

Salishan Uprate 2012
Job Number: 887024719
Drawings

Salishan Supply

Drawing Number	Facility Type	Facility ID
3D5-321	Main	020.A-01
	Main	020.A-04
	Main	020.A-05
7D-230	Main	020.A-01.B
3D7-400	Main	020.A-01.C
Main Card (63S-180)	Main	020.A-01.D
	Main	020.A-01.E
3D5-321	Main	020.A-01.F
EXS62-300	Main	020.AR-01
	Main	020.B-01
70D-102	Main	020.C-01
3D7-312	Main	020.U-01
	Main	020.U-02
	Main	020.U-03
	Main	020.U-04
3D2-584	Reg Station	RS-0266 (Retired)
62D-109	Reg Station	RS-0490 (Retired)
D-4	Reg Station	RS-0539 (Retired)
66-1019	Reg Station	RS-0983 (Retired)
STD 3D-193	Reg Station	RS-1031 (Retired)
70D-308	Reg Station	RS-1220 (Retired)
70S-411	Reg Station	RS-1306 (Retired)
705-620	Reg Station	RS-1327 (Retired)
70S-803	Reg Station	RS-1371 (Retired)
STD 3D-193	Reg Station	RS-1404 (Retired)
71D-305	Reg Station	RS-1418 (Retired)
71S-697	Reg Station	RS-1472 (Retired)
71S-792	Reg Station	RS-1480 (Retired)
STD 3D-193	Reg Station	RS-1538 (Retired)
RS-1868 / D-4	Reg Station	RS-1868 (Retired)
77S-256	Reg Station	RS-1877 (Retired)
795-676	Reg Station	RS-1973 (Retired)
845-282	Reg Station	RS-2123 (Retired)
3D8-571	Reg Station	RS-2311
3D11-538	Reg Station	RS-2695

3D11-539	Reg Station	RS-2696
3D11-540	Reg Station	RS-2697
3D11-560	Reg Station	RS-2698
3D11-589	Reg Station	RS-2723

Pierce Transit Supply

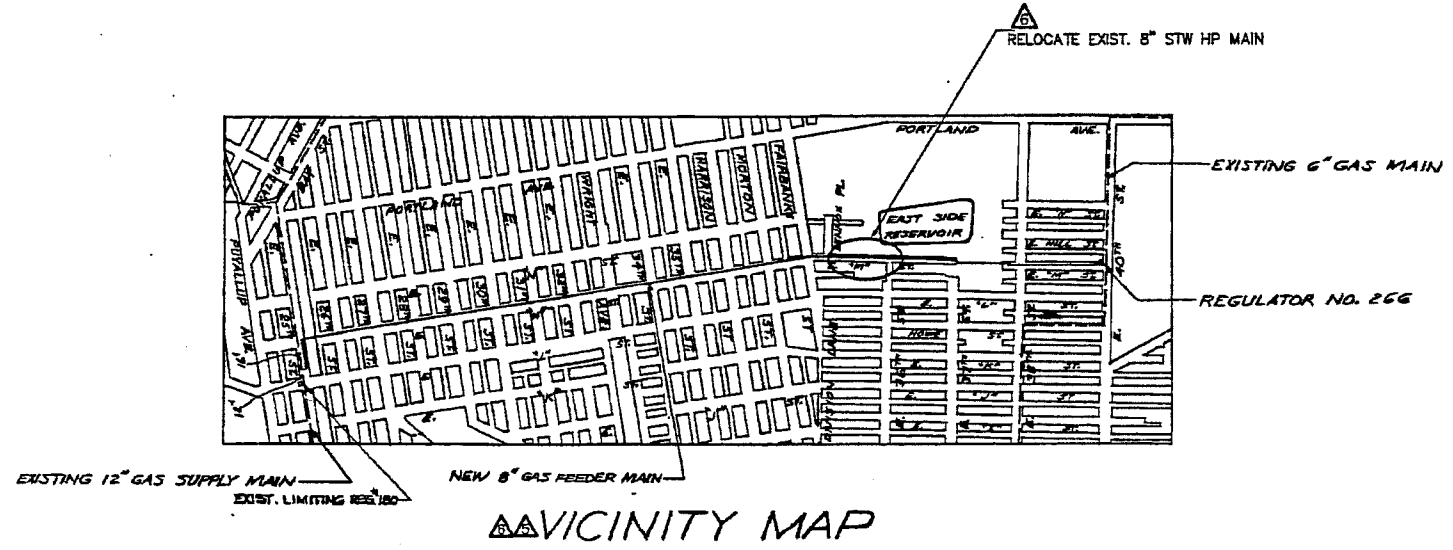
Drawing Number		Facility ID
9702121	Main	020.X-01
	Main	020.X-02
	Main	020.Y-01.A
	Main	020.Y-01.B
	Main	020.Z-01.B
	Main	020.Z-01.C
	Main	020.Z-01.D
	Main	020.Z-01.E
	Main	020.Z-01.F
	Main	020.Z-01.G
	Main	020.AC-01.A
	Main	020.AC-01.B
	Service (retired)	HPS-0001 through HPS-0021
	Service (retired)	HPS-0023 through HPS-0051
905-504(B)	Main	020.Y-01
905-504(B)	Main	020.AC-01
EXS64-006	Main	020.Z-01
MAIN CARD – 875-664	Main	020.Z-01.A
69-515	Main	020.AA-01
795-373	Main	020.AA-01.A
74S-221	Main	020.AB-01
915-876	Main	020.AS-01
9309077	Main	020.AT-01
MAIN CARD – 804-405	Main	020.AU-01
795-373	Main	020.AV-01
815-178	Main	020.AW-01
3D9-604	Reg Station	RS-2558
4D28-371	Service	HPS-0022

020-0A-01

NOTES PER SAP #109017759 RELOCATE 8" STW HP MAIN

- ALL PAVING, INCLUDING ALL ROAD CROSSINGS, SHALL BE OPEN CUT EXCEPT WHERE SPECIFICALLY STATED OTHERWISE ON THE DRAWING OR PERMIT.
- PERFORM TESTING, TIE-IN, AND PURGE OPERATIONS IN ACCORDANCE WITH THE PROCEDURE APPROVED BY PSE PROJECT ENGINEER.
- PRIOR TO HYDROSTATIC, NITROGEN, OR AIR TESTING INSTALL TYPE "K" THERMOCOUPLES AT EQUAL INTERVALS ALONG THE PORTION OF MAIN TO BE TESTED. INSTALL PER THE THERMOCOUPLE DETAIL ON THIS DRAWING.
- MAXIMUM ALLOWABLE WALL MISMATCH FOR WELDING IS 3/32". WHEN NECESSARY, (A) TAPER ENDS OF FITTINGS PER ANSI/ASME B31.8 APPENDIX I, FIG. 15 (B), OR (B) USE TRANSITIONAL PIPE APPROVED BY PSE PROJECT ENGINEER TO GET WITHIN TOLERANCE.
- WELDS NOT PRESSURE TESTED MUST BE RADIOGRAPHICALLY INSPECTED PER PSE GAS OPERATING STANDARD 2700.1200. A MINIMUM OF 10% OF ALL WELDS WILL BE RADIOGRAPHICALLY INSPECTED. INSPECTION WORK SHALL BE PERFORMED UNDER SEPARATE CONTRACT WITH AND AT THE DISCRETION OF PSE.
- CHECK FOR WRAPPING HOLIDAYS WITH A JEEP MACHINE PER PSE GAS FIELD PROCEDURE P0330 AND REPAIR FAULTS AS REQUIRED PER PSE GAS OPERATING STANDARD 2600.1000.
- CATHODIC PROTECTION OF STW MAIN SHALL BE COORDINATED THROUGH PSE CORROSION ENGINEER.
- INSTALL CP TEST STATIONS PER PSE GAS OPERATING STANDARD 2600.1200 AND PSE GAS FIELD PROCEDURE P0303 AT APPROXIMATELY 200' INTERVALS.
- PROVIDE A MINIMUM OF 36" OF COVER OVER MAIN, WHEN INSTALLING MAIN ACROSS OR IN A DRAINAGE DITCH, MEASURE COVER FROM BOTTOM OF DRAINAGE DITCH. IF CONDITIONS REQUIRE A SHALLOWER INSTALLATION, MAIN MUST BE PROTECTED PER PSE GAS OPERATING STANDARD 2525.1700 UPON APPROVAL OF PSE PROJECT ENGINEER.
- PROTECT HP MAIN FROM UNDERGROUND STRUCTURES PER PSE GAS OPERATING STANDARD 2525.1700.
- THE HP MAIN IS TO BE INSTALLED OVER EXISTING UTILITIES (STORM DRAIN, SEWER OR WATER) IF BOTH THE MINIMUM SEPARATION AND MAXIMUM COVER CRITERIA ARE MET. WHERE THE HP MAIN IS INSTALLED UNDER AN EXISTING UTILITY PROPER SUPPORT OF THAT UTILITY SHALL BE PROVIDED.
- TAP OUT ALL SAV-A-VALS AND TEES WITH TAPPING EQUIPMENT. DO NOT TAP OUT WITH TORCH.
- WROUGHT-STEEL WELDING ELBOWS AND TRANSVERSE SEGMENTS OF WROUGHT-STEEL WELDING ELBOWS MAY NOT BE USED FOR CHANGES IN DIRECTION ON STEEL PIPE THAT IS 2 INCHES OR MORE IN DIAMETER UNLESS THE ARC LENGTH OF THE ELBOW SEGMENT, AS MEASURED ALONG THE CROTCH, IS AT LEAST 1 INCH PER PSE GAS OPERATING STANDARD 2525.2700.
- ALL 3R FITTINGS (OR TRANSVERSE SEGMENTS OF 3R FITTINGS) SHALL BE INSTALLED WITH A MINIMUM OF 3" SEPARATION BETWEEN THE 3R FITTINGS (OR TRANSVERSE SEGMENTS OF 3R FITTINGS) UNLESS OTHERWISE APPROVED BY THE PROJECT ENGINEER PER PSE GAS OPERATING STANDARD 2525.2700.
- COORDINATE INSTALLATION WITH CORROSION CONTROL: LARRY ONEAL & (253) 377-1753 OR 6308
- COORDINATE INSTALLATION WITH 2" PE IP MAIN RELOCATE PER SAP #109017759.
- EROSION AND SEDIMENT CONTROL SHALL BE PER PSE STANDARD PRACTICE 0150.3200 TECHNIQUES FOR TEMPORARY EROSION AND SEDIMENT CONTROL AND ANY ADDITIONAL LOCAL JURISDICTION REQUIREMENTS.
- PLUG DEACTIVATE MAIN W/ CONCRETE & FROTH PACK.

NOTE:
 (1) INSTALL ALL 8" NORD. VALVES (FIG. 4249) ON THEIR SIDES TO MAKE POSSIBLE THEIR OPERATION THRU A ROAD BOX. SEE DETAIL #2
 (2) CAP 8" MAIN 3' BEYOND 8" VALVE



ITEM	QTY	DESCRIPTION	PART NO
27	1	ELL 8" 45 DEGREE WLD 3R WPE	6000818
28	2	WELD-O-LET 8" X 2"	PO
25	4	NIPPLE SAVE-A-VALVE 2" X 3" H17491	6800841
24	2	NIPPLE SAVE-A-VALVE 1" X 3" H17491	9995337
23	2	CAP 8" WELD STD	5200739
22	6	ELL 8" X 8" WLD STD	6000814
21	2	STOPPER 8" X 300# T/W B/O H-17281	7600796
20	302	PIPE 8" X 0.322" X-42 STW	7000621

BILL OF MATERIALS

GAS MAIN RETIREMENT				
RETIRE PIPE SIZE	RETIRE MATERIAL	RETIRE FOOTAGE	ACTUAL RETIRE	ORDINAL YEAR
8"	STW	480'	483'	60-323

GAS INSTALLATION				
PROP. SIZE	PROP. FOOTAGE	TYPE	ACTUAL FOOTAGE	COST CODE
8"	480'	STW	503'	045-198

REFERENCE DWGS:
 (1) 302-546 (DISTRICT REG #266)
 (2) 2A-212(6" MAIN CROSSING CM-ST. R/P R.R. R/W)

1	1	4" 90° ELL, LT WT	
2	2	12" X 300" INSULATION KIT	
2	2	12" X 300" NEOPR. GASKET FULL PKG	
2	2	12" X 300" BOLT KIT	
14	2	12" X 300" W N FLANGE RF	
15	2	12" X 8" WLD REDUCER LT WT	
12	1	8" WLD TEE LT WT	
11	2	12" WLD TEE LT WT	
10	10	12" X 8" CASING INSULATORS	
10	137	12.750" OD X 2.250" WALL CASINGS	
9	220	8.625" OD X 2.250" WALL PIPE WRPD	
8	6	8" X 8" ELL LT WT	
7	6	ROADBOX	
6	1	8" WELD CAP LT WT	
5	1	4" NORD. VALVE (FIG. 2024)	
4	1	8" X 4" WELD OLET STD WT	
3	8	8" NORD. VALVE (FIG. 4249)	
2	2	12.750" ODK 2.250" PIPE WRPD	
1	1	1600 8.625" OD X 1.875" WALL PIPE WRPD	

FITTER (CHECK BOX IF COMPLETE)

Work area left in Clean & Safe condition

Completes all Pipe Tables and Gas Pressure Stamp

Field changes Red-Lined on as-built

Material verified and Changes noted on paperwork

All Valve & Tie-in Locations noted on as-built

Note beginning of Main, EDM & Line of Main locations

Show Rope Locations & Cut-de-moc Radius

Foreman's Signature: DON SMITH Date: 04/25/05

Company: PILCHUCK

109017759 - INSTALL 8" HP MAIN
 108521167 - RETIRE HP MAIN
 SHEETS FOR 109017759
 SHEET 1 & 2

NO	DESCRIPTION	DATE	BY	APPR.
1	CHANGED LINE OF PROP. 8" STW HP & 2" PE MAIN PER CITY OF TACOMA	7/21/04	EB	CN
2	RELOCATE 8" STW HP MAIN PER ORDER #109017759	3/03/05	EB	
3	MOVED PLOT PLAN TO SHEET #3 AND RELOCATED VICINITY MAP TO SHEET #1	2/11/05	RN	RN
4	AS INSTALLED	7/16/04	LW	RPW
5	ADDED ITEM 15	8/16/04	RC	
6	ADD ITEM #4	8/16/04	RL	
7	ADD TEST LEADST BOND WRES	7/16/04	PL	

BILL OF MATERIAL

PERMIT #4000026909

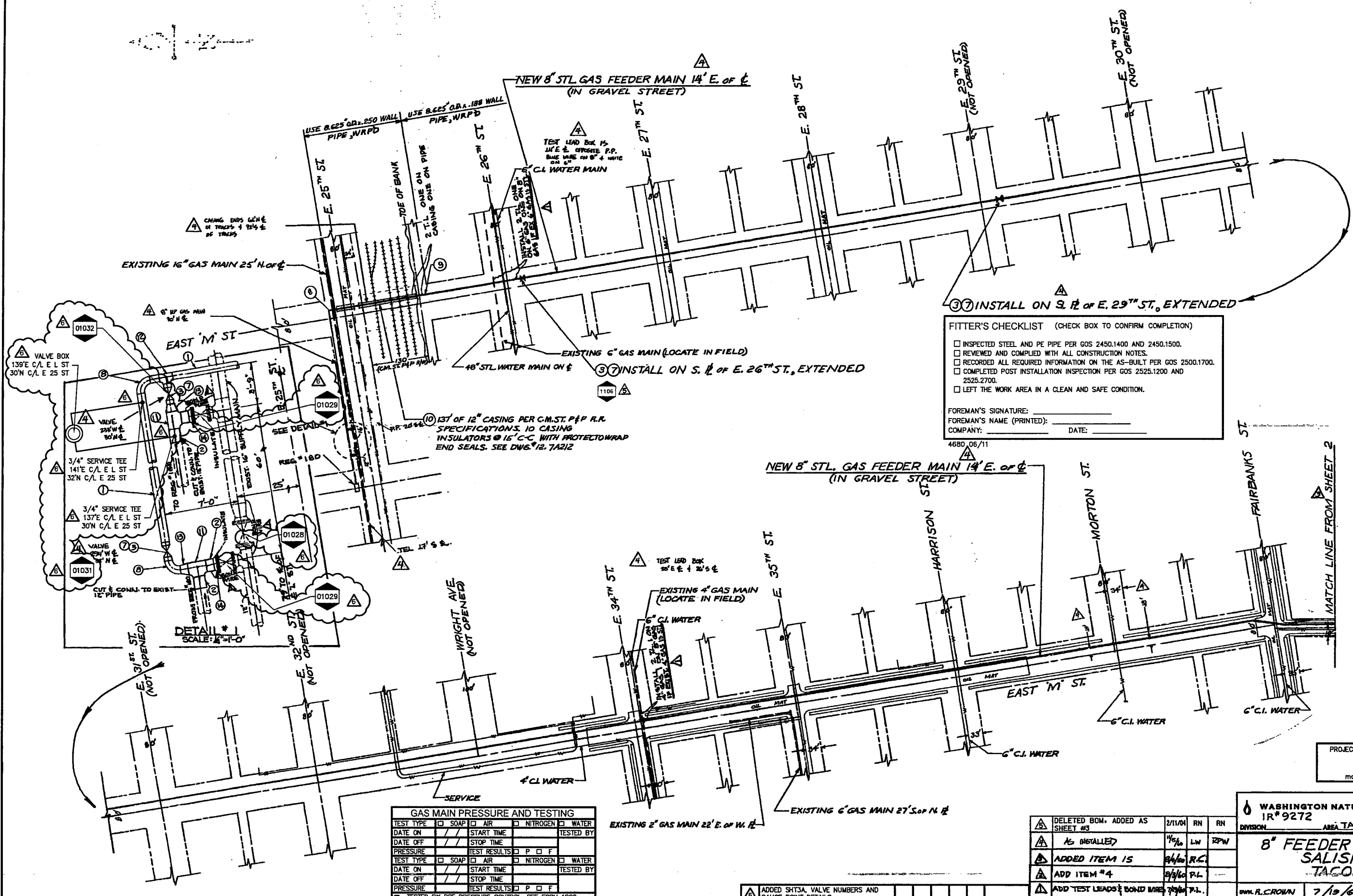
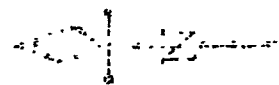
WASHINGTON NATURAL GAS COMPANY
 IR# 9272

DIVISION: AREA TACOMA ES #41

8" FEEDER MAIN TO SALISHAN TACOMA

REV	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE
AS	INSTALL RDER 109017759	EB	01	1/4	1/4		7/19/04

DRAWN: R. CROBIN 7/19/04
 CHECKED: P. LIU 7/25/04
 SCALE: 1" = 100'
 FILE: G24
 MAIN 10 026 A-1-F



FITTER'S CHECKLIST (CHECK BOX TO CONFIRM COMPLETION)

- INSPECTED STEEL AND PE PIPE PER GOS 2450.1400 AND 2450.1500.
- REVIEWED AND COMPLIED WITH ALL CONSTRUCTION NOTES.
- RECORDED ALL REQUIRED INFORMATION ON THE AS-BUILT PER GOS 2500.1700.
- COMPLETED POST INSTALLATION INSPECTION PER GOS 2525.1200 AND 2525.2700.
- LEFT THE WORK AREA IN A CLEAN AND SAFE CONDITION.

FOREMAN'S SIGNATURE: _____
 FOREMAN'S NAME (PRINTED): _____
 COMPANY: _____ DATE: _____

4680, 06/11

PROJECT MANAGER CONTACT INFO
 MOLLY REED
 425-214-6684 CELL PHONE
 molly.reed@pse.com EMAIL

WASHINGTON NATURAL GAS COMPANY
 IR# 9272
 DIVISION: _____ AREA: TACOMA

8" FEEDER MAIN TO SALISHAN TACOMA

DATE: 7/19/60
 CHECKED BY: P. LIU
 SCALE: 1" = 100'

DWG. NO. 3D5-321
 SHEET 3 OF 3

GAS MAIN PRESSURE AND TESTING			
TEST TYPE	<input type="checkbox"/> SOAP <input type="checkbox"/> AIR <input type="checkbox"/> NITROGEN <input type="checkbox"/> WATER	DATE ON	TESTED BY
DATE OFF	START TIME	STOP TIME	
PRESSURE	TEST RESULTS	<input type="checkbox"/> P <input type="checkbox"/> F	
TEST TYPE	<input type="checkbox"/> SOAP <input type="checkbox"/> AIR <input type="checkbox"/> NITROGEN <input type="checkbox"/> WATER	DATE ON	TESTED BY
DATE OFF	START TIME	STOP TIME	
PRESSURE	TEST RESULTS	<input type="checkbox"/> P <input type="checkbox"/> F	
<input type="checkbox"/> TESTED BY PSE PRESSURE CONTROL, SEE FORM 1928			
DESIGN PRESS	SYSTEM MAP		
2023 03/10			

REV	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE
1	ADDED SH3A, VALVE NUMBERS AND GAUGE POINT DETAILS						


NO	DESCRIPTION	DATE	BY	APPR.
1	DELETED BOM, ADDED AS SHEET #3	2/11/01	RN	RN
2	AS INSTALLED	1/5/60	LW	RPW
3	ADDED ITEM 15	2/4/60	R.C.	
4	ADD ITEM #4	2/6/60	R.L.	
5	ADD TEST LEADS & BOND WIRE	7/19/60	P.L.	

REVISIONS

REVISIONS

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
 PO = NON STOCK ITEM
 CR = CONTRACTOR WILL PROVIDE ITEM
 ORDER #887028747

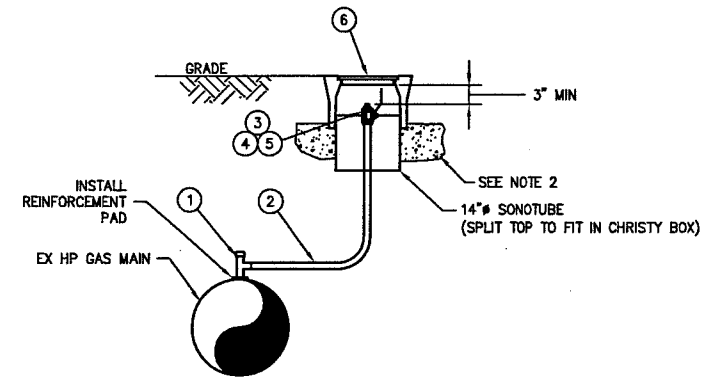
CONSTRUCTION NOTES:

- SCOPE: INSTALL GAUGE POINT ON MAIN PER JOB #8870248747.
- ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY GAS STANDARDS AND GAS FIELD PROCEDURES.
- SHADING INDICATES EXISTING PIPING. (NOT ALL EXISTING PIPING IS SHADED) 
- ALL PIPING TO BE COATED IN ACCORDANCE WITH PSE OPERATING STANDARD 2600.1100.
- NOTIFY PRESSURE CONTROL TECHNICIAN TONY GARGIULO (253) 261-3152, AT LEAST TWO (2) WORKING DAYS PRIOR TO START DATE.
- COORDINATE CATHODIC PROTECTION WITH CORROSION ENGINEER. CONTRACTOR TO NOTIFY CORROSION CONTROL TECHNICIAN JOHN BATINOVICH (253) 405-4951, AT LEAST TWO (2) WORKING DAYS PRIOR TO START DATE.
- EROSION AND SEDIMENT CONTROL SHALL BE PER STANDARD PRACTICE AND ANY OTHER ADDITIONAL LOCAL JURISDICTION REQUIREMENTS.
- PRELIMINARY LEAK TEST PIPING WITH AIR OR NITROGEN BETWEEN 100 AND 150 PSIG FOR FIFTEEN (15) MINUTES PER OPERATING STANDARD 2525.3300. PRESSURE CONTROL TO APPROVE PRELIMINARY LEAK TEST. LEAK TEST PIPING WITH AIR OR NITROGEN AT A MINIMUM OF 450 PSIG FOR A MINIMUM OF ONE (1) HOUR(S) PER PSE GAS OPERATING STANDARD 2525.3300.

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8			
7	4	ELBOW, 3/4" X 90 X 0.154", CLASS3000, SW	9997805
6	1	BOX, VALVE, CHRISTY	9995864
5	2	PLUG, 3/4" X CLASS6000, THD	7200024
4	2	VALVE, BALL, 3/4" X 2000PSIG, THD	9996141
3	2	NIPPLE, 3/4" X 0.154" X 3", GrB, THD	9996424
2	20'	PIPE, 3/4" X 0.154", GrB, WELD, BARE, SCH80	9997607
1	2	TEE, SERVICE, 3/4" X 1440PSIG, MUELLER H17501	7800612
ITEM	QTY	DESCRIPTION	PART NBR

BILL OF MATERIALS

BILL OF MATERIAL ASSOCIATED SOLELY WITH THIS SHEET OF THE DRAWING



GUAGE POINT DETAIL
NTS

- COMPACT DIRT UNDER BOX TO 95%.
- FOR INSTALLATIONS UNDER DRIVEN SURFACES, A CONCRETE SUPPORT SHALL BE POURED IN PLACE. THE SUPPORT SHALL BE A MINIMUM OF 4 INCHES WIDE AND 4 INCHES TALL, AND SHALL BE PREVENTED FROM CONTACTING EXTENSION RISERS. CONCRETE SHALL BE PER PSE STANDARDS 1275.1130 OR 1275.1140.
- TERMINATIONS IN VALVE BOX TO BE ORIENTED VERTICALLY, WITH NO PERCEPTIBLE TILT.
- MINIMUM CLEARANCES OF EXTENSIONS IN VAULT:
 - 3" BELOW BOTTOM OF VAULT LID
 - 2" BETWEEN ANY TWO EXTENSIONS
 - 2" BETWEEN ANY EXTENSION AND VAULT WALL

GAS MAIN PRESSURE AND TESTING				
TEST TYPE	<input type="checkbox"/> SOAP	<input type="checkbox"/> AIR	<input type="checkbox"/> NITROGEN	<input type="checkbox"/> WATER
DATE ON	///	START TIME		TESTED BY
DATE OFF	///	STOP TIME		
PRESSURE		TEST RESULTS	<input type="checkbox"/> P	<input type="checkbox"/> F
TEST TYPE	<input type="checkbox"/> SOAP	<input type="checkbox"/> AIR	<input type="checkbox"/> NITROGEN	<input type="checkbox"/> WATER
DATE ON	///	START TIME		TESTED BY
DATE OFF	///	STOP TIME		
PRESSURE		TEST RESULTS	<input type="checkbox"/> P	<input type="checkbox"/> F
<input type="checkbox"/> TESTED BY PSE PRESSURE CONTROL, SEE FORM 192B				
DESIGN PRESS		SYSTEM MAOP		
2023	03/10			

FITTER'S CHECKLIST (CHECK BOX TO CONFIRM COMPLETION)

INSPECTED STEEL AND PE PIPE PER GOS 2450.1400 AND 2450.1500.

REVIEWED AND COMPLIED WITH ALL CONSTRUCTION NOTES.

RECORDED ALL REQUIRED INFORMATION ON THE AS-BUILT PER GOS 2500.1700.

COMPLETED POST INSTALLATION INSPECTION PER GOS 2525.1200 AND 2525.2700.

LEFT THE WORK AREA IN A CLEAN AND SAFE CONDITION.

FOREMAN'S SIGNATURE: _____

FOREMAN'S NAME (PRINTED): _____

COMPANY: _____ DATE: _____

4680 06/11

PROJECT MANAGER CONTACT INFO

MOLLY REED
 425-214-6684 CELL PHONE
 molly.reed@pse.com EMAIL

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

REAL ESTATE/EASEMENT				PERMIT			
FUNCTION	NAME	PHONE	DATE				
3	-N/A-	N/A	-----N/A-----	PROJECT MGR	M.REED	425-462-3933	-----
2	-N/A-	N/A	-----N/A-----	ENGINEER	D.FRIEZE	425-462-3862	-----
1	-N/A-	N/A	-----N/A-----	DRAWN BY	S.FRANCISCO	425-462-3960	-----
REV #	DATE	BY	DESCRIPTION	CHECKED BY	P.DAO	425-462-3813	-----
COUNTY	EMER SECTION	GAS WK CTR	APPROVED BY				
PIERCE	72	PGRPC008	CP APP	M.GALLARDO	425-462-3858	-----	-----
1/4 SECTION	OP MAP	PLAT MAP					
NW10-20-3	240.062	242.062	MAPPING				

UTILITY CONTACT PHONE

ISSUED FOR CONSTRUCTION	REV	DESCRIPTION	BY	CKR	CP	ENG	PM	DATE

REVISIONS

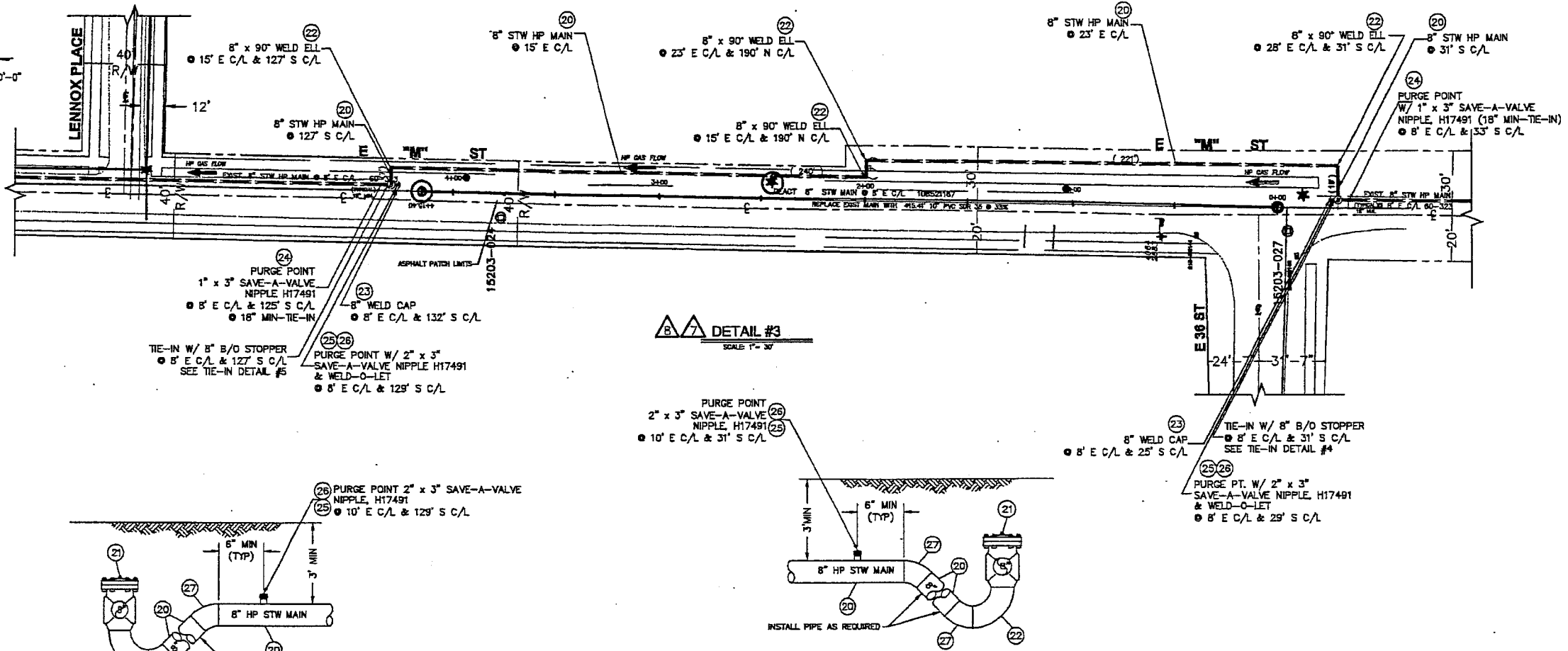
INSTALL GAUGE POINTS
 8" FEEDER TO SALISHAN, MAIN ID#020.A-1 & 020.A-5
 TACOMA, WA

PSE PUGET SOUND ENERGY

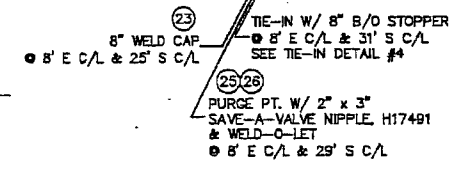
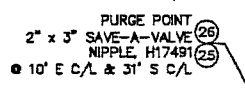
SAP ORDER NUMBER: 887028747
 DWG NUMBER: 3D05-321
 SCALE: NTS

REV 3A/3

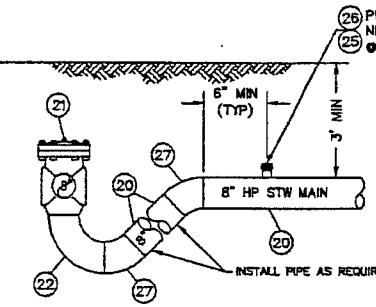
SCALE 1" = 30'-0"



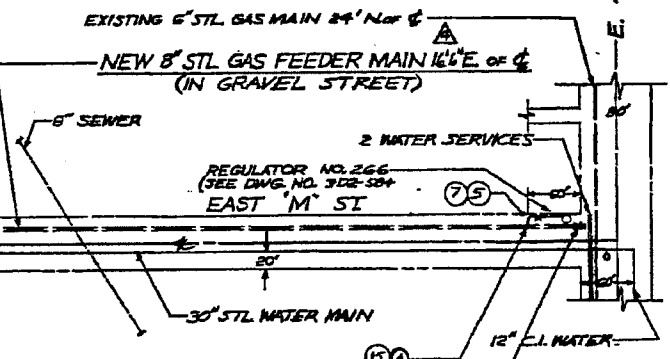
DETAIL #3
SCALE 1" = 30'



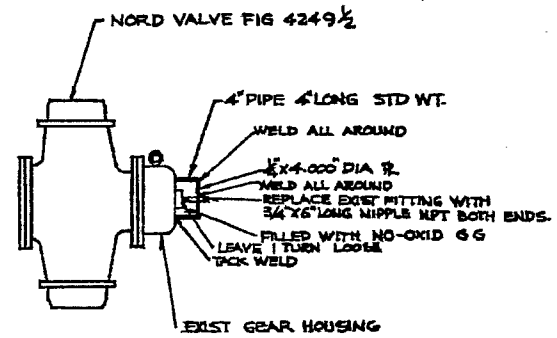
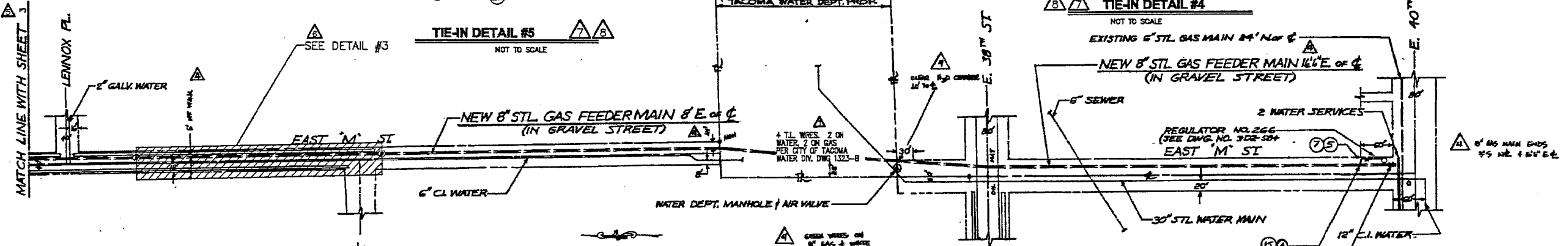
TIE-IN DETAIL #5
NOT TO SCALE



TIE-IN DETAIL #4
NOT TO SCALE



SCALE 1" = 100'-0"



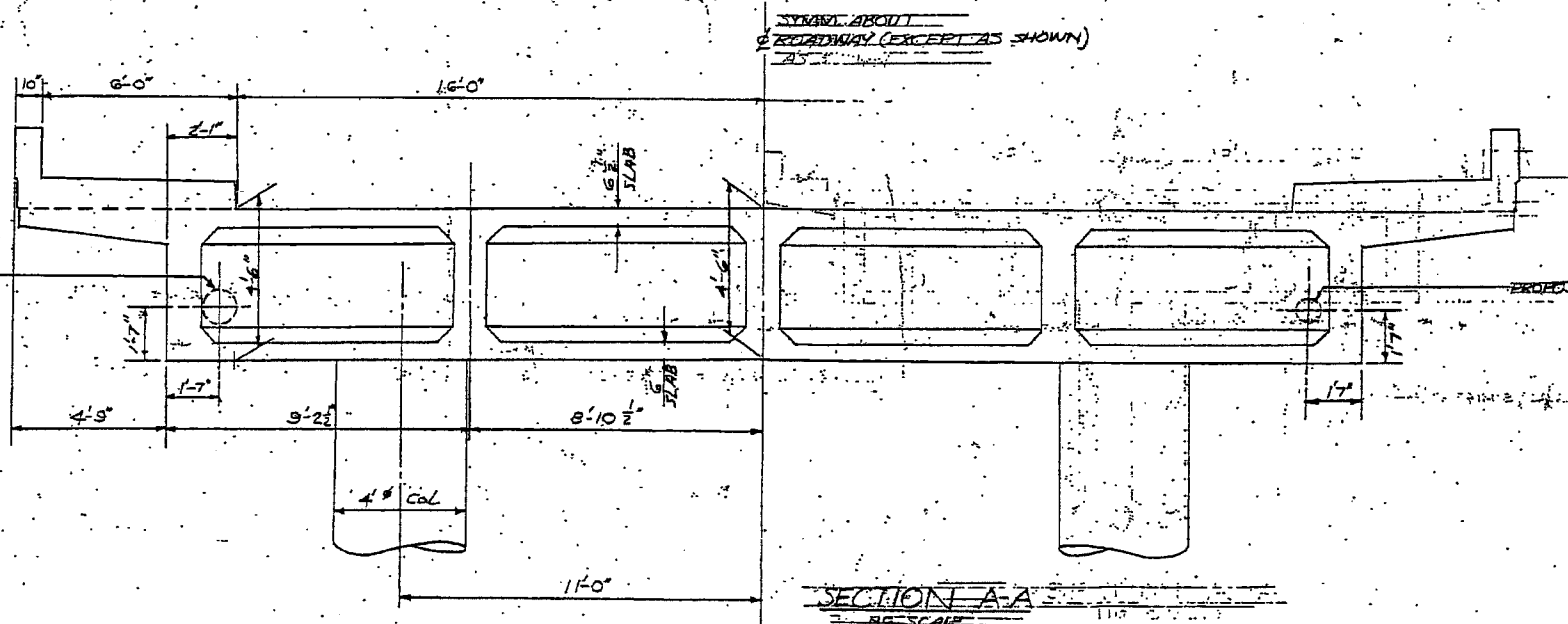
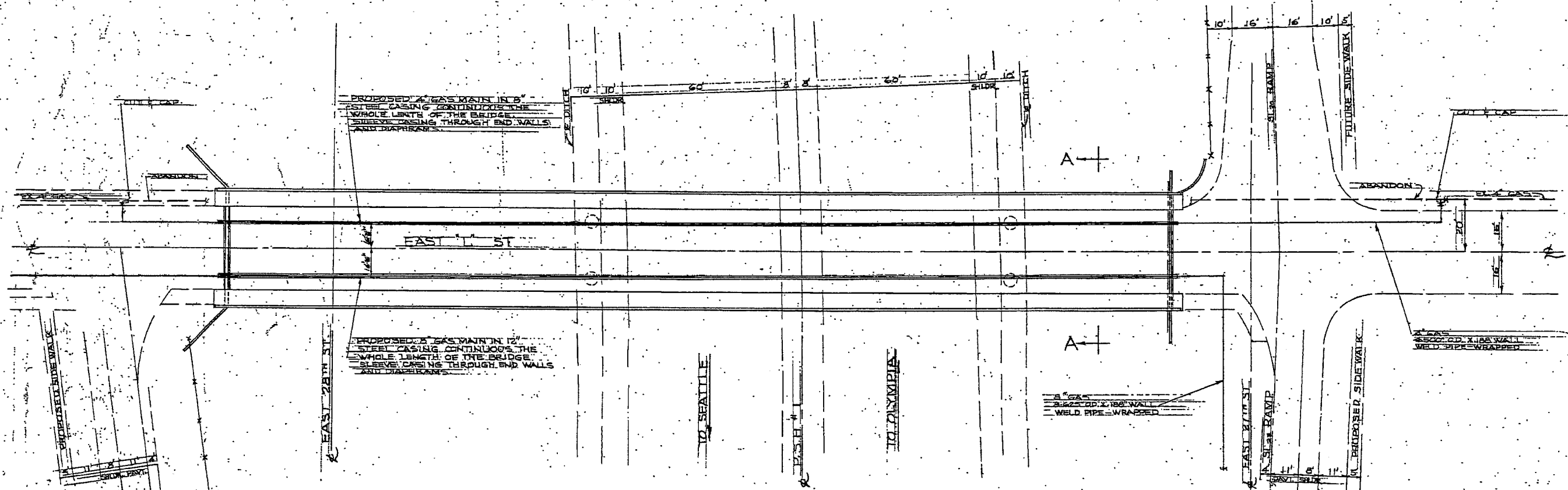
DETAIL #2
NO SCALE

NO.	DESCRIPTION	BY	CHKD	DATE	NO.	DESCRIPTION	BY	CHKD	DATE
AS-INSTALLED	109017759	EB	1/1	1/1	1/1	9/19/66			
REVISIONS									
1	CHANGED LINE OF PROP 8\"/>					7/21/66	CRB		
2	RELOCATE 8\"/>					5/02/66	CRB		
3	MOVED VICINITY MAP TO SHT #1 AND ADDED SHT #3					2/12/66	CRB		
4	AS INSTALLED					1/1/60	LW	EPW	
5	ADDED 30\"/>					1/1/60	R.L.		
6	ADD TEST LEADS					1/1/60	P.L.		

NO.	DESCRIPTION	BY	CHKD	DATE
1	AS-INSTALLED 109017759	EB	1/1	1/1

NO.	DESCRIPTION	BY	CHKD	DATE
1	AS-INSTALLED 109017759	EB	1/1	1/1

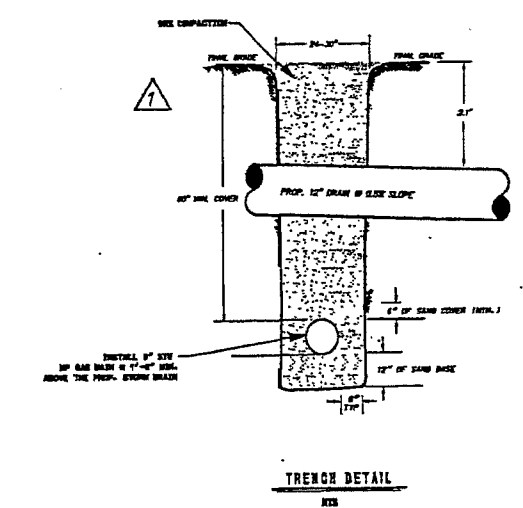
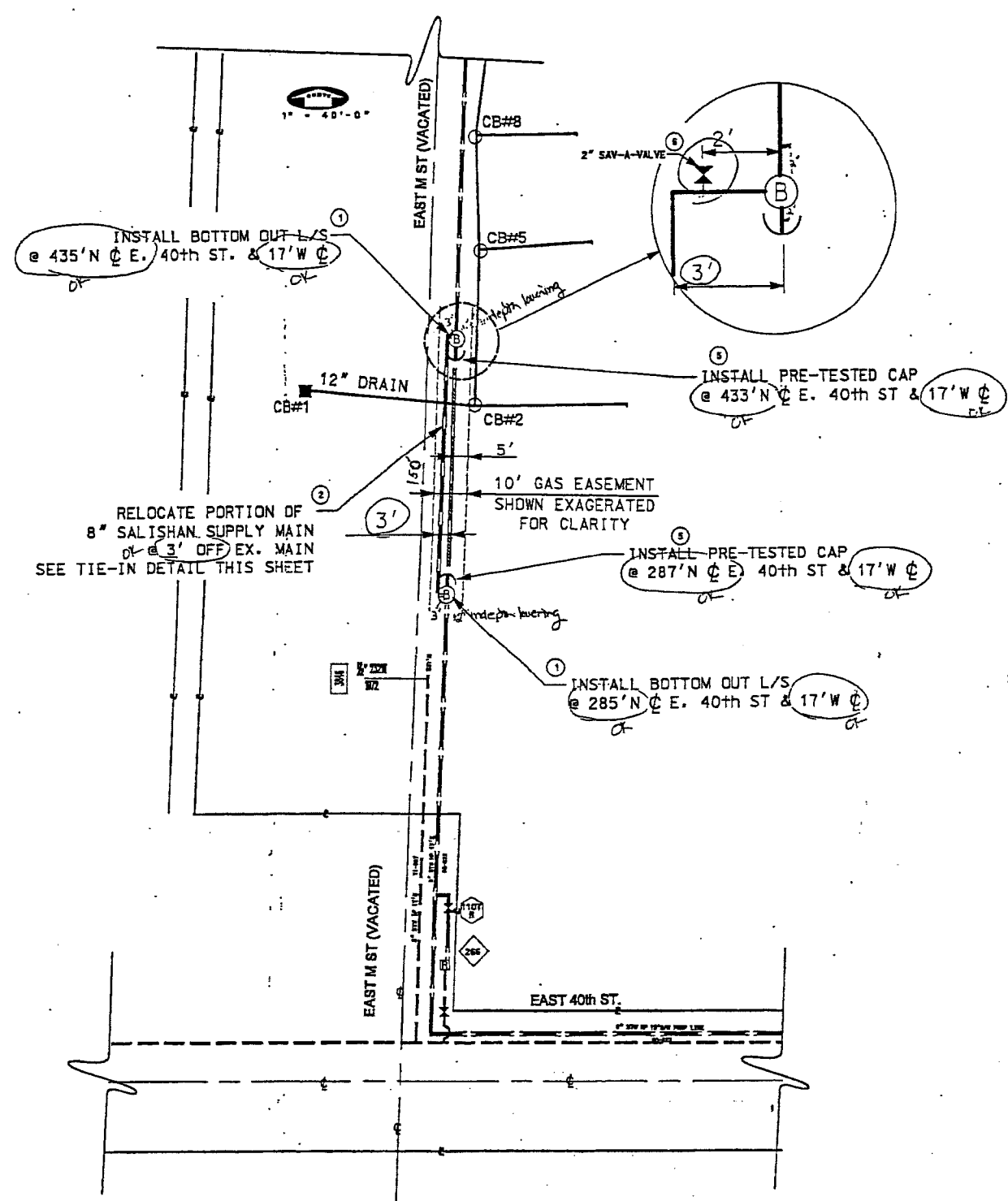
C:\vase_scd\Gas Main\305-321_109017759_305-321_S02R08.dwg-Layout1 - Plotted By: mkanon 08/25/06 12:01PM



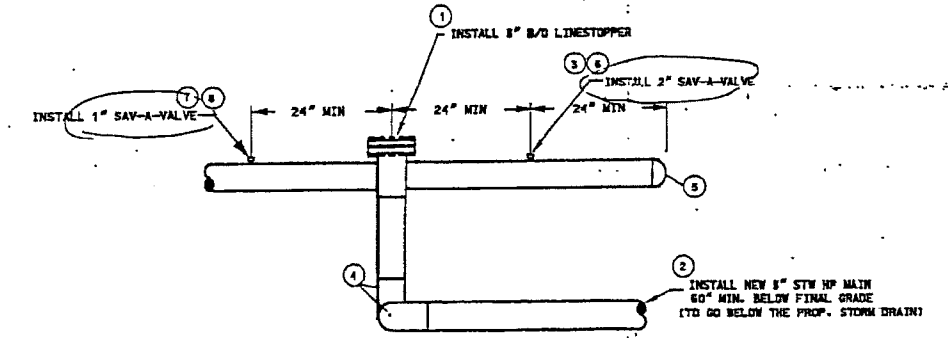
SHUT OFF VALVES
 6" MAIN
 ON E 1ST ST. AT E 28TH ST
 ON E 1ST ST. AT E 29TH ST

REV. NO.	DESCRIPTION	DATE	DRAWN
BILL OF MATERIAL			
WASHINGTON NATURAL GAS COMPANY			
DIVISION: AREA: TACOMA			
4" & 6" MAIN ON E 1ST BRIDGE OVER PSH^T TACOMA			
1	CHANGE SECT. A-A	8/10/61	W.D. 230
2	REVISION	8/10/61	W.D. 230
REVISIONS			

SECTION A-A
 1/4" = 1'-0"



NOTE: SURVEY STAKE PROVIDED TO SHOW FINISHED GRADE 7\"/>



TIE-IN DETAIL (TYP)
NTS

Test by P.S.E. H-P

P.S.E. MAPS & RECORDS	
DATE	BY
PLAT MAP 244.062	
DATE 2/22/06	BY [Signature]
COMMENTS	

CALL 1-800-424-5555
2 BUSINESS DAYS BEFORE YOU DIG
THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

NO.	DATE	BY	DESCRIPTION	REVISION
1				
2				
3				
4				
5				

REAL ESTATE/EASEMENT	PERMIT		
FUNCTION	NAME	PHONE NO	DATE
PROJECT MGR:	RNORSTROM	(206) 476-6009	03/15/01
ENGINEER:	RBUSCH	(206) 224-2163	03/15/01
DRAWN BY:	ECORCORO	(206) 224-2453	03/15/01
CHECKED BY:	RBUSCH	(206) 224-2163	03/23/01
APPROVED BY:	CLOTHUS	(206) 224-2124	

1/4 SEC	OP MAP	PLAT MAP
NW-15-20-3E	244.062	244.062
U-MAP# (POWER)	CIR MAP#	CIRCUIT#

JOINT FACILITIES ARRANGEMENTS

UTILITIES	
CONTACT	
PHONE#	

INCIDENT#

DRAWING#	3D7-400	EXP SUPERVISOR	109008726
SCALE:	1" = 40'		2/2

8" STW HP MAIN RELOC
EAST M ST. BETWEEN
E. 38th & E. 40th STS.

STANDARD HP GAS CONSTRUCTION NOTES:

1. FIELD LOCATE ALL UNDERGROUND UTILITIES. CALL "ONE-CALL" 48 HOURS PRIOR TO CONSTRUCTION. 1-800-424-5555.
2. ALL CONSTRUCTION IS TO CONFORM TO PSE GAS OPERATING STANDARDS AND GAS STANDARDS PROCEDURES MANUAL.
3. NOTIFY PROPERTY OWNERS ADJACENT TO PROPOSED CONSTRUCTION ACTIVITIES A MINIMUM OF 24 HOURS PRIOR TO BEGINNING CONSTRUCTION. USE AD-POST TO DISTRIBUTE FLYERS IF JOB IS LARGE. OTHERWISE HAND DELIVER FLYERS.
4. NOTIFY IN WRITING, USING THE APPROPRIATE FORM LETTER AND THE LIST OF FREQUENTLY ASKED QUESTIONS. ALL SINGLE FAMILY RESIDENTIAL CUSTOMERS OF THE OPPORTUNITY TO PURCHASE AN EXCESS FLOW VALVE WHEN THEIR SERVICE IS INSTALLED OR REPLACED. PER GAS OPERATING STANDARD DC2 (PAGE 22). ALLOW ADEQUATE TIME FOR CUSTOMER DECISION AND RESPONSE.
5. ANY CHANGE IN ROUTE, TIE-IN METHOD OR ADDITIONAL MAIN FOOTAGE MUST BE APPROVED BY PSE REPRESENTATIVE.
6. COMPLETE "PIPE CONDITION REPORT" ON ALL EXPOSED EXISTING PSE FACILITIES. CHECK BOX ON REPORT FOR WIRE BOX (TEST LEAD) INSTALLATION.
7. GAUGE AND MONITOR USE OF ALL STOPPERS TO ENSURE ADEQUATE FEED.
8. ACTIVE SERVICES DENOTED BY XXXX.
9. ALL PAVING, INCLUDING ALL ROAD CROSSINGS, SHALL BE OPEN CUT EXCEPT WHERE SPECIFICALLY STATED OTHERWISE ON THE DRAWING OR PERMIT.
10. PERFORM TESTING, TIE-IN, AND PURGE OPERATIONS IN ACCORDANCE WITH THE PROCEDURE APPROVED BY PSE PROJECT ENGINEER.
11. PRIOR TO HYDROSTATIC, NITROGEN, OR AIR TESTING INSTALL TYPE "K" THERMOCOUPLES AT EQUAL INTERVALS ALONG THE PORTION OF MAIN TO BE TESTED. INSTALL PER THE THERMOCOUPLE DETAIL ON THIS DRAWING.
12. MAXIMUM ALLOWABLE WALL MISMATCH FOR WELDING IS 3/32". WHEN NECESSARY, (A) TAPER ENDS OF FITTINGS PER ANSI/ASME B31.8 APPENDIX I, FIG. 15 (B), OR (B) USE TRANSITIONAL PIPE APPROVED BY PSE PROJECT ENGINEER TO GET WITHIN TOLERANCE.
13. WELDS NOT PRESSURE TESTED MUST BE RADIOGRAPHICALLY INSPECTED PER PSE GAS OPERATING STANDARD 6.9.2. A MINIMUM OF 10% OF ALL WELDS WILL BE RADIOGRAPHICALLY INSPECTED PER GAS OPERATING STANDARD 6.9.2. INSPECTION WORK SHALL BE PERFORMED UNDER SEPARATE CONTRACT WITH AND AT THE DISCRETION OF PSE.
14. CHECK FOR WRAPPING HOLIDAYS WITH A JEEP MACHINE AND REPAIR FAULTS AS REQUIRED PER PSE GAS OPERATING STANDARD 10.1 SECTION 4.
15. CATHODIC PROTECTION OF HP STW MAIN SHALL BE COORDINATED THROUGH PSE CORROSION ENGINEER.
16. INSTALL TEST LEAD WIRES PER PSE GAS OPERATING STANDARD 10.2, AND PSE GAS STANDARDS PROCEDURE P0303 AT APPROXIMATELY 2000' INTERVALS.
17. PROVIDE A MINIMUM OF 36" OF COVER OVER MAIN. WHEN INSTALLING MAIN ACROSS OR IN A DRAINAGE DITCH, MEASURE COVER FROM BOTTOM OF DRAINAGE DITCH. IF CONDITIONS REQUIRE A SHALLOWER INSTALLATION, MAIN MUST BE PROTECTED PER PSE GAS OPERATING STANDARD 6.8 SECTION 4.5 UPON APPROVAL OF PSE PROJECT ENGINEER.
18. PROTECT HP MAIN FROM UNDERGROUND STRUCTURES PER PSE GAS OPERATING STANDARD 6.8 SECTION 6.2.
19. THE HP MAIN WILL BE INSTALLED OVER EXISTING UTILITIES (STORM DRAIN, SEWER, OR WATER) IF BOTH THE MINIMUM SEPARATION AND MINIMUM COVER CRITERIA ARE MET. WHERE THE HP MAIN IS INSTALLED UNDER AN EXISTING UTILITY PROPER SUPPORT OF THAT UTILITY SHALL BE PROVIDED.
20. RESTORE ALL DRIVEWAYS SUBJECT TO OPEN CUT TO ORIGINAL CONDITION OR BETTER.
21. PIPELINE MARKERS AND WARNING SIGNS SHALL BE INSTALLED BY CONTRACTOR PER PSE GAS OPERATING STANDARD 7.4.3.
22. TAP OUT ALL SAVE-A-VALVES AND TEES WITH TAPPING EQUIPMENT. DO NOT TAP OUT WITH TORCH.
23. PLUG ENDS OF DEACTIVATED MAINS AND SERVICES IN ACCORDANCE WITH PSE GAS OPERATING STANDARD 6.23.
24. REFERENCE DRAWING: 305-321 - 8.625" x 0.188" W.T. STW HP MAIN (SALISHAN SUPPLY)
25. CONTACT JOHN BUNGER @ (253) 903-9839 PAGER() & @ (253) 377-1752 (MOBIL) FOR CP ISSUES



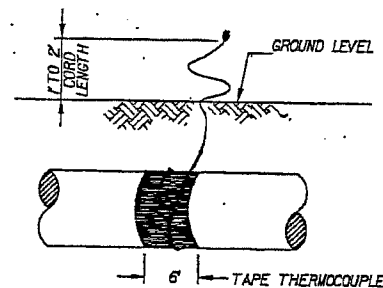
PROJECT LOCATION

VICINITY MAP

NTS

ITEM	QTY	DESCRIPTION	PART NO.
13			
12			
11			
10			
9			
8			
7	2	1" x 3" SAV-A-VALVE H17491	99-95337
6	4	2" x 3" SAV-A-VALVE H17491	68-00841
5	2	8" x 0.188 W.T. WELD CAPS TAPPED	52-00740
4	4	8" x 90° WELD ELL STD	60-00814
3	2	8" x 45° WELD ELL STD	60-00801
2	200'	8" STW PIPE 0.322" W.T. X-42	70-00621
1	2	8" BOTTOM OUT LINESTOPPER H17281	76-00796

BILL OF MATERIAL



THERMOCOUPLE DETAIL

PART NUMBER
12-85-00960
24-NON-STOCK SAP REQUISITION

THERMOCOUPLE INSTALLATION NOTES

- Install a minimum of 3 buried thermocouples for temperature reading during strength test. Space thermocouples at equal intervals over the length of pipe to be tested. If pipeline is to be backfilled before testing, locate thermocouples a minimum of 20 pipe diameters away from piping with less than standard cover. Consult the project engineer for thermocouple placement if less than 95% of new piping (by volume) is not fully backfilled a minimum of 24 hours before testing.
- Tape each thermocouple bead to 3 o'clock position on pre-wrapped portion of pipe. wrap once around main, tape over, and bring to grade outside of the driving surface. Leave wire end accessible for instrument hook-up. If thermocouple is installed on piping to be exposed during testing, cover thermocouple bead with Styrofoam.
- Thermocouples with wires or insulation broken during installation shall not be field repaired.

GAS MAIN INSTALLATION						
SAP W/O #	SIZE	LENGTH	TYPE	MANUFACTURER		
108007874	8"	200'	STW			

GAS MAIN RETIREMENT						
SAP W/O #	SIZE	MATERIAL	EST. LENGTH	ACT. LENGTH	ORIG. YEAR	ORIG. JOB#
108508478	8"	STW	150'		1960	

GAS MAIN PRESSURE & TESTING			
TYPE TEST:	PRESSURE:	TESTED BY:	
DATE ON: / /	TIME ON: :		
DATE OFF: / /	TIME OFF: :		
DESIGN: PSIG	ISY MAP: PSIG		

Revised

PRELIMINARY

CALL 1-800-424-5555
2 BUSINESS DAYS BEFORE YOU DIG

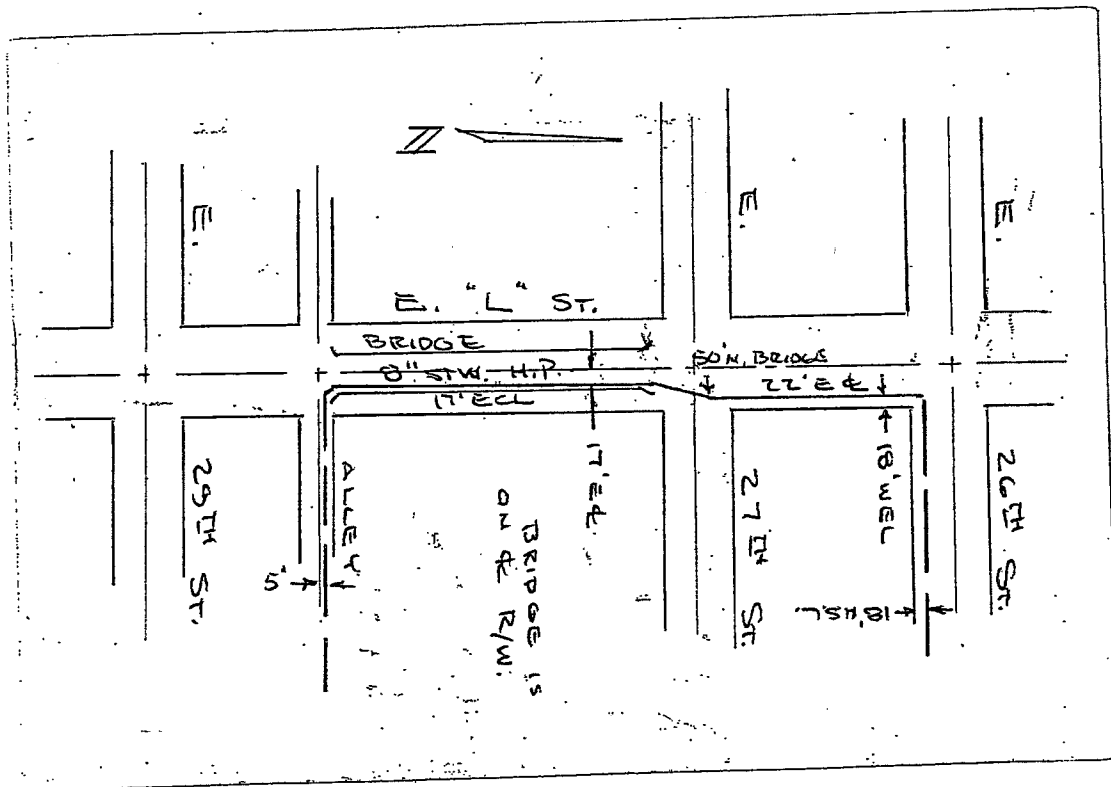
THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

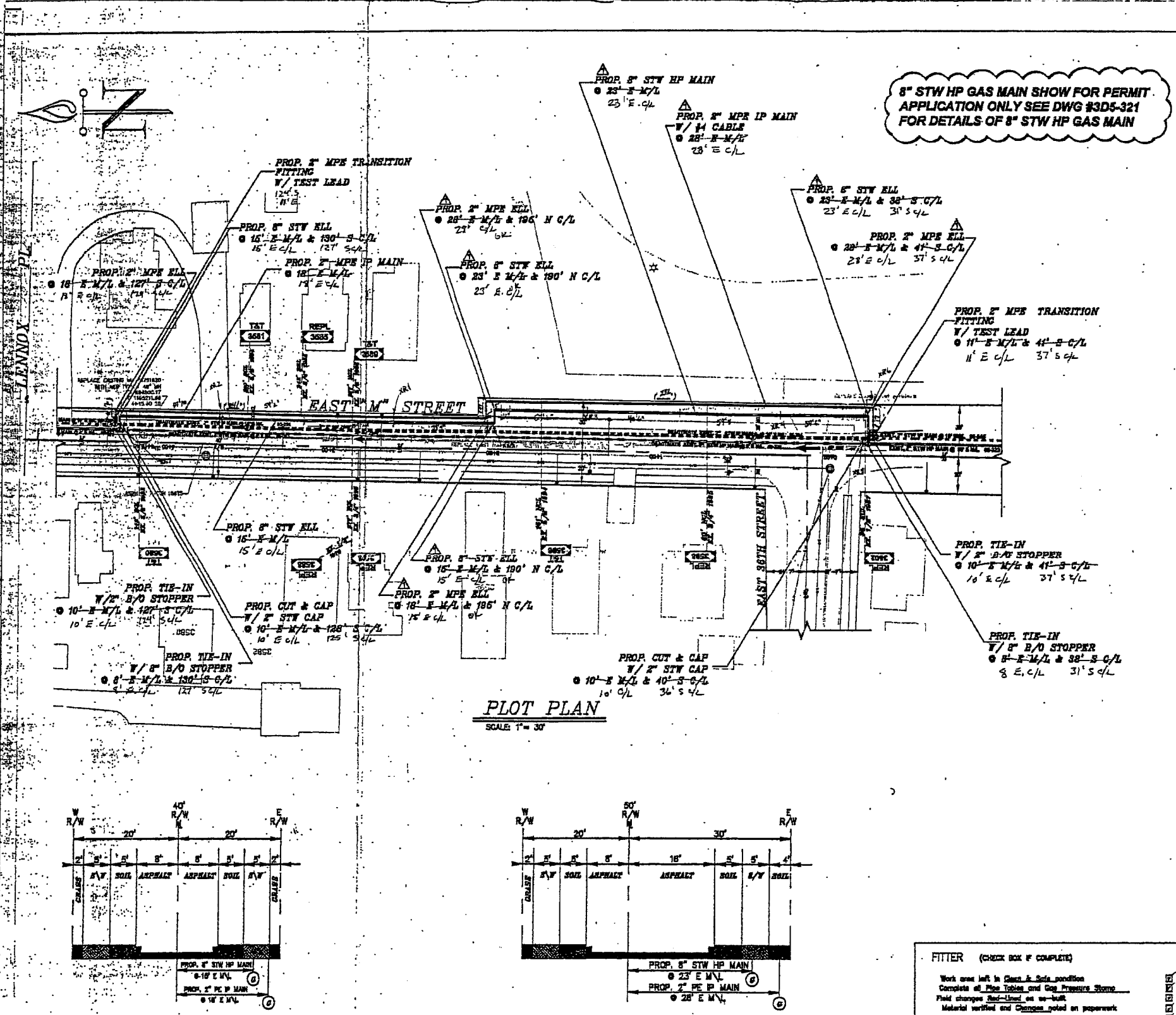
COUNTY		REAL ESTATE/EASEMENT		PERMIT	
KING	EMER SEC 41	Work Center	PRC	BELLEVUE	
DATE	BY	DESCRIPTION	DRAWN BY:	CHECKED BY:	APPROVED BY:
1/4 SEC			CK	CLIFF THUS	
NW-15-20-3E		PLAT MAP 244.062		John Bunger	9-53-177-1752
U-MAP# (POWER)		CIR MAP#		Colburn, Inc	

UTILITIES CONTACT		JOINT FACILITIES ARRANGEMENTS	
PHONE#			

	PSE PUBLIC SERVICE ENERGY	8" STW HP MAIN RELOC EAST M ST. BETWEEN E. 38th & E. 40th STS.		INCIDENT#	MADE: 188 PSIG
		DRAWING# 3D7-400	SAP SUPERIOR GROUP 109008726	SCALE: 1" = 40' 1/2"	

MC 63-180	TR. 6635	H.P. SUPPLY	TACOMA
TR. 6635	MAIN RECORD	MORELAND	MAIN REPORT
Street E. "L" ST. Size 8" Kind of Pipe STW Laid 1963 Lgth. 878'			
From 22' S & E. 26 TH ST.		To 5' N & ALLEY - No. of E. 29 TH	
Location 22'-17' E & of E. "L"		Drains H.P.	Depths
Specials NOTE: MAIN IS LOCATED 17' E & UNDER CURB			
ON BRIDGE ONLY; SEE BACK FOR SKETCH			
MAIN ON BRIDGE IS IN 12" CASING.			
NW 10-20-3 ✓			
OPS 20-3-B ✓			
F-1 3M 5-62			





8" STW HP GAS MAIN SHOW FOR PERMIT APPLICATION ONLY SEE DWG #3D5-321 FOR DETAILS OF 8" STW HP GAS MAIN

STANDARD IP GAS REPLACEMENT CONSTRUCTION NOTES

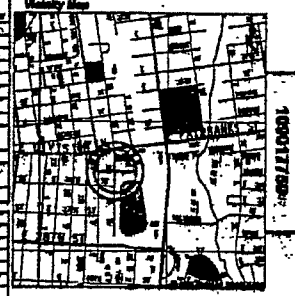
1. NOTIFY GAS CUSTOMER OR DISTRIBUTOR FILER #443 A MEMBER OF THE WORKING PARTY PRIOR TO A PLANNED OUTAGE.
2. INSTALL ONE POUND ANODE FOR EVERY 1000' OF LOCATING WIRE. INSTALL ANODE AND TEST LEAD WIRES PER PSE GAS OPERATING STANDARD 2002.2000.
3. MAINTAIN CATHODIC PROTECTION FOR STEEL MAINS BY THE USE OF CONTINUITY BONDS OR OTHER MEANS DETERMINED BY THE PSE CORROSION ENGINEER PER PSE GAS OPERATING STANDARD 2002.1000.
4. INSTALL ANODES AND TEST LEAD WIRES AS REQUIRED PER THE GAS FIELD PROCEDURES BOOKS AND PSE GAS OPERATING STANDARD 2002.1000. TEST LEAD WIRES ARE REQUIRED ON ALL TRANSITION FITTINGS.
5. INSTALL CUMULATIVE VALVE AT PROPERTY LINE OR 5' FROM WEP AT MAIN (AS REQUIRED) ON NEW AND REWORK SERVICES PER PSE GAS OPERATING STANDARD 2002.1000.
6. REFER TO PSE GAS OPERATING STANDARD 2002.1700 FOR MAIN AND SERVICE COVER REQUIREMENTS.
7. MAINS AND SERVICES SHALL BE TESTED AND PUMPED PER PSE GAS OPERATING STANDARDS 2002.3300, 2002.3400 AND 2002.1800, AND PSE GAS FIELD PROCEDURES BOOKS.
8. PROJECT MANAGER TO MAKE BOOK RUN IMMEDIATELY PRIOR TO STARTING CONSTRUCTION.
9. INSTALL REPLACEMENT MARKS PER PSE GAS OPERATING STANDARDS 2002.1000 FOR FUNCTIONS AND 2002.2000 FOR ABANDONMENT OR DEACTIVATION.
10. MULTITUDE OF DEACTIVATED OR INSERTED MARKS AND SERVICES IN ACCORDANCE WITH PSE GAS OPERATING STANDARDS 2002.1000 AND 2002.2000.
11. REMOVE OR REMOVE UNIFORMLY DEACTIVATED VALVES ON GROUND WHERE MPE PIPES IS INSERTED.
12. REMOVE METER SETS SHALL BE MOVED OUTSIDE UNLESS POSSIBLE OR SET REGULATORS AND VENTS OUTSIDE PER PSE GAS OPERATING STANDARDS 2002.3000 AND 2002.1700.
13. REPLACE EXISTING ACTIVE SERVICES PER PSE GAS OPERATING STANDARDS 2002.1000 AND 2002.2000.
14. REPLACE ALL "NO RECORD" SERVICES AND 1-1/2" PS SERVICES INSTALLED PRIOR TO 1995.
15. ACTIVE SERVICES TO BE REPLACED DENOTED BY [Symbol]

STANDARD GAS CONSTRUCTION NOTES:

1. FIELD LOCATE ALL UNDERGROUND UTILITIES. EXCEPTOR TO CALL "911-CALL" THE WORKING PARTY PRIOR TO CONSTRUCTION. IN WESTERN WASHINGTON CALL 1-800-84-9888. IN METRO SEATTLE CALL 1-800-463-1444.
2. NOTIFY APPROPRIATE PERMITTING AGENCY PRIOR TO JOB START (SEE PERMIT REQUIREMENTS).
3. ALL CONSTRUCTION IS TO CONFORM TO THE PSE GAS OPERATING STANDARDS AND GAS FIELD PROCEDURES.
4. DESIGN AND CONSTRUCTION SHALL BE PER PSE STANDARD PRACTICE PUBLISHED THROUGHOUT FOR TEMPORARY DESIGN AND CONSTRUCTION AND ANY ADDITIONAL LOCAL JURISDICTION REQUIREMENTS.
5. SET UP PROPERTY OWNERS ADJACENT TO PROPOSED CONSTRUCTION ADVISED A MEMBER OF THE WORKING PARTY OR THE DESIGNER PRIOR TO CONSTRUCTION. USE OF THE UTILITY LOCATOR IS REQUIRED. COORDINATE WITH THE PSE GAS OPERATING STANDARD 2002.1000. ALLOW ADEQUATE TIME FOR UTILITY LOCATOR AND RECORDING.
6. ANY CHANGE IN MPE PIPE SIZE, TYPE, OR IN SERVICE OR ADDITIONAL MAIN FOOTAGE MUST BE APPROVED BY THE APPROPRIATE PSE ENGINEER OR PSE REPRESENTATIVE.
7. COMPLETE "JOB CONSTRUCTION REPORT" ON ALL METALS PIPE FACILITIES. CHECK BOX ON REPORT FOR WIRE BOX (IF SO LEAD) INSTALLATION.
8. PIPELAP, MARKINGS AND WARNING SIGNS SHALL BE INSTALLED AND REQUIRED BY THE CONTRACTOR PER PSE GAS OPERATING STANDARD 2002.1000.
9. INSTALL MAIN VALVES OUT OF WAFFLE WHERE POSSIBLE. VALVE MARKINGS SHALL BE INSTALLED AND REQUIRED BY THE CONTRACTOR PER PSE GAS OPERATING STANDARD 2002.1000. VALVE MARKINGS SHALL BE CLEARLY ACCESSIBLE, AND FOR ALL VALVES WHERE FOOTING SHALL BE REQUIRED THE VALVE BOX.
10. TO PREVENT ACCIDENTAL OVERPRESSURE OF ADJACENT SYSTEMS, NO TWO MAINS SHALL BE CONNECTED DIRECTLY AT SERVICE UNLESS APPROVED BY APPROPRIATE PSE ENGINEER OR PSE REPRESENTATIVE.
11. SERVICE MARKS DENOTED BY [Symbol] MAP # [Symbol]
12. CHECK AND MONITOR USE OF ALL STOPPERS TO PREVENT AIRFLOW EXITS.
13. REMOVE ALL DEACTIVATED SUBJECT TO OPEN CITY TO SIGNAL OR BETTER CONDITION.
14. PER POINTS AND PRESSURE TAPS TO BE INSTALLED PER PSE GAS OPERATING STANDARDS 2002.3000 AND 2002.1800.
15. ALL NO SERVICES SHALL BE TESTED AND PUMPED PER PSE GAS OPERATING STANDARDS 2002.3000 AND 2002.1800.
16. IF 1-1/2" PS PIPE IS IN PLACE, COORDINATE INSTALLATION WITH UTILITY.
17. REFER TO [Symbol] PHONE [Symbol] [Symbol]
18. NOTE: ALL ACTUAL FOOTAGE, LOCATION AND MATERIAL QUANTITIES ON THE AS-BUILT IS [Symbol] SPANDED [Symbol] BETWEEN UTILITY.

GAS MAIN INSTALLATION/REPLACEMENT

Utility	Size	Type	Material	Depth	Location	Utility Map
SEWER	18"	STW	PE	24"	120' S/W	120' S/W
WATER	12"	PE	PE	24"	120' S/W	120' S/W
SEWER	12"	STW	PE	24"	120' S/W	120' S/W
SEWER	12"	STW	PE	24"	120' S/W	120' S/W



GAS MAIN PRESSURE & TESTING

TYPE TEST	PROCEDURE	TESTED BY
DATE OF TEST	11/20/05	K. MILLER
DATE OF TEST	11/20/05	K. MILLER
DATE OF TEST	11/20/05	K. MILLER
DATE OF TEST	11/20/05	K. MILLER

PROJECT CHECKLIST

ITEM	STATUS	DATE
1. Utility Locating	Complete	11/15/05
2. Permitting	Complete	11/15/05
3. Material Delivery	Complete	11/15/05
4. Site Preparation	Complete	11/15/05
5. Construction	In Progress	11/20/05
6. Testing	Complete	11/20/05
7. Final Inspection	Complete	11/20/05

Owner / Developer Contact Info

ATIS CONSULTING PARAS (206) 471-0100

CONSTRUCTION PRINT

FOR INFORMATION ONLY. NOT TO BE USED FOR CONSTRUCTION. CALL 206-464-4888. 3 QUARTERS MARK BEFORE YOU GO.

CONSTRUCTION LOG

NO.	DATE	BY	DESCRIPTION	FUNCTION	CONTACT	STATUS
1	11/20/05	E.S.	WORK STOPPED DUE TO [Symbol]	ENGINEER	206-464-4888	STOPPED

UTILITY CONTRACT

UTILITY	CONTRACT	STATUS
WATER	11/20/05	Complete
SEWER	11/20/05	Complete

JOINT FACILITY ARRANGEMENTS

8" STW HP & 2" STW IP Main Relocates E. "M" ST, LENNOX PL., E. 36TH ST, TACOMA WA, 98404

CROSS SECTION OF E. "M" ST.



CROSS SECTION OF WIDENED E. "M" ST.



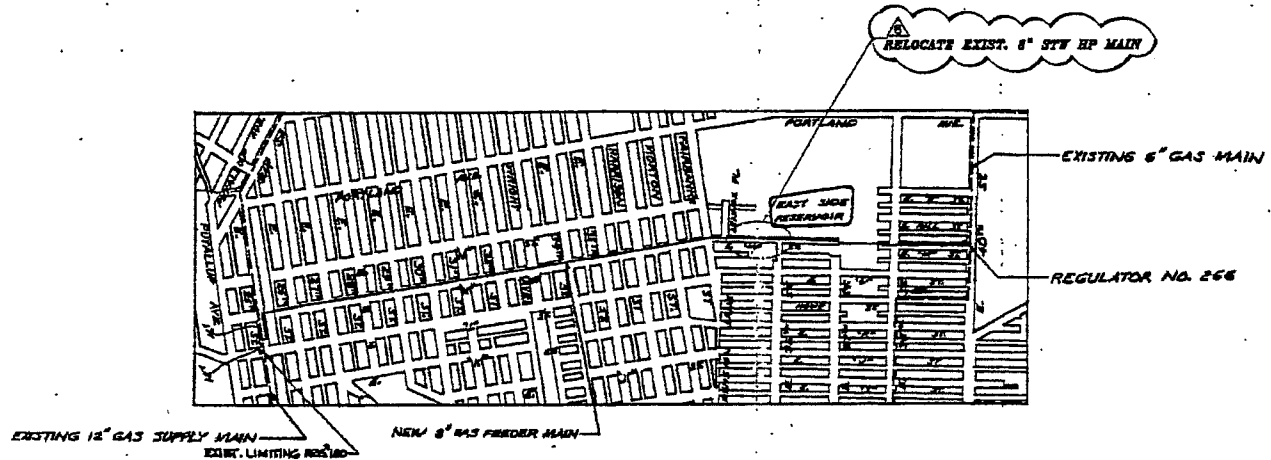
FITTER (CHECK BOX IF COMPLETE)

Work area left in Clean & Safe condition
 Complete all Pipe Tables and Gas Pressure Stamp
 Field changes and Used on as-built
 Material verified and Changes noted on paperwork
 All Valves & Tie-in Locations noted on as-built
 Note backspacing of Mole, EOM & Line of Mole locations
 Show New Locations & Cut-to-sets Profile

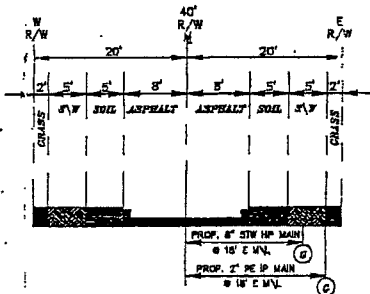
Foreman's Signature: [Signature]
 Company: [Blank]
 Date: 11-25-05

NOTES PER SAP #109017759 RELOCATE 8" STW HP MAIN

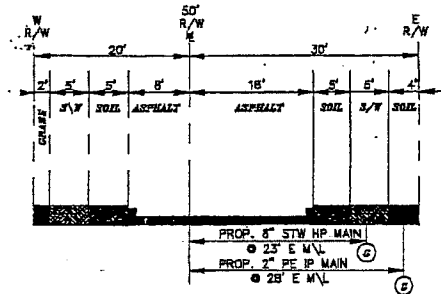
1. ALL PAVING, INCLUDING ALL ROAD CROSSINGS, SHALL BE OPEN CUT EXCEPT WHERE SPECIFICALLY STATED OTHERWISE ON THE DRAWING OR PERMITS.
2. PERFORM TESTING, DE-M, AND PURGE OPERATIONS IN ACCORDANCE WITH THE PROCEDURE APPROVED BY PSE PROJECT ENGINEER.
3. PRIOR TO HYDROSTATIC, NITROGEN, OR AIR TESTING INSTALL TYPE "C" THERMOCOUPLES AT EQUAL INTERVALS ALONG THE PORTION OF MAIN TO BE TESTED. INSTALL PER THE THERMOCOUPLE GUIDE ON THIS DRAWING.
4. MAXIMUM ALLOWABLE WALL MISMATCH FOR WELDING IS 1/32". WHEN NECESSARY, (A) TAPER ENDS OF FITTINGS PER AWS/AASME BULK APPENDIX I, FIG. 10 (a), OR (b) USE TRANSITIONAL PIPE APPROVED BY PSE PROJECT ENGINEER TO GET WITHIN TOLERANCE.
5. WELDS NOT PRESSURE TESTED MUST BE RADIOGRAPHICALLY INSPECTED PER PSE GAS OPERATING STANDARD 2800.000. A MINIMUM OF 10% OF ALL WELDS WILL BE RADIOGRAPHICALLY INSPECTED. INSPECTION MARK SHALL BE PERFORMED UNDER SEPARATE CONTRACT WITH AND AT THE DISCRETION OF PSE.
6. CHECK FOR WRAPPING HAZARDS WITH A SEEP MACHINE PER PSE GAS FIELD PROCEDURE P0330 AND REPAIR FAILURES AS REQUIRED PER PSE GAS OPERATING STANDARD 2800.000.
7. CASING PROTECTION OF STW MAIN SHALL BE COORDINATED THROUGH PSE CORROSION ENGINEER.
8. INSTALL OF TEST STATIONS PER PSE GAS OPERATING STANDARD 2800.1200 AND PSE GAS FIELD PROCEDURE P0323 AT APPROXIMATELY 200' INTERVALS.
9. PROVIDE A MINIMUM OF 36" OF COVER OVER MAIN WHEN INSTALLING MAIN ACROSS OR IN A DRAINAGE DITCH. MEASURE COVER FROM BOTTOM OF DRAINAGE DITCH. IF COVERINGS REQUIRE A SHALLOWER INSTALLATION MAIN MUST BE PROTECTED PER PSE GAS OPERATING STANDARD 2801.1700 UPON APPROVAL OF PSE PROJECT ENGINEER.
10. PROTECT HP MAIN FROM UNDERGROUND STRUCTURES PER PSE GAS OPERATING STANDARD 2805.1200.
11. THE HP MAIN IS TO BE INSTALLED OVER EXISTING UTILITIES (STORM DRAIN, SEWER OR WATER) IF BOTH THE MINIMUM SEPARATION AND MAXIMUM COVER CRITERIA ARE MET. WHERE THE HP MAIN IS INSTALLED UNDER AN EXISTING UTILITY PROPER SUPPORT OF THAT UTILITY SHALL BE PROVIDED.
12. TAP OUT ALL SAYS-A VALVES AND TEES WITH TAPPING EQUIPMENT. DO NOT TAP OUT WITH TORCH.
13. WROUGHT-STEEL WELDING ELBOWS AND TRANSVERSE SEGMENTS OF WROUGHT-STEEL WELDING ELBOWS MAY NOT BE USED FOR CHANGES IN DIRECTION ON STEEL PIPE THAT IS 2 INCHES OR MORE IN DIAMETER UNLESS THE ARC LENGTH OF THE ELBOW SEGMENT, AS MEASURED ALONG THE CROUCH, IS AT LEAST 1 INCH PER PSE GAS OPERATING STANDARD 2805.1700.
14. ALL JOINT FITTINGS (OR TRANSVERSE SEGMENTS OF JOINT FITTINGS) SHALL BE INSTALLED WITH A MINIMUM OF 2" SEPARATION BETWEEN THE JOINT FITTINGS (OR TRANSVERSE SEGMENTS OF JOINT FITTINGS) UNLESS OTHERWISE APPROVED BY THE PROJECT ENGINEER PER PSE GAS OPERATING STANDARD 2805.2700.
15. COORDINATE INSTALLATION WITH CORROSION CONTROL: LARRY ONEAL & (253) 577-1783 OR E308.
16. COORDINATE INSTALLATION WITH 2" PE IP MAIN RELOCATE PER SAP #109017759.
17. EROSION AND SEDIMENT CONTROL SHALL BE PER PSE STANDARD PRACTICE 0180.2000 TECHNIQUES FOR TEMPORARY EROSION AND SEDIMENT CONTROL, AND ANY ADDITIONAL LOCAL JURISDICTION REQUIREMENTS.
18. PLAN IDENTIFY MARK W/ CONCRETE IN FRONT FACE.



VICINITY MAP



CROSS SECTION OF E. "M" ST.
SCALE: NONE



CROSS SECTION OF WIDENED E. "M" ST.
SCALE: NONE

ORDER #109017759 (RELOC. 8" STW HP MAIN)		
ITEM	QTY.	DESCRIPTION
20	1	8" STW HP MAIN
21	1	2" PE IP MAIN
22	1	18" COVER
23	1	28" COVER
24	1	8" WELD REDUCER
25	1	8" WELD TEE
26	1	8" WELD CAP
27	1	8" WELD ELBOW
28	1	8" WELD O-LET
29	1	8" SAYS-A VALVE NIPPLE
30	1	8" SAYS-A VALVE NIPPLE
31	1	8" WELD CAP STD
32	1	8" WELD ELL STD
33	1	8" WELD T/Y B/O LINESSTOPPER NIPPLE
34	1	8" STW PIPE STD 24'

BILL OF MATERIAL

FITTER (CHECK BOX IF COMPLETE)

Work area left in Clean & Safe condition
 Complete all Pipe Tables and Gas Pressure Stamp
 Field changes Red-Lined on as-built
 Material verified and Changes noted on paperwork
 All Valve & Tie-In Locations noted on as-built
 Note beginning of Main, EDM & Line of Main locations
 Show Rope Locations & Out-to-eo Radius

Foreman's Signature: Don Smith
 Company: PRC/CC Date: 4-25-05

GAS MAIN RETIREMENT	
TOTAL FOOTAGE	FOR SHEET 3/2 ONLY
8" STW	480'
2" PE IP	300'

GAS INSTALLATION	
TOTAL FOOTAGE	FOR SHEET 3/2 ONLY
8" STW	240'
2" PE IP	150'

NOTE:
 (1) INSTALL ALL 8" NORD VALVES (FIG. 4249) ON THEIR SIDES TO MAKE POSSIBLE THEIR OPERATION THRU A ROAD BOX. SEE DETAIL #2.
 (2) CAP 8" MAIN @ BEYOND 8" VALVE.

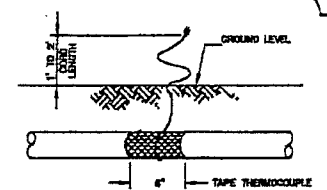
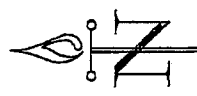
REFERENCE DWGS:

NO.	DESCRIPTION
1	1" 90° ELL. LT WT
2	12" X 24" INSULATION KIT
3	12" X 24" NEOPRENE GASKET FULL FACE
4	12" X 24" BOLT KIT
5	12" X 24" W/N FLANGE RP
6	12" X 24" WELD REDUCER LT WT
7	8" WELD TEE LT WT
8	12" WELD TEE LT WT
9	12" X 24" CASING INSULATORS
10	12" X 24" CASING
11	12" X 24" CASING
12	12" X 24" CASING
13	12" X 24" CASING
14	12" X 24" CASING
15	12" X 24" CASING
16	12" X 24" CASING
17	12" X 24" CASING
18	12" X 24" CASING
19	12" X 24" CASING
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28	12" X 24" CASING
29	12" X 24" CASING
30	12" X 24" CASING
31	12" X 24" CASING
32	12" X 24" CASING
33	12" X 24" CASING
34	12" X 24" CASING
35	12" X 24" CASING
36	12" X 24" CASING
37	12" X 24" CASING
38	12" X 24" CASING
39	12" X 24" CASING
40	12" X 24" CASING
41	12" X 24" CASING
42	12" X 24" CASING
43	12" X 24" CASING
44	12" X 24" CASING
45	12" X 24" CASING
46	12" X 24" CASING
47	12" X 24" CASING
48	12" X 24" CASING
49	12" X 24" CASING
50	12" X 24" CASING

CHANGED LINE OF PROP. 8" STW HP & 2" PE IP MAIN PER CITY OF TACOMA	
NO.	DESCRIPTION
1	RELOCATE 8" STW HP MAIN PER ORDER # 28317759 SHT. INVOLVED 1/3 & 2/3 FOR DWG 305 321 THIS DUE TO CITY SEWER PROJECT
2	MOVED PLOT L&N TO SHEET #3 AND RELOCATED VICINITY MAP TO SHEET #1
3	AS METAL E7
4	ADDED ITEM 15
5	ADD ITEM 4
6	ADD TEST LEAD BOND WIRE

BILL OF MATERIAL	
PERMIT #	4000002890
WASHINGTON NATURAL GAS COMPANY	IR#9272
AREA TACOMA	ES #41
8" FEEDER MAIN TO SALISHAN TACOMA	
DATE	7/19/00
BY	P. LIU
DATE	7/28/06
BY	MEYER

305-321
 SHT. 1 OF 3

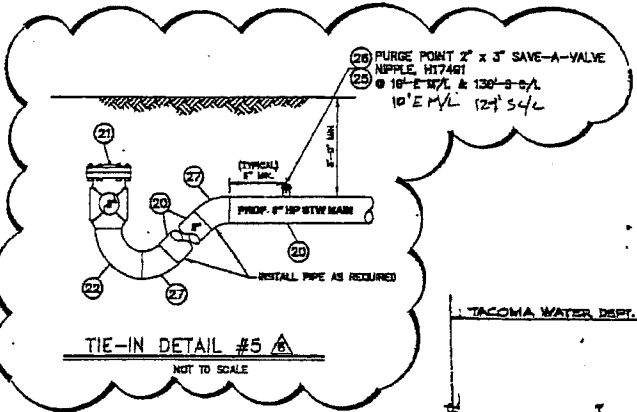
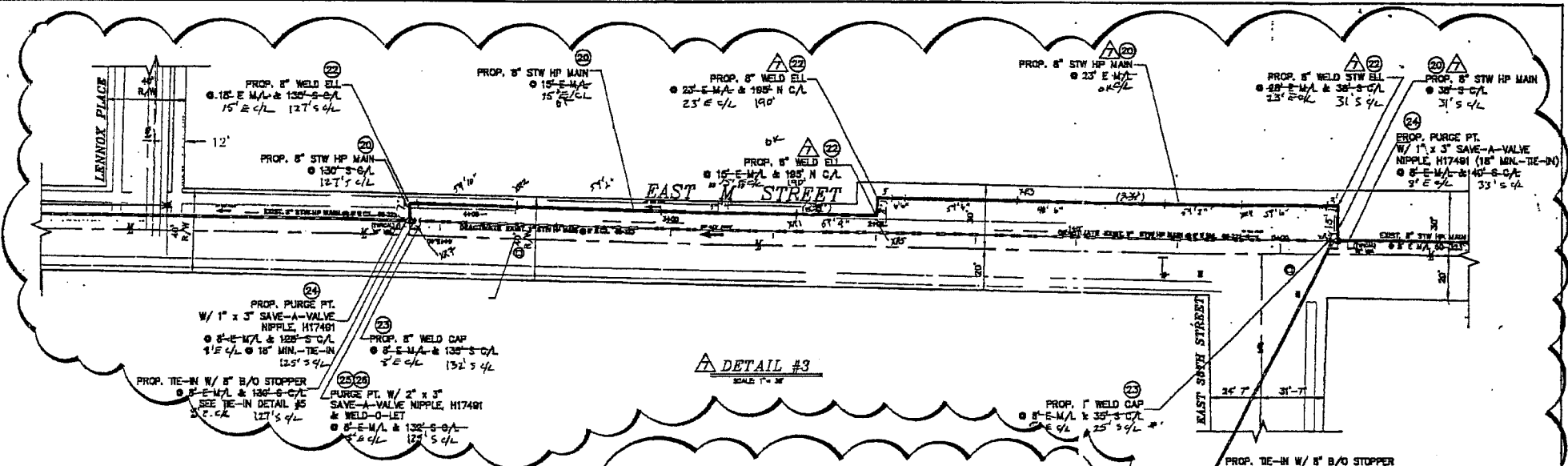


THERMOCOUPLE DETAIL

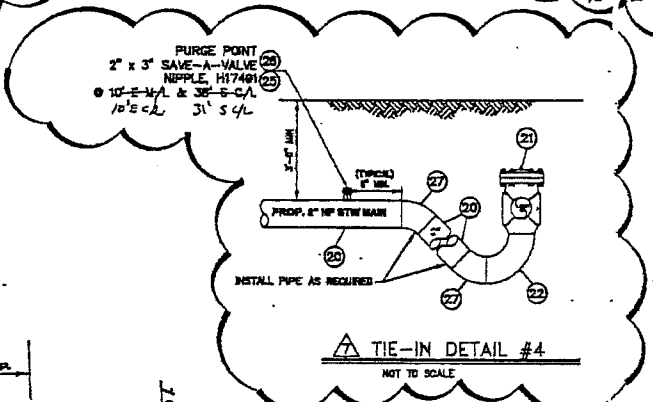
PART NUMBER
12 10-0000
24 90-0333A

THERMOCOUPLE INSTALLATION NOTES

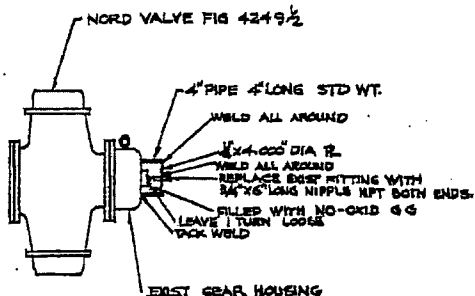
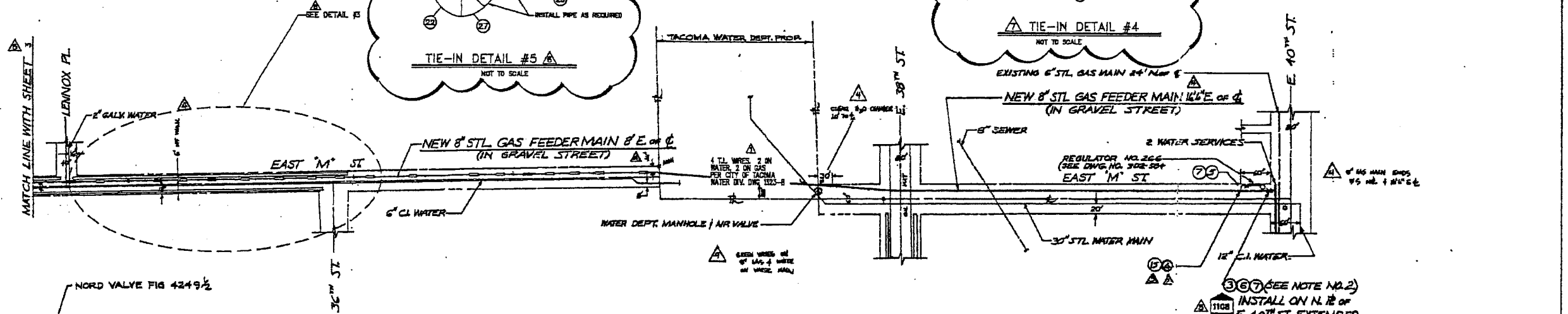
- INSTALL A MINIMUM OF 3 BURNED THERMOCOUPLES FOR TEMPERATURE READING STRENGTH TEST. SPACE THERMOCOUPLES AT EQUAL INTERVALS OVER THE LENGTH OF THE PIPE TO BE TESTED. IF PIPE IS TO BE BACKFILLED BEFORE TESTING, LOCATE THERMOCOUPLES AT A MINIMUM OF 10 PIPE DIAMETERS AWAY FROM POINTS WITH LESS THAN STANDARD COVER. CONSULT THE PROJECT ENGINEER FOR THERMOCOUPLE PLACEMENT IF LESS THAN 10' OF COVER (BY VOLUME) IS NOT FULLY BACKFILLED A MINIMUM OF 24 HOURS PRIOR TO TESTING.
- TAP EACH THERMOCOUPLE HEAD TO THE 3 O'CLOCK POSITION ON THE PRE-WELDED PORTION OF PIPE. MARK ONCE AROUND MAIN TAP OVER, AND BRING TO GRADE OUTSIDE OF THE DRIVING SURFACE. LEAVE WIRE END ACCESSIBLE FOR INSTRUMENT WORK UP. IF THERMOCOUPLE IS INSTALLED ON PIPE TO BE EXPOSED DURING TESTING, COVER THERMOCOUPLE HEAD WITH STYROFOAM.
- THERMOCOUPLES WITH WIRES OR INSULATION BROKEN DURING INSTALLATION SHALL NOT BE FIELD REPAIRED.



TIE-IN DETAIL #5



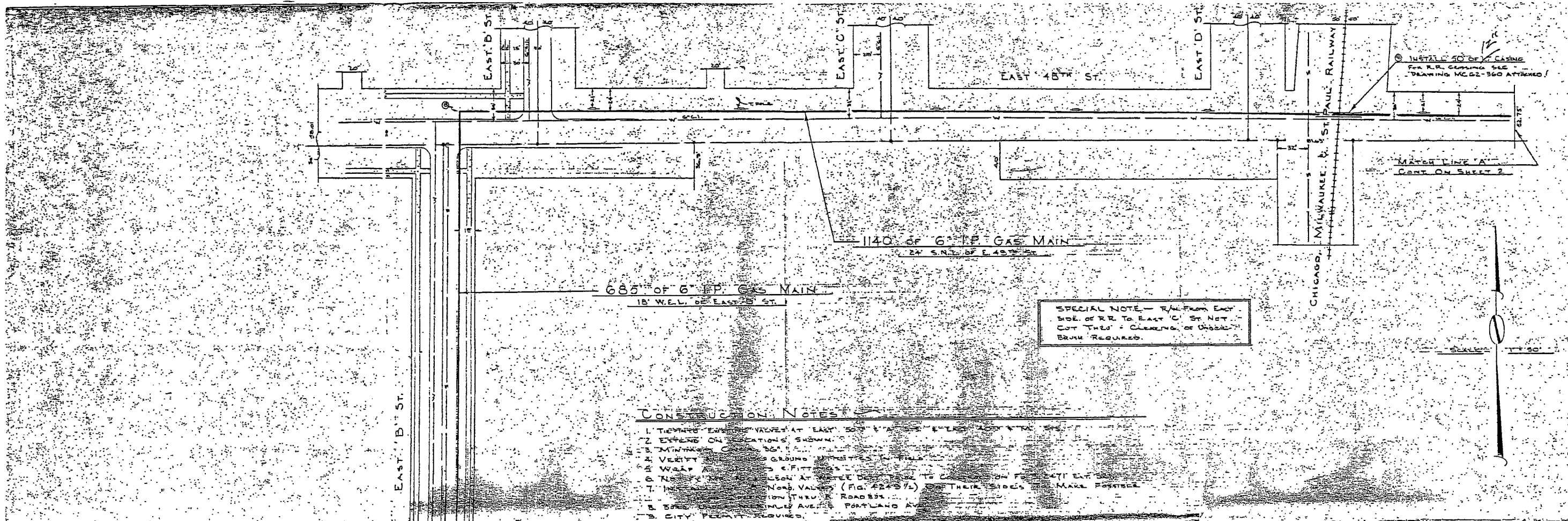
TIE-IN DETAIL #4



DETAIL #2
NO SCALE

NO.	REVISIONS	DATE	BY	CHKD.	APPD.	DESCRIPTION
1	CHANGED LINE OF PROP. 8\"/>	7/11/04	EB			
2	RELOCATE 8\"/>					
3	MOVED W/OUT MAP TO SHT. #1 AND ADDED SHT. #3	2/12/04	RN	RN		
4	AS NOTED	11/10/04	LW	EDW		
5	ADDED 30\"/>					
6	ADD ITEM 4					
7	ADD TEST PADS					

BILL OF MATERIAL			
PERMIT	DESCRIPTION	DATE	ISSUED
140000028909	WASHINGTON NATURAL GAS COMPANY IR #9272		
	AREA TACOMA		
	8\"/>		
	TACOMA 10901759		
	7/13/04		
	7/28/04		
	3D5-321		



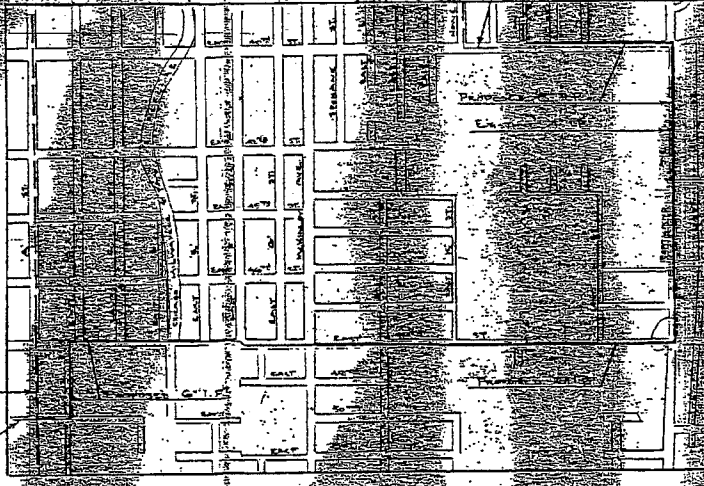
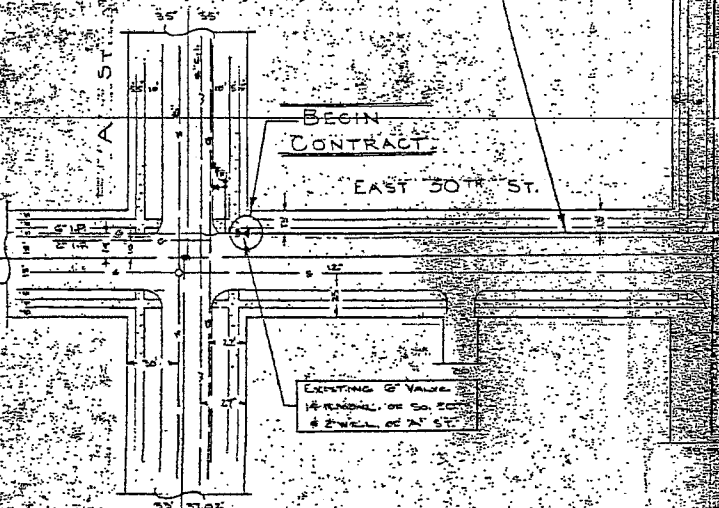
SPECIAL NOTE - RAIL FROM EACH SIDE OF RR TO EAST 'C' ST NOT CUT THROUGH - CLEARING OF UNDERBRUSH REQUIRED.

INSTALL 50' OF CASING FOR R.R. CROSSING SEE DRAWING MC 62-360 ATTACHED!

MATERIAL LINE A CONT. ON SHEET 2

305' OF 6" I.P. GAS MAIN
15' S.N.C. OF E. 50th ST.

BEGIN CONTRACT EAST 50th ST.



1/7/63
AS INSTALLED
1 1/2" W.D. PIPE WRAPPED
1" W.D. PIPE WRAPPED
Fred Haller

LIST OF MATERIAL

ITEM NO.	DESCRIPTION	QUANTITY	REMARKS
1	W.D. GAS		
2	5" SCHEDULE 40 W.D. PIPE		
3	4" SCHEDULE 40 W.D. PIPE		
4	3" SCHEDULE 40 W.D. PIPE		
5	2" SCHEDULE 40 W.D. PIPE		
6	1 1/2" SCHEDULE 40 W.D. PIPE		
7	1" SCHEDULE 40 W.D. PIPE		
8	1/2" SCHEDULE 40 W.D. PIPE		
9	150# WELDING KITS		
10	150# WELDING FLANGES		
11	10" 145# NORS. VALVE		
12	WT W.D. W.D. PIPE		

WASHINGTON NATURAL GAS COMPANY
MAP NO. 25-3-CED
6" I.P. GAS REINFORCEMENT
PORTLAND AVE. & E. 48th ST.
IR 6284-243
JOB 120
DRAWING
EXS 62-300
SHEET 1 OF 3

NO.	DATE	DESCRIPTION	BY	APP.
1	8/15/62	IR 6284-243		
2	8/15/62	JOB 120		
3	8/15/62	DRAWING		
4	8/15/62	EXS 62-300		
5	8/15/62	SHEET 1 OF 3		

SPECIAL NOTE: EXISTING WATER SERVICES CARRIED ON E. 45th ST. FROM MERIDIAN AVE. TO E. N ST.

WATER POINT B CONT. ON SHEET B

FOR INSTALLATION OF REGULATOR SET UNDER MOSE SET

180' OF 4" H.P. GAS MAIN
1.5% SLOPE EAST 45th ST.

4520' OF 6" I.P. GAS MAIN
VARIOUS LOCATIONS AS SHOWN

EAST 45th ST

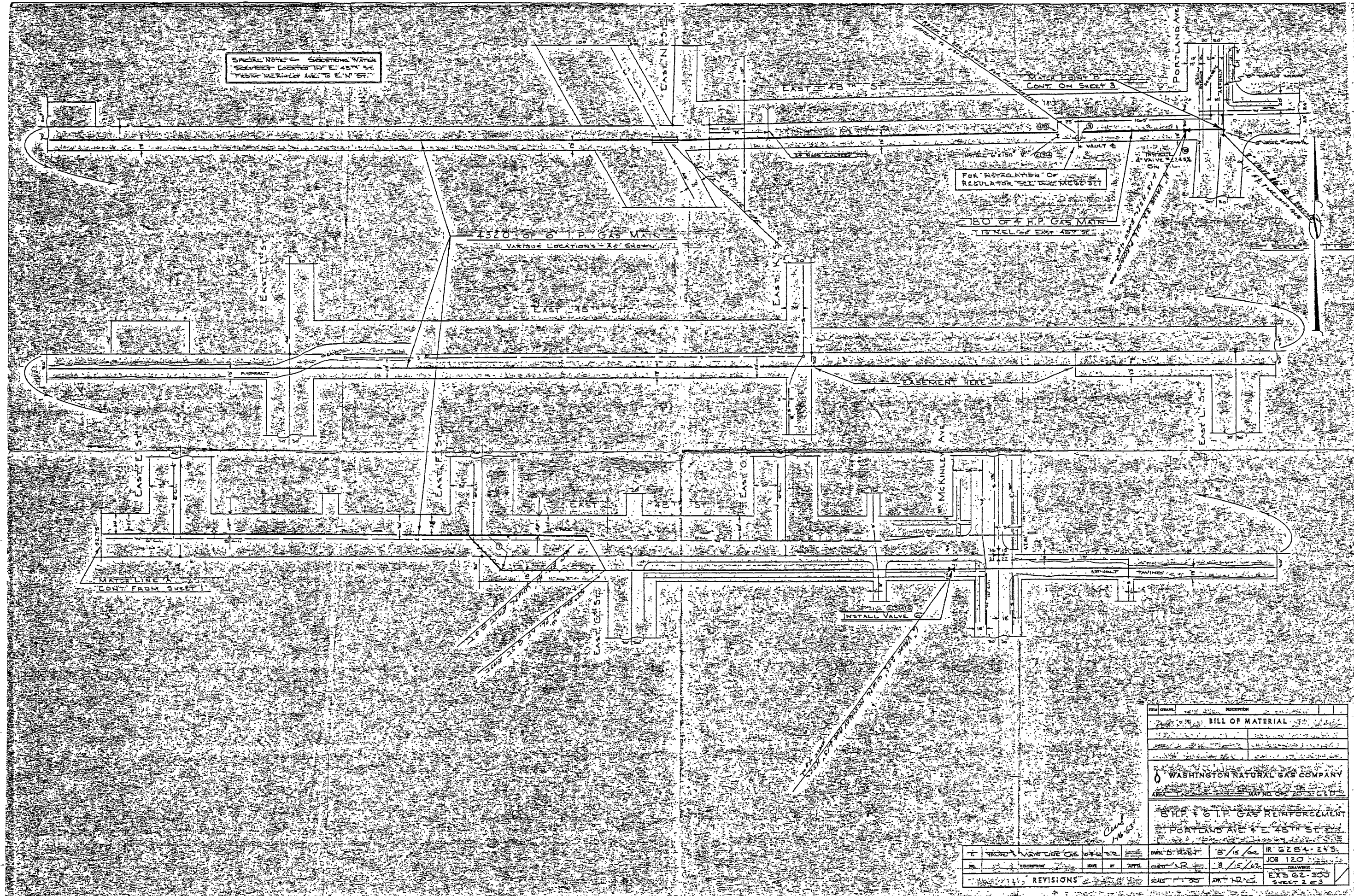
EASEMENT HERE

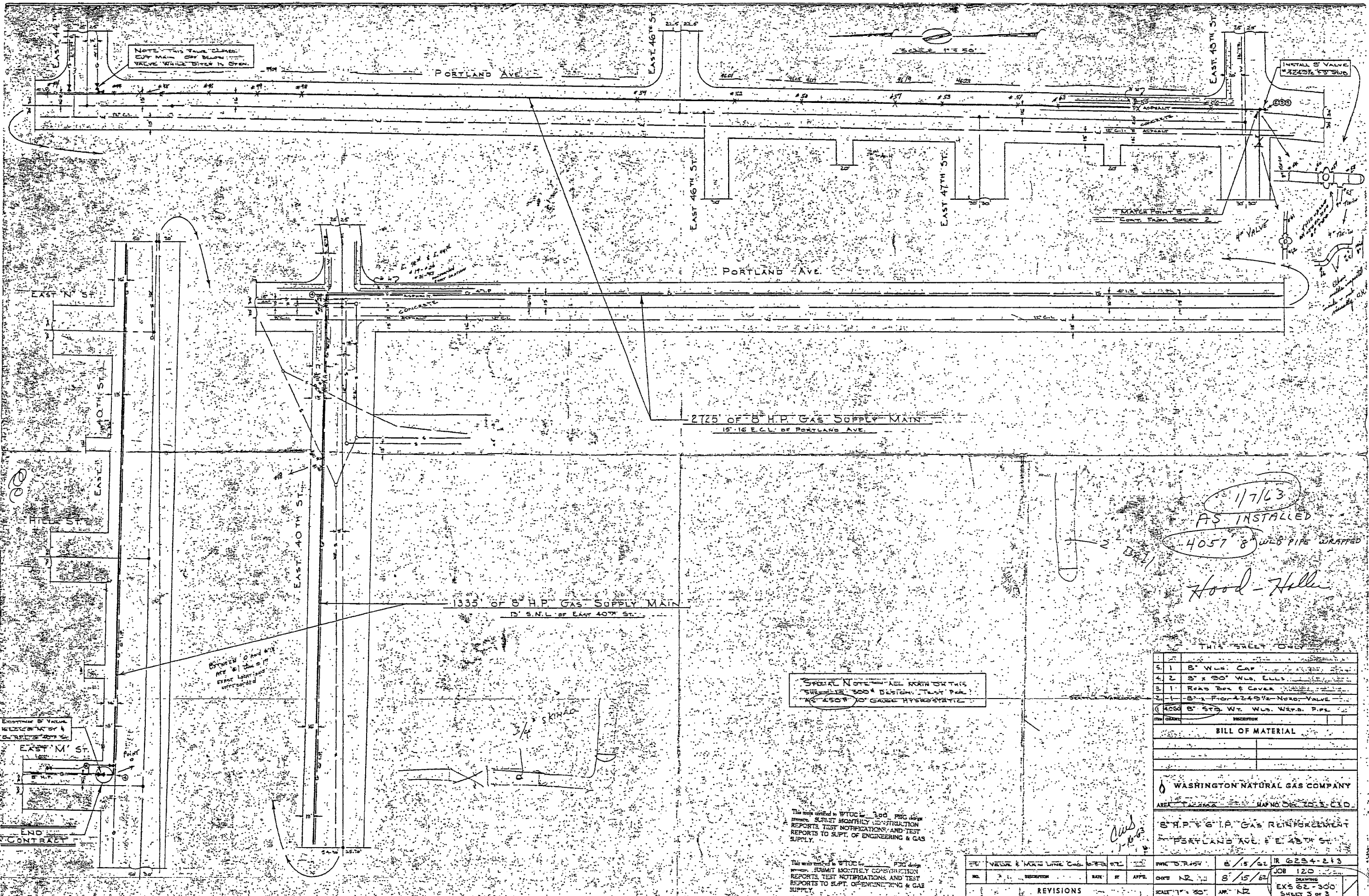
MATCH LINE 'A' CONT. FROM SHEET 1

INSTALL VALVE G

ITEM	QTY	REMARKS
BILL OF MATERIAL		
WASHINGTON NATURAL GAS COMPANY AREA OF GAS SERVICE TO BE 20' X 15'		
8" H.P. & 6" I.P. GAS REINFORCEMENT PORTLAND AVE. & E. 45th ST.		
NO.	DESCRIPTION	DATE
1	WASCO 4" MAIN LINE GAS	8/15/67
2	REVISIONS	8/15/67

NO.	DESCRIPTION	DATE
1	WASCO 4" MAIN LINE GAS	8/15/67
2	REVISIONS	8/15/67





1/7/63
 AS INSTALLED
 4057' 8" WLB PIPE WRAPPED
 Hood-Heller

SPECIAL NOTE: ALL WORK ON THIS SHEET IS 300 PSI DESIGN. TEST PER AC 4508 TO GAUGE HYDROSTATIC.

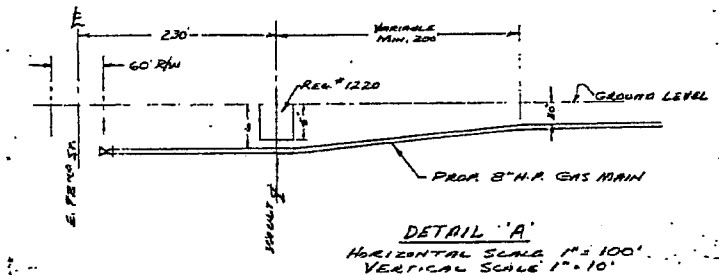
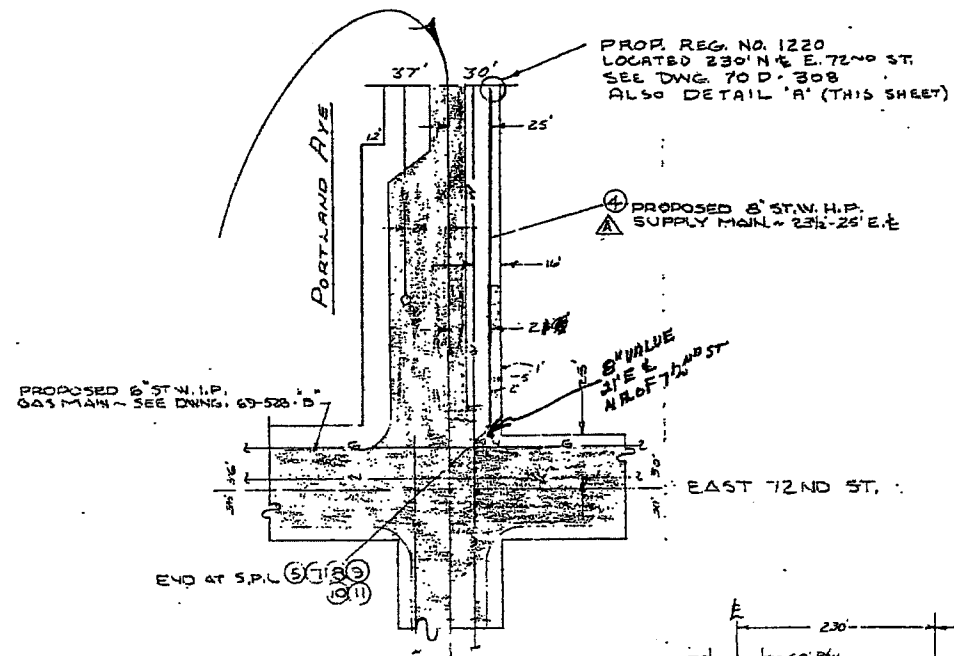
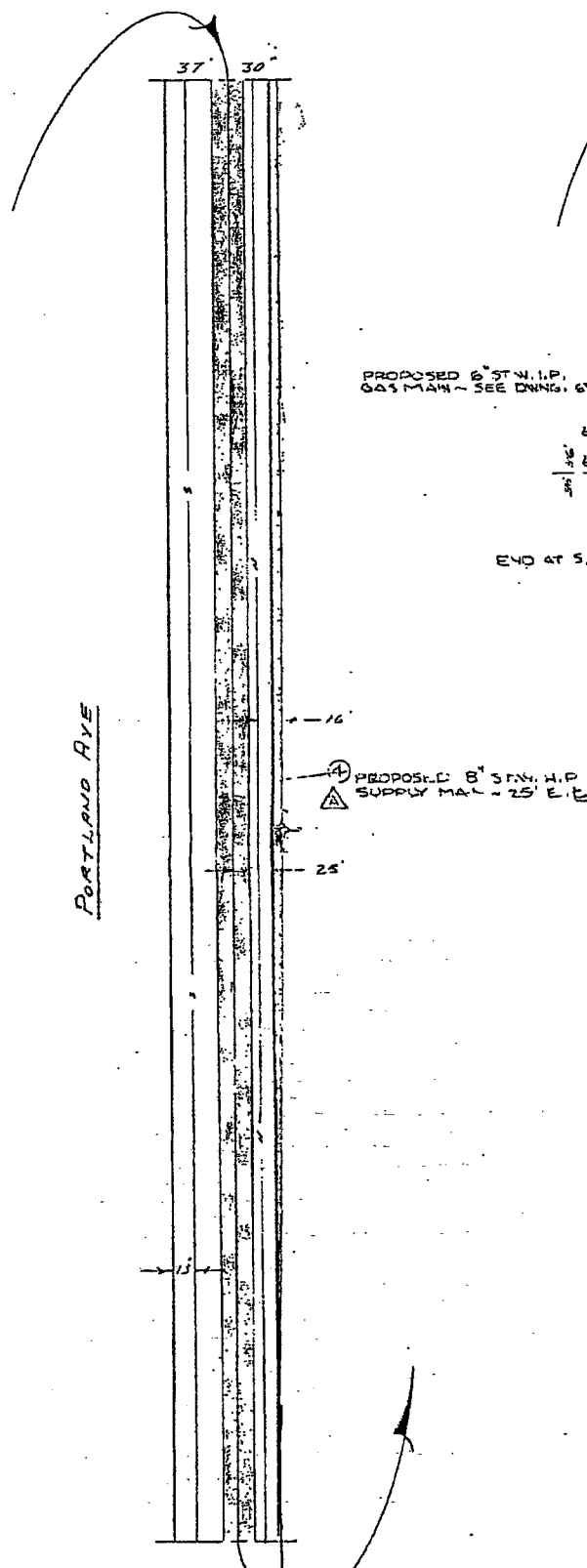
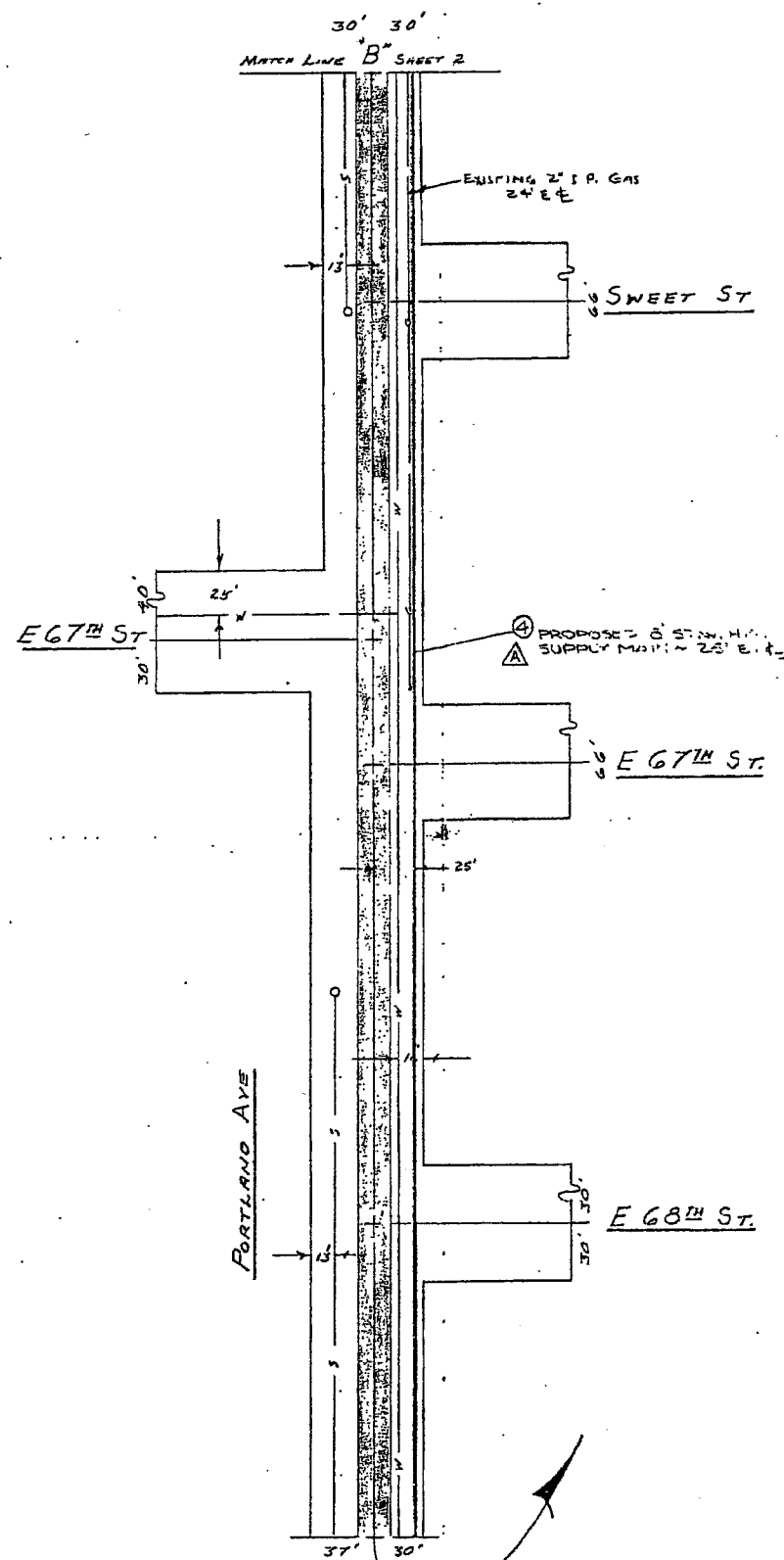
This work is under the supervision of the City Engineer and the City Engineer's Office. The City Engineer's Office is responsible for the design and construction of the gas supply main reinforcement. The City Engineer's Office is responsible for the design and construction of the gas supply main reinforcement. The City Engineer's Office is responsible for the design and construction of the gas supply main reinforcement.

NO.	DESCRIPTION	DATE	BY	APP'D.	CHK'D. NO.
1	8" WLB CAP				
2	8" x 30" WLB ELLS				
3	ROAD BOX & COVER				
4	8" x 30" WLB FLANGE				
5	8" x 30" WLB FLANGE				
6	8" x 30" WLB FLANGE				
7	8" x 30" WLB FLANGE				
8	8" x 30" WLB FLANGE				
9	8" x 30" WLB FLANGE				
10	8" x 30" WLB FLANGE				

BILL OF MATERIAL

NO.	DESCRIPTION	DATE	BY	APP'D.	CHK'D. NO.
1	8" WLB CAP				
2	8" x 30" WLB ELLS				
3	ROAD BOX & COVER				
4	8" x 30" WLB FLANGE				
5	8" x 30" WLB FLANGE				
6	8" x 30" WLB FLANGE				
7	8" x 30" WLB FLANGE				
8	8" x 30" WLB FLANGE				
9	8" x 30" WLB FLANGE				
10	8" x 30" WLB FLANGE				

NO.	DESCRIPTION	DATE	BY	APP'D.	CHK'D. NO.
1	8" WLB CAP				
2	8" x 30" WLB ELLS				
3	ROAD BOX & COVER				
4	8" x 30" WLB FLANGE				
5	8" x 30" WLB FLANGE				
6	8" x 30" WLB FLANGE				
7	8" x 30" WLB FLANGE				
8	8" x 30" WLB FLANGE				
9	8" x 30" WLB FLANGE				
10	8" x 30" WLB FLANGE				



ITEM QUANTITY	DESCRIPTION	WEEK ITEM
1	4\"/>	46940
2	8\"/>	44780
L	PRIMER 70 8	44420

BILL OF MATERIAL

PERMITS

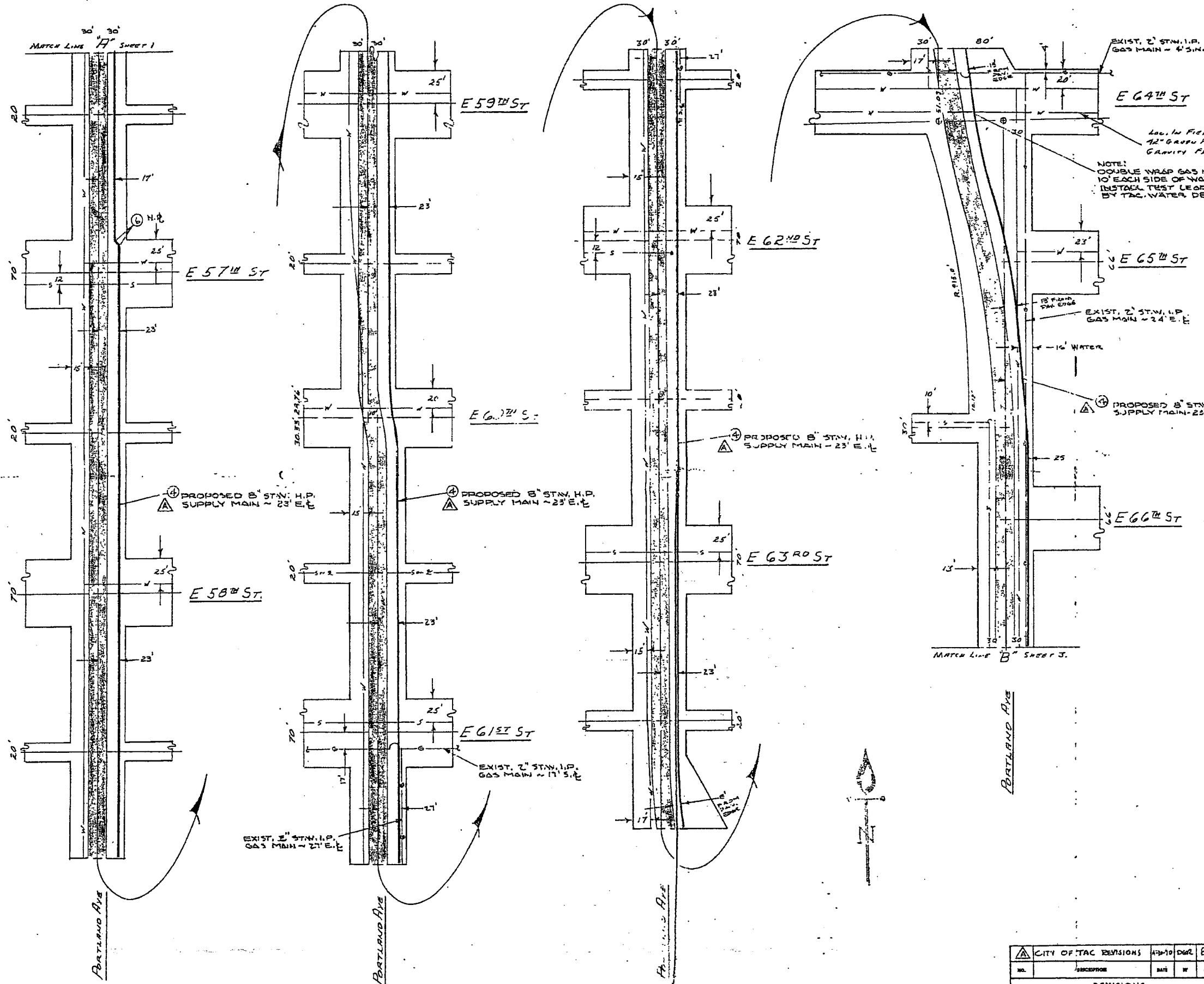
CITY OF TACOMA

WASHINGTON NATURAL GAS COMPANY

TACOMA MAP NO.

8\"/>

APPROVED	CITY OF TACOMA REVISIONS	DATE	BY	APPR.	DATE	BY	SCALE	NO.
					4/7/70	IR 6508	1\"/>	70-0-102



ITEM QUANTITY	DESCRIPTION	PRICE	TOTAL

BILL OF MATERIAL

PERMITS

CITY OF TACOMA

WASHINGTON NATURAL GAS COMPANY

AREA TACOMA MAP NO.

