Crawlspaces in Coastal Climates

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Crawl Spaces
Crawl spaces must be completely connected to either the outside or the inside
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Vented crawl spaces work
Unvented conditioned crawl spaces work
Don’t Do Stupid Things
Leaky air handling unit and supply ducts

Air handling unit

Supply
Return
Supply

Depressurized conditioned space inducing infiltration
Smart Thing
- Wood siding
- Water & air control membrane (building wrap)
- OSB sheathing
- Joist
- Sheet metal closure
- Pier
- Fiber cement board
wood siding
water & air control membrane (building wrap)
OSB sheathing
joist
sheet metal closure
pier
fiber cement board
Conditioned Crawlspace Not Unvented Crawlspace

Need Supply Air

50 cfm/1000 ft² of Crawlspacw Area

Or

Dehumidification
4x10 transfer grille to first floor conditioned space

Interior wall

Subfloor

Floor joist

Duct open to crawlspace
Smart Thing
Any type of flooring/floor finish

Floor sheathing (OSB or plywood)

Airspace

Protection board

Foil-faced isocyanurate

Cavity insulation
Any type of flooring/floor finish

Floor sheathing (OSB or plywood)

Airspace

Protection board

Foil-faced rigid mineral wool

Cavity insulation
Wood flooring (back-coated)

Slip surface (rosin paper or building paper)

Floor sheathing (OSB or plywood)

Closed cell (2 lb/ft³ density) spray foam
Carpet

Carpet pad

Floor sheathing (OSB or plywood)

Closed cell (2 lb/ft³ density) spray foam
Conduction

75°F

67 - 68°F

Negligible air flow/convection

60°F

Ground
Interior vapor pressure lower than crawlspace vapor pressure (55°F dewpoint)

Impermeable flooring

Inward moisture drive

Vapor open insulation

Vapor closed floor sheathing

Fiberglass cavity insulation

Uniform vapor pressure throughout crawlspace including within crawlspace insulation (65°F dewpoint)

Increasing moisture content