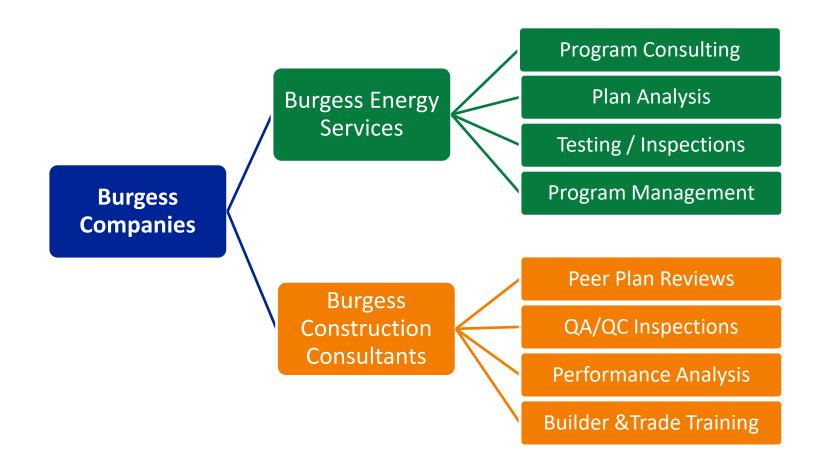
# W N N N G BULDERS Chris Urbanus & Craig Brooks



### WHO WE ARE





### A FEW OF OUR CLIENTS



- D.R. Horton
- Lennar Homes
- Meritage Homes
- Ashton Woods Homes
- Highland Homes
- David Weekley Homes
- Taylor Morrison

- Toll Brothers Homes
- LGI Homes
- MHI Homes
- CalAtlantic Homes
- Perry Homes
- Century Communities
- Darling Homes

### TAKEAWAYS



1. Learn Strategies to Win with Builders

2. Gain Confidence by understanding Insulation Solutions

3. Learn Ways to Consult with Your Customers



### WE DID A SURVEY





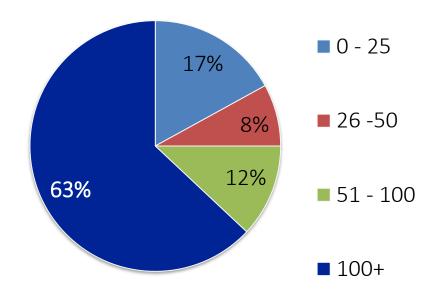
Insulation contractor feedback was used to develop the survey questions. Single family home builders, purchasing management and construction management completed the survey. Burgess staff compiled the results and crafted this presentation around the findings.

# **RESPONSE PROFILE**



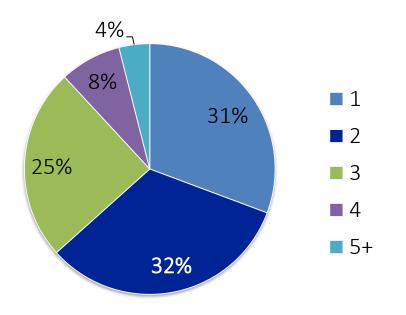
- Respondent Job Title
  - Superintendent
    - 52%
  - Construction Management
    - 21%
  - Company Leadership
    - 15%
  - Purchasing Management
    - 12%

• Home Production





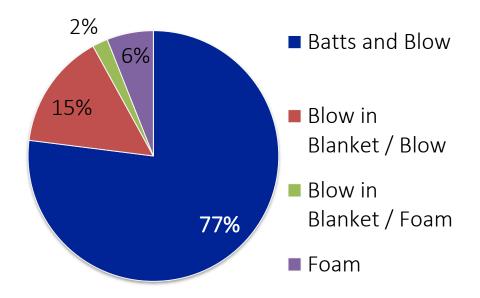
- How many insulation contractors do you use in your division?
  - 1
  - 2
  - 3
  - 4
  - 5+



