



ENERGY STAR Multifamily New Construction Version 1/1.1/OR-WA 1.2 2020 Rater Quality Assurance Checklist - MRO

Project Name: _____		Number of Units: _____		Permit Date: _____			
Building Address: _____		Unit #: _____		City: _____ State: _____			
MRO responsibilities:							
<ul style="list-style-type: none"> This checklist is used to document the quality assurance review of the items being verified by the Rater in the dwelling units and common spaces of an ENERGY STAR Multifamily New Construction building. One checklist shall be used to document the verification of all applicable items for at least ten dwelling units and the common space. 							
Action Items / Summary of QA				Yes	No	N/A	
If any Item marked "No" or "Not Verified," an action/explanation summary document shall be attached.				<input type="checkbox"/>	-	<input type="checkbox"/>	
Documentation Collection				Yes	No	N/A	
ASHRAE Path: ASHRAE Path Calculator collected, showing that the Performance Target meets or exceeds the ENERGY STAR Target for the program version applicable at the time of certification.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Rater Design Review Checklist collected, with no Items left blank				<input type="checkbox"/>	<input type="checkbox"/>	-	
Per 1.1, documentation collected that builder or developer had an ENERGY STAR partnership agreement at the time of certification. ¹				<input type="checkbox"/>	<input type="checkbox"/>	-	
ASHRAE Path: Per 1.2, documentation collected that ASHRAE modeler was listed in the online directory at the time of certification.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Rater Field Checklist collected, with no Items left blank				<input type="checkbox"/>	<input type="checkbox"/>	-	
Per 1.2, 3.5, and/or 3.6, documentation collected on alternative UA calculations, if used for compliance. (MF Workbook or alternative)				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Per 5b.1, written approval from designer collected, if installed models do not match Design Report.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Per 5.7, documentation collected that Functional Testing Agent(s) held credential required to complete the National HVAC Functional Testing Checklist and were listed on the appropriate online directory at the time of certification.				<input type="checkbox"/>	<input type="checkbox"/>	-	
Per 7.3 and 8.3, documentation collected on the measured ventilation airflows in the common spaces.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Per 12.2, 12.3, and/or 12.7, documentation collected on lighting power density calculations. (MF Workbook, ASHRAE Path Calculator, or alternative)				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Per 14.1, for buildings 50,000 ft ² and larger, documentation collected confirming the strategy used to enable the collection of monthly or annual building-level energy consumption data (electricity, natural gas, chilled water, steam, fuel oil, propane, etc.).				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Rater Name, Inspection Dates are recorded.				<input type="checkbox"/>	<input type="checkbox"/>	-	
If any Builder Verified Items are used, Builder Employee, Builder Inspection Date and Builder Initials are recorded.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If any LP Verified Items are used, Licensed Professional, LP Inspection Date and LP Initials are recorded.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
HVAC Design Report collected, with no Items left blank				<input type="checkbox"/>	<input type="checkbox"/>	-	
HVAC Functional Testing Checklist collected, with no Items left blank and with all HVAC systems in the building / project fully documented. Exception: Where credentialed HVAC Contractor(s) are completing the National HVAC Functional Testing Checklist, the checklist is not required to be collected.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Rater Design Review Checklist							
4. Review of National HVAC Design Report (National HVAC Design Report Item # indicated in parenthesis)				Yes	No	Not Verified²	N/A
4.2 National HVAC Design Report reviewed by the MRO for the following parameters (National HVAC Design Report Item # indicated in parenthesis), limited to the unit plan and equipment serving the dwelling units being reviewed:							
4.2.1 Prescriptive Path: Dwelling Unit Mechanical Ventilation (2.7) is <150% of ASHRAE 62.2-2013 requirements.				<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
4.2.2 Cooling season and heating season outdoor design temperatures used in loads (3.4) are within the limits defined at energystar.gov/hvacdesigntemps for the State and County where the building is built, or the designer has provided an allowance from EPA to use alternative values.				<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
4.2.3 Number of occupants used in loads (3.6) is within ± 2 of the dwelling units being reviewed and total occupant gains (3.7) do not exceed 645 Btuh per occupant.				<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
4.2.4 Conditioned floor area used in loads (3.8) is between 100 sq. ft. smaller and 300 sq. ft. larger than the dwelling units being reviewed.				<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
4.2.5 Window area used in loads (3.9) is between 15 sq. ft. smaller and 60 sq. ft. larger than the dwelling units being reviewed, or for dwelling units being reviewed with > 500 sq. ft. of window area, between 3% smaller and 12% larger.				<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
4.2.6 Predominant window SHGC used in loads (3.10) is within 0.1 of the predominant value in the "6. Fenestration" worksheet of the dwelling units being reviewed.				<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>



