)	LOCATION
D1-1, D1-2	6x6	40
D1-3, D1-4	6x6	10
D2-1, D2-2, D2-3	6x6	250
D3-1, D3-2	2-6x6	5 & 20
D3-1	2-6x6	35 & 50
D4-1, D4-2	6x6	120
D4-3, D4-4	2-6x6	5 & 20
D5-1, D5-2	6x6	40
D5-3, D5-4	6x6	10
D6-1, D6-2, D6-3	6x6	250
D8-3, D8-4	2-6x6	5 & 20

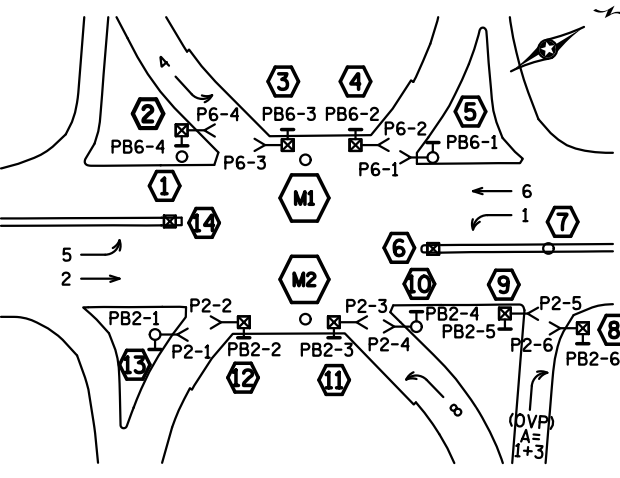
-ALL LOOP DETECTORS ARE PVC  
 -LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET

PLOTTED/REVISED: 5/8/2013

DISTRICT #: METRO  
 IPLOT NAME: layout  
 PATH & FILENAME: IP\_PWP-d0780216\T38239\_sgl.dgn



**CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS**



**SIGNAL SYSTEM OPERATION**

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 7 PHASE, WITH PHASES 1 AND 5 BEING PROTECTED LEFT TURN PHASES.
- PHASE 3 IS A PROTECTED RIGHT TURN PHASE.
- OVERLAP (OVP) A = PHASES 1 AND 3.
- PHASES 2 AND 6 ARE ON VEHICLE RECALL.

PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

BY	DATE	REVISIONS
GDS	05-08-13	AS BUILT OF CITY PROJECT 12-2

SYSTEM ID: 38239	T.E.
METER ADDRESS: 11456 HANSON BLVD	
MASTER ID: 20216	T.E.

**INTERSECTION LAYOUT  
 TRAFFIC CONTROL SIGNAL SYSTEM  
 T.H. 10 AT HANSON BLVD.  
 IN COON RAPIDS, ANOKA COUNTY**

S.A.P. NO.	DRAWN BY:	CKD BY:	DATE:
CERTIFIED BY _____	LIC. NO. _____	DATE: _____	
STATE PROJ. NO.	(T.H. 10)	SHEET NO. 1 OF 4 SHEETS	

PLOTTED/REVISED: 5/8/2013

**1** PA85 POLE FOUNDATION  
TYPE PA85-A-0-X30  
LUMINAIRE ARM AT 0 DEG  
TYPE 10A POLE MOUNTED 0 DEG  
TYPE 20A POLE MOUNTED 270 DEG  
ONE WAY EVP DETECTOR AND  
CONFIRMATORY LIGHT (PHASE 4)  
MOUNTED TO LUMINAIRE EXTENSION  
LUMINAIRE-250W HPS  
1-R9-3a SIGN (NO PEDS)  
FACING POLE 11  
1-R6-1L SIGN (ONE WAY)  
EXTEND INTO HH 3:  
3" RSC  
2-12/C #12  
2-3/C #12  
1-3/C #20

**2** PEDESTAL FOUNDATION  
8' PEDESTAL POLE PLUS  
BASE ON BRIDGE DECK  
TYPE 4A  
1-PED PB AND SIGN  
EXTEND INTO JB 1:  
2" RSC  
CONDUIT INSTALLED IN  
BRIDGE DECK STUBBED OUT  
2-3/C #12

