

Implementing WAP Technical Field Monitoring

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Monitoring

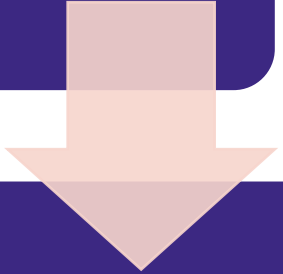
No individual likes the word monitoring, especially if you are the individual receiving the monitoring.

Who has been a recipient for technical monitoring?

Who has performed a technical monitoring?

Calming the Process

When performing a monitoring, try to make the recipient comfortable throughout this duration.

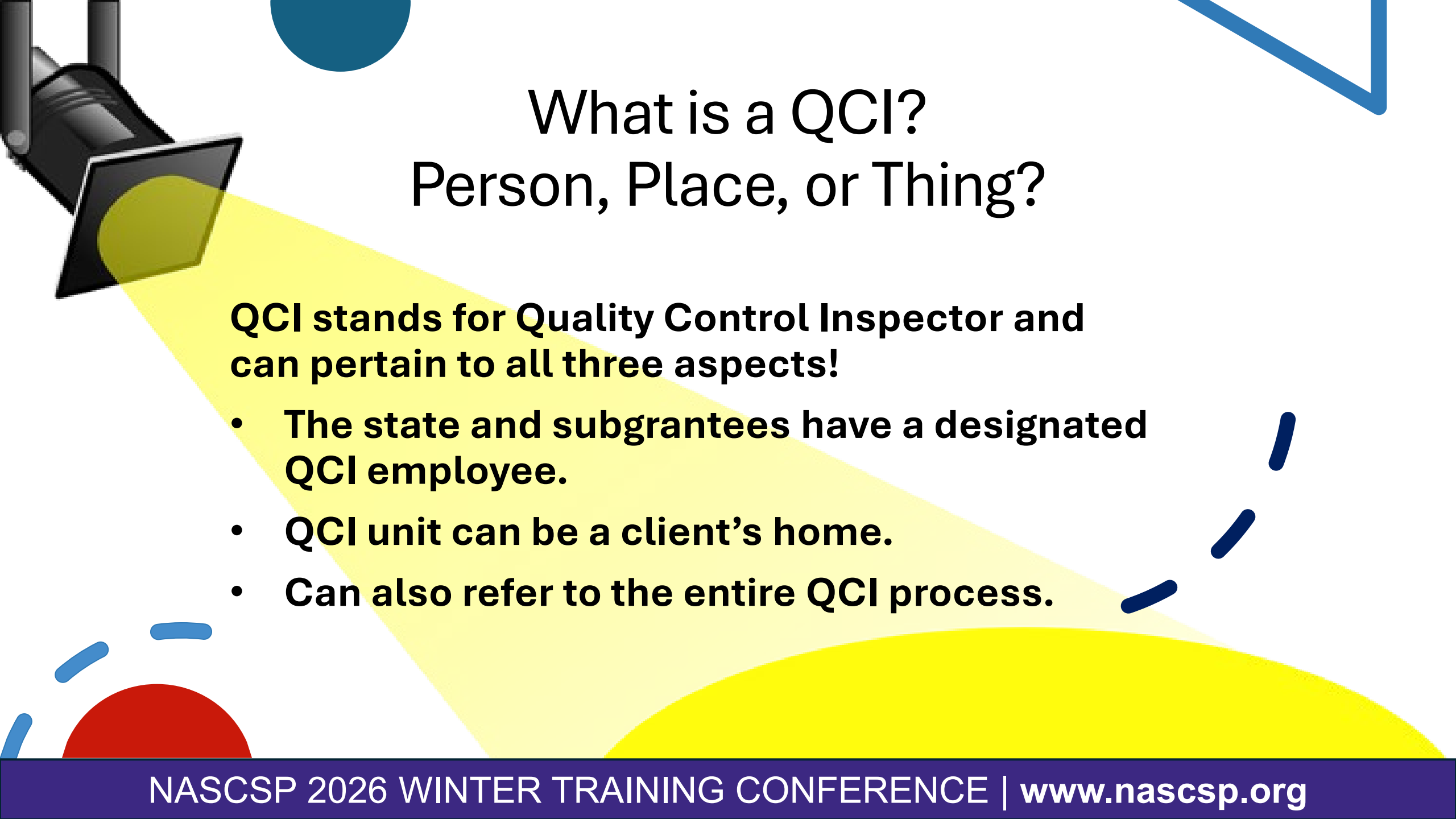


If possible, inquire and discuss about their professional successes or personal interests.



Perspective

- Receiving a finding or concern is not a great feeling. Try to explain it in a positive way.
- If you could improve a personal skill set to be more efficient, would you like to learn more about this process?
- A finding/concern is the next steps to enhance your personal skill set for your program.



