

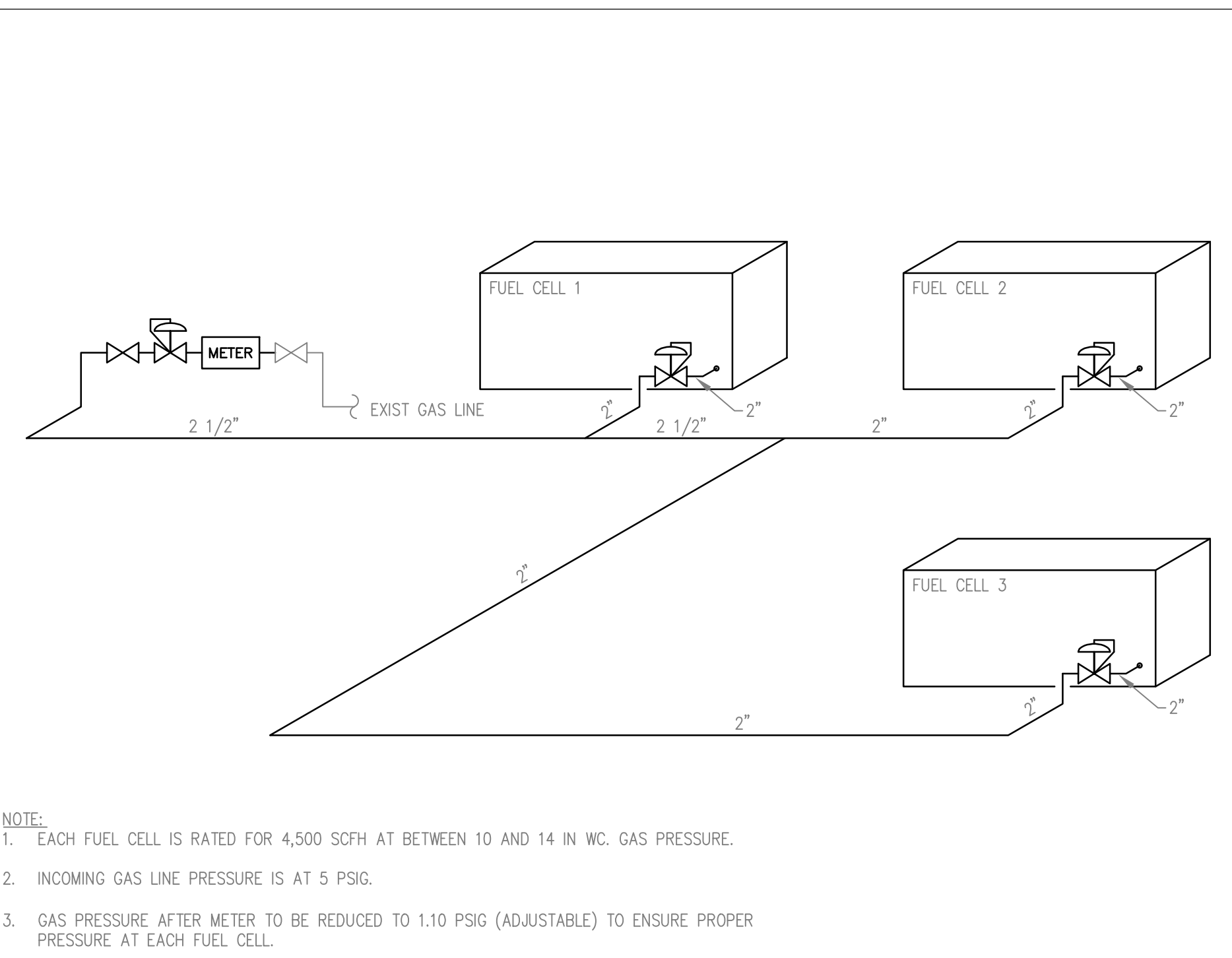
- NOTES:**
- CHANGE RIPPLE LENGTHS TO FIT FIELD CONDITIONS. USE SAME WALL THICKNESS AND GRADE OF PIPE.
  - INSULATE THE MSA ONLY WHEN CATHODIC PROTECTION IS REQUIRED.
  - IF HOUSE LINE IS UNSUPPORTED, USE PIPING SUPPORT (N688854).
  - FOR AMR INSTALLATION, SEE GAS STANDARD 185.0408.
  - FOR NON CORE CUSTOMERS, USE A DRESSER TOM COUNTER METER FITTED WITH A ROTRONICS PULSER, OR AN INSTRONET RM3 METER. CONNECT TO A NERTEC TL 402 COMMUNICATION MODULE. SEE MRC WEBSITE: LITTLE GEMS STANDARD DESIGNS "NERTEC\_AMR.DOC."
  - INSTALL RELIEF VALVE SO THE DISCHARGE STACK OR EXHAUST PORT SHALL PREVENT THE ENTRY OF LIQUID, INSECTS OR FOREIGN MATERIAL & SHALL BE LOCATED AND DIRECTED TO THE PRODUCE THE LEAST HAZARD TO PEOPLE & THE FACILITIES BEING PROTECTED. LOCK ISOLATING VALVE OPEN.
  - FOR INSTRONET METER, INSTALL SPACER PLATE, GASKETS AND LONGER CAPSCREWS SUPPLIED WITH THE METER TO OBTAIN FACE TO FACE LENGTH FOR POSSIBLE FUTURE DRESSER METER REPLACEMENT.
  - DELIVERY PRESSURE CAN BE REDUCED OR INCREASED TO OTHER VALUES BY CHANGING THE PILOT SPRINGS WHEN APPROPRIATE. A DIFFERENT R.V. MAY BE REQUIRED.

