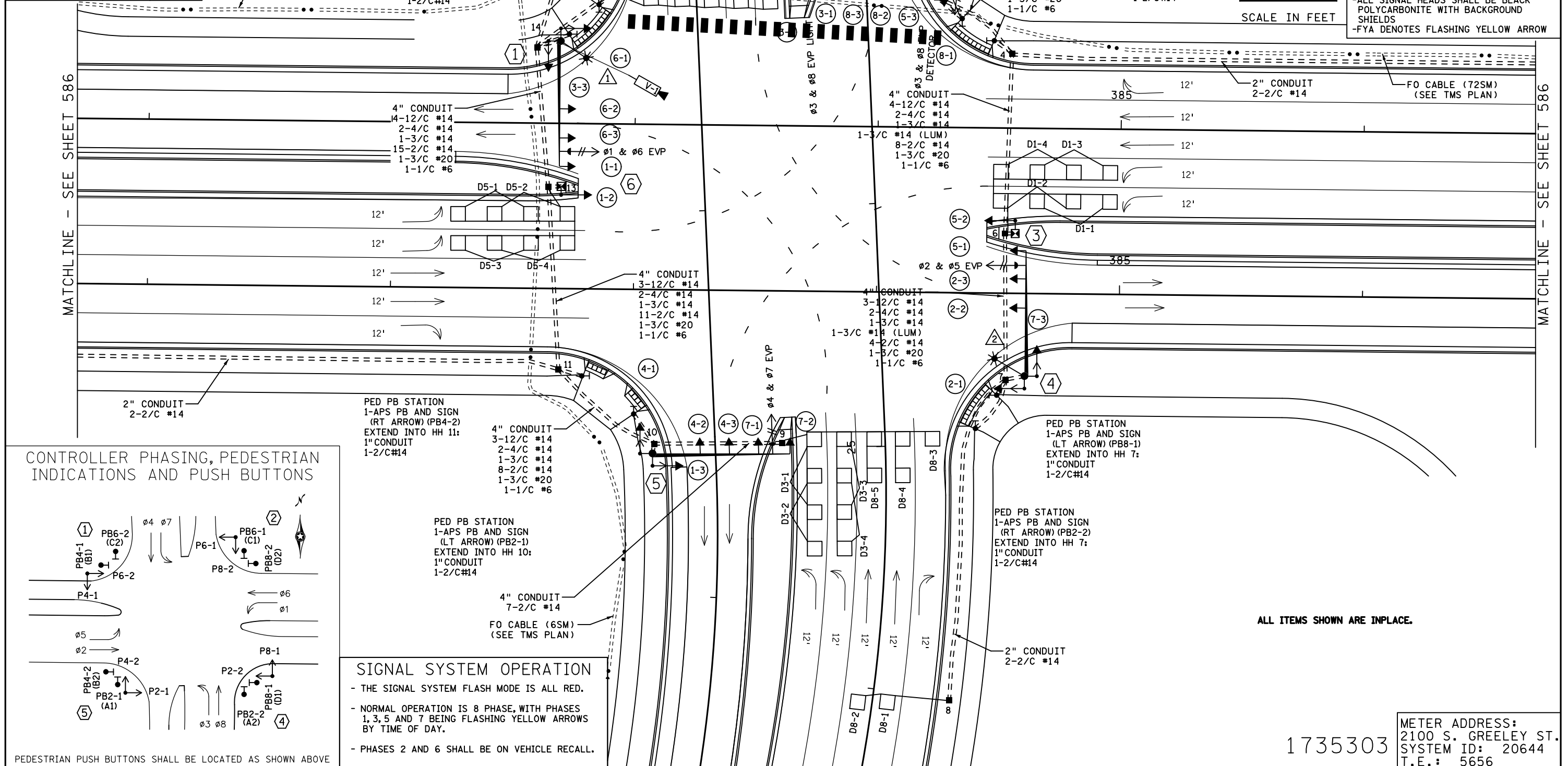


LOOP DETECTOR CHART					
NUMBER	SIZE (FT)	LOCATION	NUMBER	SIZE (FT)	LOCATION
D1-1, D5-1	2-6x6	20 & 50	D4-3, D8-3	6x6	5
D1-2, D5-2	2-6x6	5 & 35	D4-4, D8-4	2-6x6	5 & 20
D1-3, D5-3	2-6x6	20 & 50	D4-5, D8-5	2-6x6	5 & 20
D1-4, D5-4	2-6x6	5 & 35	D6-1, D6-2	6x6	400
D2-1, D2-2	6x6	400	D8-1, D8-2	6x6	120
D3-1, D7-1	2-6x6	5 & 35	-ALL LOOP DETECTORS SHALL BE PVC UNLESS NOTED OTHERWISE -LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET		
D3-2, D7-2	2-6x6	20 & 50			
D3-3, D7-3	2-6x6	5 & 35			
D3-4, D7-4	2-6x6	20 & 50			
D4-1, D4-2	6x6	120	FO CABLE (72SM) (SEE TMS PLAN)		

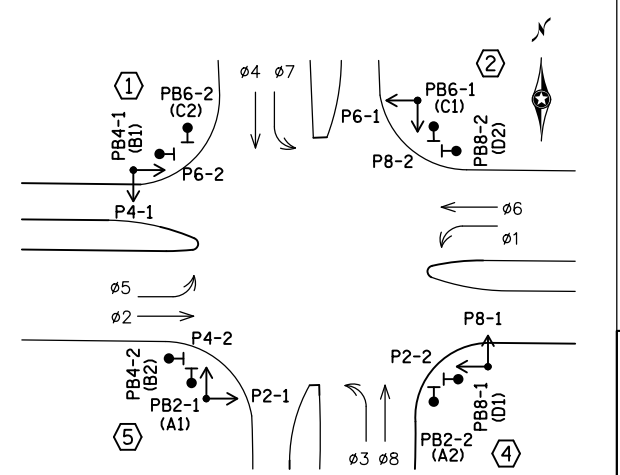
MATCHLINE - SEE SHEET 586

SIGNAL FACE CHART					
FACE	R	Y	FYA	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	●	●	●	●	
5-1, 5-2, 5-3	←	←	←	←	
6-1, 6-2, 6-3	●	●	●	●	
7-1, 7-2, 7-3	←	←	←	←	
8-1, 8-2, 8-3	●	●	●	●	

