



Standards of Reference: Refer to Section 9 of the Energy Auditor Scheme Handbook

ID Section	
Exterior Evaluation	
EXT-01	1. GATED ITEM Candidate prepared combustible gas and carbon monoxide (CO) measurement instruments per manufacturer's instructions
EXT-02	2. Candidate determined building orientation and discussed its impact on the building
EXT-03	3. Candidate identified the cladding materials for siding, foundation, and roofing
EXT-04	4. Candidate assessed and discussed potential lead-based paint hazards
EXT-05	5. Candidate assessed possible components or issues that could affect the structural integrity of the building If no issues are identified, candidate discussed components or issues that could affect the structural integrity of the building
EXT-06	6. Candidate identified one exterior combustion appliance venting termination or one mechanical penetration

Interior Evaluation	
INT-01	1. GATED ITEM Candidate tested indoor ambient carbon monoxide levels (CO), verbally stated the readings and took appropriate action according to the current standard of reference
INT-02	2. Candidate tested indoor ambient air for combustible fuel gases on each floor, verbally stated the readings and took appropriate action according to the current standard of reference
INT-03	3. Candidate determined the presence and condition of smoke and carbon monoxide detectors
INT-04	4. Candidate identified and assessed potential air leakage locations
INT-05	5. Candidate identified or discussed presence and placement of vapor retarders
INT-06	6. Candidate assessed and identified moisture issues If no issues are identified, candidate discussed potential moisture issues
INT-07	7. Candidate assessed and identified potential electrical hazards If no issues are identified, candidate discussed potential electrical hazards
INT-08	8. Candidate assessed and identified evidence of pest/vermin infestations If no issues are identified, candidate discussed potential evidence of pest/vermin infestations
INT-09	9. Candidate assessed the building for evidence of structural damage or water damage If no issues are identified, candidate discussed potential evidence of structural damage or water damage
INT-10	10. Candidate verified that clothes dryer is properly vented to the exterior and determined if venting materials are appropriate to the appliance type If venting is inaccessible, candidate discussed proper venting conditions and venting materials appropriate for the appliance type
INT-11	11. Candidate assessed the building for conditions that would interfere with or prevent blower door testing If no issues are identified, candidate discussed conditions that would interfere with or prevent blower door testing
INT-12	12. Candidate assessed the building for hidden or inaccessible spaces If none are identified, candidate discussed commonly found hidden or inaccessible spaces
INT-13	13. Candidate conducted combustion gas leak testing according to current version of ANSI/BPI-1200, testing a representative sample of the piping for 1-2 minutes and on at least 3 fittings.
INT-14	14. Candidate recommended leak detection solution to verify positive reading from detector.
INT-15	15. Candidate identified or discussed possible deficiencies in the fuel supply lines

Doors and Windows	
DW-01	1. Candidate assessed one exterior door, including type and material
DW-02	2. Candidate assessed condition of one exterior door, including evaluation of hardware, door sweep, seals, and operation
DW-03	3. Candidate accurately measured one window or one door

Doors and Windows (cont.)	
DW-04	4. Candidate assessed one exterior window type
DW-05	5. Candidate assessed one exterior window frame material
DW-06	6. Candidate assessed one exterior window glazing type
DW-07	7. Candidate assessed condition of one exterior window, including evaluation of hardware, seals, and operation
DW-08	8. Candidate assessed one type of existing interior shading and one type of existing exterior shading If no shading exists, candidate discussed one type of interior and one type of exterior shading
DW-09	9. Candidate identified three thermal characteristics of one exterior window and one exterior door

Walls	
WA-01	1. Candidate assessed wall types, including structure, interior and exterior finishes
WA-02	2. Candidate assessed wall thickness and/or cavity depths
WA-03	3. Candidate assessed presence and type of wall insulation If wall insulation is not accessible, candidate described how to safely determine insulation type

Attic	
AT-01	1. Candidate assessed attic insulation type and depth
AT-02	2. Candidate assessed attic insulation condition and coverage
AT-03	3. Candidate identified and assessed location of existing thermal boundary and alignment with pressure boundary

Mechanical Ventilation	
MV-01	1. Candidate identified existing mechanical ventilation type(s) and controls
MV-02	2. Candidate verified that exhaust fans are properly vented to the exterior (or discussed if not accessible)
MV-03	3. Candidate assessed the condition of the ventilation ductwork (or discussed if not accessible)
MV-04	4. Candidate accurately measured existing flow rate of one ventilation fan

Appliance and Base Load	
AB-01	1. Candidate collected manufacturer's data plate information from one electric appliance
AB-02	2. Candidate assessed lighting and identified bulb type, wattage, fixture, and usage for one lamp/luminaire
AB-03	3. Candidate correctly identified the amperage rating of the main electrical panel (or discussed if main electrical panel is not accessible)
AB-04	4. Candidate identified or discussed additional base-load appliances that use energy
AB-05	5. Candidate measured or discussed how to measure the flow rate of a showerhead or faucet