SDGE TYPICAL SIZE 10 METER SET								
ITEM NO.	QTY.	SIZE	SCH OR RATING	MATERIAL DESCRIPTION	DESIGN PRESS.	TEST PRESS.	STOCK CODE	SDGE CODE
METERS AND REGULATION								
1A	1	3"	175#	METER, RTY DRESSER/INSTRONET 7M	175	-	N310161	-
1B*	1	3"	175#	METER, RTY DRESSER 7M CTR. T.C.	175	-	N310167	S480928
2	1	2"	150#	REGULATOR, FISHER 299H W-1-3/16"	60	-	N702608	-
ORIFICE 5-16 PSIG SPG								
PLOT SYSTEM MATERIAL								
FITTINGS								
4	4	5/8"x3 1/2"	-	BOLT, STUD WITH NUTS	-	-	N243308	S619778
5	8	5/8"x1 3/4"	-	SCREW, CAP	-	-	N246526	S619784
6	2	2"	150CL	GASKET, FULL FACE	275	450	N479450	S373584
7	2	3"	150CL	GASKET, FULL FACE	275	450	N479452	S373648
8	3	1/4" X 2"	STD	NIPPLE	466	4398	N501508	S855032
9	2	1/2" X 2"	STD	NIPPLE, MSA	466	3363	N501708	S500544
10	1	2" X 3"	STD	NIPPLE	1318	2643	N502216	S500864
11	2	2" X 4"	STD	NIPPLE	1318	2643	N502224	S500896
12	2	2" X 7"	STD	NIPPLE	1318	2643	N502238	S500966
13	2	2"x4"(1 OUT)	STD	NIPPLE, MSA	420	700	N508026	S496650
14	1	2"x6"(2 OUT)	STD	NIPPLE, MSA	420	700	N508046	S496652
15	1	2"x12"(1 OUT)	STD	NIPPLE, MSA	420	700	N508027	-
16	1	2"x18"(3 OUT)	STD	NIPPLE, MSA	420	700	N508056	-
17	1	1/2" X 1/4"	XS	NIPPLE, SWAGE	3937	7874	N509305	-
18	2	2"	STD	CAP	300	450	N523040	S204992
19	2	1/4"	STD	PLUG	175	263	N543704	S545792+
20	5	1/2"	STD	PLUG	175	263	N543712	S545760+