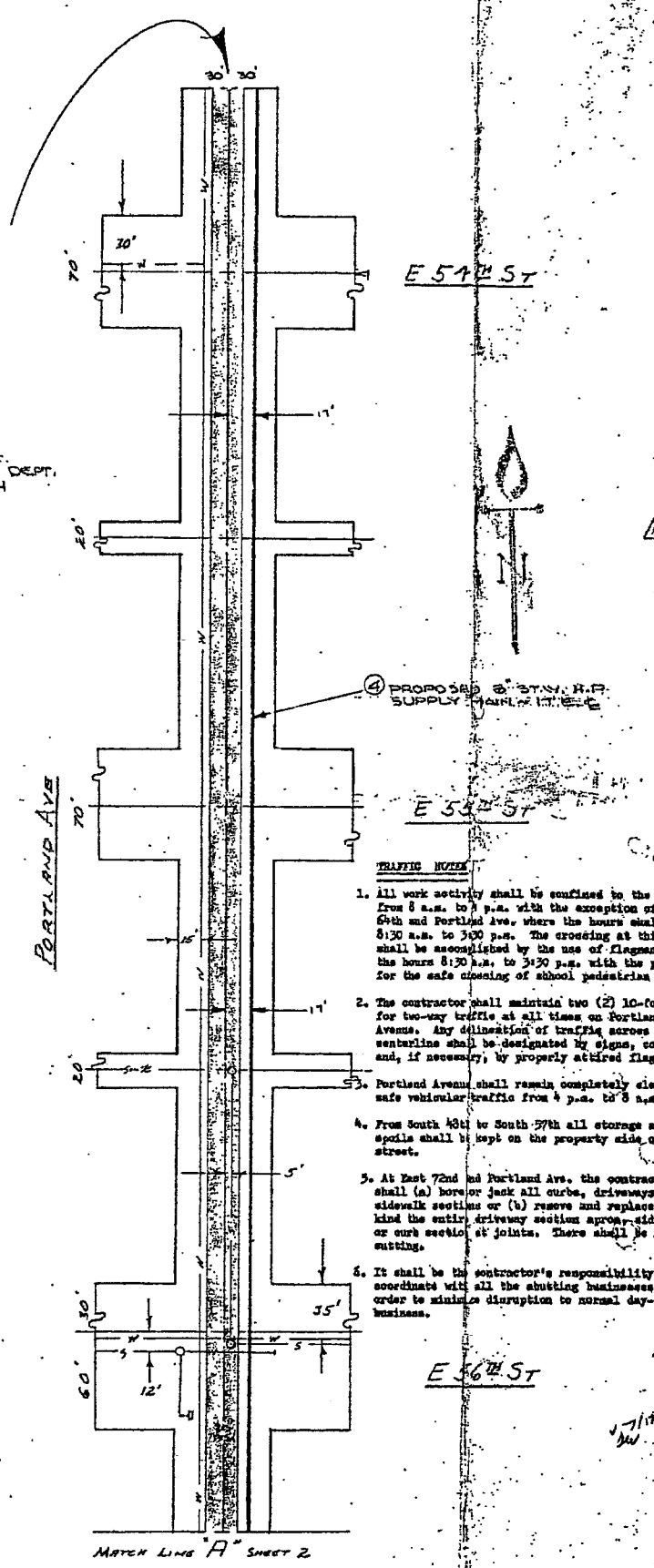
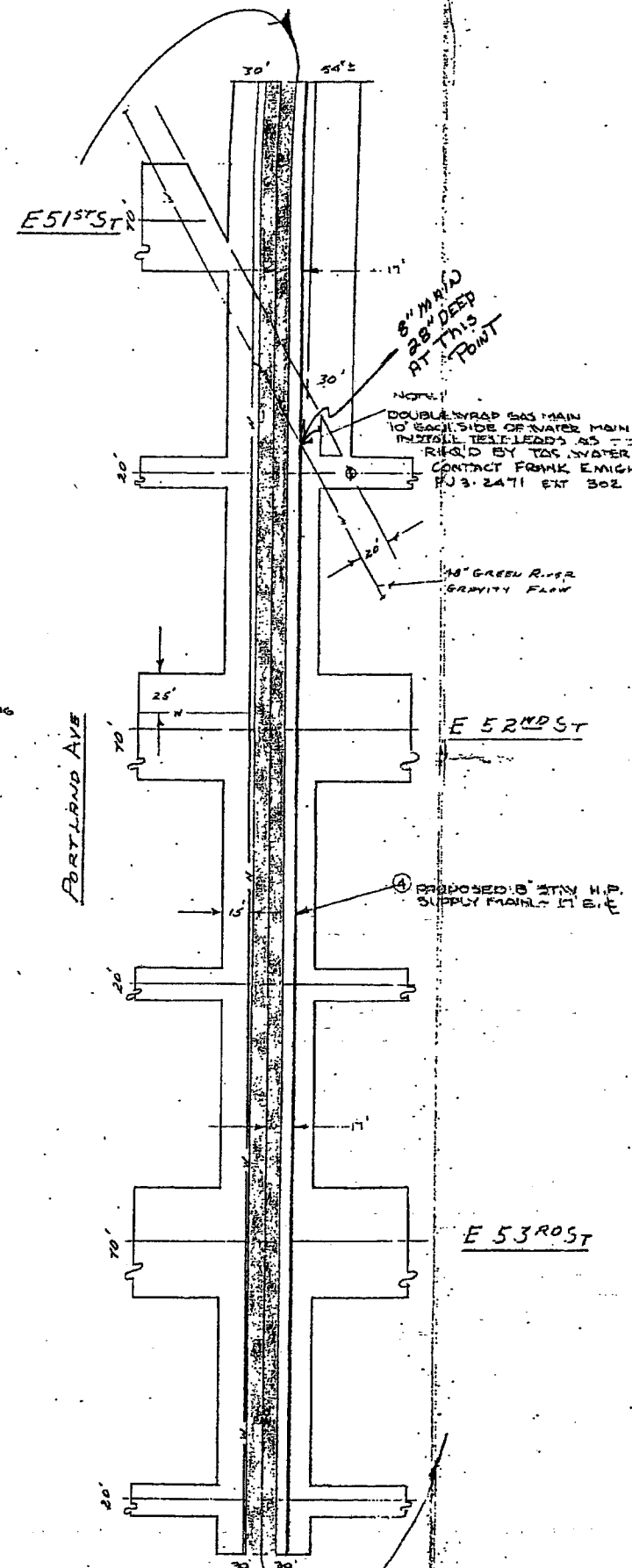
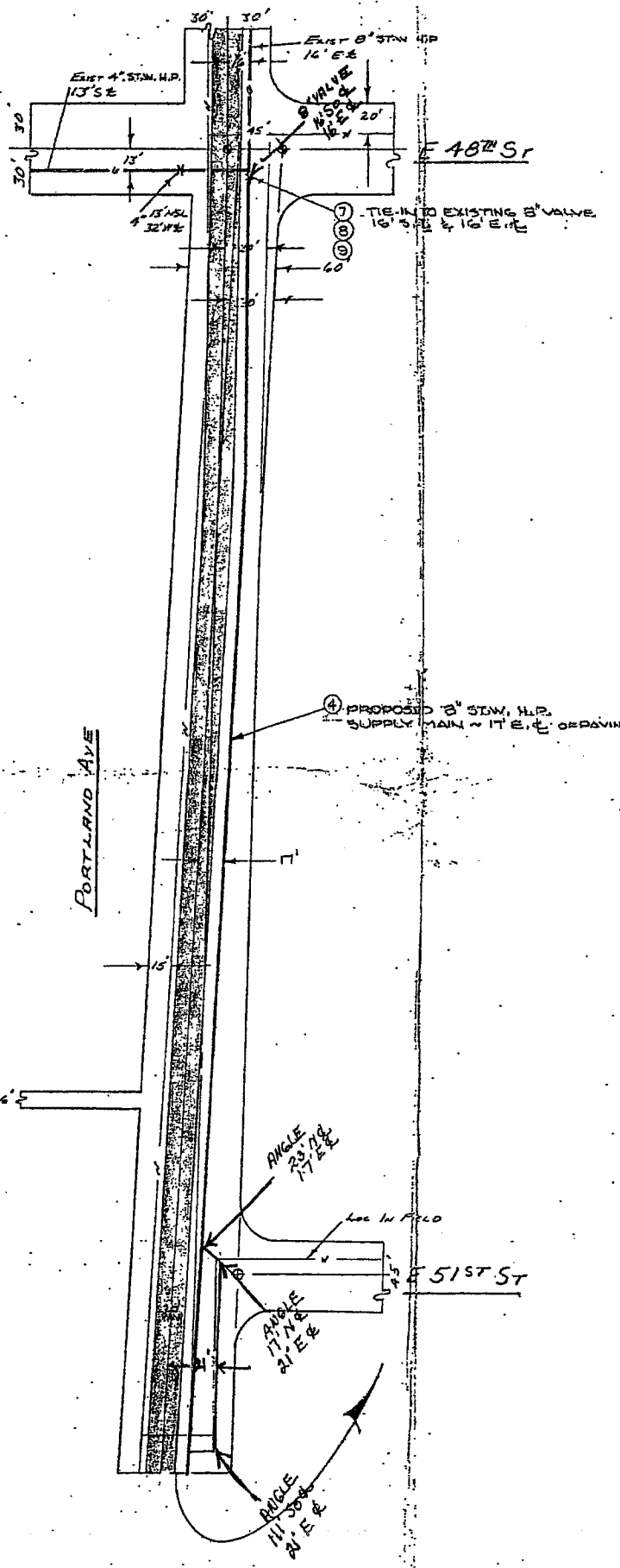
8" STAN. H.P. SUPPLY MAIN

PORTLAND AVE.

EAST 48TH ST. TO EAST 72ND ST.

NO.	REVISIONS	DATE	BY	APP'D.	CHK'D.	SCALE	DATE	TITLE	DRWING

CITY OF TAC REVISIONS 4/7/10 DRP
 4/10/10 DRP
 BOGRAND 4/7/10 JR 6508
 JOB 69-3-02A
 70-D-102
 2/10



AS INSTALLED
 6-28-70
 7915 = 8" STW
 166" = LEAK TEST
 450" = STRENGTH TEST
 LIEN & ROCKEY

CONSTRUCTION NOTES
 1. Valley fill to grade and compact to field
 2. Minimum cover 36"
 3. Coat all pipe joints with 1" of bitumastic
 4. 30-7 road way
 5. 100% test 100% to 100% test to 100%
 6. 100% test to 100% test to 100% test to 100%
 7. 100% test to 100% test to 100% test to 100%
 8. 100% test to 100% test to 100% test to 100%

P.N.W. BELL TEL: FU3-0268
 CONSTRUCTION SHALL CONFORM TO WASH. NAT. GAS CO. SPECIFICATIONS FOR SUPPLY MAINS. SEE STANDARD DRAWING, 802-118.
 LEAK TEST MAIN AT 100 PSIG. FOR 24 HRS. STRENGTH TEST AT 150 PSIG. FOR 24 HRS.
 PUBLIC WORKS REQUIREMENT: ATTEMPT TO REPAIR OR FACE IMPROVED STREET CROSSINGS, IF NECESSARY TO OPEN CUT THESE CROSSINGS, MEET THE TRAFFIC SPEC'S AND BACKFILL SHALL BE ACCOMPLISHED WITH SELECTIVE MATERIAL AND CONTRACTED TO CITY OF TAG SPEC'S, BEFORE REPLACING ROADWAY SURFACE.

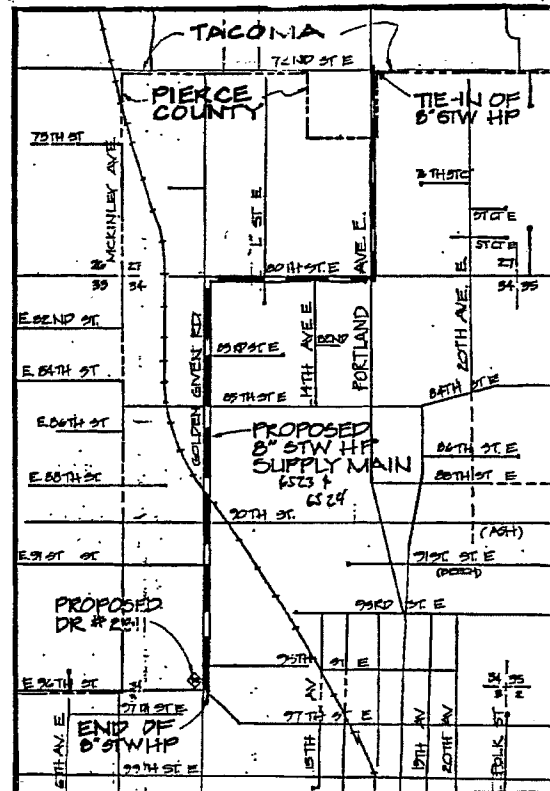
- TRAFFIC NOTES**
- All work activity shall be confined to the hours from 8 a.m. to 7 p.m. with the exception of East 48th and Portland Ave. where the hours shall be 8:30 a.m. to 3:30 p.m. The crossing at this point shall be accomplished by the use of flagmen during the hours 8:30 a.m. to 3:30 p.m. with the provision for the safe crossing of school pedestrian traffic.
 - The contractor shall maintain two (2) 10-foot lanes for two-way traffic at all times on Portland Avenue. Any disturbance of traffic across the centerline shall be designated by signs, cones and, if necessary, by properly attired flagmen.
 - Portland Avenue shall remain completely clear for safe vehicular traffic from 4 p.m. to 8 a.m.
 - From South 43rd to South 57th all storage and spoils shall be kept on the property side of the street.
 - At East 72nd and Portland Ave. the contractor shall (a) bore or junk all curbs, driveways and sidewalk sections or (b) remove and replace in kind the entire driveway section across sidewalk or curb section at joints. There shall be no saw cutting.
 - It shall be the contractor's responsibility to coordinate with all the abutting businesses in order to minimize disruption to normal day-to-day business.

SUB DIVISION #1			
NO.	DESCRIPTION	QTY	UNIT PRICE
1	FLANGE 8" X 200" BLIND	1	644.80
2	BOLT 1/2" X 3" X 3/4" 8" X 1/2"	2010	3.0101
3	SOV. VALVE NIPPLE 2" WITH 1/2"	6884	6.8841
4	VALVE BOX LOWER	50353	50353
5	VALVE 1/2" X 1/2" UPPER	50360	50360
6	ELL. 8" X 1/2" X 1/2"	60815	60815
7	VALVE 8" X 1/2" X 1/2" 1/2" X 1/2"	26932	26932
8	PIPE 78" X 1/2" X 1/2" WRAP	10610	10610
9	1" PROTECTOWRAP	6990	6990
10	1" PROTECTOWRAP	6990	6990
11	PRIMER 70 B	64430	64430

BILL OF MATERIAL
 PERMITS
 CITY OF TACOMA
SOIL RESISTANCE PRINT
 WASHINGTON NATURAL GAS COMPANY
 AREA TACOMA
 8" STAN. H.P. SUPPLY MAIN
 PORTLAND AVE
 EAST 48TH ST. TO EAST 72ND ST.

NO.	REVISION	DATE	BY	APP.	DATE	BY	APP.
1	REVISIONS						

CITY OF TACOMA REVISIONS 4-24-70 DR. RDU
 JOB NO. 6508
 JOB 69-1528-A
 DATE 4/10/70
 DRAWING NO. 70-D-102



VICINITY MAP
SCALE: NONE

KEY

1	AC	ASBESTIC CEMENT (TRANSIT)
2	AS PAV	ASPHALT PAVEMENT
3	CB	CATCH BASIN
4	CL	CENTERLINE
5	E	ELECTRICAL POWER
6	G	GAS
7	MH	MANHOLE
8	RD	ROAD
9	SS	SANITARY SEWER
10	SDM	STORM DRAIN
11	T	TELEPHONE
12	W	WATER
13	CULV	CULVERT
14	SLC	STREET LIGHT CABLE

NOTES

- ALL CONSTRUCTION IS TO CONFORM TO WASHINGTON NATURAL GAS CO. OPERATING STANDARDS.
- FIELD LOCATE ALL UNDERGROUND UTILITIES. CALL ONE-CALL 48 HOURS PRIOR TO CONSTRUCTION 1-800-424-5555. ALL UTILITIES MUST BE MAINTAINED THROUGHOUT ALL CONSTRUCTION ACTIVITIES.
- NOTIFY PROPERTY OWNERS ADJACENT TO PROPOSED CONSTRUCTION ACTIVITIES PRIOR TO BEGINNING CONSTRUCTION.
- MAOP OF THIS MAIN IS 300 PSIG. SEE SUPPLY MAIN UPDATE SHEET.
- LEAK TEST ALL NEW PIPING AT 100 PSIG FOR 8 HOURS AND HYDROSTATICALLY STRENGTH TEST ALL NEW PIPING AT 450 PSIG FOR 24 HOURS PER OPERATING STANDARD 6.14. PIG WITH A GIRARD POLY PIG BEFORE TIE-IN.
- PERFORM TIE-IN AND PURGE OPERATIONS IN ACCORDANCE WITH PROCEDURE APPROVED BY THE CHIEF ENGINEER.
- MAX. ALLOWABLE WALL MISMATCH FOR WELDING IS 3/32" WHEN NECESSARY. (A) TAPER ENDS OF FITTING OR PIPE PER ANSI/ASME B31.0 APPENDIX I, FIG. 13 (b), OR (B) USE TRANSITIONAL PIPE APPROVED BY WNG ENGINEERING, TO GET WITHIN TOLERANCE.
- WELDS NOT PRESSURE TESTED MUST BE RADIOGRAPHICALLY INSPECTED PER OPERATING STANDARD 6.9.2. A MINIMUM OF 10% OF ALL WELDS WILL BE RADIOGRAPHICALLY INSPECTED PER OPERATING STANDARD 6.9.2. RADIOGRAPHICALLY INSPECT 100% OF WELDS AT RAILROAD CROSSING. INSPECTION WORK TO BE PERFORMED BY X-RAY, INC. UNDER SEPARATE CONTRACT WITH AND DIRECTION OF WNG.
- CHECK FOR WRAPPING HOLIDAYS WITH A JEEP MACHINE AND REPAIR FAULTS AS REQUIRED PER OPERATING STANDARD 10.1, PARAGRAPH 3.
- DESIGN PRESSURE IS 300 PSIG.
- PROVIDE A MINIMUM OF 36" COVER OVER MAIN. WHEN INSTALLING MAIN ACROSS OR IN A DRAINAGE DITCH, MEASURE COVER FROM THE BOTTOM OF THE DRAINAGE DITCH. IF CONDITIONS REQUIRED A SHALLOWER INSTALLATION, MAIN MUST BE PROTECTED PER OPERATING STANDARD 6.5 PARAGRAPH 4.3.
- PROTECT MAIN FROM UNDERGROUND STRUCTURES PER OPERATING STANDARD 6.10, PARAGRAPH 2.
- DO NOT INSTALL ANODES. INSTALLATION TO BE RECTIFIER PROTECTED
- ALL PAVING TO BE OPEN CUT, EXCEPT WHERE SPECIFICALLY STATED OTHERWISE ON THE DRAWING OR PERMIT.
- SEE DWG. #302-110 FOR ADDITIONAL DETAILS ON SUPPLY MAIN INSTALLATION.
- REFERENCE DRAWINGS:
 TO-D-102 (CHG 9/9) 6" STW HP SUPPLY MAIN - SALISHAN EXTN. #2
 570-571 DISTRICT REGULATOR #2311
 908-504 2" PE IP JOINT TRENCH W/6" STW HP (PIERCE TRANSIT)
 202-401 CHEHALIS WESTERN RR PERMIT DWG.
 302-110 SUPPLY MAIN DETAILS
 Δ 905-504(B) (CHG 1/15) 6" STW HP MAIN

ITEM	QUANTITY	DESCRIPTION	STOCK NO.
68	1	60" x 20" STL CASING 250' GRADE B	- P.O.
69	1	12" TYPE K INSULATED THERMO-COUPLE WIRE	- P.O.
70	4	6" x 10" CASING INSERT	66-00270
71	10	T.L. WIRE #10	85-00930
72	1	VALVE BOX ROAD COMPLETE	50-00270
73	10	2" SAV-A-VALVE NIPPLE H1491	68-00841
74	1	8" x 8" x 4" STW WELD TEE	78-00443
75	1	8" x 20" WELD BELL STD. W/ BOTH ENDS TAPER BORED	- P.O.
76	1	8" x 40" IN LENGTH x 1/2" BEE W/ STW PIPE GRADE B W/ ONE END TAPER BORED	- P.O.
77	1	8" ROCKWELL VALVE, FIG. 4243 VE	26-00935
78	1	8" x 100 WALL STW PIPE X42	70-00610

CONSTRUCTION PRINT

ITEM	QUANTITY	DESCRIPTION	STOCK NO.
10	1	50" x 12" STL CASING 250' GRADE B	70-00720
11	1	12" TYPE K INSULATED THERMO-COUPLE WIRE	- P.O.
12	1	6" ROCKET INSULATION COUPLING W/HT	- P.O.
13	1	VALVE BOX ROAD COMPLETE	50-00270
14	1	60" x 20" STL CASING 250' GRADE B	- P.O.
15	2	8" FRP ROLL ON SHIELD	- P.O.
16	3	TEST LEAD BOX	50-00207
17	3	2" SAV-A-VALVE NIPPLE H1491	68-00841
18	1	8" x 800 PERA BOLT KIT 30FFNYA	80-00102
19	1	8" CLASS 300 WELD NECK FLANGE	64-00310
20	8	6" x 10" CASING INSERT	66-00270
21	7	25" T.L. WIRE #10	85-00930
22	4	8" x 20" WELD BELL STD. W/ BOTH ENDS TAPER BORED	- P.O.
23	4	8" x 40" IN LENGTH x 1/2" BEE W/ STW PIPE GRADE B W/ ONE END TAPER BORED	- P.O.
24	1	8" ROCKWELL VALVE, FIG. 4243 VE	26-00935
25	1	8" x 100 WALL STW PIPE X42	70-00610

ENG POSITION	
DATE	
BY	
FOR	
BY	

AS INSTALLED RETIRED

DATE COMPLETED: 7-18-91

FIELD INSPECTION BY: J. M. M. 7/18/91

TYPE OF WORK: 1100-0015

PERMISSION: 418-2

DESCRIPTION: 1100-0015

DATE: 7-18-91

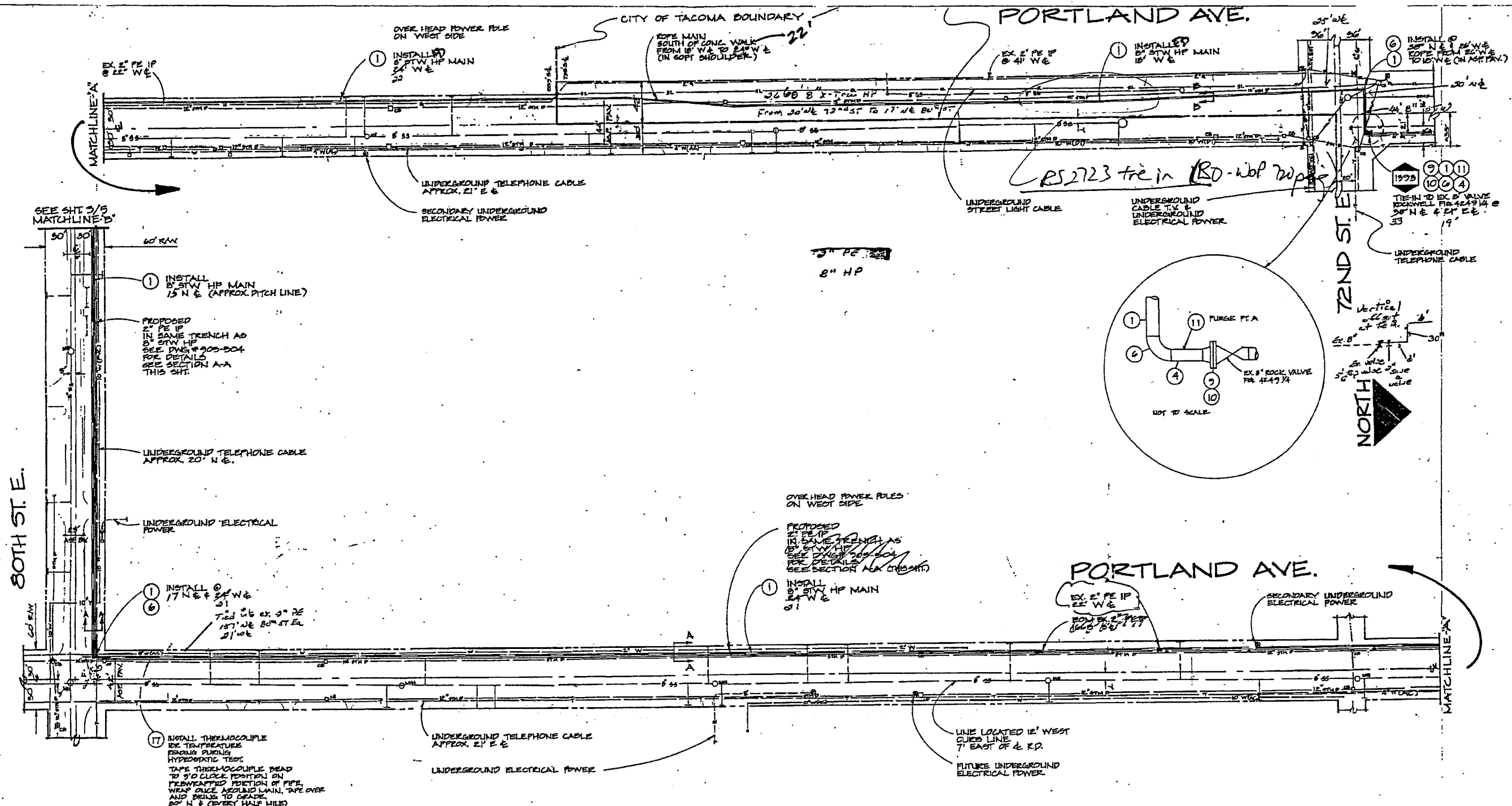
12 Breakdown
2700' IR 6523
7115 IR 6523

PERMIT	TAX CODE
PERMIT	D.G.R.
PERMIT	1/4 SEC. SW 27-20-3, SE 27-20-3, NW 34-20-3, SW 34-20-3
PERMIT	PLAT 247.62, 249.62, 250.62, 251.62
PERMIT	OF MAP 248.62
PERMIT	AREA TACOMA
PERMIT	SEQ. NO.

6" STW HP MAIN
SALISHAN EXTENSION #3
(PIERCE TRANSIT)
PORTLAND AVE & 72ND ST. E.

NO.	DESCRIPTION	DATE	BY	APP'D.	CHK'D.	DATE	APP'D.
					KHD	4/19/91	JBE
REVISIONS							

DWN J. MALM	9/10/90	IR 6523/4 RR
JOB 905-504		
SCALE NONE	APP. JBE	307-512 1/5



SEE SHT. 3/5
MATCHLINE 'B'

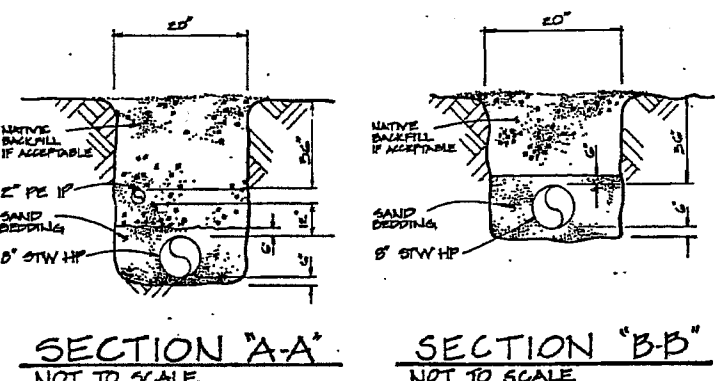
BOTH ST. E.

PORTLAND AVE.

CITY OF TACOMA BOUNDARY

PORTLAND AVE.

72ND ST. E.

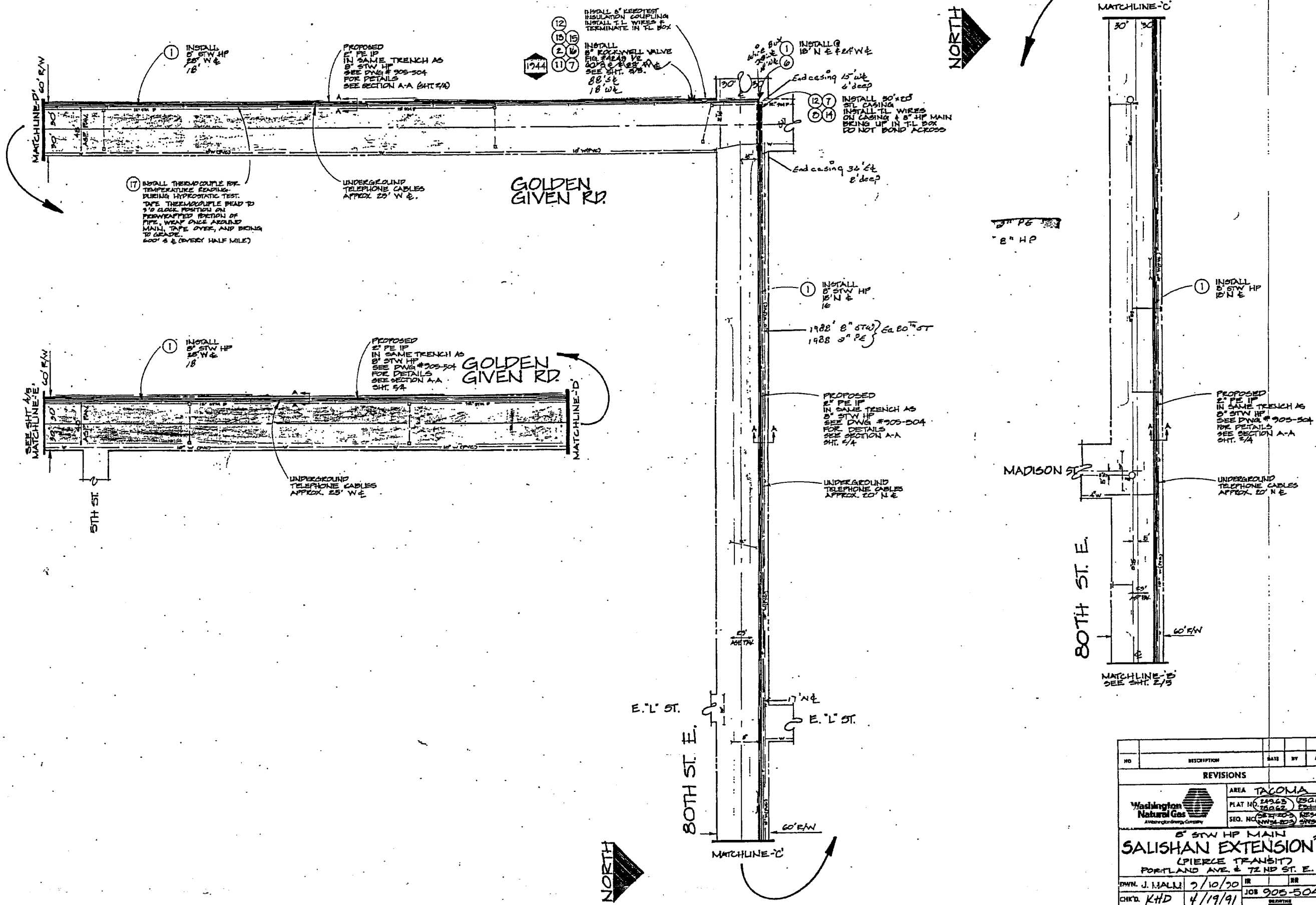


STANDARD TRENCH DIMENSIONS



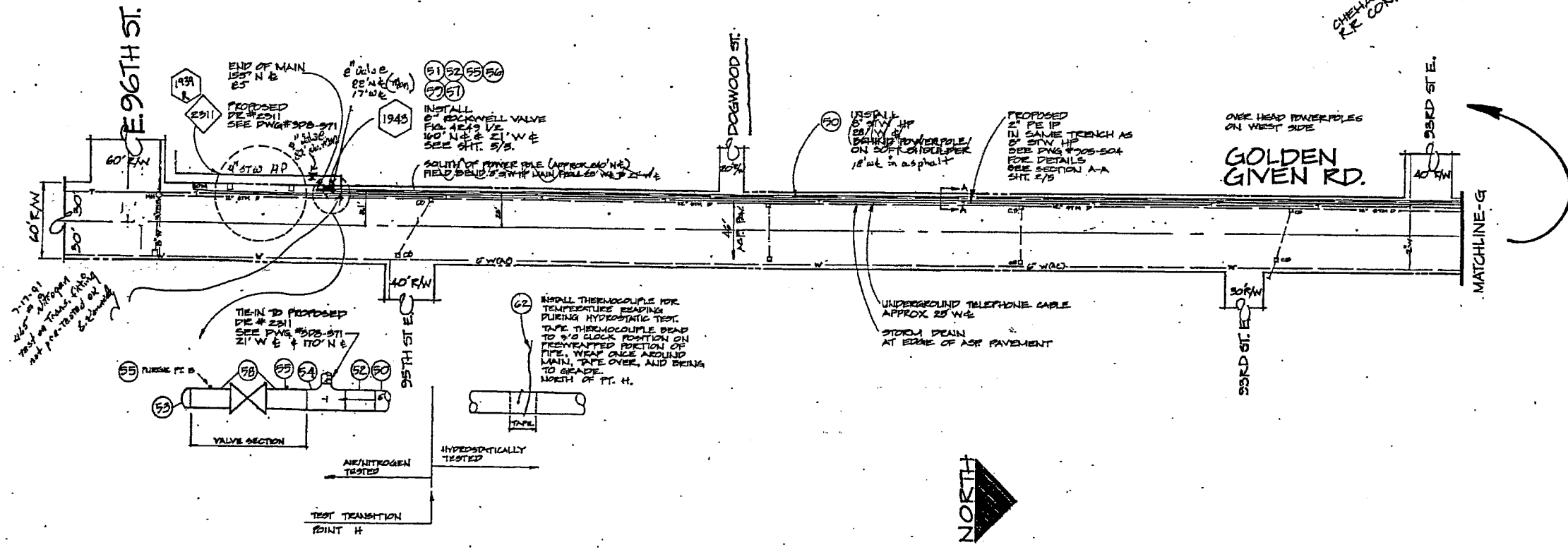
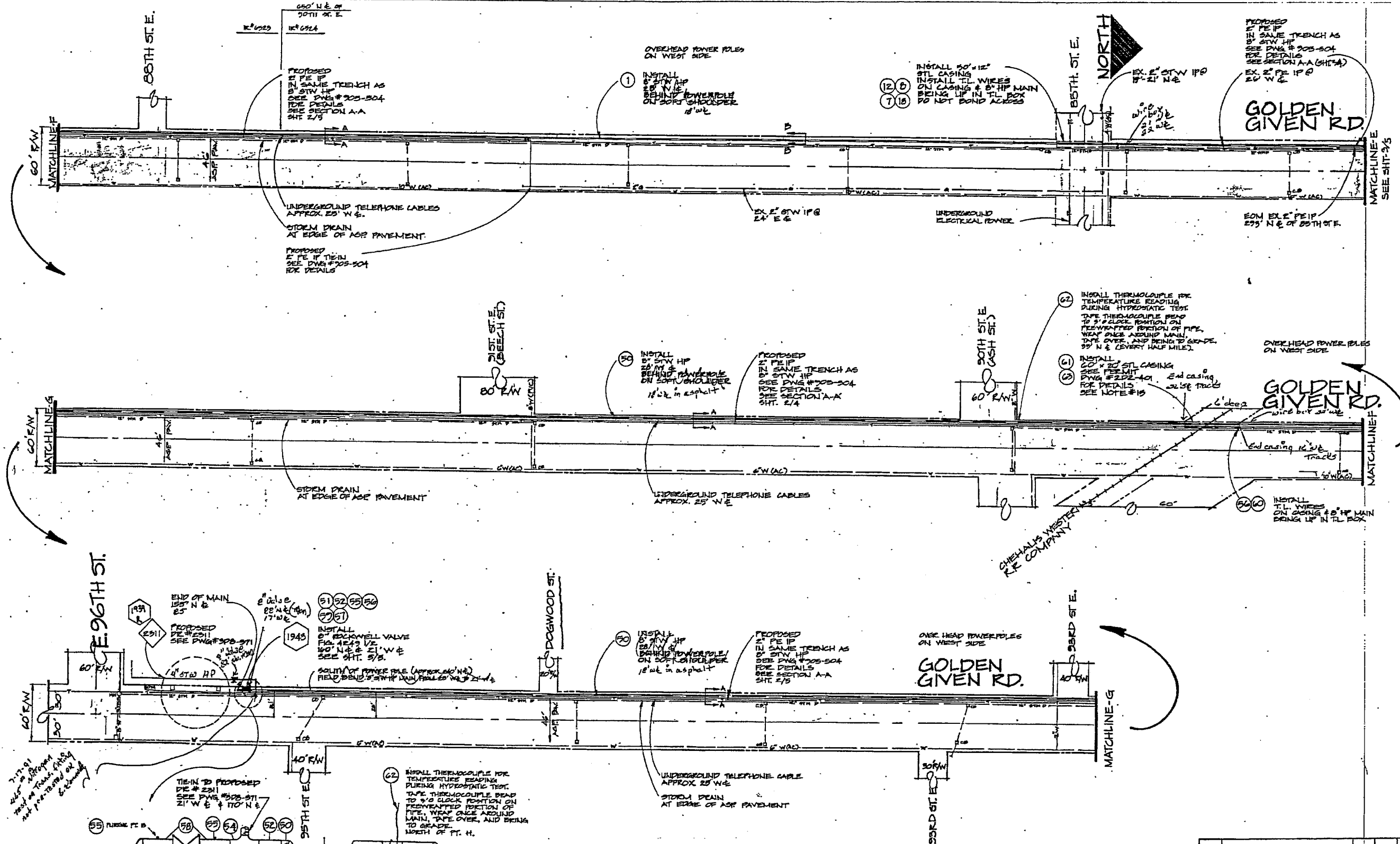
NO.	DESCRIPTION	DATE	BY	APP.
REVISIONS				
		AREA TACOMA FLAT NO. 849.00 SEC. NO. N34W2E3 T12S		
6" STW HP MAIN SALISHAN EXTENSION #3 (PIERCE TRANSIT) PORTLAND AVE & 72ND ST. E.				
OWN. J. MALM	9/10/30	12	RR	
CHK'D. KHD	4/19/91	12	JOB 905-304	
SCALE 1" = 50'	APP. JSE	12	SD7-312	2/5

SUPPLY MAIN
TAC # 91D-105



NO	DESCRIPTION	DATE	BY	APP.
REVISIONS				
		AREA TACOMA PLAT NO. 24365 SEQ. NO. 2352		
8" STW HP MAIN SALISHAN EXTENSION 3 (PIERCE TRANSIT) PORTLAND AVE. & 72 ND ST. E.				
ENGR. J. MALM	9/10/90	DR		
CHK'D. KHD	4/19/91	JOB 905-504		
SCALE 1" = 50'	APP. JSE	SDT-312	3/5	

SUPPLY MAIN
TAC 91D-105



NOT TO SCALE



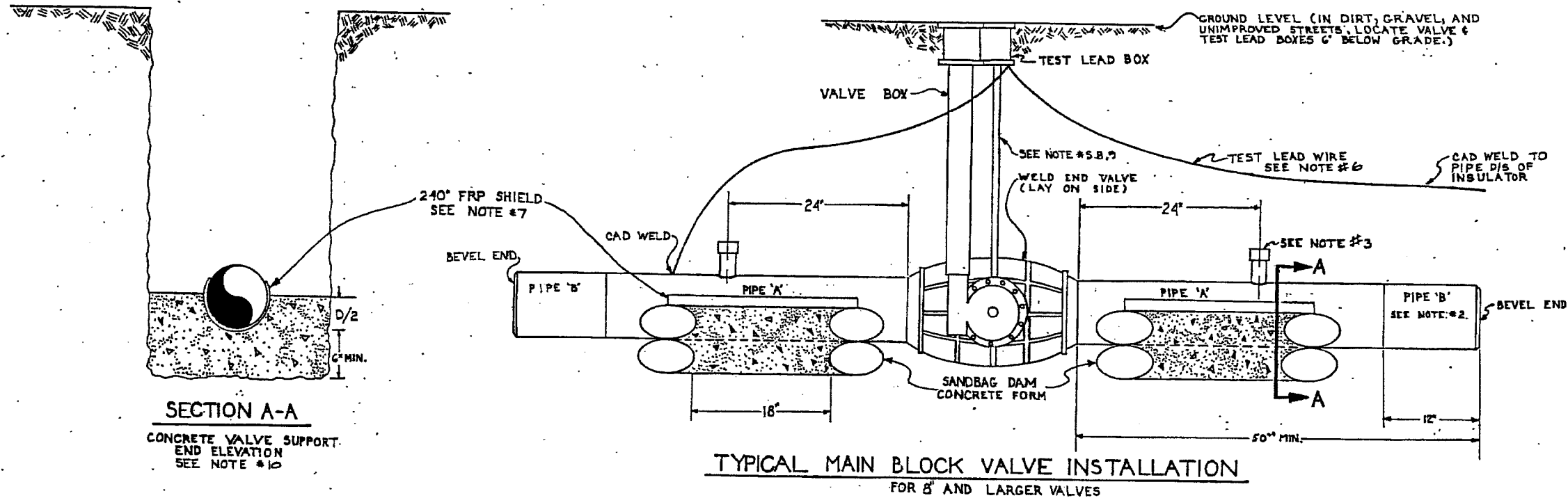
NO	DESCRIPTION	DATE	BY	APP.
REVISIONS				
AREA TACOMA				
Washington Natural Gas		PLAT NO. 245.05 55025		
A Washington Company		SEE DETAIL 55026		
		SER. NO. NWS-203 55023		
8" STW HP MAIN SALISHAN EXTENSION #3				
(PIERCE TRANSIT)				
PORTLAND AVE & 72ND ST. E.				
DWN. J. MALM	9/10/30	DR	ER	
CHK'D. KHD	4/19/91	JOB 905-504	DR	
SCALE 1" = 50'	APP. JEE	507-312	4/9	
TRC # 910-105 SUPPLY MAIN				

TABLE 1
PIPE SPECIFICATIONS

PIPE SIZE, D	PIPE SPECS	PIPE A	PIPE B	CORRESPONDING VALVE #
8"	GRADE	B		1943
	WALL THICKNESS	.522		
8"	GRADE	B	B	1944
	WALL THICKNESS	.522	.250	
	GRADE			
	WALL THICKNESS			

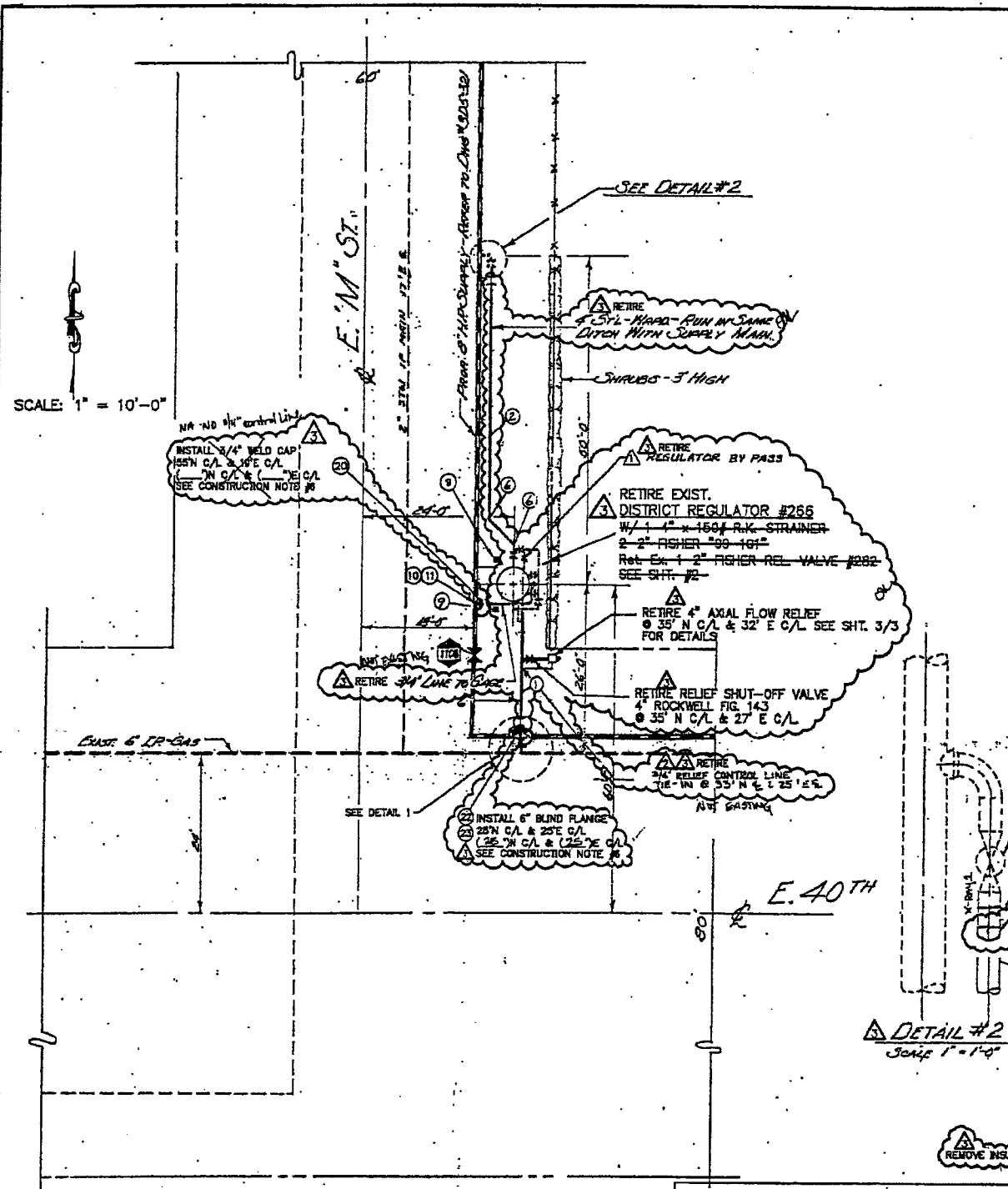
NOTES

- BUILD AND TEST VALVE SECTION ABOVE GROUND.
- MAXIMUM ALLOWABLE WALL MISMATCH FOR WELDING IS 3/32". USE PIPE 'B' AS REQUIRED TO ELIMINATE TAPER BORING UPON INSTALLATION OF VALVE SECTION. IF NECESSARY, TAPER BORE END(S) OF PIPE 'A' PER ANSI/ASME, B31.8, APPENDIX L, FIG. 13(h) TO GET WITHIN TOLERANCE. SEE TABLE 1.
- TAP SAV-A-VALVES WITH A FULL SIZE DRILL AND REPLACE ALL PLUGS AND CAPS PRIOR TO TESTING VALVE SECTION. USE A 2" SAV-A-VALVE FOR 8" PIPE, A 3" SAV-A-VALVE FOR 10" AND 12" PIPE AND A 4" SAV-A-VALVE FOR PIPE LARGER THAN 12".
- LEAK TEST AT 100 PSIG AND STRENGTH TEST AT 450 PSIG FOR 0 HRS. PER OP. STD. 8.14.
- INSULATE VALVE AS REQUIRED PER OP. STD 10.1 SECTION B. IF KEROTEST TYPE WELD INSULATOR IS USED, UPON INSTALLATION OF VALVE SECTION, LEAVE MINIMUM OF 2" OF MAN BETWEEN INSULATOR AND PIPE 'B'.
- INSTALL TEST LEADS PER OP. STD 10.1, SECTION B & 10. BRING TEST LEADS UP TO TEST LEAD BOX.
- INSTALL 30" LONG 240 DEGREE FIBERGLASS REINFORCED PLASTIC (FRP) SHIELD AT LOCATIONS OF CONCRETE VALVE SUPPORT. SHIELD MAY BE PROVIDED BY GLASS MESH CO. OR OTHER COMPANY WITH A COMPARABLE PRODUCT.
- UPON VALVE INSTALLATION REMOVE STANDARD GREASE FITTING FOR PLUG AND INSTALL APPROPRIATE LENGTH EXTENDED GREASE PIPE USING 1/2" SCHEDULE 80 PIPE AND FITTINGS. REUSE STANDARD GREASE FITTING AT TOP OF EXTENDED GREASE PIPE AND TERMINATE FITTING 4+ INCHES BELOW TEST LEAD 1" X 1/4" LD. WRAP PIPE WITH PROTECTIVE COATING.
- WIG PRESSURE CONTROL TO PACK GREASE EXTENSION BEFORE VALVE IS BACKFILLED.
- FOUR CONCRETE VALVE SUPPORTS AFTER VALVE SECTION HAS BEEN WELDED TO MAIN. IF DITCH IS WIDER THAN 24" USE SANDBAGS FOR SIDE BARRIERS. SUPPORTS TO BE POURED ON SOIL COMPACTED TO 95% DENSITY.
- CONCRETE SUPPORTS ARE NOT REQUIRED IF CONTROLLED DENSITY FILL (CDF) IS USED AS THE BACK FILL.



ITEM	QUANTITY	DESCRIPTION	STOCK NO.
BILL OF MATERIAL			
SPECIFIC DRAWING			
8" STW HP MAIN			
SALISHAN EXTENSION #3			
(PIERCE TRANSIT)			
PORTLAND AVE + 72 ND ST. E.			
DRWN	J. MALM	9/25/90	FR
CHKD	KHD	4/19/91	JOB 905-504
SCALE	NONE	APP. JTB	3D7-312 3/5
SUPPLY MAIN TAC # 910-105			

STANDARD DRAWING				NO.	DESCRIPTION	DATE	BY	APPD.
TYPICAL MAIN BLOCK VALVE INSTALLATION FOR 8" & LARGER VALVES								
REVISIONS								
REPLACES	C. EVETT/CE	08/01/90	DESIGN BY	JTB				
PORTION OF	CHKD: JTB	03/25/90	STD DWG. NO.					
3D7-118	APP: JTB	7/26/90		3D7-313				
				AREA: TACOMA TAX CODE: SEQ. NO.: D.G.R.:				



SCALE: 1" = 10'-0"

PLOT PLAN
SCALE 1" = 10'-0"

FITTER (CHECK BOX IF COMPLETE)
 WORK AREA LEFT IN CLEAN & SAFE CONDITION
 COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP
 FIELD CHANGES RED-LINED ON AS-BUILT
 MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK
 ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT
 NOTE BEGINNING OF MAIN, END & LINE OF MAIN LOCATIONS
 SHOW ROPE LOCATIONS & CUL-DE-SAC RADII

FOREMAN'S SIGNATURE: *B. K. Keli*
 COMPANY: PULCHROK DATE: 11/21/16

CONSTRUCTION NOTES PER SAP #108527261

- SCOPE OF JOB: RETIRE EXISTING FARM TAP #266 AND INSTALL NEW DR #266 PER ORDER #09023582. INSTALL PRE-TESTED CAP. RETURN ALL SALVAGEABLE PARTS TO STORE PER W/O 108527261.
- ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY (PSE) GAS OPERATING STANDARDS.
- FIELD LOCATE UTILITIES. PSE SERVICE PROVIDER TO CALL UTILITIES UNDERGROUND LOCATION CENTER AT 1-800-424-8000 AT LEAST 2 WORKING DAYS PRIOR TO CONSTRUCTION.
- PSE SERVICE PROVIDER TO FILL VAULTS WITH SAND OR CUT OUT AND REMOVE VAULT AS APPLICABLE PER LOCAL MUNICIPAL REQUIREMENT.
- PSE SERVICE PROVIDER TO NOTIFY CORROSION CONTROL TECHNICIAN 48 HOURS PRIOR TO RETIRING STATION.
- FIELD TO VERIFY INLET TIE-IN SIZE AND MATCH WELD CAP ACCORDINGLY. DRAWING FOR FT DID NOT EXIST, THIS DRAWING CREATED FOR RETIREMENT RECORD. REFER TO PSE ENGINEER FOR ANY QUESTIONS.
- PUGET SOUND ENERGY CONTACT LIST:
 PROJECT ENGINEER: JEFF WEBB AT 425-482-3813
 CELL 206-804-3948
 CORROSION ENGINEER: ALAN MULKEY AT 206-255-4034
 PRESSURE CONTROL: KEN JOHNSON AT 206-406-6206 PAUL BEACH
 CORROSION TECHNICIAN: JOHN BATKOVICH AT 206-906-4951 253-905-1620
- PULCHROK CONTACT LIST:
 PROJECT MANAGER: DAVID HARG AT 206-416-4230, CELL 206-398-8761.

PRE-TESTED WELD CAP NOTE

- SCOPE: PRE-TESTING OF WELD CAPS SMALLER THAN 8 INCHES IN DIAMETER FOR HIGH PRESSURE INSTALLATIONS ON MAINS AND SERVICES OPERATING BELOW 200 PSIG.
- WELD CAPS SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES AT 100 PSIG PER GAS OPERATING STANDARD 2025.3300, PARAGRAPH 6.8.
- WELD CAPS SHALL BE STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2025.3300, PARAGRAPH 6.5. USE FORM 1828 "REPORT OF PRESSURE TEST ON NEW MAIN" TO DOCUMENT TEST PRESSURE WHILE PRE-TESTING WELD CAPS.
- LEAK TEST THE TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2025.3300, PARAGRAPH 6.8.1.

NOTES:

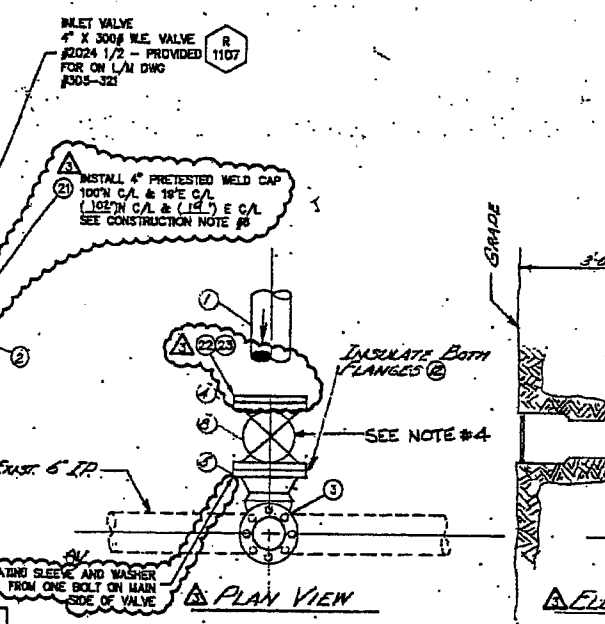
- VAULT LID TO HAVE SAME ELEVATION OF FUTURE SIDEWALK
- RUN 8" SUPPLY & 4" LINE TO BARE VAULT IN SAME DITCH.
- GAS CO. INSPECTOR TO SELECT LOCATION OF CONC. POSTS IN FIELD.
- 3/4" CONTROL LINE TAP IN 6" OUTLET TO BE 10'-0" DOWNSTREAM OF VAULT.

REFERENCE DWGS:

- 305-321 - 8" HP FEEDER MAIN TO SALISHAN-TACOMA
- 12-53-135 - GASE MOUNTED ON REL. VALVE VENT RISER
- 302-584 SH.#2 - DIST. REG. #266 - VAULT & PIPING DET.

NOTES PER JOB #9418599

- SCOPE OF JOB: RETIRE EX. F262 RELIEF AND INSTALL AXIAL FLOW RELIEF DOWNSTREAM OF REGULATOR.
- MATERIALS TO BE RETIRED SHOWN HATCHED. NEW MATERIALS SHOWN UNHATCHED AND CALLED OUT IN SHEETS 1 & 2 ONLY.
- RETURN ALL SALVAGEABLE PARTS TO STORES.
- FIELD REP. TO CHECK VALVES FOR PROPER CATHODIC PROTECTION. CONTACT ALAN MULKEY BY EXT. 5384 OR DON ROBEY BY EXT. 810 FOR PROPER PROCEDURES. IF IT IS DETERMINED THAT THE VALVE IS NOT CATHODICALLY PROTECTED, REPLACE BOLT KITS AND CHECK VALVE FOR CORROSION.



DETAIL #1
SCALE 1" = 1'-0"

BILL OF MATERIALS			
ITEM	QTY	DESCRIPTION	PART NO.
23	1	1/2" BOLT KIT # 18E143	50-0008
22	1	1" FLANGE 4" X 150-BLIND-ERN	84-00400
21	1	1" CAP 4" WELD STD	82-00713
20	1	CAP 3/4" WELD STD	82-00856

BILL OF MATERIALS			
ITEM	QTY	DESCRIPTION	PART NO.
2	1	6" INS KIT	
1	1	3/4" PRESSURE CAP 4" DIA	
1	1	3/4" SUPPLY TIE IN	
1	1	8" X 3" CONC. POST (SEE NOTE #3)	
1	1	VALVE BOX	
1	1	CONC. VAULT: 18" DIA & 4' HIGH	
1	1	4" X 90" HDG. LDR. W/ 1/2" DIA. HOLES	
1	1	6" X 150" W/ N. FACE WELD	
1	1	6" X 150" W/ N. FACE WELD	
1	1	FLANGED TEE 4" X 1.5005	
1	1	4.50" X 1.00" WALL PIPE W/ 20' 6.625 X 1.00" WALL	

CONTRACTOR CONSTRUCTION COST CODES			
ITA	CSI	SEIN/A	IN/A

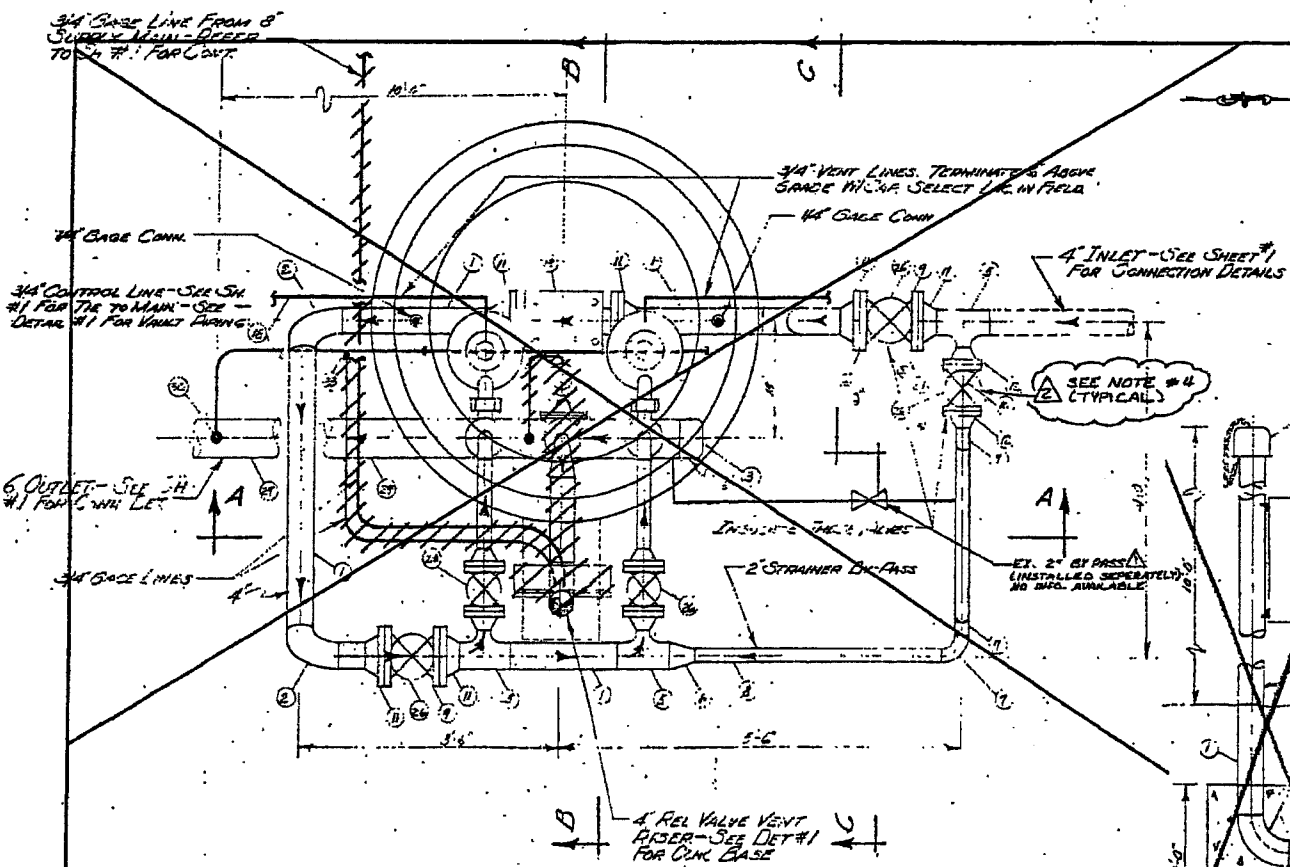
REV	DESCRIPTION	BY	CHKD	ENGR	DATE
1	RETIRE EXIST. DR #266 PER ORDER #09023582	EB			12/21/16
2	AS INSTALLED DRG. JOB #				

PREVIOUS JOB: #9418599
 PREVIOUS IR: #3272-05

WASHINGTON NATURAL GAS COMPANY
 DIVISION: SOUTHERN AREA: TACOMA

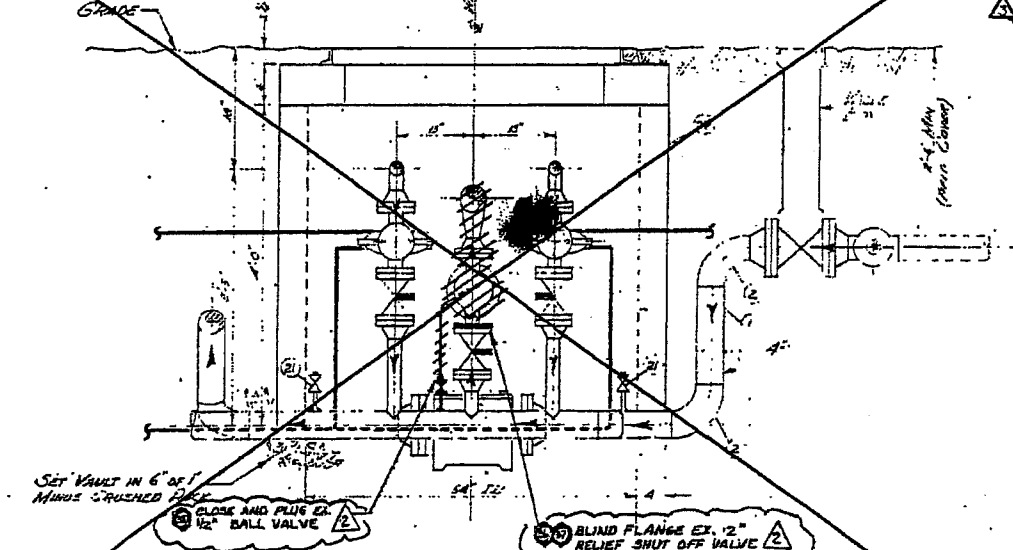
DISTRICT REGULATOR #266
 AT E.M. ST. & E. 40TH
 TACOMA

DATE: 8/18/16
 302-584
 SH. 1 OF 3



▲ PLOT PLAN
SCALE 1"=1'-0"

▲ DETAIL #1
4" REL V VENT RISER DET.
SCALE 1"=1'-0"



▲ ELEVATION - A-A
SCALE 1"=1'-0"

▲ CONTROL & VENT PIPING
SCHEMATIC

REV	DESCRIPTION	BY	CHK	ENGR	DATE	NO.	ISSUED	MA	W	APPR.	DATE
1	RETIRE EXIST. DR #288 PER ORDER #108527261	EB	W	12/11/63							
2	AS INSTALLED ORIG. JOB										

- NOTES:
- GAS USE TO PROVIDE VALVES & FITTINGS. CONTRACTOR TO PROVIDE FITTINGS N.E. SEE SHEET #1 FOR CONNECTION DETAILS.
 - REFER TO SHEET #1 FOR DISTRICT REG. LOC. & PIPING CONNECTIONS.

FITTER (CHECK BOX IF COMPLETE)
 WORK AREA LEFT IN CLEAN & SAFE CONDITION
 COMPLETE ALL END TAPES AND GAS PRESSURE STAMP
 FIELD CHANGES INDICATED ON 1/2" BUILT
 MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK
 ALL VALVE & W-M LOCATIONS NOTED ON 1/2" BUILT
 NOTE: SIZES OF 1/2", 3/4" & 1" LINE OF TUBING LOCATIONS
 SHOW NOTE LOCATIONS & 1/2" - 3/4" BUILT
 FOREMAN'S SIGNATURE: *[Signature]*
 COMPANY: *[Signature]* DAY VALVE

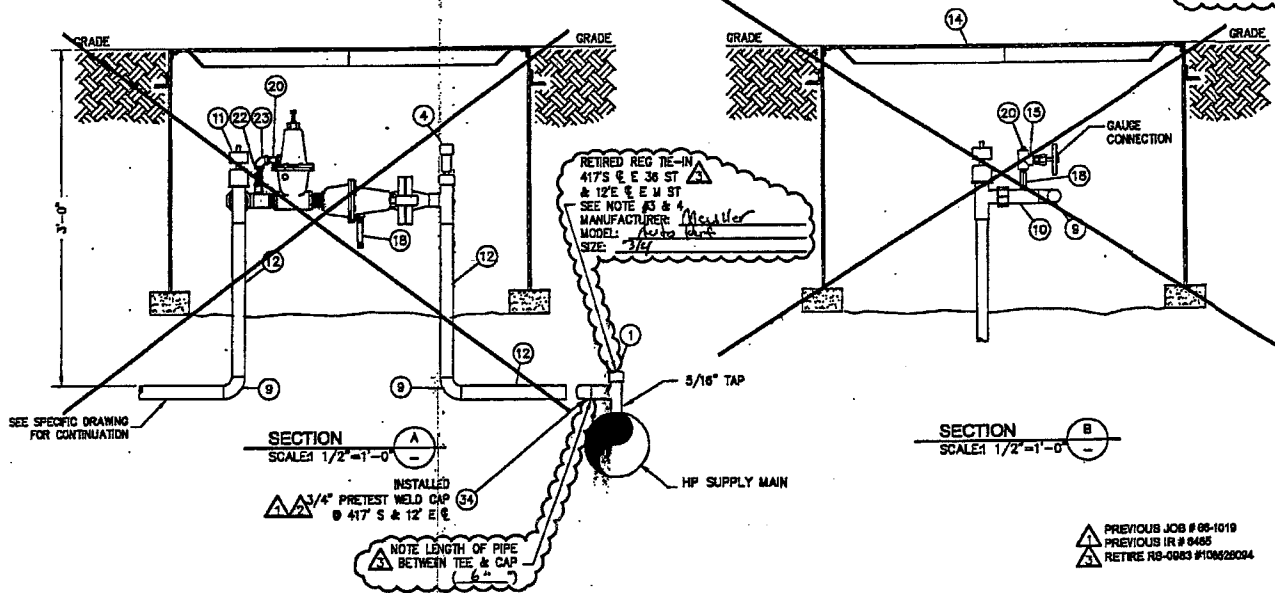
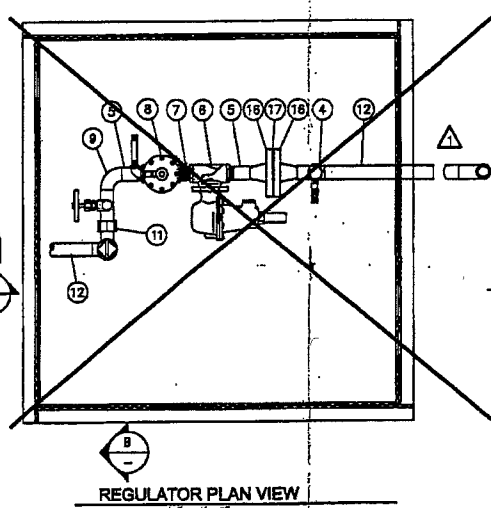
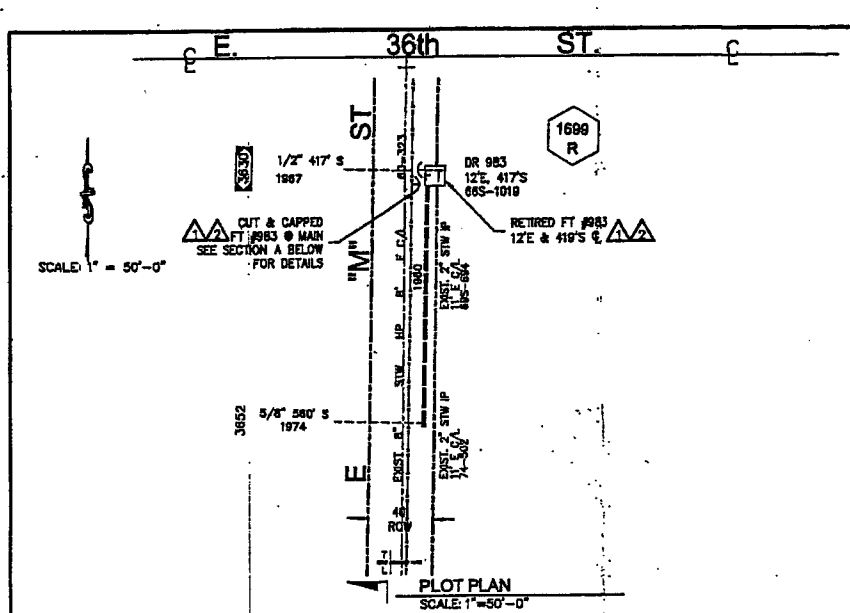
SEE PAGE 1/3 FOR
 NOTES FOR REV #1
 JOB # 9418599

MATERIAL LIST JOB # 9418599
 U.S. 1" M.P. (MATERIAL RELIEF)

QTY	DESCRIPTION	UNIT	PRICE	TOTAL
1	2" BALL KIT # 88989		80.00	80.00
1	1/2" TREADED BALL		12.00	12.00
1	1/2" BALL KIT # 88989		80.00	80.00
1	1/2" TREADED BALL		12.00	12.00

BILL OF MATERIALS
 ORDER #108527261
 WASHINGTON NATURAL GAS COMPANY
 DIVISION SOUTHERN AREA Tacoma
 DISTRICT REGULATOR #288 AT
 E M ST & E 40 ST
 TACOMA

REV	DESCRIPTION	BY	CHK	ENGR	DATE	NO.	ISSUED	MA	W	APPR.	DATE
1	RETIRE EXIST. DR #288 PER ORDER #108527261	EB	W	12/11/63							
2	AS INSTALLED ORIG. JOB										



RETIREMENT NOTES: ORDER #108526084

- SCOPE OF JOB: RETIRE EXISTING FARM TAP #983 DUE TO THE SALISHAN UPRATE. INSTALL *PRE-TESTED CAP, RETURN ALL SALVAGEABLE PARTS TO STORE. INSTALL 2" NPE # MAIN PER ORDER 109022094.
- ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY (PSE) GAS OPERATING STANDARDS.
- PSE SERVICE PROVIDER TO FILL VALVETS WITH SAND OR CUT-BLIT AND REMOVE VAULT AS APPLICABLE PER LOCAL MUNICIPAL REQUIREMENT.
- FIELD TO VERIFY WELD TIE-IN SIZE, AND MATCH WELD CAP ACCORDINGLY. PSE PRESSURE REVISED PER UPRATE 108018567, DRAWING DOES NOT EXIST. REFER TO PSE ENGINEER JEFF WEAVER @ 425-482-3813 FOR ANY QUESTIONS.

PRE-TESTED WELD CAP NOTE:

- SCOPE: PRE-TESTING OF WELD CAPS SMALLER THAN 6 INCHES IN DIAMETER FOR HIGH PRESSURE INSTALLATIONS ON MAINS AND SERVICES OPERATING BELOW 20% SAYS.
- WELD CAPS SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES AT 100 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5.
- WELD CAPS SHALL BE STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5. USE FORM 1928 'REPORT OF PRESSURE TEST ON NEW MAIN' TO DOCUMENT TEST PRESSURE WHILE PRE-TESTING WELD CAPS.
- LEAK TEST THE TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.8.1.

NOTES FOR ORDER 887024719

- ALL CONSTRUCTION TO CONFORM TO ALL PSE GAS STANDARDS AND GAS PROCEDURES.
- CALL 1-800-424-5555 OR 811 TWO WORKING DAYS PRIOR TO CONSTRUCTION TO LOCATE UNDERGROUND UTILITIES.
- FIELD PERSONNEL SHALL RECORD THE MANUFACTURER NAME, MODEL NUMBER, AND SIZE OF THE TIE-IN FITTING ON THE AS-BUILT. IN ADDITION TO RECORDING THIS INFORMATION ON THE AS-BUILT, FIELD PERSONNEL SHALL CALL THE PSE PROJECT ENGINEER (DEREK KOO AT 206-398-9633 AND REPORT THIS INFORMATION.
- FIELD PERSONNEL SHALL CONFIRM REINFORCEMENT ON THE TIE-IN FITTING.
 - IF A REINFORCEMENT PAD WAS INSTALLED AT THE TIE-IN FITTING, FIELD PERSONNEL SHALL RECORD THE DIMENSIONS OF THE REINFORCEMENT PAD (PAD DIAMETER AND PAD THICKNESS) ON THE AS-BUILT.
 - IF A WELD-O-LET WAS INSTALLED AT THE TIE-IN FITTING, FIELD PERSONNEL SHALL RECORD THE WELD-O-LET INFORMATION ON THE AS-BUILT.
- FIELD PERSONNEL SHALL TAKE PHOTOGRAPHS OF THE TIE-IN FITTING AND ACTIVE STUB. THIS IS TO RECORD THE CONDITION OF FACILITY. THESE PHOTOGRAPHS SHALL BE SUBMITTED TO THE PROJECT ENGINEER (DEREK KOO, EST 04W OR DEREK.KOO@PSE.COM), AS SOON AS POSSIBLE.
- FIELD PERSONNEL SHALL PERFORM THE FOLLOWING TASKS WHEN APPLICABLE. IF THERE ARE ANY QUESTIONS, CONTACT THE PROJECT ENGINEER.
 - IF A DRESSER STREET TEE (THE DRESSER COUPLING IS PART OF THE SERVICE TEE) IS FOUND, FIELD PERSONNEL SHALL RETIRE THE TEE WITH THE COUPLING BY INSTALLING A 2" SAVE-A-VALVE OVER IT. ALLOW A SMALL DETECTABLE GAS LEAK THROUGH THE TEE WHILE WELDING THE SAVE-A-VALVE ONTO THE MAIN, SO THE SAVE-A-VALVE WILL BE PRESSURIZED AFTER THE INSTALLATION. THE SAVE-A-VALVE SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES AT 100 PSIG AND STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.3300.
 - IF A DRESSER FITTING IS FOUND DOWNSTREAM OF THE SERVICE TEE, FIELD PERSONNEL SHALL REMOVE THE DRESSER FITTING COMPLETELY AND INSTALL A SOCKET-WELD CAP.
- FIELD PERSONNEL SHALL CONFIRM IF THE ORIGINAL STUB TO THE RETIRED STATION IS STILL INTACT AND ACTIVE. IF SO, TEST THE ORIGINAL STUB IN ACCORDANCE TO TESTING PROCEDURE (INLET PIPING RETEST FOR RS-0983, RS-1306, RS-1371, RS-1404, RS-1472, RS-1559, RS-1573 AND RS-1877 SALISHAN UPRATE) PROVIDED BY GAS SYSTEM ENGINEERING.
- FORM 1928 'REPORT OF PRESSURE TEST ON NEW MAIN' SHALL BE USED TO DOCUMENT TEST PRESSURE INFORMATION.
- LEAK TEST THE TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300.
- EROSION & SEDIMENT CONTROL SHALL BE PER PSE STANDARD PRACTICE 0150.3200 TECHNIQUES FOR TEMPORARY EROSION AND SEDIMENT CONTROL AND ANY ADDITIONAL LOCAL JURISDICTION REQUIREMENTS.

SAP ORDER TREE
 887024719 - SUPERIOR ORDER NUMBER FOR SALISHAN HP UPRATE 2011
 887028101 - CONFIRMATION DIG-UP @ RS-0983

FITTER'S CHECKLIST (CHECK BOX TO CONFIRM COMPLETION)

- INSPECTED STEEL AND PE PIPE PER GOS 2450.1400 AND 2450.1500.
- REVIEWED AND COMPLIED WITH ALL CONSTRUCTION NOTES.
- RECORDED ALL REQUIRED INFORMATION ON THE AS-BUILT PER GOS 2500.1700.
- COMPLETED POST INSTALLATION INSPECTION PER GOS 2525.1200 AND 2525.2700.
- LEFT THE WORK AREA IN A CLEAN AND SAFE CONDITION.

FOREMAN'S SIGNATURE: *[Signature]*
 FOREMAN'S NAME (PRINTED): *[Name]*
 COMPANY: *[Company]* DATE: *[Date]*

4880 08/11

REV	DATE	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE
1		RETEST REMAINING INLET PIPING. SEE ORDER 887028101.						08/16/2011
2		AS-INSTALLED 108526084.	RN	SE	N/A	N/A	N/A	08/16/2011
3		RETIRE EX FT #983 PER ORDER #108526084.	EB	RN	SS	JW	DN	11/21/2005
4		DRAWING 88-1019 CREATED FROM STANDARD DRAWING 3000-193. ORIGINAL DRAWING NEVER EXISTED.	DFH	N/A	N/A	N/A	N/A	01/12/2005

ITEM	QTY	DESCRIPTION	PART NO
52			
51			
50			
49			
48			
47			
46			
45			
44			
43			
42			
41			
40		NO MATERIALS REQUIRED FOR THIS JOB	

BILL OF MATERIALS

ITEM	QTY	DESCRIPTION	PART NO
39			
38			
37			
36	0	1" WELD CAP (PRE-TESTED)	5200608
35	1	PLUG, 2" WELD	5200602
34	1	3/4" PRE-TESTED WELD CAP	5200556
33			
32			
31			
30			

BILL OF MATERIALS

ACT.#	DESCRIPTION	PART NO
23	PRIMER 70 B	56-00620
22	1/8" X 4" THREADED NIPPLE	56-00025
21	1/8" X 2" THREADED NIPPLE	56-00015
20	1/4" THREADED PLUG	72-00008
19	1/4" X 2" THREADED NIPPLE	68-00055
18	1/4" X 2" THREADED NIPPLE	68-00065
17	3/4" X 300' INSULATED BOLT KIT	50-00001
16	3/4" X 300' WELD NECK FLANGE	64-00040
15	1/4" NEEDLE VALVE	56-00320
14	3/4" X 30" STEEL VAULT W/PH LID	85-00795
13	1/2" X 80' THREADED ELL	68-00010
12	1" ST. PIPE WRAPPER	70-00140
11	1" CURB VALVE TEE H17812	78-00682
10	6" ST. PIPE BAR	70-00130
9	1" X 90' WELD ELK STD.	60-00255
8	1" X 300' SECURITY ASO, SET @ PSIG	56-00535
7	1" X 2" THREADED NIPPLE	68-00410
6	1" FISHER REGULATOR NO. 821 W/ 1/8"	74-00197
5	ORICICE SET @ PSIG	68-00435
4	1" X 1/2" THREADED NIPPLE (CUT IN HALF)	78-00680
3	1" CURB VALVE TEE H17800	66-00940
2	6" PROTECTOWRAP	66-00950
1	TEE, AUTOPERF, 3/4" X 1", H-18101	86-00820

GAS MAIN PRESSURE AND TESTING

TEST TYPE SOAP AIR NITROGEN WATER

DATE ON: / / START TIME: : : TESTED BY: _____

DATE OFF: / / STOP TIME: : : PRESSURE: _____

TEST RESULTS: P F

RECEIVED
 JAN 9 2012
 Maps & Records
 CONSTRUCTION

PROJECT MANAGER CONTACT INFO

MOLLY REED
 425-214-8884 CELL PHONE
 MOLLY.REED@PSE.COM EMAIL

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

FUNCTION	NAME	PHONE	DATE
PROJECT MGR	D NARO	(206) 396-8761	9/25/05
ENGINEER	J WEBB	(425) 462-3813	
DRAWN BY	E BROWN	253 841-8271	11/02/05
CHECKED BY	E CORCORO	(425) 462-3818	

APPROVED BY: J. BATINOVICH 253 405-4951

UTILITY CONTACT PHONE: _____

FARM TAP #983
 3630 E "M" ST
 TACOMA

SAP ORDER NUMBER: 887024719
 DWG NUMBER: 68-1019
 SCALE: 1-1/2" = 1'

CALL (800) 424-5555 2 BUSINESS DAYS BEFORE YOU DIG
 PLOTTED BY: molen 08/17/11 12:10PM
 Data Vega V5000-0889 0889366-1019_01_03.dwg



PLOT PLAN
SCALE: NONE

RETIRED FT-1031
SEE SHEET 2
FOR DETAILS

NOTES FOR 887024719

- ALL CONSTRUCTION TO CONFORM TO ALL PSE GAS STANDARDS AND GAS PROCEDURES.
- CALL 1-800-424-5555 OR 811 TWO WORKING DAYS PRIOR TO CONSTRUCTION TO LOCATE UNDERGROUND UTILITIES.
- FIELD PERSONNEL SHALL RECORD THE MANUFACTURER NAME, MODEL NUMBER, AND SIZE OF THE TIE-IN FITTING ON THE AS-BUILT. IN ADDITION TO RECORDING THIS INFORMATION ON THE AS-BUILT, FIELD PERSONNEL SHALL CALL THE PSE PROJECT ENGINEER (DEREK KOO AT 206-386-9633 AND REPORT THIS INFORMATION.
- FIELD PERSONNEL SHALL CONFIRM REINFORCEMENT ON THE TIE-IN FITTING.
 - IF A REINFORCEMENT PAD WAS INSTALLED AT THE TIE-IN FITTING, FIELD PERSONNEL SHALL RECORD THE DIMENSIONS OF THE REINFORCEMENT PAD (PAD DIAMETER AND PAD THICKNESS) ON THE AS-BUILT.
 - IF A WELD-O-LET WAS INSTALLED AT THE TIE-IN FITTING, FIELD PERSONNEL SHALL RECORD THE WELD-O-LET INFORMATION ON THE AS-BUILT.
- FIELD PERSONNEL SHALL TAKE PHOTOGRAPHS OF THE TIE-IN FITTING AND ACTIVE STUB. THIS IS TO RECORD THE CONDITION OF FACILITY. THESE PHOTOGRAPHS SHALL BE SUBMITTED TO THE PROJECT ENGINEER (DEREK KOO, EST 04W OR DEREK.KOO@PSE.COM), AS SOON AS POSSIBLE.
- FIELD PERSONNEL SHALL PERFORM THE FOLLOWING TASKS WHEN APPLICABLE IF THERE ARE ANY QUESTIONS, CONTACT THE PROJECT ENGINEER.
 - IF A DRESSER STREET TEE (THE DRESSER COUPLING IS PART OF THE SERVICE TEE) IS FOUND, FIELD PERSONNEL SHALL RETIRE THE TEE WITH THE COUPLING BY INSTALLING A 2" SAVE-A-VALVE OVER IT. ALLOW A SMALL DETECTABLE GAS LEAK THROUGH THE TEE WHILE WELDING THE SAVE-A-VALVE ONTO THE MAIN, SO THE SAVE-A-VALVE WILL BE PRESSURIZED AFTER THE INSTALLATION. THE SAVE-A-VALVE SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES AT 100 PSIG AND STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.3300.
 - IF A DRESSER FITTING IS FOUND DOWNSTREAM OF THE SERVICE TEE, FIELD PERSONNEL SHALL REMOVE THE DRESSER FITTING COMPLETELY AND INSTALL A SOCKET-WELD CAP.
- FIELD PERSONNEL SHALL CONFIRM IF THE ORIGINAL STUB TO THE RETIRED STATION IS STILL INTACT AND ACTIVE. IF SO, TEST THE ORIGINAL STUB IN ACCORDANCE TO TESTING PROCEDURE (INLET PIPING RETEST FOR RS-1031, RS-1327, RS-1480, AND RS-1888 SALISHAN UPRATE) PROVIDED BY GAS SYSTEM ENGINEERING.
- FORM 1928 'REPORT OF PRESSURE TEST ON NEW MAIN' SHALL BE USED TO DOCUMENT TEST PRESSURE INFORMATION.
- LEAK TEST THE TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300.
- EROSION & SEDIMENT CONTROL SHALL BE PER PSE STANDARD PRACTICE 0150.3200 TECHNIQUES FOR TEMPORARY EROSION AND SEDIMENT CONTROL AND ANY ADDITIONAL LOCAL JURISDICTION REQUIREMENTS.

NOTES PER SUBORD. #108519706

- SCOPE OF JOB: RETIRE DR #1031 WITH PRETESTED CAP. CURRENT OPERATING PRESSURE IS 25 PSIG. PRESSURE INCREASE TO 45 PSIG AND TIE-OVER TO EX. 2" IP MAIN, SEE DRAWING 10001888.
- RETURN ALL SALVAGABLE PARTS TO STORES.
- FIELD LOCATE UTILITIES CALL 48 HOURS PRIOR TO CONSTRUCTION 1-800-424-5555.
- PLUG ENDS OF DEACTIVATED MAIN WITH FROTH PAK OR CONCRETE.
- FILL VAULT WITH SAND.
- PUGET SOUND ENERGY CONTACT LIST:
PROJECT ENGINEER: EUGENE DENISOV AT 425-482-3881 OR CELL 206-256-8166.
CORROSION ENGINEER: ALAN MULKEY AT 425-482-3888
PRESSURE CONTROL: BILL WOODEN AT 206-571-2347
CORROSION TECHNICIAN: DAVE WOOTEN AT 206-571-6144.
- PILCHUCK CONTACT LIST:
DAVID NARO AT (206) 418-4233, CELLULAR (425) 290-2878
- THIS JOB TO BE DONE IN CONJUNCTION WITH 2" MAIN EXTENSION, PER SAP #108018888.
- REFERENCE DRAWING:
2" MPE IP MAIN EXTENSION SAP JOB, 108018888, SPECIFIC DRAWING N/A

PRE-TEST HIGH PRESSURE WELD CAPS

- SCOPE: PRETESTING OF WELD CAPS SMALLER THAN 6" IN DIAMETER FOR HIGH PRESSURE INSTALLATIONS ON MAINS AND SERVICES OPERATING BELOW 20% SAYS AND A MAOP OF 300 PSIG OR LESS.
- WELD CAPS SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES AT 100 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5.1.
- WELD CAPS SHALL BE LEAK TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5.3. USE FORM 1928 'REPORT OF PRESSURE TEST ON NEW MAIN' TO DOCUMENT TEST PRESSURES WHILE PRETESTING WELD CAPS.
- LEAK TEST THE TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5.1.

NOTES

- PAINT ALL EXPOSED PIPING WITH ONE COAT PRIMER AND TWO COATS OF GOOD GRADE GRAY ENAMEL.
- THIS DRAWING REPLACES DRAWINGS OF THE SAME NUMBER DATED 1-15-85 AND 5-13-81
- AIR TEST INLET PIPING TO POUNDS. AIR TEST OUTLET PIPING TO PSIG PER OPERATING STANDARD 6.14
- SEE DWG 3D-414 FOR VAULT DETAILS.

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM PO = NON STOCK ITEM CR = CONTRACTOR WILL PROVIDE ITEM ORDER #887025762			
ITEM	QTY	DESCRIPTION	PART NO
45			
44			
43			
42	1	NIPPLE, 2" SAV-A-VALVE, H-17491	8700841
41	1	CAP, 1" X 0.179", CLASS 3000, SOCKET-WELD	9997800
40	1	CAP, 3/4" X 0.164", CLASS 3000, SOCKET-WELD	9997799

BILL OF MATERIALS			
ITEM	QTY	DESCRIPTION	PART NO
41		RETIRE DR #1031 PER SUB ORD #108522397	
39			
38			
37			
36			
35	1	3/4" STL WELD CAP (PRETESTED CAP, 450 PSIG)	52-00558
34			
33			
32			
31			
30			
29			
28			
27			
26			
25			
24		ACT # ORDER # (SINGLE FISHER 621)	
23			
22			
21	1	1/4" X 2" THREADED NIPPLE	68-00065
20	2	1/4" PETERS PLUG NO 100	72-00010
19	2	1/4" THREADED COUPLING	58-00020
18	1	1" X 90° WELD ELL STD.	78-00870
17	2	1/4" X 2" THREADED NIPPLE	68-00065
16	1	1/4" X 90° THREADED ELL	80-00030
15	1	1" X 3" THREADED NIPPLE	68-00430
14	1	36" X 36" X 24" STEEL VAULT WITH LID	85-00795
13	2	1" STL PIPE WRAPPED	70-00140
12	1	3/4" AUTO-PERF TEE W/ INDI W/5/16" TAP	78-00592
11	1	1" METER VALVE H1175	56-00150
10	1	1" X 4" THREADED NIPPLE	68-00455
9	1	1" X 90° WELD ELL STD.	60-00255
8	1	1" X 300" SECURITY ASD, SET @ PSIG	56-00535
7	1	1" X 2" THREADED NIPPLE	68-00410
6	1	1" FISHER REGULATOR NO. 621 W/ 1/8" ORIFICE, SET @ PSIG	74-00197
5	2	1" X 4" THREADED NIPPLE (CUT IN HALF)	68-00455
4	1	1" CURB VALVE TEE H17800	78-00860
3			
2			

GAS MAIN PRESSURE AND TESTING			
TEST TYPE	SOAP	AIR	NITROGEN
DATE ON	START TIME	STOP TIME	TESTED BY
DATE OFF	START TIME	STOP TIME	TESTED BY
PRESSURE	TEST RESULTS	P	F
TEST TYPE	SOAP	AIR	NITROGEN
DATE ON	START TIME	STOP TIME	TESTED BY
DATE OFF	START TIME	STOP TIME	TESTED BY
PRESSURE	TEST RESULTS	P	F
DESIGN PRESS	SYSTEM MAOP		

FITTER'S CHECKLIST (CHECK BOX TO CONFIRM COMPLETION)

- INSPECTED STEEL AND PE PIPE PER GOS 2450.1400 AND 2450.1500.
- REVIEWED AND COMPLIED WITH ALL CONSTRUCTION NOTES.
- RECORDED ALL REQUIRED INFORMATION ON THE AS-BUILT PER GOS 2500.1700.
- COMPLETED POST INSTALLATION INSPECTION PER GOS 2525.1200 AND 2525.2700.
- LEFT THE WORK AREA IN A CLEAN AND SAFE CONDITION.

FOREMAN'S SIGNATURE: *Bill Jackson*
 FOREMAN'S NAME (PRINTED): Bill Jackson
 COMPANY: JPS DATE: 1-20-11
 4880 06/11

PROJECT MANAGER CONTACT INFO:
 MOLLY REED
 425-214-8884 Cell Phone
 MOLLY.REED@PSE.COM Email

SAP ORDER TREE
 887024719 - SUPERIOR ORDER NUMBER FOR SALISHAN HP UPRATE 2011
 887025762 - CONFIRMATION DIG-UP @ RS-1031

CONFIRMATION DIG-UP PER SAP ORDER	REV	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE
887025762								
MOVED PLAN & ELEVATION VIEWS TO NEW SHEET 2, AS-INSTALLED 108522397	RN	SF	N/A	N/A	N/A			08/02/2011

CREATED THIS DWG FOR A RECORD. NAME WAS CHANGED FOR THE INSTALLATION OF FT #1031. TO BE RETN. PER SAP #108522397. SUPERIOR #108018888 MAIN TO BE EXTENDED AND TIE-OVER TO ANOTHER SYSTEM PER DWG #108018888.

NO.	DESCRIPTION	DATE	BY	PM	ENGR	APPR

REVISIONS

STANDARD DRAWING
 STANDARD FARM TAP
 SINGLE FISHER 621 (BURIED)

REPLACES: G. BROWN 12/21/98 3D-193

RECEIVED
 JAN 13 2012
 Maps & Records

AS BUILT INFORMATION

FITTER OR CONTRACTOR: _____ COORDINATOR: _____

DATE COMPLETED: _____ PERCENT COMPLETED: _____

TEST

TYPE OF TEST: PRESSURE
 DATE ON: _____ TIME ON: _____
 DATE OFF: _____ TIME OFF: _____
 TYPE OF PIPE: _____ MATERIAL: _____ TOTAL FOOTAGE: _____

PIPE MANUFACTURER: _____ TESTED BY: _____

OP MAP: 240.082
 PLAT: 243.082
 1/4 SEC SW 10-20-03

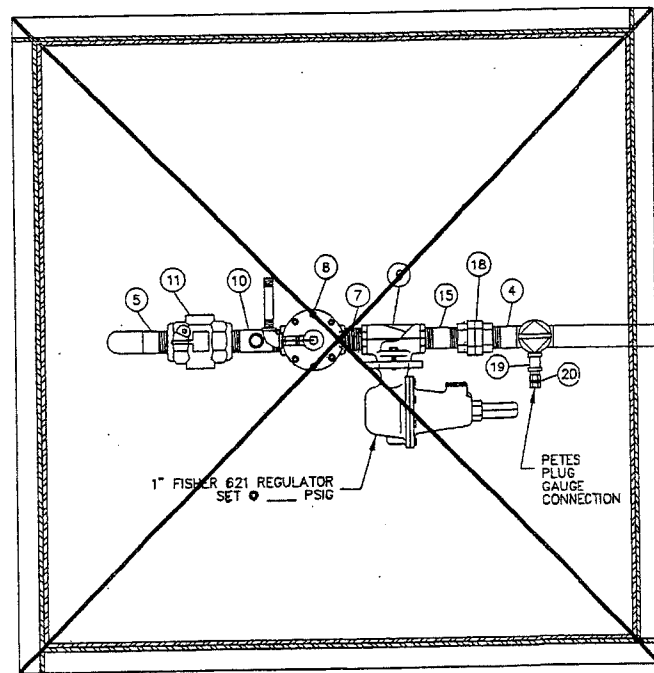
WORK AREA

PROPOSED MAIN FOOTAGE: _____ EMERGENCY SEC. NO.: 41

DESIGN PRESSURE: _____ PSIG
 SYSTEM MAOP: _____ PSIG
 PERMITS: _____

RETIRE FT #1031
 1320 HARRISON ST TACOMA WA
 887025762

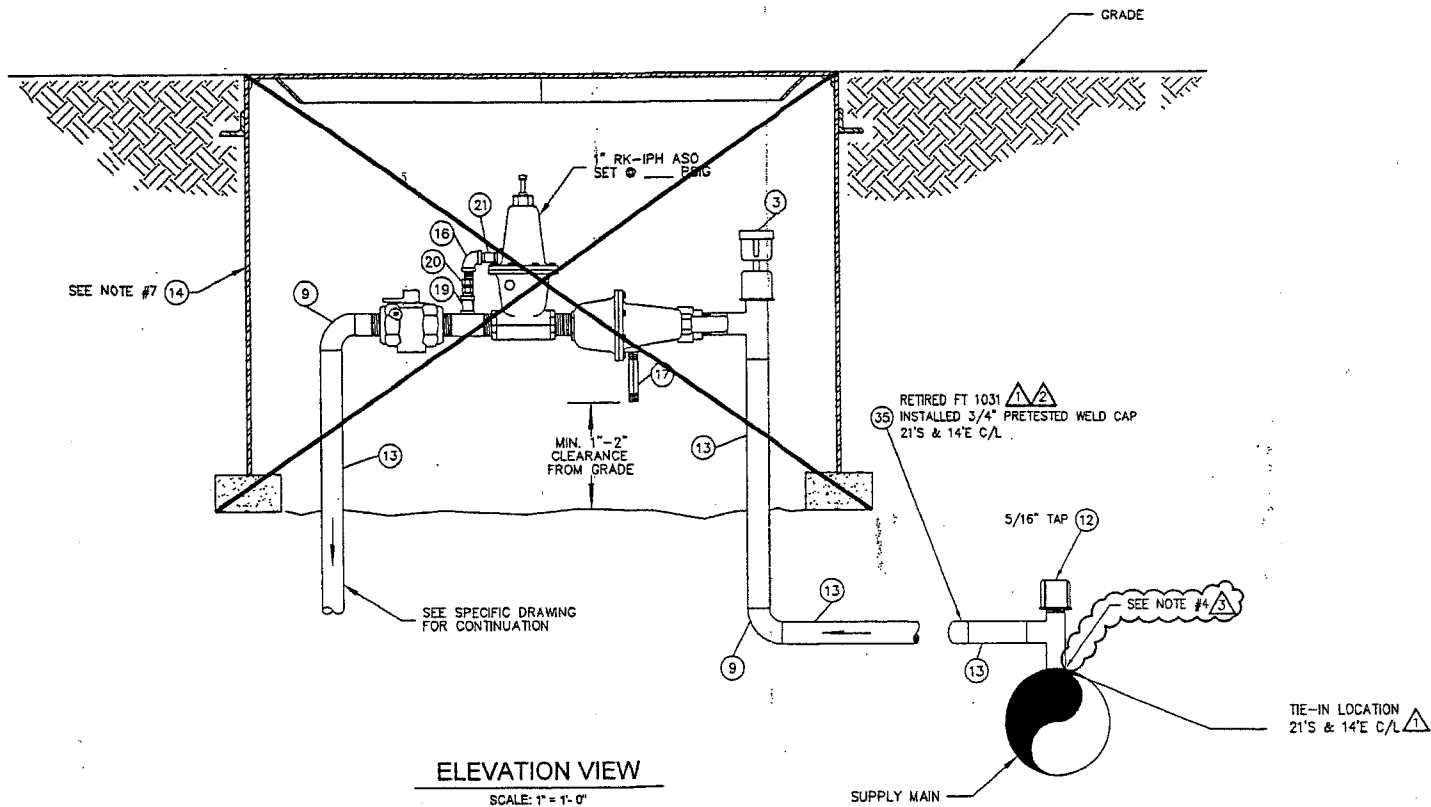
DRAWN: J.M.A.M. 07/01/04 JOB NO. SAP #887024719
 CHECKED: D.N.A.R.O. DRAWING NO. RS-1031
 APPROVED: EUGENE DENISOV



PLAN VIEW

SCALE: 1" = 1'-0"

VERIFY TIE-IN FITTING
 SIZE: 3/4
 MANUFACTURER: Mueller
 MODEL: Auto Seal



ELEVATION VIEW

SCALE: 1" = 1'-0"

FITTER'S CHECKLIST (CHECK BOX TO CONFIRM COMPLETION)

- INSPECTED STEEL AND PE PIPE PER GOS 2450.1400 AND 2450.1500.
- REVIEWED AND COMPLIED WITH ALL CONSTRUCTION NOTES.
- RECORDED ALL REQUIRED INFORMATION ON THE AS-BUILT PER GOS 2500.1700.
- COMPLETED POST INSTALLATION INSPECTION PER GOS 1525.1200 AND 2525.2700.
- LEFT THE WORK AREA IN A CLEAN AND SAFE CONDITION.

FOREMAN'S SIGNATURE: *Bill Watkins*
 FOREMAN'S NAME (PRINTED): Bill Watkins
 COMPANY: J.E.S. DATE: 9-21-11

4680 08/11

GAS MAIN PRESSURE AND TESTING				
TEST TYPE	<input type="checkbox"/> SOAP	<input type="checkbox"/> AIR	<input type="checkbox"/> NITROGEN	<input type="checkbox"/> WATER
DATE ON	///	START TIME		TESTED BY
DATE OFF	///	STOP TIME		
PRESSURE		TEST RESULTS	<input type="checkbox"/> P	<input type="checkbox"/> F
TEST TYPE	<input type="checkbox"/> SOAP	<input type="checkbox"/> AIR	<input type="checkbox"/> NITROGEN	<input type="checkbox"/> WATER
DATE ON	///	START TIME		TESTED BY
DATE OFF	///	STOP TIME		
PRESSURE		TEST RESULTS	<input type="checkbox"/> P	<input type="checkbox"/> F
<input checked="" type="checkbox"/> TESTED BY PSE PRESSURE CONTROL SEE FORM 1928				
DESIGN PRESS		SYSTEM MAOP		

PROJECT MANAGER CONTACT INFO:
 MOLLY REED
 425-214-6684 Cell Phone
 MOLLY.REED@PSE.COM Email

CONFIRMATION DIG-UP PER SAP ORDER	NO.	DESCRIPTION	DATE	BY	PM	ENGR APP'D
87025762			11/7/2011			
PROPOSED PLAN & ELEVATION VIEWS TO NEW SHEET 2 AS-INSTALLED 108522397			06/02/2011			

REVISIONS		
NO.	DESCRIPTION	DATE
1	CREATED THIS DWG FOR A RECORD. ONE WAS CREATED FOR THE INSTALLATION OF T #1031. TO BE RETR. PER SAP #108522397. SUPERIOR #10901889. MAIN TO BE EXTENDED AND TIED-OVER TO ANOTHER SYSTEM PER DWG #10848899.	
2	REPLACES:	
	C. BROWN	12/3/98

PSE PUGET SOUND ENERGY

OP MAP: 240.062
 PLAT: 243.062
 1/4 SEC SW 10-20-03
 WORK AREA

PROPOSED MAIN FOOTAGE: EMERGENCY SEC. NO.: 41

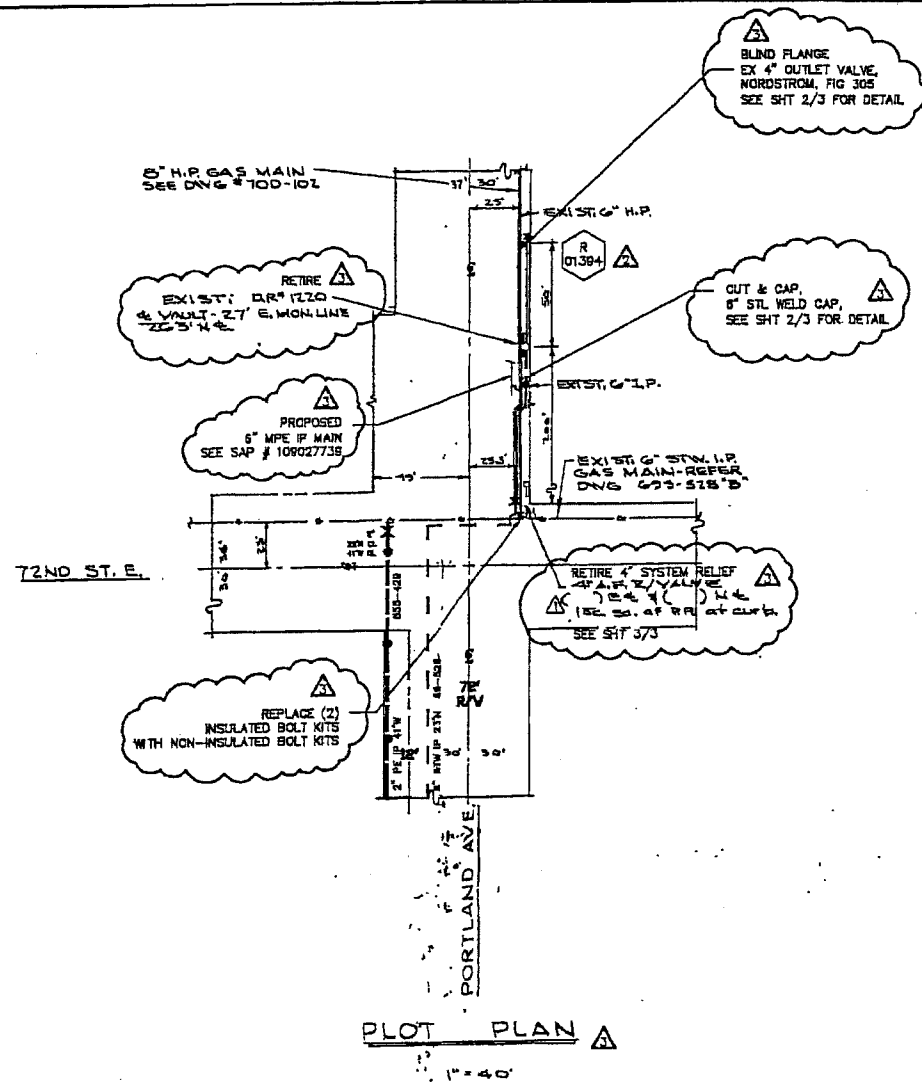
DESIGN PRESSURE: PSIG
 SYSTEM MAOP: PSIG
 PERMITS:

RETIRE FT #1031
 1320 HARRISON ST, TACOMA, WA

DRAWN: JM/AM 07/01/04 JOB-NO: SAP #108522397
 CHECKED: DN/AR
 APPROVED: EUGENE DENISOV

DRAWING NO: RS-1031

L:\Eng\Reg\1000-1489-1489\1031\RS_1031_SDI_R03.dwg-S02 - Plotted By: rnkcn 06/02/11 10:23AM



NOTES:

1. Paint all bare and exposed pipe and fittings with 2 coats of 11-30 RED LEAD primer and two coats of a good grey enamel.
2. Coat all underground joints and fittings with NO. 10 D-G-G-2 and wrap.
3. Contractor to supply all fittings 1" and smaller.
4. Install conc. post/s as req'd to protect vent stack.
5. This district regulator is designed to regulate 250,000 CFH at 35".
6. Where pipes pass thru vault walls use sonotube, allow 1/2" clearance between tube and pipe. Use grout as filler and grout with concrete between tube and pipe.
7. Strength test u.s. piping to 225 psig.
8. Bill Ridway to be notified for design of telemeter & booster installation.

- A. Two-way traffic on East Portland Ave. shall be maintained at all times.
 B. Traffic shall not be directed across the centerline.
 C. Working hrs. shall be from 8:00 am to 4 pm Mon. thru. Fri.
 D. All men, material and equipment including trucks shall not be utilized or stationed in such a manner as to interfere with two-way traffic.
 E. The contractor shall be bare or jack all curbs, driveways and sidewalk sections or (b) remove and replace in kind the curb, driveway apron, sidewalk or curb section at all joints. There shall be no saw cutting.

NOTES:

1. ALLOW NO MORE THAN 50' OF 4" PIPING (IN ADDITION TO FITTINGS) BETWEEN RELIEF VALVE AND MAIN. RUN THE CONTROL LINE FROM THE RELIEF VALVE TO THE MAIN.
2. ALLOW NO MORE THAN 90' OF 6" MAIN BETWEEN WHERE THE REGULATOR TIES IN AND WHERE THE RELIEF VALVE TIES IN.
3. NEW M.A.O.P. 45' ESTABLISHED W/UPDATING 5-19 (NO. 100)

CONSTRUCTION NOTES PER SAP #10852830

1. SCOPE OF JOB: RETIRE EXISTING PARITAP #1220 & EX RELIEF DUE TO UPRATE. INSTALL BLIND FLANGE ON INLET AND RELIEF TE-IN, AND PRE-TESTED CAP ON OUTLET TE-IN. RETURN ALL SALVAGEABLE PARTS TO STORE PER W/O #10852830.
 * RETIRE EX DR #1220 AFTER INSTALLING NEW DR #2687.
 * DR #1220 CANNOT BE TAKEN OFF LINE.
2. ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY (PSE) GAS OPERATING STANDARDS.
3. FIELD LOCATE UTILITIES. PSE SERVICE PROVIDER TO CALL UTILITIES UNDERGROUND LOCATION CENTER AT 1-800-424-8556 AT LEAST 2 WORKING DAYS PRIOR TO CONSTRUCTION.
4. PSE SERVICE PROVIDER TO FILL VAULTS WITH SAND OR CUT OUT AND REMOVE VAULT AS APPLICABLE PER LOCAL MUNICIPAL REQUIREMENT.
5. PSE SERVICE PROVIDER TO NOTIFY CORROSION CONTROL TECHNICIAN JOHN BATHMACH AT 253-405-4951 48 HOURS PRIOR TO RETIRING STATION.
6. NEW MATERIAL SHOWN SHIPPED AND CALLED OUT.
7. THIS JOB TO BE DONE IN CONJUNCTION WITH:
 * INSTALL DR #2687 SAP #109025043
 * 6" MPE MAIN REPLACEMENT SAP #108027739
 * RETIRE DR #1877 SAP #108528116
8. PUGET SOUND ENERGY CONTACT LIST:
 PROJECT ENGINEER: JEFF REEB AT 425-482-3813, CELL 208-398-9817.
 CORROSION ENGINEER: ALAN HULLKEY AT 425-482-3888, CELL 208-288-4034.
 PRESSURE CONTROL: PAUL BENCH AT 253-405-1820.
 CORROSION TECHNICIAN: JOHN BATHMACH AT 253-405-4951, STEVE JENSEN AT 206-571-7910.
9. PULCHICK CONTACT LIST:
 PROJECT MANAGER: DAVID WARD AT 425-892-6225 EXT 142, CELL 206-398-8781.

PRE-TESTED WELD CAP NOTE:

1. SCOPE: PRE-TESTING OF WELD CAPS SMALLER THAN 6 INCHES IN DIAMETER FOR HIGH PRESSURE INSTALLATIONS IN MAINS AND SERVICES OPERATING BELOW 2000 PSIG.
2. WELD CAPS SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES AT 100 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.2.
3. WELD CAPS SHALL BE STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.3, USE FORM 1928 "REPORT OF PRESSURE TEST ON NEW MAIN" TO DOCUMENT TEST PRESSURE WELD, PRE-TESTING WELD CAPS.
4. LEAK TEST THE TE-IN WELD WITH SOAP SLUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.4.1.

FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION
 COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP
 FIELD CHANGES RED-LINED ON AS-BUILT
 MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK
 ALL VALVE & TE-IN LOCATIONS NOTED ON AS-BUILT
 NOTE BEGINNING OF MAIN, EDM & LINE OF MAIN LOCATIONS
 SHOW ROPE LOCATIONS & CUL-DE-SAC RADII

FOREMAN'S NAME (PRINT): Jody T...
 FOREMAN'S SIGNATURE: [Signature]
 COMPANY: ACE DATE: Jan 27

REV	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE
1	RETIRE DR #1220 AND ITS RELIEF PER SAP #10852830	JMK	[initials]	[initials]	[initials]	[initials]	10-5-06
2	MOVED PLAN VIEW, SECTION A-A & SECTION B-B TO NEW SHEET #2. ALSO ADDED NEW SHEET #3 FOR RELIEF INSTALLED ON JOBS 825-352	RN	SF	N/A	N/A	N/A	07/20/2005
3	CHANGED RELIEF VALVE	J.C.P.	[initials]	[initials]	[initials]	[initials]	7/1/02

PREVIOUS JOB: 825-528
 PREVIOUS DR: 8508

CLASS: 3
 STYLE: 6
 TYPE: 1
 EMERG. SECT. # 41
 JOB NO: 825-352
 DR NO: 6M72 / RR 5J32
 INSTALLED:

ITEM	QTY	DESCRIPTION	PART NO
93			
92			
91			
90			
89	1	1" STL CAP	52-0068
88	1	1/2" STL CAP	52-0068
87	1	BOLT KIT 2" 5/8" FFVX (UNINSULATED)	50-0042
86	1	4" x 4" CLASS 150 BLIND FLANGE	44-0010
85	1	8" STL WELD CAP	52-0070
84	2	BOLT KIT 2" 5/8" FFVX (UNINSULATED)	50-0042
83	1	4" x 4" CLASS 150 BLIND FLANGE	44-0010
82	1	8" STL WELD CAP	52-0070
81	1	4" x 4" CLASS 150 BLIND FLANGE	44-0010

CALL OF MATERIALS FOR SAP #10852830, NET OR #1220

ITEM	QTY	DESCRIPTION	PART NO
80	2	2" BOLT KIT 2" 5/8" FFVX	500174
79	2	2" RIK T&S STRAINER 300"	41874
78	3	2" FLG-W.N. FF 300" STD	64104
77	10	4" PIPE-WLD-BARE	30465
76	1	4" 2" ELL-WLD-LR-90"	60710
75	1	4" ELL-WLD-LR-90"	60710
74	4	4" 2" RED-WLD	78500
73	1	CONC POST 6" x 12"	75295
72	30	WIRE-COPPER-BLK #10	78500
71	7	BOX-VALVE-ROAD-UPPER	50860
70	7	BOX-VALVE-ROAD-LOWER	50855
69	1	1/2" CPLG-BLK	58010
68	1	3/4" x 1/2" x 24" PLATE-STL	
67	1	LID-VAULT-STL-42"	66945
66	1	54" CONC VAULT	
65	3	1/4" PLUG-BLK	71008
64	3	1/4" VALVE-NEEDLE	56370
63	2	1/4" 3" NIP-BLK	68050
62	1	1/4" 3" NIP-BLK (CUT IN HAND)	68075
61	3	1/2" VALVE-BALL-44" TV	56341
60	4	4" BOLT KIT 4-13 FFV	30040
59	4	4" FLG-W.N. FF 150" STD	64360
58	2	4" VALVE-PLUG-FIG 143	56760
57	3	3/4" TEE-SERVICE 1-17560	78470
56	5	3/4" PIPE-WLD-WRAP	70080
55	1	4" CAP-EG-WEATHER	32708
54	1	2" ELL-WLD-LR-90"	60500
53	3	2" PIPE-WLD-WRAP	70280
52	1	2" CPLG-VIC-AULIC #710	28430
51	2	2" NIP-VIC-AULIC WLD #42	68830
50	4	2" FLG-W.N. FF 300" STD	64180
49	2	2" BOLT KIT 2-5 FFV	50010
48	1	2" VALVE-PLUG-FIG 143	56630
47	1	2" FISHER RELIEF VALVE-Z82-6302-S&T AT 60#	26645
46	3	2" BOLT KIT 2-5 FFVX	50011
45	2	2" REG. GROVE-50-896 C	74420

108025043 - NEW DR #2687 & RTU
 10852830 - RETIRE DR #1220
 108027739 - INSTALL 6" PE MAIN
 108531136 - RETIRE 2" PE MAIN
 892010059 - T/T SVCS

PREVIOUS JOB: 825-528
 PREVIOUS DR: 8508

CLASS: 3
 STYLE: 6
 TYPE: 1
 EMERG. SECT. # 41
 JOB NO: 825-352
 DR NO: 6M72 / RR 5J32
 INSTALLED:

ITEM	QTY	DESCRIPTION	PRICE
1	1	PROTECTOWRAP	6898
2	1	PROTECTOWRAP	6898
3	1	PRIMER 70 #	6138

BILL OF MATERIAL

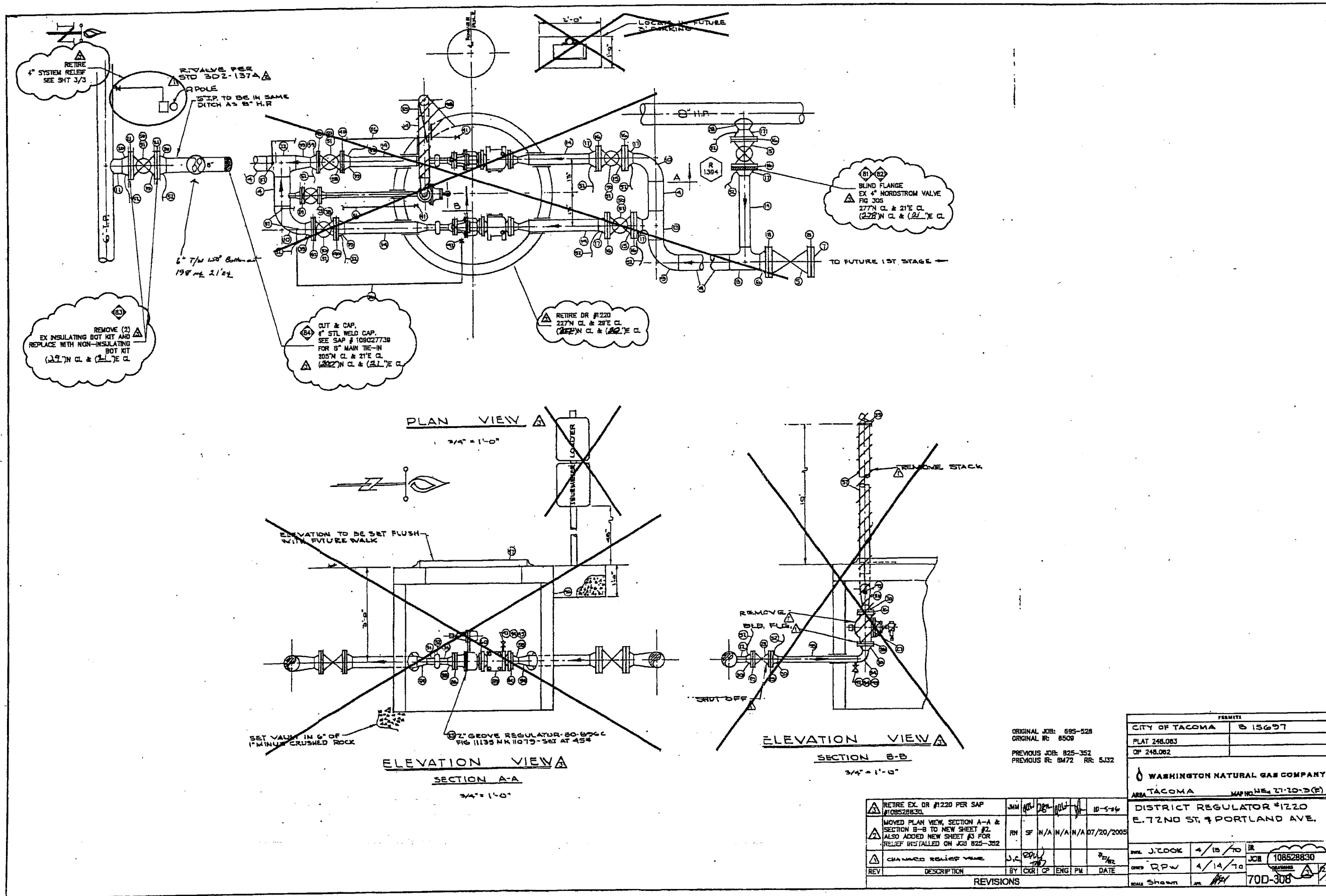
PERMITS:
 CITY OF TACOMA: 615697
 PLAT 248.063
 OP 248.082 ES 41

WASHINGTON NATURAL GAS COMPANY
 TACOMA MAP NO. 27-10-3(E)

DISTRICT REGULATOR #1220
 E. 72ND ST. & PORTLAND AVE.

DATE: 4/15/10 BY: J. LOCK
 DATE: 4/14/10 BY: RPW
 DATE: 7/10/10 BY: Shawn

JOB: 10852830
 70D-308

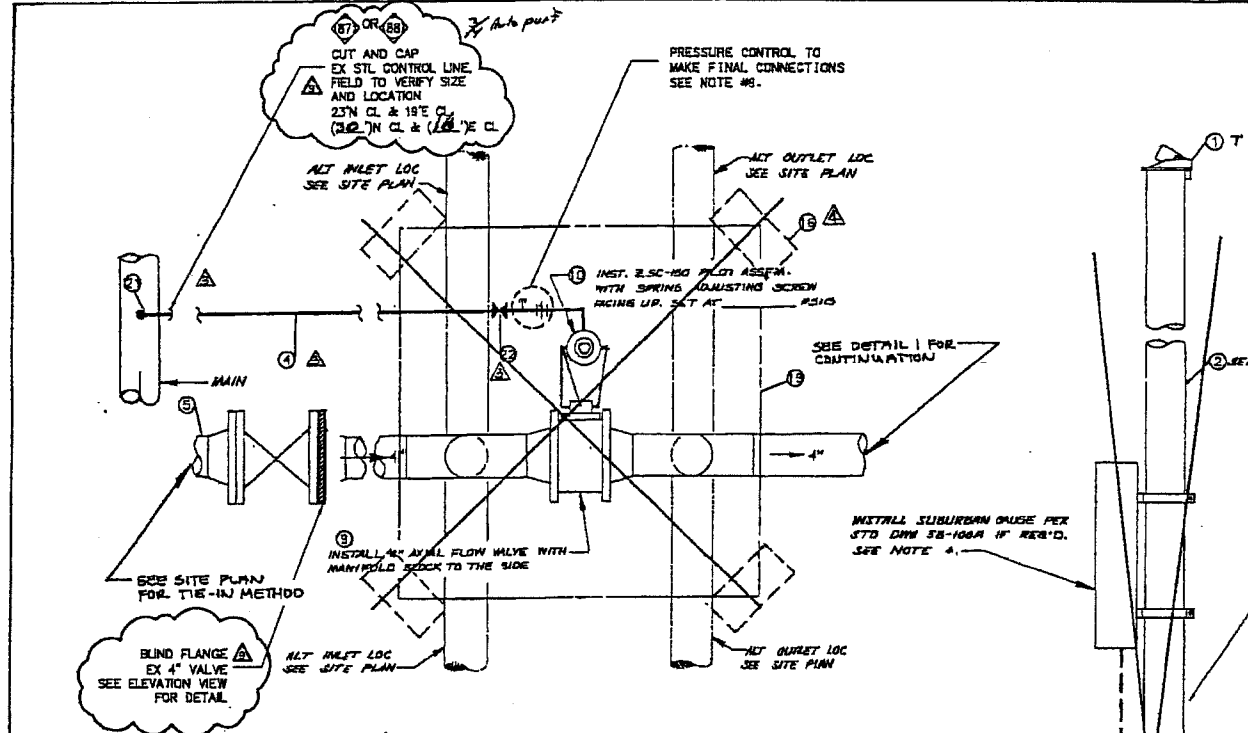


ORIGINAL JOB: 695-528
 ORIGINAL R: 8509
 PREVIOUS JOB: 825-352
 PREVIOUS R: 8472 RR: 5332

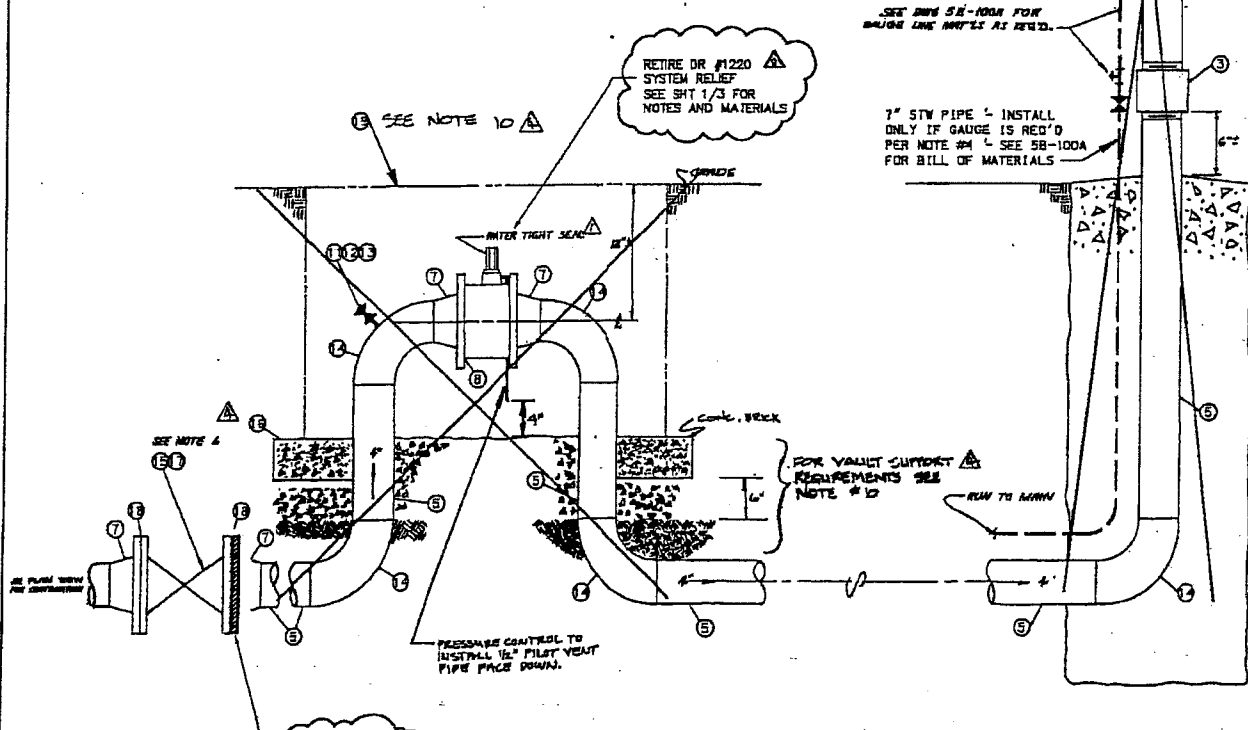
CITY OF TACOMA		515697
FLAT 248.083		
OP 248.082		
WASHINGTON NATURAL GAS COMPANY		
TACOMA MAP NO. 27-20-3(F)		
DISTRICT REGULATOR #1220		
E. 72ND ST. & PORTLAND AVE.		
BY J. COOK	4/15/10	IR
CHKD RPW	4/14/10	JCB 108528830
DATE SHOWN	4/14/10	70D-308

REV	DESCRIPTION	BY	CHKD	CP	ENG	PM	DATE
1	RETIRE EX. OR #1220 PER SAP #108528830	JMN	RPW				10-5-06
2	MOVED PLAN VIEW, SECTION A-A & SECTION B-B TO NEW SHEET #2. ALSO ADDED NEW SHEET #3 FOR RELIEF INSTALLED ON JOB 825-352	RV	SF	N/A	N/A	N/A	07/20/2005
3	CHANGED RELIEF VALVE	J.C.	RPW				7/2/02

P:\PSE_Plan\cd\Engineering\Approved_Construction\Mapa\1220_108528830\70D-308_502.dwg - 502_R03 - Plotted By: rmlon 05/29/06 12:54PM



PLAN VIEW
SCALE: 1/4" = 1'-0"



ELEVATION VIEW
SCALE: 1/4" = 1'-0"

- NOTES**
1. ALL CONSTRUCTION TO CONFORM TO P.S.E. STANDARDS
 2. TEST INSTALLATION TO 90 PSIG PER OP STD 6.14.
 3. SET RELIEF AT _____ PSIG.
 4. SUBURBAN GAUGE REQ'D? YES NO . IF YES INSTALL GAUGE PER STD DWG 302-100A & APPLICABLE VIEWS ON THIS SHEET. KEEP GAUGE LINE SEPARATE FROM CONTROL LINE.
 5. PAINT ALL EXPOSED PIPING WITH ONE COAT PRIMER & TWO COATS OF A GOOD GRAY ENAMEL.
 6. INSTALL UPSTREAM SHOT-OFF VALVE IN CONVENIENT LOCATION FOR OPERATING. SEE SITE PLAN FOR DETAILS.
 7. SOAP TEST TIE-IN CONNECTIONS AT OPERATING PRESSURE PER OPERATING STANDARD 6.14.
 8. VENT RISER TO BE A MINIMUM OF 5' FROM VAULT.
 9. RUN 3/4" CONTROL LINE TO MAIN. INSTALL NEXT TO PIPING FOR PROTECTION. LOCATION SHOWN IS FOR SCHEMATIC ONLY. ADDITIONAL FITTINGS MAY BE REQUIRED TO COMPLETE THE CONNECTION. KEEP CONTROL LINE SEPARATE FROM GAUGE LINE.
 10. VAULT TO BE SET ON CONCRETE BRICKS, ONE EACH CORNER, ON 1/2" OF 3/4" MINUS CRUSHED ROCK, ON SOIL WITH 75% COMPACTION.
 11. IF TIE-IN MAIN IS FE, INSTALL MAGNESIUM ANODE AS REQUIRED.

REV	QTY	DESCRIPTION	BILL OF MATERIAL	PART NO.
22	1	2" BALL VALVE 48117		9800382
21	1	3/4" SERVICE TEE N-(1730)		7800612
20	1	1/2" GALV. PIPE		7800642
19	1	24" X 36" X 24" ST'L VAULT WALL PER 302-114A		8500735
18	2	1" X 1000 HOSE-ING. BOLT KIT 15773V		5000042
17	1	4" X 1500 HOSE VALVE FIG. 143		3600780
16	4	2 1/2" X 4" X 8" CONC. BRICK		8500682
15	1	ROUND BOX - COMPLETE		3000370
14	2	4" X 8" WELD BLL		6000687
13	1	1/2" NEEDLE VALVE		3600320
12	1	1/2" X 3" BLK NIPPLE		8000084
11	1	1/2" BLK PLUG		7200008
10	1	AXIAL FLOW RELIEF VALVE PILOT ASSEMBLY		7400483
		250-150 PILOT B.C. SPIN 7141190Z		
		SET AT 75.0		
9	1	4" AXIAL FLOW VALVE BODY		7400485
8	1	4" BOLT KIT 1578E		3000184
7	1	4" X 1000 W.M. FLANGE		8400320
6	1	3" WHEATON ANODE		8800015
5	1	4" STW PIPE (TYP'D AS REF'D)		7000440
4	1	4" STW PIPE		7000080
3	1	4" FOR TANGLED COMP. LINE		7000220
2	1	4" BARE STEEL PIPE (TYP'D AS REF'D)		7000720
1	1	4" E.S. WEATHERHEAD COP		5200718

REV	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE
1	RETIRE DR #1220 & ITS RELIEF PER SAP 108528830.	JMM					07/20/2005
2	ADDED SHEET 3/3 FOR RELIEF INSTALLED ON JOB 825-352	RH	SF	N/A	N/A	N/A	07/20/2005
3	INSTALL NEW 4" A/F RELIEF PER ON JOB 825-352	JC					07/28/1982

STANDARD DRAWING
4" AXIAL FLOW SYSTEM RELIEF VALVE

DESIGNED BY: DWL D. RAEMER DATE: 3-14-78 STD. DWG. NO.: 302-137 A
 APPROVED BY: DATE: 3-14-78

REF. DWG'S:
302-114 (13'X3'X2' ST'L VAULT)
58-100A (SUBURBAN GAUGE STD)

CONVERTED TO CAD & REFORMATTED TO FIT BORDER

REVISE WHERE NOTED

ADDED VAULT SUPPORT (DETAIL 3) NOTE # 10

3/4" CONTROL LINE TO MAIN

CHG ITERRIM TO 1/2"

INSTALL UPSTREAM SHOT-OFF VALVE

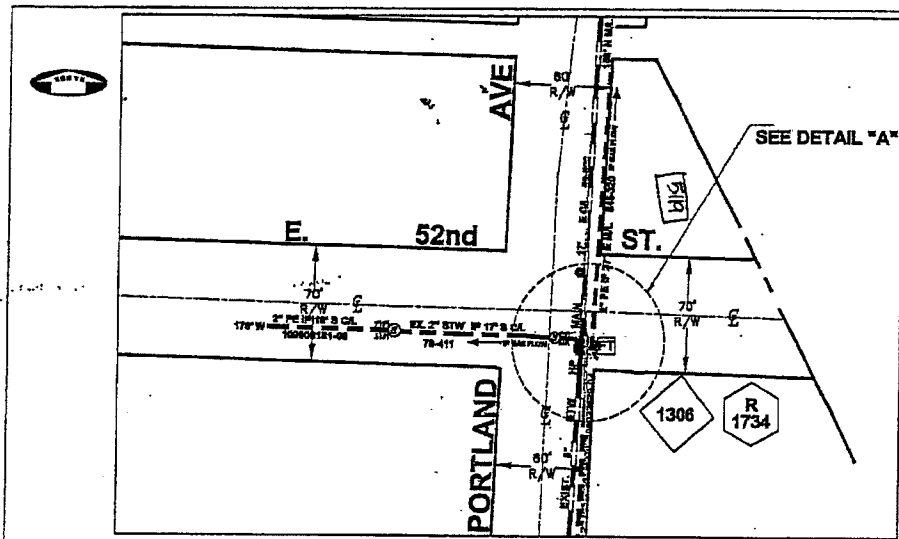
PERMITS: N BEC NE27-20-03
PLAT: 248.063
OP MAP: 248.082

FLUET
TACOMA MAP NO.

