



ENERGY STAR MULTIFAMILY HIGH RISE PROGRAM – Photo Template

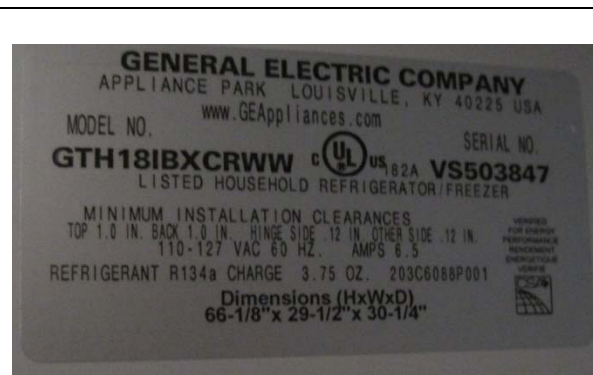
Project Name: ENERGY STAR Condominiums

Use this template as a sample format to comply with the photo documentation requirements outlined in the *ENERGY STAR MFHR Testing and Verification Protocols and Worksheets*. Add, delete or re-size photo boxes and descriptions as necessary.

Tip: Once the cursor is inside the desired photo box select 'Insert' → 'Picture' → 'From File' from the menu above in order to automatically resize the photos to fit the boxes. Compress all photos to minimize the size of this file, however ensure that the required information can be interpreted.

APPLIANCES – PROTOCOL 1

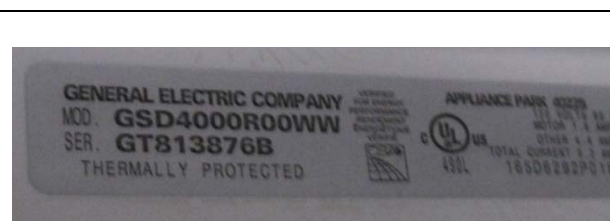
Include a clear photo of the nameplate of each type of appliance showing appliance is Energy Star certified.



Notes: Refrigerator



Notes: Clothes Washer

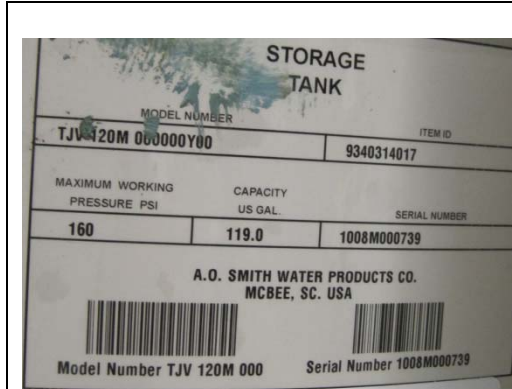


Notes: Dishwasher

Notes:

HVAC – HEATING AND DHW SYSTEMS – PROTOCOL 2.1, 2.2, 5.1, 5.3

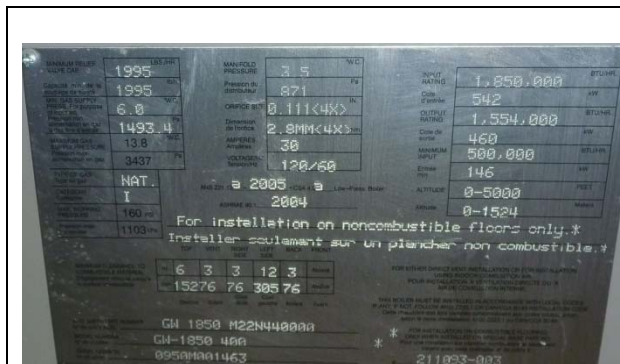
Provide photos of the domestic hot water and heating units/systems and faceplates to verify proper installation and compliance with proposed design.



Notes: DHW Storage Tank



Notes: DHW Heat Exchanger



Notes: Boiler

Notes:

Include a clear photo of each type of plumbing fixture being inspected indicating the flow rate.