-ALL SIGNAL INDICATIONS SHALL BE 12" LED
-ALL SIGNAL HEADS SHALL BE BLACK POLYCARBONITE WITH BACKGROUND SHIELDS
-FYA DENOTES FLASHING YELLOW ARROW



CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 8 PHASE, WITH PHASES 1, 3, 5 AND 7 BEING FLASHING YELLOW ARROWS BY TIME OF DAY.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

RECORD DRAWING NOTE

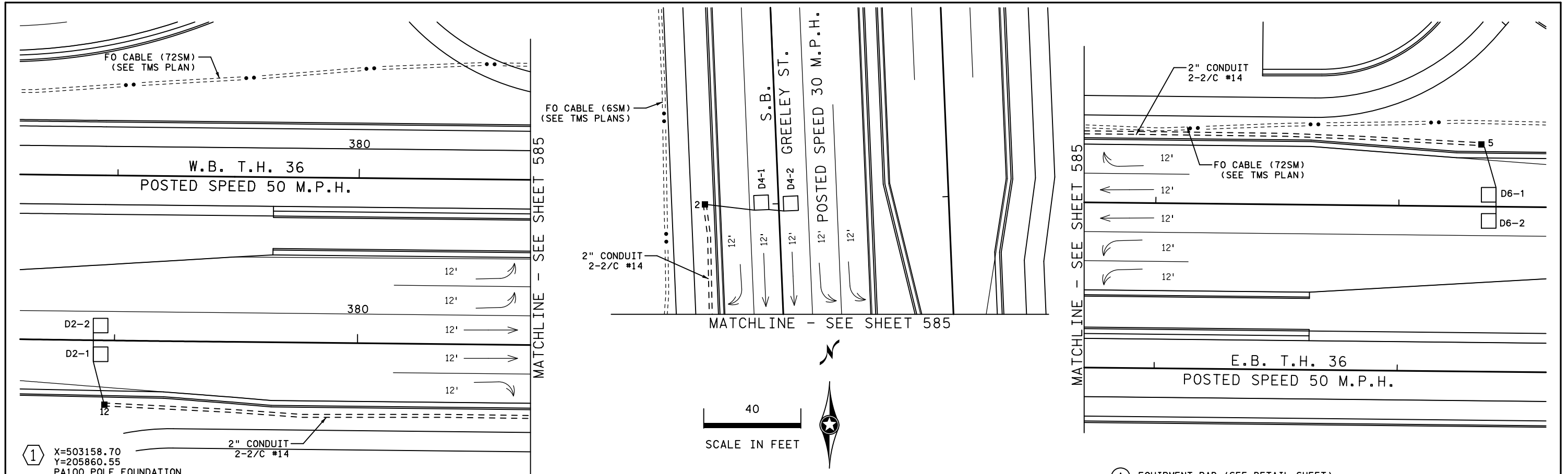
THESE RECORD DRAWINGS WERE DEVELOPED BASED ON THE PREVIOUS DRAWING REVISIONS AND INFORMATION TRANSMITTED FROM THE FIELD BY OTHERS. THE INFORMATION CONTAINED WITHIN THIS RECORD AS-BUILT PLAN REPRESENTS THE ACTUAL CONDITIONS FOR ALL CHANGES OF WHICH ALLIANT IS AWARE. FUTURE USERS OF THESE DRAWINGS SHOULD VERIFY AS-BUILT CONDITIONS IN THE FIELD IN ALL CIRCUMSTANCES.

NO	DATE	BY	CHKD	APPR	REVISION
0	02/07/14	KAS	RJG	KAS	INITIAL RELEASE FOR CONSTRUCTION - DP T-3
1	06/04/14	KAS	RJG	KAS	NDC 028
2	05/27/15	KS	RJG	KAS	NDC 036
3	03/22/16	NSM	TJJ	JWD	RECORD PLAN
4	12/7/18	JBA			BY MNDOT: ADDED TAMS SYSTEM ID*, TO OPERATIONS PLAN

DRAWING NO.: SGL60



ST. CROIX MN APPROACHES (S.P. 8214-114) SHEET 585
TRAFFIC CONTROL SIGNAL SYSTEM B OF 628
INTERSECTION LAYOUT
T.H. 36 AT C.S.A.H. 66 (GREELEY ST/OAKGREEN AVE)
IN OAK PARK HEIGHTS & STILLWATER, WASHINGTON COUNTY



① X=503158.70
Y=205860.55
PA100 POLE FOUNDATION
TYPE PA100-A50-X6-350/CAM 400
1-VIDEO CAMERA WITH MOUNT (STATE FURNISHED)
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
2-STRAIGHT MOUNT SIGNALS OVERHEAD AT 12' AND 24'
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
2-ANGLE MOUNT C. D. PED HEADS AT 90 AND 180 DEG
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 1+6)
LUMINAIRE-LED
1-R10-X12 SIGN ADJACENT TO HEAD (1-1)
2-TYPE D SIGN (D-41& D-44) (SEE SIGN DETAILS)
3\"/>

