SUMMARY OF PROPOSED WORK:

1. INSTALL (2) 6" LINE STOPPER FITTINGS
2. INSTALL APPROX. 580 FEET OF 6" STEEL PIPE.
3. TRENCH AND BACKFILL.
4. HYDROTEST NEW MAIN LINE.
5. DEACTIVATE APPROX. 540 FEETOF 6" STEEL PIPE AND REMOVE APPROX. 30 FEET OF 6" STEEL PIPE. (PG&E WILL REMOVE THE DEACTIVATE PIPELINE FROM STATION 2+77 - 2+87, 5+19 - 5+29, AND 8+73.67 - 8+86.64)
6. INSTALL (1) ETS STATION

CONTACT INFORMATION:

T&R SUPERVISOR ---- ROGER MORSEHEAD - (209) 932-6555
CONSTRUCTION SUPERVISOR ---- NICK JORDAN - (209) 942-1779
PROJECT MANAGER/ENGINEER ---- RYAN WEBER - (209) 408-3295
ESTIMATOR / DESIGNER ---- KEVIN TORBIK - (925) 974-4092

SEQUENCE OF OPERATIONS

RELOCATE LOWER SACRAMENTO RD. DFM
OPERATING MAP #385160

1. CONSTRUCT NEW 6" FUTURE DFM 1614-04 PIPE.
2. CONDUCT POST-INSTALLATION HYDROTEST OF 6" FUTURE DFM 1614-04 PIPE.
3. INSTALL (2) NEW LINE STOPPER FITTINGS.
4. TIE-IN NEW 6" PIPE.

JOB NO. 30623013
B/M ITEM NO. 2
DESIGN CRITERIA
LOCATION CLASS 3
DESIGN FACTOR .50
FDP 720 PSIG 24.40 % SMYS
MAOP 720 PSIG 24.40 % SMYS
STRENGTH TEST PRESSURE
MAX. 1280 PSIG 43.37 % SMYS
MIN. 1080 PSIG 36.59 % SMYS
2657 PSIG 90% SMYS
TEST MEDIUM WATER
PIPE SPEC API 5L, X-52, ERW
O.D. 6.625"
W.T. 0.188"
WELD INSPECTION (GAS STD.D-40)*
☒RADIOGRAPHIC:
☐20% MIN. (% OF EACH WELDER'S DAILY WORK)
☒100%
*VISUALLY INSPECT 100% OF ALL WELDS THAT ARE NOT RADIOGRAPHICALLY INSPECTED. (THIS REQUIREMENT APPLIES EVEN IF NO RADIOGRAPHIC INSPECTION IS REQUIRED.)

EXIST PIPE SPECS
HEADER SIZE: 6.625"
PIPE SPECS: API 5L, X-42, ERW
WALL THICKNESS: 0.156"
PRESENT MAOP: 300
% SMYS @ MAOP: 15.17
MAXIMUM ALLOWABLE PRESSURE DURING WELDING (G.S.&S. D-22) (**300 PSIG)

**300 PSIG IF WELDING WITHIN 3" OF A LONGITUDINAL SEAM, CIRCUMFERENCIAL, AND ANY BRANCH WELD ON ANY TYPE OF PIPE EXCEPT THE LONGITUDINAL SEAM OF DSAW PIPE PER GAS STD D-22 PAGE 3 OF 14 SECT 3-B

ENVIRONMENTAL ISSUES
☐ NONE APPARENT (IF PROJECT DESIGN CHANGES, CONTACT RESPONSIBLE ENGR)
☐ PERMITS ☐ TAILBOARD ☐ OTHER
☐ APPLICANT DESIGN/RESPONSIBILITY (CHECK PERMITS BOX IF PERMIT CONDITIONS APPLY TO PG&E ACTIONS)
BY: _____ Signature, name, (Corporate ID), date

UNDERGROUND SERVICE ALERT USA — CALL BEFORE YOU DIG
CALL: 811

WELDING INSPECTED PER PG&E GAS STANDARD D-40
VISUAL _____ ☐
MAGNETIC PARTICLE _____ ☐
INSPECTOR _____
DATE _____

NOTIFIED U.S.A.
DATE
TICKET NUMBER
BY

CONSTRUCTION NOTES:

1) WELDING REQUIREMENTS
ALL ARC WELDING IS TO BE PERFORMED IN ACCORDANCE WITH GAS STANDARD D-22.