Notes: Kitchen faucet aerator



Notes: Showerhead

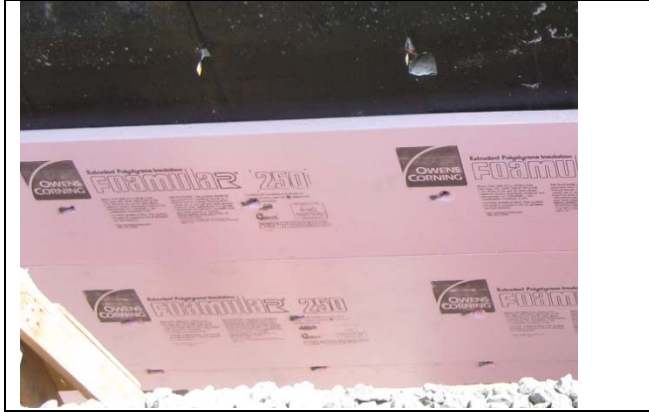


Notes: Bathroom Faucet

Notes:

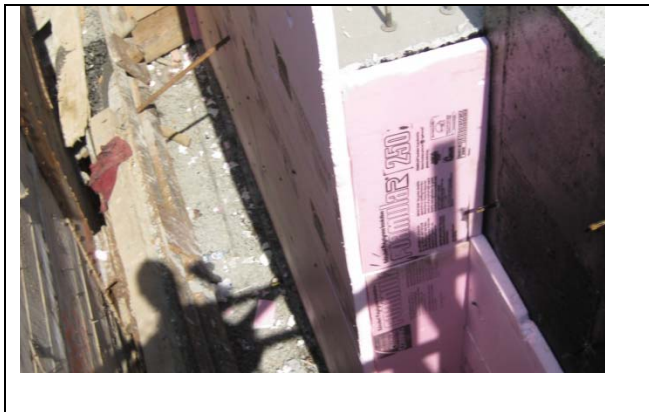
ENVELOPE – BELOW GRADE WALLS – PROTOCOL 3.1

Include a photo clearly identifying type of insulation to be installed and thickness using ruler (can do each individual piece of insulation or entire assembly).



Notes: Owens Corning Foamular 250

Include a photo showing continuous insulation around sample corner and other challenging details.



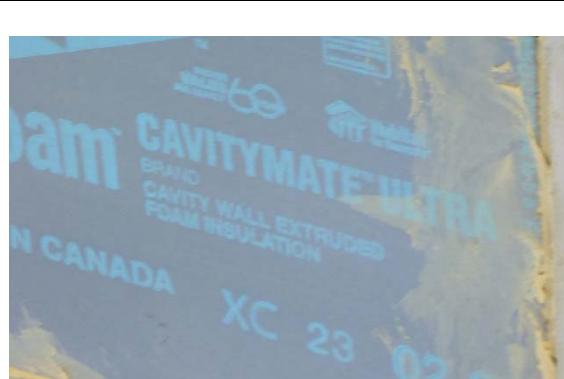
Notes:

ENVELOPE – ABOVE GRADE WALLS – PROTOCOL 3.1

Include a photo clearly identifying type of insulation to be installed and thickness using ruler (can do each individual piece of insulation or entire assembly).



Notes: Cavitymate Thickness



Notes: Cavitymate Ultra Label

Include a photo showing continuous insulation around sample corner and other challenging details.
Include a photo of pre-insulation showing application of water/vapor/air barrier.



Notes:



Notes: Air Barrier

Include a photo of Plank/Slab Edge and Rim Joist Insulation between ceiling/floor levels before cladding is installed.



Notes:

ENVELOPE – ROOF – PROTOCOL 3.2

Include a photo clearly identifying type of insulation to be installed and thickness using ruler (can do each individual piece of insulation or entire assembly).

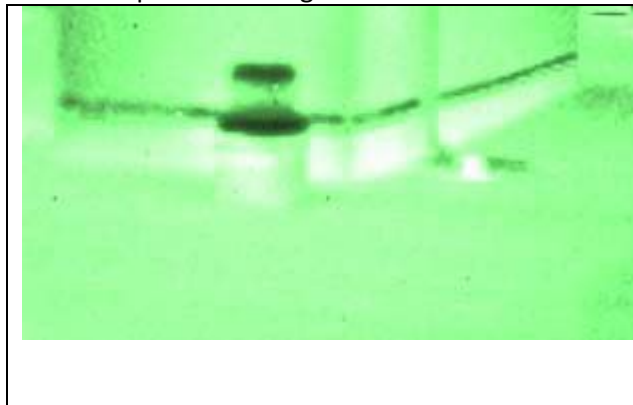


Notes: Continuous polyisocyanurate insulation
6"

