

PLOTTED/REVISED: 8/5/2014

DISTRICT #: METRO
I/PLOT NAME: T3967A_SGL
PATH & FILENAME: IP_PWP-df1598349T3967A_SGL.DGN

SIGNAL FACE CHART			
FACE	R	Y	G
5-1, 5-2, 5-5	●	●	●
5-3, 5-4	●	●	↑
6-1, 6-4, 6-5	●	●	●
6-2, 6-3	●	●	↑
10-1, 10-2, 10-3	→	→	→
8-1, 8-2, 8-3	←	←	←

-ALL SIGNAL INDICATIONS SHALL BE 12" LED
-ALL SIGNAL HEADS SHALL BE BLACK POLYCARBONITE WITH BACKGROUND SHIELDS

LOOP DETECTOR CHART

NUMBER	SIZE (FT)	LOCATION
D5-1, D5-2	6x6	180
D5-3, D5-4	2-6x6	5 & 20
D8-1, D10-1	6x6	120
D8-2, D10-2	2-6x6	5 & 20
D6-1, D6-2	6x6	200
D6-3, D6-4	2-6x6	5 & 20

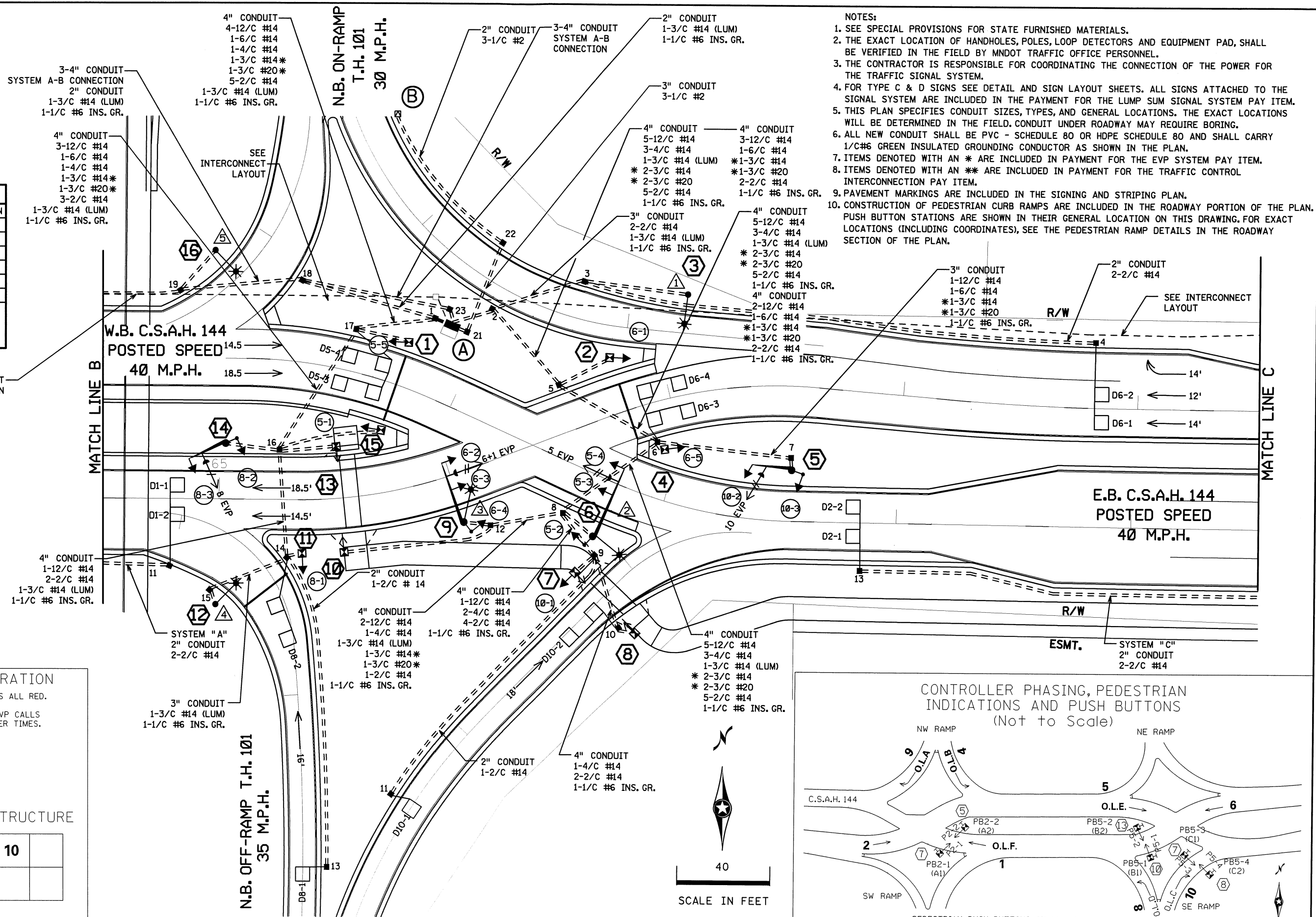
-ALL LOOP DETECTORS SHALL BE PVC UNLESS NOTED OTHERWISE
-LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET

SIGNAL SYSTEM OPERATION

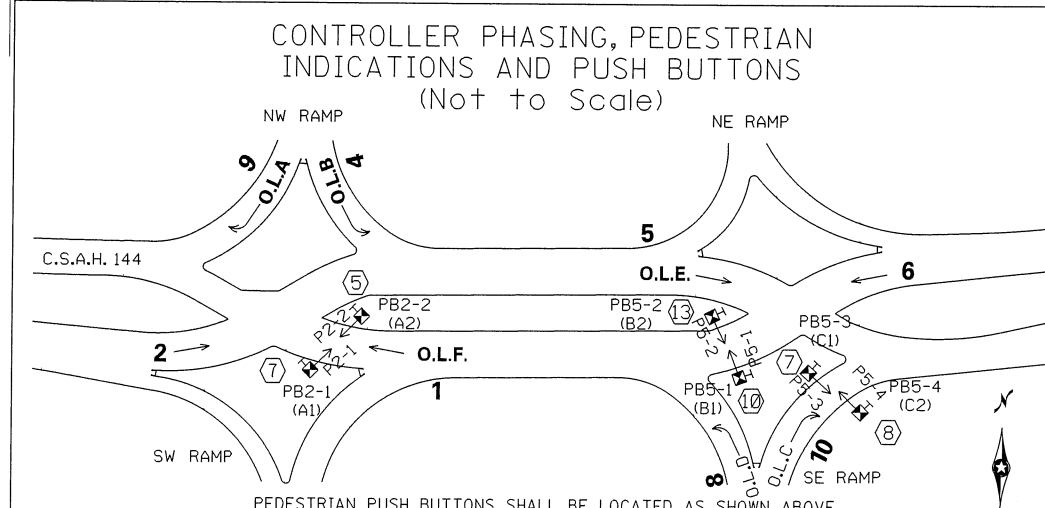
- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 8 PHASES.
- PHASE 9 AND PHASE 10 ARE FOR EVP CALLS AND CAN BE OMITTED AT ALL OTHER TIMES.
- OVERLAP A = 2+9
- OVERLAP B = 1+4+9+10
- OVERLAP C = 6+10
- OVERLAP D = 5+8+9+10
- OVERLAP E = 4+5+9
- OVERLAP F = 1+8+10