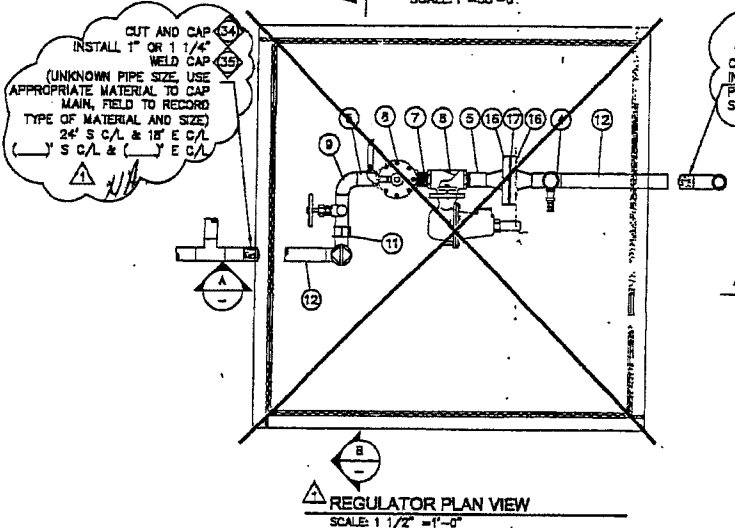
4" AXIAL FLOW RELIEF VALVE FOR D.R. #1220 E 72 ST & PORTLAND AVE, TACOMA

REVISED BY: JMM DATE: 7/28/82
 JOB # 108528830
 70D-308

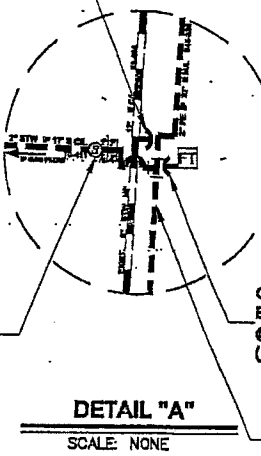
P:\595_Plichok_Engineering\Approved_Construction\Veiga\1220_108528830\70D-308.dwg - Layout1 - Plotted By: mkan 09/26/06 12:58PM



CUT & CAP
EXIST. FT. #1306 AT MAIN
18" E C/L () E C/L
RETIRE WITH MAIN



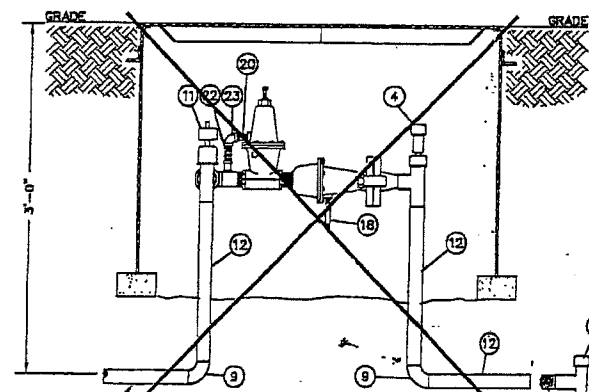
CUT & CAP,
INSTALL
PRE-TESTED WELD CAP
SEE SECTION A FOR DETAILS



SEE ORDER #109022629
FOR DETAILS & LOCATION

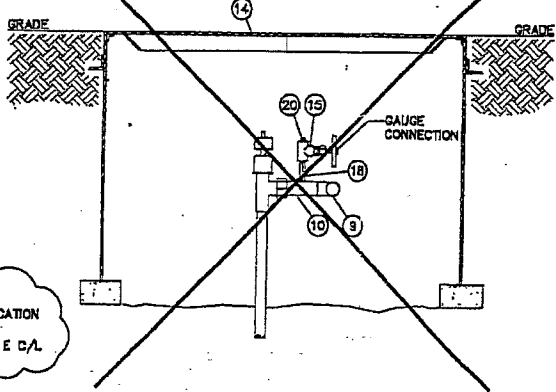
CUT & CAP
EXIST. FT. #1306 AT OUTLET
@ 27' E C/L & 23' S C/L
(15.7) E C/L & (23.7) S C/L

SEE EXIST. 2" MPE IP MAIN
ORDER #109022629
FOR DETAILS & LOCATION



5/16" TAP
VERIFY EXIST. TIE-IN
MATERIAL, SIZE, AND LOCATION
23' S C/L & 17' E C/L
(23.7) S C/L & (17.7) E C/L
(FIELD VERIFY)

3/4" AUTO TAP TEE



INSTALL
PRE-TESTED WELD CAP
23' S C/L & 18' E C/L
(23.7) S C/L & (18.7) E C/L
SEE CONSTRUCTION NOTE 6

SUPPLY MAIN,
8" STW HP MAIN
88-528
@ 17' E C/L

PREVIOUS JOB # 705-411
PREVIOUS IR # 6601-1

RETIREMENT NOTES: ORDER #108528096

- SCOPE OF JOB: RETIRE EXISTING FARM TAP 1306 DUE TO THE SALISHAN UPRATE. INSTALL *PRE-TESTED CAP. RETURN ALL SALVAGEABLE PARTS TO STORE.
- ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY (PSE) GAS OPERATING STANDARDS.
- FIELD LOCATE UTILITIES. PSE SERVICE PROVIDER TO CALL UTILITIES UNDERGROUND LOCATION CENTER AT 1-800-424-5555 AT LEAST 2 WORKING DAYS PRIOR TO CONSTRUCTION.
- PSE SERVICE PROVIDER TO FILL VAULTS WITH SAND OR CUT OUT AND REMOVE VAULT AS APPLICABLE PER LOCAL MUNICIPAL REQUIREMENT.
- PSE SERVICE PROVIDER TO NOTIFY CORROSION CONTROL TECHNICIAN LARRY O'NEIL AT (206) 377-1753, 48 HOURS PRIOR TO RETIRING STATION.
JOHN BOTAN 253-405-4751
- FIELD TO VERIFY INLET TIE-IN SIZE, AND MATCH WELD CAP ACCORDINGLY. INLET PRESSURE REVISED PER UPRATE 109018567, DRAWING DOES NOT EXIST. REFER TO PSE ENGINEER JEFF WEBB @ 425-462-3813 FOR ANY QUESTIONS.
- NEW MATERIAL SHOWN SHADED AND CALLED OUT.
- THIS JOB TO BE DONE IN CONJUNCTION WITH PROPOSED 2" & 6" MPE IP MAIN PER ORDER #109022628.
- PUGET SOUND ENERGY CONTACT LIST:
PROJECT ENGINEER: JEFF WEBB AT 425-462-3813, CELL 206-396-8817.
CORROSION ENGINEER: ALAN MULKAY AT 206-255-4034.
PRESSURE CONTROL: RICK FERDNER AT 206-396-9799.
CORROSION TECHNICIAN: LARRY O'NEIL AT 253-377-1753-6308.
- PILCHUCK CONTACT LIST:
PROJECT MANAGER: DAVID NARO AT 206-418-4230, CELL 206-396-8781.

PRE-TESTED WELD CAP NOTE:

- SCOPE: PRE-TESTING OF WELD CAPS SMALLER THAN 8 INCHES IN DIAMETER FOR HIGH PRESSURE INSTALLATIONS ON MAINS AND SERVICES OPERATING BELOW 20% SMYS.
- WELD CAPS SHALL BE LEAK TESTED FOR (15) FIFTY MINUTES AT 100 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5.
- WELD CAPS SHALL BE STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5. USE FORM 1928 "REPORT OF PRESSURE TEST ON NEW MAIN" TO DOCUMENT TEST PRESSURE WHILE PRE-TESTING WELD CAPS.
- LEAK TEST THE TIE-IN WELD WITH SOAP SLIDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.8.1.

BILL OF MATERIALS			
ACT.#	ORDER# 805-483	(SINGLE FISHER 821)	
23	PRIMER 70 B	68-00820	
22	1/8" X 4" THREADED NIPPLE	68-00025	
21	1/8" X 2" THREADED NIPPLE	68-00015	
20	1/4" THREADED PLUG	72-00008	
19	1/4" X 2" THREADED NIPPLE	68-00055	
18	1/4" X 4" THREADED NIPPLE	68-00065	
17	3/4" X 300# INSULATED BOLT KIT	50-00001	
16	3/4" X 300# WELD NECK FLANGE	84-00040	
15	1/4" NEEDLE VALVE	56-00320	
14	36" X 36" 24" STEEL VAULT WITH LID	85-00795	
13	1/8" X 90" THREADED BOLL	68-00010	
12	45' 1" STL PIPE WRAPPED	70-00140	
11	1" CURB VALVE TEE H1700	78-00882	
10	6" STL PIPE BAR	70-00130	
9	1" X 90" WELD ELV STD.	80-00255	
8	1" X 300# SECURITY ASD. SET @ PSIG	58-00535	
7	1" X 2" THREADED NIPPLE	68-00410	
6	1" FISHER REGULATOR NO. 821 W/ 1/2"	74-00197	
ORICES SET @ PSIG			
5	2 1" THREADED NIPPLE (CUT IN HALF)	68-00455	
4	1" CURB VALVE TEE H1700	78-00860	
3	PROTECTOWRAP	66-00840	
2	6" PROTECTOWRAP	66-00850	
1	TEE, AUTOPEP, 3/4" X 1", H-18101	68-00820	
ITEM QTY	DESCRIPTION	PART NO	

109018567 - SUPERIOR ORDER
108528096 - RETIRE RS-1306
109022628 - INSTALL 6" & 2" PE MAIN

CONSTRUCTION

FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION
COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP
FIELD CHANGES RED-LINED ON AS-BUILT
MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK
ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT
NOTE BEGINNING OF MAIN, EDM & LINE OF MAIN LOCATIONS
SHOW ROPE LOCATIONS & CUL-DE-SAC RADII

FOREMAN'S SIGNATURE: *Ben Luli*
COMPANY: PILCHUCK DATE: 12/15/07

CONTRACTOR COST CODES		PROJECT MANAGER CONTACT INFO:	
051-298	IN/A	DAVID NARO	206-396-8781
	N/A	jeff.webb@pse.com	425-462-3813
	N/A	jeff.webb@pse.com	425-462-3813
CALL (800) 424-5555 2 BUSINESS DAYS BEFORE YOU DIG		THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES	
FUNCTION	NAME	PHONE	DATE
PROJECT MGR	D. NARO	(206) 396-8781	07/05/05
ENGINEER	J. WEBB	(425) 462-3813	07/05/05
DRAWN BY	E. BROWN	(206) 841-8271	07/11/05
CHECKED BY	D. HONG	(425) 462-3811	
APPROVED BY			
CP APP			
JOINT FACILITIES ARRANGEMENTS			

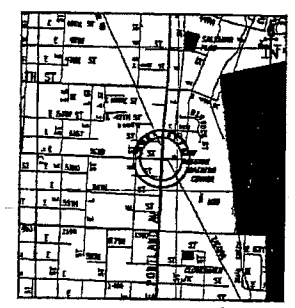
REV	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE
1	RETIRE EX. FT. #1306 PER ORDER #108528096.	JWN					04-05
2	DRAWING 705-411 CREATED FROM STANDARD DRAWING 12.30-193. ORIGINAL DRAWING NEVER EXISTED.	DPH					01-12-05

UTILITY CONTACT PHONE

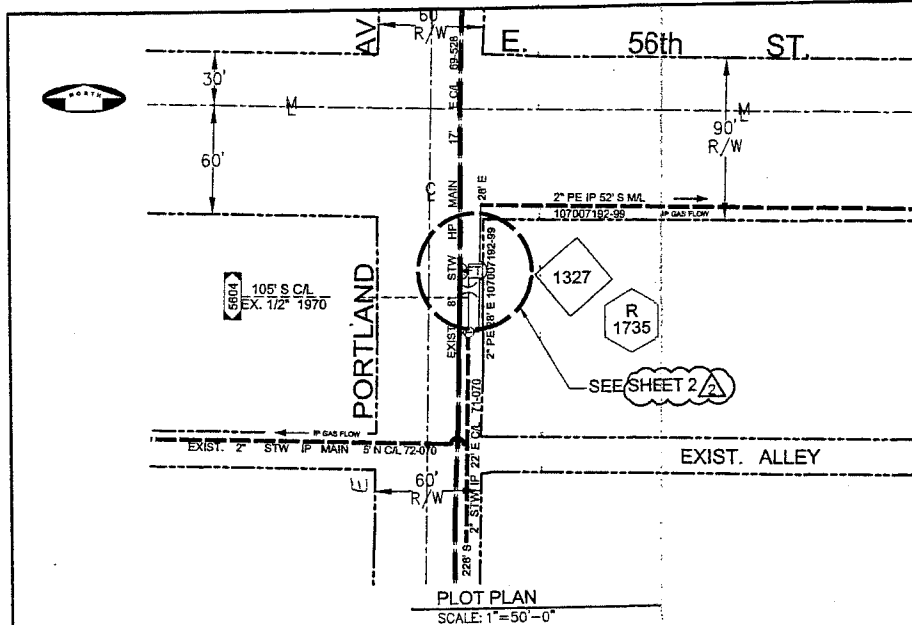
PUGET SOUND ENERGY

FARM TAP #1306
E. 52nd ST. & PORTLAND AVE
TACOMA

SAP ORDER NUMBER
108528096
DWG NUMBER
705-411
SCALE 1/2" = 1'-0"



Plotted By: sabinan 07/28/05 10:04AM
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RETIREMENT NOTES: ORDER #108526099

- SCOPE OF WORK: RETIRE EXISTING FARM TAP 1327 DUE TO THE SALISHAN UPRATE. INSTALL "PRE-TESTED CAP" RETURN ALL SALVAGEABLE PARTS TO STORE.
- ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY (PSE) GAS OPERATING STANDARDS.
- PSE SERVICE PROVIDER TO FILL VAULTS WITH SAND OR CUT OUT AND REMOVE VAULT AS APPLICABLE PER LOCAL MUNICIPAL REQUIREMENTS.
- FIELD TO VERIFY INLET TIE-IN SIZE AND MATCH WELD CAP ACCORDINGLY. INLET PRESSURE REVISED PER UPRATE 109018567. DRAWING DOES NOT EXIST. REFER TO PSE ENGINEER JEFF WEBB @ 425-462-3813 FOR ANY QUESTIONS.
- THIS JOB TO BE DONE IN CONJUNCTION WITH PROPOSED DR #2683, PER SAP #109022637, AND INSTALL MAIN PER SAP #109021937.

PRE-TESTED WELD CAP NOTE:

- SCOPE: PRE-TESTING OF WELD CAPS SMALLER THAN 6 INCHES IN DIAMETER FOR HIGH PRESSURE INSTALLATIONS ON MAINS AND SERVICES OPERATING BELOW 20R SMYS.
- WELD CAPS SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES AT 100 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.8.1.
- WELD CAPS SHALL BE STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.8.1. USE FORM 1928 "REPORT OF PRESSURE TEST ON NEW MAIN" TO DOCUMENT TEST PRESSURE WHILE PRE-TESTING WELD CAPS.
- LEAK TEST THE TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.8.1.

NOTES FOR ORDER 887025760

- ALL CONSTRUCTION TO CONFORM TO ALL PSE GAS STANDARDS AND GAS PROCEDURES.
- CALL 1-800-424-5555 OR 811 TWO WORKING DAYS PRIOR TO CONSTRUCTION TO LOCATE UNDERGROUND UTILITIES.
- FIELD PERSONNEL SHALL RECORD THE MANUFACTURER NAME, MODEL NUMBER, AND SIZE OF THE TIE-IN FITTING ON THE AS-BUILT. IN ADDITION TO RECORDING THIS INFORMATION ON THE AS-BUILT, FIELD PERSONNEL SHALL CALL THE PSE PROJECT ENGINEER (DEREK KOO AT 206-396-9633 AND REPORT THIS INFORMATION.
- FIELD PERSONNEL SHALL CONFIRM REINFORCEMENT ON THE TIE-IN FITTING.
 - IF A REINFORCEMENT PAD WAS INSTALLED AT THE TIE-IN FITTING, FIELD PERSONNEL SHALL RECORD THE DIMENSIONS OF THE REINFORCEMENT PAD (PAD DIAMETER AND PAD THICKNESS) ON THE AS-BUILT.
 - IF A WELD-O-LET WAS INSTALLED AT THE TIE-IN FITTING, FIELD PERSONNEL SHALL RECORD THE WELD-O-LET INFORMATION ON THE AS-BUILT.
- FIELD PERSONNEL SHALL TAKE PHOTOGRAPHS OF THE TIE-IN FITTING AND ACTIVE STUB. THIS IS TO RECORD THE CONDITION OF FACILITY. THESE PHOTOGRAPHS SHALL BE SUBMITTED TO THE PROJECT ENGINEER (DEREK KOO, EST 04W OR DEREK.KOO@PSE.COM), AS SOON AS POSSIBLE.
- FIELD PERSONNEL SHALL PERFORM THE FOLLOWING TASKS WHEN APPLICABLE. IF THERE ARE ANY QUESTIONS, CONTACT THE PROJECT ENGINEER.
 - IF A DRESSER STREET TEE (THE DRESSER COUPLING IS PART OF THE SERVICE TEE) IS FOUND, FIELD PERSONNEL SHALL RETIRE THE TEE WITH THE COUPLING BY INSTALLING A 2" SAVE-A-VALVE OVER IT. ALLOW A SMALL DETECTABLE GAS LEAK THROUGH THE TEE WHILE WELDING THE SAVE-A-VALVE ONTO THE MAIN, SO THE SAVE-A-VALVE WILL BE PRESSURIZED AFTER THE INSTALLATION. THE SAVE-A-VALVE SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES AT 100 PSIG AND STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.3300.
 - IF A DRESSER FITTING IS FOUND DOWNSTREAM OF THE SERVICE TEE, FIELD PERSONNEL SHALL REMOVE THE DRESSER FITTING COMPLETELY AND INSTALL A SOCKET-WELD CAP.
- FIELD PERSONNEL SHALL CONFIRM IF THE ORIGINAL STUB TO THE RETIRED STATION IS STILL INTACT AND ACTIVE. IF SO, TEST THE ORIGINAL STUB IN ACCORDANCE TO TESTING PROCEDURE (INLET PIPING RETEST FOR RS-1031, RS-1327, RS-1480, AND RS-1868 SALISHAN UPRATE) PROVIDED BY GAS SYSTEM ENGINEERING.
- FORM 1928 "REPORT OF PRESSURE TEST ON NEW MAIN" SHALL BE USED TO DOCUMENT TEST PRESSURE INFORMATION.
- LEAK TEST THE TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300.

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
PO = NON STOCK ITEM
CR = CONTRACTOR WILL PROVIDE ITEM
ORDER #887025761

ITEM	QTY	DESCRIPTION	PART NO
45			
44			
43			
42	1	NIPPLE, 2" SAV-A-VALVE, H-17491	6700841
41	1	CAP, 1" X 0.179", CLASS 3000, SOCKET-WELD	9997800
40	1	CAP, 3/4" X 0.154", CLASS 3000, SOCKET-WELD	9997799

BILL OF MATERIALS

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
PO = NON STOCK ITEM
CR = CONTRACTOR WILL PROVIDE ITEM
ORDER #108526099

ITEM	QTY	DESCRIPTION	PART NO
39			
38			
37			
36	1	CAP, 3/4" X 0.154", WPB, WELD (PRE-TESTED)	5200556
35	0	1" WELD CAP (PRE-TESTED)	52-00606
34	0	1/4" STL WELD CAP	52-00635

BILL OF MATERIALS

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
PO = NON STOCK ITEM
CR = CONTRACTOR WILL PROVIDE ITEM
ORDER # 805-493 (SINGLE FISHER 621)

ACT.#	DESCRIPTION	PART NO
23	PRIMER 70 B	66-00620
22	1/8" X 4" THREADED NIPPLE	68-00025
21	1/8" X 2" THREADED NIPPLE	68-00015
20	1/4" THREADED PLUG	72-00006
19	1/4" X 2" THREADED NIPPLE	68-00055
18	1/4" X 4" THREADED NIPPLE	68-00065
17	3/4" X 300# INSULATED BOLT KIT	50-00001
16	3/4" X 308# WELD NECK FLANGE	64-00040
15	1/4" NEEDLE VALVE	56-00320
14	36" X 36" X 24" STEEL VAULT WITH LID	85-00795
13	1/8" X 90" THREADED ELL	68-00010
12	45' 1" STL PIPE WRAPPED	70-00140
11	1" CURB VALVE TEE H17812	78-00662
10	6" 1" STL PIPE BAR	70-00130
9	1" X 90" WELD ELL STD.	60-00255
8	1" X 300# SECURITY ASO. SET 1/2" PSIG	56-00535
7	1" X 2" THREADED NIPPLE	68-00410
6	1" FISHER REGULATOR NO. 621 W/ 1/2"	74-00197
5	ORICONE SET 1/2" PSIG	
4	1" X 2" THREADED NIPPLE (CUT IN HALF)	68-00455
3	1" CURB VALVE TEE H17800	78-00660
2	6" PROTECTOWRAP	66-00840
1	6" PROTECTOWRAP	66-00850
1	TEE, AUTOPERF, 3/4" X 1", H-18101	66-00620

FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION

COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP FIELD

CHANGES RED-LINED ON AS-BUILT

MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT

NOTE BEGINNING OF MAIN, EOM & LINE OF MAIN LOCATIONS SHOW ROPE LOCATIONS & CUL-DE-SAC RADII

FOREMAN'S SIGNATURE: *[Signature]*

COMPANY: *PES* DATE: *4-4-12*

GAS MAIN PRESSURE AND TESTING

TEST TYPE SOAP AIR NITROGEN WATER

DATE ON: // / // START TIME: // : // TESTED BY: //

DATE OFF: // / // STOP TIME: // : //

PRESSURE TEST RESULTS P F

TEST TYPE SOAP AIR NITROGEN WATER

DATE ON: // / // START TIME: // : // TESTED BY: //

DATE OFF: // / // STOP TIME: // : //

PRESSURE TEST RESULTS P F

TESTED BY PSE PRESSURE CONTROL, SEE FORM 1928

DESIGN PRESS: SYSTEM MAOP

CONSTRUCTION

PROJECT MANAGER CONTACT INFO:

MOLLY REED
425-214-6684 Cell Phone
MOLLY.REED@PSE.COM Email

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

REAL ESTATE/EASEMENT	PERMIT		
N/A	TACOMA		
FUNCTION	NAME	PHONE	DATE
3	PROJECT MGR	D NARO	(206) 418-4230 05/29/09
2	ENGINEER	J. WEBB	(425) 462-3813
1	DRAWN BY	E. BROWN	(253) 841-6271 07/26/09
	CHECKED BY	D. HONG	(425)-462-3911

SAP ORDER TREE

887024719 - SUPERIOR ORDER NUMBER FOR SALISHAN HP UPRATE 2011

887025760 - CONFIRMATION DIG-UP @ RS-1327

PREVIOUS JOB # 705-620
PREVIOUS IR # 6733

PREVIOUS JOB # 109018567 - SUPERIOR ORDER

108526099 - RETIRE RS-1327

109022630 - INSTALL 2" PE MAIN

REVISIONS

REV	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE
1	CONFIRMATION DIG-UP PER SAP ORDER 887025760	MR	MR				6/1/11
2	MOVE PLAN VIEW, SECTION A & B TO NEW SHEET 2. REMOVED DETAIL C. AS-INSTALL 108526099.	RN	JCW	N/A	N/A	N/A	05/26/2011
3	RETIRE EX. FT #1327 PER ORDER #108526099.	DFH	N/A	N/A	JW	DN	08/16/2009
4	DRAWING 705-620 CREATED FROM STANDARD DRAWING 12.30-193. ORIGINAL DRAWING NEVER EXISTED.	DFH	N/A	N/A	N/A	N/A	01/12/2006

COUNTY: PIERCE EMER SECTION #41 GAS WK CTR MSEPGR APPROVED BY: CP APP

1/4 SECTION OP MAP 244.062 PLAT MAP 247.063 MAPPING

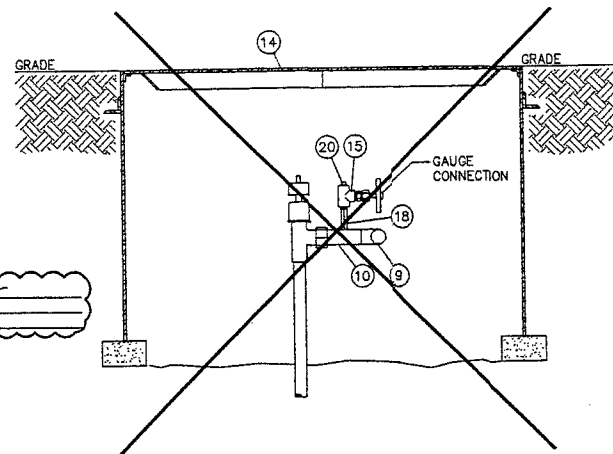
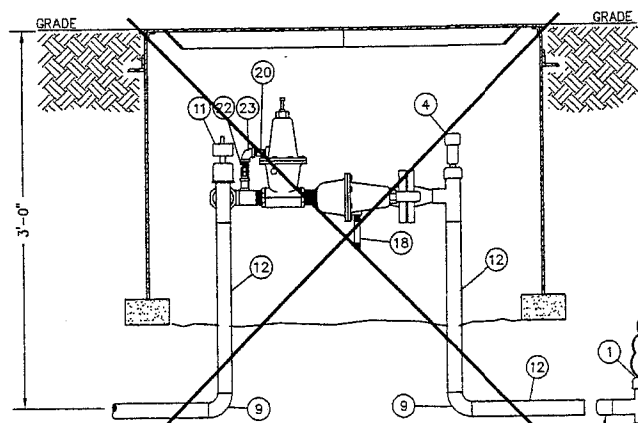
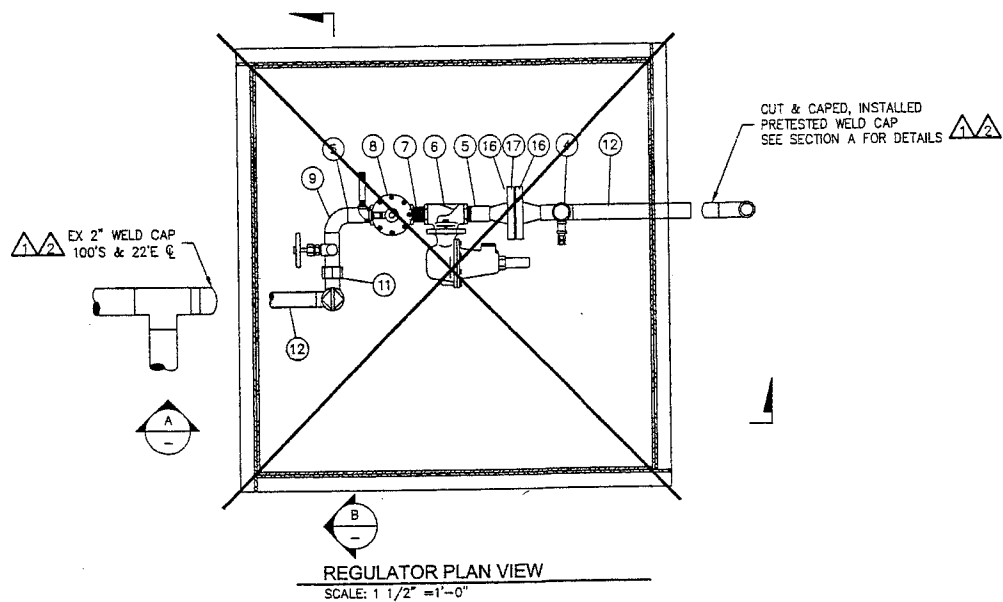
UTILITY CONTACT PHONE: _____

PSE PUGET SOUND ENERGY

FARM TAP #1327
5604 PORTLAND AVE
TACOMA

SAP ORDER NUMBER: 887025760
DWG NUMBER: 705-620
SCALE: 1/2" = 1'-0"

L:\Vega\1000-1495\1327\705-620_s01_r03.dwg - Plotted By: makon 05/27/11 01:41PM



SEE NOTE #3
 MANUFACTURER: *Messer*
 MODEL: *Autopost*
 SIZE: *2 1/4"*

SEE NOTE #4
 EX TIE-IN
 5/16" TAP
 105' S C/L & 17' E

3/4" PRETEST WELD CAP
 105' S & 18' E

SUPPLY MAIN,
 8" STW HP MAIN
 69-5B2
 17' E

FILTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION
 COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP FIELD
 CHANGES RED-LINED ON AS-BUILT
 MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK ALL
 VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT
 NOTE BEGINNING OF MAIN, EOM & LINE OF MAIN LOCATIONS
 SHOW ROPE LOCATIONS & CUL-DE-SAC RADIUS

FOREMAN'S SIGNATURE: *[Signature]*
 COMPANY: *InfraSource* DATE: *4-4-12*

SAP ORDER TREE
 887024719 - SUPERIOR ORDER NUMBER FOR SALISHAN HP UPRATE 2011
 887025760 - CONFIRMATION DIG-UP @ RS-1327

REV	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE
1	CONFIRMATION DIG-UP PER SAP ORDER 887025760	CR	VD	MB	JK	WR	6/1/11
2	MOVE PLAN VIEW, SECTION A & B TO NEW SHEET 2. REMOVED DETAIL C. AS-INSTALL 108526099.	RN	JCW	N/A	N/A	N/A	05/26/2011
3	RETIRE EX. FT #1327 PER ORDER #108526099.	DFH	N/A	N/A	JW	DN	08/16/2005
4	DRAWING 70S-620 CREATED FROM STANDARD DRAWING 12.30-193. ORIGINAL DRAWING NEVER EXISTED.	DFH	N/A	N/A	N/A	N/A	01/12/2005

GAS MAIN PRESSURE AND TESTING				
TEST TYPE	<input type="checkbox"/> SOAP	<input type="checkbox"/> AIR	<input type="checkbox"/> NITROGEN	<input type="checkbox"/> WATER
DATE ON	///	START TIME		TESTED BY
DATE OFF	///	STOP TIME		
PRESSURE		TEST RESULTS	<input type="checkbox"/> P	<input type="checkbox"/> F
TEST TYPE	<input type="checkbox"/> SOAP	<input type="checkbox"/> AIR	<input type="checkbox"/> NITROGEN	<input type="checkbox"/> WATER
DATE ON	///	START TIME		TESTED BY
DATE OFF	///	STOP TIME		
PRESSURE		TEST RESULTS	<input type="checkbox"/> P	<input type="checkbox"/> F
DESIGN PRESS		SYSTEM MAP		

PROJECT MANAGER CONTACT INFO:
 MOLLY REED
 425-214-6884 Cell Phone
 MOLLY.REED@PSE.COM Email

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

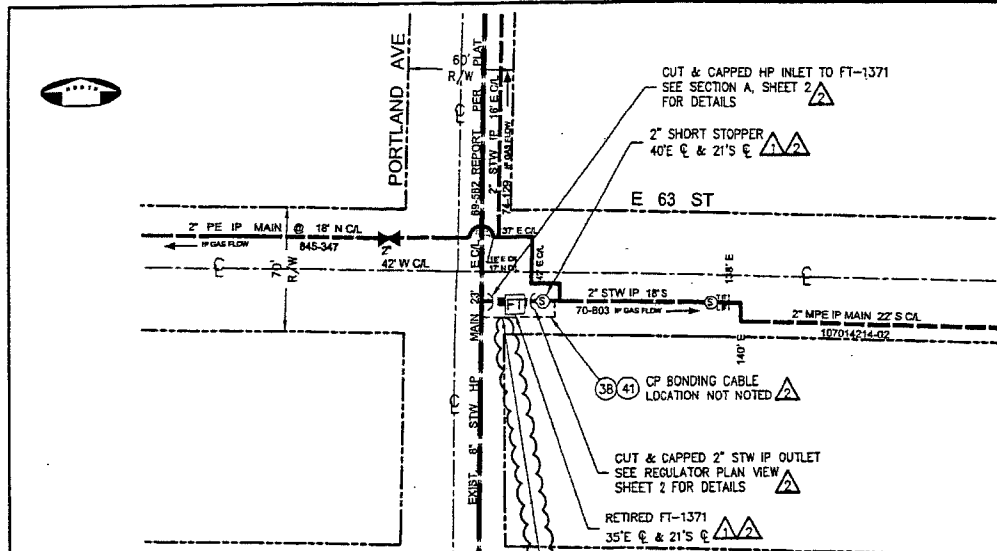
REV #	DATE	BY	DESCRIPTION	COUNTY	EMER SECTION #	GAS WK CTR	APPROVED BY
3				PIERCE	#41	MSEPRG	
2				1/4 SECTION	OP MAP	PLAT MAP	
1				NE22-20-03	244.062	247.063	

FUNCTION	NAME	PHONE	DATE
PROJECT MGR	D NARO	(206) 418-4230	05/25/08
ENGINEER	J. WEBB	(425) 462-3813	
DRAWN BY	E. BROWN	(253) 841-6271	07/26/08
CHECKED BY	D. HONG	(425)-462-3911	

FARM TAP #1327
 5604 PORTLAND AVE
 TACOMA

SAP ORDER NUMBER
 887025760
 DWG NUMBER
 70S-620
 SCALE: 1/2" = 1'-0"
 2/2

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Per Derek Koo
Do not need

PLOT PLAN
SCALE: 1" = 50'-0"

Per Jim Oliver
#4 bond wire from 2" steel was brought into a wire box
2 - #10 wire coldweld to 8" H.P. main and brought into the same wire box

NOTE CADWELD LOCATIONS AND BONDING WIRE LOCATION:
CADWELD 23'E & PORTLAND AVE & 18'S & E 63 ST
CADWELD 1'E & PORTLAND AVE & 18'S & E 63 ST
BONDING WIRE LOCATION 17'S & E 63 ST

GAS MAIN PRESSURE AND TESTING					
TEST TYPE	SOAP	AIR	NITROGEN	WATER	
DATE ON	START TIME				TESTED BY
DATE OFF	STOP TIME				
PRESSURE	TEST RESULTS	P	F		
TEST TYPE	SOAP	AIR	NITROGEN	WATER	
DATE ON	START TIME				TESTED BY
DATE OFF	STOP TIME				
PRESSURE	TEST RESULTS	P	F		
TESTED BY PSE PRESSURE CONTROL, SEE FORM 1928					
DESIGN PRESS	SYSTEM MAGP				

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
PO = NON STOCK ITEM
CR = CONTRACTOR WILL PROVIDE ITEM

ITEM	QTY	DESCRIPTION	PART NO
49.			
48.			
47.			
46.			
45.		NO MATERIALS REQUIRED FOR THIS JOB	

BILL OF MATERIALS

SAP ORDER TREE
887024719 - SUPERIOR ORDER NUMBER FOR SALISHAN HP UPRATE 2011
887026105 - RETEST INLET TIE-IN & CONFIRMATION DIG-UP @ RS-1371

PREVIOUS JOB # 705-803
PREVIOUS IR # 8818

PREVIOUS SAP ORDER TREE
109018567 - SUPERIOR ORDER NUMBER R SALISHAN HP UPRATE
108526115 - RETIRE RS-1371
109022588 - INSTALL 2" PE MAIN

RETIREMENT NOTES: ORDER #108526115

- SCOPE OF WORK: RETIRE EXISTING FARM TAP 1371 DUE TO THE SALISHAN UPRATE. INSTALL *PRE-TESTED CAP - RETURN ALL SALVAGEABLE PARTS TO STORE.
- ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY (PSE) GAS OPERATING STANDARDS.
- PSE SERVICE PROVIDER TO FILL VAULTS WITH SAND OR GRIT OUT AND REMOVE VAULT AS APPLICABLE PER LOCAL MUNICIPAL REQUIREMENTS.
- FIELD TO VERIFY INLET TIE-IN SIZE, AND MATCH WELD CAP ACCORDINGLY. INLET PRESSURE REVISED PER UPRATE 109018567. DRAWING DOES NOT EXIST. REFER TO PSE ENGINEER JEFF WEBB @ 425-462-3813 FOR ANY QUESTIONS.
- THIS JOB TO BE DONE IN CONJUNCTION WITH PROPOSED 2" MPE IP MAIN EXT. PER SAP #109022588.

PRE-TESTED WELD CAP NOTE:

- SCOPE: PRE-TESTING OF WELD CAPS SMALLER THAN 6 INCHES IN DIAMETER FOR HIGH PRESSURE INSTALLATIONS ON MAINS AND SERVICES OPERATING BELOW 20X SWGR.
- WELD CAPS SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES AT 100 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5.
- WELD CAPS SHALL BE STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5. USE FORM 1928 "REPORT OF PRESSURE TEST ON NEW MAIN" TO DOCUMENT TEST PRESSURE WHILE PRE-TESTING WELD CAPS.
- LEAK TEST THE TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.8.1.

NOTES FOR ORDER 887024719

- ALL CONSTRUCTION TO CONFORM TO ALL PSE GAS STANDARDS AND GAS PROCEDURES.
- CALL 1-800-424-5555 OR 811 TWO WORKING DAYS PRIOR TO CONSTRUCTION TO LOCATE UNDERGROUND UTILITIES.
- FIELD PERSONNEL SHALL RECORD THE MANUFACTURER NAME, MODEL NUMBER, AND SIZE OF THE TIE-IN FITTING ON THE AS-BUILT. IN ADDITION TO RECORDING THIS INFORMATION ON THE AS-BUILT, FIELD PERSONNEL SHALL CALL THE PSE PROJECT ENGINEER (DEREK KOO AT 206-396-9633) AND REPORT THIS INFORMATION.
- FIELD PERSONNEL SHALL CONFIRM REINFORCEMENT ON THE TIE-IN FITTING.
 - IF A REINFORCEMENT PAD WAS INSTALLED AT THE TIE-IN FITTING, FIELD PERSONNEL SHALL RECORD THE DIMENSIONS OF THE REINFORCEMENT PAD (PAD DIAMETER AND PAD THICKNESS) ON THE AS-BUILT.
 - IF A WELD-O-LET WAS INSTALLED AT THE TIE-IN FITTING, FIELD PERSONNEL SHALL RECORD THE WELD-O-LET INFORMATION ON THE AS-BUILT.
- FIELD PERSONNEL SHALL TAKE PHOTOGRAPHS OF THE TIE-IN FITTING AND ACTIVE STUB. THIS IS TO RECORD THE CONDITION OF FACILITY. THESE PHOTOGRAPHS SHALL BE SUBMITTED TO THE PROJECT ENGINEER (DEREK KOO, EST 04W OR DEREK.KOO@PSE.COM), AS SOON AS POSSIBLE.
- FIELD PERSONNEL SHALL PERFORM THE FOLLOWING TASKS WHEN APPLICABLE. IF THERE ARE ANY QUESTIONS, CONTACT THE PROJECT ENGINEER.
 - IF A DRESSER STREET TEE (THE DRESSER COUPLING IS PART OF THE SERVICE TEE) IS FOUND, FIELD PERSONNEL SHALL RETIRE THE TEE WITH THE COUPLING BY INSTALLING A 2" SAVE-A-VALVE OVER IT, ALLOW A SMALL DETECTABLE GAS LEAK THROUGH THE TEE WHILE WELDING THE SAVE-A-VALVE ONTO THE MAIN, SO THE SAVE-A-VALVE WILL BE PRESSURIZED AFTER THE INSTALLATION. THE SAVE-A-VALVE SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES AT 100 PSIG AND STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.3300.
 - IF A DRESSER FITTING IS FOUND DOWNSTREAM OF THE SERVICE TEE, FIELD PERSONNEL SHALL REMOVE THE DRESSER FITTING COMPLETELY AND INSTALL A SOCKET-WELD CAP.
- FIELD PERSONNEL SHALL CONFIRM IF THE ORIGINAL STUB TO THE RETIRED STATION IS STILL INTACT AND ACTIVE. IF SO, TEST THE ORIGINAL STUB IN ACCORDANCE TO TESTING PROCEDURE (INLET PIPING RETEST FOR RS-0983, RS-1306, RS-1371, RS-1404, RS-1472, RS-1558, RS-1573 AND RS-1877 SALISHAN UPRATE) PROVIDED BY GAS SYSTEM ENGINEERING.
- FORM 1928 "REPORT OF PRESSURE TEST ON NEW MAIN" SHALL BE USED TO DOCUMENT TEST PRESSURE INFORMATION.
- LEAK TEST THE TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300.
- EROSION & SEDIMENT CONTROL SHALL BE PER PSE STANDARD PRACTICE 0150.3200 TECHNIQUES FOR TEMPORARY EROSION AND SEDIMENT CONTROL AND ANY ADDITIONAL LOCAL JURISDICTION REQUIREMENTS.

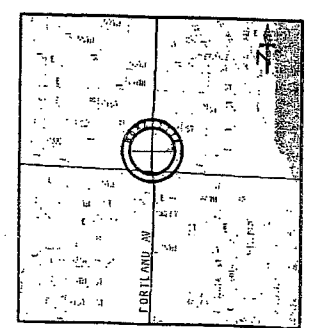
PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
PO = NON STOCK ITEM
CR = CONTRACTOR WILL PROVIDE ITEM
ORDER #108526115

ITEM	QTY	DESCRIPTION	PART NO
44			
43			
42			
41	2	HANDY CAP	66-00635
40			
39			
38	60'	#4 CP CABLE	52-00675
37	1	2" WELD CAP	52-00675
36	1	3/4" WELD CAP (PRETESTED)	52-00552
35	0	1" WELD CAP (PRE-TESTED)	52-00606
34	1	2" SHORTSTOP LIPSTOPPER H17190	76-00743
33	1	1 1/4" STL WELD CAP	52-00635

ACT# 805-493 (SINGLE FISHER 621)

ITEM	QTY	DESCRIPTION	PART NO
23		PRIMER 70 B	66-00620
22		1/8" X 4" THREADED NIPPLE	66-00025
21	1	1/8" X 2" THREADED NIPPLE	66-00015
20	1	1/4" THREADED PLUG	72-00008
19	1	1/4" X 2" THREADED NIPPLE	66-00055
18	2	1/4" X 4" THREADED NIPPLE	66-00065
17	1	3/4" X 300# INSULATED BOLT KIT	50-00001
16	2	3/4" X 300# WELD NECK FLANGE	64-00040
15	1	1/4" NEEDLE VALVE	56-00320
14	1	36" X 36" 24" STEEL VAULT WITH LID	85-00795
13	1	1/8" X 90" THREADED ELL	66-00010
12	45'	1" STL PIPE WRAPPED	70-00140
11	1	1" CURB VALVE TEE H17812	78-00662
10	6'	1" STL PIPE BAR	70-00130
9	1	1" X 90" WELD ELB STD.	60-00255
8	1	1" X 300# SECURITY ASO, SET @ PSIG	56-00535
7	1	1" X 2" THREADED NIPPLE	66-00410
6	1	1" FISHER REGULATOR NO. 621 W/ 1/8" ORIFICE SET @ PSIG	74-00197
5	2	1" X 4" THREADED NIPPLE (CUT IN HALF)	66-00455
4	1	1" CURB VALVE TEE H17800	78-00660
3		4" PROTECTOWRAP	66-00940
2		6" PROTECTOWRAP	66-00950
1	1	TEE, AUTOPERF. 3/4" x 1", H-18101	66-00620

BILL OF MATERIALS



VICINITY MAP
SCALE: NONE

CONSTRUCTION

FITTER'S CHECKLIST (CHECK BOX TO CONFIRM COMPLETION)

INSPECTED STEEL AND PE PIPE PER GOS 2450.1400 AND 2450.1500.

REVIEWED AND COMPLIED WITH ALL CONSTRUCTION NOTES.

RECORDED ALL REQUIRED INFORMATION ON THE AS-BUILT PER GOS 2500.1700.

COMPLETED POST INSTALLATION INSPECTION PER GOS 2525.1200 AND 2525.2700.

LEFT THE WORK AREA IN A CLEAN AND SAFE CONDITION.

FOREMAN'S SIGNATURE: *Bill Webb*

FOREMAN'S NAME (PRINTED): *Bill Webb*

COMPANY: *Intersource* DATE: *9-28-11*

4680 06/11

PROJECT MANAGER CONTACT INFO
MOLLY REED
425-214-6684 CELL PHONE
MOLLY.REED@PSE.COM EMAIL

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

REAL ESTATE/EASEMENT	PERMIT		
N/A	TACOMA		
FUNCTION	NAME	PHONE	DATE
PROJECT MGR	D. NARD	(206) 418-4230	06/28/05
ENGINEER	J. WEBB	(425) 462-3813	
DRAWN BY	E. BROWN	(253) 841-6271	06/30/05
CHECKED BY	D. HONG	(425) 462-3911	

REV	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE
1	RETEST TIE-IN & CONFIRMATION DIG-UP PER SAP #887026105.						09/21/11
2	MOVED REG PLAN VIEW, SECTION A & B TO NEW SHEET 2. AS-INSTALLED 108526115.	RN	JCW	N/A	N/A	N/A	06/10/2011
3	RETIRE EX. FT #1371 PER ORDER #108526115.	DFH	EB	JW	JW	DN	06/15/2005
4	DRAWING 705-803 CREATED FROM STANDARD DRAWING 12.30-193. ORIGINAL DRAWING NEVER EXISTED.	DFH	N/A	N/A	N/A	N/A	01/12/2005

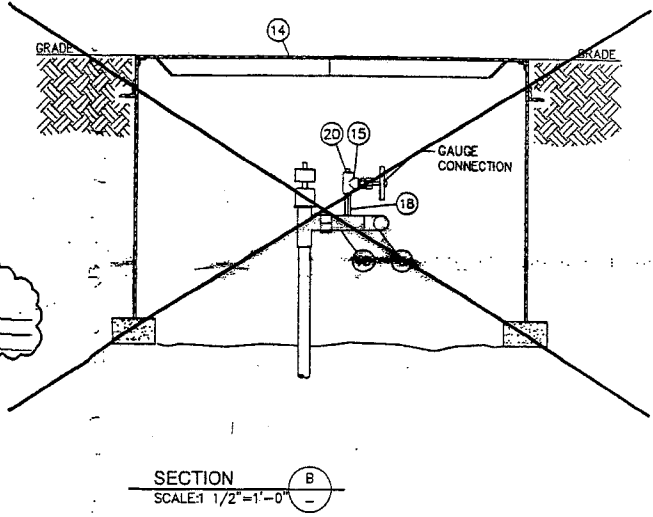
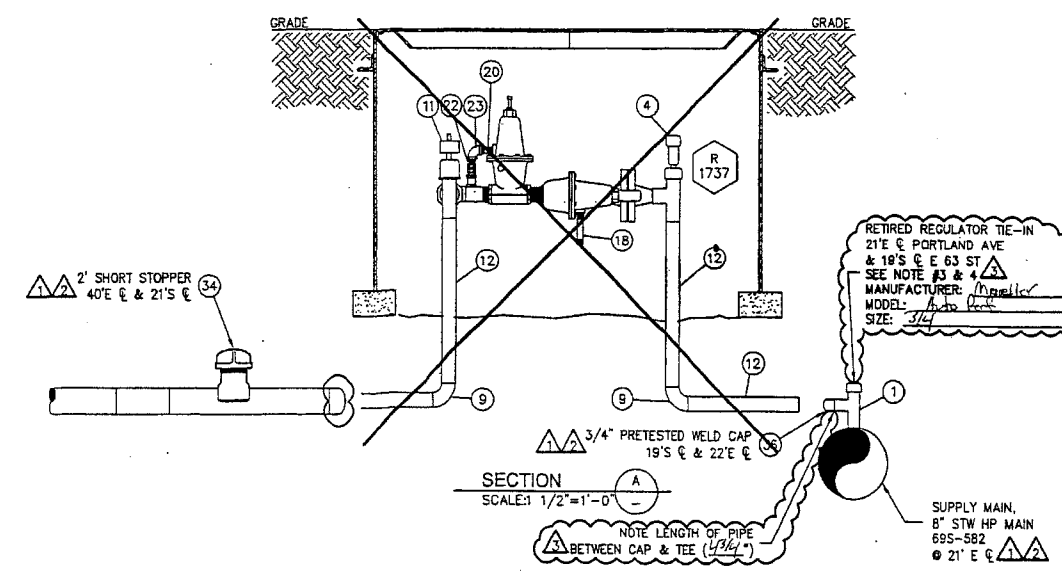
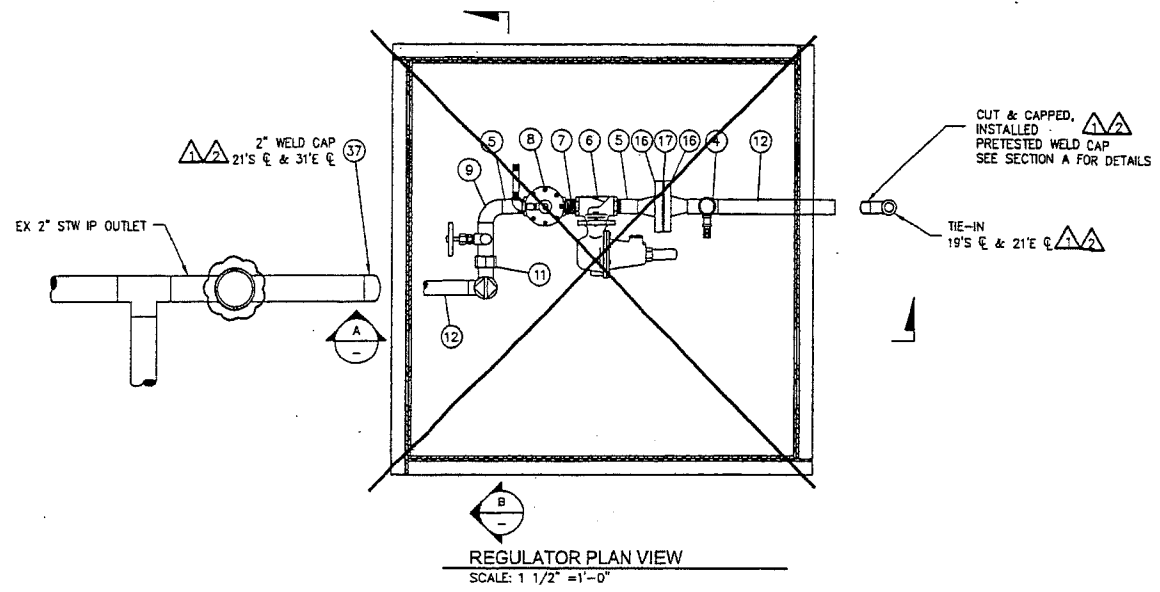
UTILITY CONTACT PHONE

JOINT FACILITIES ARRANGEMENTS

FARM TAP #1371
E 63rd ST & PORTLAND AVE
TACOMA

SAP ORDER NUMBER
108526115
DWG NUMBER
705-803
SCALE: 1" = 50'-0"
REV 1/2

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RETIRED REGULATOR TIE-IN
21'E PORTLAND AVE
& 19'S E 63 ST
SEE NOTE #3 & 4
MANUFACTURER: Ingersoll
MODEL: 420
SIZE: 3/4"

SAP ORDER TREE
887024719 - SUPERIOR ORDER NUMBER FOR SALISHAN HP UPRATE 2011
887026105 - RETEST INLET TIE-IN & CONFIRMATION DIG-UP @ RS-1371

FITTER'S CHECKLIST (CHECK BOX TO CONFIRM COMPLETION)

- INSPECTED STEEL AND PE PIPE PER GOS 2450.1400 AND 2450.1500.
- REVIEWED AND COMPLIED WITH ALL CONSTRUCTION NOTES.
- RECORDED ALL REQUIRED INFORMATION ON THE AS-BUILT PER GOS 2500.1700.
- COMPLETED POST INSTALLATION INSPECTION PER GOS 2525.1200 AND 2525.2700.
- LEFT THE WORK AREA IN A CLEAN AND SAFE CONDITION.

FOREMAN'S SIGNATURE: *[Signature]*
FOREMAN'S NAME (PRINTED): *Bill Linkins*
COMPANY: *Ingersoll* DATE: *9-28-11*

4680 06/11

GAS MAIN PRESSURE AND TESTING			
TEST TYPE	<input type="checkbox"/> SOAP	<input type="checkbox"/> AIR	<input type="checkbox"/> NITROGEN
DATE ON	///	START TIME	TESTED BY
DATE OFF	///	STOP TIME	
PRESSURE	TEST RESULTS <input type="checkbox"/> P <input type="checkbox"/> F		
TEST TYPE	<input type="checkbox"/> SOAP	<input type="checkbox"/> AIR	<input type="checkbox"/> NITROGEN
DATE ON	///	START TIME	TESTED BY
DATE OFF	///	STOP TIME	
PRESSURE	TEST RESULTS <input type="checkbox"/> P <input type="checkbox"/> F		
<input type="checkbox"/> TESTED BY PSE PRESSURE CONTROL, SEE FORM 1926			
DESIGN PRESS	SYSTEM MAOP		

PROJECT MANAGER CONTACT INFO
MOLLY REED
425-214-6684 CELL PHONE
MOLLY.REED@PSE.COM EMAIL

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

CALL (800) 424-5555
2 BUSINESS DAYS BEFORE YOU DIG

REV #	DATE	BY	DESCRIPTION
3			
2			
1			

REV #	DATE	BY	DESCRIPTION
1	06/20/2011	RN	MOVED REG PLAN VIEW, SECTION A & B TO NEW SHEET 2 AS-INSTALLED 108526115.
2	08/15/2005	DFH	RETIRE EX. FT #1371 PER ORDER #108526115.
3	01/12/2005	DFH	DRAWING 705-803 CREATED FROM STANDARD DRAWING 12.30-193. ORIGINAL DRAWING NEVER EXISTED.

PREVIOUS JOB # 705-803
PREVIOUS IR # 6816

PREVIOUS SAP ORDER TREE
109018567 - SUPERIOR ORDER NUMBER FOR SALISHAN HP UPRATE
108526115 - RETIRE RS-1371
109022588 - INSTALL 2" PE IP MAIN

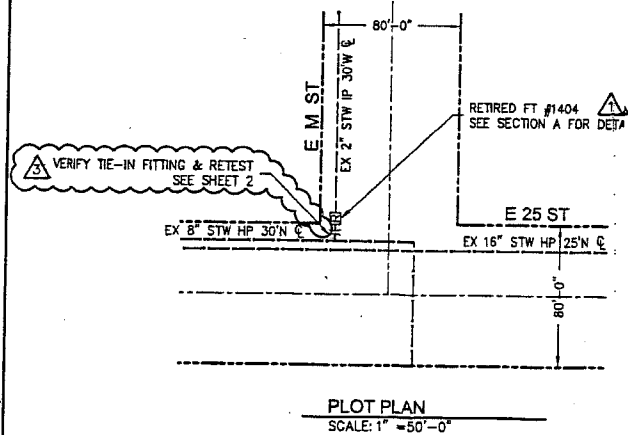
REV	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE
1	RETEST TIE-IN & CONFIRMATION DIG-UP PER SAP #887026105.	RN	JCW	N/A	N/A	N/A	06/20/2011
2	RETIRE EX. FT #1371 PER ORDER #108526115.	DFH	EB	JW	JW	DN	08/15/2005
3	DRAWING 705-803 CREATED FROM STANDARD DRAWING 12.30-193. ORIGINAL DRAWING NEVER EXISTED.	DFH	N/A	N/A	N/A	N/A	01/12/2005

UTILITY CONTACT PHONE

FARM TAP #1371
E 63rd ST & PORTLAND AVE
TACOMA

SAP ORDER NUMBER 108526115
DWG NUMBER 705-803
SCALE: 1/2" = 1'-0" 2/2

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NOTES FOR ORDER 887024719

- ALL CONSTRUCTION TO CONFORM TO ALL PSE GAS STANDARDS AND GAS PROCEDURES.
- CALL 1-800-424-5555 OR 811 TWO WORKING DAYS PRIOR TO CONSTRUCTION TO LOCATE UNDERGROUND UTILITIES.
- FIELD PERSONNEL SHALL RECORD THE MANUFACTURER NAME, MODEL NUMBER, AND SIZE OF THE TIE-IN FITTING ON THE AS-BUILT. IN ADDITION TO RECORDING THIS INFORMATION ON THE AS-BUILT, FIELD PERSONNEL SHALL CALL THE PSE PROJECT ENGINEER (DEREK KOO AT 206-396-9633 AND REPORT THIS INFORMATION.
- FIELD PERSONNEL SHALL CONFIRM REINFORCEMENT ON THE TIE-IN FITTING.
 - IF A REINFORCEMENT PAD WAS INSTALLED AT THE TIE-IN FITTING, FIELD PERSONNEL SHALL RECORD THE DIMENSIONS OF THE REINFORCEMENT PAD (PAD DIAMETER AND PAD THICKNESS) ON THE AS-BUILT.
 - IF A WELD-O-LET WAS INSTALLED AT THE TIE-IN FITTING, FIELD PERSONNEL SHALL RECORD THE WELD-O-LET INFORMATION ON THE AS-BUILT.
- FIELD PERSONNEL SHALL TAKE PHOTOGRAPHS OF THE TIE-IN FITTING AND ACTIVE STUB. THIS IS TO RECORD THE CONDITION OF FACILITY. THESE PHOTOGRAPHS SHALL BE SUBMITTED TO THE PROJECT ENGINEER (DEREK KOO, EST 04W OR DEREK.KOO@PSE.COM), AS SOON AS POSSIBLE.
- FIELD PERSONNEL SHALL PERFORM THE FOLLOWING TASKS WHEN APPLICABLE. IF THERE ARE ANY QUESTIONS, CONTACT THE PROJECT ENGINEER.
 - IF A DRESSER STREET TEE (THE DRESSER COUPLING IS PART OF THE SERVICE TEE) IS FOUND, FIELD PERSONNEL SHALL RETIRE THE TEE WITH THE COUPLING BY INSTALLING A 2" SAVE-A-VALVE OVER IT. ALLOW A SMALL DETECTABLE GAS LEAK THROUGH THE TEE WHILE WELDING THE SAVE-A-VALVE ONTO THE MAIN, SO THE SAVE-A-VALVE WILL BE PRESSURIZED AFTER THE INSTALLATION. THE SAVE-A-VALVE SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES AT 100 PSIG AND STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.3300.
 - IF A DRESSER FITTING IS FOUND DOWNSTREAM OF THE SERVICE TEE, FIELD PERSONNEL SHALL REMOVE THE DRESSER FITTING COMPLETELY AND INSTALL A SOCKET-WELD CAP.
- FIELD PERSONNEL SHALL CONFIRM IF THE ORIGINAL STUB TO THE RETIRED STATION IS STILL INTACT AND ACTIVE. IF SO, TEST THE ORIGINAL STUB IN ACCORDANCE TO TESTING PROCEDURE (INLET PIPING RETEST FOR RS-0983, RS-1306, RS-1371, RS-1404, RS-1472, RS-1558, RS-1573 AND RS-1877 SALUSHAN UPRATE) PROVIDED BY GAS SYSTEM ENGINEERING.
- FORM 1928 REPORT OF PRESSURE TEST ON NEW MAIN SHALL BE USED TO DOCUMENT TEST PRESSURE INFORMATION.
- LEAK TEST THE TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300.
- EROSION & SEDIMENT CONTROL SHALL BE PER PSE STANDARD PRACTICE 0150.3200 TECHNIQUES FOR TEMPORARY EROSION AND SEDIMENT CONTROL AND ANY ADDITIONAL LOCAL JURISDICTION REQUIREMENTS.

GENERAL NOTES

- PAINT ALL EXPOSED PIPING WITH ONE COAT PRIMER AND TWO COATS GRAVENAMEL.
- WRAP ALL UNDERGROUND PIPE.
- SET REGULATORS AT 35 POUNDS.
- CONTRACTOR TO PROVIDE ALL FITTINGS 1" AND SMALLER.
- THIS DRAWING REPLACES DRAWING OF THE SAME NUMBER DATED 1-15-04.
- AIR TEST INLET PIPING TO 50 POUNDS.
- SEE STANDARD DRAWING 12-34198B FOR CONSTRUCTION OF STEEL VAULT WITH STEEL LID.
- THIS INSTALLATION IS NOT TO BE USED IN VEHICULAR TRAFFIC AREAS.
- SET A.S.O. SECURITY VALVE AT 60 POUNDS.
- THIS FARM TAP WILL DELIVER APPROXIMATE 4400 CFM.
- FIELD LOCATE ALL UTILITIES CAREFULLY FOLLOWING 24 HRS BEFORE CONSTRUCTION.
 - WTR M ST *68 GL4-6346
 - POWER SH6-5000
 - TELEPHONE BA8-0366
- INSTALL STUBS PER W.N.G. CO. SPECS.

SURVEY REQ'D

14) RECTIFIER PROTECTED

NOTES PER WORK ORDER #108522516

- SCOPE OF JOB: RETIRE FT #1404, TO BE CAPPED WITH PRETESTED WELD CAP. IF SYSTEM TO BE SUPPLIED BY MAIN INSTALLED PER JOB #109019000.
- PLUG ENDS OF DEACTIVATED MAIN WITH FROTH PAK OR CONCRETE.
- FILL VAULT WITH SAND.

PRE-TEST HIGH PRESSURE WELD CAPS

SCOPE: PRETESTING OF WELD CAPS SMALLER THAN 6" IN DIAMETER FOR HIGH PRESSURE INSTALLATIONS OF MAINS AND SERVICES OPERATING BELOW 20% SMYS AND MAOP OF 300 PSIG OR LESS.

WELD CAPS SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES @ 100 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.8.1.

WELD CAPS SHALL BE LEAK TESTED FOR (1) ONE HOUR MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.330, PARAGRAPH 6.5.3 USE FORM 1928 REPORT OF PRESSURE TEST ON NEW PRETESTING WELD CAPS.

LEAK TEST TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.330, PARAGRAPH 6.8.1.

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
PO = NON STOCK ITEM
CR = CONTRACTOR WILL PROVIDE ITEM
ORDER #887026099

110			
109			
108			
107			
106			
105		NO MATERIALS REQUIRED FOR THIS JOB	

ITEM QTY DESCRIPTION PART NO

BILL OF MATERIALS

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
PO = NON STOCK ITEM
CR = CONTRACTOR WILL PROVIDE ITEM
ORDER #108522516

100	1	1" STL WELD CAP (PRETESTED CAP, 450 PSIG)	52-00206
-----	---	---	----------

ITEM QTY DESCRIPTION PART NO

BILL OF MATERIALS

GAS MAIN PRESSURE AND TESTING

TEST TYPE	<input type="checkbox"/> SOAP	<input type="checkbox"/> AIR	<input type="checkbox"/> NITROGEN	<input type="checkbox"/> WATER
DATE ON	///	START TIME	///	TESTED BY
DATE OFF	///	STOP TIME	///	
PRESSURE	///	TEST RESULTS	<input type="checkbox"/> P <input type="checkbox"/> F	
TEST TYPE	<input type="checkbox"/> SOAP	<input type="checkbox"/> AIR	<input type="checkbox"/> NITROGEN	<input type="checkbox"/> WATER
DATE ON	///	START TIME	///	TESTED BY
DATE OFF	///	STOP TIME	///	
PRESSURE	///	TEST RESULTS	<input type="checkbox"/> P <input type="checkbox"/> F	
DESIGN PRESS	SYSTEM MAOP			

CONSTRUCTION

SAP ORDER TREE
887024719 - SUPERIOR ORDER NUMBER FOR SALUSHAN HP UPRATE 2011
887026099 - CONFIRMATION DIG-UP @ RS-1404

PROJECT MANAGER CONTACT INFO
MOLLY REED
425-214-6684 CELL PHONE
MOLLY.REED@PSE.COM EMAIL

FITTER'S CHECKLIST (CHECK BOX TO CONFIRM COMPLETION)

- INSPECTED STEEL AND PE PIPE PER GOS 2450.1400 AND 2450.1500.
- REVIEWED AND COMPLIED WITH ALL CONSTRUCTION NOTES.
- RECORDED ALL REQUIRED INFORMATION ON THE AS-BUILT PER GOS 2500.1700.
- COMPLETED POST INSTALLATION INSPECTION PER GOS 2525.1200 AND 2525.2700.
- LEFT THE WORK AREA IN A CLEAN AND SAFE CONDITION.

FOREMAN'S SIGNATURE: Bill Reed
FOREMAN'S NAME (PRINTED): Bill Reed
COMPANY: InterSource DATE: 9-21-11

4680 06/11 ORIGINAL JOB 715-071
RETIRED 108522516

MOVED PLAN VIEW, SECTION A & B TO NEW SHEET 2. RETEST TIE-IN PER SAP #887026099.	DFH	YN	N/A	N/A	N/A	06/14/2011	
AS-INSTALLED PER SAP #108522516	DFH						
RETIRED FT #1404 PER W/O 108522516. NO DWG WAS CREATED FOR THE INSTALLATION, THIS DWG CREATED FOR RECORD.	DFH						
REV	DESCRIPTION	BY	CKR	CP	EMG	PM	DATE

BILL OF MATERIAL

22	2	2" WELD PLUG	720
22	17	2" STW PIPE (R. SUB.DIV#1)	70000
24	2	300# BOLT KIT -NON INSULATED	
23	2	1/2" x 2" THRD NIP	68055
22	3	1/4" TEE'S PLUG	72010
21	3	1/4" TEE COUPLING	58020
20	1	22" x 26" STL VAULT W/STL LID	
19	4	1/4" x 4" THRD NIP	68065
18	4	1/4" x 90" THRD ELL	60030
17	2	1/4" x 0" THRD NIP	68050
16	2	1" CURB VALVE TEE H7812	78662
15	4	1" STL PIPE B&P	70130
14	1	1" x 6" THRD NIP (IN HALF)	68455
13	2	1" x 300lb SECURITY VALVE A.S.O.	56935
12	2	1" x 2" THRD NIP	68410
11	2	1" FISHER REGULATOR 621 with 1/8" orifice	74197
10	1	1" x 4" THRD NIP (CUT IN HALF)	68455
8	4	1" x 300lb WELD NECK ELANSE	64095
7	7	1" x 90" WELD ELL	60255
6	2	1" WELD TEE	78155
5	58'	1" STL PIPE WRPD	70140
4	3	1" CURB VALVE TEE H17800	78660
3	1	1" PROTECTOWRAP	66940
2	1	4" PROTECTOWRAP	66950
1	1	PRIMER 70 B	68700

WASHINGTON NATURAL GAS COMPANY

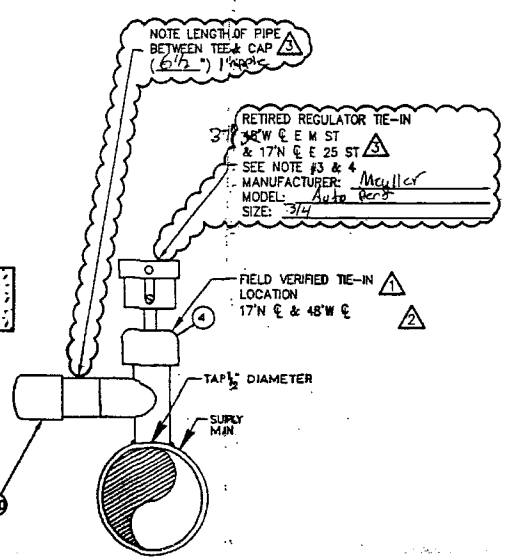
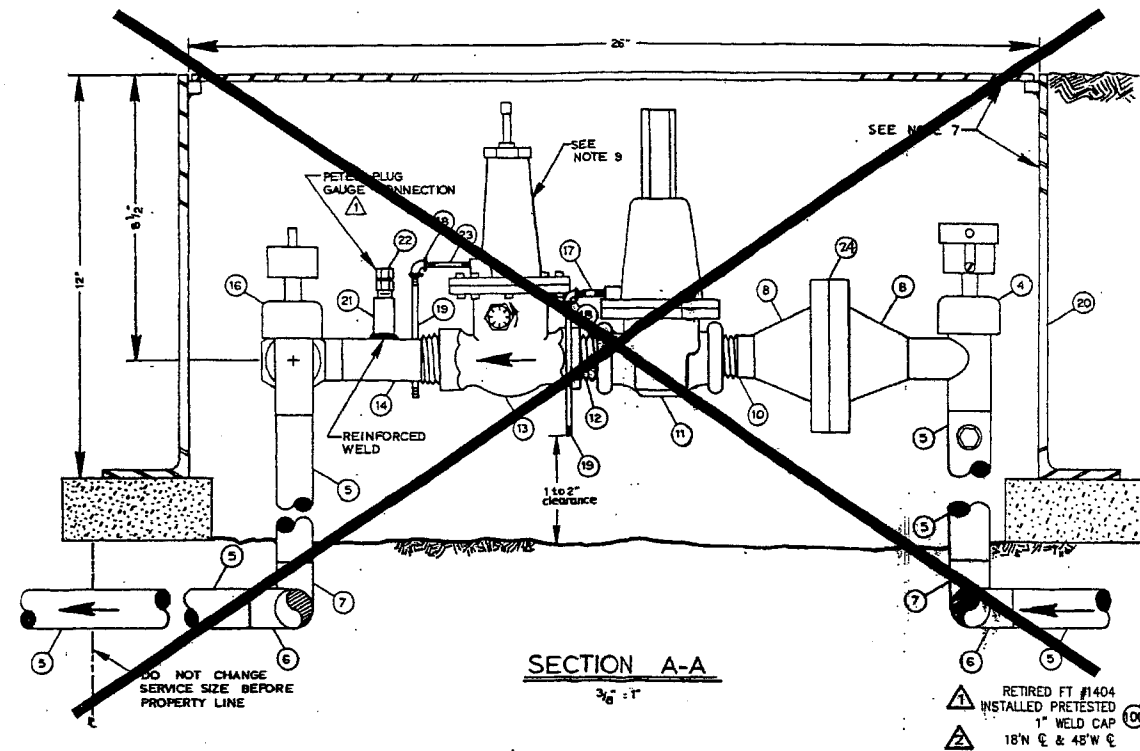
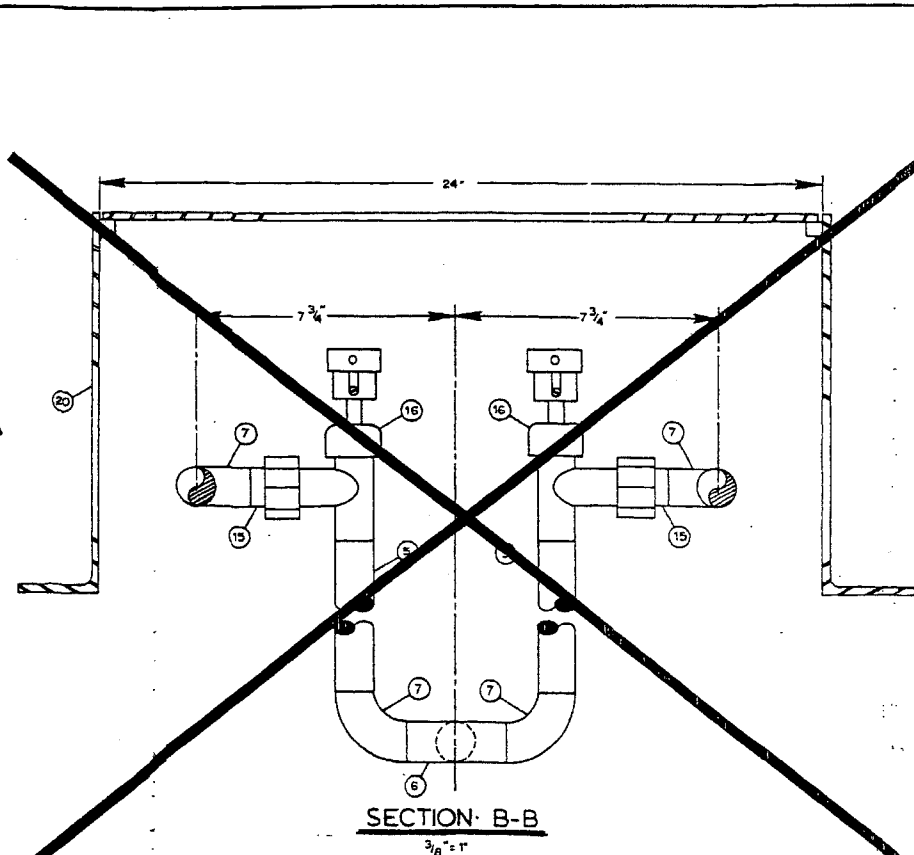
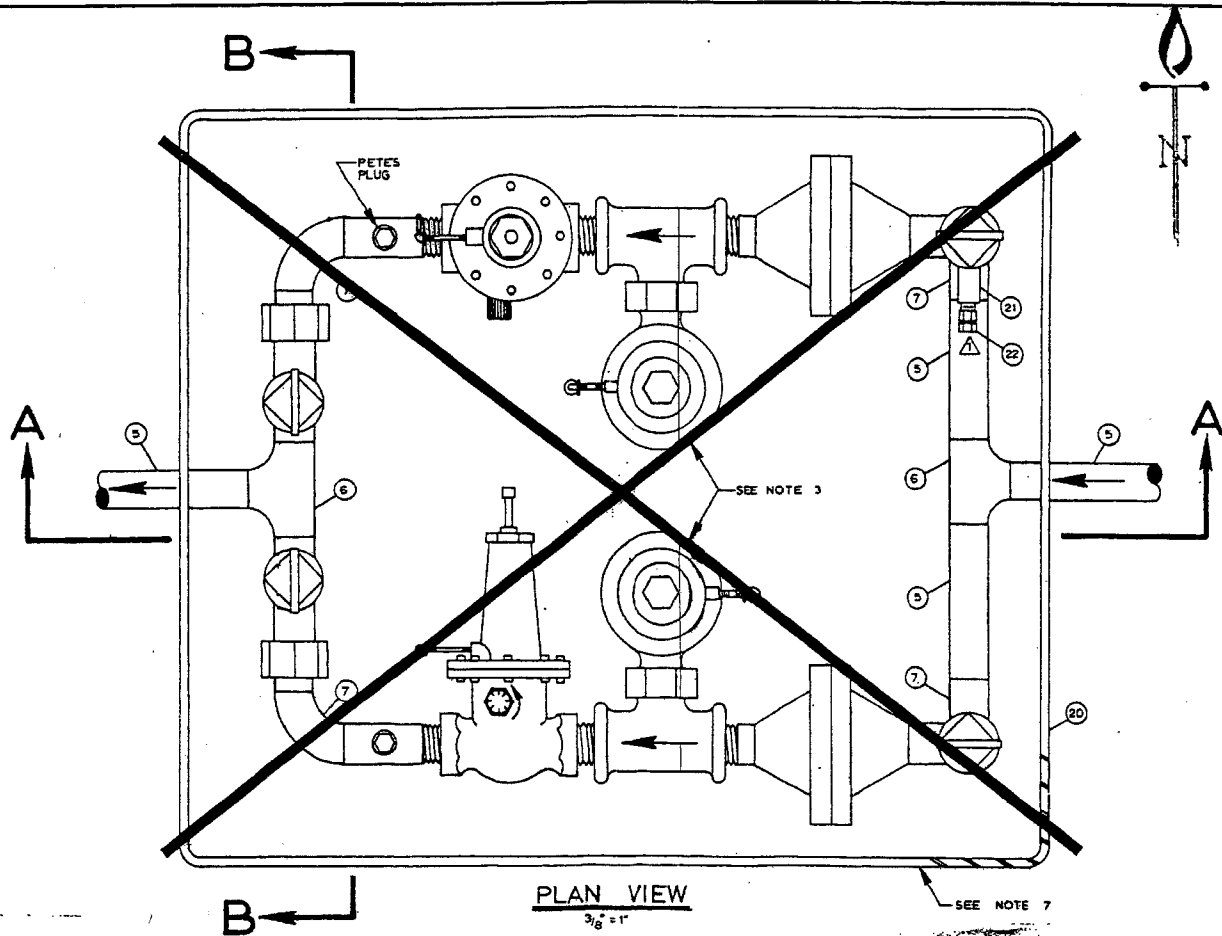
AREA TACOMA MAP NO. 242.052

RETIRE FARM TAP #1404

E M ST & E 25TH ST
TACOMA, WA 98409

DRAWN DPH 06/23/04 IR
JOB 887024719
DRAWING 715-071

Plotted by: mason 06/17/11 12:22PM



GAS MAIN PRESSURE AND TESTING			
TEST TYPE	<input type="checkbox"/> SOAP	<input type="checkbox"/> AIR	<input type="checkbox"/> NITROGEN <input type="checkbox"/> WATER
DATE ON	///	START TIME	TESTED BY
DATE OFF	///	STOP TIME	
PRESSURE		TEST RESULTS	<input type="checkbox"/> P <input type="checkbox"/> F
TEST TYPE	<input type="checkbox"/> SOAP	<input type="checkbox"/> AIR	<input type="checkbox"/> NITROGEN <input type="checkbox"/> WATER
DATE ON	///	START TIME	TESTED BY
DATE OFF	///	STOP TIME	
PRESSURE		TEST RESULTS	<input type="checkbox"/> P <input type="checkbox"/> F
<input type="checkbox"/> TESTED BY PSE PRESSURE CONTROL SEE FORM 1928			
DESIGN PRESS		SYSTEM MAP	

FITTER'S CHECKLIST (CHECK BOX TO CONFIRM COMPLETION)

- INSPECTED STEEL AND PE PIPE PER GOS 2450.1400 AND 2450.1500.
- REVIEWED AND COMPLIED WITH ALL CONSTRUCTION NOTES.
- RECORDED ALL REQUIRED INFORMATION IN THE AS-BUILT PER GOS 2500.1700.
- COMPLETED POST-INSTALLATION INSPECTION PER GOS 2525.1200 AND 2525.2700.
- LEFT THE WORK AREA IN A CLEAN AND SAFE CONDITION.

FOREMAN'S SIGNATURE: Bill Jenkins
 FOREMAN'S NAME (PRINTED): Bill Jenkins
 COMPANY: Indra Source DATE: 9-28-11

PROJECT MANAGER CONTACT INFO
 MOLLY REED
 425-214-6684 CELL PHONE
 MOLLY.REED@PSE.COM EMAIL

4680 06/11 ORIGINAL JOB 715-071
 RETIRED 108522516

REV	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE
1	MOVED PLAN VIEW, SECTION A & B TO NEW SHEET 2. RETEST TIE-IN PER SAP #887026099.						06/14/2011
2	AS-INSTALLED PER SAP# 108522516	DFH	RN	N/A	N/A	N/A	06/14/2011
3	RETIRED FT #1404 PER W/O 108522516. NO DWG WAS CREATED FOR THE INSTALLATION, THIS DWG CREATED FOR RECORD.	DFH					

PERMITS

WASHINGTON NATURAL GAS COMPANY

AREA: TACOMA MAP NO. 242.052

RETIRE FARM TAP #1404

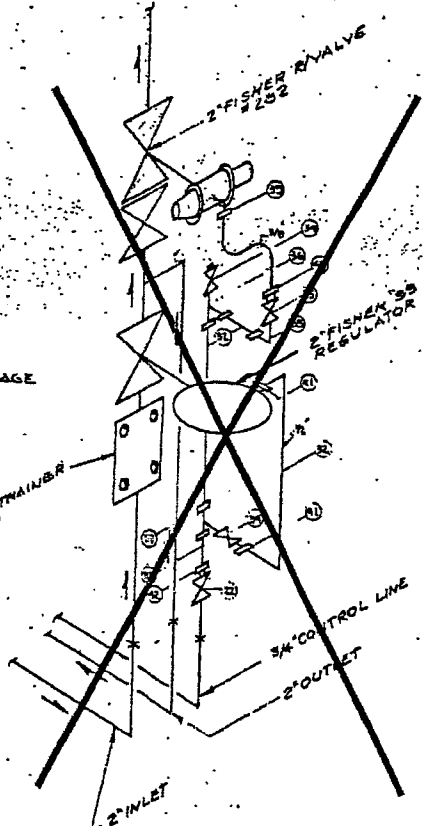
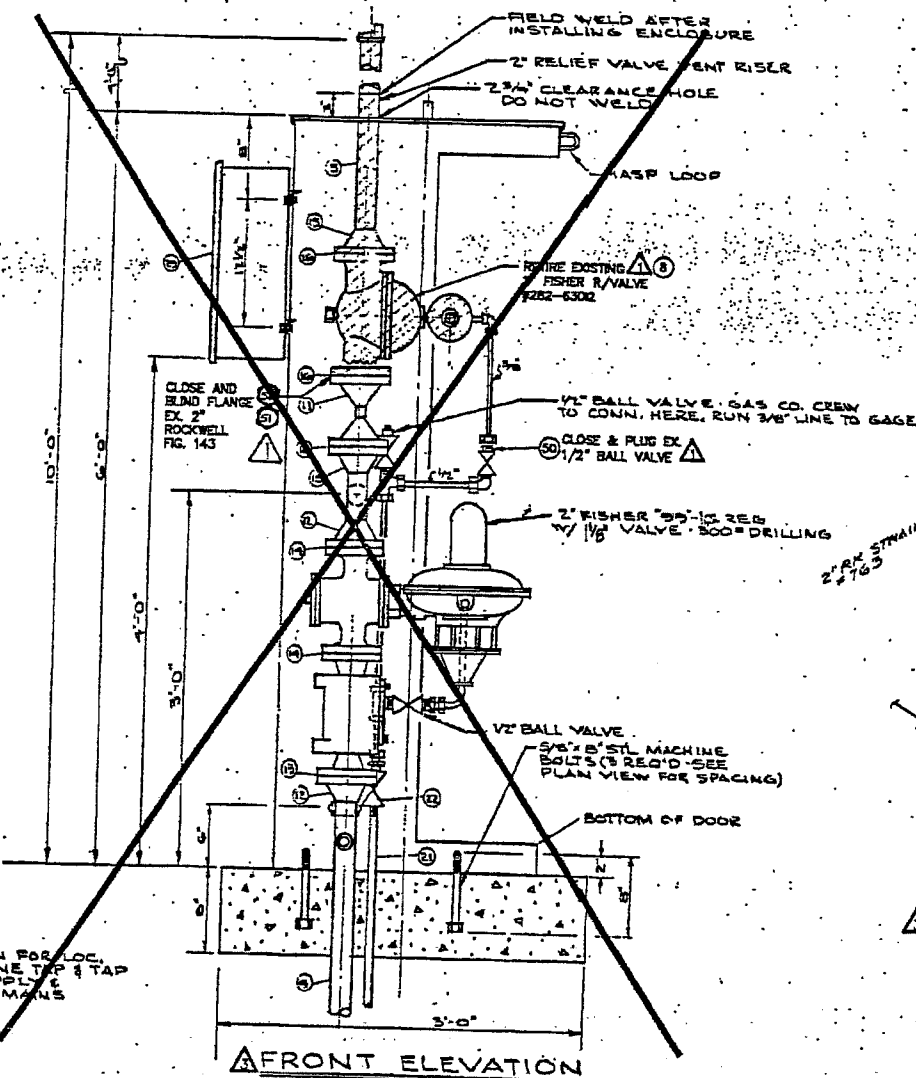
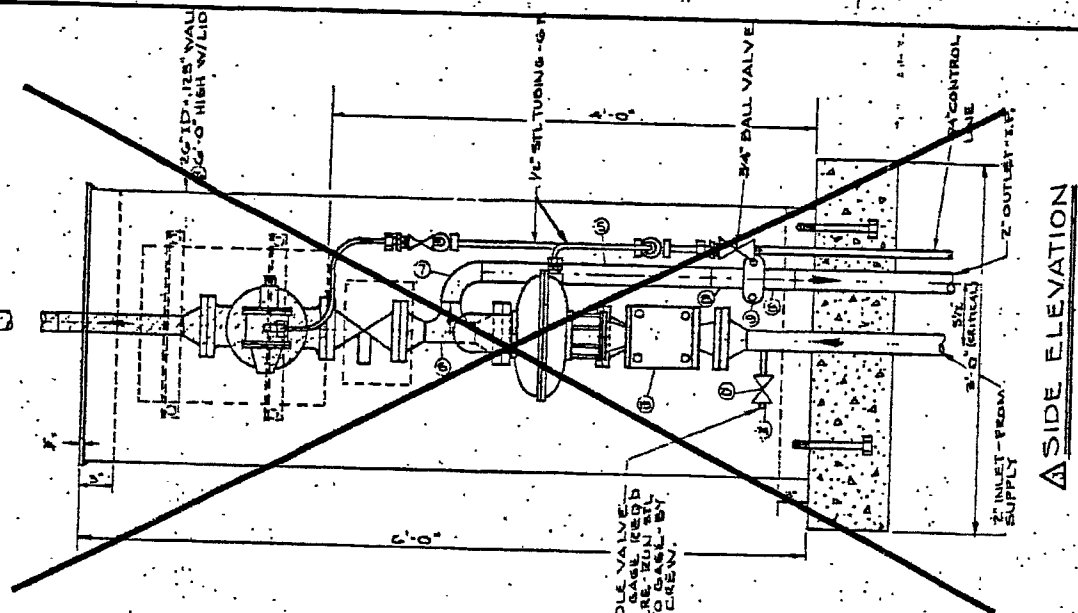
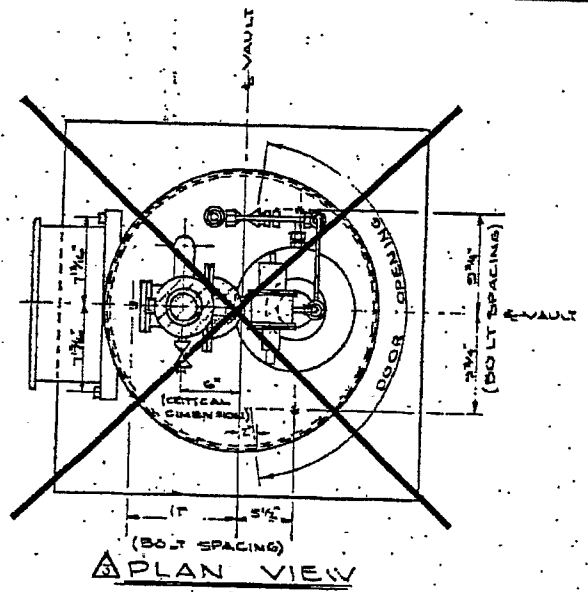
E 1st ST & E 25th ST
 TACOMA, WA 98409

DATE: 06/23/04 IR

JOB: 715-071

SCALE AS SHOWN

L:\os\Pages\1000-1499\1404\15-071_S01_R03.dwg - Plotted By: rmcian 06/17/11 12:25PM



RETIRE EXIST DR #1418
PER ORDER 108527262
AND INSTALL NEW DR # 2698
PER ORDER #109023568

SEE PLOT PLAN FOR LOC OF CONTROL LINE TAP & TAP VALVES AT SUPPLY & DISTRIBUTION MAINS

PREVIOUS JOB - #325640
PREVIOUS R - N/A

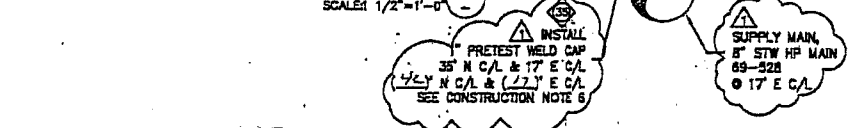
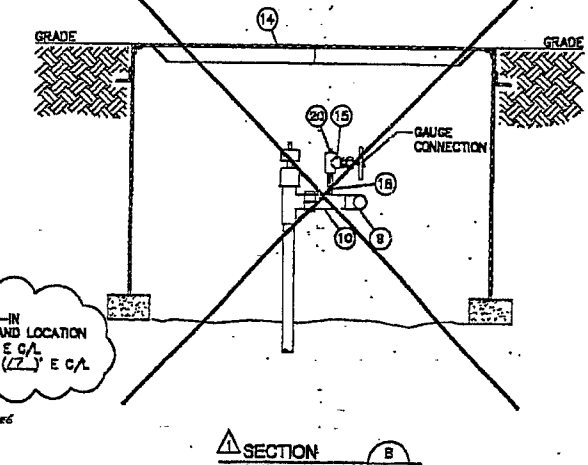
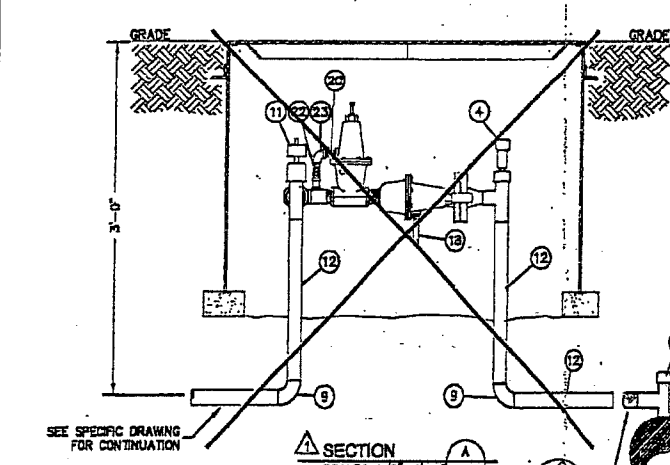
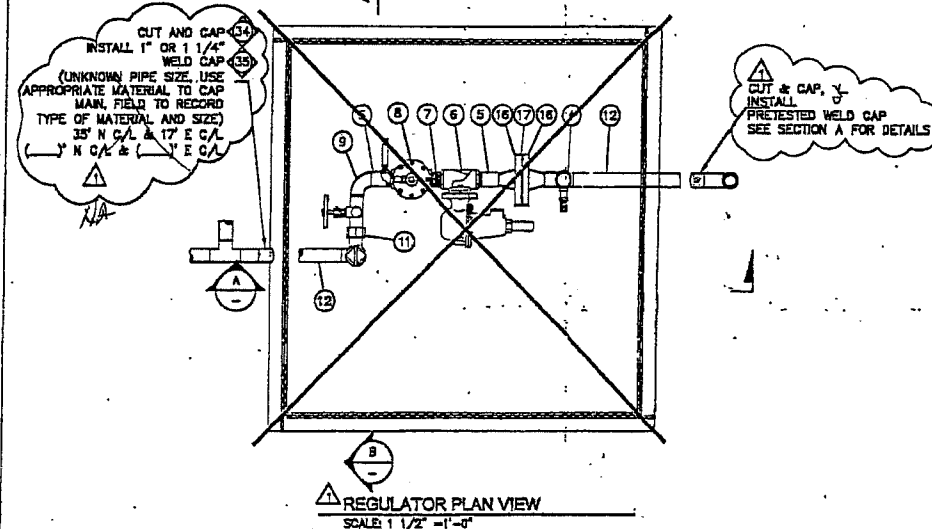
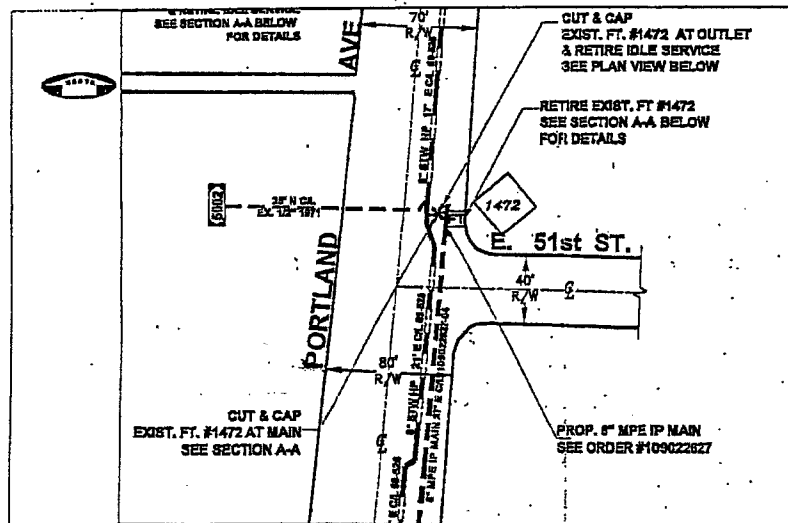
WASHINGTON NATURAL GAS COMPANY
AREA TACOMA DISTRICT #1418
DISTRICT REGULATOR #1418
EAST 20TH ST & EAST 21ST ST

REV	DESCRIPTION	BY	CHK	CP	ENGR	PM	DATE
1	RETIRE REGULATOR STATION AND REPLACE WITH NEW 35-2698. CHANGED SHEET 2 TO DRAWING 3D11-580, SHEET 4/4.	EB					11/15/71

NO.	REVISION	DATE	BY	CHK	APP.
1	REVISED FRONT PLAN & ELEVATION FITTINGS AND CONTROL LINE SCHEMATIC TO NEW SHIT. 1A	5/12/71	J.C.		
2	REPLACE EX. P&R RELIEF 3/4" P&R RELIEF & ADD SHIT. 1/2" P&R RELIEF	5/12/71	R.P.W.		

ORDER #108527262
710-305

Plotting by: mohan 11/23/05 07:03AM



RETIREMENT NOTES: ORDER #108528095

- SCOPE OF JOB: RETIRE EXISTING FARM TAP 1472 DUE TO THE SAUSHAN UPRATE. INSTALL "PRE-TESTED CAP. RETURN ALL SALVAGEABLE PARTS TO STORE.
- ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY (PSE) GAS OPERATING STANDARDS.
- FIELD LOCATE UTILITIES. PSE SERVICE PROVIDER TO CALL UTILITIES UNDERGROUND LOCATION CENTER AT 1-800-424-5555 AT LEAST 2 WORKING DAYS PRIOR TO CONSTRUCTION.
- PSE SERVICE PROVIDER TO FILL VAULTS WITH SAND OR CUT OUT AND REMOVE VAULT AS APPLICABLE PER LOCAL MUNICIPAL REQUIREMENT. CALL PERCE COUNTY INSPECTORS 48 HOURS PRIOR TO CONSTRUCTION AT ()
- PSE SERVICE PROVIDER TO NOTIFY CORROSION CONTROL TECHNICIAN LARRY O'NEIL AT (253) 877-1753, 48 HOURS PRIOR TO RETIRING STATION.
- FIELD TO VERIFY INLET TIE-IN SIZE AND MATCH WELD CAP ACCORDINGLY. INLET PRESSURE REVERSE PER UPRATE 109018567. DRAWING DOES NOT EXIST. REFER TO PSE ENGINEER JEFF WEBB @ 425-482-3813 FOR ANY QUESTIONS.
- NEW MATERIAL SHOWN SHADED AND CALLED OUT (C/C).
- THIS JOB TO BE DONE IN CONJUNCTION WITH PROPOSED 6" MPE IP MAIN PER #109022627.
- PUGET SOUND ENERGY CONTACT LIST:
PROJECT ENGINEER: JEFF WEBB AT 425-482-3813, CELL 206-396-8817.
CORROSION ENGINEER: ALAN MULKEY AT 206-255-4034.
PRESSURE CONTROL: RICK FERDERER AT 206-386-8798.
CORROSION TECHNICIAN: LARRY O'NEIL AT 253-377-1753-6308.
- PULCHUCK CONTACT LIST:
PROJECT MANAGER: DAVID NARO AT 206-418-4230, CELL 206-396-8761.

PRE-TESTED WELD CAP NOTE:

- SCOPE: PRE-TESTING OF WELD CAPS SMALLER THAN 6 INCHES IN DIAMETER FOR HIGH PRESSURE INSTALLATIONS ON MAINS AND SERVICES OPERATING BELOW 20X SMYS.
- WELD CAPS SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES AT 100 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5.
- WELD CAPS SHALL BE STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5. USE FORM 1928 "REPORT OF PRESSURE TEST ON NEW MAIN" TO DOCUMENT TEST PRESSURE WHILE PRE-TESTING WELD CAPS.
- LEAK TEST THE TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.8.1.

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
PO = NOW STOCK ITEM
C/C = CONTRACTOR WILL PROVIDE ITEM

RETIREMENT ORDER #108528095 (RETIREMENT BOM)

ACT.#	DESCRIPTION	PART NO.
35	2 1" WELD CAP (PSE-TESTED)	82-00805
34	1 1 1/4" STL WELD CAP	82-00835

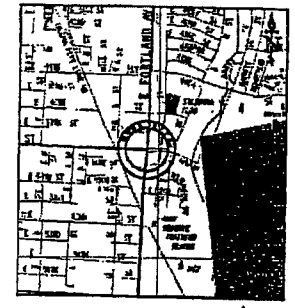
ACT.# ORDER# 805-493 (SINGLE FISHER 621)

23	PRIMER 70 B	58-00520
22	1/8" X 4" THREADED NIPPLE	58-00025
21	1/8" X 2" THREADED NIPPLE	58-00015
20	1/4" THREADED PLUG	72-00008
19	1/4" X 2" THREADED NIPPLE	58-00055
18	1/4" X 4" THREADED NIPPLE	58-00065
17	3/4" X 300# INSULATED BOLT KIT	50-00001
16	3/4" X 300# WELD NECK FLANGE	64-00040
15	1/4" NEEDLE VALVE	58-00320
14	36" X 36" 24" STEEL VAULT WITH LID	85-00795
13	1/8" X 80" THREADED ELL	68-00010
12	45" 1" STL PIPE WRAPPED	70-00140
11	1" CURB VALVE TEE HYD2	78-00662
10	6" 1" STL PIPE BAR	70-00130
9	1" X 80" WELD EYE STD.	60-00255
8	1" X 300# SECURITY ASD, SET PSIG	58-00235
7	1" X 2" THREADED NIPPLE	68-00410
6	1" FISHER REGULATOR NO. 821 W/ 1/2" ORICES/SET PSIG	74-00197
5	2 1" X 4" THREADED NIPPLE (CUT IN HALF)	68-00455
4	1" CURB VALVE TEE H17800	78-00680
3	1" PROTECTOWRAP	68-00940
2	6" PROTECTOWRAP	68-00950
1	TEE, AUTOPERF. 3/4" X 1", H-18101	68-00820

ITEM QTY DESCRIPTION PART NO

BILL OF MATERIALS

109018567 - SUPERIOR ORDER
108528095 - RETIRE RS-1472
109022627 - INSTALL 6" PE MAIN
109024107 - REPLACE SVC
108527933 - RETIRE SVC



CONSTRUCTION

FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION
COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP
FIELD CHANGES RED-LINED ON AS-BUILT
MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK
ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT
NOTE BEGINNING OF MAIN, EOM & LINE OF MAIN LOCATIONS
SHOW ROPE LOCATIONS & CUL-DE-SAC RADII

FOREMAN'S SIGNATURE: *Brian Latta*
COMPANY: PULCHUCK DATE: 10/22/10

CONTRACTOR OCCUPATION COST CODES

051-207	N/A	N/A	N/A
---------	-----	-----	-----

PROJECT MANAGER CONTACT INFO: DAVID NARO 206-396-8751 Cell Phone david.naro@pse.com Email

OWNER/DEVELOPER CONTACT INFO: PULCHUCK CONTRACTORS, INC 13330 STONE AVE N SEATTLE, WA 98133 OFFICE: (206) 418-4230

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

REV	DATE	BY	DESCRIPTION	CHECKED BY
3				
2				
1				

COUNTY: PIERCE
EMER SECTION: JH
GAS WK CTR: MSEP/PG
APPROVED BY: CP APP

1/4" SECTION: NE22-20-03
DP MAP: 244-082
PLAT MAP: 248-063
MAPPING

UTILITY CONTACT PHONE

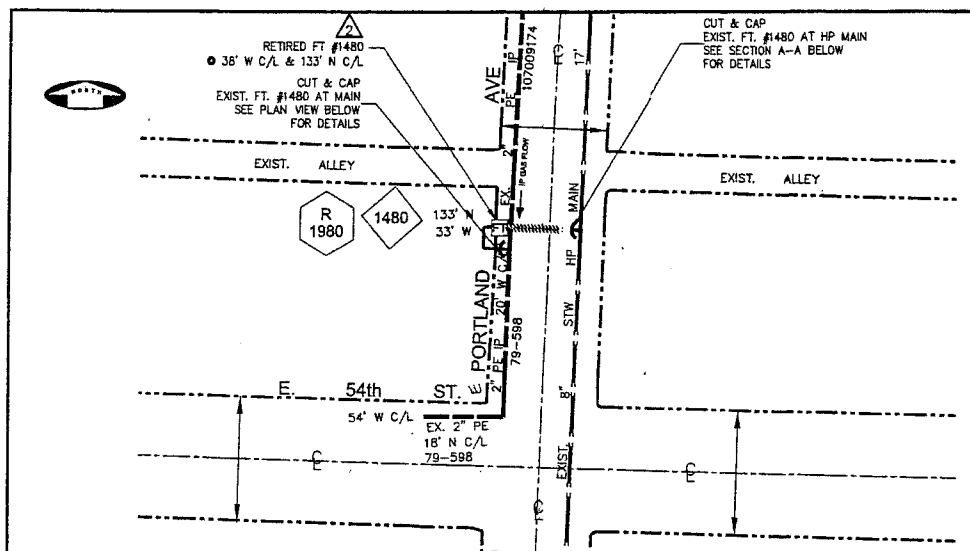
REVISIONS

REV	DESCRIPTION	BY	CHK	CP	ENG	PN	DATE
1	RETIRE EX. FT. #1472 PER ORDER #108528095.						01-12-05
2	DRAWING 715-697 CREATED FROM STANDARD DRAWING 12.3D-193. ORIGINAL DRAWING NEVER EXISTED.	DPH					01-12-05

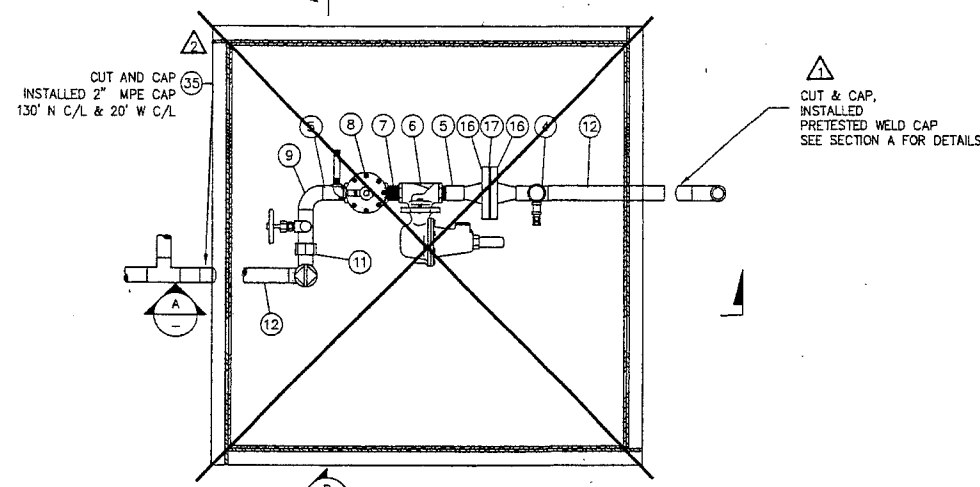
UTILITY CONTACT PHONE

FARM TAP #1472
5002 PORTLAND AVE
TACOMA

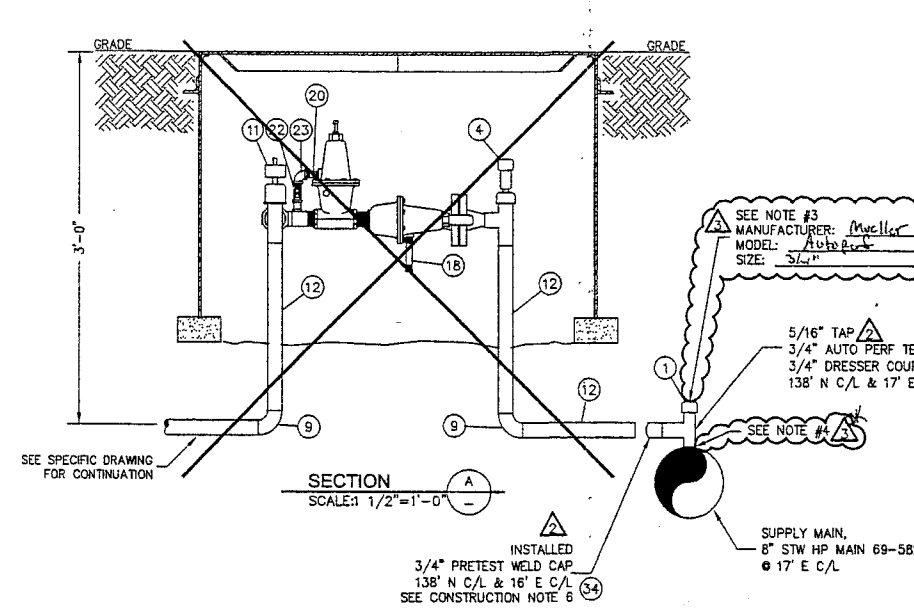
SAP ORDER NUMBER: 108528095
DWG NUMBER: 715-697
SCALE: 1/2" = 1'-0"



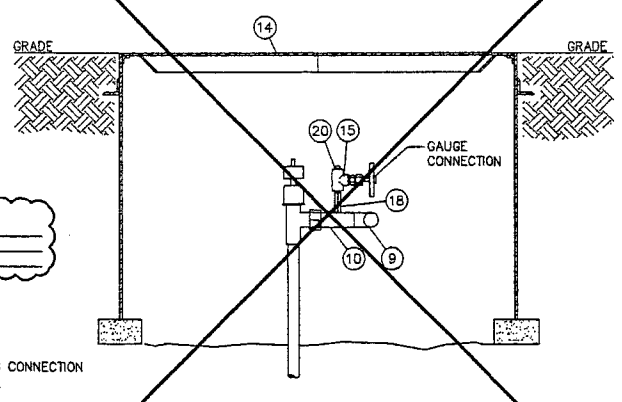
PLOT PLAN
SCALE: 1" = 50'-0"



REGULATOR PLAN VIEW
SCALE: 1 1/2" = 1'-0"



SECTION A
SCALE: 1 1/2" = 1'-0"



SECTION B
SCALE: 1 1/2" = 1'-0"

RETIREMENT NOTES: ORDER #108526097

- SCOPE OF JOB: RETIRE EXISTING FARM TAP 1480 DUE TO THE SALISHAN UPRATE. INSTALL *PRE-TESTED CAP. RETURN ALL CALVAGEABLE PARTS TO STORE.
- PSE SERVICE PROVIDER TO FILL VAULTS WITH SAND OR CUT OUT AND REMOVE VAULT AS APPLICABLE PER LOCAL MUNICIPAL REQUIREMENT.
- THIS JOB TO BE DONE IN CONJUNCTION WITH PROPOSED 2" MPE IP MAIN, PER ORDER #109022629

PRE-TESTED WELD CAP NOTE:

- SCOPE: PRE-TESTING OF WELD CAPS SMALLER THAN 6 INCHES IN DIAMETER FOR HIGH PRESSURE INSTALLATIONS ON MAINS AND SERVICES OPERATING BELOW 200 PSIG.
- WELD CAPS SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES AT 100 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5.
- WELD CAPS SHALL BE STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5. USE FORM 1928 'REPORT OF PRESSURE TEST ON NEW MAIN' TO DOCUMENT TEST PRESSURE WHILE TESTING WELD CAPS.
- LEAK TEST THE TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.8.1.

NOTES FOR ORDER 887025761

- ALL CONSTRUCTION TO CONFORM TO ALL PSE GAS STANDARDS AND GAS PROCEDURES.
- CALL 1-800-424-5555 OR 811 TWO WORKING DAYS PRIOR TO CONSTRUCTION TO LOCATE UNDERGROUND UTILITIES.
- FIELD PERSONNEL SHALL RECORD THE MANUFACTURER NAME, MODEL NUMBER, AND SIZE OF THE TIE-IN FITTING ON THE AS-BUILT. IN ADDITION TO RECORDING THIS INFORMATION ON THE AS-BUILT, FIELD PERSONNEL SHALL CALL THE PSE PROJECT ENGINEER (DEREK KOO AT 206-396-9633 AND REPORT THIS INFORMATION.
- FIELD PERSONNEL SHALL CONFIRM REINFORCEMENT ON THE TIE-IN FITTING.
 - A. IF A REINFORCEMENT PAD WAS INSTALLED AT THE TIE-IN FITTING, FIELD PERSONNEL SHALL RECORD THE DIMENSIONS OF THE REINFORCEMENT PAD (PAD DIAMETER AND PAD THICKNESS) ON THE AS-BUILT.
 - B. IF A WELD-O-LET WAS INSTALLED AT THE TIE-IN FITTING, FIELD PERSONNEL SHALL RECORD THE WELD-O-LET INFORMATION ON THE AS-BUILT.
- FIELD PERSONNEL SHALL TAKE PHOTOGRAPHS OF THE TIE-IN FITTING AND ACTIVE STUB. THIS IS TO RECORD THE CONDITION OF FACILITY. THESE PHOTOGRAPHS SHALL BE SUBMITTED TO THE PROJECT ENGINEER (DEREK KOO, EST 04W OR DEREK.KOO@PSE.COM), AS SOON AS POSSIBLE.
- FIELD PERSONNEL SHALL PERFORM THE FOLLOWING TASKS WHEN APPLICABLE. IF THERE ARE ANY QUESTIONS, CONTACT THE PROJECT ENGINEER.
 - A. IF A DRESSER STREET TEE (THE DRESSER COUPLING IS PART OF THE SERVICE TEE) IS FOUND, FIELD PERSONNEL SHALL RETIRE THE TEE WITH THE COUPLING BY INSTALLING A 2" SAVE-A-VALVE OVER IT. ALLOW A SMALL DETECTABLE GAS LEAK THROUGH THE TEE WHILE WELDING THE SAVE-A-VALVE ONTO THE MAIN, SO THE SAVE-A-VALVE WILL BE PRESSURIZED AFTER THE INSTALLATION. THE SAVE-A-VALVE SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES AT 100 PSIG AND STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.3300.
 - B. IF A DRESSER FITTING IS FOUND DOWNSTREAM OF THE SERVICE TEE, FIELD PERSONNEL SHALL REMOVE THE DRESSER FITTING COMPLETELY AND INSTALL A SOCKET-WELD CAP.
- FIELD PERSONNEL SHALL CONFIRM IF THE ORIGINAL STUB TO THE RETIRED STATION IS STILL INTACT AND ACTIVE. IF SO, TEST THE ORIGINAL STUB IN ACCORDANCE TO TESTING PROCEDURE (INLET PIPING RETEST FOR RS-1031, RS-1327, RS-1480, AND RS-1868 SALISHAN UPRATE) PROVIDED BY GAS SYSTEM ENGINEERING.
- FORM 1928 'REPORT OF PRESSURE TEST ON NEW MAIN' SHALL BE USED TO DOCUMENT TEST PRESSURE INFORMATION.
- LEAK TEST THE TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300.

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
PO = NON STOCK ITEM
CR = CONTRACTOR WILL PROVIDE ITEM
ORDER #887025761

ITEM	QTY	DESCRIPTION	PART NO
45			
44			
43			
42	2	NIPPLE, 2" SAV-A-VALVE, H-17491	6700841
41	6	CAP, 1" X 0.179", CLASS 3000, SOCKET-WELD	9997800
40	2	CAP, 3/4" X 0.154", CLASS 3000, SOCKET-WELD	9997799

BILL OF MATERIALS

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
PO = NON STOCK ITEM
CR = CONTRACTOR WILL PROVIDE ITEM

RETIREMENT ORDER # 108526097 (RETIREMENT 2007)

ACT #	ORDER #	DESCRIPTION	QTY	PART NO
35	1	2" MPE CAP	1	5200649
34	1	3/4" WELD CAP (PRE-TESTED)	1	5200556
ACT # ORDER # 805-493 (SINGLE FISHER 621)				
23		PRIMER 70 B		66-00620
22		1/8" X 4" THREADED NIPPLE		66-00025
21		1/8" X 2" THREADED NIPPLE		68-00015
20		1/4" THREADED PLUG		72-00008
19		1/4" X 2" THREADED NIPPLE		68-00055
18		1/4" X 4" THREADED NIPPLE		68-00065
17		3/4" X 300# INSULATED BOLT KIT		50-00001
16		3/4" X 300# WELD NECK FLANGE		64-00040
15		1/4" NEEDLE VALVE		56-00320
14		36" X 36" 24" STEEL VAULT WITH LID		85-00795
13		1/8" X 90" THREADED ELL		68-00010
12	45'	1" STL PIPE WRAPPED		70-00140
11		1" CURB VALVE TEE H17800		78-00662
10		6" 1" STL PIPE BAR		70-00130
9		1" X 90" WELD ELL STD.		60-00255
8		1" X 300# SECURITY ASSO. SET @ PSIG		56-00535
7		1" X 2" THREADED NIPPLE		68-00410
6		1" FISHER REGULATOR NO. 621 W/ 1/2" ORICOR SET @ PSIG		74-00197
5	2	1" X 2" THREADED NIPPLE (CUT IN HALF)		68-00455
4	1	1" CURB VALVE TEE H17800		78-00660
3		4" PROTECTOWRAP		66-00940
2		6" PROTECTOWRAP		66-00950
1	1	TEE, AUTOPEF, 3/4" X 1", H-18101		66-00620

GAS MAIN PRESSURE AND TESTING

TEST TYPE SOAP AIR NITROGEN WATER

DATE ON: / / START TIME: : : TESTED BY:

DATE OFF: / / STOP TIME: : : PRESSURE: P F

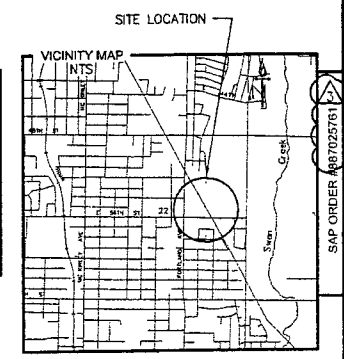
TEST TYPE SOAP AIR NITROGEN WATER

DATE ON: / / START TIME: : : TESTED BY:

DATE OFF: / / STOP TIME: : : PRESSURE: P F

TESTED BY PSE PRESSURE CONTROL, SEE FORM 1928

DESIGN PRESS: SYSTEM MAP:



FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION

COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP FIELD CHANGES RED-LINED ON AS-BUILT

MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT

NOTE BEGINNING OF MAIN, EDM & LINE OF MAIN LOCATIONS SHOW ROPE LOCATIONS & CUL-DE-SAC RADIUS

FOREMAN'S SIGNATURE: [Signature]

COMPANY: IFS DATE: 4-5-12

PROJECT MANAGER CONTACT INFO:

MOLLY REED
425-214-6684 Cell Phone
MOLLY.REED@PSE.COM Email

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

CALL (800) 424-5555
2 BUSINESS DAYS BEFORE YOU DIG

FUNCTION	NAME	PHONE	DATE
PROJECT MGR	D. NARO	(206) 418-4230	7/05/05
ENGINEER	J. WEBB	(425) 462-3813	08/16/05
DRAWN BY	E. BROWN	(253) 841-6271	07/26/05
CHECKED BY	D. HONG	(425) 462-3911	

COUNTY: PIERCE EMER SECTION #41 GAS WK CTR MSEP/PG APPROVED BY J.BATINOVICH (253) 405-4951 08/17/05

1/4 SECTION OP MAP 244.062 PLAT MAP 246.063 MAPPING

REVISIONS

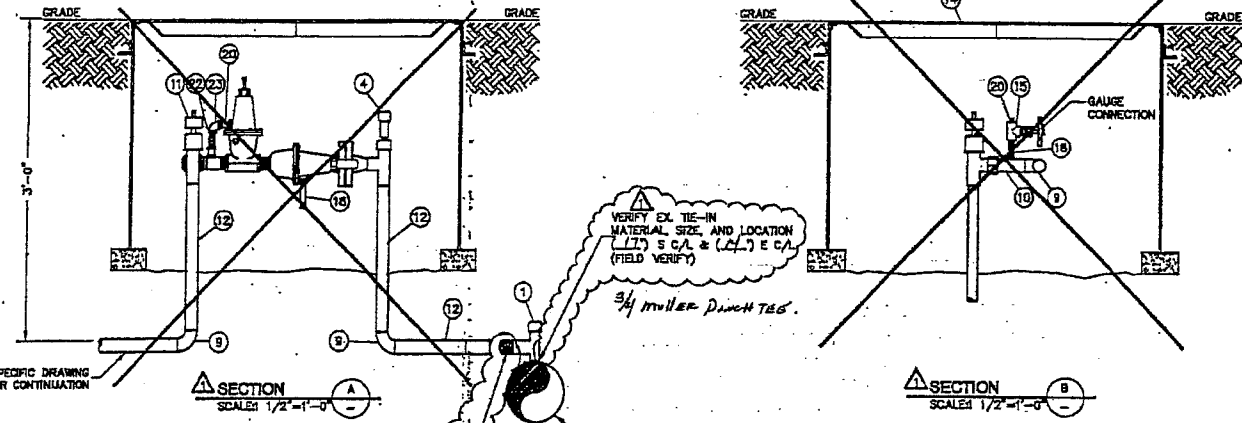
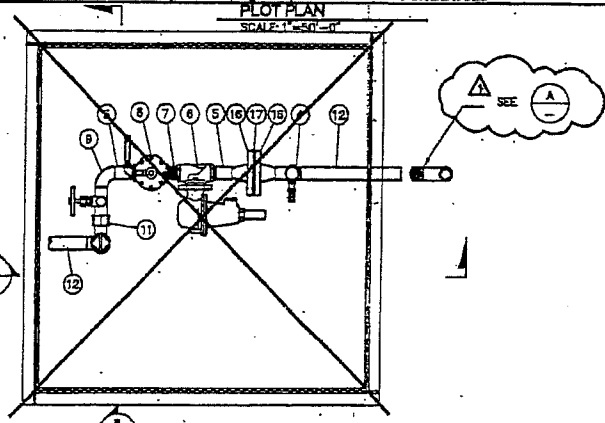
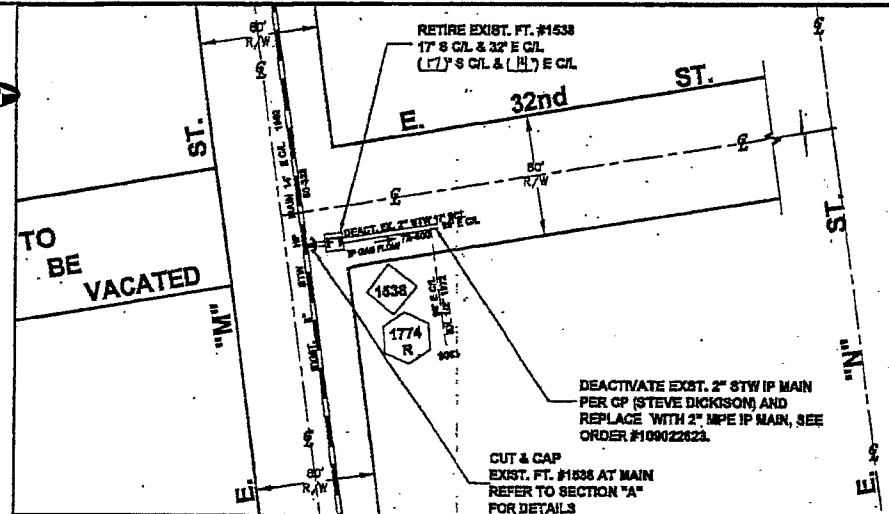
REV	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE
1	DIG-UP & VERIFY PER ORDER 887025761	EA	RF	N/A	DF	N/A	09/19/2008
2	AS-INSTALL EX. FT-1480 PER W/O 108526097	EB	RF	N/A	DF	N/A	09/19/2008
3	RETIRE EX. FT #1480 PER ORDER #108526097.	DH	LW	N/A	JW	DN	08/16/2005
4	DRAWING 715-792 CREATED FROM STANDARD DRAWING 12.30-193. ORIGINAL DRAWING NEVER EXISTED.	DFH	N/A	N/A	N/A	N/A	01/12/2005

PSE PUGET SOUND ENERGY

FARM TAP #1480
5314 PORTLAND AVE
TACOMA

SAP ORDER NUMBER: 887025761
DWG NUMBER: 715-792
SCALE: 1/2" = 1'-0"

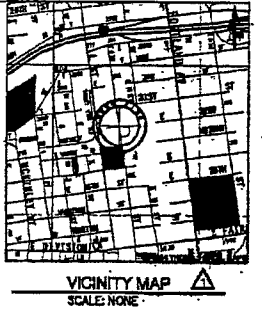
L: C:\pse\1000-1999\1480\715-792_001.dwg - Plotted By: mcken 05/27/11 01:01PM



- RETIREMENT NOTES: ORDER #108528090**
- SCOPE OF JOB: RETIRE EXISTING FARM TAP #1538 DUE TO THE SALISHAN UPRATE. INSTALL PRE-TESTED CAP. RETURN ALL SALVAGEABLE PARTS TO STORE. AND INSTALL PROP. 2" MPE IP MAIN PER ORDER #109022623 BEFORE RETIRING EXISTING FARM TAP.
 - ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY (PSE) GAS OPERATING STANDARDS.
 - FIELD LOCATE UTILITIES. PSE SERVICE PROVIDER TO CALL UTILITIES UNDERGROUND LOCATION CENTER AT 1-800-424-5555 AT LEAST 2 WORKING DAYS PRIOR TO CONSTRUCTION.
 - PSE SERVICE PROVIDER TO FILL VAULTS WITH SAND OR CUT OUT AND REMOVE VAULT AS APPLICABLE PER LOCAL MUNICIPAL REQUIREMENT.
 - PSE SERVICE PROVIDER TO NOTIFY CORROSION CONTROL TECHNICIAN JOHN BATINOVICH AT (253) 405-4851, 48 HOURS PRIOR TO RETIRING STATION.
 - FIELD TO VERIFY INLET TIE-IN SIZE, AND MATCH WELD CAP ACCORDINGLY. INLET PRESSURE REVERSED PER UPRATE 10801857, DRAWING DOES NOT EXIST. REFER TO PSE ENGINEER JEFF WEBB @ 425-482-3813 FOR ANY QUESTIONS.
 - NEW MATERIAL SHOWN SHADED AND CALLED OUT (CUT).
 - PUGET SOUND ENERGY CONTACT LIST:
PROJECT ENGINEER: JEFF WEBB AT 425-482-3813.
CORROSION ENGINEER: ALAN MILKEY AT 206-255-4034.
PRESSURE CONTROL: BILL MOLDEN AT 206-571-2545.
CORROSION TECHNICIAN: JOHN BATINOVICH AT 253-405-4851.
 - PILCHUCK CONTACT LIST:
PROJECT MANAGER: DAVID NARO AT 206-418-4230, CELL 206-396-8761.

- PRE-TESTED WELD CAP NOTE:**
- SCOPE: PRE-TESTING OF WELD CAPS SMALLER THAN 8 INCHES IN DIAMETER FOR HIGH PRESSURE INSTALLATIONS ON MAINS AND SERVICES OPERATING BELOW 2000 PSIG.
 - WELD CAPS SHALL BE LEAK TESTED FOR (10) FIFTEEN MINUTES AT 100 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 8.5.
 - WELD CAPS SHALL BE STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 8.5. USE FORM 1928 "REPORT OF PRESSURE TEST ON NEW MAIN" TO DOCUMENT TEST PRESSURE WHILE PRE-TESTING WELD CAPS.
 - LEAK TEST THE TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 8.6.1.

ACT. #			ORDER # 725-500 (SINGLE FISHER 821)	
35	1	WELD CAP 3/4" X 1" H-1810H	82-00808	20-550
23	1	PRIMER 70 B	85-00820	
22	1	1/8" X 4" THREADED NIPPLE	85-00028	
21	1	1/8" X 2" THREADED NIPPLE	85-00015	
20	1	1/4" THREADED PLUG	72-00008	
19	1	1/4" X 2" THREADED NIPPLE	85-00055	
18	2	1/4" X 4" THREADED NIPPLE	85-00065	
17	1	3/4" X 300A INSULATED BOLT KIT	84-00091	
16	2	3/4" X 300A WELD NECK FLANGE	84-00040	
15	1	1/4" NEEDLE VALVE	85-00320	
14	1	36" X 36" 24" STEEL VAULT WITH LID	85-00780	
13	1	1/8" X 90" THREADED ELL	85-00010	
12	45'	1" STL PIPE WRAPPED	70-00140	
11	1	1" CURB VALVE TEE H1812	78-00862	
10	8'	1" STL PIPE BAR	70-00130	
9	1	1" X 90" WELD ELL STD.	80-00255	
8	1	1" X 300" SECURITY ASD, SET PSIG	84-00935	
7	1	1" X 2" THREADED NIPPLE	85-00410	
6	1	1" FISHER REGULATOR INCL. 621 W/ 1/2" ORICHES SET @ PSIG	74-00197	
5	2	1" X 4" THREADED NIPPLE (CUT IN HALF)	85-00455	
4	1	1" CURB VALVE TEE H1780	78-00880	
3	1	PROTECTOWRAP	66-00940	
2	1	6" PROTECTOWRAP	66-00950	
1	1	TEE, AUTOPEF, 3/4" X 1", H-1810H	85-00820	



10801857 - SUPERIOR ORDER
108528090 - RETIRE RS-1538
109022623 - INSTALL 2" PE MAIN

CONSTRUCTION PRINT

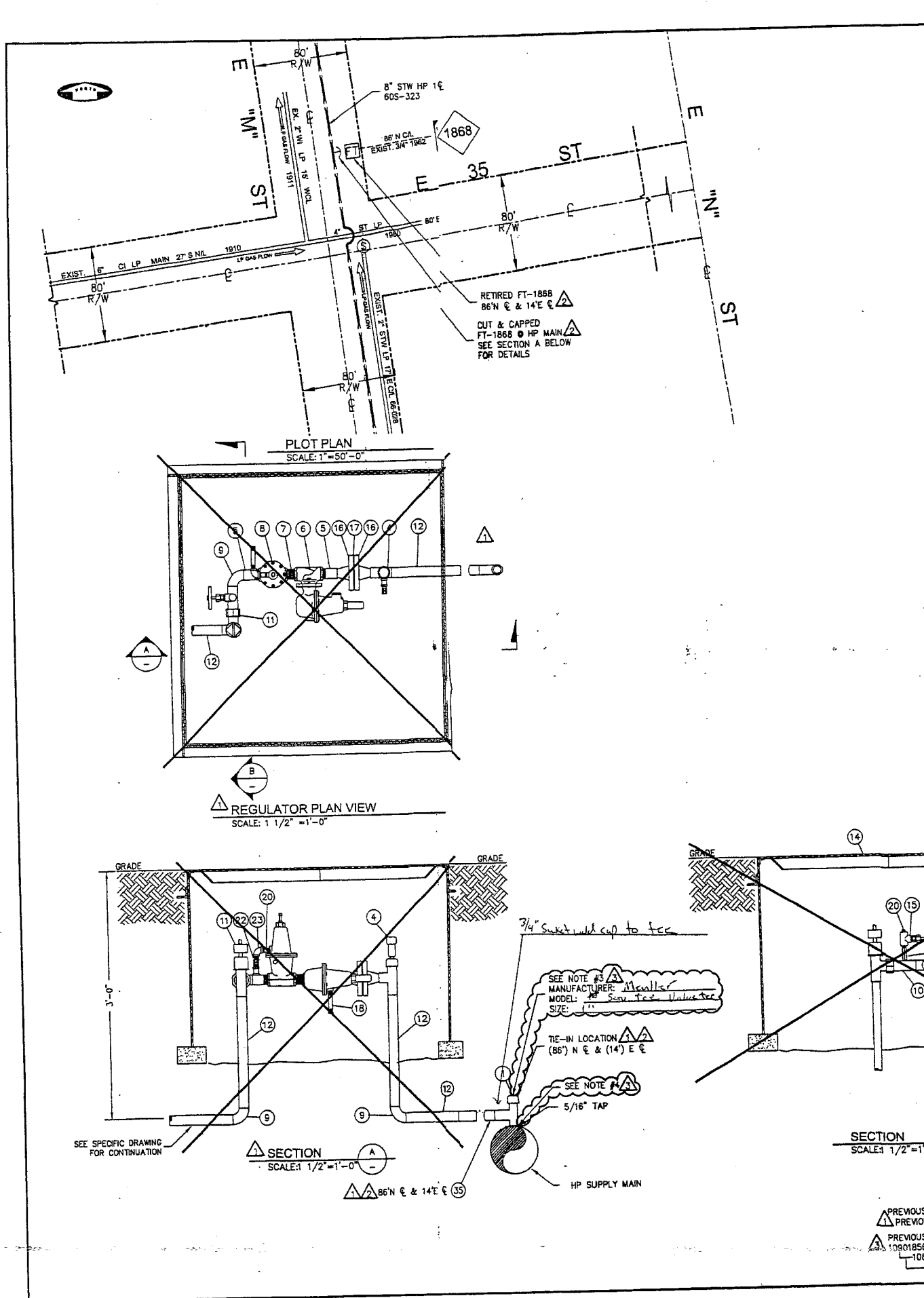
FITTER (CHECK BOX IF COMPLETED)
WORK AREA LEFT IN CLEAN & SAFE CONDITION
COMPLETE ALL BIDD TABLES AND GAS PRESSURE STAMP
FIELD CHANGES RED-LINED ON AS-BUILT
MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK
ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT
NOTE BEGINNING OF MAIN, EDM & LINE OF MAIN LOCATIONS
SHOW ROPE LOCATIONS & CUL-DE-SAC RADIUS
FOREMAN'S SIGNATURE: *Melburn*
COMPANY: *Plattuck* DATE: *1/21/16*

CONTRACTOR CONSTRUCTION COST CODES		PROJECT MANAGER CONTACT INFO:		REAL ESTATE/EASEMENT		PERMIT	
N/A	N/A	DAVID NARO	206-396-8761	N/A	N/A	TACOMA	11/10/15
3		FUNCTION	NAME	PHONE	DATE		
2		PROJECT MGR	D NARO	(206) 396-8761	11/10/15		
1		ENGINEER	JL WEBB	(425) 482-3813	11/10/15		
-1		DRAWN BY	E BRODM	(253) 841-8271	11/10/15		
REV #	DATE	BY	DESCRIPTION	CHECKED BY	D NARO	(425) 482-3813	11/10/15
001		EMER SECTION	GAS WK CTR	APPROVED BY			
002		PH	MSEPRC	CP APP	JL BATINOVICH	253-405-4851	1/21/16
1/4 SECTION		QP MAP	PLAT MAP				
SR10-20-03		240.082	243.082	MAPPING			

REV#	DESCRIPTION	BY	CHKR	CP	ENGR	PN	DATE
1	RETIRE EX. FT #1538 PER ORDER #108528090.	EP					1/16/16
2	DRAWING 725-500 CREATED FROM STANDARD DRAWING 12.30-183. ORIGINAL DRAWING NEVER EXISTED.	DFH					01-12-05

UTILITY CONTACT PHONE: _____
 FARM TAP #1538
 E M & 32nd ST
 TACOMA
 SAP ORDER NUMBER: 108528090
 DWG NUMBER: 725-500
 SCALE: 1 1/2" = 1'-0"

108528090.dwg - Plotted By: dharsh 12/07/15 03:07PM
 109022623.dwg - Plotted By: dharsh 12/07/15 03:07PM
 108528090.dwg - Plotted By: dharsh 12/07/15 03:07PM



RETIREMENT NOTES: ORDER #108526091

- SCOPE OF JOB: RETIRE EXISTING FARM TAP 1868 DUE TO THE SALISHAN UPGRADE. INSTALL "PRE-TESTED CAP" - RETURN ALL SALVAGEABLE PARTS TO STORE.
- ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY (PSE) GAS OPERATING STANDARDS.
- PSE SERVICE PROVIDER TO FILL VAULTS, UNDERPASS OR CUT OUT AND REMOVE VAULT AS APPLICABLE PER LOCAL MUNICIPAL REQUIREMENTS.
- FIELD TO VERIFY INLET TIE-IN SIZE, AND MATCH WELD CAP ACCORDINGLY. INLET PRESSURE REVISED PER UPGRADE 109018567, DRAWING DOES NOT EXIST. REFER TO PSE ENGINEER JEFF WEBB @ 425-462-3813 FOR ANY QUESTIONS.
- THIS JOB TO BE DONE IN CONJUNCTION WITH PROPOSED 2" MPE IP MAIN EXT., PER SAP #109022624.

