

* LOOP DETECTORS			
NUMBER	SIZE	FUNCTION	LOCATION
D1-1	2'-6" X 6'	1	5'
D1-2	2'-6" X 6'	1	AS SHOWN
D2-1	6' X 6'	1	300'
D2-2	6' X 6'	1	300'
D4-1	6' X 6'	3/8	120'
D4-2	6' X 6'	7	5'
D4-3	6' X 6'	1	5'
D5-1	2'-6" X 6'	1	5'
D5-2	2'-6" X 6'	1	AS SHOWN
D6-1	6' X 6'	1	300'
D6-2	6' X 6'	1	300'
D8-1	6' X 6'	3/8	120'
D8-2	6' X 6'	7	5'

* NOTE: ALL DETECTORS IN NMC CONDUIT

FUNCTIONS: LOCATION-DISTANCE FROM STOP LINE TO DETECTOR

- 1 - CALL AND EXTEND
- 2 - CALL ONLY
- 3 - EXTEND ONLY
- 4 - CALL ONLY DENS
- 5 - DLY CALL ONLY
- 6 - DLY CALL ONLY DENSITY
- 7 - DLY CALL IMMED EXTEND
- 8 - CARRY OVER
- 9 - ADVISORY
- 10 - CALL DURING B 2 YELLOW
- 11 - CALL DURING B 6 YELLOW

105+00

CSAH 1 (EAST RIVER ROAD) 40 MPH

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REVISE SIGNAL SYSTEM F NOTES:

- ALL ITEMS OF THIS SIGNAL SYSTEM ARE INPLACE AND SHALL BE REUSED AND MAINTAINED INPLACE, UNLESS BOXED IN AND NOTED OTHERWISE ON PLANS.
- ALL HANDHOLES ARE INPLACE AND SHALL BE REUSED AND MAINTAINED INPLACE, EXCEPT AS FOLLOWS:
 - ADJUST HANDHOLES 2, 5, 6, 12, 13, AND 14 TO FINISHED SURROUNDING SIDEWALK, MEDIAN, OR BOULEVARD GRADE AFTER ALL WORK IS COMPLETED.
 - REMOVE INPLACE CONCRETE FRAME AND COVER (HH 2, 5, 6, 12, 13, AND 14) AND FURNISH AND INSTALL NEW PVC METAL FRAME AND COVER ON EACH OF THESE HANDHOLES AFTER CONCRETE HANDHOLE BODY HAS BEEN ADJUSTED, SO THAT NEW COVER IS INSTALLED TO BE FLUSH WITH FINISHED SURROUNDING GRADE.
 - ALL HANDHOLE ADJUSTMENT WORK (INCLUDING FRAME & COVER REMOVAL AND REPLACEMENT) IS INCLUDED AS PART OF THE PAY ITEM FOR ITEM NO. 2565 (REVISE SIGNAL SYSTEM F). SEE DETAILS AND SPECIAL PROVISIONS FOR FURTHER INFORMATION.
- LOCATION OF NEW PUSH BUTTON STATIONS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- ALL CABLES AND CONDUCTORS, CONDUIT, HANDHOLES, AND LOOP DETECTORS ARE INPLACE AND SHALL BE REUSED AND MAINTAINED INPLACE, EXCEPT WHERE BOXED IN AND DENOTED OTHERWISE.
- LOOP DETECTOR WIRES SHALL BE CROSS-LINKED POLYETHYLENE (XLP) 12 AWG IN 3/4" NMC. LOOP DETECTORS IMPACTED BY EITHER CURB RAMP WORK OR MILL/OVERLAY WORK SHALL BE FURNISHED, INSTALLED & MADE OPERATIONAL BY CONTRACTOR TO SATISFACTION OF ENGINEER. SEE DETAILS & SPECIAL PROVISIONS.
- CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING LOOP DETECTOR SPLICE KITS (FOR ANY LOOP DETECTOR BEING REPLACED AS PART OF THIS PROJECT) AND SHALL FURNISH AND INSTALL NEW LOOP DETECTOR SPLICE KITS IN THE ADJACENT HANDHOLE FOR THESE LOOP DETECTORS AS CALLED FOR IN THE SPECIAL PROVISIONS.
- A SEPARATE PAY ITEM HAS BEEN ADDED (2565 - RIGID PVC LOOP DETECTOR 6' x 6") FOR REPLACEMENT OF LOOP DETECTORS, SHOULD THESE LOOP DETECTORS BE REQUIRED TO BE REPLACED BY THE CONTRACTOR EITHER DUE TO MILL/OVERLAY OR CURB RAMP/CURB AND GUTTER WORK THAT CAUSES THE EXISTING LOOP DETECTOR TO BE DAMAGED. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT AND MAINTAIN THE EXISTING LOOP DETECTORS (INCLUDING LEAD-IN CONDUITS FROM HANDHOLE TO IN-PAVEMENT LOOP DETECTOR CONDUIT) AND SHALL NOTIFY THE ENGINEER IF THEY ANTICIPATE THAT A LOOP DETECTOR WILL BE DAMAGED DUE TO THEIR WORK. COUNTY WILL PROVIDE INITIAL LOCATION OF THESE LOOP DETECTORS FOR CONTRACTOR TO BE ABLE TO PLAN FOR WORKING AROUND THESE LOOP DETECTORS. SEE SPECIAL PROVISIONS.
- CONTRACTOR SHALL MAINTAIN A SIGNAL SYSTEM IN OPERATION AT THIS INTERSECTION AT ALL TIMES, UNLESS OTHERWISE APPROVED BY THE ENGINEER FOR THE SIGNAL SYSTEM TO BE PLACED INTO ALL-RED FLASH DURING NON-PEAK TRAFFIC PERIODS (FOR WORK THAT REQUIRES THE SIGNAL SYSTEM TO BE OUT OF OPERATION OR TO ACCOMMODATE ROAD WORK AT THE INTERSECTION).
- ANY DAMAGE TO INPLACE TRAFFIC SIGNAL FACILITIES (CONDUIT, CABLES, HANDHOLES, SIGNAL POLES, ETC.), DUE TO TRAFFIC SIGNAL OR ROAD WORK, SHALL BE REPAIRED BY CONTRACTOR TO SATISFACTION OF THE ENGINEER, AT NO EXPENSE TO THE COUNTY.
- F & I = NEW, FURNISH AND INSTALL.
S & I = INPLACE, SALVAGE AND INSTALL.
- CONTRACTOR SHALL MAINTAIN AND REUSE EXISTING PEDESTRIAN SIGNAL HOUSINGS AND VISORS, SHALL REMOVE INPLACE LED HAND/WALKING PERSON INDICATIONS, AND SHALL FURNISH AND INSTALL NEW COUNTDOWN TIMER LED "HAND/WALKING PERSON" INDICATIONS IN THEIR PLACE FOR ALL 8 PED SIGNALS (INCIDENTAL TO REVISE SIGNAL SYSTEM F PAY ITEM).