③ X=503346.29
Y=205781.74
SIGNAL PEDESTAL FOUNDATION
13' SIGNAL PEDESTAL POLE AND BASE
1-STRAIGHT MOUNT SIGNAL
3\"/>

④ X=503350.00
Y=205723.37
PA100 POLE FOUNDATION
TYPE PA100-A-50-D40-9 (DAVIT AT 350 DEG)
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
2-STRAIGHT MOUNT SIGNALS OVERHEAD AT 12' AND 24'
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
2-ANGLE MOUNT C. D. PED HEADS AT 90 AND 180 DEG
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 2+5)
LUMINAIRE-LED
1-R10-X12 SIGN ADJACENT TO HEAD (5-1)
2-TYPE D SIGN (D-42 & D-43) (SEE SIGN DETAILS)
3\"/>

⑤ X=503196.50
Y=205691.26
PA100 POLE FOUNDATION
TYPE PA100-A-55
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
3-STRAIGHT MOUNT SIGNALS OVERHEAD AT 12', 24' AND 36'
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
2-ANGLE MOUNT C. D. PED HEADS AT 90 AND 180 DEG
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 4+7)
1-R10-X12 SIGN ADJACENT TO HEAD (7-1)
1-TYPE D SIGN (D-40) (SEE SIGN DETAILS)
3\"/>

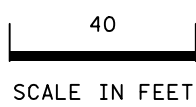
⑥ X=503159.41
Y=205801.02
SIGNAL PEDESTAL FOUNDATION
13' SIGNAL PEDESTAL POLE AND BASE
1-STRAIGHT MOUNT SIGNAL
3\"/>

⑦ SOP-GROUND MOUNTED TRANSFORMER (XCEL ENERGY)
2\"/>

⑧ EQUIPMENT PAD (SEE DETAIL SHEET)
SERVICE CABINET (SSB)
CONTROLLER AND CABINET (STATE FURNISHED)
4\"/>

ALL ITEMS SHOWN ARE INPLACE.

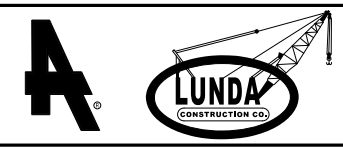
METER ADDRESS:
1735303 2100 S. GREELEY ST.
SYSTEM ID: 20644
T.E.: 5656



NO	DATE	BY	CHKD	APPR	REVISION
0	02/07/14	KAS	RJG	KAS	INITIAL RELEASE FOR CONSTRUCTION - DP T-3
1	06/04/14	KAS	RJG	KAS	NDC 028
2	03/22/16	NSM	TJJ	JWD	RECORD PLAN
4	12/7/18	JBA			BY MNDOT: ADDED TAMS SYSTEM ID*, TO OPERATIONS PLAN
NO	DATE	BY	CHKD	APPR	REVISION