2) HYDROSTATIC TEST REQUIREMENTS
HYDROSTATIC TESTING SHALL MEET PRESSURE AND DURATION REQUIREMENTS OF GAS STANDARD A-34 AND SHALL BE CONDUCTED IN ACCORDANCE WITH GAS STANDARD A-37. SEE ATTACHED STPR.

3) PAINTING AND COATING REQUIREMENTS
ALL EXPOSED PIPE AND FITTINGS ARE TO BE PAINTED IN ACCORDANCE WITH GAS STANDARD E-30.
ALL COATING ON BURIED PIPE AND FITTINGS ARE MAIN LINE TO BE APPLIED IN ACCORDANCE WITH GAS STANDARD E-35.
FOR COATING SELECTIONS ON BURIED PIPE SEE DIRECT BURIAL SELECTIONS TABLE.

DIRECT BURIAL SELECTIONS	
TIE-IN WELDS:	PCJ OR PROTAL 7200
MAIN LINE COATING:	PCJ OR PROTAL 7200
GIRTH WELD COATING:	PCJ OR PROTAL 7200
FITTING COATING:	PCJ OR PROTAL 7200
MINOR REPAIRS:	PCJ OR PROTAL 7200
TRANSITION ZONES:	PCJ

4) CALL USA AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION 811.

5) LOCATION OF EXISTING SUBSTRUCTURES ARE APPROXIMATE. BEFORE POWER OR HEAVY EQUIPMENT IS USED FOR EXCAVATION, THE EXACT DEPTH AND LOCATION OF SUBSTRUCTURES SHALL FIRST BE DETERMINED BY HAND EXCAVATION, IF NECESSARY.

6) ALL BENDS ARE SMOOTH FIELD BENDS EXCEPT WHERE ELBOWS ARE NOTED. FIELD BEND SHALL BE MADE IN ACCORDANCE WITH GAS STANDARD A-36 SECTION 4-D.

7) ALL ANGLES SHOWN IN THE PLAN AND PROFILE ARE APPROXIMATE AND SHALL BE CUT TO SUIT FIELD CONDITION.

8) THIS PIPELINE MUST BE INSTALLED WITH AT LEAST 12 INCHES OF CLEARANCE FROM ANY OTHER UNDERGROUND STRUCTURE NOT ASSOCIATED WITH THE PIPELINE.

9) COATING REMOVAL

BEFORE REMOVING THE PIPE COATING ON PRE-1972 PIPE (DOES NOT INCLUDE PLASTIC TAPE OR FUSIONBONDED EPOXY COATINGS) THE FOLLOWING STEPS SHALL BE TAKEN:
-FOR ALL NON-EMERGENCY WORK, PRE-1972 PIPE WRAP MUST BE EVALUATED TO DETERMINE IF IT CONTAINS ASBESTOS PRIOR TO REMOVAL.
-FOR EMERGENCY WORK ON PRE-1972 PIPE, ASSUME THE WRAP CONTAINS > 1% ASBESTOS UNTIL THE WRAP CAN BE TESTED.
-OBTAIN SAMPLES OF THE WRAP, AND HAVE SAMPLES TESTED FOR ASBESTOS IN ACCORDANCE WITH RP 4711.
-TEST RESULTS ARE TO BE INCLUDED WITH AS-BUILTS.
-FOLLOW PROCEDURE IN RP 4711 FOR REMOVAL OF PIPE WRAP.