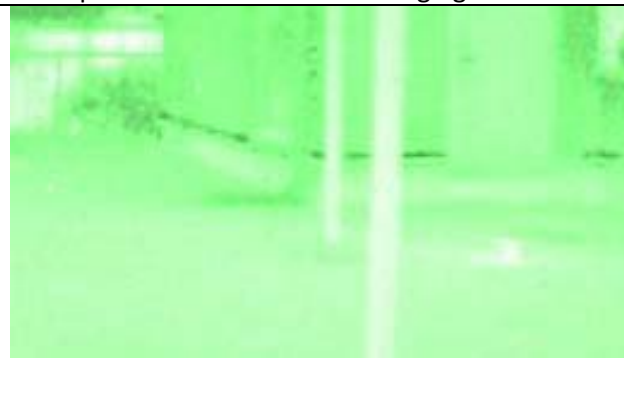


Notes: Insulation label

Include a photo showing continuous insulation around sample corner and other challenging details.



Notes:



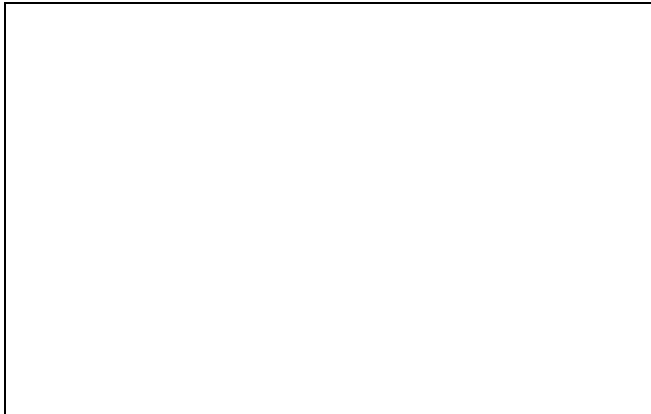
Notes:

Include a photo of post-insulation (pre-drywall for cavity insulation, prior to roof finish for exterior rigid insulation) showing complete and even distribution of insulation.



Notes:

Include a photo of proper enclosure of insulated cavities (if applicable).



Notes:

ENVELOPE – FLOORS ABOVE UNCONDITIONED SPACES – PROTOCOL 3.3

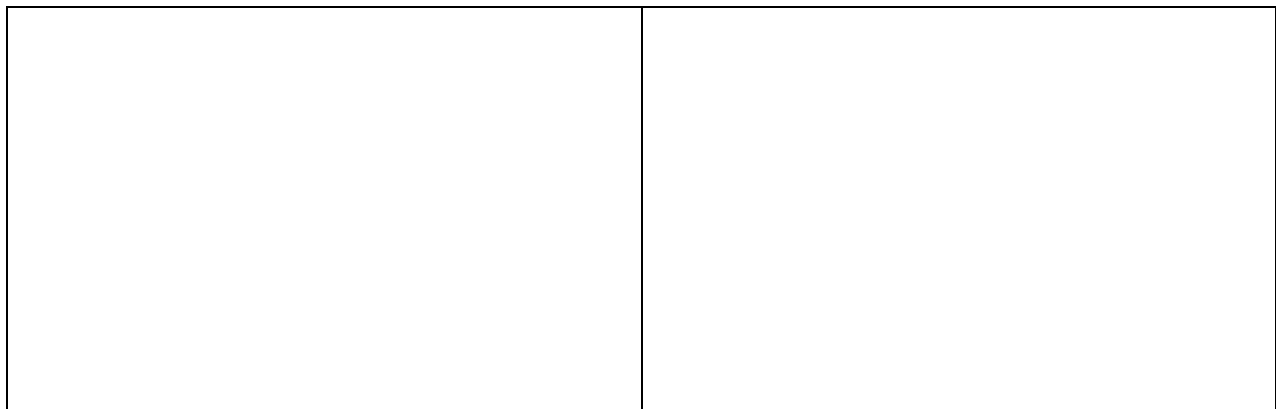
Include a photo clearly identifying type of insulation to be installed and thickness using ruler (can do each individual piece of insulation or entire assembly).



Notes:

Notes:

Include a photo showing continuous insulation around sample corner and/or trouble area.



Notes:

Notes:

Sub Slab insulation – Include a photo before pouring of concrete or backfill of foundation.