**3** PEDESTAL FOUNDATION  
13' PEDESTAL POLE PLUS  
BASE ON BRIDGE DECK  
TYPE 5B  
1-PED PB AND SIGN  
EXTEND INTO JB 2:  
2" RSC  
CONDUIT INSTALLED IN  
BRIDGE DECK STUBBED OUT  
1-12/C #12  
1-3/C #12

**M1** MONOTUBE STRUCTURE FOUNDATION  
8-ONE-WAY SIGNALS OVERHEAD AT  
LOCATIONS AS SHOWN ON  
INTERSECTION LAYOUT (MOUNTED  
AS SHOWN ON MONOTUBE  
STRUCTURE DETAIL)  
2-ONE WAY EVP DETECTORS AND  
CONFIRMATORY LIGHTS (PHASES  
1+6 AND 2+5) WITH EXTENSIONS  
1-R9-3a SIGN (NO PEDS)  
FACING POLE M2  
EXTEND INTO JB 2:  
2-2" RSC  
CONDUIT INSTALLED IN  
BRIDGE DECK STUBBED OUT  
4-12/C #12  
2-3/C #12  
2-3/C #20

**4** PEDESTAL FOUNDATION  
8' PEDESTAL POLE PLUS  
BASE ON BRIDGE DECK  
TYPE 4A  
1-PED PB AND SIGN  
EXTEND INTO JB 2:  
2" RSC  
CONDUIT INSTALLED IN  
BRIDGE DECK STUBBED OUT  
2-3/C #12

**5** PA85 POLE FOUNDATION  
TYPE PA85-A-0-X30  
LUMINAIRE ARM AT 0 DEG  
TYPE 10B POLE MOUNTED 90 DEG  
LUMINAIRE-250W HPS  
1-PED PB AND SIGN  
1-R9-3a SIGN (NO PEDS)  
FACING POLE 6  
1-R6-1L SIGN (ONE WAY)  
EXTEND INTO HH 7:  
3" RSC  
1-12/C #12  
2-3/C #12

**14** PEDESTAL FOUNDATION  
13' PEDESTAL POLE PLUS BASE  
TYPE 5A  
2-R9-3a SIGNS (NO PEDS)  
FACING POLES 1 AND 10  
EXTEND INTO HH 18:  
2" RSC  
1-12/C #12

**6** PEDESTAL FOUNDATION  
13' PEDESTAL POLE PLUS BASE  
TYPE 5A  
2-R9-3a SIGNS (NO PEDS)  
FACING POLES 5 AND 7  
EXTEND INTO HH 10:  
2" RSC  
1-12/C #12

**7** PA85 POLE FOUNDATION  
TYPE PA85-A-10  
ONE-WAY SIGNAL OVERHEAD  
TYPE 10A POLE MOUNTED 270 DEG  
ONE WAY EVP DETECTOR AND  
CONFIRMATORY LIGHT (PHASES 3+8)  
(POLE MOUNTED)  
1-R6-1R SIGN (ONE WAY)  
EXTEND INTO HH 10:  
2" RSC  
1-12/C #12  
1-3/C #12  
1-3/C #20

**13** PA85 POLE FOUNDATION  
TYPE PA85-A-0-X30  
LUMINAIRE ARM AT 0 DEG  
TYPE 10B POLE MOUNTED 90 DEG  
LUMINAIRE-250W HPS  
1-PED PB AND SIGN  
1-R9-3a SIGN (NO PEDS)  
FACING POLE 11  
1-R6-1L SIGN (ONE WAY)  
EXTEND INTO HH 15:  
3" RSC  
1-12/C #12  
2-3/C #12

**12** PEDESTAL FOUNDATION  
8' PEDESTAL POLE PLUS  
BASE ON BRIDGE DECK  
TYPE 4A  
1-PED PB AND SIGN  
EXTEND INTO JB 4:  
2" RSC  
CONDUIT INSTALLED IN  
BRIDGE DECK STUBBED OUT  
2-3/C #12