What is a QCI? Person, Place, or Thing?

QCI stands for Quality Control Inspector and can pertain to all three aspects!

- **The state and subgrantees have a designated QCI employee.**
- **QCI unit can be a client's home.**
- **Can also refer to the entire QCI process.**

Housing NM QCI Unit Process Selection

- Units that stand out during monthly desk monitoring
- Add variation with both rural and urban homes
- Energy Audit Reports and Client Files



Desk Monitoring

Job Number SMCNM#2025-0007	Client Name		Client Address		County SAN MIGUEL	Square Feet 980.0000	Fuel Type Propane/LPG	Year Built 1977	Dwelling Type Owner-Occupied Mobile Home	Auditor Joe Wright	Inspector Manuel Padilla	Cumulative SIR 2.2000	Est. Dollars Saved 2758
Measures Installed	Actual Material Cost	Actual Labor Cost	Actual Total Cost	Estimated Material Cost	SIR	Cost Difference	Heating (MMBtu)	Cooling (kWh)	Baseload (kWh)	Amount	Amount2	Type	Infiltration Percentage
Incidental Repairs	\$368.40	\$1,735.41	\$2,103.81	\$2,100.00	0.00	(\$3.81)	0.00	0.00	0.00	ELEC FOR HEATER AND PUMP			0.00
Incidental Repairs	\$1,332.80	\$1,412.85	\$2,745.65	\$2,750.00	0.00	\$4.35	0.00	0.00	0.00	UPGRADE SUBFEED TO 100 AMP			0.00
Incidental Repairs	\$186.65	\$18.50	\$205.15	\$210.00	0.00	\$4.85	0.00	0.00	0.00	WH DOOR			0.00
General air sealing	\$45.20	\$37.00	\$82.20	\$84.00	45.19	\$1.80	14.10	-122.00	0.00	PRE-3800	POST-1680	T-1500	0.00
DHW Tank Insulation	\$101.70	\$18.50	\$120.20	\$147.00	11.22	\$26.80	0.00	0.00	1359.00	R-13			0.00
Duct Sealing	\$127.40	\$37.00	\$164.40	\$165.00	15.01	\$0.60	8.90	-15.00	0.00	PRE-25.7	POST-1.8		0.00
DHW Pipe Insulation	\$8.04	\$18.50	\$26.54	\$34.00	8.54	\$7.46	0.00	0.00	236.00	R-2.28			0.00
Floor Insulation	\$392.18	\$92.50	\$484.68	\$486.00	11.82	\$1.32	11.00	-19.00	0.00	R-11	QTY-1	BATT	0.00
DWH Low Flow Shower Head	\$26.40	\$18.50	\$44.90	\$92.00	6.89	\$47.10	0.00	0.00	458.00	PRE-2.5	POST-1.5		0.00
Window Replacement	\$1,366.75	\$92.50	\$1,459.25	\$1,461.00	4.97	\$1.75	12.60	306.00	0.00	QTY-4	SWS3.1202.1A,B,C,D		0.00
Door Replacement	\$524.51	\$55.50	\$580.01	\$580.00	4.34	(\$0.01)	4.30	137.00	0.00	S DR			0.00
Refrigerator Replacement	\$1,239.28	\$18.50	\$1,257.78	\$1,260.00	1.56	\$2.22	0.00	0.00	1240.00				0.00
Furnace Replacement	\$5,998.00	\$406.80	\$6,404.80	\$6,350.00	1.29	(\$54.80)	22.70	-332.00	0.00	HEAT PUMP - PROPANE	60KBTU	LPF1_20253388425	0.00
CO Detector	\$89.94	\$37.00	\$126.94	\$130.00	0.00	\$3.06	0.00	0.00	0.00	QTY-2	H&S		0.00
Smoke Detectors	\$79.17	\$37.00	\$116.17	\$118.00	0.00	\$1.83	0.00	0.00	0.00	QTY-3	H&S		0.00
Dryer Venting (H&S)	\$30.11	\$18.50	\$48.61	\$50.00	0.00	\$1.39	0.00	0.00	0.00		H&S		0.00
Mechanical Ventilation	\$293.19	\$55.50	\$348.69	\$350.00	0.00	\$1.31	0.00	0.00	0.00		H&S		0.00
Water Heater Replacement	\$1,258.50	\$203.40	\$1,461.90	\$1,650.00	0.00	\$188.10	0.00	0.00	0.00	FLAME ROLL OUT	H&S		0.00
Measure Total	13468.22	4313.46	17781.68	18017.00	110.83	235.32	73.60	-45.00	3293.00	Total Installed Measure Energy Savings for unit (MMBtu): 84.69			