PRE-TESTED WELD CAP NOTE:

- SCOPE: PRE-TESTING OF WELD CAPS SMALLER THAN 6 INCHES IN DIAMETER FOR HIGH PRESSURE INSTALLATIONS ON MAINS AND SERVICES OPERATING BELOW 20% SMYS.
- WELD CAPS SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES AT 100 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5.
- WELD CAPS SHALL BE STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5. USE FORM 1928 'REPORT OF PRESSURE TEST ON NEW MAIN' TO DOCUMENT TEST PRESSURE WHILE PRE-TESTING WELD CAPS.

LEAK TEST THE TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.8.1.

NOTES FOR ORDER 887025761

- ALL CONSTRUCTION TO CONFORM TO ALL PSE GAS STANDARDS AND GAS PROCEDURES.
- CALL 1-800-424-5555 OR 811 TWO WORKING DAYS PRIOR TO CONSTRUCTION TO LOCATE UNDERGROUND UTILITIES.
- FIELD PERSONNEL SHALL RECORD THE MANUFACTURER NAME, MODEL NUMBER, AND SIZE OF THE TIE-IN FITTING ON THE AS-BUILT. IN ADDITION TO RECORDING THIS INFORMATION ON THE AS-BUILT, FIELD PERSONNEL SHALL CALL THE PSE PROJECT ENGINEER (DEREK KOO AT 206-396-9633) AND REPORT THIS INFORMATION.
- FIELD PERSONNEL SHALL CONFIRM REINFORCEMENT ON THE TIE-IN FITTING.
 - IF A REINFORCEMENT PAD WAS INSTALLED AT THE TIE-IN FITTING, FIELD PERSONNEL SHALL RECORD THE DIMENSIONS OF THE REINFORCEMENT PAD (PAD DIAMETER AND PAD THICKNESS) ON THE AS-BUILT.
 - IF A WELD-O-LET WAS INSTALLED AT THE TIE-IN FITTING, FIELD PERSONNEL SHALL RECORD THE WELD-O-LET INFORMATION ON THE AS-BUILT.
- FIELD PERSONNEL SHALL TAKE PHOTOGRAPHS OF THE TIE-IN FITTING AND ACTIVE STUB. THIS IS TO RECORD THE CONDITION OF FACILITY. THESE PHOTOGRAPHS SHALL BE SUBMITTED TO THE PROJECT ENGINEER (DEREK KOO, EST 04W OR DEREK.KOO@PSE.COM), AS SOON AS POSSIBLE.
- FIELD PERSONNEL SHALL PERFORM THE FOLLOWING TASKS WHEN APPLICABLE. IF THERE ARE ANY QUESTIONS, CONTACT THE PROJECT ENGINEER.
 - IF A DRESSER STREET TEE (THE DRESSER COUPLING IS PART OF THE SERVICE TEE) IS FOUND, FIELD PERSONNEL SHALL RETIRE THE TEE WITH THE COUPLING BY INSTALLING A 2" SAVE-A-VALVE OVER IT. ALLOW A SMALL DETECTABLE GAS LEAK THROUGH THE TEE WHILE WELDING THE SAVE-A-VALVE ON TO THE MAIN, SO THE SAVE-A-VALVE WILL BE PRESSURIZED AFTER THE INSTALLATION. THE SAVE-A-VALVE SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES AT 100 PSIG AND STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.3300.
 - IF A DRESSER FITTING IS FOUND DOWNSTREAM OF THE SERVICE TEE, FIELD PERSONNEL SHALL REMOVE THE DRESSER FITTING COMPLETELY AND INSTALL A SOCKET-WELD CAP.
- FIELD PERSONNEL SHALL CONFIRM IF THE ORIGINAL STUB IN ACCORDANCE TO TESTING PROCEDURE (INLET PIPING RETEST FOR RS-1031, RS-1327, RS-1480, AND RS-1868 SALISHAN UPGRADE) PROVIDED BY GAS SYSTEM ENGINEERING.
- FORM 1928 'REPORT OF PRESSURE TEST ON NEW MAIN' SHALL BE USED TO DOCUMENT TEST PRESSURE INFORMATION.
- LEAK TEST THE TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300.
- EROSION & SEDIMENT CONTROL SHALL BE PER PSE STANDARD PRACTICE 0150.3200 TECHNIQUES FOR TEMPORARY EROSION AND SEDIMENT CONTROL AND ANY ADDITIONAL LOCAL JURISDICTION REQUIREMENTS.

887025761 - SUPERIOR ORDER FOR SALISHAN HP UPGRADE 2011
 887025763 - CONFIRMATION DIG-UP ORS-1868

FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION
 COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP FIELD
 CHANGES RED-LINED ON AS-BUILT
 MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK ALL
 VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT
 NOTE BEGINNING OF MAIN, EDM & LINE OF MAIN LOCATIONS
 SHOW ROPE LOCATIONS & CUL-DE-SAC RADIUS

FOREMAN'S SIGNATURE: *[Signature]*
 COMPANY: J.F.S. DATE: 10-3-11

REV	DESCRIPTION	BY	CHK	APP	DATE
1	CONFIRMATION DIG-UP PER ORDER 887025763	RN	SF	N/A	05/26/2011
2	AS-INSTALLED 108526091	EB	DFH	SS	12/14/2005
3	RETIRE RS-1868 PER ORDER 108526091	DFH	N/A	N/A	01/12/2005
4	DRAWING RS-1868 CREATED FROM STANDARD DRAWING 12.30-193. ORIGINAL DRAWING NEVER EXISTED.				

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
 PD = NON STOCK ITEM
 CR = CONTRACTOR WILL PROVIDE ITEM
 ORDER #887025761

ITEM	QTY	DESCRIPTION	PART NO
45			
44			
43			
42	1	NIPPLE, 2" SAV-A-VALVE, H-17491	6700841
41	1	CAP, 1" X 0.179", CLASS 3000, SOCKET-WELD	9997800
40	1	CAP, 3/4" X 0.154", CLASS 3000, SOCKET-WELD	9997799

BILL OF MATERIALS

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
 PD = NON STOCK ITEM
 CR = CONTRACTOR WILL PROVIDE ITEM

ACT.#	ORDER#	DESCRIPTION	RETIREMENT BOM
35	1	1" WELD PRE-TESTED CAP	52-00606

ORDER# 805-493 (SINGLE FISHER 621)

ITEM	DESCRIPTION	PART NO
23	PRIMER 70 B	66-20620
22	1/8" X 4" THREADED NIPPLE	68-00025
21	1/8" X 2" THREADED NIPPLE	68-00015
20	1/4" THREADED PLUG	72-00008
19	1/4" X 2" THREADED NIPPLE	68-00055
18	1/4" X 4" THREADED NIPPLE	68-00065
17	3/4" X 300# INSULATED BOLT KIT	50-00001
16	3/4" X 300# WELD NECK FLANGE	64-00040
15	1/4" NEEDLE VALVE	56-00320
14	36" X 36" 24" STEEL VAULT WITH LID	85-00795
13	1/8" X 90" THREADED ELL	68-00010
12	45' 1" STL PIPE WRAPPED	70-00140
11	1" CURB VALVE TEE H1782	78-00662
10	6" 1" STL PIPE BAR	70-00130
9	1" X 90" WELD ELL STD	80-00255
8	1" X 300# SECURITY ASD, SET @ PSIG	56-00535
7	1" X 2" THREADED NIPPLE	68-00410
6	1" FISHER REGULATOR NO. 621 W/ 1/2" ORICIF/SET @ PSIG	74-00197
5	2 1" X 1/2" THREADED NIPPLE (CUT IN HALF)	68-00455
4	1" CURB VALVE TEE H17800	78-00660
3	PROTECTOWRAP	66-00940
2	6" PROTECTOWRAP	66-00950
1	3" FREE AUTORESP, 3/4" X 1", H-18101	66-00620

GAS MAIN PRESSURE AND TESTING

TEST TYPE	SOAP	AIR	NITROGEN	WATER
TESTED BY				
DATE ON				
DATE OFF				
PRESSURE				
TEST RESULTS				

CONSTRUCTION

CALL (800) 424-5555
 2 BUSINESS DAYS BEFORE YOU DIG
 THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

PROJECT MANAGER CONTACT INFO:
 MOLLY REED
 425-214-6884, Cell Phone
 MOLLY.REED@PSE.COM Email

REV	DATE	BY	DESCRIPTION
3			
2			
1			

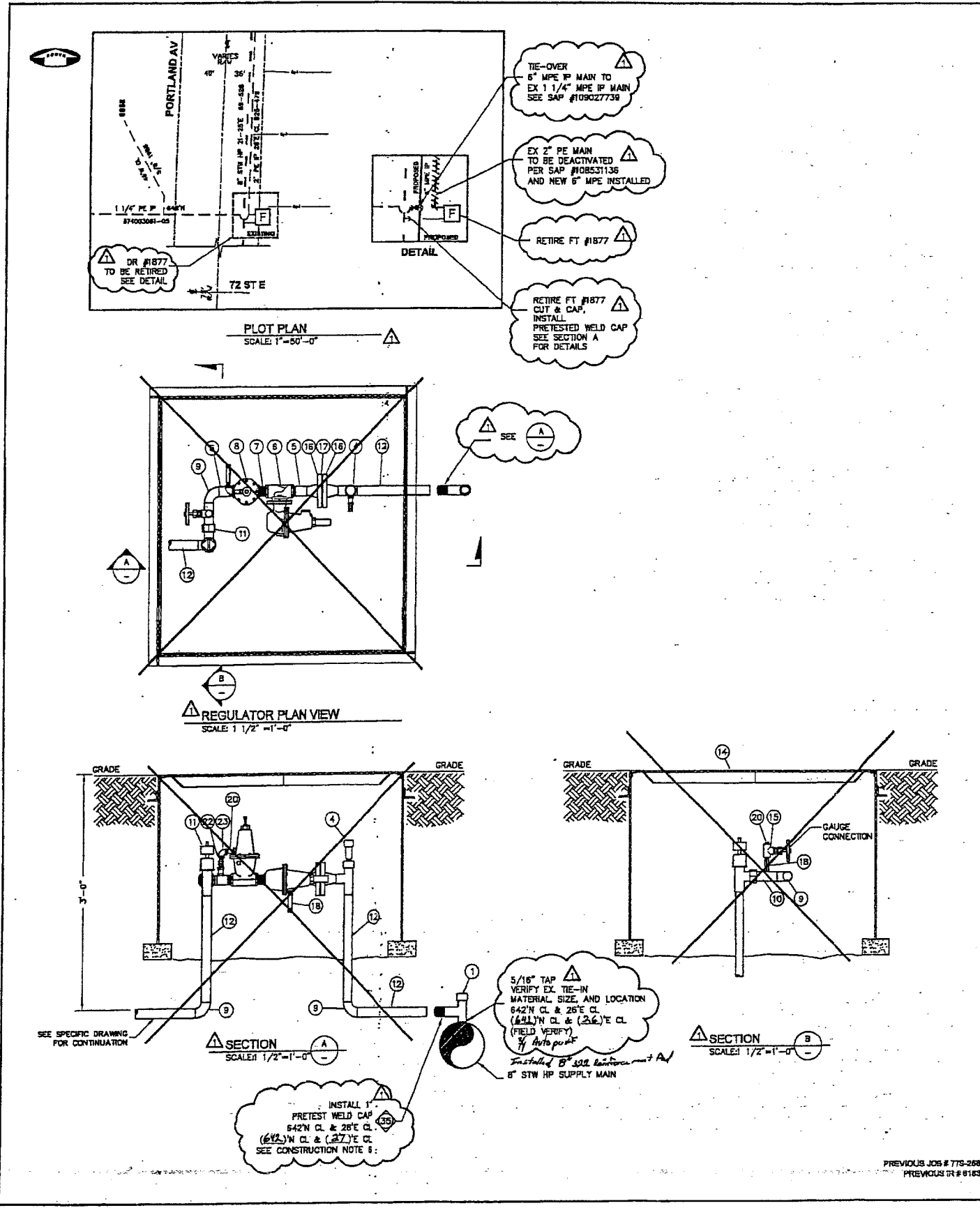
UTILITY CONTACT PHONE: _____

PUGET SOUND ENERGY

FARM TAP #1868
 3417 E "M" ST
 TACOMA

SAP ORDER NUMBER: 887025761
 DWG NUMBER: RS-1868
 SCALE: 1/2" = 1'-0"

User: Regis\1500-1999\1868\FST1868.S01_R03.dwg - Plotted By: mcken 06/01/11 08:08AM



CONSTRUCTION NOTES PER SAP #108528116

- SCOPE OF JOB: RETIRE EXISTING FARM TAP #1877 DUE TO UNMAINTAINABLE OR PROGRAM. INSTALL PRE-TESTED CAP. RETURN ALL SALVAGEABLE PARTS TO STORE PER W/O #108528116.
- ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY (PSE) GAS OPERATING STANDARDS.
- FIELD LOCATE UTILITIES. PSE SERVICE PROVIDER TO CALL UTILITIES UNDERGROUND LOCATION CENTER AT 1-800-424-2525 AT LEAST 2 WORKING DAYS PRIOR TO CONSTRUCTION.
- PSE SERVICE PROVIDER TO FILL VAULTS WITH SAND OR CUT OUT AND REMOVE VAULT AS APPLICABLE PER LOCAL MUNICIPAL REQUIREMENT.
- PSE SERVICE PROVIDER TO NOTIFY CORROSION CONTROL TECHNICIAN JOHN BATHOVICH AT 253-405-4951, 48 HOURS PRIOR TO RETIRING STATION.
- FIELD TO VERIFY MILE TIE-IN SIZE AND MATCH WELD CAP ACCORDINGLY. DRAWING FOR FT DID NOT EXIST, THIS DRAWING CREATED FOR RETIREMENT RECORD. REFER TO PSE ENGINEER DON FRIEZE @ 425-462-3862 FOR ANY QUESTIONS.
- NEW MATERIAL SHOWN SHADERS AND CALLED OUT.
- THIS JOB TO BE DONE IN CONJUNCTION WITH
DR #2887 PER SAP #109025043,
6" MAIN REPLACEMENT SAP #109027739
- PUGET SOUND ENERGY CONTACT LIST:
PROJECT ENGINEER: JEFF WEBB AT 425-462-3813, CELL 206-396-9917,
CORROSION ENGINEER: ALAN HUCKLEY AT 425-462-3889, CELL 206-290-4034,
PRESSURE CONTROL: PHIL BOUCH AT 253-405-1800,
CORROSION TECHNICIAN: JOHN BATHOVICH AT 253-405-4951
- PILCHUCK CONTACT LIST:
PROJECT MANAGER: DAVID NARD AT 425-452-6235 EXT 142, CELL 206-396-6791.

PRE-TESTED WELD CAP NOTE:

- SCOPE: PRE-TESTING OF WELD CAPS SMALLER THAN 6 INCHES IN DIAMETER FOR HIGH PRESSURE INSTALLATIONS ON MAINS AND SERVICES OPERATING BELOW 2000 PSIG.
- WELD CAPS SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES AT 100 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5.
- WELD CAPS SHALL BE STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 400 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5. USE FORM 1928 "REPORT OF PRESSURE TEST ON NEW MAIN" TO DOCUMENT TEST PRESSURE WHILE PRE-TESTING WELD CAPS.
- LEAK TEST THE TIE-IN WELD WITH SDAP SLIPS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5.1.

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
PO = NON STOCK ITEM
PR = CONTRACTOR WILL PROVIDE FROM

RETIREMENT ORDER # 108528116 (RETIREMENT BOM)

ACT.#	QTY	DESCRIPTION	PART NO
35	1	1" WELD CAP	52-06065
BILL OF MATERIALS			
23		PRIMER 70 B	66-00620
22		1/8" X 4" THREADED NIPPLE	68-00025
21		1/8" X 2" THREADED NIPPLE	68-00015
20		1/4" THREADED PLUG	72-00008
19		1 1/4" X 2" THREADED NIPPLE	68-00055
18		1 1/4" X 4" THREADED NIPPLE	68-00065
17		3/4" X 300# INSULATED BOLT KIT	50-00001
16		2 3/4" X 300# WELD NECK FLANGE	64-00040
15		1 1/4" NEEDLE VALVE	56-00320
14		1 3/8" X 36" 24" STEEL VAULT WITH LID	85-00795
13		1 1/8" X 90" THREADED ELL.	68-00010
12		45' 1" STL PIPE WRAPPED	70-00140
11		1" CURB VALVE TEE H1762	78-00862
10		6" 1" STL PIPE BAR	70-00130
9		1" X 90° WELD ELB. STD.	60-00255
8		1" X 300# SECURITY ASS. SET @ _____ PSIG	56-00535
7		1" X 2" THREADED NIPPLE	68-00410
6		1" FISHER REGULATOR NO. 621 W/ 1/4" ORIFICE SET @ _____ PSIG	74-00197
5		2 1" X 4" THREADED NIPPLE (CUT IN HALF)	68-00455
4		1" CURB VALVE TEE H1760	78-00650
3		4" PROTECTOWRAP	68-00940
2		6" PROTECTOWRAP	68-00950
1		1" TEE, AUTOPERT, 3/4" X 1", H-18101	68-00820

FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION
COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP
FIELD CHANGES RED-LINED ON AS-BUILT
MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK
ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT
NOTE BEGINNING OF MAIN, EDM & LINE OF MAIN LOCATIONS
SHOW ROPE LOCATIONS & CUL-DE-SAC RADII

FOREMAN'S NAME (PRINT): _____
FOREMAN'S SIGNATURE: _____
COMPANY: PILCHUCK DATE: 1-14-07

CONSTRUCTION

OWNER/DEVELOPER CONTACT INFO:
PILCHUCK CONTRACTORS, INC
13330 STONE AVE N
SEATTLE, WA 98133 OFFICE: 206-396-8761

CONTRACTOR CONSTRUCTION COST CODES

PROJECT MANAGER CONTACT INFO:
DAVID NARD
206-396-8761 Cell Phone
david.nard@pse.com Email

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

FUNCTION	NAME	PHONE	DATE
PROJECT MGR	D NARD	425-462-2235-142	
ENGINEER	J WEBB	(425) 462-3813	
DRAWN BY	JMALM	(206) 418-4219	

REV # DATE BY DESCRIPTION GAS WK CIR CHECKED BY APPROVED BY

REV #	DATE	BY	DESCRIPTION	GAS WK CIR	CHECKED BY	APPROVED BY
3						
2						
1						

1/4 SECTION OP MAP 248.062 248.063
NEZZ-2D-03

UTILITY CONTACT PHONE

PUGET SOUND ENERGY

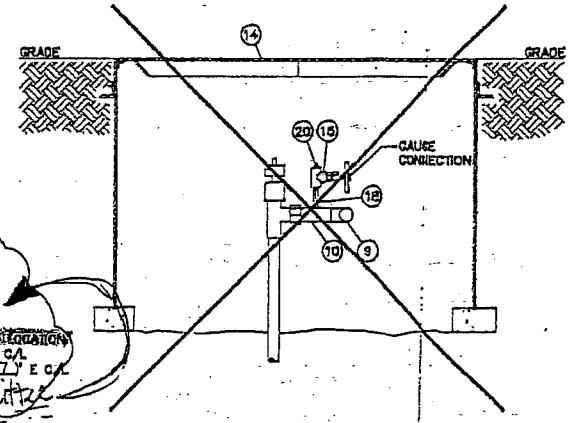
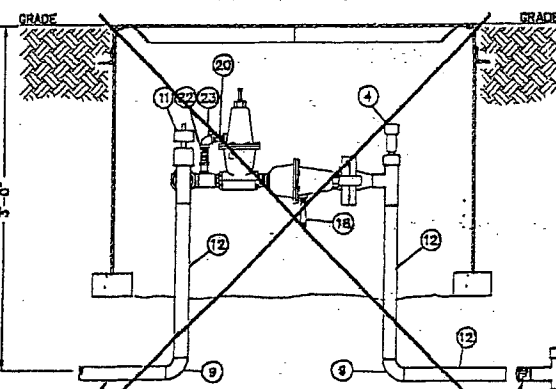
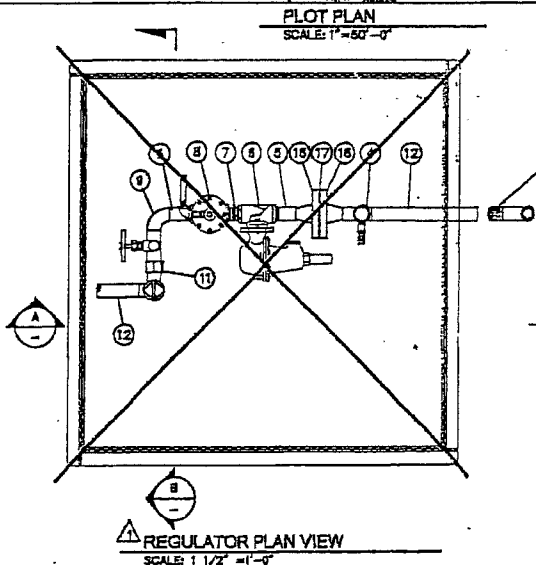
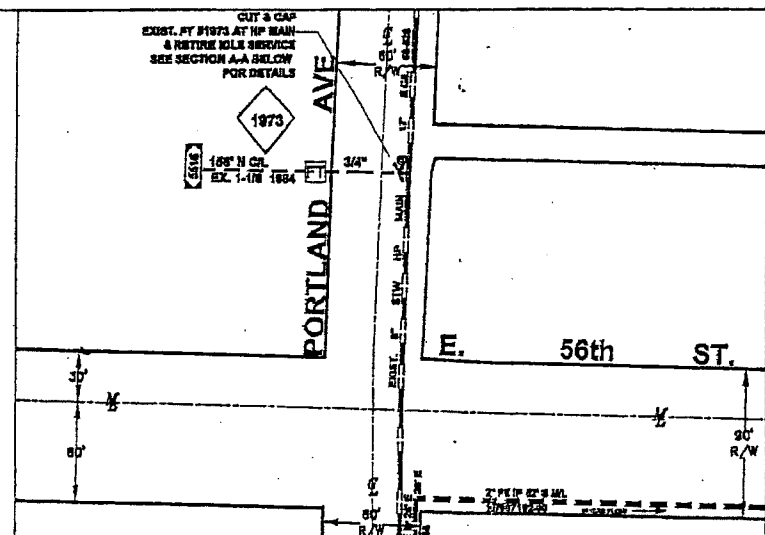
FARM TAP #1877
7001 PORTLAND AVE
TACOMA

SAP ORDER NUMBER
108528116
DWG NUMBER
775-256
SCALE: 1/2" = 1'-0"

REVISIONS

REV	DESCRIPTION	BY	CHKR	CP	ENGR	PM	DATE
1	RETIRE EX FT #1877 PER SAP #108528116.	JMM					10-5-04
2	DRAWING 775-256 CREATED FROM STANDARD DRAWING 12.30-193. ORIGINAL DRAWING NEVER EXISTED.	DFH					01-12-05

P: PSE, Pilchuck_Engineering\Approved_Construction\775-256.dwg - Plotted By: dhang 06/22/06 02:22PM



INACTIVE SERVICE TO BE RETIRED PER 108527447

INSTALL PRETEST WELD CAP (158" N.C.A. & 14" E.C.A. (158" N.C.A. & 14" E.C.A. SEE CONSTRUCTION NOTE 3)

SUPPLY MAIN, 8" STW HP MAIN @ 17" E.C.A.

RETIREMENT NOTES: ORDER #108528098

- SCOPE OF JOB: RETIRE EXISTING FARM TAP 1973 DUE TO THE SALUSHAN UPRATE. INSTALL PRE-TESTED CAP. RETURN ALL SALVAGEABLE PARTS TO STORE.
- ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY (PSE) GAS OPERATING STANDARDS.
- FIELD LOCATE UTILITIES. PSE SERVICE PROVIDER TO CALL UTILITIES UNDERGROUND LOCATION CENTER AT 1-800-424-5555 AT LEAST 2 WORKING DAYS PRIOR TO CONSTRUCTION.
- PSE SERVICE PROVIDER TO FILL VAULTS WITH SAND OR CUT OUT AND REMOVE VAULT AS APPLICABLE PER LOCAL MUNICIPAL REQUIREMENT.
- PSE SERVICE PROVIDER TO NOTIFY CORROSION CONTROL TECHNICIAN LARRY O'NEIL AT (253) 377-1753, 48 HOURS PRIOR TO RETIRING STATION.
- WELD TO VERIFY INTERFERENCE. SAND MATCH WELD GAS OPERATING INLET PRESSURE REVERSE PER UPRATE 108018567, DRAWING DOES NOT EXIST. REFER TO PSE ENGINEER JEFF WEBB @ 425-482-3813 FOR ANY QUESTIONS.
- NEW MATERIAL SHOWN SHADED AND CALLED OUT (C/C).
- THIS JOB TO BE DONE IN CONJUNCTION WITH PROPOSED 8" STW HP WORK PER SAP #109018567.
- PUGET SOUND ENERGY CONTACT LIST:
PROJECT ENGINEER: JEFF WEBB AT 425-482-3813, CELL 206-398-9817.
CORROSION ENGINEER: ALAN MULKEY AT 206-255-4034.
PRESSURE CONTROL: RICK FENDERER AT 206-398-9799.
CORROSION TECHNICIAN: LARRY O'NEIL AT 253-377-1753-8308.
- PILCHUCK CONTACT LIST:
PROJECT MANAGER: DAVID NARO AT 206-418-4230, CELL 206-398-8781.

PRE-TESTED WELD CAP NOTE:

- SCOPE: PRE-TESTING OF WELD CAPS SMALLER THAN 8 INCHES IN DIAMETER FOR HIGH PRESSURE INSTALLATIONS ON MAINS AND SERVICES OPERATING BELOW 20X SWTS.
- WELD CAPS SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES AT 100 PSIG PER GAS OPERATING STANDARD 2925.3300, PARAGRAPH 6.5.
- WELD CAPS SHALL BE STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2925.3300, PARAGRAPH 6.5. USE FORM 1928 "REPORT OF PRESSURE TEST ON NEW MAIN" TO DOCUMENT TEST PRESSURE WHILE PRE-TESTING WELD CAPS.
- LEAK TEST THE TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2925.3300, PARAGRAPH 6.8.1.

ACT. # 108528098 (RETIREMENT 80M)		
ACT. #	ORDER # 805-483 (SINGLE FISHER 821)	
23	PRIMER 70 B	88-00620
22	1/8" X 4" THREADED NIPPLE	88-00025
21	1/8" X 2" THREADED NIPPLE	88-00015
20	1/4" THREADED PLUG	72-00008
19	1/4" X 2" THREADED NIPPLE	88-00055
18	2 1/4" X 4" THREADED NIPPLE	88-00085
17	3/4" X 300# INSULATED BOLT KIT	80-00001
16	2 3/4" X 300# WELD NECK FLANGE	84-00040
15	1/4" NEEDLE VALVE	88-00320
14	3/8" X 3/8" 24" STEEL VAULT W/WH LID	88-00785
13	1/8" X 8" THREADED EL	88-00010
12	45' 1" STL PIPE WRAPPED	70-00140
11	1" CURB VALVE TEE H7872	78-00852
10	8" STL PIPE BAR	70-00130
9	1" X 90' WELD ELZ STD.	80-00255
8	1" X 300# SECURITY ASD, SET @ _____ PSIG	88-00535
7	1" X 2" THREADED NIPPLE	88-00410
6	1" FISHER REGULATOR NO. 621 W/ 1/2" ORICES SET @ _____ PSIG	74-00187
5	2 1" X 4" THREADED NIPPLE (CUT IN HALF)	88-00455
4	1" CURB VALVE TEE H17890	78-00860
3	4" PROTECTORRAP	88-00840
2	8" PROTECTORRAP	88-00860
1	1" TEL. AUTOPERF. 3/4" X 1", H-18101	88-00820

ITEM QTY DESCRIPTION PART NO

BILL OF MATERIALS

KEY

- + -> EX. SERVICE IS EXCESSIVELY OFFSET - RUN NEW SERVICE FROM MASTER TO MAIN TIE IN AND TEST
- C/C -> INACTIVE SERVICE - CUT AND GAP AT MAIN IF PRACTICAL, OTHERWISE @ P/L
- T&T -> EX. SERVICE IS ADEQUATE - TIE OVER AND TEST
- * -> ACTIVE GAS CUSTOMER, EX. SVC TO BE REPLACED

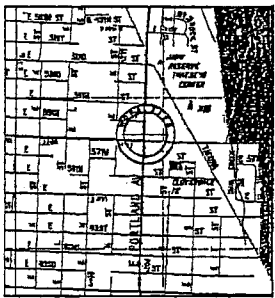
FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION
COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMPS.
FIELD CHANGES RED-LINED ON AS-BUILT
MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK
ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT
NOTE BEGINNING OF MAIN, EDM & LINE OF MAIN LOCATIONS
SHOW ROPE LOCATIONS & CALL TO SAC RADIUS

FOREMAN'S SIGNATURE: *[Signature]*
COMPANY: *[Signature]* DATE: 10-11-05

CONSTRUCTION PRINT

108018567 - SUPERIOR ORDER
108528098 - RETIRE RS-1973
108927447 - RETIRE SVC-5516



OWNER/DEVELOPER CONTACT INFO:
PILCHUCK CONTRACTORS, INC
13330 STONE AVE N
SEATTLE, WA 98133 OFFICE:
ATtn: DAVID NARO 206-418-4230

PROJECT MANAGER CONTACT INFO: DAVID NARO 206-398-8781 Cell Phone
CONTRACTOR CONSTRUCTION COST CODER: 051-300 IN/A IN/A IN/A

REV #	DATE	BY	DESCRIPTION	APPROVED BY
3				
2				
1				

COUNTY: PIERCE EMER SECTION: #41 GAS WK CIR: MSEP/PG APPROVED BY: D. HONG
1/4 SECTION: OP MAP: 246.043 PLAT MAP: MAPPING

REV	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE
1	RETIRE EX. FT #1973 PER ORDER #108528098	DAVID NARO					10-11-05
2	DRAWING 795-878 CREATED FROM STANDARD DRAWING 12.30-153. ORIGINAL DRAWING NEVER EXISTED.	DPH					01-12-05

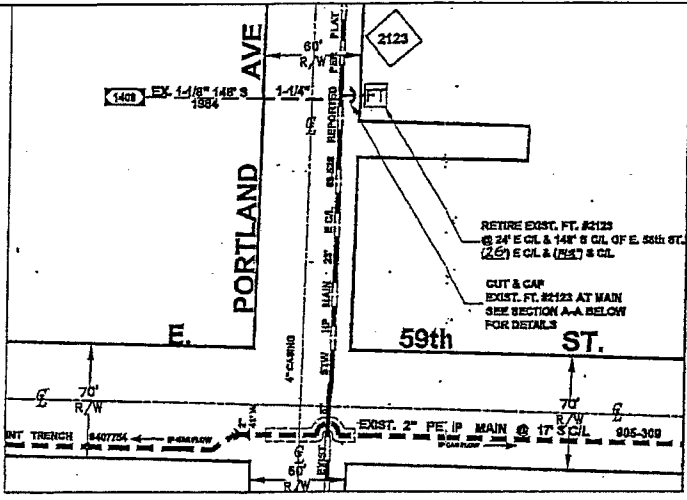
UTILITY CONTACT PHONE: _____

PUGET SOUND ENERGY

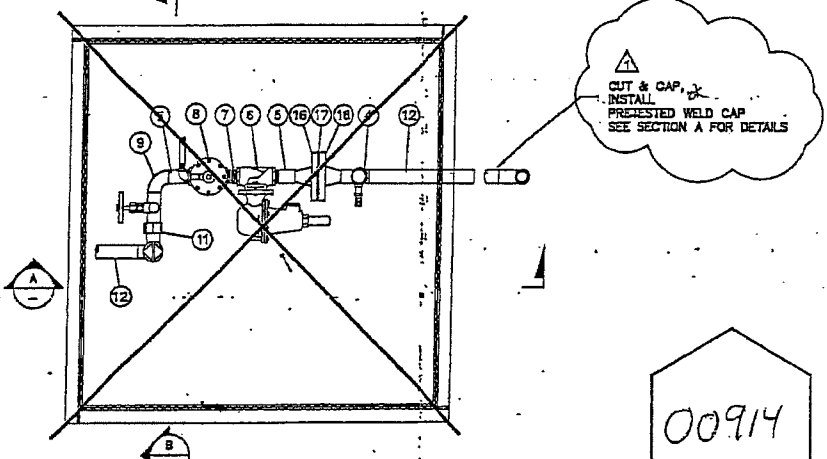
FARM TAP #1973
1423 E 56th ST
TACOMA

SAP ORDER NUMBER: 108528098
DWG NUMBER: 795-878
SCALE: 1/2" = 1'-0" 1/1

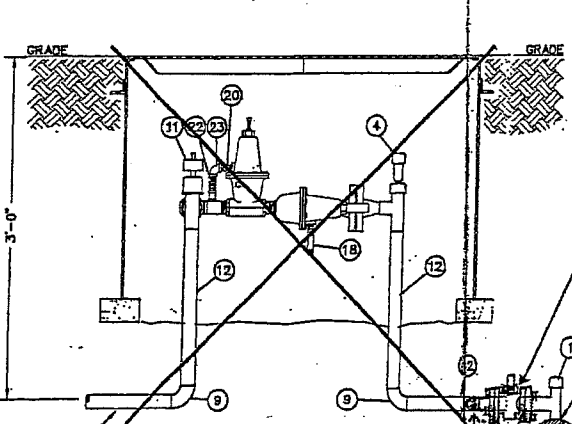
X:\PSE_Pilchuck\CAD\Unreleased\Naro D\DR Retirement 2005\108528098\DR 1973\795-878.dwg - Plotted By: sashawn 07/28/05 10:44AM



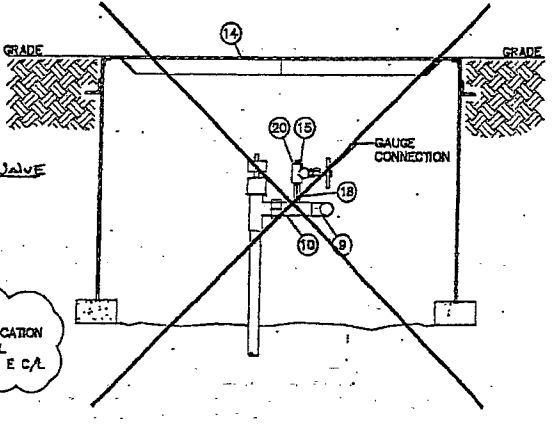
PLOT PLAN
SCALE: 1" = 50'-0"



REGULATOR PLAN VIEW
SCALE: 1 1/2" = 1'-0"



SECTION A-A
SCALE: 1/2" = 1'-0"



SECTION B-B
SCALE: 1/2" = 1'-0"

RETIREMENT NOTES: ORDER #108526114

- SCOPE OF JOB: RETIRE EXISTING FARM TAP #2123 DUE TO THE SALUSHAN UPRATE. INSTALL "PRE-TESTED" CAP. RETURN ALL SALVAGEABLE PARTS TO STORE.
- ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY (PSE) GAS OPERATING STANDARDS.
- FIELD LOCATE UTILITIES. PSE SERVICE PROVIDER TO CALL UTILITIES UNDERGROUND LOCATION CENTER AT 1-800-424-9555 AT LEAST 2 WORKING DAYS PRIOR TO CONSTRUCTION.
- PSE SERVICE PROVIDER TO FILL VAULTS WITH SAND OR CUT OUT AND REMOVE VAULT AS APPLICABLE PER LOCAL MUNICIPAL REQUIREMENT.
- PSE SERVICE PROVIDER TO NOTIFY CORROSION CONTROL TECHNICIAN LARRY O'NEIL AT (253) 377-1733, 48 HOURS PRIOR TO RETIRING STATION. 465-3239 Jeff Janson 253-905-9451
- FIELD TO VERIFY INLET TIE-IN SIZE, AND MATCH WELD CAP ACCORDINGLY. INLET PRESSURE REVISED PER UPRATE 108018567, DRAWING DOES NOT EXIST. REFER TO PSE ENGINEER JEFF WEBB @ 425-462-3813 FOR ANY QUESTIONS.
- NEW MATERIAL SHOWN SHADED AND CALLED OUT (C/C).
- THIS JOB TO BE DONE IN CONJUNCTION WITH PROPOSED 2" MPE IP MAIN, PER SAP #109022587.
- PUGET SOUND ENERGY CONTACT LIST:
PROJECT ENGINEER: JEFF WEBB AT 425-462-3813, CELL 206-308-8817.
CORROSION ENGINEER: ALAN MULKEY AT 206-255-4034.
PRESSURE CONTROL: RICK FERDERER AT 206-386-8798.
CORROSION TECHNICIAN: LARRY O'NEIL AT 253-377-1753-6308.
- PILCHUCK CONTACT LIST:
PROJECT MANAGER: DAVID NARO AT 206-418-4230, CELL 206-386-8761.

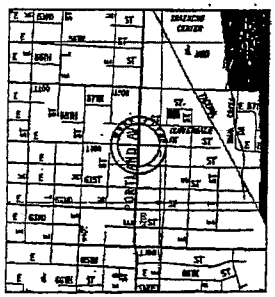
PRE-TESTED WELD CAP NOTE:

- SCOPE: PRE-TESTING OF WELD CAPS SMALLER THAN 6 INCHES IN DIAMETER FOR HIGH PRESSURE INSTALLATIONS ON MAINS AND SERVICES OPERATING BELOW 20X SMTS.
- WELD CAPS SHALL BE LEAK TESTED FOR (15) FIFTEEN MINUTES AT 100 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5.
- WELD CAPS SHALL BE STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5. USE FORM 1828 "REPORT OF PRESSURE TEST ON NEW MAIN" TO DOCUMENT TEST PRESSURE WHILE PRE-TESTING WELD CAPS.
- LEAK TEST THE TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.8.1.

ACT#	DESCRIPTION	PART NO
35	1" WELD CAP (PRE-TESTED)-D-1X	82-00808
38	300 PSI Valve	481-38
39	300 PSI Bolt	50-004
40	C.P. Box	60-007
41	410 test lead wire	85-930

ACT#	ORDER# 805-493	(SINGLE FISHER 821)
23	PRIMER 70 B	86-00820
22	1/8" X 4" THREADED NIPPLE	86-00028
21	1/8" X 2" THREADED NIPPLE	86-00015
20	1/4" THREADED PLUG	72-00008
19	1/4" X 2" THREADED NIPPLE	86-00055
18	1/4" X 2" THREADED NIPPLE	86-00085
17	3/4" X 300# INSULATED BOLT KIT	50-00001
16	3/4" X 300# WELD NECK FLANGE	84-00040
15	1/4" NEEDLE VALVE	86-00320
14	38" X 38" 24" STEEL VAULT WITH LID	86-00785
13	1/8" X 90" THREADED ELB	86-00010
12	48" ST. PIPE WRAPPED	70-00140
11	1" CURB VALVE TEE HY-812	78-00462
10	6" ST. PIPE BAR	70-00130
9	1" X 90" WELD ELB STD.	80-00258
8	1" X 300# SECURITY ASS. SET @ PSIG	58-00535
7	1" X 2" THREADED NIPPLE	86-00410
6	1" FISHER REGULATOR NO. 821 W/ 1/2" ORICCS SET @ PSIG	74-00197
5	2 1/2" X 1" THREADED NIPPLE (CUT IN HALF)	86-00455
4	1" CURB VALVE TEE H17800	78-00860
3	PROTECTOWRAP	86-00840
2	6" PROTECTOWRAP	86-00850
1	1" TEE, AUTO PERFORM. 3/4" X 1", H-18101	86-00820

BILL OF MATERIALS



VICINITY MAP
SCALE: NONE

109018567 - SUPERIOR ORDER
108526114 - RETIRE RS-2123
109022587 - INSTALL 2" PE MAIN

CONSTRUCTION PRINT

CONTRACTOR CONSTRUCTION COST CODES	IN/A	IN/A	IN/A
091-302	N/A	N/A	N/A

PROJECT MANAGER CONTACT INFO:
DAVID NARO
206-386-8781 Cell Phone
david.naro@psm.com Email

REV #	DATE	BY	DESCRIPTION
3			
2			
1			

REV #	DATE	BY	DESCRIPTION	CHECKED BY	APPROVED BY
1/A	SECTION	OP MAP	GAS WK CTR	D. HONG	
NEZ7-20-03	244.082	247.063	MAPPING		

FUNCTION	NAME	PHONE	DATE
PROJECT MGR	D. NARO	(206) 418-4320	08/28/05
ENGINEER	J. WEBB	(425) 462-3813	9-15-05
DRAWN BY	E. BROWN	(253) 844-8271	07/01/05
CHECKED BY	D. HONG	425-462-3911	

OWNER/DEVELOPER CONTACT INFO:
PILCHUCK CONTRACTORS, INC.
13330 STONE AVE N
SEATTLE, WA 98133 OFFICE
ATTN: DAVID NARO 206-418-4230

CALL (206) 434-8888 2 BUSINESS DAYS BEFORE YOU DIG
THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES
REAL ESTATE/EASEMENT N/A PERMIT 40000005167 TACOMA
SAP ORDER NUMBER
108526114
DWG NUMBER
845-282
SCALE: 1/2" = 1'-0" 1/1

FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION

COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP

FIELD CHANGES RED-LINED ON AS-BUILT

MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK

ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT

NOTE BEGINNING OF MAIN, EDM & LINE OF MAIN LOCATIONS

SHOW ROPE LOCATIONS & CULL-DE-SAC RADII

FOREMAN'S SIGNATURE: *[Signature]*

COMPANY: *DCI* DATE: *9-15-05*

RETIRE EX. FT #2123 PER ORDER #108526114

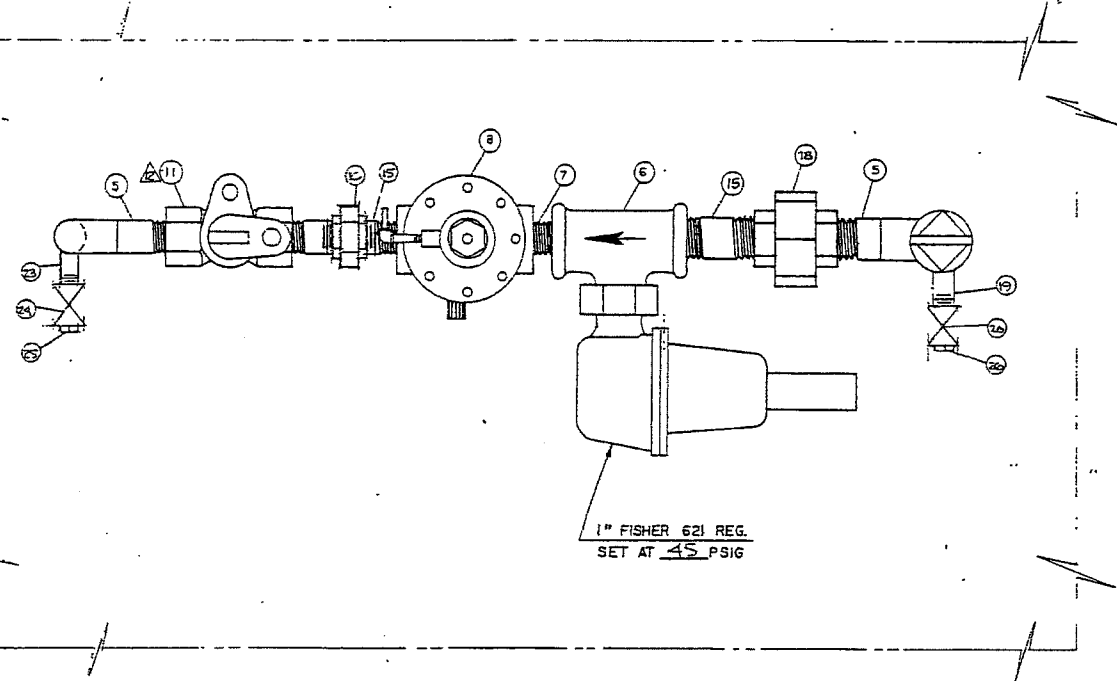
DRAWING 845-282 CREATED FROM STANDARD DRAWING 12.30-193 ORIGINAL DRAWING NEVER EXISTED.

REV# DESCRIPTION BY ICRK CP ENH PM DATE

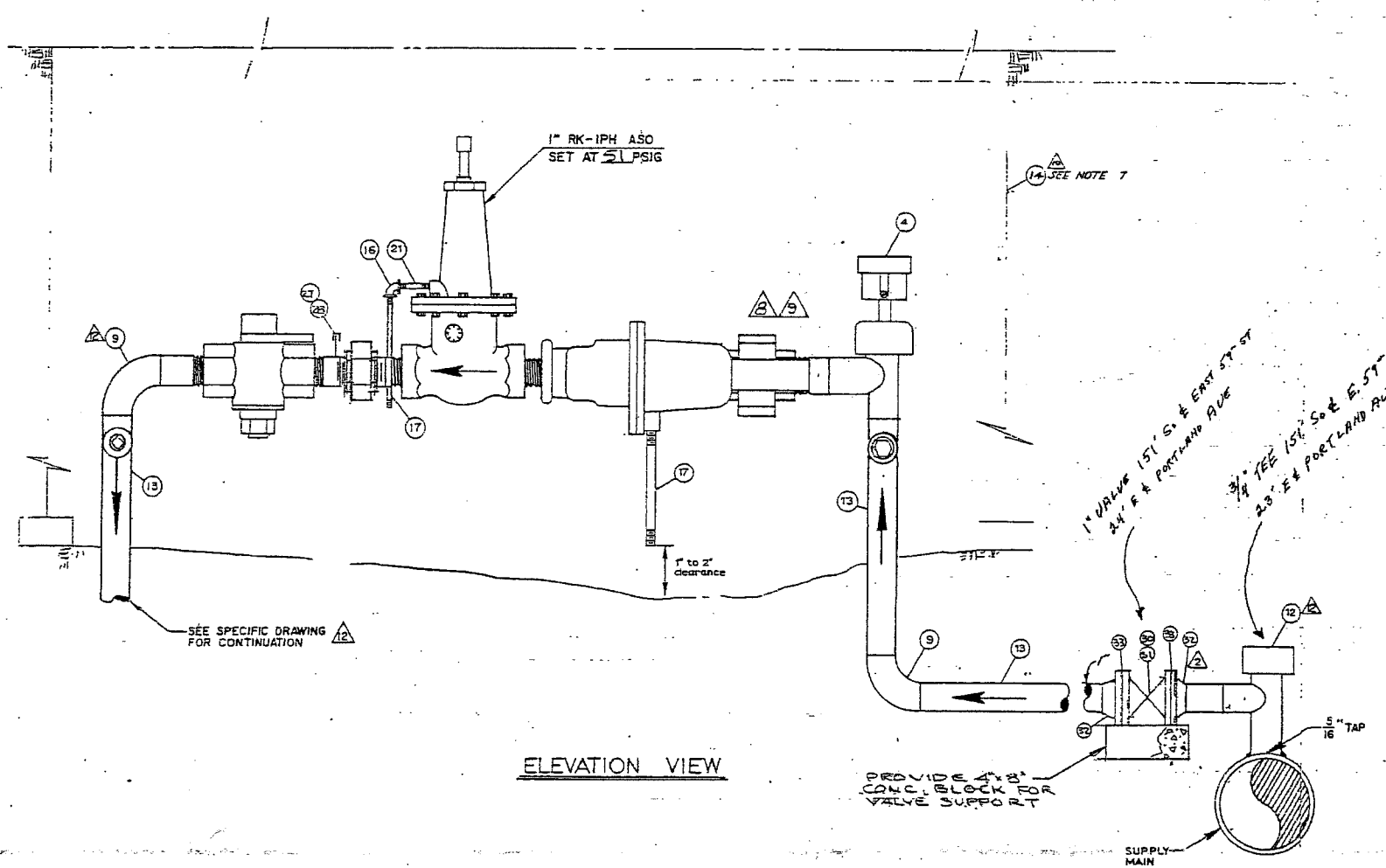
UTILITY CONTRACT PHONE

PUGET SOUND ENERGY

FARM TAP #2123
1408 E 59th ST
TACOMA



PLAN VIEW



ELEVATION VIEW

CHARGE			
TIME & MATERIAL		ACCOUNT	EST. NO.
TYPE	SIZE	NO.	REV.
MAIN			
SERV.			
MSA			
F.T.	1"	6765	1

CONSTRUCTION PRINT

GENERAL NOTES

1. PAINT ALL EXPOSED PIPING WITH ONE COAT PRIMER AND TWO COATS GRAY ENAMEL.
2. WRAP ALL UNDERGROUND PIPE.
3. SET REGULATOR AT 45 PSIG.
4. CONTRACTOR TO PROVIDE ALL FITTINGS 1" AND SMALLER.
5. THIS DRAWING REPLACES DRAWING OF THE SAME NUMBER DATED 1-15-65.
6. AIR TEST INLET PIPING TO 450 POUNDS. AIR TEST OUTLET PIPING TO 90 PSIG PER STD. 6.14.
7. SEE DWG 3D-414 FOR VAULT DETAILS.
8. THIS INSTALLATION IS NOT TO BE USED IN VEHICULAR TRAFFIC AREAS.
9. SET ASQ SECURITY VALVE AT 51 PSIG.
10. THIS FARM TAP REGULATOR WILL DELIVER APPROXIMATELY 750 S.C.F.H.

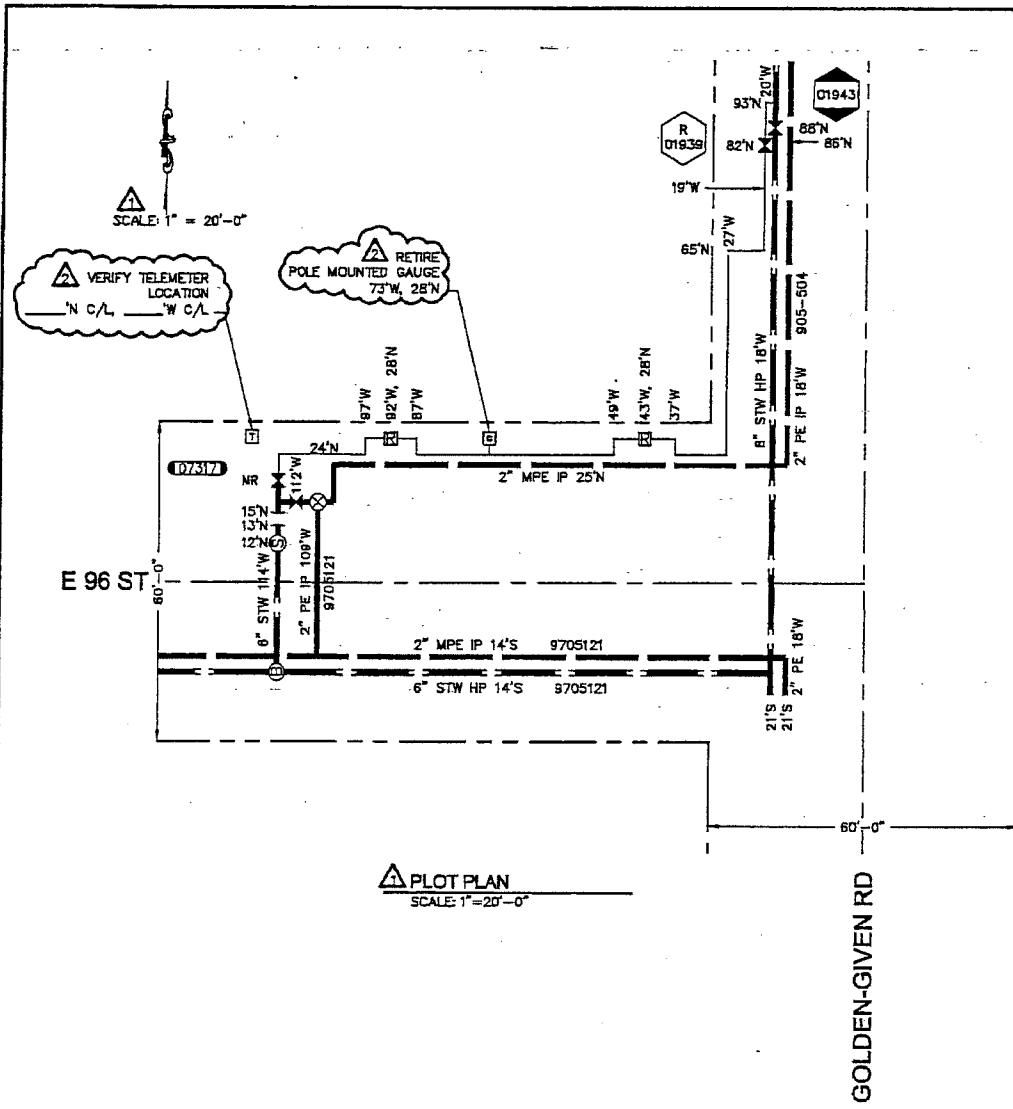
QTY	DESCRIPTION	STOCK ITEM
35		
34		
33	2 1" BOLT KIT - 1 - 30 FFV	50003
32	2 1" FLG. WN FF 300# STD	64095
31	1 BOX - VALVE - ROAD - PL - COMPLT	50370
30	1 1" VALVE - # 525	58538
29	1 1" X 4" NIP - BLK	58455
28	1 1/4" PETES PLUG - # 100	72010
27	1 1/4" CPLUG - BLK	58020
26	1 1/4" PLUG - BLK	72008
25	1 3/4" PLUG - BLK	72024
24	1 3/4" COCK - METER H11175	56110
23	1 3/4" X 6" NIP - BLK - CUT IN HALF	58370
22	1 IR #	
21	1 1/4" X 2" NIP - THRD	58055
20	1 1/4" VALVE - NEEDLE	563
19	1 1/4" X 6" NIP - BLK - CUT IN HALF	58070
18	1 1" X 600# UNION SCWD. BLK (INS)	78870
17	2 1/4" X 4" THRD NIP	58065
16	1 1/4" X 90° BLK ELL	60030
15	1 1" X 3" BLK NIP	58430
14	1 36" X 36" X 24" STEEL VAULT WITH LID	58795
13	1 1" STL PIPE WRAPPED	70144
12	1 3/4" AUTO PERF TEE NO 18101, W/ 3/8" TAP	78592
11	1 1" METER COCK H11175	56150
10	1 1" UNION - BLK	78865
9	1 1" X 90° WELD ELL	60255
8	1 1" X 300# SECURITY ASQ, SET AT 51#	56535
7	1 1" X 2" THRD NIP	58410
6	1 1" FISHER REGULATOR NO 621, WITH 1/2" ORIFICE, SET AT 45 PSIG	74197
5	2 1" X 4" THRD NIP (cut in half)	58455
4	1 CURB VALVE TEE H17800	78660
3	4" PROTECTOWRAP	6699
2	4" PROTECTOWRAP	6699
1	1 PRIMER TO I	6620

AS INSTALLED
 RETIRED
 (MAIN - SVC - MSA - REG - ETC)
 DATE COMPL 7-15-84
 FOR % COMPLETED
 FITER OR CONTR. PIPING
 FIELD REP OR SUPP. SIGNATURE
 TYPE OF TEST PAS - NIT
 PRESSURE 150 PSI - 15' ST
 DESCRIPTION (SIZE-LENGTH)
 1 1" X 2" NIP
 2 1/4" X 4" NIP
 3 1" TEE REG W/ASQ

REVISION NUMBER	DESCRIPTION	DATE	BY	APPROVED	DESCRIPTION	DATE	BY	APPROVED
1	CHGD PIPING SIZES & L/M	7-17-74	H. WOOD	[Signature]	CHANGE INLET TAP & OUTLET VALVING	5/19/81	D.R.	[Signature]
2	ADDED TEST LEAD WIRE	6-28-74	D. YOST	[Signature]	CHANGED TEST PSIG NOTE TO ALLOW FOR VARIATION.	4-13-70	EPL	[Signature]
3	CHANGED ITEM # 12	1-21-74	D. YOST	[Signature]	CHANGED VAULT	7/17/79	D.R.	[Signature]
4	Revised insulating system	11-1-72	Van Natta	[Signature]	REVISED INSULATING SYSTEM	7/20/79	D.R.	[Signature]
5	Replaced needle valve with PC16's Plug & added gauge connection	9-4-70	PLOCHER	[Signature]	CHGD. FLG. TO UNION / ADD NIP	9/30/82	W. W.	[Signature]
6	Revised bonding & insulating system	1-10-72	PLOCHER	[Signature]				
7	CHGD. ITEMS 12 & 16	5-17-72	WOOD	[Signature]				

WASHINGTON NATURAL GAS COMPANY
 AREA TACOMA MAP NO. SE 27-20-3 (D)
 SINGLE "G21" FARM TAP "2123"
 1409 EAST 59TH ST.

DATE	BY	APPROVED	DESCRIPTION
5/31/84	IR GFGS	[Signature]	
	JOB 84S-282		



PLOT PLAN
SCALE: 1" = 20'-0"

GAS CONSTRUCTION NOTES:

1. FIELD LOCATE ALL UNDERGROUND UTILITIES. EXCAVATOR TO CALL "ONE-CALL" TWO WORKING DAYS PRIOR TO CONSTRUCTION, IN WESTERN WASHINGTON CALL: 1-800-424-5555. IN KITTITAS COUNTY CALL: 1-800-553-4344.
2. NOTIFY APPROPRIATE PERMITTING AGENCY PRIOR TO JOB START (SEE PERMIT REQUIREMENTS).
3. ALL CONSTRUCTION IS TO CONFORM TO PSE GAS OPERATING STANDARDS AND GAS FIELD PROCEDURES.
4. COMPLETE "PIPE CONDITION REPORT" ON ALL METALLIC PSE FACILITIES. CHECK BOX ON REPORT FOR WIRE BOX (TEST LEAD) INSTALLATION.
5. RESTORE ALL DRIVEWAYS SUBJECT TO OPEN CUT TO ORIGINAL OR BETTER CONDITION.

NOTES FOR ORDER 108526118

1. SCOPE: RETIRE SUBURBAN PEN GAUGE
2. MATERIALS FOR ORDER 108526118 CAN BE FOUND ON SHEET 2.
3. WELD CAPS SHALL BE LEAK TESTED FOR FIFTEEN MINUTES AT 100 TO 150 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5.1.
4. WELD CAPS SHALL BE STRENGTH TESTED FOR (1) ONE HOUR AT A MINIMUM OF 450 PSIG PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.5.3. USE FORM 1928 "REPORT OF PRESSURE TEST ON NEW MAIN" TO DOCUMENT TEST PRESSURES WHILE PRETESTING WELD CAPS.
5. LEAK TEST THE TIE-IN WELD WITH SOAP SUDS AT THE MAIN OPERATING PRESSURE PER GAS OPERATING STANDARD 2525.3300, PARAGRAPH 6.8.1.
6. NOTIFY PSE INSTRUMENTATION TECHNICIAN CHRIS KNUDSEN 2 WORKING DAYS PRIOR TO RETIRING THE GAUGE AT 253-405-6696.
7. SERVICE PROVIDER TO NOTIFY PSE PROJECT ENGINEER, PSE TESP ENGINEERING ANALYST AND PSE GAS DISPATCH IF RTU SENSE LINES NEED TO BE TEMPORARILY SHUT-DOWN TO RETIRE THE GAUGE SENSE LINES

NOTES

1. ALL CONSTRUCTION IS TO CONFORM TO WASHINGTON NATURAL GAS CO. OPERATING STANDARDS.
2. THIS REGULATOR STATION IS DESIGNED TO DELIVER 100 MGDPH AT 49 PSIG.
3. TEST ALL NEW PIPING TO 150 PSIG UPSTREAM OF 2ND STAGE REGULATORS AND 90 PSIG DOWNSTREAM OF 2ND STAGE REGULATORS. X-RAY UPSTREAM TIE-IN WELDS PER OPERATING STANDARD G.1.
4. WASHINGTON NATURAL GAS COMPANY SHALL PROVIDE ALL PIPE, VALVES, & FITTINGS REQUIRED TO COMPLETE THIS REGULATOR INSTALLATION, PER OPERATING STANDARD G.1.
5. SEE STANDARD DRAWING #SC-414A FOR NOTES AND DETAILS OF THE STANDARD 36" SQUARE STEEL VAULT.
6. FIELD LOCATE UTILITIES. CALL ONE CALL 48 HOURS PRIOR TO CONSTRUCTION 1-800-424-5555.
7. PAINT REGULATORS, PILOTS, STRAINER ACCESS FLANGE AND ABOVE-GROUND PIPING WITH: (1) COAT PRIMER AND (2) COAT OF GOOD GRADE GRAY ENAMEL. COAT ALL OTHER PIPE AND FITTINGS PER QUALITY ASSURANCE STANDARDS 2460 AND 2470.
8. SEE STANDARD DRAWING #SC-100B FOR NOTES AND DETAILS OF THE STANDARD FOOT MOUNTED SUBURBAN GAUGE. PRESSURE CONTROL IS TO SET THE GAUGE.
9. CONTROL, GAUGE, AND MONITORING SENSING LINE ARE SHOWN AS SCHEMATIC ONLY AND ARE TO FOLLOW PIPING UPON INSTALLATION. MAINTAIN 1" MIN. SEPARATION BETWEEN 2ND STAGE CONTROL LINES AND MONITOR CONTROL LINES. ADDITIONAL FITTINGS MAY BE REQUIRED TO COMPLETE CONNECTIONS. PRESSURE CONTROL IS TO MAKE FINAL CONNECTIONS TO THE REGULATORS AND THE REGULATOR PILOTS.
10. INSULATE CONTROL LINES AND MONITOR PILOT SENSING LINES INSIDE VAULT USING AN INSULATED UNION.
11. MAX ALLOWABLE WALL REMOVAL FOR WELDING IS 1/8" WHEN NECESSARY (A) OVER ENDS OF FITTINGS OR PIPE PER ANSI/ASME B31.8 APPENDIX F, 1.15 (B), OR (C) LEE TRANSITIONAL PEE APPROVED BY LNG ENGINEERING, TO GET WITHIN TOLERANCE.
12. OVERPRESSURE PROTECTION FOR THIS STATION IS BY MONITOR PILOT ON THE 1ST STAGE REGULATOR. THE MONITOR SETTING IS 51 PSIG.
13. CONSTRUCTION, TESTING, AND GAS-UP OF THIS STATION SHALL CONFORM TO THE JOB PROCEDURE AS APPROVED BY THE CHIEF ENGINEER.
14. DO NOT INSTALL ANODES. INSTALLATION TO BE RECTIFIER PROTECTED.
15. DESIGN PRESSURE IS 500 PSIG.
16. EFFECTIVE DESIGN PRESSURE UPSTREAM OF 2ND STAGE IS 400PSIG.
17. REFERENCE DWGS: SC-414A 36" STEEL VAULT STANDARD
 307-312 SALISHAN EXTENSION #3
 905-2048 6" 8TH IP - PIERCE TRIBUTARY
 35-100B SUBURBAN GAUGE STANDARD
18. SURVEY REQUIRED.

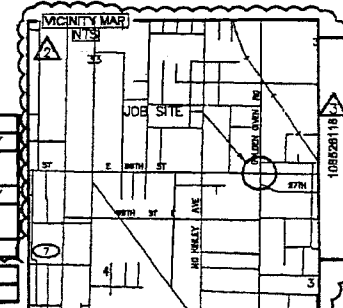
CONTACT LIST

Name:	Title:	Phone:	Pager:	Cellular Phone:
JEFF WEBB	PSE PROJECT ENGINEER	(425) 462-3813		(206) 396-9617
BOB PARKER	PSE PROJECT MANAGER	(425) 462-3937		(206) 444-6491
ROY NAKANO	PSE ENGINEERING ASSISTANT	(425) 462-3975		(206) 255-8167
PAUL BENCH	PSE PRESSURE CONTROL TECH	(253) 405-1620		(253) 291-9852
FERNANDO MORENO	PSE CORROSION CONTROL TECH		(253) 291-3591	(253) 291-3591
CHRIS KNUDSEN	PSE INSTRUMENTATION TECH			(253) 405-6696
TONY SAYAVONG	PSE TESP ENGINEERING ANALYST	(425) 462-3847		
PSE GAS DISPATCH	PSE GAS DISPATCHER	(425) 882-4622		
DAVID NARO	PCI PROJECT MANAGER	(425) 250-1542		(206) 396-8761

FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION
 COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP
 FIELD CHANGES RED-LINED ON AS-BUILT
 MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK
 ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT
 NOTE BEGINNING OF MAIN, EDM & LINE OF MAIN LOCATIONS
 SHOW ROPE LOCATIONS & CUL-DE-SAC RADIUS
 FOREMAN'S SIGNATURE: _____
 COMPANY: _____ DATE: _____

GAS MAIN PRESSURE AND TESTING		
TEST TYPE	PRESSURE	TESTED BY
DATE ON	TIME ON	
DATE OFF	TIME OFF	
TEST TYPE	PRESSURE	TESTED BY
DATE ON	TIME ON	
DATE OFF	TIME OFF	
DESIGN	IN/A	SYS MAOP/NA



ORIGINAL JOB 905-504

109018567 - SALISHAN HP UPRATE
 108526118 - RETIRE PEN GAUGE AT RS-2311

REV	DESCRIPTION	BY	CHK'D	CP	ENG	FM	DATE
1	RETIRE PEN GAUGE PER SAP ORDER 108526118						11/11
2	AS-INSTALL SGS TO SH-REDRAW PLOT PLAN.	RN	SP	IN/A/N/A/N/A			04/17/2006

PERMIT PIERCE COUNTY TAX CODE

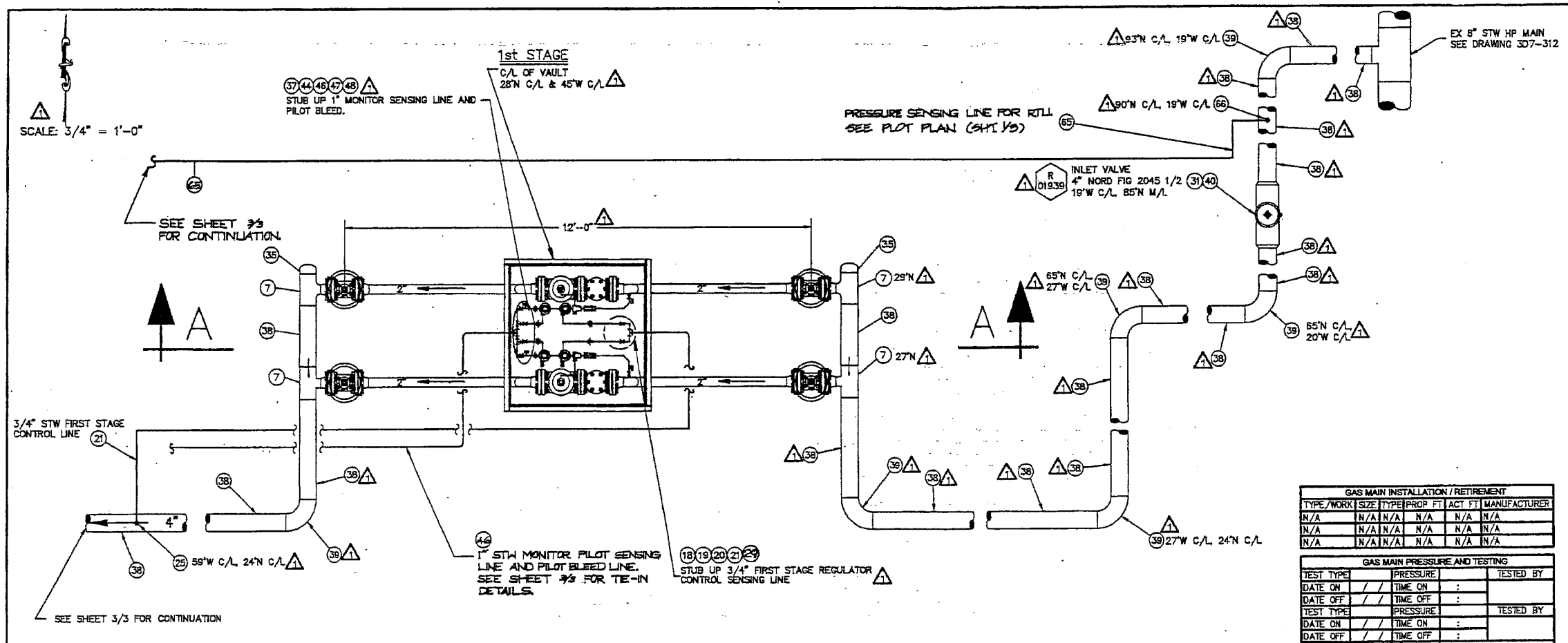
PERMIT	D.G.R.
PERMIT	1/4 SEC. SH 34-20-3
PERMIT	PLAT 251.062
	OP MAP 248.052
	AREA TACOMA
	SEQ. NO.

Washington Natural Gas
 Washington Energy Company

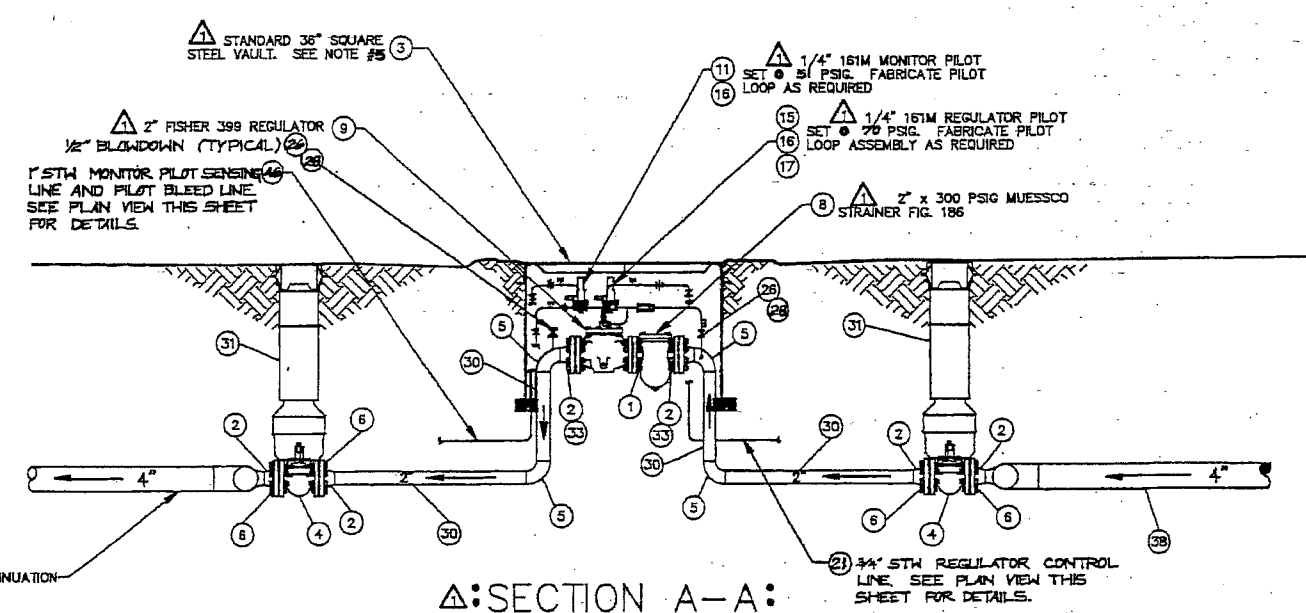
DISTRICT REGULATOR # 2311
 E. 96th ST. + GOLDEN GIVEN ROAD

DWN *SMR* 8/28/90 IR RR
 CHK'D. GLC 8/28/90 JOB 108526118
 SCALE 1" = 20' APP. 308-571 1/3

L:\Gas\905-504\2311\308-571_01_02.dwg - 501_01 - Project by: mckinstry 07/26/06 07:38AM



△:FIRST STAGE PLAN VIEW:
SCALE 3/4"=1'-0"



△:SECTION A-A:
SCALE 3/4"=1'-0"

GAS MAIN INSTALLATION / RETIREMENT						
TYPE/WORK	SIZE	TYPE	PROP FT	ACT FT	MANUFACTURER	
N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A

GAS MAIN PRESSURE AND TESTING			
TEST TYPE	PRESSURE	TESTED BY	
DATE ON	TIME ON		
DATE OFF	TIME OFF		
TEST TYPE	PRESSURE	TESTED BY	
DATE ON	TIME ON		
DATE OFF	TIME OFF		
DESIGN	N/A	STS	MAOP/N/A

FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION

COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP

FIELD CHANGES RED-LINED ON AS-BUILT

MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK

ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT

NOTE BEGINNING OF MAIN, EOM & LINE OF MAIN LOCATIONS

SHOW ROPE LOCATIONS & CUL-DE-SAC RADII

FOREMAN'S SIGNATURE: _____

COMPANY: _____ DATE: _____

ITEM	QTY	DESCRIPTION	PART NO
76	3	CAP 1" WELD STD WPB	5200606
75	3	CAP 3/4" WELD STD WPB	5200556

△ BILL OF MATERIALS

I = SUPPLIED BY INSTRUMENTATION DEPT.		PO = SUPPLIED BY PURCHASING	
IR SUBDIVISION 08 (RTLL)			
70	1	3BR 700 RTLL	
68	1	METEKBAS 0-300 PSIG PRESSURE TRANSDUCER	
66	4	3/4" SERVICE TEE FIG. H17501	78-00612
65	10	3/4" STW PIPE	70-00080
LR SUB-DIVISION 07 (SUBURBAN GAUGE)			
60			
59			
57	50	3/4" STW PIPE	70-00080
56	1	3/4" SERVICE TEE FIG. H17501	78-00612
55	1	2-PEN SUBURBAN GAUGE	
LR SUB-DIVISION 02 (DR #2311)			
51			
49			
48	4	1" 90° WELD ELL	60-00295
47	3	1" x 1" WELD TEE	78-00155
46	75	1" STW PIPE	70-00140
45	0	1" SERVICE TEE FIG. H17501	78-00641
44	4	1" APOLLO BALL VALVE	PG
43	4	4" x 150 PSIG BOLT KIT 15FFSVX	50-00042
42	5	4" CLASS 150 WELD NECK FLANGE	64-00350
41	3	4" PLUG VALVE ROCKWELL FIG. 143	56-00760
40	1	4" PLUG VALVE ROCKWELL FIG. 2045 1/2	56-00764
39	9	4" x 90 WELD ELL	60-00897
38	250	4" STW PIPE	70-00440
37	4	1" 6" THREADED NIPPLE (CUT IN HALF)	68-00495
36	2	4" x 2" x 90° WELD ELL	60-00710
35	4	4" WELD CAP	52-00713
34	2	4" BOLT KIT 15FFSV	50-00040
33	8	2" x 300 PSIG BOLT KIT 30FFSVX	50-00022
32	0	4" KEROTEST INSULATION COUPLING	58-00586
31	10	COMPLETE PLASTIC VALVE ROAD BOX	50-00370
30	35	2" STW PIPE	70-00292
29	2	3/4" x 90 WELD ELL	60-00185
28	6	1/2" APOLLO BALL VALVE FIG. 4231T	56-00342
27	2	4" x 4" WELD TEE	78-00412
26	6	1/2" x 6" THREADED NIPPLE (CUT IN HALF)	68-00235
25	1	3/4" SERVICE TEE FIG. H17501	78-00612
24	2	T L BOX	50-00307
23	8	TEST LEAD WIRE #10	85-00830
22	0	2" SW-VALVE NIPPLE H1741	68-00841
21	50	3/4" STW PIPE	70-00080
20	2	3/4" BALL VALVE	56-00382
19	2	3/4" x 6" THREADED NIPPLE (CUT IN HALF)	68-00370
18	1	3/4" x 3/4" WELD TEE	78-00085
17	4	1" PSB4 FILTER	62-00376
16	5	1" PS03 CHECK VALVE	56-00315
15	2	1" FISHER 161-M REGULATOR PILOT SET @ 70 PSIG W/ RED SPRING	74-00116
14	2	1" FISHER 161-M REGULATOR PILOT SET @ 45 PSIG W/ RED SPRING	74-00116
13	2	1" FISHER 161-M MONITOR PILOT SET @ 51 PSIG W/ RED SPRING	74-00116
12	2	2" x 300 PSIG 399 REG KIT 30FFSVX-112 RESTR	PG
11	2	2" x 300 PSIG MUESSCO STRAINER FIG. 186	P.D.
10	4	4" x 2" WELD TEE	78-00400
9	12	2" x 300 PSIG BOLT KIT 30FFV305X	50-00028
8	14	2" x 90 WELD ELL	60-00500
7	8	2" PLUG VALVE ROCKWELL FIG. 305	56-00641
6	2	36" x 36" x 24" STANDARD STEEL VAULT	85-00794
5	20	2" CLASS 300 WELD NECK FLANGE	64-00185
4	1	2" x 300 PSIG BOLT KIT 30SRX	50-00028
3			
2			
1			

ORIGINAL JOB: 905-504

PERMITS: TACOMA D.G.R.

AREA TACOMA

1/4 SEC SW-34-20-3

OF MAP 248.62

PLAT 251.62

SEQ. NO.

TAX CODE

DISTRICT REGULATOR #2311

E 96TH ST. + GOLDEN GIVEN ROAD

DWN. *Q.M.R.* 8/28/90

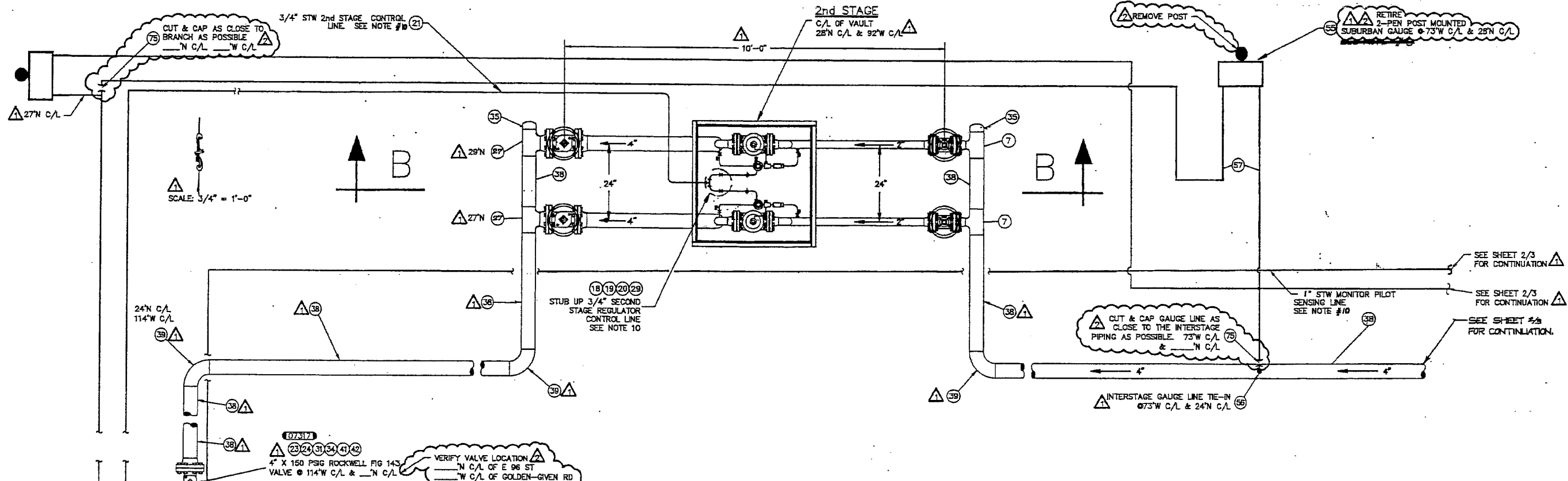
CHK'D GLC 8-28-90

SCALE AS SHOWN APP. *J.P.E.* 3D8-571

REV	DESCRIPTION	BY	CHKR	CP	ENG	PM	DATE
1	RETIRE PEN GAUGE PER ORDER 108526118						11
2	AS-INSTALLED JOB 903-577	RN	SF	N/A	N/A	N/A	04/17/2006

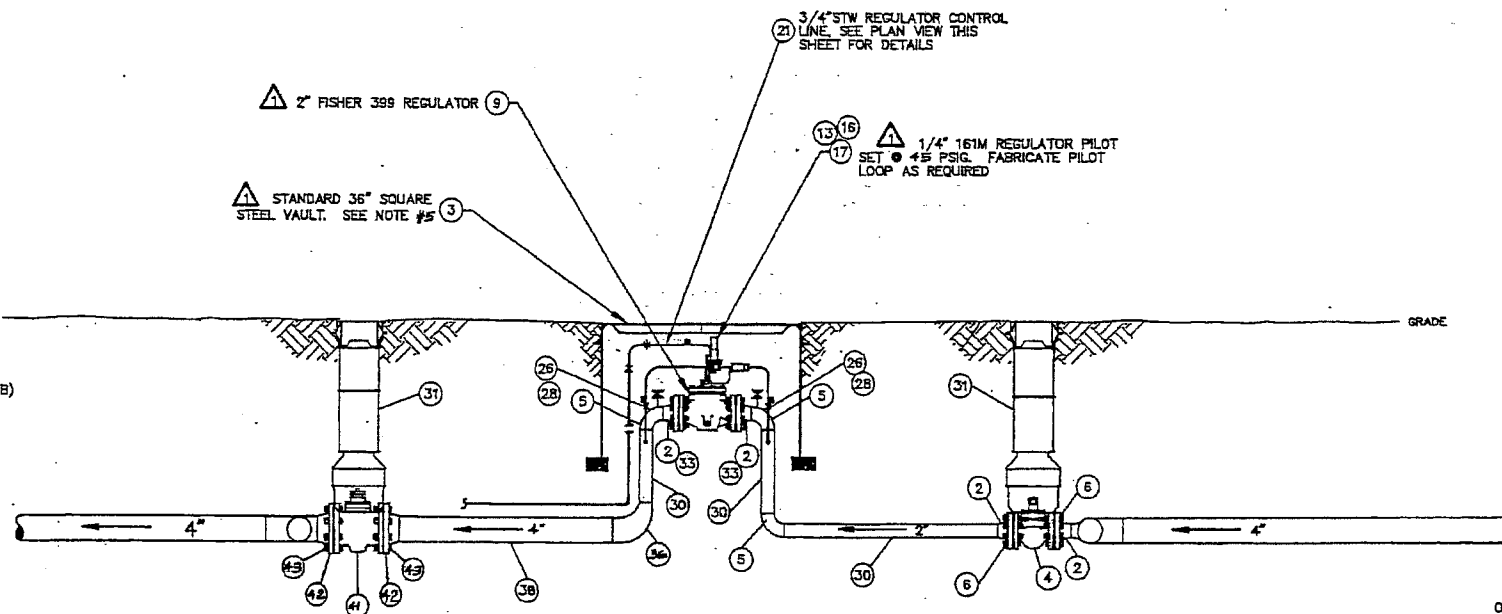
REVISIONS

Plotted By: mcken 05/15/08 10:14AM



△△ : SECOND STAGE PLAN VIEW :

SCALE 3/4" = 1'-0"



△ : SECTION B-B :

SCALE 3/4" = 1'-0"

GAS MAIN INSTALLATION / RETIREMENT					
TYPE/WORK	SIZE	TYPE	PROP. FT.	ACT. FT.	MANUFACTURER
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A

GAS MAIN PRESSURE AND TESTING				
TEST TYPE	N/A	PRESSURE	N/A	TESTED BY
DATE ON	N/A	TIME ON	N/A	
DATE OFF	N/A	TIME OFF	N/A	N/A
TEST TYPE	N/A	PRESSURE	N/A	TESTED BY
DATE ON	N/A	TIME ON	N/A	
DATE OFF	N/A	TIME OFF	N/A	N/A
DESIGN	N/A	SYS. MADE	N/A	

FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION

COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP

FIELD CHANGES RED-LINED ON AS-BUILT

MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK

ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT

NOTE BEGINNING OF MAIN, EDM & LINE OF MAIN LOCATIONS

SHOW ROPE LOCATIONS & CUL-DE-SAC RADIUS

FOREMAN'S SIGNATURE: _____ DATE: _____

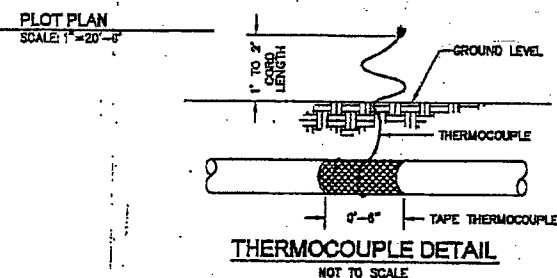
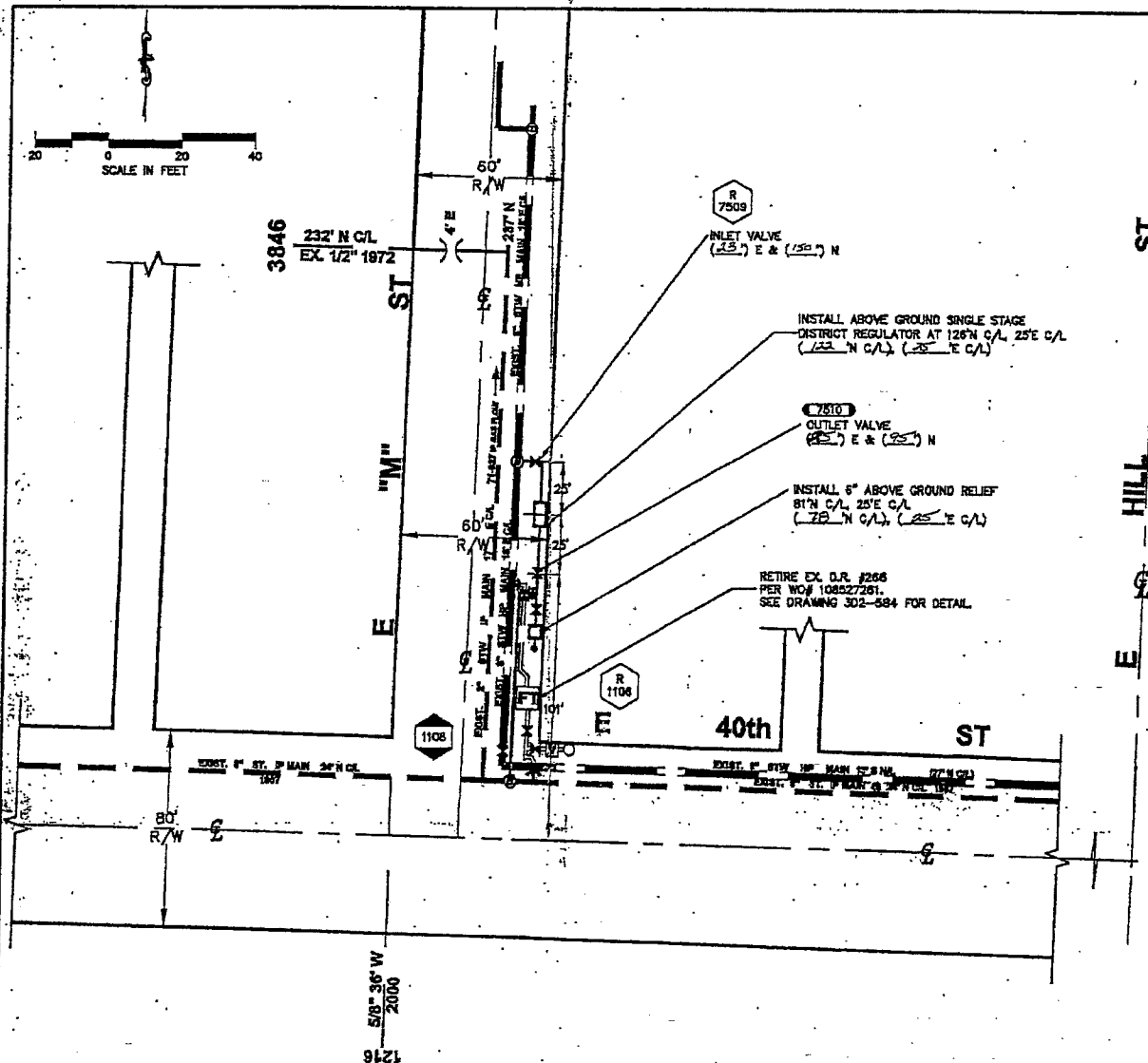
COMPANY: _____

PERMITS: TACOMA	D.G.R.
AREA TACOMA	
1/4 SEC SW. 34-20 3	
OP MAP 248.62	
PLAT 251.62	
SEQ. NO.	
TAX CODE	

DISTRICT REGULATOR #2311
E. 96th ST. & GOLDEN GIVEN ROAD

REV	DESCRIPTION	BY	CHK'D	ENG	PM	DATE
1	RETIRE PEN GAUGE ON SAP ORDER 108526118	MS	MS	MS		11/11
2	AS-INSTALLED JOB 905-504	RN	SF	N/A	N/A	04/17/2008

DWN. <i>S.M.R.</i>	8/28/90	IR	
CHK'D GLC	8-28-90	JOB 108526118	
SCALE AS SHOWN	APP. J.S.E.	308-571	



- THERMOCOUPLE INSTALLATION NOTES:**
- INSTALL A MINIMUM OF 2 BURIED THERMOCOUPLE(S) FOR TEMPERATURE READING DURING STRENGTH TEST. SPACE THERMOCOUPLES AT EQUAL INTERVALS OVER THE LENGTH OF PIPE TO BE TESTED. IF PIPELINE IS TO BE BACKFILLED BEFORE TESTING, LOCATE THERMOCOUPLES A MINIMUM OF 20 PIPE DIAMETERS AWAY FROM PIPING WITH LESS THAN STANDARD COVER. CONSULT THE PROJECT ENGINEER FOR THERMOCOUPLE PLACEMENT IF LESS THAN 95% OF NEW PIPING (BY VOLUME) IS NOT FULLY BACKFILLED A MINIMUM OF 24 HOURS BEFORE TESTING.
 - TAPE EACH THERMOCOUPLE BEAD TO 3 O'CLOCK POSITION ON PRE-WRAPPED PORTION OF PIPE. WRAP ONCE AROUND MAIN, TAPE OVER, AND BRING TO GRADE OUTSIDE OF THE DRIVING SURFACE. LEAVE WIRE END ACCESSIBLE FOR INSTRUMENT HOOK-UP. IF THERMOCOUPLE IS INSTALLED ON PIPING TO BE EXPOSED DURING TESTING, COVER THERMOCOUPLE BEAD WITH STYROFOAM.
 - THERMOCOUPLES WITH WIRES OR INSULATION BROKEN DURING INSTALLATION SHALL NOT BE FIELD REPAIRED.

DISTRICT REGULATOR CONSTRUCTION NOTES:

- INSTALL DR NO. 2888 PER WORK ORDER NO. 109023562.
- SCOPE OF JOB: INSTALL SINGLE STAGE REGULATOR WITH TWO (2) 2" MOONEY FD-30 REGULATOR WITH (2) 2" MULLER 126 FCS STRAINERS. INSTALL 4" FISHER EZR RELIEF VALVE. RETIRE RS-0288 ON SAP ORDER 108827261.
- ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY COMPANY OPERATING STANDARDS.
- PRELIMINARY LEAK TEST PIPING BETWEEN BOTTOM OUT (TEST POINT #1) AND THE OUTLET VALVE (TEST POINT #2) WITH NITROGEN BETWEEN 100 AND 100 PSIG FOR (15 MIN) PER OPERATING STANDARD 2525.3300. PRESSURE CONTROL TO APPROVE LEAK TEST. FINAL LEAK TEST PIPING BETWEEN BOTTOM OUT (TEST POINT #1) AND THE OUTLET VALVE (TEST POINT #2) WITH NITROGEN AT A MINIMUM OF 450 PSIG FOR A MINIMUM OF ONE (1) HOUR PER GAS OPERATING STANDARD 2525.3300. (2) BOTTLES(S) OF NITROGEN ARE REQUIRED FOR TO LEAK AND STRENGTH TEST STATION. PRESSURE CONTROL TO RECORD PIPE TEMPERATURE AND DEAD WEIGHT PRESSURE READINGS AT THIRTY (30) MINUTES INTERVALS DURING STRENGTH TEST. PROJECT ENGINEER TO APPROVE FINAL LEAK TEST BEFORE BLOWING DOWN TEST PRESSURE. LEAK TEST PIPING DOWNSTREAM OF OUTLET VALVE WITH OR NITROGEN AT 101 PSIG FOR ONE (1) HOUR PER OPERATING STANDARD 2525.3300. PRESSURE CONTROL TO APPROVE LEAK TEST. BLOW DOWN TO 45 PSIG UNTIL READY FOR RE-IN AND COMMISSION.
- THIS REGULATOR STATION IS DESIGNED TO DELIVER 200,000 SCFH @ 45 PSIG.
- CONTROL AND GAUGE LINES ARE SHOWN AS SCHEMATIC ONLY AND ARE TO FOLLOW PIPING UPON INSTALLATION. MAINTAIN 24" MIN. SEPARATION BETWEEN LINES. ADDITIONAL FITTINGS MAY BE REQUIRED TO COMPLETE CONNECTION. PRESSURE CONTROL IS TO MAKE FINAL CONNECTIONS TO THE REGULATOR(S) AND REGULATOR(S) PILOT(S) AND SET GAUGE(S). PSE PRESSURE CONTROL TO INSTALL CONTROL LINE TUBING INSIDE OF VAULT.
- PUGET SOUND ENERGY COMPANY SHALL PROVIDE ALL PIPE, VALVES, AND FITTINGS REQUIRED TO COMPLETE THIS REGULATOR INSTALLATION PER OPERATING STANDARD.
- CHECK FOR WRAPPING HOLIDAYS WITH A JEEP MACHINE AND REPAIR FAULTS AS REQUIRED PER OPERATING STANDARD 2800.1000.
- PAINT REGS, PILOTS, STRAINER ACCESS FLANGES AND ABOVE-GROUND PIPING WITH ONE (1) COAT PRIMER AND TWO (2) COATS OF GOOD GRADE GRAY ENAMEL. COAT ALL OTHER PIPE AND FITTINGS PER QUALITY ASSURANCE STANDARDS 248.5 AND 247.5.
- FIELD LOCATE ALL UNDERGROUND UTILITIES. CALL ONE-CALL 48 HOURS PRIOR TO CONSTRUCTION 1-800-424-9555.
- SET NEW VAULT ON 6" OF 1" MINUS CRUSHED ROCK, COMPACTED TO 95%. WHERE REGULATOR RUNS THROUGH VAULT WALL, USE SONG-TUBE OAKUM AND GROUT. BEFORE SEALING VAULT AROUND SONG-TUBE, FULLY SUPPORT ALL EXTERIOR HEADERS, FITTINGS AND PIPE ON POURED CONCRETE. USE SANDBAGS FOR SIDE BARRIERS. SUPPORTS TO BE POURED ON SOIL COMPACTED TO 95% DENSITY.
- EXISTING PIPING SHOWN ON PLAN VIEW ARE SHADED.
- WELDINGS NOT PRESSURE TESTED MUST BE RADIOGRAPHICALLY INSPECTED PER PSE GAS OPERATING STANDARD 0150.3200. A MINIMUM OF 10% OF ALL WELDINGS WILL BE RADIOGRAPHICALLY INSPECTED PER GAS OPERATING STANDARD 2525.2700. INSPECTION WORK SHALL BE PERFORMED UNDER SEPARATE CONTRACT WITH AND AT THE DISCRETION OF PUGET SOUND ENERGY.
- EROSION AND SEDIMENT CONTROL SHALL BE PER PSE STANDARD PRACTICE 0150.3200 TECHNIQUES FOR TEMPORARY EROSION AND SEDIMENT CONTROL AND ANY ADDITIONAL LOCAL JURISDICTION REQUIREMENTS.
- IF 36" OF COVER CANNOT BE ACHIEVED, CONTACT PROJECT ENGINEER.
- ALL PIPING TO BE COATED IN ACCORDANCE WITH PSE OPERATING STANDARD 2800.1100.
- CONTACT CP TECHNICIAN JOHN BATKOVICH @ 253-405-4851 TO COORDINATE INSTALLATION OF CP MATERIALS.

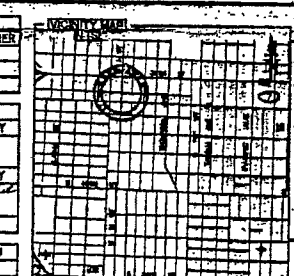
FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION
 COMPLETE ALL PIPE TAGS AND GAS PRESSURE STAMP
 FIELD CHANGES RED-LINED ON AS-BUILT
 MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK
 ALL VALVE & TE-IN LOCATIONS NOTED ON AS-BUILT
 NOTE BEGINNING OF MAIN, EDM & LINE OF MAIN LOCATIONS
 SHOW ROPE LOCATIONS & CUL-DE-SAC RADII

FOREMAN'S SIGNATURE: *[Signature]*
 COMPANY: PUGHRUCK DATE: 4/16/16

REV	DESCRIPTION	BY	CHKD	CP	ENGR	DATE
1	ISSUE FOR CONSTRUCTION	EB	[Signature]			4/16/16

ITEM	QTY	DESCRIPTION	UNIT	PRICE	TOTAL	REMARKS
29	100	PIPE 4" X 0.237" BARE GR X-42	LF	96	96124	
28	100	PLUG 3/4" THREADED	EA	72	720024	
27	100	VALVE 3/4" BALL, 2000 PSIG	EA	92	92141	
26	1500	PIPE 3/4" X 0.113" FBE X 21' GRADE B	LF	70	105000	
25	1	STOPPER 8" X 150# HI7280 T/W B/O 45	EA	78	78078	
24	1	ELL 8" X 4" X 0.280" X 0.237" 90° WELD STD LR WBR	EA	90	900790	
23	1	ANODE 32 LBS MAGNESIUM	EA	86	860040	
22	200	CP WIRE #10 COPPER	LB	85	170000	
21	2	CP TEST BOX	EA	80	160000	
20	1	ELL 4" X 90° IPS MDPE	EA	80	800674	
19	75	PIPE 4" MDPE SDR 11.5	LF	70	525000	
18	1	TRANSITION FITTING 4" NPT TO 4" ST	EA	78	780011	
17	1	VALVE 4" X 150# 3/4" B/LG NPTD PG 143	EA	68	6800780	
16	1	BOLT KIT 4" 150# 3/4" B/LG NPTD PG 143	EA	68	6800780	
15	4	FLANGE 4" X 150# W/N FF	EA	64	256000	
14	1	TEE 4" X 4" WELD STD WBR OR Y-42	EA	78	780042	
13	1	FLANGE 4" X 300# W/N FF	EA	64	640040	
12	1	BOLT KIT 4" 300#	EA	60	600030	
11	1	VALVE 4" X 300# PLUG ROCKWELL FIB 2045 1/2"	EA	60	600765	
10	3	3/4" SERVICE TEE HI7501	EA	78	234012	
9	1	ELL 4" X 90° WELD STD LR WBR	EA	90	900687	
8	1	NEPPE 2" X 3" SAVE A VALVE HI7491	EA	68	680841	
7	3	VALVE BOX COMPLETE	EA	99	297000	
6	1	VALVE 4" X 300# PLUG NPTD PG 2045 1/2"	EA	60	600764	
5	1000	PIPE 4" X 0.237" WRAP GR X-42	LF	99	990000	
4	2	ELL 4" X 45° WELD LR STD WBR	EA	90	180072	
3	1	REDUCER 8" X 4" 0.312" X 0.237" WELD STD LR WBR	EA	78	780844	
2	1	ELL 8" X 90° WELD STD LR WBR	EA	60	600814	
1	1	STOPPER 8" X ANSI 300 B/O HI7281	EA	78	780786	



CONSTRUCTION PRINT

GAS MAIN INSTALLATION/RETIREMENT

TYPE WORK: NEW RENEW PROP FT ACT FT MANUFACTURER

GAS MAIN PRESSURE AND TESTING

TEST TYPE: Pressure PRESSURE: 1477 TESTED BY: AS

DATE ON: 10/22/15 TIME ON: 10:00am

DATE OFF: 10/23/15 TIME OFF: 2:30

TEST TYPE: 314 PRESSURE: 7g TESTED BY: AS

DATE ON: 11/2/16 TIME ON: 8:00am

DATE OFF: 1/16/16 TIME OFF: 10:00am

DESIGN: STS MAOP 100 US / 45 DS

PROJECT PHASE

GAS SUPPLY	N/A	109018667
SERVICE/METER	N/A	N/A
SERVICE/METER	N/A	N/A
SERVICE/METER	N/A	N/A
NO SERVICE	N/A	N/A
NO MSA	N/A	N/A
DIS REG/PT	N/A	109023582
HP SVC/MSA	N/A	N/A
RET/M/IN	N/A	109-32008
RETIREMENT	N/A	108827261

CONTRACTOR CONSTRUCTION COST CODES

N/A	N/A	N/A	N/A
-----	-----	-----	-----

PROJECT MANAGER CONTACT INFO:

BOB PARKER Cell Phone: 253-482-3637 Pager: 253-482-3613

OWNER/DEVELOPER CONTACT INFO:

N/A

CONTRACTOR CONTACT INFO:

N/A

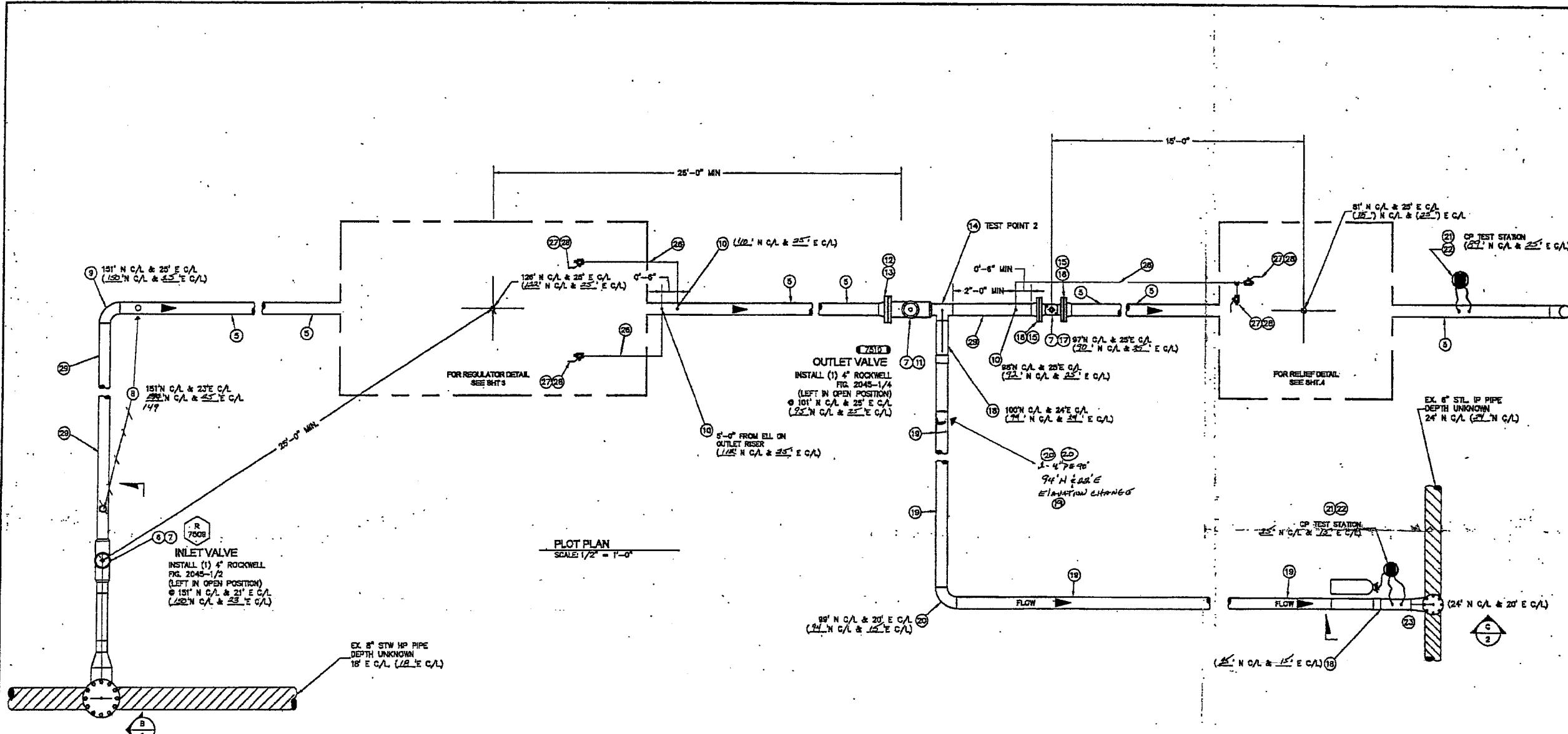
UTILITY CONTACT INFO:

N/A

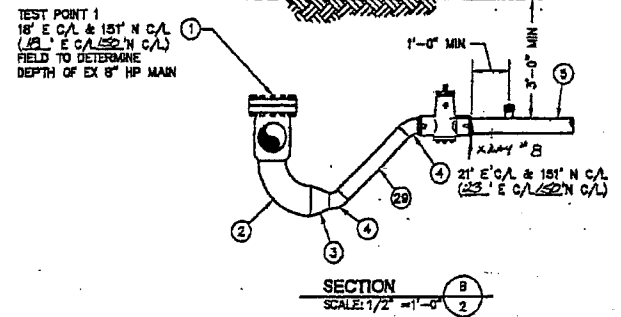
DR-2695

E 40 ST & E M ST
TACOMA, WA 98404

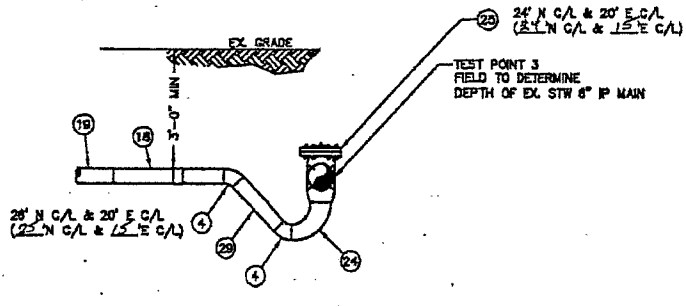
SAP ORDER NUMBER: 109023582
DWG NUMBER: 3011-538
SCALE: AS SHOWN



PLOT PLAN
SCALE: 1/2" = 1'-0"



SECTION B-B
SCALE: 1/2" = 1'-0"



SECTION C-C
SCALE: 1/2" = 1'-0"

GAS MAIN PRESSURE AND TESTING		
TEST TYPE	PRESSURE	TESTED BY
DATE ON	TIME ON	
DATE OFF	TIME OFF	
TEST TYPE	PRESSURE	TESTED BY
DATE ON	TIME ON	
DATE OFF	TIME OFF	
DESIGN	SYS MAGN 300 US / 46 DS	

OWNER/DEVELOPER CONTACT INFO:
N/A
N/A
N/A
OFFICE: N/A

PROJECT MANAGER CONTACT INFO:		THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES	
BOB PARKER	N/A Cell Phone	REAL ESTATE/EASEMENT	PERMIT
bob.parker@pac.com	Pager	N/A	TACOMA
		FUNCTION	NAME
		PROJECT MGR	B. PARKER
		ENGINEER	J. MERRI
		DRAWN BY	E. BROWN
		CHECKED BY	R. NAKANO
		APPROVED BY	N/A
		CP APP	J. BATKOVICH
		PLAT MAP	244.062
		MAPPING	N/A

JOINT FACILITIES ARRANGEMENTS			
UTILITY	N/A	N/A	N/A
CONTACT	N/A	N/A	N/A
PHONE	N/A	N/A	N/A

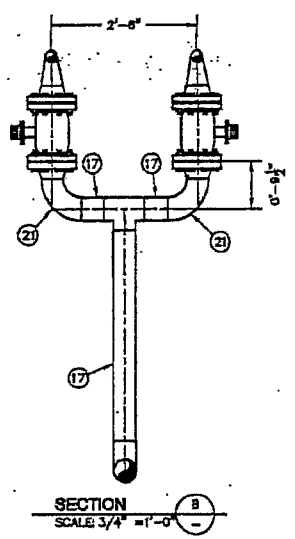
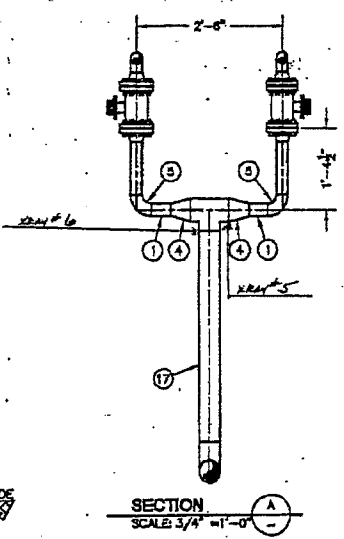
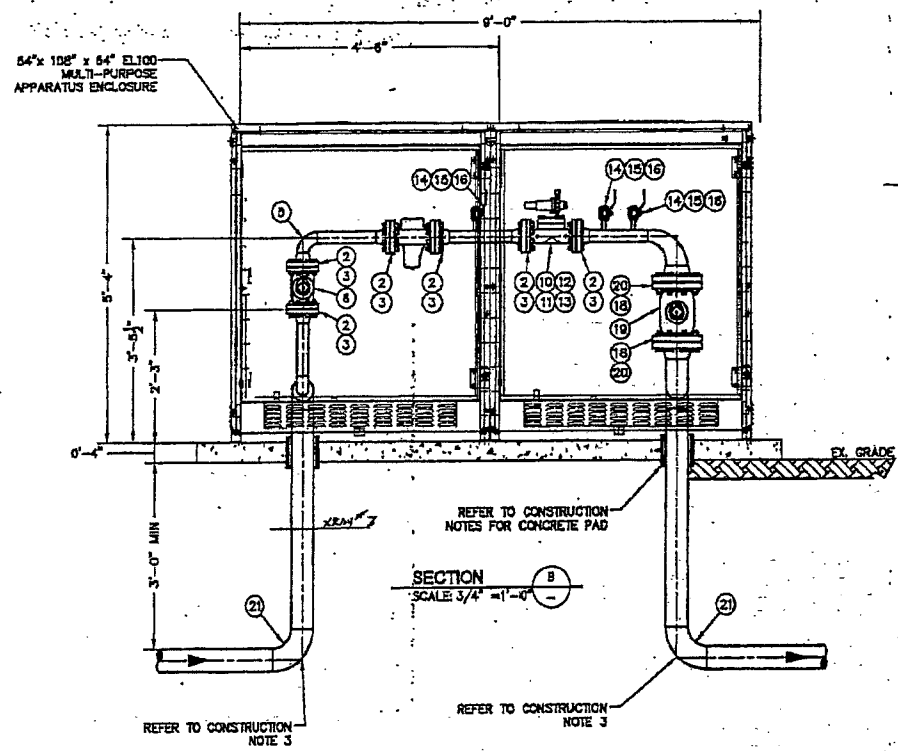
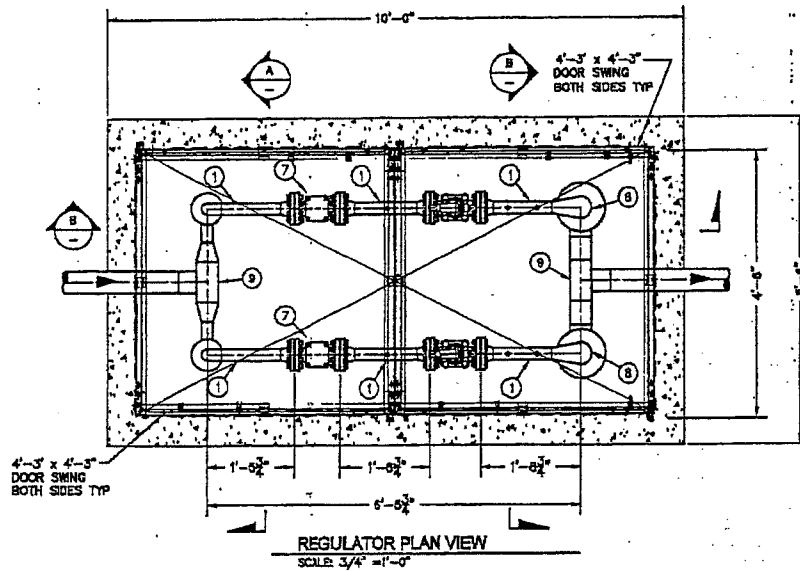
REV	DESCRIPTION	BY	CHKD	CP	ENGR	DATE
1	ISSUED FOR CONSTRUCTION	EB				11/20/05



DR-2895
E 13 ST & N ST
TACOMA, WA 98404

SAP ORDER NUMBER
1101023302
DWG NUMBER
3311-438
SCALE AS-SHOWN
2/4

11/10/05 10:35AM - Plotted by: mason 11/10/05 10:35AM



CONSTRUCTION NOTES:

1. ALL UNDERGROUND CONNECTION PIPING TO BE WRAPPED PER GAS OPERATING STANDARD 2800.1100 TO THE FIRST FITTING.
2. PAINT ALL EXPOSED PIPING PER GAS OPERATING STANDARD 2800.1000 AND GAS FIELD PROCEDURE 4818.1330.
3. DO NOT PRE-FABRICATE THE INLET OR OUTLET PIPING. PLEASE CONTACT PROJECT MANAGER DAVID NARO @ 206-369-8761. PIPING SLOPE WILL VARY PER SITE GRADE.

CONSTRUCTION NOTES FOR CONCRETE PAD:

1. CONSTRUCT A 5'-6" X 10'-0" X 6"-4" CONCRETE PAD FOR SUPPORT OF METEL CABINET.
2. USE 4" OF CRUSHED ROCK COMPACTED UNDERHEATH PAD.
3. CONCRETE PAD MUST BE LEVEL, DO NOT FOLLOW GRADE OF SITE.
4. USE 6" SOND-TUBING FOR 4" STUB UP PIPE, THROUGH CONCRETE PAD. PIPE TO BE WRAPPED PER GAS OPERATING STANDARD 2800.1100.

PRESSURE CONTROL NOTES:

1. SET 2" MOONEY FG-30 REGULATORS AT 43 PSIG.

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
PO = NON STOCK ITEM
CR = CONTRACTOR WILL PROVIDE ITEM

ITEM	QTY	DESCRIPTION	PART NO
21	4	ELL 4" 90° WELD STD, LR WPR	60-00897
20	4	FLANGE 4" WELD/NECK FF X300 LBS	64-00380
19	2	VALVE BALL 4" FLANGE BY FLANGE 300#	99-95911
18	4	BOLT KIT 4" 30FFVX	60-00050
17	20±	PIPE 4" X 0.237" BARE GRADE X42	60-88124
16	8	VALVE 3/4" BALL, 2000 PSIG	99-88141
15	6	6" X 3/4" THREADED NIPPLE	65-00370
14	8	3/4" STEEL THREADED PLUG	72-00024
13	2	FISHER 252 1/4" PILOT FILTER	99-85838
12	2	FISHER PILOT RESTRICTOR 1/4" NPT	99-85840
11	2	ESC-100 PILOT W/ 1/4" ORIFICE & RED SPRING	74-00148
10	2	RED MOONEY 2" FG-30 300# FF W/ 25K CAPACITY, 102-083-01 MAINSPRING AND 75K BUREMETER 102-083-01 BRACKRAM	74-00148
9	2	TEE 4" X 4" WELD STD, WPR OR Y-42	78-00412
8	2	ELL 4" Y 2" 90° RED, WPR Y-42 LR	60-00710
7	2	STRAINER 2" Y 300# W/ELLER 128, EFS	99-85840
6	2	VALVE 2" BALL FLANGE BY FLANGE 300#	99-85910
5	5	ELL 2" 90° WELD STD	60-00500
4	2	REDUCER 4" X 2" WPR STD	72-00902
3	12	BOLT KIT 2" 30FFVX	60-00022
2	12	FLANGE 2" WELD/NECK FF X300 LBS	64-00185
1	20±	PIPE 2" X 0.154" GRADE B BARE	70-00270

BILL OF MATERIAL ASSOCIATES SOLELY WITH THIS DRAWING

GAS MAIN PRESSURE AND TESTING

TEST TYPE	IN/A	PRESSURE	IN/A	TESTED BY
DATE ON	IN/A	TIME ON	IN/A	
DATE OFF	IN/A	TIME OFF	IN/A	
TEST TYPE <th>IN/A</th> <th>PRESSURE</th> <th>IN/A</th> <th>TESTED BY</th>	IN/A	PRESSURE	IN/A	TESTED BY
DATE ON	IN/A	TIME ON	IN/A	
DATE OFF	IN/A	TIME OFF	IN/A	
DESIGN	IN/A	ISYS	MAOP1300 US/ 45 05	

OWNER/DEVELOPER CONTACT INFO:
N/A
N/A
N/A
N/A
OFFICE: N/A

PROJECT MANAGER CONTACT INFO:
BOB PARKER
N/A
N/A
bob.parker@pse.com
Paper

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

FUNCTION	NAME	PHONE	DATE
PROJECT MGR	B. PARKER	425 482-3937	9/22/05
ENGINEER	J.WEBB	425 482-3813	
DRAWN BY	E.BROWN	253-841-6271	11/02/05
CHECKED BY	R. NAKANO	425 482-3976	

CALL (800) 454-8888 2 BUSINESS DAYS BEFORE YOU DIG

UTILITY	N/A	N/A	N/A	N/A
CONTACT	N/A	N/A	N/A	N/A
PHONE	N/A	N/A	N/A	N/A

DR-2695
E. 40th St. & E. 7th St.
TACOMA, WA 98404

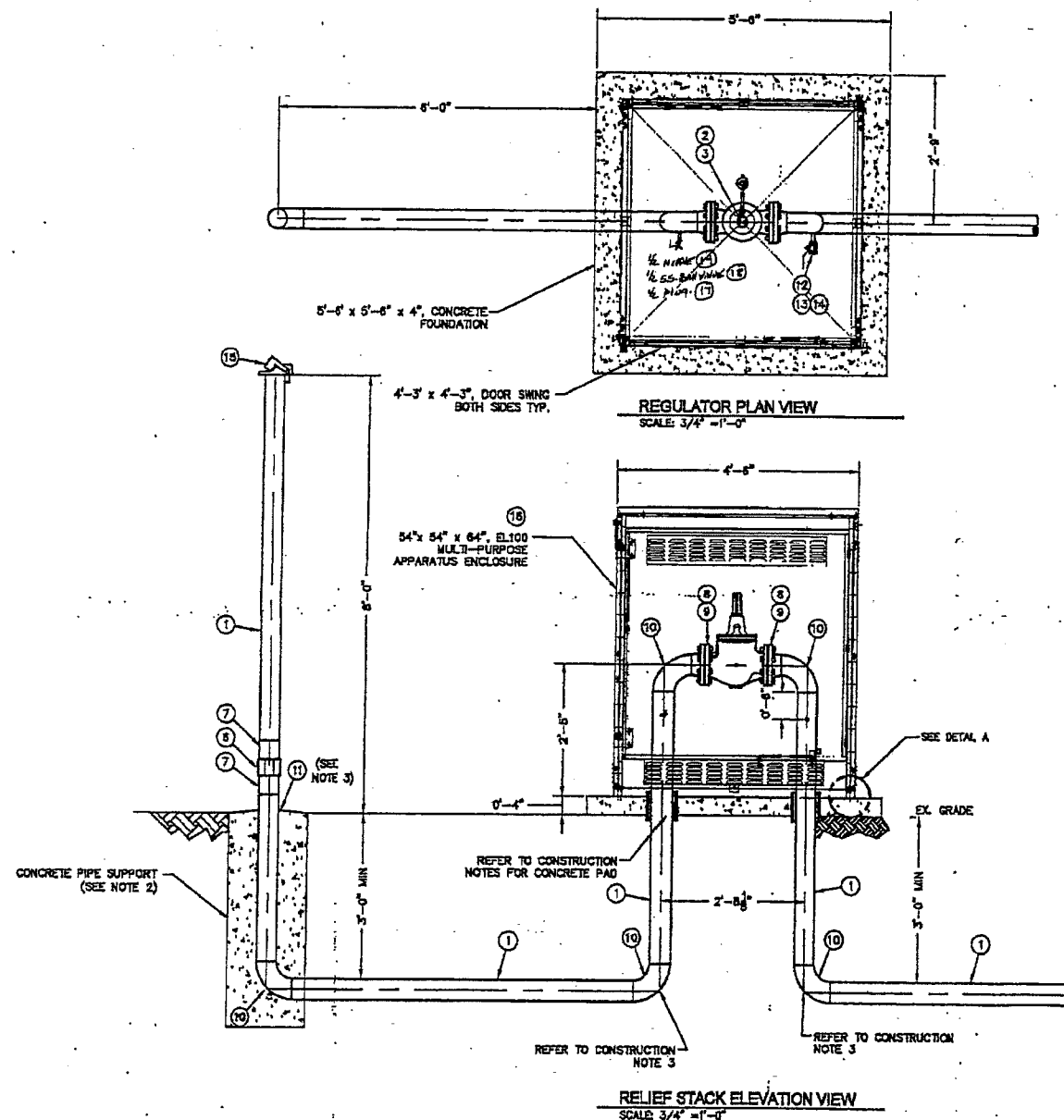
SAP ORDER NUMBER
108023582
DWG NUMBER
108023582
SCALE: AS SHOWN
3/4"

ISSUE FOR CONSTRUCTION

REV	DESCRIPTION	BY	CHKD	CP	ENGR	PM	DATE
1							11-15-05

REVISIONS





CONSTRUCTION NOTES:

1. LOCATION OF RELIEF STACK TO BE SHOWN ON CONSTRUCTION DRAWINGS.
2. CONCRETE SUPPORT FOR RELIEF STACK IS TO BE 1'-4" DIAMETER, EXTEND 3" BELOW BOTTOM OF PIPE AND SLOPED AT THE TOP OF THE SURFACE AS TO ALLOW WATER TO DRAIN AWAY FROM PIPE.
3. AT AIR/SOIL INTERFACE, WRAP PIPE WITH UV RESISTANT TAPE FROM 6" BELOW GRADE TO PVC COUPLING.
4. DO NOT PRE-FABRICATE THE INLET OR OUTLET PIPING. PLEASE CONTACT PROJECT MANAGER DAVID NARO @ 206-399-8761. PIPING SLOPE WILL VARY PER SITE GRADE.

CONSTRUCTION NOTES FOR CONCRETE PAD:

1. CONSTRUCT A 5'-0" X 5'-0" X 0'-4" CONCRETE PAD FOR SUPPORT OF METEL CABINET.
2. USE 4" OF CRUSHED ROCK COMPACTED UNDERNEATH PAD.
3. CONCRETE PAD MUST BE LEVEL, DO NOT FOLLOW GRADE OF SITE.
4. USE 6" SONO-TUBING FOR 4" STUB UP PIPE, THROUGH CONCRETE PAD. PIPE TO BE WRAPPED PER GAS OPERATING STANDARD 2800.1100.

PRESSURE CONTROL NOTES:

1. SET 4" FISHER EZR RELIEF VALVE AT 47 PSIG.

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
 PO = NON STOCK ITEM
 CR = CONTRACTOR WILL PROVIDE ITEM

ITEM	QTY	DESCRIPTION	PART NO
19	1	1/2" NIPPLE	
18	1	1/2" BALL VALVE S.S.	
17	1	1/2" PLUG	
16	1	54" X 54" X 64" EL100 MULTI-PURPOSE APPARATUS ENCLOSURE	PO
15	1	CAP 4" E.G. WEATHER	52-00708
14	1	3/4" STEEL THREADED PLUG	72-00024
13	1	6" X 3/4" THREADED NIPPLE	56-00370
12	1	VALVE 3/4" BALL, 2000 PSIG	98-86141
11	1	TAPE UV RESISTANT	CR
10	5	ELL, 4" X 90° WELD, STD Y-42	50-00897
9	2	4" X 160 PSIG BOLT KIT ASSEMBLY 18PRX	50-00154
8	2	4" 100 PSIG FF WELD NECK FLANGE	54-00440
7	2	4" X 12" THREADED NIPPLE SCH.40	98-05883
6	1	4" PVC COUPLING, THREADED SCH.80	58-00020
5	1	RESTRICTOR, 1/4", FISHER NPT 112	98-95838
4	1	PLUG, 1/4", FISHER 252, NPT	98-95339
3	1	PILOT, 1/4", FISHER 835RE, 1K748027202 RED	PO
2	1	PILOT SPRING (35-105 PSIG)	
1	1	REGULATOR, 4" X ANS 150, FISHER EZR, FLG	98-98824
1	40±	PIPE 4" X 0.237" BARE ST X-42	98-96124

BILL OF MATERIALS

BILL OF MATERIAL ASSOCIATES SOLELY WITH THIS DRAWING

GAS MAIN PRESSURE AND TESTING

TEST TYPE	DATE ON	DATE OFF	TIME ON	TIME OFF	PRESSURE	TESTED BY
N/A	N/A	N/A	N/A	N/A	N/A	N/A

OWNER/DEVELOPER CONTACT INFO:
 N/A
 N/A
 N/A
 N/A

PROJECT MANAGER CONTACT INFO:
 BOB PARKER
 N/A
 bob.parker@pacnet.com

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES
 REAL ESTATE/EASEMENT
 N/A

REV #	DATE	BY	DESCRIPTION	CHECKED BY	DATE
3		N/A			
2		N/A			
1		N/A			

JOINT FACILITIES ARRANGEMENTS

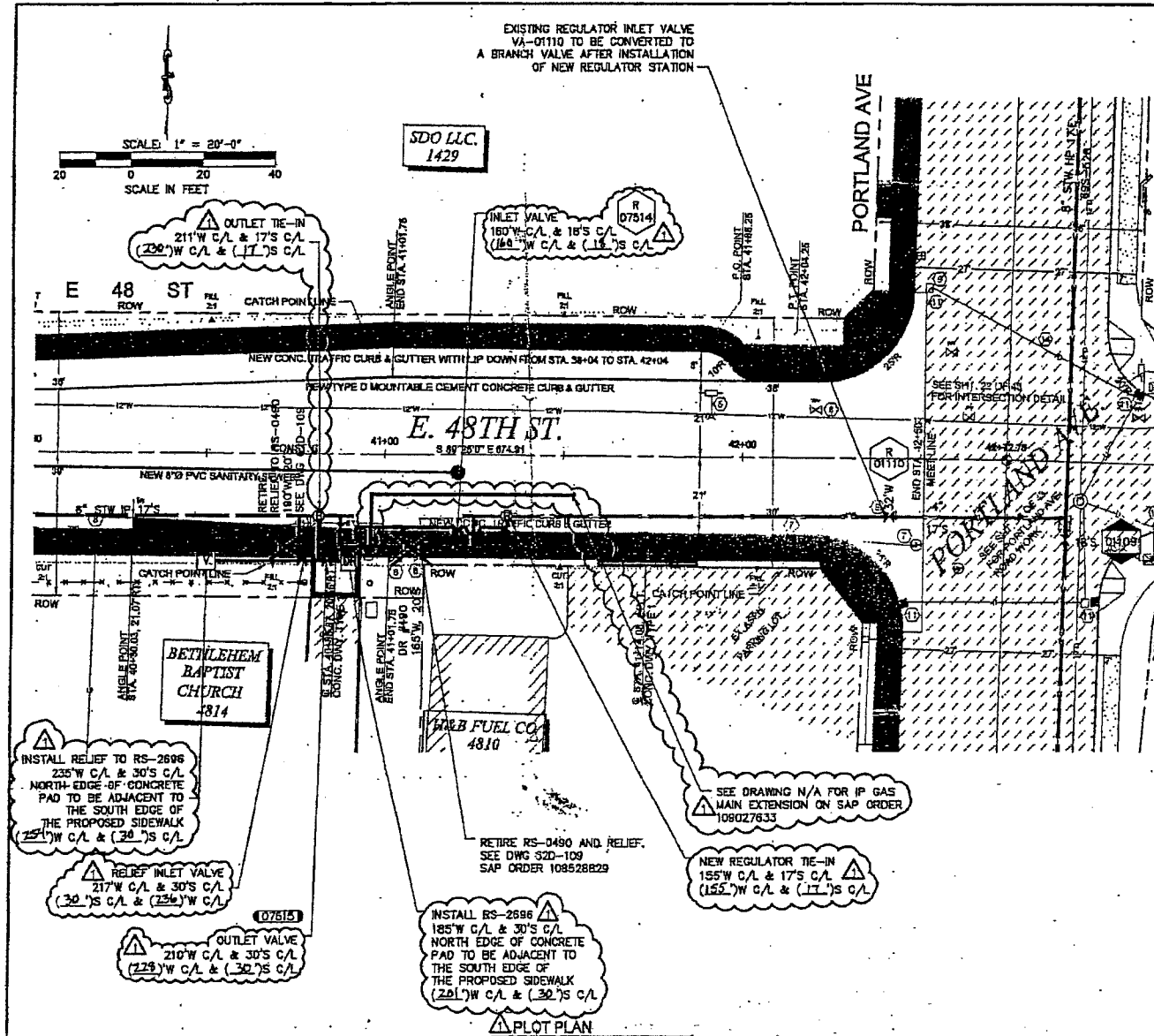
UTILITY	CONTACT	PHONE	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A

REVISIONS

NO.	DESCRIPTION	BY	CHK	OP	ENGR	DATE
1	ISSUE FOR CONSTRUCTION					

PACNET SOUND ENERGY
 DR-2695
 E. 40th ST. & E. "M" ST.
 TACOMA, WA 98404

SAP ORDER NUMBER
 108023562
 DWG NUMBER
 3011-030
 SCALE AS SHOWN 4/4



- ### DISTRICT REGULATOR CONSTRUCTION NOTES:
- SCOPE OF JOB: INSTALL RS-2696, SINGLE STAGE REGULATOR WITH TWO (2) 2" MOONEY FG-30 REGULATOR WITH (2) 2" MUELLER 126-FCS STRAINERS, INSTALL 4" FISHER EZR RELIEF VALVE. SEE SAP ORDER 109025042, RETIRE EX. RS-0490 PER DRAWING 62D-109, SAP ORDER 109528829. INSTALL 6" MPE IP MAIN PER DRAWING N/A, SAP ORDER 109027633.
 - ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY COMPANY OPERATING STANDARDS AND FIELD PROCEDURES.
 - PRELIMINARY LEAK TEST PIPING BETWEEN BOTTOM OUT (TEST POINT #1) AND THE OUTLET VALVE (TEST POINT #2) WITH NITROGEN BETWEEN 100 AND 150 PSIG FOR (15 MIN) PER OPERATING STANDARD 2525.3300. PRESSURE CONTROL TO APPROVE LEAK TEST. FINAL LEAK TEST PIPING BETWEEN BOTTOM OUT (TEST POINT #1) AND THE OUTLET VALVE (TEST POINT #2) WITH NITROGEN AT A MINIMUM OF 450 PSIG FOR A MINIMUM OF ONE (1) HOUR PER GAS OPERATING STANDARD 2525.3300. (4) BOTTLE(S) OF NITROGEN ARE REQUIRED FOR LEAK AND STRENGTH TEST STATION. PRESSURE CONTROL TO RECORD PIPE TEMPERATURE AND DEAD WEIGHT PRESSURE READINGS AT THIRTY (30) MINUTES INTERVALS DURING STRENGTH TEST. PROJECT ENGINEER TO APPROVE FINAL LEAK TEST BEFORE BLOWING DOWN TEST PRESSURE. LEAK TEST PIPING DOWNSTREAM OF OUTLET VALVE WITH NITROGEN AT 101 PSIG FOR ONE (1) HOUR PER OPERATING STANDARD 2525.3300. PRESSURE CONTROL TO APPROVE LEAK TEST. BLOW DOWN TO 45 PSIG UNTIL READY FOR TIE-IN AND COMMISSION.
 - THIS REGULATOR STATION IS DESIGNED TO DELIVER 250,000 SCFH @ 42 PSIG.
 - CONTROL AND GAUGE LINES ARE SHOWN AS SCHEMATIC ONLY AND ARE TO FOLLOW PIPING UPON INSTALLATION. MAINTAIN 24" MIN SEPARATION BETWEEN LINES. ADDITIONAL FITTINGS MAY BE REQUIRED TO COMPLETE CONNECTION. PRESSURE CONTROL IS TO MAKE FINAL CONNECTIONS TO THE REGULATOR(S) AND REGULATOR(S) PILOT(S) AND SET GAUGE(S). PSE PRESSURE CONTROL TO INSTALL CONTROL LINE TUBING INSIDE OF VAULT.
 - PUGET SOUND ENERGY COMPANY SHALL PROVIDE ALL PIPE, VALVES, AND FITTINGS REQUIRED TO COMPLETE THIS REGULATOR INSTALLATION PER OPERATING STANDARD.
 - DO NOT INSTALL ANODES. INSTALLATION IS TO BE RECTIFIER PROTECTED.
 - PAINT REGS, PILOTS, STRAINER ACCESS FLANGES AND ABOVE-GROUND PIPING WITH ONE (1) COAT PRIMER AND TWO (2) COATS OF GOOD GRADE GRAY ENAMEL. COAT ALL OTHER PIPE AND FITTINGS PER QUALITY ASSURANCE STANDARDS 245.5 AND 247.5.
 - EXISTING PIPING SHOWN ON PLAN VIEW ARE SHADED.
 - WELDINGS NOT PRESSURE TESTED MUST BE RADIOGRAPHICALLY INSPECTED PER PSE GAS OPERATING STANDARD 2525.2700. A MINIMUM OF 10% OF ALL WELDS WILL BE RADIOGRAPHICALLY INSPECTED PER GAS OPERATING STANDARD 2525.2700. INSPECTION WORK SHALL BE PERFORMED UNDER SEPARATE CONTRACT WITH AND AT THE DISCRETION OF PUGET SOUND ENERGY.
 - IF 36" OF COVER CANNOT BE ACHIEVED, CONTACT PROJECT ENGINEER.
 - CONTACT CP TECHNICIAN TO COORDINATE INSTALLATION OF CP MATERIALS.