Volume (100+) Builders
 Average 2.4



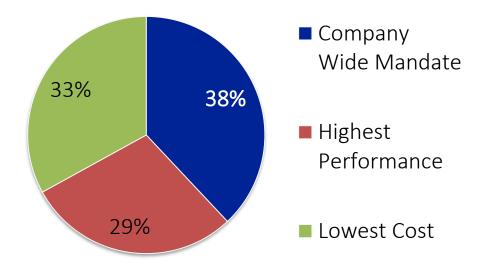
- What type of insulation do you use most often?
  - Batts and Blow
  - Blow in Blanket / Blow
  - Blow in Blanket / Foam
  - Foam



Volume (100+) Builders
– (97%) Batts and Blow



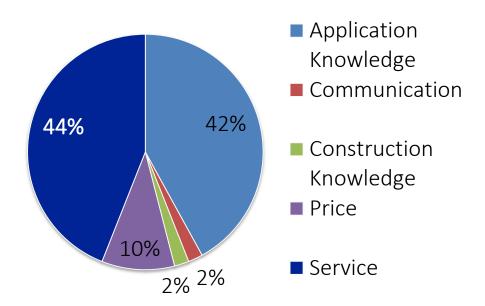
- Why do you use this type of insulation?
  - Lowest Cost
  - Highest Performance
  - Company Mandate



Volume (100+) Builders
– (58%) Company Mandate



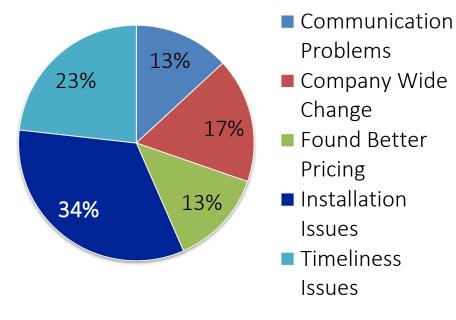
- What do you value most in an insulation contractor?
  - Application Knowledge
  - Construction Knowledge
  - Service
  - Communication
  - Price



Volume (100+) Builders
– (55%) Service



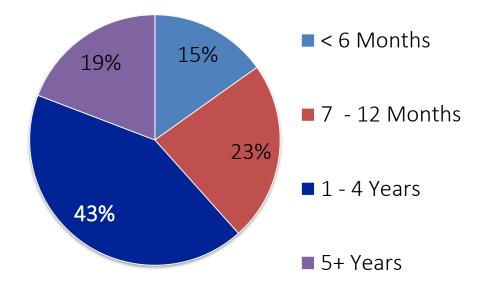
- What is the primary reason you would make a change in contractor?
  - Communication
     Problems
  - Company-Wide Change
  - Found Better Pricing
  - Installation Issues
  - Timeliness Issues



Volume (100+) Builders
 – (27%) Installation Issues



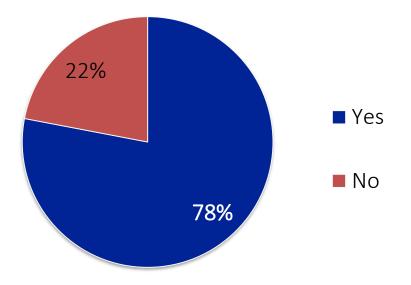
- When did you last change insulation contractors?
  - < 6 Months</p>
  - 7 12 Months
  - -1-4 Years
  - 5+ Years



Volume (100+) Builders
 – (49%) 1 – 4



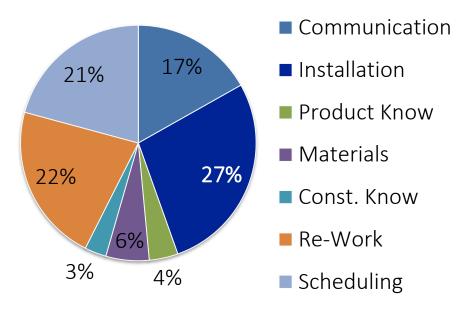
- Is an insulator's inspection pass-rate a point of evaluation during contract negotiations?
  - Yes
  - No