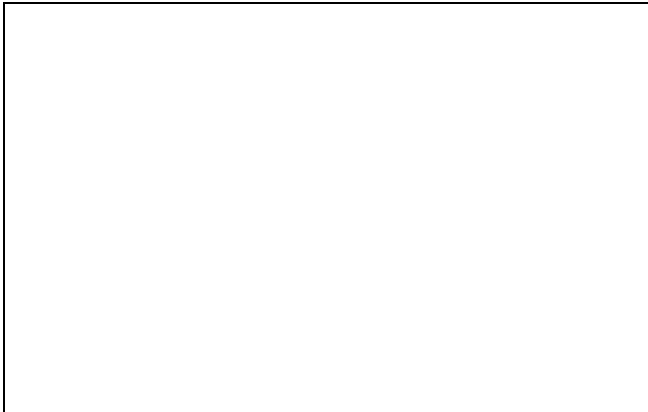
Notes:

Include a photo of proper moisture or insect protection (if required).



Notes:

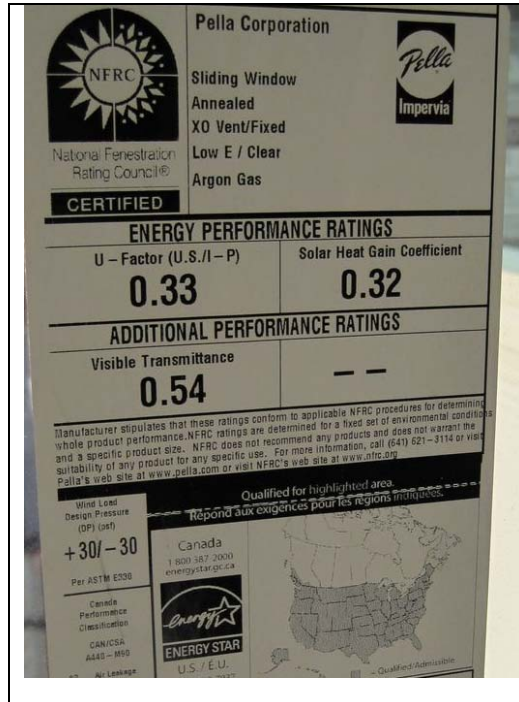
Framed floors – Include a photo of post-insulation to show proper installation showing no signs of compromised R-value.



Notes:

ENVELOPE – WINDOWS – PROTOCOL 5.4

Include a photo of each unique window type with third party verification (NFRC label if applicable) of U-value, SHGC, and Energy Star certification (if applicable).

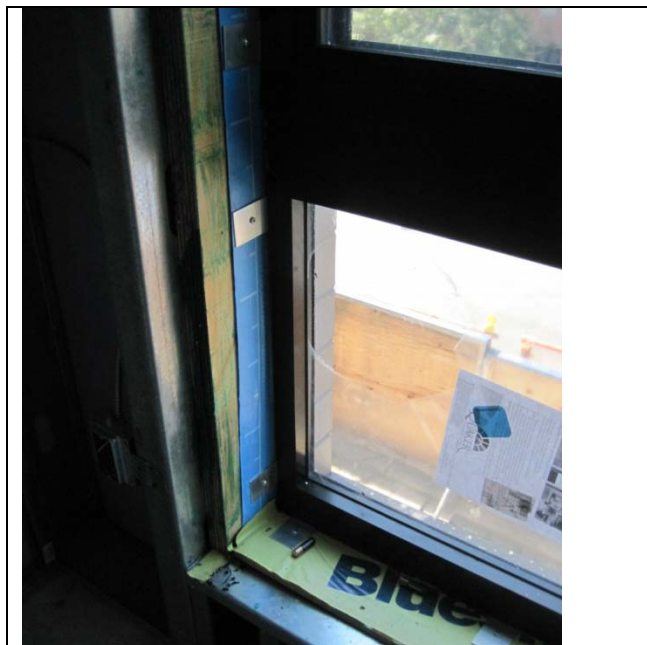


Notes: NFRC window label



Notes: Typical installed window

Include a photo of installed window that verifies proper fit and effective connections to envelope's weather and air barriers.



Notes:

Include a photo of low-e sensor device verifying low-e.



Notes:

ENVELOPE – EXTERIOR DOORS – PROTOCOL 3.5

Include a photo of installed door that verifies proper fit and effective connections to envelope's weather and air barriers.

