



INTERCONNECT NOTES:

- 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.
- (*) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT "C"). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
- ALL ITEMS OF THIS SIGNAL SYSTEM ARE INPLACE AND SHALL BE REUSED, PROTECTED AND MAINTAINED INPLACE, EXCEPT WHERE BOXED IN AND DENOTED BY (*) AND BY F & I (ITEMS TO BE FURNISHED & INSTALLED BY CONTRACTOR).
- NEW HANDHOLES REQUIRED TO BE FURNISHED & INSTALLED BY THE CONTRACTOR AS PART OF PROJECT SHALL BE PRE-CAST POLYMER CONCRETE STRUCTURES (QUAZITE). SEE DETAILS/SPECIAL PROVISIONS.
- SEE SPECIAL PROVISIONS FOR INFORMATION REGARDING LABOR AND MATERIALS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR IN EACH INPLACE TRAFFIC SIGNAL CONTROLLER CABINET AS PART OF THE "TRAFFIC CONTROL INTERCONNECT "C" PAY ITEM.

NMC LOOP DETECTORS			
NUMBER	SIZE (FT)	LOCATION	FUNCTION
D2-1	6 x 6	180'	1
D2-2	6 x 6	180'	1
D3-1	6 x 6	90'	3,8
D3-2	6 x 6	90'	3,8
D3-3	2-6 x 6	0' & 15'	7
D3-4	2-6 x 6	0' & 15'	7
D4-1	6 x 6	120'	3,8
D4-2	2-6 x 6	0' & 15'	7
D6-1	6 x 6	180'	1
D6-2	6 x 6	180'	1

DETECTOR FUNCTIONS:

- CALL AND EXTEND
- CALL ONLY
- EXTEND ONLY
- CALL ONLY DENSITY
- DELAYED CALL ONLY
- DELAYED CALL ONLY DENSITY
- DELAYED CALL-IMMEDIATE EXTEND
- CARRY OVER (STRETCH)
- ADVISORY DETECTOR
- SAMPLING DETECTOR
- COUNT DETECTOR

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

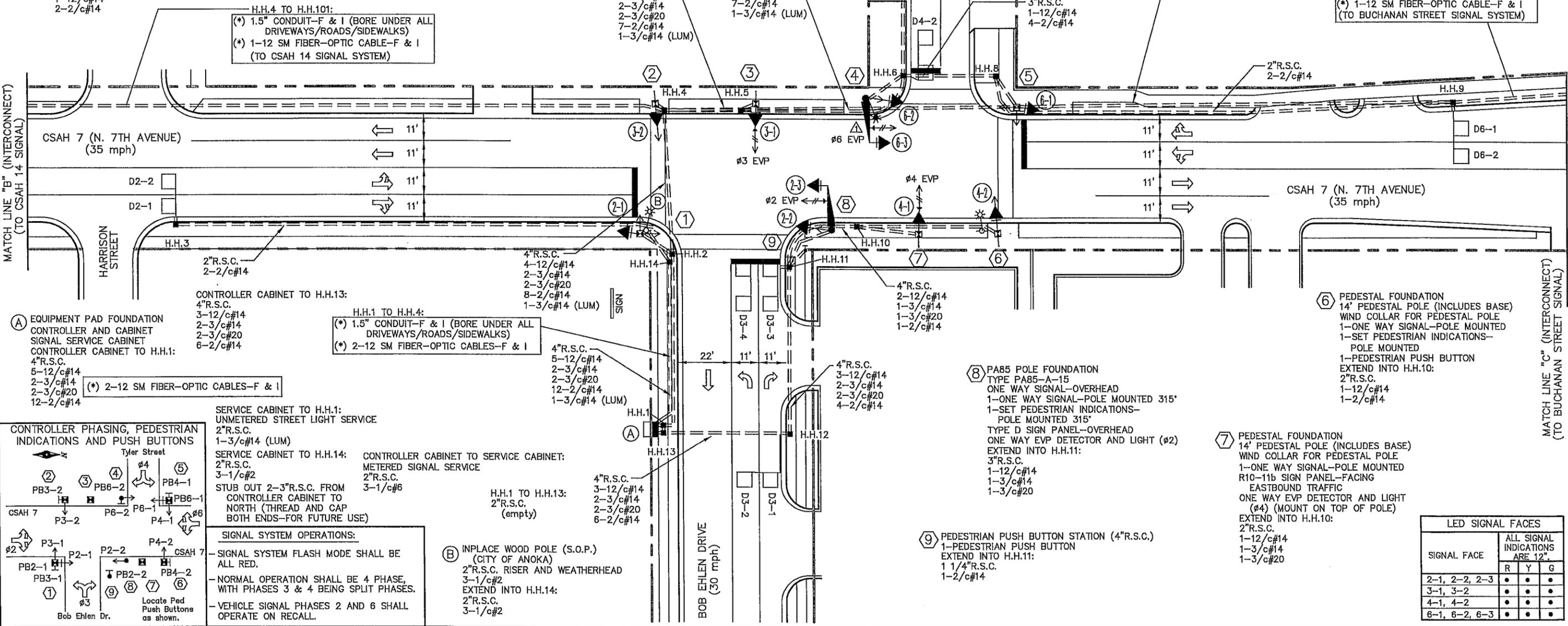
① PEDESTAL FOUNDATION
14' PEDESTAL POLE (INCLUDES BASE)
WIND COLLAR FOR PEDESTAL POLE
1-ONE WAY SIGNAL-POLE MOUNTED
2-SETS PEDESTRIAN INDICATIONS-POLE MOUNTED
2-PEDESTRIAN PUSH BUTTONS
R10-6L SIGN PANEL-FACING NORTHBOUND TRAFFIC
EXTEND INTO H.H.2:
3"R.S.C.
1-12/c#14
2-2/c#14

