

- (A) EQUIPMENT PAD (SEE DETAIL SHEET)  
 SERVICE CABINET (SSB)  
 CONTROLLER AND CABINET (STATE FURNISHED)  
 4" CONDUIT TO HH 1:  
 2-12/C#14  
 3-4/C#14  
 1-3/C#14  
 14-2/C#14  
 1-3/C#20  
 1-1/C#6 INS GR
- 4" CONDUIT TO HH 10:  
 4-12/C#14  
 1-4/C#14  
 2-3/C#14  
 2-3/C#20  
 1-1/C#6 INS GR
- 2-2" AND 1-3" CONDUIT STUBBED OUT (CAPPED BOTH ENDS)  
 3" CONDUIT STUBBED OUT FOR SIGNAL INTERCONNECTION (SEE TMS PLANS)  
 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  
 SERVICE CABINET TO GROUND MOUNTED TRANSFORMER:  
 2" CONDUIT  
 3-1/C#2  
 SERVICE CABINET TO HH 10:  
 2" CONDUIT  
 2-3/C#14 (LUM)  
 HH 10 TO HH 1:  
 2" CONDUIT  
 1-3/C#14 (LUM)

- (2) X=575810.3255  
 Y=173367.6866  
 PA100 POLE FOUNDATION  
 TYPE PA100-A-45-D40-9 (DAVIT AT 350 DEG)  
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'  
 1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 17'  
 1-ANGLE MOUNT SIGNAL AT 180 DEG  
 2-ANGLE MOUNT C. D. PED HEADS AT 90 AND 180 DEG  
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 1 AND 6)  
 LUMINAIRE LED  
 1-TYPE D SIGN (D-3) (SEE SIGN DETAILS)  
 1-APS PB (LT ARROW) AT 270 DEG (PB4-1)  
 1-R10-X12 SIGN ADJACENT TO HEAD (1-1)  
 3" CONDUIT TO HH 3:  
 2-12/C#14  
 2-4/C#14  
 1-3/C#14  
 1-3/C#14 (LUM)  
 1-2/C#14  
 1-3/C#20  
 1-1/C#6 INS GR

- PED PB STATION  
 1-APS PB AND SIGN (RT ARROW) (PB6-2)  
 EXTEND INTO HH 4:  
 1" CONDUIT  
 1-2/C#14  
 1-1/C#6 INS GR