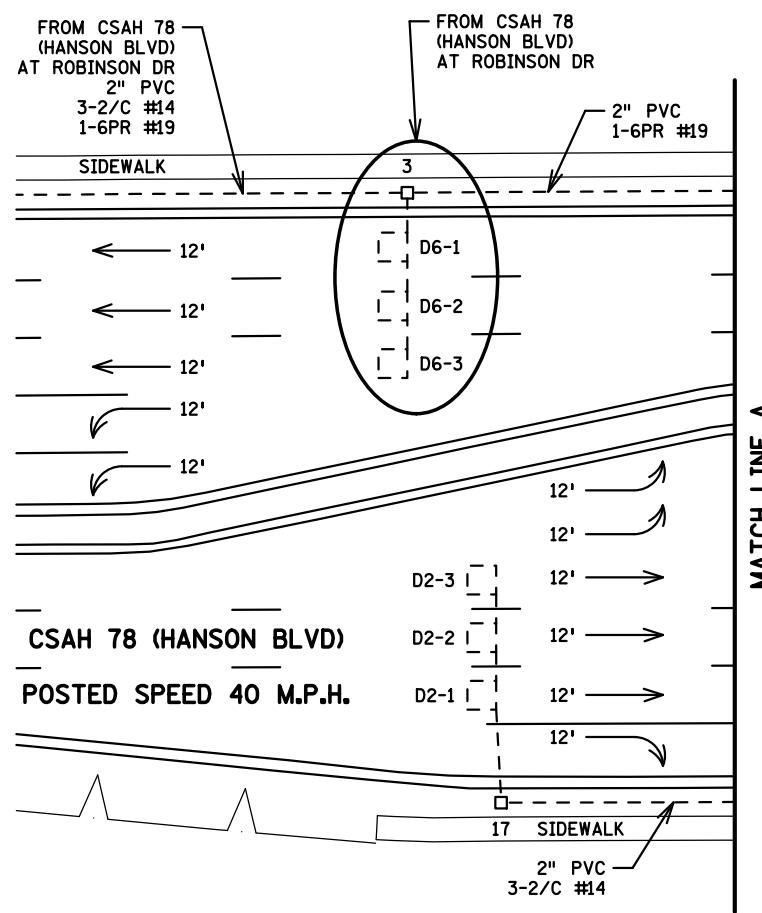
**M2** MONOTUBE STRUCTURE FOUNDATION  
1-R9-3a SIGN (NO PEDS)  
FACING POLE M1

**11** PEDESTAL FOUNDATION  
13' PEDESTAL POLE PLUS  
BASE ON BRIDGE DECK  
TYPE 5B  
1-PED PB AND SIGN  
EXTEND INTO JB 3:  
2" RSC  
CONDUIT INSTALLED IN  
BRIDGE DECK STUBBED OUT  
1-12/C #12  
1-3/C #12

**10** PA85 POLE FOUNDATION  
TYPE PA85-A-0-X30  
LUMINAIRE ARM AT 0 DEG  
TYPE 10A POLE MOUNTED 0 DEG  
TYPE 20B POLE MOUNTED 270 DEG  
ONE WAY EVP DETECTOR AND  
CONFIRMATORY LIGHT (PHASES 3+8)  
MOUNTED TO LUMINAIRE EXTENSION  
LUMINAIRE-250W HPS  
1-PED PB AND SIGN  
1-R9-3a SIGNS (NO PEDS)  
FACING POLE 6  
1-R6-1L SIGN (ONE WAY)  
EXTEND INTO HH 11:  
3" RSC  
2-12/C #12  
3-3/C #12

**9** PEDESTAL FOUNDATION  
8' PEDESTAL POLE PLUS BASE  
TYPE 4A  
1-PED PB AND SIGN  
EXTEND INTO HH 12:  
2" RSC  
2-3/C #12