② PEDESTAL FOUNDATION
14' PEDESTAL POLE (INCLUDES BASE)
WIND COLLAR FOR PEDESTAL POLE
1-ONE WAY SIGNAL-POLE MOUNTED
1-SET PEDESTRIAN INDICATIONS-POLE MOUNTED
1-PEDESTRIAN PUSH BUTTON
EXTEND INTO H.H.4:
3"R.S.C.
1-12/c#14
1-2/c#14

③ PEDESTAL FOUNDATION
14' PEDESTAL POLE (INCLUDES BASE)
WIND COLLAR FOR PEDESTAL POLE
1-ONE WAY SIGNAL-POLE MOUNTED
R10-11b SIGN PANEL-FACING WESTBOUND TRAFFIC
ONE WAY EVP DETECTOR AND LIGHT (#3) (MOUNT ON TOP OF POLE)
EXTEND INTO H.H.5:
3"R.S.C.
1-12/c#14
1-3/c#14
1-3/c#20

④ PA85 POLE FOUNDATION
TYPE PA85-A-15-D40-9 (DAVIT AT 350')
LUMINAIRE-250 W HPS
ONE WAY SIGNAL-POLE MOUNTED 315'
1-ONE WAY SIGNAL-POLE MOUNTED 315'
1-SET PEDESTRIAN INDICATIONS-POLE MOUNTED 315'
1-PEDESTRIAN PUSH BUTTON
TYPE D SIGN PANEL-OVERHEAD
ONE WAY EVP DETECTOR AND LIGHT (#6)
EXTEND INTO H.H.6:
3"R.S.C.
1-12/c#14
1-3/c#14
1-3/c#20
1-2/c#14
1-3/c#14 (LUM)

⑤ PEDESTAL FOUNDATION
14' PEDESTAL POLE (INCLUDES BASE)
WIND COLLAR FOR PEDESTAL POLE
1-ONE WAY SIGNAL-POLE MOUNTED
2-SETS PEDESTRIAN INDICATIONS-POLE MOUNTED
2-PEDESTRIAN PUSH BUTTONS
R10-6L SIGN PANEL-FACING SOUTHBOUND TRAFFIC
EXTEND INTO H.H.8:
3"R.S.C.
1-12/c#14
2-2/c#14



⑥ EQUIPMENT PAD FOUNDATION
CONTROLLER AND CABINET
SIGNAL SERVICE CABINET
CONTROLLER CABINET TO H.H.1:
4"R.S.C.
5-12/c#14
2-3/c#14
2-3/c#20
12-2/c#14
(*) 2-12 SM FIBER-OPTIC CABLES-F & I

CONTROLLER CABINET TO H.H.13:
4"R.S.C.
3-12/c#14
2-3/c#14
2-3/c#20
8-2/c#14
1-3/c#14 (LUM)

H.H.1 TO H.H.4:
(*) 1.5" CONDUIT-F & I (BORE UNDER ALL DRIVEWAYS/ROADS/SIDEWALKS)
(*) 2-12 SM FIBER-OPTIC CABLES-F & I

SERVICE CABINET TO H.H.1:
UNMETERED STREET LIGHT SERVICE
2"R.S.C.
1-3/c#14 (LUM)

SERVICE CABINET TO H.H.14:
2"R.S.C.
3-1/c#2
STUB OUT 2-3"R.S.C. FROM CONTROLLER CABINET TO NORTH (THREAD AND CAP BOTH ENDS-FOR FUTURE USE)

CONTROLLER CABINET TO SERVICE CABINET:
METERED SIGNAL SERVICE
2"R.S.C.
3-1/c#6

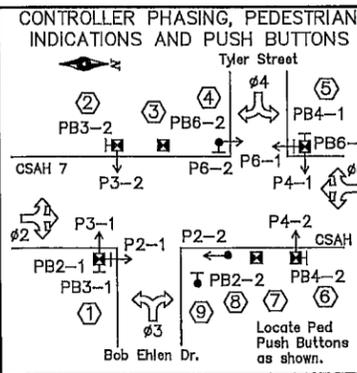
H.H.1 TO H.H.13:
2"R.S.C.
(empty)

⑦ INPLACE WOOD POLE (S.O.P.) (CITY OF ANOKA)
2"R.S.C. RISER AND WEATHERHEAD
3-1/c#2
EXTEND INTO H.H.14:
2"R.S.C.
3-1/c#2

⑧ PA85 POLE FOUNDATION
TYPE PA85-A-15
ONE WAY SIGNAL-POLE MOUNTED 315'
1-ONE WAY SIGNAL-POLE MOUNTED 315'
1-SET PEDESTRIAN INDICATIONS-POLE MOUNTED 315'
TYPE D SIGN PANEL-OVERHEAD
ONE WAY EVP DETECTOR AND LIGHT (#2)
EXTEND INTO H.H.11:
3"R.S.C.
1-12/c#14
1-3/c#14
1-3/c#20

