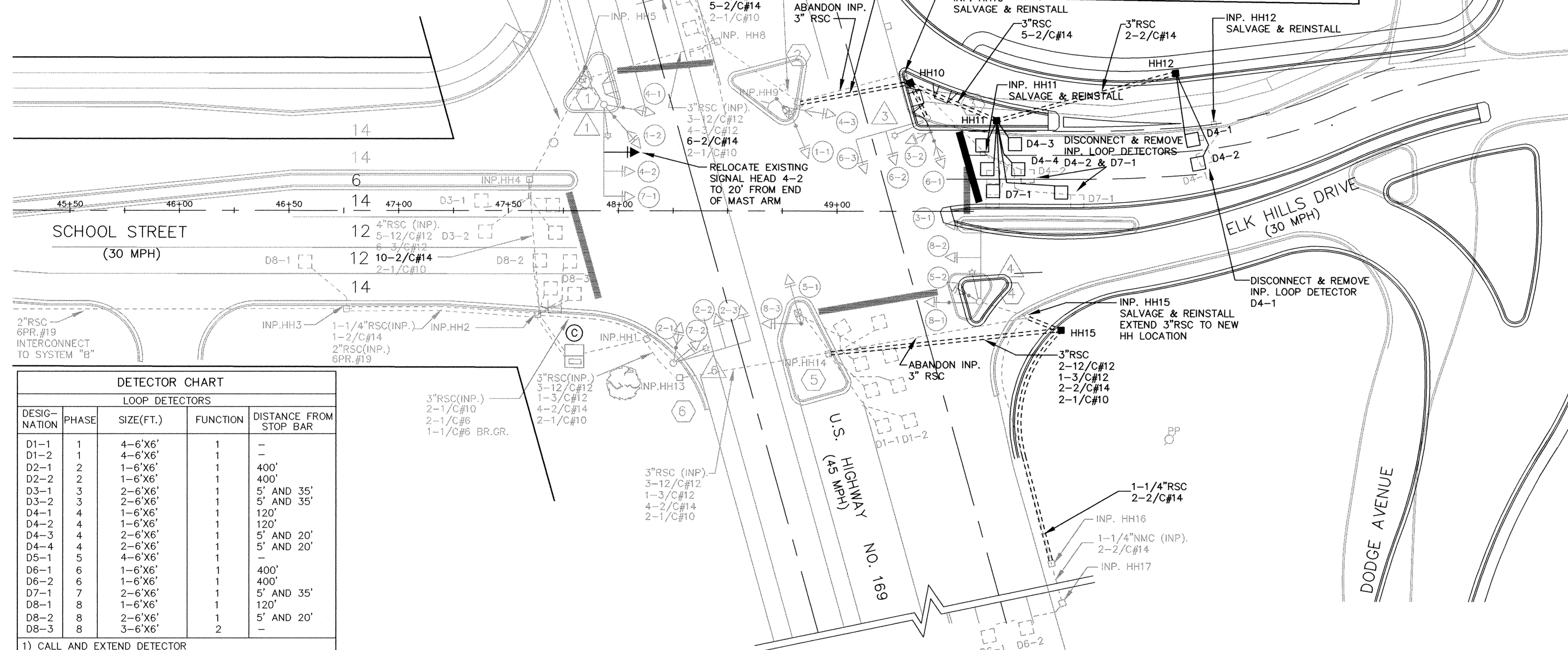