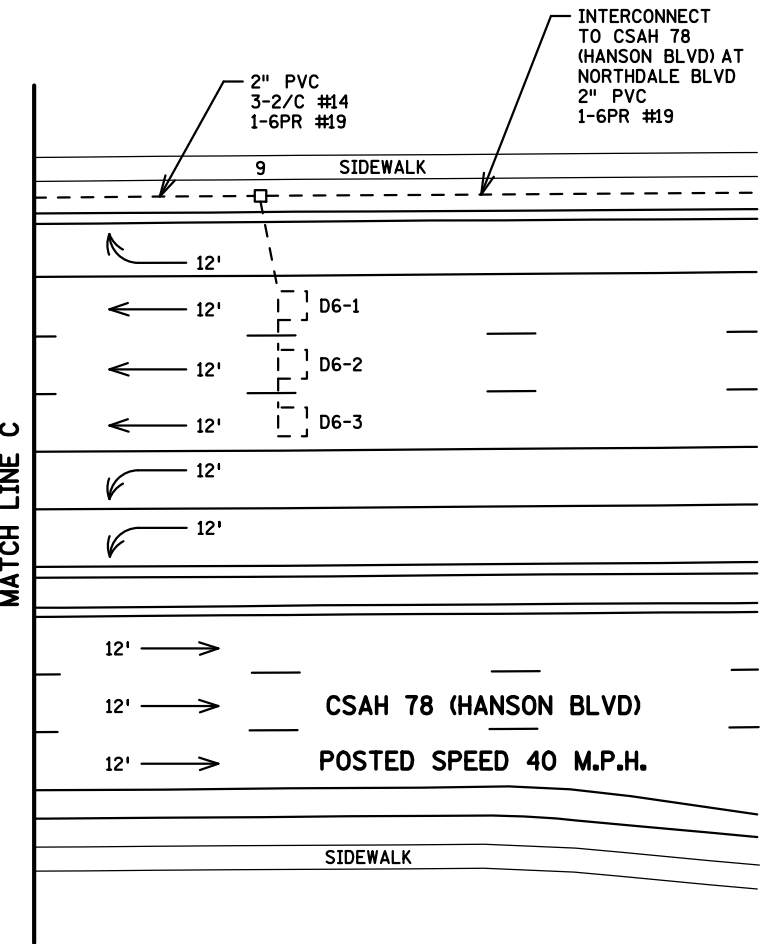
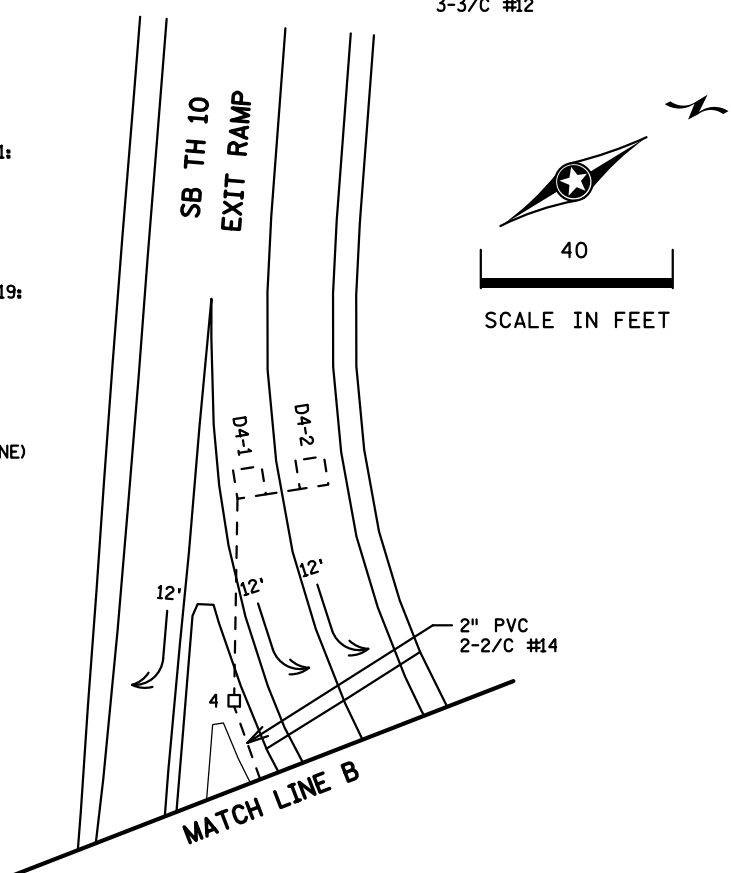
**8** PEDESTAL FOUNDATION  
13' PEDESTAL POLE PLUS BASE  
TYPE 5B  
1-PED PB AND SIGN  
EXTEND INTO HH 13:  
2" RSC  
1-12/C #12  
1-3/C #12



**(A)** EQUIPMENT PAD  
SERVICE CABINET  
MASTER CONTROLLER CABINET AND  
CONTROLLER CABINET  
4" RSC TO HH 1:  
5-12/C #12  
3-3/C #12  
9-2/C #14  
2-3/C #20  
1-6PR #19  
4" RSC TO HH 19:  
3-12/C #12  
4-3/C #12  
9-2/C #14  
1-6PR #19  
4" RSC TO HH 19:  
3-12/C #12  
5-3/C #12  
4-2/C #14