⑦ PEDESTAL FOUNDATION
14' PEDESTAL POLE (INCLUDES BASE)
WIND COLLAR FOR PEDESTAL POLE
1-ONE WAY SIGNAL-POLE MOUNTED
R10-11b SIGN PANEL-FACING EASTBOUND TRAFFIC
ONE WAY EVP DETECTOR AND LIGHT (#4) (MOUNT ON TOP OF POLE)
EXTEND INTO H.H.10:
2"R.S.C.
1-12/c#14
1-3/c#14
1-3/c#20

⑨ PEDESTRIAN PUSH BUTTON STATION (4"R.S.C.)
1-PEDESTRIAN PUSH BUTTON
EXTEND INTO H.H.11:
1 1/4"R.S.C.
1-2/c#14



SIGNAL SYSTEM OPERATIONS:

- SIGNAL SYSTEM FLASH MODE SHALL BE ALL RED.
- NORMAL OPERATION SHALL BE 4 PHASE, WITH PHASES 3 & 4 BEING SPLIT PHASES.
- VEHICLE SIGNAL PHASES 2 AND 6 SHALL OPERATE ON RECALL.

LED SIGNAL FACES				
SIGNAL FACE	ALL SIGNAL INDICATIONS ARE 12"			
	R	Y	G	
2-1, 2-2, 2-3	•	•	•	
3-1, 3-2	•	•	•	
4-1, 4-2	•	•	•	
6-1, 6-2, 6-3	•	•	•	

S:\VEVA\ANOKA\CAD\DRAWINGS\2017\INTERCONNECT\2017\BASE.DWG

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

REVISIONS		
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: July 6, 2018 Name: John M. Gray, PE License No.: 22457

SEH
PHONE: (851) 490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

**ANOKA COUNTY, MN
CITY OF ANOKA**
SAP 002-030-010

**TRAFFIC SIGNAL INTERCONNECT "C"
INTERSECTION LAYOUT
CSAH 7 (7TH AVENUE NW)
AT BOB EHLEN DRIVE/TYLER STREET**

FILE NO. ANOKC 142312
49
115



LOOP DETECTOR CHART

NUMBER	SIZE (FT)	LOCATION
D1-1	6X6	20'x50'
D1-2	6X6	5'x35'
D2-1,D2-2	6X6	150'
D4-1,D4-2	6X6	120'
D4-3	2-6X6	5'x20'
D4-4	2-6X6	5'x20'
D6-1,D6-2	6X6	170'

-ALL LOOP DETECTORS ARE VC
-LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET

- 6) INTERCONNECT CONDUIT AND CABLES TO BE FURNISHED & INSTALLED AS PART OF THIS PROJECT DO NOT CONNECT TO TH 10 SOUTH RAMPS SIGNAL SYSTEM NOR DO CABLES RUN THROUGH ANY EXISTING TH 10 SOUTH RAMPS SIGNAL SYSTEM CONDUITS.
- 7) FIBER OPTIC INTERCONNECT BETWEEN TRUNK HIGHWAY 10 NORTH AND SOUTH RAMPS IS INPLACE AND SHALL BE REUSED AND MAINTAINED INPLACE AND IN OPERATION.

- INTERCONNECT NOTES:**
- 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.
 - (*) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT "C"). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
 - ALL ITEMS OF THIS SIGNAL SYSTEM ARE INPLACE AND SHALL BE REUSED, PROTECTED AND MAINTAINED INPLACE, EXCEPT WHERE BOXED IN AND DENOTED BY (*) AND BY F & I (ITEMS TO BE FURNISHED & INSTALLED BY CONTRACTOR).
 - NEW HANDHOLES 102-103 REQUIRED TO BE FURNISHED & INSTALLED BY CONTRACTOR AS PART OF PROJECT SHALL BE PRE-CAST POLYMER CONCRETE STRUCTURES (QUAZITE). SEE DETAILS/SPECIAL PROVISIONS.
 - SEE SPECIAL PROVISIONS FOR INFORMATION REGARDING LABOR AND MATERIALS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR IN EACH INPLACE TRAFFIC SIGNAL CONTROLLER CABINET AS PART OF THE "TRAFFIC CONTROL INTERCONNECT "C" PAY ITEM.

- 5) NB STA 16+02, 59' LT PEDESTAL FOUNDATION
10' PEDESTAL POLE PLUS BASE
TYPE 4A
1-CD PED HEAD AT 0 DEG
1-APS PB AND SIGN (LT ARROW) (PB6-1)
1-TYPE R9-3 SIGN (FACING POLE I)
2-TYPE R6-1 SIGNS (L & R)
EXTEND INTO HH 6:
3" PVC
1-12/C#14
1-2/C#14
1-1/C#6 INS. GR.

