



THE EVERGREEN STATE COLLEGE

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OLYMPIA, WASHINGTON

What is it?

Seminar II is 160,000 square feet of classrooms and offices, spread over five wings, called CLUSTERS (see map on that card). It opened in April 2004. It combines lecture and workshop rooms for 1200 students and offices for 130 faculty and staff.

How does it work?

It uses daylighting, natural ventilation, green roofs, low-toxic materials, and energy efficiency, and resource-efficient materials (recycled, locally produced, long-lived). Seminar II is designed as a 100-year building.

How can I work with it?

Don't smoke nearby; enjoy the walkways; keep the TRICKLE VENTS (see that card) open; schedule large and small sessions in the same cluster building for ease of navigation.





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What is it?

Low-flow water fixtures have been installed throughout Seminar II. Faucets (large photo) run only when hands are right in front of them. The urinals are flush-less: they need no water flow at all. Toilets use a low 1.6 gallons per flush.

How does it work?

Faucets have a light sensor that switches water on when light is blocked by a person's hands under the tap. Under the urinal drain is a trap in which a layer of light oil allows urine to pass through and keeps smells on the far side.

How can I work with it?

Keep trash and grit out of the urinals: it will clog the drain and not be washed down. Notify building management when a fixture malfunctions.





What is it?

Movement between the CLUSTERS (see that card) of Seminar II is by covered walkways and bridges. These help light and air reach into the building, and are much cheaper than fully enclosed and fire-proofed corridors.

How does it work?

If your destination is on the same level, walkways will take you there—between clusters or across the central open space. To change levels, there are stairways in each cluster, and outside at the Red Square and COM Building ends.

How can I work with it?

Enjoy the views; take normal precautions (such as care with ice on frosty days); remember the cluster stairs are at the outer end of each cluster.





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What is it?

Trickle vents like these are under most windows in Seminar II, to provide inflows of fresh air through a narrow adjustable slot. On the naturally ventilated 2nd and 3rd floors, they are vital to air circulation.

How does it work?

Air gets heated in each room on the 2nd and 3rd floors of each cluster. It floats upward and out through vents into the corridor. The trickle vents allow outside air to flow in to replace it.

How can I work with it?

Leave trickle vents open at least a little; adjust for more or less air; adjust RADIATOR (see that card) if you need more heat. Don't block air from coming in—it's your source of fresh air.

trickle vent

radiator



A photograph of a concrete sidewalk with a young tree in the foreground and dense foliage on the right. The sidewalk is made of large, light-colored concrete slabs. A young tree with green leaves is planted in the foreground. To the right of the sidewalk is a dense area of green foliage. The image is taken from a high angle, looking down at the sidewalk.

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What is it?

The county-required retention tank under this path (see red outline) is further protection for local streams. It fills in heavy rains and releases water slowly and evenly, avoiding damaging surges.

How does it work?

The thin, deep rectangular tank receives all rainwater not absorbed by the GREEN ROOFS (see that card). It holds 18,000 cubic feet, and releases water through low-limiting outlets.

How can I work with it?

The tank system itself needs little attention. The best thing is to treat the roof gardens well, so they absorb the maximum amount of rainwater before it gets to the tank.

location of
retention tank
(under walkway)





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What is it?

These are carpet tiles, used on the floors of lecture, seminar and meeting rooms. They are made of 45% recycled nylon and need no mastic to hold them down, so a major source of organic vapor is eliminated.

How does it work?

Waste Nylon 6.6 fibers from carpet-making factories have been gathered to make the surface. They are fixed to a backing made from re-processed used carpet. The recycled carpet is produced in 12" by 12" squares so that worn places can be fixed without replacing the whole carpet.

How can I work with it?

No special care is needed. Of course, clean up spills quickly and completely.





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What is it?

Instead of running stormwater into buried pipes, Seminar II brings it into open channels at the foot of each CLUSTER (see that card), and then into a planted rock bed that runs through the open space between the clusters.