RING AND BARRIER STRUCTURE

1	2	4	9	10
6	5	8		



- NOTES:**
1. SEE SPECIAL PROVISIONS FOR STATE FURNISHED MATERIALS.
 2. THE EXACT LOCATION OF HANDHOLES, POLES, LOOP DETECTORS AND EQUIPMENT PAD, SHALL BE VERIFIED IN THE FIELD BY MNDOT TRAFFIC OFFICE PERSONNEL.
 3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE CONNECTION OF THE POWER FOR THE TRAFFIC SIGNAL SYSTEM.
 4. FOR TYPE C & D SIGNS SEE DETAIL AND SIGN LAYOUT SHEETS. ALL SIGNS ATTACHED TO THE SIGNAL SYSTEM ARE INCLUDED IN THE PAYMENT FOR THE LUMP SUM SIGNAL SYSTEM PAY ITEM.
 5. THIS PLAN SPECIFIES CONDUIT SIZES, TYPES, AND GENERAL LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD. CONDUIT UNDER ROADWAY WILL REQUIRE BORING.
 6. ALL NEW CONDUIT SHALL BE PVC - SCHEDULE 80 OR HDPE SCHEDULE 80 AND SHALL CARRY 1/C#6 GREEN INSULATED GROUNDING CONDUCTOR AS SHOWN IN THE PLAN.
 7. ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.
 8. ITEMS DENOTED WITH AN ** ARE INCLUDED IN PAYMENT FOR THE TRAFFIC CONTROL INTERCONNECTION PAY ITEM.
 9. PAVEMENT MARKINGS ARE INCLUDED IN THE SIGNING AND STRIPING PLAN.
 10. CONSTRUCTION OF PEDESTRIAN CURB RAMPS ARE INCLUDED IN THE ROADWAY PORTION OF THE PLAN. PUSH BUTTON STATIONS ARE SHOWN IN THEIR GENERAL LOCATION ON THIS DRAWING. FOR EXACT LOCATIONS (INCLUDING COORDINATES), SEE THE PEDESTRIAN RAMP DETAILS IN THE ROADWAY SECTION OF THE PLAN.



BY	DATE	REVISIONS	SYSTEM ID: 39617 ID 1736897 T.E. 5770	INTERSECTION LAYOUT TRAFFIC CONTROL SIGNAL SYSTEM "B" T.H. 101 AT CSAH 144-DDI EAST RAMPS IN ROGERS, HENNING COUNTY	S.A.P. NO.	DRAWN BY: MTM	CKD BY: BJB	DATE: 12/13/13
			METER ADDRESS: 21450 141ST AVE. N. MASTER ID: 39616 T.E.		CERTIFIED BY _____ LICENSED PROFESSIONAL ENGINEER			DATE: 12/13/13
					STATE PROJ. NO. 2738-28 (T.H. 101) SHEET NO. SS24R OF SS55 SHEETS			

INTERSECTION NOTES

(A) EQUIPMENT PAD (SEE DETAIL SHEET)
SERVICE CABINET (SSB)
CONTROLLER CABINET (STATE FURNISHED)

4" CONDUIT TO HH 1:
4-12/C #14
1-4/C #14
1-6/C #14
*1-3/C #14
*1-3/C #20
5-2/C #14
1-1/C #6 INS. GR.

4" CONDUIT TO HH 2:
3-12/C #14
1-6/C #14
1-4/C #14
*1-3/C #14
*1-3/C #20
3-2/C #14
1-1/C #6 INS. GR.

4" CONDUIT TO HH 2:
5-12/C #14
2-4/C #14
*2-3/C #14
*2-3/C #20
6-2/C #14
1-1/C #6 INS. GR.

3-4" CONDUIT TO HH 23
SYSTEM A-B CONNECTION

CONTROLLER CABINET TO FO PV 2
* * 1.5" CONDUIT
* * 1-1/C #6 INS. GR.

STUBBED OUT (CAPPED BOTH ENDS)
2-2" CONDUIT
1-3" CONDUIT
STUBBED OUT (FOR TELEPHONE LINE)
3/4" CONDUIT

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
1-6 PR #19

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

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

SERVICE CABINET TO HH 21:
2" CONDUIT
3-1/C #2

(B) SOP - PAD MOUNTED TRANSFORMER
XCEL ENERGY
SERVICE EQUIPMENT
EXTEND TO HH 22:
2" CONDUIT
3-1/C #2

(1) PEDESTAL FOUNDATION
X: 456528.20 Y: 252938.49
13' PEDESTAL POLE PLUS BASE
1-STRAIGHT MOUNT SIGNAL
3" CONDUIT TO HH 17:
1-12/C #14
2-1/C #6 INS. GR.