- A) NB STA 16+28, 63' RT
EQUIPMENT PAD (SEE DETAIL)
SERVICE CABINET
4" PVC TO HH 1:
3-12/C#14
1-3/C#14
9-2/C#14
1-3/C#20
1-1/C#6 INS GR

- 2" AND 3" PVC STUBBED OUT AND CAPPED
3" PVC TO TMS CABINET
1" FLEXIBLE PVC INSIDE
FIBER OPTIC PATCH CORD

- 1 1/2" PVC TO HH 90
1-F/O CABLE (6-SM)

- 2" PVC TO SERVICE CABINET
2-1/C#6
1-1/C#6 INS GR
2" PVC TO SERVICE CABINET
SERVICE CABINET TO HH 1:
2" PVC
4-3/C#14 (LUM)

- HH 1 TO HH 15:
2" PVC
2-3/C#14 (LUM)

- 3) NB STA 14+95, 47' LT
PA100 POLE FOUNDATION
TYPE PA100-A-45-D40-9 (DAVIT AT 350 DEG)
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 18'
1-ANGLE MOUNT SIGNAL AT 180 DEG
ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 6&1)
1-SIGN TYPE D
1-SIGN TYPE R10-X12 (LT YIELD ON FYA) ADJACENT TO HEAD 1-1
3" PVC INTO HH 9:
2-12/C#14
1-3/C#14
1-3/C#14 (LUM)
1-3/C#20
1-1/C#6 INS. GR.

- 4) NB STA 15+36, 61' LT
PEDESTAL FOUNDATION
10' PEDESTAL POLE PLUS BASE
TYPE 4B
2-CD PED HEADS AT 90 AND 270 DEG
1-APS PB AND SIGN (RT ARROW) (PB6-2)
EXTEND INTO HH 9:
3" PVC
1-12/C#14
1-2/C#14
1-1/C#6 INS. GR.

- 4) APS PED STA (PB4-1)
1-APS PB & SIGN (LT ARROW)
EXTEND INTO HH 9:
2" PVC
1-2/C#14

- 4) APS PED STA (PB4-2)
1-APS PB & SIGN (DBL ARROW)
EXTEND INTO HH 10:
2" PVC
1-2/C#14

- HH 12 TO HH 13:
4" PVC
3-12/C#14
1-3/C#14
2-3/C#14 (LUM)
5-2/C#14
1-3/C#20
1-1/C#6 INS GR

- 4) APS PED STA (PB2-2)
1-APS PB & SIGN (RT ARROW)
EXTEND INTO HH 14:
2" PVC
1-2/C#14

- 1) NB STA 16+07, 46' RT
PA85 POLE FOUNDATION
TYPE PA85-A-25-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 CD PED HEAD AT 180 DEG
ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 2)
LUMINAIRE 250-HPS
1-TYPE D SIGN
1-R9-3 SIGN (FACING POLE 5)
3" PVC INTO HH 2:
2-12/C#14
1-3/C#14
1-3/C#14 (LUM)
1-3/C#20
1-1/C#6 INS. GR.

- H.H.102 TO H.H.103:
(* 1.5" CONDUIT-F & I (BORE UNDER ALL DRIVEWAYS/ROADS/SIDEWALKS)
(* 1-12 SM FIBER-OPTIC CABLE-F & I

- H.H.103 TO H.H.104:
(* 1.5" CONDUIT-F & I (BORE UNDER BRIDGE SIDEWALK)
(* 1-12 SM FIBER-OPTIC CABLE-F & I
(TO BUCHANAN STREET SIGNAL SYSTEM)

WOOD POLE AND DISCONNECT
3-1/C#2
TO NEW SERVICE CABINET VIA HH 2" PVC
2-1/C#2
1-1/C#2 INS GR

MATCH LINE "C" (INTERCONNECT)
(TO BOB EHLEN/TYLER ST SIGNAL)

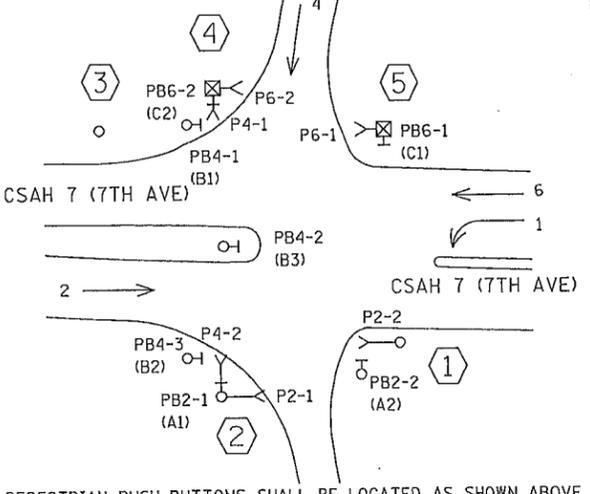
- H.H.102 TO H.H.9:
(* 1.5" CONDUIT-F & I (BORE UNDER ALL DRIVEWAYS/ROADS/SIDEWALKS)
(* 1-12 SM FIBER-OPTIC CABLE-F & I
(TO BOB EHLEN/TYLER ST SIGNAL SYSTEM)