How does it work?

This is one of the most familiar natural occurrences—water running downhill. Each section of the rock bed allows some rainwater to soak back into the ground and passes any excess to the next section, ending at a rain garden at the east end, where plants help retain sediment. Any overflow goes to the RETENTION TANK (see that card).

How can I work with it?

Keep trash out of the channels; leave the rocks in place. The water will do the rest.

rock bed
for runoff

overflow
from green roof





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What is it?

Offices and meeting rooms in Seminar II have windows that users can open or close to suit their individual wishes for fresh air and contact with the outdoors.

How does it work?

Pop open the inner screen, release the latch, and swing the window to the desired opening. The inside radiator under the window helps get the temperature right.

How can I work with it?

Treat it like a window at home—open when you want fresh air, close it when heating is required, and use the RADIATOR; also keep the TRICKLE VENTS open at least a little (see those cards). Don't smoke nearby—outside air comes into the building at most windows, so smokers need to keep well away.

latch trickle vent screen





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What is it?

The cluster layout of Seminar II allows views to the outside from 94% of the space. Substantial amounts of daylight enter all offices, teaching spaces, and hallways.

How does it work?

Each cluster building has occupied rooms on the outside, and relatively short hallways with end windows. Skylights bring light down the CHIMNEY (see that card). Light shelves in offices reflect light off the high office ceilings and through "re-light" windows into inner hallways.

How can I work with it?

Use the pull-down shades to control brightness if necessary, but when shades are open, keep them all the way up, so light can reach the light shelves and reflect into the hallway; don't block the re-lights with books or files.





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What is it?

These “motion sensors” can detect people moving in a meeting room (overhead sensor on other side) or in an office (sensor in light switch at right). When they detect no motion for a while, they turn the lights off to save energy.

How does it work?

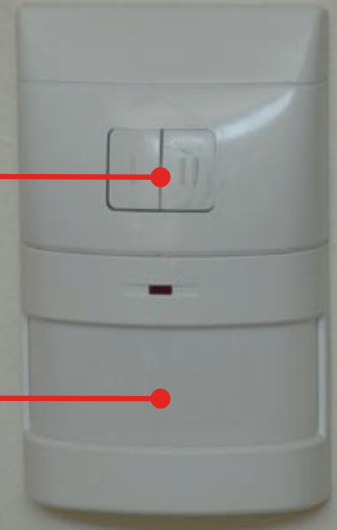
Behind the lower panel is a detector for infrared radiation (heat) from humans. It “sees” several different directions separately, and detects motion when infrared radiation moves from one direction to another. Even small motions, like keyboarding or turning pages, are detectable. When the device sees no changes for a time, it turns off the lights.

How can I work with it?

Don’t block the sensor’s ability to “see” the whole room. There are no motion sensors in hallways or breakout spaces: use switches on the walls to turn lights on when needed — and off when not needed.

office
light
switch

motion
sensor



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What is it?

40% of Seminar II's roof area is planted to absorb a portion of rainfall and slow down the runoff of the rest. This helps protect local streams, fish, and land from fast flows or flooding.

How does it work?

Tough plants (drought and wet resistant) live in a 4-inch layer of soil, above a draining layer that conveys extra water away.

How can I work with it?

Sit on the benches along the edge; enjoy the presence of living things; don't walk on the plantings (the soil is easily displaced and the draining layer broken).



A photograph of a modern building with a balcony overlooking a dense forest of evergreen trees. The building is on the right side of the frame, featuring a balcony with a metal railing. The forest is lush and green, with many tall trees and dense foliage. The lighting suggests it's daytime, with sunlight filtering through the trees.

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What is it?

When building Seminar II, we took great care to preserve as many existing trees and forest growth as possible, both outside the building area (large photo) and between the clusters (photo at right).

How does it work?