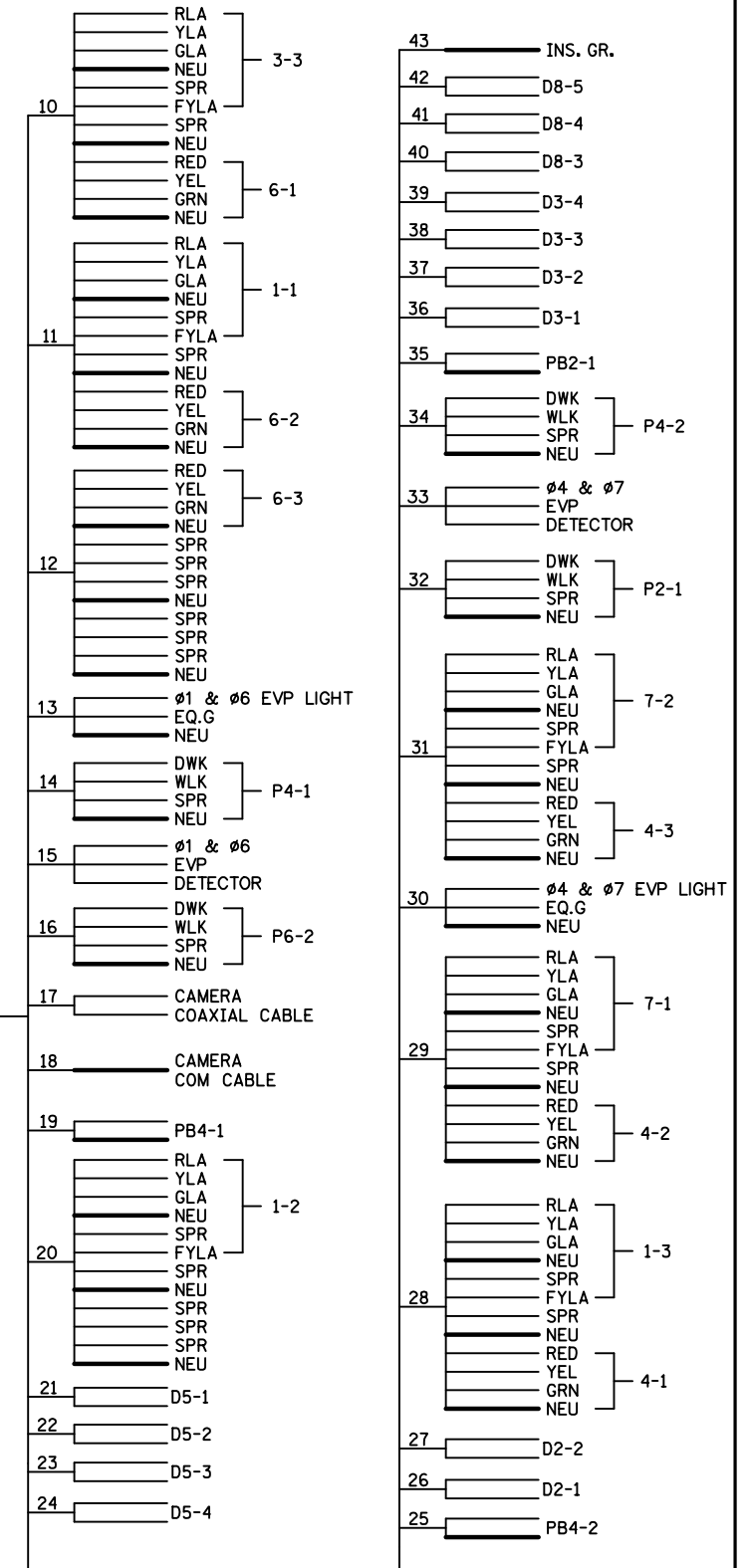
DRAWING NO.: SGL61

RECORD DRAWING NOTE
THESE RECORD DRAWINGS WERE DEVELOPED BASED ON THE PREVIOUS DRAWING REVISIONS AND INFORMATION TRANSMITTED FROM THE FIELD BY OTHERS. THE INFORMATION CONTAINED WITHIN THIS RECORD AS-BUILT PLAN REPRESENTS THE ACTUAL CONDITIONS FOR ALL CHANGES OF WHICH ALLIANT IS AWARE. FUTURE USERS OF THESE DRAWINGS SHOULD VERIFY AS-BUILT CONDITIONS IN THE FIELD IN ALL CIRCUMSTANCES.



ST. CROIX MN APPROACHES (S.P. 8214-114) SHEET 586
TRAFFIC CONTROL SIGNAL SYSTEM B MATCHLINE LAYOUT AND POLE NOTES OF
T.H. 36 AT C.S.A.H. 66 (GREELEY ST/OAKGREEN AVE) 628
IN OAK PARK HEIGHTS & STILLWATER, WASHINGTON COUNTY

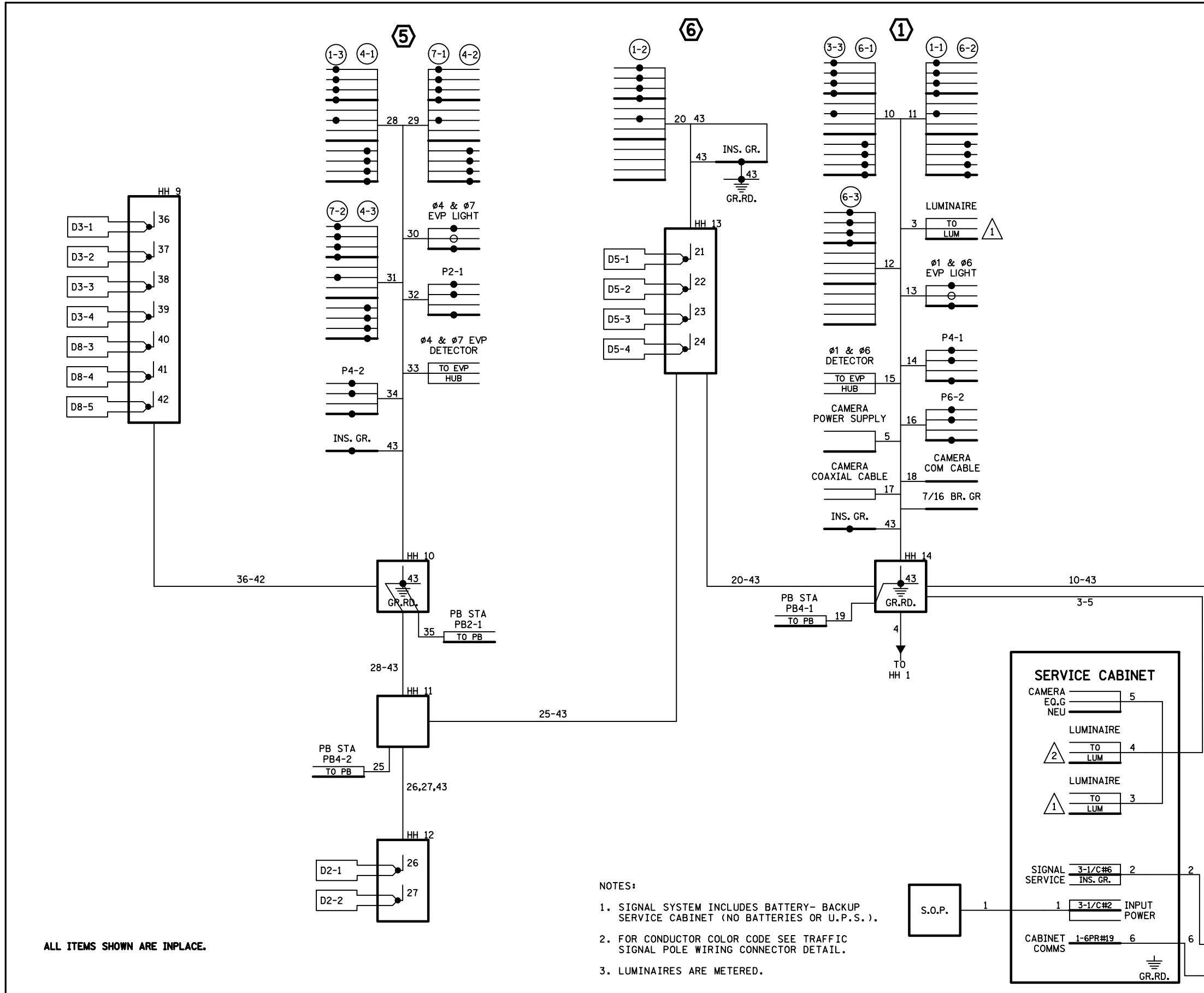
CONTROLLER CABINET



1735303

METER ADDRESS:
2100 S. GREELEY ST.
SYSTEM ID: 20644
T.E.: 5656

ST. CROIX MN APPROACHES (S.P. 8214-114) SHEET 587
TRAFFIC CONTROL SIGNAL SYSTEM B OF 628
FIELD WIRING DIAGRAM (PART 1 OF 2)
T.H. 36 AT C.S.A.H. 66 (GREELEY ST/OAKGREEN AVE)
IN OAK PARK HEIGHTS & STILLWATER, WASHINGTON COUNTY