SIGNAL HEAD CHART

FACE	R	Y	FYA	G
1-1,1-2	←	←	←	←
2-1,2-2	○	○		○
4-1,4-2,4-3	○	○		○
6-1,6-2	○	○		○

- ALL SIGNAL INDICATIONS ARE 2" LEDS
-ALL SIGNAL HEADS ARE BLACK POLYCARBONATE 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 4 PHASE, WITH PHASE 1 BEING A FLASHING YELLOW ARROW BY TIME OF DAY.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

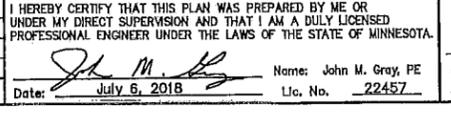
SYSTEM ID: 20211
METER ADDRESS: HWY 10 AT 7TH AVE

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 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 6, 2018



ANOKA COUNTY, MN
CITY OF ANOKA
SAP 002-030-010

TRAFFIC SIGNAL INTERCONNECT "C"
INTERSECTION LAYOUT
CSAH 7 (7TH AVENUE NW)
(BOB EHLEN DRIVE TO BUCHANAN ST)

FILE NO.
ANOKC 142312

51
115



LOOP DETECTOR CHART

NUMBER	SIZE (FT)	LOCATION
D2-1,D2-2	6X6	130'
D5-1	6X6	20'x50'
D5-2	6X6	5'x35'
D6-1,D6-2	6X6	180'
D8-1,D8-2	6X6	120'
D8-3	2-6X6	5'x20'
D8-4	2-6X6	5'x20'

-ALL LOOP DETECTORS ARE PVC
 -LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET

SIGNAL HEAD CHART

FACE	R	Y	FYA	G
2-1,2-2	○	○		○
5-1,5-2	←	←	←	←
6-1,6-2	○	○		○
8-1,8-2,8-3	○	○		○

-ALL SIGNAL INDICATIONS ARE 12" LEDS
 -ALL SIGNAL HEADS ARE BLACK POLYCARBONATE WITH BACKGROUND SHIELDS
 -FYA DENOTES FLASHING YELLOW ARROW

GROUND MOUNTED TRANSFORMER (BY ANOKA ELECTRIC)
 EXTEND INTO SERVICE CABINET:
 2" PVC
 2-1/C#2
 1-1/C#2 INS GR

H.H.104 TO H.H.105:
 (*) 1.5" CONDUIT-F & I (BORE UNDER ALL DRIVEWAYS/ROADS/SIDEWALKS)
 (*) 1-12 SM FIBER-OPTIC CABLE-F & I

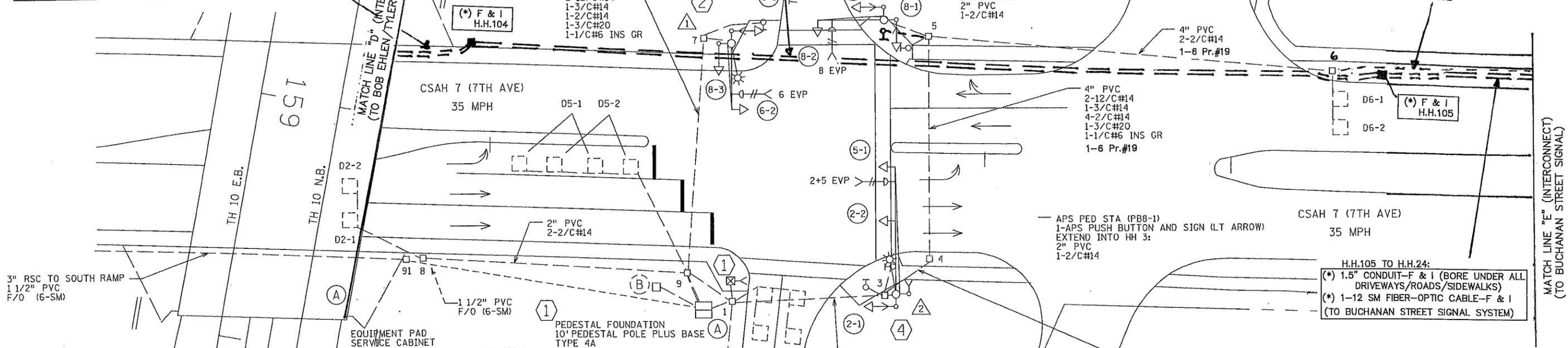
NB STA 20+59.59' LT
 PA85 POLE FOUNDATION
 TYPE PA85-A-25
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
 2-ANGLE MOUNT CD PED HEADS AT 90 AND 180 DEG
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 8)
 1-APS PB AND SIGN (LT ARROW) (PB6-1)
 1-TYPE D SIGN
 2-TYPE R6-1 SIGNS (L & R)
 3" PVC INTO HH 5:
 2-12/C#14
 1-3/C#14
 1-2/C#14
 1-3/C#20
 1-1/C#6 INS. GR.

