

Item Number	21 ICC Code Section	24 ICC Code Section	MN Code Section	Code Section Heading/ Code Topic	Current MN Amendment?	Description of change(s) to code language	Safety & Health Value?	Cost Impact?	Staff Recommendation: Accept/Amend/Delete	21 TAG Recommend: Accept/Amend	24 TAG Recommend: Accept/Amend	Comments:
					Y or N		N - None, L - Low					
1322-01	MR 1322.0010 Subp 1			General.	Y	Update reference to 2024 IECC, note sections 1101.6 through 1113.1.1 as opposed to chapters 2-5.			AM - Update reference to 2024.			
1322-02	MR 1322.0010 Subp 2			Mandatory chapters.	Y	Update reference to 2024 IECC, note sections 1101.6 through 1113.1.1 as opposed to chapters 2-5.			AM - Update reference to 2024.			
1322-03	MR 1322.0010 Subp 3			Replacement chapters.	Y				A - Adopt as written			
1322-04	MR 1322.0015 Subp 1			Administration.	Y				A - Adopt as written			
1322-05	MR 1322.0015 Subp 2			Purpose.	Y				A - Adopt as written			
1322-06	MR 1322.0030 Subp 1			Generally.	Y				A - Adopt as written			
1322-07	MR 1322.0030 Subp 2			Building code.	Y				A - Adopt as written			
1322-08	MR 1322.0030 Subp 3			Residential code.	Y				A - Adopt as written			
1322-09	MR 1322.0030 Subp 4			Electrical code.	Y				A - Adopt as written			
1322-10	MR 1322.0030 Subp 5			Fuel gas code.	Y				A - Adopt as written			
1322-11	MR 1322.0030 Subp 6			Mechanical code.	Y				A - Adopt as written			
1322-12	MR 1322.0030 Subp 7			Plumbing code.	Y				A - Adopt as written			
1322-13	MR 1322.0030 Subp 8			Private sewage disposal code.	Y				A - Adopt as written			
1322-14	MR 1322.0030 Subp 9			Energy conservation code.	Y				A - Adopt as written			
1322-15	MR 1322.0030 Subp 10			Property maintenance code.	Y				A - Adopt as written			
1322-16	MR 1322.0030 Subp 11			Accessibility code.	Y				A - Adopt as written			
1322-17	MR 1322.0040			Administrative procedure criteria.	Y				A - Adopt as written			
1322-18	MR 1322.0100 Subp 1			Administration.	Y				A - Adopt as written			

1322-19 (Code Change Submitted - RE-1)	MR 1322.0100 Subp 2			Scope.	Y	Change to: "This code applies to residential buildings and associated systems and equipment as defined in the Residential Provisions of the (code year and code book?). Consider repealing this altogether in favor of language in IECC "R401.1 Scope". Also could amend here to add reference to accessory buildings, which are presently difficult to track. Do we need reference to the code year and code book in the scoping? Review CCP RE-1. If the definition for "Residential Building" is changed per CCP RE-15, RE-1 is likely not necessary.			AM -			
1322-20	MR 1322.0100 Subp 3			Applicability.	Y	NA						
1322-21	MR 1322.0100 Subp 3A			Additions, alterations, renovations, or repairs.	Y	Section needs update in light of Chapter 5 Existing Buildings in '21 IECC (R503).			AM - now addressed in R502.			
1322-22	MR 1322.0100 Subp 3B			Change in occupancy or use.	Y	Section needs update in light of Chapter 5 Existing Buildings in '21 IECC (R505). Might not be needed.			AM - now addressed in R502.			
1322-23	MR 1322.0100 Subp 3C			Change in space conditioning.	Y	Section needs update in light of Chapter 5 Existing Buildings in '21 IECC (R502.2). Might not be needed.			AM - now addressed in R502.			
1322-24	MR 1322.0100 Subp 3D			Mixed occupancy.	Y	See also Section C101.4.1 in 2021 IECC-C for similar model code language. Might not be needed.			AM -			
1322-25	MR 1322.0100 Subp 4			Compliance.	Y				A - Adopt as written			
1322-26	MR 1322.0100 Subp 4A			Compliance materials.	Y				A - Adopt as written			
1322-27	MR 1322.0100 Subp 4B			Low energy buildings.	Y	Contain is nearly the same language in the IECC-R under Section R402.1. Also see proposed CCP RE-34			Repeal MN amendment.			
1322-28	MR 1322.0103		R103.2 R103.2.1	Construction documents.	Y	This section is nearly the same as section R103.2 with slight variation. "Energy compliance path" is added. Two items in the MN amendment are not in the IECC text: "Fan motor horsepower and controls" and "Lighting fixture schedule with wattage and control narrative". These two items have little to no application to Residential and are not needed. Suggest using the unamended model code language of R103.2 & R103.2.1 rather than the amended MN language.			Repeal MN amendment.			

Section 1												
	R101.2/R201.1	1101.1		Scope.								
	R101.3	1101.2		Intent.								
	R101.5.1	1101.3		Compliance materials.								
	R102.1.1	1101.4		Above code programs.								
		1101.5		Information on construction documents.								
		1101.5.1		Building thermal envelope depiction.								

		1101.5.2		Solar-ready system.								
		1101.6		Defined terms.								
202-1	R202		R202	Definition: Above-grade wall	N	Definitions are identical across codes, skip. "A wall more than 50 percent above grade and enclosing conditioned space. This includes between-floor spandrels, peripheral edges of floors, roof and basement knee walls, dormer walls, gable end walls, walls enclosing a mansard roof and skylight shafts."			A - Adopt as written	A		
202-2	R202		NA	MN Amended Definition: Accessible	Y	Definition is in MRE as a MN Amendment, not located in 2021 IECC. "Signifies access that requires the removal of an access panel or similar removeable obstruction."			Recommend to Repeal.	R		
202-3	R202		NA	MN Amended Definition: Accessible, Readily	Y	Definition is in MRE as a MN Amendment, not located in 2021 IECC. "Signifies access without the necessity for removing a panel or similar obstruction."			Recommend to Repeal.	A		
202-4	R202		R202	Definition: Access (to)	N	New definition - does not exist in the 2015 MRE. "That which enables a device, appliance or equipment to be reached by <i>ready access</i> or by a means that first requires the removal or movement of a panel or similar obstruction."				A		Definitions should not include the word they are defining. "Ready Access" is also a defined term which does not include the word "access."
202-5	R202		R202	Definition: Addition	N	Definition is in the 2015 MRE as model code language, but the language has been updated in the 2021 IECC. "An extension or increase in the conditioned space floor area, number of stories or height of a building or structure."				A		We may be coming back to this regarding addition as a change from unconditioned space to conditioned space. Especially with Residential and Multi-family
	N1101.6		N1101.6	Definition: Addition	N	2024 Changed language. ADDITION. An extension or increase in the conditioned space floor area, number of stories or height of a building or structure .			A - Adopt as written			
202-6	R202		R202	Definition: Air barrier	N	Definition is in the 2015 MRE as model code language, but the language has been updated in the 2021 IECC. "One or more materials joined together in a continuous manner to restrict or prevent the passage of air through the building thermal envelope and its assemblies."			A - Adopt as written	A		
202-7	R202		NA	MN Amended Definition: Air circulation, forced	Y	Definition is in MRE as a MN Amendment, not located in 2021 IECC. "A means of providing space conditioning using movement of air through ducts or plenums by mechanical means."				A		Table and consider removing after review of 403
	N1101.6		N1101.6	MN Amended Definition: Air circulation, forced	Y	Definition is in MRE as a MN Amendment, not located in IRC chapter 11 "A means of providing space conditioning using movement of air through ducts or plenums by mechanical means."			Repeal		Repeal	
202-8	R202		NA	MN Amended Definition: Air, exhaust	Y	Definition is in MRE as a MN Amendment, not located in 2021 IECC. "Air discharged from any space to the outside by the residential ventilation system."				Repeal		
	N1101.6		N1101.6	MN Amended Definition: Air, exhaust		Definition is in MRE as a MN Amendment, not located in IRC Chapter 11 "Air discharged from any space to the outside by the residential ventilation system."			Repeal		Repeal	
202-9	R202		NA	MN Amended Definition: Air, outdoor	Y	Definition is in MRE as a MN Amendment, not located in 2021 IECC. "The air that is taken from the external atmosphere, and therefore not previously circulated through the HVAC system or the conditioned space."				AM		unamended in MN Mechanical code. Consider defining outside as outdoor, beyond the building envelope.
	N1101.6		N1101.6	MN Amended Definition: Air, outdoor		Definition is in MRE as a MN Amendment, not located in IRC Chapter 11. "The air that is taken from the external atmosphere, and therefore not previously circulated through the HVAC system or the conditioned space."			Repeal		Repeal	

202-10	R202		NA	MN Amended Definition: Air-conditioning system	Y	Definition is in MRE as a MN Amendment, not located in 2021 IECC. "A system that consists of heat exchangers, blowers, filters, and supply, exhaust, and return-air systems and includes any apparatus installed in connection with the system."				Repeal		Includes HRV's and ERV's. Will include definition of ventilation. Model mechanical code. Will need a robust conversation regarding ventilation.
	N1101.6		N1101.6	MN Amended Definition: Air-conditioning system		Definition is in MRE as a MN Amendment, not located in 2021 IECC. "A system that consists of heat exchangers, blowers, filters, and supply, exhaust, and return-air systems and includes any apparatus installed in connection with the system."			Repeal		Repeal	
	N1101.6		N1101.6	Definition: Air- handling unit	N	New Definition in IRC Chapter 11: AIR-HANDLING UNIT. A blower or fan used for the purpose of distributing supply air to a room, space or area.			A -Adopt as written		Repeal	
202-11	R202		NA	Definition: Alteration	N	Definition is in the 2015 MRE as model code language, but the language has been updated in the 2021 IECC. "Any construction or renovation to an existing structure other than repair or addition that requires a permit. Also, a change in a mechanical system that involves an extension, addition or change to the arrangement, type or purpose of the original installation that requires a permit."			A - Adopt '24 language (same as '21).	Amend to match second printing		
202-12	R202		NA	MN Amended Definition: Approved	Y	Term is in both codes but definition in MRE is a MN Amendment. ""Approved"" means approval by the building official, pursuant to the State Building Code, by reason of: inspection, investigation, or testing; accepted principles; computer simulations; research reports; or testing performed by either a licensed engineer or by a locally or nationally recognized testing laboratory."				Repeal		
202-13	R202		R202	Definition: Approved Agency	N	New definition - does not exist in the 2015 MRE. "An established and recognized agency that is regularly engaged in conducting tests or furnishing inspection services, or furnishing product certifications, where such agency has been approved by the code official."			A - Adopt as written	A		
				Approved Source					A - Adopt		Adopt	
202-14	R202		R202	Definition: Automatic	N	Definitions are identical in MRE & IECC. Self-acting, operating by its own mechanism when actuated by some impersonal influence, as, for example, a change in current strength, pressure, temperature or mechanical configuration (see "Manual").			A - Adopt as written	A		No Change from '21 to '24.
	N1101.6		N1101.6	Definition: Automatic Shutoff Control		New definition in IRC Chapter 11: AUTOMATIC SHUTOFF CONTROL. A device capable of automatically turning loads off without manual intervention. Automatic shutoff controls include devices such as, but not limited to, occupancy sensors, vacancy sensors, door switches, programmable time switches (i.e., timeclocks) or count-down timers.			A - Adopt as written		Accept	

202-15 (Alternate Definition Submitted)	R202		NA	MN Amended Definition: Balanced System	Y	Definition is in MRE as a MN Amendment, not located in 2021 IECC. "A ventilation system in which the air intake is within ten percent of the exhaust output."		AM - Amend Def not in IECC. Look at Mech and IECC - C	AM		Has been an issue. May need to add clarifying language. Does this include exhaust, air intake, ventilation air? Does this include all air introduced into the building and all air being discharged? Look at SONAR from previous amendment. John Smith will write a code change proposal. Ensure that balanced air can not be interpreted as distribution in to spaces. Caution regarding measurement of pressure in lieu of measuring airflow rates. Look at definition of "ventilation" in the IMC. Intent is that this is for mechanical ventilation and from the mechanical code.- Tabled.
202-15 (Alternate Definition Submitted)	N1101.6		N1101.6	MN Amended Definition: Balanced System	Y	Definition is changed in the 2024 IRC Chapter 11		Not needed		Repeal	
	N1101.6		N1101.6	Definition: Balanced Ventilation System	N	New definition in the 2024 IRC Chapter 11. A ventilation system that simultaneously supplies outdoor air to and exhausts air from a space, where the mechanical supply airflow rate and the mechanical exhaust airflow rate are each within 10 percent of the average of the two airflow rates	.	Differing definitions in IRC and IMC as amended		Accept	
202-16	R202		R202	Definition: Basement wall	N	Definitions are identical across codes. "A wall 50 percent or more below grade and enclosing conditioned space."		A - Adopt as written	A		
	N1101.6		N1101.6	Definition: Biodiesel Blend	N	New definition in the 2024 IRC Chapter 11: BIODIESEL BLEND. A homogeneous mixture of hydrocarbon oils and mono alkyl esters of longchain fatty acids.		A - Adopt as written		Accept	
202-17	R202		R202	Definition: Building	N	Definitions are identical across codes. "Any structure used or intended for supporting or sheltering any use or occupancy, including any mechanical systems, service water-heating systems and electric power and lighting systems located on the building site and supporting the building."		A - Adopt as written	A		
202-18	R202		R202	Definition: Building site	N	Definitions are identical across codes. "A contiguous area of land that is under the ownership or control of one entity."		A - Adopt as written	A		
202-19	R202		R202	Definition: Building thermal envelope	N	Definition has been updated in the '21, but identical in the '24. "The basement walls, exterior walls, floors, ceiling, roofs and any other building element assemblies that enclose conditioned space or provide a boundary between conditioned space and exempt or unconditioned space."		A - Adopt as written	A		
202-20	R202		NA	Definition: C-Factor (thermal conductance)	N	Definition is in 2015 MRE as unamended model code language and does not exist in 2021 IECC. "The coefficient of heat transmission (surface to surface) through a building component or assembly, equal to the time rate of heat flow per unit area and the unit temperature difference between the warm side and cold side surfaces (Btu/h ft2 × °F) [W/(m2 × K)]."			A		No longer occurs in the code language.
202-21	R202		R202	Definition: Cavity Insulation	N	New definition not in the 2015 MRE, no change in the '24. "Insulating material located between framing members."		A - Adopt as written	A		

