

Dibble Residence-Twinsprings Insulation Documentation



Existing unfaced fiberglass batt insulation installation in 2 x 6 studs, covered with 4 mil plastic.



Example of attic blown in insulation over 2 x 4 rafters and 4 mil plastic—this attic was removed but there is another one over the crawlspace area rear bedroom and bath constructed the same way.

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Interior foundation walls were excavated 24" to install XPS insulation board.



The space under the poured concrete walls between the cassettes in the foundation was dug out and revealed the polystyrene insulation that extends from the surface to the bottom of the walls along the bermed areas.

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Recycled 3" XPS insulation was installed around the perimeter of the foundation.



Recycled plastic Wafflemat boxes were installed over a machine tamped gravel bed and a 10 mil plastic vapor barrier that was overlapped and taped at the seams and around all plumbing penetrations.

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Two inches of closed cell foam was sprayed over the boxes and vapor barrier.



Fiberglass batts and plastic removed from slab area ceilings. The best batts were saved to provide more insulation for the remaining attic area and other outbuildings.

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One inch polyiso sheathing on exterior is caulked at seams.



Seams are recaulked at sill and rafter ends.

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New Roxul rock wool insulation is installed in ceilings (R23) and walls (R-46).



Heavy vinyl vapor barrier installed in crawlspace.

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Crawlspace vent sealed.



Recycled 1.5" (about R-9) polyiso installed on ceilings.

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Old pipe insulation replaced with new R-7 pipe insulation.



Ultra high efficiency Alpen windows and doors with SIGA tape and low VOC closed cell foam sealant.

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Filled in above foundation insulation with 3" XPS foam and covered with recycled fiberglass edging.



SIGA Majpell air barrier installed over polyiso (films add about R-.68) with taped seams and SIGA caulk sealant at all edges.

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Recycled furring strips as drywall nailers adds about R-1 airspace to the ceiling assembly.



Installed and sealed extra polyiso around doors and block wall opening.

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Repaired or replaced 1" foil faced polyiso around doors and windows.



Covered polyiso with SIGA Majvest exterior air barrier and recycled Waterway rainscreen. (thin film plus ½ inch air gap for about R-.67)

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Hardie Panel fiber cement siding adds about .15 R value to the exterior walls.

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Total Ceiling/Roof R-Value at thickest assembly

Component	R-Value	Thickness
Drywall	.45	½"
Air Space/Furring	1	¾"
Majpell film	.68	17 mil
Polyiso	9	1 ½" felt faced
Rock wool	46	11"
Plywood	.63	½"
Shingles/Roof Coating	.44	Asphalt
Total	~58	~15"

Total Insulated Above Ground R-Value

Component	R-Value	Thickness
Drywall	.45	½"
Majpell film	.68	17 mil
Rock wool	23	11"
Polyiso	7	1" foil faced
Majvest film	.17	20 mil
Rainscreen	.5	½"
Siding	.15	5/8"
Total	~32	~8"