

PVC LOOP DETECTORS				
NUMBER	SIZE (FT.)	LOCATION	FUNCTION	STATUS
D1-1, D5-1	2-6x6	10' & 40'	1	1
D1-2, D5-2	2-6x6	-5' & 25'	1	2
D2-1, D2-2	6x6	475'	1	INPLACE
D3-1, D3-2	2-6x6	10' & 40'	1	1
D3-3, D3-4	2-6x6	-5' & 25'	1	2
D4-1, D8-1	6x6	120'	3,8	INPLACE
D4-2, D8-2	2-6x6	-5' & 5'	7	INPLACE
D4-3, D8-3	2-6x6	5' & 20'	1	INPLACE
D6-1, D6-2	6x6	475'	1	INPLACE
D7-1	2-6x6	20' & 50'	1	INPLACE
D7-2	2-6x6	5' & 35'	1	INPLACE

LOOP DETECTORS 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).

LOCATION = DISTANCE FROM STOP BAR TO FRONT OF DETECTOR.

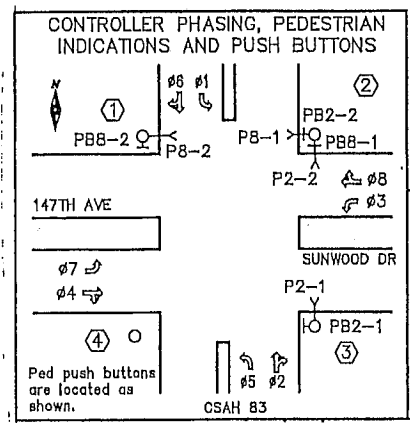
NOTE: WHEN INSTALLING NEW LOOP DETECTORS D1-2, D3-3, D3-4, AND D5-2, ENSURE THAT ALL EXISTING LOOP DETECTOR ROADWAY CONDUITS (TO D1-1, D3-1, D3-2, AND D5-1) ARE EXACTLY LOCATED AND PROTECTED DURING NEW LOOP INSTALLATION. ANY DAMAGE TO THESE EXISTING LOOP DETECTORS (ALL CONDUITS, WIRING, SPLICE KITS)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

(A) INPLACE (MAINTAIN INPLACE) EQUIPMENT PAD FOUNDATION CONTROLLER AND CABINET SIGNAL SERVICE CABINET
 CONTROLLER CABINET TO H.H.2:
 4" R.S.C.
 4-12/c#14
 3-4/c#14
 2-3/c#14
 2-3/c#20
 15-2/c#14
 1-6 SM/6 MM FO CABLE
 F & I - 1-6/c#14

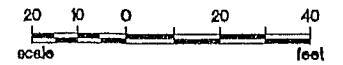
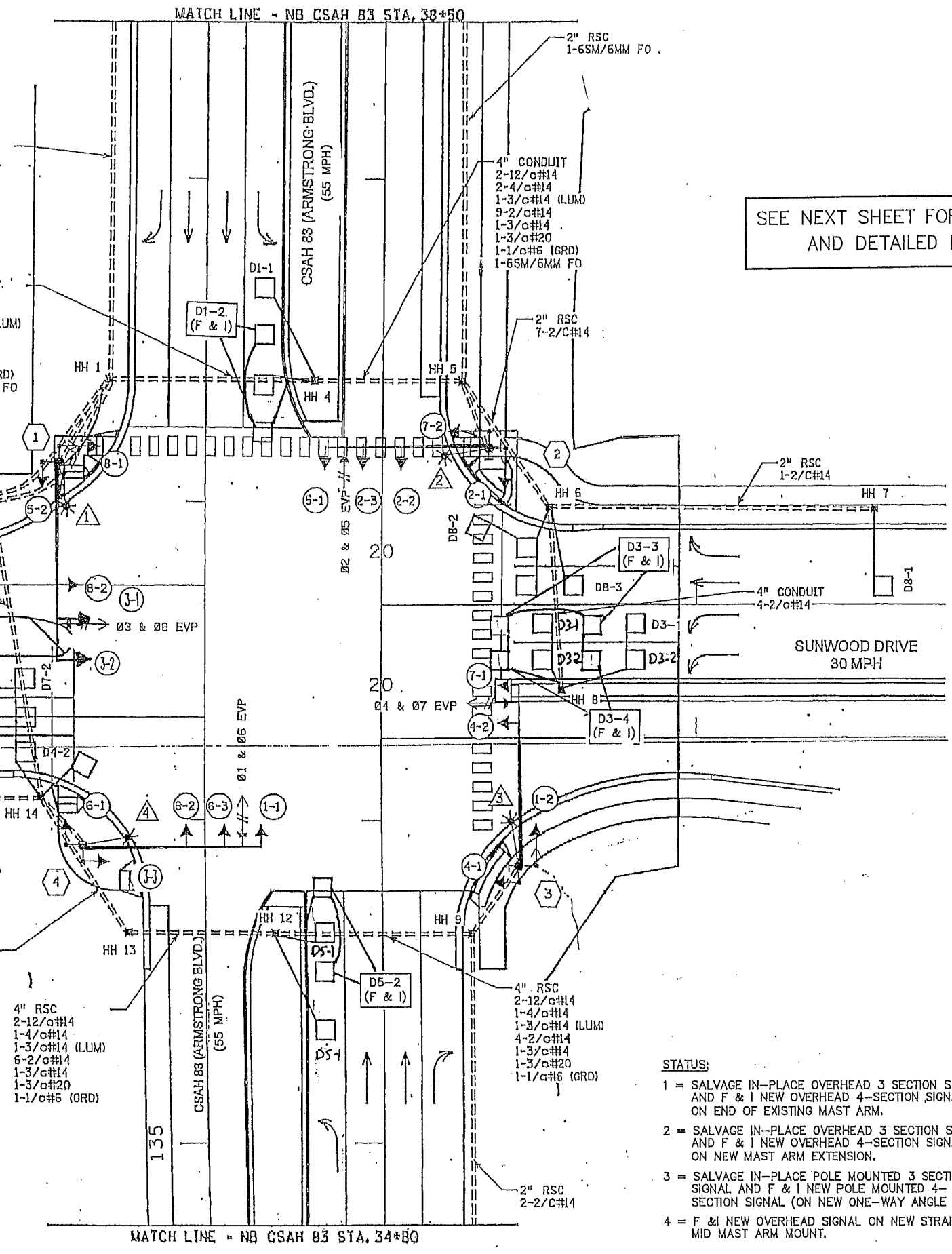
INPLACE (MAINTAIN INPLACE) CONTROLLER CABINET TO H.H.16:
 4" R.S.C.
 4-12/c#14
 3-4/c#14
 2-3/c#14
 2-3/c#20
 13-2/c#14

