**Southface Blower Door Field Guide**

**Project Name:** Project Name

**Project Address:**  Project Address

**Total Conditioned Floor Area:**
**SFBE:**

**Test Date:** Test Date

**Meeting time:**

**Test Crew:**

**Equipment Needed:** *(check box in first column for loading into vehicle before site visit, second column for loading into vehicle after test is complete)*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Before | After |  |
| [ ]  [ ]  Car (#)[ ]  [ ]  BD fans (# of fans)[ ]  [ ]  BD fan controller bags (# of controller bags) [ ]  [ ]  Additional pressure gauges (# of additional gauges) [ ]  [ ]  Serial Cruise Cables (#)[ ]  [ ]  Laptop with blower door software (#)[ ]  [ ]  Extension cords[ ]  [ ]  CAT 5 cables (# & lengths); or wireless router and appropriate gauge connections for wifi[ ]  [ ]  Hoses (# by color & lengths)[ ]  [ ]  Thermometers (# – indoor and outdoor)[ ]  [ ]  Walkie-Talkies (#) [charged up!][ ]  [ ]  Clipboards (#)[ ]  [ ]  Camera (#)[ ]  [ ]  IR camera[ ]  [ ]  Rechargeable flashlight [charged up!][ ]  [ ]  Headlamps (#)[ ]  [ ]  Ladders (# and type of ladders)[ ]  [ ]  Painter’s tape (# rolls)[ ]  [ ]  Masking tape (# rolls)[ ]  [ ]  Wide roll of duct mask (# rolls)[ ]  [ ]  Long poles (#)[ ]  [ ]  Contractor trash bags (#)[ ]  [ ]  Pipe Insulation (#)[ ]  [ ]  Shim bucket and door signs[ ]  [ ]  PPE kits – safety goggles, gloves, mask, hard hats, safety vests, booties [ ]  [ ]  Tape measure (#)[ ]  [ ]  Fog machine, fog machine liquid, and fog machine extender duct system |

The following provides the roles and responsibilities of each team member during the day of testing. Equipment needed to execute the responsibilities successfully is listed by each role.

**Team Roles:**

\_\_\_\_\_\_\_

**Test Leader –** *Responsible for determining test plan and ensuring test efficiency. Prior to the test, visit the site to confirm number of fans needed and appropriate fan configuration in building. Confirm which tests will be necessary and identify team roles. Communicate team plan accordingly being specific on blower door set-up and fan owners.*

**Test Coordinator –** *Discuss procedure with client so they understand the test impact to their building, test duration and what activities can and cannot be done. Get contact information (cell phone) of building representative that will be meeting the team at the site. Send a follow-up e-mail to representative the day before test to remind representative. Get plans, elevations and sections of building. Schedule testing time; send appointment to client and testing team; reserve all needed equipment and vehicle(s).*

\_\_\_\_\_\_\_

**Vehicle Loader and Driver –** *Responsible for ensuring that equipment is loaded in the appropriate vehicle. See attached list of equipment needed. Charge all walkie-talkies (day before); ensure gauge batteries are a minimum 8.5 battery level. Have directions to site and contact information for building representative.*

\_\_\_\_\_\_\_

\_\_\_\_\_\_\_

**Thermostats; OA + Exhaust masking–** *Responsible for documenting existing thermostat and other mechanical equipment settings with photo documentation or t-stat labels, and turning off all mechanical equipment, masking over all outdoor and exhaust air penetrations, documenting outdoor air strategy with the Reporter, documenting model numbers for all mechanical equipment (compressors (AC and walk-in coolers), air handlers/furnaces, indoor coils, range hood, water heater, etc.) with the Reporter, and taking LOTS of pictures of building inside and out with the Reporter.*

\_\_\_\_\_\_\_

**Ceiling Tiles** – *Responsible for determining which ceiling tiles need to be removed and ensuring all are replaced at end of testing. Take pictures of pre-existing conditions that need to be replaced exactly as before testing.*

\_\_\_\_\_\_\_

\_\_\_\_\_\_\_

**Computer –** *Responsible for running computer software, recording general weather conditions the day of the test (rainy, cloudy, dry, etc.), ambient temperatures and inside building temperatures at beginning and end of test, monitoring weather conditions during test (wind change and temperature changes) and re-baselining as necessary, running baseline as part of single-point tests following multipoint test and perform the single point tests, and any site-specific testing configurations/significant building features/issues. (Usually the same as Test Leader.)*

\_\_\_\_\_\_\_

**Reporter –** *Responsible for collecting data on building using the data collection forms, photography, and writing-up the final test report for client. (Usually the same as or shared with Thermostats; OA + Exhaust masking, etc.)*

**Testing Procedures**

Refer to the Building Air Leakage Testing Sheet (excel file) for step-by-step testing procedures.