202-22	R202		R202	Definition: Circulating hot water system	N	New definition not in the 2015 MRE, no change in the '24. "A specifically designed water distribution system where one or more pumps are operated in the service hot water piping to circulate heated water from the water-heating equipment to the fixtures and back to the water-heating equipment."		A - Adopt as written	A		Confirm for both potable and non-potable water? Potable hot water only.
202-23	R202		R202	Definition: Climate Zone	N	New definition not in the 2015 MRE, no change in the '24. "A geographical region based on climatic criteria as specified in this code."		A - Adopt as written	A		
202-24	R202		R202	MN Amended Definition: Code	N	Definition is in MRE as a MN Amendment, not located in 2021 IECC. "For purposes of this chapter, "this code" or "the code" means the Minnesota Residential Energy Code, Minnesota Rules, Chapter 1322."		Keep amendment and reference to 1322.	A		
202-25	R202		R202	Definition: Code official	N	Definitions are identical in MRE & IECC. "The officer or other designated authority charged with the administration and enforcement of this code, or a duly authorized representative."		A - Adopt as written	A		
	N1101.6		N1101.6	Definition: Code official	N	The definition does not exist in the 2024 IRC Chapter 11		Keep amendment		Keep - review with '24 online code.	
202-26	R202		R202	Definition: Commercial building	N	Definitions are identical in '15 MRE & '21, not in '24. Not needed, commercial is not in the scope of the doc. "For this code, all buildings that are not included in the definition of "Residential building.""		Not needed	A		
	N1101.6		N1101.6	Definition: Common areas		New definition in the 2024 IRC Chapter 11: COMMON AREAS. All conditioned spaces within Group R occupancy buildings that are not dwelling units or sleeping units		A - Adopt as written		Accept	
202-27	R202		R202	Definition: Conditioned floor area	N	Definitions are identical across codes. "The horizontal projection of the floors associated with the conditioned space."		A - Adopt as written	a		
202-28	R202		R202	Definition: Conditioned space	N	Definition is in the 2015 MRE as model code language, but the language has been updated in the '21, and again in the '24. No substantive changes. "An area, room or space that is enclosed within the building thermal envelope and that is directly or indirectly heated or cooled. Spaces are indirectly heated or cooled where they communicate through openings with conditioned spaces, where they are separated from conditioned spaces by uninsulated walls, floors or ceilings, or where they contain uninsulated ducts, piping or other sources of heating or cooling."		A - Adopt as written	A		
	N1101.6		N1101.6	Definition: Construction Documents		New definition in 2024 IRC Chapter 11: CONSTRUCTION DOCUMENTS. Written, graphic and pictorial documents prepared or assembled for describing the design, location and physical characteristics of the elements of a project necessary for obtaining a building permit .		A - Adopt as written		Accept	
202-29	R202		R202	Definition: Continuous air barrier	N	Definitions are identical across codes. "A combination of materials and assemblies that restrict or prevent the passage of air through the building thermal envelope."		A - Adopt as written	A		
202-30	R202		R202	Definition: Continuous insulation	N	New definition in '21, same in '24. "Insulating material that is continuous across all structural members without thermal bridges other than fasteners and service openings. It is installed on the interior or exterior, or is integral to any opaque surface of the building envelope."		A - Adopt as written	A		
	N1101.6		N1101.6	Definition: Continuous Pilot	N	New definition in the 2024 IRC Chapter 11: CONTINUOUS PILOT. A pilot which, once placed in operation, is intended to remain ignited continuously until it is manually interrupted.		A - Adopt as written		Accept	

202-31	R202		R202	Definition: Crawl space wall	N	Definition is the same across codes (def is not in 1st printing of '21, but is in 2nd printing). "The opaque portion of a wall that encloses a crawl space and is partially or totally below grade."		A - Adopt as written	Amend to match second printing		Added back into the second printing.
202-32	R202		NA	Definition: Cubic feet per minute (CFM)	Y	Definition is in MRE as a MN Amendment, not located in 2021 IECC. "The quantity of air moved in one minute. A measurement typically applied to ventilation equipment."		Repeal, not needed.	Repeal		Change "Quantity" to Volume.
202-33	R202		R202	Definition: Curtain wall	N	Definitions are identical across codes. "Fenestration products used to create an external nonload-bearing wall that is designed to separate the exterior and interior environments."		A - Adopt as written	A		
	N1101.6		N1101.6	Definition: Damper	N	New definition is in the 2024 IRC Chapter 11: A manually or automatically controlled device to regulate draft or the rate of flow of air or combustion gases.		A - Adopt as written		Accept	
202-34	R202		R202	Definition: Demand Recirculation Water System	N	Definition is in the 2015 MRE as model code language, updated in the 2021 IECC, minor change in '24, no substantive change. "A water distribution system where <u>one or more</u> pumps prime the service hot water piping with heated water upon demand for hot water."		A - Adopt as written	A		
	N1101.6		N1101.6	Definition: Demand Response Signal	N	New definition is in the 2024 IRC Chapter 11: A signal that indicates a price or a request to modify electricity consumption for a limited time period.		A - Adopt as written		Accept	
	N1101.6		N1101.6	Definition: Demand Responsive Control	N	New definition is in the 2024 IRC Chapter 11: A control capable of receiving and automatically responding to a demand response signal.		A - Adopt as written		Accept	
202-35	R202		R202	Definition: Dimmer	N	New definition in '21, same in '24. "A control device that is capable of continuously varying the light output and energy use of light sources."		A - Adopt as written	A		
	N1101.6		N1101.6	Definition: Distribution System Efficiency (DSE)	N	New definition is in the 2024 IRC Chapter 11: A system efficiency factor that adjusts for the energy losses associated with delivery of energy from the equipment to the source of the load.		A - Adopt as written		Accept	
202-36	R202		R202	Definition: Duct	N	Definitions are identical across codes. "A tube or conduit utilized for conveying air. The air passages of self-contained systems are not to be construed as air ducts."		A - Adopt as written	A		
	N1101.6		N1101.6	Definition: Duct Airflow Balancing	N	New definition is in the 2024 IRC Chapter 11: The measurement and adjustment of the delivered airflow to the intended locations.		A - Adopt as written		Accept	
202-37	R202		R202	Definition: Duct system	N	Definitions are identical in MRE & IECC. "A continuous passageway for the transmission of air that, in addition to ducts, includes duct fittings, dampers, plenums, fans and accessory air-handling equipment and appliances."		A - Adopt as written	A		
	N1101.6		N1101.6	Definition: Duct System	N	New definition in the 2024 IRC Chapter 11. A system that consists of space conditioning equipment and ductwork , and includes any apparatus installed in connection therewith.		A - Adopt as written		Accept	

	N1101.6		N1101.6	Definition: Ductwork	N	New definition in the 2024 IRC Chapter 11. DUCTWORK. The assemblies of connected ducts , plenums, boots, fittings, dampers , supply registers, return grilles and filter grilles through which air is supplied to or returned from the space to be heated, cooled or ventilated. Supply ductwork delivers air to the spaces from the space conditioning equipment . Return ductwork conveys air from the spaces back to the space conditioning equipment . Ventilation ductwork conveys air to or from any space.		A - Adopt as written		Accept	
202-38	R202		R202	Definition: Dwelling unit	N	Definitions are identical across codes. "A single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation."		A - Adopt as written	A		
202-39	R202		R202	Definition: Dwelling Unit Enclosure Area	N	New definition - does not exist in the 2015 MRE. "The sum of the area of ceiling, floors, and walls separating a dwelling unit's conditioned space from the exterior or from adjacent conditioned or unconditioned spaces. Wall height shall be measured from the finished floor of the dwelling unit to the underside of the floor above."		A - Adopt as written	AM		Consider modifying language to address interstitial wall space between units. Centerline of wall between units? Blower door testing application? Need to verify. Term changed to Testing Unit Enclosure Area in '24, this term is not needed.
202-39	R202		R202	Definition: Dwelling Unit Enclosure Area	N	Definition changed in the 2024 IRC Chapter 11. New definition located as Testing Unit Enclosure Area		A - Adopt as written	AM		Consider modifying language to address interstitial wall space between units. Centerline of wall between units? Blower door testing application? Need to verify.
	N1101.6		N1101.6	Definition: Dwelling Unit Enclosure Area	N	Definition deleted in the 2024 IRC Chapter 11		Not needed		Delete	
	N1101.6		N1101.6	Definition: Emittance	N	New definition in the 2024 IRC Chapter 11. The ratio of the radiant heat flux emitted by a specimen measured on a scale from 0 to 1, where a value of 1 indicates perfect release of thermal radiation .		A - Adopt as written		Accept	
	N1101.6		N1101.6	Definition: Enclosed Reflective Airspace	N	New definition in the 2024 IRC Chapter 11. An unventilated cavity with a low-emittance surface bounded on all sides by building components.		A - Adopt as written		Accept	
202-40	R202		R202	Definition: Energy analysis	N	Definitions are identical across codes. "A method for estimating the annual energy use of the proposed design and standard reference design based on estimates of energy use."		A - Adopt as written	A		
202-41	R202		R202	Definition: Energy cost	N	Definitions are identical across codes. "The total estimated annual cost for purchased energy for the building functions regulated by this code, including applicable demand charges."		A - Adopt as written	A		
	N1101.6		N1101.6	Definition: Energy Rating Index (ERI)	N	New definition in the 2024 IRC Chapter 11. A numerical integer value that represents the relative energy performance of a rated design or constructed dwelling unit as compared with the energy performance of the ERI Reference Design , where an ERI value of 100 represents the energy performance of the ERI Reference Design and an ERI value of 0 represents a rated design or constructed dwelling unit with zero net energy performance.		A - Adopt as written		Accept	

202-42	R202		NA	MN Amended Definition: Energy Recovery Ventilator (ERV)	Y	Definition is in MRE as a MN Amendment, not located in 2021 IECC. "A device or combination of devices applied to transfer energy and moisture from the exhaust air stream for use within the dwelling."				AM		Energy Recovery Ventilation System is in Mechanical Code.
202-43	R202		R202	Definition: Energy Simulation Tool	N	Definitions are identical across codes. "An approved software program or calculation-based methodology that projects the annual energy use of a building."			A - Adopt as written	A		Building Official is the approver by definition of "Approved"
202-44	R202		R202	Definition: Entrance door	N	Definition is in 2015 MRE as unamended model code language and does not exist in '21 or '24 IECC. "Fenestration products used for ingress, egress and access in nonresidential buildings, including, but not limited to, exterior entrances that utilize latching hardware and automatic closers and contain over 50-percent glass specifically designed to withstand heavy use and possibly abuse."			Not needed.	Amend to delete		
202-45	R202		R202	Definition: ERI Reference Design	N	New definition in '21, unchanged in '24. "A version of the rated design that meets the minimum requirements of the 2006 IECC."			A - Adopt as written, I don't think we want to change the definition unless we amend the backstop of the ERI pathway.	A		Scale is base-lined at 2006. Different iterations of IECC have updated definitions of design for ERI Pathway. May be problems with 2021. Just as HERS got updated in 2024...we should not just adopt as is...we should look at new definitions. Review in tandem with "Rated Design".
	N1101.6		N1101.6	Definition: Existing Building		New definition in the 2024 IRC Chapter 11. A building erected prior to the date of adoption of the appropriate code, or one for which a legal building permit has been issued.			A - Adopt as written		Accept	
202-46	R202		R202	Definition: Exterior wall	N	Definitions are identical across codes. "Walls including both above-grade walls and basement walls."				A		
202-47	R202		R202	Definition: Fenestration	N	Definition has been updated in the '21, and is unchanged in '24 IECC. "Products classified as either vertical fenestration or skylights. Skylights. Glass or other transparent or translucent glazing material installed at a slope of less than 60 degrees from horizontal including unit skylights, tubular daylighting devices, and glazing materials in solariums, sunrooms, roofs and sloped walls. Vertical Fenestration: Windows that are fixed or operable, opaque doors, glazed doors, glazed block and combination opaque/glazed doors composed of glass or other transparent or translucent glazing materials and installed at a slope of not less than 60 degrees from horizontal."			A - Adopt as written	A		
202-48	R202		R202	Definition: Fenestration product, site-built	N	Definitions are identical across codes. "A fenestration designed to be made up of field-glazed or field-assembled units using specific factory cut or otherwise factory-formed framing and glazing units. Examples of sitebuilt fenestration include storefront systems, curtain walls and atrium roof systems."			A - Adopt as written	A		

202-49	R202		R202	Definition: F-Factor	N	Definition is in 2015 MRE as unamended model code language and does not exist in 2021 IECC. "The perimeter heat loss factor for slab-on-grade floors (Btu/h × ft × °F) [W/(m × K)]."		A - Adopt as written	A		
	N1101.6		N1101.6	Definition: F-Factor (Thermal Transmittance)	N	Definition is the same in 2024 Model Code as old F-Factor definition. "The perimeter heat loss factor for slab-on-grade floors (Btu/h × ft × °F) [W/(m × K)]."		Delete amended definition for F-Factor and Adopt as written	A	Accept	
	N1101.6		N1101.6	Definition: Fuel Gas	N	New definition in the 2024 IRC Chapter 11. A natural gas, manufactured gas, liquified petroleum gas or a mixture of these.		A - Adopt as written		Accept	
	N1101.6		N1101.6	Definition: Fuel Oil		New definition in the 2024 IRC Chapter 11. Kerosene or any hydrocarbon oil having a flash point not less than 100°F (38°C).		A - Adopt as written		Accept	
	N1101.6		N1101.6	Definition: Grade Plane		New definition in the 2024 IRC Chapter 11. A reference plane representing the average of the finished ground level adjoining the building at all exterior walls. Where the finished ground level slopes away from the exterior wall, the reference plane is established by the lowest points within the area between the building and the lot line or, where the lot line is more than 6 feet (1829 mm) from the building between the structure and a point 6 feet (1829 mm) from the building.		A - Adopt as written		Accept	
	N1101.6		N1101.6	Definition: Heat Exchanger		New definition in the 2024 IRC Chapter 11. A device that transfers heat from one medium to another.		A - Adopt as written		Accept	
202-50	R202		NA	MN Amended Definition: Furnace	N	Definition is in MRE as a MN Amendment, not located in 2021 IECC. "A vented heating appliance designed or arranged to discharge heated air into a conditioned space or through a duct or ducts."		Repeal MN amendment.	AM	Repeal	Definition found in the mechanical code. Use MN amended definition or unamended mechanical code definition in 2020 MMC?
202-51	R202		NA	MN Amended Definition: Heat recovery ventilator (HRV)	Y	Definition is in MRE as a MN Amendment, not located in 2021 IECC. "A device or combination of devices applied to transfer energy from the exhaust air stream for use within the dwelling."		Repeal MN amendment. (getting rid of ERV definition also)	AM	Repeal	Look to definition of ERV and eliminate references to humidity.
202-52	R202		R202	Definition: Heated slab.	N	Definitions are identical across codes. "Slab-on-grade construction in which the heating elements, hydronic tubing, or hot air distribution system is in contact with, or placed within or under, the slab."			A		
202-53	R202		R202	Definition: High Efficacy Light Sources	N	Definition is in the 2015 MRE as model code language, but the term and definition has been updated in the 2021 IECC. Compact fluorescent lamps, light-emitting diode (LED) lamps, T-8 or smaller diameter linear fluorescent lamps or other lamps with an efficacy of not less than 65 lumens per watt, or luminaires with an efficacy of not less than 45 lumens per watt.		A - Adopt as written	AM		Match the second printing of the first edition.
	N1101.6		N1101.6	Definition: High Efficacy Light Sources	N	Definition does not exist in the 2024 IRC Chapter 11		Not needed. Section 1104 sets the criteria.		Repeal	
202-54	R202		R202	Definition: Historic Building	N	New definition in '21, unchanged in '24. "Any building or structure that is one or more of the following: 1) Listed or certified as eligible for listing by the State Historic Preservation Officer or the Keeper of the National Register of Historic Places, in the National Register of Historic Places. 2) Designated as historic under an applicable state or local law. 3) Certified as a contributing resource within a National Registered-listed, state-designated or locally designated historic district."		Delete		Delete for reason that it exists in 1300.	TAG will discuss the current definition in MR 1300, TAG wants definitions to match.

