

PLOTTED/REVISED: 8-JAN-2019

IPLOT NAME: system D layout  
PATH & FILENAME: Projects\DM ROS\0550000\Traffic\Signals\20931 River\_SVT20931R\_SGL.dgn

LOOP DETECTOR CHART			
NUMBER	SIZE (FT)	LOCATION	TYPE
D1-1	6 X 6	5	PVC
D1-2	6 X 6	25	PVC
D2-1, D2-2	6 X 6	180	PVC
D4-1, D4-2	6 X 6	120	SAW
D4-3, D4-4	6 X 6	10	PVC
D4-5	6 X 6	0	PVC
D5-1	6 X 6	5	PVC
D5-2	6 X 6	25	PVC
D6-1, D6-2	6 X 6	120	PVC
D8-1	6 X 6	120	SAW
D8-2	6 X 6	5	PVC
D8-3	6 X 6	0	PVC

HH 1 TO HH 3:  
2" RSC  
1-2/C#14

HH 1 TO HH 4:  
3" RSC  
2-1/C#10  
4-12/C#12  
4-3/C#12  
12-2/C#14  
3-3/C#20

HH 4 TO HH 5:  
3" I.M.C.  
2-1/C#10  
2-12/C#12  
3-3/C#12  
10-2/C#14  
2-3/C#20

HH 5 TO HH 7:  
3" RSC  
2-1/C#10  
2-12/C#12  
3-3/C#12  
8-2/C#14  
2-3/C#20

HH 7 TO HH 8:  
3" RSC  
2-1/C#10  
2-12/C#12  
3-3/C#12  
6-2/C#14  
2-3/C#20

HH 8 TO HH 9:  
2" RSC  
5-2/C#14

HH 9 TO HH 10:  
2" RSC  
2-2/C#14

HH 11 TO HH 12:  
2" RSC  
2-2/C#14

HH 11 TO HH 13:  
3" RSC  
2-12/C#12  
2-3/C#12  
1-3/C#20

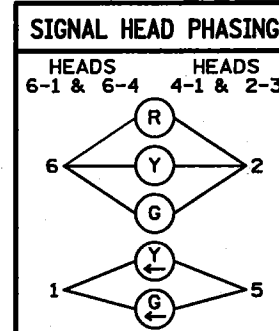
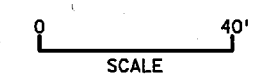
HH 2 TO HH 13:  
3" RSC  
2-12/C#12  
2-3/C#12  
5-2/C#14  
1-3/C#20

HH 50 TO HH 51:  
3" RSC  
1-25PR#19

HH 51 TO HH 52:  
2" RSC  
1-25PR#19

HH 49 TO HH 48:  
2" RSC  
1-25PR#19

HH 5 TO HH 6:  
2" RSC  
2-2/C#14



SIGNAL HEAD CHART					
FACE	R	Y	G	R	Y
2-2,2-3	○	○	○		
2-1,2-4	○	○	○	◀	◀
4-1,4-2,4-3	○	○	○		
6-2,6-3	○	○	○		
6-1,6-4	○	○	○	◀	◀
8-1,8-2,8-3	○	○	○		

-ALL SIGNAL INDICATIONS ARE 12" LEDS  
-ALL SIGNAL HEADS HAVE BACKGROUND SHIELDS

\*F&I 1.25" CONDUIT  
1-FO CABLE (72SM)