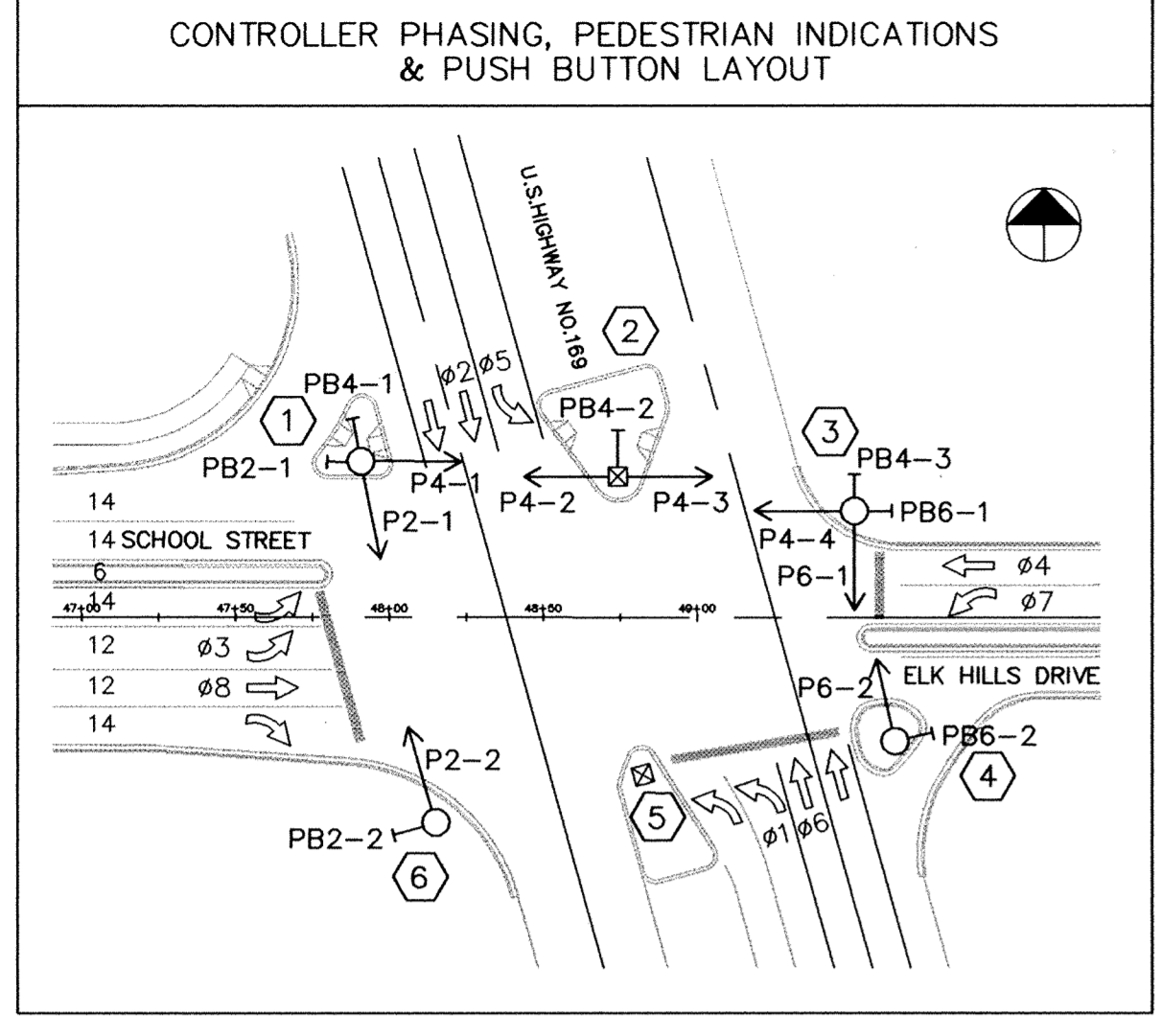


