To be completed by Chair									To be completed by TAG members			
Item No.	Minnesota Code Section	"I" Code Section	Subject	Current Minnesota Amend Y or N	Description of Change	Safety & Health Value	Cost Impact N None, L Low M Med, H=High	Recommendation: A - Accept R - Reject AM - Amend Comments	Recommendation A - Accept R - Reject AM - Amend	TAG Group Consensus Y or N	Stake-holder Consensus Y or N	Comments
COLOR KEY: **RED** Item = Items that need to be revisited. **PURPLE** item = Code change proposal submitted.												
MR 1322 MN Residential Energy Code Administration												
1322-01	MR 1322.0010 Subp 1		General.	Y	Update reference to 2021 IECC, include chapter 6 in list of referenced chapters.			AM - Update reference to 2021 IECC, include chapter 6 in list of referenced chapters.				
1322-02	MR 1322.0010 Subp 2		Mandatory chapters.	Y	Update reference to 2021 IECC, include chapter 6 in list of referenced chapters.			AM - Update reference to 2021 IECC, include chapter 6 in list of referenced chapters.				
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 -						
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 -						
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 -						
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.			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.					

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COLOR KEY: **RED** Item = Items that need to be revisited. **BLUE** item = MN Amended Definitions. **PURPLE** item = Code change proposal submitted.												
CHAPTER 2												
202-1	R202	R202	Definition: Above-grade wall	N	**Definitions are identical in MRE & IECC.** "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	Y		
202-2	R202	NA	**MN Amended Definition: Accessible**		**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."			Review in tandem with IECC definition "Access (to)". See ICC definition "Access (to)" which is very similar.		R	Y		
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 remvoing a panel or similar obstruction."			Review in tandem with IECC definition "Ready access (to)".		A	Y		
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 *ready access* or by a means that first requires the removal or movement of a panel or similar obstruction."			A - Adopt as written		A	Y		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	Y		We may be coming back to this regarding addition as a change from unconditioned space to conditioned space. Especially with Residential and Multi -family

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	Y		
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	Y		Table and consider removing after review of 403
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	Y		
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.
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, exhuast, and return-air systems and includes any apparatus installed in connection with the system."					Repeal	Y		Includes HRV's and ERV's. Will include definition of ventilation. Model mechancial code. Will need a robust conversation regarding ventilation.
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 arrancement, type or purpose of the original installation that requires a permit."					Amend to match second printing	Y		
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	Y		

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	Y		
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	Y		
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	Y		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.
202-16	R202	R202	Definition: Basement wall	N	**Definitions are identical in MRE & IECC.** "A wall 50 percent or more below grade and enclosing conditioned space."			A - Adopt as written		A	y		
202-17	R202	R202	Definition: Building	N	**Definitions are identical in MRE & IECC.** "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	Y		
202-18	R202	R202	Definition: Building site	N	**Definitions are identical in MRE & IECC.** "A contiguous area of land that is under the ownership or control of one entity."			A - Adopt as written		A	Y		

202-19	R202	R202	Definition: Building thermal envelope	N	**Definition is in the 2015 MRE as model code language, but the language has been updated in the 2021 IECC.** "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	Y		
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	Y		No longer occurs in the code language.
202-21	R202	R202	Definition: Cavity Insulation	N	**New definition - does not exist in the 2015 MRE.** "Insulating material located between framing members."			A - Adopt as written		A	Y		
202-22	R202	R202	Definition: Circulating hot water system	N	**New definition - does not exist in the 2015 MRE.** "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	Y		Confirm for both potable and non-potable water? Potable hot water only.
202-23	R202	R202	Definition: Climate Zone	N	**New definition - does not exist in the 2015 MRE.** "A geographical region based on climatic criteria as specified in this code."			A - Adopt as written		A	Y		
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."			A - Adopt as written		A	Y		
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	Y		
202-26	R202	R202	Definition: Commercial building	N	**Definitions are identical in MRE & IECC.** "For this code, all buildings that are not included in the definition of “Residential building.”"			A - Adopt as written		A	Y		