CONTACT LIST

Name:	Title:	Phone:	Pager:	Cellular Phone:
BOB PARKER III	PSE PROJECT MANAGER	(425) 462-3937		(206) 604-3886
JEFF WEBB	PROJECT ENGINEER	(425) 462-3917		(206) 386-6917
ROY NAKANO	ENGINEERING ASSISTANT	(425) 462-3975	(206) 314-4371	(206) 255-8167
PAUL BENCH	PSE PRESSURE CONTROL TECHNICIAN			(253) 405-7896
JOHN BATINOVICH	PSE CORROSION CONTROL TECHNICIAN			(253) 405-4951
DAVID MARO	PCI PROJECT MANAGER	(206) 418-4230		(206) 386-8781

ITEM	QTY	DESCRIPTION	PART NO
MATERIALS FOR ORDER 109528829			
1	1	4" BOLT KIT	
2	1	4" X 150# BLIND FLANGE	
3	1	SAP 4" X 0.237 WALL WELD STD	52-00713
MATERIALS FOR ORDER 109025042			
34	1	NOT USED	
33	1	STOPPER 6" X 150# H-1726D B/O	76-00778
32	1	ELL 6" X 90° 0.287" WALL Y-52	89-96780
31	1	ELL 6" X 45° 0.287" WALL Y-52	89-96776
30	1	NIPPLE 3/4" X 3" WELD X THREAD SCH 40	89-96454
29	1	TEE 3/4" X 3/4" X 0.113" WALL STD WFB	78-00285
28	1	PIPE 4" X 0.188" X42	70-00440
27	1	VALVE 4" X 150# PLUS FIG. 143	86-00780
26	1	ROCKWELL KIT 4" X 150# WFB	89-00242
25	1	FLANGE 4" X 150# F157SVA	84-00380
24	1	REDUCER 6" X 4" WELD STD Y-52	89-96782
23	1	TEE 6" X 6" WELD STD Y-52	89-96784
22	1	CP BOX TEST STATION COMPLETE PLASTIC	56-00407
21	1	CP WIRE #10 COPPER	85-00830
20	1	BOX VALVE COMPLETE PLASTIC 6" X 8"	89-96262
19	1	VALVE 6" X 300# PLUG ROCKWELL FIG. 4245 1/4"	56-00882
18	1	ROCK KIT 6" X 300# WFB	50-00278
17	1	FLANGE 6" X 300# WN FF	64-00450
16	1	NOT USED	
15	1	PIPE 6" X 0.287" X42 BARE	70-00576
14	1	PLUG 3/4" THREADED	72-00024
13	1	VALVE 3/4" BALL 2000 PSIG	89-98141
12	1	ELL 3/4" X 90° 0.113" WALL WELD STD WFB	60-00385
11	1	PIPE 3/4" X 0.113" WALL API 5L W/WRAP	70-00020
10	1	BOX VALVE COMPLETE PLASTIC 1-1/8" TO 4"	89-96280
9	1	VALVE 4" X 300# PLUG ROCKWELL FIG. 2045 1/2"	56-00784
8	1	MOVED TO MATERIALS FOR ORDER 109528829	
7	1	PIPE 4" X 0.237" BARE GR Y-42	89-98124
6	1	PIPE 4" X 0.237" WFB GR Y-42	89-98588
5	1	NIPPLE 2" X 3" SAVE A VALVE H17491	56-00441
4	1	ELL 4" X 0.237" 90° WELD STD WFB Y-52	89-96778
3	1	STOPPER 4" X ANS 300 B/O H1726D STD	76-00788
2	1	NOT USED	
1	1	NOT USED	

SAP ORDER STRUCTURE

109018567 - SALISHAN HP UPRATE
 109025042 - INSTALL RS-2696
 109528829 - RETIRE RS-0490

FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION

COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP

FIELD CHANGES RED-LINED ON AS-BUILT

MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK

ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT

NOTE BEGINNING OF MAIN, EDM & LINE OF MAIN LOCATIONS

SHOW ROPE LOCATIONS & CUL-DE-SAC RADIUS

FOREMAN'S SIGNATURE: *[Signature]*

COMPANY: PLCHUCK DATE: 12-15-06

BAS MAIN INSTALLATION / RETIREMENT

TYPE/WORK: [] SIZE: [] TYPE/PROP: [] ACT: [] MANUFACTURER: []

GAS MAIN PRESSURE AND TESTING

TEST TYPE:	PRESSURE	TESTED BY:	NA
DATE ON:	TIME ON:		
DATE OFF:	TIME OFF:		
TEST TYPE:	PRESSURE	TESTED BY:	NA
DATE ON:	TIME ON:		
DATE OFF:	TIME OFF:		

DESIGN: 330/90 SYS MAOP: 250 US / 45 DS

PROJECT PHASE NOTIFICATION # ORDER #

GAS SAP SUPERVISOR: [] 10545520 109018567

SERVICE/METER: []

SERVICE/METER: []

SERVICE/METER: []

IND SERVICE: []

IND MFA: []

DIS RES/FT: 1060711 109025042

HP SW/MSA: 1062277 109027633

REDESIGN/MANU: 1062277 109528829

REDESIGN: 1062277 109528829

CONTRACTOR CONSTRUCTION COST CODES

PROJECT MANAGER CONTACT INFO:

DAVID MARO 206-386-0761 Cell Phone
 N/A Pager

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

REAL ESTATE/EASEMENT: N/A PERMIT: CITY OF TACOMA

FUNCTION	NAME	PHONE	DATE
PROJECT MGR	B PARKER	425-462-3937	
ENGINEER	J WEBB	425-462-3813	
DRAWN BY	R NAKANO	425-462-3975	
CHECKED BY	S FRANCISCO	425-462-3960	

APPROVED BY: []

UTILITY CONTACT: []

RECEIVED CONSTRUCTION

RED-LINED DATE: 1/20/07

CHANGED PSE PM TO PCI PM. MODIFIED BOM. ADDED LOCATIONS & LOCATION CALL-OUTS. ADDED SHEET 6 & 7 FOR CONCRETE FOUNDATIONS. ADDED REFERENCE TO IP GAS MAIN TO BE INSTALLED ON ORDER 109027633. REMOVED THERMOCOUPLE DETAIL. REPLACED BACKGROUND OF PLOT PLAN WITH TACOMA SURVEY.

REV#	DATE	DESCRIPTION	BY	CHKD	DATE
1	12/29/2006	ISSUED FOR CONSTRUCTION	RN	SF	12/29/2006
2			SS	JW	
3			RP		

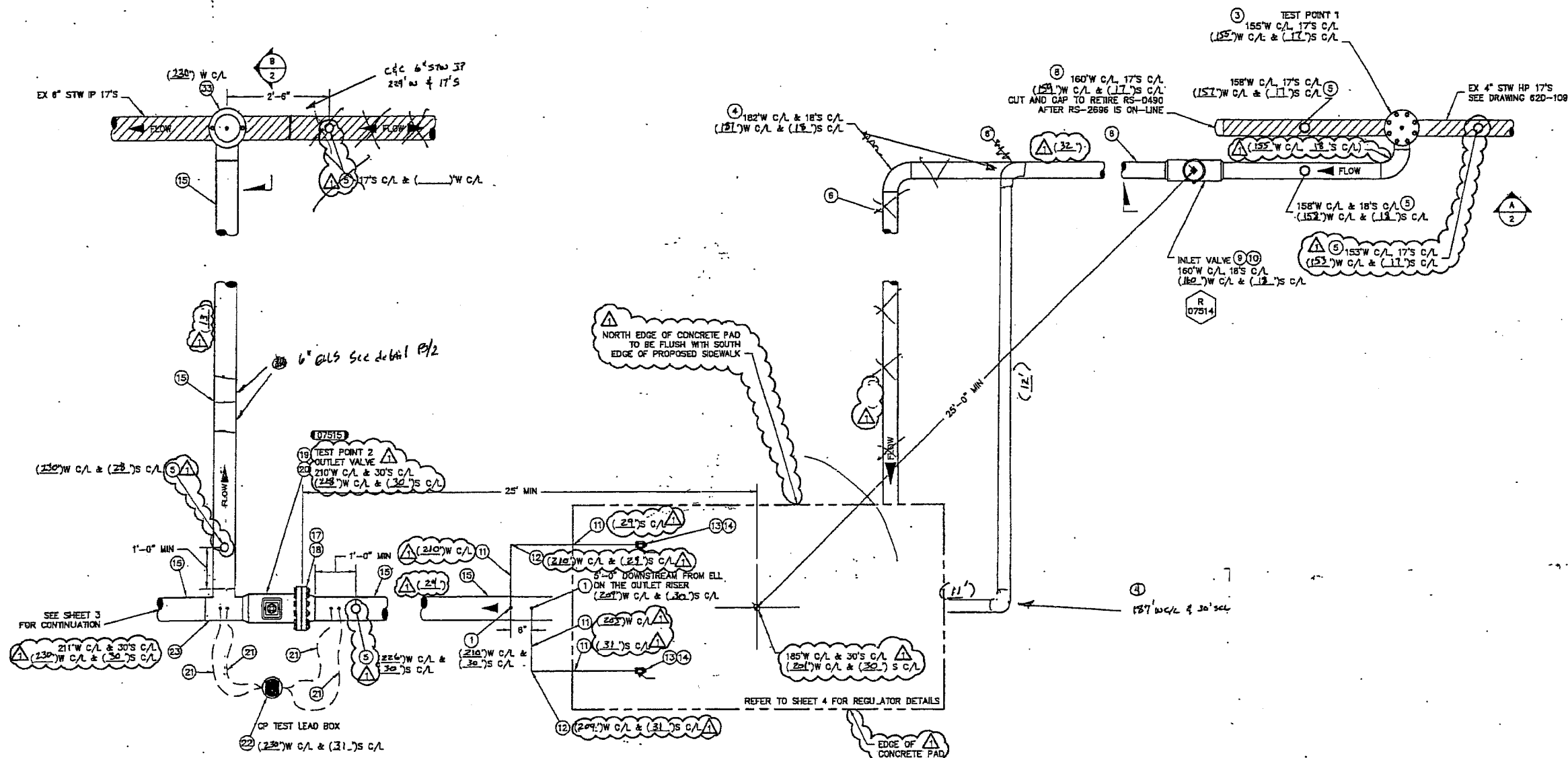
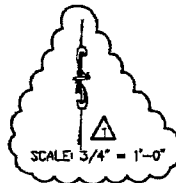
REVISIONS

PUGET SOUND ENERGY

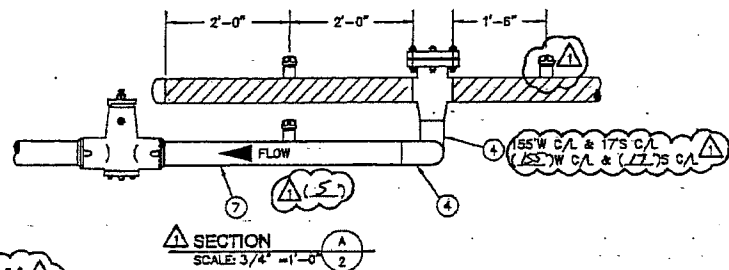
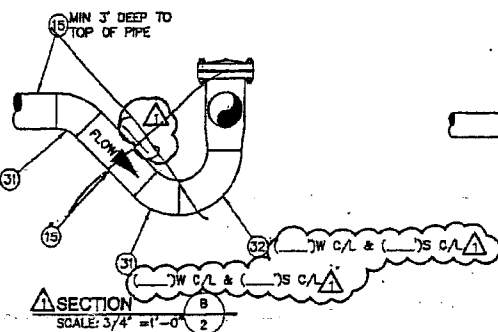
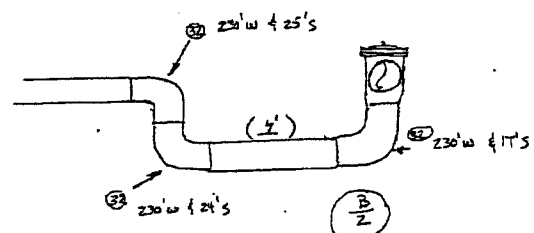
RS-2696

E 48 ST & PORTLAND AVE
TACOMA, WA

SAP ORDER NUMBER: 109025042
 DWG NUMBER: 3011-56
 SCALE: AS-SHOWN



△ PLOT PLAN
SCALE: 3/4" = 1'-0"



△ SECTION
SCALE: 3/4" = 1'-0"

GAS MAIN PRESSURE AND TESTING		
TEST TYPE	PRESSURE	TESTED BY
DATE ON	TIME ON	
DATE OFF	TIME OFF	
TEST TYPE	PRESSURE	TESTED BY
DATE ON	TIME ON	
DATE OFF	TIME OFF	
DESIGN	300/80	STS MADE 250 US/ 45 DS

CALL (800) 424-8888
2 BUSINESS DAYS BEFORE YOU DIG

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

PROJECT MANAGER CONTACT INFO:		REAL ESTATE/EASEMENT	PERMIT		
DAVID NARO 206-358-5761 Cell Phone N/A Pager		N/A	CITY OF TACOMA		
FUNCTION	NAME	PHONE	DATE		
3	PROJECT MGR	B PARKER	425-462-3937		
2	ENGINEER	L WEBB	425-462-3813		
1	DRAWN BY	R. NAKANO	425-462-3975		
REV #	DATE	BY	DESCRIPTION	CHECKED BY	
1				S FRANCISCO	425-462-3980
COUNTY	EMER SECTION	GAS MK CIR	APPROVED BY		
PIERCE	41	PGRPC011	CP APP		
1/4 SECTION	OP MAP	PLAT MAP			
NE 22-20-3	244.06Z	246.063	MAPPING		

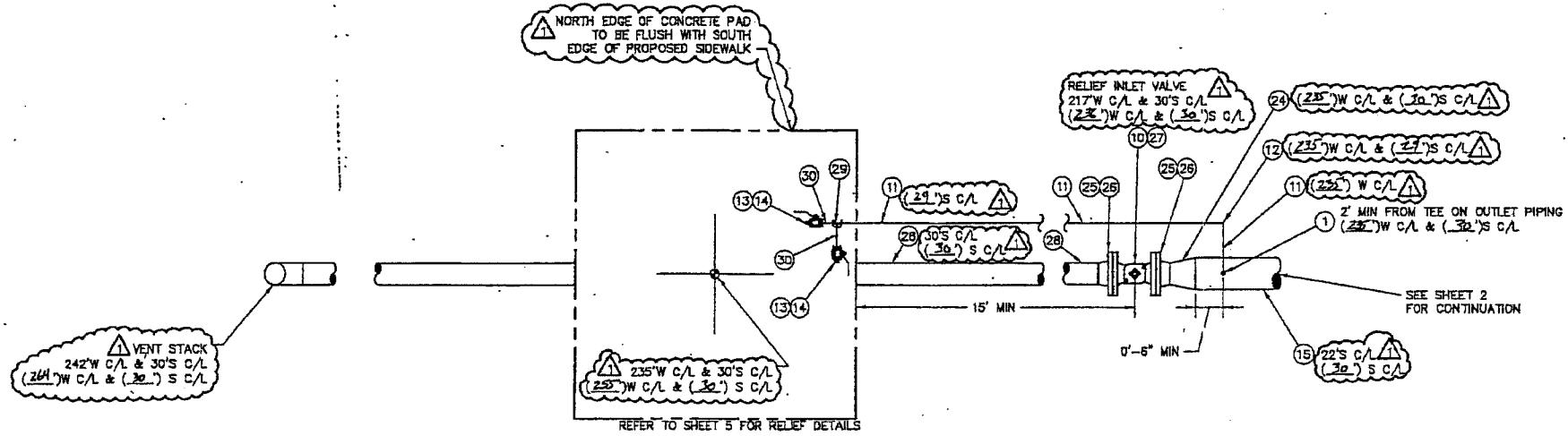
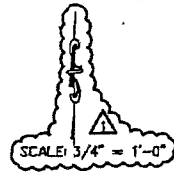
REV	DESCRIPTION	BY	DATE
1	CHANGED PSE PM TO PG PM. ADDED NORTH ARROW, LOCATIONS AND LOCATION CALL-OUTS. ADDED SHEETS 6 & 7 FOR CONCRETE FOUNDATIONS. REMOVED BOLLARDS.	RN	12/29/2005
2	ISSUED FOR CONSTRUCTION	RN	12/29/2005

UTILITY CONTACT PHONE

PUGET SOUND ENERGY

RS-2696
E 48 ST & PORTLAND AVE
TACOMA, WA

SAP ORDER NUMBER
108025042
DWG NUMBER
3011-539
SCALE AS SHOWN



△ PLOT PLAN
SCALE: 3/4" = 1'-0"

FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION

COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP

FIELD CHANGES RED-LINED ON AS-BUILT

MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK

ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT

NOTE BEGINNING OF MAIN, EOM & LINE OF MAIN LOCATIONS

SHOW ROPE LOCATIONS & CUL-DE-SAC RADIUS

FOREMAN'S SIGNATURE: *Don Smith*

COMPANY: *Puget Sound Energy* DATE: *12-15-06*

GAS MAIN PRESSURE AND TESTING		
TEST TYPE	PRESSURE	TESTED BY
DATE ON	TIME ON	
DATE OFF	TIME OFF	<i>PSE</i>
TEST TYPE	PRESSURE	TESTED BY
DATE ON	TIME ON	
DATE OFF	TIME OFF	<i>PSE</i>
DESIGN	300/80	SYS MAOP 250 US/ 45 DS

PROJECT MANAGER CONTACT INFO: THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

DAVID NARO 206-386-8761 Cell Phone N/A Pager	REAL ESTATE/EASEMENT N/A	PERMIT CITY OF TACOMA			
	FUNCTION	NAME			
3	PROJECT MGR	IB PARKER			
2	ENGINEER	IL WEBB			
1	DRAWN BY	R. NAKANO			
REV #	DATE	BY	DESCRIPTION	CHECKED BY	IS FRANCISCO
			EMER SECTION	GAS WK CTR	APPROVED BY
			PIERCE	PIERCE011	CP APP
			1/4 SECTION	OF MAP	PLAT MAP
			NE 22-20-3	244.062	248.063

REV	DESCRIPTION	BY	CHKR	CP	ENG	PM	DATE
1	CHANGED PSE PM TO PCI PM. ADDED NORTH ARROW, LOCATIONS AND LOCATION CALL-OUTS. ADDED SHEETS 6 & 7 FOR CONCRETE FOUNDATIONS REMOVED BOLLARDS.	<i>RN</i>	<i>SF</i>	<i>SS</i>	<i>JW</i>	<i>RP</i>	12/29/2006
2	ISSUED FOR CONSTRUCTION	<i>RN</i>	<i>SF</i>	<i>SS</i>	<i>JW</i>	<i>RP</i>	12/29/2006

UTILITY CONTACT PHONE

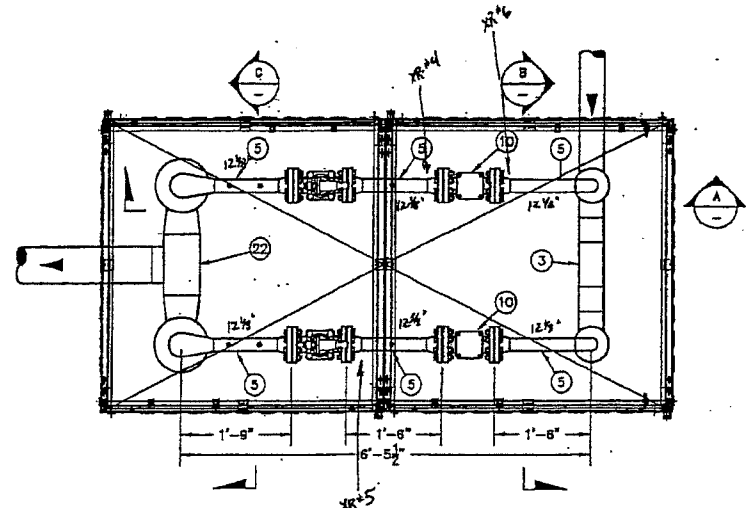
PUGET SOUND ENERGY

RS-2696

E 48 ST & PORTLAND AVE
TACOMA, WA

SAP ORDER NUMBER
109025042
DWG NUMBER
3011-539
SCALE AS-SHOWN 1/2"

SCALE 3/4" = 1'-0"



REGULATOR PLAN VIEW
SCALE: 3/4" = 1'-0"

CONSTRUCTION NOTES:

1. ALL UNDERGROUND CONNECTION PIPING TO BE WRAPPED PER GAS OPERATING STANDARD 2600.1100 TO THE FIRST FITTING.
2. PAINT ALL EXPOSED PIPING PER GAS OPERATING STANDARD 2600.1000 AND GAS FIELD PROCEDURE 4515.1330.

3. COAT VERTICAL STEEL RISER PIPES AND SENSE LINES WITH BRUSH APPLIED POWERCRETE R60. FOLLOW ALL MANUFACTURER'S DIRECTIONS FOR SURFACE PREPARATION AND CURE TIME.

PRESSURE CONTROL NOTES:

1. SET 2" MOONEY FG-30 REGULATORS AT 42 PSIG.

ITEM	QTY	DESCRIPTION	PART NO.
PC = PSE PRESSURE CONTRL WILL PROVIDE ITEM PO = NON STOCK ITEM CR = CONTRACTOR WILL PROVIDE ITEM			
29	2	REG 2" MOONEY 75% CAPACITY DRILLED HOLE	99-98858
28		MOVED TO SHEET 8	
27		MOVED TO SHEET 8	
26		MOVED TO SHEET 8	
25		MOVED TO SHEET 8	
24		ELL 6" X 90" WELD STD Y-32	99-96780
23		PIPE 6" X 0.280" BARE STEEL X-42	70-00575
22		TEE 6" X 6" WELD STD Y-62	99-96759
21		ELL 6" X 4" X 90" WELD REDUCING WPR	60-00780
20		VALVE 4" X 300# BALL FLANGE BY FLANGE	99-85811
19		BOLT KIT 4" 30FFVX	50-00050
18		FLANGE 4" X 300# WN FF	64-00380
17		VALVE 3/4" BALL 2000 PSIG	99-98141
16		NIPPLE 3/4" X 1" WELD Y-THREAD	99-86454
15		PLUG 3/4" STEEL THREADED	72-00024
14		FILTER 1/4" FISHER 252	99-85839
13		PILOT RESTRICTOR FISHER 1/4" NPT	99-85838
12		REG PILOT 1/4" 750-100	74-00148
11		W/BED 741RQ12 SPRING (10-75 PSIG)	
		REG MOONEY 2" FG-30 300# RF	74-00370
		102-014-01 MAINSPRING AND 75 DUROMETER	
		102-053-01 DIAPHRAM	
10	2	STRAINER 2" X 300# MUELLER 12BPCS	99-85840
9	2	ELL 2" X 90" WELD STD	60-00500
8		VALVE 2" BALL FLANGE BY FLANGE 300#	99-85910
7		BOLT KIT 2" 30FFVX	50-00022
6		FLANGE 2" X 300# WN FF	64-00185
5		PIPE 2" X 0.164" GRADE B BARE	70-00270
4		ELL 4" X 2" X 90" RED WELD Y-42, LR	60-00710
3		TEE 4" X 4" WELD STD WPR OR Y-52 4-2	60-88737
2		PIPE 4" X 0.237" BARE GRADE X42	99-86124
1		ELL 4" X 90" WELD STD LR Y-52	99-86779

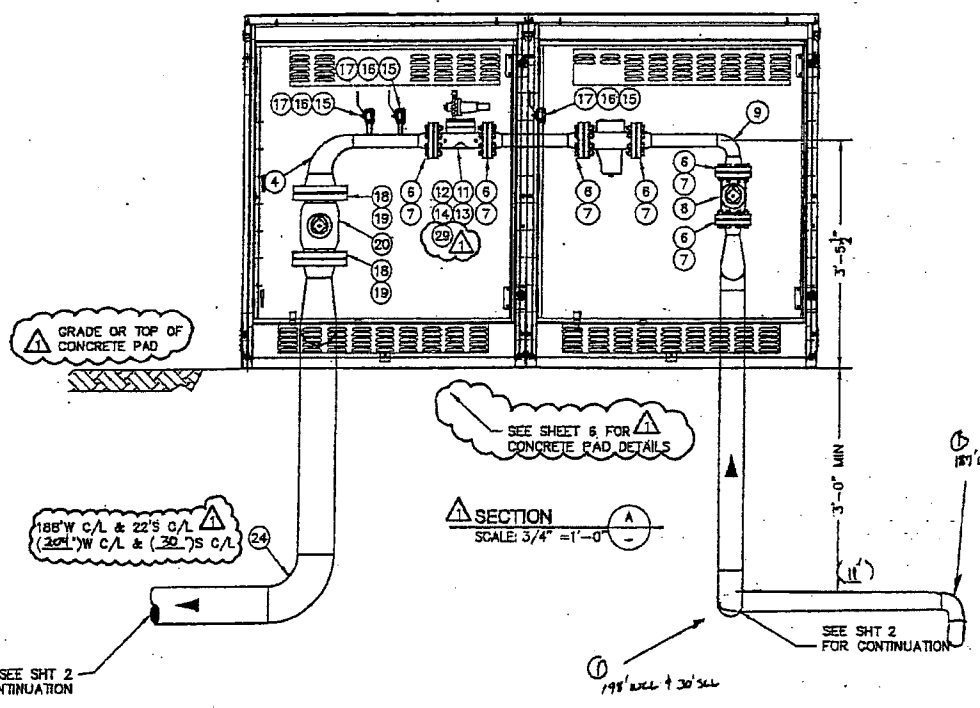
BILL OF MATERIALS

BILL OF MATERIAL ASSOCIATED SOLELY WITH THIS SHEET OF THE DRAWING

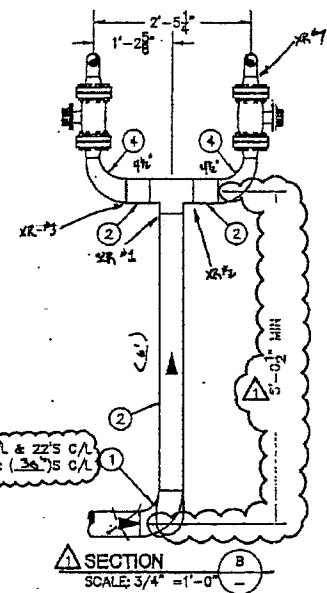
FITTER (CHECK BOX IF COMPLETE)
 WORK AREA LEFT IN CLEAN & SAFE CONDITION
 COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP
 FIELD CHANGES RED-LINED ON AS-BUILT
 MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK
 ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT
 NOTE BEGINNING OF MAIN, EOM & LINE OF MAIN LOCATIONS
 SHOW ROPE LOCATIONS & CUL-DE-SAC RADIUS
 FOREMAN'S SIGNATURE: *[Signature]*
 COMPANY: *Puckett* DATE: *12.15.06*

GAS MAIN PRESSURE AND TESTING		
TEST TYPE	PRESSURE	TESTED BY
DATE ON	TIME ON	
DATE OFF	TIME OFF	
TEST TYPE	PRESSURE	TESTED BY
DATE ON	TIME ON	
DATE OFF	TIME OFF	
DESIGN	300/60	SYS MAOP 1250 US/ 45 DS

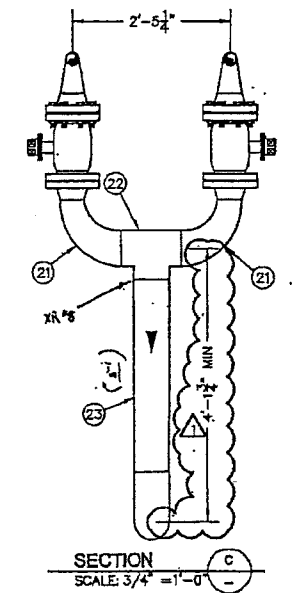
PROJECT MANAGER CONTACT INFO:		THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES	
DAVID NARD	208-386-8781 Cell Phone	REAL ESTATE/EASEMENT	PERMIT
N/A	N/A	N/A	CITY OF TACOMA
3	N/A	FUNCTION	NAME
2	N/A	PROJECT MGR	R. PARKER 425-462-3937
1	N/A	ENGINEER	J. WEBB 425-462-3813
	N/A	DRAWN BY	R. NAKANO 425-462-3975
		CHECKED BY	S. FRANCISCO 425-462-3960
COUNTY	EMER SECTION	GAS WK CTR	APPROVED BY
PIERCE	ES-47	POPCO13	DP APP
1/4 SECTION	DP MAP	PLAT MAP	
NE 22-20-03	244.062	248.063	MAPPING



SECTION A
SCALE: 3/4" = 1'-0"



SECTION B
SCALE: 3/4" = 1'-0"



SECTION C
SCALE: 3/4" = 1'-0"

REV	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE
1	CHANGED PSE PM TO PCI PM. ADDED LOCATIONS AND LOCATION CALL-OUTS. ADDED NORTH ARROW. MOVED CONCRETE PAD AND STEEL ENCLOSURE TO NEW SHEET 8. ADDED SHEET 7 FOR RELIEF CONCRETE FOUNDATION. ADDED ITEM #29 AND CHANGED DESCRIPTION OF ITEM #11.	RN	SF	SS	JW	RP	12/29/2006
2	ISSUED FOR CONSTRUCTION						

REVISIONS

UTILITY CONTACT PHONE

PUGET SOUND ENERGY

RS-2696

E 48 ST & PORTLAND AVE
TACOMA, WA

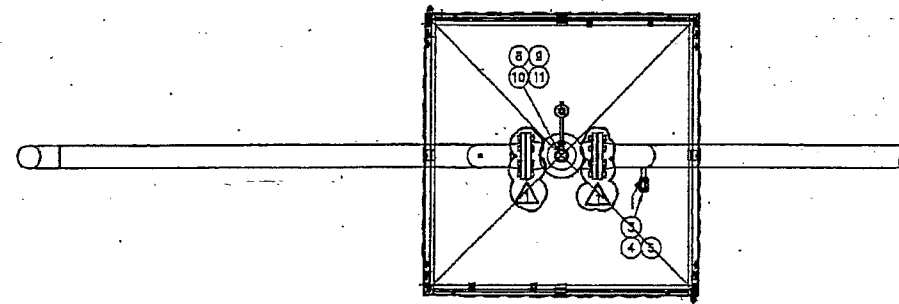
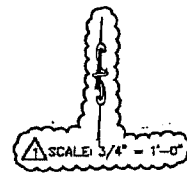
SAP ORDER NUMBER
109021042

DWG NUMBER
3011-539

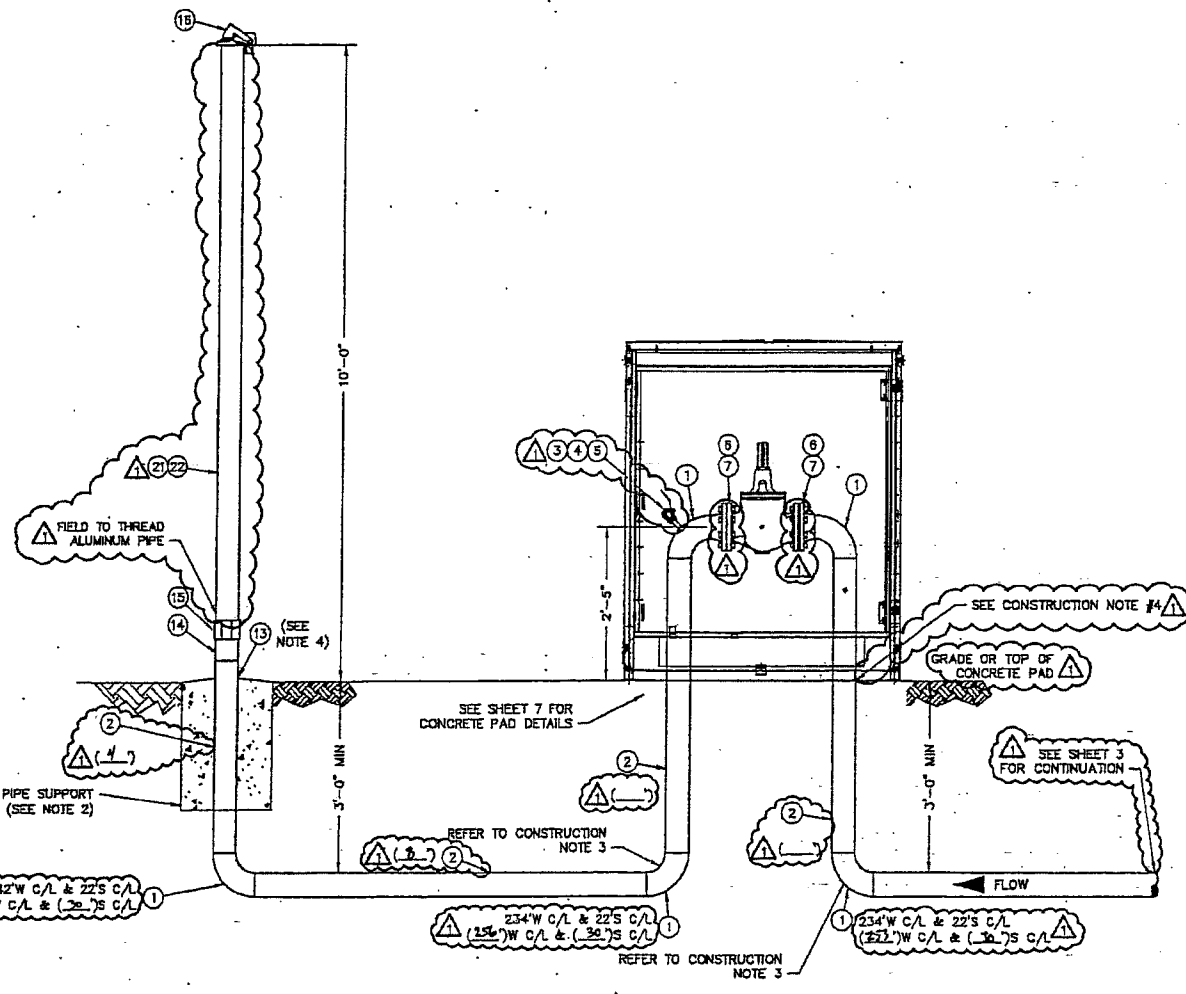
SCALE: AS-SHOWN

REV 4/7

C:\pse\ed\Gas Reg Bin\2501-3000\2696\3011-539\504_R01.dwg-SHEETS3_R00 - Plotted By: malkan 07/27/06 08:53AM



REGULATOR PLAN VIEW
SCALE: 3/4" = 1'-0"



RELIEF STACK ELEVATION VIEW
SCALE: 3/4" = 1'-0"

CONSTRUCTION NOTES:

1. ALL CONSTRUCTION TO CONFORM TO PSE GAS OPERATING STANDARDS & GAS FIELD PROCEDURES.
2. LOCATION OF RELIEF STACK TO BE SHOWN ON CONSTRUCTION DRAWINGS. A MINIMUM OF 5'-0" TO BE MAINTAINED FROM EDGE OF VAULT TO CENTERLINE OF STACK.
3. CONCRETE SUPPORT FOR RELIEF STACK IS TO BE 1'-8" DIAMETER, SLOPED AT THE TOP OF THE SURFACE AS TO ALLOW WATER TO DRAIN AWAY.
4. AT AIR/SOIL INTERFACE, WRA² VENT RISER PIPE WITH UV RESISTANT TAPE FROM 6" BELOW GRADE TO 6" ABOVE GRADE.
5. COAT VERTICAL BARE STEEL RISER PIPE AND SENSE LINE INTO STEEL ENCLOSURE WITH BRUSH APPLIED POWERCRETE R60. FOLLOW ALL MANUFACTURER'S DIRECTIONS FOR SURFACE PREPERATION AND CURE TIME.
6. DO NOT PAINT PORTIONS OF THE VENT STACK WHICH ARE ALUMINUM.
7. INSTALL A DOWNSTREAM TAP FOR THE BLEEDLINE IF THERE IS NO OUTLET BODY TAP ON THE EZR.

PRESSURE CONTROL NOTES:

SET 4" FISHER EZR RELIEF VALVE AT 47 PSIG.

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
PO = NON STOCK ITEM
CR = CONTRACTOR WILL PROVIDE ITEM

ITEM	QTY	DESCRIPTION	PART NO
22	1	PIPE 4" X 0.237" SCH 40 ALUMINUM BARE	57-00900
21	1	DECAL PIPE MARKER WARNING	99-98631
20		NOT USED	
19		MOVED TO SHEET 7	
18		MOVED TO SHEET 7	
17		MOVED TO SHEET 7	
16	1	CAP 4" E.G. WEATHER	52-00708
15	1	COUPLING 4" PVC THREADED SCH 80	58-00520
14	1	NIPPLE 4" X 12" THREADED SCH 40	88-95883
13	1	TAPE UV RESISTANT	CR
12		MOVED TO SHEET 7	
11	1	RESTRICTOR 1/4" FISHER NPT 112	98-95938
10	1	FILTER 1/4" FISHER P594	62-00378
9	1	PILOT 1/4" MOONEY SERIES 20	74-00291
8		DELETED ADDITIONAL TEXT FROM ITEM 8	
7	1	REGULATOR 2" X ANSI 150 FISHER EZR PLG 1180382012 GREEN SPRING	98-98824
6	1	BOLT KIT 4" 15FTSVX	50-00022
5	1	FLANGE 4" 150 PSIG FE WELD NECK	64-00440
4	1	PLUG 1/2" BLK	72-00018
3	1	VALVE BALL SS 1/2 X 2000 PSIG 3-PIECE BODY	99-98140
2	1	NIPPLE 1/2" X 3" X 0.109" GR 8 WLD X BLK	99-98453
1	1	PIPE 4" X 0.237" BARE ST X 42	98-96124
1	1	ELL 4" X 90° WELD STD Y-62	98-98779

BILL OF MATERIALS

BILL OF MATERIAL ASSOCIATED SOLELY WITH THIS SHEET OF THE DRAWING

FITTER (CHECK BOX IF COMPLETE)
 WORK AREA LEFT IN CLEAN & SAFE CONDITION
 COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP
 FIELD CHANGES RED-LINED ON AS-BUILT
 MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK
 ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT
 NOTE BEGINNING OF MAIN, EOM & LINE OF MAIN LOCATIONS
 SHOW ROPE LOCATIONS & CUL-DE-SAC RADIIUS.
 FOREMAN'S SIGNATURE: *D.W. Smith*
 COMPANY: *Pacific Power* DATE: *12-25-06*

GAS MAIN PRESSURE AND TESTING			
TEST TYPE	PR	PRESSURE	Loss Pst
DATE ON	11-14-06	TIME ON	11:00 AM
DATE OFF	11-14-06	TIME OFF	12:00 PM
TEST TYPE	PR	PRESSURE	TESTED BY
DATE ON		TIME ON	
DATE OFF		TIME OFF	
DESIGN	1300/60	SYN MAOP	250 US / 45 DS

PROJECT MANAGER CONTACT INFO:				THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES			
DAVID NARD	206-394-8781	Cell Phone		REAL ESTATE/EASEMENT	PERMIT		
		Pager		N/A	CITY OF TACOMA		
3		N/A		FUNCTION	NAME	PHONE	DATE
2		N/A		PROJECT MGR	B. PARKER	425-462-3937	
1		N/A		ENGINEER	J. WEBB	425-462-3813	
		N/A		DRAWN BY	R. NAKANO	425-462-3975	
REV #	DATE	BY	DESCRIPTION	CHECKED BY	S. FRANCISCO	425-462-3960	
				APPROVED BY	N/A		
COUNTY	ES-47	GAS WK CTR	PGRPCD13	CP APP			
PIECE	1/4 SECTION	OF MAP	244.082	PLAT MAP			
				MAPPING			

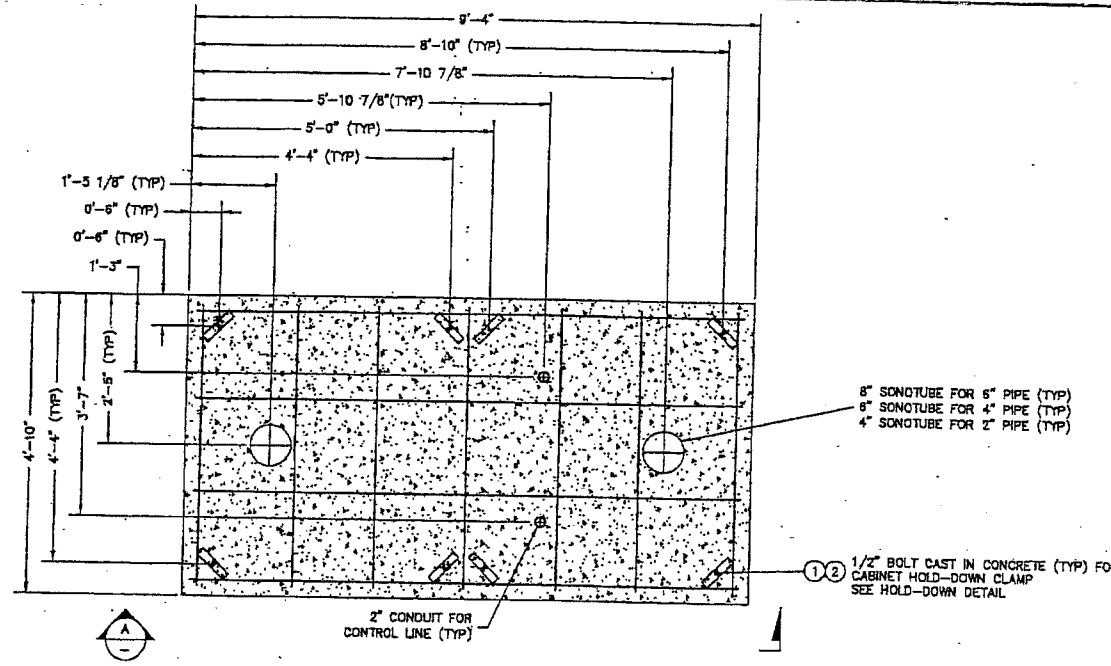
REV	DESCRIPTION	BY	CHKD	CP	ENG	PM	DATE
1	ADDED LOCATION AND LOCATION CALL-OUTS. MODIFIED CONSTRUCTION NOTE #3. CHANGED PSE PM TO PCI PM. ADDED NORTH ARROW. MOVED CONCRETE PAD TO NEW SHEET 7. ADDED WARNING DECAL. CHANGED VENT STACK TO ALUMINUM. CHANGED PILOT & P LDT FILTER. CORRECTED LAYER FOR BOLT KITS TO DISPLAY. CHANGED DOWNSTREAM BLEED LINE CONNECTION. CHANGED UPSTREAM TAP TO 1/2".						12/29/2006
2	ISSUED FOR CONSTRUCTION	RN	SF	SS	JW	RP	12/29/2006

UTILITY CONTACT PHONE: _____

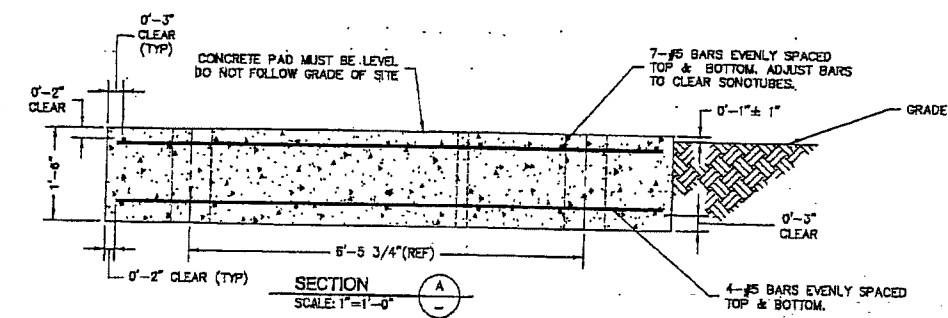
PUJET SOUND ENERGY RS-2696 E 48 ST & PORTLAND AVE TACOMA, WA

SAP ORDER NUMBER 109025042 DWG NUMBER 111-529 SCALE AS-SHOWN 15/71

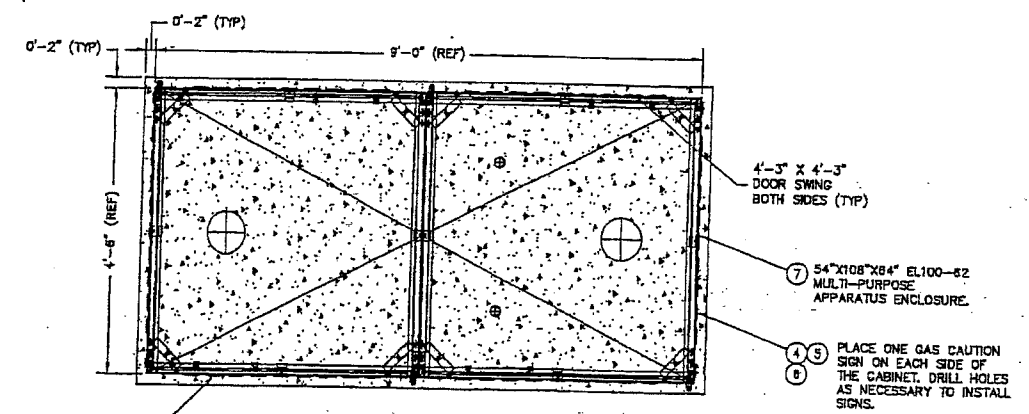
Plotted By: moken 07/27/08 02:21PM



ABOVE GROUND REGULATOR CABINET FOUNDATION
SCALE: 1"=1'-0"



SECTION A-A
SCALE: 1"=1'-0"



ABOVE GROUND CABINET PLAN DETAIL
SCALE: 1"=1'-0"

CONSTRUCTION NOTES FOR CONCRETE PAD:

- CONSTRUCT A 4'-10" X 9'-4" X 1'-6" CONCRETE PAD FOR SUPPORT OF METAL CABINET.
- CONCRETE PAD MUST BE LEVEL. DO NOT FOLLOW GRADE OF SITE.
- THE CABINETS MAY BE PLACED ON THE FOUNDATION 96 HOURS AFTER THE CONCRETE IS POURED.
- DO NOT TIGHTEN THE ANCHOR BOLTS TO THE HOLD-DOWN BARS UNTIL THE FULL 28 DAY CURING PERIOD IS COMPLETE. TIGHTENING SHALL BE SUFFICIENT DURING THE CURING PERIOD.
- CONTACT PSE PROJECT ENGINEER WITH ANY QUESTIONS REGARDING THE INSTALLATION OF THE CONCRETE FOUNDATION.

INSTALLING CONCRETE

- SITE CONDITIONS**
- THE DEPTH OF FOUNDATION BELOW GRADE IS SHOWN ON THE PLANS AS A MINIMUM DIMENSION.
 - IN ALL CASES, THE FOUNDATION SHALL BE SET ON FIRM SOIL, AND THE EXCAVATION SHALL BE COMPLETELY DEWATERED. UNSUITABLE MATERIAL OR FROZEN SOIL SHALL BE REMOVED AND REPLACED WITH COMPACTED SELECT STRUCTURAL FILL OR CRUSHED ROCK.

FOUNDATION FORMS

- FORMS SHALL BE COATED WITH FORM OIL, BRACED TO PREVENT ANY MOTION DURING THE PLACING OF CONCRETE, AND SHALL BE AT THE CORRECT GRADE AND ORIENTATION SHOWN ON THE PLANS.
- THE ENTIRE DEPTH OF THE FOUNDATION SHALL BE FORMED UNLESS OTHERWISE SHOWN ON DRAWINGS.
- REMOVE FORMS AFTER CONCRETE HAS SET FOR A MINIMUM OF 24 HOURS.

ALUMINUM CONDUIT

- ALUMINUM MATERIAL OR CONDUIT CORRODES IN CONCRETE AND SHALL NOT BE USED.

MIXING AND PLACING

- CONCRETE SHALL BE MIXED AND PLACED IN ACCORDANCE WITH THE LATEST STANDARDS OF THE AMERICAN CONCRETE INSTITUTE, SPECIFICATION ACI 318, WHICH SHALL BE ADHERED TO IN ADDITION TO ANY LOCAL BUILDING CODES.
- CONCRETE SHALL BE PLACED WITHIN 1-1/2 HOURS AFTER THE INTRODUCTION OF THE MIXING WATER. ANY CONCRETE WHICH HAS BEGUN TO SET BEFORE PLACING SHALL BE REJECTED.

FINISH AND CURE

- CONCRETE SHALL BE EVENLY DISTRIBUTED ALONG THE FORM AND SHALL BE VIBRATED TO WORK THE CONCRETE INTO CORNERS OF THE FORM AND AROUND ALL STEEL. EXCESSIVE VIBRATION SHALL BE AVOIDED TO PREVENT SEGREGATION OF THE MATERIALS IN THE CONCRETE.
- THE FOUNDATION SHALL BE FINISHED WITH A WOOD SPORED AND TOOLED ALONG THE EDGES. AFTER THE INITIAL SET HAS OCCURRED, APPLY A LIGHT BROOM FINISH TO PROVIDE A NON-SLIP SURFACE.
- TO ENSURE THE STRENGTH OF THE CONCRETE IS DEVELOPED, COVER THE FOUNDATION WITH A WISQUEEN SHEET. THIS PREVENTS MOISTURE FROM ESCAPING FROM THE SURFACE TOO RAPIDLY DURING THE CURING PROCESS.
- IF THERE IS ANY POSSIBILITY OF THE AMBIENT TEMPERATURE GOING BELOW THE FREEZING POINT WITHIN THREE DAYS AFTER PLACING THE CONCRETE, CONTACT THE PSE PROJECT ENGINEER.

INSTALLATION REQUIREMENTS FOR DEFORMED STEEL REINFORCING BARS

- ALL REINFORCING BARS USED FOR THIS APPLICATION SHALL CONFORM TO THE LATEST REVISION OF ASTM A-615 AND SHALL BE GRADE 60 UNLESS OTHERWISE SPECIFIED IN PSE STANDARDS OR DRAWINGS.
- FABRICATION TOLERANCES, BENDING, AND PLACEMENT OF REINFORCING BARS SHALL BE IN COMPLIANCE WITH THE LATEST REVISIONS OF ACI-318 AND THE CRSI CODE OF STANDARD PRACTICE.
- REINFORCING BARS SHALL BE FREE FROM LOOSE MILL SCALE, FLAKING RUST, MUD, OIL, GREASE, OR PAINT AT THE TIME OF INSTALLATION.
- REINFORCING BARS SHALL BE SUPPORTED IN THE POSITION SHOWN ON THE DRAWING BY MEANS OF CONCRETE BLOCKS OR STEEL CHAIRS DESIGNED FOR THIS PURPOSE.
- REINFORCING BARS SHALL BE TIED WITH STEEL WIRE TO MAINTAIN THE SPACING AND CLEARANCE SHOWN ON PSE STANDARDS OR DRAWINGS.
- THERE SHALL BE NO WELDING OF REINFORCING BARS AT LAPS OR INTERSECTIONS UNLESS SPECIFIED ON PSE STANDARDS OR DRAWINGS.

STRUCTURAL CONCRETE

MATERIAL

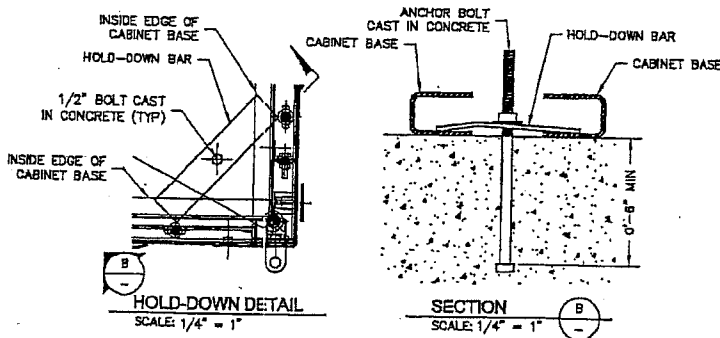
- MINIMUM CEMENT CONTENT SHALL BE 517 LBS PER CU YD (5-1/2 BAGS PER CU YD).
- MAXIMUM COARSE AGGREGATE SIZE SHALL BE 1-1/2" IN ACCORDANCE WITH ASTM-C33, SIZE NUMBER 4.
- SLUMP SHALL BE 4"±1" AT THE POINT OF DELIVERY.
- AN AIR-ENTRAINING ADMIXTURE SHALL BE ADDED TO ALL MIXES TO PROVIDE AN AIR CONTENT OF 4±1% AND SHALL MEET OR EXCEED ASTM-C260. OTHER ADMIXTURES ARE NOT ALLOWED.

TEST

- READY-MIXED CONCRETE SHALL CONFORM TO THE LATEST REVISION OF ASTM C94.
- REQUIRED MINIMUM COMPRESSIVE STRENGTH: 3000 PSI AT 28 DAYS.
- OPTION C, SECTION 4 OF ASTM C94 AND THE REQUIREMENTS OF THIS SPECIFICATION SHALL BE THE BASIS OF DETERMINING THE PROPORTIONS OF THE CONCRETE TO PRODUCE THE REQUIRED QUALITY. THE READY-MIXED CONCRETE SUPPLIER ASSUMES RESPONSIBILITY FOR THE SELECTION OF THE PROPORTION FOR THE CONCRETE MIXTURE IN ACCORDANCE WITH THESE REQUIREMENTS.

INSTALLING ANCHOR BOLTS

- WELDING SHALL NOT BE PERMITTED ON ANCHOR BOLTS UNLESS SPECIFICALLY REQUIRED ON THE DESIGN DRAWING.
- ENLARGEMENT OF BASE PLATE ANCHOR BOLT HOLES OR BENDING OF THE ANCHOR BOLTS SHALL NOT BE PERMITTED.
- THE ENTIRE PORTION OF THE ANCHOR BOLT PROJECTING ABOVE THE SURFACE OF THE CONCRETE SHALL BE THREADED. ANCHOR BOLTS SHALL BE ACCURATELY LOCATED TO WITHIN 1/4" OF THEIR DESIGN LOCATIONS PRIOR TO THE PLACEMENT OF THE CONCRETE.
- TEMPLATES SHALL BE USED TO MAINTAIN BOLT LOCATIONS WITHIN 1/4" DURING CONCRETE PLACEMENT.
- BOLTS SHALL BE SECURED IN A VERTICAL POSITION BY NUTS ABOVE AND BELOW THE TEMPLATE.
- CONCRETE SHALL BE PLACED SO AS NOT TO TILT OR LATERALLY DISPLACE THE ANCHOR BOLTS (I.E. VIBRATORS MAY BE USED TO CONSOLIDATE THE CONCRETE BUT SHALL NOT BE USED TO TRANSPORT IT LATERALLY WITHIN THE FORMS).



HOLD-DOWN DETAIL
SCALE: 1/4" = 1"

SECTION B-B
SCALE: 1/4" = 1"

THIS BILL OF MATERIALS APPLIES SOLELY TO THIS SHEET OF THE DRAWING

ITEM	QTY	DESCRIPTION	PART NO
9			
8			
7	1	54" X 108" X 84" MULTI-PURPOSE ENCLOSURE	PO
6	16	HEX NUT 1/4-20 GR-A GALVANIZED	1463500
5	16	BOLT HEX HEAD 1/4" X 1" STEEL GALVANIZED	1225000
4	4	GAS CAUTION SIGN	3500805
3		NOT USED	
2	8	WASHER 1/2" FLAT ROUND GALVANIZED	1964600
1	8	BOLT 1/2" X 10" GALVANIZED WITH SQUARE NUTS	1238500

BILL OF MATERIALS

OWNER/DEVELOPER CONTACT INFO:
PUGET SOUND ENERGY
805 156 AVE NE
BELLEVUE, WA 98007 OFFICE:
ATTN:

FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION
COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP
FIELD CHANGES RED-LINED ON AS-BUILT
MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK
ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT
NOTE BEGINNING OF MAIN, EDW & LINE OF MAIN LOCATIONS
SHOW RCPE LOCATIONS & CUL-DE-SAC RADIUS

FOREMAN'S SIGNATURE: *Den Smith*
COMPANY: *PILGRIM* DATE: *12-15-06*

PROJECT MANAGER CONTACT INFO:
DAVID NARO
296-396-8781 Cell Phone
DAVID.NARO@PSE.COM Email

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

REV	DATE	BY	DESCRIPTION	CHECKED BY
3			N/A	
2			N/A	
1			N/A	

REAL ESTATE/EASEMENT	PERMIT
N/A	N/A

FUNCTION	NAME	PHONE	DATE
PROJECT MGR	R. PARKER	425-462-3937	
ENGINEER	N. WEBB	425-462-3613	
DRAWN BY	R. NAKANO	425-462-3975	

REV	DATE	BY	DESCRIPTION	CHECKED BY
1/4 SECTION	ES-47		GAS WK CTR	
NE 22-20-03	244.082		246.063	

UTILITY CONTACT PHONE

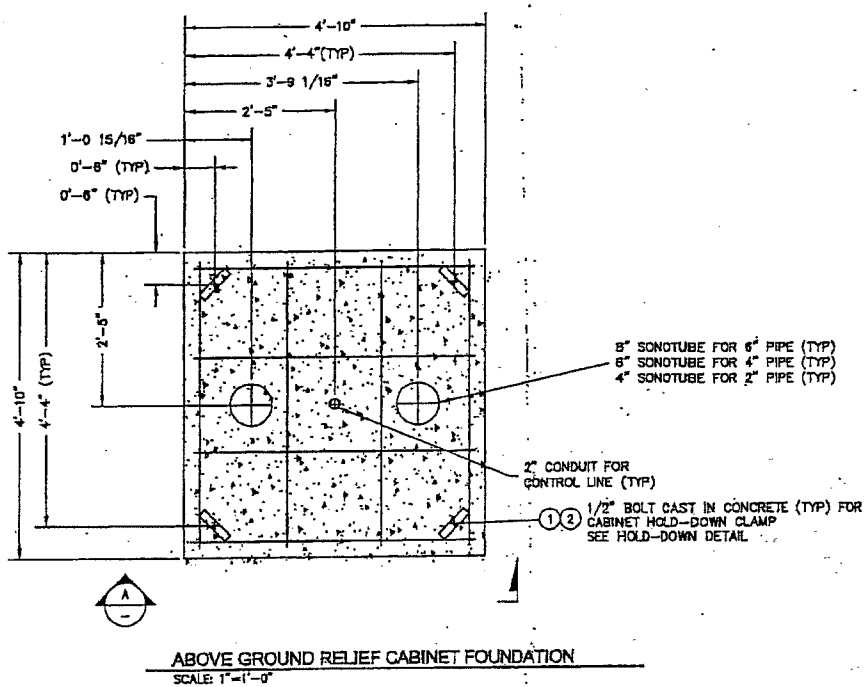
PUGET SOUND ENERGY

RS-2896
E 48 ST & PORTLAND AVE
TACOMA, WA

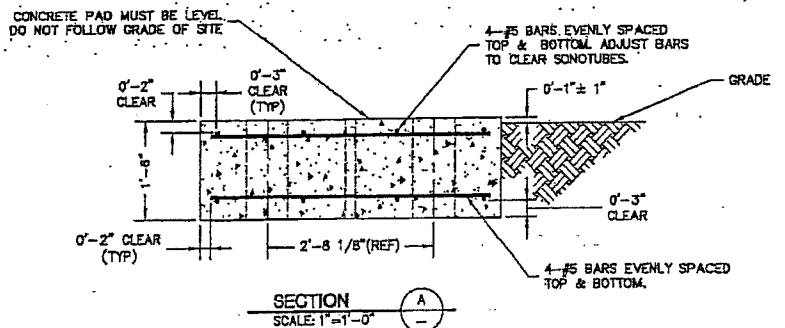
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108021042
DWC NUMBER
3D11-827
SCALE: AS NOTED

ISSUED FOR CONSTRUCTION	REV	DESCRIPTION	BY	CHKD	CP	ENG	PL	DATE

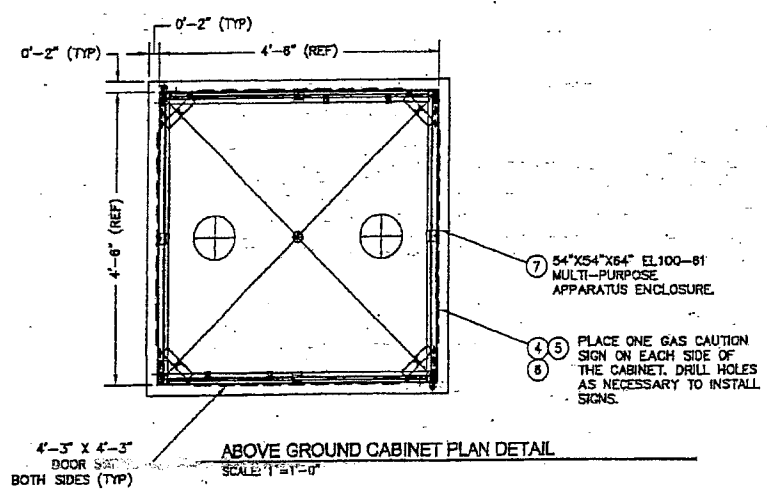
PUGET SOUND ENERGY REG. NO. 2501-3000 2888 3411 - 527 - 08 - 00.dwg - 501 - 100 - 07/21/05 10.04AM



ABOVE GROUND RELIEF CABINET FOUNDATION
SCALE: 1"=1'-0"



SECTION A-A
SCALE: 1"=1'-0"



ABOVE GROUND CABINET PLAN DETAIL
SCALE: 1"=1'-0"

CONSTRUCTION NOTES FOR CONCRETE PAD:

- CONSTRUCT A 4'-10" X 4'-10" X 1'-6" CONCRETE PAD FOR SUPPORT OF METAL CABINET.
- CONCRETE PAD MUST BE LEVEL. DO NOT FOLLOW GRADE OF SITE.
- THE CABINETS MAY BE PLACED ON THE FOUNDATION 96 HOURS AFTER THE CONCRETE IS POURED.
- DO NOT TIGHTEN THE ANCHOR BOLTS TO THE HOLD-DOWN BARS UNTIL THE FULL 28 DAY CURING PERIOD IS COMPLETE. FINGER TIGHT SHALL BE SUFFICIENT DURING THE CURING PERIOD.
- CONTACT PSE PROJECT ENGINEER WITH ANY QUESTIONS REGARDING THE INSTALLATION OF THE CONCRETE FOUNDATION.

INSTALLING CONCRETE

- SITE CONDITIONS**
- THE DEPTH OF FOUNDATION BELOW GRADE IS SHOWN ON THE PLANS AS A MINIMUM DIMENSION.
 - IN ALL CASES, THE FOUNDATION SHALL BE SET ON FIRM SOIL, AND THE EXCAVATION SHALL BE COMPLETELY DEWATERED. UNSUITABLE MATERIAL OR FROZEN SOIL SHALL BE REMOVED AND REPLACED WITH COMPACTED SELECT STRUCTURAL FILL OR CRUSHED ROCK.

FOUNDATION FORMS

- FORMS SHALL BE COATED WITH FORM OIL, BRACED TO PREVENT ANY MOTION DURING THE PLACING OF CONCRETE, AND SHALL BE AT THE CORRECT GRADE AND ORIENTATION SHOWN ON THE PLANS.
- THE ENTIRE DEPTH OF THE FOUNDATION SHALL BE FORMED UNLESS OTHERWISE SHOWN ON DRAWINGS.
- REMOVE FORMS AFTER CONCRETE HAS SET FOR A MINIMUM OF 24 HOURS.

ALUMINUM CONDUIT

- ALUMINUM MATERIAL OR CONDUIT CORRODES IN CONCRETE AND SHALL NOT BE USED.

MIXING AND PLACING

- CONCRETE SHALL BE MIXED AND PLACED IN ACCORDANCE WITH THE LATEST STANDARDS OF THE AMERICAN CONCRETE INSTITUTE, SPECIFICATION ACI 318, WHICH SHALL BE ADHERED TO IN ADDITION TO ANY LOCAL BUILDING CODES.
- CONCRETE SHALL BE PLACED WITHIN 1-1/2 HOURS AFTER THE INTRODUCTION OF THE MIXING WATER. ANY CONCRETE WHICH HAS BEGUN TO SET BEFORE PLACING SHALL BE REJECTED.

FINISH AND CURE

- CONCRETE SHALL BE EVENLY DISTRIBUTED ALONG THE FORM AND SHALL BE VIBRATED TO WORK THE CONCRETE INTO CORNERS OF THE FORM AND AROUND ALL STEEL. EXCESSIVE VIBRATION SHALL BE AVOIDED TO PREVENT SEGREGATION OF THE MATERIALS IN THE CONCRETE.
- THE FOUNDATION SHALL BE FINISHED WITH A WOOD SCREED AND TOOLED ALONG THE EDGES. AFTER THE INITIAL SET HAS OCCURRED, APPLY A LIGHT BROOM FINISH TO PROVIDE A NON-SLIP SURFACE.
- TO ENSURE THE STRENGTH OF THE CONCRETE IS DEVELOPED, COVER THE FOUNDATION WITH A VISQUEEN SHEET. THIS PREVENTS MOISTURE FROM ESCAPING FROM THE SURFACE TOO RAPIDLY DURING THE CURING PROCESS.
- IF THERE IS ANY POSSIBILITY OF THE AMBIENT TEMPERATURE GOING BELOW THE FREEZING POINT WITHIN THREE DAYS AFTER PLACING THE CONCRETE, CONTACT THE PSE PROJECT ENGINEER.

INSTALLATION REQUIREMENTS FOR DEFORMED STEEL REINFORCING BARS

- ALL REINFORCING BARS USED FOR THIS APPLICATION SHALL CONFORM TO THE LATEST REVISION OF ASTM A-615 AND SHALL BE GRADE 60 UNLESS OTHERWISE SPECIFIED IN PSE STANDARDS OR DRAWINGS.
- FABRICATION TOLERANCES, BENDING, AND PLACEMENT OF REINFORCING BARS SHALL BE IN COMPLIANCE WITH THE LATEST REVISIONS OF ACI-318 AND THE CRSI CODE OF STANDARD PRACTICE.
- REINFORCING BARS SHALL BE FREE FROM LOOSE MILL SCALE, FLAKING RUST, MUD, OIL, GREASE, OR PAINT AT THE TIME OF INSTALLATION.
- REINFORCING BARS SHALL BE SUPPORTED IN THE POSITION SHOWN ON THE DRAWING BY MEANS OF CONCRETE BLOCKS OR STEEL CHAIRS DESIGNED FOR THIS PURPOSE.
- REINFORCING BARS SHALL BE TIED WITH STEEL WIRE TO MAINTAIN THE SPACING AND CLEARANCE SHOWN ON PSE STANDARDS OR DRAWINGS.
- THERE SHALL BE NO WELDING OF REINFORCING BARS AT LAPS OR INTERSECTIONS UNLESS SPECIFIED ON PSE STANDARDS OR DRAWINGS.

STRUCTURAL CONCRETE

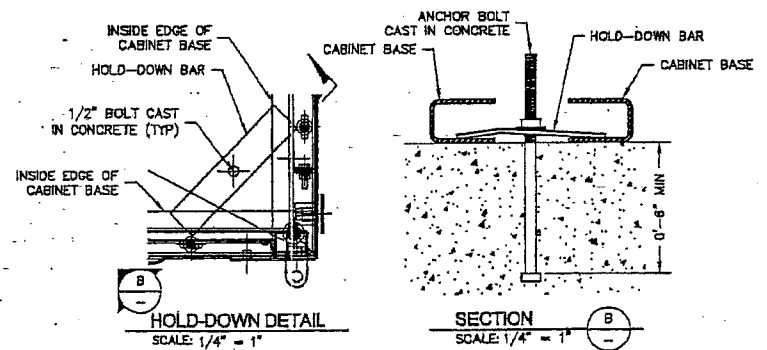
- MATERIAL**
- MINIMUM CEMENT CONTENT SHALL BE 517 LBS PER CU YD (5-1/2 BAGS PER CU YD).
 - MAXIMUM COARSE AGGREGATE SIZE SHALL BE 1-1/2" IN ACCORDANCE WITH ASTM-C33, SIZE NUMBER 4.
 - SLUMP SHALL BE 4"±1" AT THE POINT OF DELIVERY.
 - AN AIR-ENTRAINING ADMIXTURE SHALL BE ADDED TO ALL MIXES TO PROVIDE AN AIR CONTENT OF 4±1% AND SHALL MEET OR EXCEED ASTM-C260. OTHER ADMIXTURES ARE NOT ALLOWED.

TEST

- READY-MIXED CONCRETE SHALL CONFORM TO THE LATEST REVISION OF ASTM C94.
- REQUIRED MINIMUM COMPRESSIVE STRENGTH: 3000 PSI AT 28 DAYS.
- OPTION C, SECTION 4 OF ASTM C94 AND THE REQUIREMENTS OF THIS SPECIFICATION SHALL BE THE BASIS OF DETERMINING THE PROPORTIONS OF THE CONCRETE TO PRODUCE THE REQUIRED QUALITY. THE READY-MIXED CONCRETE SUPPLIER ASSUMES RESPONSIBILITY FOR THE SELECTION OF THE PROPORTION FOR THE CONCRETE MIXTURE IN ACCORDANCE WITH THESE REQUIREMENTS.

INSTALLING ANCHOR BOLTS

- WELDING SHALL NOT BE PERMITTED ON ANCHOR BOLTS UNLESS SPECIFICALLY REQUIRED ON THE DESIGN DRAWING.
- ENLARGEMENT OF BASE PLATE ANCHOR BOLT HOLES OR BENDING OF THE ANCHOR BOLTS SHALL NOT BE PERMITTED.
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HOLD-DOWN DETAIL
SCALE: 1/4" = 1"

SECTION B-B
SCALE: 1/4" = 1"

THIS BILL OF MATERIALS APPLIES SOLELY TO THIS SHEET OF THE DRAWING

ITEM	QTY	DESCRIPTION	PART NO
3			
8			
7	1	54" X 54" X 64" MULTI-PURPOSE ENCLOSURE	PG
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5	16	BOLT HEX HEAD 1/4" X 1" STEEL GALVANIZED	1225000
4	4	GAS CAUTION SIGN	3500805
3		NOT USED	
2	8	WASHER 1/2" FLAT ROUND GALVANIZED	1964600
1	8	BOLT 1/2" X 10" GALVANIZED WITH SQUARE NUTS	1238500

BILL OF MATERIALS

OWNER/DEVELOPER CONTACT INFO:
PUGET SOUND ENERGY
805 155 AVE NE
BELLEVUE, WA 98007 OFFICE
ATTN:

FITTER: (CHECK BOX IF COMPLETE)

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ALL VALVE & TE-IN LOCATIONS NOTED ON AS-BUILT
NOTE BEGINNING OF MAIN, EDM & LINE OF MAIN LOCATIONS
SHOW RCPE LOCATIONS & CUL-DE-SAC RADIUS

FOREMAN'S SIGNATURE: *Don Sparte*
COMPANY: *PUGET SOUND ENERGY* DATE: *12-15-06*

PROJECT MANAGER CONTACT INFO:
DAVID NARO
208-398-8781 Cell Phone
DAVID.NARO@PSE.COM Email

CALL (800) 434-8885
2 BUSINESS DAYS BEFORE YOU DIG
THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

REV #	DATE	BY	DESCRIPTION	CHECKED BY	DATE
3			N/A		
2			N/A		
1			N/A		

REV #	DATE	BY	DESCRIPTION	CHECKED BY	DATE
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2			N/A		
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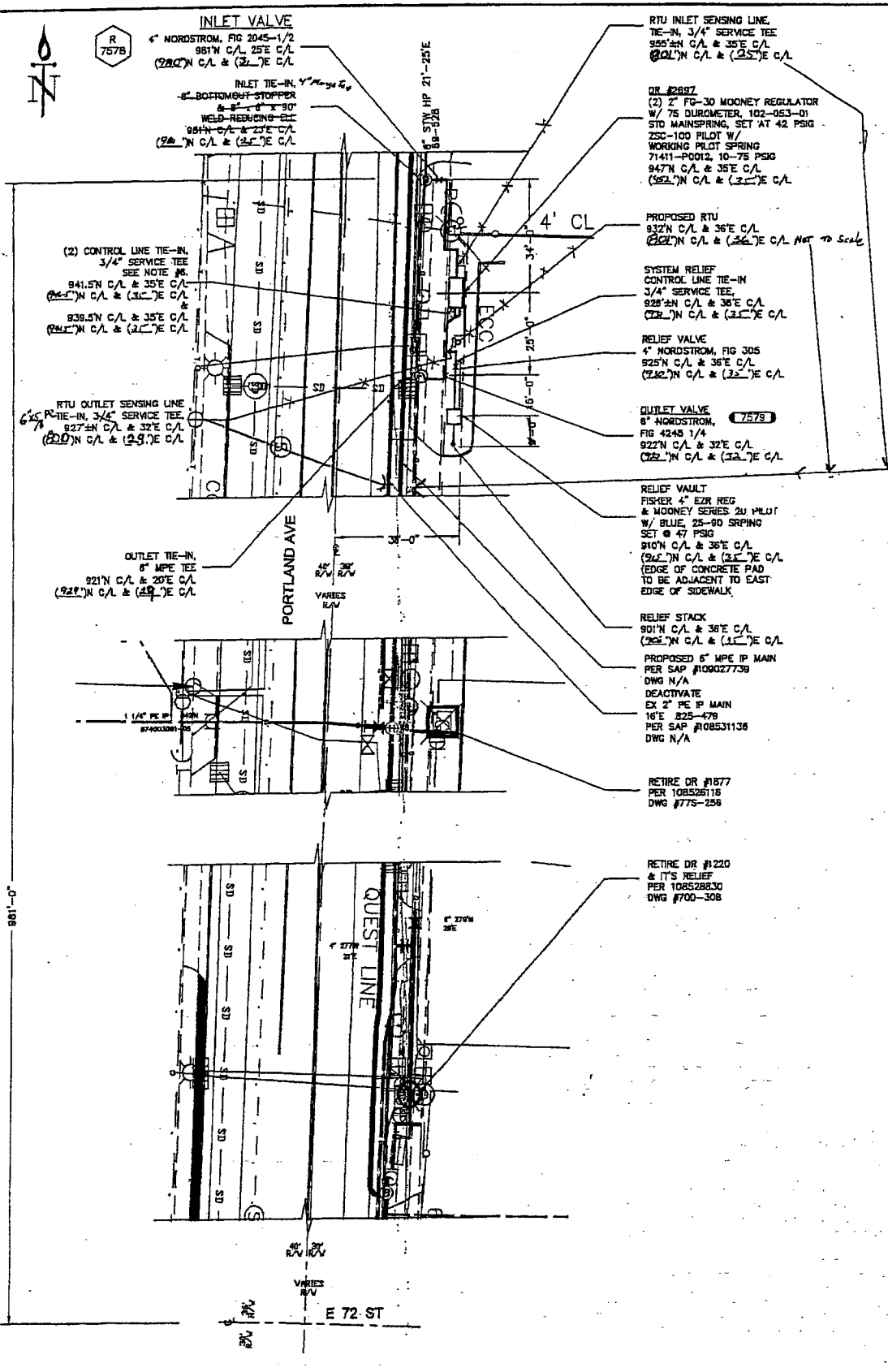
UTILITY	CONTACT	PHONE

ISSUED FOR CONSTRUCTION	BY	DATE
	<i>[Signature]</i>	<i>12/14/06</i>

PUGET SOUND ENERGY
RS-2696
548 ST & PORTLAND AVE
TACOMA, WA

SAP ORDER NUMBER
108021042
DWG NUMBER
3D11-539
SCALE: AS NOTED
REV 7/7

PSE 07/27/06 10:05AM Plotted By: mskan



- ### DISTRICT REGULATOR CONSTRUCTION NOTES:
- SCOPE OF JOB: INSTALL RS-2697, SINGLE STAGE REGULATOR, 1ST STAGE, TWO (2) 2" MOONEY FG-30 REGULATOR WITH (2) 2" KEROTEST (TST-430) STRAINERS PER WORK ORDER NO. 108025043, RETIRE RS-1220 PER WORK ORDER 108502830, AND RETIRE RS-1877 PER WORK ORDER 108526116.
 - FIELD LOCATE ALL UNDERGROUND UTILITIES. CALL ONE-CALL 48 HOURS PRIOR TO CONSTRUCTION 1-800-424-5555.
 - ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY COMPANY GAS OPERATING STANDARDS AND GAS FIELD PROCEDURES.
 - PRELIMINARY LEAK TEST PIPING BETWEEN BOTTOM OUT (TEST POINT #1), OUTLET VALVE (TEST POINT #2) AND RELIEF VALVE (TEST POINT #3, SEE SHEET 5) WITH AIR OR NITROGEN BETWEEN 100 AND 150 PSIG FOR ONE HOUR PER OPERATING STANDARD 2525.3300. PRESSURE CONTROL TO APPROVE LEAK TEST. FINAL LEAK TEST PIPING BETWEEN BOTTOM OUT (TEST POINT #1) AND THE OUTLET VALVE (TEST POINT #2), AND RELIEF VALVE (TEST POINT #3, SEE SHEET 5) WITH AIR OR NITROGEN AT A MINIMUM OF 450 PSIG FOR A MINIMUM OF ONE (1) HOUR PER GAS OPERATING STANDARD 2525.3300. TWO(2) BOTTLE(S) OF NITROGEN ARE REQUIRED FOR TO LEAK AND STRENGTH TEST STATION. PRESSURE CONTROL TO RECORD PIPE TEMPERATURE AND DEAD WEIGHT PRESSURE READINGS AT THIRTY (30) MINUTES INTERVALS DURING STRENGTH TEST. PROJECT ENGINEER TO APPROVE FINAL LEAK TEST BEFORE BLOWING DOWN TEST PRESSURE. LEAK TEST PIPING DOWNSTREAM OF OUTLET VALVE WITH AIR OR NITROGEN AT 101 PSIG FOR ONE (1) HOUR PER OPERATING STANDARD 2525.3300. PRESSURE CONTROL TO APPROVE LEAK TEST. BLOW DOWN TO 60 PSIG UNTIL READY FOR TIE-IN AND COMMISSION.
 - THIS REGULATOR STATION IS DESIGNED TO DELIVER 220,000 SCFH @ 42 PSIG.
 - CONTROL AND GAUGE LINES ARE SHOWN AS SCHEMATIC ONLY AND ARE TO FOLLOW PIPING UPON INSTALLATION. MAINTAIN 24" MIN. SEPARATION BETWEEN LINES. ADDITIONAL FITTINGS MAY BE REQUIRED TO COMPLETE CONNECTION. PRESSURE CONTROL IS TO MAKE FINAL CONNECTIONS TO THE REGULATOR(S) AND REGULATOR(S) PILOT(S) AND SET GAUGE(S). PSE PRESSURE CONTROL TO INSTALL CONTROL LINE TUBING INSIDE OF VAULT.
 - PUGET SOUND ENERGY COMPANY SHALL PROVIDE ALL PIPE, VALVES, AND FITTINGS REQUIRED TO COMPLETE THIS REGULATOR INSTALLATION PER OPERATING STANDARD.
 - CHECK FOR WRAPPING HOLIDAYS WITH A JEEP MACHINE AND REPAIR FAULTS AS REQUIRED PER OPERATING STANDARD 2600.1000.
 - DO NOT INSTALL ANODES. INSTALLATION IS TO BE RECTIFIER PROTECTED.
 - ALL PIPING TO BE COATED IN ACCORDANCE WITH PSE OPERATING STANDARD 2600.1100. PAINT REGS, PILOTS, STRAINER ACCESS FLANGES AND ABOVE-GROUND PIPING WITH ONE (1) COAT PRIMER AND TWO (2) COATS OF GOOD GRADE GRAY ENAMEL PER PSE GPP 4515.1330. COAT ALL OTHER PIPE AND FITTINGS PER PSE GPP 4515.1300-1320.
 - WELDINGS NOT PRESSURE TESTED MUST BE RADIOGRAPHICALLY INSPECTED PER PSE GAS OPERATING STANDARD 2525.2700. A MINIMUM OF 10% OF ALL WELDINGS WILL BE RADIOGRAPHICALLY INSPECTED PER GAS OPERATING STANDARD 2525.2700. INSPECTION WORK SHALL BE PERFORMED UNDER SEPARATE CONTRACT WITH AND AT THE DISCRETION OF PUGET SOUND ENERGY.
 - IF 36" OF COVER CANNOT BE ACHIEVED, CONTACT PROJECT MANAGER. WHEN REINFORCING A FLANGED TEE CARE MUST BE USED TO NOT RAISE THE FITTING TO ENSURE THAT THE TAPPING EQUIPMENT WILL STILL WORK.
 - CONTACT CP TECHNICIAN JOHN BATINOVICH AT 253-405-4951 TO COORDINATE INSTALLATION OF CP MATERIALS.
 - EROSION AND SEDIMENT CONTROL SHALL BE PER PSE STANDARD PRACTICE 0150.3200 TECHNIQUES FOR TEMPORARY EROSION AND SEDIMENT CONTROL AND ANY ADDITIONAL LOCAL JURISDICTION REQUIREMENTS.
 - INSTALL THERMOCOUPLES AS NECESSARY PER GAS FIELD PROCEDURE 4700.1800. (3)

- 109025043 - NEW DR #2697 & RTU
- 108528830 - RETIRE DR #1220
 - 109027739 - INSTALL 6" PE MAIN
 - 108531136 - RETIRE 2" PE MAIN
 - 892010059 - T/T SVCS

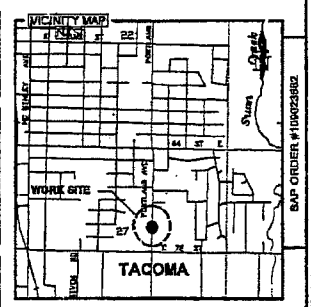
FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION
 COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP
 FIELD CHANGES RED-LINED ON AS-BUILT
 MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK
 ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT
 NOTE BEGINNING OF MAIN, EOM & LINE OF MAIN LOCATIONS
 SHOW ROPE LOCATIONS & CUL-DE-SAC RADIUS

FOREMAN'S NAME (PRINT): *John Batinovich*
 FOREMAN'S SIGNATURE: *[Signature]*
 COMPANY: PILCHUCK DATE: 3-15-07

ITEM	QTY	DESCRIPTION	PART NO
47			
48			
45			
44			
43			
42			
41			
40			
39			
38			
37			
36			
35			
34			
33	1	PIPELINE MARKER - FLEXIBLE POST	35-00800
32	2	THERMOCOUPLE TYPE K 3/4" AND WIRE	99-95334
31	3	VALVE BOX COMPLETE FOR STD VALVES	99-96282
30	1	REDUCER 6" x 4" WELD LR STD WFR	72-06336
29	4	ELL 6" x 45" WELD LR STD WFR	80-07442
28		NOT USED	
27	1	CP TEST BOX	80-00307
26	10'	TEST LEAD WIRE #10	95-00630
25	15'	WIRE #14 GAUGE DETECT	95-00940
24	2"	PIPE 6" x 0.280" FBE X42	99-95862
23	3	ELL 4" x 90" WELD STD LR WFB	80-06522
22	15'	PIPE 6" WDEP SDR 13.5	70-00586
21	4	PLUG 3/4" THREADED	72-00024
20	4	VALVE 3/4" BALL, 2000 PSIG	99-95141
19	1	ELL 6" x 90" WELD STD LR WFB	80-00752
18	1	6" WPE TRANSITION FITTING	78-00312
17	3	3/4" SERVICE TEE H17501	78-00812
16	75'	PIPE 3/4" 0.113" FBE X 21" GRADE B	70-00080
15	1	2" x 3" SAVE A VALVE H17491	68-00841
14	1	4" x 300# PLUG VALVE FIG. 305	56-00770
13	1	6" x 300# WELD NECK FLANGE	64-00360
12	1	6" x 300# BOLT KIT 30FFVX	50-00080
11	2	4" x 300# BOLT KIT 30FFVX (UNINSULATED)	50-00058
10	2	4" x 300# WELD NECK FLANGE	64-00360
9	1	6" x 300# PLUG VALVE ROCKWELL FIG. 4245 1/4"	56-00882
8	1	TEE 6" WELD STD INLINE WFR OR Y-42	78-00432
7	1	ELL 6" x 4" x 90" WELD STD LR	80-00760
6	15'	PIPE 4" x 0.237" BARE GR X-42	99-96124
5	1	4" x 300# PLUG VALVE ROCKWELL FIG. 2045 1/2"	56-00764
4	50'	PIPE 4" x 0.237" WRAP GR X-42	99-96586
3		NOT USED	
2	1	ELL 6" x 6" x 90" WELD STD LR	P.O.
1	1	B/O STOPPER 8" x ANSI 300, H17281 T/W	76-00796

TEST TYPE	PRESSURE	TESTED BY
DATE ON	TIME ON	
DATE OFF	TIME OFF	
TEST TYPE	PRESSURE	TESTED BY
DATE ON	TIME ON	
DATE OFF	TIME OFF	



CONTRACTOR CONSTRUCTION COST CODES

PROJECT MANAGER CONTACT INFO:
 DAVID NARO
 206-396-5761 Cell Phone
 david.naro@pse.com Email

REAL ESTATE/EASEMENT PERMIT
 N/A CITY OF TACOMA

FUNCTION	NAME	PHONE	DATE
PROJECT MGR	D NARO	425-952-6235	08/02/06
ENGINEER	J WEBB	425-462-3813	06/02/06
DRAWN BY	JMALM	206-418-4219	06/02/06

REV # DATE BY DESCRIPTION CHECKED BY

REV #	DATE	BY	DESCRIPTION	CHECKED BY
3				
2				
1				

UTILITY CONTACT PHONE

JOINT FACILITIES ARRANGEMENTS

ISSUE FOR CONSTRUCTION	DATE	BY	DESCRIPTION
REV1	10-5-06	JCR	CP ENG'G

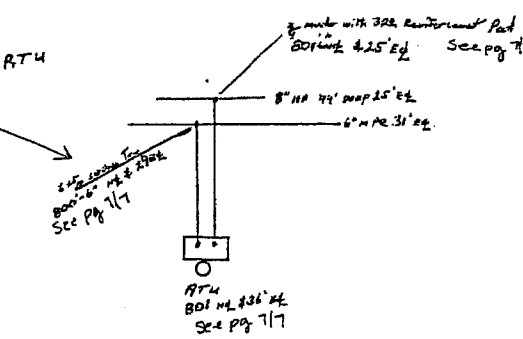
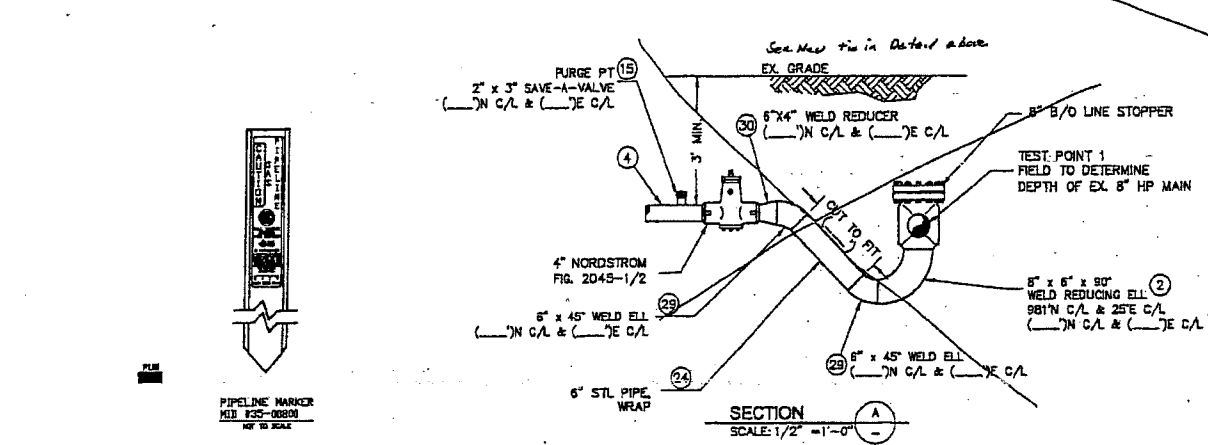
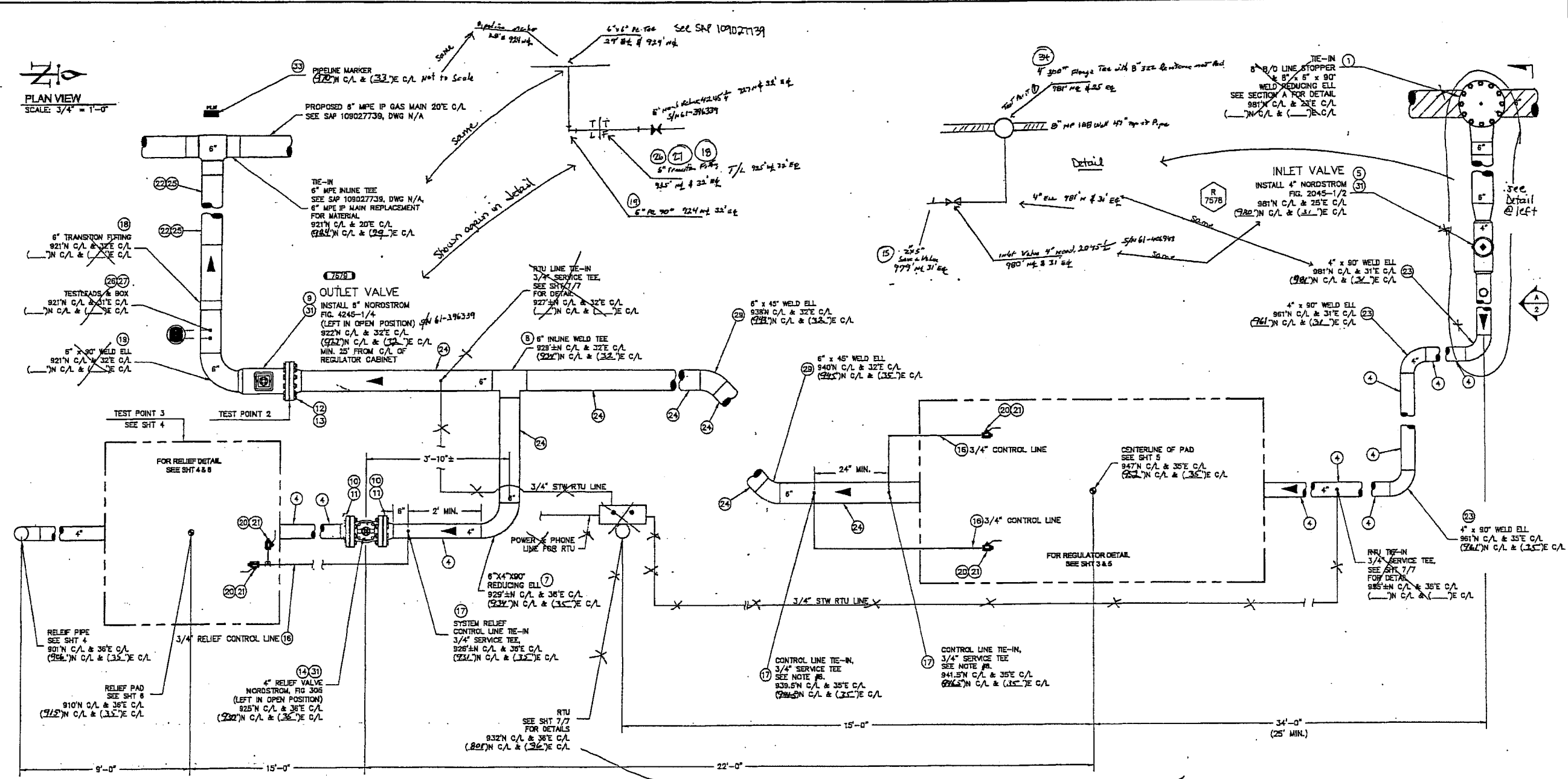
REVISIONS

PUGET SOUND ENERGY

RS-2697
 E 72 ST & PORTLAND AVE
 TACOMA, WA

SAP ORDER NUMBER: 109025043
 DWG NUMBER: 3D11-540
 SCALE: 3/4" = 1'-0"

PLAN VIEW
SCALE: 3/4" = 1'-0"



REV	DATE	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE
1		ISSUE FOR CONSTRUCTION						
2		DESCRIPTION						

CALL (800) 424-8556
2 BUSINESS DAYS BEFORE YOU DIG

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

REAL ESTATE/EASEMENT	PERMIT	CITY OF TACOMA
N/A		
FUNCTION	NAME	PHONE
PROJECT MGR	D. NARO	425-852-8235
ENGINEER	J. WEBB	425-462-3813
DRAWN BY	J. MALM	206-418-4219

REV #	DATE	BY	DESCRIPTION	APPROVED BY
1				
2				

COUNTY	EMER SECTION	GAS WK CTR	APPROVED BY
PIERCE	41	MSEPRIG	CP APP
1/4 SECTION	CP MAP	PLAT MAP	MAPPING
NE27-20-03	248.062	1248.063	

UTILITY CONTACT PHONE

PUGET SOUND ENERGY

RS-2697
E 72 ST & PORTLAND AVE
TACOMA, WA

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DWG NUMBER: 2011-540
SCALE: 3/4" = 1'-0" 27

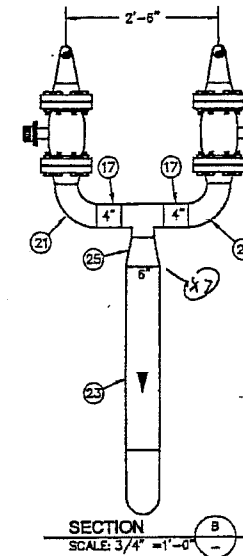
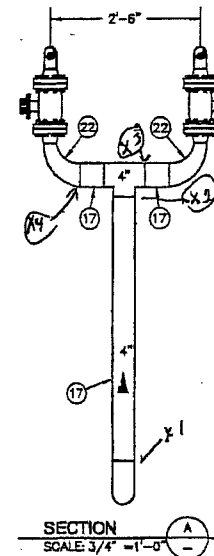
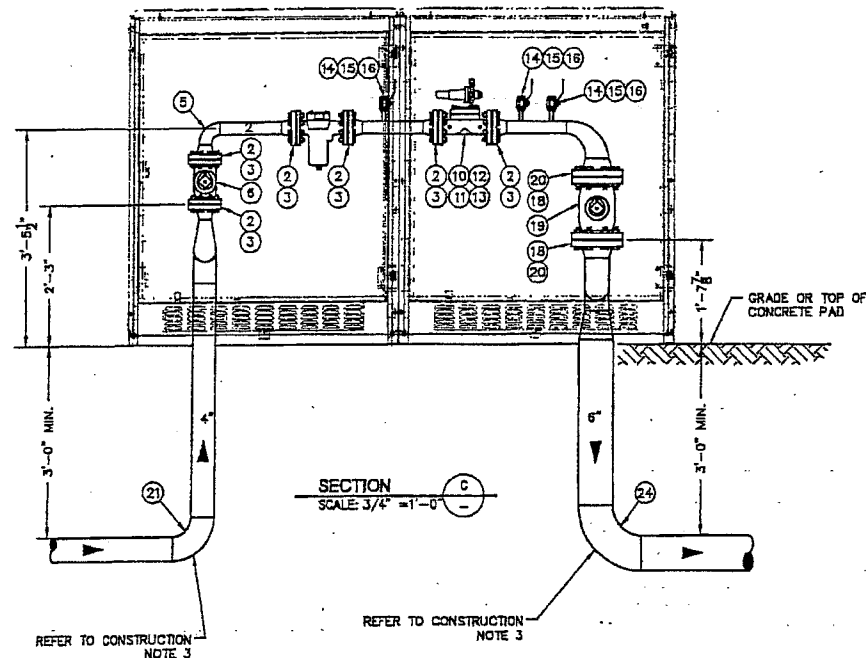
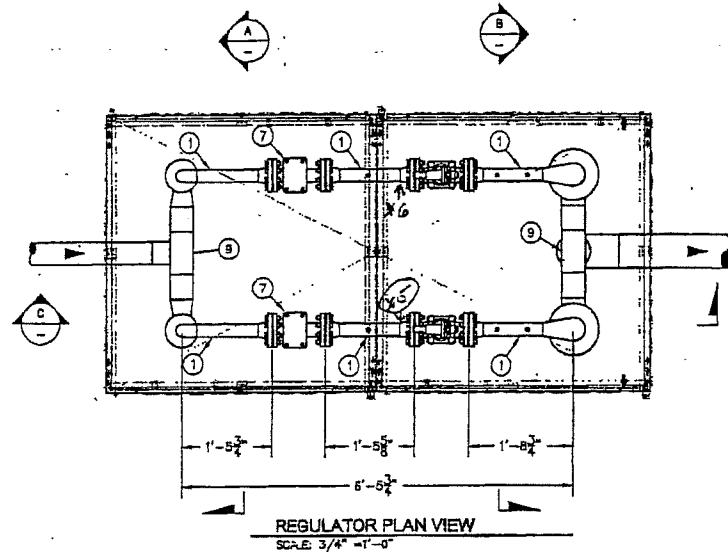
Plotted By: rmanion 08/07/06 01:08PM

CONSTRUCTION NOTES:

1. ALL UNDERGROUND CONNECTION PIPING TO BE WRAPPED PER GAS OPERATING STANDARD 2600.1100 TO THE FIRST FITTING.
2. PAINT ALL EXPOSED PIPING PER GAS OPERATING STANDARD 2600.1000 AND GAS FIELD PROCEDURE 4515.1330.
3. DO NOT PRE-FABRICATE THE INLET OR OUTLET PIPING. PLEASE CONTACT PROJECT MANAGER DAVID NARO @ 206-369-8761. PIPING SLOPE WILL VARY PER SITE GRADE.
4. SEE SHEET 5 FOR CONCRETE PAD DETAILS.
5. COAT ALL VERTICAL STEEL RISER PIPES & SENSE LINE WITH BRUSH APPLIED POWER CRETE R60. FOLLOW ALL MANUFACTURERS DIRECTIONS FOR SURFACE PREPARATION AND CURE TIMES.

PRESSURE CONTROL NOTES:

1. SET 2" MOONEY FG-30 REGULATORS AT 42 PSIG.



PG = PSE PRESSURE CONTROL WILL PROVIDE ITEM
 PO = NON STOCK ITEM
 CR = CONTRACTOR WILL PROVIDE ITEM

ITEM	QTY	DESCRIPTION	PART NO
25	1	BELLWELL 4" X 4" WPR OR Y-42	72-00535
24	1	ELL 6" 90° WELD STD. LR WPB	60-00752
23	5±	PIPE 6" X 0.280" BARE GRADE B	70-00575
22	2	REDUCING ELL 4" X 2" 90° WELD STD	60-00710
21	4	ELL 4" 90° WELD STD. LR WPB	60-00697
20	4	FLANGE 4" WELD/NECK FF X300 LBS	64-00360
19	2	VALVE BALL 4" FLANGE BY FLANGE 300#	99-90911
18	4	BOLT KIT 4" 30FFVX	50-00360
17	20±	PIPE 4" X 0.237" BARE GRADE X42	99-96124
16	6	VALVE 3/4" BALL 2000 PSIG	99-96141
15	6	NIPPLE 6" X 3/4" THREADED	68-00370
14	6	PLUG 3/4" STEEL THREADED	72-00024
13	2	PILOT FILTER FISHER P594	62-00376
12	2	PILOT RESTRICTOR FISHER 112	99-95938
11	2	ZSC-100 PILOT W/ 1/4" ORIFICE & RED SPRING	74-00146
10	2	REG MOONEY 2" FG-30 300# FF	74-UC370
		W/75% CAPACITY 102-053-01 MAINSPRING	
		AND 75% DIAPHRAM 102-053-01 DIAPHRAM	
9	2	TEE 4" X 4" WELD STD. WPR OR Y-42	78-00412
8		MOVED TO SHEET 5	
7	2	STRAINER 2" X 300# MUELLER 126 FCS	99-95840
6	2	VALVE 2" BALL FLANGE BY FLANGE 300#	99-95910
5	3	ELL 2" 90° WELD STD.	60-00500
4		NOT USED	
3	12	BOLT KIT 2" 30FFVX	50-00022
15	2	FLANGE 2" WELD/NECK FF X300 LBS	64-00185
1	1	20± PIPE 2" X 0.154" GRADE B BARE	70-00270

BILL OF MATERIAL ASSOCIATES SOLELY WITH THIS DRAWING

CALL (800) 424-6666
 2 BUSINESS DAYS BEFORE YOU DIG
 THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

REV #	DATE	BY	DESCRIPTION	CHECKED BY
3				
2				
1				

FUNCTION	NAME	PHONE	DATE
PROJECT MGR	D NARO	425-952-6235	06/02/06
ENGINEER	J WEBB	425-462-3813	06/02/06
DRAWN BY	J MALM	206-418-4218	06/02/06

COUNTY	EMER SECTION	GAS WK CIR	APPROVED BY
PIERCE	41	MSEPRG	SCOTT HUSTEL (206) 571-8521

1/4 SECTION	OP MAP	PLAT MAP	MAPPING
NE 27-20-03	248.062	248.063	

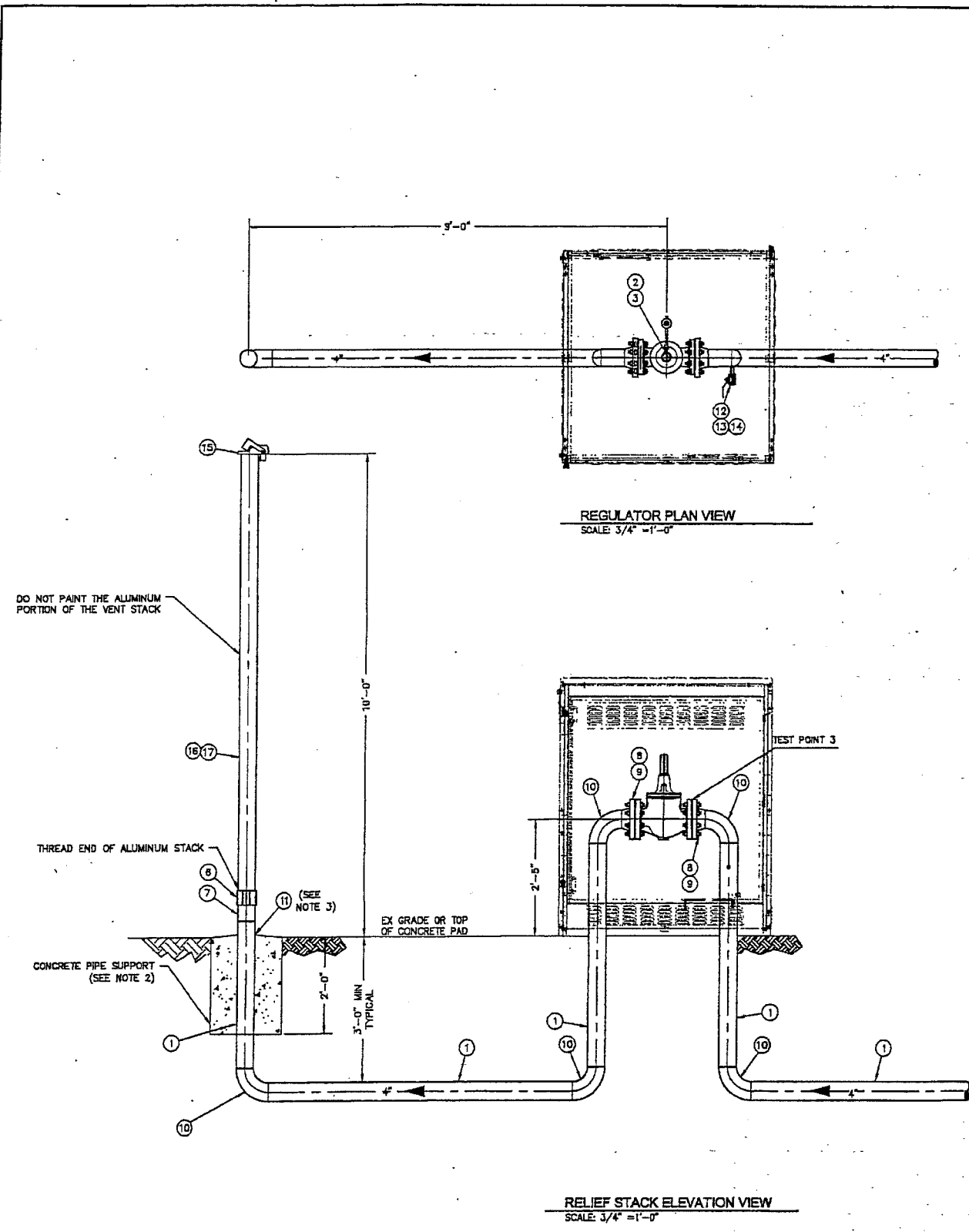
REV	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE

PLUET SOUND ENERGY

RS-2697
 E 72 ST & PORTLAND AVE
 TACOMA, WA

SAP ORDER NUMBER
 108025043
 DWG NUMBER
 3D11-540
 SCALE: 3/4" = 1'-0" 3/7

2887_108025043_B 3D11-540.dwg - S03_R00 - Plotted By: mrokan 06/07/06 12:51PM



- CONSTRUCTION NOTES:**
1. LOCATION OF RELIEF STACK TO BE SHOWN ON CONSTRUCTION DRAWINGS.
 2. CONCRETE SUPPORT FOR RELIEF STACK IS TO BE 1'-6" DIAMETER AND SLOPED AT THE TOP OF THE SURFACE AS TO ALLOW WATER TO DRAIN AWAY FROM PIPE.
 3. AT AIR/SOIL INTERFACE, WRAP VENT STACK PIPE WITH UV RESISTANT TAPE FROM 6" BELOW GRADE TO PVC COUPLING.
 4. DO NOT PRE-FABRICATE THE INLET OR OUTLET PIPING. PLEASE CONTACT PROJECT MANAGER DAVID NARO @ 206-369-8761. PIPING SLOPE WILL VARY PER SITE GRADE.
 5. SEE SHEET 8 FOR CONCRETE PAD DETAILS.
 6. COAT ALL VERTICAL STEEL RISER PIPES AND SENSE LINES WITH BRUSH APPLIED POWERCONCRETE REQ. FOLLOW ALL MANUFACTURERS DIRECTIONS FOR SURFACE PREPERATION AND CURE TIMES.

- PRESSURE CONTROL NOTES:**
1. SET 4" FISHER EZR RELIEF VALVE AT 47 PSIG.

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
 PO = NON STOCK ITEM
 CR = CONTRACTOR WILL PROVIDE ITEM

ITEM	QTY	DESCRIPTION	PART NO
17	10	PIPE 4" X 0.230" SCH 40 ALUMINUM BARE"	57-00800
16	1	PIPELINE MARKER DECAL	35-00802
15	1	CAP 4" E.G. WEATHER	52-00708
14	1	3/4" STEEL TREADED PLUG	72-00024
13	1	6" X 3/4" TREADED NIPPLE	68-00370
12	1	VALVE 3/4" BALL, 2000 PSIG	99-96141
11	1	TAPE UV RESISTANT	CR
10	5	ELL, 4" X 90° WELD, STD Y-42	80-00697
9	2	4" X 300 PSIG BOLT KIT ASSY 30FRX (UNINSULATED)	50-C0156
8	2	4" 300 PSIG FF WELD NECK FLANGE	64-00360
7	1	4" X 12" TREADED NIPPLE SCH.40	99-95883
6	1	4" PVC COUPLING, TREADED SCH.80	98-00520
5	1	RESTRICTOR, 1/4", FISHER NPT 112	98-95938
4	1	FILTER, FISHER P594	62-00376
3	1	PILOT, MOONEY SERIES 20	74-00371
		-NOT USED-	
2	1	REGULATOR, 4" X ANSI 300, FISHER EZR, FLG	99-96826
		1990366X012 GREEN SPRING	
1	40±	PIPE 4" X 0.237" BARE ST X-42	98-98124
ITEM	QTY	DESCRIPTION	PART NO

BILL OF MATERIALS

BILL OF MATERIAL ASSOCIATES
SOLELY WITH THIS DRAWING

CALL (800) 424-6266
 2 BUSINESS DAYS BEFORE YOU DIG
 THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

REV #	DATE	BY	DESCRIPTION	CHECKED BY
3				
2				
1				

COUNTY	EMER SECTION	GAS WK CIR	APPROVED BY
Pierce	41	NSEPRG	CP APP

1/4 SECTION	OP MAP	PLAT MAP	MAPPING
NE27-20-03	248.082	248.083	

REAL ESTATE/EASEMENT	PERMIT
N/A	CITY OF TACOMA

FUNCTION	NAME	PHONE	DATE
PROJECT MGR	D NARO	425-952-8235	06/02/06
ENGINEER	J. WEBB	425-462-3813	06/02/06
DRAWN BY	J.MALM	206-418-4219	06/02/06

UTILITY CONTACT	PHONE

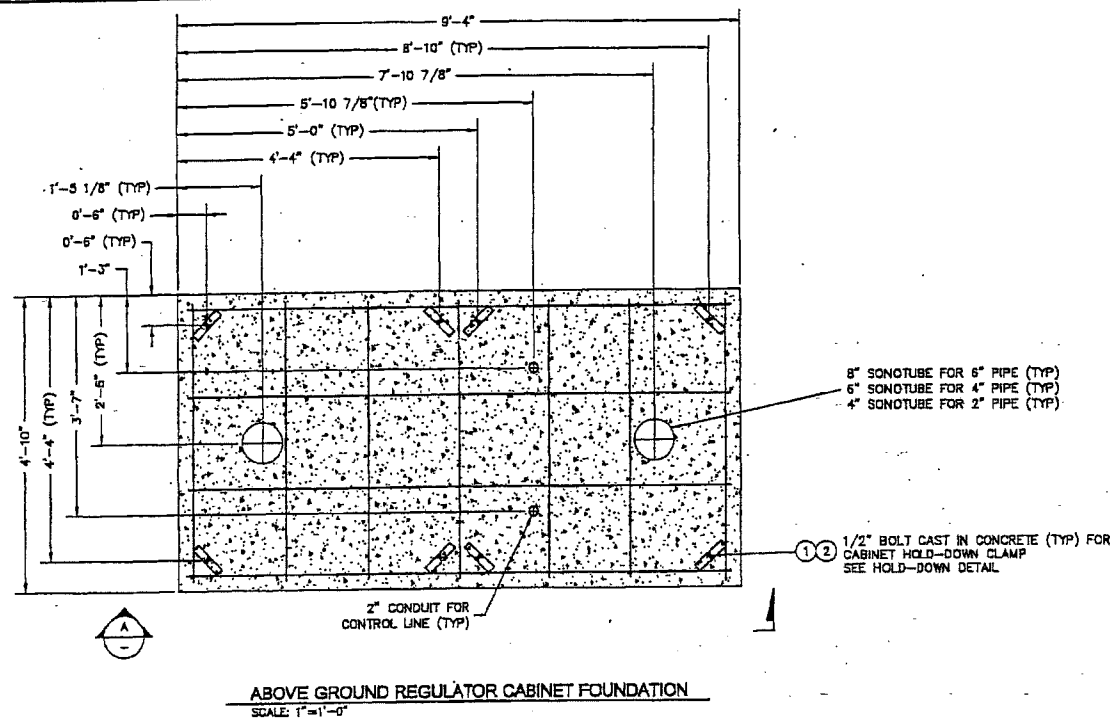
REVISIONS

REV	DESCRIPTION	BY	CHKR	CP	ENG	PM	DATE

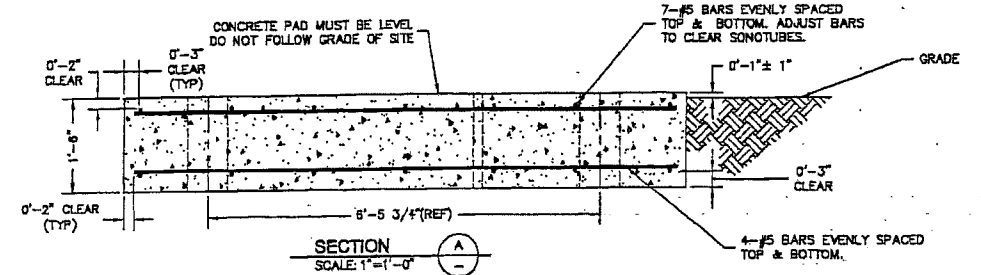
RS-2697 - SYSTEM RELIEF
 E 72 ST & PORTLAND AVE
 TACOMA, WA

SAP ORDER NUMBER
109025043
 DWG NUMBER
3011-540
 SCALE: 3/4" = 1'-0"
 4/7

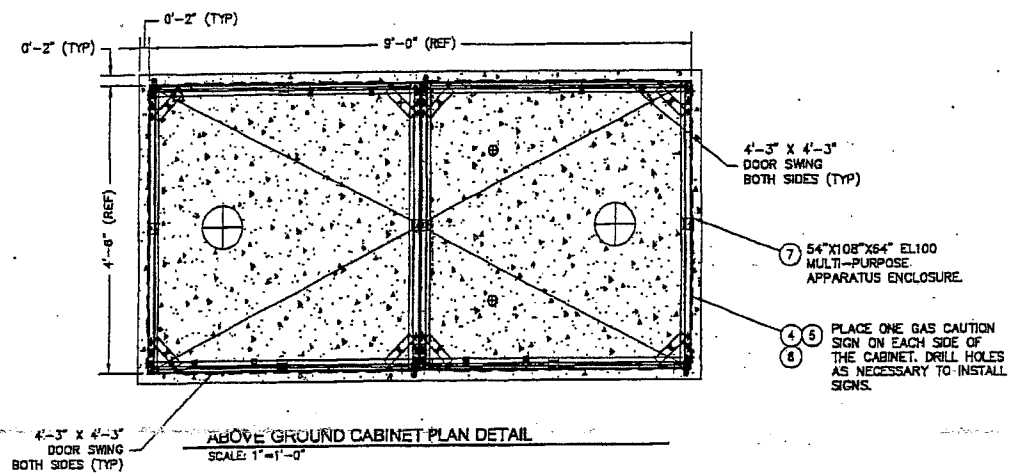
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ABOVE GROUND REGULATOR CABINET FOUNDATION
SCALE: 1"=1'-0"



SECTION
SCALE: 1"=1'-0"



ABOVE GROUND CABINET PLAN DETAIL
SCALE: 1"=1'-0"

CONSTRUCTION NOTES FOR CONCRETE PAD:

- CONSTRUCT A 4'-10" X 9'-4" X 1'-6" CONCRETE PAD FOR SUPPORT OF METAL CABINET.
- CONCRETE PAD MUST BE LEVEL. DO NOT FOLLOW GRADE OF SITE.
- THE CABINETS MAY BE PLACED ON THE FOUNDATION 96 HOURS AFTER THE CONCRETE IS POURED.
- DO NOT TIGHTEN THE ANCHOR BOLTS TO THE HOLD-DOWN BARS UNTIL THE FULL 28 DAY CURING PERIOD IS COMPLETE. FINGER TIGHT SHALL BE SUFFICIENT DURING THE CURING PERIOD.
- CONTACT PSE PROJECT ENGINEER WITH ANY QUESTIONS REGARDING THE INSTALLATION OF THE CONCRETE FOUNDATION.

INSTALLING CONCRETE

- SITE CONDITIONS**
- THE DEPTH OF FOUNDATION BELOW GRADE IS SHOWN ON THE PLANS AS A MINIMUM DIMENSION.
 - IN ALL CASES, THE FOUNDATION SHALL BE SET ON FIRM SOIL, AND THE EXCAVATION SHALL BE COMPLETELY DEWATERED. UNSUITABLE MATERIAL OR FROZEN SOIL SHALL BE REMOVED AND REPLACED WITH COMPACTED SELECT STRUCTURAL FILL OR CRUSHED ROCK.

FOUNDATION FORMS

- FORMS SHALL BE COATED WITH FORM OIL, BRACED TO PREVENT ANY MOTION DURING THE PLACING OF CONCRETE, AND SHALL BE AT THE CORRECT GRADE AND ORIENTATION SHOWN ON THE PLANS.
- THE ENTIRE DEPTH OF THE FOUNDATION SHALL BE FORMED UNLESS OTHERWISE SHOWN ON DRAWINGS.
- REMOVE FORMS AFTER CONCRETE HAS SET FOR A MINIMUM OF 24 HOURS.

ALUMINUM CONDUIT

- ALUMINUM MATERIAL OR CONDUIT CORRODES IN CONCRETE AND SHALL NOT BE USED.

MIXING AND PLACING

- CONCRETE SHALL BE MIXED AND PLACED IN ACCORDANCE WITH THE LATEST STANDARDS OF THE AMERICAN CONCRETE INSTITUTE, SPECIFICATION ACI 318, WHICH SHALL BE ADHERED TO IN ADDITION TO ANY LOCAL BUILDING CODES.
- CONCRETE SHALL BE PLACED WITHIN 1-1/2 HOURS AFTER THE INTRODUCTION OF THE MIXING WATER. ANY CONCRETE WHICH HAS BEGUN TO SET BEFORE PLACING SHALL BE REJECTED.

FINISH AND CURE

- CONCRETE SHALL BE EVENLY DISTRIBUTED ALONG THE FORM AND SHALL BE VIBRATED TO WORK THE CONCRETE INTO CORNERS OF THE FORM AND AROUND ALL STEEL. EXCESSIVE VIBRATION SHALL BE AVOIDED TO PREVENT SEGREGATION OF THE MATERIALS IN THE CONCRETE.
- THE FOUNDATION SHALL BE FINISHED WITH A WOOD SCREED AND TOOLED ALONG THE EDGES. AFTER THE INITIAL SET HAS OCCURRED, APPLY A LIGHT BROOM FINISH TO PROVIDE A NON-SLIP SURFACE.
- TO ENSURE THE STRENGTH OF THE CONCRETE IS DEVELOPED, COVER THE FOUNDATION WITH A VISQUEEN SHEET. THIS PREVENTS MOISTURE FROM ESCAPING FROM THE SURFACE TOO RAPIDLY DURING THE CURING PROCESS.
- IF THERE IS ANY POSSIBILITY OF THE AMBIENT TEMPERATURE GOING BELOW THE FREEZING POINT WITHIN THREE DAYS AFTER PLACING THE CONCRETE, CONTACT THE PSE PROJECT ENGINEER.

INSTALLATION REQUIREMENTS FOR DEFORMED STEEL REINFORCING BARS

- ALL REINFORCING BARS USED FOR THIS APPLICATION SHALL CONFORM TO THE LATEST REVISION OF ASTM A-615 AND SHALL BE GRADE 60 UNLESS OTHERWISE SPECIFIED IN PSE STANDARDS OR DRAWINGS.
- FABRICATION TOLERANCES, BENDING, AND PLACEMENT OF REINFORCING BARS SHALL BE IN COMPLIANCE WITH THE LATEST REVISIONS OF ACI-318 AND THE CRSI CODE OF STANDARD PRACTICE.
- REINFORCING BARS SHALL BE FREE FROM LOOSE MILL SCALE, FLAKING RUST, MUD, OIL, GREASE, OR PAINT AT THE TIME OF INSTALLATION.
- REINFORCING BARS SHALL BE SUPPORTED IN THE POSITION SHOWN ON THE DRAWING BY MEANS OF CONCRETE BLOCKS OR STEEL CHAIRS DESIGNED FOR THIS PURPOSE.
- REINFORCING BARS SHALL BE TIED WITH STEEL WIRE TO MAINTAIN THE SPACING AND CLEARANCE SHOWN ON PSE STANDARDS OR DRAWINGS.
- THERE SHALL BE NO WELDING OF REINFORCING BARS AT LAPS OR INTERSECTIONS UNLESS SPECIFIED ON PSE STANDARDS OR DRAWINGS.

STRUCTURAL CONCRETE

MATERIAL

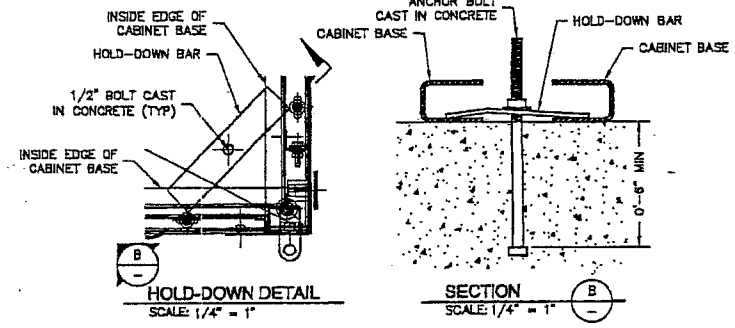
- MINIMUM CEMENT CONTENT SHALL BE 517 LBS PER CU YD (5-1/2 BAGS PER CU YD).
- MAXIMUM COARSE AGGREGATE SIZE SHALL BE 1-1/2" IN ACCORDANCE WITH ASTM-C33, SIZE NUMBER 4.
- SLUMP SHALL BE 4"±1" AT THE POINT OF DELIVERY.
- AN AIR-ENTRAINING ADMIXTURE SHALL BE ADDED TO ALL MIXES TO PROVIDE AN AIR CONTENT OF 4-11% AND SHALL MEET OR EXCEED ASTM-C260. OTHER ADMIXTURES ARE NOT ALLOWED.

TEST

- READY-MIXED CONCRETE SHALL CONFORM TO THE LATEST REVISION OF ASTM C94.
- REQUIRED MINIMUM COMPRESSIVE STRENGTH: 3000 PSI AT 28 DAYS.
- OPTION C, SECTION 4 OF ASTM C94 AND THE REQUIREMENTS OF THIS SPECIFICATION SHALL BE THE BASIS OF DETERMINING THE PROPORTIONS OF THE CONCRETE TO PRODUCE THE REQUIRED QUALITY. THE READY-MIXED CONCRETE SUPPLIER ASSUMES RESPONSIBILITY FOR THE SELECTION OF THE PROPORTION FOR THE CONCRETE MIXTURE IN ACCORDANCE WITH THESE REQUIREMENTS.

INSTALLING ANCHOR BOLTS

- WELDING SHALL NOT BE PERMITTED ON ANCHOR BOLTS UNLESS SPECIFICALLY REQUIRED ON THE DESIGN DRAWING.
- ENLARGEMENT OF BASE PLATE ANCHOR BOLT HOLES OR BENDING OF THE ANCHOR BOLTS SHALL NOT BE PERMITTED.
- THE ENTIRE PORTION OF THE ANCHOR BOLT PROJECTING ABOVE THE SURFACE OF THE CONCRETE SHALL BE THREADED. ANCHOR BOLTS SHALL BE ACCURATELY LOCATED TO WITHIN 1/4" OF THEIR DESIGN LOCATIONS PRIOR TO THE PLACEMENT OF THE CONCRETE.
- TEMPLATES SHALL BE USED TO MAINTAIN BOLT LOCATIONS WITHIN 1/4" DURING CONCRETE PLACEMENT.
- BOLTS SHALL BE SECURED IN A VERTICAL POSITION BY NUTS ABOVE AND BELOW THE TEMPLATE.
- CONCRETE SHALL BE PLACED SO AS NOT TO TILT OR LATERALLY DISPLACE THE ANCHOR BOLTS (I.E. VIBRATORS MAY BE USED TO CONSOLIDATE THE CONCRETE BUT SHALL NOT BE USED TO TRANSPORT IT LATERALLY WITHIN THE FORMS).