2" AND 3" RSC STUBBED OUT  
(THREADED AND CAPPED BOTH ENDS)  
3/4" RSC STUBBED OUT (FOR TELEPHONE LINE)  
CONTROLLER CABINET TO SERVICE CABINET:  
2" RSC  
2-1/C #6  
1-1/C #6 INS. GR.  
SERVICE CABINET TO GROUND MOUNTED  
TRANSFORMER VIA HH 20:  
2" RSC  
3-1/C #2  
SERVICE CABINET TO HH 1:  
2" RSC  
4-3/C #12  
HH 1 TO HH 19:  
2" RSC  
1-3/C #12

**(B)** SOP-GROUND MOUNTED  
TRANSFORMER (CONNEXUS ENERGY)  
2" RSC INTO HH 20:  
3-1/C #2



DISTRICT #: METRO  
IPLOT NAME: match lines & notes  
PATH & FILENAME: IP\_PWP-d0780216/T38239\_sgl.dgn

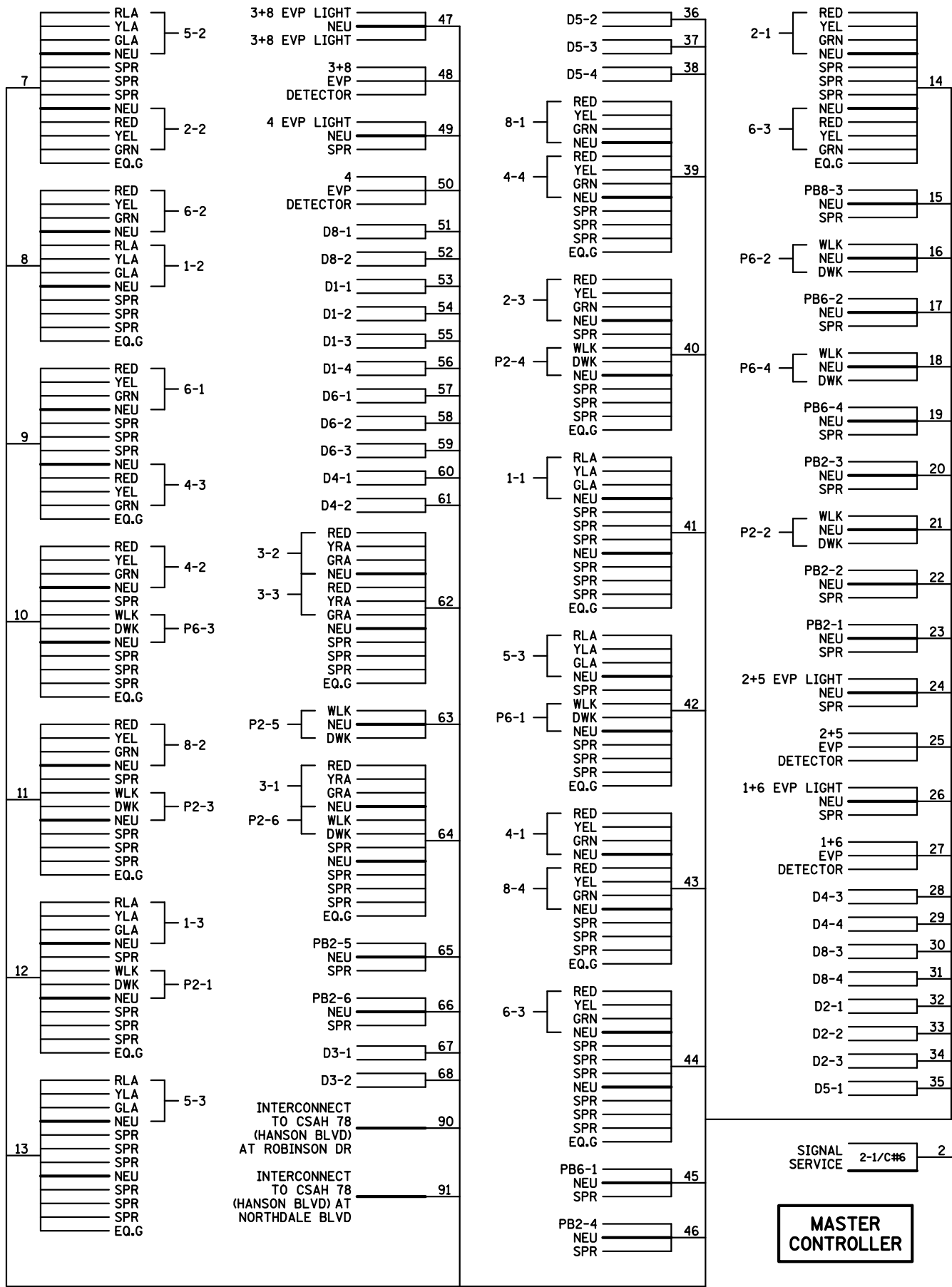
BY	DATE	REVISIONS
GDS	05-08-13	AS BUILT OF CITY PROJECT 12-2

SYSTEM ID: 38239	T.E.
METER ADDRESS: 11456 HANSON BLVD	
MASTER ID: 20216	T.E.

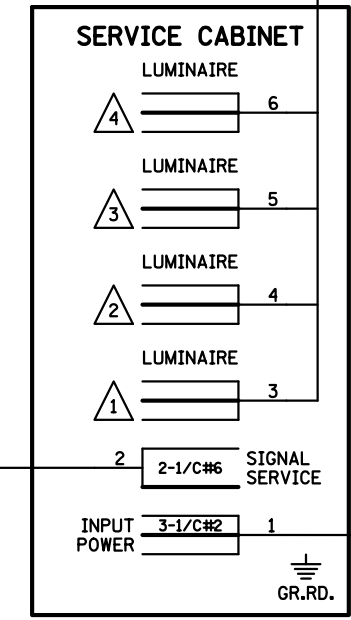
**MATCH LINE LAYOUTS / NOTES  
TRAFFIC CONTROL SIGNAL SYSTEM  
T.H. 10 AT HANSON BLVD.  
IN COON RAPIDS, ANOKA COUNTY**

S.A.P. NO.	DRAWN BY:	CKD BY:	DATE:
CERTIFIED BY _____	LIC. NO. _____	DATE: _____	
STATE PROJ. NO.	(T.H. 10)	SHEET NO. 2 OF 4 SHEETS	