H.H.104 TO H.H.103:
 (*) 1.5" CONDUIT-F & I (BORE UNDER BRIDGE SIDEWALK)
 (*) 1-12 SM FIBER-OPTIC CABLE-F & I
 (TO BOB EHLEN DRIVE/TYLER STREET SIGNAL SYSTEM)

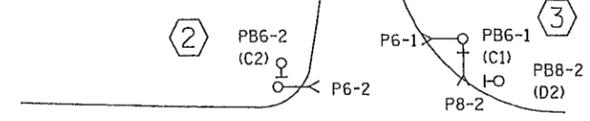
APS PED STA (PB6-2)
 1-APS PUSH BUTTON AND SIGN (RT ARROW)
 EXTEND INTO HH 7:
 2" PVC
 1-2/C#14

APS PED STA (PB8-2)
 1-APS PUSH BUTTON AND SIGN (RT ARROW)
 EXTEND INTO HH 5:
 2" PVC
 1-2/C#14

H.H.6 TO H.H.24:
 2"R.S.C.-INPLAC
 1-6 Pr.#19-INPLACE



CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

EQUIPMENT PAD SERVICE CABINET
 4" PVC TO HH 1:
 5-12/C#14
 2-3/C#14
 1-2/C#14
 2-3/C#20
 1-1/C#6 INS GR
 1-6 Pr.#19

PEDESTAL FOUNDATION 10' PEDESTAL POLE PLUS BASE TYPE 4A
 1-CD PED HEAD AT 0 DEG
 1-APS PB AND SIGN (LT ARROW) (PB2-1)
 1-R9-3 SIGN (FACING POLE 2)
 2-TYPE R6-1 SIGNS (L & R)
 EXTEND INTO HH 1:
 3" PVC
 1-12/C#14
 1-2/C#14
 1-1/C#6 INS. GR.

2" AND 3" PVC STUBBED OUT AND CAPPED
 1 1/2" PVC TO HH 91 WITH 1-FIBER OPTIC CABLE (6-SM)
 2" PVC TO SERVICE CABINET
 2-1/C#6
 1-1/C#6 INS GR
 2" PVC TO SERVICE CABINET
 SERVICE CABINET TO HH 9:
 2" PVC
 2-3/C#14 (LUM)
 HH 9 TO HH 1:
 2" PVC
 1-3/C#14 (LUM)

SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 4 PHASE, WITH PHASE 5 BEING A FLASHING YELLOW ARROW BY TIME OF DAY.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

SYSTEM ID: 20210
 METER ADDRESS: HWY 10 AT 7TH AVE

INTERCONNECT NOTES:

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- 3) ALL ITEMS OF THIS SIGNAL SYSTEM ARE INPLACE AND SHALL BE REUSED, PROTECTED AND MAINTAINED INPLACE, EXCEPT WHERE BOXED IN AND DENOTED BY (*) AND BY F & I (ITEMS TO BE FURNISHED & INSTALLED BY CONTRACTOR).
- 4) NEW HANDHOLES 104-105 REQUIRED TO BE FURNISHED & INSTALLED BY CONTRACTOR AS PART OF PROJECT SHALL BE PRE-CAST POLYMER CONCRETE STRUCTURES (QUAZITE). SEE DETAILS/SPECIAL PROVISIONS.
- 5) SEE SPECIAL PROVISIONS FOR INFORMATION REGARDING LABOR AND MATERIALS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR IN EACH INPLACE TRAFFIC SIGNAL CONTROLLER CABINET AS PART OF THE "TRAFFIC CONTROL INTERCONNECT "C" PAY ITEM.
- 6) INTERCONNECT CONDUIT AND CABLES TO BE FURNISHED & INSTALLED AS PART OF THIS PROJECT DO NOT CONNECT TO TH 10 NORTH RAMPS SIGNAL SYSTEM NOR DO CABLES RUN THROUGH ANY EXISTING TH 10 NORTH RAMPS SIGNAL SYSTEM CONDUITS.
- 7) FIBER OPTIC INTERCONNECT BETWEEN TRUNK HIGHWAY 10 NORTH AND SOUTH RAMPS IS INPLACE AND SHALL BE REUSED AND MAINTAINED INPLACE AND IN OPERATION.

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.