202-27	R202	R202	Definition: Conditioned floor area	N	**Definitions are identical in MRE & IECC.** "The horizontal projection of the floors associated with the conditioned space."			A - Adopt as written		a	Y		
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 2021 IECC.** "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	Y		
202-29	R202	R202	Definition: Continuous air barrier	N	**Definitions are identical in MRE & IECC.** "A combination of materials and assemblies that restrict or prevent the passage of air through the building thermal envelope."			A - Adopt as written		A	Y		
202-30	R202	R202	Definintion: Continuous Insulation	N	**New definition - does not exist in the 2015 MRE.** "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	Y		
202-31	R202	R202	Definition: Crawl space wall	N	**Definition is in 2015 MRE as unamended model code language and does not exist in first printing of 2021 IECC.** "The opaque portion of a wall that encloses a crawl space and is partially or totally below grade."					Amend to match second printing	Y		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	Y		Change "Quantity" to Volume.
202-33	R202	R202	Definition: Curtain wall	N	**Definitions are identical in MRE & IECC.** "Fenestration products used to create an external nonload-bearing wall that is designed to separate the exterior and interior environments."					A	Y		

202-34	R202	R202	Definition: Demand Recirculation Water System	N	**Definition is in the 2015 MRE as model code language, but the language has been updated in the 2021 IECC.** "A water distribution system where one or more pumps prime the service hot water piping with heated water upon demand for hot water."			A - Adopt as written		A	Y		
202-35	R202	R202	Definition: Dimmer	N	**New definition - does not exist in the 2015 MRE.** "A control device that is capable of continuously varying the light output and energy use of light sources."			A - Adopt as written		A	Y		
202-36	R202	R202	Definition: Duct	N	**Definitions are identical in MRE & IECC.** "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	Y		
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	Y		
202-38	R202	R202	Definition: Dwelling unit	N	**Definitions are identical in MRE & IECC.** "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	Y		
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	Y		Consider modifying language to address interstitial wall space between units. Centerline of wall between units? Blower door testing application? Need to verify.
202-40	R202	R202	Definition: Energy analysis	N	**Definitions are identical in MRE & IECC.** "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	Y		
202-41	R202	R202	Definition: Energy cost	N	**Definitions are identical in MRE & IECC.** "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	Y		

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	Y		Energy Recovery Ventilation System is in Mechanical Code.
202-43	R202	R202	Definition: Energy Simulation Tool	N	**Definitions are identical in MRE & IECC.** "An approved software program or calculation-based methodology that projects the annual energy use of a building."			A - Adopt as written		A	Y		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 2021 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."					Amend to delete	Y		
202-45	R202	R202	Definition: ERI Reference Design	N	**New definition - does not exist in the 2015 MRE.** "A version of the rated design that meets the minimum requriements of the 2006 IECC."			Discuss		A	Y		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".
202-46	R202	R202	Definition: Exterior wall	N	**Definitions are identical in MRE & IECC.** "Walls including both above-grade walls and basement walls."					A	Y		

202-47	R202	R202	Definition: Fenestration	N	**Definition is in the 2015 MRE as model code language, but the language has been updated in the 2021 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	Y		
202-48	R202	R202	Definition: Fenestration product, site-built	N	**Definitions are identical in MRE & IECC.** "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	Y		
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	Y		
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."			A - Adopt as written		AM	Y		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."					AM	Y		Look to definition of ERV and eliminate references to humidity.
202-52	R202	R202	Definition: Heated slab.	N	**Definitions are identical in MRE & IECC.** "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	Y		

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	Y		Match the second printing of the first edition.
202-54	R202	R202	Definition: Historic Building	N	**New definition - does not exist in the 2015 MRE.** "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."			AM					TAG will discuss the current definition in MR 1300, TAG wants definitions to match.
202-55	R202	R202	Defintion: Infiltration	N	**Definitions are identical in MRE & IECC.** "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	Y		
202-56	R202	R202	Definition: Insulating sheathing	N	**Definition is in 2015 MRE as unamended model code language and does not exist in 2021 IECC.** "An insulating board with a core material having a minimum R-value of R-2."			A - Adopt as written		A	Y		Have definition for continuous insulation, not needed.
202-57	R202	R202	Definition: Insulated siding	N	**New definition - does not exist in the 2015 MRE.** "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	Y		

