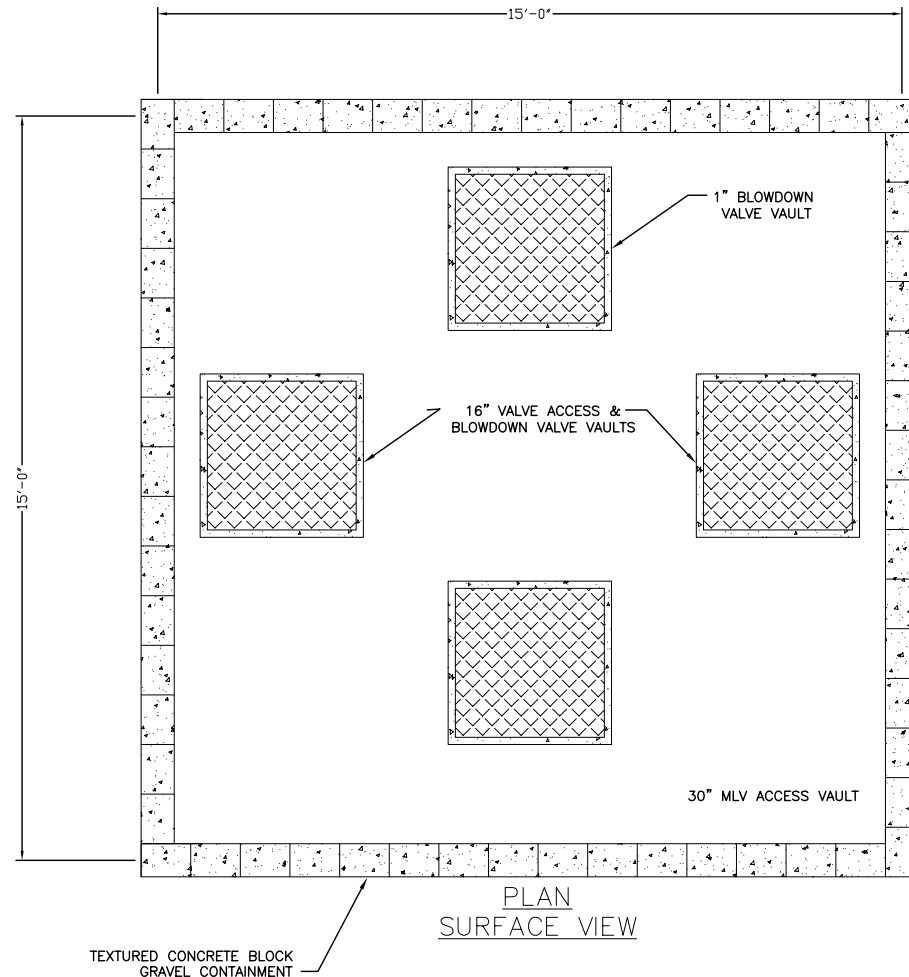
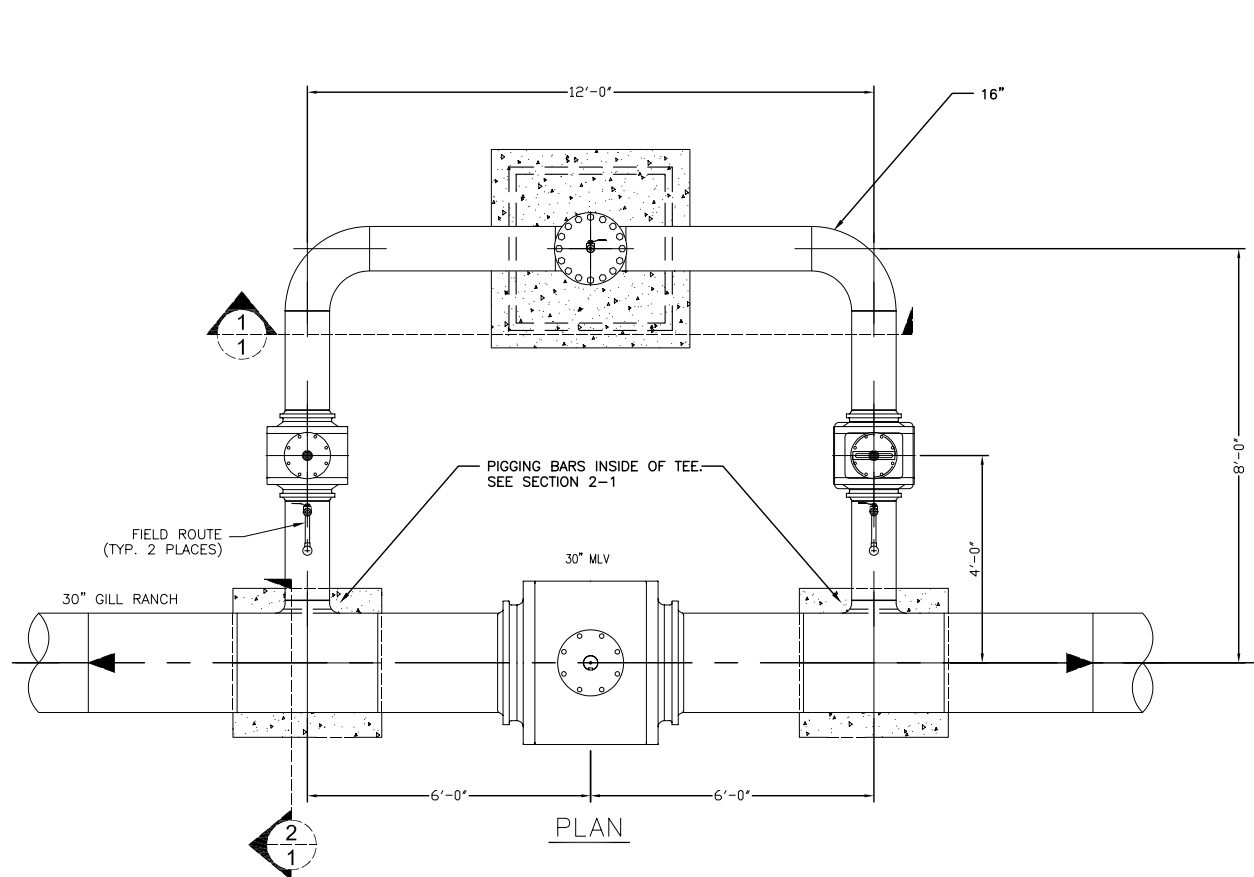
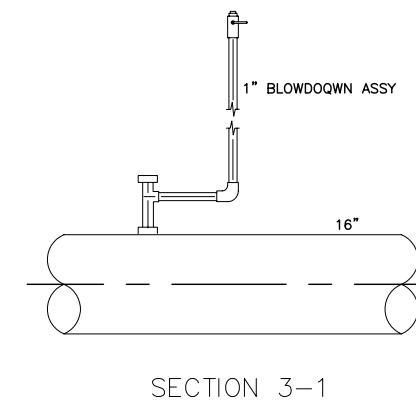