INPLACE (MAINTAIN INPLACE) SERVICE CABINET TO CONTROLLER CABINET:
 2" R.S.C.
 3-1/c#6
 SERVICE CABINET TO H.H.1:
 2" R.S.C.
 2-3/c#14 (LUM)
 SERVICE CABINET TO H.H.16:
 2" R.S.C.
 2-3/c#14 (LUM)
 SERVICE CABINET TO SOP:
 2" R.S.C.
 3-1/c#2

(B) INPLACE (MAINTAIN INPLACE) GROUND MOUNTED TRANSFORMER (SOP) EXTENDED INTO SERVICE CABINET:
 2" R.S.C.
 3-1/c#2



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



SEE NEXT SHEET FOR GENERAL NOTES AND DETAILED POLE NOTES.

○ = INPLACE LED (REUSE INPLACE).
 ◄ = F & I NEW LED INDICATION.
 FYA = FLASHING YELLOW ARROW

LED SIGNAL HEADS					
SIGNAL HEAD #	ALL 12" INDICATIONS				STATUS
	R	Y	FYA	G	
1-1, 5-1	◄	◄	◄	◄	1
1-2, 5-2	◄	◄	◄	◄	3
2-1, 2-2, 2-3	○	○	○	○	INPLACE
3-1	◄	◄	◄	◄	4
3-2	◄	◄	◄	◄	2
3-3	◄	◄	◄	◄	3
4-1, 4-2	○	○	○	○	INPLACE
6-1, 6-2, 6-3	○	○	○	○	INPLACE
7-1	◄	◄	◄	◄	1
7-2	◄	◄	◄	◄	3
8-1, 8-2	○	○	○	○	INPLACE

STATUS:
 1 = SALVAGE IN-PLACE OVERHEAD 3 SECTION SIGNAL AND F & I NEW OVERHEAD 4-SECTION SIGNAL ON END OF EXISTING MAST ARM.
 2 = SALVAGE IN-PLACE OVERHEAD 3 SECTION SIGNAL AND F & I NEW OVERHEAD 4-SECTION SIGNAL ON NEW MAST ARM EXTENSION.
 3 = SALVAGE IN-PLACE POLE MOUNTED 3 SECTION SIGNAL AND F & I NEW POLE MOUNTED 4-SECTION SIGNAL (ON NEW ONE-WAY ANGLE MOUNT).
 4 = F & I NEW OVERHEAD SIGNAL ON NEW STRAP--ON MID MAST ARM MOUNT.

