

- (A) EQUIPMENT PAD (SEE DETAIL SHEET)  
 SERVICE CABINET (SSB)  
 CONTROLLER AND CABINET (STATE FURNISHED)  
 4" CONDUIT TO HH 1:  
 2-12/C#14  
 1-4/C#14  
 1-3/C#14  
 8-2/C#14  
 1-3/C#20  
 1-1/C#6 INS GR

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

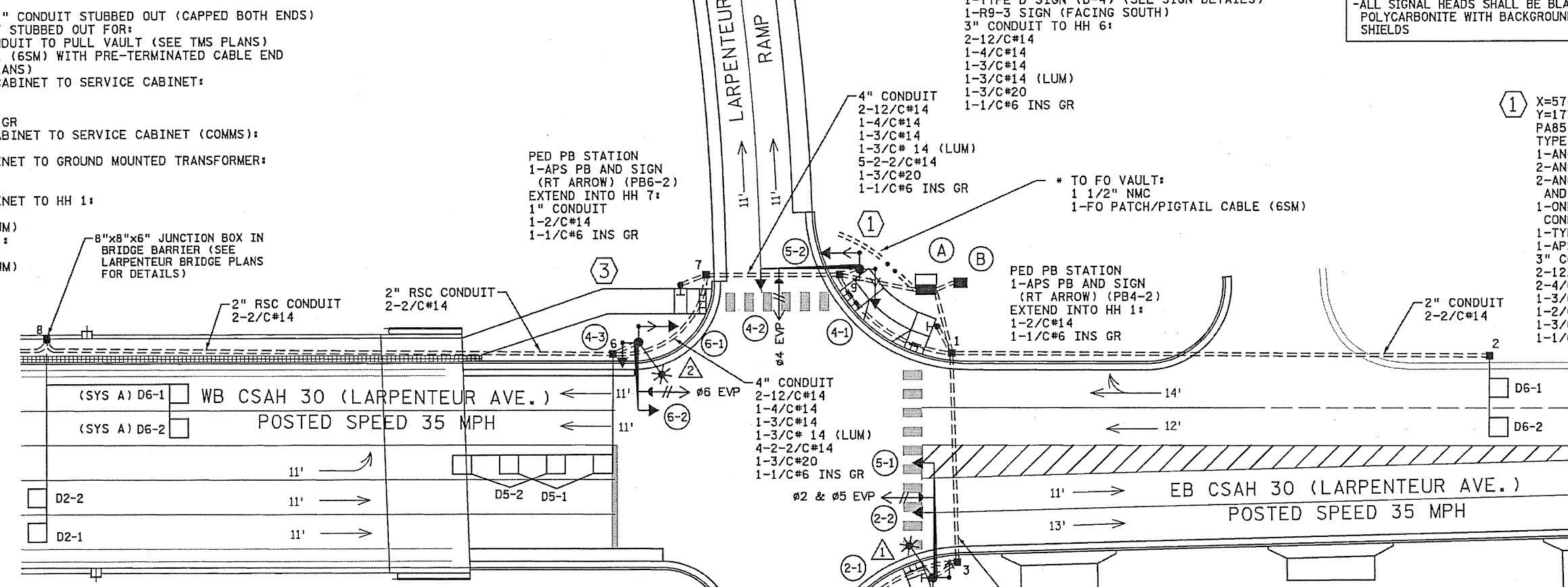
- (3) X=576257.1037  
 Y=173357.0469  
 PA85 POLE FOUNDATION  
 TYPE PA85-A-20-D40-9 (DAVIT AT 350 DEG)  
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'  
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG  
 1-ANGLE MOUNT C.D. PED HEAD AT 180 DEG  
 1-ONE WAY EVP DETECTOR AND  
 CONFIRMATORY LIGHT (PHASE 6)  
 LUMINAIRE LED  
 1-TYPE D SIGN (D-4) (SEE SIGN DETAILS)  
 1-R9-3 SIGN (FACING SOUTH)  
 3" CONDUIT TO HH 6:  
 2-12/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

