

Details for Avoidance of Mold Foundations

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April 15, 2005**



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Mold and Water

- **Source**

- **Mold is a water problem**

- **Fixes**

- **No water no mold**

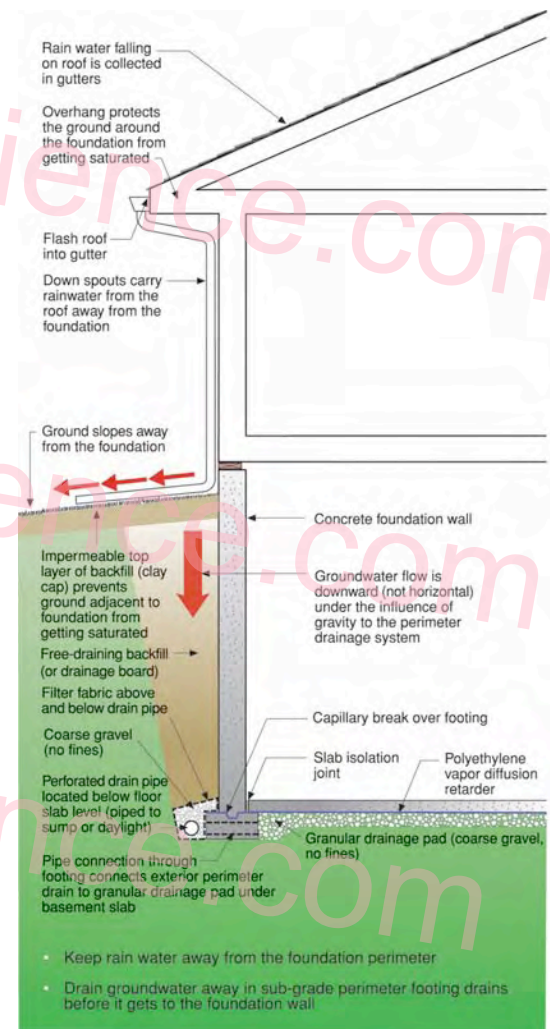
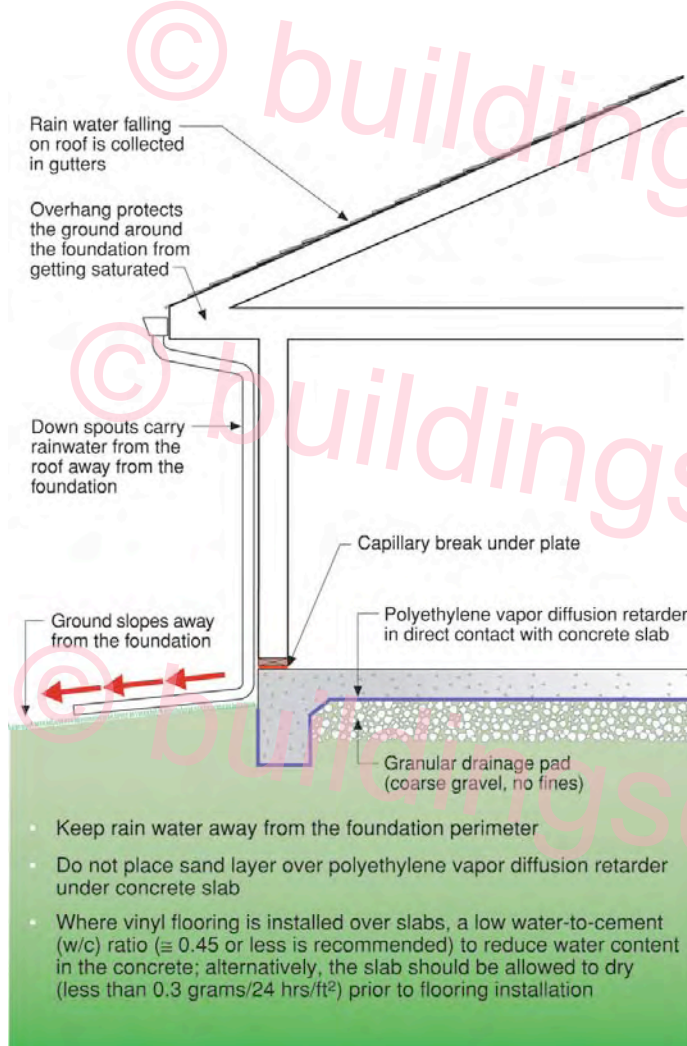