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4.2.7 Mechanical ventilation used in loads (3.12) is the same as the ventilation design (2.7) for the dwelling units being reviewed.	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
4.2.8 Non-occupant internal gains (3.13) are less than 3,600 Btuh for the dwelling units being reviewed.	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
4.2.9 Sensible & total heat gain are documented (3.14, 3.16) for the orientation of the dwelling units being reviewed.	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
4.2.10 Cooling sizing % (4.18) is within the cooling sizing limit (4.19) selected by the HVAC designer for the dwelling units being reviewed.	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
Rater Field Checklist				
Thermal Enclosure System				
1. High-Performance Fenestration & Insulation	Yes	No	Not Verified²	N/A
1.2 Insulation in dwelling units meets or exceeds levels specified in Item 3.1 of the Rater Design Review Checklist.				
3.1.1: Prescriptive: Installed ceiling and floor insulation levels meet or exceed ENERGY STAR MF Reference Design requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.2 ASHRAE: Installed ceiling and floor insulation levels meet or exceed values from the "Group R" column in the 2009 IECC Commercial chapter.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2 Insulation in common spaces meets or exceeds levels specified in Item 3.2 of the Rater Design Review Checklist. ³				
3.2.1 Prescriptive: Installed ceiling and floor insulation levels meet or exceed ENERGY STAR MF Reference Design requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.2.2 ASHRAE: Installed ceiling and floor insulation levels meet or exceed the values from the "All Other" column in the 2009 IECC Commercial chapter.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.4 Prescriptive Path: Window-to-wall ratio ≤ 30%.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3 All visible insulation achieves Grade I install. per ANSI / RESNET / ICC Std. 301. See alternatives in Footnote 6 of the Rater Field Checklist.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.5 Heated plenums in unconditioned space or ambient conditions meet the following requirements:				
1.5.1 Sides of plenum are an air barrier and insulated to ≥ R-3ci in CZ 1-4; ≥ R-5ci in CZ 5-6; ≥ R-7.5ci in CZ 7; ≥ R-9.5ci in CZ 8, AND ;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.5.2 Insulation at top of plenum meets or exceeds the R-value for mass floors from the "All Other" column of Table 502.2(1) of 2009 IECC, AND ;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.5.3 Bottom of plenum has at least R-13 insulation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.6 Prescriptive: Garages with space heating meet the following requirements:				
1.6.1 Insulation on above grade walls and walls on the first story below grade ≥ R-5ci in CZ 5-6; ≥ R-7.5ci in CZ 7; ≥ R-9.5ci in CZ 8, AND ;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.6.2 Garage ceiling insulation meets or exceeds the R-value for mass floors from the "All Other" column of Table 502.2(1) of 2009 IECC.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Reduced Thermal Bridging	Yes	No	Not Verified²	N/A
The following items must be verified in the dwelling units being reviewed and 50% of common spaces where the condition is present:				
3.1 For insulated ceilings with attic space above (i.e., non-cathedralized), Grade I insulation extends to the inside face of the exterior wall below and is ≥ R-21 in CZ 1-5; ≥ R-30 in CZ 6-8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.2 For insulated ceilings with attic space above, attic access panels and drop-down stairs insulated ≥ R-10 or equipped with durable ≥ R-10 cover.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3 Insulation beneath attic platforms (e.g., HVAC platforms, walkways) ≥ R-21 in CZ 1-5; ≥ R-30 in CZ 6-8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Air Sealing (Unless otherwise noted below, "sealed" indicates the use of caulk, foam, or equivalent material)	Yes	No	Not Verified²	N/A
The following items must be verified in the dwelling units being reviewed and 50% of common spaces where the condition is present, to reduce air leakage to exterior, adjacent buildings, or unconditioned spaces:				
4.1 Bathroom & kitchen exhaust fans that penetrate unconditioned space sealed, with blocking / flashing as needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2 Recessed lighting fixtures adjacent to unconditioned space ICAT labeled and gasketed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.7 Doors adjacent to unconditioned space (e.g., attics, garages, basements) or ambient conditions made substantially air-tight with doorsweep and weatherstripping or equivalent gasket.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.8 Attic access panels, roof hatches and drop-down stairs are gasketed (i.e., not caulked) or equipped with durable covers that are gasketed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