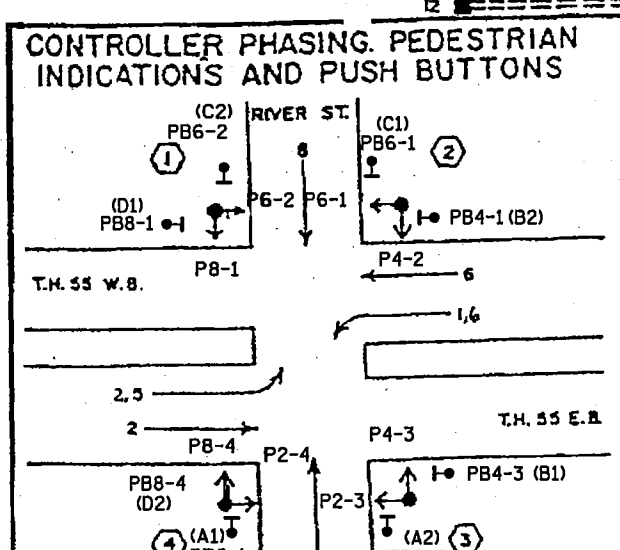
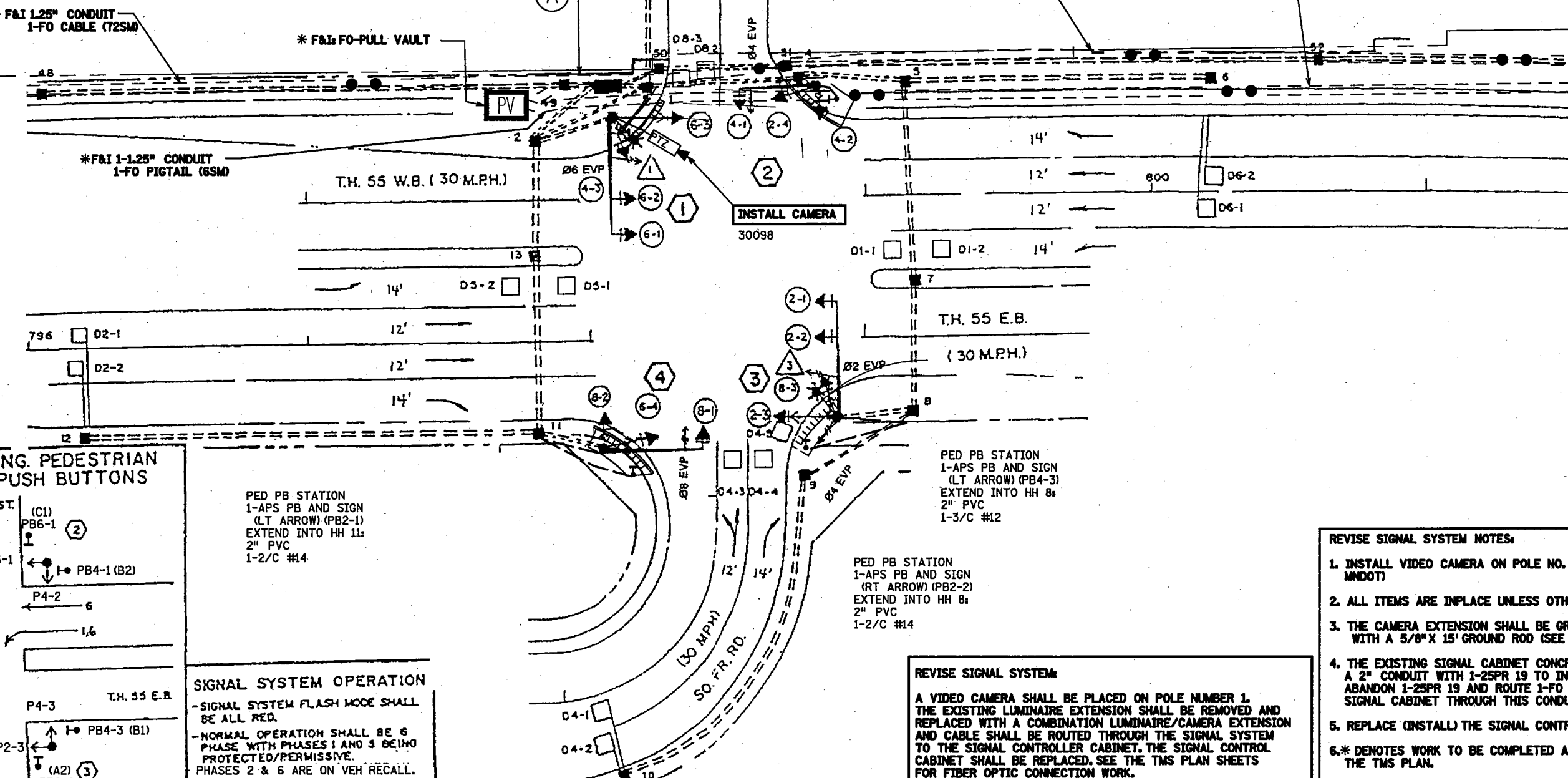
\*F&I FO-PULL VAULT

\*F&I 1.25" CONDUIT  
1-FO CABLE (72SM)

\*F&I 1.25" CONDUIT  
1-FO CABLE (72SM)

\*F&I 1.25" CONDUIT  
1-FO CABLE (6SM)

\*F&I 1-1.25" CONDUIT  
1-FO PIGTAIL (6SM)



PED PB STATION  
1-APS PB AND SIGN  
(LT ARROW) (PB2-1)  
EXTEND INTO HH 11:  
2" PVC  
1-2/C #14

SIGNAL SYSTEM OPERATION  
-SIGNAL SYSTEM FLASH MODE SHALL BE ALL RED.  
-NORMAL OPERATION SHALL BE 6 PHASE WITH PHASES 1 AND 3 BEING PROTECTED/PERMISSIVE.  
PHASES 2 & 6 ARE ON VEH' RECALL.

PED PB STATION  
1-APS PB AND SIGN  
(LT ARROW) (PB4-3)  
EXTEND INTO HH 8:  
2" PVC  
1-3/C #12

PED PB STATION  
1-APS PB AND SIGN  
(RT ARROW) (PB2-2)  
EXTEND INTO HH 8:  
2" PVC  
1-2/C #14

REVISE SIGNAL SYSTEM:  
A VIDEO CAMERA SHALL BE PLACED ON POLE NUMBER 1. THE EXISTING LUMINAIRE EXTENSION SHALL BE REMOVED AND REPLACED WITH A COMBINATION LUMINAIRE/CAMERA EXTENSION AND CABLE SHALL BE ROUTED THROUGH THE SIGNAL SYSTEM TO THE SIGNAL CONTROLLER CABINET. THE SIGNAL CONTROL CABINET SHALL BE REPLACED. SEE THE TMS PLAN SHEETS FOR FIBER OPTIC CONNECTION WORK.