202-55	R202		R202	Definition: Infiltration	N	Definitions are identical across codes. "The uncontrolled inward air leakage into a building caused by the pressure effects of wind or the effect of differences in the indoor and outdoor air density or both."		A - Adopt as written	A		
202-56	R202		R202	Definition: Insulated siding	N	New definition in '21, unchanged in '24. "A type of continuous insulation with manufacturer-installed insulating material as an integral part of the cladding product having an R-value of not less than R-2."		A - Adopt as written	A		
202-57	R202		R202	Definition: Insulating sheathing	N	Definition are in all 3 codes, slightly updated in '21, unchanged in '24. "An insulating board with a core material having a minimum R-value of R-2."		A - Adopt as written	A		Have definition for continuous insulation, not needed.
	N1101.6		N1101.6	Definition: Intermittent Ignition	N	New definition in the 2024 IRC Chapter 11. Type of ignition that is energized when an appliance is called on to operate and that remains continuously energized during each period of main burner operation and where the ignition is deenergized when the main burner operating cycle is completed.		A - Adopt as written		Accept	
	N1101.6		N1101.6	Definition: Interrupted Ignition	N	New definition in the 2024 IRC Chapter 11. Type of ignition that is energized prior to the admission of fuel to the main burner and that is deenergized when the main flame is established.		A - Adopt as written		Accept	
	N1101.6		N1101.6	Definition: Knee Wall	N	New definition in the 2024 IRC Chapter 11. An above-grade wall assembly, or wall defined by vertical truss members, of any height that separates conditioned space from unconditioned buffer spaces, such as ventilated attics and entry porch roofs, rather than ambient outdoors.		A - Adopt as written		Accept	
202-58	R202		R202	Definition: Labeled	N	Definition has been updated in the '21, unchanged in the '24. "Equipment, materials or products to which have been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, approved agency or other organization concerned with product evaluation that maintains periodic inspection of the production of such labeled items and whose labeling indicates either that the equipment, material or product meets identified standards or has been tested and found suitable for a specified purpose."		A - Adopt as written	A		
	N1101.6		N1101.6	Definition: Liquid Fuel	N	New definition in the 2024 IRC Chapter 11. A fuel oil or biodiesel blend.		A - Adopt as written		Accept	
202-59	R202		R202	Definition: Listed	N	Definitions are identical across codes. "Equipment, materials, products or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services and whose listing states either that the equipment, material, product or service meets identified standards or has been tested and found suitable for a specified purpose."		A - Adopt as written	A		
202-60	R202		R202	Definition: Low-voltage lighting	N	Definitions are identical in MRE & IECC. Not in '24. "Lighting equipment powered through a transformer such as a cable conductor, a rail conductor and track lighting."		Not needed.	A		
	N1101.6		N1101.6	Definition: Low-voltage lighting	N	Definition does not exist in the 2024 IRC Chapter 11		Not needed	A	Delete	
	N1101.6		N1101.6	Definition: Living Space	N	New definition in the 2024 IRC Chapter 11. Space within a dwelling unit utilized for living, sleeping, eating, cooking, bathing, washing and sanitation purposes.		A - Adopt as written		Accept	
	N1101.6		N1101.6	Definition: Low Slope	N	New definition in the 2024 IRC Chapter 11. A roof slope less than 2 units vertical in 12 units horizontal (17 percent slope).		A - Adopt as written		Accept	

202-61	R202		R202	Definition: Manual	N	Definitions are identical across codes. "Capable of being operated by personal intervention (see "Automatic")."		A - Adopt as written	A		
202-62	R202		NA	MN Amended Definition: Manufacturer's Installation Instructions	Y	Definition is in MRE as a MN Amendment, not located in 2021 IECC. "Printed instructions included with equipment, the provision of which is one of the conditions for listing and labeling."		AM - Keep MN Definition?? Is this necessary?	A	Repeal	Keep current amended language and evaluate before finalizing. Consider changing or removing the word "printed".
202-63	R202		NA	MN Amended Definition: Mechanical ventilation	Y	Definition is in MRE as a MN Amendment, not located in 2021 IECC. "The mechanical process of supplying conditioned or unconditioned air to, or removing it from, any space."		A - Adopt as written		Repeal	Revisit amended definition
202-63	R202		NA	MN Amended Definition: Mechanical ventilation	Y	Definition is in MRE as a MN Amendment, not located in 2021 IECC. "The mechanical process of supplying conditioned or unconditioned air to, or removing it from, any space."		Not needed as ventilation is now found in the IRC mechanical provisions		Repeal	Revisit amended definition
202-64	R202		R202	Definition: Occupant sensor control	N	New definition in '21, unchanged in '24. "An automatic control device that detects the presence or absence of people within an area and causes the lighting, equipment or appliances to be regulated accordingly."		A - Adopt as written	A		
	N1101.6		N1101.6	Definition:Occupiable Space	N	New definition in the 2024 IRC Chapter 11. An enclosed space intended for human activities, excluding those spaces intended primarily for other purposes, such as storage rooms and equipment rooms, that are only intended to be occupied occasionally and for short periods of time.		A - Adopt as written		Accept	
	N1101.6		N1101.6	Definition: On-Demand Pilot	N	New definition in the 2024 IRC Chapter 11. A pilot that, once placed into operation, is intended to remain ignited for a predetermined period of time following an automatic or manual operation of the main burner gas valve, after which the pilot is automatically extinguished when no automatic or manual operation of the main burner gas valve occurs during the predetermined period of time.		A - Adopt as written		Accept	
202-65	R202		R202	Definition: On-Site Renewable Energy	N	New definition in '21, unchanged in '24. "Energy from renewable energy resources harvested at the building site."		A - Adopt as written	A		
202-66	R202		R202	Definition: Opaque door	N	New definition in '21, unchanged in '24. "A door that is not less than 50 percent opaque in surface area."		A - Adopt as written	A		
REVISIT	N1101.6		N1101.6	Definition: Plenum	N	New definition in the 2024 IRC Chapter 11. An enclosed portion of the building structure , other than an occupiable space being conditioned, that is designed to allow air movement and thereby serve as part of the supply or return ductwork .		A - Adopt as written		Table, review with code section	
202-67	R202		NA	MN Amended Definition: Proposed design	Y	Definitions are identical in MRE & IECC. "A description of the proposed building used to estimate annual energy use for determining compliance based on total building performance."			AM		Amend to add-in per second printing.
202-67			N1101.6	Definition: Proposed Design	Y	New definition in the 2024 IRC Chapter 11. A description of the proposed dwelling unit used to estimate annual energy use for determining compliance based on simulated building performance.		A - Adopt as written		Accept	
			N1101.6	Definition: Radiant Barrier	N	New definition in the 2024 IRC Chapter 11. A material having a low emittance surface of 0.1 or less installed in building assemblies.		A - Adopt as written		Accept	

202-68	R202		R202	Definition: Rated Design	N	New definition in '21, unchanged in '24. "A description of the proposed building used to determine the energy rating index."		A - Adopt as written	A	Need to add definition for Energy Rating Index. Is referenced in the book index...so it may be somewhere. Review in tandem with "ERI Reference Design" definition. "Rated Design" mentions energy rating index in the definition. Section 406 addresses the ERI Compliance Alternative.
202-69	R202		R202	Definition: Ready Access (to)	N	New definition in '21, unchanged in '24. "That which enables a device, appliance or equipment to be directly reached without requiring the removal or movement of any panel or similar obstruction."		A - Adopt as written	A	Matches mechanical code.
			N1101.6	Definition: Reflective Insulation	N	New definition in the 2024 IRC Chapter 11. A material with a surface emittance of 0.1 or less in an assembly consisting of one or more enclosed reflective airspaces.		A - Adopt as written	Accept	
202-70	R202		R202	Definition: Renewable Energy Certificate (REC)	N	New definition in '21, updated in '24 - see next sheet entry. "An instrument that represents the environmental attributes of one megawatt hour of renewable energy, also known as an energy attribute certificate (EAC)."		A - Adopt as written		Recommendation to discuss. Has been a topic in the 2024 IECC. Will it include utility programs? Time period associated with the REC offsets? We should flag where it shows up in the code as an option or requirement. **Shows up in Section R406.7.3.
	R202		R202	Definition: Renewable Energy Certificate (REC)	N	Revised definition in the 2024 IRC Chapter 11. A market-based instrument that represents and conveys the environmental attributes of 1 megawatt hour of renewable electricity generation and could be sold separately from the underlying physical electricity associated with renewable energy resources ; also known as an energy attribute certificate (EAC).		A - Adopt as written	Accept	
202-71	R202		R202	Definition: Renewable Energy Resources	N	New in '21, unchanged in '24. "Energy derived from solar radiation, wind, waves, tides, landfill gas, biogas, biomass, or extracted from hot fluid or steam heated within the earth."		A - Adopt as written		Do we want to limit this to options for buildings? See also "On-site renewable energy".
202-72	R202		R202	Definition: Repair	N	Definition is in the 2015, updated in the 2021, unchanged in '24. "The reconstruction or renewal of any part of an existing building."				
202-73	R202		R202	Definition: Reroofing	N	New definition in '21, unchanged in '24. "The process of recovering or replacing an existing roof covering. See "Roof recover" and "Roof replacement."		A - Adopt as written	A	
202-74 (Code Change Submitted - CCP RE-31)	R202		R202	Definition: Residential building	N	Definition has been updated in the '21, unchanged in '24. Needs amending to align with scoping of 2024 Commercial Energy Code Scoping(?). "For this code, includes detached one- and two-family dwellings and townhouses as well as Group R-2, R-3 and R-4 buildings three stories or less in height above grade plane."		Reference 1300 - Occupancy classifications. Staff to review & amend definition, revisit RE-31.	AM	GSM to write AM

202-75	R202		R202	Definition: Roof Assembly	N	Definition is in 2015 MRE as unamended model code language and does not exist in first printing of 2021 IECC. Definition in 2nd printing of '21 and in '24 are the same. "A system designed to provide weather protection and resistance to design loads. The system consists of a roof covering and roof deck or a single component serving as both the roof covering and the roof deck. A roof assembly includes the roof covering, underlayment, roof deck, insulation, vapor retarder and interior finish."		A - Adopt as written in '24.	AM		Amend to include per second printing.
202-76	R202		R202	Definition: Roof Recover	N	New definition in '21, unchanged in '24. "The process of installing an additional roof covering over an existing roof covering without removing the existing roof covering."		A - Adopt as written	A		
202-77	R202		R202	Definition: Roof Repair	N	New definition in '21, unchanged in '24. "Reconstruction or renewal of any part of an existing roof for the purpose of its maintenance."		A - Adopt as written	A		Part but not the entire roof.
202-78	R202		R202	Definition: Roof Replacement	N	New definition in '21, updated in '24. "The process of removing the existing roof covering, repairing any damaged substrate and installing a new roof covering."		A - Adopt as written	A		
	R202		R202	Definition: Roof Replacement	N	Revised definition in the 2024 IRC Chapter 11. An alteration that includes the removal of all existing layers of roof assembly materials down to the roof deck and the installation of replacement materials above the existing roof deck .		A - Adopt as written		Accept	
202-79	R202		R202	Definition: R - Value (Thermal resistance)	N	Definitions are identical across codes. The inverse of the time rate of heat flow through a body from one of its bounding surfaces to the other surface for a unit temperature difference between the two surfaces, under steady state conditions, per unit area ($h \cdot ft^2 \cdot ^\circ / Btu$) [$(m^2 \cdot K)/W$].			A		
202-80	R202		R202	Definition: Service water heating	N	Definitions are identical across codes. "Supply of hot water for purposes other than comfort heating."		A - Adopt as written	A		
			R202	Definition: Simulated Building Performance	N	New definition in the 2024 IRC Chapter 11. A process in which the proposed building design is compared to a standard reference design for the purposes of estimating relative energy use to determine code compliance.		A - Adopt as written		Accept	
202-81	R202		R202	Definition: Skylight	N	Definition is in 2015 MRE as unamended model code language and does not exist in 2021 IECC. "Glass or other transparent or translucent glazing material installed at a slope of less than 60 degrees (1.05 rad) from horizontal. Glazing material in skylights, including unit skylights, solariums, sunrooms, roofs and sloped walls is included in this definition."		Not needed.	A		The term "Skylight" is included in the definition for "Fenestration".
			R202	Definition: Sleeping Unit	N	New definition in the 2024 IRC Chapter 11. A single unit that provides rooms or spaces for one or more persons, includes permanent provisions for sleeping and can include provisions for living, eating and either sanitation or kitchen facilities but not both. Such rooms and spaces that are part of a dwelling unit are not sleeping units.		A - Adopt as written		Accept	
202-82	R202		R202	Definition: Solar heat gain coefficient (SHGC)	N	Definitions are identical across codes. "The ratio of the solar heat gain entering the space through the fenestration assembly to the incident solar radiation. Solar heat gain includes directly transmitted solar heat and absorbed solar radiation that is then reradiated, conducted or convected into the space."		A - Adopt as written	A		