HOLD-DOWN DETAIL
SCALE: 1/4" = 1"

SECTION
SCALE: 1/4" = 1"

THIS BILL OF MATERIALS APPLIES SOLELY TO THIS SHEET OF THE DRAWING

ITEM	QTY	DESCRIPTION	PART NO
9			
8			
7	1	54" X 108" X 64" MULTI-PURPOSE ENCLOSURE	PO
6	16	HEX NUT 1/4"-20 GR-A GALVANIZED	1433500
5	16	BOLT HEX HEAD 1/4" X 1" STEEL GALVANIZED	1525000
4	4	GAS CAUTION SIGN	3500805
3		NOT USED	
2	8	WASHER 1/2" FLAT ROUND GALVANIZED	1J64800
1	8	BOLT 1/2" X 10" GALVANIZED WITH SQUARE NUTS	1238500

BILL OF MATERIALS

CALL (800) 424-5228
2 BUSINESS DAYS BEFORE YOU DIG

THIS SKETCH NOT TO BE REPLIED UPON FOR EXACT LOCATION OF FACILITIES

REAL ESTATE/EASEMENT	PERMIT	CITY OF TACOMA
N/A		
FUNCTION	NAME	PHONE
PROJECT MGR	D HARD	425-952-8235
ENGINEER	J WEBB	425-462-3813
DRAWN BY	JMALL	206-418-4219
DATE		
REV #	DATE	DESCRIPTION
1	06/02/08	BY DESCRIPTION
2		CHECKED BY
3		APPROVED BY
COUNTY	PIERCE	GAS WK CTR
		MSEPRG
		CP APP
		SCOTT RUSTEN (206) 571-8521
1/4 SECTION	OP MAP	PLAT MAP
NE27-20-03	248.062	248.063
		MAPPING

UTILITY CONTACT PHONE

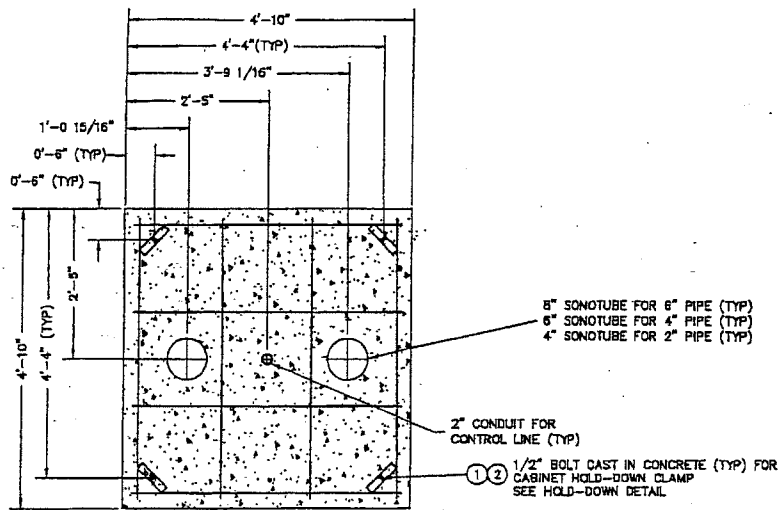
ISSUE FOR CONSTRUCTION

REVISIONS

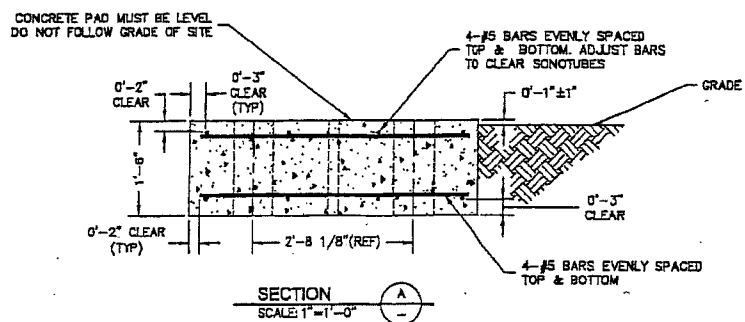
PLACED RS-2697 - STD CONCRETE FOUNDATION.
SOUND ENERGY ABOVE GROUND REGULATOR ENCLOSURE
E 72 ST & PORTLAND AVE, TACOMA, WA

SAP ORDER NUMBER 109025043
DWG NUMBER 3D11-840
SCALE: AS NOTED

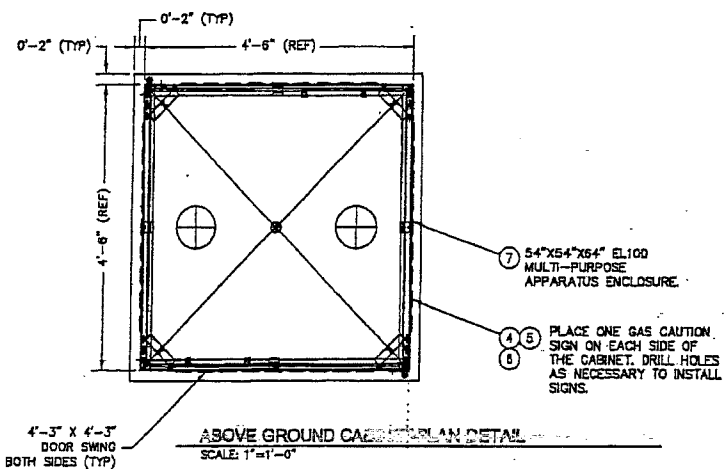
3/28/07_108025043.DWG - PLOTTED BY: mason 09/07/08 12:02PM



ABOVE GROUND RELIEF CABINET FOUNDATION
SCALE: 1"=1'-0"



SECTION
SCALE: 1"=1'-0"



ABOVE GROUND CABINET PLAN DETAIL
SCALE: 1"=1'-0"

CONSTRUCTION NOTES FOR CONCRETE PAD:

- CONSTRUCT A 4'-10" X 4'-10" X 1'-6" CONCRETE PAD FOR SUPPORT OF METAL CABINET.
- CONCRETE PAD MUST BE LEVEL. DO NOT FOLLOW GRADE OF SITE.
- THE CABINETS MAY BE PLACED ON THE FOUNDATION 96 HOURS AFTER THE CONCRETE IS POURED.
- DO NOT TIGHTEN THE ANCHOR BOLTS TO THE HOLD-DOWN BARS UNTIL THE FULL 28 DAY CURING PERIOD IS COMPLETE. FINGER TIGHT SHALL BE SUFFICIENT DURING THE CURING PERIOD.
- CONTACT PSE PROJECT ENGINEER WITH ANY QUESTIONS REGARDING THE INSTALLATION OF THE CONCRETE FOUNDATION.

INSTALLING CONCRETE

- SITE CONDITIONS**
- THE DEPTH OF FOUNDATION BELOW GRADE IS SHOWN ON THE PLANS AS A MINIMUM DIMENSION.
 - IN ALL CASES, THE FOUNDATION SHALL BE SET ON FIRM SOIL, AND THE EXCAVATION SHALL BE COMPLETELY DEWATERED. UNSUITABLE MATERIAL OR FROZEN SOIL SHALL BE REMOVED AND REPLACED WITH COMPACTED SELECT STRUCTURAL FILL OR CRUSHED ROCK.

FOUNDATION FORMS

- FORMS SHALL BE COATED WITH FORM OIL, BRACED TO PREVENT ANY MOTION DURING THE PLACING OF CONCRETE, AND SHALL BE AT THE CORRECT GRADE AND ORIENTATION SHOWN ON THE PLANS.
- THE ENTIRE DEPTH OF THE FOUNDATION SHALL BE FORMED UNLESS OTHERWISE SHOWN ON DRAWINGS.
- REMOVE FORMS AFTER CONCRETE HAS SET FOR A MINIMUM OF 24 HOURS.

ALUMINUM CONDUIT

- ALUMINUM MATERIAL OR CONDUIT CORRODES IN CONCRETE AND SHALL NOT BE USED.

MIXING AND PLACING

- CONCRETE SHALL BE MIXED AND PLACED IN ACCORDANCE WITH THE LATEST STANDARDS OF THE AMERICAN CONCRETE INSTITUTE, SPECIFICATION ACI 318, WHICH SHALL BE ADHERED TO IN ADDITION TO ANY LOCAL BUILDING CODES.
- CONCRETE SHALL BE PLACED WITHIN 1-1/2 HOURS AFTER THE INTRODUCTION OF THE MIXING WATER. ANY CONCRETE WHICH HAS BEGUN TO SET BEFORE PLACING SHALL BE REJECTED.

FINISH AND CURE

- CONCRETE SHALL BE EVENLY DISTRIBUTED ALONG THE FORM AND SHALL BE VIBRATED TO WORK THE CONCRETE INTO CORNERS OF THE FORM AND AROUND ALL STEEL. EXCESSIVE VIBRATION SHALL BE AVOIDED TO PREVENT SEGREGATION OF THE MATERIALS IN THE CONCRETE.
- THE FOUNDATION SHALL BE FINISHED WITH A WOOD SCREED AND TOOLED ALONG THE EDGES. AFTER THE INITIAL SET HAS OCCURRED, APPLY A LIGHT BROOM FINISH TO PROVIDE A NON-SLIP SURFACE.
- TO ENSURE THE STRENGTH OF THE CONCRETE IS DEVELOPED, COVER THE FOUNDATION WITH A VISQUEEN SHEET. THIS PREVENTS MOISTURE FROM ESCAPING FROM THE SURFACE TOO RAPIDLY DURING THE CURING PROCESS.
- IF THERE IS ANY POSSIBILITY OF THE AMBIENT TEMPERATURE GOING BELOW THE FREEZING POINT WITHIN THREE DAYS AFTER PLACING THE CONCRETE, CONTACT THE PSE PROJECT ENGINEER.

INSTALLATION REQUIREMENTS FOR DEFORMED STEEL REINFORCING BARS

- ALL REINFORCING BARS USED FOR THIS APPLICATION SHALL CONFORM TO THE LATEST REVISION OF ASTM A-615 AND SHALL BE GRADE 60 UNLESS OTHERWISE SPECIFIED IN PSE STANDARDS OR DRAWINGS.
- FABRICATION TOLERANCES, BENDING, AND PLACEMENT OF REINFORCING BARS SHALL BE IN COMPLIANCE WITH THE LATEST REVISIONS OF ACI-318 AND THE CRSI CODE OF STANDARD PRACTICE.
- REINFORCING BARS SHALL BE FREE FROM LOOSE MILL SCALE, FLAKING RUST, MUD, OIL, GREASE, OR PAINT AT THE TIME OF INSTALLATION.
- REINFORCING BARS SHALL BE SUPPORTED IN THE POSITION SHOWN ON THE DRAWING BY MEANS OF CONCRETE BLOCKS OR STEEL CHAIRS DESIGNED FOR THIS PURPOSE.
- REINFORCING BARS SHALL BE TIED WITH STEEL WIRE TO MAINTAIN THE SPACING AND CLEARANCE SHOWN ON PSE STANDARDS OR DRAWINGS.
- THERE SHALL BE NO WELDING OF REINFORCING BARS AT LAPs OR INTERSECTIONS UNLESS SPECIFIED ON PSE STANDARDS OR DRAWINGS.

STRUCTURAL CONCRETE

MATERIAL

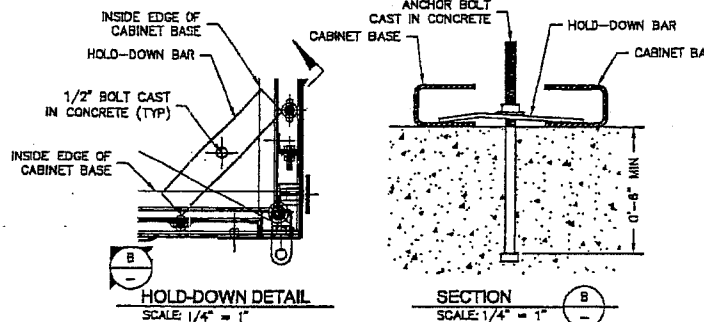
- MINIMUM CEMENT CONTENT SHALL BE 517 LBS PER CU YD (5-1/2 BAGS PER CU YD).
- MAXIMUM COARSE AGGREGATE SIZE SHALL BE 1-1/2" IN ACCORDANCE WITH ASTM-C33, SIZE NUMBER 4.
- SLUMP SHALL BE 4" ± 1" AT THE POINT OF DELIVERY.
- AN AIR-ENTRAINING ADMIXTURE SHALL BE ADDED TO ALL MIXES TO PROVIDE AN AIR CONTENT OF 4-12% AND SHALL MEET OR EXCEED ASTM-C260. OTHER ADMIXTURES ARE NOT ALLOWED.

TEST

- READY-MIXED CONCRETE SHALL CONFORM TO THE LATEST REVISION OF ASTM C94.
- REQUIRED MINIMUM COMPRESSIVE STRENGTH: 3000 PSI AT 28 DAYS.
- OPTION C, SECTION 4 OF ASTM C94 AND THE REQUIREMENTS OF THIS SPECIFICATION SHALL BE THE BASIS OF DETERMINING THE PROPORTIONS OF THE CONCRETE TO PRODUCE THE REQUIRED QUALITY. THE READY-MIXED CONCRETE SUPPLIER ASSUMES RESPONSIBILITY FOR THE SELECTION OF THE PROPORTION FOR THE CONCRETE MIXTURE IN ACCORDANCE WITH THESE REQUIREMENTS.

INSTALLING ANCHOR BOLTS

- WELDING SHALL NOT BE PERMITTED ON ANCHOR BOLTS UNLESS SPECIFICALLY REQUIRED ON THE DESIGN DRAWING.
- ENLARGEMENT OF BASE PLATE ANCHOR BOLT HOLES OR BENDING OF THE ANCHOR BOLTS SHALL NOT BE PERMITTED.
- THE ENTIRE PORTION OF THE ANCHOR BOLT PROJECTING ABOVE THE SURFACE OF THE CONCRETE SHALL BE THREADED. ANCHOR BOLTS SHALL BE ACCURATELY LOCATED TO WITHIN 1/4" OF THEIR DESIGN LOCATIONS PRIOR TO THE PLACEMENT OF THE CONCRETE.
- TEMPLATES SHALL BE USED TO MAINTAIN BOLT LOCATIONS WITHIN 1/4" DURING CONCRETE PLACEMENT.
- BOLTS SHALL BE SECURED IN A VERTICAL POSITION BY NUTS ABOVE AND BELOW THE TEMPLATE.
- CONCRETE SHALL BE PLACED SO AS NOT TO TILT OR LATERALLY DISPLACE THE ANCHOR BOLTS (I.E. VIBRATORS MAY BE USED TO CONSOLIDATE THE CONCRETE BUT SHALL NOT BE USED TO TRANSPORT IT LATERALLY WITHIN THE FORMS).



HOLD-DOWN DETAIL
SCALE: 1/4" = 1"

SECTION
SCALE: 1/4" = 1"

THIS BILL OF MATERIALS APPLIES SOLELY TO THIS SHEET OF THE DRAWING

ITEM	QTY	DESCRIPTION	PART NO
9			
8			
7	1	54" X 54" X 54" EL100 MULTI-PURPOSE ENCLOSURE	PO
6	16	HEX NUT 1/4-20 GR-A GALVANIZED	1453500
5	16	BOLT HEX HEAD 1/4" X 1" STEEL GALVANIZED	1625000
4	4	GAS CAUTION SIGN	3500805
3		NOT USED	
2	8	WASHER 1/2" FLAT ROUND GALVANIZED	1964600
1	8	BOLT 1/2" X 10" GALVANIZED WITH SQUARE NUTS	1238500

BILL OF MATERIALS

CALL (800) 424-8285
2 BUSINESS DAYS BEFORE YOU DIG
THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

REAL ESTATE/EASEMENT	PERMIT	CITY OF TACOMA
N/A		
FUNCTION	NAME	PHONE
PROJECT MGR	D NARO	425-952-8235
ENGINEER	J. WEBB	425-462-3813
DRAWN BY	JMALM	206-418-4219

REV #	DATE	BY	DESCRIPTION	CHECKED BY
3			N/A	
2			N/A	
1			N/A	

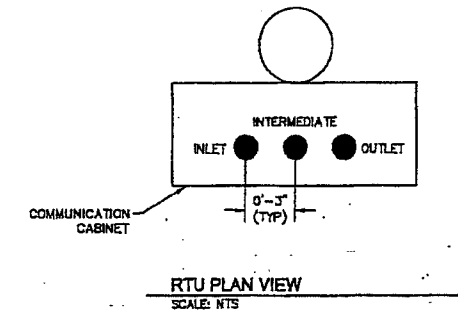
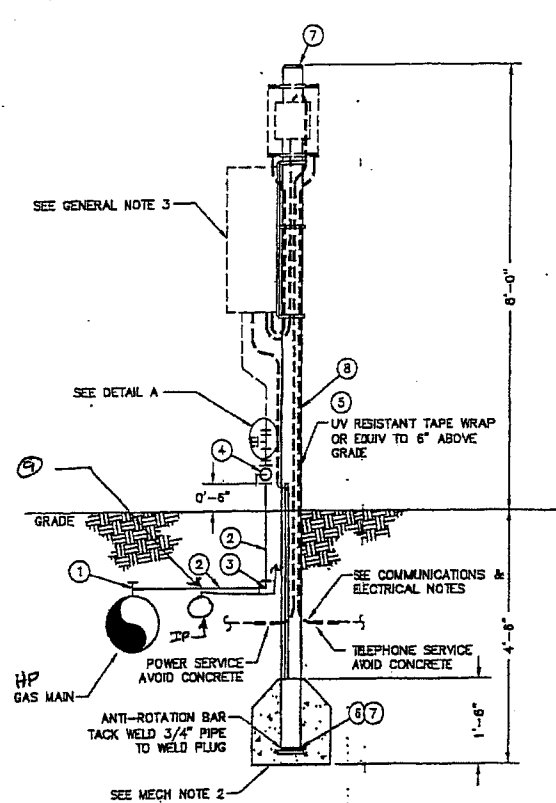
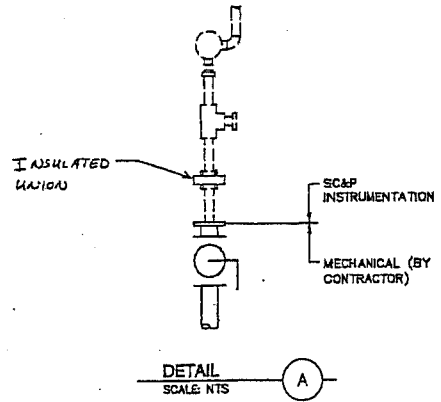
REVISIONS	DATE	BY	DESCRIPTION
1			

REVISIONS	DATE	BY	DESCRIPTION
1			

PUGET SOUND ENERGY RS-2697 - STD CONCRETE FOUNDATION
ABOVE GROUND RELIEF ENCLOSURE
E 72 ST & PORTLAND AVE, TACOMA, WA

SAP ORDER NUMBER: 109026043
DWG NUMBER: 3D11-540
SCALE: AS NOTED

Plotted by: mahan 05/07/08 12:03 PM



GENERAL NOTES:

- DESIGN PRESSURE OF PIPING IS 1000 psig MAOP OF INSTALLATION (INCLUDING ALL RISERS) IS 250 PSIG. TEST ALL PIPING AND FITTINGS TO 450 PSIG.
- INSTALLATION IS FOR:
 - 1 TRANSducer RTU (ONE RISER)
 - 2 TRANSducer RTU (TWO RISERS)
 - 3 TRANSducer RTU (THREE RISERS)
 DOUBLE QUANTITY OF MATERIALS WITH * FOR 2 RISERS AND TRIPLE QUANTITY FOR 3 RISERS. RTU CABINET TO BE INSTALLED BY SC&P INSTRUMENTATION GROUP.
- ALL CONSTRUCTION TO CONFORM TO PSE STANDARDS & ALL CITY OR COUNTY REGULATIONS WHERE APPLICABLE.
- INSTALL PROTECTIVE BOLLARDS AS REQUIRED.
- DO NOT TIE GAUGE LINE INTO CONTROL OR SENSING LINES. MAKE SEPARATE TAP INTO MAIN.

MECHANICAL NOTES:

- SCOPE: INSTALL MOUNTING POLE AND ITEMS 1 TO 9. TAP SERVICE TEES AFTER PSE TEST AND INSPECTION.
- WRAP ALL BURIED METAL PIPING & MAINTAIN ELECTRICAL ISOLATION AT ABOVE GROUND CONNECTION FOR PIPELINE CATHODIC PROTECTION.
 - CONCRETE SUPPORT FOR POLE IS TO BE 1'-6" DIA. EXTEND 3" BELOW BOTTOM OF POLE, SLOPED AT THE TOP OF THE SURFACE AS TO ALLOW WATER TO DRAIN AWAY FROM POLE, & TO BE 1'-6" HIGH.
 - REFER TO PSE STANDARD 1505.1000 FOR THE COATING SPECIFICATIONS OF THE STEEL POLE.

**COMMUNICATION & ELECTRICAL NOTES:
FOR REFERENCE ONLY**

- SCOPE: WORK IS DONE BY SC&P INSTRUMENTATION AND ELECTRICAL CONTRACTOR.
- AVOID CONCRETE WHEN INSTALLING GROUND ROD. THIS GROUND CONNECTION MUST BE PROVIDED TO TELEPHONE BOX ALSO.
 - ELECTRICAL CONTRACTOR TO PROVIDE ALL MATERIALS & ALL NECESSARY ELECTRICAL PERMITS.
 - ELECTRICAL CONTRACTOR TO PROVIDE 110 VAC SERVICE. TELEPHONE TERMINATING EQUIPMENT TO BE PROVIDED BY TELEPHONE COMPANY, TELEPHONE BOX PROVIDED BY W.A.G.
 - ELECTRIC & ELECTRICAL EQUIPMENT MUST REMAIN CLEAN, DRY & SHOCK FREE.
 - CONDUIT TO BE SECURED TO POLE STRUCTURES AS REQUIRED FOR SAFETY & NEATNESS.

ITEM	QTY	DESCRIPTION	PART NO
47			
46			
45			
44			
43			
42			
41			
40			
39			
38			
37			
36			
35			
34			
33			
32			
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17			
16			
15			
14			
13			
12			
11			
10			
9		1/2" x 3/16" MPB 3/2" - 1/2"	
8	15'	PIPE 4" X 0.188" BARE, GRADE B	70-00436
7	2	4" WELD PLUG	72-00084
6	0'-18"	PIPE 3/4" X 0.113" BARE, GRADE B	70-00070
5	3	RESISTANT TAPE TAPECOAT H35	PC
4	1	VALVE 3/4" BALL STAINLESS STEEL, 2000 PSIG	99-96141
3	1	ELL 90° 3/4" X 0.113" LR WPB	60-00185
2	35'	PIPE 3/4" X 0.113" STW, X-TRI, GRADE B	78-00080
1	1	3/4" X 3/4" SERVICE TEE, H-17501	78-00612

BILL OF MATERIAL ASSOCIATED SOLELY WITH THIS SHEET OF THE DRAWING

CALL (800) 424-8888
2 BUSINESS DAYS BEFORE YOU DIG
THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

REV #	DATE	BY	DESCRIPTION	CHECKED BY
3				
2				
1				

COUNTY	EMER SECTION	ISAS WK CTR	APPROVED BY
PIERCE	41	MSEPRG	CP APP

1/4 SECTION	OP MAP	PLAT MAP	MAPPING
NE27-20-03	248.062	248.063	

UTILITY CONTACT PHONE

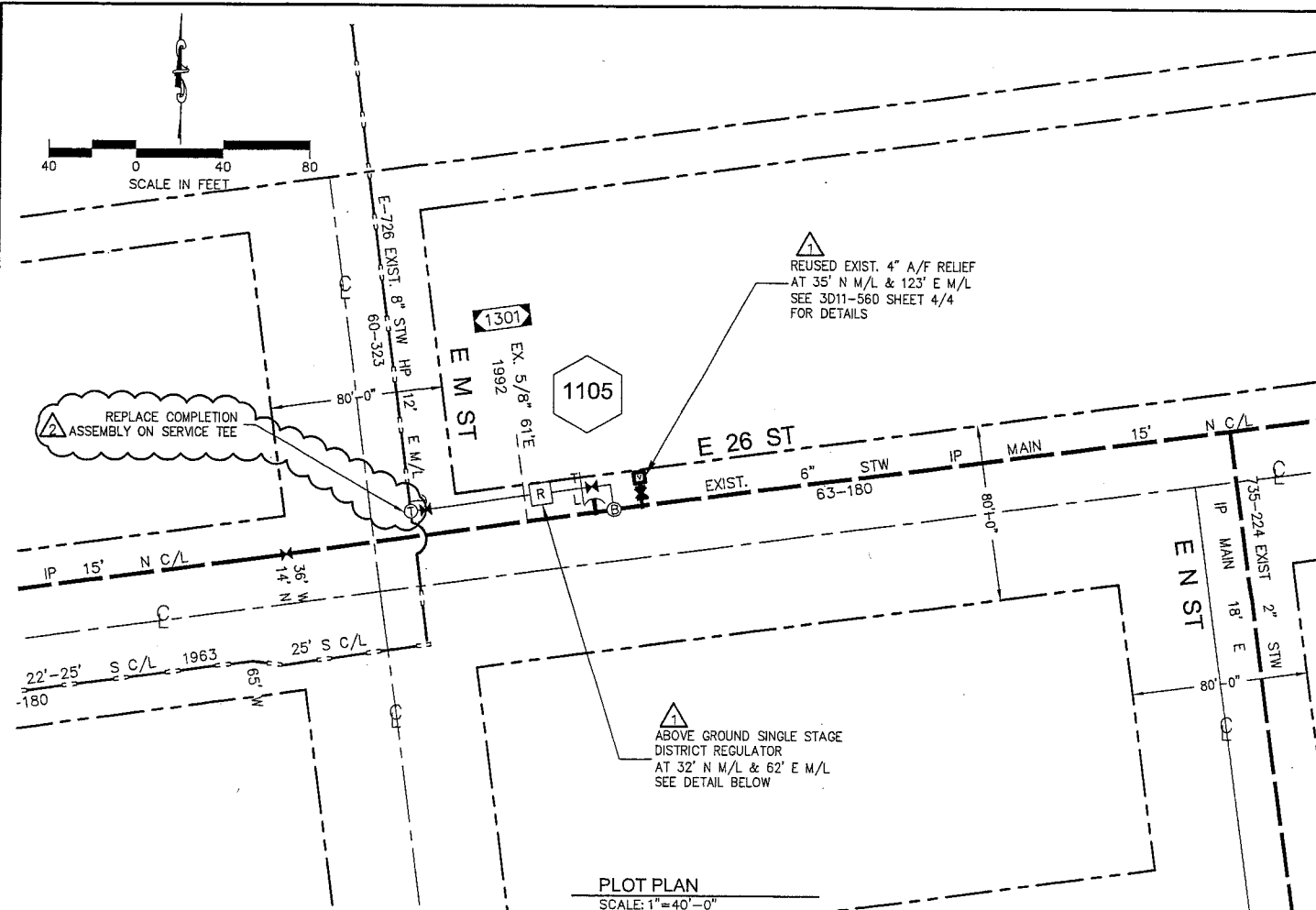
RS-2697 - RTU
E 72 ST & PORTLAND AVE
TACOMA, WA

ISSUED FOR CONSTRUCTION
BY: JCR/CP/ENG/PM/1
DATE: 10/10/06

STANDARD DRAWING ST3D3-125

SCALE: 3/4" = 1'-0"

Plotted By: mcken 08/07/06 12:00PM



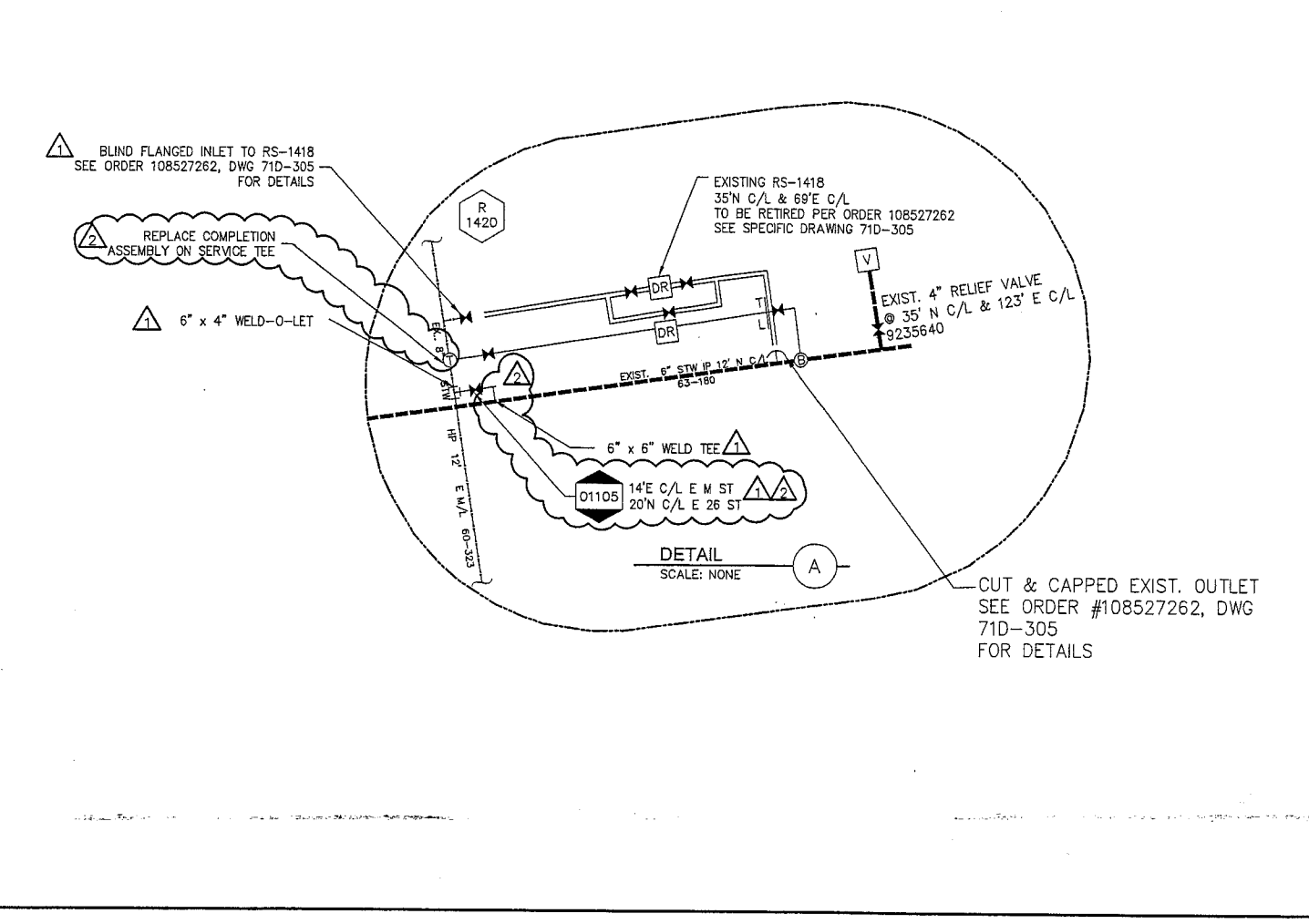
- ### DISTRICT REGULATOR CONSTRUCTION NOTES:
- INSTALL DR NO. 2698 PER WORK ORDER NO. 109023568.
 - SCOPE OF JOB: INSTALL SINGLE STAGE REGULATOR WITH TWO (2) 2" MOONEY FG-30 REGULATORS WITH (2) 2" MUELLER 126-FCS STRAINERS. REUSE EXISTING RELIEF VALVE. INSTALL NEW 3/4" STW SENSING LINE TO EXISTING 4" A/F RELIEF VALVE.
 - ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY COMPANY OPERATING STANDARDS, FIELD PROCEDURES AND POLICES.
 - PRELIMINARY LEAK TEST PIPING BETWEEN 2" SERVICE TEE (TEST POINT #1) AND THE OUTLET VALVE (TEST POINT #2) WITH NITROGEN BETWEEN 100 AND 150 PSIG FOR (15 MIN) PER OPERATING STANDARD 2525.3300. PRESSURE CONTROL TO APPROVE LEAK TEST. FINAL LEAK TEST PIPING BETWEEN 2" SERVICE TEE (TEST POINT #1) AND THE OUTLET VALVE (TEST POINT #2) WITH NITROGEN AT A MINIMUM OF 450 PSIG FOR A MINIMUM OF ONE (1) HOUR PER GAS OPERATING STANDARD 2525.3300. (5) BOTTLES OF NITROGEN ARE REQUIRED FOR TO LEAK AND STRENGTH TEST STATION. PRESSURE CONTROL TO RECORD PIPE TEMPERATURE AND LEAD WEIGHT PRESSURE READINGS AT THIRTY (30) MINUTES INTERVALS DURING STRENGTH TEST. PROJECT ENGINEER TO APPROVE FINAL LEAK TEST BEFORE BLOWING DOWN TEST PRESSURE. LEAK TEST PIPING DOWNSTREAM OF OUTLET VALVE WITH NITROGEN AT 101 PSIG FOR ONE (1) HOUR PER OPERATING STANDARD 2525.3300. PRESSURE CONTROL TO APPROVE LEAK TEST. BLOW DOWN TO 45 PSIG UNTIL READY FOR TIE-IN AND COMMISSION.
 - THIS REGULATOR STATION IS DESIGNED TO DELIVER 100,000 SCFH @ 42 PSIG.
 - CONTROL AND GAUGE LINES ARE SHOWN AS SCHEMATIC ONLY AND ARE TO FOLLOW PIPING UPON INSTALLATION. MAINTAIN 24" MIN. SEPARATION BETWEEN LINES. ADDITIONAL FITTINGS MAY BE REQUIRED TO COMPLETE CONNECTION. PRESSURE CONTROL IS TO MAKE FINAL CONNECTIONS TO THE REGULATOR(S) AND REGULATOR(S) PILOT(S) AND SET GAUGE(S). PSE PRESSURE CONTROL TO INSTALL CONTROL LINE TUBING INSIDE OF VAULT.
 - PUGET SOUND ENERGY COMPANY SHALL PROVIDE ALL PIPE, VALVES, AND FITTINGS REQUIRED TO COMPLETE THIS REGULATOR INSTALLATION PER OPERATING STANDARD.
 - DO NOT INSTALL ANODES. INSTALLATION IS TO BE RECTIFIER PROTECTED.
 - PAINT REGS, PILOTS, STRAINER ACCESS FLANGES AND ABOVE-GROUND PIPING WITH ONE (1) COAT PRIMER AND TWO (2) COATS OF GOOD GRADE GRAY ENAMEL COAT. ALL OTHER PIPE AND FITTINGS PER QUALITY ASSURANCE STANDARDS 246.5 AND 247.5.
 - ALL PIPING TO BE COATED IN ACCORDANCE WITH PSE OPERATING STANDARD 2600.1100.
 - CONTACT CP TECHNICIAN JOHN BATINOVICH @ 253-405-4951 TO COORDINATE INSTALLATION OF CP MATERIALS.
 - FIELD LOCATE ALL UNDERGROUND UTILITIES. CALL ONE-CALL 48 HOURS PRIOR TO CONSTRUCTION 1-800-424-5555.
 - EXISTING PIPING SHOWN ON PLAN VIEW ARE SHADED.
 - WELDS NOT PRESSURE TESTED MUST BE RADIOGRAPHICALLY INSPECTED PER PSE GAS OPERATING STANDARD 2525.2700. A MINIMUM OF 10% OF ALL WELDINGS WILL BE RADIOGRAPHICALLY INSPECTED PER GAS OPERATING STANDARD 2525.2700. INSPECTION WORK SHALL BE PERFORMED UNDER SEPARATE CONTRACT WITH AND AT THE DISCRETION OF PUGET SOUND ENERGY.
 - IF 36" OF COVER CANNOT BE ACHIEVED, CONTACT PROJECT ENGINEER.

ITEM	QTY	DESCRIPTION	PART NO
30			
29			
28	1	ASSEMBLY, COMPLETION 2" x 1440PSIG, MUELLER	PR1009394

BILL OF MATERIALS

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
 PO = NON STOCK ITEM
 CR = CONTRACTOR WILL PROVIDE ITEM

ITEM	QTY	DESCRIPTION	PART NO
27	2	THERMOCOUPLING, 24"	19-95534
26	2	ELL 2" X 90" WELD, STD LR WPB	60-00500
25	2	PLUG 3/4" UNREADED	72-00024
24	2	VALVE 3/4" BALL, 2000 PSIG	99-96141
23	3	ELL 3/4" X 90" WELD 0.113" WPB	60-00185
22	24'	PIPE 3/4" X 0.113" FBE X 21' GRADE B	70-00080
21	1	STOPPER 6" X 150# H17260/T/W, B/O 45	76-00786
20	1	ELL 6" X 4" X 0.283" X N23' 90" WELD STD LR WPB	60-00760
19	6'	PIPE 4" X 0.237" BARE GR X-42	99-96124
18	2	ELL 4" X 45" WELD ER STD WPR	60-00672
17	3	ELL 4" X 90" WELD, STD LR WPB	60-00697
16	4	CP CADWELD CARTRIDGE CAS. IRON	85-00100
15	30'	CP WIRE #10 COPPER	85-00930
14	1	CP BOX TEST STATION COMPLETE PLASTIC	50-00307
13	1	VALVE 4" X 300# PLUG ROCKWELL FIG 2045 1/4	56-00785
12	1	BOLT KIT 4" 30FFSV	50-00048
11	1	FLANGE 4" X 300# WN FF	64-00360
10	3	TEE 3/4" SERVICE H17501	78-00612
9	39'	PIPE 4" X 0.237" WRAP GR X-42	99-96124
8	1	NIPPLE 2" X 3" SAVE A VALVE H17491	66-00841
7	63'	PIPE 2" X 0.154" WRAPPED GR B	70-00292
6	1	FLANGE 2" X 300# WN FF	64-00185
5	1	BOLT KIT 2" 30FFVX	50-00022
4	2	VALVE BOX COMPLETE	99-96260
3	1	VALVE 2" X 300# PLUG ROCKWELL FIG.2045 1/4	56-00642
2	5±	PIPE 2" X 0.154" BARE GR B	70-00320
1	1	TEE, VALVE, 2" X 2", H-17650	78-00775



- ### REGULATOR STATION UPGRADE/MODIFICATION NOTES:
- UPGRADE RS-2698 PER SAP CONSTRUCTION ORDER #887029022.
 - SCOPE: INSTALL NEW COMPLETION ASSEMBLY ON THE INLET SERVICE TEE USING THE KIT. REPLACE EXISTING COMPONENTS WITH NEW O RING, STEM, BUSHING AND CAP.
 - ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY GAS STANDARDS AND GAS FIELD PROCEDURES.
 - SHADING INDICATES EXISTING PIPING. (NOT ALL EXISTING PIPING IS SHADED)
 - ALL PIPING TO BE COATED IN ACCORDANCE WITH PSE OPERATING STANDARD 2600.1100.
 - NOTIFY PRESSURE CONTROL TECHNICIAN TONY GARGIULO @ (253) 261-3152, AT LEAST TWO (2) WORKING DAYS PRIOR TO START DATE.
 - COORDINATE CATHODIC PROTECTION WITH CORROSION ENGINEER. CONTRACTOR TO NOTIFY CORROSION CONTROL TECHNICIAN JOHN BATINOVICH @ (253) 405-4951, AT LEAST TWO (2) WORKING DAYS PRIOR TO START DATE.
 - EROSION AND SEDIMENT CONTROL SHALL BE PER STANDARD PRACTICE AND ANY OTHER ADDITIONAL LOCAL JURISDICTION REQUIREMENTS.

FITTER'S CHECKLIST (CHECK BOX TO CONFIRM COMPLETION)

INSPECTED STEEL AND PE PIPE PER GOS 2450.1400 AND 2450.1500.

REVIEWED AND COMPLIED WITH ALL CONSTRUCTION NOTES.

RECORDED ALL REQUIRED INFORMATION ON THE AS-BUILT PER GOS 2500.1700.

COMPLETED POST INSTALLATION INSPECTION PER GOS 2525.1200 AND 2525.2700.

LEFT THE WORK AREA IN A CLEAN AND SAFE CONDITION.

FOREMAN'S SIGNATURE: _____
 FOREMAN'S NAME (PRINTED): _____
 COMPANY: _____ DATE: _____

4680 06/11

GAS MAIN INSTALLATION / RETIREMENT

TYPE/WORK	SIZE	TYPE	PROP FT	ACT FT	MANUFACTURER

GAS MAIN PRESSURE AND TESTING

TEST TYPE	SOAP	AIR	NITROGEN	WATER
DATE ON				
DATE OFF				
PRESSURE				
TEST RESULTS				

DESIGN PRESS: _____ SYSTEM MAP

2023 03/10

PROJECT PHASE NOTIFICATION # ORDER

PROJECT PHASE	NOTIFICATION #	ORDER #
GAS	N/A	109018567
SAP SUPERIOR	N/A	N/A
SERVICE/METER	N/A	N/A
SERVICE/METER	N/A	N/A
SERVICE/METER	N/A	N/A
IND SERVICE	N/A	N/A
IND MSA	N/A	N/A
DIS REG/FT	N/A	109023568
HP SVC/MSA	N/A	N/A
RELOCATE	N/A	N/A
RETIREMENT	N/A	108527262

PROJECT MANAGER CONTACT INFO

MOLLY REED
 425-214-6684 CELL PHONE
 molly.reed@pse.com EMAIL

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

REV #	DATE	BY	DESCRIPTION	CHECKED BY	DATE
3					
2					
1					

FUNCTION	NAME	PHONE	DATE
PROJECT MGR	M REED	425-462-3933	
ENGINEER	D.FRIEZE	425-462-3862	
DRAWN BY	S.FRANCISCO	425-462-3960	06/29/05
CHECKED BY	P.DAO	425-462-3813	
APPROVED BY	N/A	N/A	N/A
CP APP	M.GALLARDO	425-462-3859	

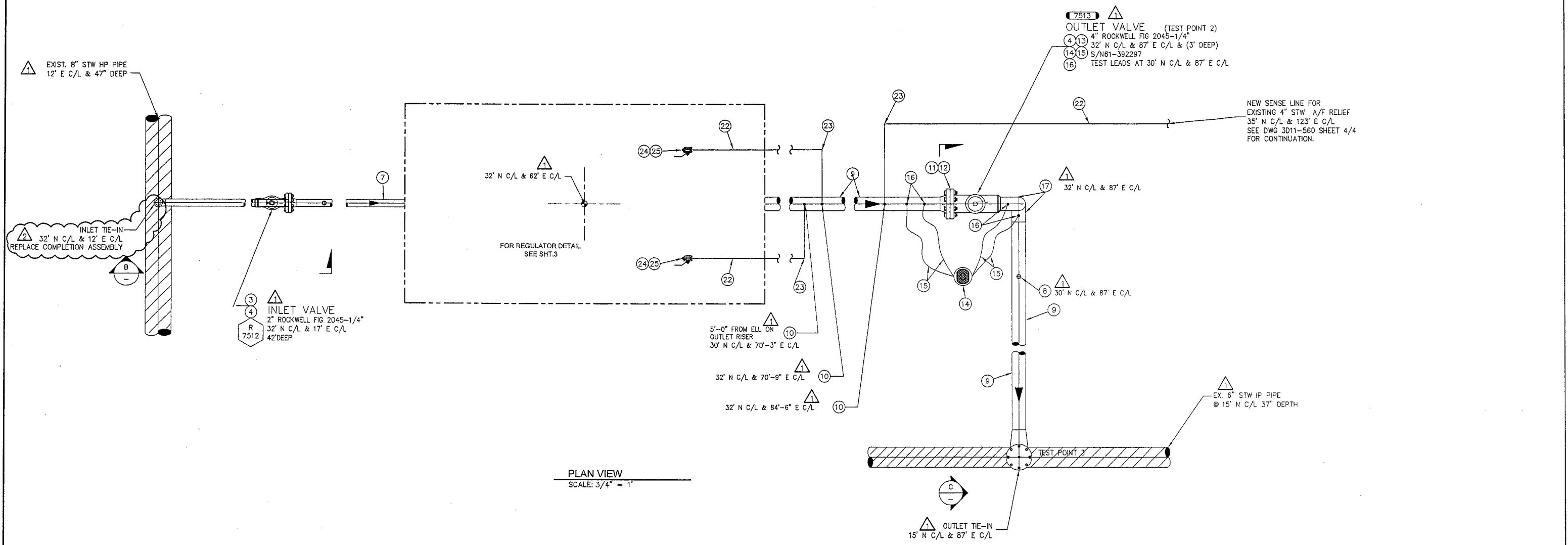
UTILITY CONTACT PHONE: N/A, N/A, N/A

DR-2698
 E M ST & E 26 ST
 TACOMA, WA

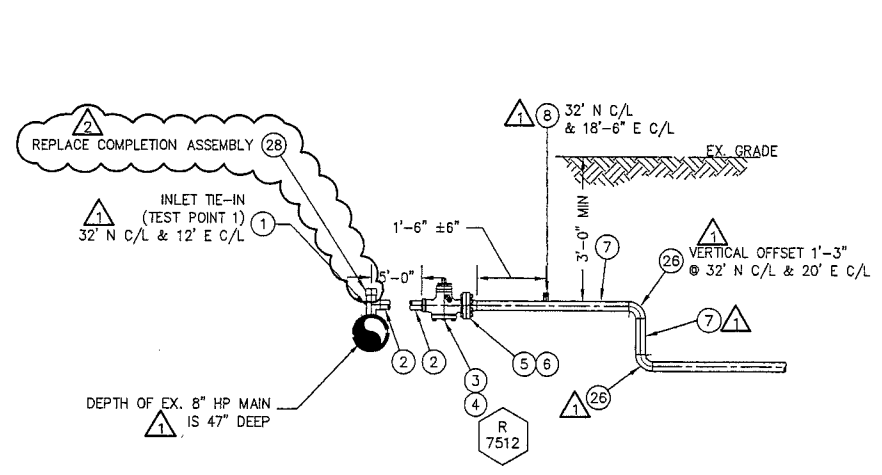
SAP ORDER NUMBER: 887029022
 DWG NUMBER: 3D11-560
 SCALE: AS-SHOWN 1/4"

REVISIONS

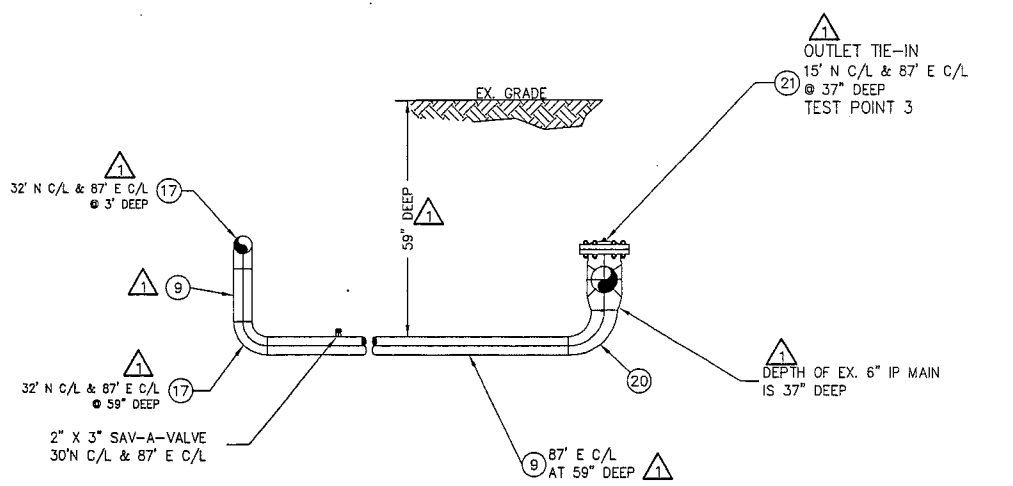
REV	DESCRIPTION	BY	CHKR	CP	ENG	PM	DATE
2	REPLACE COMPLETION ASSEMBLY PER JOB #887029022	ST	PD	MG	PE	MR	6/22/12
1	AS-INSTALLED 109023568	JF	SF	SS	MUY	N/A	04/28/2010
0	ISSUED 109023568 FOR CONSTRUCTION	EB	RN	SD	JW	DN	12/06/2005



PLAN VIEW
SCALE: 3/4" = 1'



SECTION B-B
SCALE: 1/2" = 1'-0"



SECTION C-C
SCALE: 1/2" = 1'-0"

REV	DESCRIPTION	BY	CHKR	CP	ENG	PM	DATE
1	REPLACE COMPLETION ASSEMBLY PER JOB #887029022	ST	PD	MB	DF	MR	6/22/12
2	AS-INSTALLED 109023568	JF	SF	SS	MOY	N/A	04/28/2010
3	ISSUED 109023568 FOR CONSTRUCTION	EB	RN	SD	JW	DN	12/06/2005

PROJECT MANAGER CONTACT INFO
MOLLY REED
425-214-6684 CELL PHONE
molly.reed@pse.com EMAIL

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES
CALL (800) 424-5555
2 BUSINESS DAYS BEFORE YOU DIG

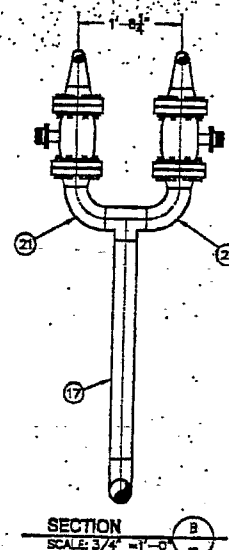
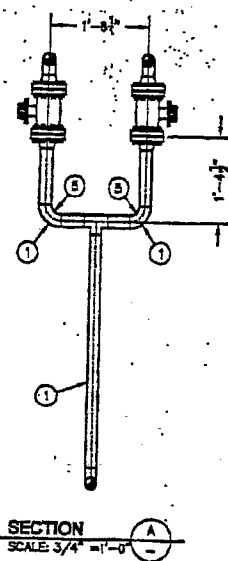
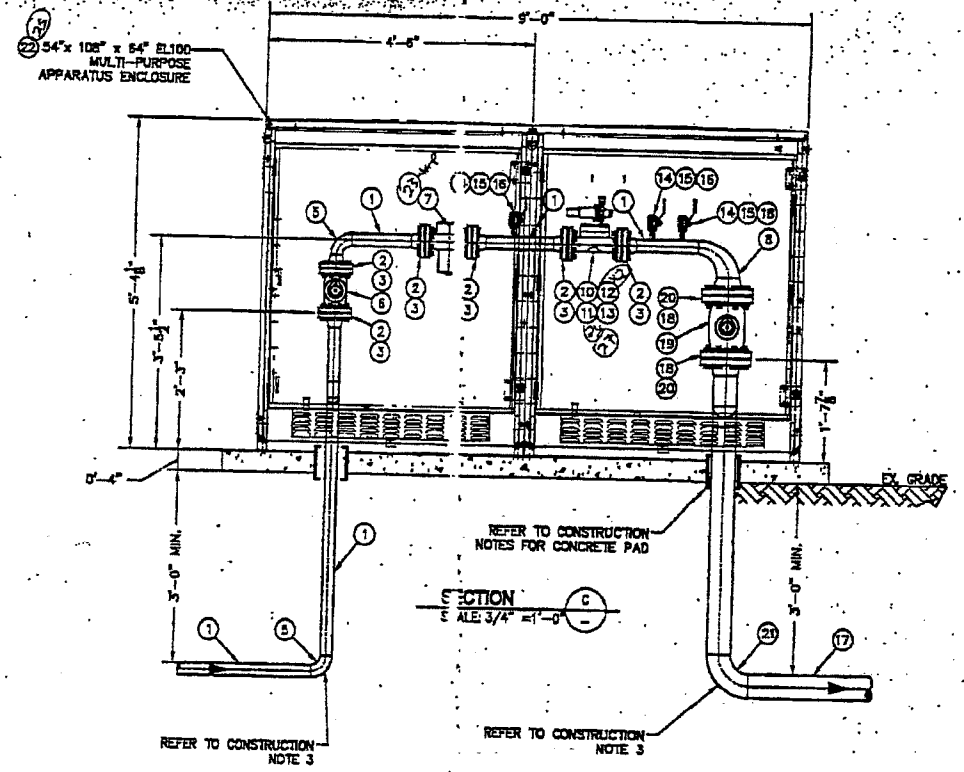
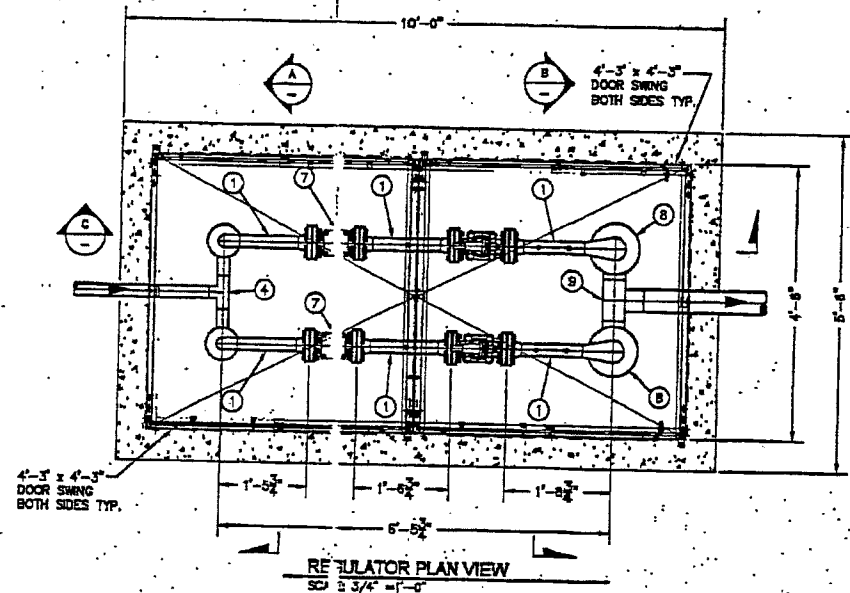
REV #	DATE	BY	DESCRIPTION	CHECKED BY	PHONE	DATE
3			-----N/A-----	PROJECT MGR	M. REED	425-462-3933
2			-----N/A-----	ENGINEER	D. FRIEZE	425-462-3862
1			-----N/A-----	DRAWN BY	S. FRANCISCO	425-462-3960 09/27/05
				CHECKED BY	P. DAO	425-462-3813
				APPROVED BY	N/A	N/A
				CP APP	M. GALLARDO	425-462-3859
				MAPPING	N/A	N/A

UTILITY CONTACT	PHONE	N/A	N/A	N/A	N/A

DR-2698
E M ST & E 26 ST
TACOMA, WA

SAP ORDER NUMBER
887029022
DWG NUMBER
3D11-560
SCALE: AS-SHOWN





CONSTRUCTION NOTES:

- ALL UNDERGROUND CONNECTION PIPING TO BE WRAPPED PER GAS OPERATING STANDARD 2600.1100 TO THE FIRST FITTING.
- PANT ALL EXPOSED PIPING PER GAS OPERATING STANDARD 2600.1000 AND GAS FIELD PROCEDURE 4615.1330.
- DO NOT PRE-FABRICATE THE INLET OR OUTLET PIPING. PLEASE CONTACT PROJECT ENGINEER. PIPING SLOPE WILL VARY PER SITE GRADE.

CONSTRUCTION NOTES FOR CONCRETE PAD:

- CONSTRUCT A 5'-6" X 10'-0" X 6"-4" CONCRETE PAD FOR SUPPORT OF METAL CABINET.
- USE 6" OF CRUSHED ROCK COMPACTED UNDERNEATH PAD.
- CONCRETE PAD MUST BE LEVEL, DO NOT FOLLOW GRADE OF SITE.
- USE 6" SOND-TUBING FOR 4" STUB UP PIPE, THROUGH CONCRETE PAD. PIPE TO BE WRAPPED PER GAS OPERATING STANDARD 2600.1100.

PRESSURE CONTROL NOTES:

- SET 2" MOONEY FG-30 REGULATORS AT 43 PSIG.

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
PO = NON STOCK ITEM
CR = CONTRACTOR WILL PROVIDE ITEM

ITEM	QTY	DESCRIPTION	PART NO
27	2	1/2" 2" Lg. RT. Mooney FG-30 Reg. w/ 1/2" hole	7766445
26	1	1/2" Mooney FG-30 Reg. w/ 1/2" hole	7766445
25	10	1/2" 300# Gas Reg. - 1/2" hole	21-402
24	1	1/2" 300# Gas Reg. - 1/2" hole	21-402
23	2	1/2" 300# Gas Reg. - 1/2" hole	21-402
22	1	54" X 108" X 54" MULTI-PURPOSE ENCLOSURE	IPD
21	3	ELL 4" X 90° WELD STD LR WPR	60-0067
20	2	FLANGE 4" WELD/NECK FF X300 LRS	64-00360
19	2	VALVE BALL 4" FLANGE BY FLANGE 300#	98-02811
18	4	BOLT KIT 4" SOFFLY	50-00050
17	20	PIPE 2" X 0.154" BARE GRADE X42 10A-4.35	98-06126
16	6	VALVE 3/4" BALL 2000 PSIG	98-06143
15	6	NIPPLE 6" X 3/4" THREADED - B.V.	68-00370
14	6	PLUG 3/4" STEEL THREADED - B.V.	72-00024
13	2	FILTER 1/4" FIBER 288 P/14-1 62-376	1-9-02838
12	2	REG PILOT RESTRICTOR FISHER 1/4" NPT	98-05938
11	2	REG 1/4" PILOT AMERICAN 750-100 100-4.5 24	74-00748
10	2	W/REG 7411012 SPRING (10-75 PSIG)	
9	2	REG MOONEY 2" FG-30 300# FF	74-00370
8	1	W/REG CAPACITY 102-014-01 MAINSPRING	
7	1	AND 75# DIAPHRAM 102-053-01 DIAPHRAM	
6	1	TEE 4" X 4" WELD STD WPR OR Y-42	78-00412
5	2	ELL 4" X 2" X 90° WELD STD LR	60-00710
4	2	STRAINER 2" X 300# MUELLER 128PCS	98-95840
3	2	VALVE 2" BALL FLANGE BY FLANGE 300#	98-95910
2	2	ELL 2" X 90° WELD STD	60-00500
1	1	TEE 2" X 2" WELD STD WPR OR Y-42	78-00380
0	12	BOLT KIT 2" SOFFLY	50-00022
0	2	FLANGE 2" WELD/NECK FF X300 LRS	64-00185
0	20	PIPE 2" X 0.154" GRADE B BARE	70-00270

BILL OF MATERIAL ASSOCIATED SOLELY WITH THIS SHEET

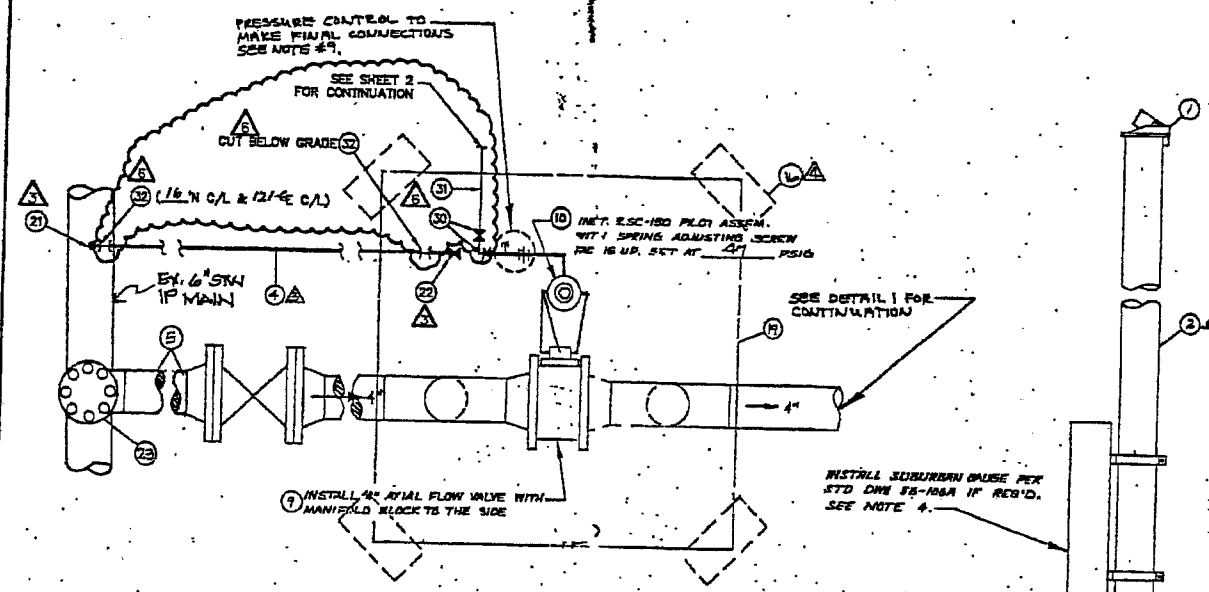
GAS MAIN PRESSURE AND TESTING		
TEST TYPE	PRESSURE	TESTED BY
DATE ON	TIME ON	
DATE OFF	TIME OFF	
TEST TYPE	PRESSURE	TESTED BY
DATE ON	TIME ON	
DATE OFF	TIME OFF	
DESIGN	SYS MAOP 1300 US / 45 DS	

OWNER/DEVELOPER CONTACT INFO:
N/A
N/A
N/A
ATTN: N/A OFFICE: N/A

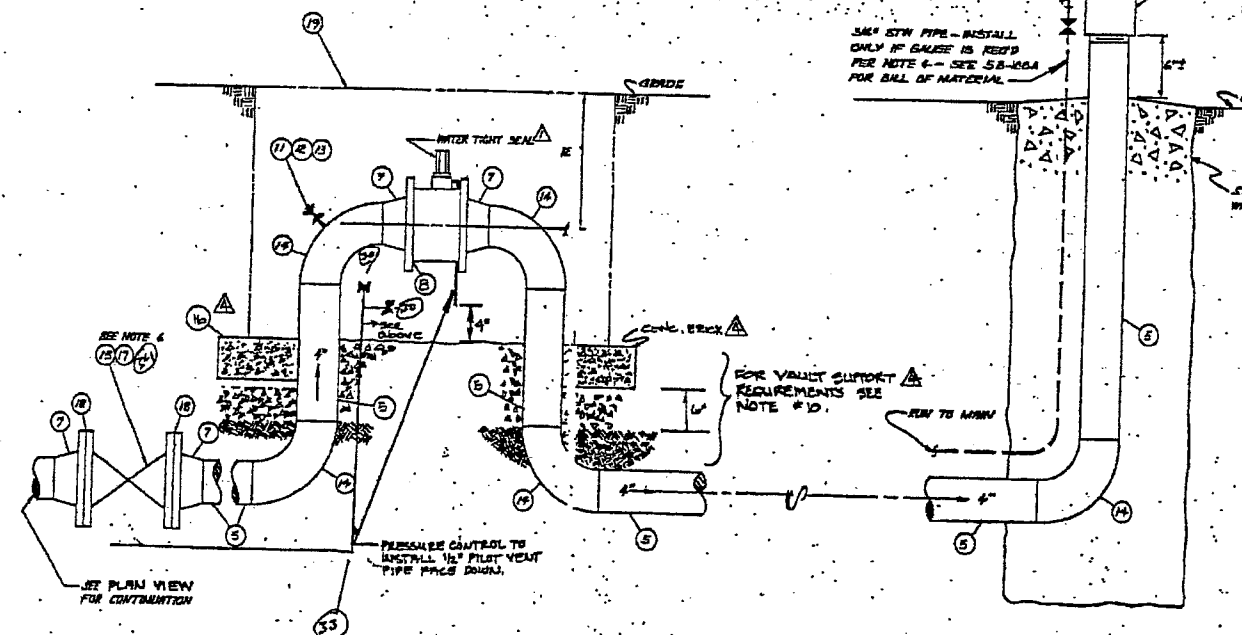
PROJECT MANAGER CONTACT INFO:		CALL (800) 634-8888	
DAVID NARO	206 386-8781 Cell Phone	THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES	
N/A	N/A	REAL ESTATE/EASEMENT	PERMIT
N/A	N/A	N/A	TACOMA
3	N/A	FUNCTION	NAME
2	N/A	PROJECT MGR	PHONE
1	N/A	ENGINEER	DATE
REV #	DATE	DRAWN BY	DATE
COUNTY	BY DESCRIPTION	CHECKED BY	N/A
PURCE	ES-72	APPROVED BY	N/A
1/4 SECTION	OP MAP	DATE	N/A
NW 1C-20-03	240.062	MAPPING	N/A

REV	DESCRIPTION	BY	CHK	CP	ENGR	DATE
1		DR				12/4/03

PUCKET SOUND ENERGY
DR-2098
E. 4th St. & E. 29th St.
TACOMA, WA
1106023068
DWG NUMBER
3011-580
SCALE AS SHOWN
3/4"



PLAN VIEW
SCALE: 1/2" = 1'-0"



ELEVATION VIEW
SCALE: 1/2" = 1'-0"

NOTES FOR ORDER 109023568

- RELIEF INSTALLED ON JOB 8325640 TO DR-1418. ORDER 10827282 TO RETIRE THE REGULATOR PORTION OF DR-1418 AND LEAVE THE RELIEF IN PLACE TO BECOME THE RELIEF FOR RS-2698. CHANGED SHEET 2 OF SPECIFIC DRAWING 710-305 TO SHEET 4 OF SPECIFIC DRAWING 3011-560.
- REFERENCE DWGS: RETIRE EXIST. DR #1418 710-305
SHEET 1/2 PLOT PLAN & PIPING DETAIL
SHEET 1A/2 ELEVATION, PLAN VIEW & SCHEMATIC CONTROL LINE

109023568-INSTALL DR #2698
10827282-RETIRE DR #1418

- NOTES**
- CONSTRUCTION TO CONFORM TO W.A.S. STANDARDS
 - TEST INSTANTLY TO 50 PSI PER 80 STD 4.14.
 - BY RELIEF AT 47 PSI.
 - REWORK ABOVE SECTION YES NO . IF YES INITIAL GAUGE PER STD DWG 58-100A IF APPLICABLE MARK IN THIS SHEET. KEEP GAUGE LINE SEPARATE FROM CONTROL LINE.
 - WANT ALL EXPOSED PIPING WITH ONE END COVER & TWO ENDS OF A GOOD GRAY ENAMEL.
 - RECALL UPSTREAM SHUT-OFF VALVE IN CONVENIENT LOCATION FOR OPERATING. SEE SITE PLAN FOR DETAILS.
 - WANT THE-40 CONNECTIONS BY OPERATING PRESSURE PER OPERATING STANDARDS 6.14.
 - WANT PIPING TO BE A MINIMUM OF 3" FROM BUILT.
 - WANT 3/4" CONTROL LINE TO MARK. INSTALL NEXT TO PIPING FOR PROTECTION. LOCATION SHOWN IS FOR SCHEMATIC ONLY. ADDITIONAL FITTINGS MAY BE REQUIRED TO COMPLETE THE CONNECTION. KEEP CONTROL LINE SEPARATE FROM GAUGE LINE.
 - WANT TO BE SET ON CONCRETE BLOCK. ONE EACH CORNER. 1/2" OF WALL MINIMUM CRACKED BLOCK. ON SURF WITH 3/4" CONSTRUCTION.
 - IF THE-40 MARK IS FE, INTERNAL MAGNESIUM BRIDGE AS INDICATED @.

MATERIALS FOR ORDER 109023568

ITEM	QTY	DESCRIPTION	PART NO.
24	1	VALVE BODY	700056
25	1	VALVE BODY GASKET	700057
26	1	CAP 3/4" 1/2" O.D. WELD STD-BALK	520058
27	1	PIPE 3/4" 1/2" O.D. STEEL PIPE GR-B	700059
28	1	VALVE 3/4" BALL 2000 PSI	990514

BILL OF MATERIALS

BILL OF MATERIAL ASSOCIATED SOLELY WITH THIS SHEET

WORK ORDER #01: VALVES (INDIVIDUAL RELIEF)

NO.	DESCRIPTION	QTY	PRICE
24	VALVE BODY	1	700056
25	VALVE BODY GASKET	1	700057
26	CAP 3/4" 1/2" O.D. WELD STD-BALK	1	520058
27	PIPE 3/4" 1/2" O.D. STEEL PIPE GR-B	1	700059
28	VALVE 3/4" BALL 2000 PSI	1	990514

GAS MAIN INSTALLATION/RETIREMENT

TYPE	WORK	SIZE	TYPE	PROP	FT	ACT	FT	MANUFACTURER

GAS MAIN PRESSURE AND TESTING

TEST TYPE	DATE ON	DATE OFF	TESTED BY
PRESSURE <td></td> <td></td> <td></td>			
TIME ON			
TIME OFF			

FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION
COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP
FIELD CHANGES RED-LINED ON AS-BUILT
MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK
ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT
NOTE BEGINNING OF MAIN, EDM & LINE OF MAIN LOCATIONS
SHOW ROPE LOCATIONS & CUL-DE-SAC RADII

FOREMAN'S SIGNATURE: *[Signature]*
COMPANY: MILCRUCK DATE: 6-5-98

DR #1418 TO BE RETIRED BUT IT'S EXIST. 4" A/F RELIEF TO BE KEPT AND USED FOR DR #2698

REVISIONS

REV	DESCRIPTION	BY	CHKD	DATE
1	SEE NOTE #1 IN NOTES FOR ORDER 109023568	EB	EB	6/11/98

STANDARD DRAWING
4" AXIAL FLOW SYSTEM RELIEF VALVE

REF DWGS:
3C-414 (3" X 3" X 2" STL W/ULT)
58-100A (SUBURBAN GAUGE STD)

ORIGINAL JOB: 8325640
ORIGINAL DWG: 710-305
SHEET 2/2

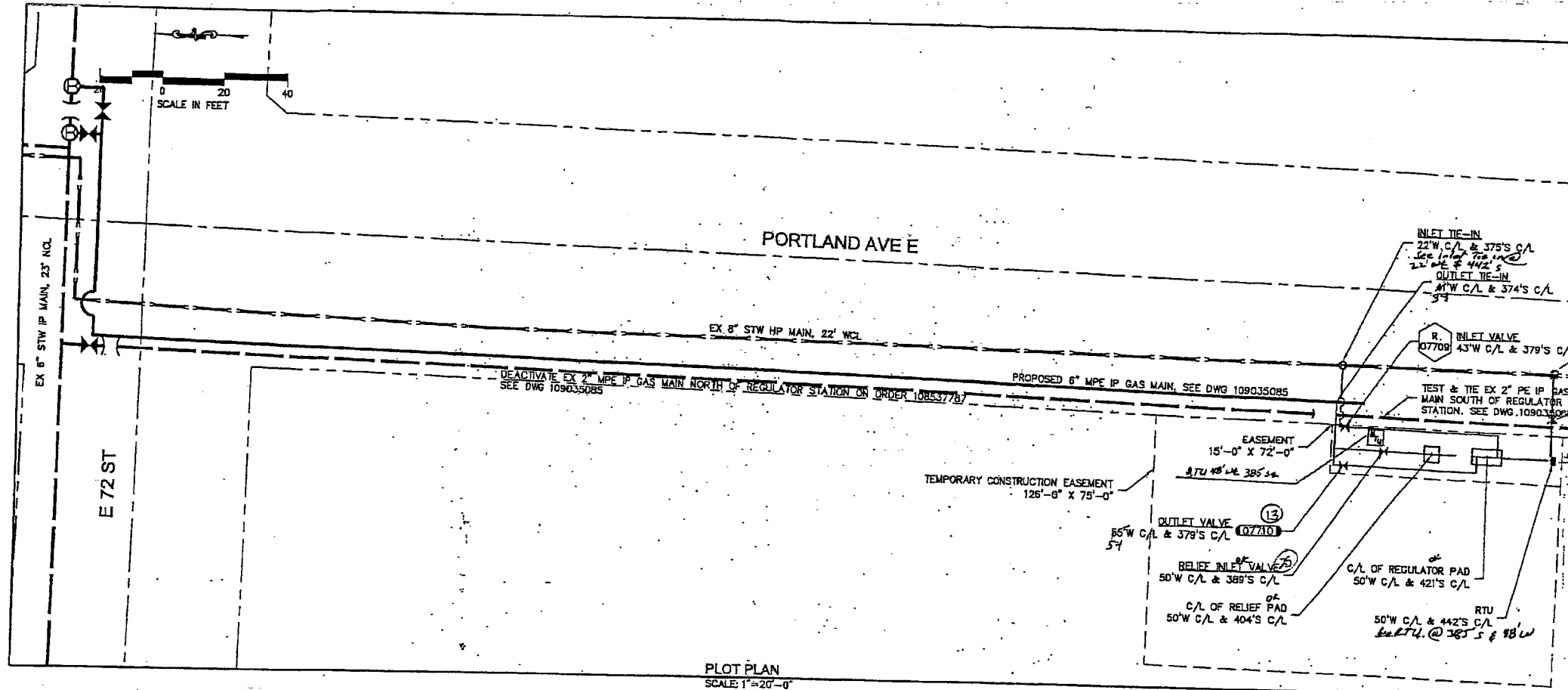
BILL OF MATERIAL

PERMITS	D.A.E.
X REC NW 10-20-3	
PLAT: 242.62	
OP MAP: 240.62	

WASHINGTON NATURAL GAS COMPANY
AREA: TACOMA
EXIST. 4" A/F RELIEF VALVE TO DISTRICT REGULATOR #2698
E 26 St & E M St

DATE: 05/09/98
JOB: 109023568
REVISIONS: 1/22/98
3D11-560

11/23/05 01:00PM Plotted By: mcken



ITEM	QTY	DESCRIPTION	PART NO
47			
46			
45			
44			
43			
42			
41			
40			
39			
38			
37			
36			
35	1	ELBOW RED. 6" X 4" 0.280" X 0.237" Y52 WLD. LR	9996771
34	1	ELBOW RED. 6" X 4" 0.280" X 0.237" Y52 WLD. LR	9996771
33	2	CADWELD	
32	2	SLEEVE, CP, COPPER A200	8500080
31	2	PLUG, 3/4" X CLASS 6000, THD	7600540
30	2	VALVE BALL, 3/4" X 2000 PSIG, THD	7000024
29	2	ELBOW, 3/4" X 90 X 0.113", WPB, WELD, LR	9996141
28	10	PIPE, 3/4" X 0.113", CR B, WELD, XTRU	6000185
27	3	TEE, SERVICE, 3/4" X 1440 PSIG, MUELLER H17501	7800612
26	3	POST, GUARD, 4" X 6" LEN	7000400
25	1	VALVE 4" ROCK FIG 305-300# FLG	5600770
24	1	REDUCER 6" X 4" WELD STD Y52	9996792
23	1	TEE 6" PE MED DENSITY	7800424
22	10±	WIRE #14 COPPER TRACER	8500940
21	10±	PIPE 6" STRAIGHT MED DENSITY	7000586
20	20	CP WIRE #10 COPPER	8500830
19	1	CP BOX TEST STATION COMPLETE PLASTIC	5000307
18	1	TRANSITION 6" PE MED DENSITY	7800812
17	1	TEE 6" X 6" WELD STD Y52	9996759
16	2	ELL 6" 90 DEGREE WELD STD Y52	9996780
15	2	PIPE 6" X 0.280" WALL BARE ST CR B	7000575
14	1	BOX VALVE, 6" - 8"	9996262
13	1	VALVE, PLUG, 6" X ANSI300, NORD 1485, FLG	5600841
12	2	BOLT KIT, 6" 30FFSV	5000080
11	2	FLANGE, 6" X ANSI300, WN, RF	9998845
10	3	BOLT KIT, 4" 30 FFSV	5000050
9	3	FLANGE, 4" WELD/MEXC RF X 300 LBS	9998844
8	2	BOX VALVE COMPLETE PLASTIC 1-1/8" TO 4"	9996260
7	1	VALVE 4" ROCK FIG. 2045 1/4 300 LB	5600785
6	2	ELL 4" 90 DEGREE WELD STD Y52	9996778
5	1	NIPPLE, SAVE-A-VALVE 2" X 3" H17491	8600841
4	1	PIPE 4" X 0.237" WALL WRAP X42	9996588
3	1	REDUCER 6" X 4" WLD-8" 188 IPRD STD Y52	9996793
2	1	ELL 6" 90 DEG WELD 188 IPRD STD Y52	9996782
1	1	STOPPER 6" X 300 H17291 T/W B/O	7600796

DISTRICT REGULATOR CONSTRUCTION NOTES:

- INSTALL DR NO. 2723 PER WORK ORDER NO. 109031159.
- SCOPE OF JOB: INSTALL OPERATOR REGULATOR, ON 1ST STAGE INSTALL TWO (2) 2" MOONEY FC-30 REGULATORS WITH TWO (2) 1/4" ZSC-100 PILOTS, TWO (2) 2" MUELLER 126 FCS STRAINERS, INSTALL 4" EZR RELIEF ON O/S RUN OF REGULATOR.
- ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY COMPANY OPERATING STANDARDS AND GAS FIELD PROCEDURES.
- REFER TO PSE PROJECT ENGINEER APPROVED PROCEDURE, "TEST AND TIE-IN PROCEDURE FOR DR-2723, PUYALLUP IP UPRATE SECTION B STATION" FOR TESTING AND PURGING REQUIREMENTS.
- THIS REGULATOR STATION IS DESIGNED TO DELIVER 150,000 SCFH @ 60 PSIG. FUTURE DESIGN DELIVERY WILL BE 250,000 (YEAR 2017).
- CONTROL AND GAUGE LINES ARE SHOWN AS SCHEMATIC ONLY AND ARE TO FOLLOW PIPING UPON INSTALLATION, MAINTAIN 24" MIN. SEPARATION BETWEEN LINES. ADDITIONAL FITTINGS MAY BE REQUIRED TO COMPLETE CONNECTION. PRESSURE CONTROL IS TO MAKE FINAL CONNECTIONS TO THE REGULATOR(S) AND REGULATOR(S) PILOT(S) AND SET GAUGE(S), PSE PRESSURE CONTROL TO INSTALL CONTROL LINE TUBING INSIDE OF VAULT.
- PUGET SOUND ENERGY COMPANY SHALL PROVIDE ALL PIPE, VALVES, AND FITTINGS REQUIRED TO COMPLETE THIS REGULATOR INSTALLATION PER OPERATING STANDARD.
- CHECK FOR WRAPPING HOLIDAYS WITH A JEEP MACHINE AND REPAIR FAULTS AS REQUIRED PER OPERATING STANDARD 2600.1000.
- CONTACT CATHODIC PROTECTION TECHNICIAN, STEVE JENSEN (206-571-7190) 48 HOURS BEFORE START OF WORK.
- ALL PIPING TO BE COATED IN ACCORDANCE WITH PSE OPERATING STANDARD 2600.1100. COAT PIPE EXPOSED ABOVE GROUND OR IN VAULTS PER PSE GAS FIELD PROCEDURE 4515.1330, "APPLYING PAINT TO METER SETS AND ABOVEGROUND FACILITIES FOR ATMOSPHERIC CORROSION" OR IN ACCORDANCE WITH PSE SPECIFICATION 1505.1000, "PAINTING ABOVE-GROUND PIPING AND PIPELINE FACILITIES.
- FIELD LOCATE ALL UNDERGROUND UTILITIES. CALL ONE-CALL 48 HOURS PRIOR TO CONSTRUCTION 1-800-424-5555.
- EXISTING PIPING SHOWN ON PLAN VIEW ARE SHADED.
- WELDINGS NOT PRESSURE TESTED MUST BE RADIOGRAPHICALLY INSPECTED PER GAS OPERATING STANDARD 2525.2700. A MINIMUM OF 10% OF ALL WELDINGS (EXCLUDING THE TIE-INS) WILL BE RADIOGRAPHICALLY INSPECTED PER GAS OPERATING STANDARD 2525.2700. INSPECTION WORK SHALL BE PERFORMED UNDER SEPARATE CONTRACT WITH AND AT THE DISCRETION OF PUGET SOUND ENERGY.
- EROSION AND SEDIMENT CONTROL SHALL BE PER PSE STANDARD PRACTICE 0150.3200 TECHNIQUES FOR TEMPORARY EROSION AND SEDIMENT CONTROL AND ANY ADDITIONAL LOCAL JURISDICTION REQUIREMENTS.
- IF 36" OF COVER CANNOT BE ACHIEVED, CONTACT PROJECT ENGINEER.
- WHEN REINFORCING A FLANGED TEE CARE MUST BE USED TO NOT RAISE THE FITTING TO ENSURE THAT THE TAPPING EQUIPMENT WILL STILL WORK.
- INSTALL CP TEST STATIONS IN ACCORDANCE WITH PSE GAS FIELD PROCEDURE 4515.1020, "INSTALLING CATHODIC PROTECTION TEST STATIONS."

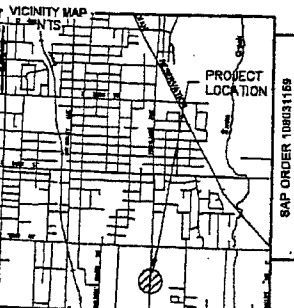
SAP ORDER TREE

109031159 - PROJECT SUBORDER FOR WORK AT 7200 PORTLAND AVE E
INSTALL RS-2723

109035870 - INSTALL RTU
109035857 - INSTALL RTU PIPING
109035085 - INSTALL 6" MPE IP MAIN
108537787 - RETIRE 2" PE MAIN

TYPE/WORK	SIZE	TYPE	PROP FT	ACT FT	MANUFACTURER

TEST TYPE	DATE	TIME ON	TIME OFF	TESTED BY
Pressure	7/25/02	10:05	10:15	B
Pressure	7/25/02	10:15	10:30	B
Pressure	7/25/02	12:00	12:10	B



FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION

COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP

FIELD CHANGES RED-LINED ON AS-BUILT

MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK

ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT

NOTE BEGINNING OF MAIN, EOM & LINE OF MAIN LOCATIONS

SHOW ROPE LOCATIONS & CUL-DE-SAC RADIUS

FOREMAN'S SIGNATURE: *[Signature]*

COMPANY: *[Signature]* DATE: 7-30-02

PROJECT MANAGER CONTACT INFO: CHARLENE KRAUT, 425-418-7061 Cell Phone, charlene.kraut@pse.com Email

2 BUSINESS DAYS BEFORE YOU DIG CALL (800) 424-6886 THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

FUNCTION	NAME	PHONE	DATE
PROJECT MGR	C. KRAUT	425-462-3917	5-29-07
ENGINEER	J. WAHLBORG	425-462-3977	
DRAWN BY	I. NAKANO	425-462-3975	
CHECKED BY	D. HONG	425-462-3911	
APPROVED BY	SCHUENEMAN	425-462-3971	

ISSUED FOR CONSTRUCTION	BY	DATE
<input checked="" type="checkbox"/>	SE	2007-05-29

REVISIONS

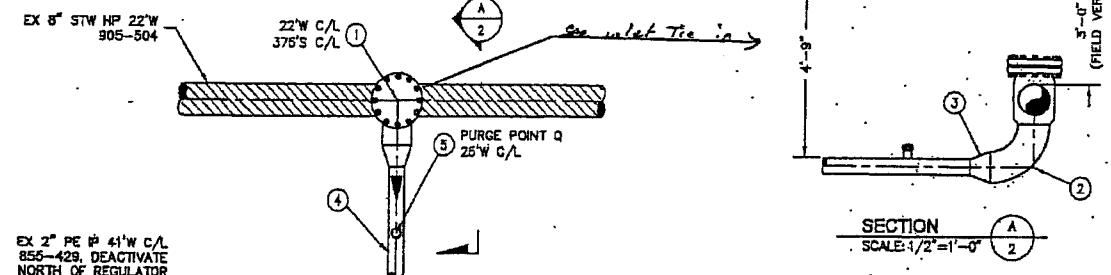
REV#	DESCRIPTION	BY	CHKR	CP	ENGR	PM	DATE
1							

PUGET SOUND ENERGY

RS-2723
E 72 ST & PORTLAND AVE E
TACOMA, WA

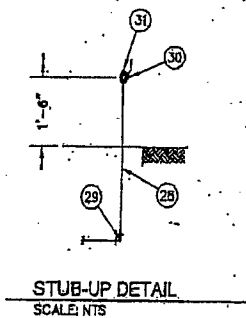
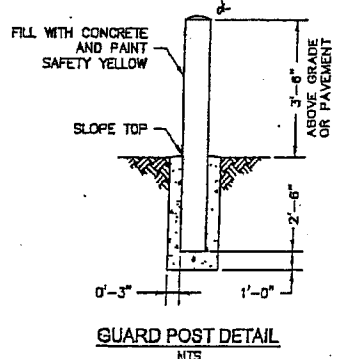
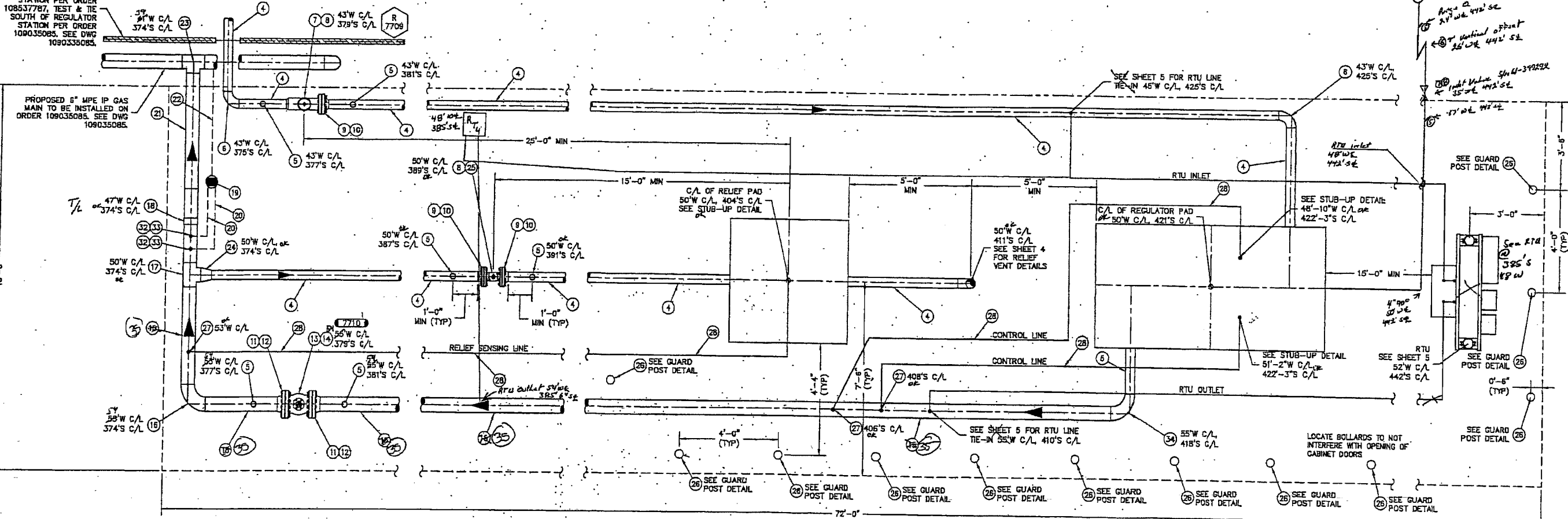
SAP ORDER NUMBER: 109031159
DWG NUMBER: 3D11-589
SCALE: AS-NOTED

SCALE 1/2" = 1'-0"



EX 2" PE IP 41' W C/L 855-429, DEACTIVATE NORTH OF REGULATOR STATION PER ORDER 108537787, TEST & TIE SOUTH OF REGULATOR STATION PER ORDER 108035085. SEE DWG 1090338085.

PROPOSED 6" MPE IP GAS MAIN TO BE INSTALLED ON ORDER 109035085. SEE DWG 109035085.



FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION
COMPLETE ALL PIPE-TABLES AND GAS PRESSURE STAMPE
FIELD CHANGES RED-LINED ON AS-BUILT
MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK
ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT
NOTE BEGINNING OF MAIN, EDM & LINE OF MAIN LOCATIONS
SHOW ROPE LOCATIONS & CUL-DE-SAC RADIUS.

FOREMAN'S SIGNATURE: *[Signature]*
COMPANY: *P&E* DATE: *2-30-07*

GAS MAIN PRESSURE AND TESTING			
TEST TYPE	DATE	PRESSURE	TESTED BY
DATE ON	7/25/07	124.9	
DATE OFF	7/25/07	10:15	Bill Menden
TEST TYPE	DATE	PRESSURE	TESTED BY
DATE ON	7/25/07	142.5	
DATE OFF	7/26/07	14:00	Bill Menden
DESIGN	250	SYS MAOP	250

PROJECT MANAGER CONTACT INFO: CHARLENE KRAUT 425-418-7061 Cell Phone charlene.kraut@pse.com Email

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

FUNCTION	NAME	PHONE	DATE
PROJECT MGR	C. KRAUT	425-462-3917	7/24/07
ENGINEER	J. WAHLBORG	425-462-3977	
DRAWN BY	R. NAKANO	425-462-3975	
CHECKED BY	D. HONG	425-462-3911	
APPROVED BY	SCHUENEMAN	425-462-3971	

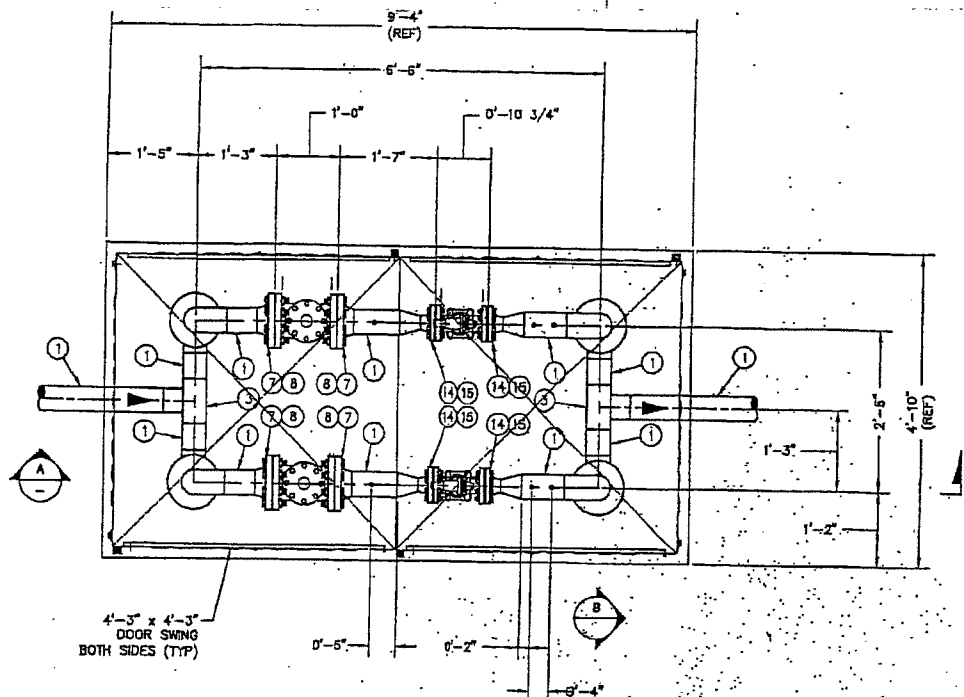
UTILITY CONTACT PHONE

REV	DESCRIPTION	BY	CHKD	CP	ENG	PM	DATE
1	ISSUED FOR CONSTRUCTION						2/28/07

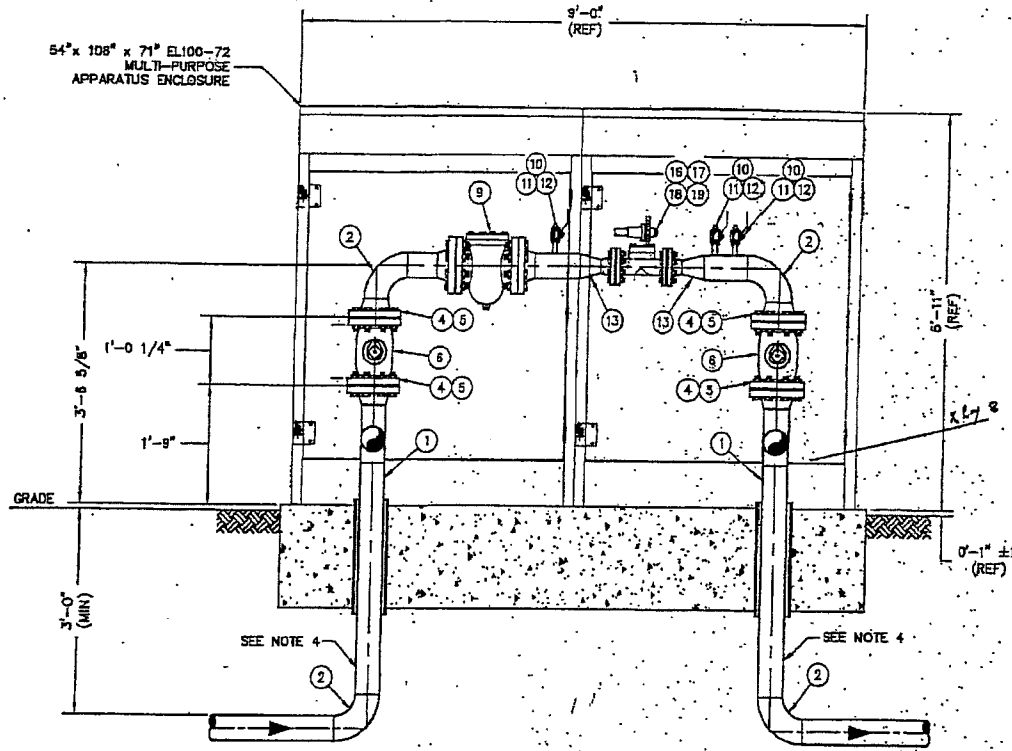
PSE PUGET SOUND ENERGY

RS-2723
E 72 ST & PORTLAND AVE E
TACOMA, WA

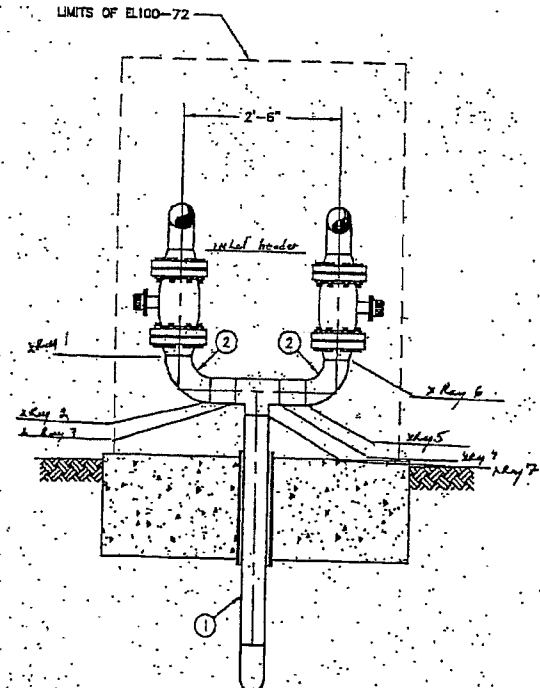
SAP ORDER NUMBER 109031159
DWG NUMBER 3D11-589
SCALE: 1/2" = 1'-0"



1ST STAGE PLAN VIEW
SCALE: 3/4" = 1'-0"



SECTION A-A
SCALE: 3/4" = 1'-0"



SECTION C-C
SCALE: 3/4" = 1'-0"

CONSTRUCTION NOTES:

1. ALL UNDERGROUND CONNECTION PIPING TO BE WRAPPED PER GAS OPERATING STANDARD 2800.1100 TO THE FIRST FITTING.
2. DO NOT PRE-FABRICATE THE INLET OR OUTLET PIPING. PLEASE CONTACT PROJECT MANAGER. PIPING SLOPE WILL VARY PER SITE GRADE.
3. REFER TO STANDARD DRAWING ST3D3-180 FOR DETAILS ON CABINET AND FOUNDATION INSTALLATION.
4. COAT VERTICAL STEEL RISER PIPES AND SENSE LINES WITH BRUSH APPLIED POWERCRETE R60. FOLLOW ALL MANUFACTURER'S DIRECTIONS FOR SURFACE PREPARATION AND CURE TIME.
5. REFER TO PROJECT SPECIFIC DRAWINGS FOR CONTROL LINE INSTALLATION AND MATERIALS.

PRESSURE CONTROL NOTES:

1. PRESSURE CONTROL TO SET THE WORKING PILOT LOCKUP PRESSURE AT 5Z PSIG.

ITEM	QTY	DESCRIPTION	PART NO
19	3/2	FILTER, 1/4", FISHER P584-1	6200378
18	2	RESTRICTOR, MOONEY TYPE 24S	7400372
17	2	PILOT, 1/4", FISHER ZSC-100, 71411POT2 MAINSPRING	7400146
16	2	REGULATOR, 2" X ANSI 300, MOONEY FG-30, W/ 75% CAPACITY, STD MAINSPRING, 75 DURO	7400370
15	4	BOLT KIT, 2" 30FFSV(X)	6000222
14	4	FLANGE, 2" X ANSI 300, RF, WN	9998442
13	4	REDUCER, 4" X 2", 0.237" X 0.154", WPR	7200502
12	6	PLUG, THD, 3/4" X CLASS 8000, THD	7200024
11	6	VALVE, BALL, 3/4" X 2000 PSIG, THD	9998141
10	6	NIPPLE, 3/4" X 3" X 0.154", GR. B, SCH 80	9998424
9	2	STRAINER, 4" X ANSI 300, MUELLER FIG 186	9998535
8	2	BOLT KIT, 4" 30SRX	5000055
7	4	FLANGE, 4" X ANSI 300, FF, WN	6400360
6	4	VALVE, BALL, 4" X ANSI 300, FLG	9998111
5	8	BOLT KIT, 4" 30FFSV(X)	5000050
4	8	FLANGE, 4" X ANSI 300, RF, WN	9998444
3	2	TEE, 4" X 0.237", WPB, WLD	7800412
2	10	ELBOW, 4" X 90° X 0.237", WPB, WLD, LR	6000687
1	45	PIPE, 4" X 0.237", X42, WELD, BARE	9996124

BILL OF MATERIALS

BILL OF MATERIAL ASSOCIATED SOLELY WITH THIS SHEET OF THE DRAWING

CALL (800) 4M-8866
2 BUSINESS DAYS BEFORE YOU DIG
THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

REAL ESTATE/EASEMENT REQUIRED	PERMIT CITY OF TACOMA
FUNCTION NAME	PHONE DATE
PROJECT MGR. CKRAUT	425-482-3917 05-29-07
ENGINEER. JWAHLBORG	425-462-3977
DRAWN BY. RJAKANO	425-462-3975
CHECKED BY. J.HONG	425-462-3911
APPROVED BY. SCHUENEMAN	425-462-3971

REVISION	DATE	DESCRIPTION
1	05/29/07	ISSUED FOR CONSTRUCTION

STANDARD DRAWING ST3D3-104

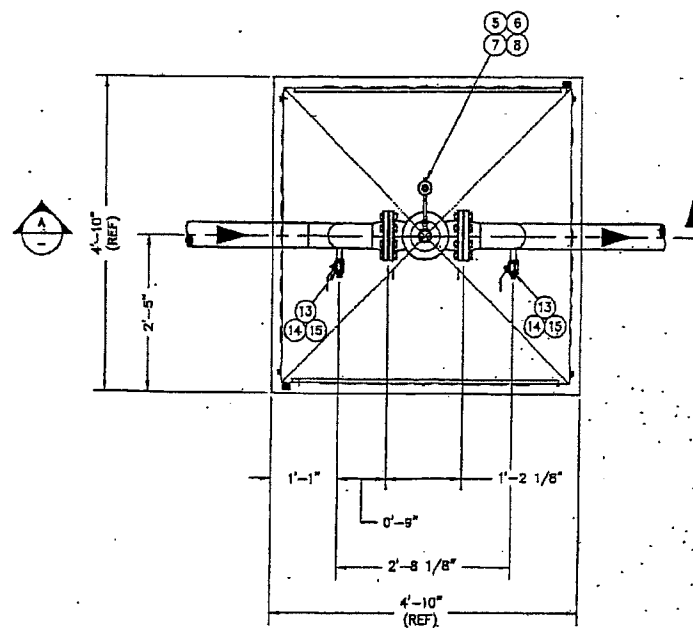
UTILITY CONTACT PHONE

PSE PUGET SOUND ENERGY

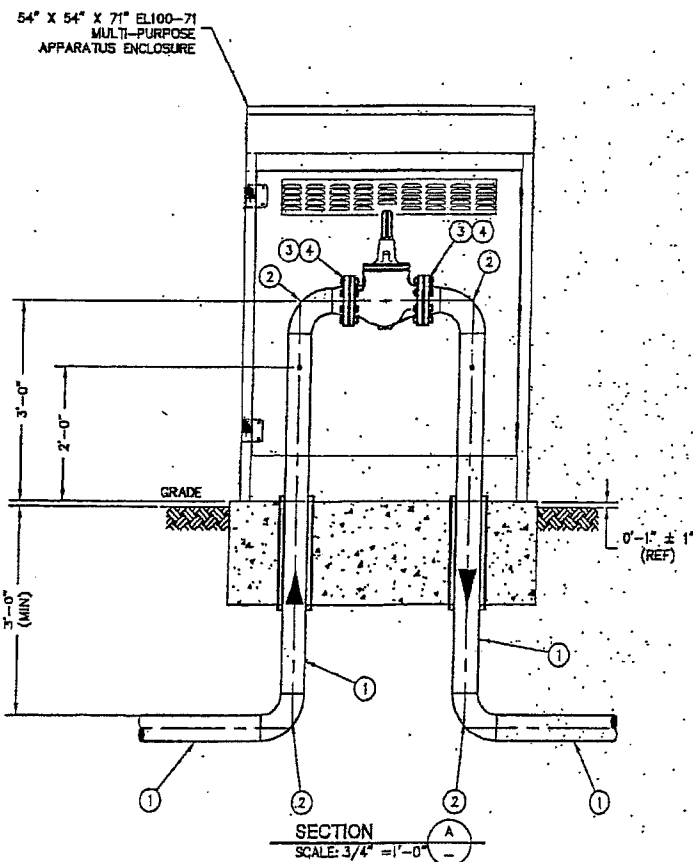
RS-2723
E 72 ST & PORTLAND AVE E
TACOMA, WA

SAP ORDER NUMBER 109031159
DWG NUMBER 3D11-589
SCALE: 3/4" = 1'-0"

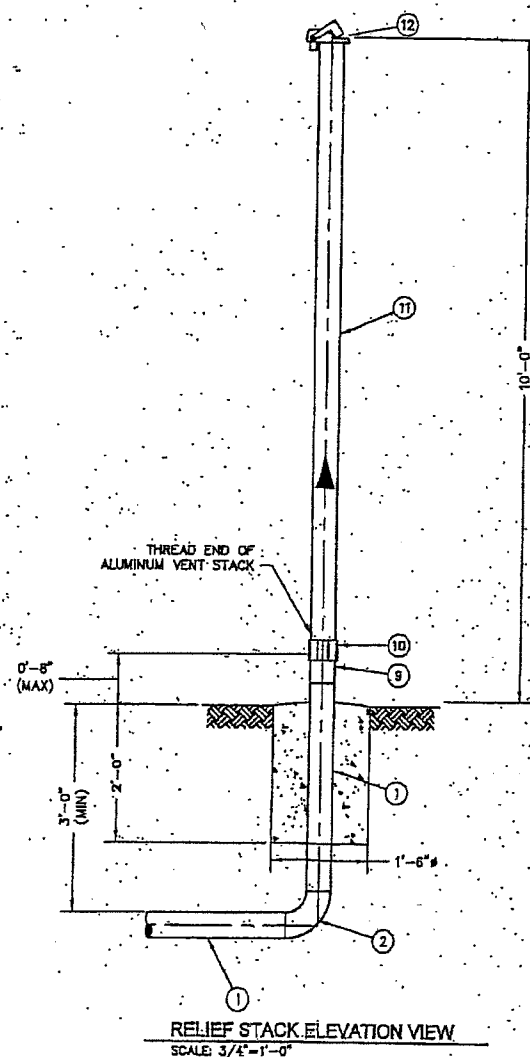
L:\Gas\Reps\2500-2899\2723_RN\3d11-589_03.dwg -503-ROO - Plotted By: satrom 05/24/07 04:07PM



RELIEF PLAN VIEW
SCALE 3/4" = 1'-0"



SECTION
SCALE: 3/4" = 1'-0"



RELIEF STACK ELEVATION VIEW
SCALE: 3/4" = 1'-0"

CONSTRUCTION NOTES:

1. ALL UNDERGROUND CONNECTION PIPING TO BE WRAPPED PER GAS OPERATING STANDARD 2600.1100 TO THE FIRST FITTING.
2. DO NOT PRE-FABRICATE THE INLET OR OUTLET PIPING. PLEASE CONTACT PROJECT MANAGER. PIPING SLOPE WILL VARY PER SITE GRADE.
3. REFER TO STANDARD DRAWING ST3D3-181 FOR DETAILS ON CABINET AND FOUNDATION INSTALLATION.
4. COAT VERTICAL STEEL RISER PIPES AND SENSE LINES WITH BRUSH APPLIED POWERCRETE R60. FOLLOW ALL MANUFACTURER'S DIRECTIONS FOR SURFACE PREPARATION AND CURE TIME.
5. LOCATION OF RELIEF STACK TO BE SHOWN ON CONSTRUCTION DRAWINGS. A MINIMUM OF 5'-0" TO BE MAINTAINED FROM THE EDGE OF RELIEF FOUNDATION AND C/L OF STACK.
6. CONCRETE SUPPORT FOR RELIEF STACK IS TO BE 1'-6" DIAMETER, EXTEND 2'-0" MINIMUM BELOW GRADE AND SLOPED AT THE TOP OF THE SURFACE AS TO ALLOW WATER TO DRAIN AWAY FROM PIPE.
7. INSTALL A DOWNSTREAM TAP FOR THE BLEEDLINE IF THERE IS NO OUTLET BODYTAP ON THE RELIEF VALVE.
8. REFER TO PROJECT SPECIFIC DRAWINGS FOR CONTROL LINE INSTALLATION AND MATERIALS.

PRESSURE CONTROL NOTES:

1. PRESSURE CONTROL TO SET THE RELIEF VALVE AT 62 PSIG.

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
PO = NON STOCK ITEM
CR = CONTRACTOR WILL PROVIDE ITEM

ITEM	QTY	DESCRIPTION	PART NO
15	2	PLUG, 3/4" X GLASS 8000, THD	7200024
14	2	VALVE BALL, 3/4" X 2000PSIG, THD	8996141
13	2	NIPPLE, 3/4" X 3" X 0.154", GR B, SCH80, THD	8996424
12	1	CAP, 4" EG WEATHER	5200708
11	10'	PIPE, 4" X 0.237", ALUMINUM	5700900
10	1	COUPLING, 4" PVC SCH 80	5800820
9	1	NIPPLE, 4" X 12" X 0.377", GR-B, THD	8995983
8	1	RESTRICTOR, 1/4" MOONEY TYPE 24	7400372
7	1	FILTER, 1/4" FISHER P584-1	5200376
6	1	PLDT, 1/4" MOONEY SERIES 20, BLUE(25-90 PSIG)	7400371
5	1	REGULATOR, 4" X ANSI 150, FISHER E2R, 17667 SLEEVE	8996624
		100 CAPACITY CAGE, YELLOW MAINSPRING	
4	2	BOLT KIT 4" 18FFSVX	5000042
3	2	FLANGE, 4" X ANSI 150, WN, RF	8996834
2	5	ELL, 4" X 90° X 0.237", YSZ, WELD LR	8996779
1	20±	PIPE, 4" X 0.237", X42, WELD, BARE	7000435

BILL OF MATERIALS

BILL OF MATERIAL ASSOCIATED SOLELY WITH THIS SHEET OF THE DRAWING

CALL (800) 424-6656
2 BUSINESS DAYS BEFORE YOU DIG
THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

REV #	DATE	BY	DESCRIPTION	CHECKED BY	DATE
3			N/A		
2			N/A		
1			N/A		
1			N/A		

FUNCTION	NAME	PHONE	DATE
PROJECT MGR	C. KRAUT	425-462-3917	5-29-07
ENGINEER	L. WAHLBORG	425-462-3977	
DRAWN BY	R. NAKANO	425-462-3975	
CHECKED BY	D. HONG	425-462-3911	
APPROVED BY	SCHUENEMAN	425-462-3971	

COUNTY	EMER SECTION	GAS WK CTR	APPROVED BY
PERCE	41	PGRPC011	CP APP
1/4 SECTION	OP MAP	248.062	PLAT MAP
SE 27-20-03	248.062	248.063	MAPPING

REV	DESCRIPTION	BY	CHKD	DATE

ISSUED FOR CONSTRUCTION
STANDARD DRAWING ST3D3-162

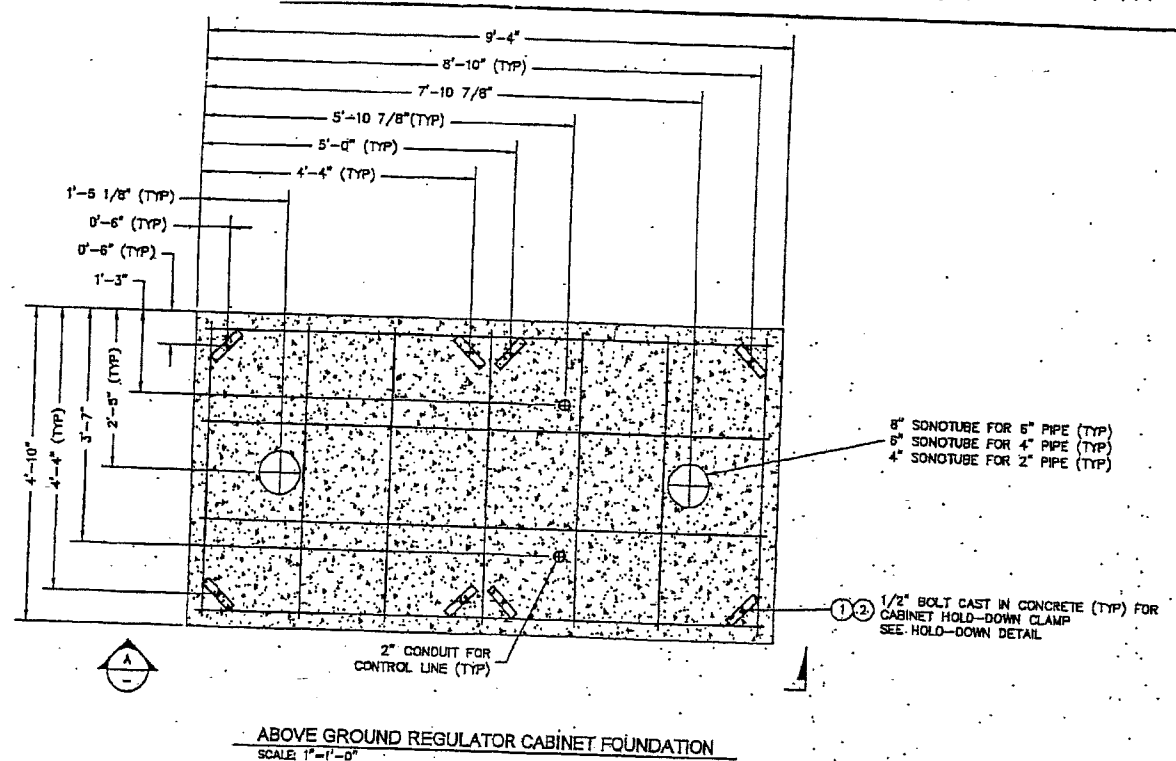
UTILITY CONTACT PHONE

PSE PUGET SOUND ENERGY

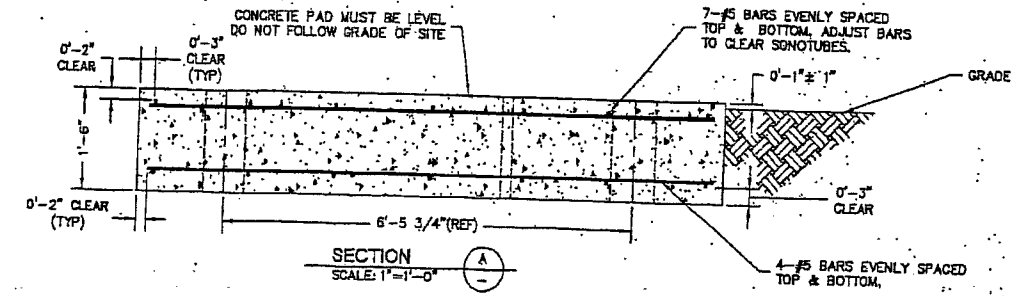
RS-2723
E 72 ST & PORTLAND AVE E
TACOMA, WA

SAP ORDER NUMBER
109031159
DWG NUMBER
3D11-589
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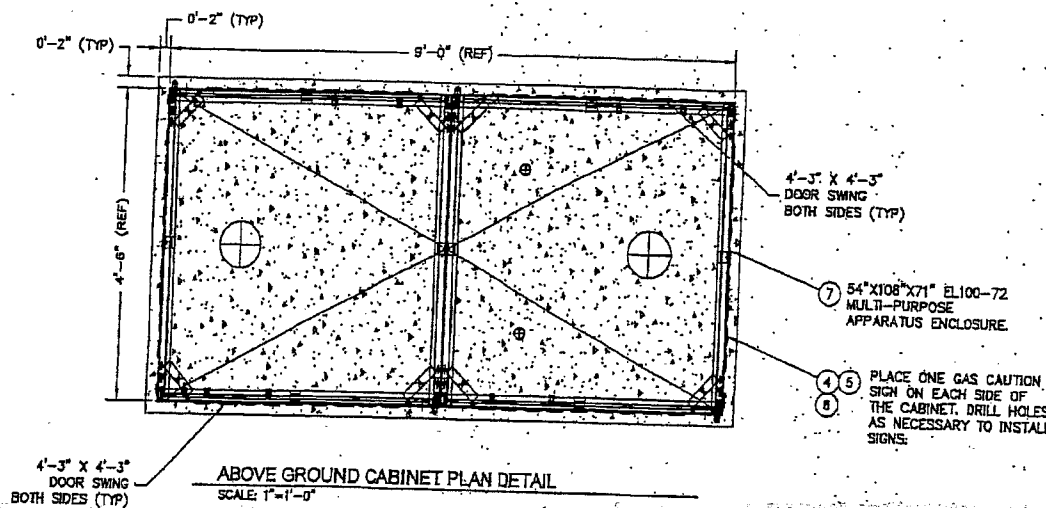
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ABOVE GROUND REGULATOR CABINET FOUNDATION
SCALE: 1"=1'-0"



SECTION A-A
SCALE: 1"=1'-0"



ABOVE GROUND CABINET PLAN DETAIL
SCALE: 1"=1'-0"

CONSTRUCTION NOTES FOR CONCRETE PAD:

- CONSTRUCT A 4'-10" X 9'-4" X 1'-6" CONCRETE PAD FOR SUPPORT OF METAL CABINET.
- CONCRETE PAD MUST BE LEVEL. DO NOT FOLLOW GRADE OF SITE.
- THE CABINETS MAY BE PLACED ON THE FOUNDATION 96 HOURS AFTER THE CONCRETE IS POURED.
- DO NOT TIGHTEN THE ANCHOR BOLTS TO THE HOLD-DOWN BARS UNTIL THE FULL 28 DAY CURING PERIOD IS COMPLETE. FINGER TIGHT SHALL BE SUFFICIENT DURING THE CURING PERIOD.
- CONTACT PSE PROJECT ENGINEER WITH ANY QUESTIONS REGARDING THE INSTALLATION OF THE CONCRETE FOUNDATION.

INSTALLING CONCRETE

- SITE CONDITIONS**
- THE DEPTH OF FOUNDATION BELOW GRADE IS SHOWN ON THE PLANS AS A MINIMUM DIMENSION.
 - IN ALL CASES, THE FOUNDATION SHALL BE SET ON FIRM SOIL, AND THE EXCAVATION SHALL BE COMPLETELY DEWATERED, UNSUITABLE MATERIAL OR FROZEN SOIL SHALL BE REMOVED AND REPLACED WITH COMPACTED SELECT STRUCTURAL FILL OR CRUSHED ROCK.

FOUNDATION FORMS

- FORMS SHALL BE COATED WITH FORM OIL, BRACED TO PREVENT ANY MOTION DURING THE PLACING OF CONCRETE, AND SHALL BE AT THE CORRECT GRADE AND ORIENTATION SHOWN ON THE PLANS.
- THE ENTIRE DEPTH OF THE FOUNDATION SHALL BE FORMED UNLESS OTHERWISE SHOWN ON DRAWINGS.
- REMOVE FORMS AFTER CONCRETE HAS SET FOR A MINIMUM OF 24 HOURS.

ALUMINUM CONDUIT

- ALUMINUM MATERIAL OR CONDUIT CORRODES IN CONCRETE AND SHALL NOT BE USED.

MIXING AND PLACING

- CONCRETE SHALL BE MIXED AND PLACED IN ACCORDANCE WITH THE LATEST STANDARDS OF THE AMERICAN CONCRETE INSTITUTE, SPECIFICATION ACI 318, WHICH SHALL BE ADHERED TO IN ADDITION TO ANY LOCAL BUILDING CODES.
- CONCRETE SHALL BE PLACED WITHIN 1-1/2 HOURS AFTER THE INTRODUCTION OF THE MIXING WATER. ANY CONCRETE WHICH HAS BEGUN TO SET BEFORE PLACING SHALL BE REJECTED.

FINISH AND CURE

- CONCRETE SHALL BE EVENLY DISTRIBUTED ALONG THE FORM AND SHALL BE VIBRATED TO WORK THE CONCRETE INTO CORNERS OF THE FORM AND AROUND ALL STEEL. EXCESSIVE VIBRATION SHALL BE AVOIDED TO PREVENT SEGREGATION OF THE MATERIALS IN THE CONCRETE.
- THE FOUNDATION SHALL BE FINISHED WITH A WOOD SCREED AND TOOLED ALONG THE EDGES. AFTER THE INITIAL SET HAS OCCURRED, APPLY A LIGHT BROOM FINISH TO PROVIDE A NON-SLIP SURFACE.
- TO ENSURE THE STRENGTH OF THE CONCRETE IS DEVELOPED, COVER THE FOUNDATION WITH A MISCELLANEOUS SHEET, THIS PREVENTS MOISTURE FROM ESCAPING FROM THE SURFACE TOO RAPIDLY DURING THE CURING PROCESS.
- IF THERE IS ANY POSSIBILITY OF THE AMBIENT TEMPERATURE GOING BELOW THE FREEZING POINT WITHIN THREE DAYS AFTER PLACING THE CONCRETE, CONTACT THE PSE PROJECT ENGINEER.

INSTALLATION REQUIREMENTS FOR DEFORMED STEEL REINFORCING BARS

- ALL REINFORCING BARS USED FOR THIS APPLICATION SHALL CONFORM TO THE LATEST REVISION OF ASTM A-615 AND SHALL BE GRADE 60 UNLESS OTHERWISE SPECIFIED IN PSE STANDARDS OR DRAWINGS.
- FABRICATION TOLERANCES, BENDING, AND PLACEMENT OF REINFORCING BARS SHALL BE IN COMPLIANCE WITH THE LATEST REVISIONS OF ACI-318 AND THE CRS CODE OF STANDARD PRACTICE.
- REINFORCING BARS SHALL BE FREE FROM LOOSE MILL SCALE, FLAKING RUST, MUD, OIL, GREASE, OR PAINT AT THE TIME OF INSTALLATION.
- REINFORCING BARS SHALL BE SUPPORTED IN THE POSITION SHOWN ON THE DRAWING BY MEANS OF CONCRETE BLOCKS OR STEEL CHAIRS DESIGNED FOR THIS PURPOSE.
- REINFORCING BARS SHALL BE TIED WITH STEEL WIRE TO MAINTAIN THE SPACING AND CLEARANCE SHOWN ON PSE STANDARDS OR DRAWINGS.
- THERE SHALL BE NO WELDING OF REINFORCING BARS AT LAPS OR INTERSECTIONS UNLESS SPECIFIED ON PSE STANDARDS OR DRAWINGS.

STRUCTURAL CONCRETE

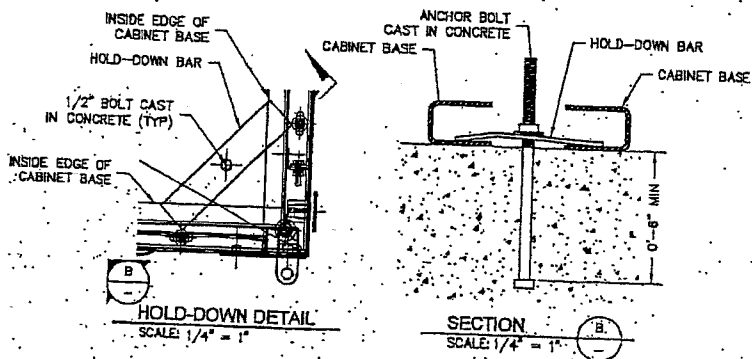
- MATERIAL**
- MINIMUM CEMENT CONTENT SHALL BE 517 LBS PER CU YD (5-1/2 BAGS PER CU YD).
 - MAXIMUM COARSE AGGREGATE SIZE SHALL BE 1-1/2" IN ACCORDANCE WITH ASTM-C33, SIZE NUMBER 4.
 - SLUMP SHALL BE 4"±1" AT THE POINT OF DELIVERY.
 - AN AIR-ENTRAINING ADMXTURE SHALL BE ADDED TO ALL MIXES TO PROVIDE AN AIR CONTENT OF 4±1% AND SHALL MEET OR EXCEED ASTM-C260. OTHER ADMXTURES ARE NOT ALLOWED.

TEST

- READY-MIXED CONCRETE SHALL CONFORM TO THE LATEST REVISION OF ASTM C94.
- REQUIRED MINIMUM COMPRESSIVE STRENGTH 3000 PSI AT 28 DAYS.
- OPTION C, SECTION 4 OF ASTM C94 AND THE REQUIREMENTS OF THIS SPECIFICATION SHALL BE THE BASIS OF DETERMINING THE PROPORTIONS OF THE CONCRETE TO PRODUCE THE REQUIRED QUALITY. THE READY-MIXED CONCRETE SUPPLIER ASSUMES RESPONSIBILITY FOR THE SELECTION OF THE PROPORTION FOR THE CONCRETE MIXTURE IN ACCORDANCE WITH THESE REQUIREMENTS.

INSTALLING ANCHOR BOLTS

- WELDING SHALL NOT BE PERMITTED ON ANCHOR BOLTS UNLESS SPECIFICALLY REQUIRED ON THE DESIGN DRAWING.
- ENLARGEMENT OF BASE PLATE ANCHOR BOLT HOLES OR BENDING OF THE ANCHOR BOLTS SHALL NOT BE PERMITTED.
- THE ENTIRE PORTION OF THE ANCHOR BOLT PROJECTING ABOVE THE SURFACE OF THE CONCRETE SHALL BE THREADED. ANCHOR BOLTS SHALL BE ACCURATELY LOCATED TO WITHIN 1/4" OF THEIR DESIGN LOCATIONS PRIOR TO THE PLACEMENT OF THE CONCRETE.
- TEMPLATES SHALL BE USED TO MAINTAIN BOLT LOCATIONS WITHIN 1/4" DURING CONCRETE PLACEMENT.
- BOLTS SHALL BE SECURED IN A VERTICAL POSITION BY NUTS ABOVE AND BELOW THE TEMPLATE.
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FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION
COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP
FIELD CHANGES RED-LINED ON AS-BUILT
MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK
ALL VALVE & TE-IN LOCATIONS NOTED ON AS-BUILT
NOTE BEGINNING OF MAIN, EDM & LINE OF MAIN LOCATIONS
SHOW ROPE LOCATIONS & CUL-DE-SAC RADII

FOREMAN'S SIGNATURE: *[Signature]*
COMPANY: PSE DATE: 7-20-02

THIS BILL OF MATERIALS APPLIES SOLELY TO THIS SHEET OF THE DRAWING

ITEM	QTY	DESCRIPTION	PART NO
9			
8			
7	1	54" X 108" X 71" MULTI-PURPOSE ENCLOSURE	9097088
6	16	HEX NUT 1/4-20, GR-A GALVANIZED	1482500
5	16	BOLT HEX HEAD 1/4" X 1" STEEL GALVANIZED	1325000
4	4	GAS CAUTION SIGN	3500805
3		NOT USED	
2	8	WASHER 1/2" FLAT ROUND GALVANIZED	1864600
1	8	BOLT 1/2" X 10" GALVANIZED WITH SQUARE NUTS	1238500

BILL OF MATERIALS

CALL (800) 424-8888
2 BUSINESS DAYS BEFORE YOU DIG
THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

FUNCTION	NAME	PHONE	DATE
PROJECT MGR	CKRAUT	425-462-3917	07-29-02
ENGINEER	L.WAHLBORG	425-462-3977	
DRAWN BY	R.NAKANO	425-462-3975	
CHECKED BY	D.HONG	425-462-3911	
APPROVED BY	CP APP		
	SCHUENEMAN	425-462-3971	

UTILITY CONTACT PHONE: _____

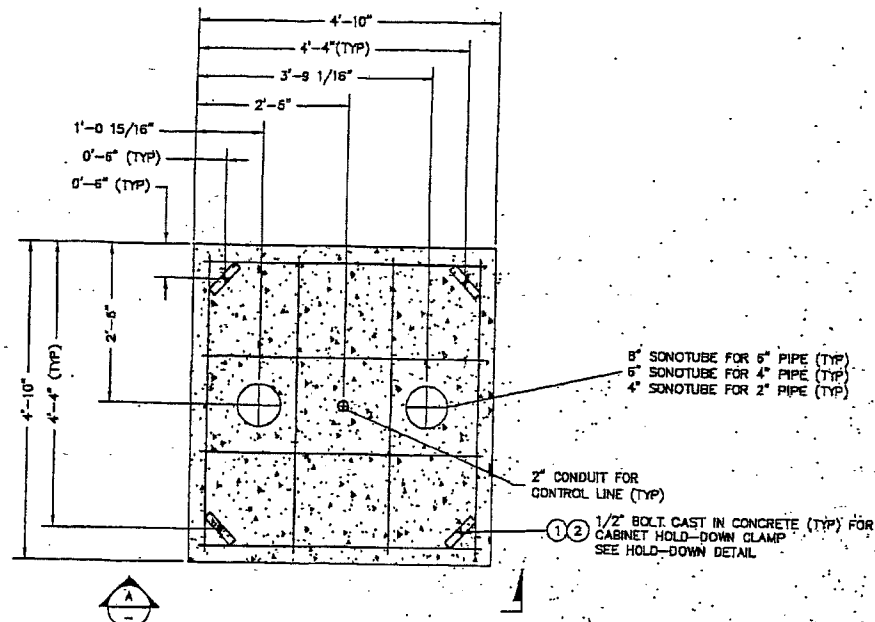
REV	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE
ISSUED FOR CONSTRUCTION		SF	DP				07-20-02

PSE PUGET SOUND ENERGY

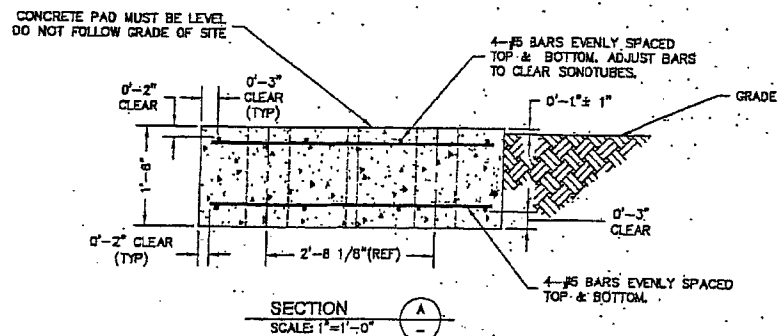
RS-2723
E 72 ST & PORTLAND AVE E
TACOMA, WA

SAP ORDER NUMBER: 109031159
DWC NUMBER: 3D11-589
REV: AS-NO101

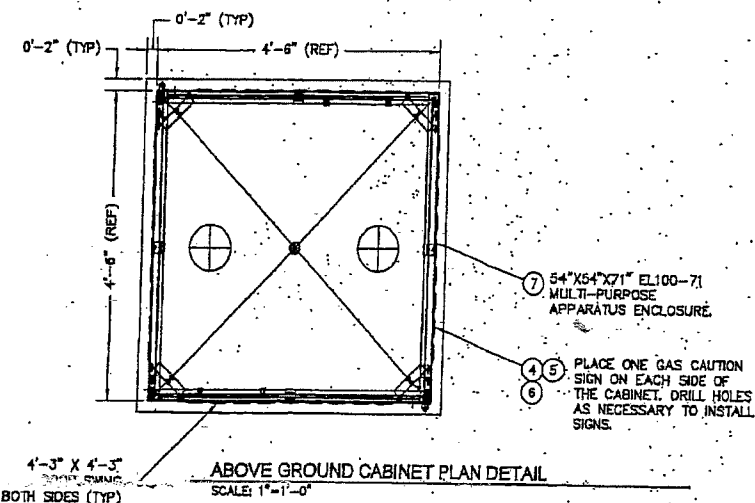
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ABOVE GROUND RELIEF CABINET FOUNDATION
SCALE: 1"=1'-0"



SECTION
SCALE: 1"=1'-0"



ABOVE GROUND CABINET PLAN DETAIL
SCALE: 1"=1'-0"

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- DO NOT TIGHTEN THE ANCHOR BOLTS TO THE HOLD-DOWN BARS UNTIL THE FULL 28 DAY CURING PERIOD IS COMPLETE. FINGER TIGHT SHALL BE SUFFICIENT DURING THE CURING PERIOD.
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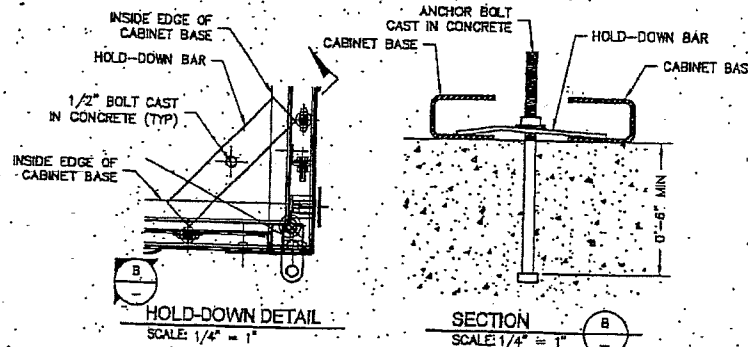
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HOLD-DOWN DETAIL
SCALE: 1/4" = 1"

SECTION
SCALE: 1/4" = 1"

THIS BILL OF MATERIALS APPLIES SOLELY TO THIS SHEET OF THE DRAWING

ITEM	QTY	DESCRIPTION	PART NO
9			
8			
7	1	54" X 54" X 71" MULTI-PURPOSE ENCLOSURE	9997087
6	18	HEX NUT 1/4"-20 GR-A GALVANIZED	1453500
5	18	BOLT HEX HEAD 1/4" X 1" STEEL GALVANIZED	1325000
4	4	GAS CAUTION SIGN	3500805
3		NOT USED	
2	8	WASHER 1/2" FLAT ROUND GALVANIZED	1964600
1	8	BOLT 1/2" X 10" GALVANIZED WITH SQUARE NUTS	1238500

BILL OF MATERIALS

FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION
COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP
FIELD CHANGES RED-LINED ON AS-BUILT
MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK
ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT
NOTE BEGINNING OF MAIN, EDM & LINE OF MAIN LOCATIONS
SHOW ROPE LOCATIONS & CUL-DE-SAC RADII

FOREMAN'S SIGNATURE: *[Signature]*
COMPANY: PCE DATE: 7-20-07

REV	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE
1	ISSUED FOR CONSTRUCTION	SF	[Signature]	[Signature]	[Signature]	[Signature]	2007.05.29

CALL (800) 424-8888
2 BUSINESS DAYS BEFORE YOU DIG
THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

REAL ESTATE/EASEMENT REQUIRED	PERMIT	CITY OF TACOMA
FUNCTION	NAME	PHONE DATE
PROJECT MGR	C. RAULT	425-462-3917 5-21-07
ENGINEER	J. WAHLBORG	425-462-3977
DRAWN BY	R. NAKANO	425-462-3976
CHECKED BY	D. HONG	425-462-3911
APPROVED BY	[Signature]	
CP APP	SCHUENEMAN	425-462-3971

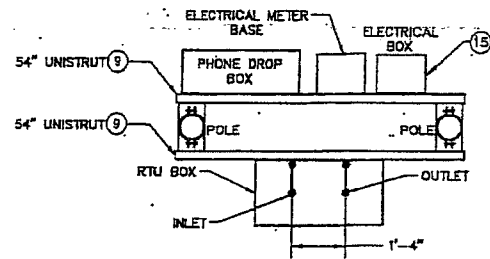
UTILITY CONTACT PHONE: _____

ISSUED FOR CONSTRUCTION

REVISIONS

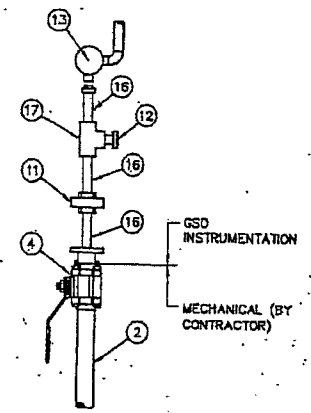
RS-2723
E 72 ST & PORTLAND AVE E
TACOMA, WA

SAP ORDER NUMBER
709031159
DWG NUMBER
3D11-589
SCALE: AS-NOTED

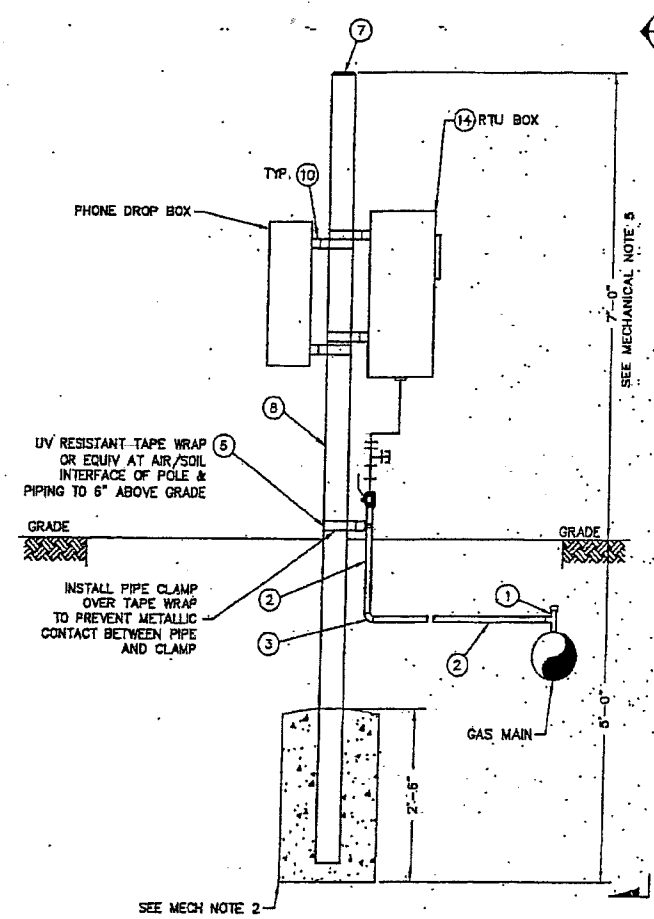


RTU PLAN VIEW
SCALE: 3/4" = 1'-0"

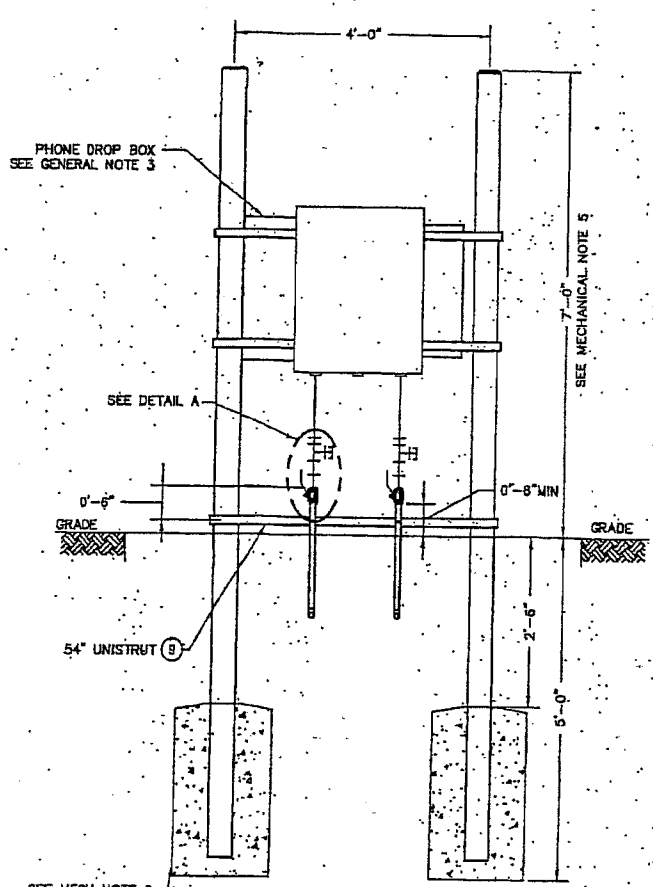
1. BOLLARDS REQUIRED. SEE SHEET 2/7 FOR INSTALLATION LOCATION AND CLEARANCES.