- REVISE SIGNAL SYSTEM NOTES:
1. INSTALL VIDEO CAMERA ON POLE NO. 1 (SUPPLIED BY MNDOT)
  2. ALL ITEMS ARE INPLACE UNLESS OTHERWISE NOTED.
  3. THE CAMERA EXTENSION SHALL BE GROUNDED IN HH 2 WITH A 5/8" X 15' GROUND ROD (SEE DETAIL).
  4. THE EXISTING SIGNAL CABINET CONCRETE FOUNDATION HAS A 2" CONDUIT WITH 1-25PR 19 TO INPLACE HH 49. ABANDON 1-25PR 19 AND ROUTE 1-FO PIGTAIL (6SM) TO THE SIGNAL CABINET THROUGH THIS CONDUIT.
  5. REPLACE (INSTALL) THE SIGNAL CONTROL CABINET
  - 6.\* DENOTES WORK TO BE COMPLETED AS PART OF THE TMS PLAN.

BY	DATE	REVISIONS

SYSTEM ID: 1735420  
METER ADDRESS: 800 HWY 55  
OLD SYSTEM ID: 20931  
T.E. 9662

INTERSECTION LAYOUT  
REVISE SIGNAL SYSTEM D  
T.H. 55 AT RIVER STREET  
IN HASTINGS, DAKOTA COUNTY

S.A.P. NO. \_\_\_\_\_  
DRAWN BY: SJK | CKD BY: CDB | DATE: 12/12/18  
CERTIFIED BY: *Michael P. Sabersky* | LIC. NO. 19863 | DATE: 1/08/19  
STATE PROJ. NO. 1910-50 (T.H.55) | SHEET NO. SS14 OF SS35 SHEETS

PLOTTED/REVISED: 13-DEC-2018  
 I/PLOT NAME: system D pole notes  
 PATH & FILENAME: Projects\DM\_R05\055\0000\Traffic\Signals\20931 River SNT\20931R\_SGL.dgn

① A100 POLE FOUNDATION  
 TYPE A100-A-40-9

REMOVE — [ D40-9 (DAVIT AT 350 DEG)  
 1-X6-350/CAM EXTENSION (MOUNTED AT 350 DEG)

F&I — [ INCLUDES LIGHTING ROD  
 7/16" GROUND BRAID

INSTALL — [ 1-VIDEO CAMERA WITH MOUNT

2-ONE WAY SIGNALS (OVERHEAD)  
 2-TYPE 10B AT 0 AND 270 DEG  
 2- CD PED HEADS

S&I — [ LUMINAIRE - 200 WATT HPS  
 ONE WAY EVP DETECTOR AND  
 CONFIRMATORY LIGHT (PHASES 6+1)  
 3" IMC TO HH 2 WITH  
 2-12/C#12  
 4-3/C#12  
 1-3/C#20  
 2-1/C#10 (LUM)

F&I — [ 1-7/16" GROUND BRAID  
 TO GROUND ROD  
 1-COM CABLE (CAT 5E)

② P90 POLE FOUNDATION  
 TYPE P90-A-25  
 ONE WAY SIGNAL (OVERHEAD)  
 2-TYPE 10B AT 90 AND 270 DEG  
 2- CD PED HEADS  
 ONE WAY EVP DETECTOR AND  
 CONFIRMATORY LIGHT (PHASE 4)  
 3" IMC TO HH 4 WITH  
 2-12/C#12  
 3-3/C#12  
 1-3/C#20

③ A100 POLE FOUNDATION  
 TYPE A100-A-40-9 (DAVIT AT 350 DEG)  
 2-ONE WAY SIGNALS (OVERHEAD)  
 2-TYPE 10B AT 0 AND 270 DEG  
 2- CD PED HEADS  
 LUMINAIRE - 200 WATT HPS  
 ONE WAY EVP DETECTOR AND  
 CONFIRMATORY LIGHT (PHASES 2+5)  
 3" IMC TO HH 8 WITH  
 2-12/C#12  
 3-3/C#12  
 2-3/C#20  
 2-1/C#10 (lum)

④ P90 POLE FOUNDATION  
 TYPE P90-A-35  
 ONE WAY SIGNAL (OVERHEAD)  
 2-TYPE 10B AT 90 AND 270 DEG  
 2- CD PED HEADS  
 ONE WAY EVP DETECTOR AND  
 CONFIRMATORY LIGHT (PHASE 8)  
 1-APS PED PB & SIGN (PB8-4)(RT ARROW)  
 3" IMC TO HH 11 WITH  
 2-12/C#12  
 2-3/C#12  
 1-3/C#20

Ⓐ EQUIPMENT PAD  
 SERVICE EQUIPMENT  
 LIGHTING CABINET  
 LOAD CENTER TO HH 1:

2" RSC  
 4-1/C#10

HH 1 TO HH 2:  
 2" RSC  
 2-1/C#10

EXTEND INTO HH 49:  
 2" RSC  
 1-25 PR#19

\* F&I — [ 1-FO PIGTAIL (6SM - FIELD TERMINATED)  
 HH49 TO PULL VAULT  
 1.25" CONDUIT  
 1-FO PIGTAIL (6SM)

EXTEND INTO HH 50:  
 2" RSC  
 1-25PR#19

ABANDON

REPLACE (INSTALL) — [ CONTROLLER AND CABINET  
 WITH MASTER CONTROLLER  
 LOAD CENTER TO CABINET

2" RSC  
 2-1/C#6  
 1-1/C#6 BR.GR.

