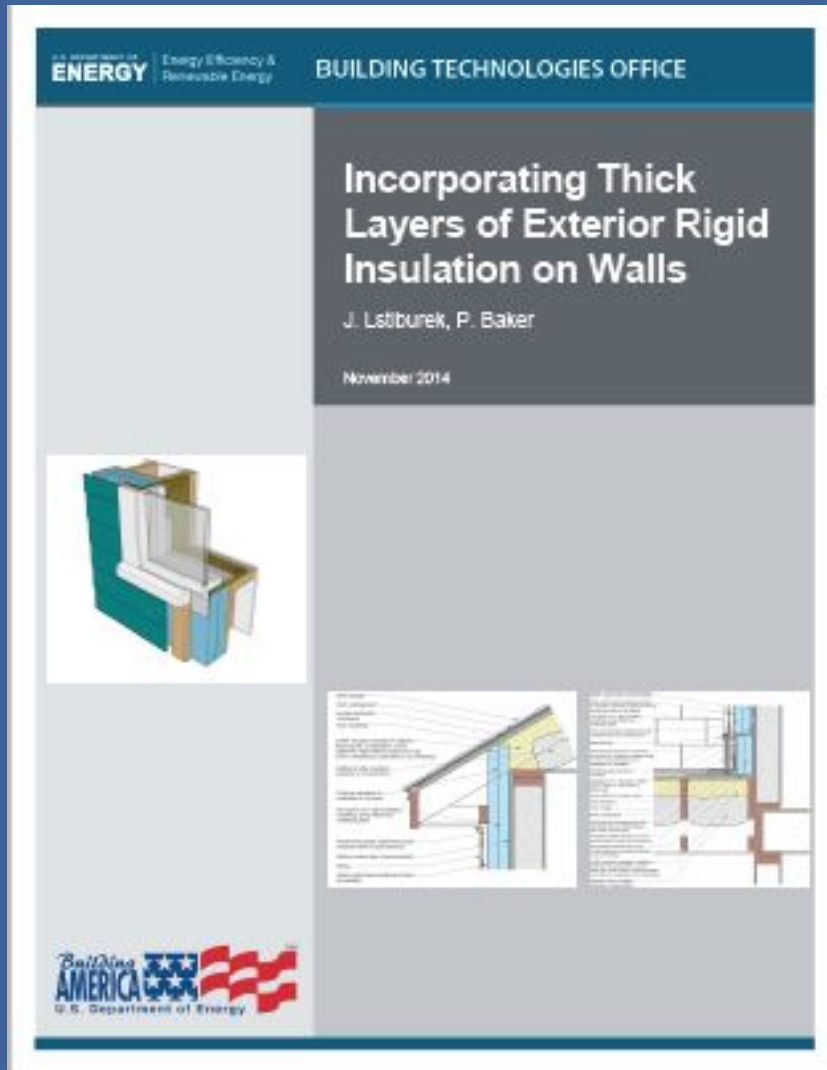


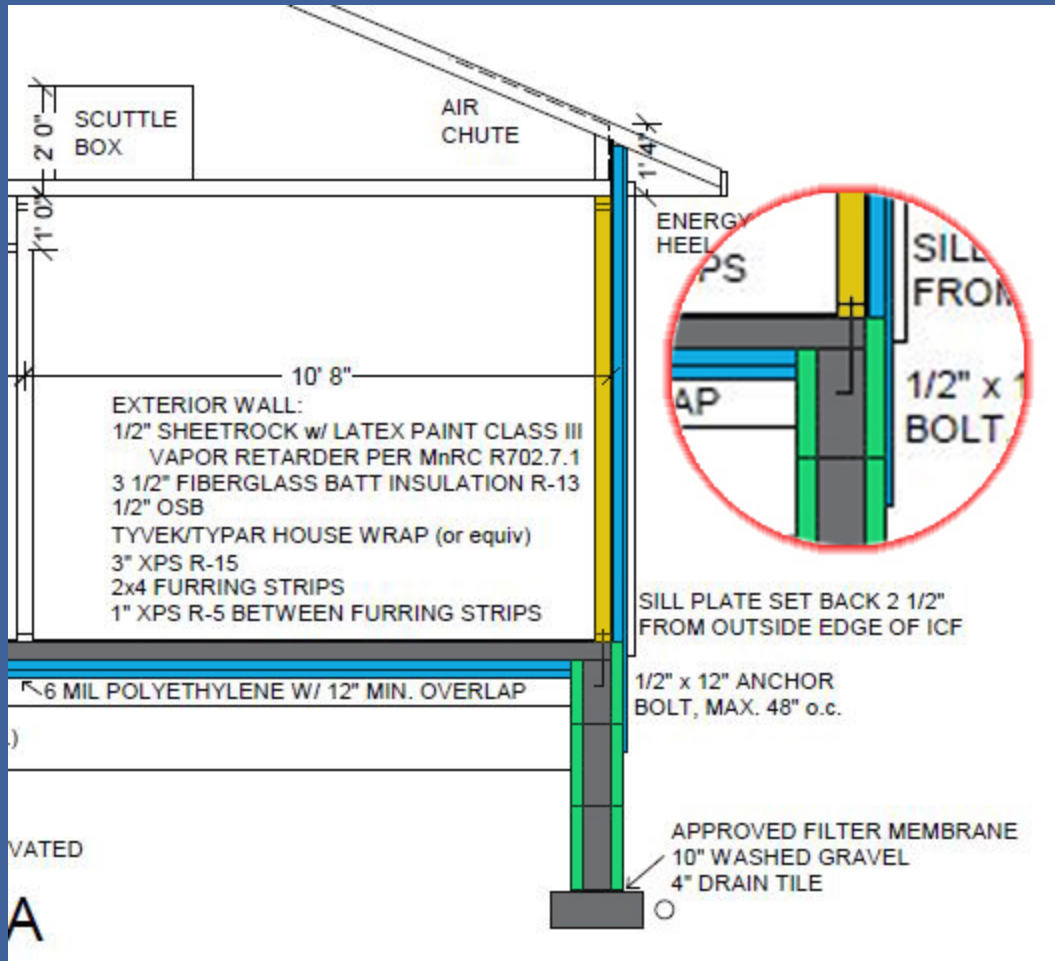
# Rigid Foam: choosing a method



## Two methods

- **Water control layer in front of rigid insulation**
- **Water control layer behind rigid insulation**
  