			R202	Definition: Solar Ready Zone	N	New definition in the 2024 IRC Chapter 11. A section or sections of the roof or building overhang designated and reserved for the future installation of a solar photovoltaic or solar thermal system.		A - Adopt as written		Accept	
			R202	Definition: Space Conditioning	N	New definition in the 2024 IRC Chapter 11. The treatment of air so as to control the temperature, humidity, filtration and distribution of the air to meet the requirements of a conditioned space.		A - Adopt as written		Accept	
			R202	Definition: Space Conditioning Equipment		New definition in the 2024 IRC Chapter 11. The heat exchangers, air-handling units , filter boxes and any apparatus installed in connection therewith used to provide space conditioning.		A - Adopt as written		Accept	
202-83	R202		R202	Definition: Standard reference design	N	Definitions are identical across codes. "A version of the proposed design that meets the minimum requirements of this code and is used to determine the maximum annual energy use requirement for compliance based on total building performance."		A - Adopt as written	A		
			R202	Definition: Steep Slope		New definition in the 2024 IRC Chapter 11. A roof slope 2 units vertical in 12 units horizontal (17 percent slope) or greater.		A - Adopt as written		Accept	
			R202	Definition: Substantial Improvement	N	New definition in the 2024 IRC Chapter 11. Any repair , reconstruction, rehabilitation, alteration , addition or other improvement of a building or structure , the cost of which equals or is more than 50 percent of the market value of the structure before the improvement. Where the structure has sustained substantial damage as defined in the International Building Code, any repairs are considered substantial improvement regardless of the actual repair work performed. Substantial improvement does not include the following: 1. Improvement of a building ordered by the code official to correct health, sanitary or safety code violations. 2.Alteration of a historic building where the alteration will not affect the designation as a historic building.		A - Adopt as written		Accept	
202-84	R202		R202	Definition: Sunroom	N	Definitions are identical across codes. "A one-story structure attached to a dwelling with a glazing area in excess of 40 percent of the gross area of the structure's exterior walls and roof."		A - Adopt as written	A		
			R202	Definition: Testing Unit Enclosure Area	N	New definition in the 2024 IRC Chapter 11. The sum of the area of ceiling, floors and walls separating a dwelling unit or sleeping unit's conditioned space from the exterior or from adjacent conditioned or unconditioned spaces. Wall height shall be measured from the finished floor of the dwelling unit or sleeping unit to the underside of the floor above.		A - Adopt as written		Accept	
202-85	R202		R202	Definition: Thermal Distribution Efficiency (TDE)	N	New definition in '21, unchanged in '24. "The resistance to changes in air heat as air is conveyed through a distance of air duct. TDE is a heat loss calculation evaluating the difference in the heat of the air between the air duct inlet and the outlet caused by differences in temperatures between the air in the duct and the duct material. TDE is expressed as a percent difference between the inlet and outlet heat in the duct."		A - Adopt as written	A		Part of the Residential ANSI 380 or 301 standard for performance compliance. If don't do a total duct leakage test, then makes more challenging to gain the required HERS rating. See appendix C.
202-86	R202		R202	Definition: Thermal isolation	N	Definitions are identical across codes. "Physical and space conditioning separation from conditioned spaces. The conditioned spaces shall be controlled as separate zones for heating and cooling or conditioned by separate equipment."		A - Adopt as written	A		
202-87	R202		R202	Definition: Thermostat	N	Definitions are identical across codes. "An automatic control device used to maintain temperature at a fixed or adjustable setpoint."			A		

202-88 (Alternate Definition Submitted)	R202		R202	Definition: U-Factor (thermal transmittance)	N	Definitions are identical in MRE & IECC. "The coefficient of heat transmission (air to air) through a building component or assembly, equal to the time rate of heat flow per unit area and unit temperature difference between the warm side and cold side air films (Btu/h x ft2 x °F) [W/(m2 x K)]."			A - Adopt as written	A		Includes boundary air films.
202-89	R202		R202	Definition: Ventilation	N	Definitions are unchanged across codes. "The natural or mechanical process of supplying conditioned or unconditioned air to, or removing such air from, any space."			A - Adopt as written	A		Will Revisit.
202-90	R202		R202	Definition: Ventilation air	N	Definitions are identical across codes. "That portion of supply air that comes from outside (outdoors) plus any recirculated air that has been treated to maintain the desired quality of air within a designated space."			A - Adopt as written	A		
202-91	R202		R202	Definition: Visible transmittance (VT)	N	Definitions are identical in MRE & IECC. "The ratio of visible light entering the space through the fenestration product assembly to the incident visible light. Visible Transmittance includes the effects of glazing material and frame and is expressed as a number between 0 and 1."			A - Adopt as written	A		
202-92	R202		R202	Definition: Whole house mechanical ventilation system	N	Definitions are identical across codes. "An exhaust system, supply system, or combination thereof that is designed to mechanically exchange indoor air with outdoor air when operating continuously or through a programmed intermittent schedule to satisfy the whole house ventilation rates."				A		
			R202	Definition: Work Area	N	New definition in the 2024 IRC Chapter 11. That portion or portions of a building consisting of all reconfigured spaces as indicated on the construction documents . Work area excludes other portions of the building where incidental work entailed by the intended work must be performed and portions of the building where work not initially intended by the owner is specifically required by this code.	N		A - Adopt as written		Accept	
202-93	R202		R202	Definition: Zone	N	Definitions are identical across codes. "A space or group of spaces within a building with heating or cooling requirements that are sufficiently similar so that desired conditions can be maintained throughout using a single controlling device."				A		

Chapter 3

301-1	R301.1	1101.7	R301.1	Climate zones, general.	N	Minor changes to text. Same net outcome.	N	N	A - Adopt as written	AM		Recommend that Zone 5 upgrade to Zone 6. Will coordinate.
301-2 (Code Change Submitted - RE-2)	Figure R301.1	Figure 1101.7	Figure R301.1	Climate zone map.	N	Updated climate zone map.			A - Adopt as written	AM		
301-3 (Code Change Submitted - RE-2)	Table R301.1	Table 1101.7	Table R301.1	Climate Zones.	N	10 counties affected between '21 IECC and '15 MRE. (Becker, Clay, Fillmore, Grant, Houston, Kanabec, Mille Lacs, Otter Tail, Wilkin, Winona.) Suggest amending to delete all states other than MN.			AM	AM		Amend to delete non-minnesota data.
301-4	R301.2	1101.7.1	R301.2	Warm Humid Counties.	N	No change and no affect on Minnesota. Suggest amending to delete.			Delete	AM		Delete
301-5	R301.3	1101.7.2 (& Table)	R301.3	Climate zone definitions.	N	This section has been changed from "International climate zones" to "Climate zone definitions". Changes tabular format in 2015 MRE to paragraph form. Largely has little implications for MN.			A - Adopt as written	A		
301-6	Table R301.3		Table R301.3	Thermal climate zone definitions.	N	Gives cooling and heating degree days based on climate zone. Could amend to remove zones 1-4.			A - Adopt as written	AM		Amend to delete Zones 1-5

301-7	None	1101.8	R301.4	Tropical Climate region.	N	New section with no affect on Minnesota. Suggest deleting.	N	N	Delete	AM		Delete
SECTION R302 DESIGN CONDITIONS												
R302-1	R302.1	1101.9	R302.1	Interior design conditions.	N	No change in '24.	N	N	A - Adopt as written	AM		Amend to add exterior design conditions to match commercial energy code for climatic parameters.
R302-2 (Code Change Submitted - RE-3.1)	NA		NA	Climatic data design conditions.	N	Proposed code change submitted to add this content to section R302. Content may fit better into Section R403.7(?).			AM			RE-3.1 Supported.
SECTION R303 MATERIAL, SYSTEMS AND EQUIPMENT												
303-1	R303.1	1101.10	R303.1	Identification.	Y	The MRE expands to include 3 additional criteria. R303.1 Identification. Materials, systems, and equipment shall be identified in a manner that will allow a determination of compliance with the applicable provisions of this code. Materials used shall be: (1) listed for the intended use; (2) installed in accordance with the manufacturer's installation instructions; and (3) installed by an installer who is certified by a manufacturer to install that specific product, if such certification exists.	L	L	Comment: Suggest maintaining current MRE language.		Repeal amendment, use model code language.	Recommend deleting item 3 at the very least because it is out of scope for a building official.
303-2	R303.1.1	1101.10.1	R303.1.1	Building thermal envelope insulation	N	Minor changes to text, same net outcome. Exception has been added in IECC for insulation installed above the roof deck along with references to the IRC & IBC. <u>Exception: For roof insulation installed above the deck, the R-value shall be labeled as required by the material standards specified in Table 1508.2 of the International Building Code or Table R906.2 of the International Residential Code, as applicable.</u>	N	N	A - Adopt as written	A		May need reference to '24 IRC because Table 906.2 is referenced.
		N1101.10.1		Building thermal envelope insulation	N	Minor changes. <u>For reflective insulation , the number of reflective sheets, the number and thickness of the enclosed reflective airspace and the R-value for the installed assembly determined in accordance with Section N1101.10.6 shall be listed on the certification.</u> For insulated siding, the R-value shall be on a label on the product's package and shall be indicated on the certification. The insulation installer shall sign, date and post the certification in a conspicuous location on the job site. <u>Exception: For roof insulation installed above the deck, the R-value shall be labeled as required by the material standards specified in Table R906.2.</u>	N	N	A - Adopt as written		Committee polled with unanimity to remove references to radiant/reflective barriers. John Smith to draft CCP to remove references.	
303-3	R303.1.1.1	1101.10.1.1	R303.1.1.1	Blown/sprayed roof insulation	N	Minor changes to text. Same net outcome.	N	N	A - Adopt as written	A		
303-4	R303.1.2	1101.10.2	R303.1.2	Insulation Mark Installation.	N	Similar language, but IECC now addresses blown or draped insulation products by requiring that an insulation certificate is left immediately after installation in a conspicuous area. Insulation mark installation. Insulating materials shall be installed such that the manufacturer's R-value mark is readily observable at inspection. <u>For insulation materials that are installed without an observable manufacturer's R-value mark, such as blown or draped products, an insulation certificate complying with Section R303.1.1 shall be left immediately after installation by the installer, in a conspicuous location within the building, to certify the installed R-value of the insulation material.</u>	L	L	A - Adopt as written	A		

	N1101.10.2	1101.10.2		Insulation Mark Installation.	N	Changed definition: N1101.10.2 (R303.1.2) Insulation mark installation. Insulating materials shall be installed such that the manufacturer's R-value mark is readily observable at inspection. For insulation materials that are installed without an observable manufacturer's R-value mark, such as blown or draped products, an insulation certificate complying with Section N1101.10.1 shall be left immediately after installation by the installer, in a conspicuous location within the building, to certify the installed R-value of the insulation material. <u>Exception: For roof insulation installed above the deck, the R-value shall be labeled as specified by the material standards in Table 1508.2 of the International Building Code or Table R906.2 of this code, as applicable.</u>		A - Adopt as written	Accept	
303-5	R303.1.3	1101.10.3	R303.1.3	Fenestration product rating.		Modified section in '21, no change to '24: U-factors of fenestration products such as windows, doors, and skylights shall be determined in accordance with NFC 100. <u>Exception:</u> Where required, garage door U-factors shall be determined in accordance with either NFRC 100 or ANSI/DASMA 105. U-factors shall be determined by an accredited independent laboratory, and labeled and certified by the manufacturer. Products lacking such a labeled U-factor shall be assigned a default U-factor from Table R303.1.3(1) or Table R303.1.3(2). The solar heat gain coefficient (SHGC) and visible transmittance (VT) of glazed fenestration products such as windows, glazed doors and skylights shall be determined in accordance with NFRC 200 by an accredited, independent laboratory, and labeled and certified by the manufacturer. Products lacking such a labeled SHGC or VT shall be assigned a default SHGC or VT from Table 303.1.3(3).	L	A - Adopt as written	A	Important to have 3rd party tested to provide consumers with information. R-value equivalency may not be enough. Overhead doors are also now often used for fully conditioned sport-courts.
	Table R303.1.3(1)	Table 1101.10.3(1)		Default glazed window, glass door and skylight U-factors		No change from '21 to '24.		A - Adopt as written.		
	Table R303.1.3(2)	Table 1101.10.3(2)		Default opaque door U-factors		No change from '21 to '24.		A - Adopt as written.		
	Table R303.1.3(3)	Table 1101.10.3(3)		Default glazed fenestration SHGC and VT		No change from '21 to '24.		A - Adopt as written.		
303-6	R303.1.4	1101.10.4	R303.1.4	Insulation product rating.	N	Sentence has been restructured, no technical changes in '24.	N	N	A	
303-7	R303.1.4.1	1101.10.4.1	R303.1.4.1	Insulated Siding.	N	New Section in '21, unchanged in '24: <u>The thermal resistance, R-value, of insulation shall be determined in accordance with ASTM C1363. Installation for testing shall be in accordance with the manufacturer's instructions.</u>	L	L	A - Adopt as written	
303-8	R303.1.5	1101.10.5	R303.1.5	Air-impermeable insulation.	N	New section in '21, unchanged in '24: <u>Insulation having an air permeability not greater than 0.004 cubic feet per minute per square foot under pressure differential of 0.3 inch water gauge when tested in accordance with ASTM E2178 shall be determined air-impermeable insulation.</u>	N	N	A - Adopt as written	
303-9	R303.1.5		NA	Minnesota Thermal Insulation Standards.	N	Section does not exist in the IECC. Renumber to 303.1.6 and retain existing amendment as follows: Thermal insulation shall comply with Minnesota Rules, Chapter 7640, Minnesota Thermal Insulation Standards, adopted by the Department of Commerce.	L	L	AM	DLI will study to see if still necessary.