Weatherization Assistant Energy Audits – Energy Savings

Annual Energy and Cost Savings										
Index	Recommended Measure	Components	Heating		Cooling		BaseLoad		Total	
			(MMBtu)	(\$)	(kWh)	(\$)	(kWh)	(\$)	(MMBtu)	(\$)
1	General Air Sealing	Ducts/Infiltration	14.1	\$463	-122	-\$17	0	\$0	13.6	\$446
2	Duct Sealing	Ducts/Infiltration	8.9	\$294	-15	-\$2	0	\$0	8.9	\$292
3	Floor Insulation R11	CRAWLSPACE	11.0	\$363	-19	-\$3	0	\$0	11.0	\$360
4	Water Heater Tank Insulation	Water Heating	0.0	\$0	0	\$0	1,359	\$153	4.6	\$153
5	Water Heater Pipe Insulation	Water Heating	0.0	\$0	0	\$0	236	\$27	0.8	\$27
6	Low Flow Showerheads	Water Heating	0.0	\$0	0	\$0	458	\$52	1.6	\$52
7	Replace Window	N1,E,S	12.6	\$417	306	\$43	0	\$0	13.7	\$460
8	Door Replacement	S DR	4.3	\$140	137	\$19	0	\$0	4.7	\$160
9	Refrigerator Replacement	Refrigerator	0.0	\$0	0	\$0	1,240	\$175	4.2	\$175
10	Replace HVAC System	HS1	22.7	\$681	-332	-\$47	0	\$0	21.5	\$634

Weatherization Assistant Energy Audits

There are three main sections I would like to review:

1. Incidental Repair
2. Weatherization measures
3. Health & Safety measures

Economics					
Index	Recommended Measure	Components	Measure Savings (\$/yr)	Measure Cost (\$)	Measure SIR *
Incidental Repairs					
1	ELECTRICAL FOR HEATER & PUMP	Itemized Cost	\$0	\$2,100	0.00
2	ELECTRICAL REPAIRS	Itemized Cost	\$0	\$2,750	0.00
3	WATER HEATER DOOR	Itemized Cost	\$0	\$210	0.00
Weatherization Measures					
4	General Air Sealing	Ducts/Infiltration	\$446	\$84	45.19
5	Duct Sealing	Ducts/Infiltration	\$292	\$165	15.01
6	Floor Insulation R11	CRAWLSPACE	\$360	\$486	11.82
7	Water Heater Tank Insulation	Water Heating	\$153	\$147	11.22
8	Water Heater Pipe Insulation	Water Heating	\$27	\$34	8.54
9	Low Flow Showerheads	Water Heating	\$52	\$92	6.89
10	Replace Window	N1,E,S	\$460	\$1,461	4.97
11	Door Replacement	S DR	\$160	\$580	4.34
12	Refrigerator Replacement	Refrigerator	\$175	\$1,260	1.56
13	Replace HVAC System	HS1	\$634	\$6,350	1.29
Health and Safety Measures or Other Funding Sources					
14	2 CO DET	Itemized Cost	\$0	\$130	0.00
15	3 SMOKE DET	Itemized Cost	\$0	\$118	0.00
16	DRYER VENTING	Itemized Cost	\$0	\$50	0.00
17	MECHANICAL VENTILATION	Itemized Cost	\$0	\$350	0.00
18	STOVE	Itemized Cost	\$0	\$782	0.00
19	WATER HEATER REPLACEMENT	Itemized Cost	\$0	\$1,650	0.00
Total			\$2,758	\$18,798	2.20

*Total [Package] SIR excludes Health and Safety measures.

Incidental Repairs (IR)

What is an IR?



Economics					
Index	Recommended Measure	Components	Measure Savings (\$/yr)	Measure Cost (\$)	Measure SIR *
Incidental Repairs					
1	ELECTRICAL FOR HEATER & PUMP	Itemized Cost	\$0	\$2,100	0.00
2	ELECTRICAL REPAIRS	Itemized Cost	\$0	\$2,750	0.00
3	WATER HEATER DOOR	Itemized Cost	\$0	\$210	0.00

Energy Efficiency Measures

Weatherization Measures		
4	General Air Sealing	Ducts/Infiltration
5	Duct Sealing	Ducts/Infiltration
6	Floor Insulation R11	CRAWLSPACE
7	Water Heater Tank Insulation	Water Heating
8	Water Heater Pipe Insulation	Water Heating
9	Low Flow Showerheads	Water Heating
10	Replace Window	N1,E,S
11	Door Replacement	S DR
12	Refrigerator Replacement	Refrigerator
13	Replace HVAC System	HS1



Health & Safety Measures



Health and Safety Measures or Other Funding Sources	
14	2 CO DET
15	3 SMOKE DET
16	DRYER VENTING
17	MECHANICAL VENTILATION
18	STOVE
19	WATER HEATER REPLACEMENT
Total	

*Total [Package] SIR excludes Health and Safety measures.