EXTEND INTO HH 1:  
 4" I.M.C.  
 4-12/C#12  
 4-3/C#12  
 17-2/C#14  
 3-3/C#20

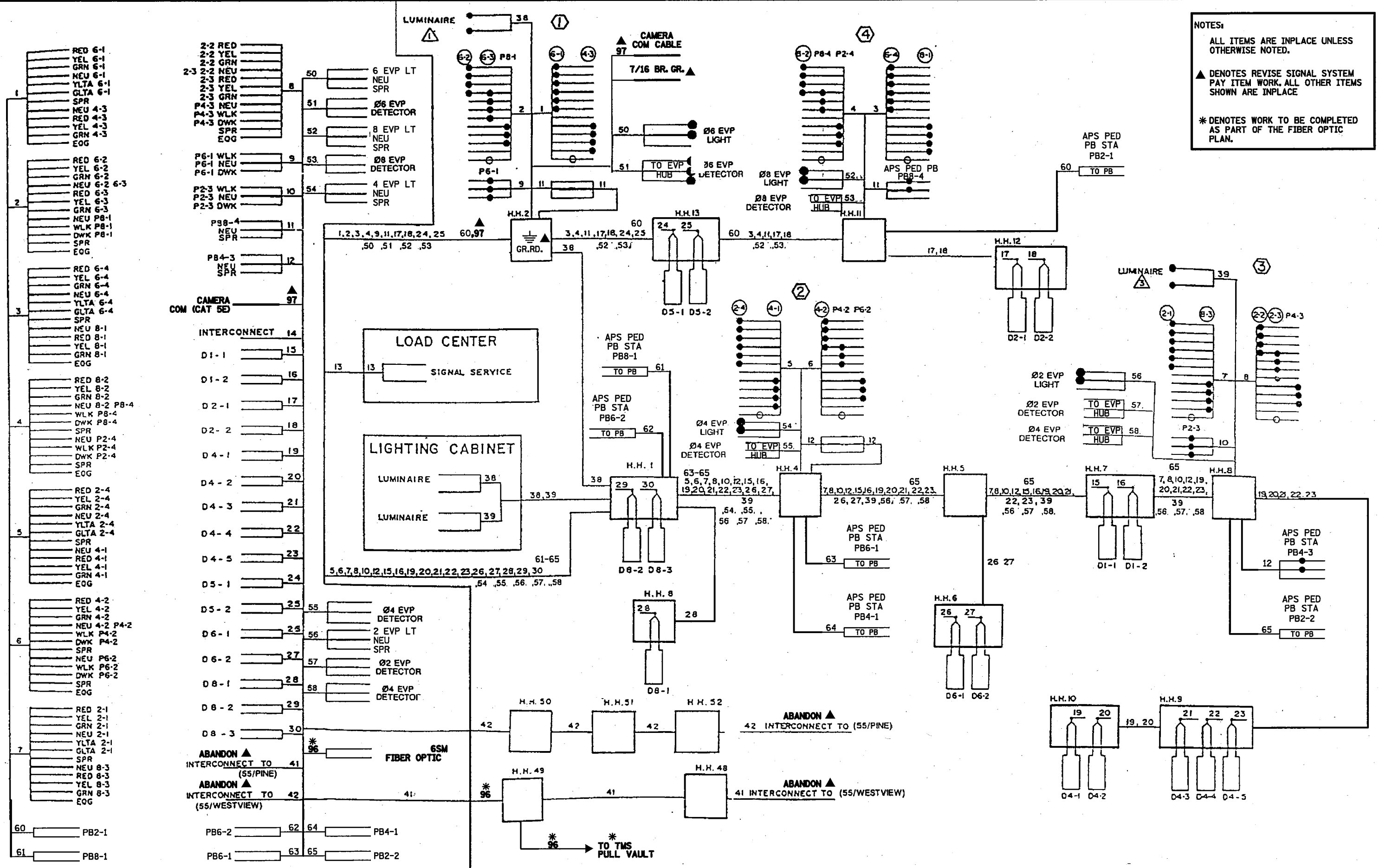
EXTEND INTO HH 2:  
 4" I.M.C.  
 4-12/C#12  
 4-3/C#12  
 5-2/C#14  
 2-3/C#20

F&I — [ 1-COM CABLE (CAT 5E)