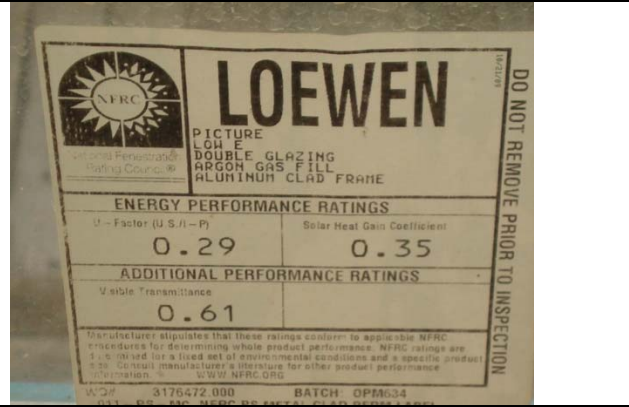


Notes:

Include a photo of each unique door type with third party verification, NFRC and/or Energy Star certification (if applicable).



Notes:



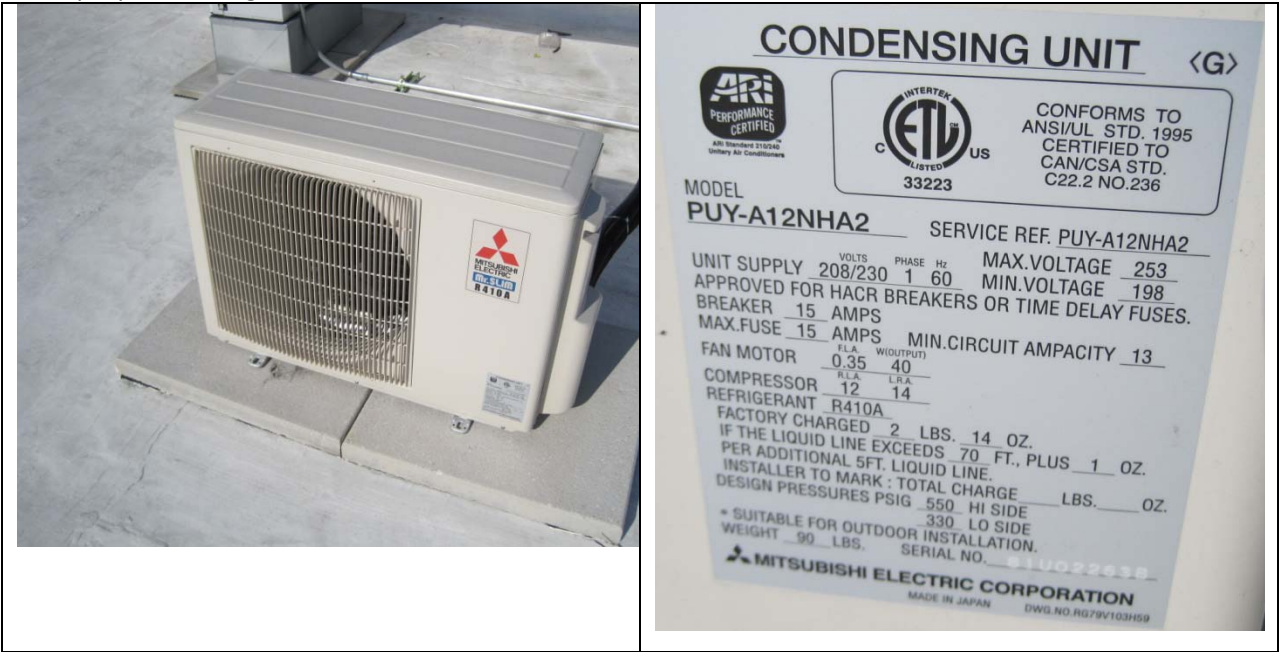
Notes:

GARAGES – HEATING & COMPARTMENTALIZATION – PROTOCOL 4.1

No photos required.

HVAC – COOLING – PROTOCOL 5.2, 5.4

Provide photos of cooling system equipment and faceplates to verify proper installation and compliance with proposed design.



Notes: Elevator machine room condenser

Notes: Condenser nameplate

LIGHTING – COMMON AREA, IN-UNIT, OUTDOOR & EMERGENCY LIGHTING – PROTOCOL 6.1-6.3

Include a photo of one sample of each fixture type with Energy Star certification affixed, where applicable.