NM Housing Summary Report

- Who is a program manager in this session?
- Program managers notice there is a category for Health & Safety measures.
- H&S measures are a separate budget category and are not included in the SIR and average cost per unit.



PART II: FINANCIAL INFORMATION (Summary)						
1. Budget Categories	A/C	2. Budget	3. Current Expenditures	4. Last YTD	5. YTD	Balance
Administration	6915	\$915,919.77	\$9,743.85	\$171,836.24	\$181,580.09	\$734,339.68
Financial Audit	6538	\$54,034.25	\$0.00	\$20,509.35	\$20,509.35	\$33,524.90
Program Operations*	6528	\$3,908,651.09	\$94,202.65	\$2,618,439.29	\$2,712,641.94	\$1,196,009.15
Liability Insurance	6534	\$277,526.24	\$0.00	\$245,007.02	\$245,007.02	\$32,519.22
Leverage	6533	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Health & Safety	6536	\$1,422,769.41	\$12,976.27	\$444,723.91	\$457,700.18	\$965,069.23
Training & Tech. Asst.	6532	\$881,201.01	\$135.00	\$66,434.56	\$66,569.56	\$814,631.45
Total:		\$7,460,101.77	\$117,057.77	\$3,566,950.37	\$3,684,008.14	\$3,776,093.63
WAP Materials:			\$36,047.05	\$1,041,986.77	\$1,078,033.82	
Per Unit Expenditure Average:			\$11,775.33	Per Unit Expenditure YTD Average:		\$8,001.89
Health & Safety Average:			\$1,622.03	Health & Safety YTD Average:		\$1,350.15
Materials Ratio:			33.63%			
Unit Load			\$5,617.55	YTD Unit Load		\$3,710.83



FILE & UNIT INSPECTION

FUNDING SOURCE:

Client Name: _____ Address: _____ City: _____ File No. _____ Ranking: _____
Dwelling _____ Year Built: _____ Complete Date: _____ # Occupants: _____ Fuel Type: _____ Sq Ft: _____
Blower door pre CFM: _____ Blower door post CFM: _____ # Earners: _____ Income Re-certification if over 12 mo. Yes No x N/A
Blower door MFA: _____ Minimum CFM: _____ Cumulative SIR: _____ Est. Dollars Saved: _____ Auditor _____ Inspector: _____
ASHRAE Number in File: _____ ASHRAE Measured Number: _____ ASHRAE Calculated Number: _____ **ADD Frig and LED**

Client File Review

Document	Ye	No	N/A
Client education form			
Input report for the energy audit			
Documentation of the initial audit including auditor name and audit date			
Audit estimated and actual costs			
Health and safety report			
Work Order generated by NEAT/MHEA			
Copy of accurate audit used for job or report from NEAT or MHEA audit			
Records/documentation of installed measures and their costs, including labor			
Forced air systems checklist, if applicable			
Daily air sealing forms			
Daily safety test-out summary sheet			
Assessor diagnostic tests			
Find inspector diagnostic tests			
Diagnostic testing match final numbers			
Do ASHRAE 62.2 calculations match final Blower Door number?			
Copies of required permits for the work			
Inspector PASS forms or Greentag			
Final inspection forms signed and dated by client and final inspector			
Final inspection re-work orders, if applicable			
Refrigerator qualification form, if applicable			
Mold disclaimer			
Confirmation that "Renovate Right" pamphlet was distributed			
Utility bill examination evidence			
Lead Safe Documents, Photos, Proof of tests			
Radon Document			
Invoices make sense with audit			
Final number for Blower Door match input report			
Client correspondence			
Testing labeled			
Use of Infrared Camera			
Insulation Determination Method			

Waivers and Explanations:	Ye	No	N/A
Approved waivers from MFA			
Copy of SHPO approval/denial email from consultant			
A list of any conditions judged to be out of the ordinary			
Explanation for Health and Safety measures			
Explanation for missed opportunities			
Restorative/Preventative: Not Selected(LIHEAP Only)			
Crew Notes on Measures			
Client Information:			
Signed weatherization application			
Copy of executed landlord/tenant agreement if unit is a rental property			
Utility bills			
Income verification and eligibility			
Proof of ownership			

- This checklist is applied when performing QCI and client file reviews.
- Some are only technical, some are only programmatic, and some are a little of both.

Blower Door



Blower Door



Diagnostic Testing



Diagnostic Testing



Diagnostic Testing







Questions?

Contact Information

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SM

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