**Post-Testing Breakdown Checklist**

**Test Coordinator –** *Send follow-up e-mail to client the next day thanking them for the use of their facility and to let us know if they have any further questions. Also let them know when they can expect to receive their report.*

**Vehicle Loader and Driver –** *Responsible for arranging equipment in vehicle(s), ensuring all major equipment is loaded before leaving the site (complete second column on equipment list to confirm), coordinating equipment unloading back at office. Return to vehicle to fleet storage, add gas if below ¼ tank, and add mileage to book in glove box.*

**Blower Door Breakdown –** *Responsible for breaking down your fan(s) and associated equipment, and ensuring equipment is put back into correct tubs/bags, etc.*

|  |  |  |
| --- | --- | --- |
| [ ] BD Fan w/ 2 rings[ ] BD Controller[ ] BD Tarp [ ] Extension cord(s) in black case | [ ] Gauge [ ] Dongles and connectors in hub bag[ ] 3 tubes in gauge bag[ ] 4th tube in blue tub | [ ] CAT5 Cable in blue tub or wireless router and appropriate gauge connections |

**Thermostats; OA + Exhaust un-masking –** *Responsible for resetting to original configuration on thermostats prior to departure responsible for ensuring all masking has been removed and all mechanical equipment is put back into original operation mode; responsible for helping blower door team with breakdown.*

|  |  |  |
| --- | --- | --- |
| [ ] AHU Panels Replaced[ ] Furnaces fire[ ] Water heaters fire[ ] DOAS reset | [ ] Range hood reset[ ] Exhaust reset[ ] Electrical panel check[ ] Photos of all name plates – legible  | [ ] Photos of building exterior (all sides)[ ] Photos of interior rooms showing ceilings, walls and floors |

**Ceiling Tiles** – *Responsible for ensuring all tiles are replaced at end of testing, all ladders are brought back to truck for loading, and all testing signs are stored for next test.*

[ ] All exterior doors shut and locked as appropriate

[ ] All interior door-shims removed

[ ] All testing signs removed

**Computer –** *Responsible for ensuring all building-specific testing information has been effectively documented and sent to Reporter; responsible for helping blower door team with breakdown.*

[ ] Laptop(s) collected

 [Insert floor plan of building and mark-up to define building envelope clearly for test team.]

Figure 1. Building Envelope

Figure 1 shows the identified building envelope in red.

[Insert SketchUp of Building to Include Blower Door Fan set-up locations]

Figure 2. Blower Door set-up option

Figure 2 above shows the different locations where the Blower Doors should be installed and indicates who will own which fan(s).

**Zone Air Leakage Checklist** Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Section: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(Rate Y-yes, N-no, DC-didn’t check, NA-not applicable, and provide notes as needed)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Room/Space Description:** |   |   |   |   |   | **Notes** |
|  Interior outlets |   |   |   |   |   |   |
|  Exterior wall outlets |   |   |   |   |   |   |
|  Windows and window rough openings (trim, etc.) |   |   |   |   |   |   |
|  Interior door jams |   |   |   |   |   |   |
|  Baseboards |   |   |   |   |   |   |
|  Floor penetrations |   |   |   |   |   |   |
|  Attic / roof hatch or access |   |   |   |   |   |   |
|  Above dropped ceilings |   |   |   |   |   |   |
|  Elevator doors and shafts |   |   |   |   |   |   |
|  Architectural chases |   |   |   |   |   |   |
|  Tuck-under or porch-like structures attached to exterior |   |   |   |   |   |   |
|  Fire protection system |   |   |   |   |   |   |
|  Plumbing penetrations – water closets, under sink cabinets |   |   |   |   |   |   |
|  Refrigerant piping, condensate lines |   |   |   |   |   |   |
|  Combustion flue pipes |   |   |   |   |   |   |
|  Supply / return boot penetrations |   |   |   |   |   |   |
|  Feel supply registers for significant air movement |   |   |   |   |   |   |
|  Lighting – can lights, surface mounts |   |   |   |   |   |   |
|  Electrical and cabling penetrations |   |   |   |   |   |   |

**Miscellaneous comments:**