		1101.10.6	R1101.10.6	Airspaces	N	New Section: Where the R-value of an enclosed reflective airspace or enclosed nonreflective airspace is used for compliance with this standard, the airspace shall be enclosed in a cavity bounded on all sides by building components and constructed to minimize airflow into and out of the enclosed airspace. Airflow shall be deemed minimized where one of the following conditions occur: 1. The enclosed airspace is unventilated. 2. The enclosed airspace is bounded on one or more sides by an anchored masonry veneer constructed in accordance with Chapter 7, and vented by veneer weep holes located only at the bottom portion of the airspace and spaced not less than 15 inches (381 mm) on center with the top of the cavity airspace closed. Exception: For ventilated cavities, the effect of the ventilation of airspaces located on the exterior side of the continuous air barrier and adjacent to and behind the exterior wall covering material shall be determined in accordance with ASTM C1363, modified with an airflow entering the bottom and exiting the top of the airspace at an air movement rate of not less than 70 mm/second.			A - Adopt as written		Table, waiting for CCP to review.	
303-10		1101.11	R303.2	Installation.	N	Updated section now includes reference to IRC. Materials, systems and equipment shall be installed in accordance with the manufacturer's installation instructions and the International Building Code <u>or the International Residential Code, as applicable.</u>			A - Adopt as written	A		Adjust to reference all of 2024 IRC chapters.
303-11	R303.2.1	1101.11.1	R303.2.1	Protection of exposed foundation insulation.	N	Very minor changes to language. Same net effect.	N	N	A - Adopt as written	A		
		N1101.11.2		Radiant Barrier	N	New section: Where installed, radiant barriers shall comply with the requirements of ASTM C1313/C1313M and shall be installed in accordance with ASTM C1743.	N	N	A - Adopt as written		Table, waiting for CCP to review.	
303-12	R303.3	1101.12	R303.3	Maintenance information.	N	One word changed: "accessible" label in MRE, "visible" label in IECC.	N	N	A - Adopt as written	A		
401-1	R401.1		R401.1	Scope.	N	No "scope" section in N11. May need this if Energy is stand alone book.	N	N	A - Adopt as written	A		This could replace language in MR 1322.0100 Subp. 2 "Scope".
401-2	R401.2	1101.13	R401.2	Application/ Compliance.	N	Different language in 2021 IECC. With the new paths in the '21, plus the "Existing Buildings" content, the language needs updating.			A - Adopt as written	A		
401-3	NA	1101.13.1	R401.2.1	Prescriptive option.	N	This and the following sections provide guidance to understand which subsequent sections must be used depending on the compliance path chosen. This guides the user to N1101 General, N1102 Building Thermal Envelope, N1103 Systems, N1104 Electrical Power, Lighting, and Renewable Energy Systems.				A		
401-4	NA		R401.2.2	Total building performance option.	N	This path guides the user to R405 Total Building Performance.				A		
		N1101.13.2		Total Simulated Building Performance Option	N	Modified section: The Total Simulated Building Performance Compliance Option requires compliance with Section N1105.	N	N	A - Adopt as written		Accept	
401-5	NA	1101.13.3	R401.2.3	Energy Rating Index (ERI) option.	N	This path guides the user to N1106 ERI option.				A		
401-6	NA	1101.13.4	R401.2.4	Tropical climate region option.	N	This path guides the user to N1107 Tropical Climate Region Compliance Path. No relevance to MN as we are not tropical.	N	N	AM - Delete section.	AM		

401-7 (Code Change Submitted - RE-S.1)	NA		R401.2.5	Additional energy efficiency.	N	This section identifies additional items that must be adhered to based on which compliance path is selected.			RE-5.1 will need to be revised by author and resubmitted for review.	A		
	N1101.13.5		N1101.13.5	Additional energy efficiency.	N	Section moved - N1108	N	N	0		Nothing needs to be done.	
401-8	R401.3		R401.3	Certificate.	Y	Similar language between MN & '21 text, suggest combining to take the best of both sections and remove irrelevant content. Maintain numbered format as it reads better.			AM - Combine relevant and best language between MRE & IECC.			DJ will study to see if we need the amended language.
Start 3/10 Meeting Here	N1101.14		N1101.14	Certificate		Minor changes to section including changes 7 & 8. 7. The code edition under which the structure was permitted, the compliance path used <u>and, where applicable, the additional efficiency measures selected for compliance with Section N1108.</u> 8. The location and dimensions of a solar-ready zone where one is provided.			AM - Combine relevant and best language between MRE & IECC.			
SECTION R402 BUILDING THERMAL ENVELOPE												
402-1	R402.1	1102.1	R402.1	General.	N	The leading paragraph includes the addition of a reference to R402.1.5 due to differences in the content and layout of the codes in R402.1.1 - 402.1.5.		M		A		
	R402.1	1102.1	N1102.1	General	N	Some changes. N1102.1 (R402.1) General. The building thermal envelope shall comply with the requirements of Sections N1102.1.1 through N1102.1.5- <u>one of the following:</u> 1. Sections N1102.1.1 through N1102.1.4 and Section N1102.1.6. 2. Sections N1102.1.1, N1102.1.5 and N1102.1.6. <u>NEW EXCEPTION - Exception #2: Log homes designed in accordance with ICC 400.</u>			Adopt, but may want to look into ICC 400 to see if it addresses the thermal envelope.			
402-2	NA	1102.1.1	R402.1.1	Vapor retarder.	N	Provides a pointer to R702.7.	N	N	A - Adopt as written	AM		Add: An equivalent vapor retarder shall be provided on the warm-in-winter side of assemblies where part of the building thermal envelope.
402-3	R402.1.1	1102.1.2	R402.1.1	Insulation and fenestration criteria.	Y	In MN code, waterproofing is also addressed in this section due to statutory durability requirements. U-factor and SHGC are also noted with a reference to Table R402.1.2.			Move MN amended waterproofing content to basement walls N1102.2.9	AM		Relocate amended language to foundation walls section and retain model code language here. Insert amended language into 402.2.8 and 402.2.10.
	R402.1.2	1102.1.2	R402.1.1	Insulation and fenestration criteria.		Minor changes by adding F-Factor to the section.			A - Adopt as written			
402-4 (Code Change Submitted - RE-12)	Table R402.1.3		Table R402.1.2	Maximum assembly U-factors and fenestration requirements.	N	U-factor table is now located earlier in the IECC, it is one section later in the MRE. Comparing the tables, the IECC is slightly more efficient and fenestration U-factor decreases from .32 to .30. Skylights are unchanged. Ceiling U-factor reduces from .026 to .024. Mass walls, floors, basement walls and crawl space walls did not change in zones 5-8. Suggest deleting zones 0-4, as well as climate zones marine 4 and 8. MN will now need Zone 5 for SE MN.	L	M	AM - Delete zones 0-4, as well as climate zones marine 4 and 8. Only leave zones 5-7. Footnotes: Delete references to zones other than 5-7 in b. Delete c, e, & f (highest point in MN is 2,301ft above sea level). Delete exception in d.	5 Yea, 8 Nay on CCP RE-12, so amend to remove irrelevant climate zones, otherwise maintain as written.		Revisit with submitted code change proposal. Topic tabled.

	R402.1.2	Table 1102.1.2		Maximum assembly U-factors and fenestration requirements.		The Table has changed dramatically. Need to review. NEW: Insulation above roof deck, Heated & Unheated Slab F-factor. More Efficient: Vertical fenestration .30 reduce to .28 & .27, Skylight .55 reduce to .50. Less Efficient: Ceiling .024 (R-41.66) increase to .026 (R-38.46) No change: Wood frame walls, Mass wall, Floor, Basement wall, Crawl space wall.			Amend: Delete: CZ 0-5 & 8 Change: Vertical fenestration to .27 in both CZ 6 & 7			
402-5	NA		R402.1.3	R-value alternative.		The '21 IECC takes a slightly different angle in that it lists the U-factor approach and table before the R-value approach and table. This section simply allows the use of R-values and points the user to the R-value table (R402.1.3) in lieu of using U-factors. IECC Table R402.1.3 is Table R402.1.1 in the MRE.	N	N	A - Adopt as written			Table for review of code change proposal next meeting.
	N1102.1.3		N1102.1.3	R-value alternative.		Minor changes to section. Added F-Factor.			A - Adopt as written			
402-6 (Code Change Submitted - RE-6.1)	Table R402.1.3		Table R402.1.1	Insulation Minimum R-values and Fenestration Requirements by Component.	Y	Table has been retitled and updated with greater efficiencies for components. MN will need Zone 5 for SE MN. U-factors have been copied over from U-factor table, however there is a mistake in the SHGC. The intention is that the SHGC is not required in Zone 5, but the table states zone 5 is to meet 0.40, but states NR in Table 402.1.2. This will be fixed in the '24 IECC R. We could consider removing the U-factor columns from the R-value table altogether and leaving U-factors in the Table 402.1.2. Regarding R-values, ceiling has increased from 49 to 60, wood frame walls increase and add additional CI options: 20 + 5ci, 13 + 10ci, or 0 + 20. 30 is added in the erratum. Note there are other Erratum to this section to consider.	L	H	AM - Delete exception to footnote b, and delete footnotes e, f, and i as it does not pertain to MN. Consider deleting U-factor content. Change SHGC in Zone 5 to NR.			Table for review of code change proposal next meeting. RE-6.1 was tabled by author. No action taken.
	Table R402.1.3	Table 1102.1.3	R402.1.1	Insulation Minimum R-values and Fenestration Requirements by Component.		The Table has changed. NEW: Insulation above roof deck, Heated Slab R-value. More Efficient: Vertical fenestration .30 reduce to .28 & .27, Skylight .55 reduce to .50. Less Efficient: Ceiling R60 decrease to R49. No change: Wood frame walls, Mass wall, Floor, Basement wall, Unheated slab, Crawl space wall.			Amend: Delete: CZ 0-5 & 8 Change: Vertical fenestration to .27 in both CZ 6 & 7			
402-7	R402.1.2		R402.1.4	R-value computation.	N	This section exists in the MRE for the most part, but is expanded and clarified in the IECC. No changes between '21 & '24 codes. The point of the section is that the user cannot just add up the R values of multiple components. Rather, the components must be summed based on the relative location in the assembly.	L	L	A - Adopt as written	A		
402-8 (Code Change Submitted - CCP RE-21)	R402.1.4		R402.1.4	Total UA alternative.	N	Expands on content in MRE. Adds instruction that calculation must be in accord with ASHRAE Handbook of Fundamentals.	L	L	A - Adopt as written	A		May need to readdress if U-value tables adjusted for fenestration. RE-21.1 voted down.
	R402.1.5	N1102.1.5	R402.1.4	Total-UA-Component Performance Alternative	N	Section has been revised. '21 states "Total UA alternative", and '24 states "Component performance alternative".			Adopt as written.			
	R402.4.4	N1102.1.6	None	Rooms containing fuel-burning appliances.	N	Not in '20, minor changes between '21 & '24.			Amend or delete entirely. Chris R to draft a CCP.			

402-9	R402.2	1102.2	R402.2	Specific insulation requirements.	N	The word "(Prescriptive)" was removed in the '21. '24 expands to include one additional section with reference to 1102.2.3 Attic knee wall.	N	N	A - Adopt as written	A		
402-10 (Code Change Submitted - CCP RE-23)	R402.2.1		R402.2.1	Ceilings with attic spaces.	N	This section reads essentially the same as in the MRE, except the R values are increased to parallel those in Table R402.1.3. Allows a reduced insulation value where a uniform thickness of insulation can be accommodated due to an adequately tall energy heel. Suggest deleting first sentence, as R-49 only applies to Zone 3 and south. Zones 5-7 all require the same attic R-value. Leaving the first sentence leads to confusion as to what the actual attic requirements are, as users do not realize the MN edition stems from model code language.	L	M	AM - Delete first sentence.	AM		Amend to delete first sentence. Delete "with attics." RE-23 voted down.
	R402.2.1	N1102.2.1	R402.2.1	Ceilings with attics.	N	Same essence as '20 & '21, except attic insulation value has reduced from '21 based on Table N1102.1.3. Where Section N1102.1.3 requires R-38 insulation in the ceiling or attic, installing R-30 over 100 percent of the ceiling or attic area requiring insulation shall satisfy the requirement for R-38 insulation wherever the full height of uncompressed R-30 insulation extends over the wall top plate at the eaves. Where Section N1102.1.3 requires R-49 insulation in the ceiling or attic, installing R-38 insulation over 100 percent of the ceiling or attic area requiring insulation shall satisfy the requirement for R-49 insulation wherever the full height of uncompressed R-38 insulation extends over the wall top plate at the eaves. This reduction shall not apply to the insulation and fenestration criteria in Section N1102.1.2 and the component performance alternative in Section N1102.1.5.			Amend: Delete first sentence as R38 does not pertain to CZ 6&7. Staff to draft CCP.			
402-11	R402.2.2		R402.2.2	Ceilings without attic spaces.	N	These sections are nearly identical in both codes. There are minor changes to the exact language in the IECC. The overall application is the same.	N	N	A - Adopt as written	AM		Amend to delete section.
	R402.2.2	N1102.2.2	R402.2.2	Ceilings without attics	N	No technical changes, just minor tweaks to sentence structure.			A - Adopt as written			
	None	N1102.2.3	None	Attic Knee Wall	N	New section			A - Adopt as written			
	None	N1102.2.3.1	None	Roof Truss Framing Separating Conditioned and Unconditioned Space	N	New section			A - Adopt as written			
402-12 (Code Change Submitted - CCP RE-20.1)	R402.2.3	N1102.2.4	R402.2.3	Eave baffle	N	Language update in the '24, the overall outcome is the same. CCP RE-20.1 needs to be updated. Use "wind wash" or "insulation dam" in lieu of "baffle"			Amend to address "wind wash". John Smith & Steve S to work together updating RE-20.1.	RE-20.1 approved by TAG - 11/28.		Modify title to read "Wind wash prevention". Add to end: Wind wash baffle shall be provided to separate air permeable insulation from the ventilation intake space. John Smith will research to develop language
402-13 (Code Change Submitted - CCP RE-16)	R402.2.4		R402.2.4	Access hatches and doors.	N	Two exceptions are added in '21 and carry into '24. Recommend deleting the second exception as it does not pertain to MN climate zones. Need to update CCP RE-16 for '24 cycle.	N	N	Amend - Delete second exception.	AM		Amend to delete exceptions. DLI to write.
(Skip)	R402.2.4	1102.2.5	R402.2.4	Access hatches and doors.	N	Similar language. Need to update CCP RE-16 for '24 cycle.			Amend - Delete second exception. Steve S to update CCP for TAG review.			

402-14	N1102.2.5.1	1102.2.5.1	None	Access hatches and door insulation installation and retention.	N	Same effect as '21, minor changes to sentence structure.	N	N	Adopt as written.			Amend to delete exceptions. DLI to write.
402-15	R402.2.5	1102.2.6	R402.2.5	Mass walls.	N	Similar language to the '20 MRE with revisions. No change from '21 to '24. Added an empirical specification regarding walls with a heat capacity greater than or equal to 6 Btu/SF x degrees F in '21.	N	N	A - Adopt as written			
402-16	R402.2.6		R402.2.6	Steel-frame ceilings, walls and floors.	N	Same content in MRE, just updated the reference to Table R402.1.2 for U-factors.	N	N	A - Adopt as written			
	R402.2.6	N1102.2.7	R402.2.6	Steel-frame ceilings, walls and floors.	N	Section updated in '24 with new content. Low impact, MN does not build residential construction with steel framing.	L	L	Adopt as written.			
402-17	Table R402.2.6		Table R402.2.6	Steel-frame ceiling, wall and floor insulation R-values.	N	Some of the R-values have been updated in the IECC. MN does not often frame houses in steel, so this content has little impact.	N	N	A - Adopt as written			
402-18	R402.2.7		R402.2.7	Floors.	N	This section has been updated to differentiate among 3 potential prescriptive ways to install the insulation: 1). It is in contact with the bottom of the subfloor. 2). It is contact with top of the ceiling below, with airspace between the top of the insulation and the bottom of the subfloor. Requires the outer perimeter to have full depth insulation so the rim area is not left uninsulated. 3). The third is like option #2, but incorporates continuous insulation. I see no problem with the outcome of this section, but suggest considering changing the language to make it more clear, or adding pictures as it is confusing to read.	L	L	AM - Consider adjusting to make easier to understand.			
	R402.2.7	N1102.2.8	R402.2.7	Floors.		Heavily revised in '24.			A - Adopt as written			
402-19	R402.2.8		R402.2.8	Basement walls.	Y	For the prescriptive path, the MRE requires a minimum of R-10 to be on the exterior of the wall, whereas the IECC does not specify which side of the wall the insulation must be. The content in the MRE was based on building science research and may need to be evaluated again based on statute. The charging language in the IECC requires all basements to be insulated, then gives an exception where 6 items must be met. In the MRE, the requirements only apply to conditioned basements. The IECC is more restrictive in that the exceptions limit the ability to have an unconditioned basement. This is largely irrelevant in MN as we rarely see unconditioned basements.	M	L	Comment: May be subject to building science research.			
	R402.2.8	N1102.2.9	R402.2.8	Basement walls.		Same as '24. This is subject to carrying forward the MN amended content from R402.2.8. Suggest moving waterproofing content to Building code.			Amend by adding '20 MRE language to '24 language. Need CCP. Subject to Building Science Research review.			