1	TYPE PA100-A-45-D40-9, INPLACE 1-ONE WAY SIGNAL (OVERHEAD), END MOUNTED, INPLACE 1-ONE WAY SIGNAL (OVERHEAD), MID MAST ARM MOUNTED-RELOCATE 20' FROM END 2-TYPE 10B-POLE MOUNTED AT 0' AND 270', INPLACE LUMINAIRE AT 350'-200 WATT HPS W/PEC/CH.SW., INPLACE 2-PEDESTRIAN PUSH BUTTONS W/2-PEDESTRIAN INSTRUCTION SIGNS (R10-4C), INPLACE EXTEND INTO INP. HH#5 : 3"RSC (INP.) 2-12/C#12 2-3/C#12 2-1/C#10
2	TYPE 2D, INPLACE PEDESTAL POLE, BASE & FOUNDATION INPLACE 1-PEDESTRIAN PUSH BUTTON WITH PEDESTRIAN INSTRUCTION SIGN (R10-4C), INPLACE EXTEND INTO INPLACE HH#9 : 3"RSC (INP.) 1-12/C#12 2-3/C#12
3	TYPE P90-A-35-D40-9, INPLACE 1-ONE WAY SIGNAL (OVERHEAD), END MOUNTED, INPLACE 1-ONE WAY SIGNAL (OVERHEAD), MID MAST ARM MOUNTED 11' FROM END, INPLACE 1-TYPE 20C-POLE MOUNTED AT 270', INPLACE LUMINAIRE AT 350'-200 WATT HPS W/PEC/CH.SW. (INPLACE) 2-PEDESTRIAN PUSH BUTTONS W/2-PEDESTRIAN INSTRUCTION SIGNS (R10-4C), INPLACE EXTEND INTO HH#10 : 3"RSC 2-12/C#12 2-3/C#12 2-1/C#10
4	TYPE P90-A-35-D40-9, INPLACE 1-ONE WAY SIGNAL (OVERHEAD), END MOUNTED, INPLACE 1-ONE WAY SIGNAL (OVERHEAD), MID MAST ARM MOUNTED 18' FROM END, INPLACE 1-TYPE 10A, INPLACE LUMINAIRE AT 350'-200 WATT HPS W/PEC/CH.SW., INPLACE 1-PEDESTRIAN PUSH BUTTON WITH PEDESTRIAN INSTRUCTION SIGN (R10-4C), INPLACE EXTEND INTO HH#15 : 3"RSC 2-12/C#12 1-3/C#12 2-1/C#10
5	TYPE 2A, INPLACE PEDESTAL POLE, BASE & FOUNDATION INPLACE EXTEND INTO INPLACE HH#14 : 3"RSC (INP.) 1-12/C#12
6	TYPE PA100-A-40-D40-9, INPLACE 1-ONE WAY SIGNAL (OVERHEAD), END MOUNTED, INPLACE 1-ONE WAY SIGNAL (OVERHEAD), MID MAST ARM MOUNTED 12' FROM END, INPLACE 1-TYPE 10A-POLE MOUNTED AT 0', INPLACE 1-TYPE 10B-POLE MOUNTED AT 270', INPLACE LUMINAIRE AT 350'-200 WATT HPS W/PEC/CH.SW., INPLACE 1-PEDESTRIAN PUSH BUTTON WITH PEDESTRIAN INSTRUCTION SIGN (R10-4C), INPLACE EXTEND INTO INPLACE HH#1 : 3"RSC (INP.) 2-12/C#12 1-3/C#12 4-1/C#10