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The following items must be additionally verified in the dwelling units being reviewed:	Yes	No	Not Verified ²	N/A
4.9 Doors serving as a unit entrance from a corridor/stairwell made substantially air-tight with doorsweep and weatherstripping or equivalent gasket.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.10 Measured compartmentalization is no greater than 0.30 CFM50 per square feet of dwelling unit enclosure area, following procedures in ANSI / RESNET / ICC Std. 380.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.10.1 For dwelling units with forced air distribution systems without ducted returns and located in a closet adjacent to unconditioned space, the measured pressure difference between the space containing the air handler and the conditioned space during the compartmentalization test is no greater than 5 Pa.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC System				
5. Heating & Cooling Equipment	Yes	No	Not Verified²	N/A
5.1 HVAC manufacturer & model number on installed equipment in the building matches either of the following: ⁴ <input type="checkbox"/> National HVAC Design Report <input type="checkbox"/> Written approval received from designer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-
5.5 Prescriptive: Heating and cooling equipment serving dwelling units and common spaces meet the efficiency levels specified in Exhibit X of the Rater Field Checklist. Electric resistance heating is not installed in dwelling units.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Controls	Yes	No	Not Verified²	N/A
5.8 All heating and cooling systems serving the dwelling units have thermostatic controls within the dwelling unit which are not located on exterior walls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.8.1 Prescriptive Path: Dwelling unit thermostats are programmable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.9 Stair and elevator shaft vents equipped with motorized dampers that are capable of being automatically closed during normal building operation and are interlocked to open as required by fire and smoke detection systems. Dampers are verified to be closed at the time of inspection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.10 Freeze protection systems, such as heat tracing of piping and heat exchangers, including self-regulating heat tracing, and garage / plenum heaters include automatic controls that are verified to shut off the systems when pipe wall or garage / plenum temperatures are above 40°F.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.10.1 Where heat tracing is installed for freeze-protection, controls must be based on pipe wall temperature and a minimum of R-3 pipe insulation is also required.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.11 Snow- and ice-melting systems include automatic controls that are verified to shut off the systems when the pavement temperature is above 50°F and no precipitation is falling, and an automatic or manual control is installed that is verified to shut off system when the outdoor temperature is above 40°F, so that the potential for snow or ice accumulation is negligible.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hydronic Distribution				
5.12 For hydronic distribution systems, all terminal heating and cooling distribution equipment are separated from the riser or distribution loop by a control valve or terminal distribution pump, so that heated or cooled fluid is not delivered to the dwelling unit distribution equipment when there is no call from the thermostat.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.13 In the dwelling units being reviewed, terminal units in hydronic distribution systems are equipped with pressure independent balancing valves or pressure independent control valves.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.15 For circulating pumps serving hydronic heating or cooling systems with three-phase motors, 1 horsepower or larger, motors meet or exceed efficiency standards for NEMA Premium™ motors. If 5 horsepower or larger, also installed with variable frequency drives.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Duct Quality Installation	Yes	No	Not Verified²	N/A
6.1 In the dwelling units being reviewed, ductwork installed without kinks, sharp bends, compressions, or excessive coiled flexible ductwork.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.2 Bedrooms with a design supply airflow ≥ 150 CFM (per Item 5.2 on the National HVAC Design Report) pressure-balanced (e.g., using transfer grilles, jump ducts, dedicated return ducts, undercut doors) to achieve a Rater-measured pressure differential ≥ -5 Pa and ≤ +5 Pa with respect to the main body of the dwelling unit when all air handlers are operating. See Footnote 46 of Rater Field Checklist for test configuration.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.3 In the dwelling units being reviewed, all visible supply and return ducts in unconditioned space, including connections to trunk ducts, are insulated to ≥ R-6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.3.1 Prescriptive Path: Dwelling unit ductwork meets the location and insulation requirements specified in the ENERGY STAR Multifamily Reference Design.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