SDGE TYPICAL SIZE 10 METER SET (CONTINUED)								
ITEM NO.	QTY.	SIZE	SCH OR RATING	MATERIAL DESCRIPTION	DESIGN PRESS.	TEST PRESS.	STOCK CODE	SDGE CODE
21	2	2"	STD	PLUG	175	263	N543732	S545920
22	3	2"	STD	TEE	300	450	N545032	S724736
23	2	1/2"x1/2"x1/4"	STD	TEE, REDUCER	300	450	N545172	S724280
24	1	3"x2"x2"	STD	TEE, REDUCER	300	450	N545332	-
25	1	2"	STD	UNION	300	600	N548218	S781952
26	7	1/2"	100	COCK, STOP	100	155	N563606	S749350
27	1	2"	100	COCK, STOP	100	155	N563616	S749348
28	2	1/4"	45	VALVE, RELIEF FISHER 289-A 3-13 PSIG	45	-	N589620	S788372
29	1	1/4"	5000	VALVE, NEEDLE	5000	-	N586305	S787648+
30	1	1/2"	4500	VALVE, BALL, FULL PORT, W/LOCK DEVICE	4500	6750	N589639	S782876+
31	1	2"	2400	VALVE, BALL, TBE, NACE W/LOCK	2400	3600	N589638	-
32	1	2"	150CL	FLANGE, SCREWED FF	275	450	N549464	-
33	1	2" FLGx6"L	150CL	FLANGE, NIPPLE, FF/TE MSP 54-26	275	450	N542620	S354200
34	2	3" FLGx2" THD	150CL	FLANGE, NIPPLE, SWAGE FF/TSE	275	450	N542654	-
35	1	-	-	SUPPORT	-	-	N688854	-
36	1	2"x2"x12"	-	SUPPORT, BLOCK SOLID CONC.	-	-	N391882	-
37	1	2"	-	STRAINER, BASKET	-	-	N688950	S695908
28	1	1/4"	-	VENT, ASSEMBLY FISHER Y602-13	-	-	N689500	-
39	1	-	-	TAG - "FOR GAS UTILITY USE ONLY"	-	-	N399317	S716764
40	1	-	-	OIL	-	-	-	-

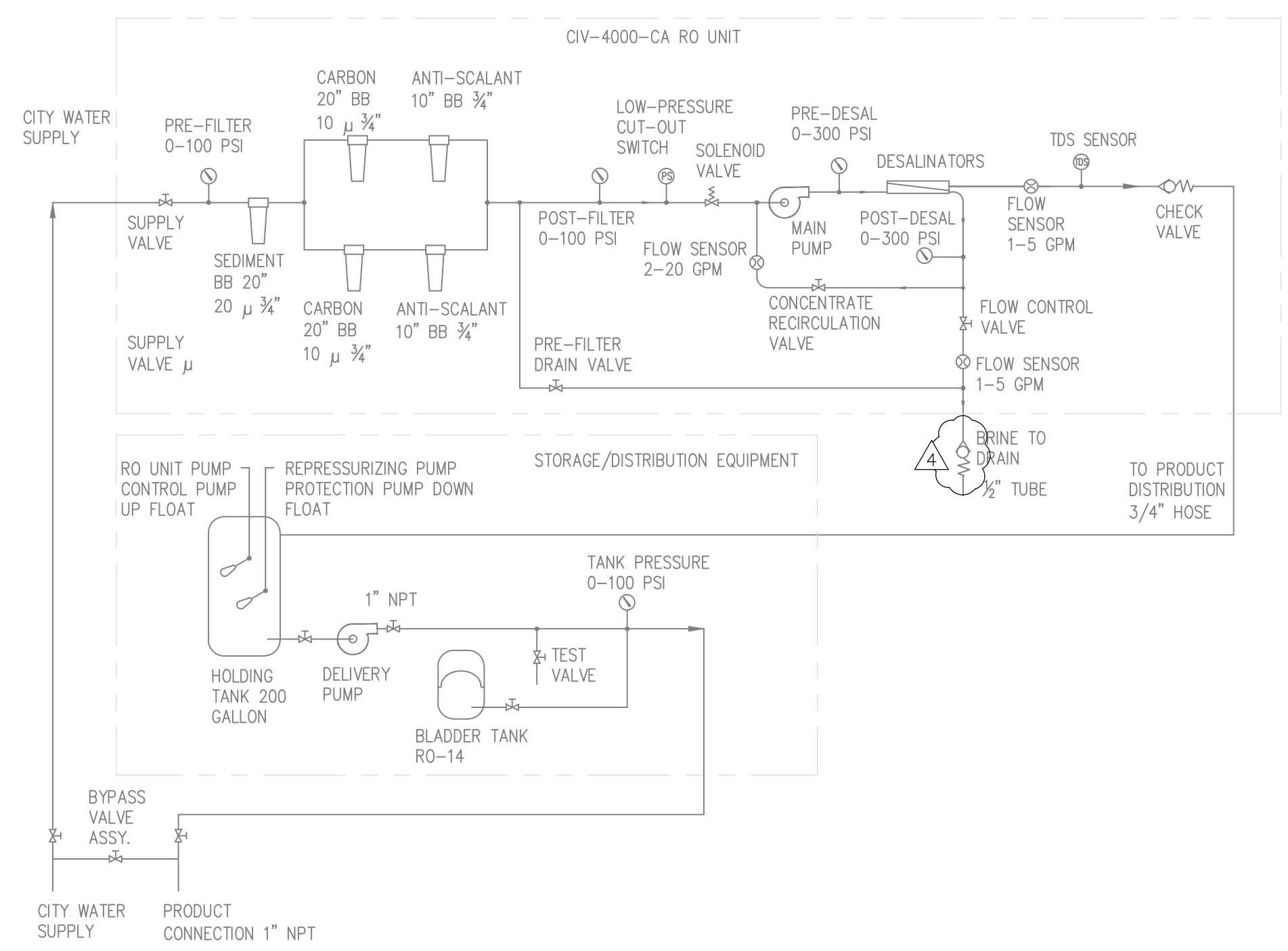
\* SOCIAL GAS CO. RESPONSIBLE FOR EXACT GAS HOOK-UP ARRANGEMENT.

