

MATCH LINE - STATION 100 + 50

LOOP DETECTORS FUNCTIONS:

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

PVC LOOP DETECTORS			
NUMBER	SIZE (FT.)	LOCATION	FUNCTION
D1-1	2-6x6	15' & 45'	1
D1-2	2-6x6	0' & 30'	7
D2-1	6x6	475'	1
D2-2	(future)	---	1
D3-1	2-6x6	15' & 45'	1
D3-2	2-6x6	0' & 30'	7
D4-1	6x6	180'	3,8
D4-2	2-6x6	0' & 15'	7
D4-3	(future)	---	7
D5-1	2-6x6	15' & 45'	1
D5-2	2-6x6	0' & 30'	1
D6-1	6x6	475'	1
D6-2	(future)	---	1
D7-1	2-6x6	15' & 45'	1
D7-2	2-6x6	0' & 30'	7
D8-1	6x6	180'	3,8
D8-2	2-6x6	0' & 15'	7
D8-3	2-6x6	0' & 15'	1

NOTE: LOCATION=DISTANCE FROM STOP BAR TO FRONT OF LOOP DETECTOR.

SEE NEXT SHEET FOR GENERAL NOTES, POLE NOTES, AND EQUIPMENT PAD NOTES.



- (\*) PEDESTAL FOUNDATION
  - (\*) 10' PEDESTAL POLE, BASE, WIND COLLAR
  - (\*) SLIPFITTER COLLAR ATOP POLE
  - (\*) INSTALL 1-ONE WAY EVP DETECTOR ATOP POLE (ø4,7) EXTEND INTO HH 14:
  - (\*) 2" CONDUIT
  - (\*) 1-3/c 20
  - (\*) 1-1/c 6 (GRD)
- INSTALL (FURNISHED BY COUNTY)
- 1-ONE WAY EVP DETECTOR (ø4,7)

PEDESTRIAN PUSH BUTTON STATION (SEE DETAILS)  
 1-PED PUSH BUTTON & SIGN (R10-3e)  
 EXTEND INTO HH 11:  
 1" CONDUIT  
 1-2/c 14  
 1-1/c 6 (INS GR)

PEDESTRIAN PUSH BUTTON STATION (SEE DETAILS)  
 1-PED PUSH BUTTON & SIGN (R10-3e)  
 EXTEND INTO HH 7:  
 1" CONDUIT  
 1-2/c 14  
 1-1/c 6 (INS GR)

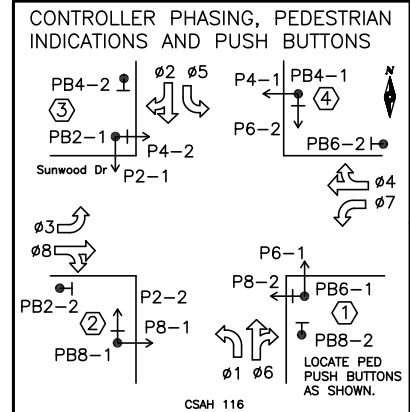
PEDESTRIAN PUSH BUTTON STATION (SEE DETAILS)  
 1-PED PUSH BUTTON & SIGN (R10-3e)  
 EXTEND INTO HH 5:  
 1" CONDUIT  
 1-2/c 14  
 1-1/c 6 (INS GR)

PEDESTRIAN PUSH BUTTON STATION (SEE DETAILS)  
 1-PED PUSH BUTTON & SIGN (R10-3e)  
 EXTEND INTO HH 1:  
 1" CONDUIT  
 1-2/c 14  
 1-1/c 6 (INS GR)

25' OF 1-2/c 14 CABLE SHALL BE COILED AND STORED IN HANDHOLES 3, 10, AND 11 (FOR FUTURE LOOP DETECTORS BY OTHERS).

LED SIGNAL HEADS				
SIGNAL HEAD	ALL SIGNAL INDICATIONS SHALL BE 12".			
	R	Y	FYA	G
1-1, 1-2	←	←	←	←
2-1, 2-2	●	●	●	●
3-1, 3-2	←	←	←	←
4-1, 4-2	●	●	●	●
5-1, 5-2	←	←	←	←
6-1, 6-2	●	●	●	●
7-1, 7-2	←	←	←	←
8-1, 8-2	●	●	●	●

FYA = FLASHING YELLOW ARROW



- SIGNAL SYSTEM OPERATIONS:
- SIGNAL SYSTEM FLASH MODE SHALL BE ALL RED.
  - NORMAL OPERATION SHALL BE 8 PHASE, WITH PHASES 1, 3, 5, 7 BEING FLASHING YELLOW ARROWS (BY TOD PROGRAMMING).
  - VEHICLE SIGNAL PHASES 2 AND 6 SHALL OPERATE ON RECALL.