Volume (100+) Builders
 – (79%) Yes



- What are your three biggest challenges with insulation contractors?
  - Incorrect Materials Used
  - Improper Installation
  - Scheduling the Install
  - Communication
  - Inadequate Product Knowledge
  - Limited Construction
     Knowledge
  - Multiple Rework Visits



• Volume (100+) Builders – Install, Rework, Scheduling



- Scheduling the Installation CONSTRUCTION SCHEDULE (64%) Project Start 1/30/2017
  - Use resources to stay on schedule (scheduling software, etc)
  - Having clear lead-times
  - Being realistic about servicing capabilities
  - Understanding client build cycle

				<																				>
Project Start: 1/30/2017																								
				30 Ja	6 Fe	13 Fe		27 Fe				27 Ma			17 Ap		1 Ma	8 Ma		22 Ma	29 Ma	5 Ju	12 Ju	
					17	17	17					17					17	17	17	17	17	17		17
TASK DESCRIPTION	PLAN START	PLAN END	TYPE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21 :
Phase 1 Title	2/13/2017	6/1/2017																						
Task 1 Description	2/13/2017	2/26/2017	В																					
Task 2 Dependent on Task 1	2/27/2017	3/19/2017	G																					
Task 3	3/20/2017	4/16/2017	в																					
Phase 1 Milestone A	4/17/2017	4/17/2017	Х																					
Task 4	2/25/2017	4/1/2017	G																					
Task 5	3/21/2017	5/2/2017	в																					
Phase 1 Milestone B	6/1/2017	6/1/2017	х																					
Phase 2 Title																								
Task 1	2/7/2017	2/28/2017																						
Task 2	2/28/2017	3/21/2017	Р																					
Task 3	3/21/2017	4/11/2017	0																					
Task 4	4/11/2017	5/2/2017	Y																					
Task 5	5/2/2017	5/23/2017	R																					
Task 6	5/23/2017	6/13/2017	G																					

Construction Schedule Template © 2017 by Vertex42.com

- Multiple Visits Needed for Re-Work (65%)
  - Work with rater on understanding code and program requirements
  - Pursue additional training with the builder and rater
  - Work with builder and rater on defect understanding and solution
  - Meet the rater on-site at the reinspection. Fix issues and avoid another callback.





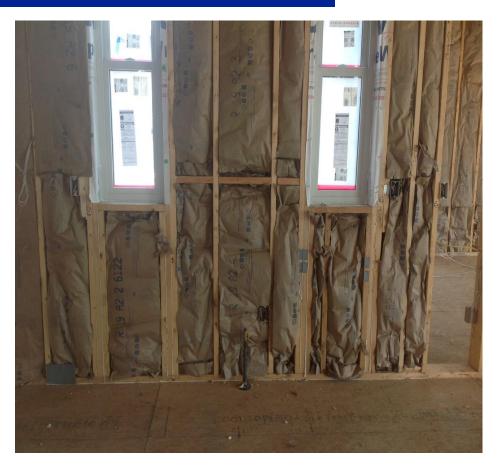


- Improper Installation (83%)
  - Voids
  - Gaps
  - Compressions
  - Cut to Fit





- Improper Installation (83%)
  - Voids
  - Gaps
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  - Cut to Fit





- Improper Installation (83%)
  - Voids
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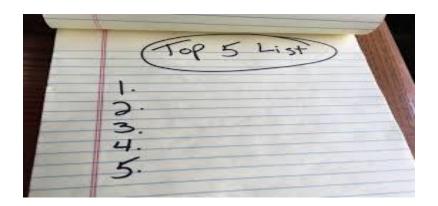
- Improper Installation (83%)
  - Voids
  - Gaps
  - Compressions
  - Cut to Fit



### **TOP 5 DEFECTS**



# We analyzed the top defects from our national production clients.



### Here is what we see most!

# **TOP 5 DEFECTS (#5)**



Sealing around windows, doors and rough openings

Do not rely on fibrous insulation alone to block airflow; it will not air seal.



