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Wood Retaining Walls

No.: BUILDING-07
Date: 1998-07-27
Revised: 2021-01-29

This bulletin is to inform Owners, Builders, and Contractors of retaining wall requirements.

Summary

- Retaining walls under 1 metre above the adjacent lower grade can be designed with the City's approved Wood Retaining Wall Design guidelines.
- For all other retaining walls exceeding 1 metre in height above the adjacent lower grade, a building permit is required and the design must be completed by a Registered Professional Engineer.
- A plumbing permit must be obtained prior to any work related to a retaining wall where drain tile is installed and connected to the City's storm drainage system.

What is a Retaining Wall?

A retaining wall is a vertical structure that holds back earth and prevents run off, flooding, or eroding onto adjacent property.

Retaining Wall Design

Soil retention methods at or near property lines incorporating retaining walls shall be:

- Designed and constructed using the Building Approvals Department's Wood Retaining Wall Design guidelines (attached) or;
- Designed by a Registered Professional Engineer.

Note: The prescribed Wood Retaining Wall Design applies to designs with a maximum height of 1 metre above the adjacent lower grade unless otherwise approved. A building permit is not required for retaining walls constructed in accordance with this guideline.

If the retaining wall exceeds 1 metre in height above the adjacent lower grade, the design must be completed by a Registered Professional Engineer.

General Requirements

1. A building permit must be obtained prior to the construction of a retaining wall over 1 metre in height.
2. For retaining walls constructed using the attached Wood Retaining Wall Design guidelines: All joints in the 20 mil continuous membrane or the two layers of 10 mil continuous membranes are to be lapped minimum 150mm and sealed. In the two layer application, joints in the membranes are to be staggered.
3. A plumbing permit must be obtained prior to any work related to a retaining wall where drain tile is installed and connected to the City's storm drainage system.
4. A survey of non-encroachment may be required.

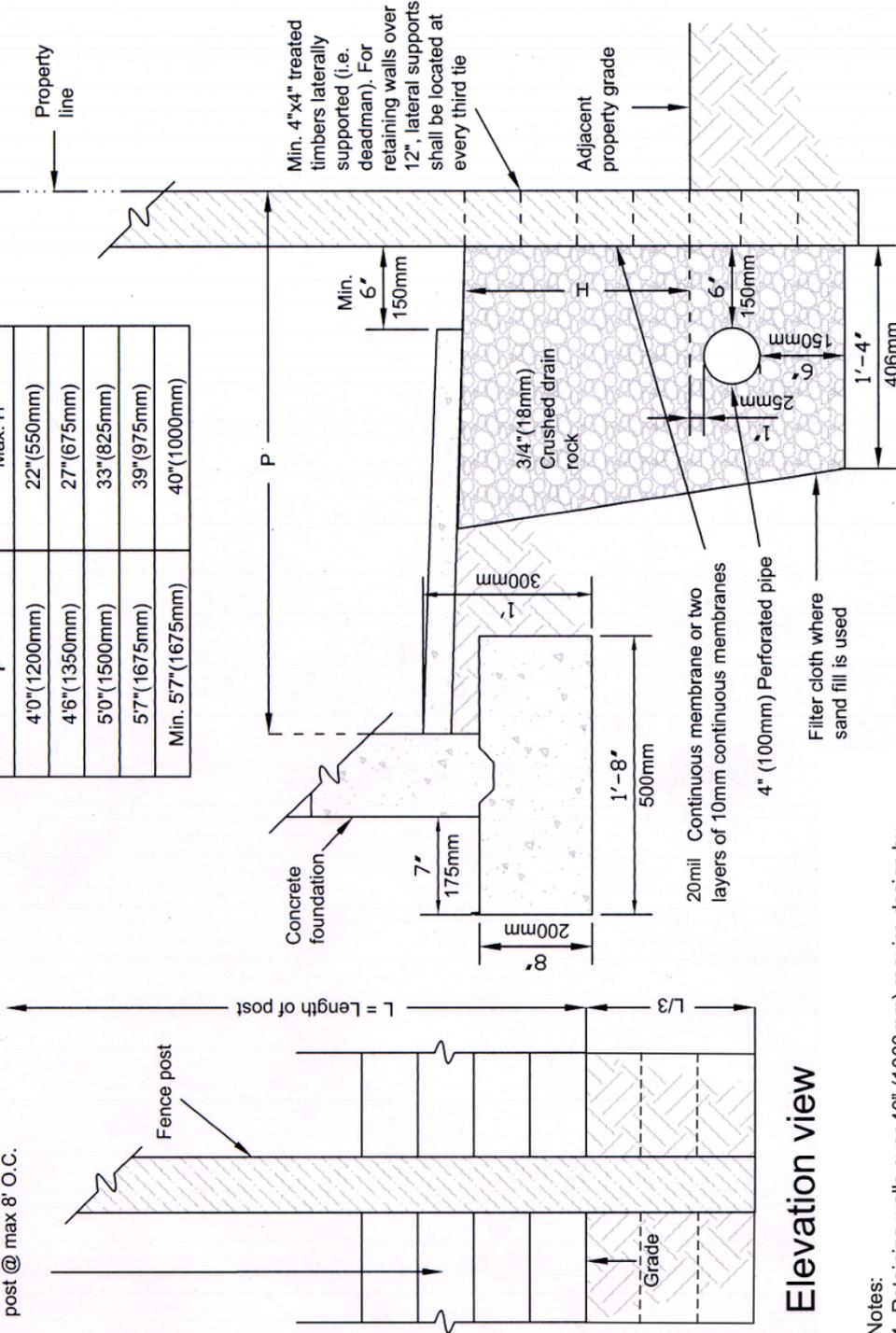
Should you have any questions, comments, or suggestions concerning this bulletin, please reference the Bulletin number and email building@richmond.ca or call the Building Approvals General Inquiries line at 604-276-4118.

See over →

Retaining wall with fence posts

P	Max. H
4'0" (1200mm)	22" (550mm)
4'6" (1350mm)	27" (675mm)
5'0" (1500mm)	33" (825mm)
5'7" (1675mm)	39" (975mm)
Min. 5'7" (1675mm)	40" (1000mm)

Min. 4"x4" treated timbers toe-nailed with min 2" galvanized nails at both faces of each tie into min. 4"x4" fence post @ max 8' O.C.



Elevation view

- Notes:
- Retaining walls over 40" (1000mm) require design by registered professional engineer, and an agreement to encroach into a City R.O.W.
 - Garden ties are **NOT** permitted
 - Concrete retaining walls are **NOT** permitted in a City R.O.W.



City of Richmond

Wood Retaining Wall Detail Single Family Dwelling

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