① INPLACE (MAINTAIN INPLACE) PA90 POLE FOUNDATION
TYPE PA90-A-25
ONE WAY SIGNAL-OVERHEAD
2-TYPE 10B-POLE MOUNTED 0/270 DEG
TYPE 10A-POLE MOUNTED 90 DEG
INTERNALY ILLUMINATED SIGN AND JCT BOX-OVERHEAD
ONE WAY EVP DETECTOR & LIGHT-OVERHEAD (Ø4)
EXTENDED INTO HH 1:
3" RSC
2-12/C 12
3-3/C 12
1-3/C 20
2-1/C 10 (SIGN)

INPLACE — 2-LED PED INDICATIONS (LEAVE HOUSING/VISOR INPLACE)
(SALVAGE) — 2-PEDESTRIAN PUSH BUTTONS AT 0/270 DEG
INPLACE — 2-R10-4b STICKER SIGNS AT 0/270 DEG
(REMOVE)
F & I — 2-LED COUNTDOWN TIMER PED INDICATIONS (P2-1, P4-2)
1-APS PB, SIGN (LT ARROW) AND APS MAST ARM POLE
ADAPTOR AT 270 DEG (PB2-1)
PLUG HOLES ON MAST ARM POLE WHERE PUSH BUTTONS
USED TO BE (AT 0/270 DEG)
1-2/C 14

② INPLACE (MAINTAIN INPLACE) PA100 POLE FOUNDATION
TYPE PA100-A-55-D40-9 (DAVIT AT 350 DEG)
LUMINAIRE-250 W HPS
3-ONE WAY SIGNALS-OVERHEAD (0', 12', 24')
2-TYPE 10B-POLE MOUNTED 0/270 DEG
INTERNALY ILLUMINATED SIGN AND JCT BOX-OVERHEAD
ONE WAY EVP DETECTOR & LIGHT-OVERHEAD (Ø6,1)
EXTENDED INTO HH 6:
3" RSC
2-12/C 12
4-3/C 12
1-3/C 20
1-3/C 12 (LUM)
2-1/C 10 (SIGN)

INPLACE — 2-LED PED INDICATIONS (LEAVE HOUSING/VISOR INPLACE)
(SALVAGE) — 2-PEDESTRIAN PUSH BUTTONS AT 0/270 DEG
INPLACE — 2-R10-4b STICKER SIGNS AT 0/270 DEG
(REMOVE)
F & I — 2-LED COUNTDOWN TIMER PED INDICATIONS (P4-1, P6-2)
PLUG HOLES ON MAST ARM POLE WHERE PUSH BUTTONS
USED TO BE (AT 0/270 DEG)

③ INPLACE (MAINTAIN INPLACE) PA90 POLE FOUNDATION
TYPE PA90-A-25
ONE WAY SIGNAL-OVERHEAD
2-TYPE 10B-POLE MOUNTED 0/270 DEG
TYPE 10A-POLE MOUNTED 180 DEG
INTERNALY ILLUMINATED SIGN AND JCT BOX-OVERHEAD
TWO WAY EVP DETECTOR & LIGHT-OVERHEAD (Ø4,8)
EXTENDED INTO HH 9:
3" RSC
2-12/C 12
3-3/C 12
1-3/C 20
2-1/C 10 (LUM)