During design, existing trees were mapped and the final site adjusted to reduce the number that would be cut. During construction, the contractor agreed to keep heavy machinery and other disturbances within a narrow zone around the actual buildings.

How can I work with it?

Enjoy the views from almost anywhere in the building. Keep an eye out for wildlife (raccoon and deer were seen between the clusters within the first months). Respect the plantings between and outside the clusters.



What is it?

Offices in Seminar II have cork, a renewable, low-toxic material, as their floor covering.

How does it work?

Cork comes from the bark of a Mediterranean oak (*Quercus suber*). One can harvest some bark from a tree every 9-10 years, for 200 years or more. Cut into 12-inch squares, about 1/4" thick, cork is fastened to the floor with low-toxic adhesive.

How can I work with it?

Clean up wet spills right away; remove sand or grit that is tracked in; don't drag heavy or sharp objects across the floor.





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What is it?

The structure of Seminar II is mainly “cast-in-place” concrete. It contains regionally produced and recycled material, so less transportation fuel and fewer raw materials were needed to make the building. Concrete is also the building’s main THERMAL MASS (see that card)

How does it work?

Concrete itself is composed of sand and heavier rock called aggregate, bound together with cement, and stiffened with steel reinforcing bars. The bars are 98% recycled steel; about 25% of the cement is provided by ash from coal power plants; and all of the aggregate comes from British Columbia and Washington state.

How can I work with it?

Concrete is sturdy and long-lasting. Just treat it with ordinary respect and it will do its job.

unfinished
cast-in-place
wall

steel
reinforced
bars



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What is it?

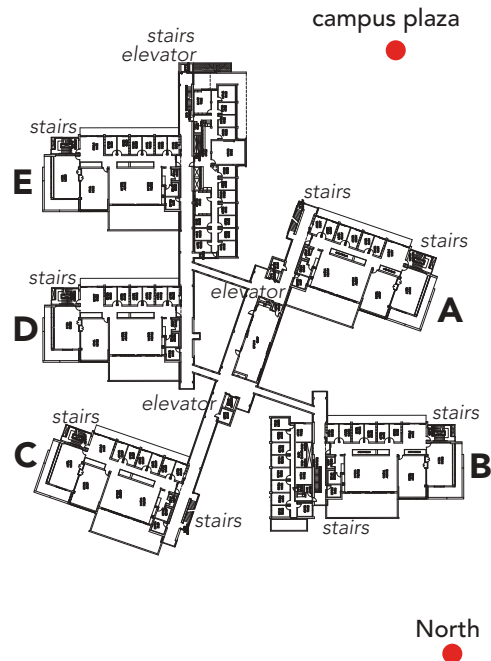
Seminar II is divided into five sub-buildings, called clusters. This allows natural light to reach 94% of interior spaces, makes natural ventilation possible, and brings the building to a more human scale.

How does it work?

Each of the five cluster buildings contains lecture, workshop, and seminar rooms, as well as faculty offices. Cluster B has additional offices for Evening and Weekend Studies faculty, and Cluster E has additional offices and meeting spaces for the Public Service Centers.

How can I work with it?

Make sure you know which cluster (A, B, C, D, or E) your room is in; look for the signs pointing the way. You can change levels using the stairs or elevators (see diagram).





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What is it?

Many walls and ceilings in Seminar II are made of concrete, and many floors as well. By their great mass, they keep the building cooler in summer and warmer in winter.

How does it work?

When hot air comes in, it gets cooled by contact with the exposed concrete, and cold air gets warmed. Since there is such a large mass of concrete, it can balance out big swings of temperature.

How can I work with it?

In hot weather, make sure cooler night air is allowed into the building to take away heat the concrete has absorbed during the day. Don't expect rooms to heat up or cool down quickly; building management needs to be alert to trends in the building's temperature.





What is it?