STATE AID PROJ. 002-030-009
 RAMSEY CITY PROJECT NO. 17-08

DRAWN BY: JMG
 DESIGNER: JMG
 CHECKED BY: JMG

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.
 Date: March 7, 2018 Name: John M. Gray, PE Lic. No. 22457

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

ANOKA COUNTY
 CITY OF RAMSEY

REVISE SIGNAL SYSTEM 'D'
 INTERSECTION LAYOUT
 CSAH 83 (ARMSTRONG BLVD)
 AT SUNWOOD DRIVE-147TH AVENUE NW

FILE NO.
 RAMSY 142728
 20
 24

NOTES:

- 1) ALL ITEMS OF THIS SIGNAL SYSTEM ARE INPLACE AND SHALL BE REUSED AND MAINTAINED INPLACE, UNLESS OTHERWISE NOTED ON PLANS.
- 2) ALL HANDHOLES ARE PVC HANDHOLES WITH METAL FRAMES AND COVERS AND ARE INPLACE (REUSE AND MAINTAIN INPLACE).
- 3) ALL PEDESTRIAN SIGNAL HEADS ARE ONE-SECTION LED "HAND/WALKING PERSON" COUNTDOWN TIMER INDICATIONS AND ARE INPLACE (REUSE AND MAINTAIN INPLACE).
- 4) ALL LOOP DETECTORS ARE INPLACE AND SHALL BE REUSED AND MAINTAINED INPLACE AND OPERATIONAL, EXCEPT AS FOLLOWS: CONTRACTOR SHALL FURNISH AND INSTALL NEW LOOP DETECTORS D1-2, D3-3, D3-4, AND D5-2 IN PVC PER DETAILS INCLUDED ELSEWHERE IN THESE PLANS. LOOP DETECTOR WIRES FOR NEW LOOP DETECTORS SHALL BE CROSS-LINKED POLYETHYLENE (XLP) #12 AWG IN 3/4" NMC. SEE SPECIAL PROVISIONS.
- 5) ANY DAMAGE TO INPLACE TRAFFIC SIGNAL FACILITIES (CONDUIT, CABLES, HANDHOLES, SIGNAL POLES, ETC.), DUE TO TRAFFIC SIGNAL REVISION WORK, SHALL BE REPAIRED BY CONTRACTOR TO SATISFACTION OF THE ENGINEER, AT NO EXPENSE TO THE COUNTY.
- 6) CONTRACTOR SHALL MAINTAIN OPERATION OF THE SIGNAL SYSTEM AT ALL TIMES, EXCEPT AS OTHERWISE APPROVED BY ENGINEER.
- 7) ALL NEW VEHICULAR SIGNAL HEADS SHALL HAVE BACKGROUND SHIELDS FURNISHED & INSTALLED BY CONTRACTOR. ALL INPLACE VEHICULAR SIGNAL HEADS BEING REUSED AS PART OF REVISE SIGNAL SYSTEM "D" HAVE BACKGROUND SHIELDS (REUSE AND MAINTAIN INPLACE).
- 8) LOCATION OF NEW LOOP DETECTORS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 9) F & I = NEW, FURNISH AND INSTALL.
S & I = INPLACE, SALVAGE AND INSTALL.
- 10) SEE SPECIAL PROVISIONS FOR COUNTY FURNISHED MATERIALS TO BE INSTALLED AND MADE OPERATIONAL BY CONTRACTOR.
- 11) ALL NEW VEHICULAR SIGNAL HOUSINGS, BACKGROUND SHIELDS AND VISORS SHALL BE FABRICATED USING BLACK POLYCARBONATE MATERIALS. SEE SPECIAL PROVISIONS.
- 12) SEE SPECIAL PROVISIONS REGARDING NEW TYPE C SIGN PANELS TO BE FURNISHED AND INSTALLED BY CONTRACTOR (INCLUDED AS PART OF PAY ITEM FOR "REVISE SIGNAL SYSTEM D").

① INPLACE (MAINTAIN INPLACE) PA100 POLE FOUNDATION
 TYPE PA100-A-55-D40-9 (DAVIT AT 350 DEG)
 LUMINAIRE-250 W HPS
 1-ONE WAY SIGNAL-OVERHEAD AT 17' (B-2)
 1-ONE WAY SIGNAL-POLE MOUNTED 180 DEG (B-1)
 1-SET CD PED SIGNALS-POLE MOUNTED 180 DEG (PB-2)
 1-PEDESTRIAN PUSH BUTTON & SIGN (R10-3a)
 TYPE D SIGN PANEL-OVERHEAD AT 23'
 1-R9-3 (NO PED XING) SIGN-FACING POLE 4
 2-R6-1 SIGN PANELS-POLE MOUNTED 0/180 DEG EXTENDED INTO H.H.1:
 3" R.S.C.
 2-12/c#14
 1-4/c#14
 1-3/c#14
 1-3/c#20
 2-2/c#14
 1-3/c#14 (LUM)
 1-1/c#6 (GRD)

INPLACE (REMOVE) ONE WAY SIGNAL AND MOUNT-OVERHEAD AT 0' (OLD 3-1)
 ONE WAY SIGNAL AND MOUNT-POLE MOUNTED 90 DEG (OLD 5-2)
 INPLACE (S & I) ONE WAY EVP DETECTOR AND LIGHT-OVERHEAD AT 6' (#B,3)
 (F & I 3/4" R.S.C. EXTENSION OVER SIGNAL HEAD 3-1)
 F & I 5 FOOT MAST ARM EXTENSION
 1-ONE WAY SIGNAL AND ANGLE MOUNT-OVERHEAD AT -5' (NEW 3-2)
 1-ONE WAY SIGNAL AND STRAIGHT MOUNT-OVERHEAD AT 6' (NEW 3-1)
 STRAP-ON MID-MAST ARM MOUNT AT 6' (FOR 3-1)
 1-ONE WAY SIGNAL AND ANGLE MOUNT-POLE MOUNTED 90 DEG (NEW 5-2)
 R10-X12 SIGN PANEL-ADJACENT TO 3-2
 1-6/c#14