DETAIL
SCALE: NTS



RTU ELEVATION VIEW
SCALE: 3/4" = 1'-0"



SECTION
SCALE: 3/4" = 1'-0"

GENERAL NOTES:

- TEST ALL PIPING AND FITTINGS TO 375 MAOP OF INSTALLATION (INCLUDING ALL RISERS) IS 250 PSIG.
- THE RTU IS DESIGNED FOR (2) TWO PRESSURE TRANSDUCERS.
- QUANTITY FOR MATERIALS WITH (*) NEED TO MATCH THE NUMBER OF PRESSURE TRANSDUCER USED IN INSTALLATION OF RTU.
- ADDITIONAL MEASURING POINTS: AMBIENT TEMPERATURE.
- WHEN RTU IS INSIDE OF A FENCED AREA, A SEPARATE POLE MUST BE INSTALLED FOR THE PHONE BOX ON THE OUTSIDE OF THE FENCED OFF AREA. PHONE BOX POLE TO BE MOUNTED A MINIMUM OF 3'-0" FROM FENCE. PHONE BOX TO BE INSTALLED BY INSTRUMENTATION GROUP.
- ALL CONSTRUCTION TO CONFORM TO PSE STANDARDS & ALL CITY OR COUNTY REGULATIONS WHERE APPLICABLE.
- DO NOT TIE GAUGE LINE INTO CONTROL LINE, MAKE SEPARATE TAP INTO MAIN.
- CONFIGURATION TO BE USED ONLY WITH THE 8 POINT ANALOG INPUT WITH NON INTRINSICALLY SAFE RTU. REFER TO DRAWING D-13881 FOR THE WIRING DIAGRAM.

MECHANICAL NOTES:

- SCOPE - INSTALL MOUNTING POLE AND ITEMS 1 TO 8. TAP SERVICE TEES AFTER PSE TEST AND INSPECTION.
- WRAP ALL BURIED METAL PIPING PER PSE GAS OPERATING STANDARD 2600.1100.
- TYPICAL SUPPORT FOR POLE IS TO BE 1'-6" DIA, EXTEND 3" BELOW BOTTOM OF POLE, SLOPED AT THE TOP OF THE SURFACE AS TO ALLOW WATER TO DRAIN AWAY FROM POLE, & TO BE 2'-4" HIGH.
- REFER TO PSE GPP 4518.1330 FOR COATING THE STEEL POLE AND ABOVE GROUND PIPING.
- PROVIDE ELECTRICAL ISOLATION AT ABOVE GROUND CONNECTION TO INSTRUMENTATION.
- PSE ELECTRICAL ADMINISTRATOR TO DETERMINE POLE HEIGHT PER THE GOVERNING AUTHORITY. MAXIMUM POLE HEIGHT IS 20'.

COMMUNICATION & ELECTRICAL NOTES:
"FOR REFERENCE ONLY"

- SCOPE: WORK IS DONE BY INSTRUMENTATION AND COORDINATED BY PSE ELECTRICAL ADMINISTRATOR.
- CONDUIT TO BE SECURED TO POLE STRUCTURES AS REQUIRED PER ELECTRICAL CODE.
 - ELECTRICAL ADMINISTRATOR AND COMMUNICATION DEPARTMENT TO COORDINATE CONDUIT INSTALLATION WITH 73 ELECTRICAL CONTRACTOR AS REQUIRED.

DESIGN LOCATION NOTES:

- PREFERRED RTU LOCATION SHOULD:
 - MINIMIZE DISTANCE FROM PHONE AND POWER CONNECTIONS.
 - MINIMIZE GAUGE LINE LENGTH.
 - MINIMIZE RISK OF VEHICULAR DAMAGE.
- INSTALL PROTECTIVE BOLLARDS AS REQUIRED, SEE GOS 2525.3700. BOLLARDS SHOULD BE INSTALLED AT LEAST 3' FROM FRONT OF RTU TO ALLOW ADEQUATE WORKING SPACE. SPECIFIC BOLLARD PLACEMENT TO BE DETERMINED BY THE PROJECT ENGINEER OR GOVERNING AUTHORITY. IF RTU IS LOCATED INSIDE A STATION FENCE, NO TRAFFIC PROTECTION IS REQUIRED.
- INSTALL 15' FROM ANY ABOVE GROUND BLOWDOWNS, FLANGES, VALVES REGULATORS, RELIEFS OR RELIEF STACKS. WHERE ABOVE GROUND GAS EQUIPMENT CABINETS ARE USED, MEASURE 15' FROM THE EDGE OF THE CABINET.
- MOUNT THE RTU ON THE FIELD SIDE OF THE POLES AND MOUNT THE PHONE AND POWER BOXES ON STREET STREET, UNLESS OTHERWISE SHOWN ON DESIGN DRAWINGS OR REQUIRED BY INSTRUMENTATION!

SAP ORDER TREE:

- 109027289 - PUYALLUP IP UPRATE
- 109031159 - PROJECT SUBORDER FOR WORK AT 7200 PORTLAND AVE
- INSTALL RS-2723
- 109035870 - INSTALL RTU
- 109035857 - INSTALL RTU PIPING
- 109035085 - INSTALL 6" MPE IF MAIN
- 108537787 - RETIRE 2" PE MAIN

FITTER (CHECK BOX IF COMPLETE)

WORK AREA LEFT IN CLEAN & SAFE CONDITION

COMPLETE ALL PIPE TABLES AND GAS PRESSURE STAMP

FIELD CHANGES RED-LINED ON AS-BUILT

MATERIAL VERIFIED AND CHANGES NOTED ON PAPERWORK

ALL VALVE & TIE-IN LOCATIONS NOTED ON AS-BUILT

NOTE BEGINNING OF MAIN, EOM & LINE OF MAIN LOCATIONS

SHOW ROPE LOCATIONS & CUL-DE-SAC RADIUS

FOREMAN'S SIGNATURE: *[Signature]*

COMPANY: *[Signature]* DATE: *2-30-07*

INSTALLED BY PSE INSTRUMENTATION GROUP #109035870			
17	2	TEE 1/2" X 1/2" X 1/4" RED, 300 PSIG, BLACK	7800025
16	---	PIPE 1/2" STEEL THREADED AND COUPLED	7000037
15	1	ENCLOSURE, RLI/HOFFMAN DIELECTRIC	11005439
14	1	STANDARD RTU PANEL, 8 PT. A/I WITH NON-INTRINSICALLY SAFE WIRING	9996820
13	2	PRESSURE TRANSMITTER 14.5 - 290 PSIG	9996807
12	2	PLUG PETES 1/4"	7200010
11	2	UNION 1/2" SS X 3000# INSULATED	9996833
10	8	CONDUIT PIPE CLAMP 4"	7633400
9	20'	BACK TO BACK SH TYPE CHANNEL B22SHA	CR
INSTALLED BY PSE CONTRACTOR #109035857			
8	20'	PIPE 4" X 0.188" BARE, GRADE B	7000435
7	4	4" WELD PLUG	7200084
6	2	NIPPLE, 3/4" X 0.113", SCH 40 THRD X THRD	6800370
5	---	UV RESISTANT TAPE	CR
4	2	VALVE 3/4" BALL STAINLESS STEEL, 2000 PSIG	9996141
3	6	ELL, 90° 3/4" X 0.113" LR WPB	6000185
2	80'	PIPE 3/4" X 0.113" STW, X-TRU GRADE B	7000080
1	2	3/4" X 3/4" SERVICE TEE, H-17501	7800612
ITEM	QTY	DESCRIPTION	PART NO

BILL OF MATERIALS APPLIES SOLELY TO THIS SHEET OF THE DRAWING

PROJECT MANAGER CONTACT INFO:
CHARLENE KRAUT
425-418-7081 Cell Phone
CHARLENE.KRAUT@PSE.COM Email

CALL (800) 424-8888
2 BUSINESS DAYS BEFORE YOU DIG

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

FUNCTION	NAME	PHONE	DATE
PROJECT MGR	C. KRAUT	425-462-3917	5-29-07
ENGINEER	J. MAHLBORG	425-462-3977	
DRAWN BY	R. NAKANO	425-462-3975	
CHECKED BY	D. HONG	425-462-3911	
APPROVED BY	CP APP	SCHUENEMAN	425-462-3971

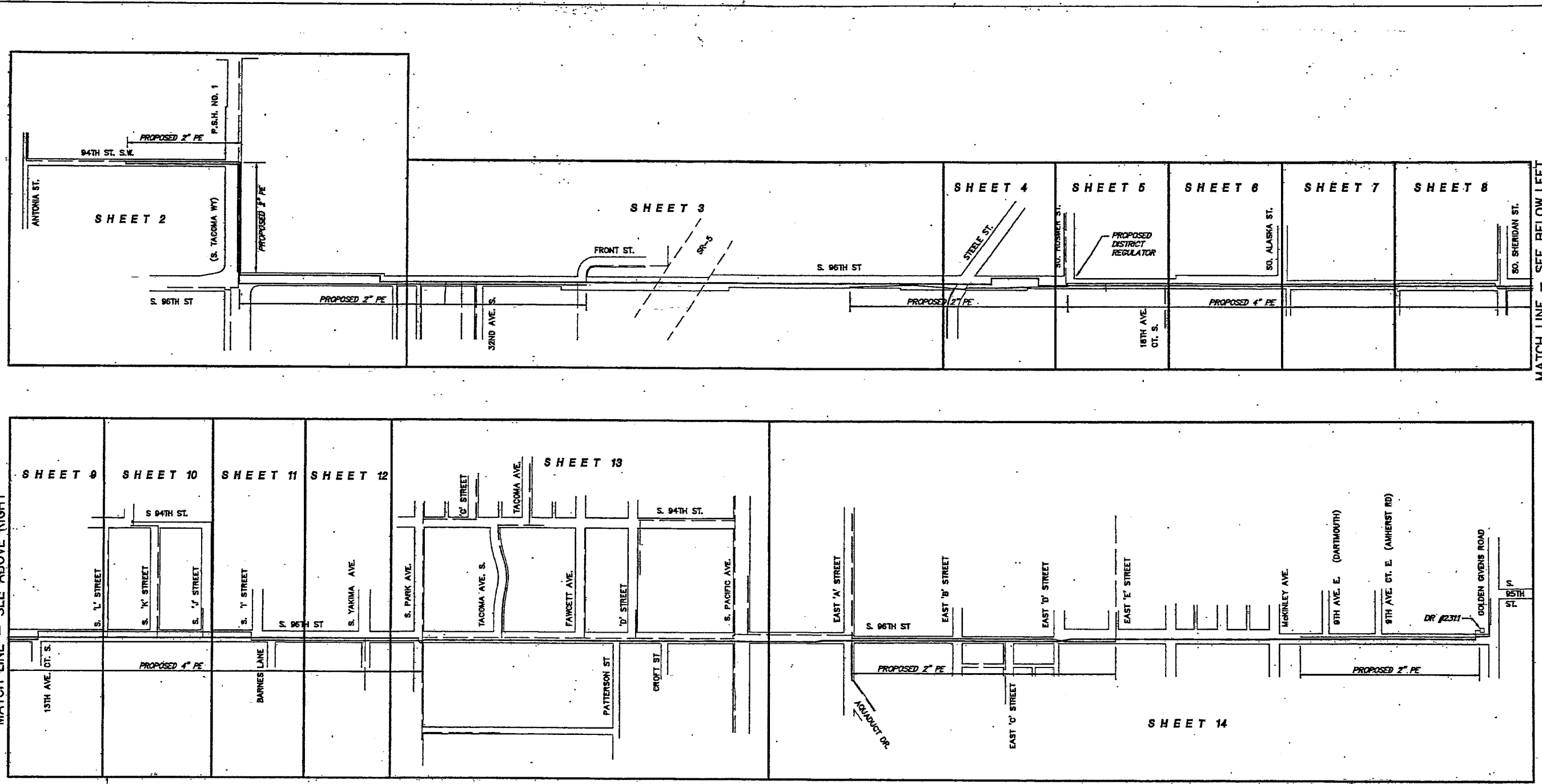
REV #	DATE	BY	DESCRIPTION
3			
2			
1			

UTILITY CONTACT PHONE

PSE PUGET SOUND ENERGY
RS-2723
E 72 ST & PORTLAND AVE E
TACOMA, WA

SAP ORDER NUMBER
109031159
DWG NUMBER
3D11-589
SCALE: 3/4" = 1'-0" 7/7

ISSUED FOR CONSTRUCTION	BY	DATE
REV	DESCRIPTION	DATE



MATCH LINE - SEE ABOVE RIGHT

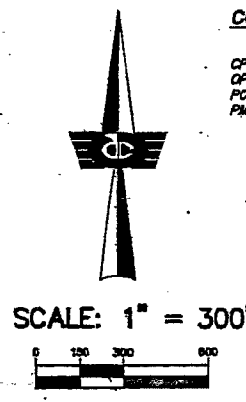
MATCH LINE - SEE BELOW LEFT

CONTACTS

	OFFICE	PAGER	CELL
CP TECH: DAVE BALL	253-476-6144	253-593-7442	253-307-5528
OP COORD: DON BAIN	206-314-2391	206-314-2391	206-406-5447
PC TECH: ESTELLE RATLIFF	253-476-6023	253-383-0458	253-307-5512
PM: BRENDA WAGNER	206-521-5392	253-305-9799	206-604-5796

NOTES

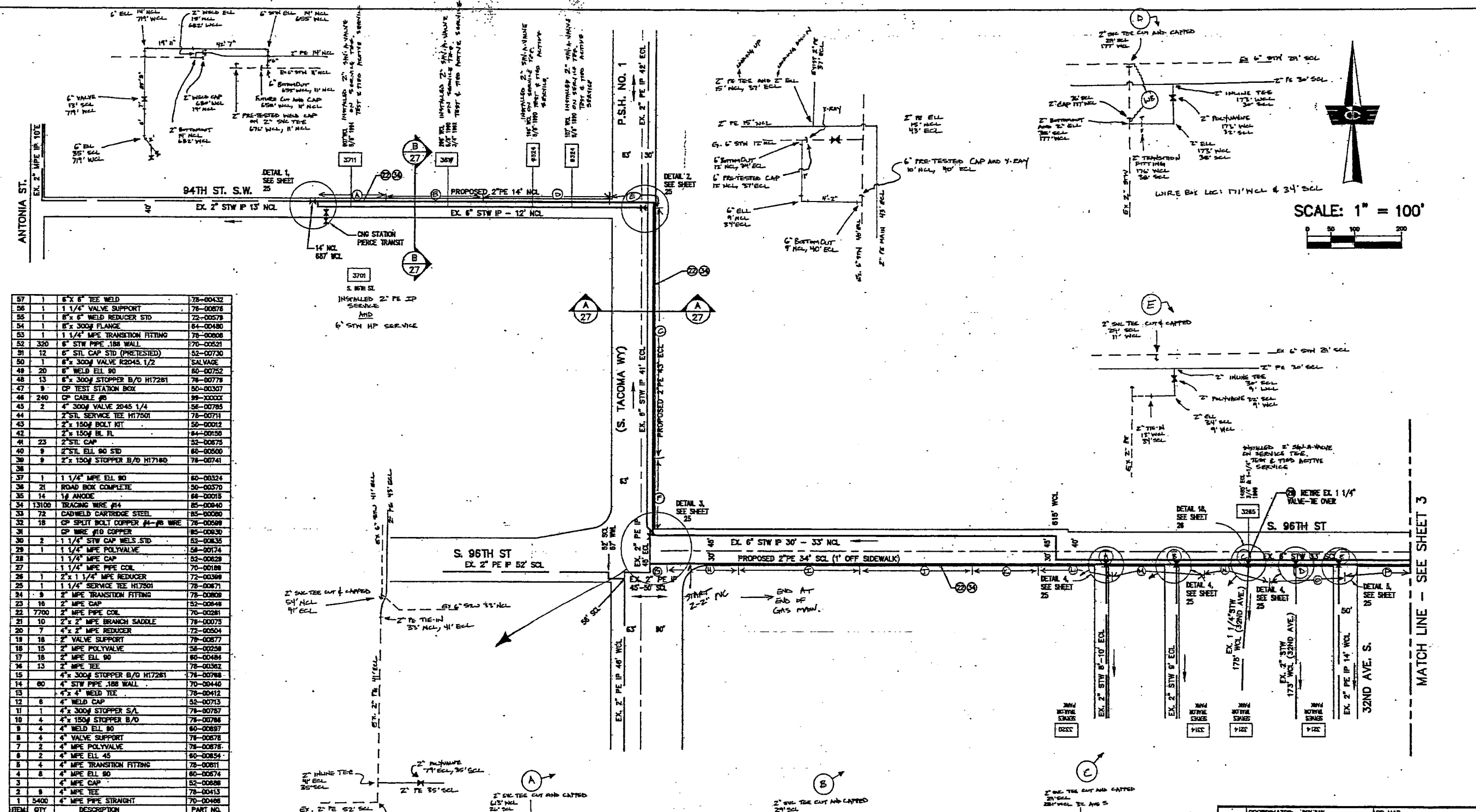
1. RETIRE BRANCH VALVES BY PINNING OFF AND CAPPING IF TEE IS AVAILABLE ON 6" STW MAIN - INSTALL STEEL CAP ON TEE. IF TEE IS A FISH MOUTH VALVE, THEN INSTALL BOTTOM OUTS AND RETIRE.
2. REMOVE TE-IN BETWEEN 6" AND 4" AT PARK AVE. AS PART OF PROCEDURE FOR PHASE 2.
3. REMOVE FEED FROM DISTRICT REGULATOR #2311 AS PART OF PROCEDURE FOR PHASE 2.
4. RECORD LOCATIONS ON ALL EXISTING GAS MAINS EXPOSED DURING CONSTRUCTION.
5. FIELD LOCATE ALL UTILITIES 48 HOURS PRIOR TO CONSTRUCTION AT 1-800-424-5533.
6. INSTALL ONE POUND ANODE FOR EVERY 1000' OF LOCATING WIRE - INSTALL ANODES AND TEST LEAD WIRES PER PSE STANDARDS. USE CATHODE PROTECTION. NO BRAZING.
7. CUT AND CAP ALL INACTIVE SERVICES AT MAIN AND INSTALL STEEL CAPS ON TEES.
8. INSTALL TEST LEAD WIRES ON ALL TRANSITION FITTINGS - COMPLETE "CATHODIC PROTECTION TEST STATION" REPORT. USE CATHODE PROTECTION. NO BRAZING.
9. ALL MAIN TE-IN'S SHALL BE GLUED AND MONITORED TO CHECK FEEDS.
10. COMPLETE "PIPE CONDITION REPORT" ON ALL EXPOSED EXISTING PSE FACILITIES.
11. CONTRACTOR TO BE RESPONSIBLE FOR ALL BACK-FILL COMPACTION AT PSE.
12. FINAL RESTORATION BY CONTRACTOR.
13. TIE OVER ALL ACTIVE SERVICES FROM 6" STW AND INSTALL PRE-TESTED STEEL CAP ON SERVICE TEES ON 6" STW.
14. DIG UP AND VERIFY ALL SERVICE CONNECTIONS ACTIVE, INACTIVE AND RETIRED.
15. ALL EXISTING STW MAINS TO BE BONDED WITH 6" STW HP FOR CATHODIC PROTECTION.



COORDINATOR: DON BAIN	OP MAP: 24030
PERCENT COMPLETE: 100%	PLAT: 29135
INSTALLATION/RETIREMENT: 1/4" SEC	WORK AREA: 30-20-2
SUBMARY: EMERGENCY SEC NO:	
1/4" MAIN SIZE MATERIAL: TOTAL FOOTAGE: 80 PSE	SYSTEM MAOP: 80 PSE
2" MPE: 80 PSE	PERMITS: TACOMA, LAKEWOOD
4" MPE: 80 PSE	PIERCE COUNTY
6" STW: 80 PSE	
 PIERCE TRANSIT 6" STW UPRATE - PHASE 1 SO. 96TH STREET, TACOMA	
DRAWN: DOUG ENGE	DATE: 3/25/98
CHECKED: <i>[Signature]</i>	DATE: 4/1/98
APPROVED: <i>[Signature]</i>	DATE: 4/1/98
JOB NO. 9705121	27



SCALE: 1" = 100'



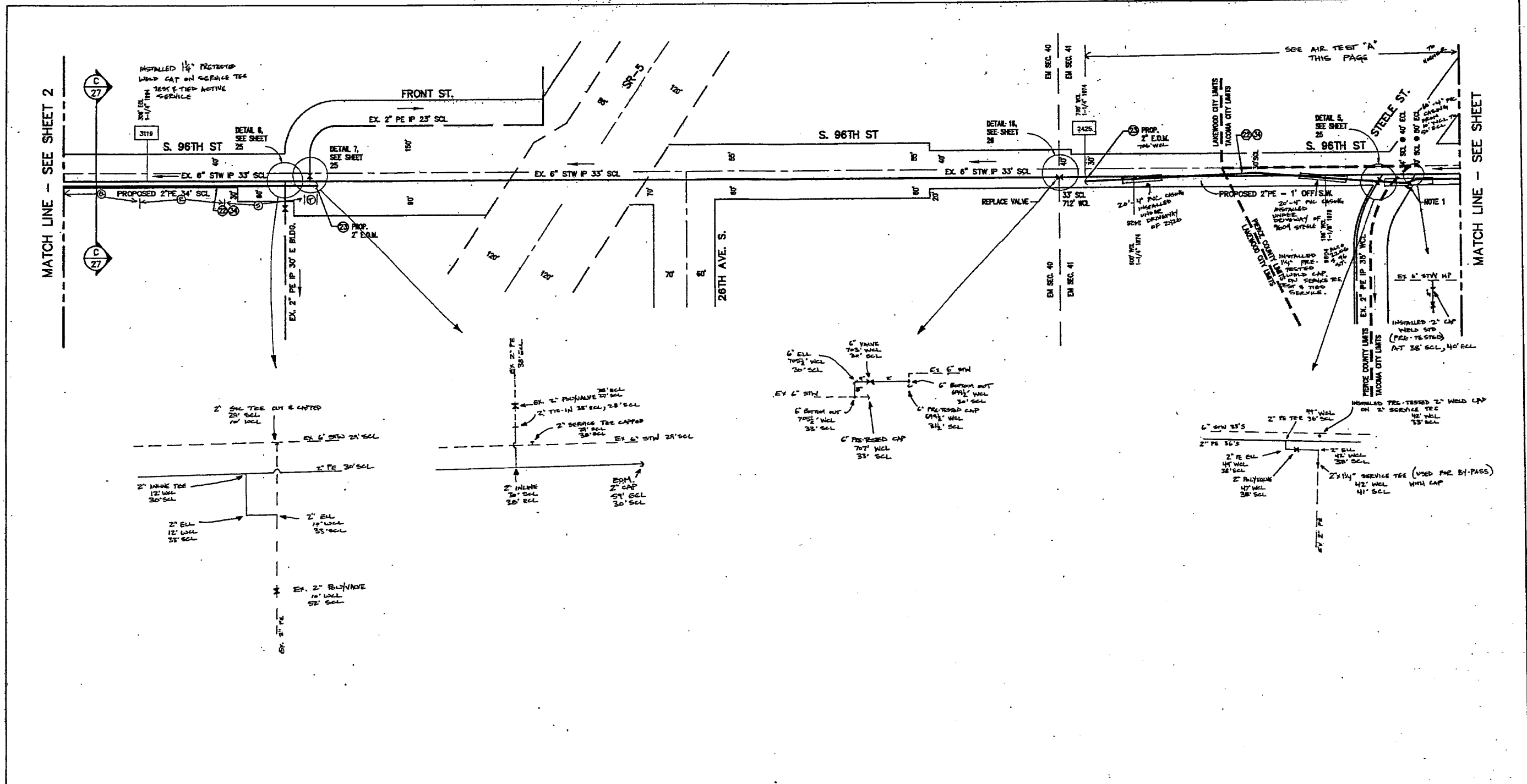
ITEM	QTY	DESCRIPTION	PART NO.
57	1	6" x 6" TEE WELD	78-00432
58	1	1 1/4" VALVE SUPPORT	78-00676
59	1	8" x 6" WELD REDUCER STD	72-00578
54	1	8" x 300# FLANGE	84-00480
53	1	1 1/4" MPE TRANSITION FITTING	78-00608
52	320	6" STW PIPE .188 WALL	70-00521
51	12	6" STL CAP STD (PRETESTED)	52-00730
50	1	8" x 300# VALVE R2045 1/2	SALVAGE
48	20	6" WELD ELL 90	80-00752
47	13	8" x 300# STOPPER B/D H17281	78-00778
46	9	CP TEST STATION BOX	80-00307
45	240	CP CABLE #8	85-00007
44	2	4" x 300# VALVE R2045 1/4	56-00788
43	2	2" STL SERVICE TEE H17501	78-00711
42	9	2" x 150# BOLT KIT	50-00012
41	23	2" STL CAP	52-00675
40	9	2" STL ELL 90 STD	80-00500
39	9	2" x 150# STOPPER B/D H17180	78-00741
38			
37	1	1 1/4" MPE ELL 90	80-00324
36	21	ROAD BOX COMPLETE	50-00370
35	14	1/4 ANODE	68-00018
34	13100	TRACING WIRE #14	85-00040
33	72	CADWELD CARTRIDGE STEEL	85-00080
32	18	CP SPLIT BOLT COPPER #14-#8 WIRE	78-00589
31	CP WIRE #10 COPPER	85-00630	
30	2	1 1/4" STW CAP WELDS STD	52-00635
29	1	1 1/4" MPE POLYVALVE	56-00174
28	1	1 1/4" MPE CAP	52-00628
27	1	1 1/4" MPE PIPE COIL	70-00188
26	1	2" x 1 1/4" MPE REDUCER	72-00388
25	1	1 1/4" SERVICE TEE H17501	78-00671
24	9	2" MPE TRANSITION FITTING	78-00809
23	18	2" MPE CAP	52-00648
22	7700	2" MPE PIPE COIL	70-00281
21	10	2" x 2" MPE BRANCH SADDLE	78-00075
20	7	4" x 2" MPE REDUCER	72-00504
19	18	2" VALVE SUPPORT	78-00677
18	15	2" MPE POLYVALVE	56-00258
17	18	2" MPE ELL 90	80-00484
16	13	2" MPE TEE	78-00362
15	4	4" x 300# STOPPER B/D H17281	78-00788
14	80	4" STW PIPE .188 WALL	70-00446
13	6	4" x 4" WELD TEE	78-00412
12	6	4" WELD CAP	52-00713
11	1	4" x 300# STOPPER S/L	78-00787
10	4	4" x 150# STOPPER B/D	78-00786
9	4	4" WELD ELL 90	80-00697
8	4	4" VALVE SUPPORT	78-00678
7	2	4" MPE POLYVALVE	78-00678
6	2	4" MPE ELL 45	80-00854
5	4	4" MPE TRANSITION FITTING	78-00611
4	8	4" MPE ELL 90	80-00674
3	8	4" MPE CAP	52-00888
2	8	4" MPE TEE	78-00413
1	5400	4" MPE PIPE STRAIGHT	70-00488

SEGMENT ID	TYPE OF TEST	TEST PRESSURE	LENGTH OF PIPE	DATE	TIME	DATE	TIME	TYPE OF PIPE	PIPE MANUFACTURER	TESTED BY
A	Air	95	130	6-26	4:00	6-29	2:00	Plexco	Plexco	J. Vogel
B		95	220	6-29	4:00	7-1	1:00			
C		95	465	7-1	4:00	7-2	2:00			
D		95	277	7-2	4:00	7-6	8:00			
E		95	105	7-7	2:00	7-7	2:00			
F		95	130	7-9	4:00	7-10	8:00			
G		95	40	7-13	4:00	7-14	8:00			
H		97	150	7-14	4:00	7-15	8:00			
I		95	258	7-15	4:00	7-16	8:00			
J		95	257	7-16	4:00	7-17	8:00			
K		96	157	7-17	4:00	7-20	8:00			
L		96	25	7-20	4:00	7-21	8:00			
M		96	260	7-22	4:00	7-23	8:00			
N		96	134	7-23	8:00	7-23	8:00			
O		95	168	7-28	4:00	7-29	8:00			
P		95	134	7-30	4:00	7-31	8:00			

COORDINATOR: DON DAN	OP MAP 28.00
PERCENT COMPLETE: 1/4 SEC 12-31-72	PLAT 28.00
INITIALS/DATE/REVISION	WORK AREA
SUMMARY	
1/4" MAIN SIZE MATERIAL	TOTAL FOOTAGE
DESIGN PRESSURE: 80 PSIG	EMERGENCY SEG NO:
SYSTEM MAP: 60 PSIG	PERMITS: TACOMA, LAKEWOOD
PERMITS: TACOMA, LAKEWOOD	PERCE COUNTY

PIERCE TRANSIT
6" STW UPGRADE - PHASE 1
SO. 96TH STREET, TACOMA

DRAWN: DEBBE ENGL	DATE: MARCH 85	JOB NO. 9705121
CHECKED: [Signature]	DATE: 3/22/85	DRAWING NO.
APPROVED: [Signature]	DATE: 4/14/85	9705121



MULTIPLE PRESSURE TEST INFORMATION FOR IP MAINS

SEQUENT ID	TYPE OF TEST	TEST PRESSURE	LENGTH OF PIPE	ON DATE	OFF DATE	TIME	TYPE OF PIPE	PIPE MANUFACTURER	TESTED BY
A	AIR	96 PSI	13.25'	6-10-93	3:40	6:15	PE HD	Flexco	Norpart
B									
C									
D									
E									
F									
G									
H									
I									
J									
K									
L									
M									
N									
O									



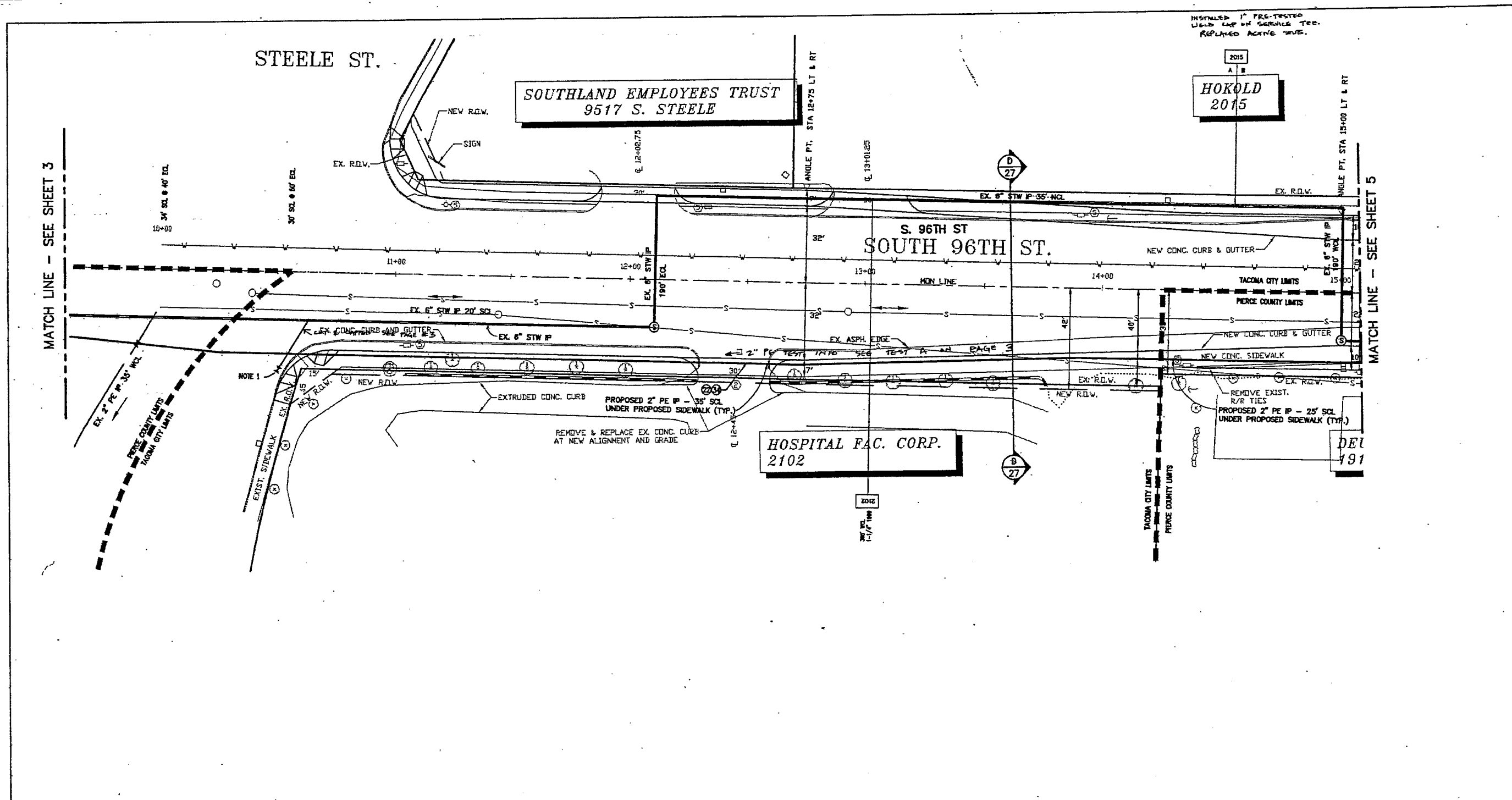
SCALE: 1" = 100'

COORDINATOR: BOB BAH	OP MAP 34830		
PERCENT COMPLETE:	PLAT 2835		
INSTALLATION/REPAIRMENT	1/4 SEC RE 38-20-2		
SUMMARY	WORK AREA		
1/2" MAIN SIZE	MATERIAL	TOTAL FOOTAGE	DESIGN PRESSURE: 80 PSI
2" MFC			SYSTEM MAOP: 80 PSI
4" MFC			PERMITS: TACOMA, LAKESIDE
6" STW			PIERCE COUNTY

PIERCE TRANSIT
 6" STW UPGRADE - PHASE 1
 SO. 96TH STREET, TACOMA

DRAWN: DOUG ENR	DATE: MARCH 93	JOB NO. 9705121
CHECKED: [Signature]	DATE: 3/25/93	DRAWING NO. 3
APPROVED: [Signature]	DATE: 4/14/93	9705121

NO.	DESCRIPTION	DATE BY APP'D



MATCH LINE - SEE SHEET 3

MATCH LINE - SEE SHEET 5

MULTIPLE PRESSURE TEST INFORMATION FOR PIPES										
SEGMENT ID	TYPE OF TEST	TEST PRESSURE	LENGTH OF PIPE	ON	OFF	DATE	TIME	TYPE OF PIPE	PIPE MANUFACTURER	TESTED BY
A										
B										
C										
D										
E										
F										
G										
H										
I										
J										
K										
L										
M										
N										
O										
P										
Q										
R										
S										
T										
U										
V										
W										
X										
Y										
Z										



NOTE:
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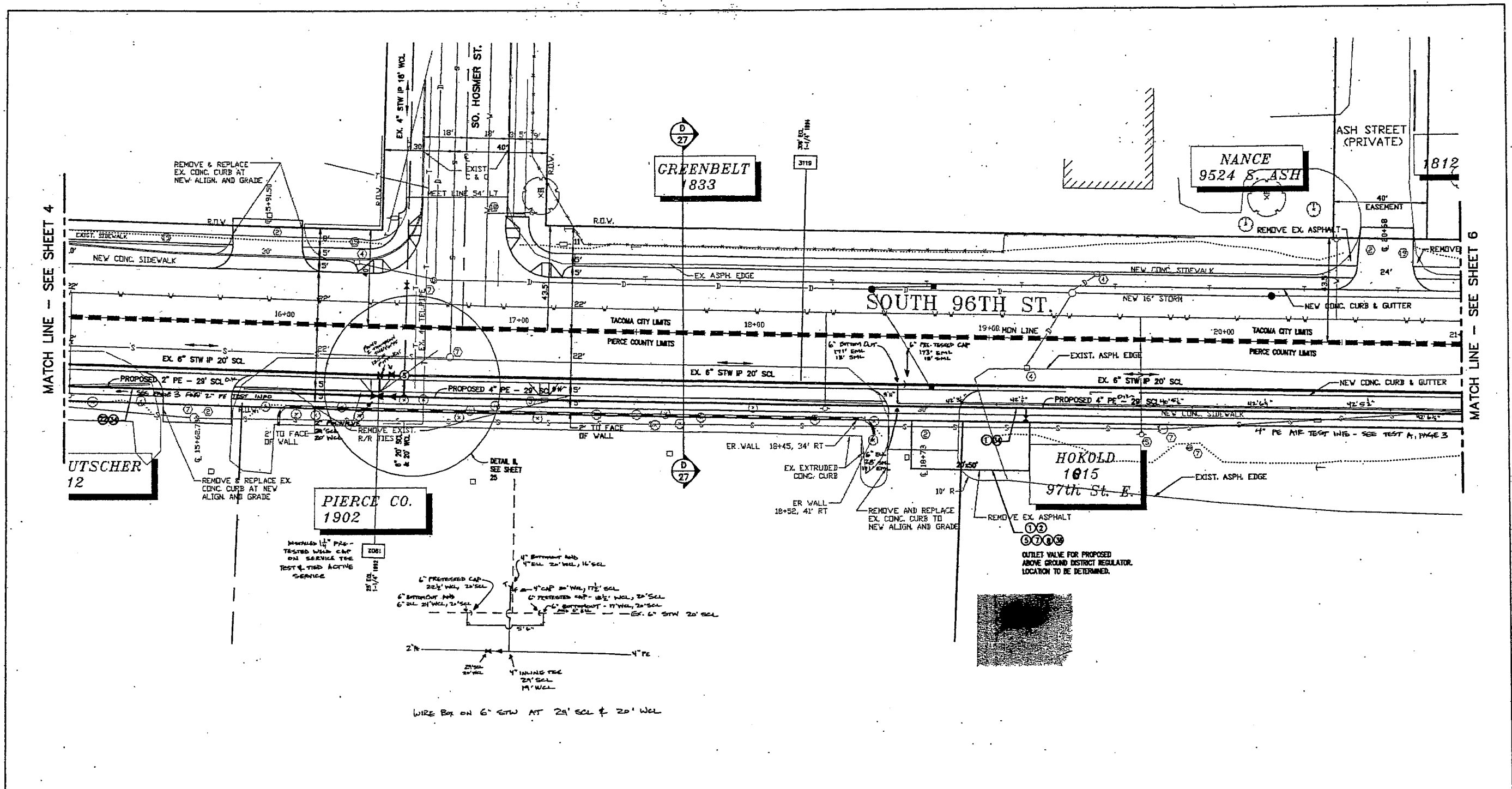
COORDINATOR: BOB BAH	OP MAP 248.28
PERCENT COMPLETE:	PLAT 281.58
INSTALLATION/RETIREMENT	1/4 SEC IF 36-36-2
SUMMARY	WORK AREA
EMERGENCY SEC NO.	
1/2\"/>	

PIERCE TRANSIT
6" STW UPRATE - PHASE 1
SO. 96TH STREET, TACOMA

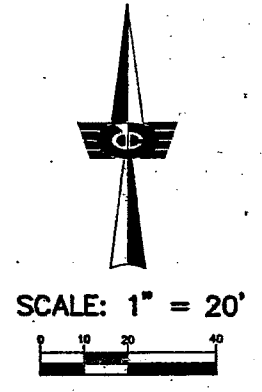
DATE: MARCH 98	JOB NO. 9705121
CHECKED: [Signature] DATE: 3/22/98	DRAWING NO. 4
APPROVED: [Signature] DATE: 4/14/98	9705121 27

MATCH LINE - SEE SHEET 4

MATCH LINE - SEE SHEET 6



MULTIPLE PRESSURE TEST INFORMATION FOR IP MAINS										
SEGMENT ID	TYPE OF TEST	TEST PRESSURE	LENGTH OF PIPE	DATE	TIME	DATE	TIME	TYPE OF PIPE	PIPE MANUFACTURER	TESTED BY
A										
B										
C										
D										
E										
F										
G										
H										
I										
J										
K										
L										
M										
N										
O										

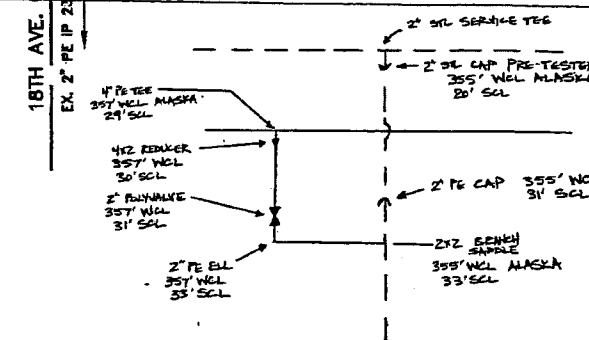
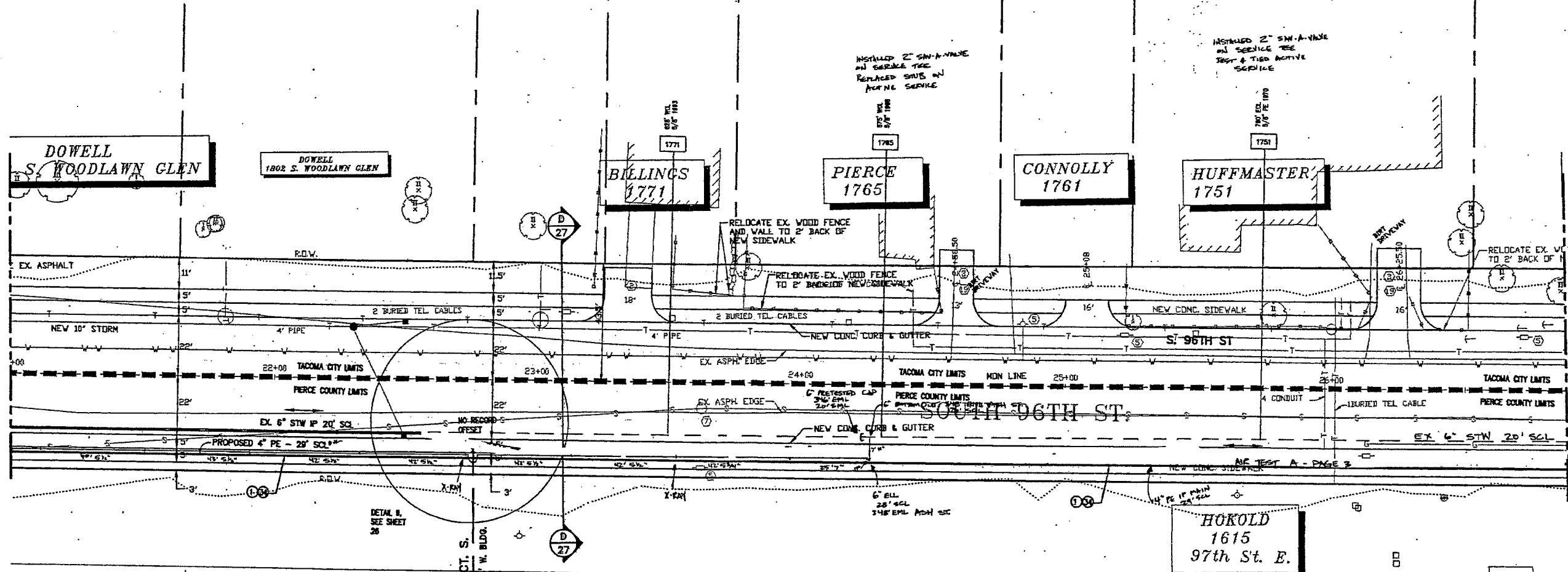


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COORDINATOR: BOB BAH	DATE: MARCH 88	JOB NO. 9705121
PLAT 25L55	DATE: 3/22/88	DRAWING NO. 5/27
PERCENT COMPLETE: 1/4 SEC BE 38-20-2	DATE: 4/14/88	
INSTALLATION/RETIREDMENT	DATE: 4/14/88	
SUMMARY	DATE: 4/14/88	
1/8" MAIN SIZE MATERIAL TOTAL FOOTAGE	DATE: 4/14/88	
2" PIPE	DATE: 4/14/88	
4" PIPE	DATE: 4/14/88	
6" STW	DATE: 4/14/88	
DESIGN PRESSURE: 80 PSIG	DATE: 4/14/88	
EMERGENCY SEC NO:	DATE: 4/14/88	
SYSTEM MAOP: 80 PSIG	DATE: 4/14/88	
PERMITS: TACOMA, LAKEWOOD	DATE: 4/14/88	
PIERCE COUNTY	DATE: 4/14/88	
 HILCHUCK CONTRACTORS, INC. PIERCE TRANSIT 6" STW UPRATE - PHASE I SO. 96TH STREET, TACOMA		
DRAWN: [Signature]	DATE: MARCH 88	JOB NO. 9705121
CHECKED: [Signature]	DATE: 3/22/88	DRAWING NO. 5/27
APPROVED: [Signature]	DATE: 4/14/88	9705121

MATCH LINE - SEE SHEET 5

MATCH LINE - SEE SHEET 7



NOTE:
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OF TACOMA

SEGMENT ID	TYPE OF TEST	MULTIPLE PRESSURE TEST INFORMATION FOR IP MAINS				TESTED BY
		TEST PRESSURE	LENGTH OF PIPE	DATE	TIME	
A						
B						
C						
D						
E						
F						
G						
H						
I						
J						
K						
L						
M						
N						
O						
P						
Q						



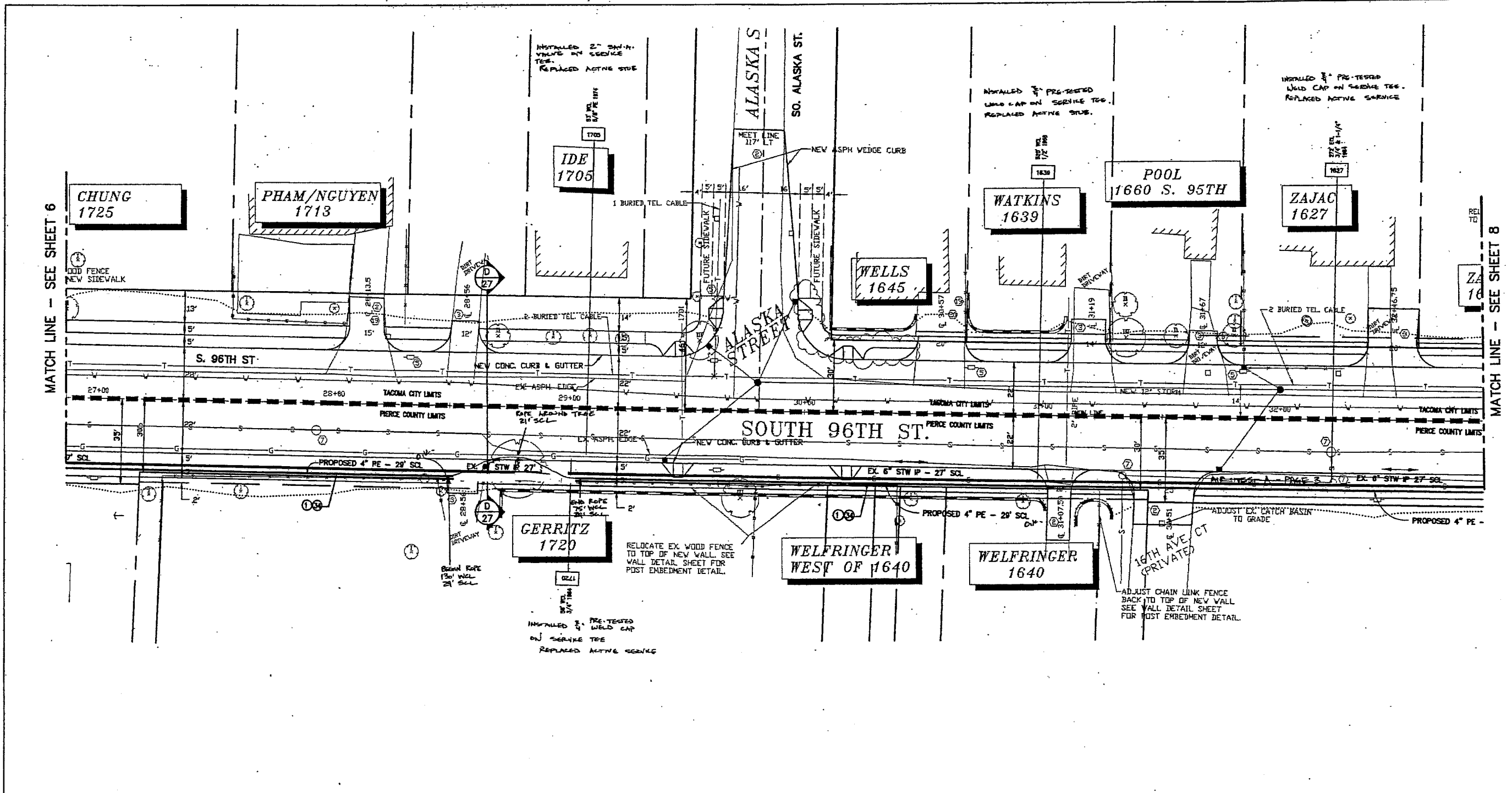
COORDINATOR: BOB BARR	OP MAP: 241.50
PERCENT COMPLETE:	PLAT: 251.51
INSTALLATION/RETIREMENT:	1/4 SEC. 30-20-1
SUMMARY:	WORK AREA:
EMERGENCY SEC. NO.:	
1/4\"/>	
DESIGN PRESSURE: 60 PSIG	
SYSTEM MAOP: 60 PSIG	
PERMITS: TACOMA, LAKEWOOD	
PIERCE COUNTY	

PIERCE TRANSIT
6\"/>

DRAWN: BOB ENGL	DATE: MARCH 98	JOB NO.:	8705121
CHECKED: [Signature]	DATE: 3/22/98	DRAWING NO.:	6
APPROVED: [Signature]	DATE: 1/14/98	JOB NO.:	8705121

MATCH LINE - SEE SHEET 6

MATCH LINE - SEE SHEET 8

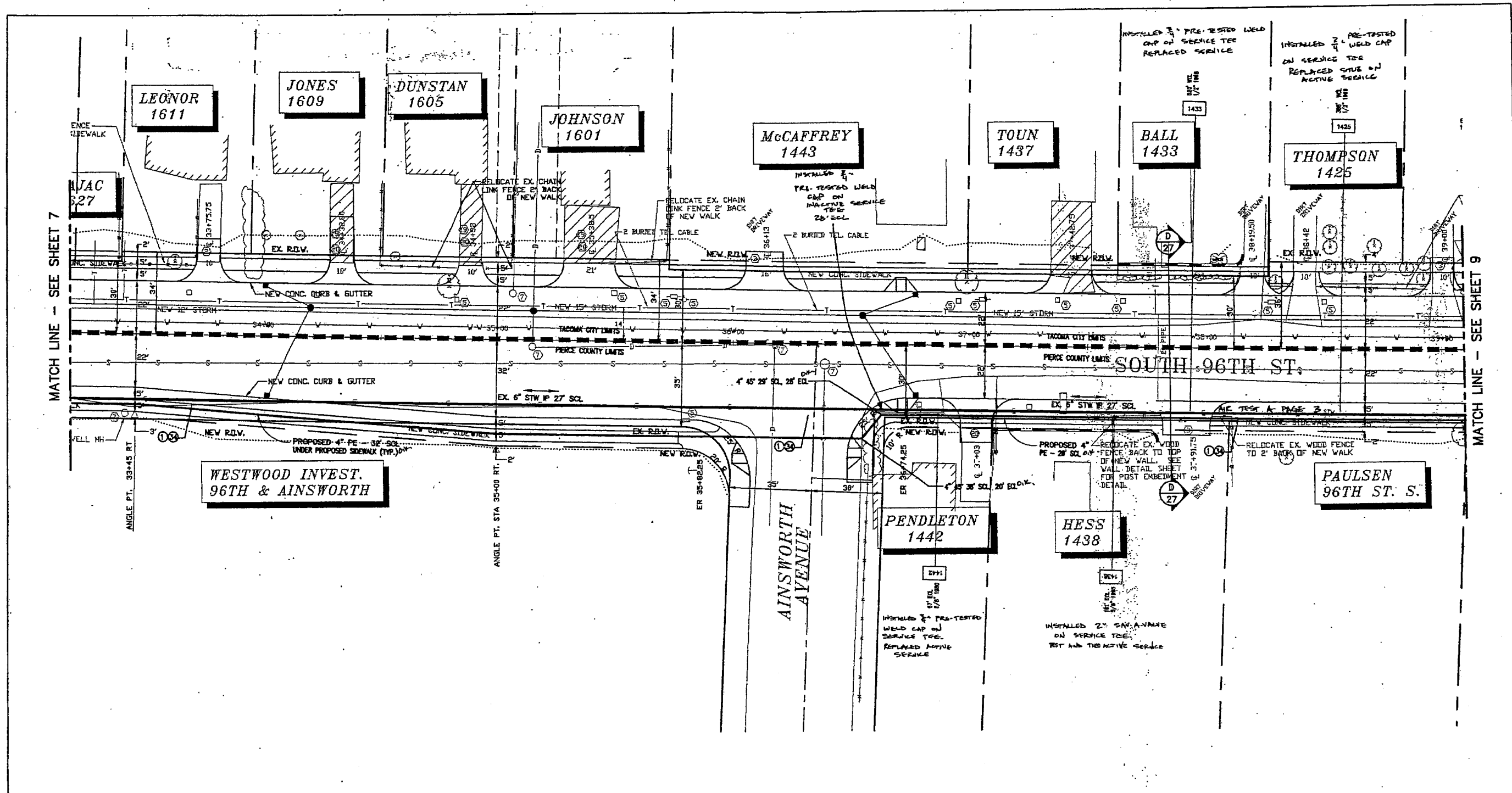


SEGMENT ID	TYPE OF TEST	MULTIPLE PRESSURE TEST INFORMATION FOR IP MAINS				TESTED BY
		TEST PRESSURE	LENGTH OF PIPE	DATE	TIME	
A						
B						
C						
D						
E						
F						
G						
H						
I						
J						
K						
L						
M						
N						
O						
P						
Q						



NOTE:
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OF TACOMA

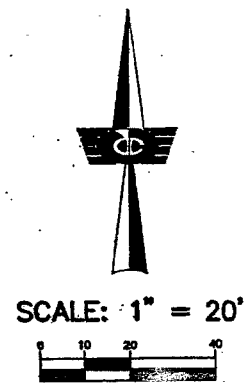
COORDINATOR: DON BAIN	OP MAP 242.58
PERCENT COMPLETE: 1/4 SEC E 30-20-2	PLAT 231.55
INSTALLATION/RETIROBMENT	WORK AREA
EMERGENCY SEC NO:	
1/4" MAIN SIZE MATERIAL TOTAL FOOTAGE	DESIGN PRESSURE: 80 PSIG
2" MPE	SYSTEM MAGP: 80 PSIG
4" MPE	PERMITS: TACOMA, LAKEWOOD
6" STW	PIERCE COUNTY
PIERCE TRANSIT	
6" STW UPRATE - PHASE 1	
SO. 96TH STREET, TACOMA	
DRAWN: BOBBI SWR	DATE: MARCH 98
CHECKED: ALB	DATE: 3/25/98
APPROVED: ALB	DATE: 4/14/98
JOB NO. 8705121	DRAWING NO. 7
9705121	27



MATCH LINE - SEE SHEET 7

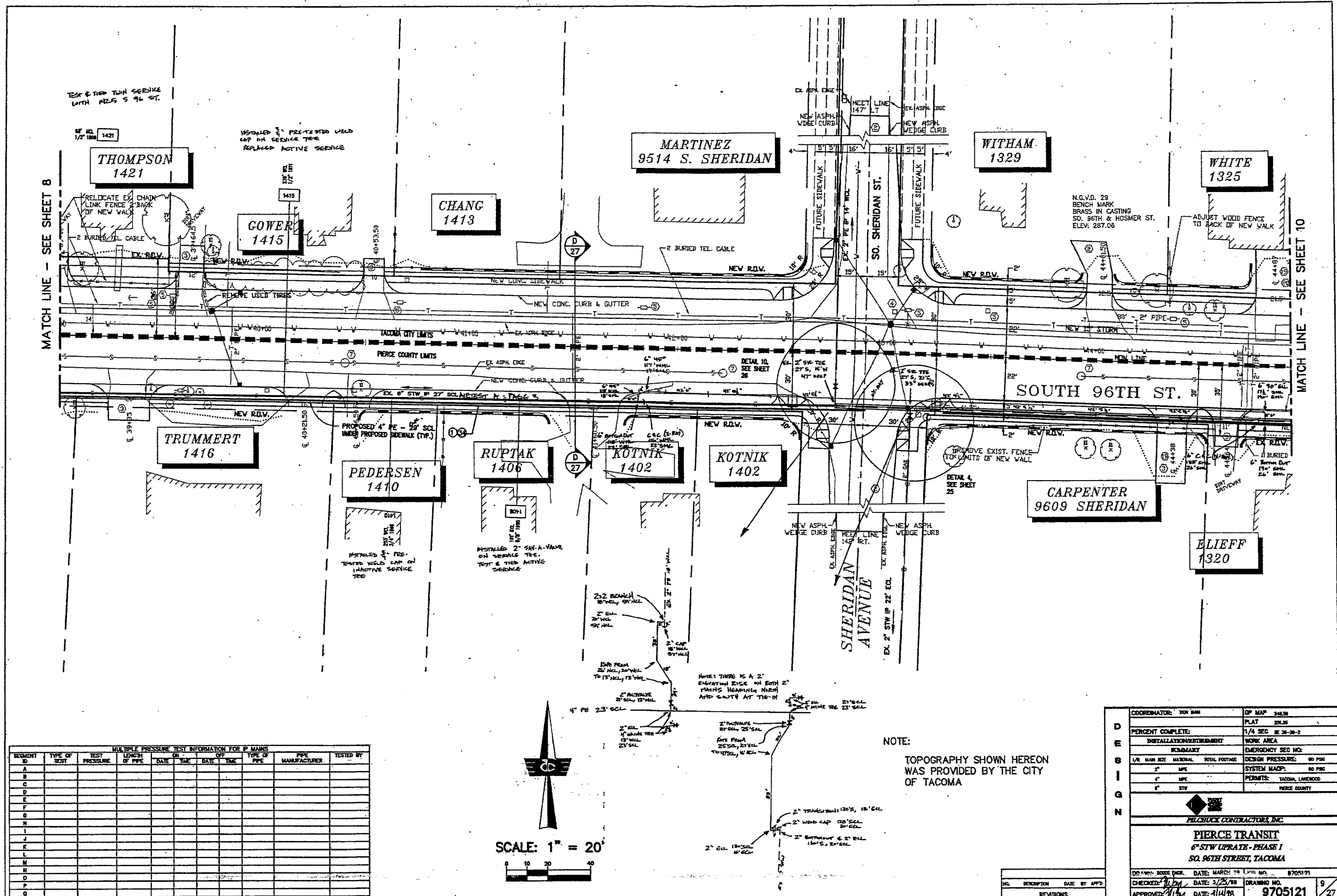
MATCH LINE - SEE SHEET 9

MULTIPLE PRESSURE TEST INFORMATION FOR P. MAINS										
SEGMENT ID	TYPE OF TEST	TEST PRESSURE	LENGTH OF PIPE	DATE	TIME	DATE	TIME	TYPE OF PIPE	PIPE MANUFACTURER	TESTED BY
A										
B										
C										
D										
E										
F										
G										
H										
I										
J										
K										
L										
M										
N										
O										
P										
Q										



NOTE:
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OF TACOMA

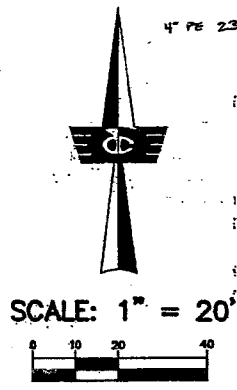
COORDINATOR: DON BARR	OP MAP: 246.50
PERCENT COMPLETE:	PLAT: 25.55
INSTALLATION/RETIREMENT:	1/4 SEC 36-28-2
ECONOMY:	WORK AREA:
EMERGENCY SEC NO.:	
1/2" MAIN SIZE MATERIAL TOTAL FOOTAGE:	DESIGN PRESSURE: 80 PSIG
2" MFE:	SYSTEM MAOP: 80 PSIG
4" MFE:	PERMITS: TACOMA, LAKEWOOD
6" STW:	PIERCE COUNTY
BILCHUCK CONTRACTORS, INC.	
PIERCE TRANSIT	
6" STW UPGRADE - PHASE 1	
SO. 96TH STREET, TACOMA	
DRAWN: DOUG ENR. DATE: MARCH 88 JOB NO. 8705121	
APPROVED: [Signature] DATE: 3/22/88 DRAWING NO. 8705121	8/27



MATCH LINE - SEE SHEET 8

MATCH LINE - SEE SHEET 10

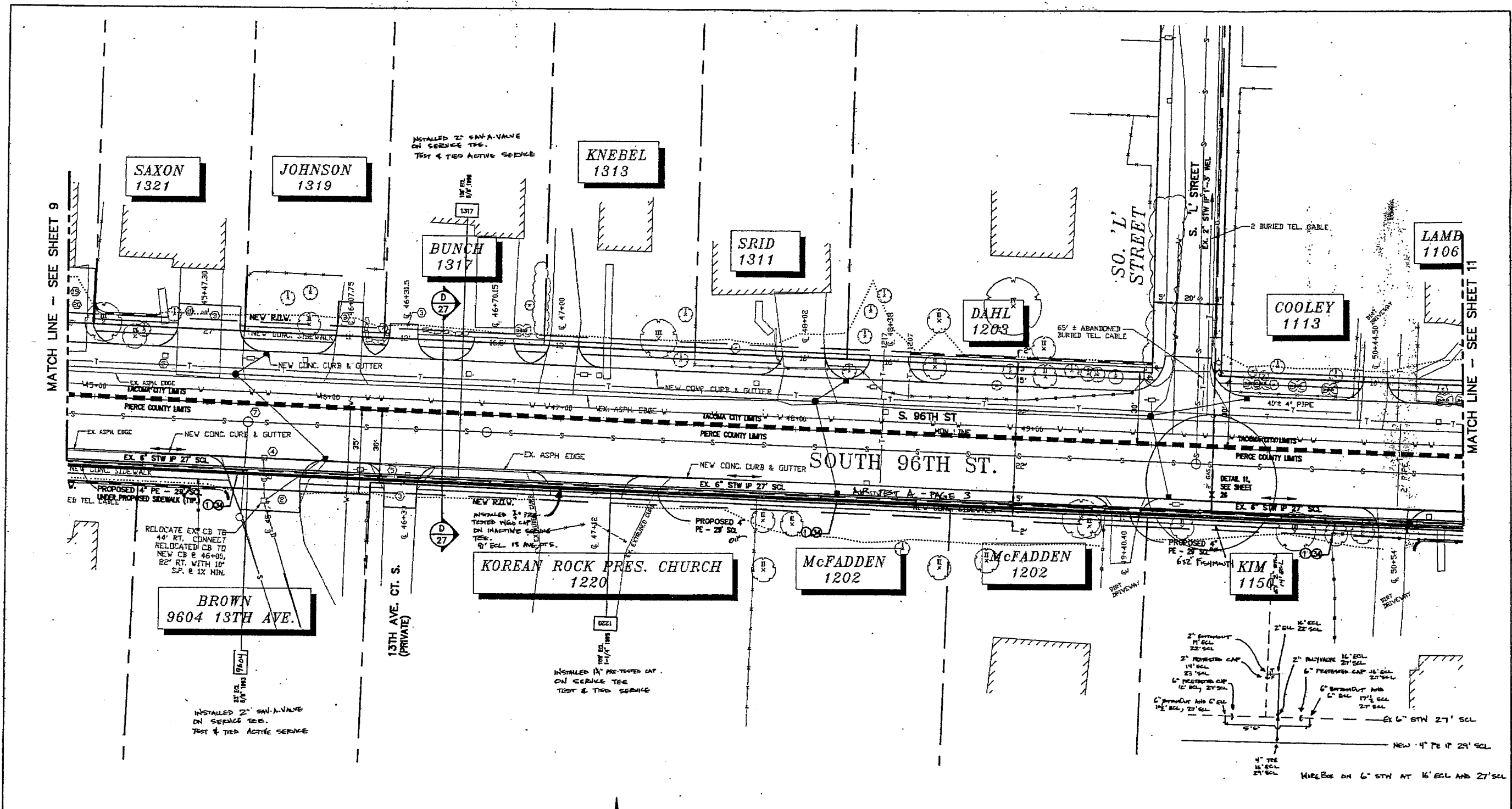
MULTIPLE PRESSURE TEST INFORMATION FOR P MAINS										
SEGMENT ID	TYPE OF TEST	TEST PRESSURE	LENGTH OF PIPE	DATE	TIME	DATE	TIME	TYPE OF PIPE	PIPE MANUFACTURER	TESTED BY
A										
B										
C										
D										
E										
F										
G										
H										
I										
J										
K										
L										
M										
N										
O										
P										
Q										



NOTE:
TOPOGRAPHY SHOWN HEREON
WAS PROVIDED BY THE CITY
OF TACOMA

NO.	DESCRIPTION	DATE	BY	APP'D

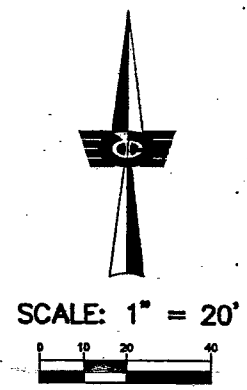
COORDINATOR: DON BARR	OP MAP 248.50
D PERCENT COMPLETE:	PLAT 251.35
E INSTALLATION/REPAIRMENT	1/4 SEC SE 28-28-2
S BOUNDARY	WORK AREA
I 1/4" MAIN SIZE	EMERGENCY SEC NO:
G MATERIAL	DESIGN PRESSURE: 80 PSI
N PIPE	SYSTEM MAOP: 80 PSI
PERMITS: TACOMA, LAKEWOOD	PIERCE COUNTY
PIERCE TRANSIT	
6" STW UPRATE - PHASE 1	
SQ. 96TH STREET, TACOMA	
DRAWN: BOB BARR	DATE: MARCH 28
CHECKED: [Signature]	DATE: 3/25/88
APPROVED: [Signature]	DATE: 4/14/88
	9705121
	9/27



MATCH LINE - SEE SHEET 9

MATCH LINE - SEE SHEET 11

MULTIPLE PRESSURE TEST INFORMATION FOR IP MAINS									
SEGMENT ID	TYPE OF TEST	TEST PRESSURE	LENGTH OF PIPE	ON DATE	OFF DATE	TYPE OF PIPE	PIPE MANUFACTURER	TESTED BY	
A									
B									
C									
D									
E									
F									
G									
H									
I									
J									
K									
L									
M									
N									
O									
P									
Q									



NOTE:
TOPOGRAPHY SHOWN HEREON
WAS PROVIDED BY THE CITY
OF TACOMA

COORDINATOR: BOB BARR	CP MAP 24130
D	PLAT 25135
PERCENT COMPLETE:	1/4 SEC BE 28-20-2
E	INSTALLATION/RETIROBMENT
WORK AREA:	
S	EMERGENCY SEC NO:
DESIGN PRESSURE: 80 PSIG	
SYSTEM MAOP: 80 PSIG	
PERMITS: TACOMA, LAKEWOOD	
P	PIERCE COUNTY
PIERCE TRANSIT	
6" STW UPRATE - PHASE 1	
SO. 96TH STREET, TACOMA	
DRAWN: BOB BARR	DATE: MARCH 88
CHECKED: [Signature]	DATE: 3/21/88
APPROVED: [Signature]	DATE: 4/14/88
JOB NO. 9705121	DRAWING NO. 10
	9705121

NO.	DESCRIPTION	DATE	BY

MATCH LINE - SEE SHEET 10

MATCH LINE - SEE SHEET 12

BUGAY
1101

GREGORY
9442 S. 'K'

GILLESPIE
1017

MEDLEY
1011

BRYCE
919

GOODMAN
1106

LANE
1012

MILLEP
1008

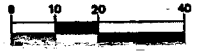
TOLLEFSON
1002

SOUZA
VACANT

SOUTH 96TH ST.

SEGMENT	TYPE OF TEST	MULTIPLE PRESSURE TEST INFORMATION FOR IP MAINS				TESTED BY
		TEST PRESSURE	LENGTH OF PIPE	ON DATE	OFF DATE	
A						
B						
C						
D						
E						
F						
G						
H						
I						
J						
K						
L						
M						
N						
O						
P						
Q						

SCALE: 1" = 20'



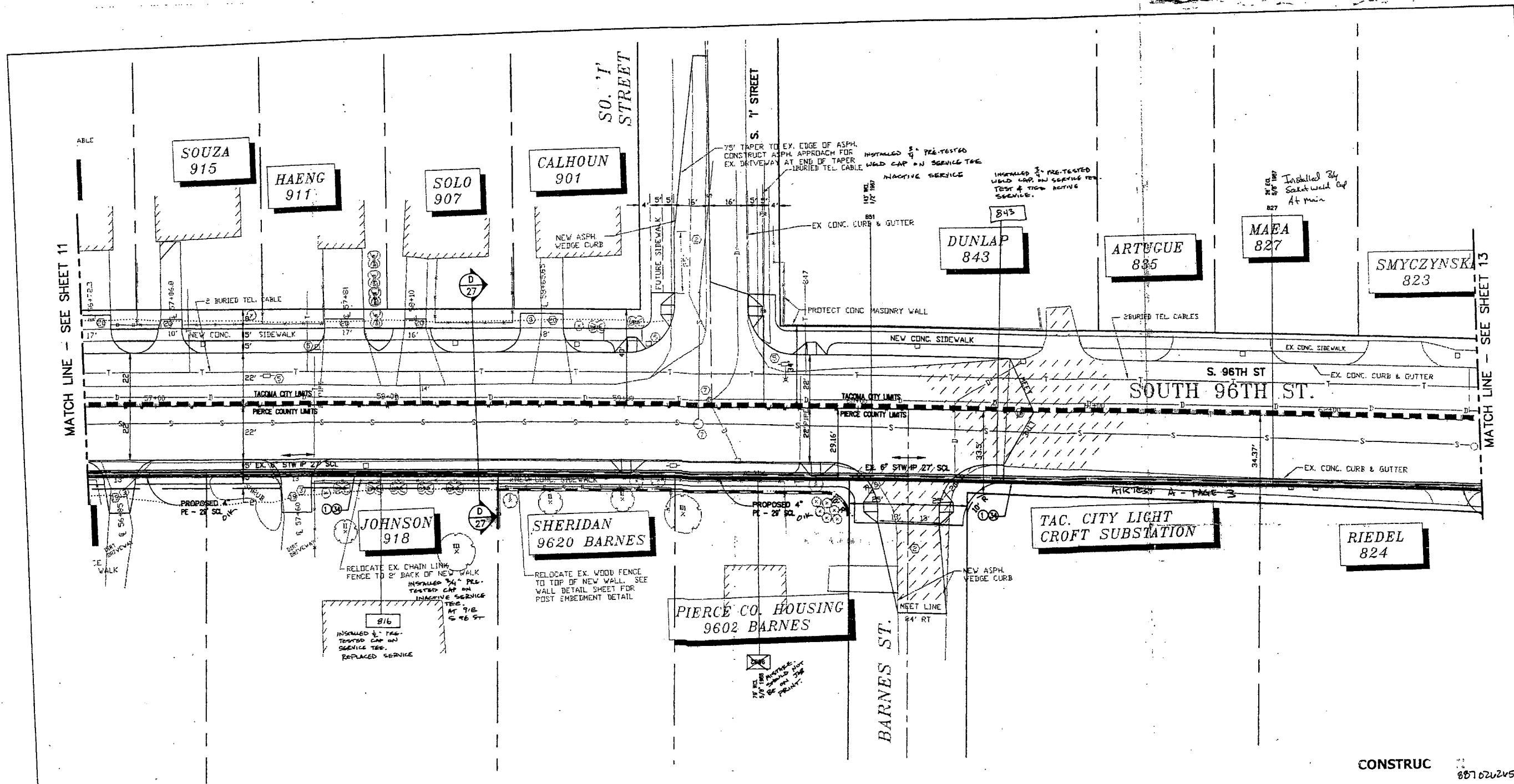
NOTE:
TOPOGRAPHY SHOWN HEREON
WAS PROVIDED BY THE CITY
OF TACOMA

COORDINATOR: DON BARR	DATE: MARCH 88	JOB NO. 9705121
PERCENT COMPLETE: 1/4 SEC 38-30-3	DATE: 3/22/88	DRAWING NO. 9705121
INSTALLATION/DEPARTMENT: KIDMART	DATE: 1/14/88	11
WORK AREA: EMERGENCY SEC NO:	DESIGN PRESSURE: 80 PSIG	
1/4" MAIN SIZE: NATIONAL	TOTAL FOOTAGE: SYSTEM MADE: 80 PSIG	
2" MPE	PERMITS: TACOMA, LAKEWOOD	
4" MPE	PIERCE COUNTY	
6" STW		

PIERCE TRANSIT
6" STW UPRATE - PHASE I
SO. 96TH STREET, TACOMA

PIERCE CONTRACTORS, INC.

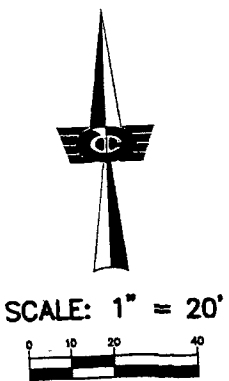
REVISIONS



CONSTRUC 887020245

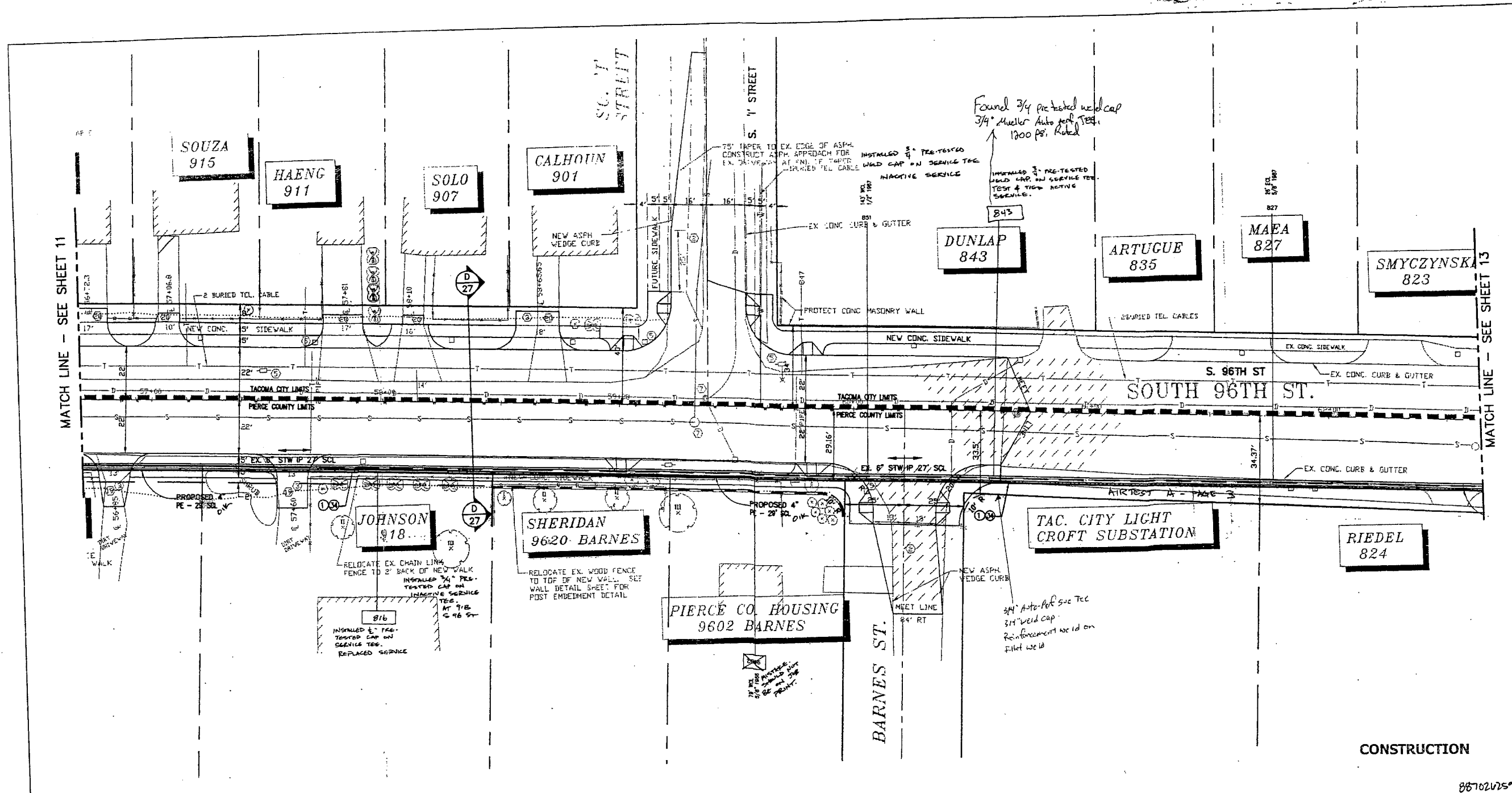
MULTIPLE PRESSURE TEST INFORMATION FOR IP MAINS

SEGMENT ID	TYPE OF TEST	TEST PRESSURE	LENGTH OF PIPE	DATE	TIME	DATE	TIME	TYPE OF PIPE	PIPE MANUFACTURER	TESTED BY
A										
B										
C										
D										
E										
F										
G										
H										
I										
J										
K										
L										
M										
N										
O										
P										
Q										



NOTE:
TOPOGRAPHY SHOWN HEREON
WAS PROVIDED BY THE CITY
OF TACOMA

COORDINATOR: DON BARN	OP MAP: 248.50
PERCENT COMPLETE:	PLAT: 251.55
INITIATION/REQUIREMENT	1/4 SEC. 36-20-2
SUMMARY	WORK AREA
EMERGENCY SEC NO:	
DESIGN PRESSURE: 60 PSIG	
SYSTEM MAOP: 80 PSIG	
PERMITS: 1 TACOMA, LAKEWOOD	
PIERCE COUNTY	
PIERCE TRANSIT 6" STW UPRATE - PHASE I SO. 96TH STREET, TACOMA	
DRAWN: DOUGLAS ENGR. DATE: MARCH 98	JOB NO. 9705121
CHECKED: [Signature] DATE: 3/23/98	DRAWING NO. 9705121
APPROVED: [Signature] DATE: 4/14/98	12



Found 3/4 pre-tested weld cap
3/4" Mueller Auto per Test.
1200 PSI. Rated

3/4" Auto-Perf 5/8" Tee
3/4" Weld Cap.
Reinforcement weld on
filler weld

MATCH LINE - SEE SHEET 11

MATCH LINE - SEE SHEET 13

S. 96TH ST.
SOUTH 96TH ST.

CONSTRUCTION

88702V257

MULTIPLE PRESSURE TEST INFORMATION FOR IP MAINS

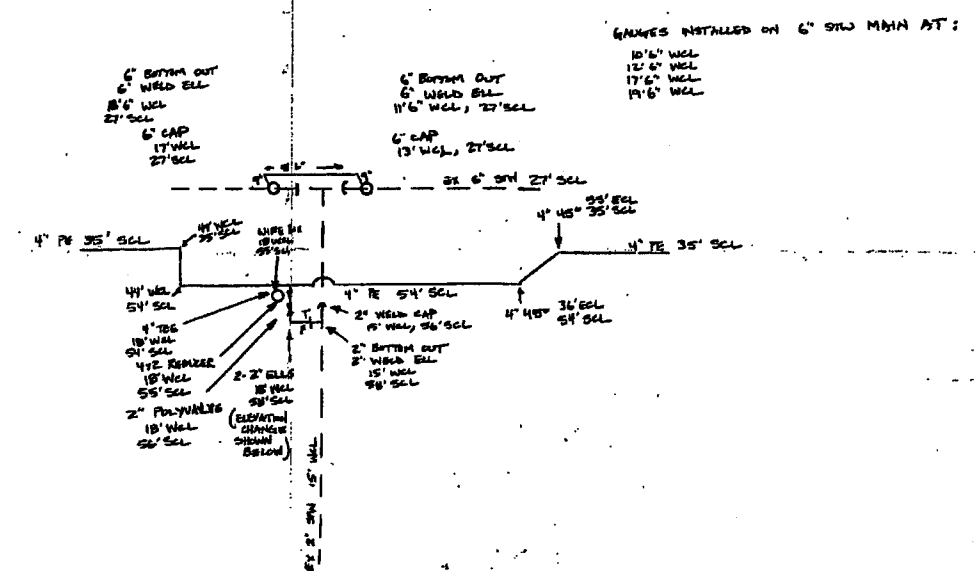
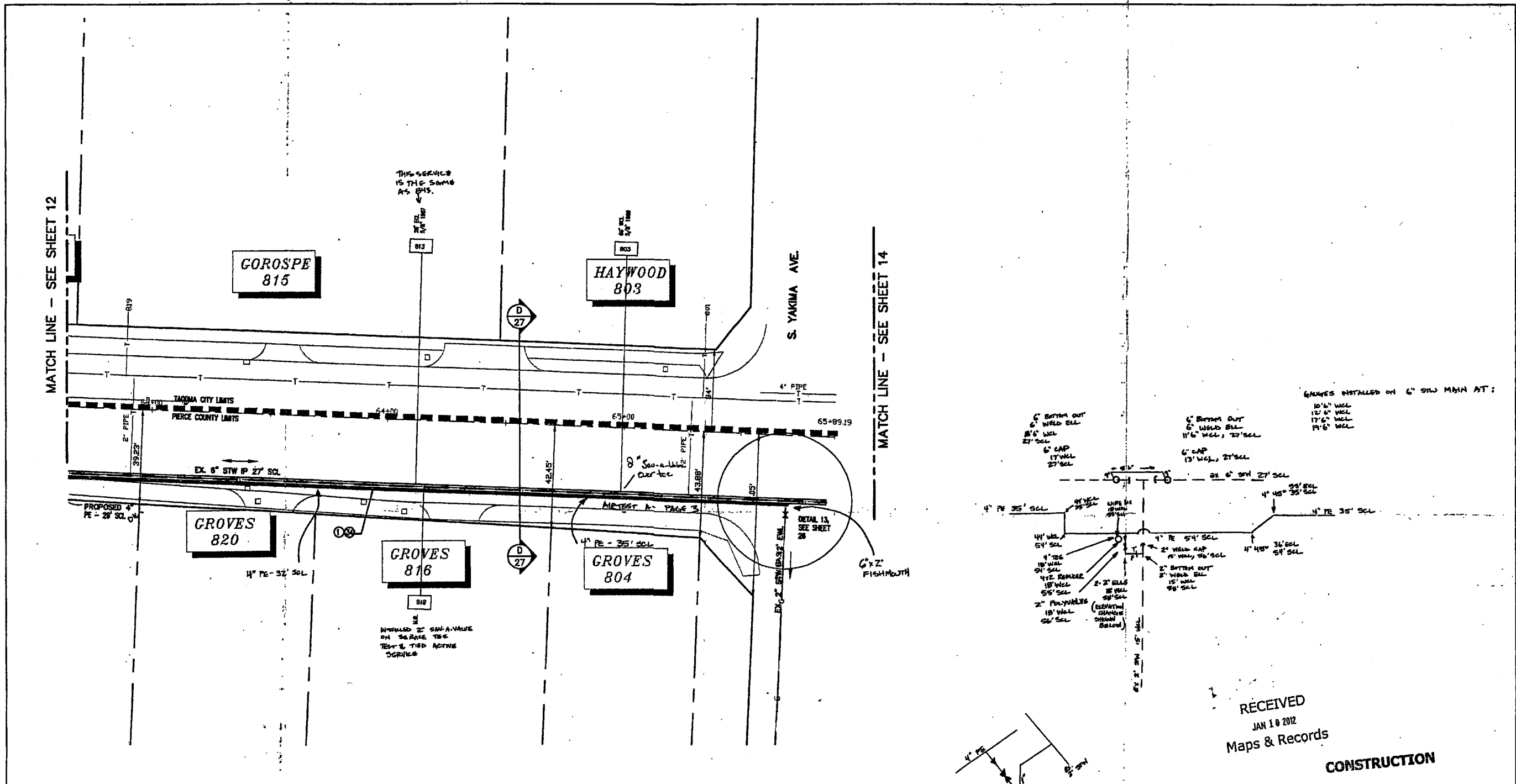
SEGMENT ID	TYPE OF TEST	TEST PRESSURE	LENGTH OF PIPE	DATE ON	DATE OFF	TYPE OF PIPE	PIPE MANUFACTURER	TESTED BY
A								
B								
C								
D								
E								
F								
G								
H								
I								
J								
K								
L								
M								
N								
O								
P								
Q								



NOTE:
TOPOGRAPHY SHOWN HEREON
WAS PROVIDED BY THE CITY
OF TACOMA

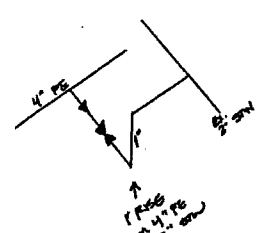
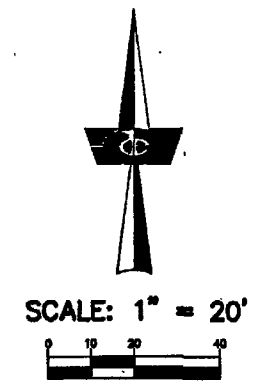
NO.	DESCRIPTION	DATE	BY	APP'D.

COORDINATOR: DON BARR	OP. MAP: 246.50
PERCENT COMPLETE:	PLAT: 251.55
INSTALLATION/RETIREMENT:	1/4 SEC. SE 36-20-7
SUMMARY:	WORK AREA:
1/4" WASH SIZE MATERIAL TOTAL FOOTAGE:	EMERGENCY SEC NO.:
2" WPE:	DESIGN PRESSURE: 60 PSIG
4" WPE:	SYSTEM MAOP: 60 PSIG
6" 216:	PERMITS: TACOMA, LAKEWOOD
PIERCE TRANSIT	
6" STW UPRATE - PHASE 1	
SO. 96TH STREET, TACOMA	
DRAWN: DOUG BARR	DATE: MARCH 88
CHECKED: [Signature]	DATE: 3/82/98
APPROVED: [Signature]	DATE: 4/14/99
JOB NO. 9705121	DRAWING NO. 12
9705121	27



MULTIPLE PRESSURE TEST INFORMATION FOR P MAINS

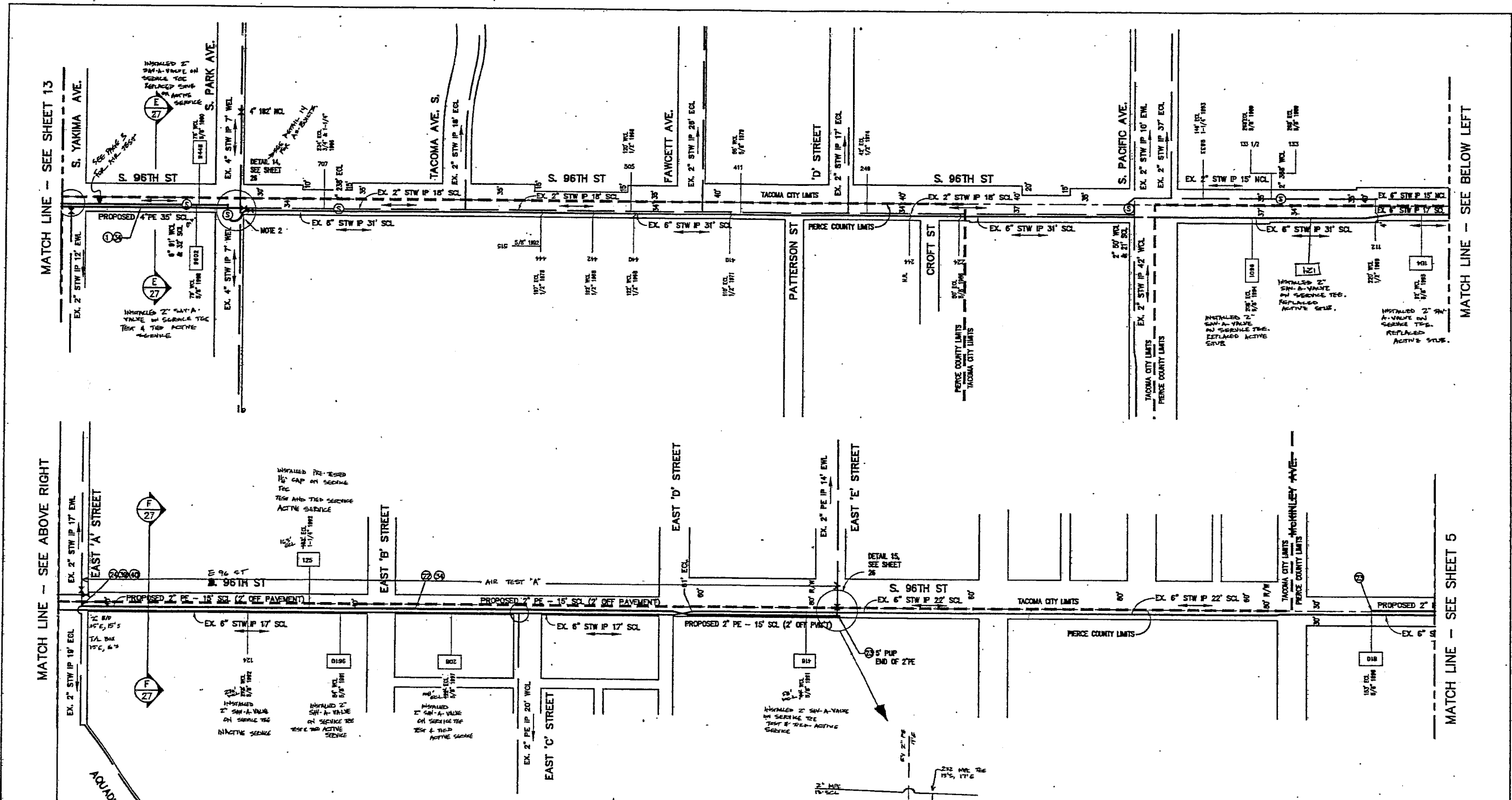
SEGMENT ID	TYPE OF TEST	TEST PRESSURE	LENGTH OF PIPE	ON DATE	BY	TEST DATE	TEST TIME	TYPE OF PIPE	PIPE MANUFACTURER	TESTED BY
A										
B										
C										
D										
E										
F										
G										
H										
I										
J										
K										
L										
M										
N										
O										
P										
Q										



NOTE:
TOPOGRAPHY SHOWN HEREON
WAS PROVIDED BY THE CITY
OF TACOMA

RECEIVED
JAN 10 2012
Maps & Records
CONSTRUCTION

COORDINATOR: DCM BAH	OP MAP 24820
PERCENT COMPLETE: 1/4 SEC 24-20-2	PLAT 80128
INSTALLATION/INTERESTMENT WORK AREA	EMERGENCY SEC NO:
SUMMARY	DESIGN PRESSURE: 80 PSIG
1/4\"/>	
2\"/>	
6\"/>	
1\"/>	
PERMITS: TACOMA LANDWOOD	PIERCE COUNTY
PIERCE TRANSIT 6\"/>	
DRAWN: 0208 JER	DATE: MARCH 08
CHECKED: [Signature]	DATE: 3/17/08
APPROVED: [Signature]	DATE: 4/14/08
NO. DESCRIPTION DATE BY APP'D	REVISIONS
NO. 9705121	13



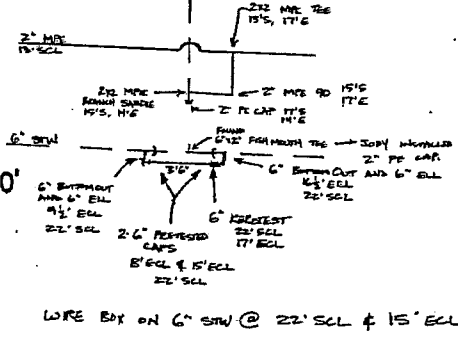
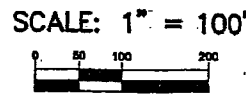
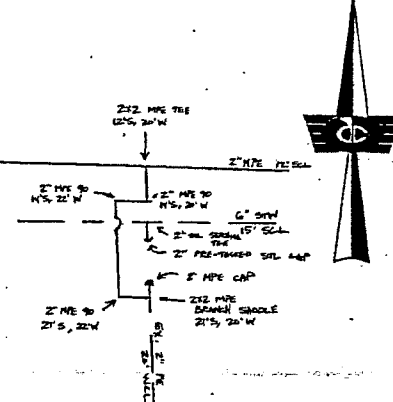
MATCH LINE - SEE SHEET 13

MATCH LINE - SEE ABOVE RIGHT

MATCH LINE - SEE BELOW LEFT

MATCH LINE - SEE SHEET 5

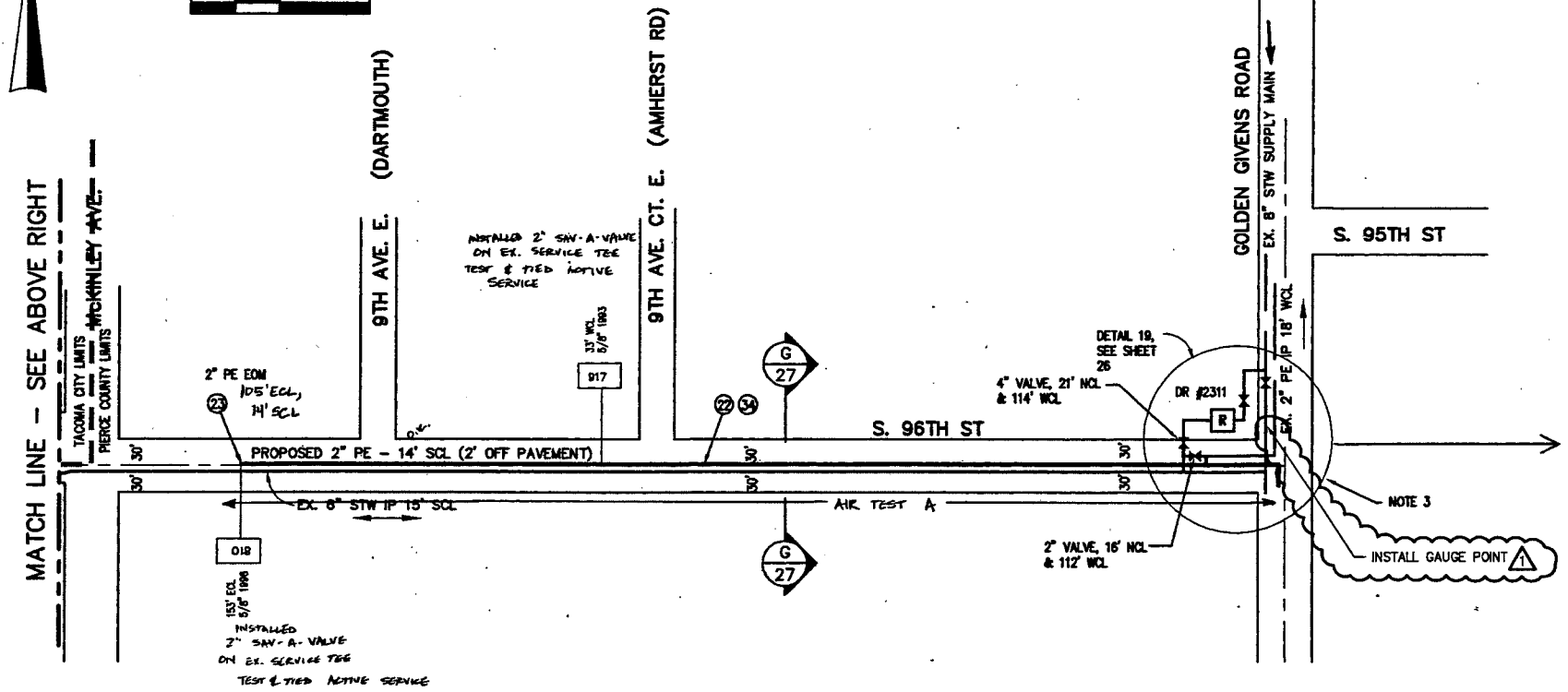
MULTIPLE PRESSURE TEST INFORMATION FOR IP MAINS									
SEGMENT ID	TYPE OF TEST	TEST PRESSURE	LENGTH OF PIPE	ON DATE	OFF DATE	TYPE OF PIPE	PIPE MANUFACTURER	TESTED BY	
A	MC	100	1625	5-11 10:30 AM	5-12 1:30 PM	PE MD	PERCO	NEEDHAM	
B									
C									
D									
E									
F									
G									
H									
I									
J									
K									
L									
M									
N									
O									
P									



COORDINATOR: DON BAH	QP MAP 243.00
PERCENT COMPLETE:	PLAT 231.55
INSTALLATION/REORDERMENT	1/4 SEC SE 24-25-2
SUMMARY	WORK AREA
1/4 MAIN SIZE MATERIAL TOTAL FOOTAGE	DESIGN PRESSURE: 80 PSIG
2" MPE	SYSTEM MSCP: 80 PSIG
4" MPE	PERMITS: TACOMA, LINWOOD
6" STW	PIERCE COUNTY
PIERCE TRANSIT	
6" STW UPGRADE - PHASE 1	
SO. 96TH STREET, TACOMA	
DRAWN: BOBBS BARR	DATE: MARCH 08
CHECKED: [Signature]	DATE: 3/25/08
APPROVED: [Signature]	DATE: 4/4/08
JOB NO. 9705121	14
DRAWING NO. 9705121	27



SCALE: 1" = 100'

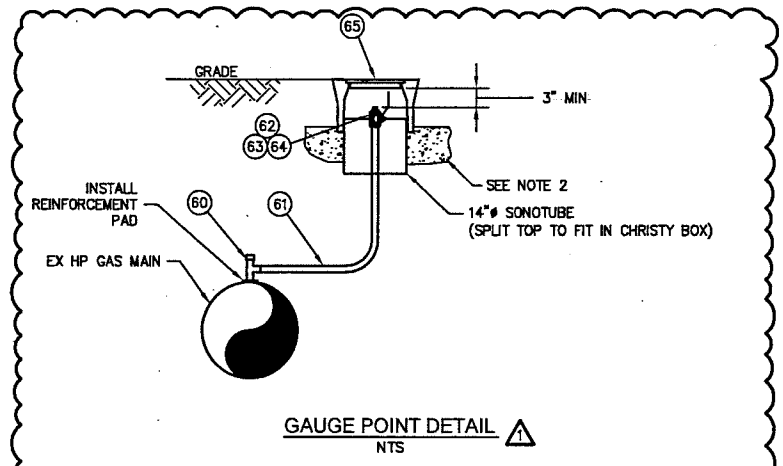


PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM PO = NON STOCK ITEM CR = CONTRACTOR WILL PROVIDE ITEM ORDER #887029023			
ITEM	QTY	DESCRIPTION	PART NBR
67			
66	2	ELBOW, 3/4" X 90 X 0.154", CLASS3000, SW	9997805
65	1	BOX, VALVE, CHRISTY	9995864
64	1	PLUG, 3/4" X CLASS6000, THD	7200024
63	1	VALVE, BALL, 3/4" X 2000PSIG, THD	9996141
62	1	NIPPLE, 3/4" X 0.154" X 3", G/B, THD	9996424
61	10'	PIPE, 3/4" X 0.154", G/B, WELD, BARE, SCH80	9997607
60	1	TEE, SERVICE, 3/4" X 1440PSIG, MUELLER H17501	7800612

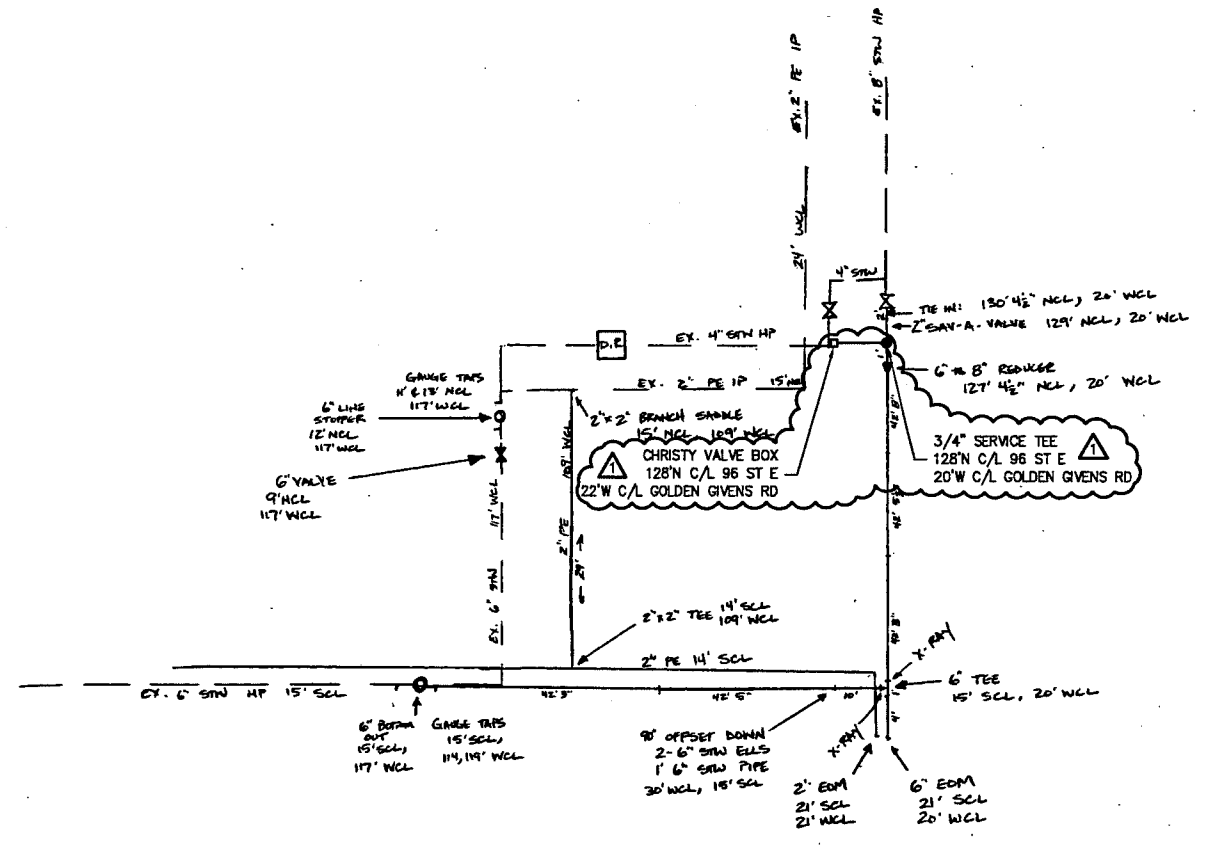
BILL OF MATERIALS

CONSTRUCTION NOTES:

- SCOPE: INSTALL GAUGE POINT ON MAIN PER JOB #887029023.
- ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY GAS STANDARDS AND GAS FIELD PROCEDURES.
- SHADING INDICATES EXISTING PIPING. (NOT ALL EXISTING PIPING IS SHADED)
- ALL PIPING TO BE COATED IN ACCORDANCE WITH PSE OPERATING STANDARD 2600.1100.
- NOTIFY PRESSURE CONTROL TECHNICIAN TONY GARGIULO @ (253) 261-3152, AT LEAST TWO (2) WORKING DAYS PRIOR TO START DATE.
- COORDINATE CATHODIC PROTECTION WITH CORROSION ENGINEER. CONTRACTOR TO NOTIFY CORROSION CONTROL TECHNICIAN JOHN BATINOVICH @ (253) 405-4951, AT LEAST TWO (2) WORKING DAYS PRIOR TO START DATE.
- EROSION AND SEDIMENT CONTROL SHALL BE PER STANDARD PRACTICE AND ANY OTHER ADDITIONAL LOCAL JURISDICTION REQUIREMENTS.
- PRELIMINARY LEAK TEST PIPING WITH AIR OR NITROGEN BETWEEN 100 AND 150 PSIG FOR FIFTEEN (15) MINUTES PER OPERATING STANDARD 2525.3300. PRESSURE CONTROL TO APPROVE PRELIMINARY LEAK TEST. LEAK TEST PIPING WITH AIR OR NITROGEN AT A MINIMUM OF 450 PSIG FOR A MINIMUM OF ONE (1) HOUR(S) PER PSE GAS OPERATING STANDARD 2525.3300.



- COMPACT DIRT UNDER BOX TO 95%.
- FOR INSTALLATIONS UNDER DRIVEN SURFACES, A CONCRETE SUPPORT SHALL BE POURED IN PLACE. THE SUPPORT SHALL BE A MINIMUM OF 4 INCHES WIDE AND 4 INCHES TALL, AND SHALL BE PREVENTED FROM CONTACTING EXTENSION RISERS. CONCRETE SHALL BE PER PSE STANDARDS 1275.1130 OR 1275.1140.
- TERMINATIONS IN VALVE BOX TO BE ORIENTED VERTICALLY, WITH NO PERCEPTIBLE TILT.
- MINIMUM CLEARANCES OF EXTENSIONS IN VAULT:
 - 3" BELOW BOTTOM OF VAULT LID
 - 2" BETWEEN ANY TWO EXTENSIONS
 - 2" BETWEEN ANY EXTENSION AND VAULT WALL



GAS MAIN PRESSURE AND TESTING			
TEST TYPE	<input type="checkbox"/> SOAP	<input type="checkbox"/> AIR	<input type="checkbox"/> NITROGEN <input type="checkbox"/> WATER
DATE ON	///	START TIME	TESTED BY
DATE OFF	///	STOP TIME	
PRESSURE		TEST RESULTS	<input type="checkbox"/> P <input type="checkbox"/> F
TEST TYPE	<input type="checkbox"/> SOAP	<input type="checkbox"/> AIR	<input type="checkbox"/> NITROGEN <input type="checkbox"/> WATER
DATE ON	///	START TIME	TESTED BY
DATE OFF	///	STOP TIME	
PRESSURE		TEST RESULTS	<input type="checkbox"/> P <input type="checkbox"/> F
<input type="checkbox"/> TESTED BY PSE PRESSURE CONTROL, SEE FORM 1928			
DESIGN PRESS	SYSTEM MAOP		
2023 03/10			

NOTE: 6" STW HP 26" DEEP 4" NCL TO E.O.M. & 20" WCL TO 30" WCL. HP MAIN SAND PADDED AND CAPPED WITH CDF. NO CDF AROUND 2" PE IP MAIN.

PROJECT MANAGER CONTACT INFO
MOLLY REED
425-214-6684 CELL PHONE
molly.reed@pse.com EMAIL

MULTIPLE PRESSURE TEST INFORMATION FOR IP MAINS									
SEGMENT ID	TYPE OF TEST	TEST PRESSURE	LENGTH OF PIPE	ON DATE	OFF DATE	TYPE OF PIPE	PIPE MANUFACTURER	TESTED BY	
A	AIR	72#	1267'	5-15-23	3:30pm	5-18-23	PE	PLEXCO	T. JAY
B									
C									
D									
E									
F									
G									
H									
I									
J									
K									
L									
M									
N									
O									
P									
Q									

FITTER'S CHECKLIST (CHECK BOX TO CONFIRM COMPLETION)

INSPECTED STEEL AND PE PIPE PER GOS 2450.1400 AND 2450.1500.

REVIEWED AND COMPLIED WITH ALL CONSTRUCTION NOTES.

RECORDED ALL REQUIRED INFORMATION ON THE AS-BUILT PER GOS 2500.1700.

COMPLETED POST INSTALLATION INSPECTION PER GOS 2525.1200 AND 2525.2700.

LEFT THE WORK AREA IN A CLEAN AND SAFE CONDITION.

FOREMAN'S SIGNATURE: _____
 FOREMAN'S NAME (PRINTED): _____
 COMPANY: _____ DATE: _____

4580 06/11

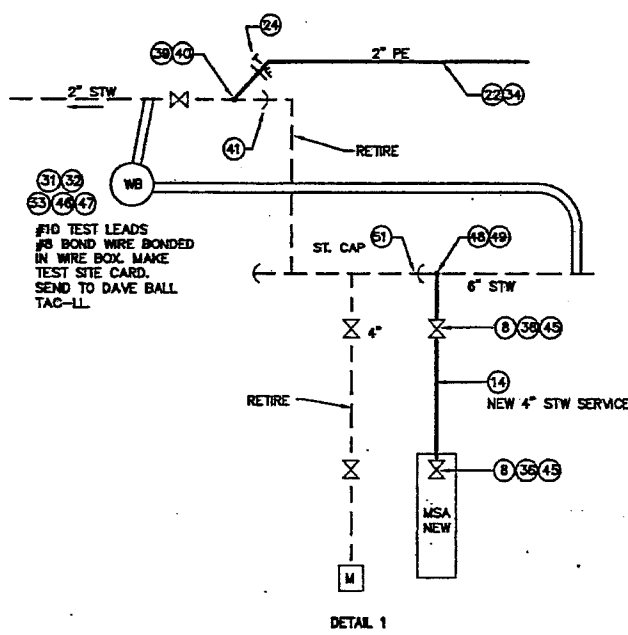
REV	DESCRIPTION	BY	CHK	CP	ENG	PM	DATE
	ADDED GAUGE POINT PER JOB #887029023						

REVISIONS

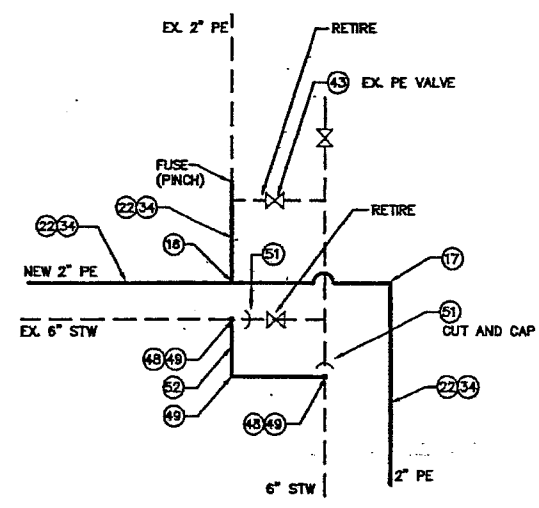
COORDINATOR:	DOH BARR	OP MAP	248.50
PERCENT COMPLETE:		PLAT	251.55
INSTALLATION/RETIREMENT		1/4 SEC	SE 36-20-2
SUMMARY		EMERGENCY SEC NO:	
1/4" MAIN SIZE	MATERIAL	TOTAL FOOTAGE	DESIGN PRESSURE: 80 PSIG
2"	MPE		SYSTEM MAOP: 80 PSIG
4"	MPE		PERMITS: TACOMA LAKEWOOD
6"	STW		PERCE COUNTY

PIERCE TRANSIT
6" STW UPRATE - PHASE 1
SO. 96TH STREET, TACOMA

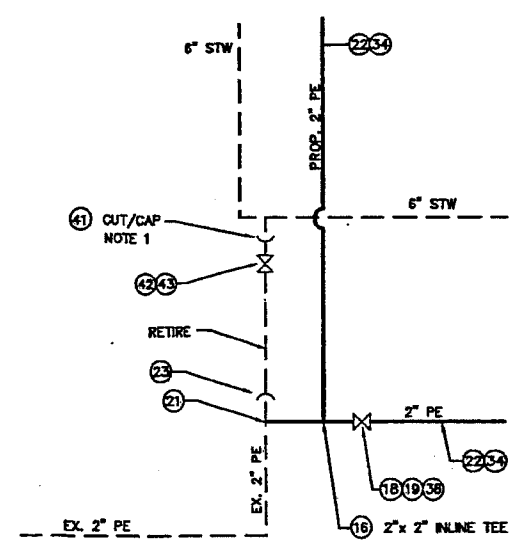
DRAWING: DOODS ENR.	DATE: MARCH 98	JOB NO: 887029023
CHECKED: <i>HL</i>	DATE: 3/25/98	DRAWING NO.
APPROVED: <i>HL</i>	DATE: 4/14/98	9705121



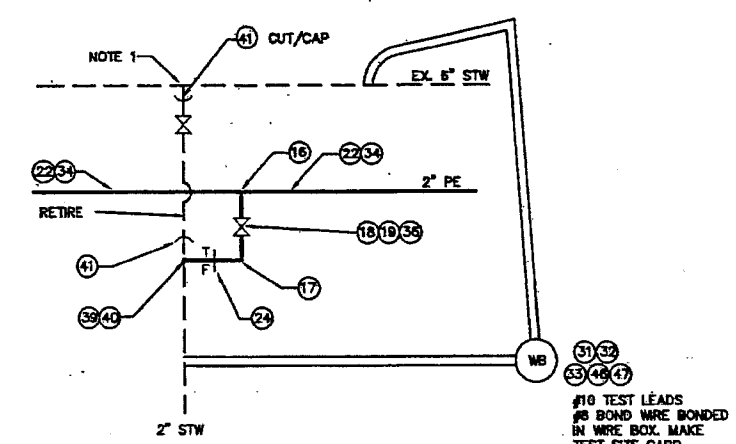
DETAIL 1



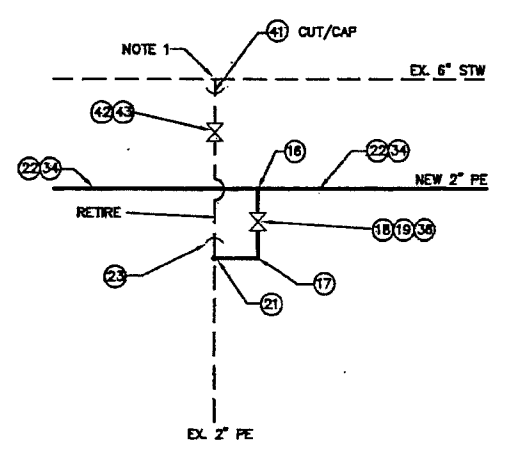
DETAIL 2



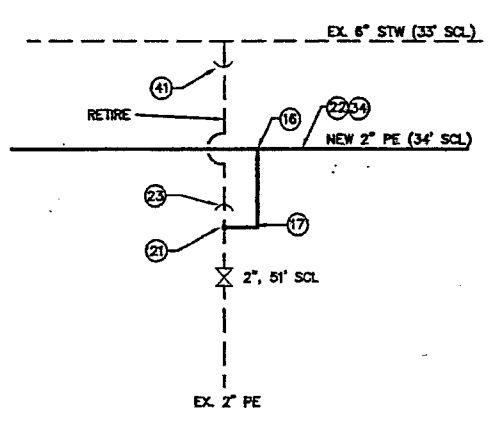
DETAIL 3



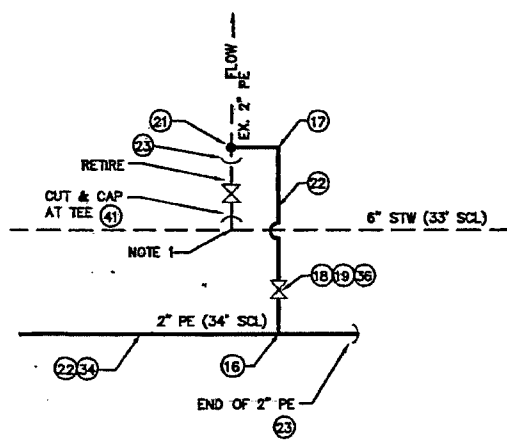
DETAIL 4



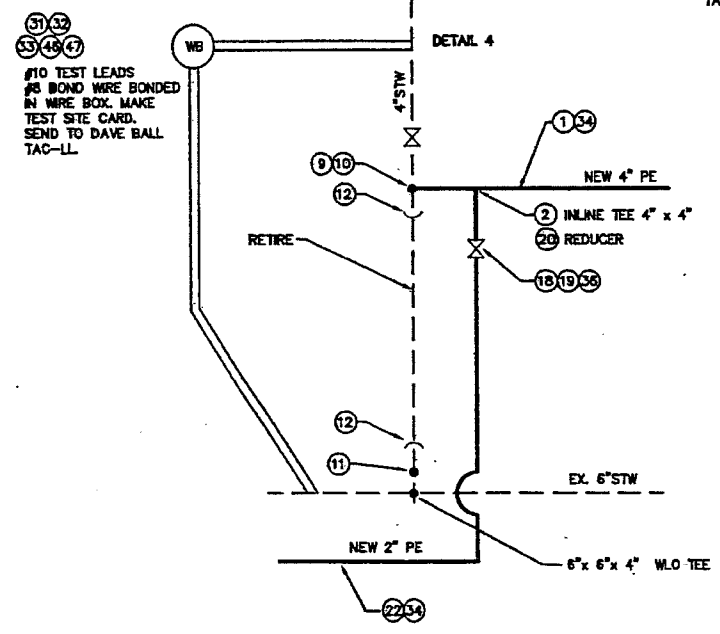
DETAIL 5



DETAIL 6



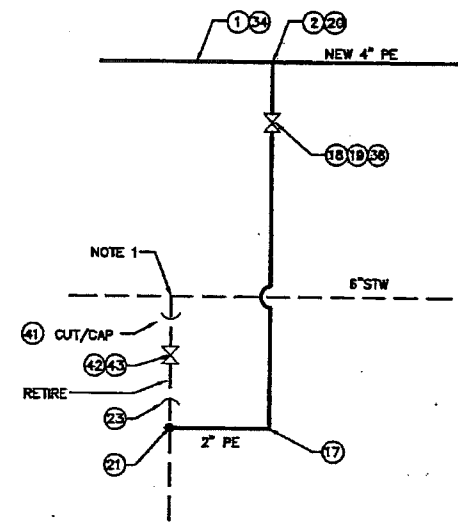
DETAIL 7



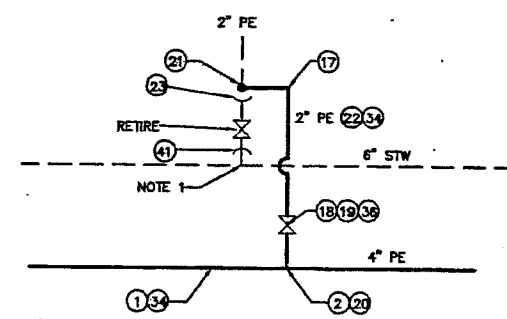
DETAIL 8

COORDINATOR: BOB BARR	OP MAP 242.28	
D PERCENT COMPLETE: 1/4 SEC 25-20-2	FLAT 251.53	
E INSTALLATION/RETIREMENT	WORK AREA	
S REMARKS	EMERGENCY SEC NO:	
I 1/2" MAIN SIZE MATERIAL TOTAL FOOTAGE	DESIGN PRESSURE: 80 PSIG	
G 2" IPE	SYSTEM MAOP: 80 PSIG	
N 6" IPE	PERMITS: TACOMA LAKEWOOD	
	6" STW PIERCE COUNTY	
PIERCE TRANSIT 6" STW UPGRADE - PHASE 1 SO. 96TH STREET, TACOMA		
DRAWN: DOODS-ENR	DATE: MARCH 88	JOB NO. 9705121
CHECKED: <i>[Signature]</i>	DATE: 3/25/88	DRAWING NO. 25
APPROVED: <i>[Signature]</i>	DATE: 4/1/88	9705121 27

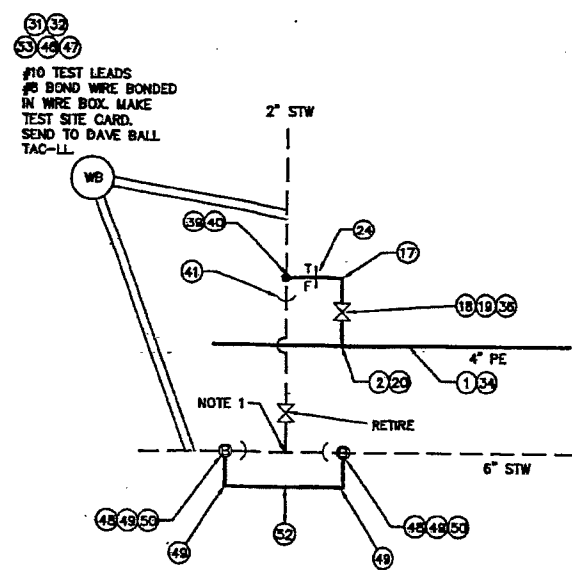
NO.	DESCRIPTION	DATE	BY	APP'D



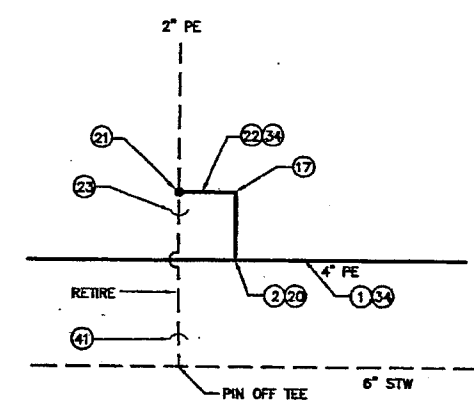
DETAIL 9



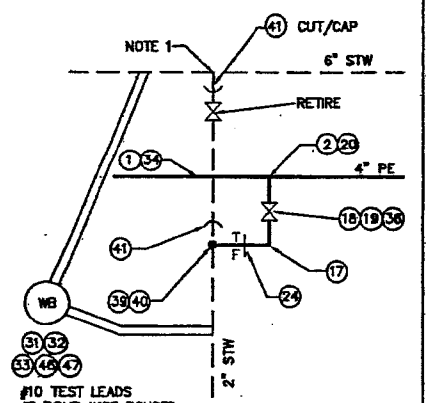
DETAIL 10



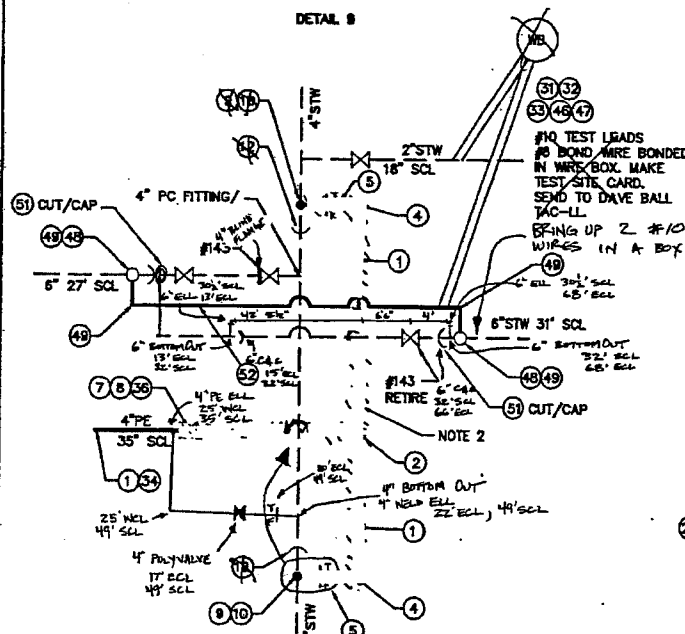
DETAIL 11



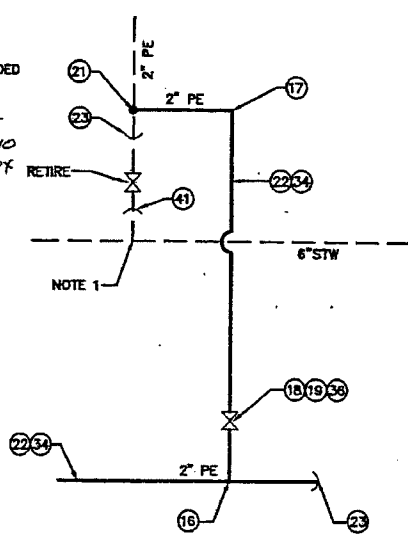
DETAIL 12



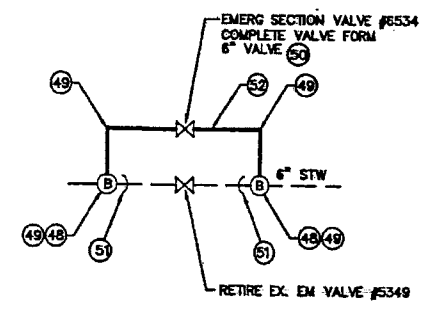
DETAIL 13



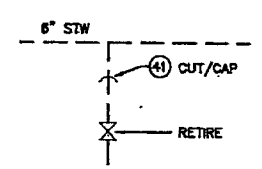
DETAIL 14



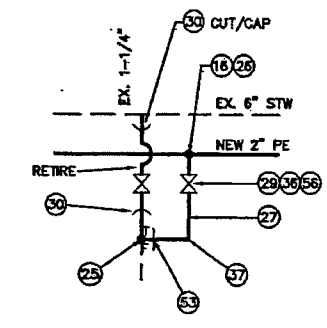
DETAIL 15



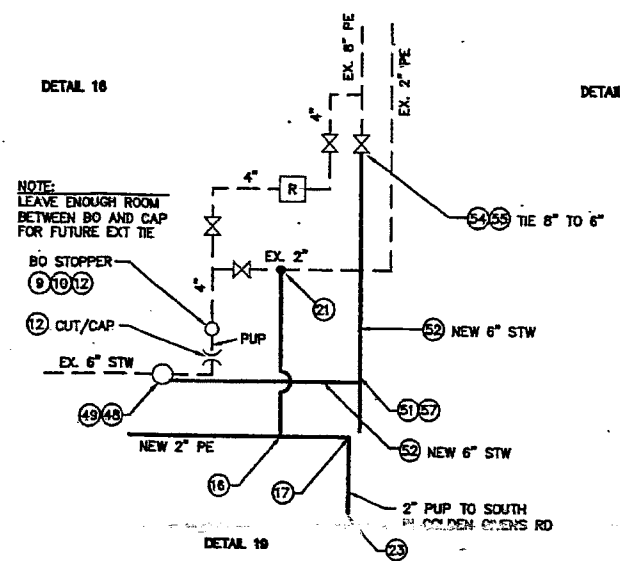
DETAIL 16



DETAIL 17



DETAIL 18



DETAIL 19

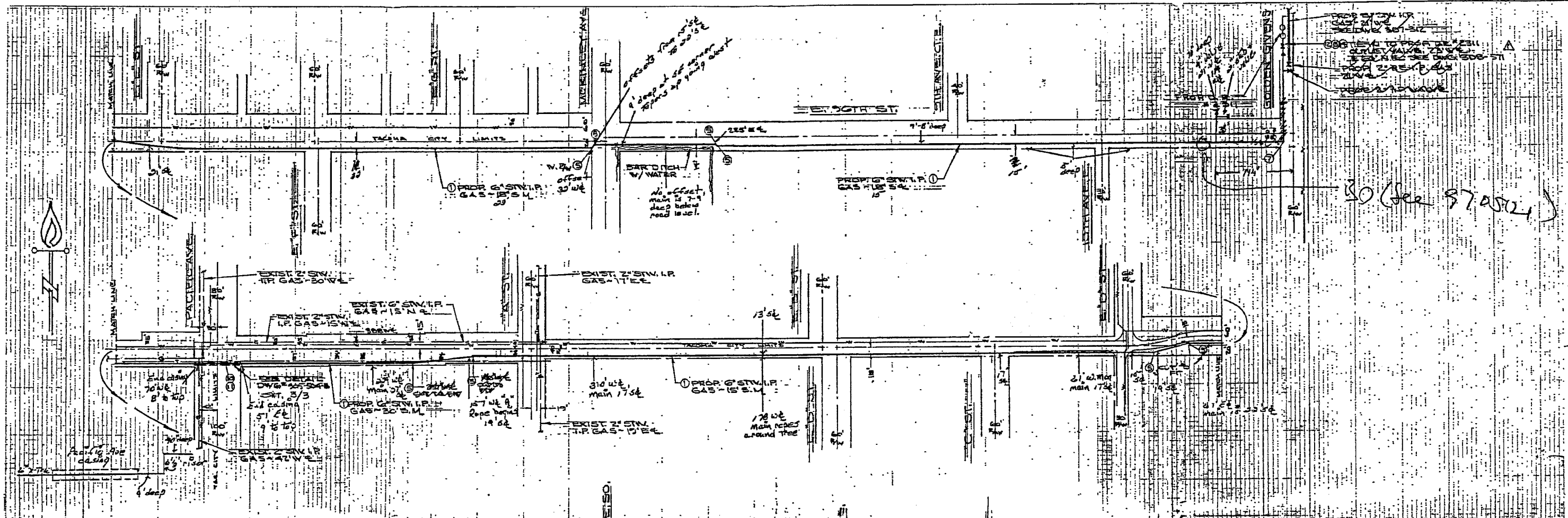
#10 TEST LEADS
#8 BOND WIRE BONDED
IN WIRE BOX. MAKE
TEST SITE CARD.
SEND TO DAVE BALL
TAC-LL.

