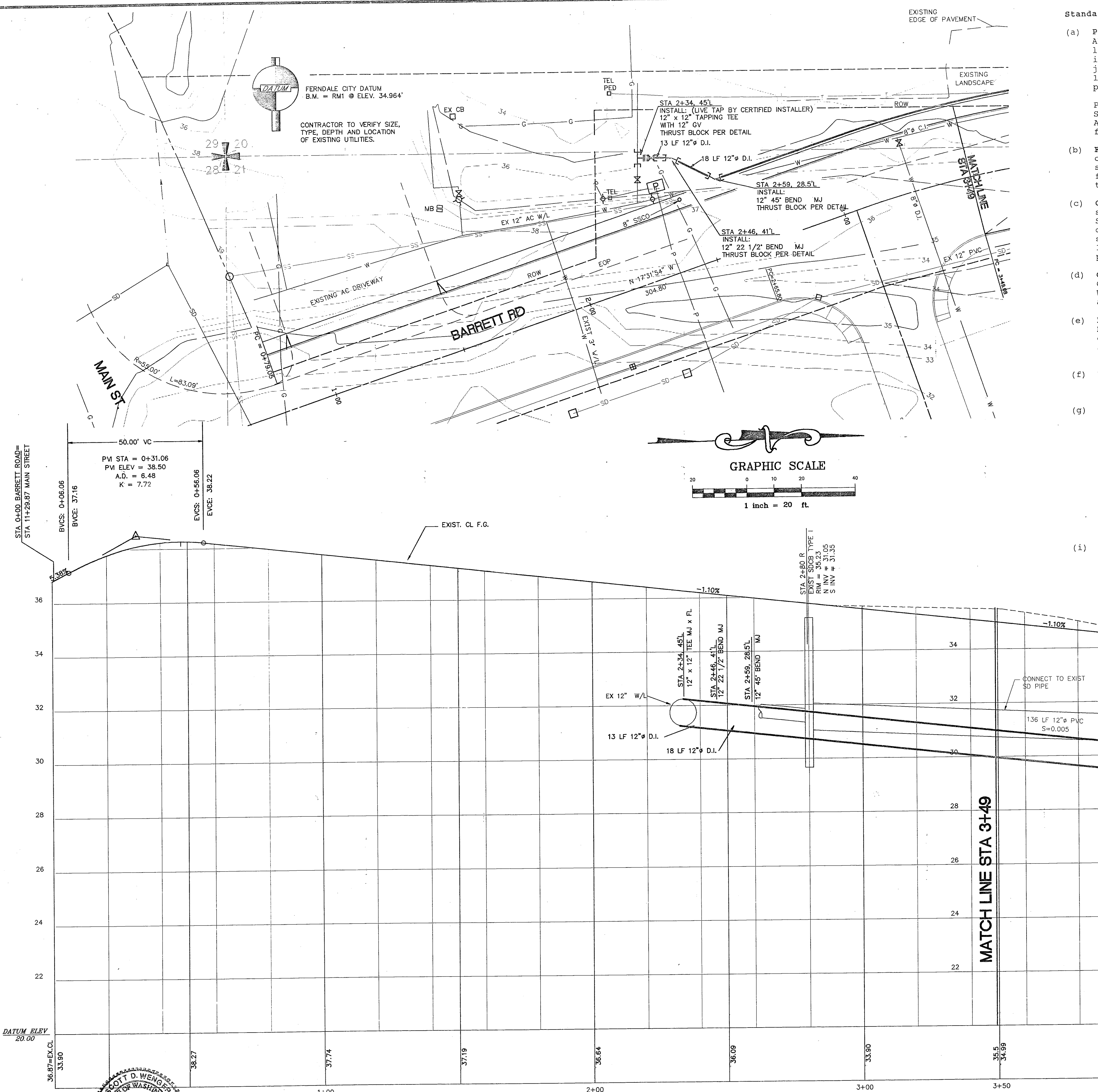




Standards for Water Main Construction

(a) **Pipe for Water Main.** All pipe shall be of AWWA Standards H3-71, C151-71 and cement lining C104-71, and shall be ductile cast-iron, standard thickness Class 50 push-on joints or M.J. joints. The pipe shall be of 150 psi working pressure, plus 100 psi surge pressure. No PVC or AC pipe will be allowed.

Pipe laying shall meet the requirements of Section 7-11 of the Standard Specifications. All pipe shall have minimum covering of 3.5 feet.

