

7133



PVC LOOP DETECTORS				
NUMBER	SIZE (FT.)	LOCATION	FUNCTION	STATUS
D1-1	2-8x6	10' & 40'	1	1
D1-2	2-8x6	-5' & 25'	1	2
D2-1, D2-2, D2-3	6x6	250'	1	INPLACE
D3-1, D7-1	2-8x6	20' & 50'	1	3
D3-2, D7-2	2-8x6	5' & 35'	7	4
D4-1, D4-2	6x6	120'	3,8	INPLACE
D4-3, D8-3	6x6	5'	7	INPLACE
D4-4, D8-4	2-8x6	5' & 20'	1	INPLACE
D5-1, D5-2	2-8x6	10' & 40'	1	1
D5-3, D5-4	2-8x6	-5' & 25'	1	2
D6-1, D6-2	6x6	250'	1	INPLACE
D8-1, D8-2	6x6	120'	3,8	INPLACE

**LOOP DETECTOR FUNCTIONS:**

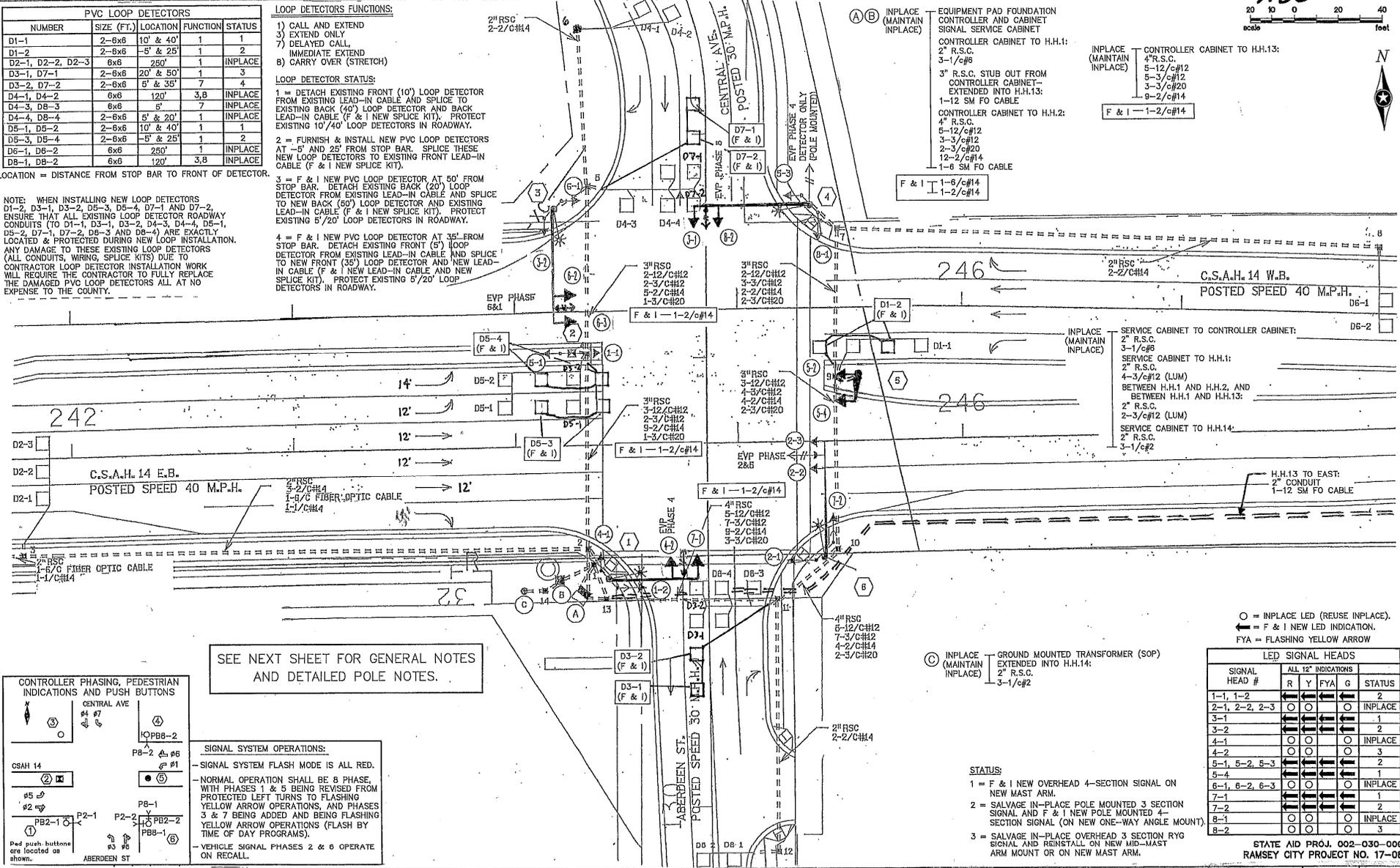
- 1) CALL AND EXTEND
- 3) EXTEND ONLY
- 7) DELAYED CALL
- IMMEDIATE EXTEND
- 8) CARRY OVER (STRETCH)