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9. Filtration	Yes	No	Not Verified ²	N/A
9.1 In the dwelling units being reviewed, the ducted mechanical system serving that dwelling unit has a location for the filter that facilitates access and regular service by the occupant or building owner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.1.1 Filter access panel includes gasket and fits snugly against the exposed edge of filter when closed to prevent bypass.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.1.2 All return air and mechanically supplied outdoor air passes through filter prior to conditioning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Combustion Appliances	Yes	No	Not Verified ²	N/A
10.1 Furnaces, boilers, and water heaters located within the building's pressure boundary are mechanically drafted or direct-vented. If mechanically drafted, the minimum volume of combustion air required for safe operation by the manufacturer and/or code shall be met or exceeded and make-up air sources must be mechanically closed when the combustion appliance is not in operation. See alternatives in Footnote 70 of Rater Field Checklist. ⁴	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.2 In the dwelling units being reviewed and all applicable common spaces, fireplaces located within the building's pressure boundary are direct-vented.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.3 In the dwelling units being reviewed and all applicable common spaces, no unvented combustion appliances other than cooking ranges or ovens are located inside the building's pressure boundary. For cooking ranges and ovens, local mechanical exhaust per Rater Field Checklist Item 8.1 requirements must be met.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other				
11. Domestic Hot Water	Yes	No	Not Verified ²	N/A
11.1 Prescriptive Path: Hot water equipment rated in EF or UEF meet the efficiency levels specified in the ENERGY STAR Multifamily Reference Design. Boilers providing hot water are $\geq 85\%$ Et.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.3 For in-unit storage water heaters, AHRI Certificate confirms the presence of a heat trap.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.4 Where visible in the dwelling unit, DHW piping is insulated with a minimum of R-3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-
11.5 Measured delivery temperatures at faucets and showerheads do not exceed 125°F.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-
12. Lighting	Yes	No	Not Verified ²	N/A
12.1 Common Space Lighting Controls:				
12.1.1 Prescriptive Path: At least 50% of common spaces (including shared garages), except the building lobby and where automatic shutoff would endanger the safety of occupants, have occupancy sensors or automatic bi-level lighting controls installed and operation has been verified.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.1.2 ASHRAE path: At least 50% of common spaces (including parking garages), except the building lobby, corridors, and stairwells and where automatic shutoff would endanger the safety of occupants, have occupancy sensors or automatic bi-level lighting controls installed and operation has been verified.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.2 Common Space Lighting Power Density Maximum (except garages):				
12.2.1 Prescriptive Path: Rater-provided lighting power density calculations for the combined common spaces do not exceed ASHRAE 90.1-2007 allowances for those combined spaces, using the Space-by-Space or Building Area Method. For at least 50% of common spaces, the fixture counts, fixture wattage, and approximate square footage are confirmed. See Rater Field Checklist Footnote 68 for allowances.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.2.2 ASHRAE path: Rater-provided lighting power density calculations for the combined common spaces do not exceed ASHRAE 90.1-2007 allowances for those combined spaces, using the Space-by-Space or Building Area Method, by more than 20%. For at least 50% of common spaces, the fixture counts, fixture wattage, and approximate square footage are confirmed. See Rater Field Checklist Footnote 68 for allowances.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.3 Shared garages: Rater-provided lighting power density calculations do not exceed 0.24 W/ft ² . The fixture counts, fixture wattage, and approximate square footage are confirmed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.4 Exterior lighting controls: Fixtures, including parking lot fixtures, must include automatic switching on timers or photocell controls except fixtures intended for 24-hour operation, required for security, or located on dwelling unit balconies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.6 Prescriptive Path: In the dwelling unit(s) and in at least 50% of all exterior and common spaces, the lighting fixtures (i.e., dwelling units, common spaces, and exterior) meet the efficiency requirements in the ENERGY STAR Multifamily Reference Design.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.7 Prescriptive Path: Rater-provided lighting power density calculations for the dwelling unit do not exceed 0.75 W/ft ² . When calculating overall lighting power density, 1.1 W/ft ² was used where lighting is not installed. The fixture counts, fixture wattage, and approximate square footage are confirmed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