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NO.	BY	DATE
1	JMG	8/2022

REVISIONS		
NO.	BY	DATE

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.

Name: John M. Gray, PE  
 Lic. No. 22457  
 Date: July 7, 2021

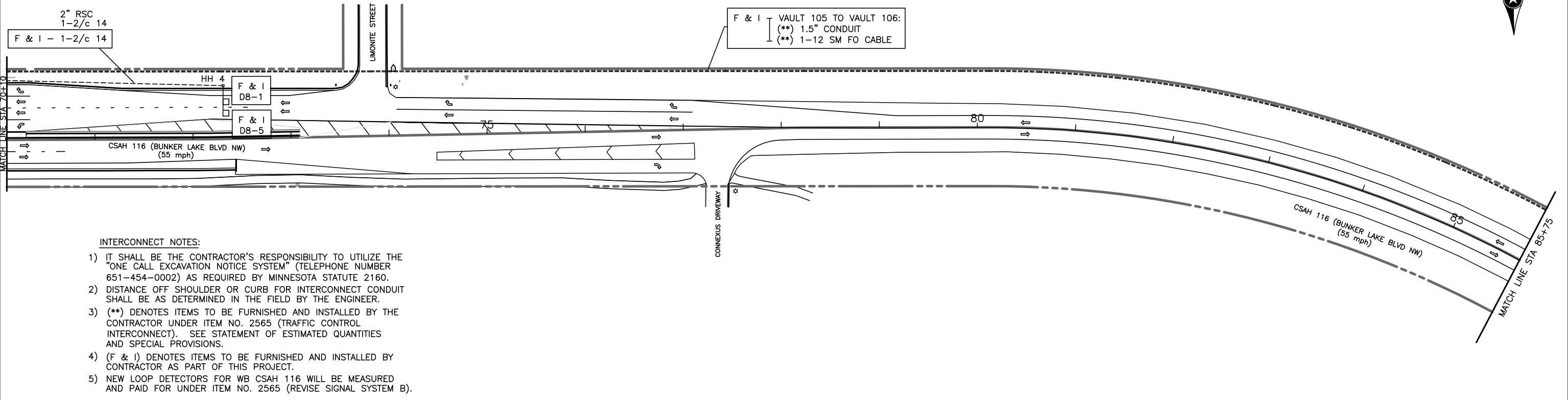
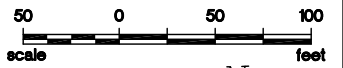
SEH  
 PHONE: (651) 490-2000  
 3535 VADNAIS CENTER DR.  
 ST. PAUL, MN 55110

ANOKA COUNTY, MN  
 CITY OF RAMSEY  
 SAP 002-716-021  
 SAP 199-104-014

TRAFFIC SIGNAL SYSTEM "C"  
 INTERSECTION LAYOUT  
 CSAH 116 (BUNKER LAKE BLVD NW)  
 AT SUNWOOD DRIVE NW

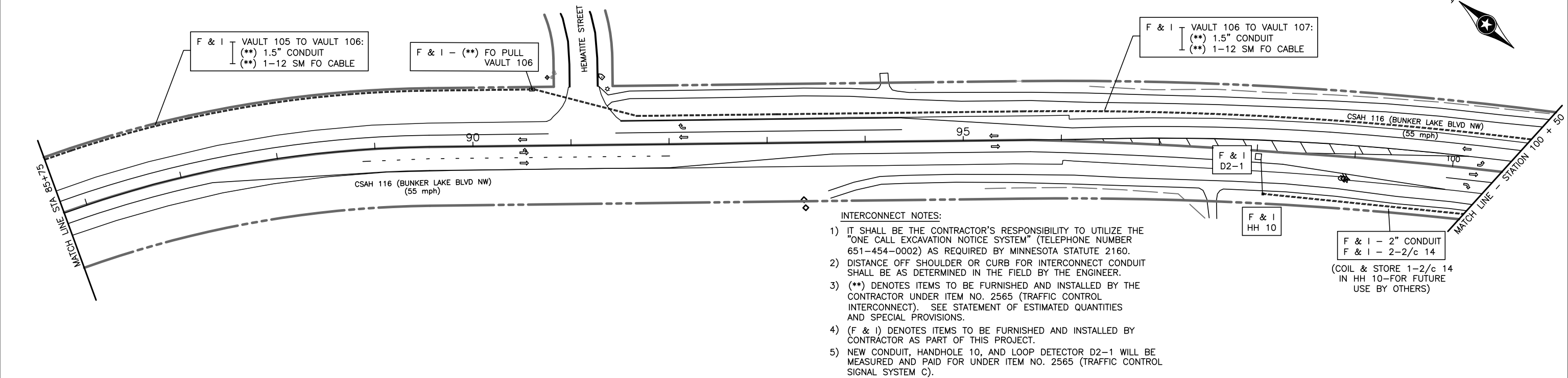
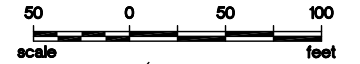
FILE NO. ANOKC 159572  
 SIGNAL SHEET 18 OF 25  
**197**  
**259**