**LOOP DETECTOR STATUS:**

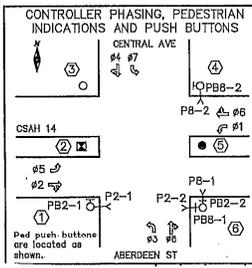
- 1 = DETACH EXISTING FRONT (10') LOOP DETECTOR FROM EXISTING LEAD-IN CABLE AND SPLICE TO EXISTING BACK (40') LOOP DETECTOR AND BACK LEAD-IN CABLE (F & I NEW SPLICE KIT). PROTECT EXISTING 10'/40' LOOP DETECTORS IN ROADWAY.
- 2 = FURNISH & INSTALL NEW PVC LOOP DETECTORS AT -5' AND 25' FROM STOP BAR. SPLICE THESE NEW LOOP DETECTORS TO EXISTING FRONT LEAD-IN CABLE (F & I NEW SPLICE KIT).
- 3 = F & I NEW PVC LOOP DETECTOR AT 50' FROM STOP BAR. DETACH EXISTING BACK (20') LOOP DETECTOR FROM EXISTING LEAD-IN CABLE AND SPLICE TO NEW BACK (60') LOOP DETECTOR AND EXISTING LEAD-IN CABLE (F & I NEW SPLICE KIT). PROTECT EXISTING 5'/20' LOOP DETECTORS IN ROADWAY.
- 4 = F & I NEW PVC LOOP DETECTOR AT 35' FROM STOP BAR. DETACH EXISTING FRONT (5') LOOP DETECTOR FROM EXISTING LEAD-IN CABLE AND SPLICE TO NEW FRONT (35') LOOP DETECTOR AND NEW LEAD-IN CABLE (F & I NEW LEAD-IN CABLE AND NEW SPLICE KIT). PROTECT EXISTING 5'/20' LOOP DETECTORS IN ROADWAY.

LOCATION = DISTANCE FROM STOP BAR TO FRONT OF DETECTOR.

NOTE: WHEN INSTALLING NEW LOOP DETECTORS D1-2, D3-1, D3-2, D5-3, D5-4, D7-1 AND D7-2, ENSURE THAT ALL EXISTING LOOP DETECTOR ROADWAY CONDUITS (TO D1-1, D3-1, D3-2, D4-3, D4-4, D5-1, D5-2, D7-1, D7-2, D8-3 AND D8-4) ARE EXACTLY LOCATED & PROTECTED DURING NEW LOOP INSTALLATION. ANY DAMAGE TO THESE EXISTING LOOP DETECTORS (ALL CONDUITS, WIRING, SPLICE KITS) DUE TO CONTRACTOR LOOP DETECTOR INSTALLATION WORK WILL REQUIRE THE CONTRACTOR TO FULLY REPLACE THE DAMAGED PVC LOOP DETECTORS ALL AT NO EXPENSE TO THE COUNTY.



SEE NEXT SHEET FOR GENERAL NOTES AND DETAILED POLE NOTES.



**SIGNAL SYSTEM OPERATIONS:**

- SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION SHALL BE 8 PHASE, WITH PHASES 1 & 5 BEING REVISED FROM PROTECTED LEFT TURNS TO FLASHING YELLOW ARROW OPERATIONS, AND PHASES 3 & 7 BEING ADDED AND BEING FLASHING YELLOW ARROW OPERATIONS (FLASH BY TIME OF DAY PROGRAMS).
- VEHICLE SIGNAL PHASES 2 & 6 OPERATE ON RECALL.