(b) **Fittings.** Material for fittings such as crosses, tees, bends, reducers and sleeves shall be ductile iron. Joints shall be M.J., flanged or push-on joints and shall conform to AWWA specifications C-110-71 and C-104-71.

(c) **Concrete Thrust Blocking.** Concrete blocking shall be as specified in City of Ferndale Standard Details W-2 through W-4, or as directed by the Project Engineer. Blocks shall be installed as specified in Section 7-11.3(13) of the Standard Specifications. No precast blocks are allowed.

(d) **Connection to Existing Water Mains.** The Contractor must notify the Ferndale Public Works Director of a proposed connection time at least four working days in advance.

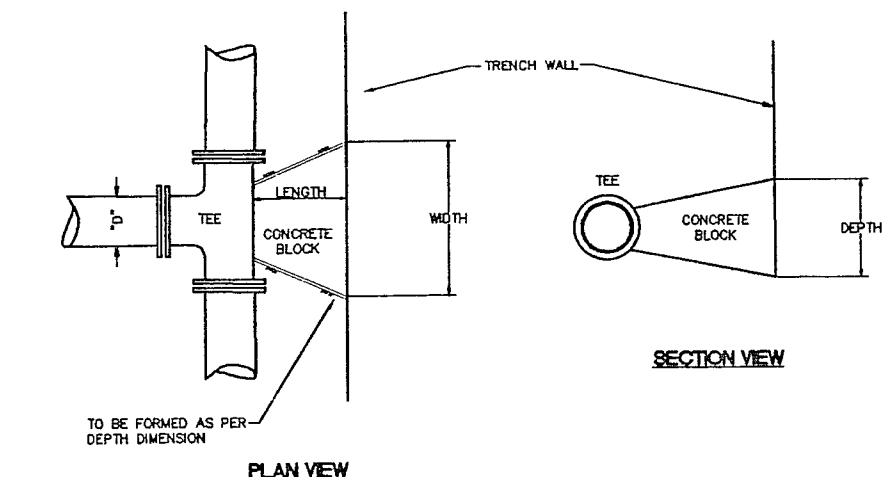
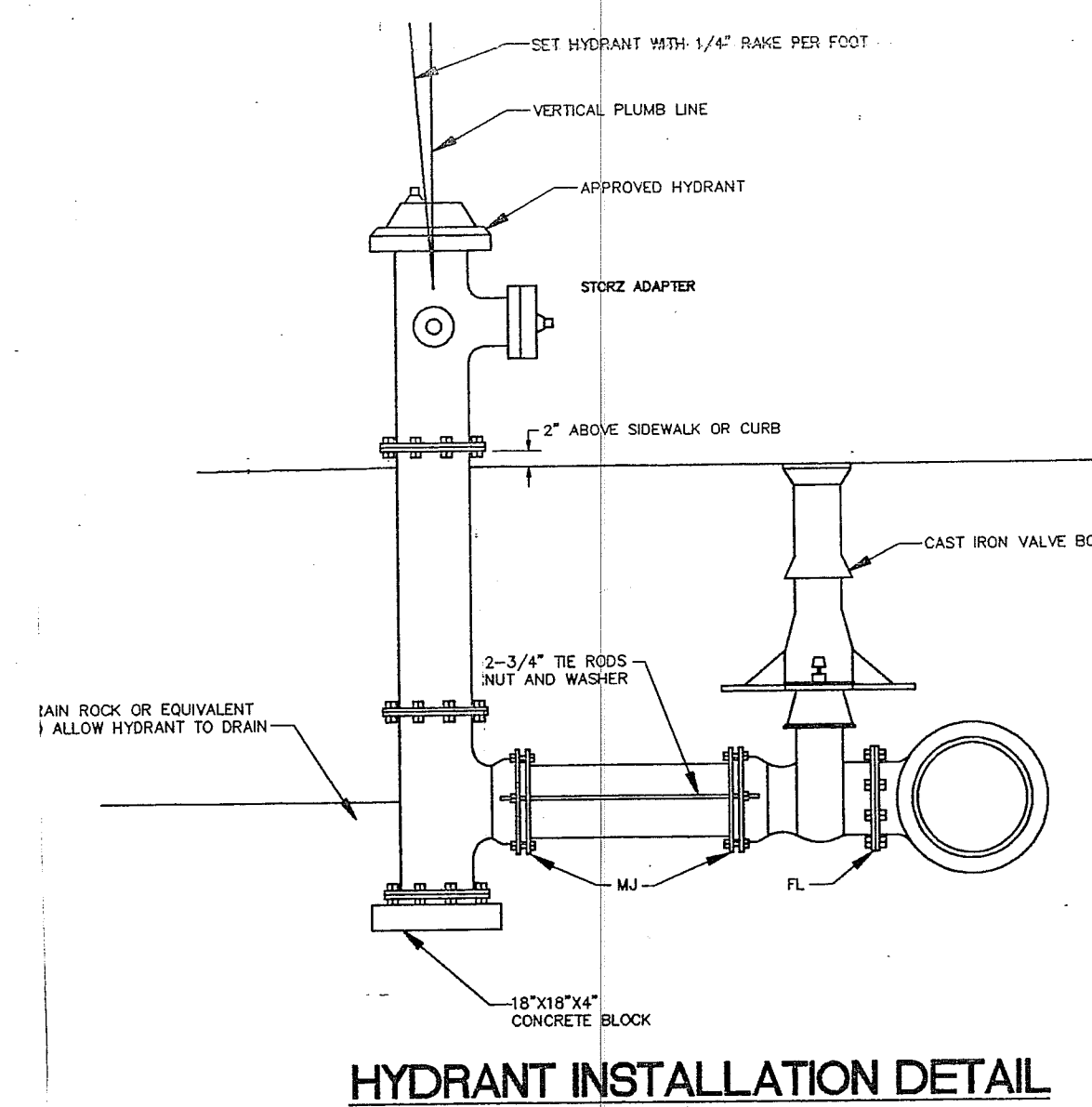
(e) **Hydrostatic Testing and Disinfection of Water Main.** All hydrostatic testing and disinfection of water mains shall conform to Sections 7-11.3(11) and 7-11.3(12) of the Standard Specifications.