202-58	R202	R202	Definition: Labeled	N	**Definition is in the 2015 MRE as model code language, but the language has been updated in the 2021 IECC.** "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	Y		
202-59	R202	R202	Definition: Listed	N	**Definitions are identical in MRE & IECC.** "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	Y		
202-60	R202	R202	Definition: Low-voltage lighting	N	**Definitions are identical in MRE & IECC.** "Lighting equipment powered through a transformer such as a cable conductor, a rail conductor and track lighting."			A - Adopt as written		A	Y		
202-61	R202	R202	Definition: Manual	N	**Definitions are identical in MRE & IECC.** "Capable of being operated by personal intervention (see “Automatic”)."			A - Adopt as written		A	Y		
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		A	Y		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					Revisit amended definition
202-64	R202	R202	Definition: Occupant sensor control	N	**New definition - does not exist in the 2015 MRE.** "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	Y		

202-65	R202	R202	Definition: On-Site Renewable Energy	N	**New definition - does not exist in the 2015 MRE.** "Energy from renewable energy resources harvested at the building site."			A - Adopt as written		A	Y		
202-66	R202	R202	Definition: Opaque door	N	**New definition - does not exist in the 2015 MRE.** "A door that is not less than 50 percent opaque in surface area."			A - Adopt as written		A	Y		
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	Y		Amend to add-in per second printing.
202-68	R202	R202	Definition: Rated Design	N	**New definition - does not exist in the 2015 MRE.** "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 - does not exist in the 2015 MRE.** "That which enables a device, appliance or equpment to be directly reached without requiring the removal or movement of any panel or similar obstruction."			A - Adopt as written		A	Y		Matches mechanical code.
202-70	R202	R202	Definition: Renewable Energy Certificate (REC)	N	**New definition - does not exist in the 2015 MRE.** "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.**
202-71	R202	R202	Definition: Renewable Energy Resources	N	**New definition - does not exist in the 2015 MRE.** "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	Defintion: Repair	N	**Definition is in the 2015 MRE as model code language, but the language has been updated in the 2021 IECC.** "The reconstruction or renewal of any part of an existing building."								
202-73	R202	R202	Definition: Reroofing	N	**New definition - does not exist in the 2015 MRE.** "The process of recovering or replacing an existing roof covering. See "Roof recover" and "Roof replacement."			A - Adopt as written		A	Y		
202-74	R202	R202	Definition: Residential building	N	**Definition is in the 2015 MRE as model code language, but the language has been updated in the 2021 IECC.** "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."					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.** "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		AM			Amend to include per second printing.
202-76	R202	R202	Definition: Roof Recover	N	**New definition - does not exist in the 2015 MRE.** "The process of installing an additional roof covering over an existing roof covering without removing the existing roof covering."			A - Adopt as written		A	Y		
202-77	R202	R202	Definition: Roof Repair	N	**New definition - does not exist in the 2015 MRE.** "Reconstruction or renewal of any part of an existing roof for the purpose of its maintenance."			A - Adopt as written		A	Y		Part but not the entire roof.
202-78	R202	R202	Definition: Roof Replacement	N	**New definition - does not exist in the 2015 MRE.** "The process of removing the existing roof covering, repairing any damaged substrate and installing a new roof covering."			A - Adopt as written		A	Y		
202-79	R202	R202	Definition: *R* -Value (Thermal resistance)	N	**Definitions are identical in MRE & IECC.** 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 · ft2 · ° /Btu) [(m2 · K)/W].					A	Y		

202-80	R202	R202	Definition: Service water heating	N	**Definitions are identical in MRE & IECC.** "Supply of hot water for purposes other than comfort heating."			A - Adopt as written		A	Y		
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."			A - Adopt as written		A	Y		The term "Skylight" is included in the definition for "Fenestration".
202-82	R202	R202	Definition: Solar heat gain coefficient (SHGC)	N	**Definitions are identical in MRE & IECC.** "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	Y		
202-83	R202	R202	Definition: Standard reference design	N	**Definitions are identical in MRE & IECC.** "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	Y		
202-84	R202	R202	Definition: Sunroom	N	**Definitions are identical in MRE & IECC.** "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	Y		
202-85	R202	R202	Definition: Thermal Distribution Efficiency (TDE)	N	**New definition - does not exist in the 2015 MRE.** "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	Y		Part of the Resdidential ANSI 380 or 301 standard for performance compliance. If don't do a total duct leakage test, then makes more challenigng to gain the required HERS rating. See appendix C.
202-86	R202	R202	Definition: Thermal isolation	N	**Definitions are identical in MRE & IECC.** "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	Y		