- **We chose behind rigid insulation.**
  
- **Water control layer must be continuous and uninterrupted!**

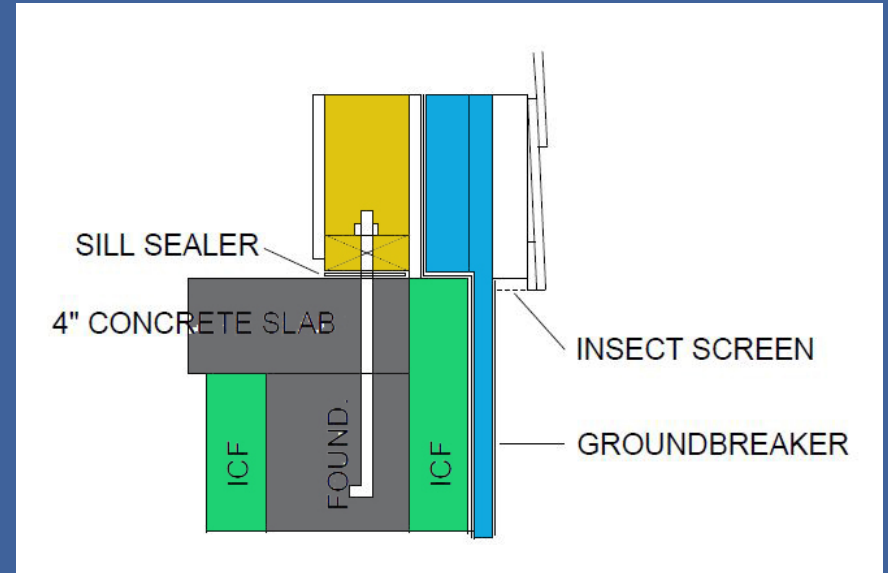
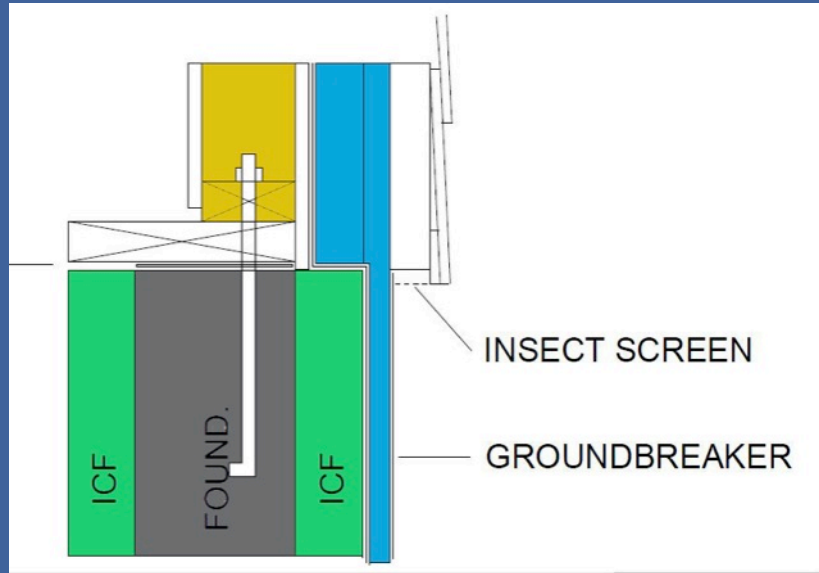
# Starting with ICF foundation design