NOTE SCALE CHANGE ON THIS SHEET.



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) DISTANCE OFF SHOULDER OR CURB FOR INTERCONNECT CONDUIT SHALL BE AS DETERMINED IN THE FIELD BY THE ENGINEER.
- 3) (\*\*\*) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
- 4) (F & I) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY CONTRACTOR AS PART OF THIS PROJECT.
- 5) NEW LOOP DETECTORS FOR WB CSAH 116 WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 2565 (REVISE SIGNAL SYSTEM B).



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) DISTANCE OFF SHOULDER OR CURB FOR INTERCONNECT CONDUIT SHALL BE AS DETERMINED IN THE FIELD BY THE ENGINEER.
- 3) (\*\*\*) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
- 4) (F & I) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY CONTRACTOR AS PART OF THIS PROJECT.
- 5) NEW CONDUIT, HANDHOLE 10, AND LOOP DETECTOR D2-1 WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL SIGNAL SYSTEM C).

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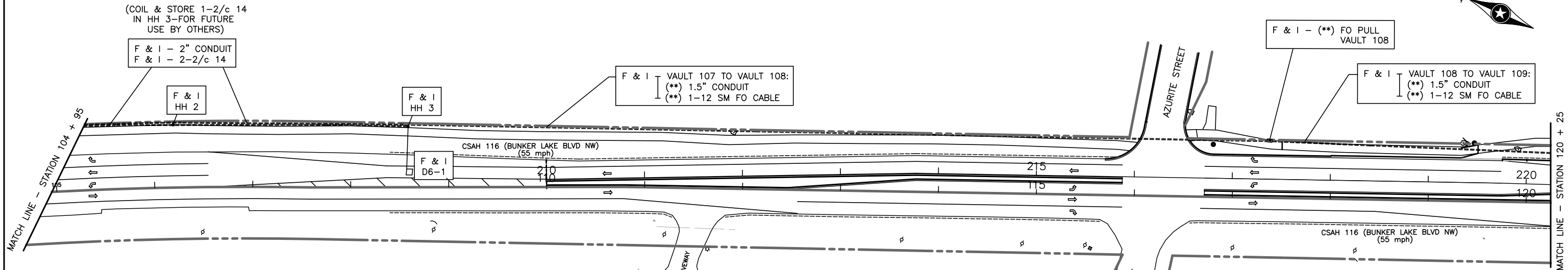
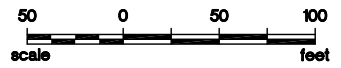
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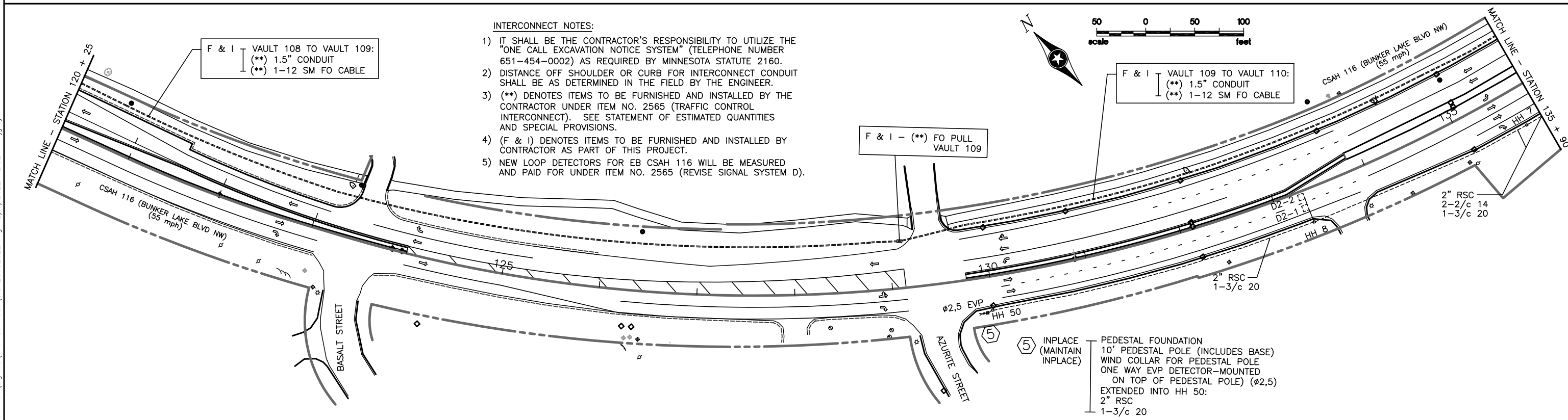
**SIGNAL SYSTEMS "B-C"/INTERCONNECT**  
**INTERSECTION LAYOUT**  
 CSAH 116 (BUNKER LAKE BLVD NW)  
 (CSAH 56 TO SUNWOOD DRIVE)