Heating, Cooling and DHW Equipment	
HC-01	1. Candidate identified heating/cooling system type(s) and fuel type
HC-02	2. Candidate collected manufacturer's data plate information from one of the following: heating, ventilation, air conditioning, or water-heating appliance
HC-03	3. Candidate identified location, type, and appliance(s) served by one thermostat
HC-04	4. Candidate identified three safety features related to one HVAC appliance
HC-05	5. Candidate identified existing heating/cooling system health and safety concerns If none are present, candidate discussed potential heating/cooling system health and safety concerns
HC-06	6. Candidate assessed general condition of combustion appliances and assessed the condition, configuration, material and pitch of the venting
HC-07	7. Candidate evaluated the distribution system integrity
HC-08	8. Candidate assessed opportunities for distribution system insulation
HC-09	9. Candidate identified water heating appliance type and fuel type

Heating, Cooling and DHW Equipment (cont.)	
HC-10	10. Candidate identified existing water-heating appliance health and safety concerns If none are present, candidate discussed potential water-heating appliance health and safety concerns
HC-11	11. Candidate identified two safety features related to water-heating appliance

Combustion Appliance Zone (CAZ) Testing	
CZ-01	1. Candidate identified combustion appliance zone (CAZ)
CZ-02	2. Candidate properly set up home for CAZ testing
CZ-03	3. Candidate correctly set up manometer and tubing
CZ-04	4. Candidate correctly measured initial pressure (baseline) differential in the CAZ with reference to outside
CZ-05	5. Candidate turned on all exhaust appliances and recorded or verbally stated the reading
CZ-06	6. Candidate checked the impact of the HVAC air handler in the CAZ and recorded or verbally stated the reading If the air handler cannot run independently, candidate must discuss potential impact of air handler operation within the CAZ
CZ-07	7. Candidate configured all interior doors, including CAZ door, to create greatest CAZ depressurization and record or verbally state the reading
CZ-08	8. Candidate identified conditions causing greatest CAZ depressurization
CZ-09	9. Candidate checked for spillage in one appliance under greatest CAZ depressurization and stated time limits for spillage testing based on current version of ANSI/BPI-1200
CZ-10	10. Candidate determined if the appliance passes the spillage test
CZ-11	11. Candidate made appropriate recommendations for the CAZ according to current version of ANSI/BPI-1200

Combustion Safety and Efficiency Testing, Oven and Stovetop Testing	
CS-01	1. GATED ITEM Candidate tested indoor air levels for carbon monoxide throughout combustion safety and efficiency testing and took appropriate action according to current standard of reference Candidate verbally stated the readings
CS-02	2. Candidate accurately measured CO in the flue gases of one natural draft vented appliance at the time interval specified in current version of ANSI/BPI-1200
CS-03	3. Candidate applied correct action level based on test results for CO in the flue of the appliance, referencing current version of ANSI/BPI-1200
CS-04	4. Candidate accurately measured and evaluated Steady State Efficiency of heating system
CS-05	5. Candidate accurately measured temperature rise in heating system and compared result to manufacturer's specified range
CS-06	6. Candidate checked for items, excessive debris inside oven
CS-07	7. Candidate used appropriate sampling location for the oven test and obtained accurate CO measurement at the time interval specified in current version of ANSI/BPI-1200
CS-08	8. Candidate applied correct action levels in current version of ANSI/BPI-1200 based on test results for CO in oven
CS-09	9. Candidate visually inspected stovetop burners for flame quality

Blower Door Testing	
BD-01	1. GATED ITEM Candidate ensured that combustion appliances cannot fire during blower door testing
BD-02	2. Candidate verified solid fuel appliances are in the appropriate condition to allow for blower door testing to be performed If solid fuel combustion appliances are not present, candidate discussed appropriate conditions for blower door
BD-03	3. Candidate correctly set up the blower door frame/shroud/fan
BD-04	4. Candidate correctly set up house in accordance with one of the approved methods listed in current version of ANSI/BPI-1200
BD-05	5. Candidate correctly set up the manometer and tubing
BD-06	6. Candidate correctly measured baseline pressure differential
BD-07	7. Candidate conducted test to obtain an accurate CFM50 reading
BD-08	8. Candidate correctly interpreted the blower door reading and discussed recommendations
BD-09	9. Candidate correctly performed single point zonal pressure differential of one zone and interpreted results
BD-10	10. Candidate correctly performed pressure pan test on one duct register and interpreted results
BD-11	11. Candidate determined two points of infiltration/exfiltration with blower door running

Duct Pressurization Testing	
DP-01	1. Candidate demonstrated how to connect duct tester fan to distribution system correctly (do not turn on fan)
DP-02	2. Candidate correctly set up manometer, tubing, and probe for duct testing
DP-03	3. Candidate demonstrated how to temporarily seal one duct register
DP-04	4. Candidate discussed procedure for conducting full duct pressurization test
DP-05	5. Candidate discussed applicable standard(s) for interpreting duct tester diagnostic results
DP-05	6. Candidate discussed how to prioritize repairs