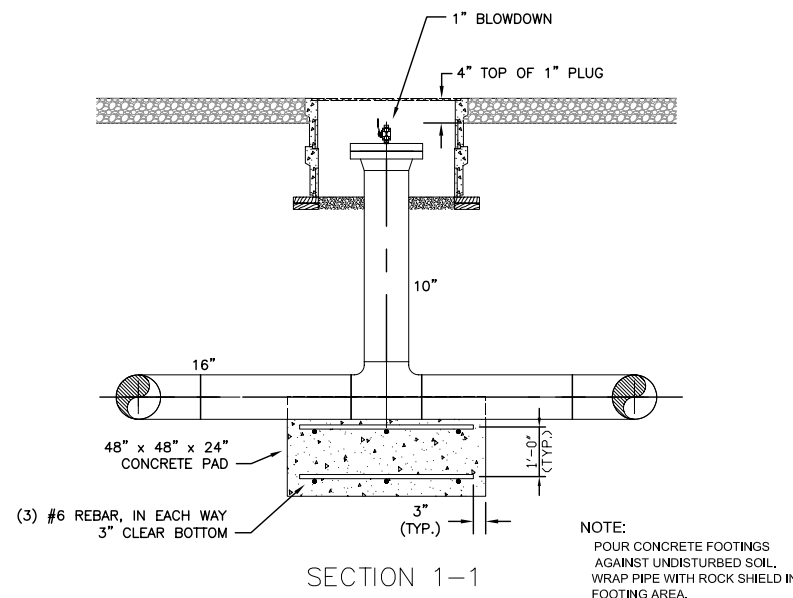
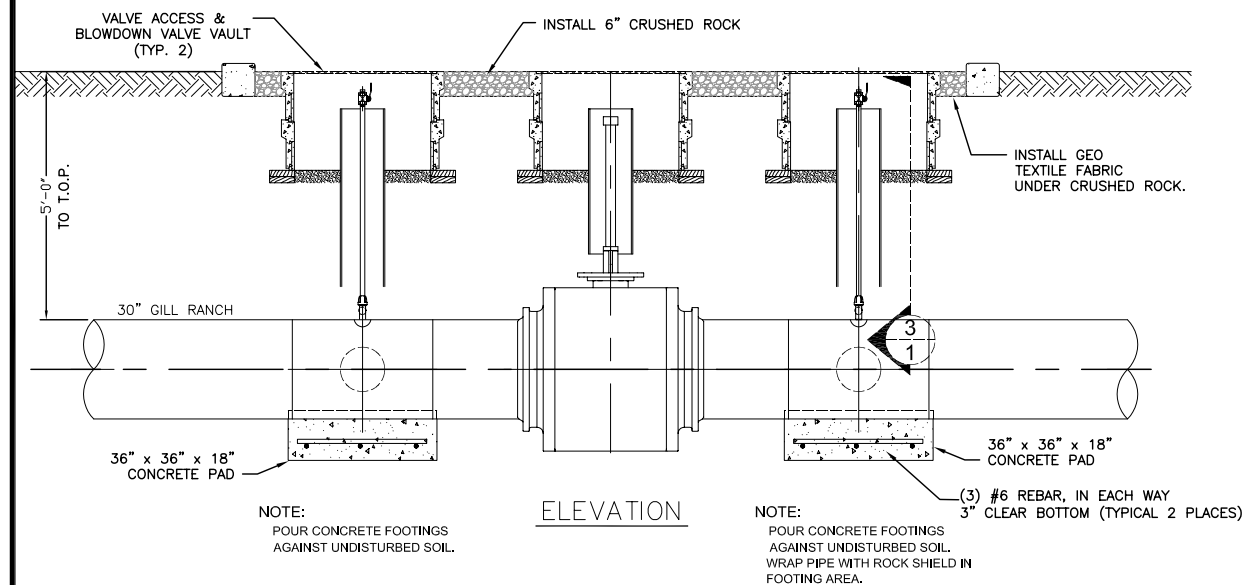
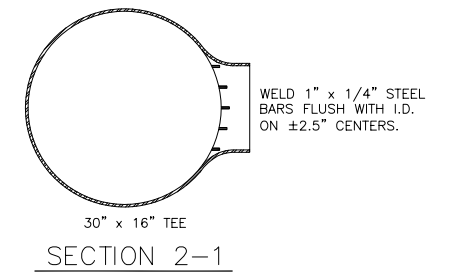


