

Performance Based Air Sealing

Program Suggestion for Next Portfolio



53 W. Jackson Blvd.
Suite 230
Chicago, IL 60604
delta-institute.org

DNR Construction 2008/9 Blower Door Results (n=61)

BDPre				BDPost				% Reduction	
Mode	Median	Mean	Stdev	Mode	Median	Mean	Stdev	Median	Mean
#N/A	6920	6792	2708	#N/A	3370	3463	1311	49%	51%

DNR Construction/Parliament Builders 2008/9 Cost Results (n=61)

HVAC				Architechture			
Mode	Median	Mean	Stdev	Mode	Median	Mean	Stdev
\$ 315.00	\$ 472.85	\$ 1,551.36	\$ 1,950.60	\$ 600.00	\$ 3,682.20	\$ 3,627.80	\$ 2,121.78

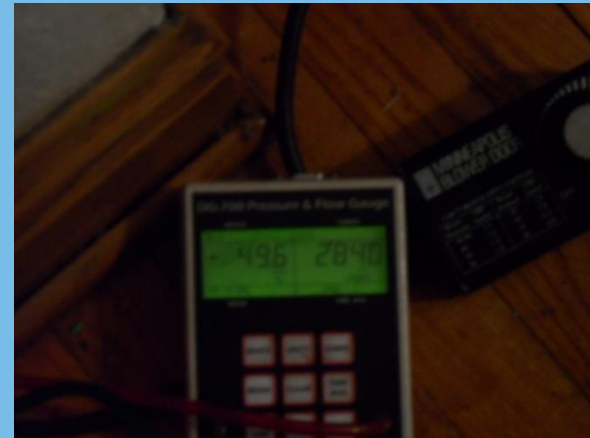
Findings

- 30% to 50% reduction expected; 45% on average.
 - Target met on 95% of jobs.
- Air sealing costs roughly fixed. “Win some, lose some”.
 - Room for improvement.
- Blower door “tricks”.
 - Importance of post-inspection.



Target: 70%
(30% reduction),
at 2,655

Bonus: < 2,390



Type of Inspection:	Pre-Audit	X	Post-Inspection	
Auditor:		Difficulty Grade:	B	(Easy A, Hard F)
Audit Date:		BD Not Possible; Reason:		
CFM@50Pa:	3793	Ring: Open	A B	CRF
% Red:	70%	BTL:	BTLa:	
CFM ₅₀ Target	2655.1	1332	BTL Met?	FALSE
<i>Prescriptive Airsealing</i>		<i>Performance Airsealing</i>		
<i>Existing CFM:</i>	<i>Target CFM:</i>	Savings/100CFM =	\$	99.81
1250 to 1500	≥ 1250	\$ Fuel/BTU		0.000028
1500 to 2750	80%	Annual HDD Chicago		6493
2750 to 4250	70%	LBL Correction Used		17.8
4250 to 5500	60%	Seasonal Efficiency of HVAC		80%
5500 to 7500	55%	<i>The calculation of savings per 100CFM reduction can be used to determine additional measure CE.</i>		
>7500	50%			

Questions:

- What is a realistic annualized payback threshold for a bonus?
- What adjustment should be made for fuel cost?
- Will this create a perverse incentive? What must be required?
 - Minimum measures in place?
 - 10% margin of error realistic?
 - Building tightness limit and ventilation costs.

contact us



Kevin Dick

312.554.0900 x18

kdick@delta-institute.org

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Suite 230
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