(f) **Water Service Transfers.** Tap installations shall meet the requirements of the City of Ferndale Standard Details.

(g) **Gate Valves.** Gate valves shall be for lines 2 inches through 8 inches, and shall be installed in cast-iron valve boxes. Short-body valves suitable for a nonshock shut-off pressure of 130 psi resilient seat valves and suitable for direct burial are specified. Gate valves shall be resilient seated iron-body, full-bronze mounted valves conforming to AWWA C509 and suitable for service with the type and class of pipe used.

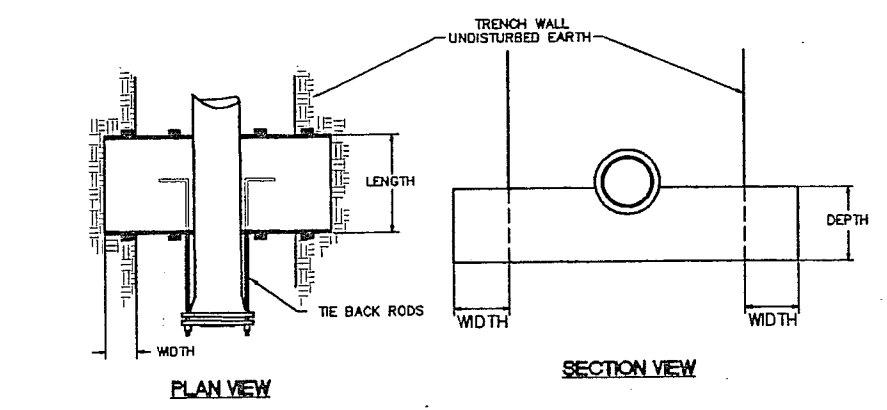
All valves shall have nonrising stems and shall open counterclockwise and shall be equipped with a 2 inch square operating nut. Valves will be flange or M.J. joints.

(i) **Hydrant Installation.** Hydrants shall be supplied and installed according to City of Ferndale Standard Detail W-1 (DOT B-19), and shall include a Storz-type fire hose adapter fitting.



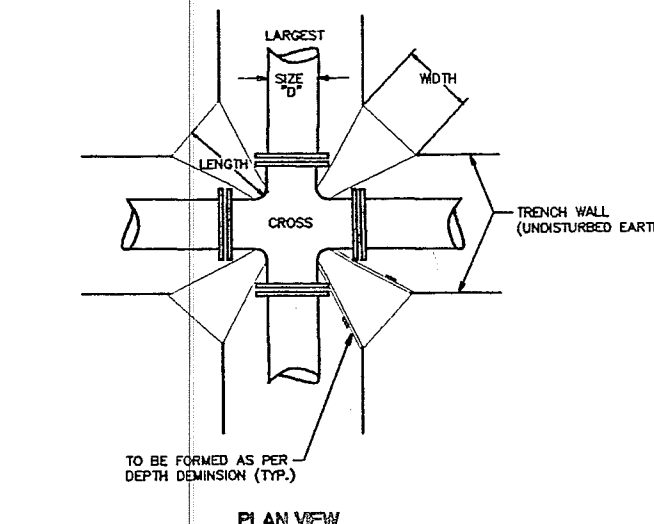
TD"	WIDTH	DEPTH	LENGTH	VOL.	# OF ROADS	ROD DIA.
6"	1'-0"	1'-0"	12"	0.63	2	1/2"
8"	1'-0"	1'-0"	12"	1.00	2	1/2"
10"	1'-0"	1'-0"	12"	1.63	2	1/2"
12"	1'-0"	1'-0"	12"	2.50	2	1/2"