Find The Water... and you can

- **Find The Mold**
- **Clean Up The Mold**
- **Dry The Building**
- **Make Sure It Doesn't Happen Again**



Exclude the Water



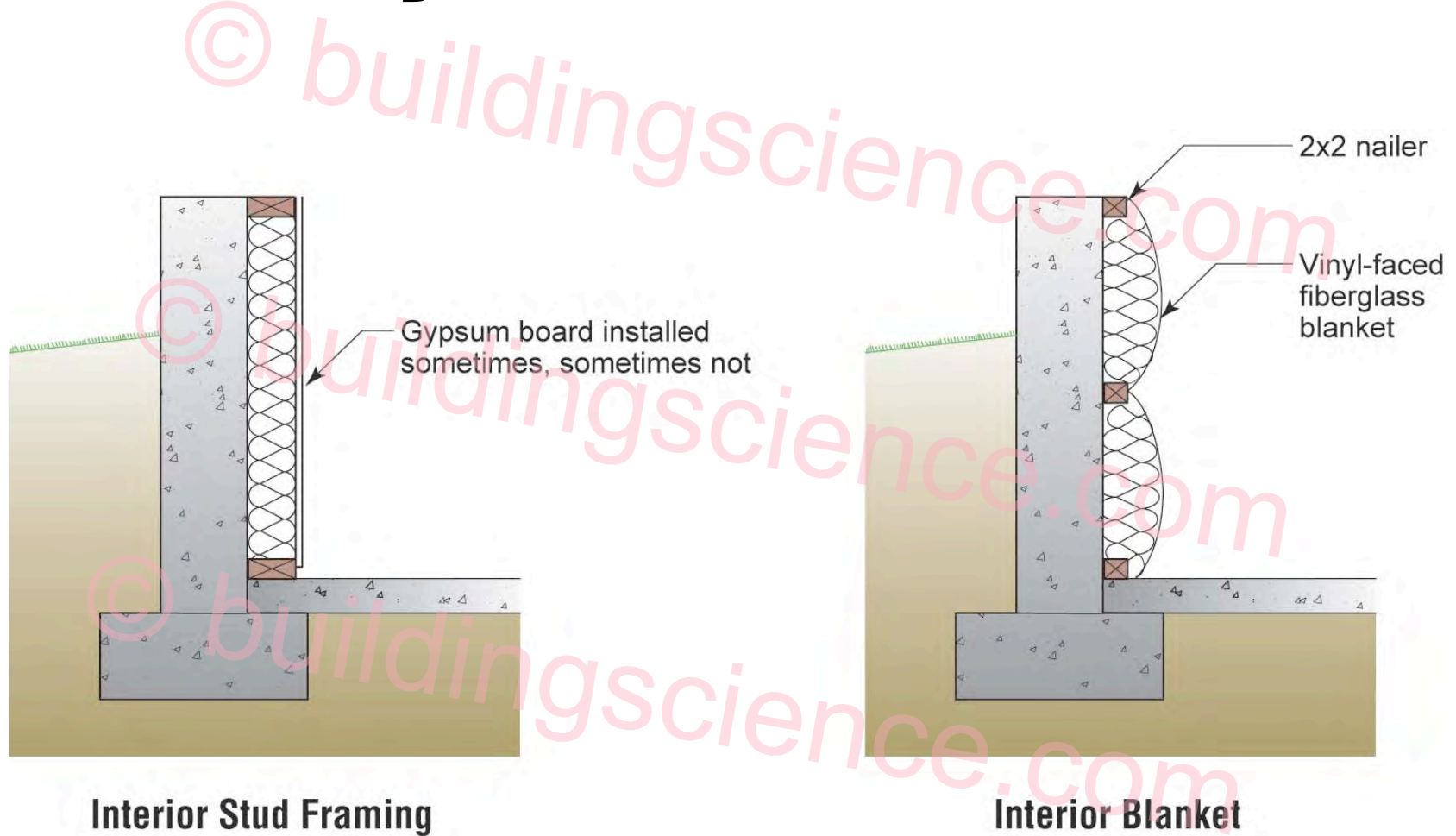
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The Old Way - Grows Mold