202-87	R202	R202	Definition: Thermostat	N	**Definitions are identical in MRE & IECC.** "An automatic control device used to maintain temperature at a fixed or adjustable setpoint."					A	Y		
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	Y		Includes boundary air films.
202-89	R202	R202	Definition: Ventilation	N	**Definitions are identical in MRE & IECC.** "The natural or mechanical process of supplying conditioned or unconditioned air to, or removing such air from, any space."					A	Y		Will Revisit.
202-90	R202	R202	Definition: Ventilation air	N	**Definitions are identical in MRE & IECC.** "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	Y		
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	Y		
202-92	R202	R202	Definition: Whole house mechanical ventilation system	N	**Definitions are identical in MRE & IECC.** "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	Y		
202-93	R202	R202	Definition: Zone	N	**Definitions are identical in MRE & IECC.** "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	Y		

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To be completed by Chair										To be completed by TAG members			
Item No.	Minnesota Code Section	"I" Code Section	Subject	Current Minnesota Amend Y or N	Description of Change	Safety & Health Value N None, L Low M Med, H=High	Cost Impact	Recommendation: A - Accept R - Reject AM - Amend Comments					
COLOR KEY: **RED** Item = Items that need to be revisited. **PURPLE** item = Code change proposal submitted.													
CHAPTER 3													
SECTION R301 GENERAL													
301-1	R301.1	R301.1	Climate zones, general.	N	Minor changes to text. Same net outcome.	N	N	A - Adopt as written		AM	Y		Recommend that Zone 5 upgrade to Zone 6. Will coordinate.
301-2 **(Code Change Submitted - RE-2)**	Figure R301.1	Figure R301.1	Climate zone map.	N	Updated climate zone map.			A - Adopt as written		AM	Y		
301-3 **(Code Change Submitted - RE-2)**	Table R301.1	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	Y		Amend to delete non-minnesota data.
301-4	R301.2	R301.2	Warm Humid Counties.	N	No change and no affect on Minnesota. Suggest amending to delete.			AM		AM	Y		Delete
301-5	R301.3 & Table R301.3(1)	R301.3	Climate zones.	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	Y		
301-6	Table R301.3(2)	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	Y		Amend to delete Zones 1-5
301-7	None	R301.4	Tropical Climate region.	N	New section with no affect on Minnesota. Suggest deleting.	N	N	AM		AM	Y		Delete
SECTION R302 DESIGN CONDITIONS													
R302-1	R302.1	R302.1	Interior design conditions.	N	No change.	N	N	A - Adopt as written		AM	Y		Amend to add exterior design conditions to match commercial energy code for climatic parameters.
R302-2 **(Code Change Submitted - RE-3)**	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(?).								
SECTION R303 MATERIAL, SYSTEMS AND EQUIPMENT													

303-1	R303.1	R303.1	Material 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.**					Recommend deleting item 3 at the very least because it is out of scope for a building official.
303-2	R303.1.1	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. 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.	N	N	A - Adopt as written		A	Y	Y	
303-3	R303.1.1.1	R303.1.1.1	Blown/sprayed roof insulation	N	Minor changes to text. Same net outcome.	N	N	A - Adopt as written		A	Y	Y	
303-4	R303.1.2	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. For insulation materials that are installed without an observable manufacturer's R-value mark, such as blown ordraped products, an insulation certificate complying with Section R303.1.1 shall be left immediately afterinstallation by the installer, in a conspicuous locationwithin the building, to certify the installed R-value of the insulation material.	L	L	A - Adopt as written		A	Y	Y	