VOL = Approx. Volume of Blocking Material Required in cu. ft.



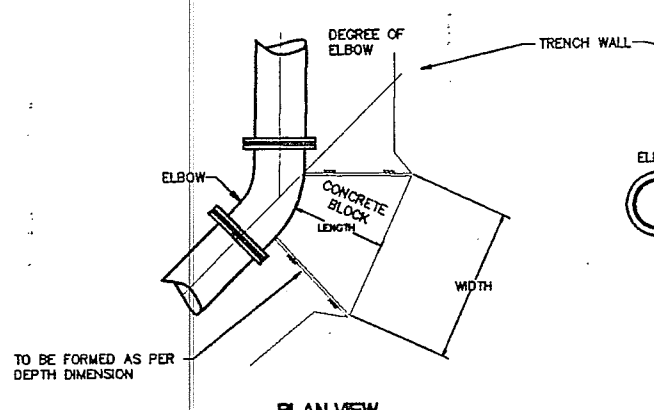
TD"	WIDTH	DEPTH	LENGTH	VOL.	# OF ROADS	ROD DIA.
6"	1'-0"	1'-0"	12"	0.63	2	1/2"
8"	1'-0"	1'-0"	12"	1.00	2	1/2"
10"	1'-0"	1'-0"	12"	1.63	2	1/2"
12"	1'-0"	1'-0"	12"	2.50	2	1/2"

VOL = Approx. Volume of Blocking Material Required in cu. ft.
RODS: A36 STEEL MINIMUM



TD"	WIDTH	DEPTH	LENGTH	VOL.	# OF ROADS	ROD DIA.
6"	1'-0"	1'-0"	12"	0.63	2	1/2"
8"	1'-0"	1'-0"	12"	1.00	2	1/2"
10"	1'-0"	1'-0"	12"	1.63	2	1/2"
12"	1'-0"	1'-0"	12"	2.50	2	1/2"

VOL = Approx. Volume of Blocking Material Required in cu. ft.

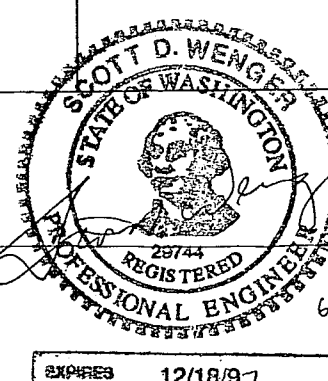


TD"	WIDTH	DEPTH	LENGTH	VOL.	# OF ROADS	ROD DIA.
6"	1'-0"	1'-0"	12"	0.63	2	1/2"
8"	1'-0"	1'-0"	12"	1.00	2	1/2"
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VOL = Approx. Volume of Blocking Material Required in cu. ft.

TYPICAL THRUST BLOCKING DETAILS

NPS
SOIL BEARING CAPACITY 1500 PSF MINIMUM
100 P.S.I. OPERATING PRESSURE
200 P.S.I. TEST PRESSURE



DESIGNED BY: CRR
DRAWN BY: TRP/SDW
CHECKED BY: [Signature]
REICHARDT & EBE
ENGINEERING, INC.
CONSULTING ENGINEERS
PO Box 978 423 Front St., Ste 201
Lynden, Washington 98264
Ph (360) 354-3687
Fax (360) 366-3415

APPROVED
JUN 05 1996
REVISIONS PER CITY REVIEW
NO. DATE
1 6/4/96
BY: SDW

FRC JOINT VENTURE
4078 SUCIA DRIVE
FERNDAL, WASHINGTON 98248

STA 2-34 TO STA 3-49
WATER LINE IMPROVEMENTS
BARRETT RD., FERNDAL, WA

JOB# / DWG: 501A-PP
SCALE: H: 1"=20' V: 1"=2'
DATE: 5/91
SHEET: 1 of 1