## **TOP 5 DEFECTS (#5)**



#### Seal windows, doors and rough openings





### **TOP 5 DEFECTS (#5)**



#### Seal windows, doors and rough openings





### **TOP 5 DEFECTS (#4)**



#### Plate Penetrations/Chases Sealed



### **TOP 5 DEFECTS (#4)**



#### Plate Penetrations/Chases Sealed

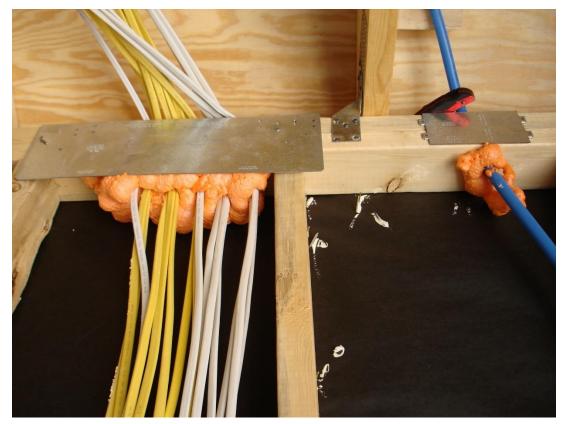




### **TOP 5 DEFECTS (#4)**



#### Plate Penetrations/Chases Sealed



### **TOP 5 DEFECTS (#3)**



#### <u>Air Barriers: double walls,</u> <u>tubs/showers, fireplaces & knee</u> walls





### **TOP 5 DEFECTS (#3)**



#### <u>Air Barriers: double walls,</u> <u>tubs/showers, fireplaces & knee</u> <u>walls</u>



### **TOP 5 DEFECTS (#3)**



#### <u>Air Barriers: double walls,</u> <u>tubs/showers, fireplaces & knee</u> walls









#### Drywall sealed to top plates







#### Drywall sealed to top plates











#### Drywall sealed to top plates







#### Proper alignment of insulation









#### Proper alignment of insulation









#### Proper alignment of insulation





## **OPPORTUNITIES**



What does the future look like?

Here's our perspective!



### AIRSEALING



### Why is air sealing important to builders?

- Improved Indoor Air Quality
- Improved Home Comfort
- Reduce heating and cooling costs
- Maintain insulation effectiveness

### **INDOOR AIR QUALITY**





### **IMPROVED HOME COMFORT**





### **REDUCED ENERGY COSTS**





### **INSULATION EFFECTIVENESS**





### **AIRSEALING IMPACT**



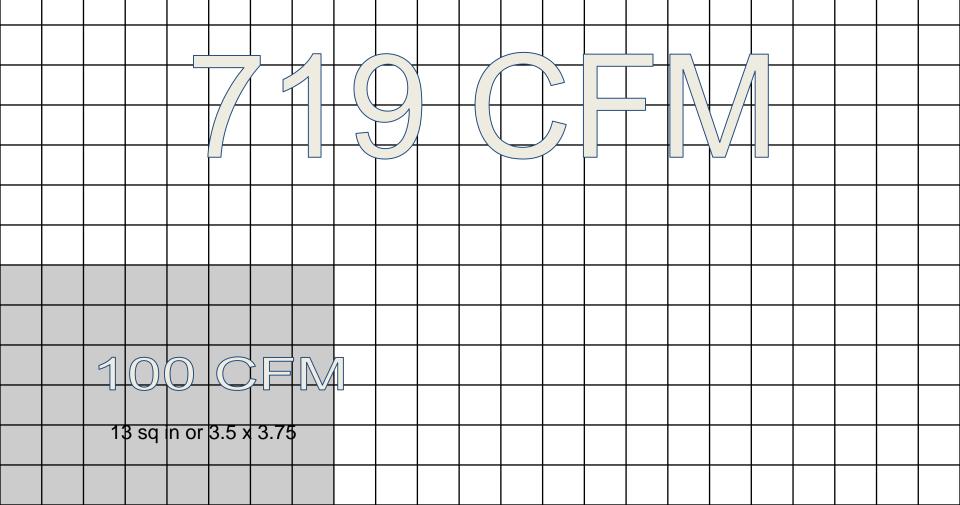
#### Table I provides a summary of the results.