- NOTES:
1. SIGNAL SYSTEM INCLUDES BATTERY- BACKUP SERVICE CABINET (NO BATTERIES OR U.P.S.).
 2. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.
 3. LUMINAIRES ARE METERED.

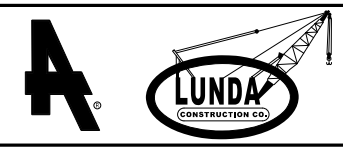
ALL ITEMS SHOWN ARE INPLACE.

NO	DATE	BY	CKD	APPR	REVISION
0	02/07/14	KAS	RJG	KAS	INITIAL RELEASE FOR CONSTRUCTION - DP T-3
1	06/04/14	KAS	RJG	KAS	NDC 028
2	05/27/15	KS	RJG	KAS	NDC 036
3	03/22/16	NSM	TJJ	JWD	RECORD PLAN
4	12/7/18	JBA			BY MNDOT: ADDED TAMS SYSTEM ID*, TO OPERATIONS PLAN

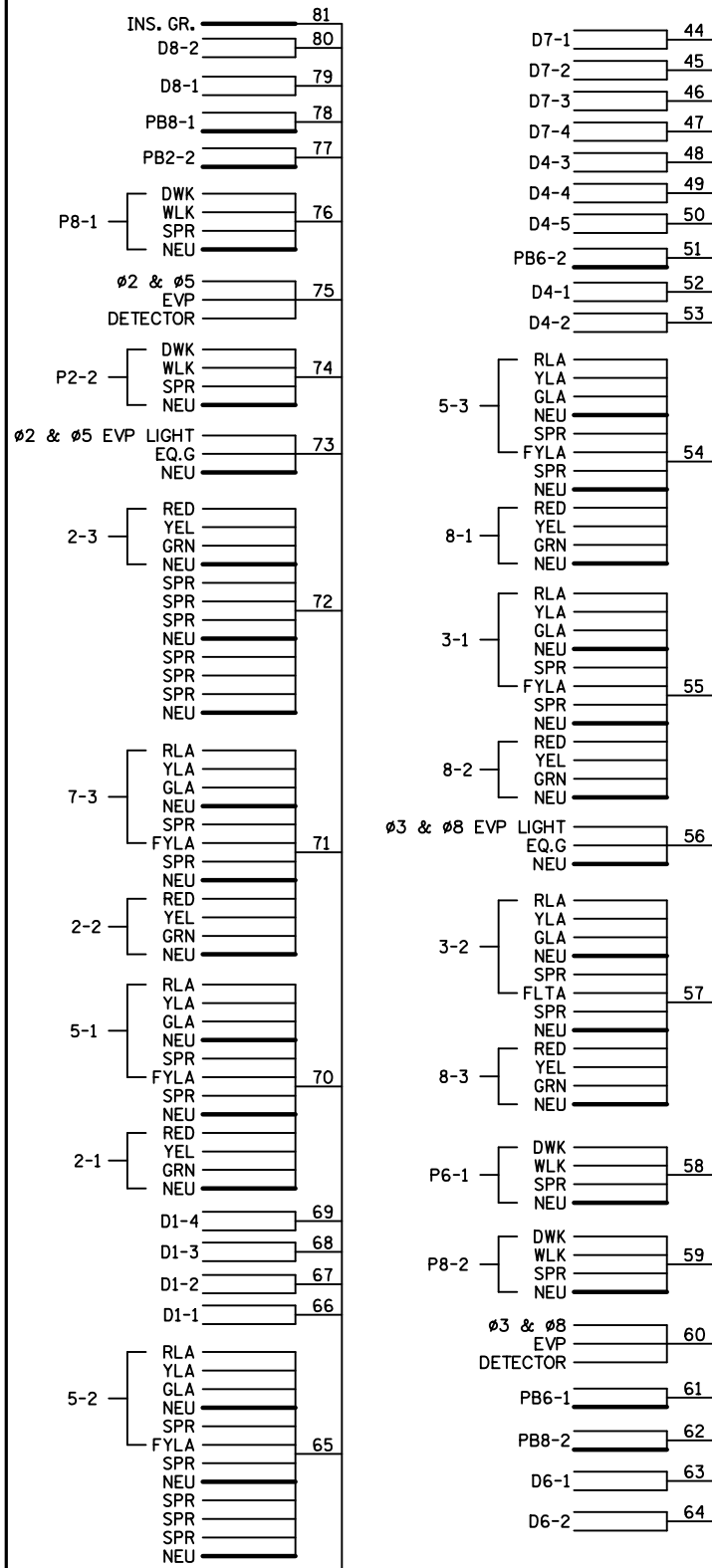
DRAWING NO.: SGL62

RECORD DRAWING NOTE

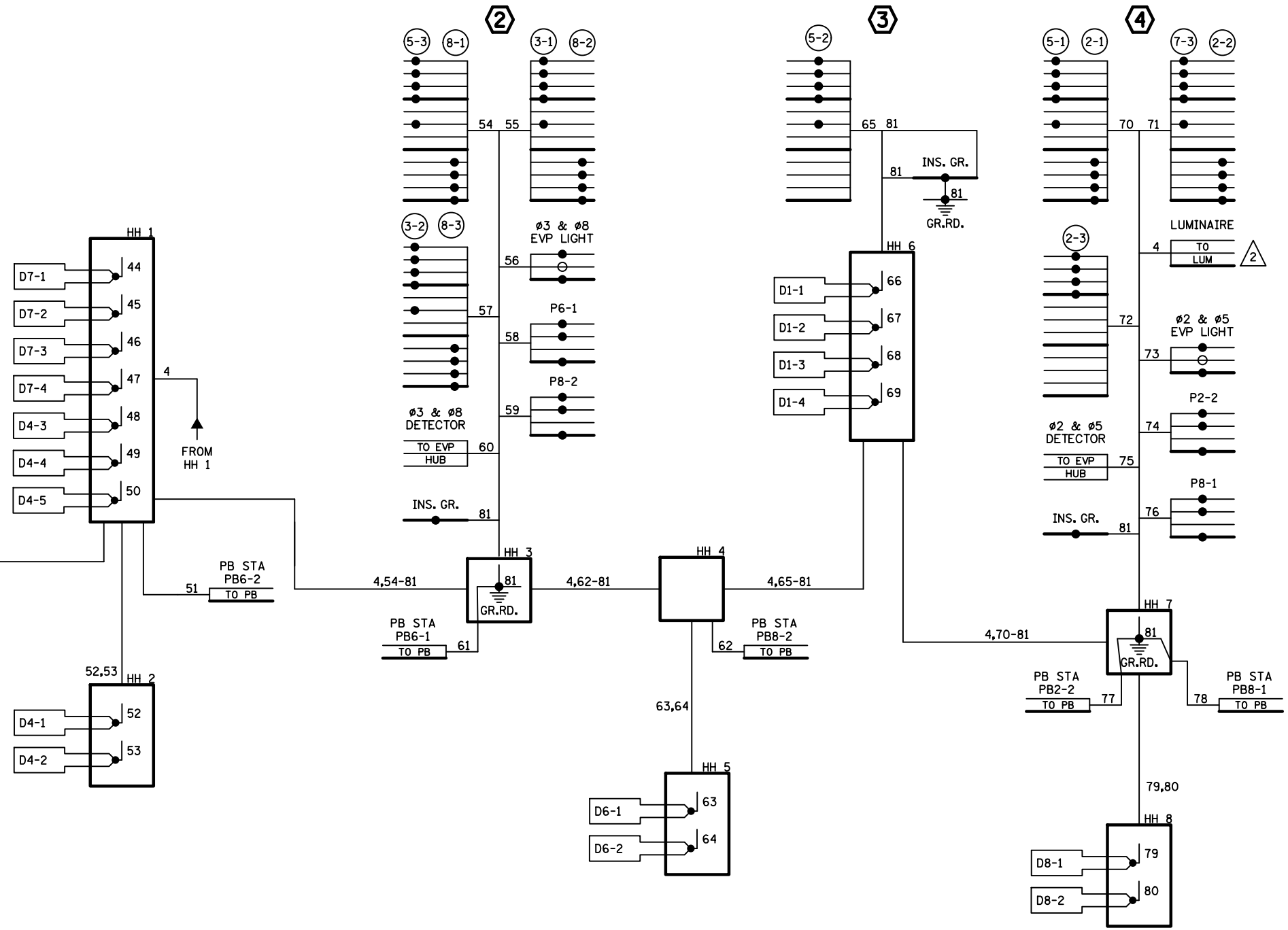
THESE RECORD DRAWINGS WERE DEVELOPED BASED ON THE PREVIOUS DRAWING REVISIONS AND INFORMATION TRANSMITTED FROM THE FIELD BY OTHERS. THE INFORMATION CONTAINED WITHIN THIS RECORD AS-BUILT PLAN REPRESENTS