(2) PEDESTAL FOUNDATION
X: 456613.95 Y: 252932.52
13' PEDESTAL POLE PLUS BASE
1-STRAIGHT MOUNT SIGNAL
3" CONDUIT TO HH 5:
1-12/C #14
2-1/C #6 INS. GR.

(3) DESIGN E - LIGHT FOUNDATION
X: 456647.29 Y: 252959.71
TYPE 9-40
LUMINAIRE-120/240 VAC LED
2" CONDUIT TO HH 3:
1-3/C #14 (LUM)
1-1/C #6 INS. GR.

(4) PEDESTAL FOUNDATION
X: 456637.76 Y: 252893.42
13' PEDESTAL POLE PLUS BASE
1-STRAIGHT MOUNT SIGNAL
3" CONDUIT TO HH 6:
1-12/C #14
2-1/C #6 INS. GR.

(5) PA85 POLE FOUNDATION
X: 456692.12 Y: 252885.02
TYPE PA85-A-15
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
1-ANGLE MOUNT SIGNAL AT 90 DEG
*1-ONE WAY EVP DETECTOR AND
CONFIRMATORY LIGHT (PHASE 10)
3" CONDUIT TO HH 7:
1-12/C #14
1-6/C #14
*1-3/C #14
*1-3/C #20
1-1/C #6 INS. GR.

(6) PA90 POLE FOUNDATION
X: 456607.26 Y: 252856.29
TYPE PA90-A-30-D40-9 (DAVIT AT 90 DEG)
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
1-STRAIGHT MOUNT SIGNAL OVERHEAD
AT 11'
1-ANGLE MOUNT SIGNAL AT 90 DEG
*1-ONE WAY EVP DETECTOR AND
CONFIRMATORY LIGHT (PHASE 5)
LUMINAIRE-120/240 VAC LED
3" CONDUIT TO HH 8:
2-12/C #14
*1-3/C #14
*1-3/C #20
2-3/C #14 (LUM)
1-1/C #6 INS. GR.

(7) PEDESTAL FOUNDATION
X: 456599.59 Y: 252840.89
13' PEDESTAL POLE PLUS BASE
1-STRAIGHT MOUNT SIGNAL
1-STRAIGHT MOUNT C.D. PED IND
1-APS PB AND SIGN (LT ARROW) (PB5-3)
3" CONDUIT TO HH 9:
1-12/C #14
1-4/C #14
1-2/C #14
2-1/C #6 INS. GR.

(8) PEDESTAL FOUNDATION
X: 456625.37 Y: 252815.08
TYPE 4A (8' PEDESTAL POLE)
1-C.D. PED IND
1-APS PB AND SIGN (RT ARROW) (PB5-4)
3" CONDUIT TO HH 10:
1-4/C #14
1-2/C #14
1-1/C #6 INS. GR.

(9) PA85 POLE FOUNDATION
X: 456551.87 Y: 252861.99
TYPE PA85-A-25-D40-9 (DAVIT AT 10 DEG)
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
1-STRAIGHT MOUNT SIGNAL OVERHEAD
AT 11'
1-ANGLE MOUNT SIGNAL AT 90 DEG
*1-ONE WAY EVP DETECTOR AND
CONFIRMATORY LIGHT (PHASES 1+6)
LUMINAIRE-120/240 VAC LED
3" CONDUIT TO HH 12:
2-12/C #14
*1-3/C #14
*1-3/C #20
1-3/C #14 (LUM)
1-1/C #6 INS. GR.

(10) PEDESTAL FOUNDATION
X: 456500.77 Y: 252848.98
TYPE 4A (8' PEDESTAL POLE)
1-C.D. PED IND
1-APS PB AND SIGN (RT ARROW) (PB5-1)
3" CONDUIT TO HH 12:
1-4/C #14
1-2/C #14
1-1/C #6 INS. GR.

