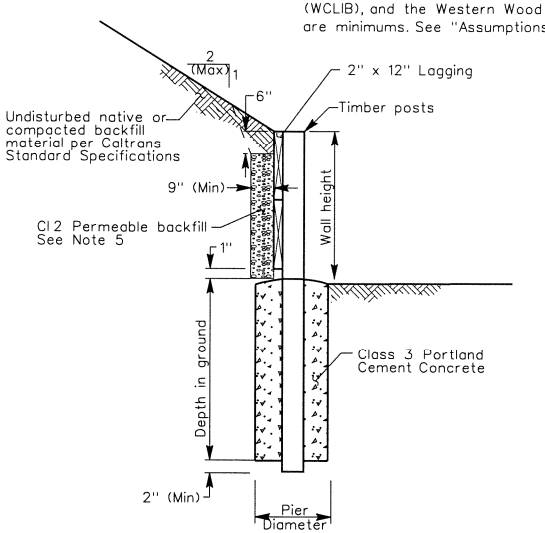
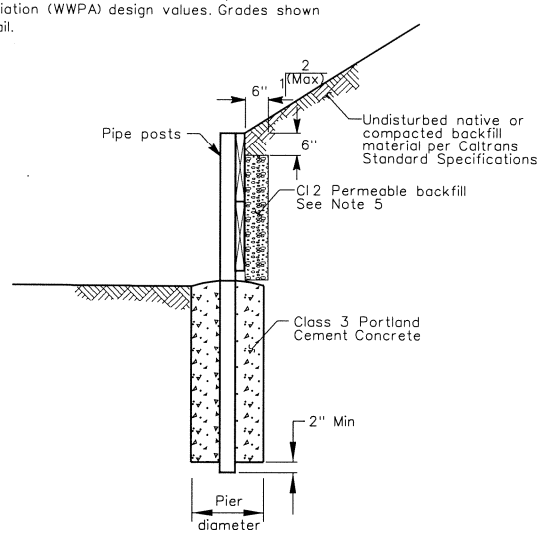
WALL HEIGHT (ft)	TIMBER POSTS POST SIZE (in)	TIMBER POSTS POST GRADE *	PIPE POSTS POST DIAMETER (in)	PIER DIMENSIONS PCC PIER DIAMETER (in)	PIER DIMENSIONS DEPTH IN GROUND (ft)	LAGGING LAGGING SIZE (in)	LAGGING LAGGING GRADE *
1	2 x 4	•2	1½	8	1.5	2 x 12	•2
2	4 x 4	•2	1½	10	3.0	2 x 12	•2
3	4 x 6	Structural	2½	12	4.5	2 x 12	Structural
4	6 x 6	Structural	3	14	6.0	2 x 12	Structural
5	6 x 8	Structural	4	18	6.5	2 x 12 &	Structural
						3 X 12 (Bot)	

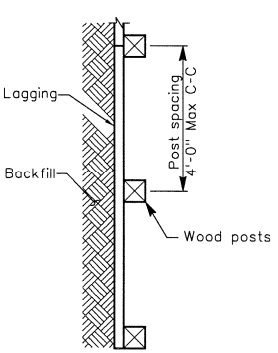
* Note: Lumber gradings are based on designations from the West Coast Lumber Inspection Bureau (WCLIB), and the Western Wood Products Association (WWPA) design values. Grades shown are minimums. See "Assumptions" for more detail.



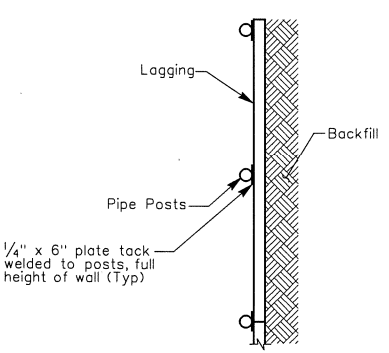
SECTION



SECTION



PLAN
TIMBER POSTS



PLAN
PIPE POSTS

PUBLIC WORKS DIRECTOR

2-28-02

PLANS APPROVAL DATE

The County of Contra Costa or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

REGISTERED PROFESSIONAL ENGINEER R. MITCH AVALON No. 31422 Exp. 12/31/04 CIVIL STATE OF CALIFORNIA

DESIGN CRITERIA:

The standard plan for "Timber Retaining Wall" is designed as a temporary structure, in place for 5 years or less, in areas which can sustain wall movements up to ½ inch. The following assumptions were made in the design. If these assumptions cannot be met for the installation site, then the wall should be designed for actual site conditions by a Registered Professional Engineer in consultation with a Geotechnical Engineer.

ASSUMPTIONS:

1. Soil Parameters used were for soils exhibiting an equivalent fluid pressure of 40 lb./ft^3 and a passive pressure of 300 lb./ft^3.
2. 1994 Uniform Building Code values for timber members:

Pressure Treated Douglas Fir •2:	Fb = 930 psi Fv = 80 psi
Pressure Treated Douglas Fir Structural Select:	Fb = 1450 psi Fv = 95 psi

3. Design includes 2' soil surcharge, drained conditions.
4. Pipe posts shall be standard weight, or higher, steel pipe conforming to ASTM designation: A53, Grade B. (Metal chain link fence posts are not acceptable.)

NOTES:

1. All posts spaced at 4' on center, maximum.
2. All posts and lagging shall be pressure treated Douglas Fir, rough.
3. All sizes and depths are minimum.
4. Do not drill holes in pipe posts. Connections to lagging shall be made through steel plate.
5. Permeable material shown shall be placed behind all walls, when wall height is greater than 1'. Permeable material shall be in conformance with the latest Caltrans Standard Specifications. Class I permeable material wrapped in filter fabric maybe used in place of Class 2 permeable material.
6. Portland Cement Concrete shall be Class 3 concrete (5.4 sacks PC per cubic yard), as per Caltrans Standard Specifications.

NO.	DATE	REVISION DESCRIPTION	BY
1	2-02	Supersedes Standard Plan CB10 dated 11-99	P.W.

COUNTY OF CONTRA COSTA
PUBLIC WORKS DEPARTMENT
MARTINEZ, CALIFORNIA

STANDARD PLAN

TEMPORARY TIMBER RETAINING WALL

SCALE: NO SCALE | DATE: 2-02
DRAWN BY: H.HUSSEY | PLAN NO. CB10i
CHECKED BY: M. HOLLINGSWORTH

STD. PLAN CB10i