THE ACTUAL CONDITIONS FOR ALL CHANGES OF WHICH ALLIANT IS AWARE. FUTURE USERS OF THESE DRAWINGS SHOULD VERIFY AS-BUILT CONDITIONS IN THE FIELD IN ALL CIRCUMSTANCES.



CONTROLLER CABINET



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



ALL ITEMS SHOWN ARE INPLACE.

- NOTES:
- SIGNAL SYSTEM INCLUDES BATTERY- BACKUP SERVICE CABINET (NO BATTERIES OR U.P.S.).
 - FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.
 - LUMINAIRES ARE METERED.

1735303

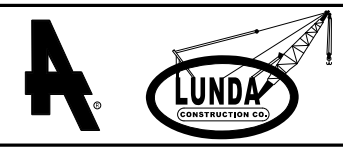
METER ADDRESS:
2100 S. GREELEY ST.
SYSTEM ID: 20644
T.E.: 5656

NO	DATE	BY	CKD	APPR	REVISION
0	02/07/14	KAS	RJG	KAS	INITIAL RELEASE FOR CONSTRUCTION - DP T-3
1	06/04/14	KAS	RJG	KAS	NDC 028
2	05/27/15	KS	RJG	KAS	NDC 036
3	03/22/16	NSM	TJJ	JWD	RECORD PLAN
4	12/7/18	JBA			BY MNDOT: ADDED TAMS SYSTEM ID*, TO OPERATIONS PLAN