FILE NO. ANOKC 159572  
 SIGNAL SHEET 17 OF 25  
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**259**

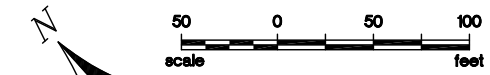
NOTE SCALE CHANGE ON THIS SHEET.



- 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) DISTANCE OFF SHOULDER OR CURB FOR INTERCONNECT CONDUIT SHALL BE AS DETERMINED IN THE FIELD BY THE ENGINEER.
  - 3) (\*\*) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
  - 4) (F & I) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY CONTRACTOR AS PART OF THIS PROJECT.
  - 5) NEW CONDUIT, HANDHOLES 2 AND 3, AND LOOP DETECTOR D6-1 WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL SIGNAL SYSTEM C).



- 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) DISTANCE OFF SHOULDER OR CURB FOR INTERCONNECT CONDUIT SHALL BE AS DETERMINED IN THE FIELD BY THE ENGINEER.
  - 3) (\*\*) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
  - 4) (F & I) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY CONTRACTOR AS PART OF THIS PROJECT.
  - 5) NEW LOOP DETECTORS FOR EB CSAH 116 WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 2565 (REVISE SIGNAL SYSTEM D).

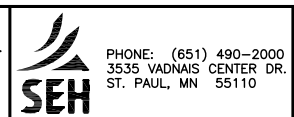


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ANOKA COUNTY, MN  
 CITY OF RAMSEY  
 SAP 002-716-021  
 SAP 199-104-014

SIGNAL SYSTEMS 'C-D'/INTERCONNECT  
 INTERSECTION LAYOUT  
 CSAH 116 (BUNKER LAKE BLVD NW)  
 (SUNWOOD DRIVE TO CSAH 57)

FILE NO. ANOKC 159572  
 SIGNAL SHEET 21 OF 25  
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**NOTES:**