303-5	R303.1.3	R303.1.3	Fenestration product rating.		Modified section: U-factors of fenestration products such as windows, doors, and skylights shall be determined in accordance with NFC 100. **Exception:** Where required, garage door U-factors shall be determined in accordance with either NFRC 100 or ANSI/DASMA 105. U-facators 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 form Table 303.1.3(3).	L		A - Adopt as written		A	Y	Y	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.
303-6	R303.1.4	R303.1.4	Insulation product rating.	N	Sentence has been restructured, no technical changes made.	N	N	A		A	Y	Y	
303-7	R303.1.4.1	R303.1.4.1	Insulated Siding.	N	New Section: 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.	L	L	A - Adopt as written		A	Y	Y	
303-8	R303.1.5	R303.1.5	Air-impermeable insulation.	N	New section: 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.	N	N	A - Adopt as written		A	Y	Y	
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.
303-10		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 or the International Residential Code, as applicable.			A - Adopt as written		A	Y	Y	

303-11	R303.2.1	R303.2.1	Protection of exposed foundation insulation.	N	Very minor changes to language. Same net effect.	N	N	A - Adopt as written		A	Y	Y	
303-12	R303.3	R303.3	Maintenance information.	N	One word changed: "accessible" label in MRE, "visible" label in IECC.	N	N	A - Adopt as written		A	Y	Y	

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To be completed by Chair										To be completed by TAG members			
Item No.	Minnesota Code Section	"I" Code Section	Subject	Current Minnesota Amend Y or N	Description of Change	Safety & Health Value	Cost Impact N=None, L=Low M=Med, H=High	Recommendation: A Accept R - Reject AM - Amend Comments		Recommendation A - Accept R - Reject AM - Amend	TAG Group Consensus Y or N	Stake-holder Consensus Y or N	Comments
COLOR KEY: **RED** Item = Items that need to be revisited. **PURPLE** item = Code change proposal submitted.													
CHAPTER 4													
SECTION R401 GENERAL													
Go to End of List													
401-1	R401.1	R401.1	Scope.	N	No change.	N	N	A - Adopt as written		A	Y	Y	This could replace language in MR 1322.0100 Subp. 2 "Scope".
401-2	R401.2	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	Y	Y	
401-3	NA	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 R401 General, R402 Building Thermal Envelope, R403 Systems, and R404 Electrical Power and Lighting.					A	Y	Y	
401-4	NA	R401.2.2	Total building performance option.	N	This path guides the user to R405 Total Building Performance.					A	Y	Y	
401-5	NA	R401.2.3	Energy Rating Index (ERI) option.	N	This path guides the user to R406 ERI Compliance Alternative.					A	Y	Y	
401-6	NA	R401.2.4	Tropical climate region option.	N	This path guides the user to R407 Tropical Climate Region Compliance Path. No relevance to MN as we are not tropical.	N	N	AM - Delete section.		AM	Y	Y	
401-7 **(Code Change Submitted - RE-5)**	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.					A	Y	Y	
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.					DLI will study to see if we need the amended language.
SECTION R402 BUILDING THERMAL ENVELOPE													
402-1	R402.1	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	Y	Y	

402-2	NA	R402.1.1	Vapor retarder.	N	Provides a pointer to the IRC or IBC as applicable, where vapor retarders are addressed.	N	N	A - Adopt as written		AM	Y	Y	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	R402.1.2	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.			AM - Include waterproofing content from MRE.		AM	Y	Y	Relocate amended language to foundation walls section and retain model code language here. Insert amended language into 402.2.8 and 402.2.10.
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.
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 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.
402-6 **(Code Change Submitted - RE-6.1)**	Table R402.1.1	Table R402.1.3	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.

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. 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	Y	Y	
402-8	R402.1.4	R402.1.5	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	Y	y	May need to readdress if U-value tables adjusted for fenestration.
402-9	R402.2	R402.2	Specific insulation requirements.	N	The word "(Prescriptive)" was removed in the IECC.	N	N	A - Adopt as written		A	Y	Y	
402-10	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 requirments are, as users do not realize the MN edition stems from model code language.	L	M	AM - Delete first sentence.		AM	Y	Y	Amend to delete first sentence. Delete "with attics."
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	Y	Y	Amend to delete section.
402-12	R402.2.3	R402.2.3	Eave baffle	N	The IECC has added content in this section to further clarify the intent. The overall outcome is the same.			A - Adopt as written		Table			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	Similar language to the MRE. Two exceptions are added. Recommend deleting the second exception as it does not pertain to MN climate zones.	N	N	AM - Delete second exception.		AM			Amend to delete exceptions. DLI to write.
402-14	NA	R402.2.4.1	Access hatches and door insulation installation and retention.	N	Similar language to the MRE with revisions.	N	N	A - Adopt as written					Amend to delete exceptions. DLI to write.
402-15	R402.2.5	R402.2.5	Mass walls.	N	Similar language to the MRE with revisions. Added an empirical specification regarding walls with a heat capacity greater than or equal to 6 Btu/SF x degrees F.	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					