**GAS METER HOOK-UP DETAIL**  
NOT TO SCALE: 2

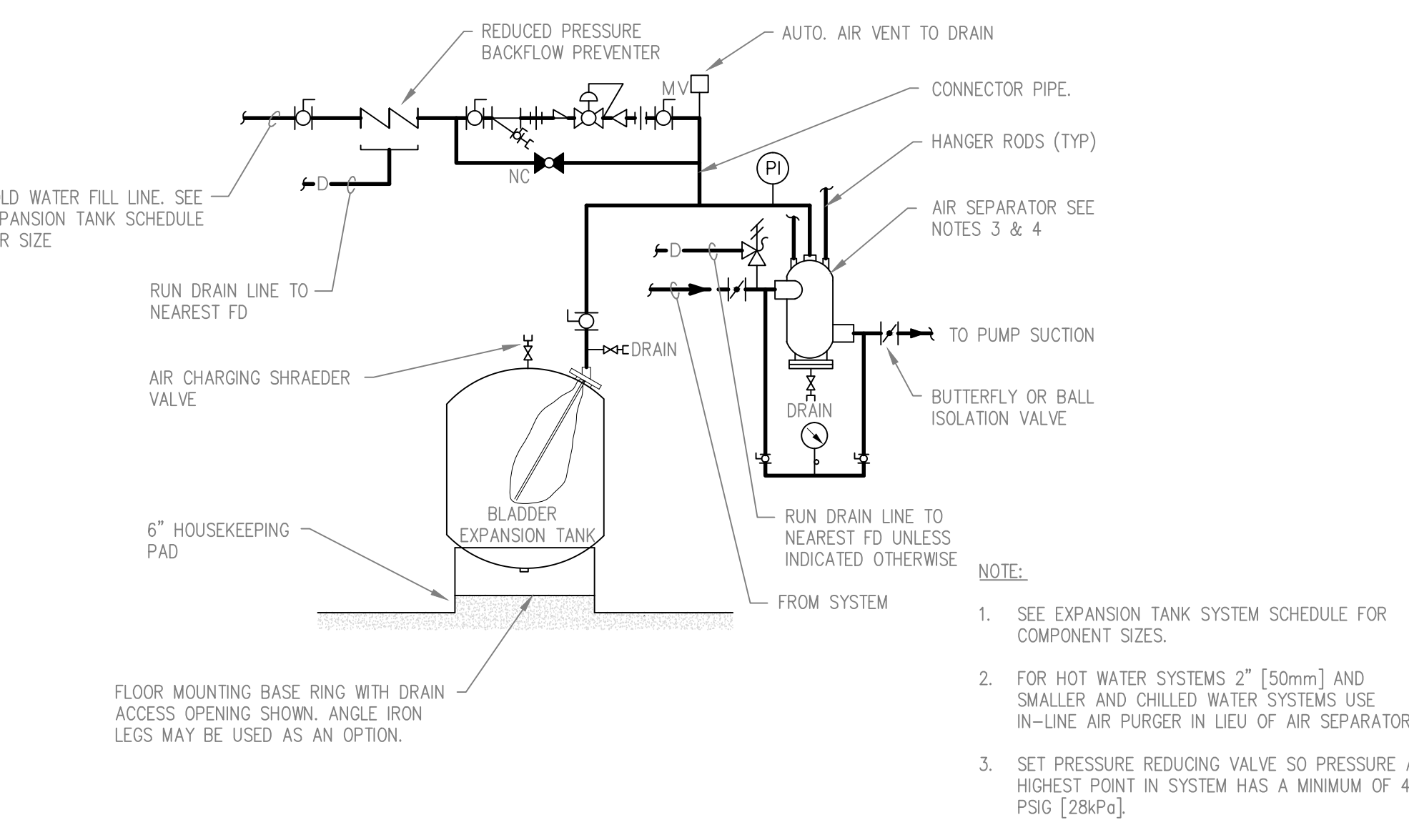


- NOTE:**
- EACH FUEL CELL IS RATED FOR 4,500 SCFH AT BETWEEN 10 AND 14 IN WC. GAS PRESSURE.
  - INCOMING GAS LINE PRESSURE IS AT 5 PSIG.
  - GAS PRESSURE AFTER METER TO BE REDUCED TO 1.10 PSIG (ADJUSTABLE) TO ENSURE PROPER PRESSURE AT EACH FUEL CELL.