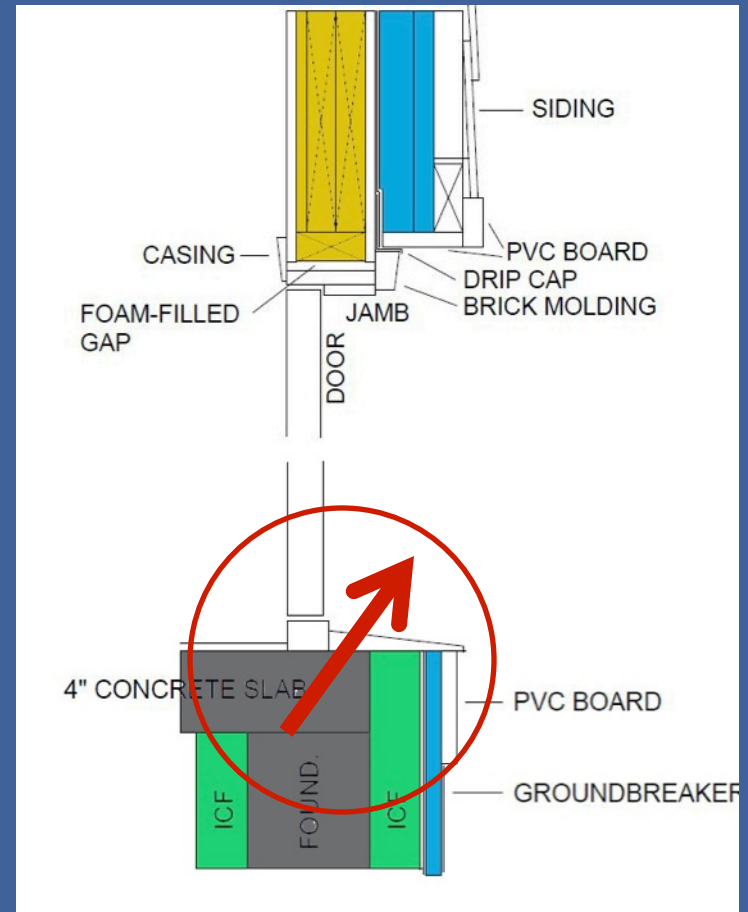
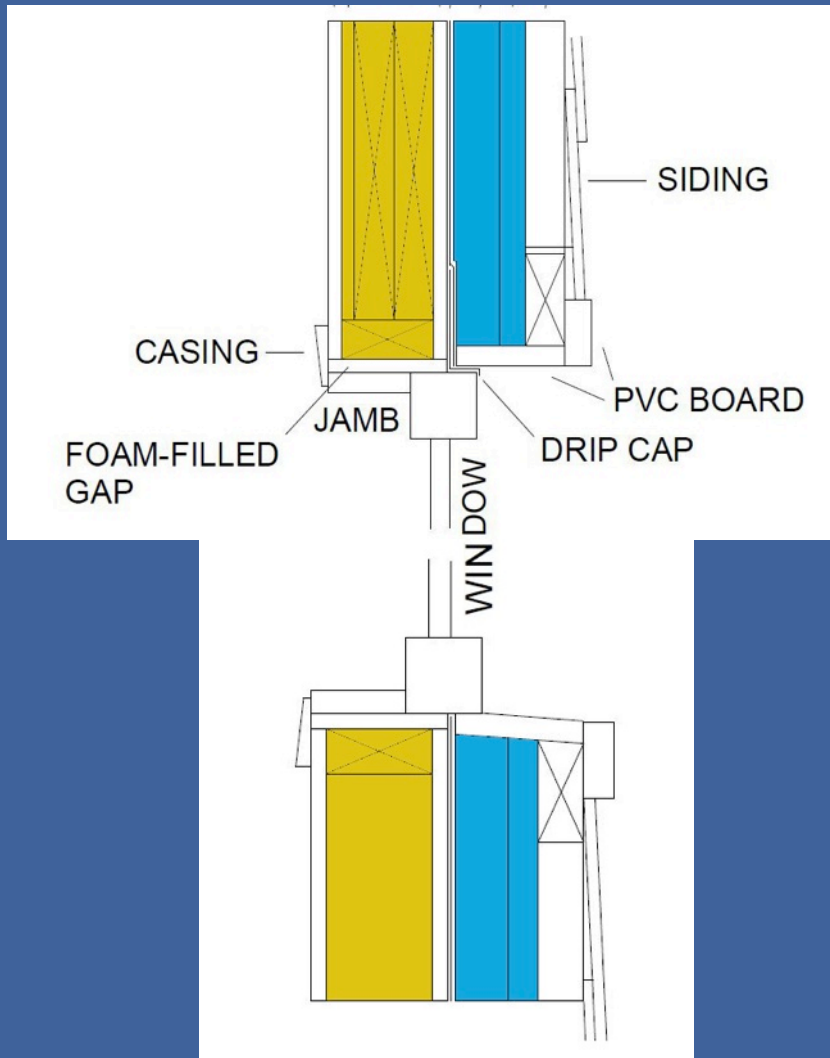
## Foam board/ICF