③ INPLACE (MAINTAIN INPLACE) PA100 POLE FOUNDATION
 TYPE PA100-A-55-D40-9 (DAVIT AT 350 DEG)
 LUMINAIRE-250 W HPS
 1-ONE WAY SIGNAL-OVERHEAD AT 11' (4-2)
 1-ONE WAY SIGNAL-POLE MOUNTED 180 DEG (4-1)
 1-SET CD PED SIGNALS-POLE MOUNTED 90 DEG (P2-1)
 1-PEDESTRIAN PUSH BUTTON & SIGN (R10-3a)
 TYPE D SIGN PANEL-OVERHEAD AT 21'
 1-R9-3 (NO PED XING) SIGN-FACING POLE 4
 2-R6-1 SIGN PANELS-POLE MOUNTED 0/180 DEG EXTENDED INTO H.H.9:
 3" R.S.C.
 2-12/c#14
 1-4/c#14
 1-3/c#14
 1-3/c#20
 2-2/c#14
 1-3/c#14 (LUM)
 1-1/c#6 (GRD)

INPLACE (REMOVE) ONE WAY SIGNAL AND MOUNT-OVERHEAD AT 0' (OLD 7-1)
 ONE WAY SIGNAL AND MOUNT-POLE MOUNTED 90 DEG (OLD 1-2)
 F & I 1-ONE WAY SIGNAL AND ANGLE MOUNT-OVERHEAD AT 0' (NEW 7-1)
 1-ONE WAY SIGNAL AND ANGLE MOUNT-POLE MOUNTED 90 DEG (NEW 1-2)
 R10-X12 SIGN PANEL-ADJACENT TO 7-1

② INPLACE (MAINTAIN INPLACE) PA100 POLE FOUNDATION
 TYPE PA100-A-50-D40-9 (DAVIT AT 350 DEG)
 LUMINAIRE-250 W HPS
 2-ONE WAY SIGNALS-OVERHEAD AT 11'/23' (2-3, 2-2)
 1-ONE WAY SIGNAL-POLE MOUNTED 180 DEG (2-1)
 2-SETS CD PED SIGNALS-POLE MOUNTED 90/180 DEG (P4-1, P2-2)
 2-PEDESTRIAN PUSH BUTTONS & SIGNS (R10-3e)
 TYPE D SIGN PANEL-OVERHEAD AT 28'
 ONE WAY EVP DETECTOR AND LIGHT AT 6' (#2,5)
 2-R6-1 SIGN PANELS-POLE MOUNTED 0/180 DEG EXTENDED INTO H.H.5:
 3" R.S.C.
 2-12/c#14
 2-4/c#14
 1-3/c#14
 1-3/c#20
 2-2/c#14
 1-3/c#14 (LUM)
 1-1/c#6 (GRD)

INPLACE (REMOVE) ONE WAY SIGNAL AND MOUNT-OVERHEAD AT 0' (OLD 5-1)
 ONE WAY SIGNAL AND MOUNT-POLE MOUNTED 90 DEG (OLD 7-2)
 F & I 1-ONE WAY SIGNAL AND ANGLE MOUNT-OVERHEAD AT 0' (NEW 5-1)
 1-ONE WAY SIGNAL AND ANGLE MOUNT-POLE MOUNTED 90 DEG (NEW 7-2)
 R10-X12 SIGN PANEL-ADJACENT TO 5-1

④ INPLACE (MAINTAIN INPLACE) PA100 POLE FOUNDATION
 TYPE PA100-A-55-D40-9 (DAVIT AT 350 DEG)
 LUMINAIRE-250 W HPS
 2-ONE WAY SIGNALS-OVERHEAD AT 11'/23' (6-3, 6-2)
 1-ONE WAY SIGNAL-POLE MOUNTED 180 DEG (6-1)
 TYPE D SIGN PANEL-OVERHEAD AT 29'
 2-R9-3 (NO PED XING) SIGNS-FACING POLES 1 AND 3
 2-R6-1 SIGN PANELS-POLE MOUNTED 0/180 DEG EXTENDED INTO H.H.14:
 3" R.S.C.
 2-12/c#14
 2-4/c#14
 1-3/c#14
 1-3/c#20
 2-2/c#14
 1-3/c#14 (LUM)
 1-1/c#6 (GRD)