INPLACE — 2-LED PED INDICATIONS (LEAVE HOUSING/VISOR INPLACE)
(SALVAGE) — 2-PEDESTRIAN PUSH BUTTONS AT 0/270 DEG
INPLACE — 2-R10-4b STICKER SIGNS AT 0/270 DEG
(REMOVE)
F & I — 2-LED COUNTDOWN TIMER PED INDICATIONS (P6-1, P8-2)
1-APS PB, SIGN (LT ARROW) AND APS MAST ARM POLE
ADAPTOR AT 270 DEG (PB6-1)
PLUG HOLES ON MAST ARM POLE WHERE PUSH BUTTONS
USED TO BE (AT 0/270 DEG)
1-2/C 14

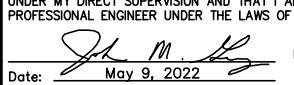
④ INPLACE (MAINTAIN INPLACE) PA100 POLE FOUNDATION
TYPE PA100-A-55-D40-9 (DAVIT AT 350 DEG)
LUMINAIRE-250 W HPS
3-ONE WAY SIGNALS-OVERHEAD (0', 12', 24')
2-TYPE 10B-POLE MOUNTED 0/270 DEG
INTERNALY ILLUMINATED SIGN AND JCT BOX-OVERHEAD
ONE WAY EVP DETECTOR & LIGHT-OVERHEAD (Ø2,5)
EXTENDED INTO HH 14:
3" RSC
2-12/C 12
4-3/C 12
1-3/C 20
1-3/C 12 (LUM)
2-1/C 10 (SIGN)

INPLACE — 2-LED PED INDICATIONS (LEAVE HOUSING/VISOR INPLACE)
(SALVAGE) — 2-PEDESTRIAN PUSH BUTTONS AT 0/270 DEG
INPLACE — 2-R10-4b STICKER SIGNS AT 0/270 DEG
(REMOVE)
F & I — 2-LED COUNTDOWN TIMER PED INDICATIONS (P2-2, P8-1)
1-APS PB, SIGN (RT ARROW) AND APS MAST ARM POLE
ADAPTOR AT 0 DEG (PB2-2)
PLUG HOLES ON MAST ARM POLE WHERE PUSH BUTTONS
USED TO BE (AT 0/270 DEG)
1-2/C 14

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.

Name: John M. Gray, PE
Date: May 9, 2022
Lic. No. 22457



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

ANOKA COUNTY
CITY OF FRIDLEY

REVISE SIGNAL SYSTEM 'F'
SIGNAL SYSTEM NOTES
CSAH 1 (EAST RIVER ROAD)
AT 71ST WAY / HICKORY DRIVE

FILE NO.
ANOKC 122928
SIGNAL SHEET
24 OF 35

63L
94

COUNTY PROJECT 22-20-01

CONTROLLER CABINET

RED 2-1	4-1	RED
YEL 2-1	4-1	YEL
GRN 2-1	4-1	GRN
NEU 2-1.2-3 P4-4,4-2		NEU
RED 2-3	P4-2	WLK
YEL 2-3	P4-2	DWK
GRN 2-3		SPR
NEU 5-1	8-4	NEU
RLTA 5-1	8-4	RED
YLTA 5-1	8-4	YEL
GLTA 5-1	8-4	GRN
EOG		EOG
RED 2-2	4-2	RED
YEL 2-2	4-2	YEL
GRN 2-2	4-2	GRN
NEU 2-2	4-2	NEU
RED 4-3	1-2	RLTA
YEL 4-3	1-2	YLTA
GRN 4-3	1-2	GLTA
NEU 4-3	1-2	NEU
SPR		SPR
SPR		SPR
SPR		EOG
RED 8-1	6-1	RED
YEL 8-1	6-1	YEL
GRN 8-1	6-1	GRN
NEU 8-1,P8-2	6-1,6-3	NEU
WLK P8-2	6-3	RED
DWK P8-2	6-3	YEL
SPR	6-3	GRN
NEU 4-4	1-1	NEU
RED 4-4	1-1	RLTA
YEL 4-4	1-1	YLTA
GRN 4-4	1-1	GLTA
EOG		EOG
RED 8-2	6-2	RED
YEL 8-2	6-2	YEL
GRN 8-2	6-2	GRN
NEU 8-2	6-2	NEU
RLTA 5-2	8-3	RED
YLTA 5-2	8-3	YEL
GLTA 5-2	8-3	GRN
NEU 5-2	8-3	NEU
SPR		SPR
SPR		SPR
EOG		EOG
WLK P8-1	P2-1	WLK
NEU P8-1	P2-1	NEU
DWK P8-1	P2-1	DWK
WLK P2-2	P4-1	WLK
NEU P2-2	P4-1	NEU
DWK P2-2	P4-1	DWK
WLK P6-1	P6-2	WLK
NEU P6-1	P6-2	NEU
DWK P6-1	P6-2	DWK
** SPR		SPR
** NEU		NEU
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