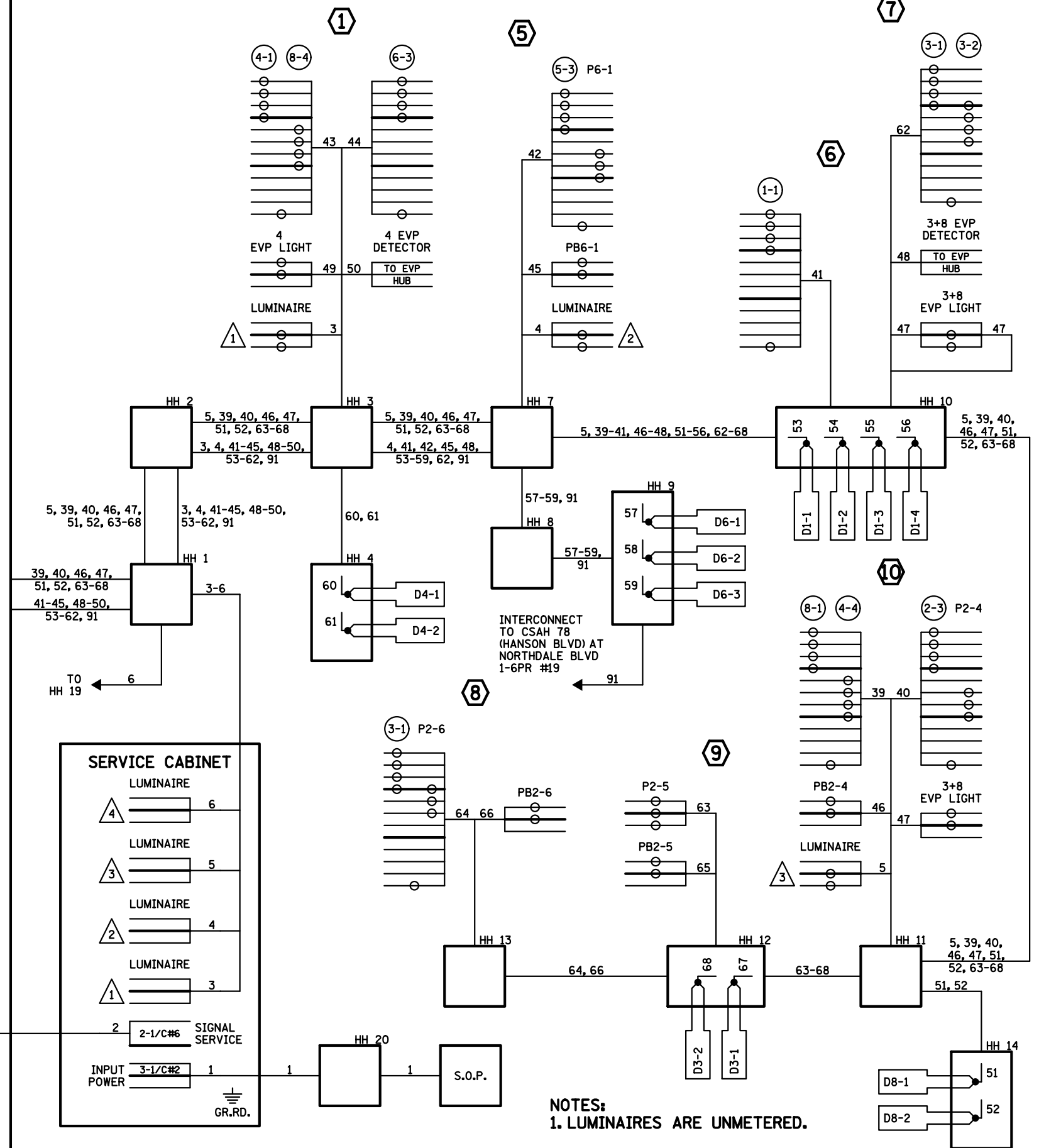
# CONTROLLER CABINET



**MASTER CONTROLLER**



**FIELD WIRING DIAGRAM (1 OF 2)**  
**TRAFFIC CONTROL SIGNAL SYSTEM**  
**T.H. 10 AT HANSON BLVD.**  
**IN COON RAPIDS, ANOKA COUNTY**



**NOTES:**  
**1. LUMINAIRES ARE UNMETERED.**

PLOTTED/REVISED: 5/8/2013

DISTRICT #: METRO  
 IPLOT NAME: wiring 1  
 PATH & FILENAME: IP\_PWP-d0780216\T38239\_sgl.dgn

BY	DATE	REVISIONS
GDS	05-08-13	AS BUILT OF CITY PROJECT 12-2

SYSTEM ID: 38239	T.E.
METER ADDRESS: 11456 HANSON BLVD	
MASTER ID: 20216	T.E.