INPLACE (REMOVE) ONE WAY SIGNAL AND MOUNT-OVERHEAD AT 0' (OLD 1-1)
 ONE WAY SIGNAL AND MOUNT-POLE MOUNTED 90 DEG (OLD 3-2)
 F & I 1-ONE WAY SIGNAL AND ANGLE MOUNT-OVERHEAD AT 0' (NEW 1-1)
 1-ONE WAY SIGNAL AND ANGLE MOUNT-POLE MOUNTED 90 DEG (NEW 3-3)
 R10-X12 SIGN PANEL-ADJACENT TO 1-1

2017FA-BASE.DWG

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

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.
 Date: March 7, 2018 Name: John M. Gray, PE L.No. 22457

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

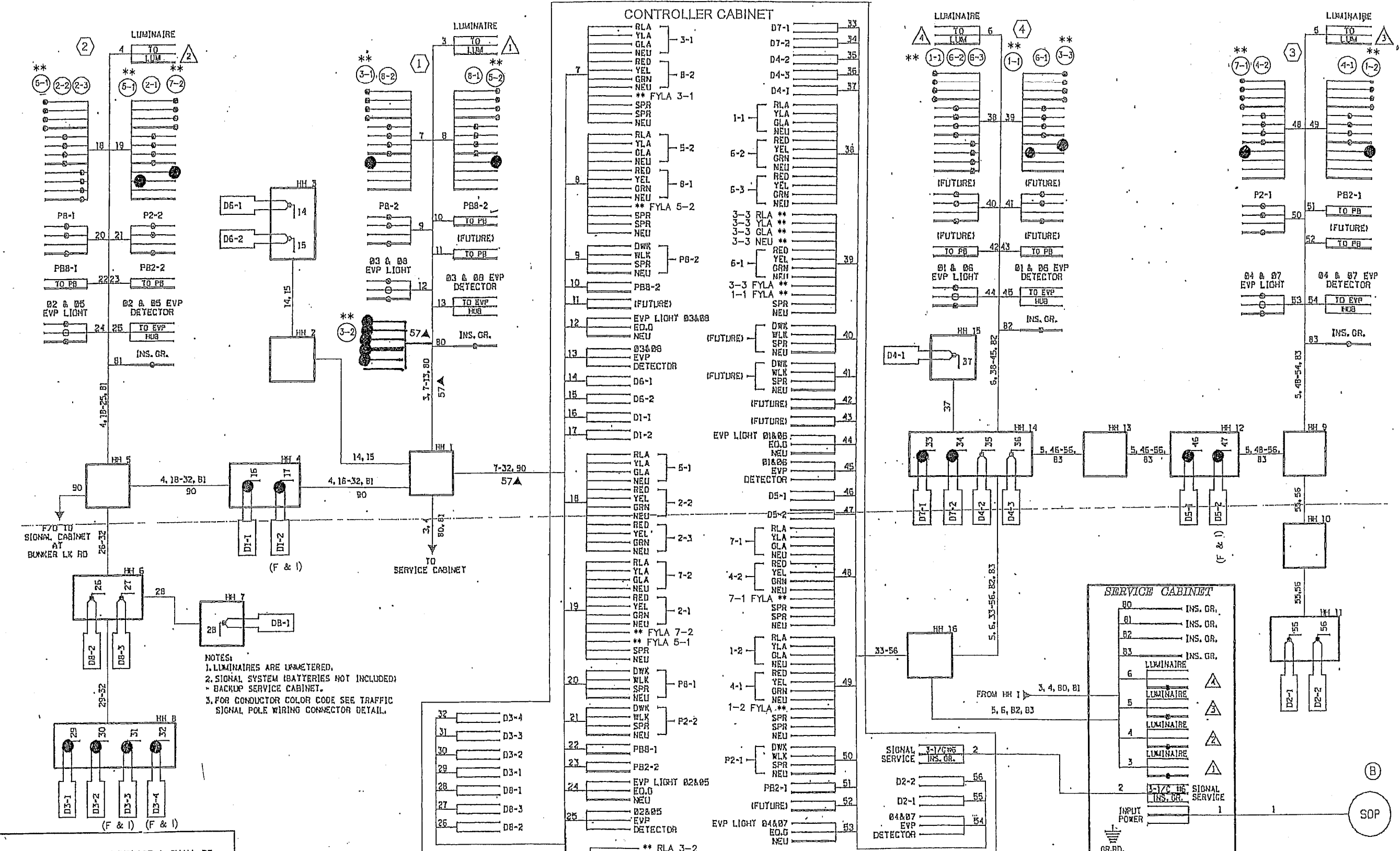
ANOKA COUNTY
 CITY OF RAMSEY

REVISE SIGNAL SYSTEM "D"
 POLE, CABINET AND GENERAL NOTES
 CSAH 83 (ARMSTRONG BLVD)
 AT SUNWOOD DRIVE-147TH AVENUE NW

FILE NO.
 RAMSY 14272B

STATE AID PROJ. 002-030-009
 RAMSEY CITY PROJECT NO. 17-08

21
 24



NOTES:
 1. LUMINAIRES ARE UNMETERED.
 2. SIGNAL SYSTEM (BATTERIES NOT INCLUDED) - BACKUP SERVICE CABINET.
 3. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.