JOINT/OPENING	CFM50*	ACH50 <sup>†</sup>
top plate-to attic	0.29 to 0.68 per foot	0.29 to 1.6
duct boot	7.7 per boot	0.13 to 0.26
recessed light	9.1 per light	0.15 to 0.31
band joist (top & bottom)	0.86 per foot	0.37 to 0.42
garage-house common wall	0.60 per foot	0.14 to 0.26
sheathing-to-plate (top & bottom)	0.074 to 0.62 per foot	0.040 to 0.38
window/door framing-to-sheathing	0.031 to 0.11 per foot	0.020 to 0.10
between exterior top plates	0.10 to 0.11 per foot	0.033 to 0.046
corners (interior pointing)	0.024 to 0.21 per foot	0.0021 to 0.032
corners (exterior pointing)	0.054 to 0.45 per foot	0.0069 to 0.11
bottom plate-to-subfloor	0 to 0.11 per foot	0 to 0.11
vertical sheathing joints	0.010 to 0.090 per foot	0.011 to 0.11
sill plate-to-foundation <sup>†</sup>	0 to 0.030 per foot	0 to 0.025

\*Assumes all other joints in the wall cavity are sealed +Assumes the presence of a sill gasket

#### This represents 93.5 sq in of holes or .65 sq ft. or 719 CFM50





## **REAL RESULTS**



- Central Texas Builder
  - <u>5.74 ACH50 Avg</u> prior to 2015 IECC
  - <u>4.2 ACH50</u> after implementing 2015 IECC air sealing standards
- Dallas Builder
  - <u>2.6 ACH50</u> Avg
  - 10% of monthly closings under 2 ACH50
  - Utilizing Owens Corning continuous insulation and gasketing
- Colorado Builder
  - <u>3.63</u> ACH50 Avg prior to 2015 IECC
  - <u>2.51</u> ACH50 after implementing 2015 IECC air sealing standards



## **REAL RESULTS**



### Exterior Air Barriers and Insulation







- Provides an effective solution to thermal bridging
- Reduces air infiltration at typical trouble areas in framing
- Can act as rain screen and vapor management layer (climate specific)
- Provides insulation at window frames, door frames, studs, top plates and bottom plates; this makes up ¼ of the wall area.

# **SURVEY COMMENTS**



- "A good insulation contractor should know the energy code, be able to communicate & train our field supervisors on insulation process, hit schedule dates or communicate changes to schedule, keep a clean jobsite, and complete the job in one trip."
- "Ask questions and complete the punch in a timely manner."
- "I do not see any Insulation field supervisors out checking or spot checking jobs."

## SURVEY COMMENTS



- "Poly seal crews need to do a better job. Their manager needs to walk their work to ensure they are compliant with standards and hold them accountable."
- "Training installers in the big picture of energy ratings and insulation performance and how this relates to their install would help elevate first time inspection results. Train them on more than just insulation."
- "A great contractor makes all the difference!"

## RESOURCES



- HERS Raters
  - Installation Training
  - Codes/Programs
- Product Distributors
  - Product specific training
  - Installation Guidelines
- Manufacturers
  - Owens Corning Market
     Development
  - Trade Training



# IN CLOSING

- Builders need trades, but they want partners
- Challenges don't have to be challenges, they can be opportunities
- Price is important, but...
  - Service
  - Application knowledge
  - Communication





# **IN CLOSING**



- Other trades should be resources – including the builder's Rater
- Training
- Desire to improve
- Above and beyond