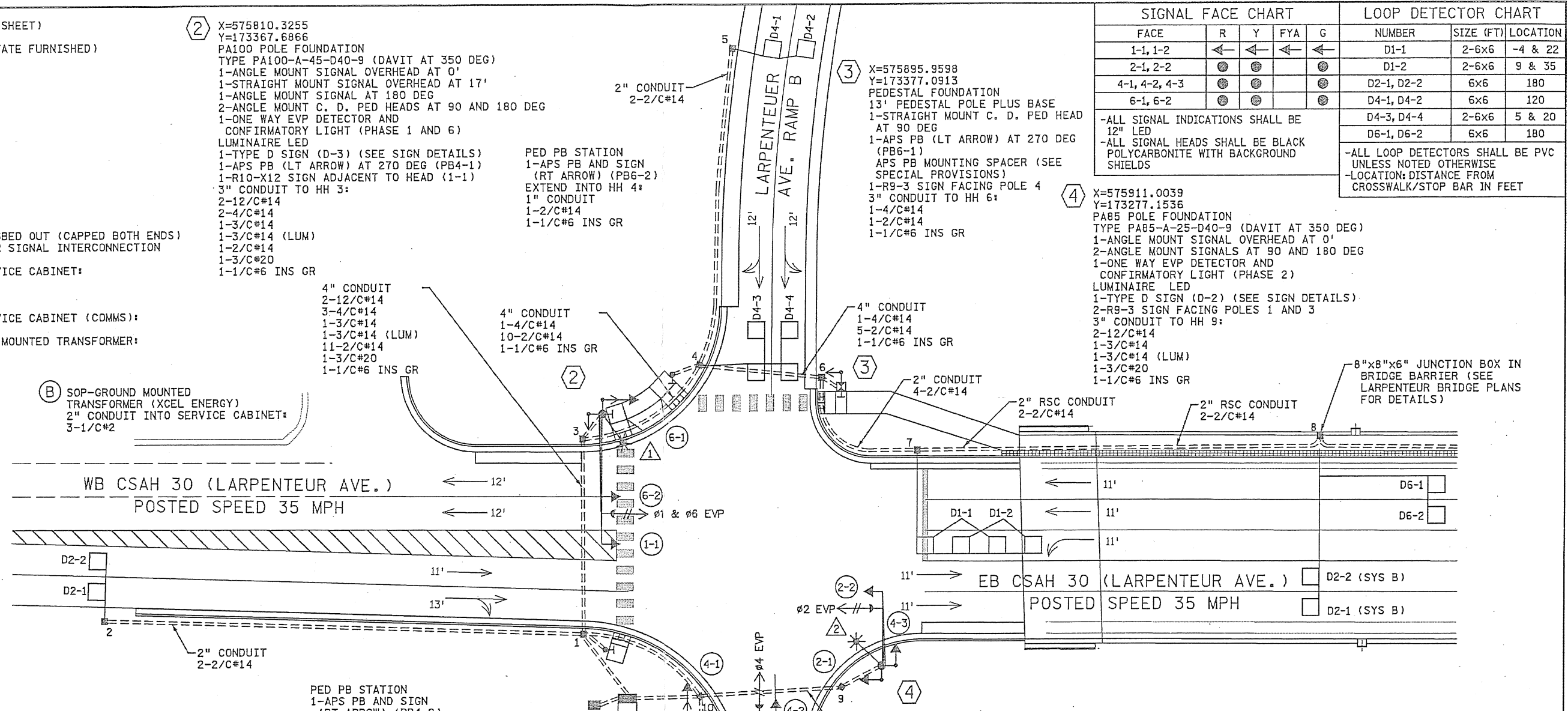
- (3) X=575895.9598  
 Y=173377.0913  
 PEDESTAL FOUNDATION  
 13' PEDESTAL POLE PLUS BASE  
 1-STRAIGHT MOUNT C. D. PED HEAD AT 90 DEG  
 1-APS PB (LT ARROW) AT 270 DEG (PB6-1)  
 APS PB MOUNTING SPACER (SEE SPECIAL PROVISIONS)  
 1-R9-3 SIGN FACING POLE 4  
 3" CONDUIT TO HH 6:  
 1-4/C#14  
 1-2/C#14  
 1-1/C#6 INS GR

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

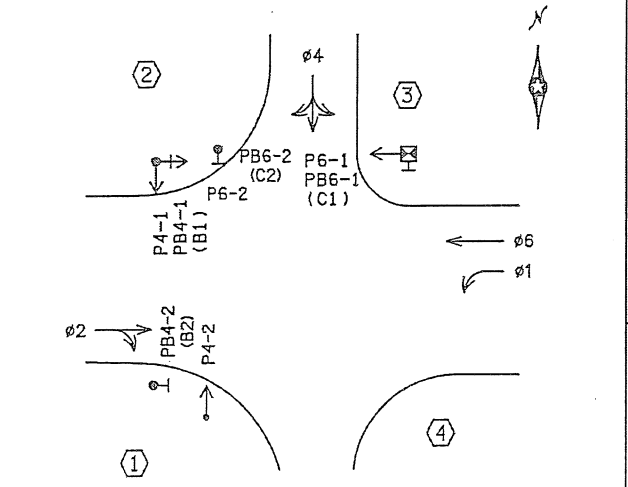
LOOP DETECTOR CHART		
NUMBER	SIZE (FT)	LOCATION
D1-1	2-6x6	-4 & 22
D1-2	2-6x6	9 & 35
D2-1, D2-2	6x6	180
D4-1, D4-2	6x6	120
D4-3, D4-4	2-6x6	5 & 20
D6-1, D6-2	6x6	180

-ALL SIGNAL INDICATIONS SHALL BE 12" LED  
 -ALL SIGNAL HEADS SHALL BE BLACK POLYCARBONITE WITH BACKGROUND SHIELDS  
 -ALL LOOP DETECTORS SHALL BE PVC UNLESS NOTED OTHERWISE  
 -LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET

- (B) SOP-GROUND MOUNTED TRANSFORMER (XCEL ENERGY)  
 2" CONDUIT INTO SERVICE CABINET:  
 3-1/C#2



CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 4 PHASE, WITH PHASE 1 BEING FLASHING YELLOW ARROW BY TIME OF DAY.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