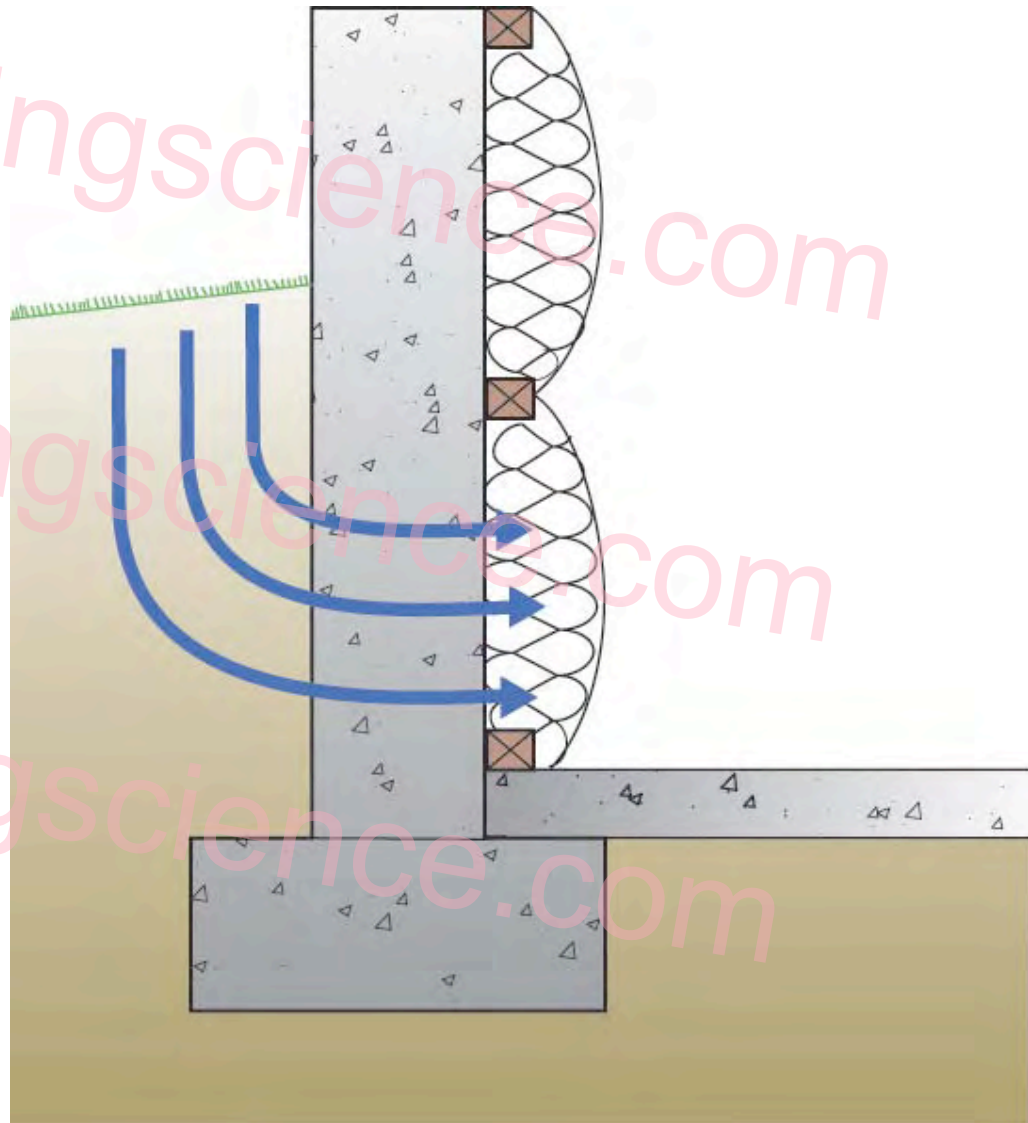


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- Ground water enters through foundation wall and is stopped from drying by impermeable surface

- Batt is not airtight to the interior space

- Allows for communication with the air in the basement and eventually the rest of the house