NOTES:
 1) ALL CABLES AND CONDUCTORS ARE INPLACE & SHALL BE REUSED AS SHOWN, EXCEPT WHERE DENOTED BY ▲ (▲ = NEW CABLES AND CONDUCTORS TO BE FURNISHED AND INSTALLED BY CONTRACTOR AS PART OF REVISE SIGNAL SYSTEM "D" WORK).
 2) ● DENOTES NEW OR REVISED TERMINATIONS ON INPLACE OR NEW CABLES.
 3) ** DENOTES REVISED TERMINATIONS/LABELING ON INPLACE CABLES & CONDUCTORS IN POLE BASES, HANDHOLES, AND IN CONTROLLER CABINET.

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
 Name: John M. Gray, PE
 Lic. No. 22457
 Date: March 7, 2018

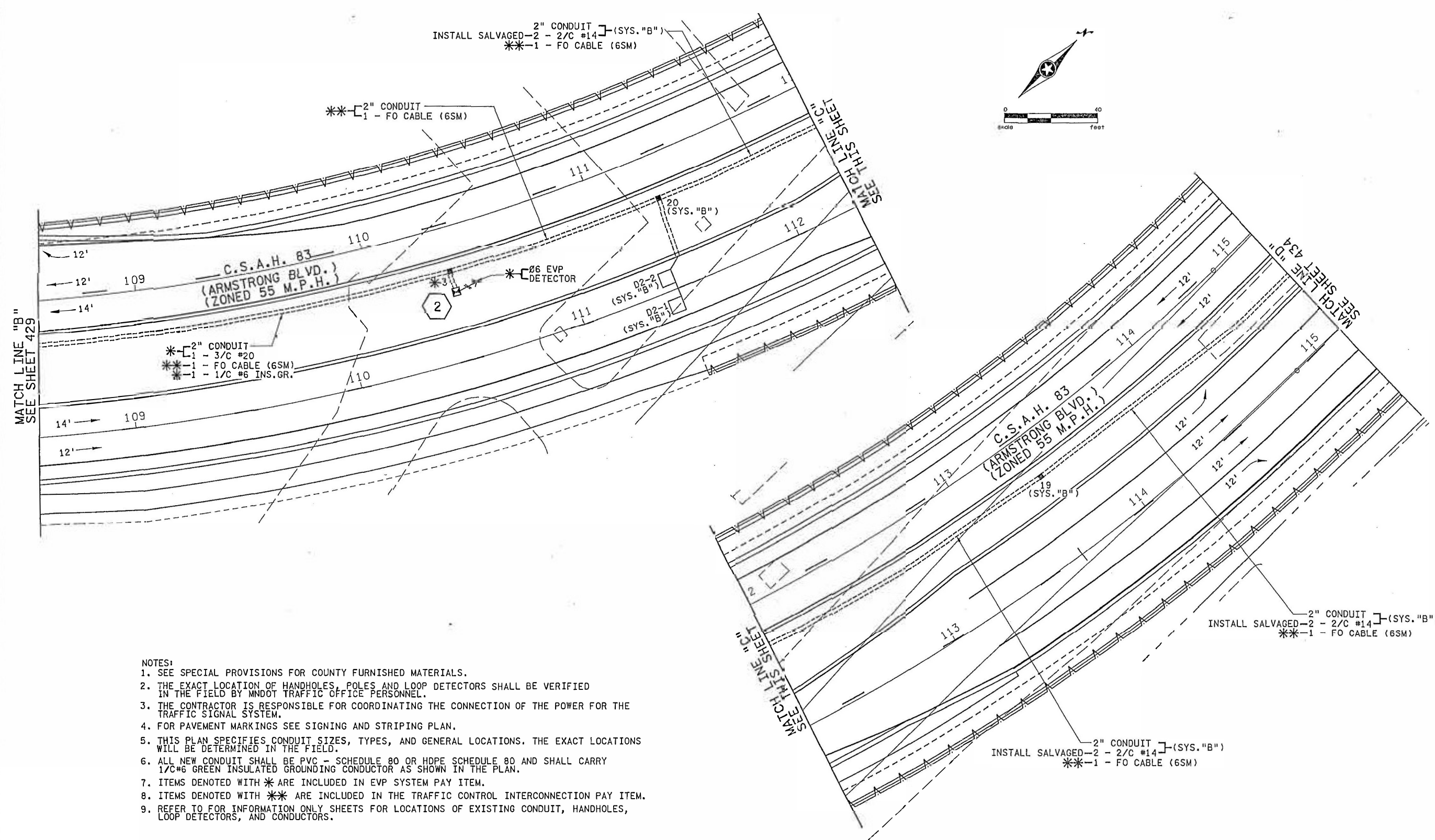
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ANOKA COUNTY
 CITY OF RAMSEY