APPENDIX A.3

GAS PIPELINE SURFACE FACILITY DETAILS



NOTE:
 CENTER VALVE EXTENSION IN VAULT
 FIELD COAT ALL BARE SURFACES WITH 2 PART EPOXY COATING
 POWERCRETE J 2.5 MIL MINIMUM



PRELIMINARY
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 APRIL 11 2008
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REFERENCE DRAWINGS		REVISIONS				ENGINEERING RECORD		<small>This document is the exclusive property of ForeRunner Corp. and/or client. It has not been published and is confidential in consideration of the client thereof. This document is NOT to be copied, reproduced, exhibited, loaned or otherwise published, disposed of, nor to be used for the purpose other than that for which it is specifically published without the written permission of ForeRunner Corp. and/or client, or to use the same in any way detrimental to ForeRunner Corp. and/or client.</small>
DWG. NO.	TITLE	REV.	DESCRIPTION	DATE	CHK	DATE	APPR	
12361-180C-006	30" PIPELINE ALIGNMENT	P2	PRELIMINARY	CFE 4/11/08	CG 4/11/08			DRAWN CFE 2/8/08
		P1	PRELIMINARY	CFE 2/27/08	CG 2/27/08			CHECKED
								CLIENT
								PROJECT MGMT.
								PROCESS
								MECHANICAL
								PIPING
								STRUCTURAL
								ELECTRICAL
								I & C

FORERUNNER CORPORATION
2800 E. Riverway Blvd. #200
 Livermore, CA 94550
 925-938-0328