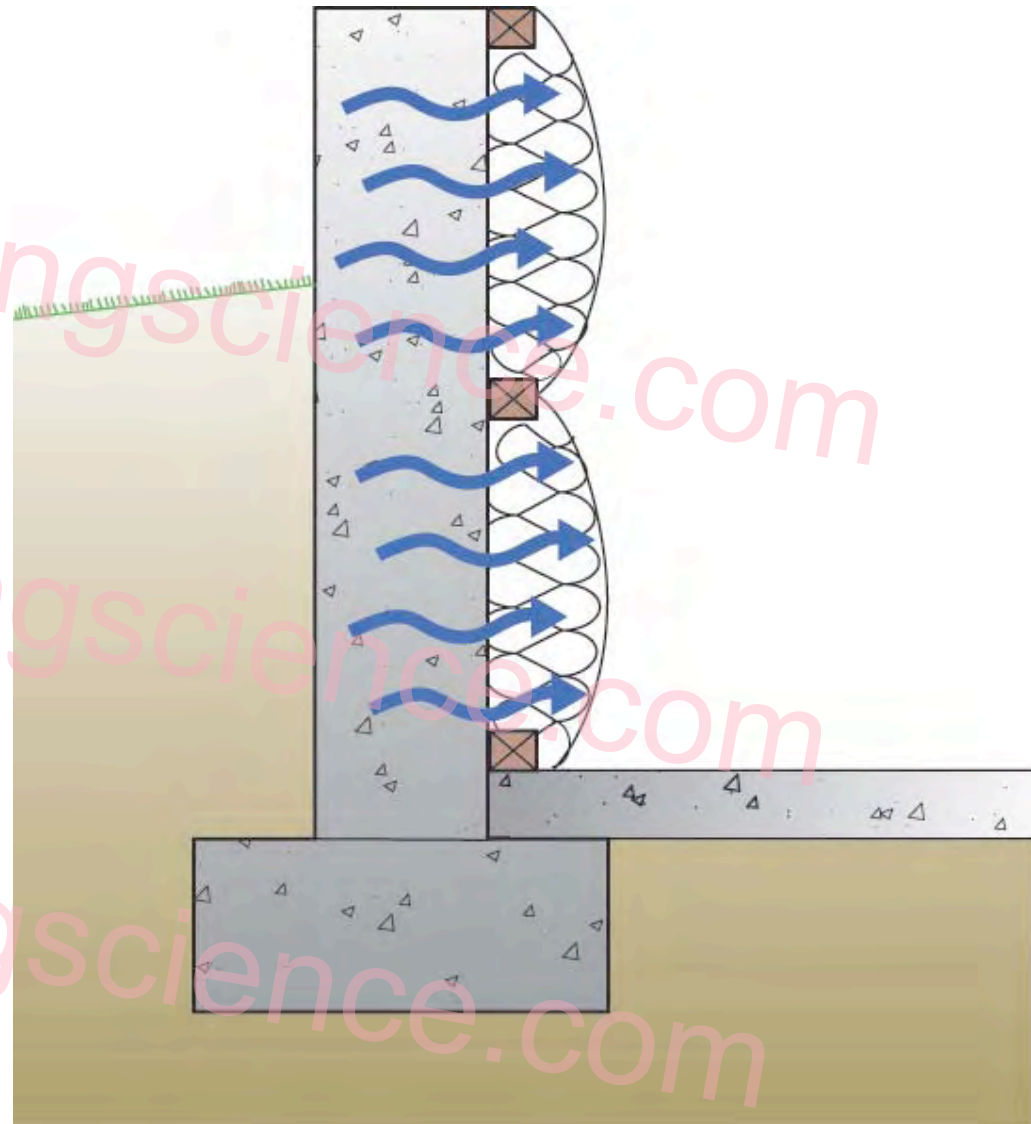
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- **Moisture moves through diffusion from the foundation wall and is stopped from drying by impermeable surface**

- **Batt is not airtight to the interior space**

- **Allows for communication with the air in the basement and eventually the rest of the house**