- 1) LOCATION OF FOUNDATIONS, LOOP DETECTORS, HANDHOLES, AND PUSH BUTTON STATIONS SHALL BE DETERMINED IN FIELD BY THE ENGINEER.
- 2) SEE SPECIAL PROVISIONS FOR COUNTY FURNISHED MATERIALS.
- 3) NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND COVERS (SEE SPECIAL PROVISIONS).
- 4) A 3/4" HALF COUPLING, 3/4" PIPE NIPPLE & CONDUIT OUTLET BODY SHALL BE FURNISHED AND INSTALLED 6 FEET FROM THE END OF EACH MAST ARM (FOR EVP).
- 5) THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE POWER COMPANY TO ARRANGE FOR THE POWER CONNECTION (CONNEXUS ENERGY). SEE SPECIAL PROVISIONS.
- 6) SEE SPECIAL PROVISIONS & DETAILS REGARDING SIGNS TO BE FURNISHED AND INSTALLED BY CONTRACTOR (INCLUDED AS PART OF THE "TRAFFIC CONTROL SIGNAL SYSTEM C" PAY ITEM).
- 7) EACH PEDESTRIAN INDICATION SHALL BE ONE SECTION LED COUNTDOWN TIMER "HAND/WALKING PERSON" INDICATION.
- 8) EACH SIGNAL FACE SHALL HAVE A BACKGROUND SHIELD.
- 9) SEE DETAILS, SPECIAL PROVISIONS & STATEMENT OF ESTIMATED QUANTITIES REGARDING BATTERY BACK-UP SIGNAL SERVICE CABINET TO BE FURNISHED AND INSTALLED BY CONTRACTOR (SEPARATE FROM ITEM NO. 2565 FOR THIS SIGNAL SYSTEM).
- 10) LOOP DETECTOR WIRES SHALL BE CROSS-LINKED POLYETHYLENE (XLP) #12 AWG IN 3/4" N.M.C. SEE SPECIAL PROVISIONS.
- 11) (\*) DENOTES ITEMS TO BE INCLUDED AS PART OF THE PAY ITEM FOR ITEM INO. 2565 (EMERGENCY VEHICLE PREEMPTION SYSTEM). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
- 12) (\*\*) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
- 13) ALL CABLES AND CONDUCTORS SHALL BE NEW (FURNISHED AND INSTALLED BY THE CONTRACTOR).
- 14) NO SPLICING IS ALLOWED ON ANY CABLE OR CONDUCTOR BETWEEN THE CONTROLLER/SERVICE CABINETS AND EACH POLE OR MAST ARM MOUNTED COMPONENT (EXCEPT THAT LOOP DETECTORS SPLICES ARE ALLOWED IN ADJACENT HANDHOLES ONLY).

(A) INSTALL — CONTROLLER AND CABINET (FURNISHED BY COUNTY)

F & I — EQUIPMENT PAD FOUNDATION  
 BBU SIGNAL SERVICE CABINET BETWEEN CONTROLLER CABINET AND SERVICE CABINET: METERED SIGNAL SERVICE  
 2" CONDUIT  
 3-1/c 6  
 CONTROLLER CABINET TO HH 1:  
 3" CONDUIT 2-3" CONDUITS  
 3-6/c 14 3-6/c 14  
 4-4/c 14 4-4/c 14  
 (\*) 1-3/c 14 (\*) 1-3/c 14  
 6-2/c 14 12-2/c 14  
 (\*) 2-3/c 20 (\*) 1-3/c 20  
 1-1/c 6 (GRD)  
 CONTROLLER CABINET TO HH 12:  
 3" CONDUIT 2-3" CONDUITS  
 3-6/c 14 3-6/c 14  
 4-4/c 14 4-4/c 14  
 (\*) 1-3/c 14 (\*) 1-3/c 14  
 2-2/c 14 6-2/c 14  
 (\*) 2-3/c 20 (\*) 2-3/c 20  
 1-1/c 6 (GRD)

F & I — SERVICE CABINET TO HH 1:  
 1.25" CONDUIT  
 UNMETERED STREET LIGHT SERVICE  
 2-3/c 14 (LUM)  
 SERVICE CABINET TO HH 12:  
 1.25" CONDUIT  
 UNMETERED STREET LIGHT SERVICE  
 2-3/c 14 (LUM)  
 STUB OUT 2" CONDUIT FROM SERVICE CABINET (FOR POWER CONNECTION BY CONNEXUS)  
 STUB OUT 2-3" CONDUITS FROM CONTROLLER CABINET TO NORTH (THREAD AND CAP-FOR FUTURE USE)  
 STUB OUT 1" CONDUIT FROM CONTROLLER CABINET (FOR FUTURE PHONE LINE BY OTHERS)  
 CONTROLLER CABINET TO FO VAULT 107:  
 (\*\*) 2" CONDUIT  
 (\*\*) 2-12 SM FO CABLES