(11) PEDESTAL FOUNDATION
X: 456482.62 Y: 252848.37
13' PEDESTAL POLE PLUS BASE
1-STRAIGHT MOUNT SIGNAL
3" CONDUIT TO HH 14:
1-12/C #14
2-1/C #6 INS. GR.

(12) DESIGN E - LIGHT FOUNDATION
X: 456445.57 Y: 252826.67
TYPE 9-40
LUMINAIRE-120/240 VAC LED
2" CONDUIT TO HH 15:
1-3/C #14 (LUM)
1-1/C #6 INS. GR.

(13) PEDESTAL FOUNDATION
X: 456497.20 Y: 252893.84
TYPE 4A (8' PEDESTAL POLE)
1-C.D. PED IND
1-APS PB AND SIGN (LT ARROW) (PB5-2)
3" CONDUIT TO HH 16:
1-4/C #14
1-2/C #14
1-1/C #6 INS. GR.

(14) PA85 POLE FOUNDATION
X: 456449.90 Y: 252895.18
TYPE PA85-A-15
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
1-ANGLE MOUNT SIGNAL AT 90 DEG
*1-ONE WAY EVP DETECTOR AND
CONFIRMATORY LIGHT (PHASE 8)
3" CONDUIT TO HH 16:
1-12/C #14
1-6/C #14
*1-3/C #14
*1-3/C #20
1-1/C #6 INS. GR.

(15) PEDESTAL FOUNDATION
X: 456516.36 Y: 252900.96
13' PEDESTAL POLE PLUS BASE
1-STRAIGHT MOUNT SIGNAL
3" CONDUIT TO HH 16:
1-12/C #14
1-1/C #6 INS. GR.

(16) DESIGN E - LIGHT FOUNDATION
X: 456445.40 Y: 252977.64
TYPE 9-40
LUMINAIRE-120/240 VAC LED
2" CONDUIT TO HH 19:
1-3/C #14 (LUM)
1-1/C #6 INS. GR.

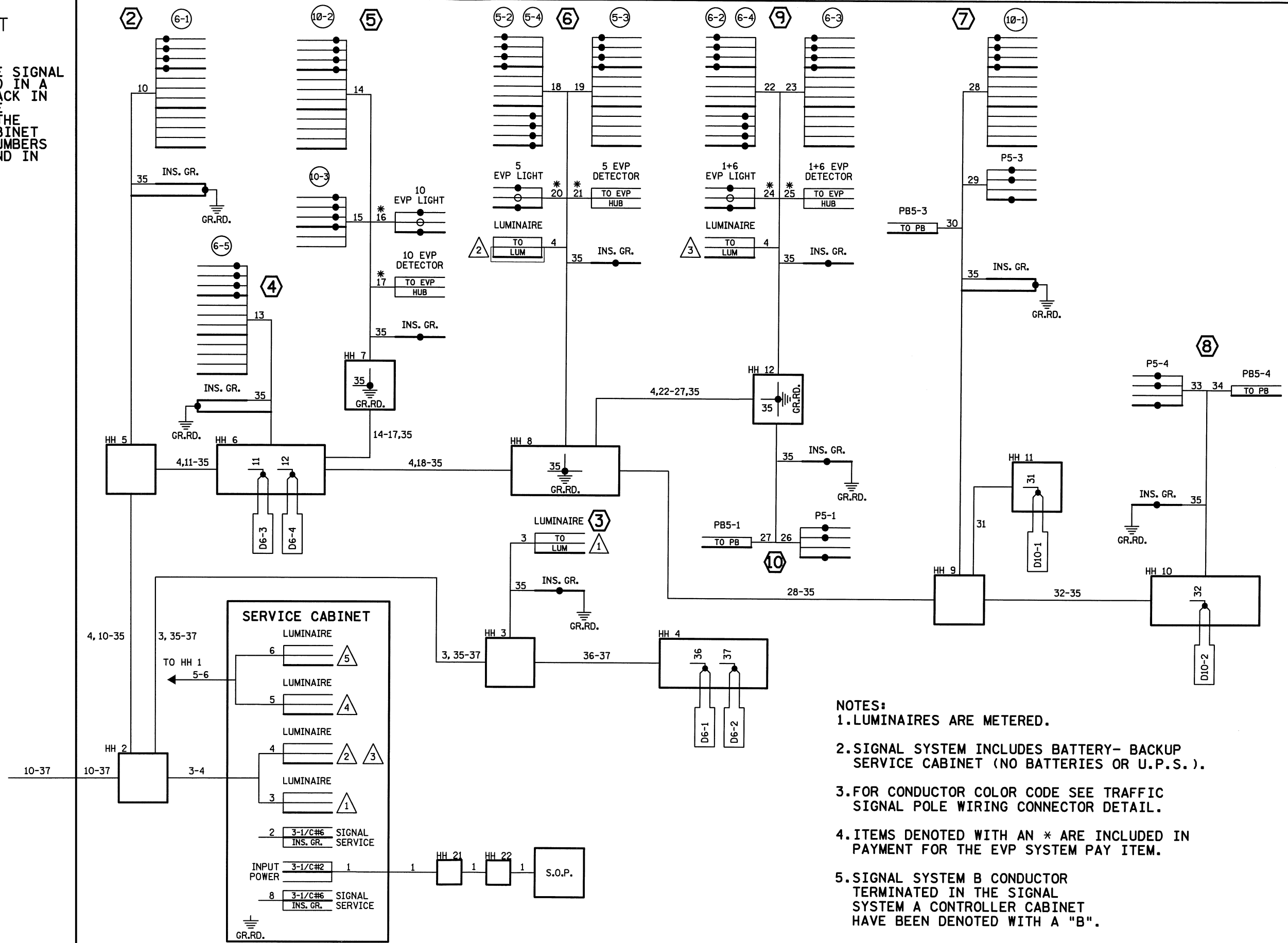
NOTE: SEE TRAFFIC SIGNAL MOUNTED SIGN LAYOUT SHEET FOR ALL SIGNING THAT IS ATTACHED TO THE SIGNAL SYSTEM