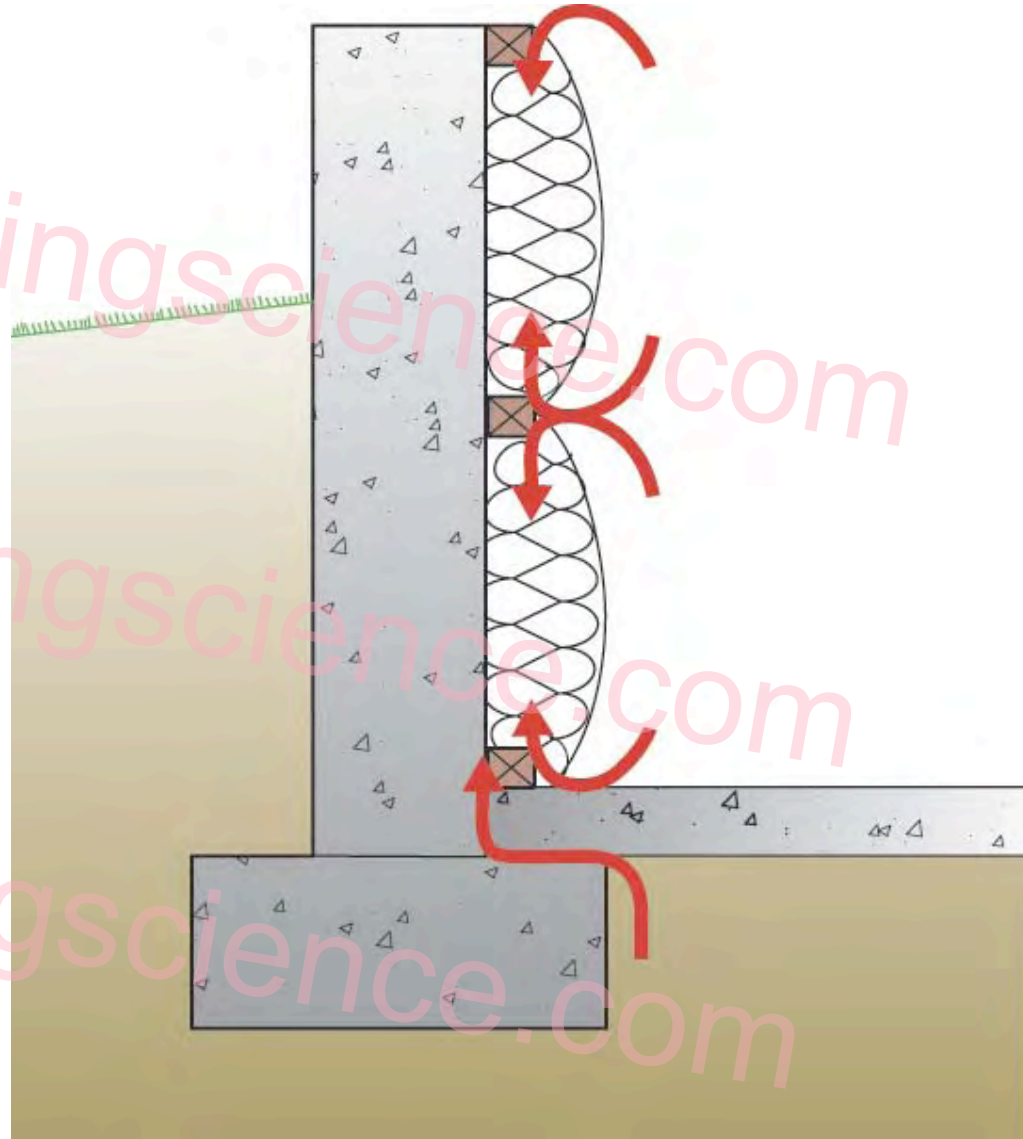


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•In the summer, the hot humid air moves behind the batt to the face of foundation wall where condensation occurs and is stopped from drying by impermeable surface

•Batt is not airtight to the interior space

•Allows for communication with the air in the basement and eventually the rest of the house