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.					
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.					
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	Comment: 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					
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					
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.					
402-24	R402.2.10	R402.2.10.1	Crawl space wall insulation installations.	N	See comments for R402.2.10 directly above.	N	N	See comments for R402.2.10 directly above.					
402-25	R402.2.11	R402.2.11	Masonry veneer.	N	No changes.	N	N	A - Adopt as written					
402-26	R402.2.12	R402.2.12	Sunroom and heated garage insulation.	N	Thermal envelope provisions for garages are now specifically addressed in the 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.	N	N	A - Adopt as written					
402-27	R402.3	R402.3	Fenestration.	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.	N	N	A - Adopt as written					
402-28	R402.3.1	R402.3.1	U-factor.	N	No changes.	N	N	A - Adopt as written					
402-29	R402.3.2	R402.3.2	Glazed fenestration SHGC.	N	Same content in MRE, but added section 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.					
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.								

402-32	R402.3.5	R402.3.5	Sunroom and heated garage fenestration.	N	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					
402-33	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					
402-34	R402.4.1	R402.4.1	Building thermal envelope.	N	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	R402.4.1.1	R402.4.1.1	Installation.	N	Same language as the MRE.	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					
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					
402-38 **(Code Change Submitted - RE-4)**	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.								
402-39	R402.4.2	R402.4.2	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					
402-40	R402.4.3	R402.4.3	Fenestration air leakage.	N	Same language as the MRE.	L	L	A - Adopt as written					
402-41	NA	R402.4.4	Rooms containing fuel-burning appliances.	N	New provision in '21.	L	M	Merits discussion					
402-42	R402.4.4	R402.4.5	Recessed lighting.	N	Minor changes in text, same net requirement and outcome.	L	L	A - Adopt as written					
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					
402-44	R402.5	R402.5	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.					

SECTION R403 SYSTEMS													
403-1	R403.1	R403.1	Controls.	N	Same net outcome, slightly different language.	L	L	A - Adopt as written					
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					
403-3	R403.1.2	R403.1.2	Heat pump supplementary heat.	N	Identical provision.	L	L	A - Adopt as written					
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					
403-5	R403.2	R403.3	Ducts.	N	Specifies sections for which ducts must comply.			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.					

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.					
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 unecessary 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.					
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					
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					
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					
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.								
403-13		R403.3.6	Duct leakage.										
403-14		R403.3.7	Building cavities.										
403-15		R403.4	Mechanical system piping insulation.										
403-16		R403.4.1	Protection of piping insulation.										
403-17		R403.5	Service hot water systems.										
403-18		R403.5.1											
403-19		R403.5.1.1											
403-20		R403.5.1.1.1											
403-21		R403.5.1.2											
403-22		R403.5.2											
403-23		R403.5.3											
403-24		R403.6											

403-25 **(Code Change Submitted - RE-7)**		R403.6.1											
403-26		R403.6.2											
403-27		Table R403.6.2											
403-28		R403.6.3											
403-29		R403.7											
403-30		R403.8											
403-31		R403.9											
403-32		R403.10											
403-33		R403.10.1											
403-34		R403.10.2											
403-35		R403.10.3											
403-36		R403.11											
403-37		R403.12											
SECTION R404 ELECTRICAL POWER AND LIGHTING SYSTEMS													
(Code Change Submitted - RE-8,9,10,11,13)		R404.4											
SECTION R405 TOTAL BUILDING PERFORMANCE													
SECTION R406 ENERGY RATING INDEX COMPLIANCE ALTERNATIVE													
Discuss definitions: 202-45 ERI Reference Design 202-68 Rated design 202-70 Renewable Energy Certificate (REC)													
SECTION R407 TROPICAL CLIMATE REGION COMPLIANCE PATH													
SECTION R408 ADDITIONAL EFFICIENCY PACKAGE OPTIONS													
(Code Change Submitted - RE-14)													