Notes: In unit recessed light B



Notes: In unit sconce F



Notes: Bathroom Fixture A



Notes: Hallway light G



Notes: Lobby Wall Light I



Notes: Mechanical and Stairway light H



Notes: Bulkhead light M



Notes: Outdoor accent N



Notes: Exit light F

Include a photo of each type of lighting control specified for each unique space (motion sensors, timers, and daylight sensors).



Notes: Laundry room motion sensor

Notes:

If there are sensors in the stairwell and corridor, include a representative photo of each space and clearly label their location.

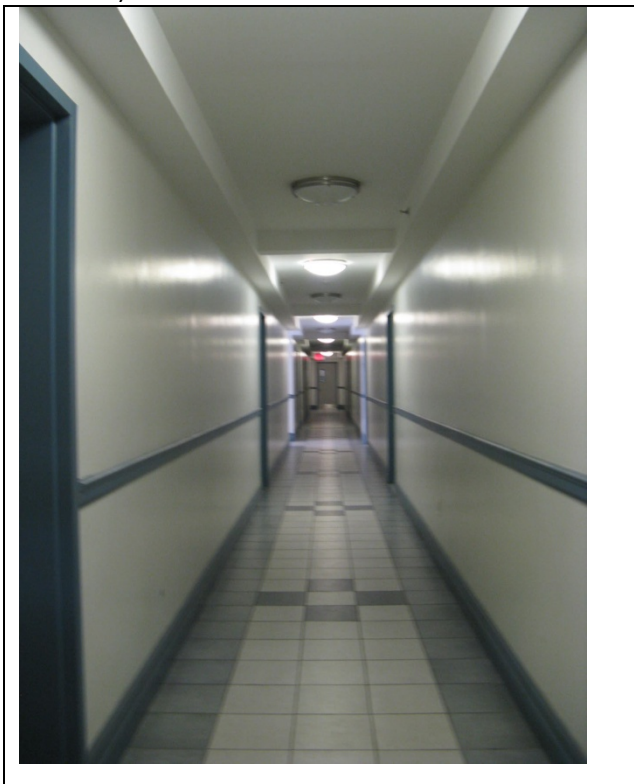


Notes: Mechanical and stairwell lights with integrated ultrasonic occupancy sensors



Notes: Occupancy sensors in corridors

Include a photo showing bi-level lighting is installed (half the lamps on in a fixture, or all fixtures dimmed).



Notes: Corridors with half of lights switched off by occupancy sensors

Exterior lighting with timers – Include a photo of the controls and provide lighting schedule of when they are supposed to be on.



Notes: Outdoor light timer. Lights are on from 5-7 AM

Notes:

To document daylight sensor performance, include one photo showing the light fixture is off during the day and another photo showing the fixture is on when the daylight sensor is covered.

Notes:

Notes:

HVAC – MOTORS – PROTOCOL 7.1

Include a photo of faceplate and NEMA Premium label (if applicable) of one representative motor of each size. Given the number of motors and pumps in any given building, make sure to clearly identify location and use of each motor represented.



Location and Use: Heating Distribution Pump located in boiler room



Location and Use: Domestic hot water distribution pumps

ENVELOPE – EXTERIOR AIR BARRIER – PROTOCOL 3.1, 8.1

Include one representative photo of continuous air barrier at all types of typical joints, junctions, and general coverage areas to include the following at a minimum:

Inspected from the exterior:

Areas with liquid-applied membranes showing appropriate thickness



Notes:

A/C Openings



Notes:

Windows



Notes:

Door openings



Notes:

Door frame



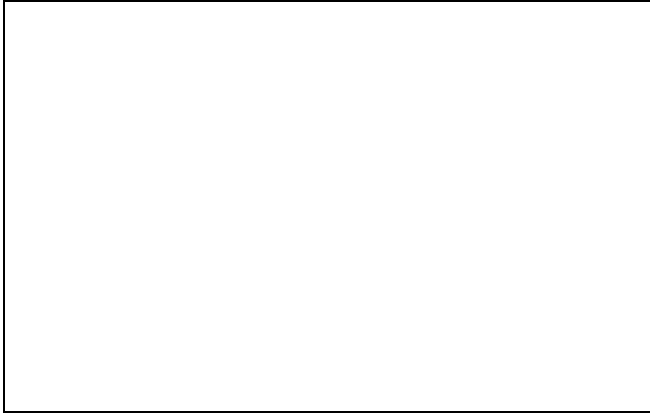
Notes:

Transition between wall and roof barrier



Notes:

Transition between wall and foundation barrier



Notes:

Plank/Slab Edge (Masonry and Steel Construction) or Rim Joist (Wood Framed Construction)



Notes:

Inspected from the interior:

Rough openings to windows and doors



Notes:

A/C openings



Notes:

Additional photos (if necessary)

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Notes:

Notes:

INFILTRATION – COMPARTMENTALIZATION AND BLOWER DOOR TEST – PROTOCOL 8.1

Include one representative photograph of continuous air barrier at all types of typical joints, junctions, and general coverage areas to include the following at a minimum:

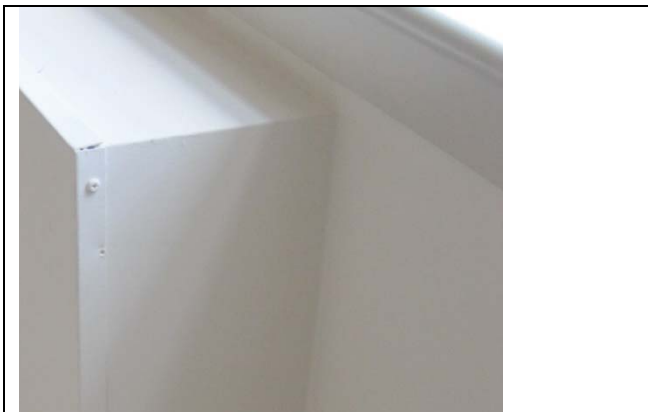
Inspected from the interior:

Window to interior gypsum board



Notes:

Air conditioner sleeve sealed to drywall (cover is installed if A/Cs provided by building)



Notes:

Outlet/Electrical Box – Exterior to Demising Walls



Notes:

Heating pipe penetrations through exterior walls



Notes:

Heating pipe penetration through interior partitions



Notes:

Plumbing/Sprinkler Pipe Penetrations



Notes:

Range Gas Line Penetration



Notes:

Gypsum board to concrete ceiling plank connection – Exterior walls and all interior partition walls



Notes:

Gap between take off duct and gypsum board



Notes:

Electrical Panel



Notes:

HVAC Access Doors



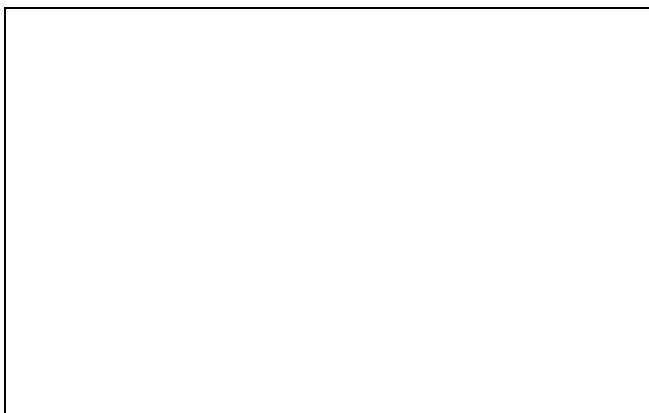
Notes:

Thermostats



Notes:

Intercoms



Notes:

Lighting Fixtures



Notes:

Door Latch Hole



Notes:

Medicine Cabinet



Notes:

VENTILATION – SCHEDULE AND OPERATION – PROTOCOL 8.2

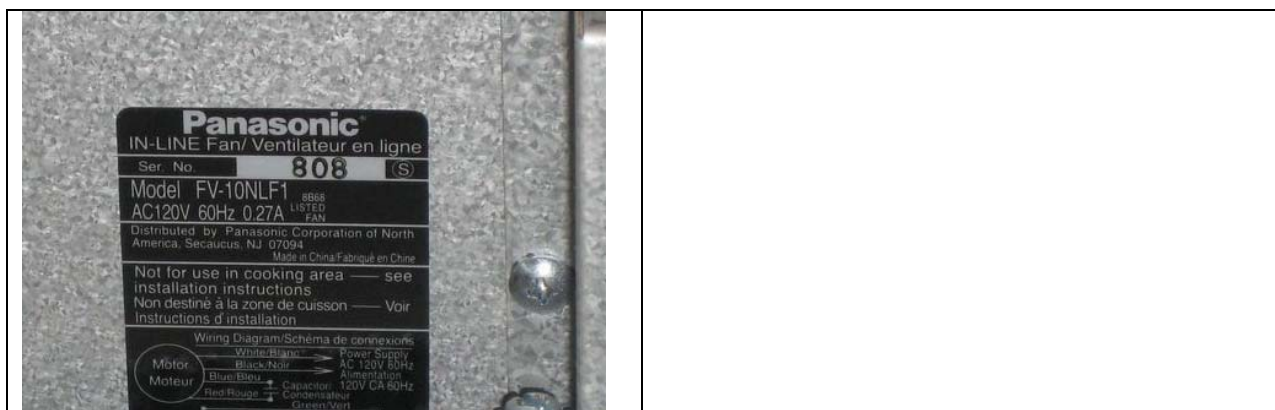
Include a photo of fan installation and duct work installation



Notes:

Notes:

Include a photo of fan faceplates



Notes:

Notes:

For Garages, if applicable, photograph location of CO sensors and air intake point.



Notes:



Notes:

VENTILATION – DUCT TIGHTNESS TEST – PROTOCOL 8.2

Include one representative photo of each duct sealing detail to include the following at a minimum:

For central ventilation systems:

Sealed roof curb penetration



Notes:

Mastic or other UL-181 compliant material applied within temperature range and according to all other manufacturer's requirements at ALL transverse joints and take offs



Notes:

All duct transitional junctions sealed with mastic or other UL-181 compliant material



Notes:

Gap between take of duct and gypsum board effectively sealed



Notes:

For in line fan exhaust systems:

Mastic or other UL-181 compliant material applied within temperature range and according to all other manufacturer's requirements at ALL transverse joints and take offs



Notes:

All duct transitional junctions sealed with mastic or other UL-181 compliant material



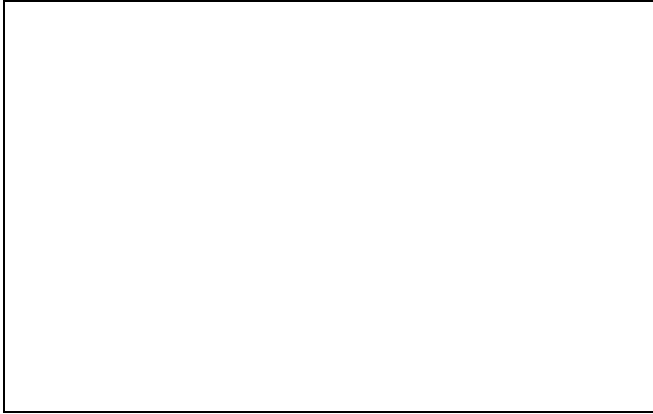
Notes:

If plank core is to be used as a duct – Ceiling plank penetration sealed



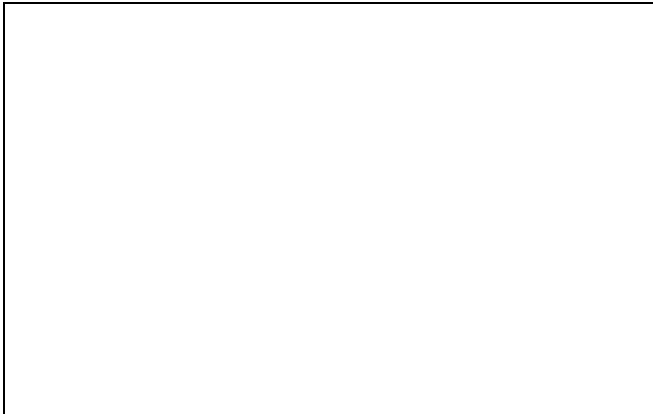
Notes:

If plank core is to be used as a duct – Plank core effectively connected to exterior of building



Notes:

Appropriate plank core selected that aligns with exterior louver



Notes:

Additional photos (if necessary)

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Notes:

Notes:

METERS – CONFIGURATION – PROTOCOL 9.1

Include photos of all types of meters (electrical, gas, hot water, fuel oil, steam, water) for the building.
Be sure to properly label location and type of meter represented.



Notes: Direct electric meters



Notes: Master Gas Meter



Notes: Master Water meter