SIGNAL FACE CHART					LOOP DETECTOR CHART		
FACE	R	Y	FYA	G	NUMBER	SIZE (FT)	LOCATION
2-1, 2-2	●	●		●	D2-1, D2-2	6x6	180
4-1, 4-2, 4-3	●	●		●	D4-1, D4-2	6x6	120
5-1, 5-2	←	←	←	←	D4-3, D4-4	2-6x6	5 & 20
6-1, 6-2	●	●		●	D5-1	2-6x6	0 & 30
					D5-2	2-6x6	15 & 45
					D6-1, D6-2	6x6	180

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

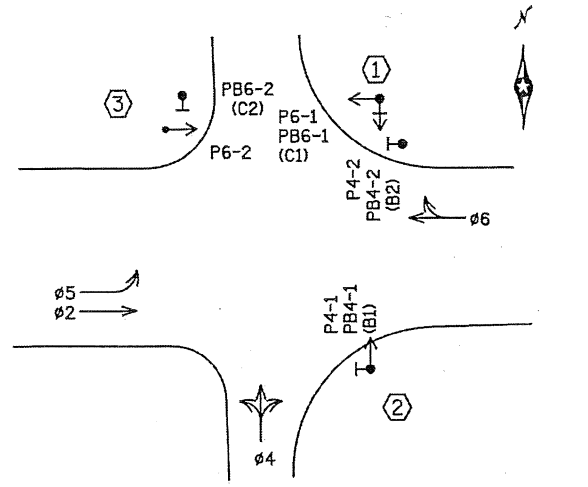
-ALL LOOP DETECTORS SHALL BE PVC UNLESS NOTED OTHERWISE  
 -LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET

- (1) X=576327.3115  
 Y=173380.1461  
 PA85 POLE FOUNDATION  
 TYPE PA85-A-30  
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'  
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG  
 2-ANGLE MOUNT C. D. PED HEADS AT 90 DEG AND 180 DEG  
 1-ONE WAY EVP DETECTOR AND  
 CONFIRMATORY LIGHT (PHASE 4)  
 1-TYPE D SIGN (D-1) (SEE SIGN DETAILS)  
 1-APS PB (LT ARROW) AT 270 DEG (PB6-1)  
 3" CONDUIT TO HH 9:  
 2-12/C#14  
 2-4/C#14  
 1-3/C#14  
 1-2/C#14  
 1-3/C#20  
 1-1/C#6 INS GR



Ames Construction  
 APR 01 2014  
 Released for Construction

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 5 BEING FLASHING YELLOW ARROW BY TIME OF DAY.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

- 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. SGL22.
  - FOR PAVEMENT MAKINGS DETAILS SEE PAVEMENT MARKING PLAN.
  - FOR CONSTRUCTION OF PEDESTRIAN CURB RAMPS AND CONCRETE WALK SEE INTERSECTION DETAIL DRAWING NO. IN06.
  - 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)
  - \* DENOTES WORK TO BE COMPLETED AS PART OF THE TMS PLAN (SEE TMS PLAN FOR DETAILS)

METER ADDRESS: 301 LARPEN TEUR AVE E  
 SYSTEM ID: 20563  
 T.E.: 6041

INTERSECTION LAYOUT

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

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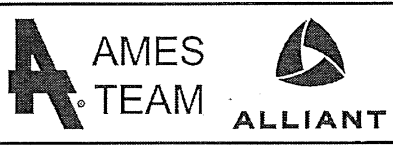
NO	DATE	BY	CKD	APPR	REVISION
0	01/03/14	JJG	MPM	JWD	INITIAL RELEASE FOR CONSTRUCTION - DP T-1
1	03/31/14	JJG	MPM	JWD	INITIAL RELEASE FOR CONSTRUCTION - DP T-5

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.