① F & I — PA100 POLE FOUNDATION  
 LUMINAIRE-LED  
 1-ANGLE MOUNT SIGNAL-OVERHEAD AT 0'  
 1-STRAIGHT MOUNT SIGNAL-OVERHEAD AT 11'  
 2-ANGLE MOUNT SIGNALS-POLE MOUNTED 90 DEG AND 180 DEG  
 2-ANGLE MOUNT C.D. PED INDICATIONS-POLE MOUNTED 90 DEG AND 180 DEG  
 1-PEDESTRIAN PUSH BUTTON & SIGN (R10-3e)  
 R10-X12 SIGN PANEL-ADJACENT TO 3-1  
 TYPE D SIGN PANEL-OVERHEAD (D-1)  
 (\*) INSTALL ONE WAY EVP DETECTOR & LED CONFIRMATION LIGHT (Ø8,3)  
 (\*) ONE WAY EVP MOUNTING HARDWARE (FOR COUNTY FURNISHED DETECTOR AND CONFIRMATION LIGHT)  
 EXTEND INTO HH 12:  
 3" CONDUIT  
 3-6/c 14  
 4-4/c 14  
 (\*) 1-3/c 14  
 1-2/c 14  
 (\*) 1-3/c 20  
 1-3/c 14 (LUM)  
 2-1/c 6 (GRD)

INSTALL (FURNISHED BY COUNTY) — TYPE PA100-A-35-D30-9 (DAVIT AT 350 DEG)  
 (\*) ONE WAY EVP DETECTOR & LED CONFIRMATION LIGHT (Ø8,3)

③ F & I — PA100 POLE FOUNDATION  
 LUMINAIRE-LED  
 1-ANGLE MOUNT SIGNAL-OVERHEAD AT 0'  
 1-STRAIGHT MOUNT SIGNAL-OVERHEAD AT 10'  
 2-ANGLE MOUNT SIGNALS-POLE MOUNTED 90 DEG AND 180 DEG  
 2-ANGLE MOUNT C.D. PED INDICATIONS-POLE MOUNTED 90 DEG AND 180 DEG  
 1-PEDESTRIAN PUSH BUTTON & SIGN (R10-3e)  
 R10-X12 SIGN PANEL-ADJACENT TO 7-1  
 TYPE D SIGN PANEL-OVERHEAD (D-3)  
 (\*) INSTALL ONE WAY EVP DETECTOR & LED CONFIRMATION LIGHT (Ø4,7)  
 (\*) ONE WAY EVP MOUNTING HARDWARE (FOR COUNTY FURNISHED DETECTOR AND CONFIRMATION LIGHT)  
 EXTEND INTO HH 7:  
 3" CONDUIT  
 3-6/c 14  
 4-4/c 14  
 (\*) 1-3/c 14  
 1-2/c 14  
 (\*) 1-3/c 20  
 1-3/c 14 (LUM)  
 2-1/c 6 (GRD)

INSTALL (FURNISHED BY COUNTY) — TYPE PA100-A-25-D30-9 (DAVIT AT 350 DEG)  
 (\*) ONE WAY EVP DETECTOR & LED CONFIRMATION LIGHT (Ø4,7)

⑥ F & I — PA100 POLE FOUNDATION  
 LUMINAIRE-LED  
 1-ANGLE MOUNT SIGNAL-OVERHEAD AT 0'  
 1-STRAIGHT MOUNT SIGNAL-OVERHEAD AT 11'  
 2-ANGLE MOUNT SIGNALS-POLE MOUNTED 90 DEG AND 180 DEG  
 2-ANGLE MOUNT C.D. PED INDICATIONS-POLE MOUNTED 90 DEG AND 180 DEG  
 1-PEDESTRIAN PUSH BUTTON & SIGN (R10-3e)  
 R10-X12 SIGN PANEL-ADJACENT TO 5-1  
 TYPE D SIGN PANEL-OVERHEAD (D-2)  
 (\*) INSTALL ONE WAY EVP DETECTOR & LED CONFIRMATION LIGHT-OVERHEAD AT 6' (Ø2,5)  
 (\*) INSTALL ONE WAY EVP DETECTOR - POLE MOUNTED AT 270 DEG (Ø8,3)  
 (\*) 2-SETS ONE WAY EVP MOUNTING HARDWARE (FOR COUNTY FURNISHED OVERHEAD DETECTOR/CONFIRMATION LIGHT AND COUNTY FURNISHED POLE MOUNTED DETECTOR)  
 EXTEND INTO HH 4:  
 3" CONDUIT  
 3-6/c 14  
 4-4/c 14  
 (\*) 1-3/c 14  
 1-2/c 14  
 (\*) 2-3/c 20  
 1-3/c 14 (LUM)  
 2-1/c 6 (GRD)

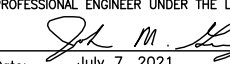
INSTALL (FURNISHED BY COUNTY) — TYPE PA100-A-40-D30-9 (DAVIT AT 350 DEG)  
 (\*) ONE WAY EVP DETECTOR & LED CONFIRMATION LIGHT (OVERHEAD) (Ø2,5)  
 (\*) ONE WAY EVP DETECTOR (POLE MOUNTED) (Ø8,3)