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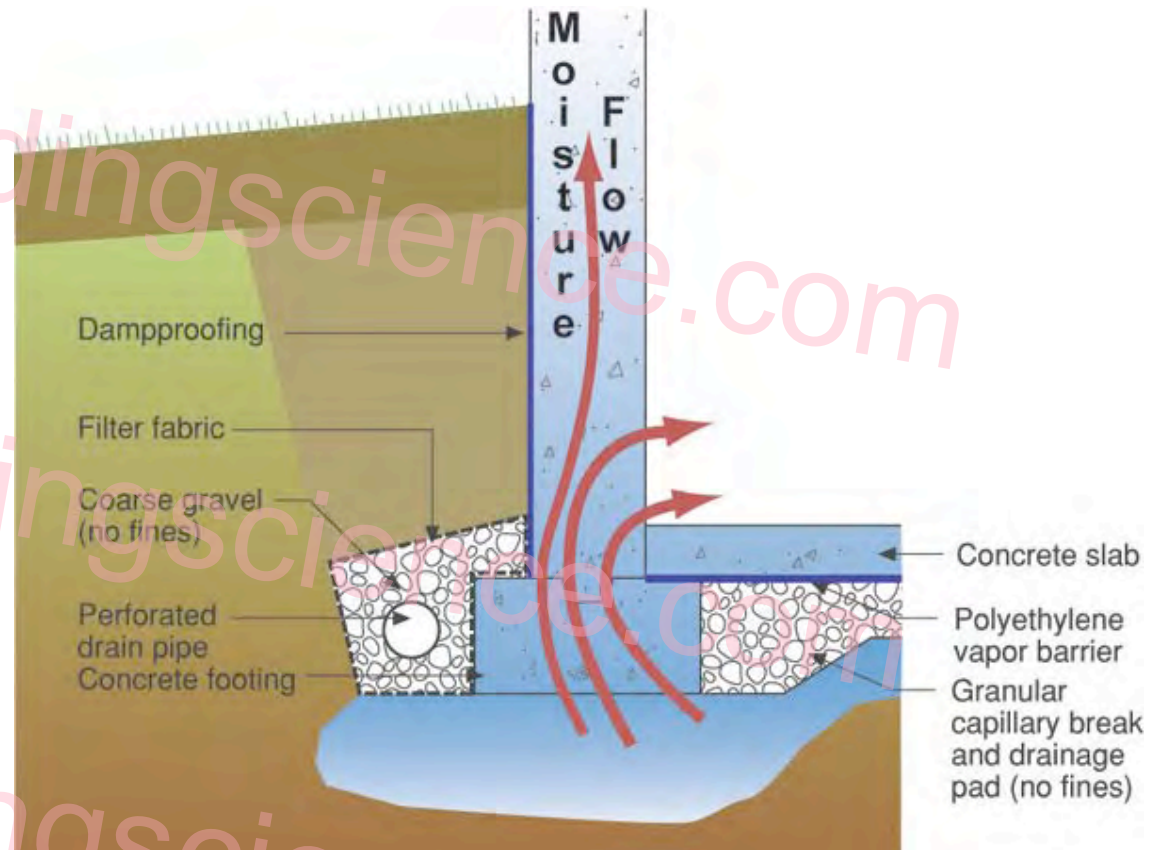


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•Ground water drawn up into the wall through the footing wets the foundation wall and is stopped from drying by impermeable surface

•Batt is not airtight to the interior space

•Allows for communication with the air in the basement and eventually the rest of the house





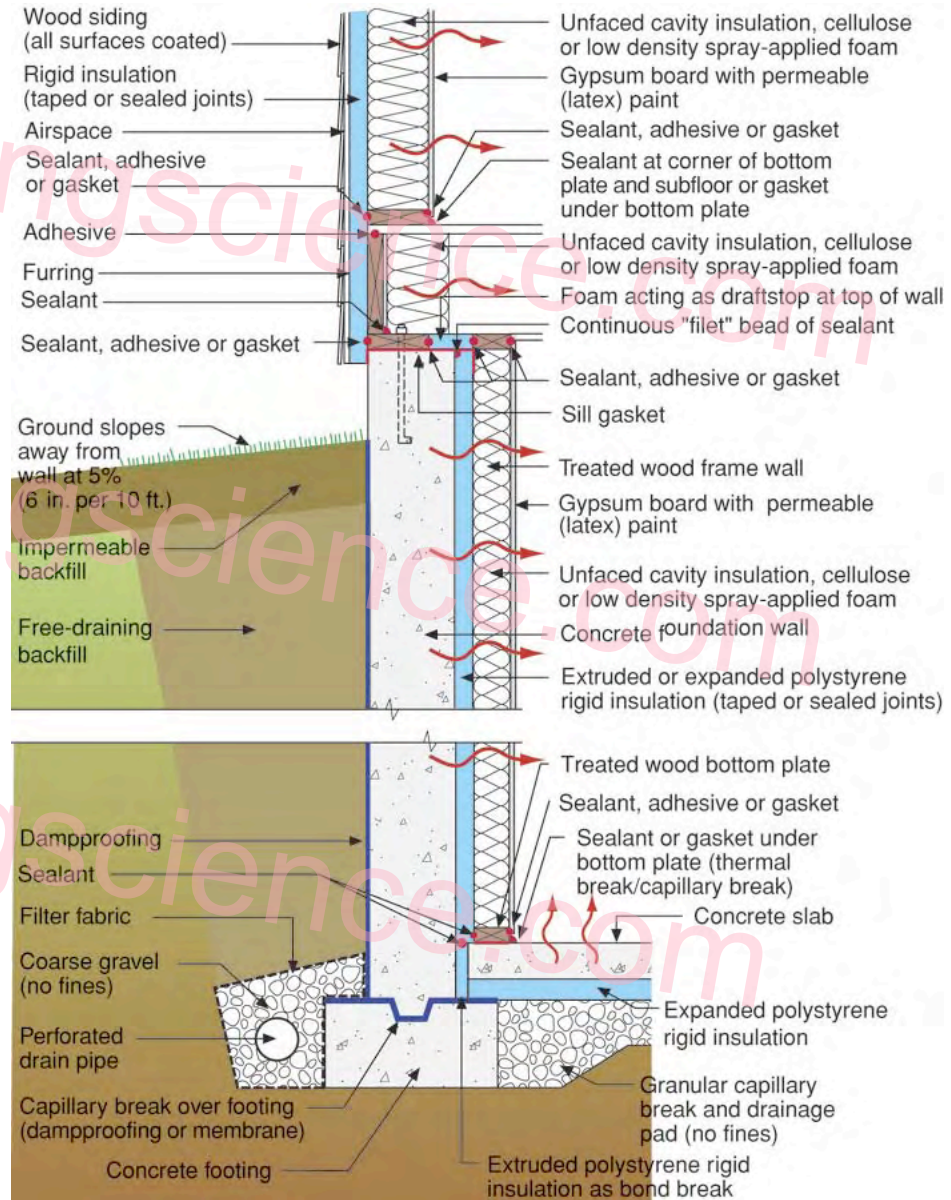
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New Way - No Mold