SIGNAL HEAD #	LED SIGNAL HEADS				STATUS
	R	Y	FYA	G	
1-1, 1-2	○	○	○	○	2
2-1, 2-2, 2-3	○	○	○	○	INPLACE
3-1	○	○	○	○	1
3-2	○	○	○	○	2
4-1	○	○	○	○	INPLACE
4-2	○	○	○	○	3
5-1, 5-2, 5-3	○	○	○	○	2
5-4	○	○	○	○	1
6-1, 6-2, 6-3	○	○	○	○	INPLACE
7-1	○	○	○	○	1
7-2	○	○	○	○	2
8-1	○	○	○	○	INPLACE
8-2	○	○	○	○	3

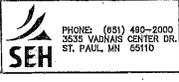
- STATUS:**
- 1 = F & I NEW OVERHEAD 4-SECTION SIGNAL ON NEW MAST ARM.
  - 2 = SALVAGE IN-PLACE POLE MOUNTED 3 SECTION SIGNAL AND F & I NEW POLE MOUNTED 4-SECTION SIGNAL (ON NEW ONE-WAY ANGLE MOUNT).
  - 3 = SALVAGE IN-PLACE OVERHEAD 3 SECTION RYG SIGNAL AND REINSTALL ON NEW MID-MAST ARM MOUNT OR ON NEW MAST ARM.

STATE AID PROJ. 002-030-000  
RAMSEY CITY PROJECT NO. 17-08

DRAWN BY: JMG	DESIGNER: JMG	CHECKED BY: JMG
DESIGN TEAM	NO. BY DATE	REVISIONS

I HEREBY CERTIFY THAT THIS PLAN 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.