REVISE SIGNAL SYSTEM "D"
 FIELD WIRING DIAGRAM
 CSAH 83 (ARMSTRONG BLVD)
 AT SUNWOOD DRIVE-147TH AVENUE NW

FILE NO. RAMSY 142728
 22
 24

STATE AID PROJ. 002-030-009
 RAMSEY CITY PROJECT NO. 17-08



- NOTES:
1. SEE SPECIAL PROVISIONS FOR COUNTY FURNISHED MATERIALS.
 2. THE EXACT LOCATION OF HANDHOLES, POLES AND LOOP DETECTORS SHALL BE VERIFIED IN THE FIELD BY MNDOT TRAFFIC OFFICE PERSONNEL.
 3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE CONNECTION OF THE POWER FOR THE TRAFFIC SIGNAL SYSTEM.
 4. FOR PAVEMENT MARKINGS SEE SIGNING AND STRIPING PLAN.
 5. THIS PLAN SPECIFIES CONDUIT SIZES, TYPES, AND GENERAL LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD.
 6. ALL NEW CONDUIT SHALL BE PVC - SCHEDULE 80 OR HDPE SCHEDULE 80 AND SHALL CARRY 1/2" #6 GREEN INSULATED GROUNDING CONDUCTOR AS SHOWN IN THE PLAN.
 7. ITEMS DENOTED WITH * ARE INCLUDED IN EVP SYSTEM PAY ITEM.
 8. ITEMS DENOTED WITH ** ARE INCLUDED IN THE TRAFFIC CONTROL INTERCONNECTION PAY ITEM.
 9. REFER TO FOR INFORMATION ONLY SHEETS FOR LOCATIONS OF EXISTING CONDUIT, HANDHOLES, LOOP DETECTORS, AND CONDUCTORS.

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NO	DATE	BY	CHKD	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: **ADRIAN S. POTTER**
Adrian S. Potter
 Date: 9-12-14 License #: 42785

STATE PROJECT NO. 002-683-004
 199-115-002
 STATE PROJECT NO. 0202-95 (TH 10)
 COUNTY PROJECT NO. 002-683-004
 CITY PROJECT NO. 14-22

DRAWN BY M. BRESSLER
 DESIGNED BY M. BRESSLER
 CHECKED BY A. POTTER
 COMM. NO. 0138259



ENGINEERS
 PLANNERS
 DESIGNERS

ANOKA COUNTY
 TRAFFIC SIGNAL PLANS
 T.H. 10 / C.S.A.H. 83 INTERCHANGE
 MATCH LINE LAYOUT (SYSTEM "A" & SYSTEM "B")

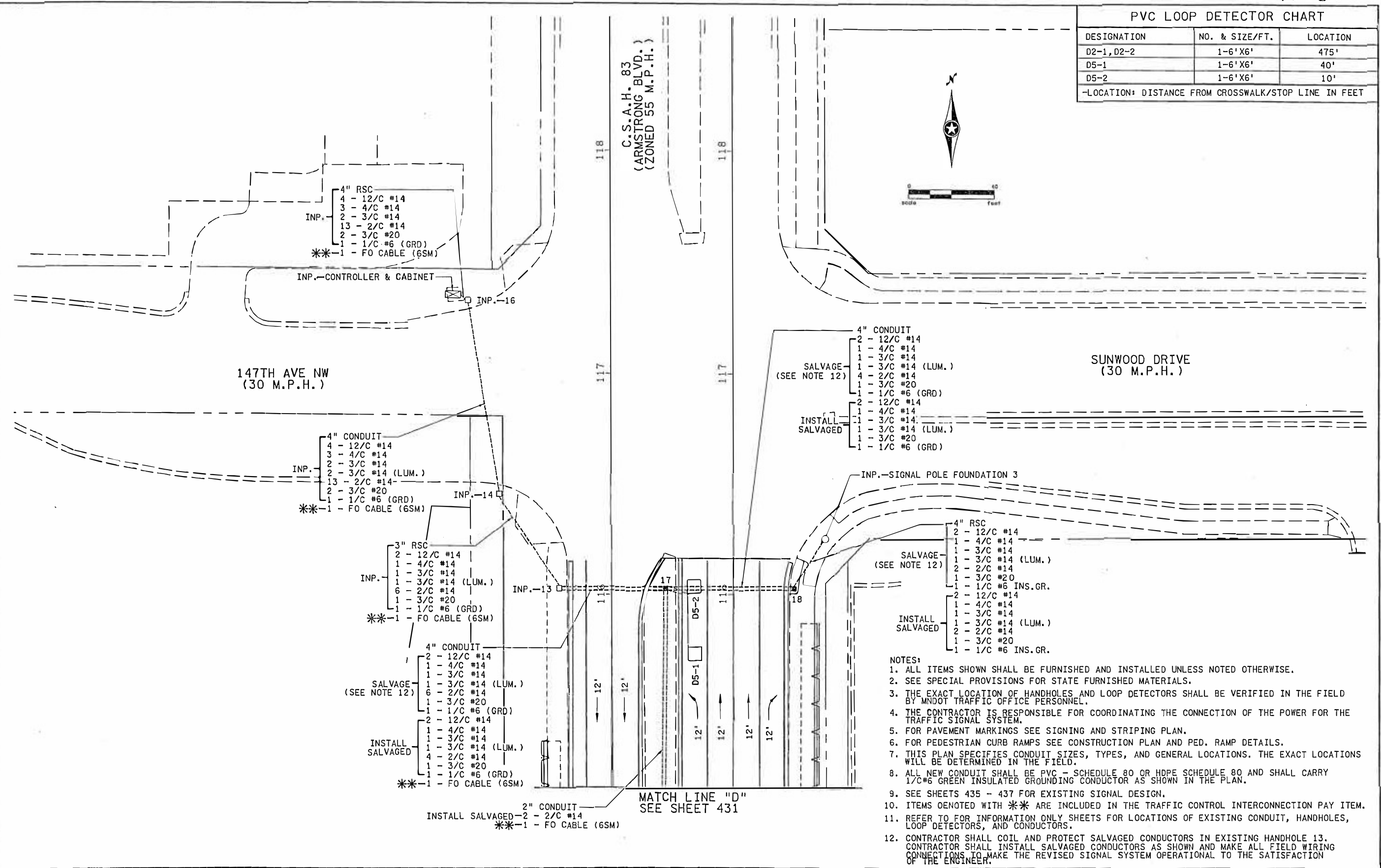
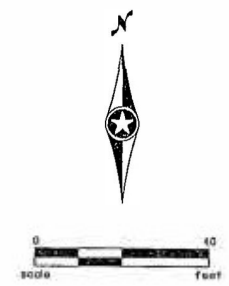
SHEET 431 OF 586