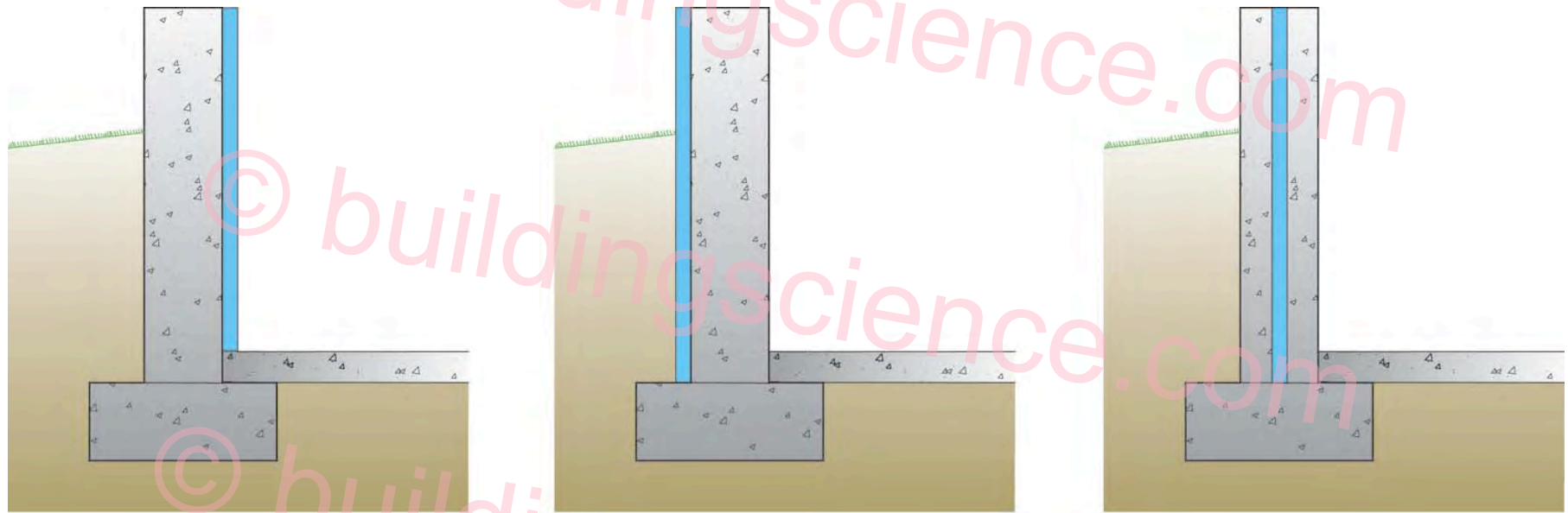
- Provides airtight seal to foundation wall

- Allows drying to interior

- Provides capillary break at footing



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**Internally Insulated
Basement**