HH 52 TO M/L  
 2" RSC  
 1-25PR#19  
 HH 48 TO M/L  
 2" RSC  
 1-25PR#19

BY	DATE	REVISIONS	SYSTEM ID: 1735420	T.E. 9662	POLE NOTES	S.A.P. NO.	DRAWN BY: SJK	CKD BY: CDB	DATE: 12/12/18
			METER ADDRESS: 800 HWY 55		REVISE SIGNAL SYSTEM D	CERTIFIED BY: <i>Michael P. Lubensky</i>	LIC. NO. 19863	DATE: 12/12/18	
			OLD SYSTEM ID: 20931		T.H. 55 AT RIVER STREET	LICENSED PROFESSIONAL ENGINEER			
					IN HASTINGS, DAKOTA COUNTY	STATE PROJ.NO. 1910-50 (T.H.55)	SHEET NO. SS15 OF SS35 SHEETS		

PLOTTED/REVISED: 13-DEC-2018  
 I/PLOT NAME: system D wiring diagram  
 PATH & FILENAME: Projects\DM\_ROM\055\00000\Traffic\Signals\20931 River SNT\20931R\_SGL.dgn



**NOTES:**  
 ALL ITEMS ARE INPLACE UNLESS OTHERWISE NOTED.  
 ▲ DENOTES REVISE SIGNAL SYSTEM PAY ITEM WORK. ALL OTHER ITEMS SHOWN ARE INPLACE  
 \* DENOTES WORK TO BE COMPLETED AS PART OF THE FIBER OPTIC PLAN.

BY	DATE	REVISIONS	SYSTEM ID: 1735420	T.E. 9662	FIELD WIRING DIAGRAM	S.A.P. NO.	DRAWN BY: SJK	CKD BY: CDB	DATE: 12/12/18
			METER ADDRESS: 800 HWY 55		REVISE SIGNAL SYSTEM D	CERTIFIED BY: <i>Michael P. Libinsky</i>	LIC. NO. 19863		DATE: 12/12/18
			OLD SYSTEM ID: 20931		T.H. 55 AT RIVER STREET	STATE PROJ. NO. 1910-50 (T.H. 55) SHEET NO. SS16 OF SS35 SHEETS			
					IN HASTINGS, DAKOTA COUNTY				

PLOTTED/REVISED: 3/27/2014

DISTRICT #: METRO  
PILOT NAME: INTERSECTION  
PATH & FILENAME: IP\_PWP-207916667-20931R\_SGL.dgn

### LOOP DETECTOR CHART

NUMBER	SIZE (FT)	LOCATION	TYPE
D1-1	6 X 6	5	PVC
D1-2	6 X 6	25	PVC
D2-1, D2-2	6 X 6	180	PVC
D4-1, D4-2	6 X 6	120	SAW
D4-3, D4-4	6 X 6	10	PVC
D4-5	6 X 6	0	PVC
D5-1	6 X 6	5	PVC
D5-2	6 X 6	25	PVC
D6-1, D6-2	6 X 6	120	PVC
D8-1	6 X 6	120	SAW
D8-2	6 X 6	5	PVC
D8-3	6 X 6	0	PVC

HH 1 TO HH 3a:  
2<sup>nd</sup> RSC  
1-2/C#14

HH 1 TO HH 4a:  
3<sup>rd</sup> RSC  
2-1/C#10  
4-12/C#12  
4-3/C#12  
12-2/C#14  
3-3/C#20

HH 4 TO HH 5a:  
3<sup>rd</sup> I.M.C.  
2-1/C#10  
2-12/C#12  
3-3/C#12  
10-2/C#14  
2-3/C#20

HH 5 TO HH 7a:  
3<sup>rd</sup> RSC  
2-1/C#10  
4-12/C#12  
4-3/C#12  
8-2/C#14  
2-3/C#20

HH 7 TO HH 8a:  
3<sup>rd</sup> RSC  
2-1/C#10  
2-12/C#12  
3-3/C#12  
6-2/C#14  
2-3/C#20

HH 8 TO HH 9a:  
2<sup>nd</sup> RSC  
5-2/C#14

HH 9 TO HH 10a:  
2<sup>nd</sup> RSC  
2-2/C#14

HH 11 TO HH 12a:  
2<sup>nd</sup> RSC  
2-2/C#14

HH 11 TO HH 13a:  
3<sup>rd</sup> RSC  
2-12/C#12  
2-3/C#12  
3-2/C#14  
1-3/C#20

HH 2 TO HH 13a:  
3<sup>rd</sup> RSC  
2-12/C#12  
2-3/C#12  
5-2/C#14  
1-3/C#20

HH 50 TO HH 51a:  
3<sup>rd</sup> RSC  
1-25PR#19

HH 51 TO HH 52a:  
2<sup>nd</sup> RSC  
1-25PR#19

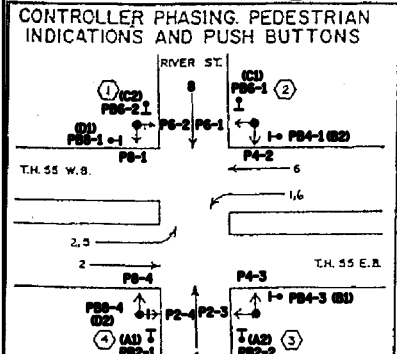
HH 49 TO HH 48a:  
2<sup>nd</sup> RSC  
1-25PR#19