- (1) X=575846.3760  
 Y=173258.7499  
 PA85 POLE FOUNDATION  
 TYPE PA85-A-25  
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'  
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG  
 1-ANGLE MOUNT C. D. PED HEAD AT 180 DEG  
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 4)  
 1-TYPE D SIGN (D-1) (SEE SIGN DETAILS)  
 1-R9-3 SIGN (FACING POLE 4)  
 3" CONDUIT TO HH 10:  
 2-12/C#14  
 1-4/C#14  
 1-3/C#14  
 1-3/C#20  
 1-1/C#6 INS GR

NOTES:

- SEE SPECIAL PROVISIONS FOR STATE FURNISHED MATERIALS.
- THE EXACT LOCATION OF HANDHOLES, POLES, LOOP DETECTORS AND EQUIPMENT PAD, SHALL BE VERIFIED IN THE FIELD BY MNDOT TRAFFIC OFFICE PERSONNEL.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE CONNECTION OF THE POWER FOR THE TRAFFIC SIGNAL SYSTEM.
- FOR MAST ARM SIGNING SEE DRAWING NO. SGL12.
- FOR PAVEMENT MAKINGS DETAILS SEE PAVEMENT MARKING PLAN.
- FOR CONSTRUCTION OF PEDESTRIAN CURB RAMPS AND CONCRETE WALK SEE INTERSECTION DETAIL DRAWING NO. IN05.
- THIS PLAN SPECIFIES CONDUIT SIZES, TYPES, AND GENERAL LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD.
- 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.
- THE SIGNALS SHALL BE INTERCONNECTED THROUGH 6SM FIBER OPTIC CABLE. SEE THE TMS PLANS FOR MORE DETAILS.
- THE CONTRACTOR SHALL FURNISH AND INSTALL TYPE SSB BATTERY BACK-UP SIGNAL SERVICE CABINETS WITHOUT BATTERIES. (SEE SPECIAL PROVISIONS)

Ames Construction  
 APR 01 2014  
 Released for Construction

METER ADDRESS: 230 LARPEUTEUR AVE E  
 SYSTEM ID: 20565  
 T.E.: 6042

INTERSECTION LAYOUT

I-35E MNPASS PROJECT (S.P. 6280-367)  
 TRAFFIC CONTROL SIGNAL SYSTEM A  
 TH 35E W. FRONTAGE RD AT CSAH 30 (LARPEUTEUR AVE)  
 IN SAINT PAUL, RAMSEY COUNTY

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NO	DATE	BY	CKD	APPR	REVISION
0	01/03/14	JJG	MPM	JWD	INITIAL RELEASE FOR CONSTRUCTION - DP T-1
1	03/31/14	JJG	MPM	JWD	INITIAL RELEASE FOR CONSTRUCTION - DP T-5