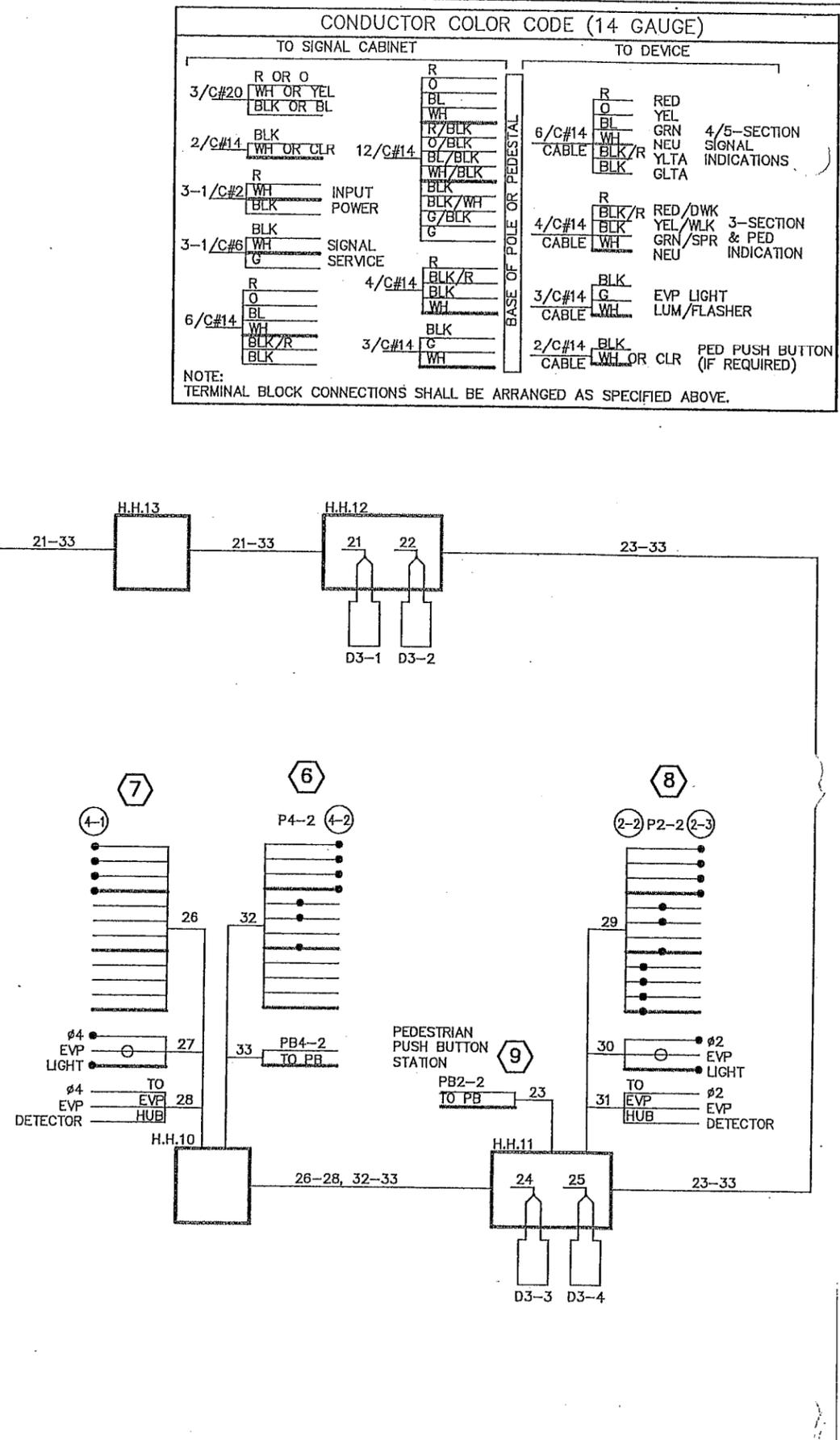
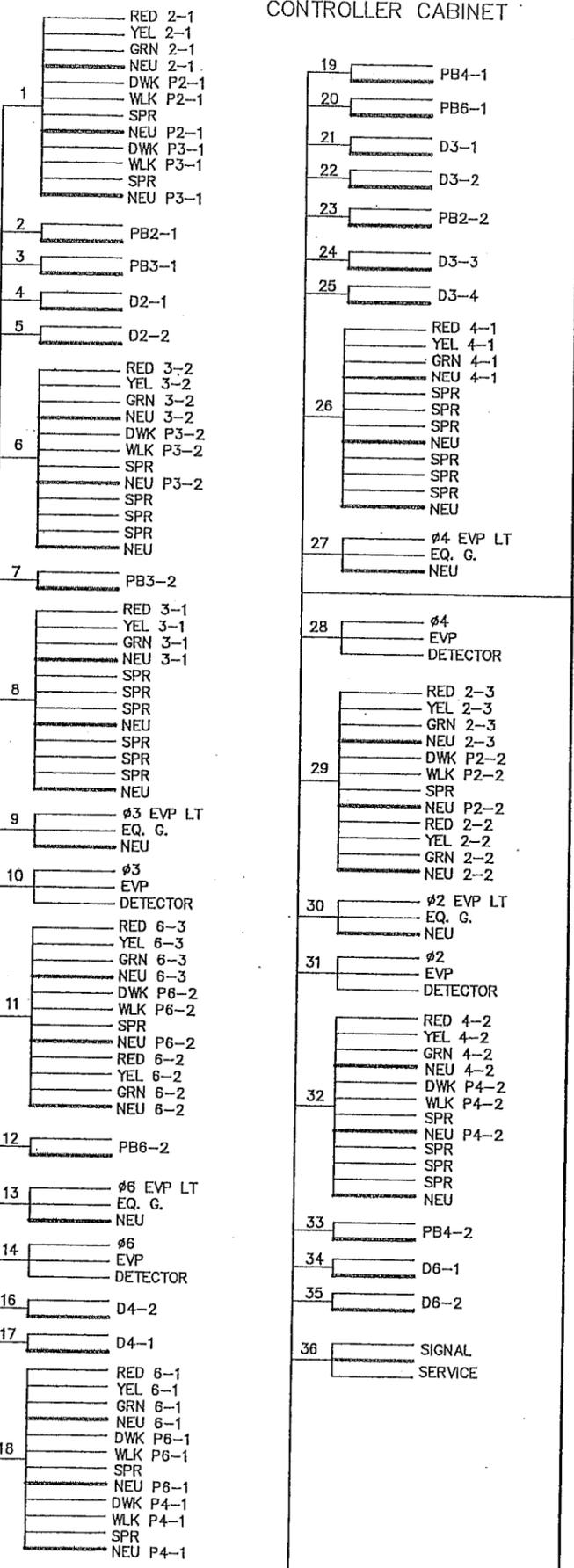
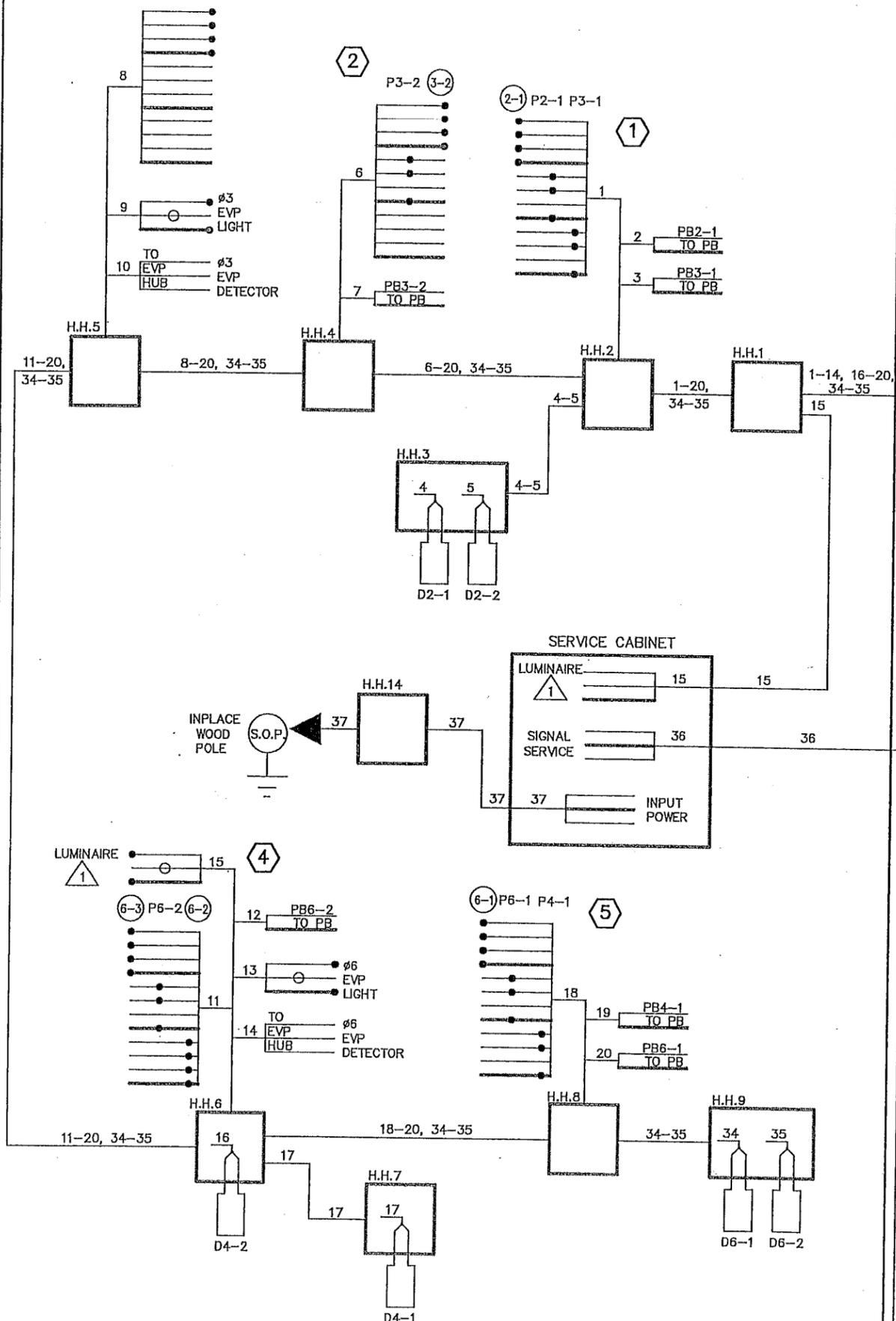
John M. Gray
 Name: John M. Gray, PE
 Lic. No. 22457
 Date: July 6, 2018

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

ANOKA COUNTY, MN
 CITY OF ANOKA
 SAP 002-030-010

TRAFFIC SIGNAL INTERCONNECT "C"
 INTERSECTION LAYOUT
 CSAH 7 (7TH AVENUE NW)
 (BOB EHLEN DRIVE TO BUCHANAN ST)

FILE NO.
 ANOK 142312
 52
 115

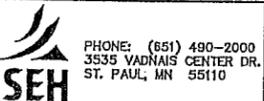


DRAWN BY: JMG	1	JMG	12/2009	RECORD DRAWING
DESIGNER: JMG				
CHECKED BY: JMG				
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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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
Date: July 7, 2008
Lic. No. 22457



ANOKA COUNTY, MINNESOTA
CITY OF ANOKA
COUNTY PROJECT NO. 97-56-07

TRAFFIC SIGNAL SYSTEM
FIELD WIRING DIAGRAM
CSAH 7 (NORTH 7TH AVENUE) AT
BOB EHLEN DRIVE/TYLER STREET

FILE NO.	10
AANOKC9902.03	
DATE	07/07/2008
15	