HH 5 TO HH 6a:  
2<sup>nd</sup> RSC  
2-2/C#14

**(A) EQUIPMENT PAD**  
SERVICE EQUIPMENT  
LIGHTING CABINET  
LOAD CENTER TO HH 1:  
2<sup>nd</sup> RSC  
4-1/C#10  
HH 1 TO HH 2a:  
2<sup>nd</sup> RSC  
2-1/C#10  
EXTEND INTO HH 4a:  
2<sup>nd</sup> RSC  
1-25PR#19  
EXTEND INTO HH 50a:  
2<sup>nd</sup> RSC  
1-25PR#19  
CONTROLLER CABINET  
WITH MASTER CONTROLLER  
LOAD CENTER TO CABINET  
2<sup>nd</sup> RSC  
2-1/C#10  
1-1/C#16 BR.GR.  
EXTEND INTO HH 1a:  
4<sup>th</sup> I.M.C.  
4-12/C#12  
4-3/C#12  
17-2/C#14  
3-3/C#20

EXTEND INTO HH 2a:  
4<sup>th</sup> I.M.C.  
4-12/C#12  
4-3/C#12  
5-2/C#14  
2-3/C#20

HH 52 TO M/L:  
2<sup>nd</sup> RSC  
1-25PR#19  
HH 48 TO M/L:  
2<sup>nd</sup> RSC  
1-25PR#19



**(1) P90 POLE FOUNDATION**  
TYPE P90-A-35  
ONE WAY SIGNAL (OVERHEAD)  
2-TYPE 10B AT 90 AND 270 DEG  
2- CD PED HEADS  
ONE WAY EVP DETECTOR AND  
CONFIRMATORY LIGHT (PHASE 8)  
1-APS PED PB & SIGN (PBB-4XRT ARROW)  
3<sup>rd</sup> IMC TO HH 11 WITH  
2-12/C#12  
2-3/C#12  
1-3/C#20

**(2) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 1a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(3) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(4) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 1a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(5) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 8a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(6) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(7) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(8) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(9) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(10) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(11) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(12) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(13) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(14) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(15) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(16) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(17) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(18) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(19) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(20) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(21) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(22) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(23) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(24) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(25) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(26) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(27) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(28) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(29) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(30) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(31) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(32) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(33) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(34) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(35) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(36) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(37) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(38) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(39) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(40) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(41) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(42) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(43) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(44) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(45) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(46) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(47) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(48) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(49) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(50) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(51) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(52) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(53) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(54) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(55) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(56) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(57) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(58) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(59) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(60) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(61) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(62) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(63) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(64) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(65) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(66) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(67) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(68) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(69) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(70) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(71) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(72) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(73) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(74) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(75) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(76) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(77) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(78) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(79) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(80) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(81) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(82) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(83) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(84) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(85) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(86) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(87) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(88) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(89) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(90) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(91) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(92) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(93) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(94) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(95) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(96) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(97) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