402-20	R402.2.8		R402.2.8.1	Basement wall insulation installation.	Y	This section addresses how far the insulation must be installed down the wall. The IECC requires it to go to the top of the floor, whereas the MRE requires it to go to the top of the footing. Some if this depends if the insulation is installed on the interior or exterior of the wall. Given most foundation insulation is installed on the exterior in MN, the MRE is slightly more restrictive. The sections are very similar. The content may change based on building science research.	L	L	Amend - use language from '20 MRE. May be subject to building science research.			
	R402.2.8.1	N1102.2.9.1	R402.2.8	Basement wall insulation installation.		Minor changes from IECC-R			Amend - use language from '20 MRE. May be subject to building science research.			
402-21	R402.2.9		R402.2.9	Slab-on-grade floors.	N	The IECC and MRE essentially have the same content, except that the IECC divides the content into two main sections like the basement insulation content: main requirement including an exception, then how it must be done.	N	N	A - Adopt as written			
	R402.2.9	N1102.2.10	R402.2.9	Slab-on-grade floors		Floor surface changes from being within 12" to grade to 24" to grade.	N	L	Adopt as written.			
402-22	R402.2.9		R402.2.9.1	Slab-on-grade floor insulation installation.	N	Merely restructures same content that is in MRE.	N	N	A - Adopt as written			
	R402.2.9.1	N1102.2.10.1	None	Slab-on-grade floor insulation installation.	N	24 similar to '21, but adds some content about full slab insulation and heated slabs.	L	L	Adopt as written.			
	None	N1102.2.10.2	None	Alternative slab-on-grade insulation configurations	N	New section in '24. Refers to designs in 1105 Simulated Performance and 1106 ERI.	N	N	Adopt as written.			
402-23	R402.2.10		R402.2.10	Crawl space walls.	N	The IECC and MRE essentially have the same content, except that the IECC divides the content into two main sections like the basement insulation content: main requirement including an exception, then how it must be done. The issue with this section in the MRE is that it was never amended to align with the basement provisions. A conditioned crawl space is essentially just a short basement. Therefore, it seems to make sense to parallel foundation insulation requirements for conditioned crawl spaces with those of conditioned basements.	N	N	AM - Amend to parallel language for conditioned basements. May be subject to building science research.			
	R402.2.10	N1102.2.11	R402.2.10	Crawl space walls.		Only change between '21 and '24 is to the references.			Adopt as written.			
402-24	R402.2.10.1		R402.2.10	Crawl space wall insulation installations.	N	See comments for R402.2.10 directly above.	N	N	See comments for R402.2.10 directly above.			
	R402.2.10.1	N1102.2.11.1	None	Crawl space wall insulation installations.		24 allows insulation to be installed on inside or outside of wall. Consider amending to align with MN amended basement wall content to require insulation on exterior of wall. Subject to durability research.		L	Amend to require insulation on exterior of wall like a basement. Subject to durability research.			
	N1102.2.11.2		N1102.2.11.2	Alternative crawl space wall insulation configurations	N	New section in '24. Refers to designs in 1105 Simulated Performance and 1106 ERI.			Adopt as written.			
402-25	R402.2.11	N1102.2.12	R402.2.11	Masonry veneer.	N	No changes.	N	N	A - Adopt as written			

402-26	R402.2.12	N1102.2.13	R402.2.12	Sunroom and heated garage insulation.	N	Thermal envelope provisions for garages are now specifically addressed in the '21 energy code. The exceptions and R-values given for thermally isolated sunrooms are the same as in the MRE, and now also apply to garages. No change from '21 to '24.	N	N	Amend - delete content regarding CZ 0-5.			
	None	None	N1102.3	Radiant Barriers		New section.	N	N	Adopt as written.			
402-27	R402.3	N1102.4	R402.3	Fenestration.	N	No technical changes from '21 to '24. The content is the same as the MRE, except that reference to R402.3.6 (Replacement fenestration) has been removed as the section is no longer located here.	N	N	A - Adopt as written			
402-28	R402.3.1	N1102.4.1	R402.3.1	U-factor.	N	No changes.	N	N	A - Adopt as written			
402-29	R402.3.2	N1102.4.2	R402.3.2	Glazed fenestration SHGC.	N	21 & '24 same content. Same content in '20 & '21, but added section in '21 regarding dynamic glazing. Serves no purpose in MN as we do not regulate SHGC.	N	N	A - Adopt as written, could also be deleted.			
402-30	R402.3.3		R402.3.3	Glazed fenestration exemption.	N	The language is slightly different in the IECC, but the outcome is essentially the same. The SHGC content will not affect MN. Interesting use of the word "shall" vs. "may" in terms of applying the exemption.	N	N	Comment: Either adopt as written, or amend to use language in MRE.			
Skip	R402.3.3	N1102.4.3	R402.3.3	Glazed fenestration exemption.	N	Minor changes between '21 & '24, no substantive change. N1102.4.3 (R402.4.3) Glazed fenestration exemption. Not greater than 15 square feet (1.4 m ²) of glazed fenestration per dwelling unit shall be exempt from the U-factor and SHGC requirements in Section N1102.1.2. This exemption shall not apply to the <u>Total-UA component performance</u> alternative in Section N1102.1.5.			Adopt as written.			
402-31	R402.3.4		R402.3.4	Opaque door exemption.	N	The language is slightly different in the IECC, but the outcome is essentially the same. Interesting use of the word "shall" vs. "may" in terms of applying the exemption.						
Skip	R402.3.4	N1102.4.4	R402.3.4	Opaque door exemption.		Minor changes between '21 & '24, no substantive change. Minor changes: Opaque door exemption. One side-hinged opaque door assembly not greater than 24 square feet (2.22 m ²) in area shall be exempt from the Ufactor requirement in Section N1102.1.2. This exemption shall not apply to the <u>component performance Total-UA</u> alternative in Section N1102.1.5.			Adopt as written.			
402-32	R402.3.5	N1102.4.5	R402.3.5	Sunroom and heated garage fenestration.	N	No change from '21 to '24. Section clarifies its application to sunrooms as well as heated garages. Heated garages are presently not explicitly addressed in the MRE. The exception to allow reduced U-factor remains the same in MN climate zones. The section adds clarification for new fenestration separating sunrooms or heated garages.	N	N	A - Adopt as written			
Skip		1111.1.1.1	R402.3.6	Replacement fenestration.	N	Content in '20 moved to 1111.1.1.1 in '24, no substantive change.	N	N	Moved section, see 1111.1.1.1			
402-33 Skip	R402.4		R402.4	Air leakage.	N	Same provision in the MRE, but now includes reference to the additional section of R402.4.5. The additional section stems from adding R402.4.4 "Rooms containing fuel-burning appliances".	N	N	A - Adopt as written			
	R402.4	N1102.5	R402.4	Air leakage.		Language is similar, but does not reference 1102.1.6 ('21 - R402.4.4) "Rooms containing fuel-burning appliances" as the '21 does.	N	N	Adopt as written.			
402-34 Skip	R402.4.1	N1102.5.1	R402.4.1	Building thermal envelope.	N	No substantive change from '21 to '24. Same provision in the MRE, but now includes reference to the additional section of R402.4.1.3 "Leakage rate".	N	N	A - Adopt as written			

402-35 Skip	R402.4.1.1	N1102.5.1.1	R402.4.1.1	Installation.	N	No change from '20 to '21 to '24.	N	N	A - Adopt as written			
402-36	Table R402.4.1.1		Table R402.4.1.1	Air barrier, air sealing and insulation installation.	N	The table is very similar to the MRE, with minor updates and clarifications.	L	L	A - Adopt as written			
	Table R402.4.1.1	Table N1102.5.1.1	Table R402.4.1.1	Air barrier, air sealing and insulation installation.		Major changes to Table N1102.5.1.1 - General - Same as '21. - Ceiling/attic - Similar, no technical change. - Walls - Same as '21. - Knee wall - New section. - Windows, skylights, and doors - Changes, no longer requires sealing, but refers only to MFR instructions. If a window has vague installation or refers back to code, there is no requirement to seal. Suggest amending. - Rim joists - Similar, no technical change. - Floors/Cantilevered - Changes to section. - Basement, crawl space, slab - No technical changes. - Shafts/penetrations - Similar, no technical changes. - Narrow cavities - Same as '21 - Garage separation - No technical changes. - Recessed lighting - No technical changes. - Plumbing/wiring - No technical changes. - Showers/tubs - Similar, adds fireplaces. - Electrical boxes - Section added to. - HVAC registers - Insulation criteria added. - Concealed sprink - Same. - Common walls - All new section. Amend to remove reference to "attached single family"?						
402-37	R402.4.1.2		R402.4.1.2	Testing.	N	In the '21, more specific testing backstops were moved to R402.4.1.3 "Leakage rate". Additionally, an option is added to calculate the leakage based on CFM leakage per area of the enclosure. The latter change will help smaller dwellings pass the test due to challenges resulting from lower volumes of air. An exception is added for two situations whereby the requirement is reduced to .30 CUFT/Min per SF of enclosure area.	L	L	A - Adopt as written			
	N1102.5.1.2		N1102.5.1.2	Air Leakage Testing.		Change to title and major changes to section.						
402-38 (Code Change Submitted - RE-4.1)	NA		R402.4.1.3	Leakage Rate.	N	This section provides the allowable leakage rate based on climate zone when following the prescriptive compliance option. Other compliance paths allow tradeoffs for leakage.				RE-4.1 had 6 Yeas and 6 Nays.		
			N1102.5.1.3	Maximum Air Leakage Rate		This section provides the allowable leakage rate based on climate zone when following the prescriptive compliance option. Other compliance paths allow tradeoffs for leakage.						
402-39	N1102.5.2		N1102.5.2	Fireplaces.	N	The first sentence is the same, but the '21 adds content regarding the doors for factory built fireplaces listed to UL 127.	L	L	A - Adopt as written	A		
402-40	N1102.5.3		N1102.5.3	Fenestration air leakage.	N	Same language as the MRE.	L	L	A - Adopt as written	A		
402-41	R402.4.4	1102.1.6	None	Rooms containing fuel-burning appliances.	N	New provision in '21.	L	M	Merits discussion	AM (Delete)		
				Rooms containing fuel-burning appliances.		Section not in the Model 2024 Chapter 11			Not needed as TAG voted to delete			

402-42	N1102.5.4		N1102.5.4	Recessed lighting.	N	Minor changes in text, same net requirement and outcome.	L	L	A - Adopt as written	Accept		
402-43	NA		R402.4.6	Electrical and communication outlet boxes (air sealed boxes).	N	Provides specifications for boxes installed in the thermal envelope. Air sealed boxes are required in the MRE in Table R402.4.1.1.	L	L	A - Adopt as written	Accept		
			N1102.5.5	Air Sealed Electrical and Communication Outlet Boxes		The first sentence is the same, but the '21 adds content regarding the doors for factory built fireplaces listed to UL 127.						
402-44	N1102.6		N1102.6	Maximum fenestration U-factor and SHGC.	N	Same net outcome as in MRE. Exception is added in '21 for storm shelters.	L	L	AM - Delete content not pertaining to MN Climate zones.	Accept		

SECTION R403 SYSTEMS

403-1	R403.1		R403.1	Controls.	N	Same net outcome, slightly different language.	L	L	A - Adopt as written	Accept		
403-2	R403.1.1		R403.1.1	Programmable thermostat.	N	Similar requirement, but instead of applying exclusively to forced air furnaces, it now applies to the primary heating or cooling system.	L	L	A - Adopt as written	Accept		
403-3	R403.1.2		R403.1.2	Heat pump supplementary heat.	N	Identical provision.	L	L	A - Adopt as written	Accept		
	N1103.1.2		N1103.1.2	Heat pump supplementary heat.		Major changes to Model 2024 Section 1103.1.2						
403-4	NA		R403.2	Hot water boiler temperature reset.	N	New provision. 2021 IECC-R Commentary: "This section provides a requirement that gives each household with a hot water boiler an opportunity for energy savings by requiring a reset that will automatically adjust the temperature of the water based on ambient conditions. The exception for domestic hot water is included to allow the sale of boilers with integrated domestic hot water production. This section aligns the IECC with federal regulations CFR10 Part 430 Subpart C (e)(2), which were in effect at the time the 2021 IECC was being developed. All equipment manufactured for sale in the US is required to meet this standard. Federal appliance standards are subject to change."			A - Adopt as written	Accept		
	N1103.2		N1103.2	Hot water boiler temperature reset.		Minor changes to Model 2024 Section N1103.2						
403-5	R403.2		R403.3	Ducts.	N	Specifies sections for which ducts must comply.			A - Adopt as written	Accept		
	N1103.3		N1103.3	Duct Systems	N	Same net outcome as in MRE. Exception is added in '21 for storm shelters.						
	N		N1103.3.1	Duct System Design	N	The content is the same as the MRE, except that reference to R402.3.6 (Replacement fenestration) has been removed as the section is no longer located here.			0			
	N1103.3.2		N1103.3.2	Building cavities.	N	Relocated section from R403.3.7			A - Adopt as written			
403-6	R403.2.1		R403.3.1	Ducts located outside conditioned space.	Y	Addresses insulation of ducts outside conditioned space. In the MRE, this was largely located within Table R403.2.1. A distinction has been drawn for insulation levels on ducts above or below 3" in diameter. Exhaust ducts are not addressed here as they are in the MRE. Section moves backwards from MRE. Need to review all of R403 against similar provisions of the MRE.			AM - Maintain backstops set in 2015 MRE, but using the IECC-R template as much as possible.	AM - Look at requirements in '15 MRE.		