DRAWING NO.: SGL63

RECORD DRAWING NOTE

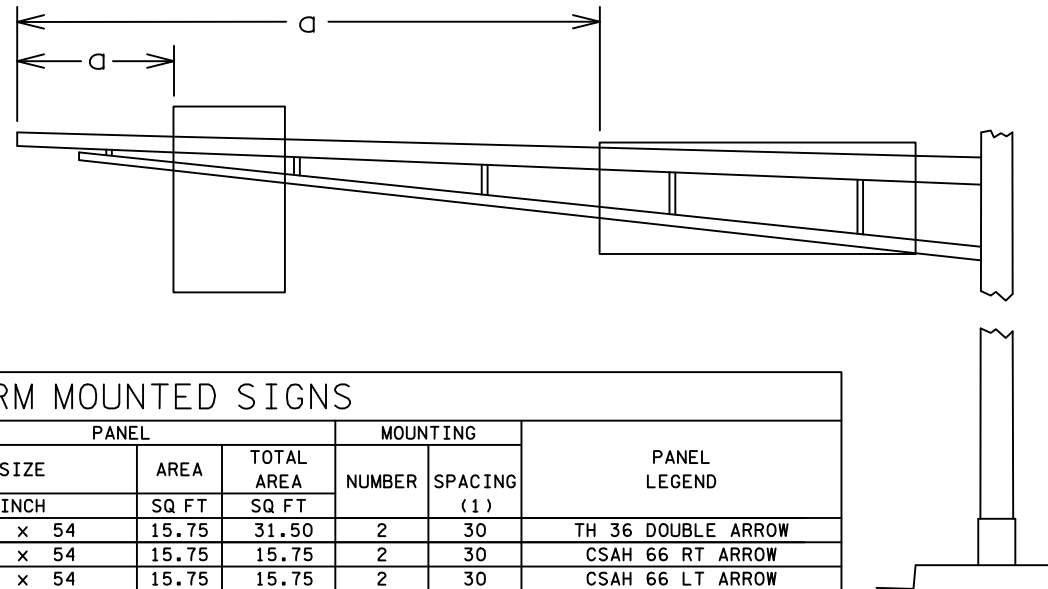
THESE RECORD DRAWINGS WERE DEVELOPED BASED ON THE PREVIOUS DRAWING REVISIONS AND INFORMATION TRANSMITTED FROM THE FIELD BY OTHERS. THE INFORMATION CONTAINED WITHIN THIS RECORD AS-BUILT PLAN REPRESENTS THE ACTUAL CONDITIONS FOR ALL CHANGES OF WHICH ALLIANT IS AWARE. FUTURE USERS OF THESE DRAWINGS SHOULD VERIFY AS-BUILT CONDITIONS IN THE FIELD IN ALL CIRCUMSTANCES.



ST. CROIX MN APPROACHES (S.P. 8214-114) SHEET 588
TRAFFIC CONTROL SIGNAL SYSTEM B OF
FIELD WIRING DIAGRAM (PART 2 OF 2)
T.H. 36 AT C.S.A.H. 66 (GREELEY ST/OAKGREEN AVE)
IN OAK PARK HEIGHTS & STILLWATER, WASHINGTON COUNTY 628

SIGN DETAILS

MAST ARM SIGN LOCATION



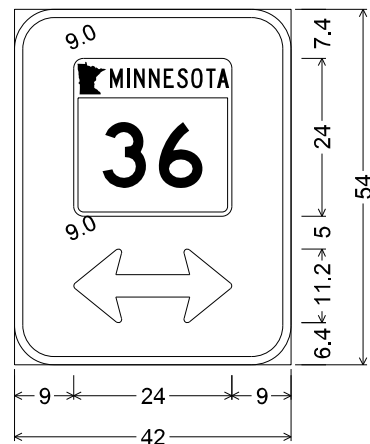
MAST ARM MOUNTED SIGNS									
SIGN NO	POLE NO	QTY	a	PANEL			MOUNTING		PANEL LEGEND
				SIZE	AREA	TOTAL AREA	NUMBER	SPACING	
			FEET	INCH	SQ FT	SQ FT		(1)	
D-40	2,5	2	7	42 x 54	15.75	31.50	2	30	TH 36 DOUBLE ARROW
D-41	1	1	7	42 x 54	15.75	15.75	2	30	CSAH 66 RT ARROW
D-42	4	1	7	42 x 54	15.75	15.75	2	30	CSAH 66 LT ARROW
D-43	4	1	13	126 x 42	36.75	36.75	5	30	LT ARROW GREELEY ST S OAKGREEN AVE RT ARROW
D-44	1	1	13	126 x 42	36.75	36.75	5	30	LT ARROW OAKGREEN AVE GREELEY ST S RT ARROW
R10-X12	1,2,4,5	4	1	42 x 48	14.00	56.00	2	30	LEFT TURN YIELD ON FLASHING YELLOW ARROW

SPECIFIC NOTES:

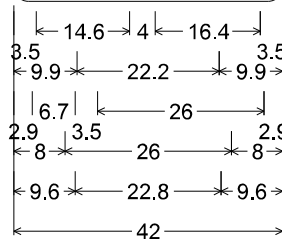
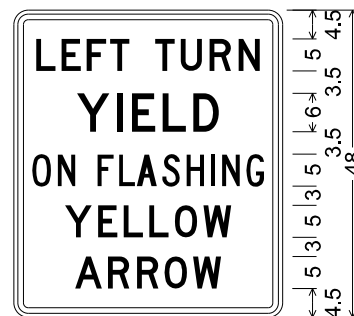
- (1) SPACING BETWEEN STIFFENERS SHALL NOT EXCEED 36 INCHES AND SHALL BE UNIFORMLY SPACED. SEE STANDARD SIGNS MANUAL, PAGE 105A FOR BRACKET SPACING REQUIREMENTS.