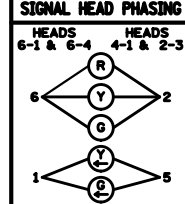
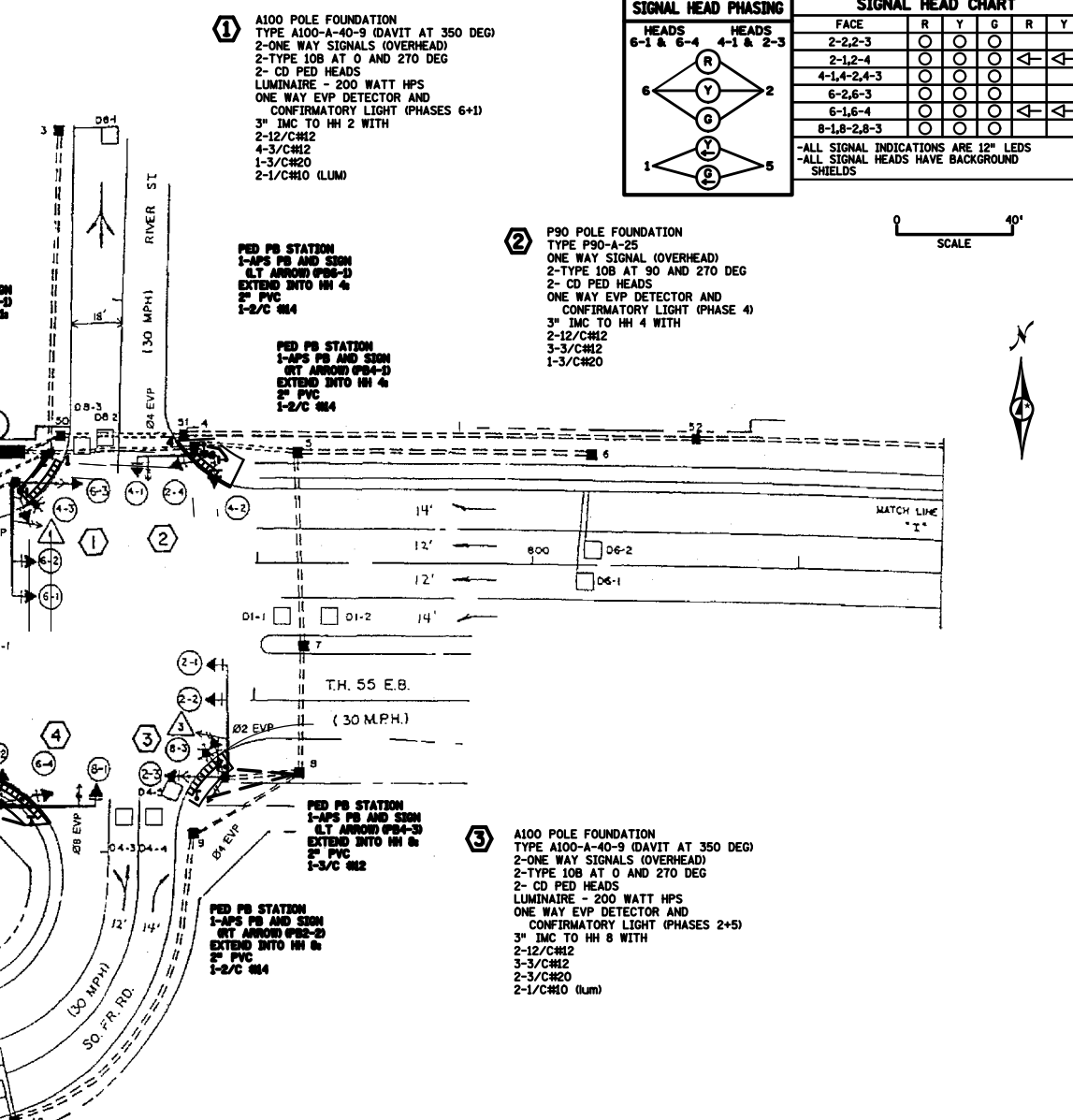
**(98) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(99) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**(100) PED PB STATION**  
1-APS PB AND SIGN  
(RT ARROW) (P84-3)  
EXTEND INTO HH 4a:  
2<sup>nd</sup> PVC  
1-2/C #14

**SIGNAL SYSTEM OPERATION**

- SIGNAL SYSTEM FLASH MODE SHALL BE ALL RED.
- NORMAL OPERATION SHALL BE 6 PHASE WITH PHASES 1 AND 3 BEING PROTECTED/PERMISSIVE.
- PHASES 2 & 6 ARE ON VEH RECALL.



### SIGNAL HEAD CHART

FACE	R	Y	G	R	Y
2-2,2-3	○	○	○	○	○
2-1,2-4	○	○	○	○	○
4-1,4-2,4-3	○	○	○	○	○
6-2,6-3	○	○	○	○	○
6-1,6-4	○	○	○	○	○
8-1,8-2,8-3	○	○	○	○	○

- ALL SIGNAL INDICATIONS ARE 12" LEADS  
- ALL SIGNAL HEADS HAVE BACKGROUND SHIELDS

BY	DATE	REVISIONS
EJA	03/27/14	AS-BUILT OF SP 8825-445 (APS)

SYSTEM ID: 20931 T.E. 5822  
METER ADDRESS: 800 HWY 55  
MASTER ID: T.E.

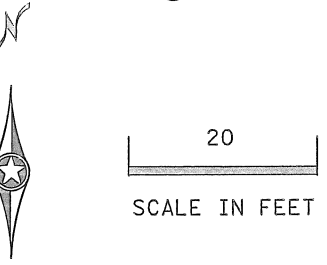
**INTERSECTION LAYOUT**  
T.H. 55 AT RIVER STREET  
IN HASTINGS, DAKOTA COUNTY

S.A.P. NO.	DRAWN BY: MAS	CKD BY: GAK	DATE: 4-12-13
CERTIFIED BY:	LIC. NO. 26829	DATE:	
<b>STATE PROJ. NO. TH55</b>		<b>SHEET NO. 1 OF 2 SHEETS</b>	



PLOTTED/REVISED: 11-APR-2013 11:21

DISTRICT #: METRO  
I/PLOT NAME: d8825445\_55\_River  
PATH & FILENAME: Projects/DM\_ROS/999/8825/445/Design/PlanSheets/d8825445\_55\_River.dgn