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Meeting Date	Item # to START meeting	Item # at END of meeting	CCP's Discussed
8/7/23 1:00 PM	202-1	202-76	
8/21/23 1:00 PM	202-77	303-1	
9/5/23 9:00 AM	303-2	402-14	
9/18/23 1:00 PM	402-15	402-15	RE-2, RE-3, RE-5, RE-12
10/2/23 1:00 PM	402-16	402-16	RE-12, RE-16
10/16/23 1:00 PM	402-16	402-26	None.
10/30/23 1:00 PM	402-26		

Proposal #	Submittal date	Section	Topic / Summary	Proposal submitted by	Agenda date for discussion	TAG consensus Support/Deny	Notes
RE-1	6/27/2023	MR 1322.0100 Subp. 2	Update scoping criteria.	Amanda Spuckler			
RE-2	6/27/2023	R301.1	Remove climate zone content outside of MN.	Amanda Spuckler	Monday, September 18, 2023	Approve	
RE-3	8/28/2023	R302	Add climatic data design conditions.	John Smith	Monday, September 18, 2023	4 Yea, 6 Nay	John Smith will revise for 99% ASHRAE criteria.
RE-3.1	9/20/2023	R302	Add climatic data design conditions. (Revised)	John Smith			Revised proposal.
RE-4	8/30/2023	R402.4.1.3	Air sealing.	Jared Johnson, Marcy Conrad Nutt	Monday, October 30, 2023		
RE-5	8/30/2023	R401.2.5	Alternative compliance. (PHIUS)	Jared Johnson, Marcy Conrad Nutt	Monday, September 18, 2023	4 Yea, 6 Nay	
RE-5.1	10/12/2023	R401.2.5	Alternative compliance. (PHIUS) (Revised)	Jared Johnson, Marcy Conrad Nutt	Monday, October 30, 2023		Revised proposal.
~~RE-6~~	~~8/30/2023~~	~~Table R402.1.3~~	~~Continuous insulation.~~	Jared Johnson, Marcy Conrad Nutt			Author submitted revision - RE-6.1.
RE-6.1	10/9/2023	Table R402.1.3	Continuous insulation. (Revised)	Jared Johnson, Marcy Conrad Nutt			Revised proposal. Author requested to hold discussion on RE-6.1 for now.
RE-7	8/30/2023	R403.6.1	Balanced ventilation.	Jared Johnson, Marcy Conrad Nutt			Review with ventilation content.
RE-8	8/30/2023	R404.4	Electric ready.	Ben Rabe	Monday, November 13, 2023		
RE-9	8/30/2023	R404.4	Energy storage.	Ben Rabe	Monday, November 13, 2023		
RE-10	9/5/2023	R404.4	EV Charging.	Ben Rabe	Monday, November 13, 2023		
RE-11	8/30/2023	R404.4	Solar ready.	Ben Rabe	Monday, November 13, 2023		
RE-12	8/30/2023	Table R402.1.2	Window U-Value.	Ben Rabe	Monday, September 18, 2023	5 Yea, 8 Nay	
RE-13	8/30/2023	R404.4	Electric ready.	Jonny Kocher	Monday, November 13, 2023		
RE-14	8/30/2023	R408	Credit table proposal.	Jonny Kocher			
RE-15	9/1/2023	R202	Definitions: Exhaust, HRV, Residential Building, Ventilation, Ventilation Air	Greg Metz			Review with ventilation content.
RE-16	9/8/2023	R402.2.4	Attic access.	Steve Shold	Monday, October 2, 2023	11 Yea, 2 Abstain	Amend proposal.
RE-17	9/18/2023	R403.6.1	Remove ERV/HRV	Patrick Murray			Review with ventilation content.
RE-18	9/18/2023	R403.5.2, .3, .4	Remove ventilation content from Energy code.	Patrick Murray			Review with ventilation content.
RE-19	9/27/2023	R403.5	Balanced ventilation.	Mike Moore			Review with ventilation content.