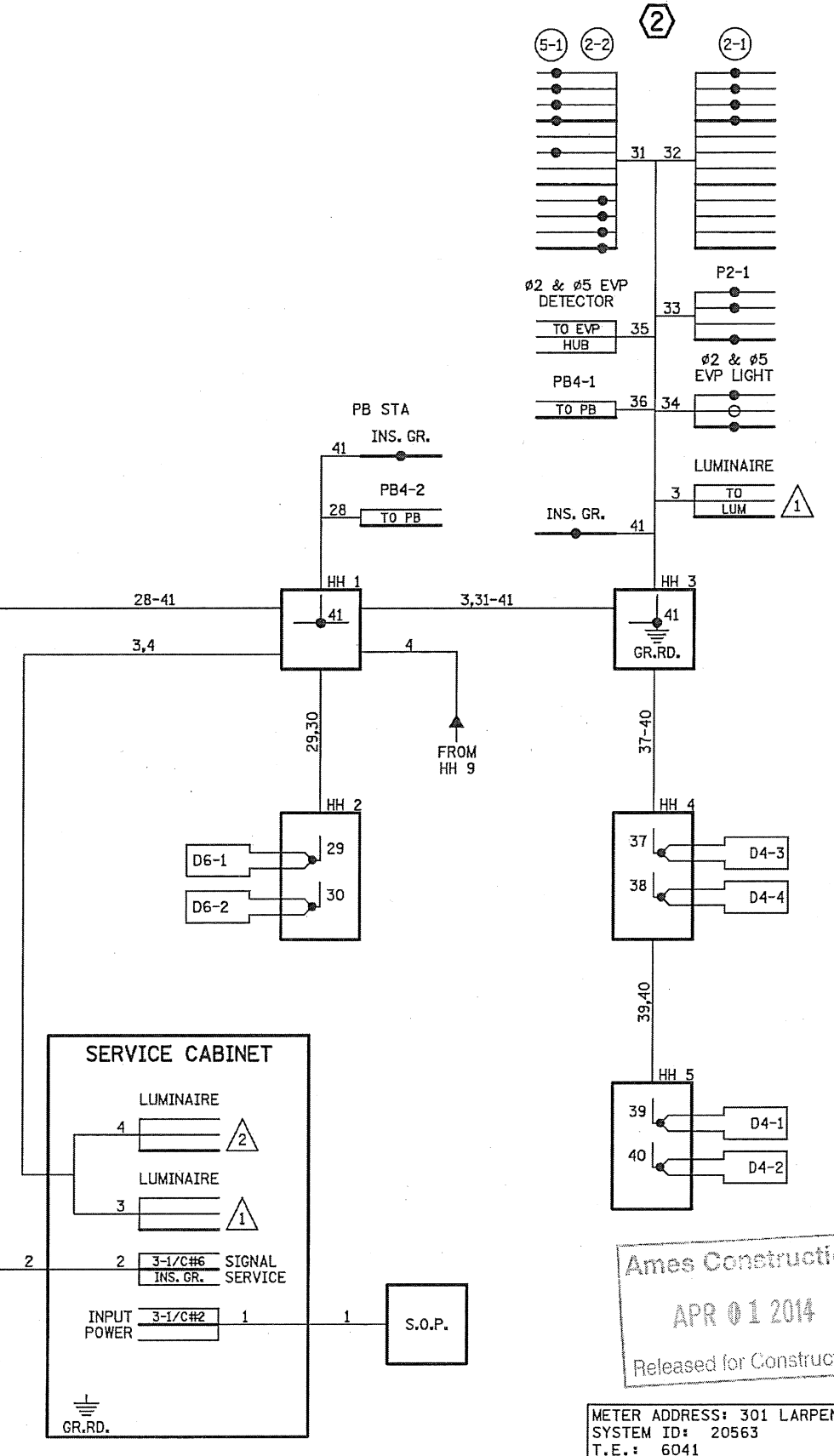
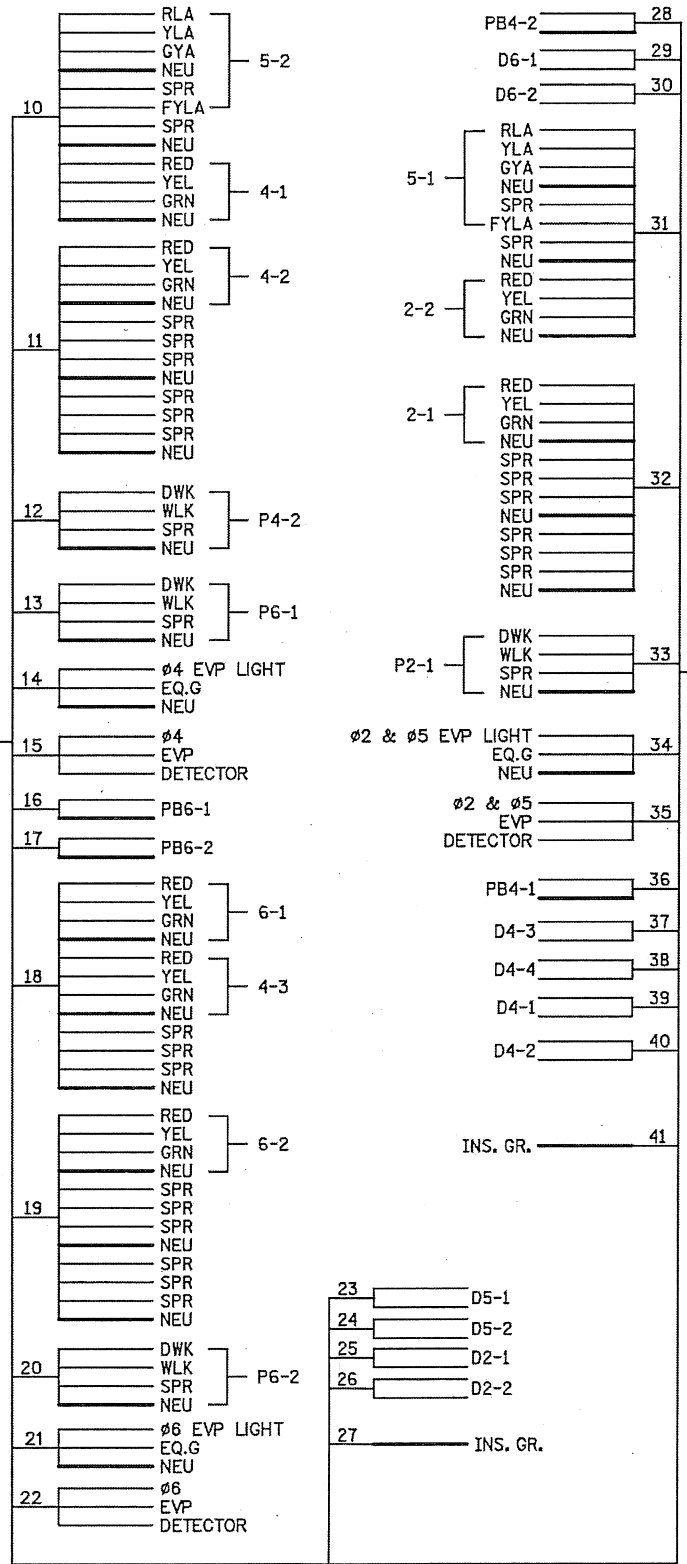
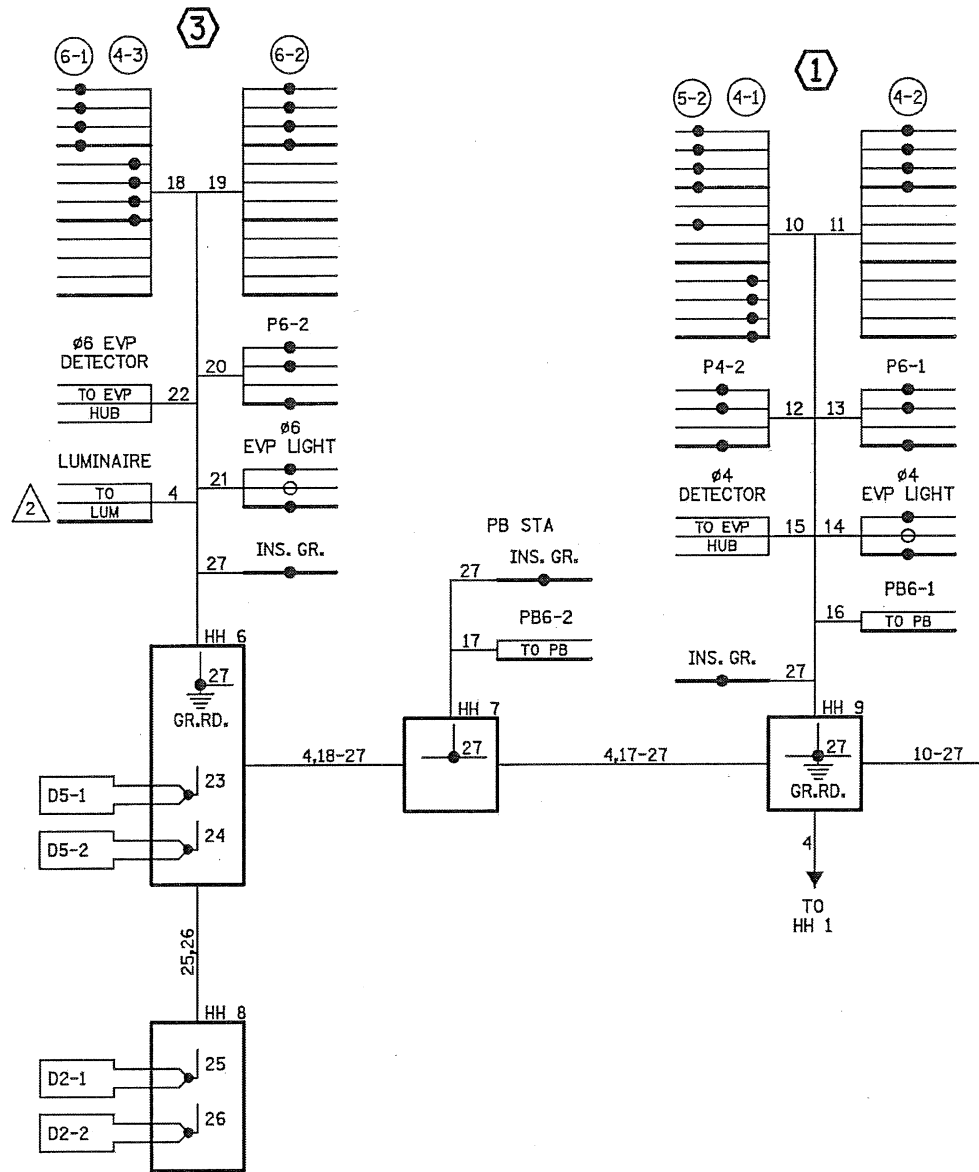
PRINT NAME: MICHAEL P. MCCURDY  
 Michael P. McCurdy  
 DATE: 03/31/14 LICENSE # 45902

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



SHEET SGL20 OF

**CONTROLLER CABINET**



TO TMS VAULT 1-FO PATCH/PIGTAIL CABLE (6SM) 90 FIBER OPTIC PIGTAIL 90

Ames Construction  
 APR 01 2014  
 Released for Construction  
 METER ADDRESS: 301 LARPEN TEUR AVE E  
 SYSTEM ID: 20563  
 T.E.: 6041

**WIRING DIAGRAM**

10:02:10 AM 3/31/2014 T:\NDS\SGN\PI onTheater\loc6280367.dgn121.dgn

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

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

INDOT ACCEPTANCE  
 SIGNATURE: *David J. Hornum*  
 DATE: 4/1/14



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

SHEET SGL21 OF