### LEGEND

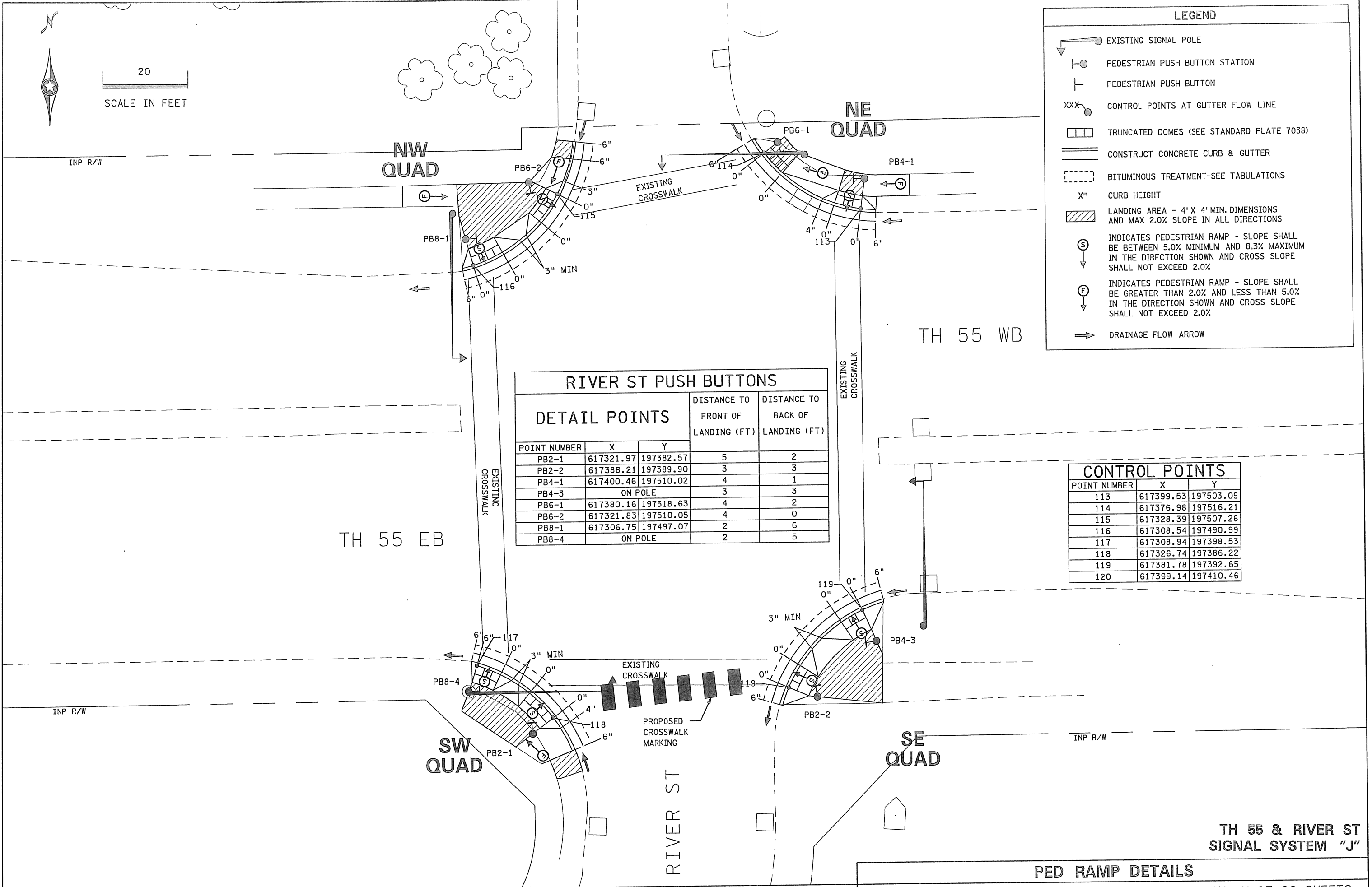
- EXISTING SIGNAL POLE
- PEDESTRIAN PUSH BUTTON STATION
- PEDESTRIAN PUSH BUTTON
- CONTROL POINTS AT GUTTER FLOW LINE
- TRUNCATED DOMES (SEE STANDARD PLATE 7038)
- CONSTRUCT CONCRETE CURB & GUTTER
- BITUMINOUS TREATMENT-SEE TABULATIONS
- C" CURB HEIGHT
- LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS
- INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- DRAINAGE FLOW ARROW

### RIVER ST PUSH BUTTONS

POINT NUMBER	DETAIL POINTS		DISTANCE TO FRONT OF LANDING (FT)	DISTANCE TO BACK OF LANDING (FT)
	X	Y		
PB2-1	617321.97	197382.57	5	2
PB2-2	617388.21	197389.90	3	3
PB4-1	617400.46	197510.02	4	1
PB4-3	ON POLE		3	3
PB6-1	617380.16	197518.63	4	2
PB6-2	617321.83	197510.05	4	0
PB8-1	617306.75	197497.07	2	6
PB8-4	ON POLE		2	5

### CONTROL POINTS

POINT NUMBER	X	Y
113	617399.53	197503.09
114	617376.98	197516.21
115	617328.39	197507.26
116	617308.54	197490.99
117	617308.94	197398.53
118	617326.74	197386.22
119	617381.78	197392.65
120	617399.14	197410.46



### TH 55 & RIVER ST SIGNAL SYSTEM "J"

### PED RAMP DETAILS