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13. Appliances, Ceiling Fans, and Plumbing Fixtures	Yes	No	Not Verified ²	N/A
13.1 Prescriptive Path: Installed appliances and plumbing fixtures in dwelling units and common spaces meet the criteria in the ENERGY STAR Multifamily Reference Design.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.3 Prescriptive Path: Shower compartments with multiple fixtures cannot be operated simultaneously OR the total flow rate per shower compartment does not exceed 1.75 gpm, as rated at 80 psi.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Whole Building Energy Consumption Data Acquisition Strategy	Yes	No	Not Verified ²	N/A
14.1 For buildings 50,000 ft ² and larger, if the strategy involves a meter or other item installed at the location, this device has been confirmed as a strategy that enables the collection of monthly or annual building-level energy consumption data (electricity, natural gas, chilled water, steam, fuel oil, propane, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MRO representative: _____
 Status of dwelling units at time of inspection (e.g., under construction, occupied): _____ Date of Inspection: _____

Rater Company Name: _____ Confirmed as ENERGY STAR Partner
 Pre-Drywall Inspection
 Rater Name: _____ Rater RTIN #: _____ Inspection Date: _____ MFNC Training Complete
 Final Inspection
 Rater Name: _____ Rater RTIN #: _____ Inspection Date: _____ MFNC Training Complete

Note: Additional checklist items may be inspected for quality insurance and included in the additional checklist items report.

Additional Checklist Items - Use this space to list additional Items reviewed (attach additional pages, if needed)						
Checklist Name	Item #	Notes	Yes	No	Not Verified ²	N/A
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Footnotes:

- Where documentation is not available, and active partnership cannot be verified, contact energystarhomes@energystar.gov to confirm.
- Where the checklist item cannot be verified because it is not visible, not accessible, cannot be tested, or other extenuating circumstances, the MRO representative shall mark the box in the column "Not Verified," and include an explanation in an attached document.
- While the MRO representative is not required to verify compliance with the insulation requirements in each common space, the MRO representative is required to review the ceiling insulation in at least one common space and floor insulation in at least one common space, if applicable.
- For Items 5.1, 5.5, 7.1, and 10.1 while the MRO representative is not required to verify compliance for each HVAC and ventilation system installed in the building, the MRO representative shall verify compliance for the systems serving the dwelling units being reviewed and in addition, shall verify compliance for a minimum of two systems that provide heating and/or cooling to a common space, and two systems that provide ventilation to a common space.
- For Items 7.3 and 8.3, while the MRO representative is not required to verify compliance with the ventilation requirements in each common space, the MRO representative is required to review the Rater-provided common space ventilation test results for compliance. The MRO representative is then required to directly measure ventilation airflows for the lesser of 5 or 20% of the reported values.