PG&E CODE	ITEM NO.	QNTY	ORDER NO. — DESCRIPTION	CATALOG OR DWG REFERENCE	OTHER DATA
02-2874	1	2	LINE STOPPER FITTING, 6", MUELLER, THIN WALL, TYPE H-17276, ANSI 300	GS&S C-15.4	
01-0944	2	580'	PIPE, 6", API 5L, X-52, ERW, 6.625" O.D., 0.188" W.T., FBE COATED	GS&S A-15	
02-2091	3	8	ELBOW, 90°, 6", GR-B, STL, 0.280" W.T., SUITABLE FOR SEGMENTING	GS&S B-20	
01-6063	4	4'	VALVE BOX EXTENSION, CORRUGATED PLASTIC	GS&S K-41	
56-9392	5	1	TEST LEAD BOX, FLUSH FINK, 5-TERMINAL	GS&S 0-10.1	
29-4991	6	10'	WIRE, #10 HMWPE, SOLID COPPER, BLACK INSULATION	GS&S 0-10	
30-3755	7	2	SLEEVE, COPPER, THERMOWELD A200	GS&S 0-10	
36-0456	8	10'	CONDUIT, 4" PVC, SCHEDULE 40, FOR ITEM #11	GS&S 0-10.1	
04-3271	9	1	VALVE BOX HEAD, CONCRETE	GS&S K-41	
04-3274	10	1	GRADE RING, 2", CAST IRON	GS&S K-41	
04-3225	11	1	VALVE BOX LID, CAST IRON	GS&S K-41	
02-2287	12	4	1" SAV-A-VALVES, MUELLER, H-17491	GS&S C-14	

ETS LOCATION
TYPE 'A'
H STA 01+25.05

DEACTIVATION PROCEDURE FOR EXISTING PIPE
1. GTS STANDARD S4129 SHALL BE FOLLOWED.
2. THE EXISTING 6" GAS MAIN SHALL BE 100% PURGED WITH INERT GAS AS PER STANDARD A-38.

SAFETY
SAFETY PLEDGE
I ALWAYS PUT SAFETY FIRST.
I LOOK FOR AND ACT TO RESOLVE UNSAFE SITUATIONS.
I HELP AND ENCOURAGE OTHERS TO ACT SAFELY.

DESIGN & CONSTRUCTION REVIEW OR INTERNAL CORROSION			
DESCRIPTION	ACTION SELECTED	INITIAL	DATE
CORROSION ENGINEER HAS REVIEWED THIS LOCATION AND THERE IS NO KNOWN THREAT OF INTERNAL CORROSION. NO INTERNAL CORROSION DESIGN OR CONSTRUCTION CONSIDERATIONS ARE NECESSARY.			
INTERNAL CORROSION MAY BE A THREAT AND THE CONSTRUCTION DESIGNS HAVE BEEN REVIEWED WITH CORROSION ENGINEERING. DOCUMENTATION OF THE REVIEW AND ACTIONS TAKEN ARE IN THE JOB PACKAGE AND INCORPORATED IN THIS DESIGN.			

REGISTERED PROFESSIONAL ENGINEER — RYAN J. WEBER — M34034 EXP. 06/10 — MECHANICAL — STATE OF CALIFORNIA

PSRS# 19216

REVISIONS

NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY
1	6-25-08	ISSUED TO CONSTRUCTIOIN	30623013	KJT	MAN	LXN	

APPROVED BY	
GM	30623013
SUPV	LXN
DSGN	KJT
DWN	KJT
CHKD	MAN
OK	
DATE	6-25-08
SCALES	

RELOCATE - DFM 1614-04 MP 0.24-0.47
INSTALL 580' OF 6" PIPE
LOWER SACRAMENTO RD. N/O TURNER RD.
SAN JOAQUIN COUNTY

PACIFIC GAS AND ELECTRIC COMPANY
WALNUT CREEK, CALIFORNIA

MICROFILM	
BILL OF MATL	SHEET 2
DWG LIST	
SUPSDS	
SUPSD BY	
SHEET NO.	2 OF 4 SHEETS

30623013 | 1

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