(C) EQUIPMENT PAD (SEE DETAIL) ALL EQUIPMENT BELOW IS IN-CONTROLLER AND CABINET (SEE DETAIL) PLACE UNLESS IN **BOLD TYPE**  
EXTEND INTO HH1: 4"RSC; 5-12/C#12, 2-3/C#12, AND 4-2/C#14  
EXTEND INTO HH2: 4"RSC; 5-12/C#12, 6-3/C#12, 11-2/C#14 AND **2-2/C#14**  
2"RSC; 6 PR. #19  
PAD MOUNTED METER AND DISCONNECT  
EXTEND INTO HH1 FROM DISCONNECT 1-1/4"RSC WITH 4-1/C#10,  
2-1/C#6 AND 1-1/C#6 BR.GR.  
DISCONNECT TO METER: 1-1/4"RSC WITH 3-1/C#6  
DISCONNECT TO CABINET: 1-1/4"RSC WITH 2-1/C#6 AND 1-1/C#6  
BR. GR.  
EXTEND FROM METER: 2"RSC STUB OUT FOR POWER.

SIGNAL INDICATION CHART								
FACE	FLASH	PHASE	TYPE AND SIZE IN INCHES					
			R	Y	G	R	Y	G
1-1	R	1	-	-	-	12	12	12
1-2	R	1	-	-	-	12	12	12
2-1	R	2	12	12	12	-	-	-
2-2	R	2	12	12	12	-	-	-
2-3	R	2	12	12	12	-	-	-
3-1	R	3	-	-	-	12	12	12
3-2	R	3	-	-	-	12	12	12
4-1	R	4	12	12	12	-	-	-
4-2	R	4	12	12	12	-	-	-
5-1	R	5	-	-	-	12	12	12
6-1	R	6	12	12	12	-	-	-
6-2	R	6	12	12	12	-	-	-
6-3	R	6	12	12	12	-	-	-
7-1	R	7	-	-	-	12	12	12
7-2	R	7	-	-	-	12	12	12
8-1	R	8	12	12	12	-	-	-
8-2	R	8	12	12	12	-	-	-

- NOTES:
- DISCONNECT AND REMOVE INPLACE LOOP DETECTORS D4-1, D4-2, AND D7-1.
  - SALVAGE & REINSTALL INPLACE HANDHOLES 10, 11, 12, AND 15.
  - REMOVE INPLACE CONDUIT BENEATH ELK HILLS DRIVE WHERE ROAD IS BEING RECONSTRUCTED. OTHER CONDUIT NOT REUSED IN SIGNAL SYSTEM MAY BE ABANDONED INPLACE.
  - ALL NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND METAL COVERS.
  - ALL SIGNAL FACES SHALL HAVE BACKGROUND SHIELDS.
  - 3"RSC FROM INP. HH9 TO HH10 AND INP. HH14 TO HH15 SHALL BE DIRECT BORE INSTALLATION UNDER T.H. 169. SEE SPECIAL PROVISIONS.



DETECTOR CHART				
LOOP DETECTORS				
DESIGNATION	PHASE	SIZE (FT.)	FUNCTION	DISTANCE FROM STOP BAR
D1-1	1	4-6'X6'	1	-
D1-2	1	4-6'X6'	1	400'
D2-1	2	1-6'X6'	1	400'
D2-2	2	1-6'X6'	1	400'
D3-1	3	2-6'X6'	1	5' AND 35'
D3-2	3	2-6'X6'	1	5' AND 35'
D4-1	4	1-6'X6'	1	120'
D4-2	4	1-6'X6'	1	120'
D4-3	4	2-6'X6'	1	5' AND 20'
D4-4	4	2-6'X6'	1	5' AND 20'
D5-1	5	4-6'X6'	1	-
D6-1	6	1-6'X6'	1	400'
D6-2	6	1-6'X6'	1	400'
D7-1	7	2-6'X6'	1	5' AND 35'
D8-1	8	1-6'X6'	1	120'
D8-2	8	2-6'X6'	1	5' AND 20'
D8-3	8	3-6'X6'	2	-

- 1) CALL AND EXTEND DETECTOR  
2) DELAY CALL, IMMEDIATE EXTEND

LEGEND	
SIGNAL BASE NO.	(2)
SIGNAL FACE NO.	(8-1)
CONTROLLER AND CABINET, INPLACE	[Symbol]
HANDHOLE, F&I	[Symbol]
HANDHOLE, INPLACE	[Symbol]
RIGID STEEL CONDUIT (RSC), F&I	[Symbol]
RIGID STEEL CONDUIT (RSC), INPLACE	[Symbol]
SIGNAL FACE WITH BACKGROUND SHIELD, INPLACE	[Symbol]
PEDESTRIAN INDICATIONS, INPLACE	[Symbol]
PEDESTRIAN PUSH BUTTON ON POLE, INPLACE	[Symbol]
TRAFFIC SIGNAL POLE AND MAST ARM, INPLACE	[Symbol]
TRAFFIC SIGNAL PEDESTAL, INPLACE	[Symbol]
MAST ARM AND LUMINAIRE, INPLACE	[Symbol]

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
*George M. Stumpfig*  
DATE 7/31/95 REG. NO. 21849



1326 ENERGY PARK DRIVE  
ST. PAUL, MINNESOTA 55108  
(612) 644-4389  
5075 WAYZATA BLVD. SUITE #225  
MINNEAPOLIS, MINNESOTA 55416  
(612) 546-0432

DATE	DESCRIPTION	DESIGNED GMS

CITY OF ELK RIVER INTERSECTION LAYOUT			
T.H. 169 AT ELK HILLS DRIVE			
DATE JULY 1995	SHEET 17 OF 22 SHEETS	PROJECT NO. 230-246	

872