DISTRICT #: METRO
 PLOT NAME: T3967A_SGL
 PATH & FILENAME: IP_PWP-d\598349T\3967A_SGL.DGN
 PLOTTED/REVISED: 8/4/2014

BY	DATE	REVISIONS	SYSTEM ID: 39617 ID 1736897 T.E. 5770	INTERSECTION NOTES TRAFFIC CONTROL SIGNAL SYSTEM "B" T.H. 101 AT CSAH 144-DDI EAST RAMPS IN ROGERS, HENNING COUNTY	S.A.P. NO.	DRAWN BY: MTM	CKD BY: BJB	DATE: 12/13/13
			METER ADDRESS: 21450 141ST AVE. N.		CERTIFIED BY _____	LIC. NO. _____	DATE: 12/13/13	
			MASTER ID: 39616 T.E.		STATE PROJ. NO. 2738-28 (T.H. 101) SHEET NO. SS25R OF SS55 SHEETS			

CONTROLLER CABINET (EMPTY)

ALL CONDUCTOR CABLES SHALL BE UNSPLICED AND BROUGHT INTO THE SIGNAL CONTROLLER CABINET AND SECURED IN A MANNER TO ALLOW FOR 10' OF SLACK IN EACH CABLE TO ALLOW FOR FUTURE MODIFICATIONS. ALL CABLES IN THE SIGNAL SYSTEM B CONTROLLER CABINET SHALL BE LABELED WITH CABLE NUMBERS AS DIRECTED BY THE ENGINEER AND IN ACCORDANCE WITH THE SPECIAL PROVISIONS.



- NOTES:**
- LUMINAIRES ARE METERED.
 - SIGNAL SYSTEM INCLUDES BATTERY- BACKUP SERVICE CABINET (NO BATTERIES OR U.P.S.).
 - FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.
 - ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.
 - SIGNAL SYSTEM B CONDUCTOR TERMINATED IN THE SIGNAL SYSTEM A CONTROLLER CABINET HAVE BEEN DENOTED WITH A "B".