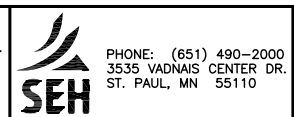
④ F & I — PA100 POLE FOUNDATION  
 LUMINAIRE-LED  
 1-ANGLE MOUNT SIGNAL-OVERHEAD AT 0'  
 1-STRAIGHT MOUNT SIGNAL-OVERHEAD AT 11'  
 2-ANGLE MOUNT SIGNALS-POLE MOUNTED 90 DEG AND 180 DEG  
 2-ANGLE MOUNT C.D. PED INDICATIONS-POLE MOUNTED 90 DEG AND 180 DEG  
 1-PEDESTRIAN PUSH BUTTON & SIGN (R10-3e)  
 R10-X12 SIGN PANEL-ADJACENT TO 1-1  
 TYPE D SIGN PANEL-OVERHEAD (D-4)  
 (\*) INSTALL ONE WAY EVP DETECTOR & LED CONFIRMATION LIGHT-OVERHEAD AT 6' (Ø6,1)  
 (\*) INSTALL ONE WAY EVP DETECTOR - POLE MOUNTED AT 135 DEG (Ø2,5)  
 (\*) 2-SETS ONE WAY EVP MOUNTING HARDWARE (FOR COUNTY FURNISHED OVERHEAD DETECTOR/CONFIRMATION LIGHT AND COUNTY FURNISHED POLE MOUNTED DETECTOR)  
 EXTEND INTO HH 11:  
 3" CONDUIT  
 3-6/c 14  
 4-4/c 14  
 (\*) 1-3/c 14  
 1-2/c 14  
 (\*) 2-3/c 20  
 1-3/c 14 (LUM)  
 2-1/c 6 (GRD)

INSTALL (FURNISHED BY COUNTY) — TYPE PA100-A-40-D30-9 (DAVIT AT 350 DEG)  
 (\*) ONE WAY EVP DETECTOR & LED CONFIRMATION LIGHT (OVERHEAD) (Ø6,1)  
 (\*) ONE WAY EVP DETECTOR (POLE MOUNTED) (Ø2,5)

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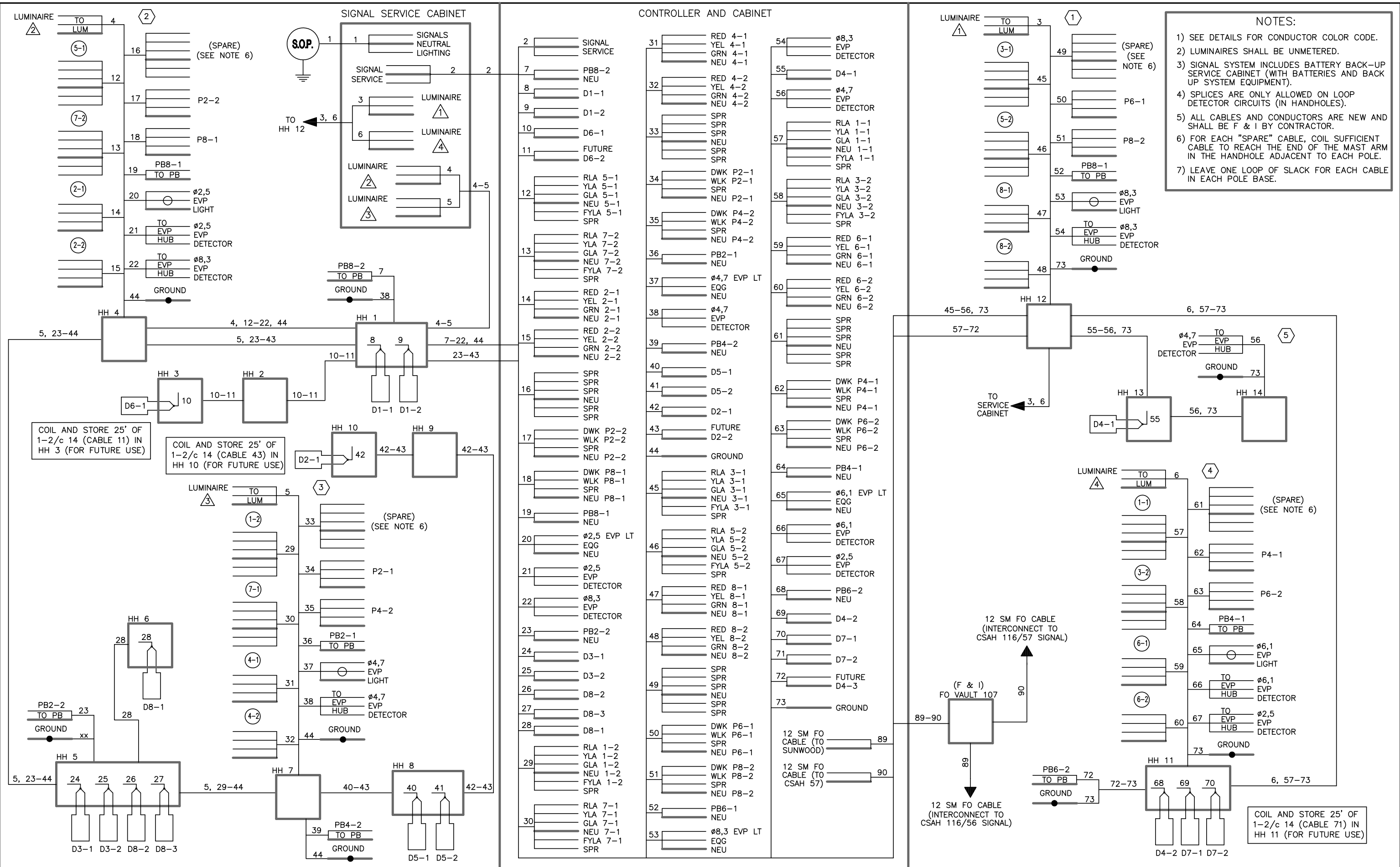
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**CITY OF RAMSEY**  
 SAP 002-716-021  
 SAP 199-104-014