**Externally Insulated
Basement**

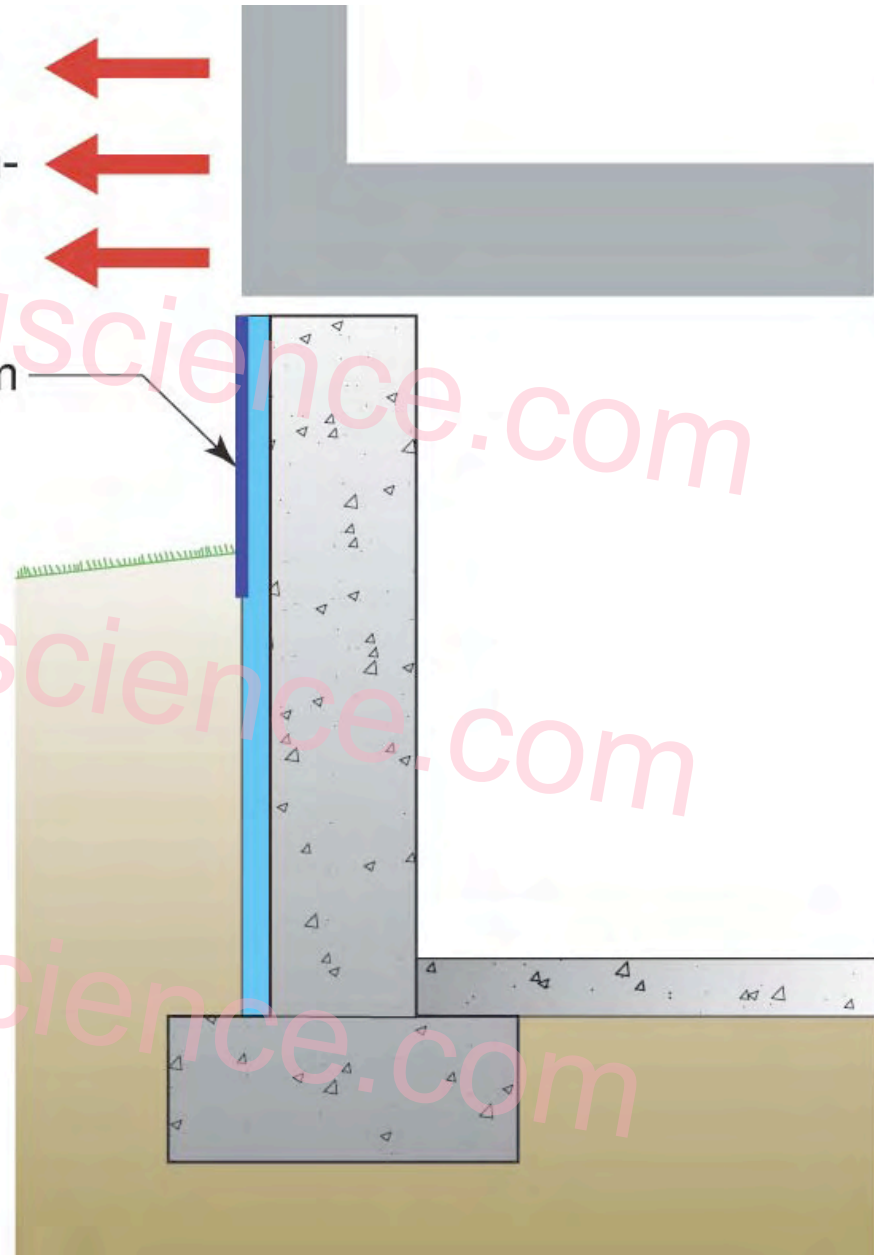
**Basement Insulated in
the Middle**



Structure of house on foundation must be shifted outward to compensate for thickness of exterior insulation



Protection layer/system



•For insulation to work successfully on the outside of the foundation wall, it must be in contact with the wall and go above grade as well

•Backfilling is on the critical path of the construction sequence



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- **Rigid insulation on the inside is glued to the wall, making it airtight**

- **Insulating the interior means it can be done any time, after the concrete has been placed and allowed to cure for a while**

- **Not on the critical path**





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•Studding out a basement wall with highly conductive metal studs is a bad idea

•Condensation will occur allowing mold growth on the gypsum surface



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Gluing rigid foam to the foundation wall prior to installing metal studs is a good idea



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Another option for new crawl spaces or basements