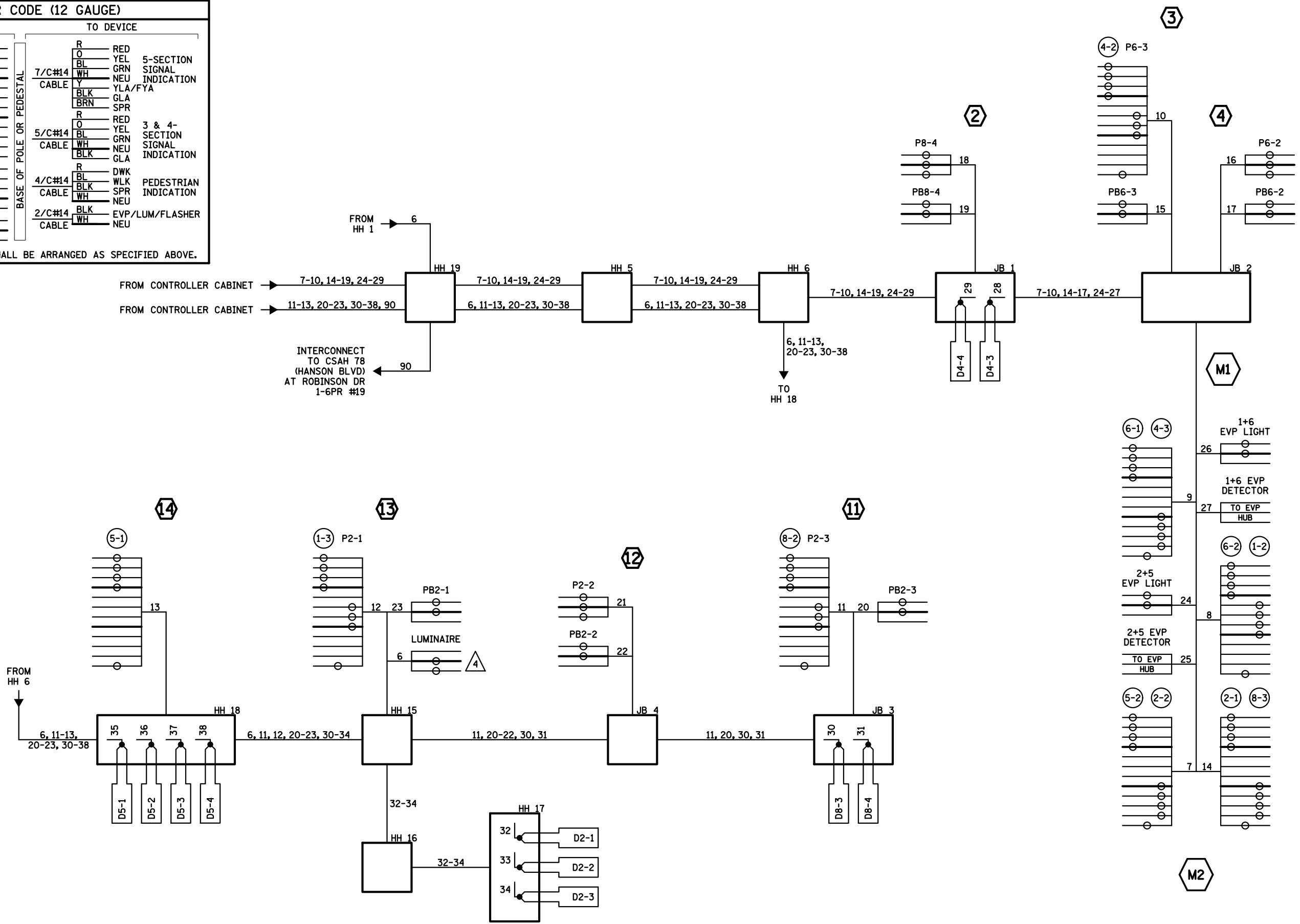
S.A.P. NO.	DRAWN BY:	CKD BY:	DATE:
CERTIFIED BY _____	LIC. NO. _____	DATE: _____	
STATE PROJ. NO.	(T.H. 10)	SHEET NO. 3 OF 4 SHEETS	

PLOTTED/REVISED: 5/8/2013

DISTRICT #: METRO  
 IPLOT NAME: wiring 2  
 PATH & FILENAME: IP\_PWP-d0780216\T38239\_sgl.dgn

CONDUCTOR COLOR CODE (12 GAUGE)			
TO SIGNAL CABINET		TO DEVICE	
3/C#20	R OR O WH OR YEL BLK OR BL	R O BL WH	5-SECTION SIGNAL INDICATION
2/C#14	BLK CLR OR WH	R/BLK O/BLK BL/BLK WH/BLK	
3-1/C#2	R WH BLK BLK WH	12/C#12 R O BLK WH G	
3-1/C#6	G SIGNAL SERVICE	R O BLK WH G	3 & 4- SECTION SIGNAL INDICATION
2-1/C	BLK WH	5/C#12 R O BLK WH G	
1/C#6	G	R O BLK WH G	PEDESTRIAN INDICATION
6PR#19		2/C#14 BLK WH CABLE	
		BASE OF POLE OR PEDESTAL	EVP/LUM/FLASHER NEU
		7/C#14 CABLE	

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



BY	DATE	REVISIONS
GDS	05-08-13	AS BUILT OF CITY PROJECT 12-2

SYSTEM ID: 38239	T.E.
METER ADDRESS: 11456 HANSON BLVD	
MASTER ID: 20216	T.E.

**FIELD WIRING DIAGRAM (2 OF 2)**  
**TRAFFIC CONTROL SIGNAL SYSTEM**  
**T.H. 10 AT HANSON BLVD.**  
**IN COON RAPIDS, ANOKA COUNTY**

S.A.P. NO.	DRAWN BY:	CKD BY:	DATE:
CERTIFIED BY _____	LIC. NO. _____	DATE: _____	
STATE PROJ. NO.	(T.H. 10)	SHEET NO. 4 OF 4 SHEETS	