John M. Gray, PE  
Lic. No. 22437



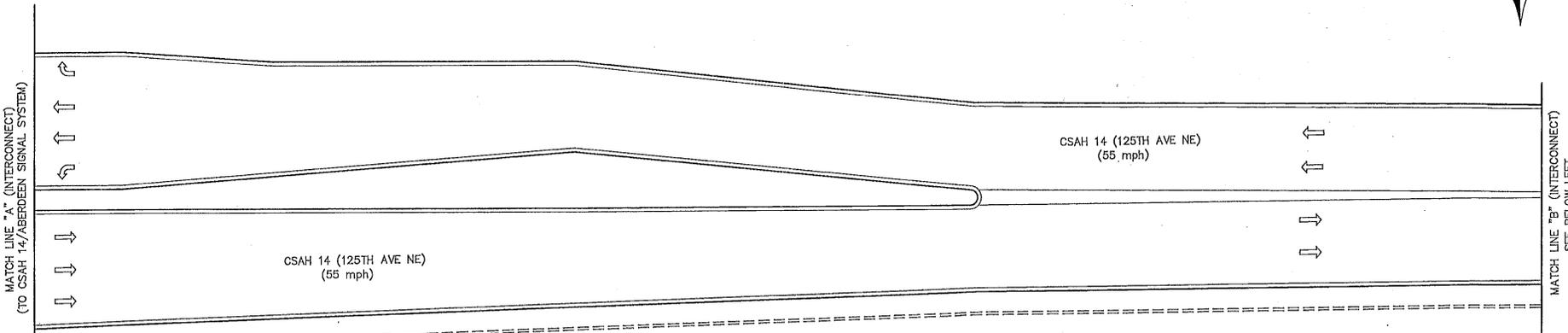
**ANOKA COUNTY**  
CITY OF BLAINE

**REVISE SIGNAL SYSTEM 'A'**  
INTERSECTION LAYOUT  
CSAH 14 (25TH AVE) AT ABERDEEN ST/CENTRAL AVE

FILE NO. ANOKG 142726	5
	24



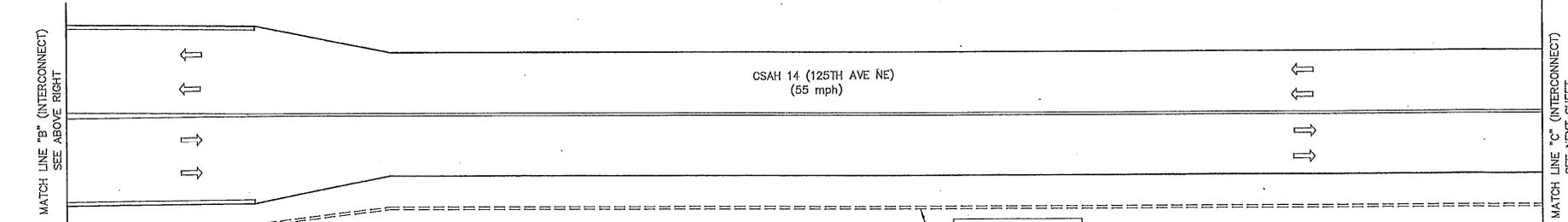
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H.H.13 TO H.H.50:  
 (\*) 2" CONDUIT-F & I  
 (\*) 1-12 SM FIBER-OPTIC  
 CABLE-F & I  
 (TO CSAH 14/ABERDEEN  
 SIGNAL SYSTEM)

**INTERCONNECT NOTES:**

- 1) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (TELEPHONE NUMBER 651-454-0002) AS REQUIRED BY MINNESOTA STATUTE 2160.
- 2) (\*) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNDER ITEM NO. 2555 (TRAFFIC CONTROL INTERCONNECTION "A"). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
- 3) NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND COVERS. SEE SPECIAL PROVISIONS FOR FURTHER INFORMATION.



(\*) H.H.50-F & I

H.H.13 TO H.H.50:  
 (\*) 2" CONDUIT-F & I  
 (\*) 1-12 SM FIBER-OPTIC  
 CABLE-F & I

H.H.50 TO H.H.51:  
 (\*) 2" CONDUIT-F & I  
 (\*) 1-12 SM FIBER-OPTIC  
 CABLE-F & I

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DESIGNER: JMG				
CHECKED BY: JMG				
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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*John M. Gray*  
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 Date: August 25, 2016  
 Lic. No. 22457