#10 TEST LEADS
#8 BOND WIRE BONDED
IN WIRE BOX. MAKE
TEST SITE CARD.
SEND TO DAVE BALL
TAC-LL.
BRING UP 2 #10
WIRES IN A BOX

NOTE:
LEAVE ENOUGH ROOM
BETWEEN BO AND CAP
FOR FUTURE EXT TIE

COORDINATOR: DON BARR	OP MAP 246.50
PLAT 251.55	
PERCENT COMPLETE:	1/4 SEC BE 34-30-2
INSTALLATION/RETIREMENT	WORK AREA
EMERGENCY SEC NO:	
1/4" MAIN SIZE MATERIAL TOTAL FOOTAGE	DESIGN PRESSURE: 60 PSIG
2" MPE	SYSTEM MAOP: 80 PSIG
4" MPE	PERMITS: TACOMA, LAKEWOOD
6" STW	PIERCE COUNTY
FILCHUCK CONTRACTORS, INC.	
PIERCE TRANSIT	
6" STW UPRATE - PHASE 1	
SO. 96TH STREET, TACOMA	
DRAWN: DODDS ENGR. DATE: MARCH 88	JOB NO. 9705121
CHECKED: [Signature] DATE: 3/22/88	DRAWING NO. 26
APPROVED: [Signature] DATE: 4/4/88	9705121

NO.	DESCRIPTION	DATE	BY	APP'D



30 (See 87.050)

CONSTRUCTION NOTES

1. Verify all underground utilities in field.
2. Minimum cover: 2'-0"
3. Cover all buried fittings with No-Oxide CE2 Air wrap.
4. Install 1/2" lead on all installed valves and fittings.
5. Notify the following utilities at least 48 hours in advance:
 - ONE CALL: 1-800-424-5655
 - U.S. WEST: 2-TACOMA WATER
 - SEACOMA MUTUAL WATER
 - TACOMA CITY LIGHT & POWER
 - TACOMA TELEPHONE
 - SIGNAL STREET LIGHTING
 - FIRE ALARMS: 593-4447
 - PUBLIC WORKS DEPT: 591-3700
 - DIRT RAYCORD: 591-7250
 - ROAD DIST. #1: 845-8813
 - ROAD DIST. #2: 841-2231
6. Perform and test main per std. G.14
7. All other work not affected.

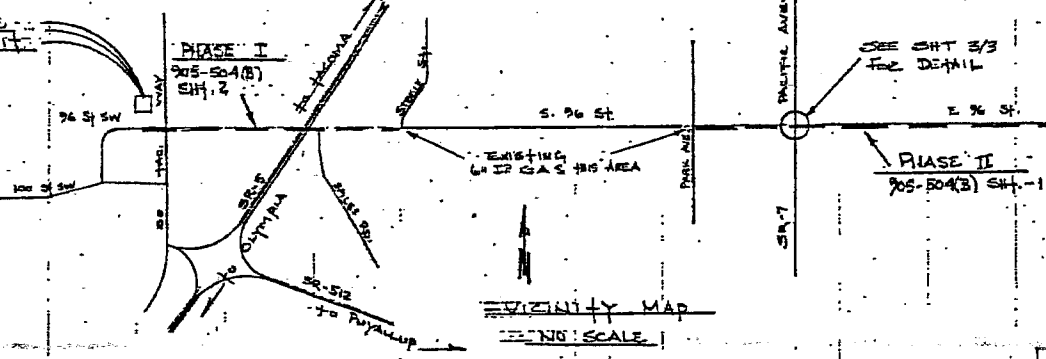
CONSTRUCTION PRINT

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	PRICE
1	12" GAS S.S.	1	LINEAL FT.	64.00
2	4" F.F.G. W/EL. 150'	1	LINEAL FT.	50.00
3	4" BOLT KIT 15FESVX	1	EA.	12.00
4	6" 1/2" RED WLD. 150'	1	LINEAL FT.	16.00
5	6" 1/2" INSERT - CASING	1	EA.	10.00
6	12" PIPE CASING	1	LINEAL FT.	10.00
7	2" BOX VALVE - ROAD FLOW	1	EA.	50.00
8	2" WIRE COPPER 10' BOX TL.	1	EA.	85.00
9	2" 6" BELL WCD. L.R. 90S STD	1	EA.	25.00
10	6" STOPPER HTZ60-80-150	1	EA.	16.00
11	6" BELL WLD 45° L.R. STD	1	EA.	60.00
12	6" BOLT KIT F43-150	1	EA.	50.00
13	6" 1/2" WLD. 150'	1	LINEAL FT.	64.00
14	6" WLD. F43-150	1	EA.	50.00
15	1" 6" 1/2" WRAP PIPE	1	LINEAL FT.	10.00

BILL OF MATERIAL

PERMITS: PIERCE CO. # 14	REG. FILE # 4
91-1748	PLAT 252060/G
TACOMA - B35513	OP. MAP 252156 (1993A)
AREL TACOMA	
TAX CODE 580-6	
REG. NO.	
DOB	

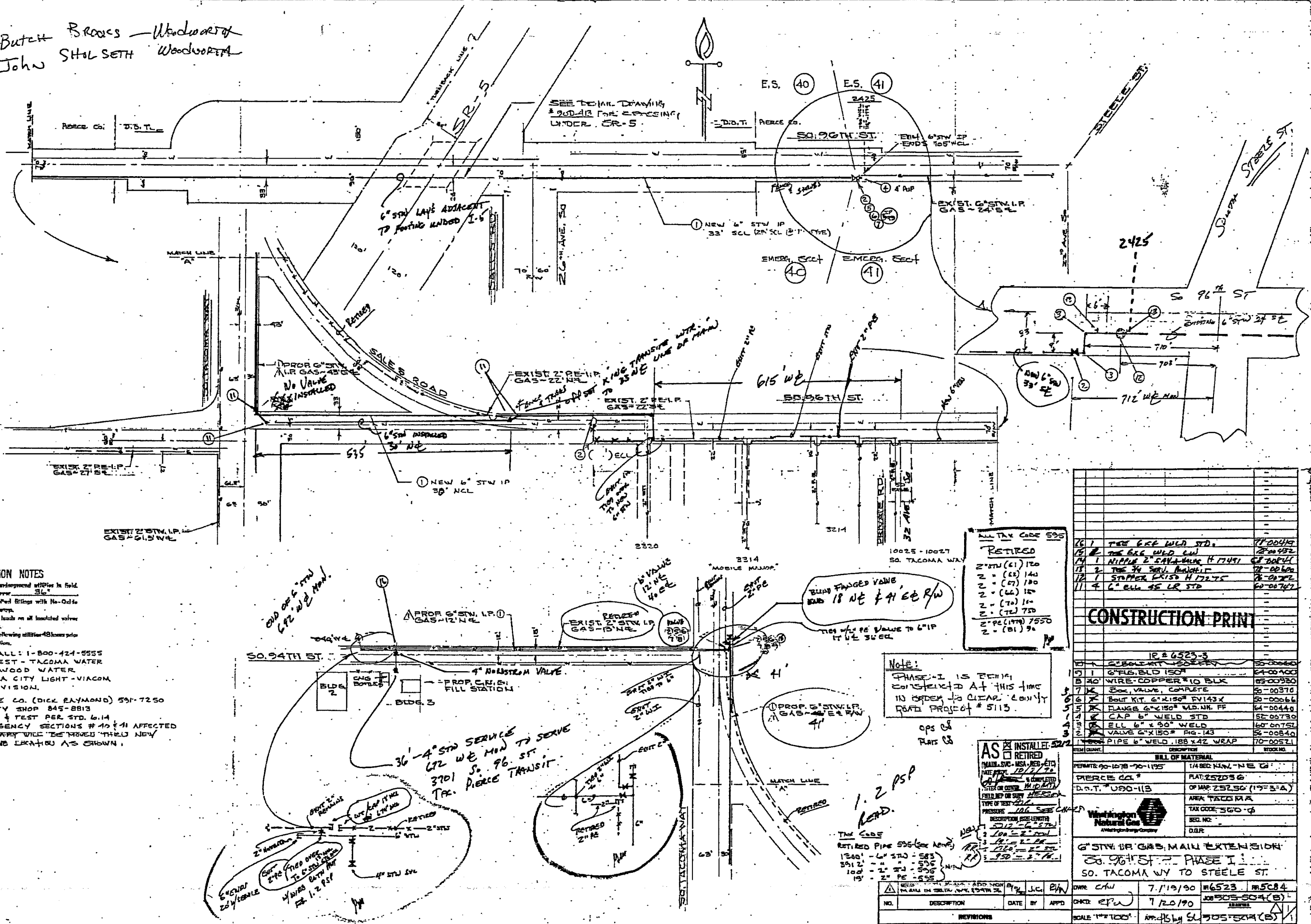
PHASE II
 6" SW. I.P. GAS - PIERCE TRANSIT
 30TH ST - GOLDEN SVINGS TO 30 PARK AVE



AS INSTALLED
 RETIRED
 100 COMPLETED
 100% OF WORK
 100% OF MATERIALS
 100% OF LABOR

ADD THE FOLLOWING DETAILS	DATE	BY	APP'D	DATE	BY
GOLDEN SVINGS	8/16/90	W	W	8/16/90	W
REVISIONS	DATE	BY	APP'D	DATE	BY

Butch Brooks - Woodward
John SHIL SETH Woodward



CONSTRUCTION NOTES

1. Verify all underground utilities in field.
2. Minimum cover 36"
3. Cap all buried fittings with No-Oxide GG-2 and wrap.
4. Install test leads on all installed valves and flanges.
5. Notify the following utilities 48 hours prior to construction.
ONE CALL: 1-800-424-5555
U.S. WEST - TACOMA WATER
LAKEWOOD WATER
TACOMA CITY LIGHT-VIACOM
CABLEVISION.
6. PIERCE CO. (DICK RAYMOND) 591-7250
7. COUNTY SHOP 845-8813
8. PURGE & TEST PER STD. 6.14
9. EMERGENCY SECTIONS # 40 & 41 AFFECTED BOUNDARY WILL BE MOVED THROUGH NEW G. VALVE LOCATION AS SHOWN.

TAX CODE 595

RETIRED

2" STW (41) 120
2" (42) 140
2" (47) 180
2" (46) 150
2" (70) 110
2" (72) 750
2" PE (178) 7550
2" (81) 90

CONSTRUCTION PRINT

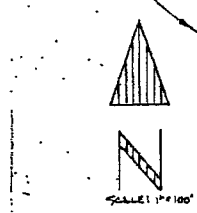
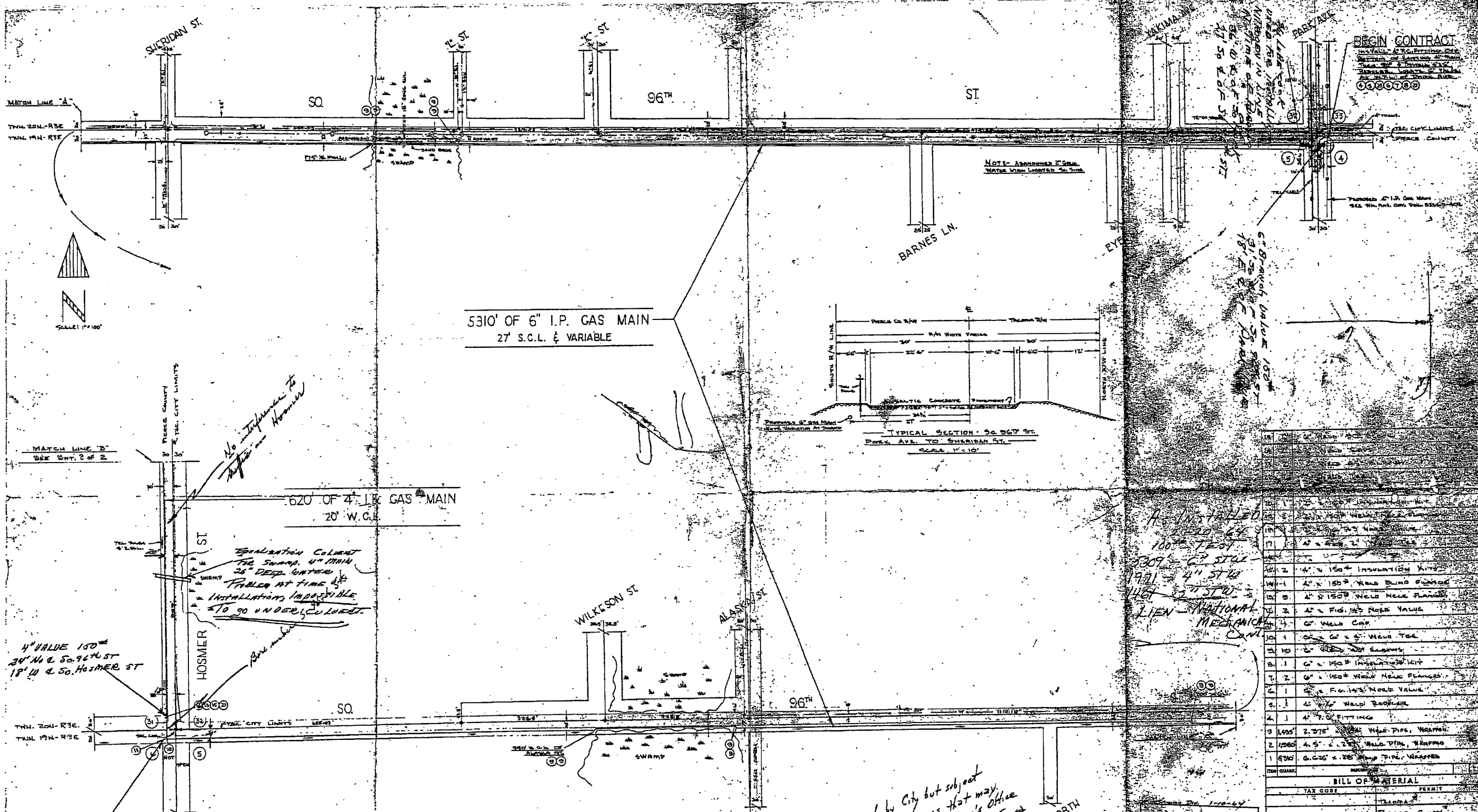
16	1" TEE 6" WELD STD.	17-00494
17	2" TEE 6" WELD STD.	28-00492
18	1" NIPPLE 2" S.A. WELD H 17491	67-00494
19	2" TEE 3/4" S.A. WELD H 17491	70-00494
20	1" STAPLER EX 150 H 17275	76-00492
21	4" 6" 45 LR STD	60-00747

Note:
PHASE I IS BEING COMPLETED AT THIS TIME IN ORDER TO CLEAR COUNTY ROAD PROJECT # 5115.

AS RETIRED

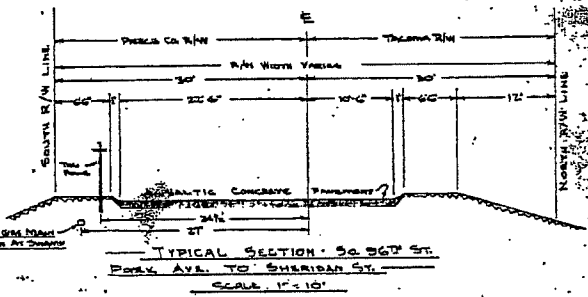
1200'	4" STW - 583
5912'	" " - 595
100'	2" STW - 595
15'	2" PE - 555

NO.	DESCRIPTION	DATE	BY	APPD
1	ISSUED FOR PERMITS	7/19/90	CHW	CHW
2	REVISED FOR PERMITS	7/20/90	EPW	EPW



5310' OF 6" I.P. GAS MAIN
27' S.C.L. & VARIABLE

620' OF 4" I.P. GAS MAIN
20' W.C.L.



*No interference to
traffic on Hosmer*

*Equalization Column
The Swamp, 4" MAIN
25" DEEP WATER
TABLE AT TIME OF
INSTALLATION, IMPOSSIBLE
TO GO UNDER, LOCATED.*

*4" VALVE 150#
24" N & S. 96TH ST
18' W & S. Hosmer ST*

*5' STUB
NO PURGE ON
END
23' W & S. Hosmer ST*

- CONSTRUCTION NOTES**
1. COAT ALL VALVES, BOLTS, FLANGES, ETC. WITH NO-OXID GG-2 & WARP
 2. MINIMUM COVER 30"
 3. VERIFY ALL UNDERGROUND UTILITIES IN FIELD.
 4. PIERCE COUNTY & CITY OF TACOMA PERMITS REQUIRED
 5. NOTIFY THE FOLLOWING 24 HOURS PRIOR TO CONSTRUCTION:
 - PIERCE COUNTY ROAD ENGINEER: FU-3-3311 EXT 741
 - PUBLIC WORKS TACOMA: FU-3-3311 EXT 447
 - TACOMA CITY LIGHT: FU-3-2471 EXT 348
 - PACIFIC TELEPHONE CO: FU-3-0537

*Notes Approved by City but subject
to further conditions that may
be imposed by County Eng's Office
City of Tacoma*

OK
TRAFFIC ENGINEERING DIVISION
DATE 1-15-64

*A. INSTALLED
100# TEST
3309' - 6" STUB
1971 - 4" STUB
1467' - 6" STUB
LIEN - MECHANICAL
CONT.*

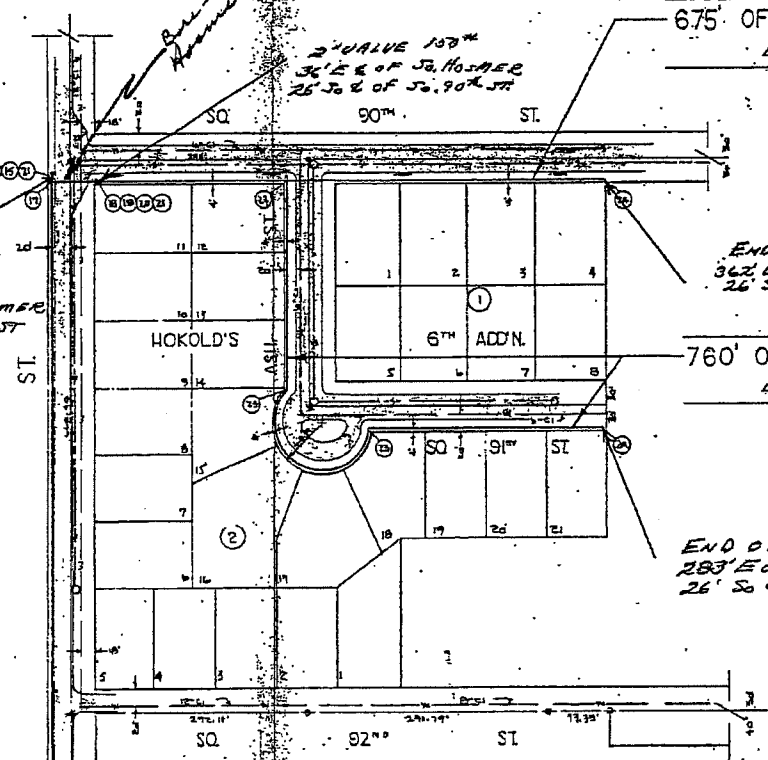
NO.	DESCRIPTION	QTY	UNIT
1	6" I.P. GAS MAIN	5310'	LINEAL FT.
2	4" I.P. GAS MAIN	620'	LINEAL FT.
3	4" VALVE 150#	1	EA.
4	6" VALVE 150#	1	EA.
5	4" WELD NECK FLANGES	2	EA.
6	6" WELD NECK FLANGES	2	EA.
7	4" F.I. 150# NOSE VALVE	1	EA.
8	6" F.I. 150# NOSE VALVE	1	EA.
9	4" WELD BODIES	2	EA.
10	4" F.I. FITTING	1	EA.
11	2.375" WELD PIPE, WRAPPED	2	1000'
12	4.5" WELD PIPE, WRAPPED	2	1000'
13	6.625" WELD PIPE, WRAPPED	1	1000'

BILL OF MATERIAL	
TAX CODE	PERMIT
WASHINGTON NATURAL GAS COMPANY	
6" & 4" REINFORCEMENT - SO 96TH ST PARK AVE TO HOSMER & SO HOSMER, 96TH TO 96TH TO SERVE HIKOLDS, 6" ROAD	

NO.	REVISIONS	DATE	BY



4" VALVE 150#
20' W. & OF So. Hosmer
3' So. & OF So. 90th ST



6.75' OF 2" I.P. GAS MAIN
4' N.S.L.

END OF MAIN
362' E. & OF So. 90th
26' So. & OF So. 90th ST

760' OF 2" I.P. GAS MAIN
4' E.W.L. & N.S.L.

END OF MAIN
283' E. & OF So. 91st ST
26' So. & OF So. 91st ST

1360' OF 4" I.P. GAS MAIN
20' W.C.L.

HOSMER

MATCH LINE "2"
SEE SHEET OF 2

SEE 31-20-3
PIERCE COUNTY
CITY OF TILGHAM
490-11-80-3

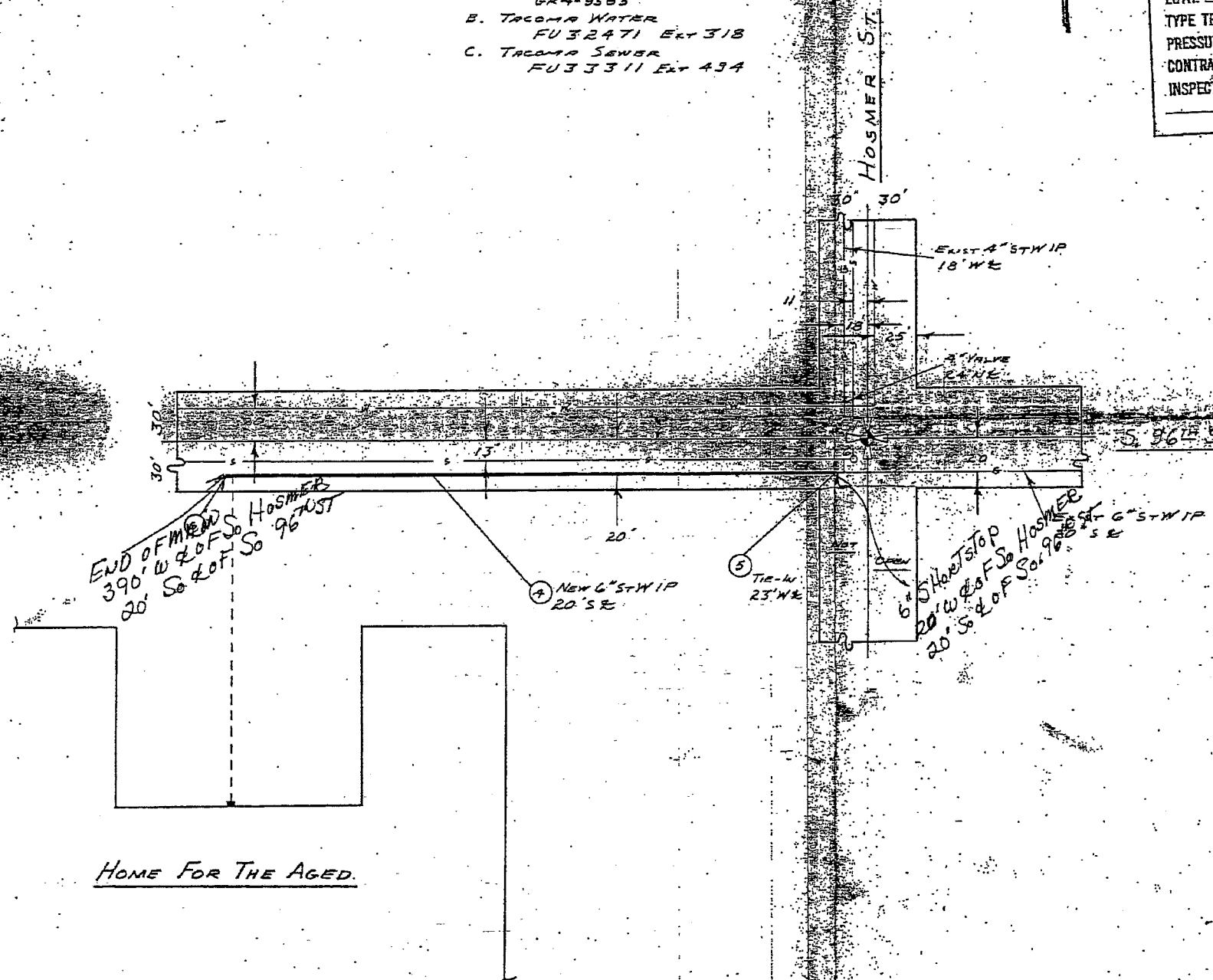
LINE	DESCRIPTION	QUANTITY	UNIT	AMOUNT
BILL OF MATERIAL				
TAX CODE	PERMIT			
WASHINGTON NATURAL GAS COMPANY				
AREA	MAP NO.	DATE	SCALE	
6" & 4" I.P. REINFORCEMENT - SQ. 287' ST PARK AVE. TO HOSMER & SQ. HOSMER 60' TO 90th 2" I.P. TO SERVE HOKGLDS. 6" ADDN.				
NO.	DATE	BY	CHECKED	APPROVED
REVISIONS				

CONSTRUCTION NOTES

1. Verify all underground utilities in field.
2. Minimum cover 36"
3. Coat all heated fittings with No-Oxide GG-2 and wrap.
4. Install test leads on all insulated valves and flanges.
5. Notify the following utilities 24 hours prior to construction.

- A. TEL CO. 624-9583
- B. TACOMA WATER FU 32471 EXT 318
- C. TACOMA SEWER FU 33311 EXT 434

AS INSTALLED	
DATE:	7-15-69
SIZE:	6"
LGTH:	370
TYPE TEST:	AIR
PRESSURE:	108#
CONTRACTOR:	POCKEY
INSPECTOR:	LIEW



HOME FOR THE AGED.

ITEM QUANTITY	DESCRIPTION	PRICE PER UNIT
6	1 6" N.O. CAP.	52728
5	1 6" LINE STOPPER H17255	76775
4	370' 6" S-W PIPE	70520
3	4" PROTECTOWRAP	66940
2	4" PROTECTOWRAP	66950
1	PRIMER 70 B	66620

BILL OF MATERIAL

PERMITS
PIERCE CO.

CONSTRUCTION PRINT

WASHINGTON NATURAL GAS COMPANY
SE 31
AREA TACOMA MAP NO. SW 22-20-3

6" S-W IP GAS MAIN EXTENSION
TO SERVE
962' E HOLMER ST
NARD CONSTRUCTION

DRAWN BY	JA	DATE	7/7/69	IR	6007-3
CHECKED BY	DKR	DATE	7/9/69	JOB	69-515
REVISIONS			DATE	BY	DESCRIPTION



CONSTRUCTION NOTES

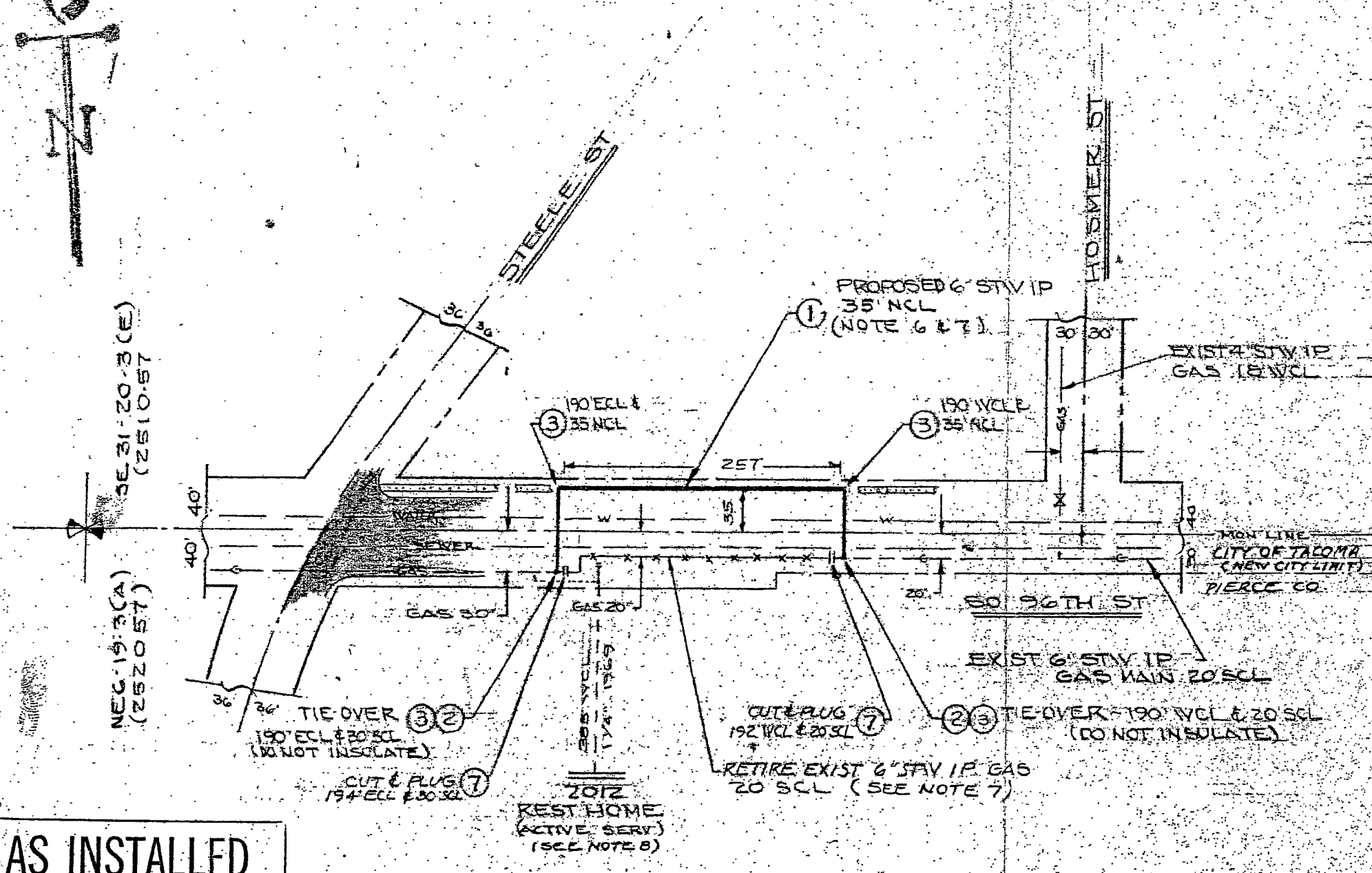
1. Verify all underground utilities in field.
2. Minimum cover 30"
3. Coat all bolted fittings with No-Oxide GG-2 and wrap.
4. Install test leads on all insulated valves and flanges.
5. Notify the following utilities 24 hours prior to construction.

ONE CALL 272-6700

WATER
POWER
TELE

6. MAIN IS UNDER RECTIFIER PROTECTION

7. DO NOT REMOVE UPON COMPLETION OF LID - MAIN TO BE USED IN THE FUTURE
8. TIE OVER ACTIVE SERV TO EXIST MAIN



ITEM	QUANT.	DESCRIPTION	STOCK NO.
		5437-1	
7	2	PLUG 6" WLD	72096
		6998-1	
3	4	ELL 6" LR 90" WLD	60752
2	2	STOPPER 6" HITZBO BO.	76786
1	376	PIPE 6" WLD WRAP (GR. B)	70520

BILL OF MATERIAL

WASHINGTON NATURAL GAS COMPANY

PERMIT CITY OF TACOMA	D.G.R.
PERMIT	1/4 SEC. SE 31
PERMIT	OP. MAP 20-3 (E)
TAX CODE 3601	PLAT NO. 251057
AREA TACOMA	SEQ. NO.

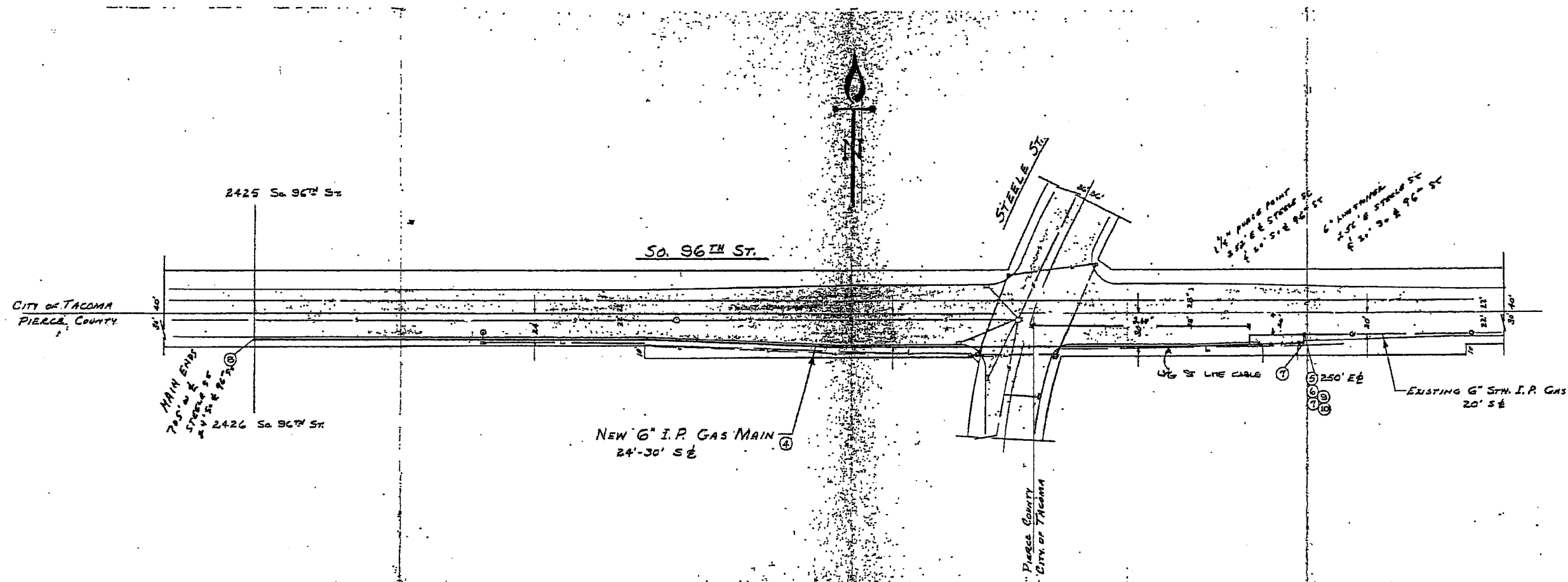
6" STW IP - RELOCATION - GAS MAIN
SO. 96TH ST
BETWEEN S. STEELE & S. HOSMER

AS INSTALLED

DATE:	6-8-79
SIZE:	6" STW
LGTH:	376'
TYPE TEST:	
PRESSURE:	
CONTRACTOR:	PIPELINE
INSPECTOR:	KENNEDY
RETIRE:	62 = 6" STW (1974) 198 = 6" STW (1969)

NO.	DESCRIPTION	DATE	BY	APP'D
REVISIONS				

DWN. GUS	6/9/79	IR 6998	RR 5437
CHK'D (P. K.)	6/14/79	JOB 795-373	
SCALE 1" = 100'	APP'D	DRAWING	795-373



AS INSTALLED

DATE 7-10-74
 SIZE 6"
 LGTH 975'
 TYPE TEST: R.I.P.
 PRESSURE 10.4 #
 CONTRACTOR: PIPELINE
 INSPECTOR: HALLEK

CONSTRUCTION NOTES

- Verify all underground utilities in field.
 - Minimum cover 30" PIERCE COUNTY - 20" TACOMA.
 - Coat all bell end fittings with No-Oxide G-3 and wrap.
 - Install test leads on all insulated valves and flanges.
 - Notify the following utilities 24 hours prior to construction:
 A. WATER/POWER FUS-2471
 B. PACIFIC TEL. FUS-0447
 C. INSTALL ROADIES AS REQUIRED
- TRAFFIC NOTES**
- WORK HOURS SHALL BE 8 AM TO 4 PM MON THRU FRI.
 - THE CONTRACTOR SHALL MAINTAIN TWO LANES FOR TWO WAY TRAFFIC ON So. 96th St DURING WORK HOURS.
 - THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE REST HOME AT STEELE ST. AT ALL TIMES.

NOTE:
 Bore or jack all utility and service crossings under street pavement, concrete driveways and sidewalks.

If open cut is necessary for street, alley, and driveway crossings, trench backfill shall be placed in acc. with City of Tacoma Specs. (Section 61-5.05 to 61-5.09 incl. of A.S.N.L. Std. Specs.) Pavement shall be replaced in acc. with Std. Plan No. 18 - All's.

Trench crossing shall be in accordance with the City Engineer's requirements and the Washington State Highway Dept. specifications. The contractor shall provide a safe roadway for traffic or access to the City Engineer's Agency at all times.

CONTRACTOR'S	MATERIAL	DESCRIPTION	QTY USED	CONTRACTOR'S USAGE		WNG USE ONLY	
				Before	After	Amount	Order
10.10'	Wire	Copper #10 Blk	55930				
9	1	Box Wire Uprkr	50365				
8	1	Plug 6" Wld	72090				
7	2	Ell 6" 30" Wld LW	40752				
6	1	Coupling 6" DSR 33 Ins.	58600				
5	1	Stopper 6" H 19255	76775				
4	1000	Pipe 6" CR 21" WRA	78520				
3		PROTECTORS	8000				
2		PROTECTORS	8000				
1		PROTECTORS	8000				

PERMITS

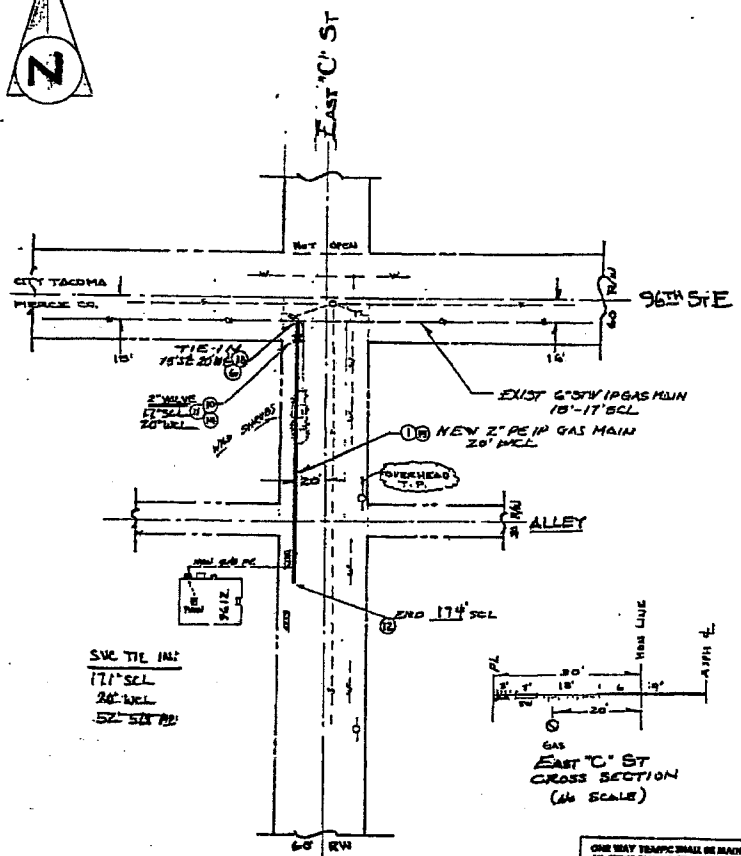
CITY OF TACOMA 1519012
 PIERCE COUNTY 1151

CONSTRUCTION PRINT

WASHINGTON NATURAL GAS COMPANY
 251-057
 TACOMA, WA Reg. No. 35 31. 20-3 (E)

6" I.P. GAS MAIN EXTENSION
 TO BEAVE
 2425 & 2426 So. 96th St.

DATE 5/20/74 IN 4005
 CHECKED 5/20/74 NO. 24-221
 SCALE 1" = 50' DATE 7-15-74



- WIRE CONSTRUCTION NOTES**
1. Verify all underground utilities in field.
 2. Minimum cover 36"
 3. Coat all buried fittings with non-soluble GO-S and wrap.
 4. Install test leads on all branched valves and tees.
 5. Tapes location tags to plastic rods.
 6. Pumps used test per Standard 814.
 7. Notify TCI Callcenter at 200-2881 48 hours prior to construction.
 8. Notify ONE-CALL 1-800-484-8888 48 hours prior to construction.
 - Tacoma Sewer Department
 - Tacoma Department of Public Works
 - Tacoma City Light
 - US West
 - Washington Natural Gas
 - Tacoma Water Department

VI. Emergency Section 41
Affected: yes

PIERCE COUNTY

1) NOTIFY ONE-CALL 1-800-484-8888 48 HOURS PRIOR TO CONSTRUCTION:

POWER: TAC
WATER: TAC
PHONE: U.S. WEST
CABLE: VI A. CO. N.

2) COUNTY SHOP

3) FIRE DEPT.

4) PIERCE CO. INSPECTOR: 89-7250

KING COUNTY

1) NOTIFY ONE-CALL 1-800-424-8855 48 HOURS PRIOR TO CONSTRUCTION:

POWER: _____
WATER: _____
PHONE: _____
CABLE: _____

2) KING CO. PUBLIC WORKS: 844-0770

AS INSTALLED

RETIRED

DATE: 10/15/91

BY: [Signature]

PROJECT: 2" PE 100 GAS MAIN EXTENSION TO SERVE 9612 EAST 'C' ST

DESCRIPTION: 2" PE 100 GAS MAIN EXTENSION TO SERVE 9612 EAST 'C' ST

CONSTRUCTION PRINT

NO.	DESCRIPTION	DATE	BY	APP'D
1	DESCRIPTION	DATE	BY	APP'D

CITY OF TACOMA NOTES

STREET LIGHTING

DATE: _____

BY: _____

NO STREET LIGHT EQUIPMENT INVOLVED
 STREET LIGHT CIRCUITS NOTED ON PLANS

POWER

DATE: _____

BY: _____

NO SIGNAL EQUIPMENT INVOLVED
 SIGNAL EQUIPMENT INVOLVED - SEE ATTACHED

TRAFFIC SIGNALS

DATE: _____

BY: _____

NO SIGNAL EQUIPMENT INVOLVED
 SIGNAL EQUIPMENT INVOLVED - SEE ATTACHED

SEWER

DATE: _____

BY: _____

WATER

DATE: _____

BY: _____

TRAFFIC: Provide and maintain protected pedestrian walkways at all times. Provide and maintain traffic control devices for streets and highways at all times. No moving lanes of traffic shall be placed without the authorization of the City of Tacoma Traffic Engineering Director at phone # 857-6882. (SEE NOTES ATTACH.)

GENERAL:

1. Where full depth work has been done the contractor shall be responsible for future street surfacing.
2. If an open cut is required for necessary and alternate crossings, trench handoffing and pavement removal shall be performed in accordance with Section 10.01 of the STANDARD SPECIFICATIONS for the Road, Bridge and Municipal Construction as amended by APWA, and the City of Tacoma. All pavement shall be replaced as per City of Tacoma Standard Plan No. 10.
3. There shall be full and proper coverage under street pavement, concrete drainage and sidewalks.

NO.	DESCRIPTION	QUANTITY	UNIT
20	CAP 1 1/4" PE	82	00080
21	COCK 1 1/4" CURB PE	58	00078
22	ELL 1 1/4" X 1 1/4" PE	80	00028
23	REDUCER 4" X 1 1/4" PE	72	00040
24	TRANSITION 1 1/4" PE X 1 1/4" STL	78	00098
25	TEE 1 1/4" X 1 1/4" PE	78	00098
26	TEE 1 1/4" SVC H-1700	78	00070
27	PIPE 1 1/4" PE BOND	82	00040
28	100' WIRE COPPER #14	82	00040
29	50K 50' PPOET 2" PE	78	00077
30	TEE 2" SVC H-1700	78	00071
31	CAP 2" PE	82	00080
32	BOX VALVE ROAD COMP.	80	00070
33	COCK 2" CURB PE	88	00080
34	SADDLE 4" X 2" PE BRANCH	78	00080
35	REDUCER 4" X 2" PE	78	00080
36	ELL 2" X 1 1/4" PE	80	00086
37	TRANSITION 2" PE X 2" STL	78	00080
38	TEE 2" X 2" PE	78	00080
39	TEE 2" SVC H-1700	78	00071
40	STOPPER 2" X 1000-1700	78	00043
41	SADDLE 2" X 2" PE BRANCH	78	00070
42	PIPE 2" PE BOND	78	00080

PERMITS: _____

PIERCE CO. 91-2180

SH DES: NE 4: 19-3 E

PLAT: 252-061

OF MAP: 252-056

APR: TACOMA

TAX CODE: 3600

REG. NO.: _____

D.O.B.: _____

2" PE 100 GAS MAIN EXTENSION TO SERVE 9612 EAST 'C' ST

DATE: 10/15/91

BY: [Signature]

NO: 915-876

SCALE: 1" = 50'

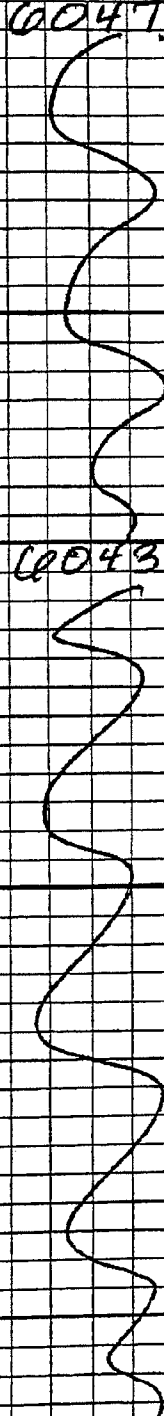
APP: [Signature]

STORES TICKET - MAINS & SERVICES

WNG 483.8 S (7/91)

S 62580

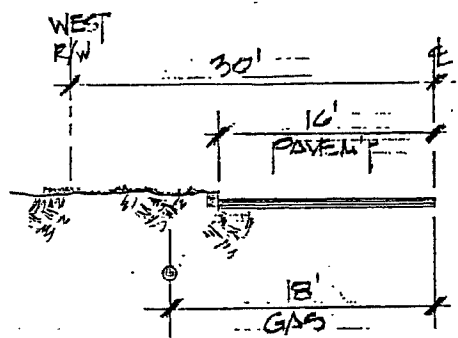
FROM STOREROOM 0053 TO STOREROOM C TRANSACTION CD 24 DATE 5-24-93
 CLAIM NO. REF. CODE 24553 JOB NO. 9309077 TICKET NO. U 51117

LINE	REPL	STOCK ITEM NO.	QUAN ORDERED	QUAN USED	DESCRIPTION	ACCOUNT NO.
		50-00200			Adapt 3/4" x 5/8" SVC Head	<u>00471</u>
		56-00110			Cock 3/4" Meter x 125 lbs	
		70-00040		<u>58</u>	Pipe 5/8" PE SDR 11	
		60-00916		<u>1</u>	Riser, Pre-built for 5/8" PE	
		60-00915			Riser 3/4" Service for PE	
		78-00575			Tee 1/2" STL x 5/8" PE SVC Outlet	
		78-00776			Tee 1-1/4" Serv PE x 5/8" Fuse-Tap	
		78-00778		<u>1</u>	Tee 2" Serv PE x 5/8" Fuse-Tap	
		<u>35-00851</u>		<u>1</u>	<u>Tape</u>	
		<u>85-00415</u>		<u>1</u>	<u>Lock</u>	
		<u>85-00435</u>		<u>1</u>	<u>Bealood</u>	
		50-00205			Adapt 1-1/4" x 1-1/8" SVC Head	
		56-00190			Cock 1-1/4" Meter x 125 lbs	
		70-00120			Pipe 1-1/8" PE SDR 11	
		60-00951			Riser, Pre-built for 1-1/8" PE	
		78-00779			Tee 2" Serv PE x 1" Fuse-Tap	
		58-00285			Transition 1-1/8" PE x 1-1/4" Stl	
		<u>85-00440</u>		<u>63</u>	<u>WIRE</u>	<u>00433</u>
		78-00878			Box - Support for 1-1/4" Valve	
		52-00630			Cap 1-1/4" PE Fusion	
		56-00175			Cock 1-1/4" Curb PE	
		60-00325			Elb 1-1/4" x 90 PE Fusion	
		70-00170			Pipe 1-1/4" PE SDR 11 (Coiled)	
		70-00175			Pipe 1-1/4" IPS PE x 20' Straight	
		72-00400			Reducer 2" x 1-1/4" IPS PE	
		78-00671			Tee 1-1/4" Serv H-17501	
		78-00230			Tee 1-1/4" x 1-1/4" PE Fusion	
		78-00795			Transition 1-1/4" PE x 1-1/4" Stl	
		50-00370		<u>1</u>	Box Valve Road Complete Plastic	
		76-00877			Box - Support for 2" Valve	
		52-00650		<u>1</u>	CAP 2" PE Fusion	
		56-00260			Cock 2" Curb PE	
		60-00485			Elb 2" x 90 PE Fusion	
		60-00500			Elb 2" x 90 Weld LR.	
		70-00260		<u>184</u>	Pipe 2" IPS SDR 11 PE (Coiled)	
		70-00262			Pipe 2" IPS SDR 11 (Straight)	
		76-00070			Saddle 2" x 2" PE Fusion Branch	
		78-00743			Stopper 2" x 150 H 17190 Shortstop	
		76-00741			Stopper 2" x 150 H 17160 STD B/O	
		78-00711		<u>1</u>	Tee 2" SVC H 17501	
		78-00363			Tee 2" x 2" PE Fusion	
		78-00800		<u>1</u>	Transition 2" PE x 2" Steel	
		66-00015			CP Anode Magnesium 1 lb	
		85-00415			Meter Lock #4 Standard	
		85-00940		<u>202</u>	Wire Copper #14 - Burial	

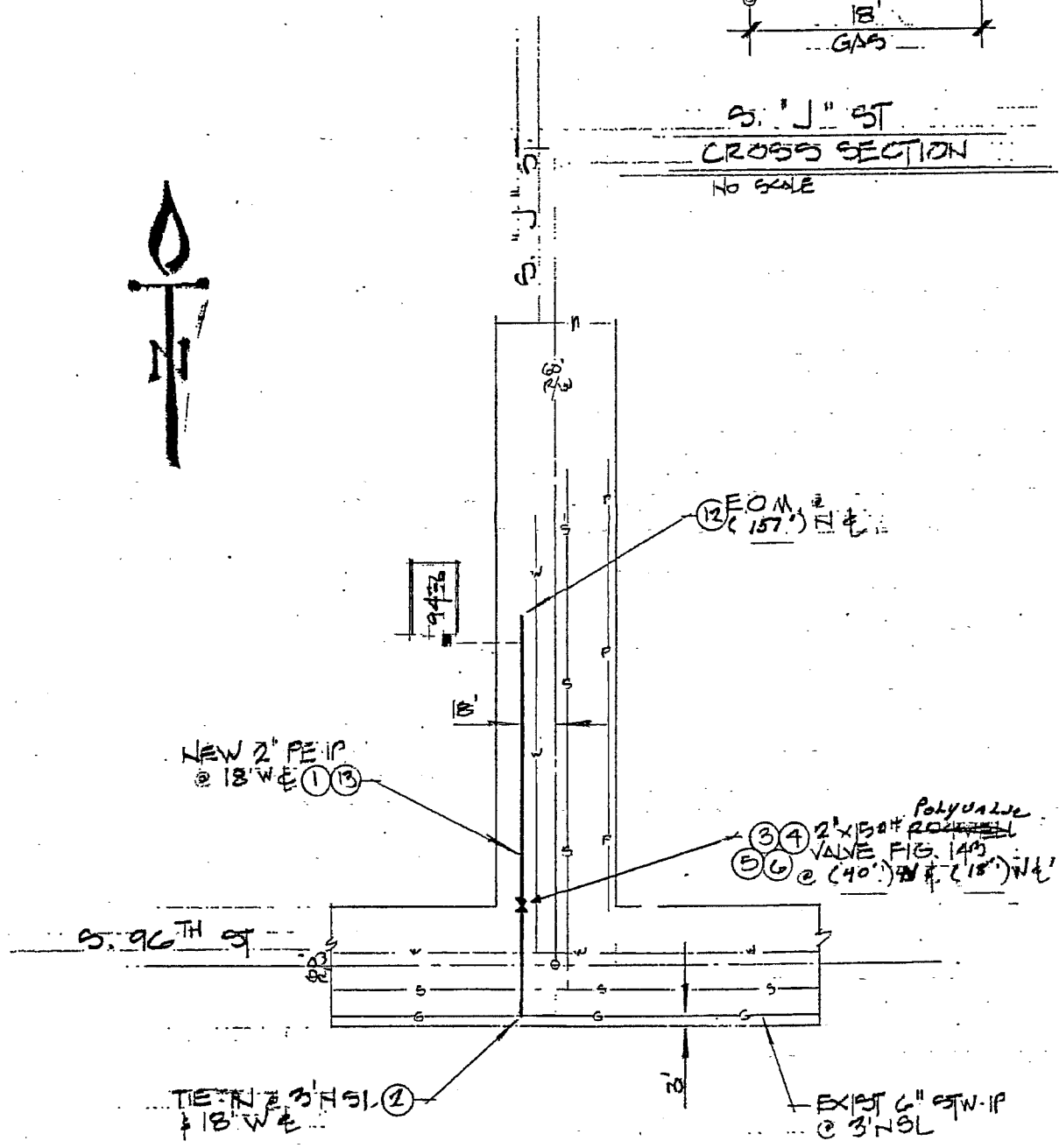
POSTED
JUN 23 1993

ORDER PREPARED BY: P. Piquand RECEIVED BY: W. J. Miller REQUESTED BY: W. J. Miller APPROVED BY: W. J. Miller
 FOREMAN'S SIGNATURE: P. Piquand INSPECTOR'S SIGNATURE: W. J. Miller DATE: 5/24/93

1. (WHITE) ISSUE TICKET; 2. (YELLOW) CONFIRMING COPY; 3. (PINK) TRANSFER TICKET
 80092



5.0' J' ST
CROSS SECTION
NO SCALE



WNG CONSTRUCTION NOTES

1. Verify all underground utilities in field.
2. Minimum cover 30".
3. Coat all bolted fittings with no-oxide GG-2 and wrap.
4. Install test leads on all insulated valves and flanges.
5. Tape location wire to plastic main.
6. Purge and test per Standard 6.14.
7. Notify TCI Cablevision at 383-3961 48 hours prior to construction.
8. Notify ONE-CALL 1-800-424-5555 48 hours prior to construction
Tacoma Sewer Department
Tacoma Department of Public Works
Tacoma City Light
US West
Washington Natural Gas
Tacoma Water Department

10. Emergency Section # 41
Affected: yes no

CITY OF TACOMA NOTES

STREET LIGHTING
BY _____
DATE _____
 NO STREET LIGHT EQUIPMENT INVOLVED
 STREET LIGHT CIRCUITS NOTED ON PLANS

POWER

TRAFFIC SIGNALS
BY _____
DATE _____
 NO SIGNAL EQUIPMENT INVOLVED
 SIGNAL EQUIPMENT INVOLVED - USE 1-CALL
 SIGNAL EQUIPMENT INVOLVED - SEE ATTACHED

SEWER

WATER

TRAFFIC: Provide and maintain protected pedestrian walkways at all times. Provide and maintain barricades, signs, lights, etc. as per "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" at all times. No moving lanes of traffic shall be blocked without the authorization of the City of Tacoma Traffic Engineering Division at phone # 591-5262. SPEC. NOTES ATTACH.

GENERAL: 1. Where full depth bank run gravel is waived the contractor shall be responsible for future street settlement.
2. If an open cut is required for roadway and sidewalk crossings, french backfilling and pavement removal shall be performed in accordance with Section _____ of the _____ WSDOT/APWA Standard Specifications for the Road, Bridge and Municipal Construction as amended by APWA and the City of Tacoma. All pavement shall be replaced as per City of Tacoma Standard Plan No. 18.
3. Boze and Jack all main and service crossings under street pavement, concrete driveways and sidewalks.

PIERCE COUNTY	
1) NOTIFY ONE-CALL 1-800-424-5555 48 HOURS PRIOR TO CONSTRUCTION:	
POWER	_____
WATER	_____
PHONE	_____
CABLE	_____
2) COUNTY SHOP	
3) FIRE DIST.	
4) PIERCE CO. INSPECTOR: 591-7250	

KING COUNTY	
1) NOTIFY ONE-CALL 1-800-424-5555 48 HOURS PRIOR TO CONSTRUCTION:	
POWER	_____
WATER	_____
PHONE	_____
CABLE	_____
2) KING CO. PUBLIC WORKS: 244-0770	

ITEM	QUANT.	DESCRIPTION	STOCK NO.
20	1	CAP 1 1/4" PE	52 - 00630
19	1	COCK 1 1/4" CURB PE	58 - 00175
18	1	ELL 1 1/4" X 90° PE	60 - 00325
17	1	REDUCER 2" X 1 1/4" PE	72 - 00400
16	1	TRANSITION 1 1/4" PE X 1 1/4" STL	78 - 00795
15	1	TEE 1 1/4" X 1 1/4" PE	78 - 00230
14	1	TEE 1 1/4" SVC H-17501	78 - 00671
13	1	PIPE 1 1/4" PE SDR11	70 - 00170
12	1	CAP 2" PE	52 - 00650
11	1	BOX VALVE ROAD COMP.	50 - 00370
10	1	COCK 2" CURB PE	56 - 00280
9	1	SADDLE 4" X 2" PE BRANCH	76 - 00160
8	1	REDUCER 4" X 2" PE	72 - 00505
7	1	ELL 2" X 90° PE	60 - 00485
6	1	TRANSITION 2" PE X 2" STL	78 - 00800
5	1	2" POLYVALVE VALVE FIG. 143 (150#)	50 - 00105
4	2	2" X 150# BJT KIT 100# HAZL	50 - 00102
3	2	2" X 150# WELD NECK FLANGE	54 - 00130
2	1	6" X 2" FISH-TAIL WELD TEE	78 - 00416
1	1	PIPE 2" IPS SDR11 PE	70 - 00250

ENG POSTING
MAP 1105
DATE 4-21-93
100% COMPLETED
FIELD REP OR SUPP. M. SELADY
TYPE OF TEST
PRESSURE 90 PSF
DESCRIPTION (SIZE-LENGTH)
2" PE-184'

CONSTRUCTION PRINT

POST INSPECTION

STORM - SEWERS

CURBS - GUTTERS

STREET ABRASIONS

INSP. BY M. SELADY

DATE 4-28-9

AS INSTALLED
 RETIRED

MADE - SVC • MSA • REG • ETC

DATE COM. 4-21-93

100% COMPLETED

FIELD REP OR SUPP. M. SELADY

TYPE OF TEST
PRESSURE 90 PSF

DESCRIPTION (SIZE-LENGTH)
2" PE-184'

BILL OF MATERIAL

PERMITS: 1/4 SEC: CE-31-20-3

CITY OF TACOMA PLAT: 251.39

OF MAP: 248.5L

AREA: TAC

TAX CODE: 3100.1

SEQ. NO.:

D.G.R.:

2" PE-IP GAS MAIN EXTENSION TO: 9436 S. "J" ST

DWN: E. DUNN 9/30/93 IR 60433 RR

CHKD: FOR LAW 3/31/93 JOB 9369-07

SCALE: 1"=10' APP: SC 9309077 Δ/K

NO.	DESCRIPTION	DATE	BY	APPD
REVISIONS				

MAIN RECORD RETIRE WASHINGTON NATURAL GAS COMPANY
WNG 800.45(12/70)
TOWN LAKEWOOD JOB# 815-178 TR# RR 5B29

STREET 22ND AV. So. PIPE SIZE 2" TYPE P.E. LGTH. 560' DATE 12-19-80

FROM 36'S E So. 96TH TO 596'S E 5.96TH

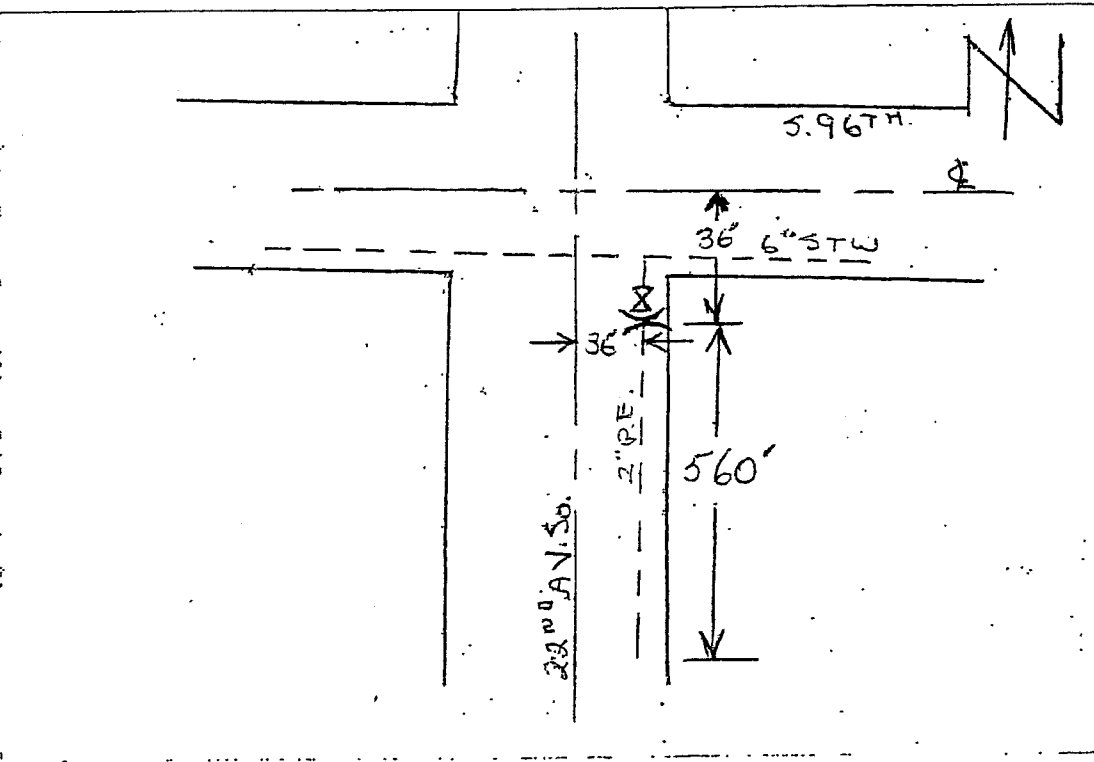
LOCATION 36' TO 28' E & 22ND AV. So. DRAINS \emptyset DEPTH 36"

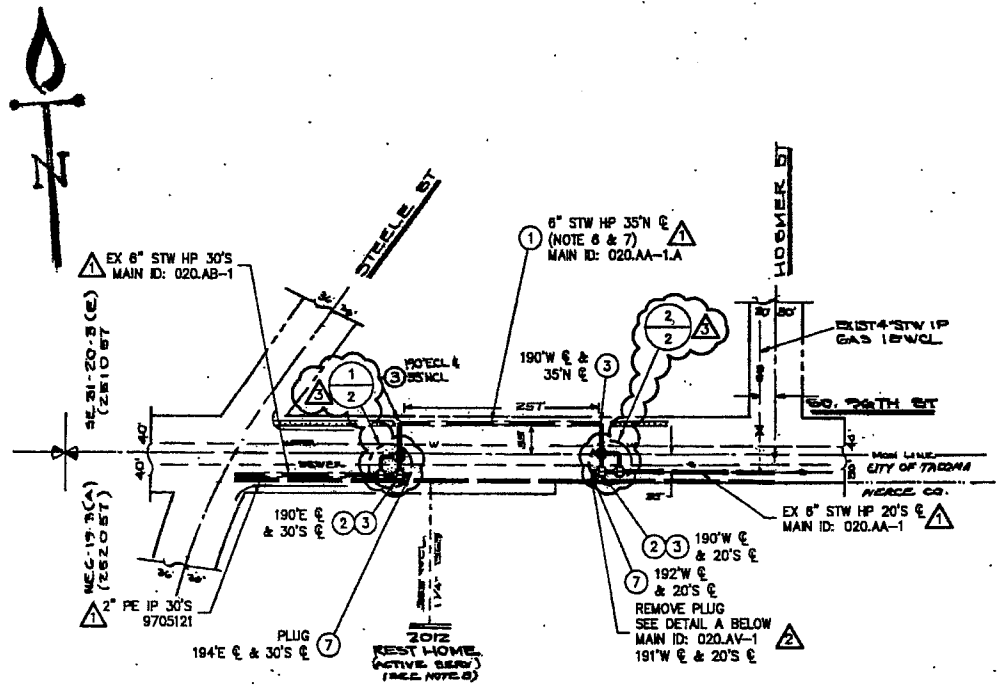
SPECIALS: ~~RETIRE~~ EXISTING 2" P.E. (1980) DO TO

COUNTY LOWERING ROAD.

NEG MAP# 19-3-BA INSPECTOR: R. SCHEETZ

CONTRACTOR: WNG





NOTES FOR JOB: 887024719

- SCOPE OF JOB: INITIAL DIG-UP FOUND UNDER-RATED FITTINGS ON THE 6" STW HP GAS MAIN IN ADDITION TO THE WELD PLUGS. RETIRE APPROXIMATELY 40' OF 6" STW HP MAIN AND RELOCATE THE GAS MAIN USING BOTTOM-OUT STOPPERS AND 6" STW PIPE.
- ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY GAS STANDARDS AND GAS FIELD PROCEDURES.
- SHADING INDICATES EXISTING PIPING. (NOT ALL EXISTING PIPING IS SHADED)
- PSE SERVICE PROVIDER OR CONTRACTOR TO CALL 1-800-424-5555 OR 811 TWO (2) WORKING DAYS PRIOR TO EXCAVATING TO LOCATE UNDERGROUND UTILITIES.
- EROSION AND SEDIMENT CONTROL SHALL BE PER STANDARD PRACTICE AND ANY OTHER ADDITIONAL LOCAL JURISDICTION REQUIREMENTS.
- ANY CHANGE IN FACILITY ORIENTATION AND PIPE ROUTING, PIPE SIZE/TYPE, TIE-IN METHOD OR EQUIPMENT MUST BE APPROVED BY THE PSE PROJECT ENGINEER.
- ALL PIPING TO BE COATED IN ACCORDANCE WITH PSE OPERATING STANDARD 2500.1100.
- TAP OUT ALL SAVE-A-VALS WITH TAPPING EQUIPMENT. HOLES MAY BE FLAME CUT IF APPROVED BY A PSE QUALITY ASSURANCE INSPECTOR.
- TAP OUT ALL TEES WITH TAPPING EQUIPMENT. DO NOT TAP OUT WITH A TORCH UNLESS AUTHORIZED BY A PSE PROJECT ENGINEER.
- PIPELINE MARKERS AND WARNING SIGNS SHALL BE INSTALLED AND RECORDED BY THE CONTRACTOR PER PSE GAS OPERATING STANDARD 2525.2500.
- NOTIFY PROPERTY OWNERS ADJACENT TO PROPOSED CONSTRUCTION ACTIVITIES A MINIMUM OF 24 HOURS PRIOR TO BEGINNING CONSTRUCTION. USE TIMES DISTRIBUTION TO DISTRIBUTE FLYERS IF JOB IS LARGE, OTHERWISE HAND DELIVER FLYERS.
- GAUGE AND MONITOR USE OF ALL STOPPERS TO ENSURE ADEQUATE FEED.
- SERVICE PROVIDER OR CONTRACTOR TO NOTIFY MUNICIPAL INSPECTORS PER REQUIREMENTS OF THE STREET USE PERMIT.
- COORDINATE CATHODIC PROTECTION WITH CORROSION ENGINEER. CONTRACTOR TO NOTIFY CORROSION CONTROL TECHNICIAN JIM OLIVER @ (253) 405-3837, AT LEAST TWO (2) WORKING DAYS PRIOR TO START DATE.
- NOTIFY PRESSURE CONTROL TECHNICIAN PAUL BENCH @ (253) 405-1820, AT LEAST TWO (2) WORKING DAYS PRIOR TO RETIRING STATION.
- PRIOR TO HYDROSTATIC, NITROGEN, OR AIR TESTING INSTALL TYPE "K" THERMOCOUPLES AT EQUAL INTERVALS ALONG THE PORTION OF MAIN TO BE TESTED, INSTALL PER GPP 4700.1800
- ALL PAVING, INCLUDING ALL ROAD CROSSINGS, SHALL BE OPEN CUT EXCEPT WHERE SPECIFICALLY STATED OTHERWISE ON THE DRAWING OR PERMIT.
- PROVIDE A MINIMUM OF 36" OF COVER OVER MAIN. WHEN INSTALLING MAIN ACROSS OR IN A DRAINAGE DITCH, MEASURE COVER FROM BOTTOM OF DRAINAGE DITCH.
- IF A MINIMUM OF 36" OF COVER CAN NOT BE ACHIEVED, CONTACT PSE PROJECT ENGINEER.
- PLUG ENDS OF DEACTIVATED OR INSERTED MAINS AND SERVICES IN ACCORDANCE WITH PSE GAS STANDARD 2525.3600.
- VISUAL INSPECTION SHALL BE CONDUCTED ON EVERY WELD AND WELDS NOT PRESSURE TESTED MUST BE RADIOGRAPHICALLY INSPECTED PER PSE GAS OPERATING STANDARD 2700.1200. A MINIMUM OF 10% OF ALL WELDS (EXCLUDING TIE-INS AND CROSSINGS) SHALL BE RADIOGRAPHICALLY INSPECTED. 100% OF TIE-IN WELDS ON PIPE 6 INCHES OR LARGER AND 100% OF WELDS AT RAILROAD CROSSINGS, BRIDGE CROSSINGS, AND HIGHWAY CROSSINGS SHALL BE RADIOGRAPHICALLY INSPECTED. WORK SHALL BE PERFORMED UNDER SEPARATE CONTRACT WITH AND AT THE DISCRETION OF PUGET SOUND ENERGY. (FOR PIPELINES DESIGNED TO OPERATE ABOVE 60 PSIG AND BELOW 20X SMYS)
- REFER TO THE PSE PROJECT ENGINEER APPROVED PROCEDURE (6" WELD PLUG RETIREMENT - MERCE TRANSIT SUPPLY (SALISHAN SUPPLY UPRATE) - UPDATE), FOR TESTING AND PURGING REQUIREMENTS.

CONSTRUCTION NOTES

- Verify all underground utilities in field.
- Minimize cover.
- Coat all exposed fittings with Ho-Oxide.
- GC-2 and wrap.
- Install joint leads on all installed valves and flanges.
- Notify the following utilities of project prior to construction:
 ONE CALL 800-475-7000
 PUGET SOUND ENERGY
 CITY OF TACOMA
 WASHINGTON NATURAL GAS COMPANY
 WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
 WASHINGTON STATE DEPARTMENT OF HIGHWAYS
 WASHINGTON STATE DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION

SAP ORDER TREE
 887024719 - SUPERIOR ORDER/JOB NUMBER
 SALISHAN HP UPRATE
 887025784 - CONFIRMATION DIG-UP
 109068555 - INSTALL HP MAIN
 108571930 - RETIRE HP MAIN

PROJECT MANAGER CONTACT INFO:
 MOLLY REED
 425-214-6684 Cell Phone
 MOLLY.REED@PSE.COM Email
 ORIGINAL JOB 785-373
 ORIGINAL R 6988

FITTER'S CHECKLIST (CHECK BOX TO CONFIRM COMPLETION)

INSPECTED STEEL AND PE PIPE PER GOS 2450.1400 AND 2450.1500.

REVIEWED AND COMPLIED WITH ALL CONSTRUCTION NOTES.

RECORDED ALL REQUIRED INFORMATION ON THE AS-BUILT PER GOS 2500.1700.

COMPLETED POST INSTALLATION INSPECTION PER GOS 2525.1200 AND 2525.2700.

LEFT THE WORK AREA IN A CLEAN AND SAFE CONDITION.

FOREMAN'S SIGNATURE: _____

FOREMAN'S NAME (PRINTED): _____

COMPANY: _____ DATE: _____

NO.	DESCRIPTION	BY	CHKD	DATE			
1	RESCOPE TO REMOVE UNDER-RATED FITTINGS. REVISED 109068555 TO INSTALL MAIN MAIN ID 020.AV-1 ADDED SUBORDER 108571930 TO RETIRE MAIN. ADDED SHEET 2.	MR	6/12/12				
2	CONFIRM WELD CAPS OR PLUGS. SEE ORDER 887158784. INSTALL WELD CAPS IF PLUGS FOUND. SEE ORDER 109068555.	RN	JCH	AGM	DK	MR	05/16/2011
3	AS-INSTALLED 785-373. UPRATE TO HP 8705121, MAIN ID 020.AA-1	RN	JCH	N/A	N/A	N/A	05/05/2011

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
 PO = NON STOCK ITEM
 CR = CONTRACTOR WILL PROVIDE ITEM
 MATERIALS FOR SUBORDER 108571930

ITEM	QTY	DESCRIPTION	PART NO
31			
30			
29			
28			
27			
26	4	CAP, 6" X 0.280", Y-42, WELD	5200730

BILL OF MATERIALS

PC = PSE PRESSURE CONTROL WILL PROVIDE ITEM
 PO = NON STOCK ITEM
 CR = CONTRACTOR WILL PROVIDE ITEM
 MATERIALS FOR SUBORDER 106088555

ITEM	QTY	DESCRIPTION	PART NO
17	8	ELBOW, 6" X 90° X 0.280", Y52, LR, WELD	9998780
16	4	STOPPER, 6" X ANS300, B/O, MUELLER, H17281, T/W	7800787
15	8	NIPPLE, 2" SAV-A-VALVE, MUELLER, H-17481	8800841
14	4	CAP, 3/4" X 0.154", CLASS 3000, SOCKET WELD	9997799
13	4	NIPPLE, 3/4" X 3", SCH 80, WELD X THD	
12	50±	PIPE, 6" X 0.280", X-42, FBE, WELD	7000510
11	4	TEE, 3/4" AUTO-PERF, H18102	7800800

GAS MAIN INSTALLATION / RETIREMENT

TYPE/WORK/SIZE TYPE PROP FT ACT FT MANUFACTURER

INSTALL: _____

RETIRE: _____

GAS MAIN PRESSURE AND TESTING

TEST TYPE SOAP AIR NITROGEN WATER

DATE ON: / / START TIME: / / TESTED BY: / /

DATE OFF: / / STOP TIME: / /

PRESSURE: / / TEST RESULTS: P F

PROJECT PHASE	NOTIFICATION #	ORDER #
SAP SUPERIOR		887024719
SERVICE/METER		
SERVICE/METER		
SERVICE/METER		
IND SERVICE		
IND MSA		
DNS REG/FT		
HP SVC/MSA		
RELOCATE		109068555
RETIREMENT		108571930

ITEM	QTY	DESCRIPTION	STOCK NO.
7	2	PLUG 6" VLD	72076
3	4	ELB 6" LR 90° VLD	60752
2	2	STOPPER 6" H17280 B.O.	60786
2	2	PIPE 6" VLD WRAP (G.E.S.)	70598

WASHINGTON NATURAL GAS COMPANY

PERMIT CITY OF TACOMA D.O.R.

PERMIT 1/4 SEC. CE 31

PERMIT OP. MAY 20-3 (E)

TAX CODE 3601 TAX NO 251057

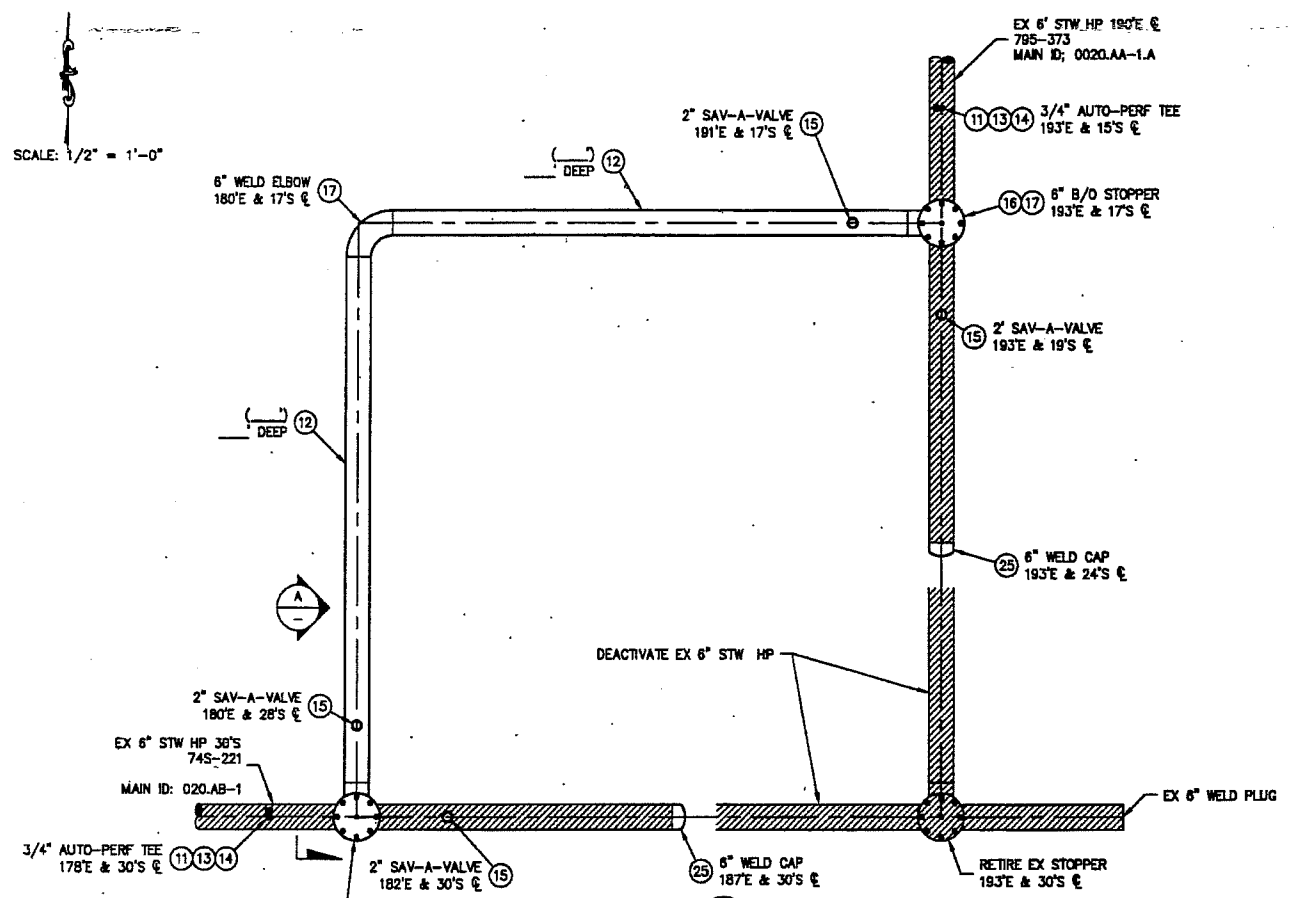
AREA TACOMA SEQ. NO.

6" STW HP-RELOCATION - GAS MAIN
 60. 96TH ST
 BETWEEN S. STEELE & S. HOOPER

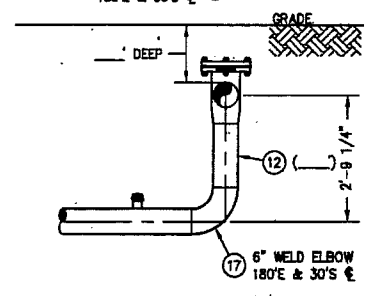
SCALE 1" = 100'

795-373

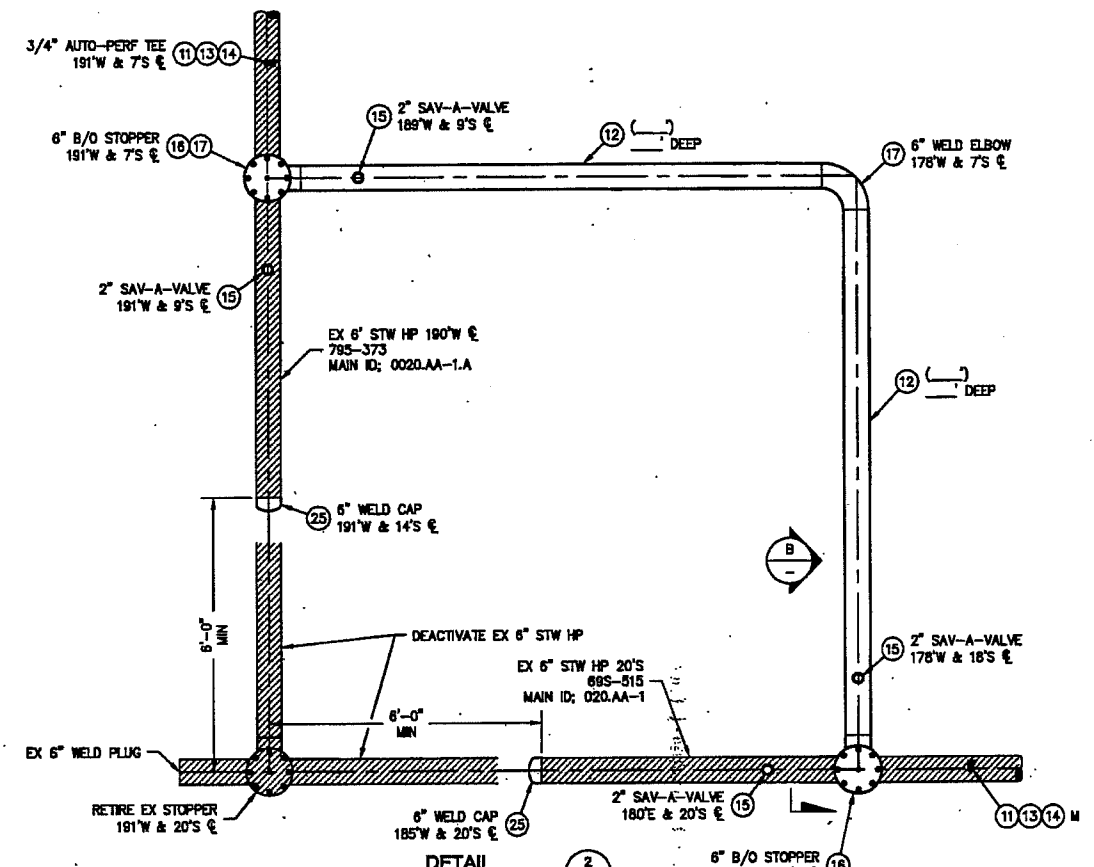
SCALE: 1/2" = 1'-0"



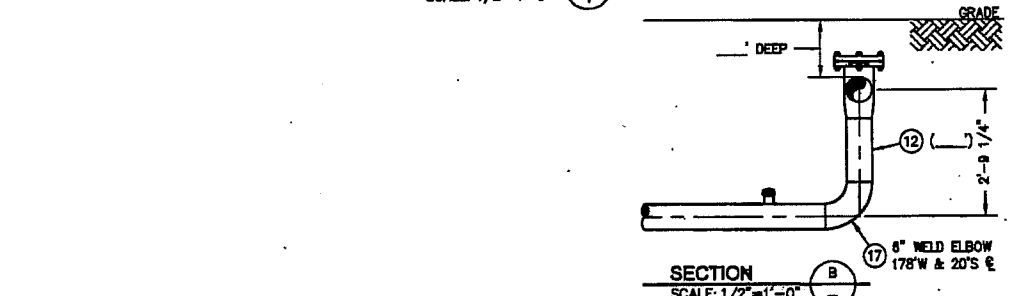
DETAIL 1
SCALE: 1/2" = 1'-0"



SECTION A-A
SCALE: 1/2" = 1'-0"



DETAIL 2
SCALE: 1/2" = 1'-0"



SECTION B-B
SCALE: 1/2" = 1'-0"

GAS MAIN PRESSURE AND TESTING			
TEST TYPE	<input type="checkbox"/> SOAP	<input type="checkbox"/> AIR	<input type="checkbox"/> NITROGEN
DATE ON	START TIME	TESTED BY	
DATE OFF	STOP TIME		
PRESSURE	TEST RESULTS	<input type="checkbox"/> P	<input type="checkbox"/> F
TEST TYPE	<input type="checkbox"/> SOAP	<input type="checkbox"/> AIR	<input type="checkbox"/> NITROGEN
DATE ON	START TIME	TESTED BY	
DATE OFF	STOP TIME		
PRESSURE	TEST RESULTS	<input type="checkbox"/> P	<input type="checkbox"/> F
<input type="checkbox"/> TESTED BY PSE PRESSURE CONTROL, SEE FORM 1928 DESIGN PRESS: SYSTEM MAP			
2023 03/10			

FITTER'S CHECKLIST (CHECK BOX TO CONFIRM COMPLETION)

- INSPECTED STEEL AND PE PIPE PER GOS 2450.1400 AND 2450.1500.
- REVIEWED AND COMPLIED WITH ALL CONSTRUCTION NOTES.
- RECORDED ALL REQUIRED INFORMATION ON THE AS-BUILT PER GOS 2500.1700.
- COMPLETED POST INSTALLATION INSPECTION PER GOS 2525.1200 AND 2525.2700.
- LEFT THE WORK AREA IN A CLEAN AND SAFE CONDITION.

FOREMAN'S SIGNATURE: _____
 COMPANY: _____ DATE: _____

PROJECT MANAGER CONTACT INFO
 MOLLY REED
 425-214-6684 CELL PHONE
 molly.reed@pse.com EMAIL

REAL ESTATE/EASEMENT
 N/A

PERMIT
 CITY OF TACOMA

FUNCTION	NAME	PHONE	DATE
PROJECT MGR	M REED	425-462-3633	
ENGINEER	D FRETZ	425-462-3662	
DRAWN BY	R NAKANO	425-462-3675	8/A

REV # **DATE** **BY** **DESCRIPTION** **CHECKED BY**

COUNTY	EMER SECTION	GAS WK CTR	APPROVED BY
PIERCE	041	N/A	CP APP
174 SECTION	OP MAP	PLAT MAP	MAPPING
NE 06-19-03	252.056	252.057	

UTILITY CONTACT PHONE

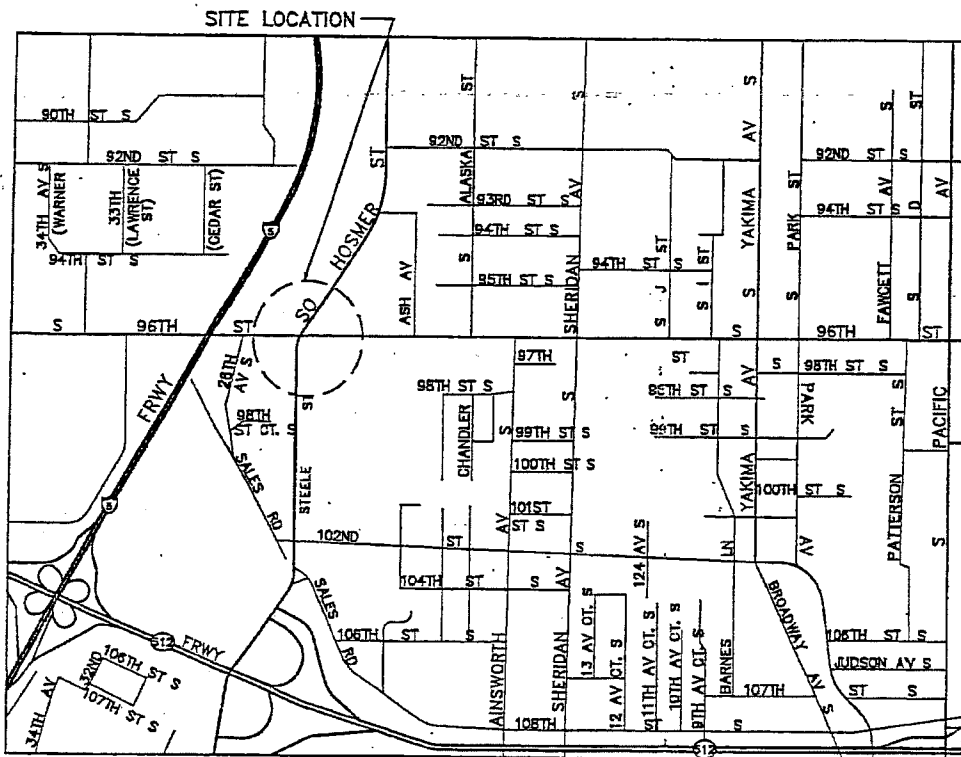
REV	DESCRIPTION	BY	DATE

PUGET SOUND ENERGY

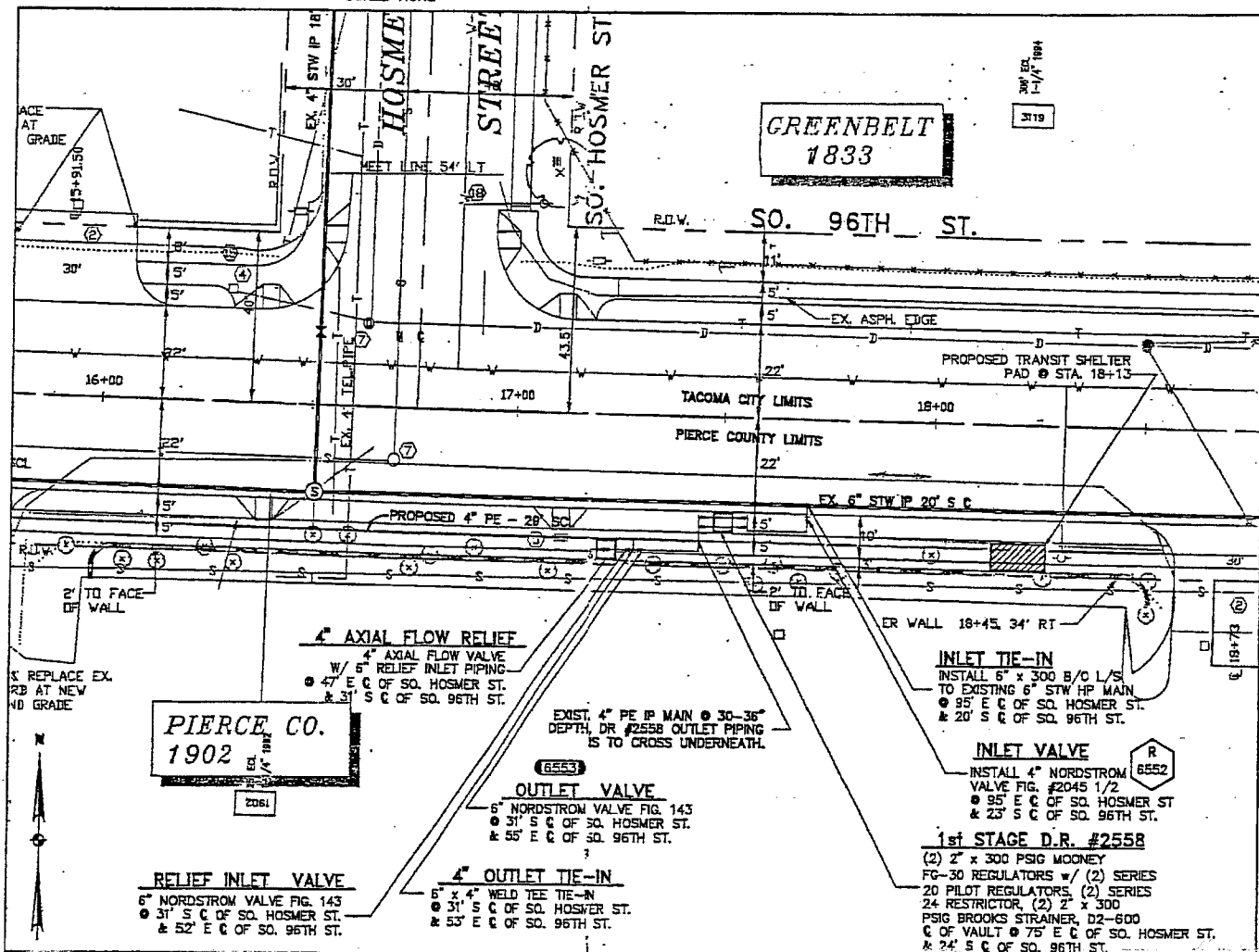
6" STW HP RELOCATION
 S 96 ST, BETWEEN STEELE ST & HOSMER ST
 TACOMA, WA

SAP ORDER NUMBER: 887024719
 DWG NUMBER: 795-373
 SCALE: 1/2" = 1'-0"

L:\Gas\Main\795-373\795-373_0020_AA-1.dwg - Plotted By: molen 06/07/12 08:25AM



VICINITY MAP



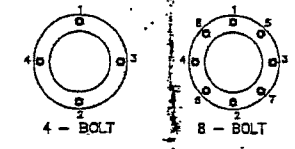
PLOT PLAN
SCALE 1" = 30'-0"

NOTES

- SCOPE OF WORK: INSTALL NEW DR #2558 SINGLE STAGE WITH RELIEF VALVE.
- ALL CONSTRUCTION IS TO CONFORM TO PUGET SOUND ENERGY CO. OPERATING STANDARDS.
- INSTALL STATION PIPING BETWEEN TEST POINTS "A" & "B" AND TEST POINTS "C" & "D" AS SHOWN ON SHEET #2 AND #3 OF THIS DRAWING. INSTALL BLIND FLANGES OR BRYING PANS AT TEST POINTS B AND C AND 4" PE CAP AT TEST POINT D. INSTALL TUBING (JUMPERS) ACROSS MOONEY REGULATORS OR USE SPOOL PIPING. VERIFY ALL CONTROL LINES TIE-INS, PURGES, AND BLOW DOWNS ARE FULLY TAPPED OUT. DO NOT TAP OUT THE INLET BOTTOM OUT LINESSTOPPER. VERIFY ALL VALVES ARE OPEN. LEAK TEST PIPING BETWEEN TEST POINTS "A" & "B" AT 101 PSIG FOR ONE (1) HOUR USING AIR OR NITROGEN OPERATIONS COORDINATOR TO APPROVE LEAK TEST. STRENGTH TEST PIPING BETWEEN TEST POINTS "A" AND "B" AT A MINIMUM OF 450 PSIG FOR EIGHT (8) HOURS USING AIR OR NITROGEN PER OPERATION STANDARD 6.14. PRESSURE CONTROL TO TAKE DEAD WEIGHT PRESSURE AND PIPING TEMPERATURE READINGS AT 30 MINUTE INTERVALS DURING STRENGTH TEST (USE TWO THERMOCOUPLES AT EACH END OF STATION). PROJECT ENGINEER (KEVIN RASCHKOW @ (206) 224-2204) TO APPROVE STRENGTH TEST. LEAK TEST PIPING BETWEEN TEST POINTS "B", "C" AND "D" AT 150 PSIG FOR ONE (1) HOUR USING AIR OR NITROGEN PER OP. STD. 6.14. OPERATIONS COORDINATOR TO APPROVE LEAK TEST.
- THIS REGULATOR STATION IS DESIGNED TO DELIVER 100,000 SCFH @ 45 PSIG. FUTURE DESIGN DELIVERY WILL BE 200,000 SCFH.
- SET RELIEF AT 47 PSIG.
- CONTROL, GAUGE, LINES ARE SHOWN AS SCHEMATIC ONLY AND ARE TO FOLLOW PIPING UPON INSTALLATION MAINTAIN 24" MIN. SEPARATION BETWEEN 1ST STAGE CONTROL LINES AND ANY RELIEF CONTROL LINES. ADDITIONAL FITTINGS MAY BE REQUIRED TO COMPLETE CONNECTION. PRESSURE CONTROL IS TO MAKE FINAL CONNECTIONS TO THE REGULATOR(S).
- PUGET SOUND ENERGY COMPANY SHALL PROVIDE ALL PIPE, VALVES, & FITTINGS REQUIRED TO COMPLETE THIS INSTALLATION, PER OPERATING STANDARD 6.7.
- INSTALL RELIEF INLET VALVE IN CONVENIENT LOCATION. RELIEF INLET MUST BE AT LEAST 10 FEET FROM CENTER LINE RELIEF VAULT. SEE PLOT PLAN FOR DETAILS.
- DO NOT INSTALL ANODES. INSTALLATION IS TO BE RECTIFIER PROTECTED.
- PAINT REGS, PILOTS, STRAINER ACCESS FLANGE, & ABOVE-GROUND PIPING WITH (1) COAT PRIMER AND (2) COATS OF GOOD GRADE GRAY ENAMEL COAT ALL OTHER PIPE AND FITTINGS PER QUALITY ASSURANCE STDS. 246.5 & 247.5.
- FIELD LOCATE ALL UNDERGROUND UTILITIES. CALL ONE-CALL 48 HOURS PRIOR TO CONSTRUCTION 1-800-424-5555.
- INSULATE CONTROL LINES INSIDE VAULT USING AN INSULATED UNION.
- SET 56" SQUARE VAULT ON 6" OF 1" MINUS CRUSHED ROCK, COMPACTED TO 95%. WHERE REGULATOR RUNS PASS THROUGH VAULT WALL. USE SONO-TUBE, OAKUM AND GROUT. BEFORE SEALING VAULT AROUND SONO-TUBE. FULLY SUPPORT ALL EXTERIOR HEADERS, FITTINGS AND PIPE ON POURED CONCRETE. USE SANDBAGS FOR SIDE BARRIERS. SUPPORTS TO BE POURED ON SOIL COMPACTED TO 95% DENSITY.
- CONTACT ALAN MULKEY @ EXT. 89-2175 FOR PROPER CATHODIC PROTECTION PROCEDURE.
- LUBRICATE ALL BOLTS PRIOR TO INSTALLATION AND SEE TORQUE TABLE FOR TORQUE SPECIFICATIONS.
- SUBURBAN GAUGE REQ'D? YES NO . IF YES INSTALL GAUGE PER STD DWG SE-100A AND APPLICABLE VIEW ON THIS SHEET. KEEP GAUGE LINE SEPARATE.

M	= SUPPLIED BY METER SHOP
I	= SUPPLIED BY INSTRUMENTATION DEPT.
PO	= PURCHASE ORDER
WORK ORDER 03 WORK UNIT 01 (DR #2558)	
73	
74	
75	
76	
77	
78	

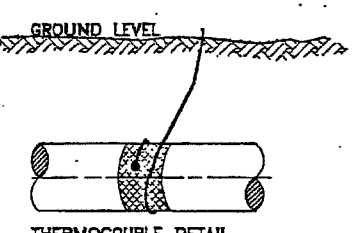
ITEM	QTY.	DESCRIPTION	PART NO.
06	3	4" x 90" WELD ELL STD	60-00697
07	1	56" FIG. 504-L VAULT	98-01010
08	2	4" x 4" WELD TEE STD	78-00412
09	1	4" WELD STD CAP STD	50-00713
10	1	6" x 300# B/O LINESSTOPPER T/W H172B1	76-00787
11	1	4" NORDSTROM PLUG VALVE FIG. 2045 1/2"	56-00764
12	1	56" SQUARE x 42 CONCRETE VAULT	85-00504
13	1	1/4" 750-150 PILOT ASSEMBLY	74-00489
14	1	SET @ 47 PSIG. SPRING BLUE	
15	1	4" x 45" WELD ELL STD	60-00672
16	1	1/4" THREADED PLUG	72-00008
17	2	2" x 300 MOONEY FG-30 FLOWTRD REG. W/ 100% CAP	74-00370
18	1	W/ STD MAINSPRING: 75 DIAPHRAGM	
19	1	4" STL x PE MDPE TRANSITION FITTING	78-00811
20	2	CHECK VALVE, NUPRO P/N SS-4C-1, 1/4" NPT	99-01017
21	1	FEMALE x FEMALE, CV = .4 CRACKS @ < 1 PSIG	
22	6	1/4" x 3" THRD'D NIPPLE SCH. 80 ASTM A53 GR. B	99-01015
23	2	MOONEY TYPE 24S FLOWTRD RESTRICTOR	74-00372
24	1	36" STEEL SQUARE LID	85-00505
25	3	6" RISER FOR CONCRETE VAULT	85-00508
26	3	3/4 x 150# UNION	78-00840
27	2	4" CLASS 150 WELD NECK FLANGE	64-00350
28	6	1/4" x 4" THRD'D NIPPLE SCH. 80 ASTM A53 GR. B	99-01014
29	2	1/4" SERIES 20 MOONEY FLOWTRD PILOT	74-00371
30	1	SET @ 45 PSIG W/ BLUE SPRING	
31	3	3/4" SVG TEE H17500 STD	78-00610
32	1	6" PVC THREADED COUPLING (SCHEDULE 80)	P.O.
33	4	3/4" SERVICE TEE FIG. H17501 STD	78-00612
34	3	6" x 6" x 4" WELD REDUCING TEE STD	78-00419
35	1	4" AXIAL FLOW BODY B-5 REG.	74-00495
36	1	1/4" x 6" THREADED NIPPLE (CUT IN HALF)	68-00075
37	4	4" x 2" WELD REDUCER STD	72-00502
38	5	1/2" THREADED PLUG	72-00016
39	4	1/4" PETES PLUG	72-00010
40	15	6" BARE STEEL PIPE (1.88" WALL X42)	70-00510
41	70	4" STW PIPE (1.88" WALL X42)	70-00440
42	75	6" STW PIPE (2.50" WALL GRADE #7)	70-00540
43	4	6" CLASS 150 WELD NECK FLANGE	64-00440
44	90	3/4" STW PIPE	70-00080
45	1	1/4" NEEDLE VALVE	56-00320
46	6	3/4" x 6" THREADED NIPPLE (CUT IN HALF)	68-00370
47	5	1/2" x 6" THREADED NIPPLE (CUT IN HALF)	68-00235
48	8	4" CLASS 300 WELD NECK FLANGE	64-00350
49	1	2" CLASS 300 WELD NECK FLANGE	64-00185
50	2	2" BROOKS STRAINER FIG. D2-600	62-00825
51	2	1/4" P594 FILTER	62-00375
52	2	6" NORDSTROM PLUG VALVE FIG. #143	56-00840
53	5	6" x 90" WELD ELL STD	60-00752
54	1	6" E.G. WEATHER CAP	52-00721
55	4	4" PLUG VALVE, NORDSTROM FIG. #525	56-00775
56	1	4" BOLT KIT 15FRX	50-00154
57	1	3/4" LEGEND BALL VALVE FIG. 113-104	56-00382
58	5	1/2" THREADED NIPPLE FIG. 113-103	56-00342
59	1	6" WELD STD CAP	52-00730
60	2	NIPPLE 2" x 3" FIG. H17491 SAV-A-VALVE	68-00841
61	4	6" BOLT KIT 15FY43X	50-00068
62	7	COMPLETE PLASTIC VALVE ROAD BOX	50-00370
63	1	CP BOX TEST LEAD ROAD COMPLETE	50-00307
64	8	4" BOLT KIT 30FVS25X	50-00054
65	4	2" BOLT KIT 30FVS5X	50-00022
66	4	MALE ELBOW 1/4" NPT TO 3/8" TUBE PARKER P/N E-4 CBZ (316 S.S.)	26-00416
67	4	MALE CONNECTOR 1/4" NPT x 3/8" TUBE P/N 4-6 FBZ (316 S.S.)	26-00236
68	2	12' x 3/8" STAINLESS STEEL TUBING 0.035" W.T. ASTM A269 GR. TP304 SMLS	26-00085



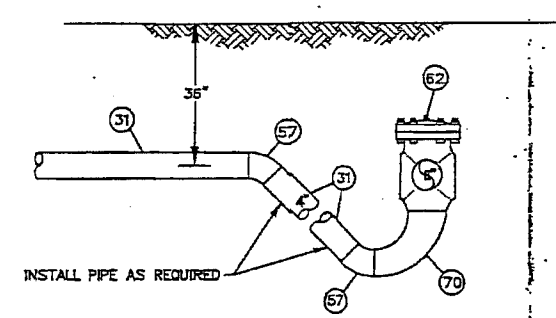
BOLT TIGHTENING SEQUENCE FOR FLANGES

BOLT DIAMETER (INCHES)	TORQUE INSTALLED LUBRICATED (FT-LBS)
5/8	50
3/4	85
7/8	135
1	210
1-1/8	300
1-1/4	420
1-3/8	550

QUALITY ASSURANCE STANDARDS, INDEX NO. 225.5



THERMOCOUPLE DETAIL



D/S TIE-IN DETAIL #2

NOT TO SCALE

NO.	DESCRIPTION	DATE	BY	APP'D
REVISIONS				

BILL OF MATERIAL
A8 BUILT INFORMATION

FITTER OR CONTRACTOR: _____ COORDINATOR: _____

DATE COMPLETED: _____ PERCENT COMPLETED: _____

TEST
INSTALLATION/RETIREMENT SUMMARY

TYPE OF TEST: PRESSURE

DATE ON: _____ TIME ON: _____

DATE OFF: _____ TIME OFF: _____

TYPE OF PIPE: _____

PIPE MANUFACTURER: _____

TESTED BY: _____

PSE PUGET SOUND ENERGY
OP. MAP 248.056
PLAT. 251.057
1/4 SEC. SE 31-20-03
WORK AREA 313

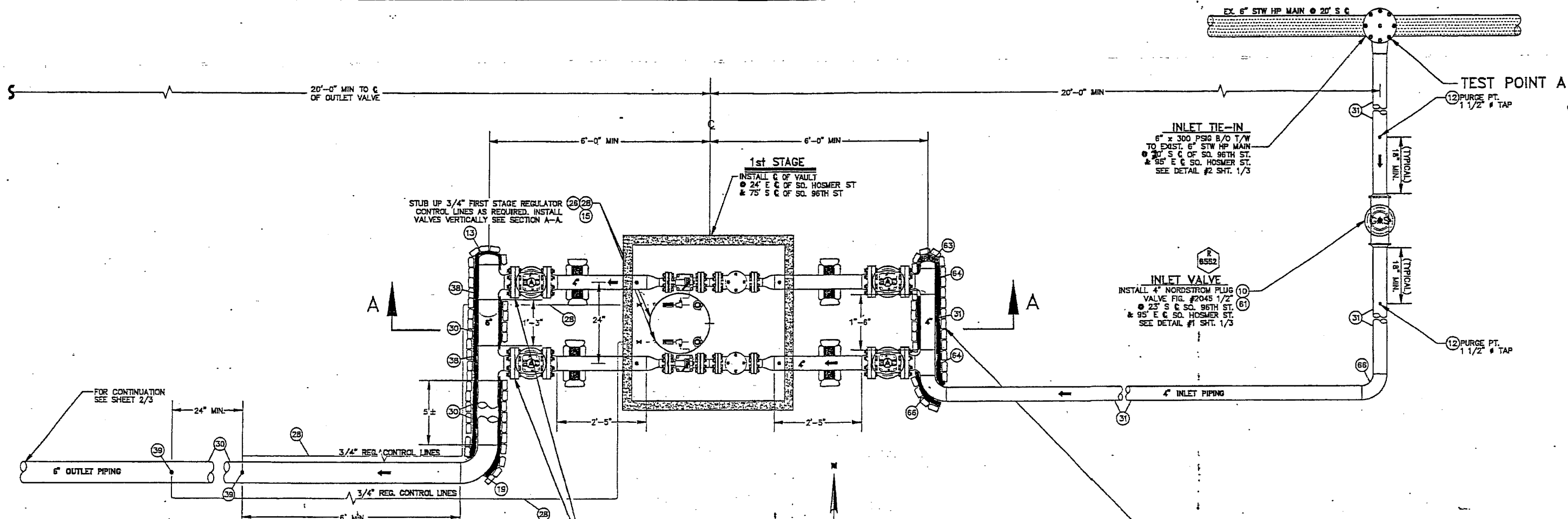
PROPOSED MAIN FOOTAGE: _____ EMERGENCY SEC. NO.: 41

MAIN SIZE: _____ MATERIAL: _____ TOTAL FOOTAGE: _____ DESIGN PRESSURE: _____ PSIG

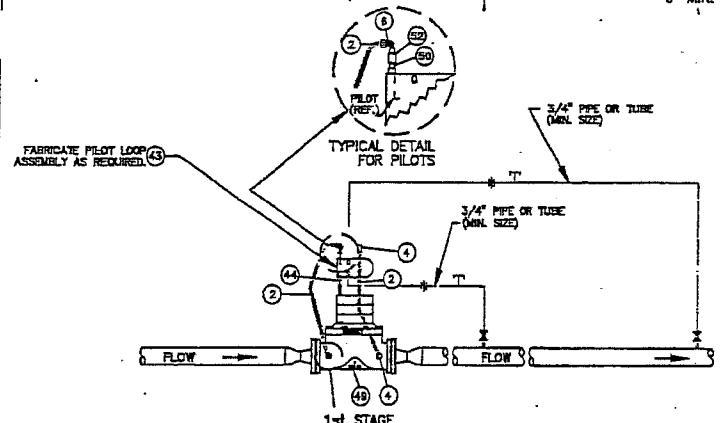
SYSTEM MAOP: _____ PSIG
PERMITS: _____

DISTRICT REGULATOR #2558
SO. 96TH ST. & SO. HOSMER ST.

DRAWN: E. BROWN 06/05/98 JOB NO. 9705121
CHECKED: B. PARKER 07/08/98 DRAWING NO.
APPROVED: [Signature] 7/19/98 3D9-604



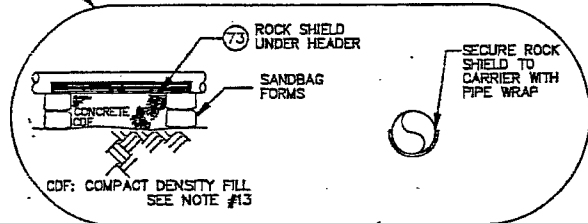
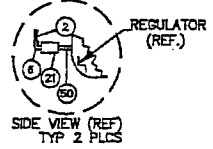
FIRST STAGE PLAN VIEW
SCALE: 3/4" = 1'-0"



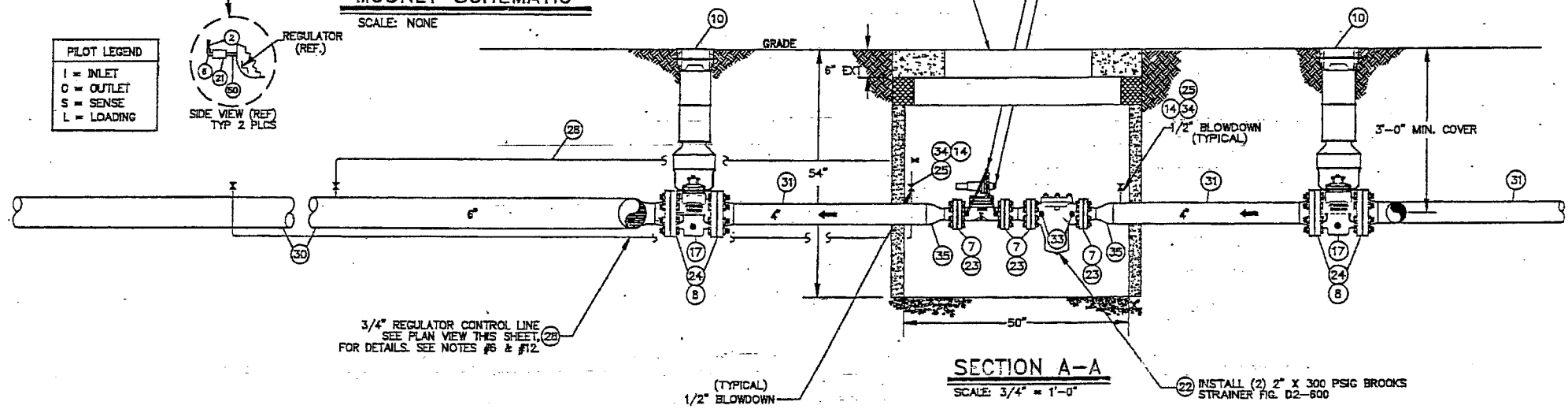
MOONEY SCHEMATIC
SCALE: NONE

PILOT LEGEND

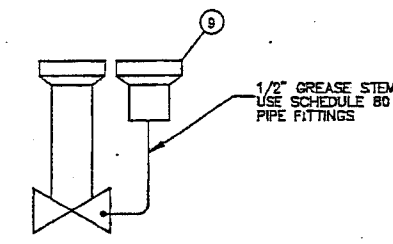
- I = INLET
- O = OUTLET
- S = SENSE
- L = LOADING



HEADER SUPPORT DETAIL (TYPICAL)



SECTION A-A
SCALE: 3/4" = 1'-0"



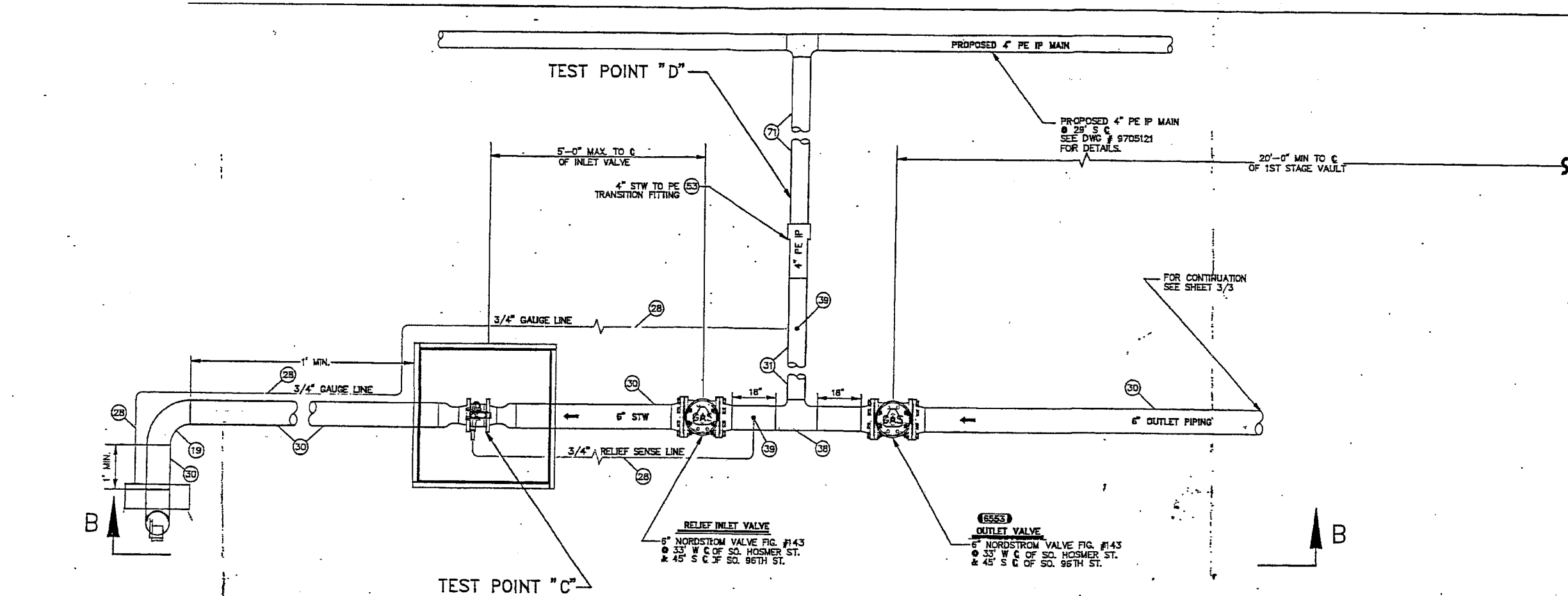
DETAIL #1
SCALE: NONE

NO.	DESCRIPTION	DATE	BY	APP'D
REVISIONS				
		06/08/98	E. BROWN	
		07/08/98	R. PARKER	
		3/14/99	P. & SEE	

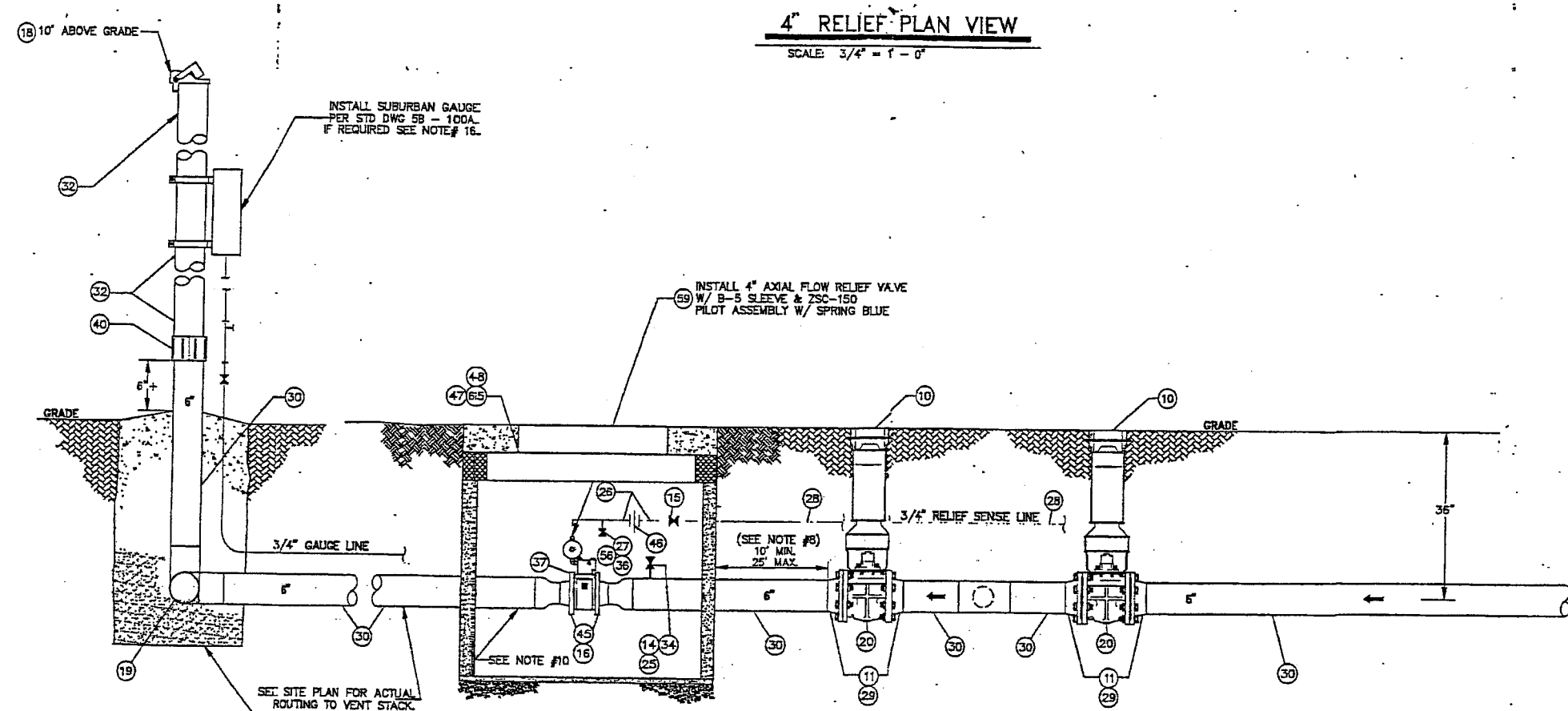
PSE
PUGET SOUND ENERGY

DISTRICT REGULATOR #2558
SO. 96TH ST. & SO. HOSMER ST.

DRAWN: E. BROWN	DATE: 06/08/98	JOB NO. 9605138
CHECKED: R. PARKER	DATE: 07/08/98	DRAWING NO.
APPROVED: P. & SEE	DATE: 3/14/99	3D9-604



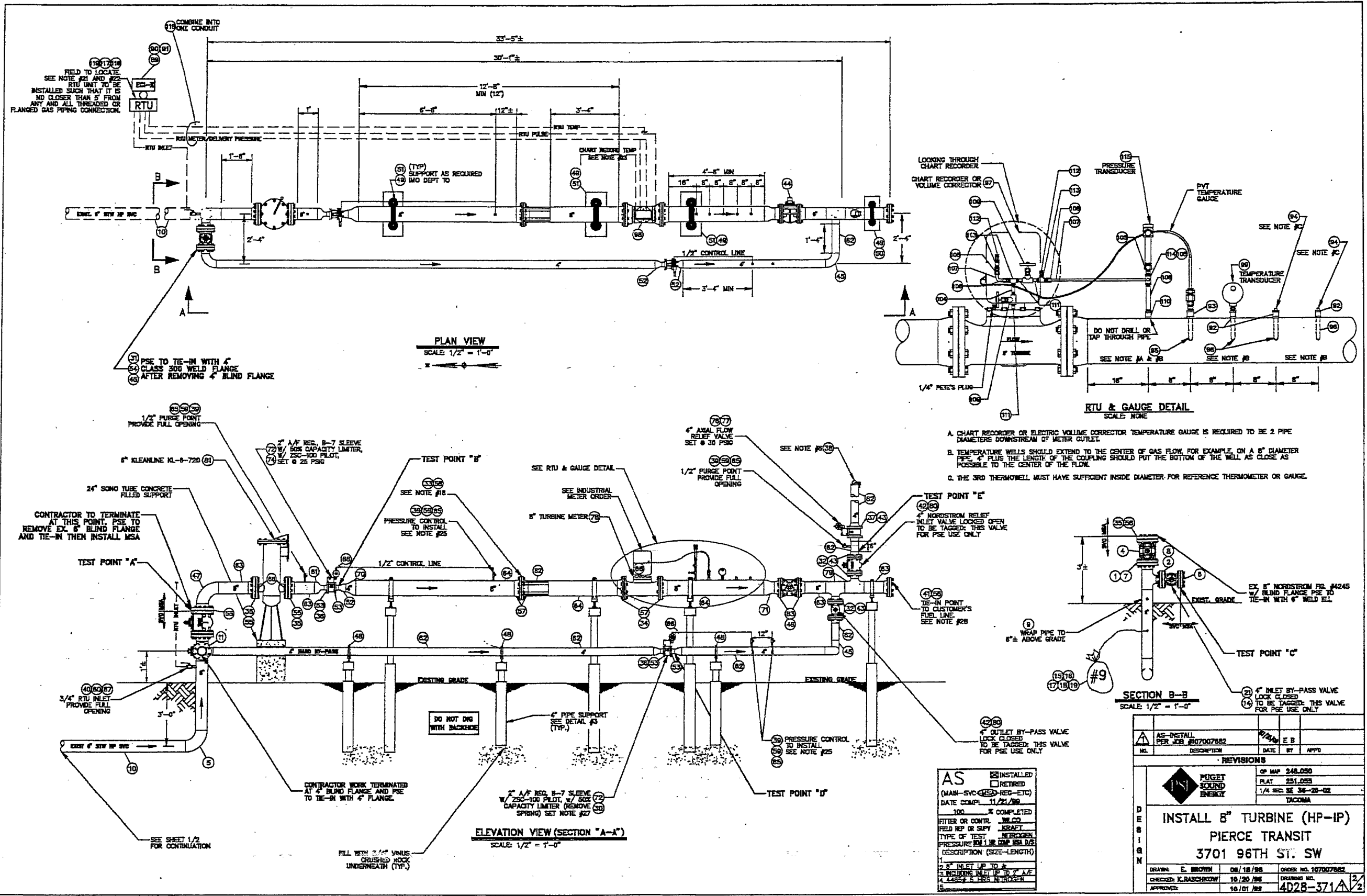
4" RELIEF PLAN VIEW
SCALE: 3/4" = 1' - 0"



SECTION B-B
SCALE: 3/4" = 1' - 0"

NO.	DESCRIPTION	DATE	BY	APP'D
REVISIONS				
		06/05/98		
		07/06/98		
		3/1/96		

DESIGN	PSE PUGET SOUND ENERGY		OP. MAP 248.056
			PLAT 251.057
			1/4 SEC. SE 31-20-03
DISTRICT REGULATOR #2558			
SO. 96TH ST. & SO. HOSMER ST.			
DRAWN: E. BROWN	06/05/98	JOB NO. 9705152	
CHECKED: R. PARKER	07/06/98	DRAWING NO.	
APPROVED: P. C. SBC	3/1/96	3D9-604	3/3



FIELD TO LOCATE. SEE NOTE #21 AND #22. RTU UNIT TO BE INSTALLED SUCH THAT IT IS NO CLOSER THAN 5' FROM ANY AND ALL THREADED OR FLANGED GAS PIPING CONNECTION.

51 PSE TO TIE-IN WITH 4" CLASS 300 WELD FLANGE AFTER REMOVING 4" BLIND FLANGE

CONTRACTOR TO TERMINATE AT THIS POINT. PSE TO REMOVE EX. 6" BLIND FLANGE AND TIE-IN THEN INSTALL MSA

SEE SHEET 1/2 FOR CONTINUATION

CONTRACTOR WORK TERMINATED AT 4" BLIND FLANGE AND PSE TO TIE-IN WITH 4" FLANGE. FILL WITH 3/4" VIBRATED CRUSHED ROCK UNDERNEATH (TYP.)

DO NOT DIG WITH BACKHOE

AS
 INSTALLED
 RETIRED
 (MAIN-SVC-RES-REG-ETC)
 DATE COMPI. 11/21/88
 100% COMPLETED
 FITTER OR CONTR. [blank]
 FIELD REP OR SUPY. [blank]
 TYPE OF TEST [blank]
 PRESSURE RM (OR COMP. RES. D/S) [blank]
 DESCRIPTION (SIZE-LENGTH) [blank]
 2" INLET UP TO & INCLUDING INLET UP TO 2" A/F
 4" LARGER & DIS. IN-STREAM
 E

LOOKING THROUGH CHART RECORDER OR VOLUME CORRECTOR

DO NOT DRILL OR TAP THROUGH PIPE

RTU & GAUGE DETAIL

SCALE: NONE

- A. CHART RECORDER OR ELECTRIC VOLUME CORRECTOR TEMPERATURE GAUGE IS REQUIRED TO BE 2 PIPE DIAMETERS DOWNSTREAM OF METER OUTLET.
- B. TEMPERATURE WELLS SHOULD EXTEND TO THE CENTER OF GAS FLOW. FOR EXAMPLE, ON A 6" DIAMETER PIPE, 4" PLUS THE LENGTH OF THE COUPLING SHOULD PUT THE BOTTOM OF THE WELL AS CLOSE AS POSSIBLE TO THE CENTER OF THE FLOW.
- C. THE 3RD THERMOWELL MUST HAVE SUFFICIENT INSIDE DIAMETER FOR REFERENCE THERMOMETER OR GAUGE.

AS-INSTALL PER JOB #107007882		DATE	BY	APPD
REVISIONS				
NO.	DESCRIPTION	DATE	BY	APPD
INSTALL 8" TURBINE (HP-IP) PIERCE TRANSIT		OF MAP 248.050		
3701 96TH ST. SW		PLAT 251.053		
		1/4 SEC. SE 38-28-02	TACOMA	
DRAWN	E. BROWN	08/18/88	ORDER NO. 107007882	
CHECKED	K. BARSCHKOW	10/20/88	DRAWING NO.	
APPROVED		10/01/88	4D28-371A	2/2