7806

PVC LOOP DETECTOR CHART

DESIGNATION	NO. & SIZE/FT.	LOCATION
D2-1, D2-2	1-6' X6'	475'
D5-1	1-6' X6'	40'
D5-2	1-6' X6'	10'

-LOCATION: DISTANCE FROM CROSSWALK/STOP LINE IN FEET



- NOTES:**
1. ALL ITEMS SHOWN SHALL BE FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE.
 2. SEE SPECIAL PROVISIONS FOR STATE FURNISHED MATERIALS.
 3. THE EXACT LOCATION OF HANDHOLES AND LOOP DETECTORS SHALL BE VERIFIED IN THE FIELD BY MNDOT TRAFFIC OFFICE PERSONNEL.
 4. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE CONNECTION OF THE POWER FOR THE TRAFFIC SIGNAL SYSTEM.
 5. FOR PAVEMENT MARKINGS SEE SIGNING AND STRIPING PLAN.
 6. FOR PEDESTRIAN CURB RAMPS SEE CONSTRUCTION PLAN AND PED. RAMP DETAILS.
 7. THIS PLAN SPECIFIES CONDUIT SIZES, TYPES, AND GENERAL LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD.
 8. 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.
 9. SEE SHEETS 435 - 437 FOR EXISTING SIGNAL DESIGN.
 10. ITEMS DENOTED WITH ** ARE INCLUDED IN THE TRAFFIC CONTROL INTERCONNECTION PAY ITEM.
 11. REFER TO FOR INFORMATION ONLY SHEETS FOR LOCATIONS OF EXISTING CONDUIT, HANDHOLES, LOOP DETECTORS, AND CONDUCTORS.
 12. CONTRACTOR SHALL COIL AND PROTECT SALVAGED CONDUCTORS IN EXISTING HANDHOLE 13. CONTRACTOR SHALL INSTALL SALVAGED CONDUCTORS AS SHOWN AND MAKE ALL FIELD WIRING CONNECTIONS TO MAKE THE REVISED SIGNAL SYSTEM OPERATIONAL TO THE SATISFACTION OF THE ENGINEER.

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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. Pr Inf Name: ADRIAN S. POTTER <i>Adrian S. Potter</i> Date: 5-12-14 License #: 42785		STATE PROJECT NO. 002-683-004 199-115-002 STATE PROJECT NO. 0202-95 (TH 10) COUNTY PROJECT NO. 002-683-004 CITY PROJECT NO. 14-22	DRAWN BY M. BRESSLER DESIGNED BY M. BRESSLER CHECKED BY A. POTTER COMM. NO. 0138259	SRH Consulting Group, Inc.	ENGINEERS PLANNERS DESIGNERS	ANOKA COUNTY TRAFFIC SIGNAL PLANS T.H. 10 / C.S.A.H. 83 INTERCHANGE REVISED INTERSECTION LAYOUT (REVISED SYSTEM "B") C.S.A.H. 83 (ARMSTRONG BLVD) AT SUNWOOD DR.	SHEET 434 OF 586
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