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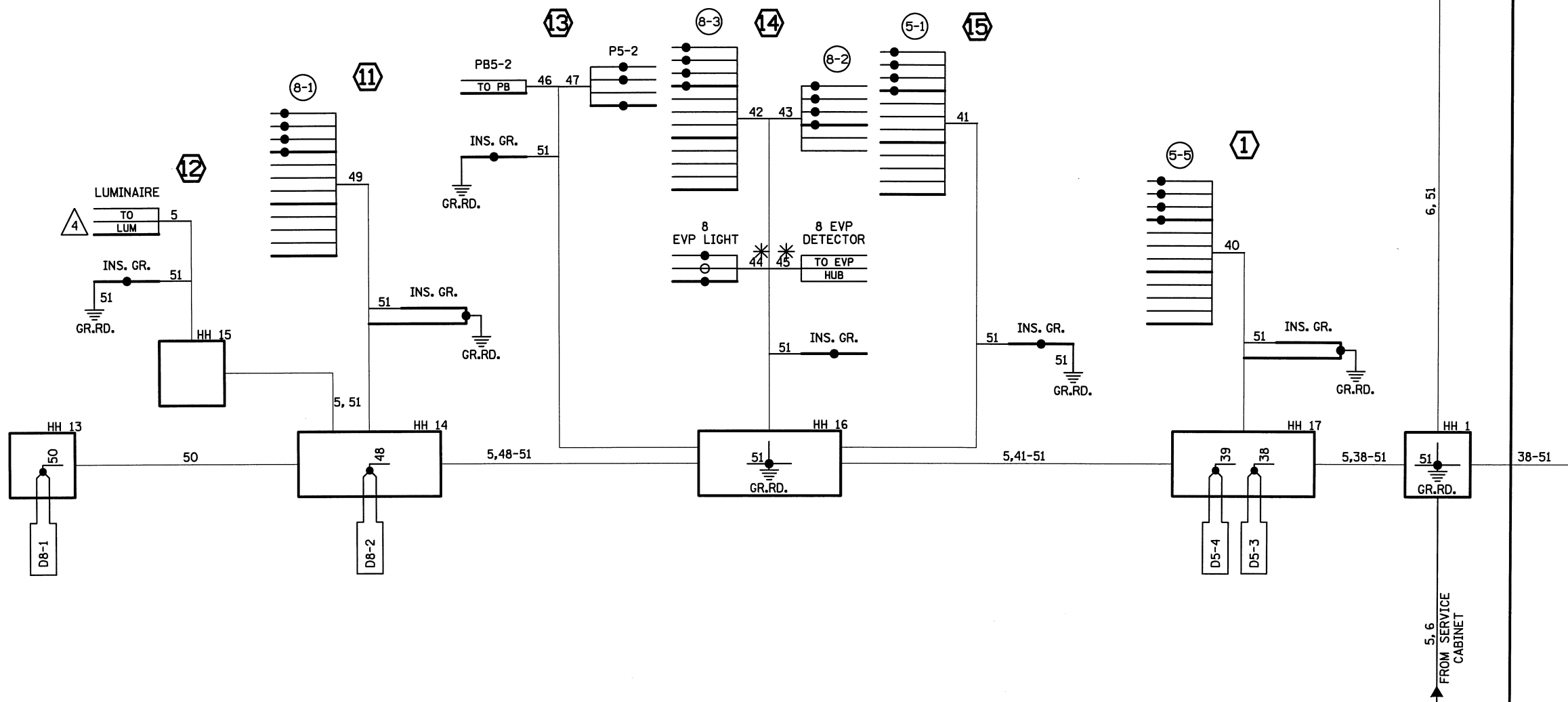
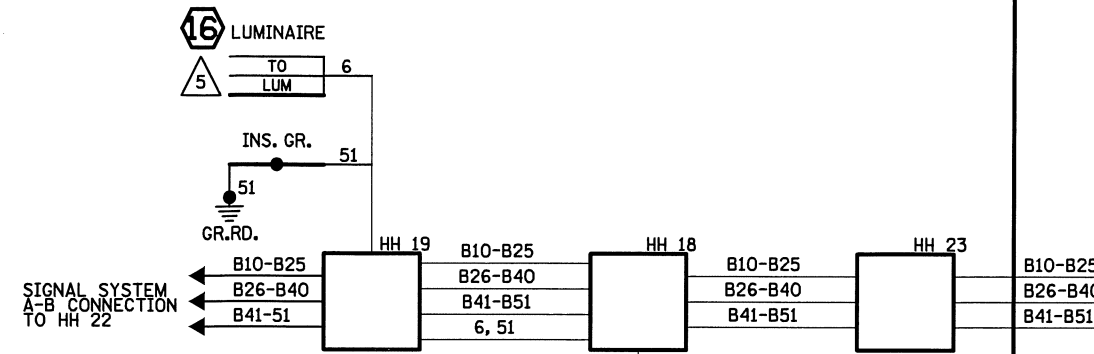
DISTRICT #: METRO
I/PLOT NAME: T3967A_SGL
PATH & FILENAME: IP_PWP-df598349NT3967A_SGL.DGN