	N1103.3.3		N1103.3.3	Ductwork Located Outside Conditioned Space		Minor changes to Section N1103.3.3						
403-7	R403.2.1		R403.3.2	Ducts located in conditioned space.	Y	This intent of this section is helpful to clarify what it means for ducts to be considered in conditioned space, however it is a step backwards from a past code opinion given by the state in the past on the topic by only requiring R19 between duct and unconditioned space. Installing a continuous air barrier below the duct could be problematic if a vapor barrier such as poly is installed on the cold side of the floor assembly to accomplish the requirement.			AM - Maintain backstops set in 2015 MRE, but using the IECC-R template as much as possible.	AM - Look at requirements in '15 MRE. Need to change.		
	N1103.3.4		N1103.3.4	Duct systems located in conditioned space.		The content is the same as the MRE, except that reference to R402.3.6 (Replacement fenestration) has been removed as the section is no longer located here.						
403-8	R403.2.1		R403.3.3	Ducts buried within ceiling insulation.	Y	Details are provided here when ducts are partly or completely buried in ceiling insulation. The section is a bit confusing when also reading R403.3.1. It could be read to indicate that ductwork in an attic area must be covered with insulation to R19...? Item #1 will be unnecessary if we maintain current backstop of R8, and item #3 has no relevance to MN.			AM - Review with the rest of R403 for possible changes.	AM - Look at requirements in '15 MRE. Need to change.		
	N1103.3.5		N1103.3.5	Ductwork buried within ceiling insulation		Details are provided here when ducts are partly or completely buried in ceiling insulation. The section is a bit confusing when also reading R403.3.1. It could be read to indicate that ductwork in an attic area must be covered with insulation to R19...? Item #1 will be unnecessary if we maintain current backstop of R8, and item #3 has no relevance to MN.						
403-9	NA		R403.3.3.1	Effective R-value of deeply buried ducts.	N	Gives effective duct insulation value in ceilings if using Total Building Performance Option.	L	L	A - Adopt as written	AM - Look at requirements in '15 MRE. Need to change.		
	N1103.3.5.1		N1103.3.5.1	Effective R-value of deeply buried ducts.		Major changes to N1103.3.5.1						
403-10	R403.2.2		R403.3.4	Sealing.	N	Same beginning language in both codes, however MRE includes exceptions not located in the IECC. Discuss appropriateness of maintaining exceptions. Exception #2 seems out of place to include in Energy code.	L	L	Discuss	Accept - polled group, unanimously in favor of keeping this provision in code.		
	N1103.3.6		N1103.3.6	Sealing.	N	Minor changes to N1103.3.6						
403-11	R403.2.2.1		R403.3.4.1	Sealed air handler.	N	Same language in both codes.	L	L	A - Adopt as written	Accept		
	N1103.3.6.1		N1103.3.6.1	Sealed air-handling unit	N	Minor changes to N1103.6.3.1			A - Adopt as written			
403-12	R403.2.2		R403.3.5	Duct testing.	N	Sets criteria for testing. Reference to ANSI/RESNET/ICC 380 or ASTM E1554 are not in the MRE.			A - Adopt as written	Accept		
	N1103.3.7		N1103.3.7	Duct system testing	N	Details are provided here when ducts are partly or completely buried in ceiling insulation. The section is a bit confusing when also reading R403.3.1. It could be read to indicate that ductwork in an attic area must be covered with insulation to R19...? Item #1 will be unnecessary if we maintain current backstop of R8, and item #3 has no relevance to MN.						

403-13	R403.2.2		R403.3.6	Duct leakage.	N	New requirement to test all ducts regardless of location inside or outside of thermal envelope.	M	?	Discuss	Accept		
	N1103.3.8		N1103.3.8	Duct system leakage	N	New requirement to test all ducts regardless of location inside or outside of thermal envelope.						
			Table N1103.3.8	Maximum Total Duct System Leakage		New Table in Model 2024 Chapter 11						
403-14	R403.2.3		R403.3.7	Building cavities.	N	Same requirement as MRE.				Accept		
403-15	R403.3		R403.4	Mechanical system piping insulation.	N	Same requirement as MRE.	N	N	A - Adopt as written	Accept		
403-16	R403.3.1		R403.4.1	Protection of piping insulation.	N	Nearly identical to MRE, minor tweaks to wording.	N	N	A - Adopt as written	Accept		
	N1103.4.1		N1103.4.1	Protection of piping insulation.		Minor changes to N1103.4.1						
403-17	R403.4		R403.5	Service hot water systems.	N	Same content as MRE, but references different section numbers.	N	N	A - Adopt as written	Accept		
403-18	NA		R403.5.1	Heated water circulation and temperature maintenance systems.	N	New or expanded content in '21 IECC.				Accept		
403-19	R403.4.1		R403.5.1.1	Circulation systems.	N	Expands on provisions in MRE.				Accept		
	N1103.5.1.1		N1103.5.1.1	Circulation systems.		Major changes to N1103.5.1.1						
403-20	NA		R403.5.1.1.1	Demand recirculation water systems.	N	New or expanded content in '21 IECC.				Accept		
	N1103.5.1.1.1		N1103.5.1.1.1	Demand recirculation water systems.	N	Major changes to N1103.5.1.1.1						
403-21	NA		R403.5.1.2	Heat trace systems.	N	New content in '21 IECC.				Accept		
403-22	R403.4.2		R403.5.2	Hot water pipe insulation.	N	Slightly revised content. MRE Table R403.4.2 is removed from IECC.				Accept		
	N1103.5.2		N1103.5.2	Hot water pipe insulation.	N	Minor changes to N1103.5.2						
			Table N1103.5.2	Minimum Pipe Insulation Thickness	N	Same requirement as MRE.			0			
403-23	NA		R403.5.3	Drain water heat recovery units.	N	New provision in '21.				Chris R. review with Plumbing content for regulations.		
403-24 (Code Change Submitted - RE-18 & RE-19.1)	R403.5		R403.6	Mechanical ventilation.	Y	The IECC-R references the IRC or IMC for Mechanical Ventilation requirements.				Polled RE17, 7, & 19.1. Consider zone 6?		
	N1103.6		N1103.6	Mechanical ventilation.		Minor changes to N1103.6						

403-25 (Code Change Submitted - RE-7 & RE-17)	R403.5.5		R403.6.1	Heat or energy recovery ventilation.	Y	The IECC now requires HRV/ERV in CZ 7 & 8.	L	L	A - Adopt as written	Polled RE-17, 7, & 19.1. Consider zone 6?		
	N1103.6.1		N1103.6.1	Heat or energy recovery ventilation.		Changes to N1103.6.1 including adding climate zone 6						
403-26	NA		R403.6.2	Whole-dwelling mechanical ventilation system fan efficacy.	N	Sets fan efficacy ratings.				Polled RE-17, 7, & 19.1. Consider zone 6?		
	N1103.6.2		N1103.6.2	Fan efficacy for whole-house mechanical ventilation systems and outdoor ventilation	N	Change to title and minor changes to section N1103.6.2						
403-27	Table R403.5.1		Table R403.6.2	Whole-dwelling mechanical ventilation system fan efficacy.	N	Sets fan efficacy ratings. Restructured table compared to MRE, some increases to fan efficacy requirements in '21.				Accept		
	Table 1103.6.2		Table 1103.6.2	Fan Efficacy for whole-house mechanical ventilation systems and outdoor air ventilation systems	N	Change to title and table						
403-28	NA		R403.6.3	Testing.	N	New requirement to test ventilation system.				Accept		
	N1106.6.3		N1106.6.3	Testing.		Major changes to Section 1103.6.3						
			N1103.6.4	Intermittent exhaust control for bathrooms and toilet rooms		Relocated section from R403.3.7			0			
403-29	R403.5.17		R403.7	Equipment sizing and efficiency rating.	Y	Similar requirement, but now sets a backstop for replacement equipment to meet minimums set by federal law.				Accept		
			N1103.7.1	Electric-resistance space heating		Similar requirement, but now sets a backstop for replacement equipment to meet minimums set by federal law.						
403-30	R403.7		R403.8	Systems serving multiple dwelling units.	N	Minor changes to language, same net outcome.				Amend to ASHRAE reference.		
	N1103.8		N1103.8	Systems serving multiple dwelling units.		Minor changes to section N1103.8			0			

			N1103.9	Mechanical systems located outside the building thermal envelope		Minor changes to language, same net outcome.			A - Adopt as written			
			N1103.9.1	Heating outside a building		New section in Model 2024 Chapter 11.			A - Adopt as written			
403-31	N1103.9.2		N1103.9.2	Snow melt and ice system controls.	N	Minor changes to language, same net outcome.	L	L	A - Adopt as written	Accept		
			N1103.9.3	Roof and gutter deicing controls		Minor changes to language, same net outcome.						
			N1103.9.4	Freeze-protection system controls		New section in Model 2024 Chapter 11.						
403-32	R403.9		R403.10	Energy consumption of pools and spas.	N	Similar section between codes, refers to subsections for additional stipulations.	L	L	A - Adopt as written	Accept		
403-33	R403.9.1		R403.10.1	Heaters.	N	Expands on provisions in MRE to require switch to be within 3' of heater.	L	L	A - Adopt as written	Accept		
403-34	R403.9.2		R403.10.2	Time switches.	N	Minor changes to language, same net outcome.	L	L	A - Adopt as written	Accept		
	N1103.10.2		N1103.10.2	Time switches.		Minor changes to N1103.10.2			A - Adopt as written			
403-35	R403.9.3		R403.10.3	Covers.	N	21 moves exception for pool cover from 70% to 75% of energy sourced from heat pump or on-site renewable energy.	L	L	A - Adopt as written	Accept		
403-36	NA		R403.11	Portable spas.	N	New criteria, sets requirements for electric powered portable spas.				Accept		
403-37	NA		R403.12	Residential pools and permanent residential spas.	N	New criteria, sets requirements for electric powered permanent spas.				Accept		
			N1103.13	Gas fireplaces	N	Similar section between codes, refers to subsections for additional stipulations.			A - Adopt as written			
			N1103.13.1	Gas fireplace efficiency	N	Similar section between codes, refers to subsections for additional stipulations.			A - Adopt as written			
SECTION R404 ELECTRICAL POWER AND LIGHTING SYSTEMS												
404-1	R404.1		R404.1	Lighting equipment.	N	Now requires ALL lighting to be high efficacy, rather than 75% as in '15 MRE.	L	L	A - Adopt as written	Accept		
	N1104.1		N1104.1	Lighting equipment.	N	Major changes to section N1104.1						
			Table N1104.1	Lighting Power Allowance for Building Exteriors		New Table in Model 2024 Chapter 11						
404-2	NA		R404.1.1	Exterior lighting.	N	New regs for exterior lighting. Consider implications of scoping, and whether we need to add accessory buildings (IRC-IV) to list if garages accessory to IRC-I - III are included in definition for Residential Building. Points user to IECC-C.	L	L		Amend to ASHRAE reference.		
	N1104.1.1		N1104.1.1	Exterior lighting		Minor changes to section N1104.1.1						
			N1104.1.2	Exterior lighting power requirements		New section in Model 2024 Chapter 11.						

			N1104.1.3	Exterior lighting power allowance		New section in Model 2024 Chapter 11.						
			N1104.1.4	Additional exterior lighting power		New section in Model 2024 Chapter 11.						
404-3	R404.1.1		R404.1.2	Fuel gas lighting equipment.	N	Same requirement.	N	N	A - Adopt as written	Accept		
	N1104.1.5		N1104.1.5	Gas lighting	N	Changed title and major changes to N1104.1.5			A - Adopt as written			
404-4	NA		R404.2	Interior lighting controls.	N	New req for dimmers, occupancy sensors, or other controls.				Accept		
	N1104.2		N1104.2	Interior lighting controls.		Major changes to N1104.2						
			N1104.2.1	Habitable spaces		Same requirement.						
			N1104.2.2	Specific locations		New section in Model 2024 Chapter 11.						
			N1104.3	Exterior lighting controls		New section in Model 2024 Chapter 11.			A - Adopt as written			
			N1104.3.1	Controls for individual dwelling units		Minor changes to N1104.3.1 (exterior lighting controls)						
404-5			R404.3	Exterior lighting controls.	N	New req for exterior lighting.				Accept		
404-6 (Code Change Submitted - RE-8,9,10,10.1,11,13)	NA		R404.4	NA		Proposed CCPs to be added in part under R404.4.						
			N1104.4	Renewable energy certificate (REC) documentation.		Minor changes to N1104.3.1 (exterior lighting controls)						

SECTION R405 TOTAL BUILDING PERFORMANCE

405-1	R405.1		R405.1	Scope.	N	Minor changes to paragraph. Adds energy usage for mechanical ventilation.				Accept		
	N1105.1		N1105.1	Scope.		Major changes to N1105.1						
405-2	R405.3		R405.2	Performance-based compliance.	N	Sets backstop at 2009 IECC.				Accept		
	N1105.2		N1105.2	Simulated building performance compliance	N	Changes to title and major changes to N1105.2						
405-3	NA		Table R405.2	Requirements for total building performance.	N	Table provides prescriptive items that must be met instead of previously used headings "Mandatory" sprinkled throughout '15 MRE.				Accept		
	Table N1105.2		Table N1105.2	Requirements for Simulated Building Performance		Changes to the table title and major changes to table						
405-4	R405.4		R405.3	Documentation.	N	Essentially same in '21, changes to numbering of subsequent sections.				Accept		

	N1105.3		N1105.3	Compliance documentation		Changes to title and major changes to N1105.3						
405-5	R405.4.1		R405.3.1	Compliance software tools.	N	Same.				Accept		
	N1105.3.1		N1105.3.1	Compliance software tools		Section deleted in 2024 Chapter 11						
405-6	R405.4.2		R405.3.2	Compliance report.	N	The report in the '21 is expanded and breaks it into the permit app report and that which is needed to obtain CoFo. Additional information is needed for the reports.				Accept		
	N1105.3.2		N1105.3.2	Compliance report		The report in the '21 is expanded and breaks it into the permit app report and that which is needed to obtain CoFo. Additional information is needed for the reports.						
405-7	NA		R405.3.2.1	Compliance report for permit application.	N	The report in the '21 is expanded and breaks it into the permit app report and that which is needed to obtain CoFo.				Accept		
	N1105.3.2.1		N1105.3.2.1	Compliance report for permit application.		The report in the '21 is expanded and breaks it into the permit app report and that which is needed to obtain CoFo.						
405-8	NA		R405.3.2.2	Compliance report for certificate of occupancy.	N	The report in the '21 is expanded and breaks it into the permit app report and that which is needed to obtain CoFo.				Accept		
	N1105.3.2.2		N1105.3.2.2	Compliance report for certificate of occupancy.		The report in the '21 is expanded and breaks it into the permit app report and that which is needed to obtain CoFo.						
405-9	R405.5		R405.4	Calculation procedure.	N	References slightly adjusted subsections.				Accept		
	N1105.4		N1105.4	Calculation procedure.		Major changes to section N1105.4						
405-10	R405.5.1		R405.4.1	General.	N	Same language.				Accept		
	N1105.4.1		N1105.4.1	General		Major changes to section 1105.4.1						
405-11	R405.5.2		R405.4.2	Residence specifications.	N	Nearly the same except references different numbering of section.				Accept		
	N1105.4.2		N1105.4.2	Residence specifications.		Major changes to section N1105.4.2						
405-12	Table R405.5.2(1)		Table R405.4.2(1)	Specification for the standard reference and proposed designs.	N	Some updates to table - values and references to more efficient U-values. N Dehumidistat is now included.				Accept		
	Table N1105.4.2(1)		R405.5.2(2)	Specification for the standard reference and proposed designs.		Major changes to Table N1105.4.2 (1)						
405-13	R405.5.2(2)		Table R405.4.2(2)	Default distribution system efficiencies for proposed designs.	N	Same tabular values.	N	N	A - Adopt as written	Accept		

