

Wine Cellar Construction Tips

Rosehill Wine Cellars Inc.

rosehillwinecellars.com

1-888-253-6807

We provide our Construction Tips as a complementary service. Our aim is to provide cellar construction and preparation guidance so that your cellar will be the home your wine deserves. We hope that when it comes time to order your cellar wine racks and cellar cooling unit, you will think of Rosehill.

While this material is based upon Rosehill's many years of successful custom wine cellar design and sound construction knowledge, be advised that we cannot be held liable for how any of the information provided is interpreted or applied. There are really not one set of rules for all wine cellar construction. Many details have to be considered such as location of the cellar, the climate you are in, what temperature you desire your cellar to keep among other factors.

You might wish to refer to our web page "Design Your Wine Cellar" for racking layout assistance: <http://www.rosehillwinecellars.com/designing-your-cellar>

Also take a moment to browse our Custom Cellars photo gallery where a number of Rosehill-built cellars are illustrated. These pictures will give you some ideas about our design capabilities - some of which you may wish to incorporate into your own design

For our photo gallery, visit:

http://www.rosehillwinecellars.com/index.php?main_page=gallery

or for a virtual tour of one of our cellars, please see:

<http://www.rosehillwinecellars.com/360-wine-cellar-tour>

Questions? Ready to place your order? Please give us a call !

Building a Wine Cellar

This guide is designed to provide contractors and builders with a quick overview of the necessary elements required to properly build a wine cellar. Due to the wide array of unique circumstances, (size, location of the cellar, cooling requirements) each cellar will be distinct, however the basic build requirements remain the same

Location

The ideal location for a wine cellar is still in the basement, below grade. If the cellar is located adjacent to at least one outside wall of the dwelling, then it is preferred to be in the northeast corner which gets the least amount of sunlight. Here, the sun has the least heating impact on the outside walls. A cellar with no external walls may be situated virtually anywhere under roof. Many homes have unused crawl spaces which people think make great cellars but in reality they are too hot in summer and too cold in the winter months. This depends on geographic location.

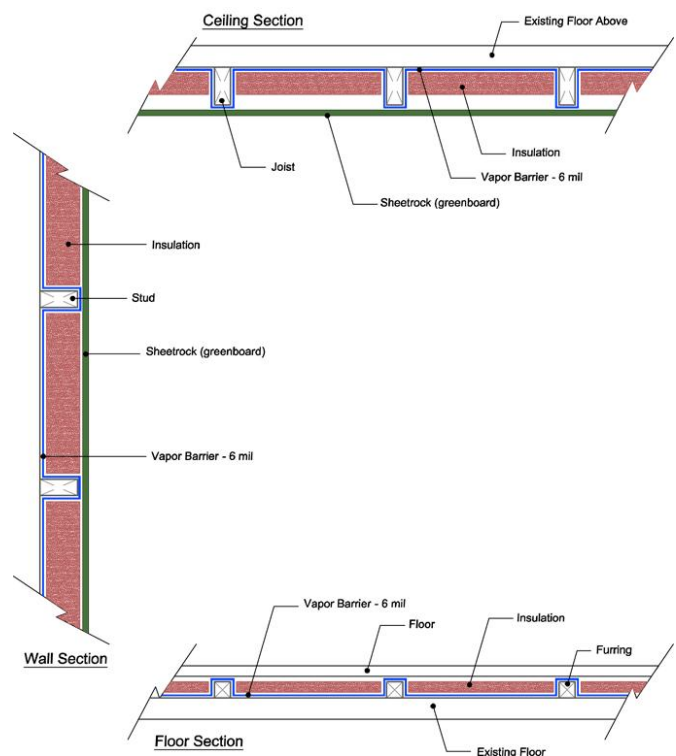
Vapour Barrier

6 mil approved poly must be installed on the "warm" side of walls and ceiling of the wine cellar (If you are standing inside your cellar the vapour barrier is on the other side of the insulation next to the outside walls of the cellar)

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- Continuous application between and around studs and ceiling joists
- All joints of vapour barrier to be taped

Insulation for Wood Framed Walls

- R-22 batt insulation (Roxul) for 2 x 6 framed (exterior) walls to be installed after the vapour barrier
- R-32 batt insulation to be installed for the ceiling
- Vapour barrier required



Insulation for Concrete Walls and Ceiling (cold cellar)

- 2 x 4 wood studs to be inset about one inch from concrete walls - to allow spray to go behind studs

- 2 lb polyurethane spray foam insulation to be applied on walls and ceiling
- Foam to be a minimum of 4" in depth (insulation value is approx. R-7 per inch)
- Vapour barrier incorporated into the insulation itself.