**TRAFFIC SIGNAL SYSTEM "C"**  
**SIGNAL SYSTEM NOTES**  
 CSAH 116 (BUNKER LAKE BLVD NW)  
 AT SUNWOOD DRIVE NW

FILE NO. ANOKC 159572	198
SIGNAL SHEET 19 OF 25	



- NOTES:**
- 1) SEE DETAILS FOR CONDUCTOR COLOR CODE.
  - 2) LUMINAIRES SHALL BE UNMETERED.
  - 3) SIGNAL SYSTEM INCLUDES BATTERY BACK-UP SERVICE CABINET (WITH BATTERIES AND BACK UP SYSTEM EQUIPMENT).
  - 4) SPLICES ARE ONLY ALLOWED ON LOOP DETECTOR CIRCUITS (IN HANDHOLES).
  - 5) ALL CABLES AND CONDUCTORS ARE NEW AND SHALL BE F & I BY CONTRACTOR.
  - 6) FOR EACH "SPARE" CABLE, COIL SUFFICIENT CABLE TO REACH THE END OF THE MAST ARM IN THE HANDHOLE ADJACENT TO EACH POLE.
  - 7) LEAVE ONE LOOP OF SLACK FOR EACH CABLE IN EACH POLE BASE.

COIL AND STORE 25' OF 1-2/c 14 (CABLE 11) IN HH 3 (FOR FUTURE USE)

COIL AND STORE 25' OF 1-2/c 14 (CABLE 43) IN HH 10 (FOR FUTURE USE)

COIL AND STORE 25' OF 1-2/c 14 (CABLE 71) IN HH 11 (FOR FUTURE USE)

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 DESIGNER: JMG  
 CHECKED BY: JMG

1	JMG	8/2022	RECORD DRAWING
REVISIONS			
NO.	BY	DATE	

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*  
 Name: John M. Gray, PE  
 Lic. No. 22457  
 Date: July 7, 2021



**ANOKA COUNTY, MN**  
**CITY OF RAMSEY**  
 SAP 002-716-021  
 SAP 199-104-014

**TRAFFIC SIGNAL SYSTEM "C"**  
**FIELD WIRING DIAGRAM**  
 CSAH 116 (BUNKER LAKE BLVD NW)  
 AT SUNWOOD DRIVE NW

FILE NO. ANOKC 159572  
 SIGNAL SHEET 20 OF 25  
**199**  
**259**

S:\AE\A\Anokc\Common\_signals\116-Sunwood\SIGREC082022.dwg 12/5/2022 12:32 PM jgray