BY	DATE	REVISIONS	SYSTEM ID: 39617 ID 1736897 T.E. 5770	FIELD WIRING DIAGRAM 1 OF 2 TRAFFIC CONTROL SIGNAL SYSTEM "B" T.H. 101 AT CSAH 144-DDI EAST RAMP IN ROGERS, HENNING COUNTY	S.A.P. NO.	DRAWN BY: MTM	CKD BY: BJB	DATE: 12/13/13
			METER ADDRESS: 21450 141ST AVE. N. MASTER ID: 39616 T.E.		CERTIFIED BY _____	LICENSED PROFESSIONAL ENGINEER	LIC. NO. _____	DATE: 12/13/13
STATE PROJ.NO. 2738-28 (T.H.101) SHEET NO. SS26R OF SS55 SHEETS								

- NOTES:
- LUMINAIRES ARE METERED.
 - SIGNAL SYSTEM INCLUDES BATTERY- BACKUP SERVICE CABINET (NO BATTERIES OR U.P.S.).
 - FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.
 - ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.
 - SIGNAL SYSTEM B CONDUCTOR TERMINATED IN THE SIGNAL SYSTEM A CONTROLLER CABINET HAVE BEEN DENOTED WITH A "B".

CONTROLLER CABINET
(EMPTY)

ALL CONDUCTOR CABLES SHALL BE UNSPLICED AND BROUGHT INTO THE SIGNAL CONTROLLER CABINET AND SECURED IN A MANNER TO ALLOW FOR 10' OF SLACK IN EACH CABLE TO ALLOW FOR FUTURE MODIFICATIONS. ALL CABLES IN THE SIGNAL SYSTEM B CONTROLLER CABINET SHALL BE LABELED WITH CABLE NUMBERS AS DIRECTED BY THE ENGINEER AND IN ACCORDANCE WITH THE SPECIAL PROVISIONS.



DISTRICT #: METRO
 PLOT NAME: T39617A_SGL
 PATH & FILENAME: IP_PWP-d\598349T39617A_SGL.DGN
 PLOTTED/REVISED: 8/4/2014

BY	DATE	REVISIONS	SYSTEM ID: 39617 ID 1736897 T.E. 5770	FIELD WIRING DIAGRAM 2 OF 2 TRAFFIC CONTROL SIGNAL SYSTEM "B" T.H. 101 AT CSAH 144-DDI EAST RAMPS IN ROGERS, HENNIPIN COUNTY	S.A.P. NO.	DRAWN BY:MTM	CKD BY:BJB	DATE:12/13/13
			METER ADDRESS: 21450 141ST AVE. N.		CERTIFIED BY _____			LIC. NO. _____ DATE: 12/13/13
			MASTER ID: 39616 T.E.		STATE PROJ.NO. 2738-28 (T.H.101) SHEET NO. SS27R OF SS55 SHEETS			