- 3" foam board over framed wall
- 1" foam board over ICF foundation wall, extending down 2'

# Foam board detail at foundation



# Foam board detail doors & windows



# Foundation to framing



# Building the layers of rigid foam



# House wrap over top of walls

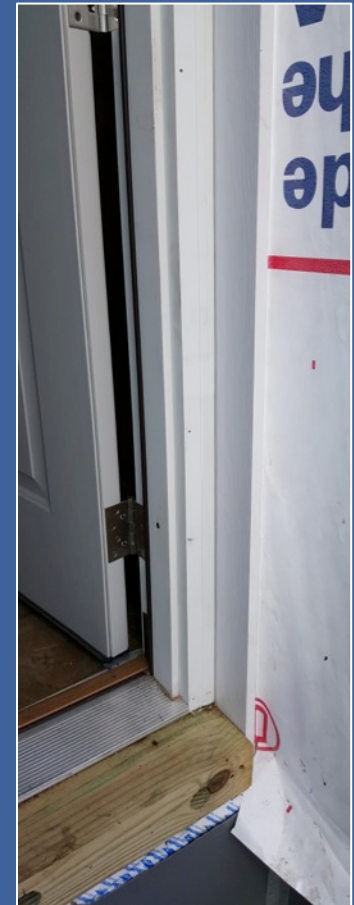


# Window/door bucks and furring strips





# Window/door bucks and furring strips



# Maintaining Air Flow



# Evolution of Technique



# Garage/House, Penetrations, Soffit



# Windows: air/water control layers



# Fasteners



# Siding



# Monthly Cost Increase

2" Foamboard		1" Foamboard				
Price Each	\$26.00	\$13.00				
	40	7				
2903 Knollwood	\$1,040.00	\$91.00	Total=	\$1,131.00	% of total	37.99%
	67	8				
Cedar Park Court	\$1,742.00	\$104.00	Total=	\$1,846.00	% of total	62.01%
<b>Screw &amp; Furring Strips</b>						
2903 Knollwood	\$1,955.00		% of total	55.76%	38%=	\$1,332.28
Cedar Park Court	\$1,551.00		% of total	44.24%	62%=	\$2,173.72
2903 Knollwood	Actual:	\$3,086.00				
	Adjusted:	\$2,463.28	360 Payments=	\$6.84 Per month		
Cedar Park Court	Actual:	\$3,397.00				
	Adjusted:	\$4,019.72	360 Payments=	\$11.17 Per month		

Conventional Mortgage, 5% = \$27 (100% financed)





Source:



buildingscience.com

## **BA-1406: Final Measure Guideline: Incorporating Thick Layers of Exterior Rigid Insulation on Walls**

Joseph Lstiburek, Peter Baker - APRIL 15, 2015

<http://buildingscience.com/documents/bareports/ba-1406-final-measure-guideline-incorporating-thick-layers-exterior-rigid-insulation/view>