	Table N1105.4.2 (2)		N1105.4.3	Default distribution system efficiencies for proposed designs.		Major chnages to Table N1105.4.2(2)						
	N1105.4.3		N1105.4.3	Input values.		Section N1105.4.3 moved						
405-14	R405.6		R405.5	Calculation software tools.	N	Same statement, different section numbering referenced.	N	N	A - Adopt as written	Accept		
	N1105.5		N1105.5	Calculation software tools.		Major changes to section N1105.5						
405-15	R405.6.1		R405.5.1	Minimum capabilities.	N	Same content.	N	N	A - Adopt as written	Accept		
	N1105.5.1		N1105.5.1	Minimum capabilities.		Minor changes to section N1105.5.1						
405-16	R405.6.2		R405.5.2	Specific approval.	N	Same content.	N	N	A - Adopt as written	Accept		
	N1105.5.2		N1105.5.2	Specific approval.		The report in the '21 is expanded and breaks it into the permit app report and that which is needed to obtain CoFO.						
405-17	R405.6.3		R405.5.3	Input values.	N	Same content.	N	N	A - Adopt as written	Accept		
			N1105.5.2	Testing required by software vendors		Section deleted in 2024 Chapter 11						
			N1105.5.3	Algorithms not tested		New section in Model 2024 Chapter 11.						
			N1105.5.4	Compliance reports		New section in Model 2024 Chapter 11.						
			N1105.5.4.1	Compliance reports for permit application		New section in Model 2024 Chapter 11.						
			N1105.5.4.2	Compliance reports for certificate of occupancy		New section in Model 2024 Chapter 11.						
SECTION R406 ENERGY RATING INDEX COMPLIANCE ALTERNATIVE												
Discuss definitions: 202-45 ERI Reference Design 202-68 Rated design 202-70 Renewable Energy Certificate (REC)												
406-1	NA		R406.1	Scope.	N					Accept		
	N1106.1		N1106.1	Scope.		Added language to section N1106.1						
406-2	NA		R406.2	ERI Compliance.	N					Accept		
	N1106.2		N1106.2	ERI Compliance.		Minor changes to section N1106.2						
406-3	NA		Table R406.2	Requirements for energy rating index.	N					Accept		

	Table N1106.2		Table N1106.2	Requirements for energy rating index.		Major changes to Table N1106.2						
406-4	NA		R406.3	Building thermal envelope.	N					Accept		
	N1106.3		N1106.3	Building thermal envelope.		Major changes to section N1106.3						
406-5	NA		R406.3.1	On-site renewables are not included.	N					Accept		
	N1106.3.1		N1106.3.1	On-site renewables are not included.		Same content.						
406-6	NA		R406.3.2	On-site renewables are included.	N					Accept		
	N1106.3.2		N1106.3.2	On-site renewables are included.		Same content.						
406-7	NA		R406.4	Energy Rating Index.	N					Accept		
	N1106.4		N1106.4	Energy Rating Index.		Major changes to section N1106.4						
406-8	NA		R406.5	ERI-based compliance.	N					Accept		
	N1106.5		N1106.5	ERI-based compliance.		Major changes to section N1106.5						
406-9	NA		Table R406.5	Maximum energy rating index.	N					Accept		
	Table N1106.5		Table N1106.5	Maximum energy rating index.		Major changes to Table N1106.5						
406-10	NA		R406.6	Verification by approved agency.	N					Accept		
	N1106.6		N1106.6	Verification by approved agency.		Minor changes to section N1106.6						
406-11	NA		R406.7	Documentation.	N					Accept		
	N1106.7		N1106.7	Documentation.		Minor changes to section N1106.7						
406-12	NA		R406.7.1	Compliance software tools.	N					Accept		
	N1106.7.1		N1106.7.1	Compliance software tools.		Major changes to section N1106.7.1						
406-13	NA		R406.7.2	Compliance report.	N					Accept		
	N1106.7.2		N1106.7.2	Compliance report.		Minor changes to section N1106.7.2						
406-14	NA		R406.7.2.1	Proposed compliance report for permit application.	N					Accept		

	N1106.7.2.1		N1106.7.2.1	Proposed compliance report for permit application.		Minor changes to section N1106.7.2.1						
406-15	NA		R406.7.2.2	Confirmed compliance report for a certificate of occupancy.	N					Accept		
	N1106.7.2.2		N1106.7.2.2	Confirmed compliance report for a certificate of occupancy.		Minor changes to section N1106.7.2.2						
406-16	NA		R406.7.3	Renewable energy certificate (REC) documentation.	N					Accept		
	N1106.7.3		N1106.7.3	Renewable energy certificate (REC) documentation.		Major changes to section N1106.7.3						
406-17	NA		R406.7.4	Additional documentation.	N					Accept		
406-18	NA		R406.7.5	Specific approval.	N					Accept		
406-19	NA		R406.7.6	Input values.	N					Accept		
	N1106.7.6		N1106.7.6	Input values.		Minor changes to section N1106.7.6						
SECTION R407 TROPICAL CLIMATE REGION COMPLIANCE PATH												
407-1	NA		R407.1	Scope.	N				AM - Delete	Delete		
407-2	NA		R407.2	Tropical climate region.	N				AM - Delete	Delete		
			Table N1107.2	Minimum Low Slope Roof Reflectance and Emittance Options					AM - Delete			
SECTION R408 ADDITIONAL EFFICIENCY PACKAGE OPTIONS												
408-1	NA		R408.1	Scope.	N				A - Adopt as written			
	N1108.1		N1108.1	Scope.		Minor changes to section N1108.1						
408-2	NA		R408.2	Additional efficiency package options.	N							
	N1108.2		N1108.2	Additional energy efficiency credit requirements		Changes to the title and major changes to section N1108.2						
			Table N1108.2	Additional Efficiency Requirements		New Table in Model 2024 Chapter 11						

408-3	NA		R408.2.1	Enhanced envelope performance option.	N							
	N1108.2.1		N1108.2.1	Enhanced building thermal envelope options		Major changes to section N1108.2.1						
			N1108.2.1.1	Enhanced building thermal envelope performance		New section in Model 2024 Chapter 11.						
			N1108.2.1.2	Improved fenestration		New section in Model 2024 Chapter 11.						
			Table N1108.2.1.2	Improved Fenestration		New Table in Model 2024 Chapter 11						
			N1108.2.1.3	Roof solar reflectance index		New Table in Model 2024 Chapter 12						
			N1108.2.1.4	Reduced air leakage		New section in Model 2024 Chapter 11.						
408-4	NA		R408.2.2	More efficient HVAC equipment performance option.	N							
	N1108.2.2		N1108.2.2	More efficient HVAC equipment performance option.		Major changes to section N1108.2.2						
			N 1108.2.2.1	More efficient HVAC equipment for Cclimate Zone 4		New section in Model 2024 Chapter 11.			No need to keep.			
408-5	NA		R408.2.3	Reduced energy use in service water-heating option.	N							
	N1108.2.3		N1108.2.3	Reduced enery use in service water-heating options.		Major changes to section N1108.2.3						
			Table N1108.2.3	Service Water Heater Efficiencies		New Table in Model 2024 Chapter 11.						
			N1108.2.3.1	Compact hot water distribution system option		New section in Model 2024 Chapter 11.						
			Table N1108.2.3.1	Internal Volume of Various Water Distrbution Tubing		New Table in Model 2024 Chapter 11.						
			N1108.2.3.1.1	Water volume determination		New section in Model 2024 Chapter 11.						

408-6	NA		R408.2.4	More efficient duct thermal distribution system option.	N						
	N1108.2.4		N1108.2.4	More efficient thermal distribution system options							
408-7	NA		R408.2.5	Improved air sealing and efficient ventilation system option.	N						
	N1108.2.5		N1108.2.5	Improved air sealing and efficient ventilation system options							
			N1108.2.6	Energy efficient appliances							
			Table N1108.2.6	Minimum Efficiency Requirements: Appliances							
			N1108.2.7	Renewable Energy							
			N1108.2.8	Demand response							
			N1108.2.8.1	Single-stage HVAC system controls							
			N1108.2.8.2	Variable-capacity and two-stage HVAC system controls							
			N1108.2.9	Opaque walls							
			N1108.2.10	Whole-home lighting control							
			N1108.2.11	Higher efficacy lighting							
(Code Change Submitted - RE-14)											
Review definition: 202-5 Addition											
SECTION R501 GENERAL											
501-1			R501.1	Scope.						Accept as written	
501-2	MR 1322.0100 Subp.3A		R501.1.1	General.						Accept as written	
501-3			R501.2	Compliance.						Accept as written	
	N1109.2		N1109.2	Compliance							
501-4			R501.3	Maintenance.						Accept as written	
501-5	MR 1322.0030 Subp. 1-11		R501.4	Compliance.	Y				AM - Adjust references to "MN State Building Code"? Or, refer to MR 1322.0030 Subp. 1-11	Accept as written	
	N1109.4		N1109.4	Compliance							

501-6			R501.5	New and replacement materials.		Guidance for materials.			A - Adopt as written.	Accept as written		
501-7			R501.6	Historic buildings.					Review in conjunction with MR 1300.0070 Subp. 12a Historical Building.	Accept as written		
			N1109.6	Change in space conditioning.		New section in Model 2024 Chapter 11.						
SECTION R502 ADDITIONS												
502-1	MR 1322.0100 Subp. 3A		R502.1	General.	Y	Very similar to MR 1322.0100 Subp. 3A, except that this section applies specifically to additions. It leaves the MN amendment below. This statement could be added as an amendment to R503 at R503.1.1.2 "Attic insulation shall not be installed unless accessible attic bypasses have been sealed. An attic bypass is any air passageway between a conditioned space and an unconditioned attic."				Accept as written		
	N1110.1		N1101.1	General		Major changes to section N1110.1						
502-2	MR 1322.0100 Subp. 3C		R502.2	Change in space conditioning.	Y	Adds 3 exceptions not listed in the MRE that allow the added space to be viewed with the existing for total performance.				Accept as written		
	N1110.2		N1110.2	Change in space conditioning.		Section deleted in 2024 Chapter 11						
502-3	MR 1322.0100 Subp. 3A		R502.3	Prescriptive compliance.	Y	Specific to additions.				Accept as written		
	N1110.2		N1110.2	Prescriptive compliance.		Minor changes to section 1110.2						
502-4	NA		R502.3.1	Building envelope.	N	Provides clarity for prescriptive compliance, including exemption for air leakage testing.				Accept as written		
	N1110.2.1		N1110.2.1	Building thermal envelope		Changes to the title and minor changes to N1110.2.1						
502-5	NA		R502.3.2	Heating and cooling systems.	N	Clarity for ductwork. Exempts ductwork extended from existing to an addition.				Accept as written		
	N1110.2.2		N1110.2.2	Heating and cooling systems.		Minor changes to N1110.2.2						
502-6	NA		R502.3.3	Service hot water systems.	N	Clarity for additions.				Accept as written		
502-7	NA		R502.3.4	Lighting.	N	Clarity for additions.				Accept as written		
			N1111.1.5	Additional efficiency credit requirements for substantial improvements		New section in Model 2024 Chapter 11.						
SECTION R503 ALTERATIONS												
503-1	MR 1322.0100 Subp. 3A		R503.1	General.	Y	Very similar to MR 1322.0100 Subp. 3A, except that this section applies specifically to alterations.				Accept as written		
503-2	MR 1322.0100 Subp. 3A		R503.1.1	Building envelope.	Y	Exceptions 1-3 are identical in the MRE. Siding is not specifically noted in the exception in the '21.			AM - Consider adding Exception #9 from MRE.	Accept as written		
	N1111.1.1		N1111.1.1	Building thermal envelope		Changes to title and major changes to N1111.1.1						

503-3	R402.3.6		R503.1.1.1	Replacement fenestration.		Clarity for replacement fenestration.				Accept as written		
	N1111.1.1.1		N1111.1.1.1	Fenestration alterations		Minor changes to section N1111.1.1.1						
			N1111.1.1.2	Roof, ceiling and attic alterations		New section in Model 2024 Chapter 11.						
			N1111.1.1.3	Above-grade wall alterations		New section in Model 2024 Chapter 11.						
			N1111.1.1.4	Floor alterations		New section in Model 2024 Chapter 11.						
			N1111.1.1.5	Below-grade wall alterations		New section in Model 2024 Chapter 11.						
			N1111.1.1.6	Air barrier		New section in Model 2024 Chapter 11.						
503-4			R503.1.2	Heating and cooling systems.		Clarity for ductwork. Exempts ductwork extended from existing to an addition.						
	N1111.1.2		N1111.1.2	Heating and cooling systems.		Major changes to section N1111.1.2						
			N1111.1.2.1	Ductwork		Clarity for ductwork. Exempts ductwork extended from existing to an addition.						
			N1111.1.2.2	Systems sizing		New section in Model 2024 Chapter 11.						
			N1111.1.2.3	Duct system leakage		New section in Model 2024 Chapter 11.						
			N1111.1.2.4	Controls		New section in Model 2024 Chapter 11.						
503-5			R503.1.3	Service hot water systems.		Clarity for alterations.				Accept as written		
503-6	MR 1322.0100 Subp. 3A, #7		R503.1.4	Lighting.		Reduces requirement from 50% to 10%.				Accept as written		
			N1111.1.5	Additional efficiency credit requirements for substantial improvements		New section in Model 2024 Chapter 11.						
SECTION R504 REPAIRS												
504-1			R504.1	General.						Accept as written		
504-2	MR 1322.0100 Subp. 3A, #2 & #8.		R504.2	Application.		Item #1 for glass is the same in MRE (item #2). Item #2 is not located verbatim in the MRE. Item #3 is basically item #8 in the MRE.				Accept as written		
SECTION R505 CHANGE OF OCCUPANCY OR USE												
505-1	MR 1322.0100 Subp. 3B		R505.1	General.		Clarity for a change of occupancy or use. No longer contingent on an increased demand for fossil fuel or electricity. Addresses all forms of consumption and allows an exception when viewing the building from a total performance perspective.				Accept as written		