PHONE: (651) 490-2000  
 3035 WADSWAS CENTER DR.  
 ST. PAUL, MN 55110

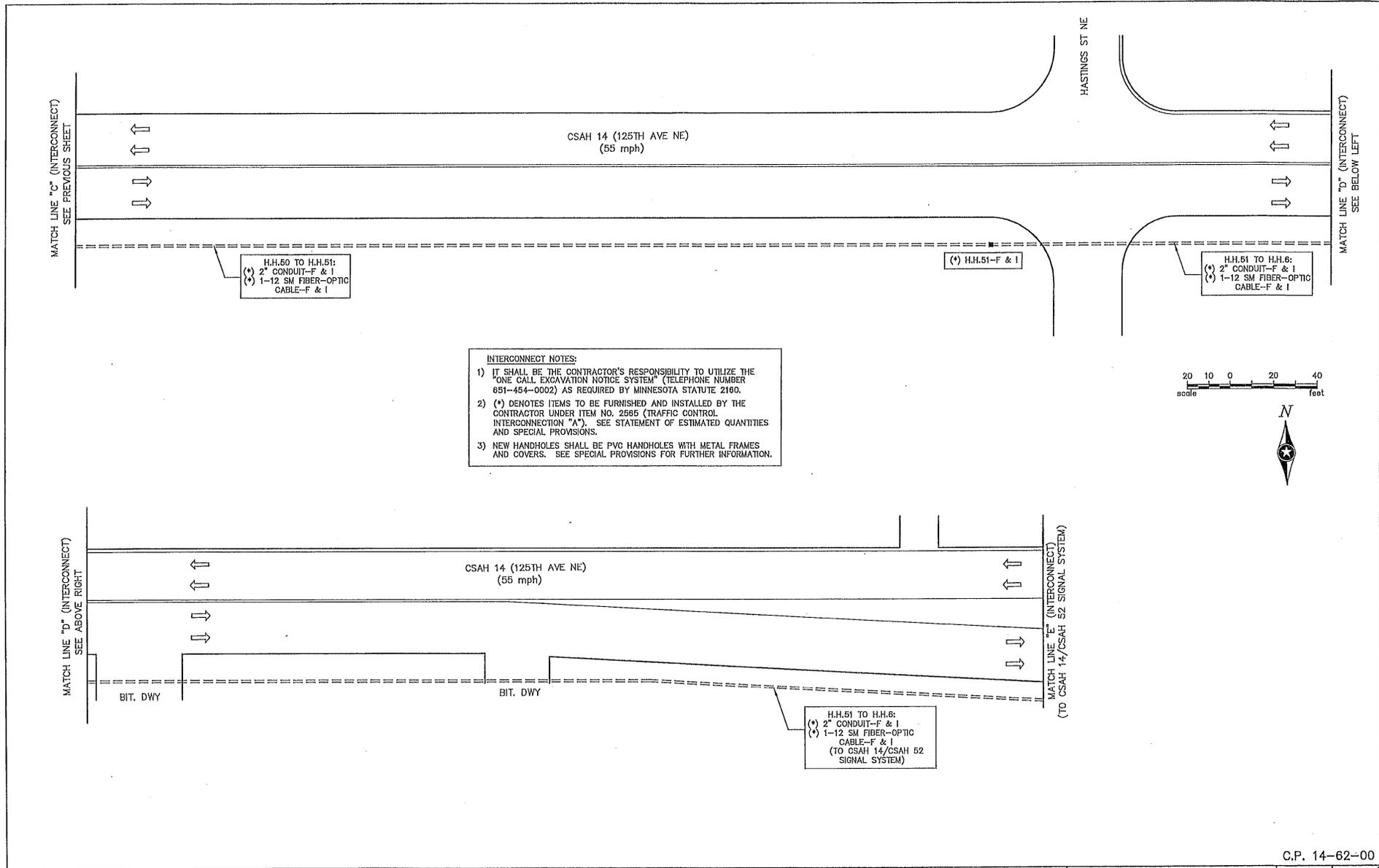
**ANOKA COUNTY,  
 MINNESOTA  
 CITY OF BLAINE**

**TRAFFIC SIGNAL INTERCONNECT "A"  
 INTERSECTION LAYOUT  
 CSAH 14 (125TH AVENUE NE)  
 ABERDEEN/CENTRAL TO CSAH 52)**

C.P. 14-62-00

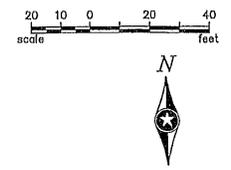
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DATE 08/25/2016	52

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**INTERCONNECT NOTES:**

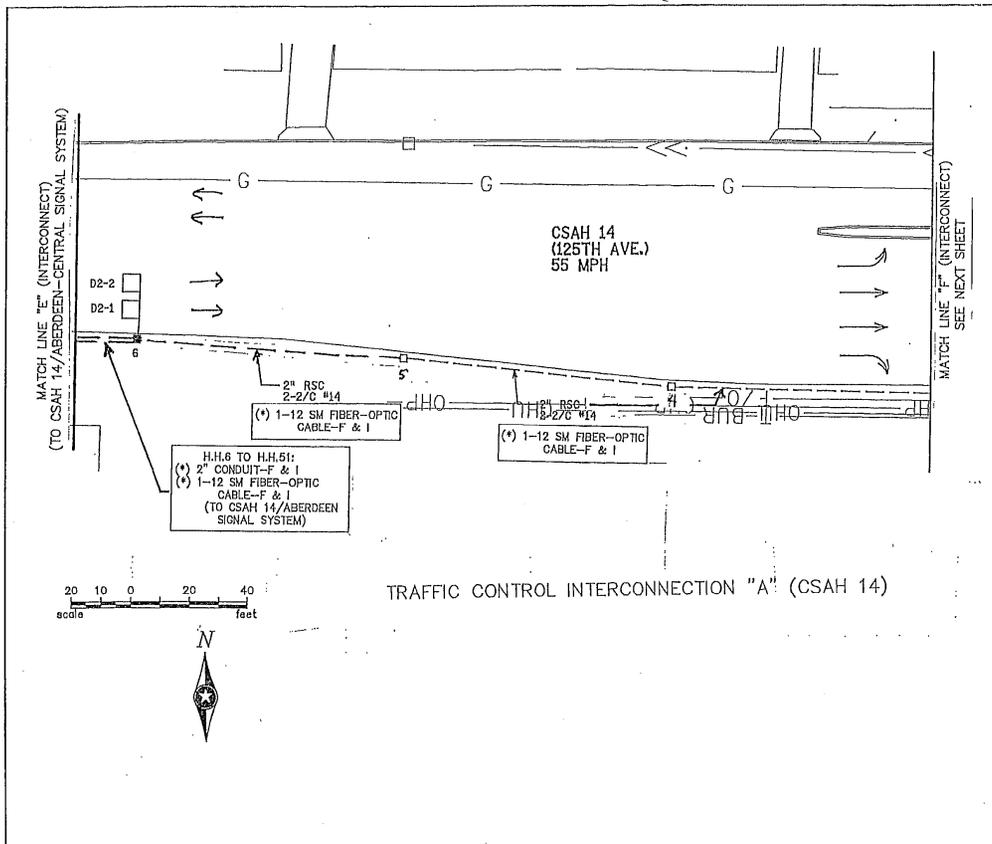
- 1) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (TELEPHONE NUMBER 651-454-0002) AS REQUIRED BY MINNESOTA STATUTE 2100.
- 2) (\*) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECTION "A"). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
- 3) NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND COVERS. SEE SPECIAL PROVISIONS FOR FURTHER INFORMATION.