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

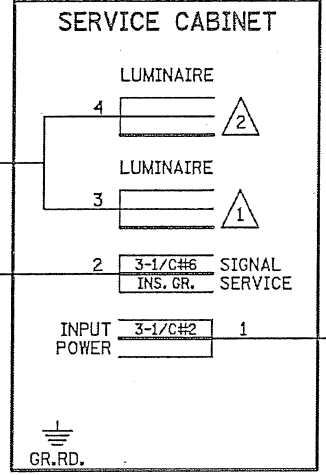
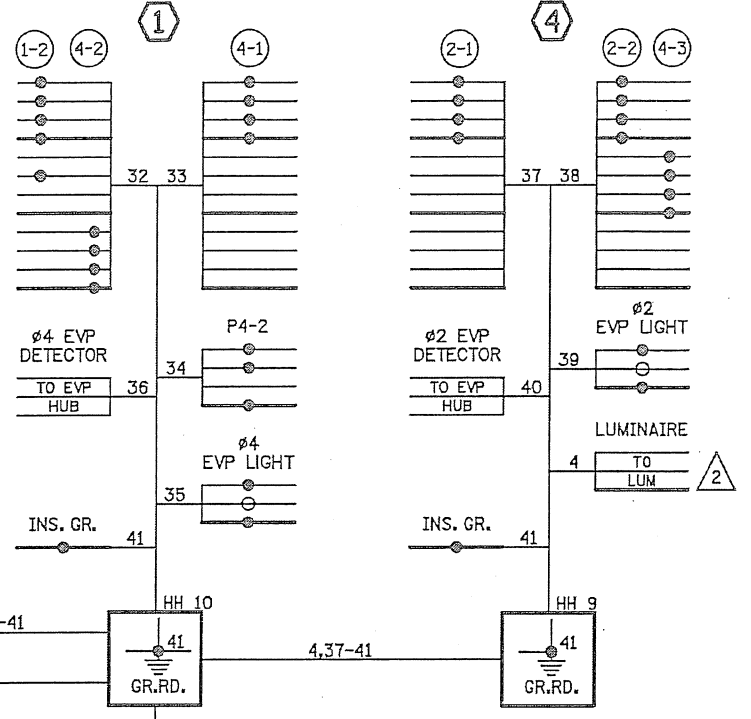
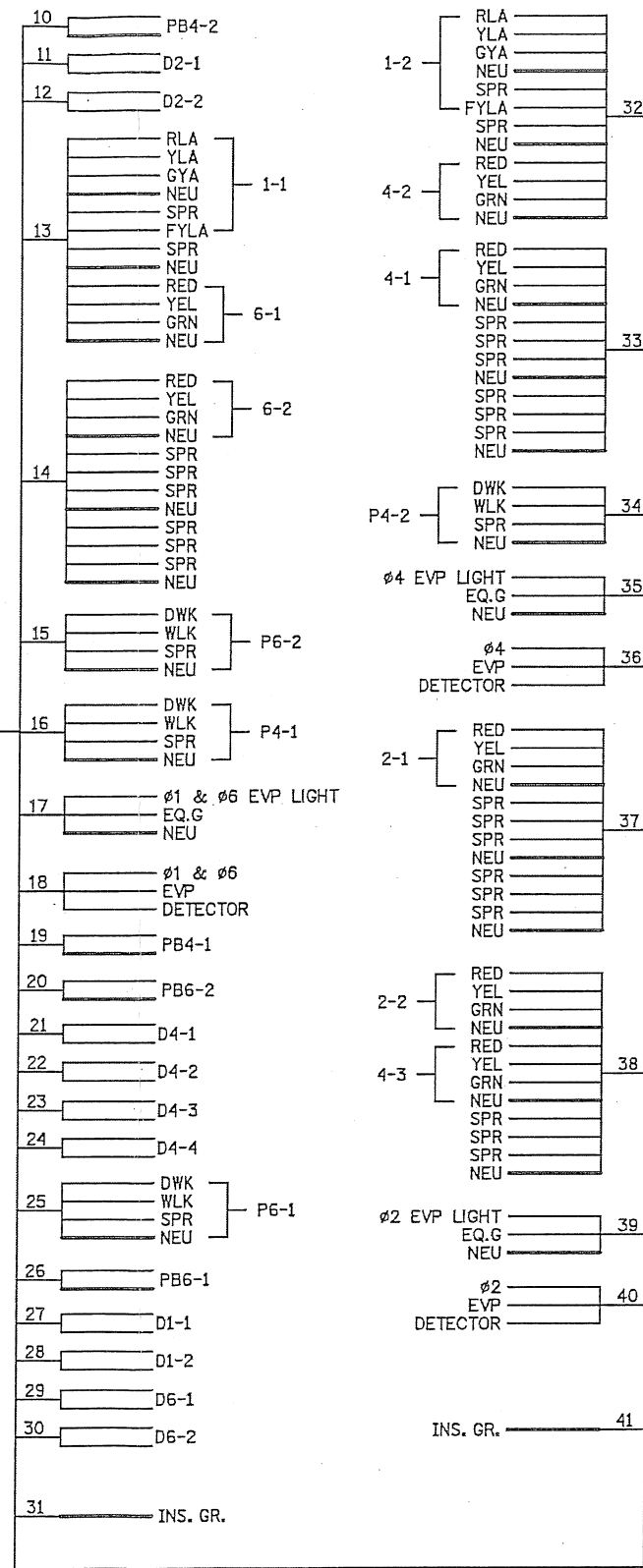
PRINT NAME: MICHAEL P. MCCURDY  
 Michael P. McCurdy  
 DATE: 03/31/14 LICENSE #: 45902