NOTE: *All necessary rough-ins are to be installed prior to insulation (electrical, plumbing, line set, and condensate drain for cooling unit)*

Insulation & Vapour Barriers

Insulation requirements are determined by the outside wall area the cellar will occupy and the depth of the cellar below grade. The very best type of insulation is sprayed-in-place 2-lb. polyurethane, however, this is a more costly option. The second best option is insulation batts fitted into the stud cavities. This means the outside walls and the ceiling joists, which can be difficult sometimes given the placement of plumbing pipes, ductwork, electrical wirings, etc.

The importance of a good insulating and vapor retarder cannot be stressed enough! You want to keep the cold in, the heat out and control moisture levels.

Floors

If you have a very cold floor (i.e. cold rooms under front verandas), then we recommend installing 2" X 2" wood "sleepers" on the floor so that rigid insulation of R-7.5 can be placed between them. In really cold situations you can build the floor with 2" x 4" studs on edge and fill with sprayed-in-place 2lb polyurethane.

Drywall

- Moisture resistant drywall (blue board) to used for the walls and ceiling inside the wine cellar
- Drywall is to be *finished* down to the floor since baseboard is not required behind the wine racking
- Walls and ceiling are to be primed and painted using latex based paint

Glass Windows/Doors

While very attractive and widely used, glass provides very little R value (insulation) within a cellar. If you will be using glass, you might consider selecting a cooling unit with a greater BTU output to off set the diminished R value. Generally, the next size up will deliver adequate cooling compensation.

The glass should be a sealed thermal pane unit, usually 5/8" or $\frac{3}{4}$ " overall thickness. The glass should be sealed around the edges in the frame. Do not get into details with sandblasting on the doors - the company doing this will take care of it.

Wine Cellar Door

- Exterior grade door (solid door) with weather stripping and threshold.
- 1 $\frac{3}{4}$ " thick door (recommended)
- Glass doors must have at least double paned tempered glass (if applicable)

Racking

Please see our racking selection:

<http://www.rosehillwinecellars.com/wine-racks>

towards the bottom of the main racking page is a comparison chart for all of our different racking system.

If possible, the racking design should be determined before cellar construction commences. The walls can then be proportioned to the exact size of your racking layout, thereby giving the racks the look of a true custom installation. This is for both walls and ceiling height.

Racks should be chosen according to your collecting style. Rosehill's staff would be pleased to assist in the design of your racking layout. Depending upon your budget, design ideals and available cellar space, we would be happy to quote from our Modular, Premium, Custom or Vintage View racking/storage systems.

Kick Plates

When we design a custom cellar, we build kick plates around the room as a platform upon which the racks will rest. The kick plates serve two purposes: 1) They provide both a more finished look to your cellar and 2), The kick plates themselves can be shimmed to accommodate for any unevenness in the floor more easily than the racking on its own. Make the kick plates the same height as the base trim you want to install. The top surface of the base can be black melamine which looks nice when the racks are installed.

The height of your kick plate is adjustable depending on your trim selection. Cellars takes on a rather dramatic appearance with larger kick plates.

Our Modular Racking System includes the option of prefabricated kick plates in black laminate with redwood trim. These kits are 1.5" high; and can be used as base and/or crown. They are quick and easy to use and add a nice design element to your racking layout. The miter angle for the Modular Redwood curved corner unit kick plate is 15 degrees.

Our Premium Kits also have incorporated base & trim.

The kick plates are strictly optional. Racks may be placed right on the floor and shimmed accordingly.

Cooling Systems

Please see:

<http://www.rosehillwinecellars.com/wine-cellar-cooling-units>

We can provide you with the exact measurements and specifications for the cooling unit that best suits the location and size of your cellar. Towards the bottom of our cooling unit page is a comparison chart between our different systems.

Your wine deserves the very best home!

Rosehill Wine Cellars Inc.

Toll free: 888-253-6807 Tel: 416-285-6604 Fax: 416-285-6605

Web: rosehillwinecellars.com

Email: info@rosehillwinecellars.com