GILL RANCH STORAGE

**GILL RANCH
 30" MAIN LINE VALVE
 PIPING PLAN, SECTIONS AND DETAILS**

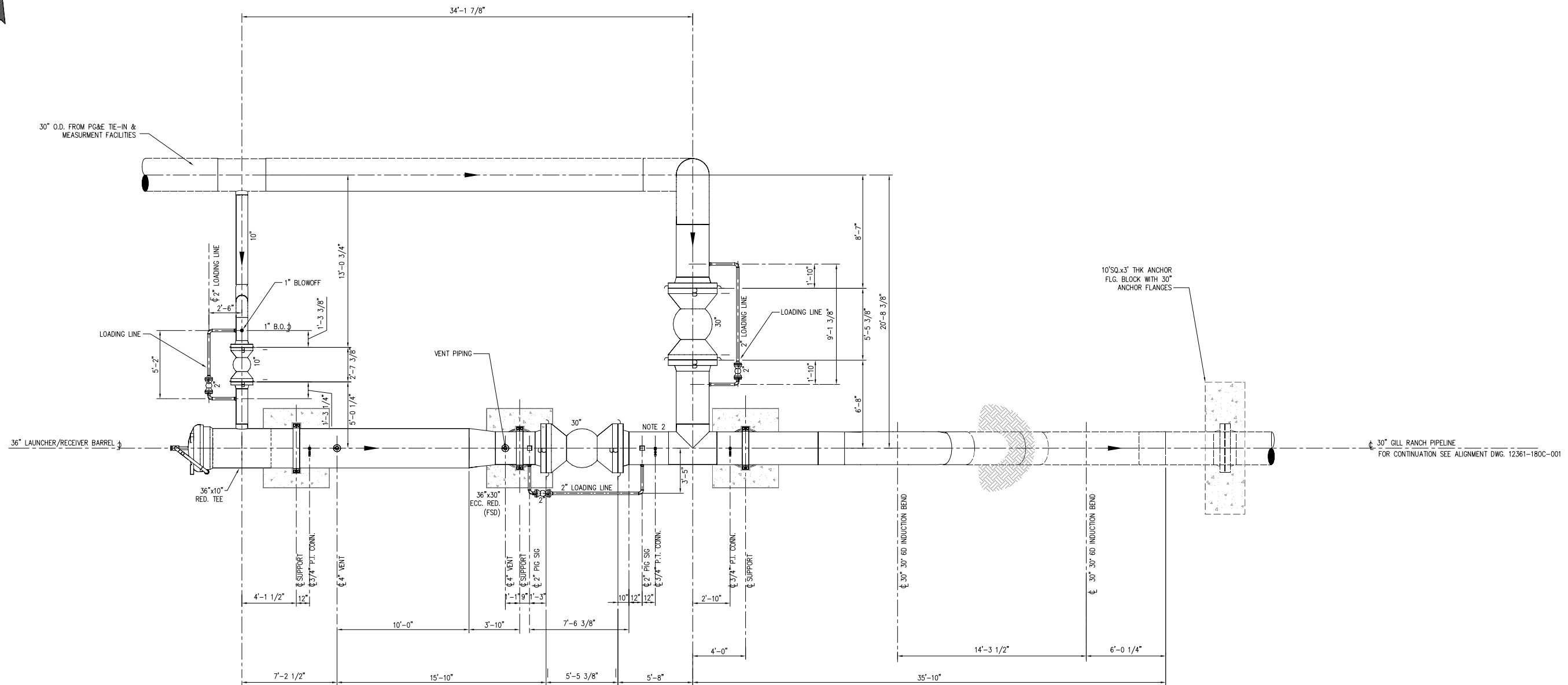
SCALE: AS SHOWN

PROJ. NO.: 12361-B

CITY/COUNTY, STATE: Modesto/Fresno Co. Calif.

DWG. NO.: 12361-170C-100

REV: P2



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

PRELIMINARY
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APRIL 11 2008
ForeRunner Corporation

- NOTES:
- FIELD TO VERIFY ALL DIMENSIONS, ELEVATIONS AND VALVE ORIENTATIONS BEFORE FABRICATION.
 - CONTRACTOR IS TO INSTALL SCRAPER GUIDE BARS IN 30" TEE IN ACCORDANCE WITH DWG. 12361-1700-_____
 - TAPER BORE PIPELINE SIDE OF 30" SCH. 30 FABRICATION PIPING TO --- W.T. WELD TO 30" O.D., --- W.T., TRANSITION PIPE.

REFERENCE DRAWINGS		REVISIONS				ENGINEERING RECORD		
						DRAWN	N.NEW	08/13/07
						CHECKED		
						CLIENT		
						PROJECT MGMT.		
						PROCESS		
						MECHANICAL		
						PIPING		
						STRUCTURAL		
						ELECTRICAL		
						I & C		
12361-180C-001	ALIGNMENT DRAWING	P2	PRELIMINARY	PJD	4/11/08	CHE	4/11/08	
		P1	PRELIMINARY	PJD	2/27/08	CHE	2/27/08	
DWG. NO.	TITLE	REV.	DESCRIPTION	BY	DATE	CHK	DATE	APPR

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3800 S. WASHINGTON BLVD. #800
LAUREL, CO 80888
303-966-0255

GILL RANCH STORAGE

**GILL RANCH
30" LAUNCHER/RECEIVER
PIPING PLAN**

SCALE: 1/4"=1'-0"
PROJ. NO.: 12361-B
CITY/COUNTY, STATE: Madera/Tulare Co. Calif.
DWG. NO.: 12361-170C-101
REV: P2

Plotted by: C.ESGH Date: 4/11/2008 8:21 AM Drawing: S:\Project Files\NW Natural\Gill Ranch\12361-C Transmission PL\Drawings\Mapping\04_Details\12361-170C-101.dwg