GENERAL NOTES:

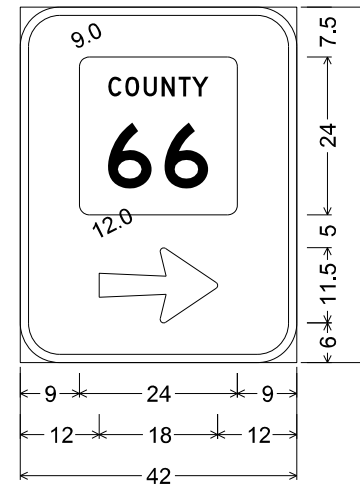
- CORNERS OF STANDARD SIGN PANELS WITH MARGINS SHALL BE TRIMED.
- TYPE D SIGN PANELS EXTENDING BEYOND THE BORDER SHALL NOT BE TRIMMED.
- FOR STRUCTURAL DETAILS OF MAST ARM MOUNTED SIGNS SEE STANDARD SIGNS MANUAL, PAGE 105A.
- FOR TYPE D STRINGER AND PANEL JOINT DETAILS SEE STANDARD SIGNS MANUAL, PAGE 105.
- THE MAST ARM MOUNTED SIGNS ARE INCIDENTAL.
- AT INTERSECTIONS WITH MEDIAN WIDTHS LESS THAN 30', ONE WAY (R6-1) SIGNS SHALL NOT BE PLACED AS PART OF THE SIGNALS PLAN.



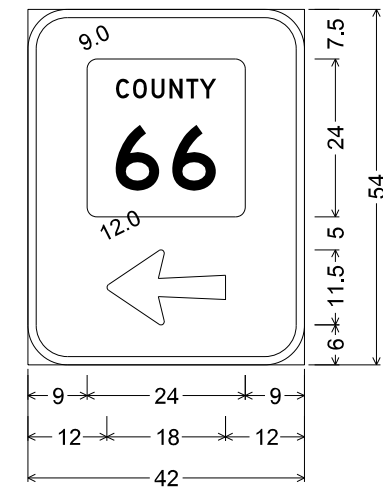
D-40; 6.0" Radius, 1.3" Border, White on Green; Double Headed Arrow 5 - 24.0" 0°;



R10-X12_42x48; 2.3" Radius, 0.9" Border, 0.6" Indent, Black on White; [LEFT] D specified length; [TURN] D specified length; [YIELD] D specified length; [ON] C specified length; [FLASHING] C specified length; [YELLOW] D specified length; [ARROW] D specified length;



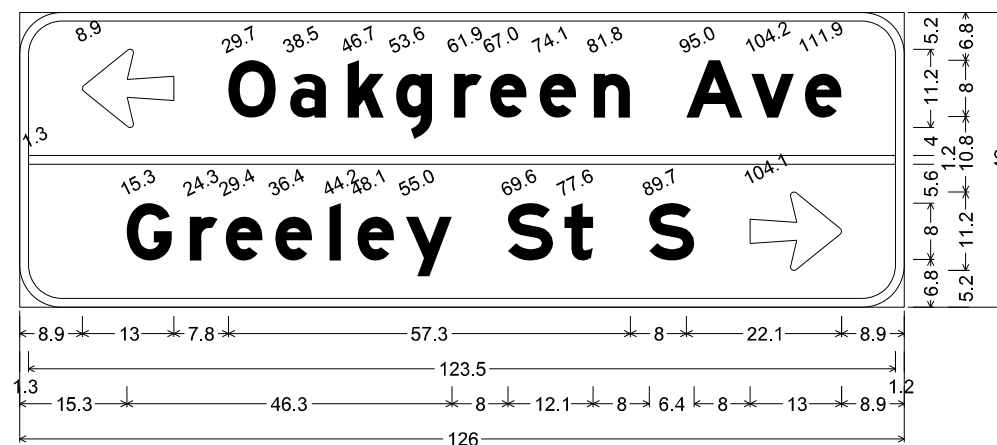
D-41; 6.0" Radius, 1.3" Border, White on Green; Arrow 14 - 18.0" 0°;



D-42; 6.0" Radius, 1.3" Border, White on Green; Arrow 14 - 18.0" 180°;



D-43; 6.0" Radius, 1.3" Border, White on Green; Arrow 5 - 13.0" 180°; [Greeley St S] E Mod; [Oakgreen Ave] E Mod; Arrow 5 - 13.0" 0°;



D-44; 6.0" Radius, 1.3" Border, White on Green; Arrow 5 - 13.0" 180°; [Oakgreen Ave] E Mod; [Greeley St S] E Mod; Arrow 5 - 13.0" 0°;

METER ADDRESS:
2100 S. GREELEY ST.
SYSTEM ID: 20644
T.E.: 5656

5:52:31 PM 7/31/2015 C:\pwworking\proj\ect\1\see\hoo\1\en\ydm23378\c08214114_ob.sgl\64.dgn

0	02/07/14	KAS	RJG	KAS	INITIAL RELEASE FOR CONSTRUCTION - DP T-3
1	06/04/14	KAS	RJG	KAS	NDC 028
2	07/31/15	NSM	TJJ	JWD	RECORD PLAN
NO	DATE	BY	CKD	APPR	REVISION
DRAWING NO.: SGL64					

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: KATIE A. SCHMIDT
Katie Schmidt
DATE: 06/04/14 LICENSE #: 47147

MNDOT ACCEPTANCE
SIGNATURE
DATE



ST. CROIX MN APPROACHES (S.P. 8214-114) SHEET
TRAFFIC CONTROL SIGNAL SYSTEM B 589
TYPE "D" SIGN DETAILS OF
T.H. 36 AT C.S.A.H. 66 (GREELEY ST/OAKGREEN AVE) IN OAK PARK HEIGHTS & STILLWATER, WASHINGTON COUNTY 628