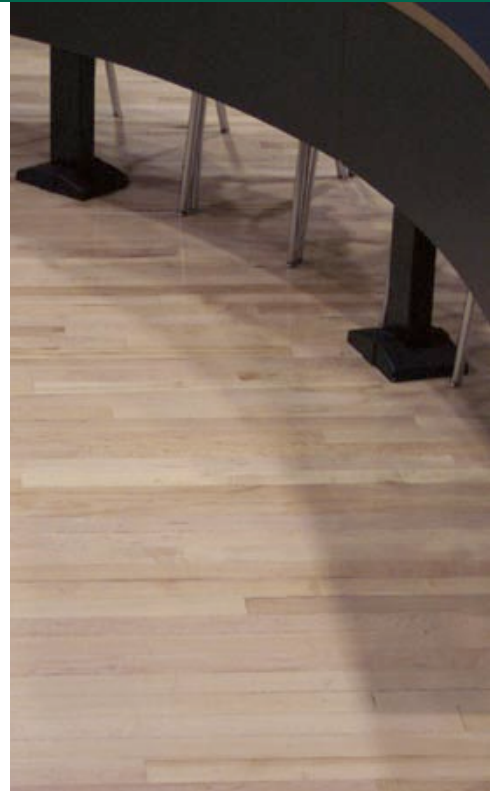
Floors in the workshop and lecture rooms are hard maple, reclaimed from a public hall in Everett, Washington and a school gymnasium in Cowiche, Washington (near Yakima) which were being demolished.

How does it work?

As a surface, maple is tough, so it can deal with furniture being moved around on it and lots of foot traffic. The light color helps natural light illuminate the room, and highlight the warmth and variety of grain patterns.

How can I work with it?

No special care is needed. Respect this strong material: don't cut into it, don't use paints or markers, do use proper cleaning materials.





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What is it?

This is the heart of the natural ventilation in Seminar II. Heated air from rooms on the 2nd and 3rd floors moves upward, just as in a chimney, in the tall openings in each corridor.

How does it work?

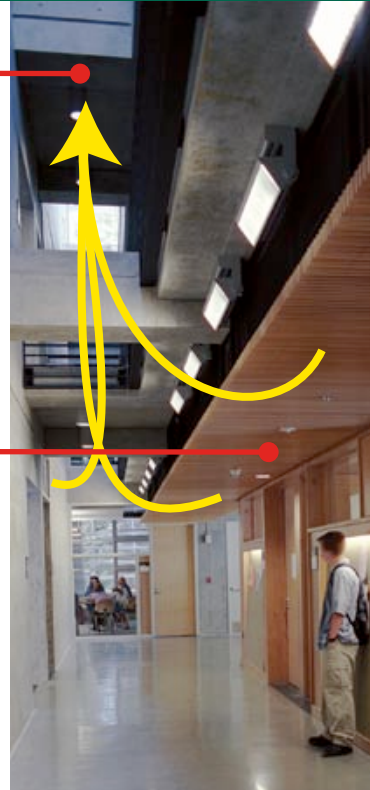
Heated air in buildings floats gently upward. If it is given a tall enough, wide enough space, it can float strongly enough to propel itself out at the top, just as in a chimney, drawing fresh air in behind it. Fans at roof level can assist if necessary.

How can I work with it?

Keep the TRICKLE VENTS (see that card) open; recognize that noise travels between floors through the openings; enjoy the light that comes down the openings from above.

chimney

vents over
doors





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What is it?

Hot-water radiators are placed under windows to provide heat on cold days. In offices, one can control them individually; in group meeting rooms, they are governed by a thermostat and the building energy system.

How does it work?

Water is heated in the college's central steam plant and distributed to the main-campus buildings. Each office in Seminar II has its own control reading from 0 to 6.

How can I work with it?

In offices, adjust the dial to suit yourself; be patient while the mass of the room heats up—it won't get warm right away; turn heat down at the end of the day to a level that will be good to start from in the morning. In group rooms, call building management if it is too hot or cold.

individual
radiator
control

