

Sustainability Navigator



What is required/recommended for 100 units, four stories wood frame, 1,000 sf gross/unit? ♦

	CODE BASELINE			BETTER PRACTICES			HIGH PERFORMANCE			REGENERATIVE!	
	IECC 2015 ▲	ASHRAE 90.1-2010	IECC 2015 ▲	Energy Star Multifamily New Construction (V1 in VA, V1.1 in MD, DC)@	Enterprise Green Communities (EGC) 2015 ■	LEED v4 Homes Multi-family Mid-rise Net Zero certification option, NZ-Emissions, energy, water, waste	Home Innovation Research Labs (NAHB) - NGBS 2012 (New Construction) ■	Viridian Earthcraft - Multi-Family V.5	Green Globes Multifamily New Construction, MF Existing Buildings (15% savings) or MF Performance Plus (25% savings)	Passive House PHius+ 2018 (w/ ZERH, Energy Star, and Indoor airPLUS)	Zero Carbon, Zero Energy, or CORE Green Building Certification (by the International Living Futures)
Energy Modeling (and/or ComCheck; Sustainability Consultant required)	N/A	N/A	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Onsite Energy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Optional points if selected	Zero Energy ready	Yes/Zero Ready/offsite
Third-party rater required	N/A	N/A	N/A	Yes	Yes (Energy Star required)	Yes	Yes	Yes (HERS)	Yes	Yes	Yes
Post construction verification	N/A	N/A	N/A	Yes Testing, however similar testing now code required so easier to achieve	Utility information from tenants required	Optional points	Optional points	12 months utility bills optional	Yes	Yes	Yes
Exterior-venting range hoods	No	No	Yes	Yes	Yes	Yes	No	Required for gas ranges only	No	Yes	Yes
Fresh air intake at apartments	Yes	Yes	Yes ♦	Yes ♦	Yes ♦	Yes ♦	Yes ♦	Yes ♦	Yes	Yes ♦	Yes
Split system SEER rating requirement and/or recommendation	SEER 13	SEER 13	SEER 15 ●	SEER 15 ●	SEER 15 ●	SEER 15 ●	SEER 15 ●	SEER 14	SEER 13#	SEER 20 ●	SEER 13#
LED lights bulb requirement and/or recommendation	No	No	Yes ●	Yes ●	Yes ●	Yes ●	Yes ●	Yes ●	Yes	Yes ●	Yes#
Fixture flow rates (Kit/Lav/Toilet/Shower) - Reference IPC 2015	2.2/2.2/1.6/2.5	N/A	1.8/1.5/1.28WS 2.0WS	N/A	2.0/1.5/1.28/2.0 (Optional points for lower rates)	Optional points for lower rates	Optional points for lower rates	Optional points for lower rates	Optional points if selected	N/A	50% improvement
Watersense (WS) labeled fixture requirements?	N/A	N/A	Some fixtures require the label	N/A	Yes to all	Optional points if selected	Optional points if selected	Optional points if selected	Optional points if selected	N/A	N/A
Blower door testing (check with code and/or program requirements for required thresholds)	Yes	Yes	Yes (IECC)	Yes (IECC)	Yes (IECC)	Yes (IECC)	Yes (IECC)	Yes	Yes	Yes (IECC)	N/A
Duct blaster testing (check with code and/or program requirements for required thresholds)	Yes	Yes	Yes (IECC)	Yes (IECC)	Yes (IECC)	Yes (IECC)	Yes (IECC)	Yes	Yes	Yes (IECC)	N/A
Commissioning of HVAC	Yes	N/A	Yes	Yes (IECC)	Yes (IECC)	Yes (IECC)	Yes (IECC)	Yes (IECC)	N/A	Yes (IECC)	N/A
Enhanced commissioning of HVAC	N/A	N/A	Yes	No	Optional points if selected	Optional points if selected	Optional points if selected	N/A	N/A	Yes	N/A
Roof insulation value requirement and/or recommendation	R-38	R-38	R-38 (IECC)	R-49 ●	R-49 ●	R-49 ●	R-49 ●	R-38 or greater ●	R-38	R-49 ●	N/A
Wood framed wall insulation value and/or exterior insulation requirements	R-20 or R13+3.8 c.i.	R-20 or R13+3.8 c.i.	R-20 or R13+3.8 c.i. (IECC)	Flash (2") and Batt (3.5") - R27 ●	Flash (2") and Batt (3.5") - R27 ●	Flash (2") and Batt (3.5") - R27 ●	Flash (2") and Batt (3.5") - R27 ●	R-13 or greater ●	R-20 or R13+3.8ci	R27 ● Blown Insulation w/ CI	N/A
GC forms and requirement complexity (1-5, 5 being most complex) ♣	N/A	N/A	2	2	2	3	3	3	3	3	3
Comparison cost of program certification fees ●	N/A	N/A	N/A	\$0	\$0	\$1,200/bldg registration + \$0.04/sf for cert. (~\$4,000)	\$600/bldg + \$30/unit = \$3,600	\$500 bldg + negotiated cert fee	\$6,458 (-\$0.065/sf)	\$160/unit +/- (based on ICFA)	\$250/\$900 bldg + \$4,400/ 9,500 cert

♦ Always consult your local county AHJ for additional requirements that may vary from this list

♣ We always encourage the use of a cost estimating firm or GC for additional assistance with sustainable program cost requirements and variations that may be present in any region

● These are recommended values, we also recommend the use of a sustainability consultant for additional information and the most up to date sustainable program requirements

■ EGC 2020 now out. EGC 2015 is acceptable to use prior to October 15, 2020. Talk to your sustainable consultant about the differences.

©ES Homes and ES Multifamily Highrise available until 7/1/2020

■ NGBS 2015 is now available as well. Talk to your sustainable consultant about the differences.

▲ Note, some jurisdictions are now starting to adopt the 2018 ICC codes. Talk to your architects and sustainable consultants about the differences.

baseline requirements but additional points for higher performance.



RESIDENTIAL + URBAN DESIGN

Sustainability Navigator



Baseline Information

The information in this document is based on the requirements for the following type of residential property:

- + 100 affordable new, wood frame-construction, four-story multi-family apartment units (R-2 occupancy, roughly 100,000 sf, 60/40 1-BD to 2-BD)
- + Slab on grade - gable roof
- + Climate zone 4 (Maryland/DC/VA)
- + 40% glazing - vinyl windows
- + Façade materials 50/50 of brick and fiber cement siding
- + NFPA 13R sprinkler system and one intermediate fire wall splitting the floors into less than 12,000 sf each
- + Electric split system mechanical units for apartments and common areas
- + Assume base level certification in each sustainable program
- + Typical amenity spaces including small fitness room, community room, lobby, and 75-80% residential efficiency
- + 2015 ICC code as baseline
- + Assumes current versions of the following sustainable certification programs as of February 2020



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Sustainable Design Guidelines

**for Multi-Family
Residential Properties**

Spring 2020 Update