**GAS PIPING DIAGRAM**  
NOT TO SCALE: 5

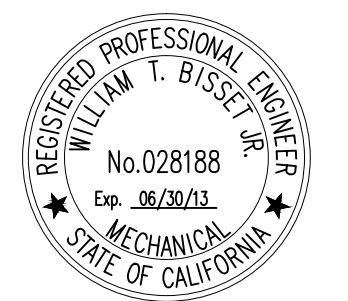
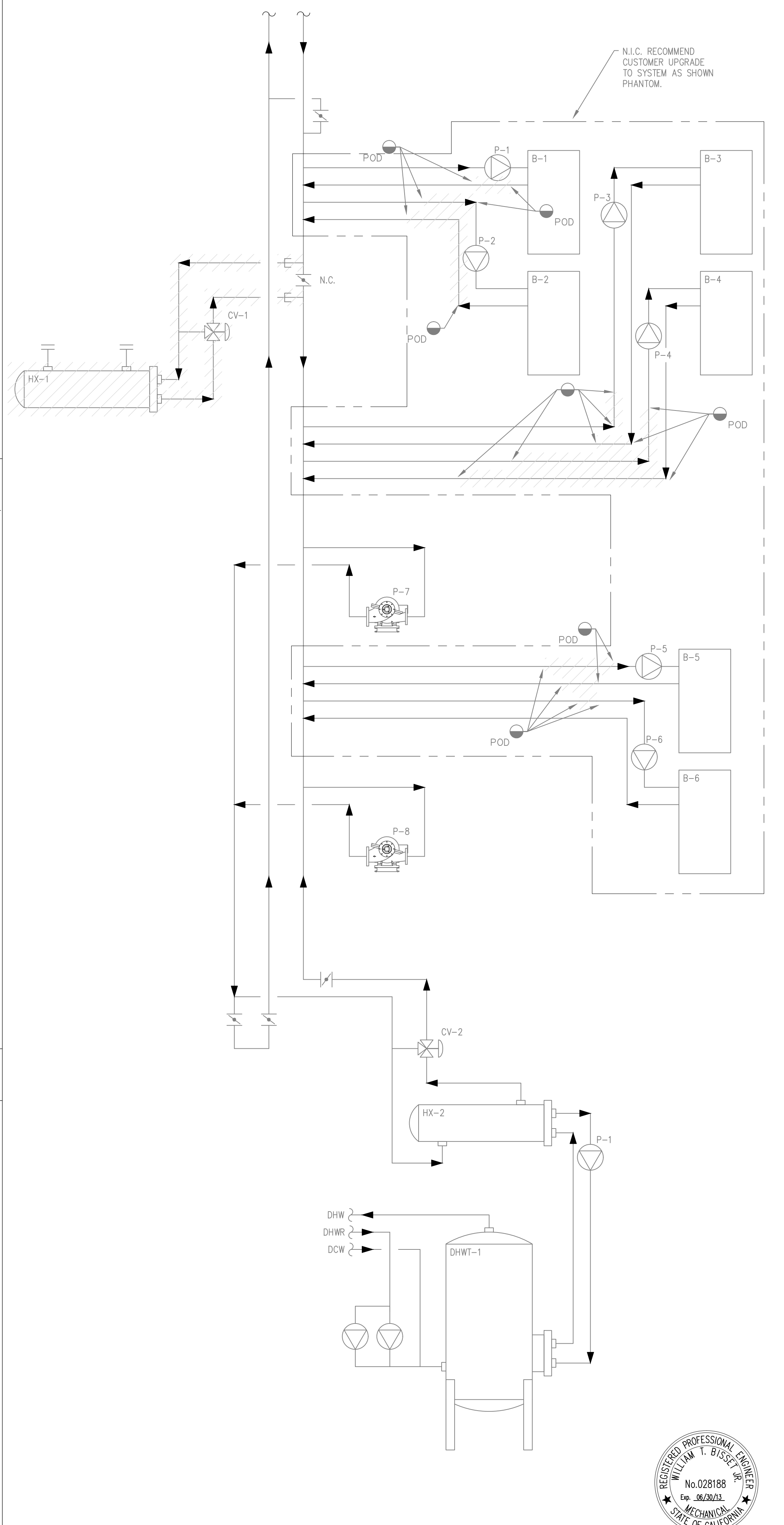


**RO SYSTEM DETAIL**  
NOT TO SCALE: 3



- NOTE:**
- SEE EXPANSION TANK SYSTEM SCHEDULE FOR COMPONENT SIZES.
  - FOR HOT WATER SYSTEMS 2" [50mm] AND SMALLER AND CHILLED WATER SYSTEMS USE IN-LINE AIR PURGER IN LIEU OF AIR SEPARATOR.
  - SET PRESSURE REDUCING VALVE SO PRESSURE AT HIGHEST POINT IN SYSTEM HAS A MINIMUM OF 4 PSIG [2&Pp].

**FLOOR MOUNTED EXPANSION TANK - PIPING CONNECTIONS DETAIL**  
NOT TO SCALE: 4



**EXISTING HEATING HOT WATER & DOMESTIC HOT WATER DEMO FLOW DIAGRAM**  
NOT TO SCALE: 1

**KEYSTONE**  
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**CBS TELEVISION CITY FUEL CELL INSTALLATION PROJECT**

7800 BEVERLY BLVD.  
LOS ANGELES, CALIFORNIA 90036

ID	DATE	REMARKS
1	7/02/12	PRELIMINARY DESIGN REVIEW
2	8/20/12	PLAN CHECK
3	9/19/12	FIELD CLARIFICATIONS
4	9/19/12	UTIC RECOMMENDED CORRECTIONS
5	9/25/12	UTIC COMMENTS/REVISIONS

ENGR:	WTB
DRWN BY:	WTB
CHK'D BY:	WTB
DATE:	9/19/12
JOB NO.:	12-010
SCALE:	AS NOTED

SHEET  
**M3.4**