MNDOT ACCEPTANCE  
 Signature: [Signature]  
 DATE: 4/1/14

AMES TEAM  
 ALLIANT

SHEET SGL10 OF

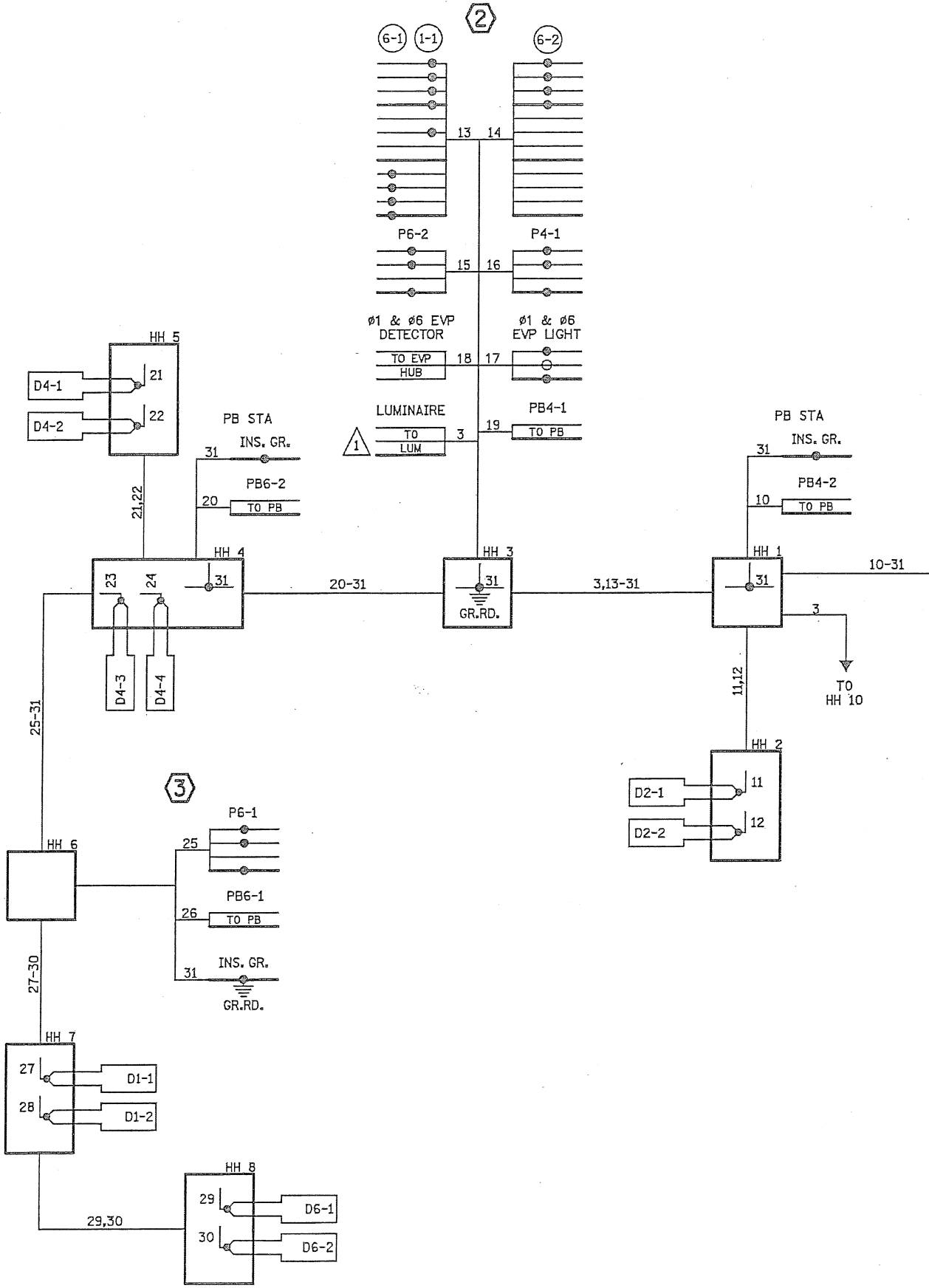
# CONTROLLER CABINET



Ames Construction  
 APR 01 2014  
 Released for Construction

METER ADDRESS: 230 LARPEN TEUR AVE E  
 SYSTEM ID: 20565  
 T.E.: 6042

## WIRING DIAGRAM



0	05/31/14	JJG	MPM	JWD	INITIAL RELEASE FOR CONSTRUCTION - DP T-5
NO	DATE	BY	CKD	APPR	REVISION
DRAWING NO.:					

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
 PRINT NAME: MICHAEL P. MCCURDY  
 Signature: *Michael P. McCurdy*  
 DATE: 03/31/14 LICENSE #: 45902

MNDOT ACCEPTANCE  
 Signature: *D.J. Brown*  
 SIGNATURE: *D.J. Brown*  
 DATE: 4/1/14



I-35E MNPASS PROJECT (S.P. 6280-367)  
 TRAFFIC CONTROL SIGNAL SYSTEM A  
 TH 35E W. FRONTAGE RD AT CSAH 30 (LARPEN TEUR AVE)  
 IN SAINT PAUL, RAMSEY COUNTY

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