DRAWN BY: JMG DESIGNER: JMG CHECKED BY: JMG	NO.	BY	DATE	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. Date: <u>August 25, 2015</u> Name: <u>John H. Gray, PE</u> Lic. No. <u>22487</u>	 PHONE: (651) 490-2000 3533 VADNAIS CENTER DR. ST. PAUL, MN 55110	<b>ANOKA COUNTY,</b> <b>MINNESOTA</b> <b>CITY OF BLAINE</b>	<b>TRAFFIC SIGNAL INTERCONNECT "A"</b> <b>INTERSECTION LAYOUT</b> <b>CSAH 14 (125TH AVENUE NE)</b> <b>ABERDEEN/CENTRAL TO CSAH 52)</b>	FILE NO.	<b>6</b> <b>52</b>
	DESIGN TEAM							ANOKC 133655	
	REVISIONS							DATE	
								08/25/2015	

C.P. 14-62-00

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TRAFFIC CONTROL INTERCONNECTION "A" (CSAH 14)



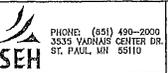
- INTERCONNECT NOTES:**
- 1) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (TELEPHONE NUMBER 651-454-0002) AS REQUIRED BY MINNESOTA STATUTE 2160.
  - 2) (\*) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECTION "A"). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
  - 3) (\*\*) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECTION "B"). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
  - 4) ALL ITEMS OF THIS SIGNAL SYSTEM ARE INPLACE AND SHALL BE REUSED, PROTECTED AND MAINTAINED INPLACE, EXCEPT WHERE BOXED IN AND DENOTED BY BOTH (\*)/(\*\*) AND BY F & I (INTERCONNECT ITEMS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR).
  - 5) NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND COVERS. SEE SPECIAL PROVISIONS FOR FURTHER INFORMATION.
  - 6) SEE SPECIAL PROVISIONS FOR INFORMATION REGARDING LABOR AND MATERIALS TO BE PROVIDED AND INSTALLED BY THE CONTRACTOR IN EACH INPLACE TRAFFIC SIGNAL CONTROLLER CABINET AS PART OF THE "TRAFFIC CONTROL INTERCONNECTION "A-B" PAY ITEMS.

S:\A\A\PROJECT\CONTRACTS\SPRINGS\SPRINGS\_INTERCONNECT\SPRINGS.DWG 08/27/2015

DRAWN BY:	JMG			
DESIGNER:	JMG			
CHECKED BY:	JMG			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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*John M. Gray*  
 Name: John M. Gray, PE  
 Date: August 25, 2015  
 Lic. No.: 22457



ANOKA COUNTY,  
 MINNESOTA  
 CITY OF BLAINE

TRAFFIC SIGNAL INTERCONNECT "A-B"  
 INTERSECTION LAYOUT  
 CSAH 14 (125TH AVENUE NE)  
 AT CSAH 52 (RADISSON ROAD NE)

FILE NO.	7
ANOKA 153855	
DATE	08/25/2015
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