

Author/requestor: Cody Fischer, Stephen Smith

CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: May 6, 2024

Email a	address: cody@footprintdev.com, stephen@centerforbuilding.org	Model Code: International Building Co	ode	
Teleph	one number: 507-213-0730	Code or Rule Section: Minnesota Bui	lding Co	ode
Footpri	ssociation affiliation, if any: nt Development (Cody Fischer) for Building in North America (Stephen Smith)	Topic of proposal: Single-exit apartme	nt buildi	ings
Code c	or rule section to be changed: 1006.3.3			
Intende	ed for Technical Advisory Group ("TAG"): Cor	nmercial Building Code Technical Advis	ory Gro	up
Genera	al Information		<u>Yes</u>	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State Is the proposed change required due to clim Will the proposed change encourage more will the proposed change remedy a problem Does the proposal delete a current Minneso Would this proposed change be appropriate development process?	natic conditions of Minnesota? uniform enforcement? n? ta Rule, chapter amendment?		
	sed Language The proposed code change is meant to:			
	☑ change language contained the model co Minnesota Building Code 1006.3.3	de book? If so, list section(s).		
	☐ change language contained in an existing	g amendment in Minnesota Rule? If s	o, list R	ule part(s).
	☐ delete language contained in the model of	ode book? If so, list section(s).		
part(s).	☐ delete language contained in an existing	amendment in Minnesota Rule? If so	, list Ru	le

- ☑ add new language that is not found in the model code book or in Minnesota Rule.
- 2. Is this proposed code change required by Minnesota Statute? If so, please provide the citation. No.
- 3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and strikethrough words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

1006.3.3 Single exits.

A single exit or access to a single exit shall be permitted from any story or occupied roof where one of the following conditions exists:

- 1. The occupant load, number of dwelling units or sleeping units, and common path of egress travel distance do not exceed the values in Table 1006.3.3(1) or 1006.3.3(2).
- 2. Rooms, areas, and spaces complying with Section 1006.2.1 with exits that discharge directly to the exterior at the level of exit discharge are permitted to have one exit or access to a single exit.
- 3. Parking garages where the vehicles are mechanically parked shall be permitted to have one exit or access to a single exit.
- 4. Group R-3 and R-4 occupancies shall be permitted to have one exit or access to a single exit.
- 5. Individual single-story or multistory dwelling units and sleeping units shall be permitted to have a single exit or access to a single exit from each dwelling unit or sleeping unit, provided that both of the following criteria are met:
 - 5.1. Each dwelling unit and sleeping unit complies with Section 1006.2.1 as a space with one means of egress.
 - 5.2. Each sleeping unit and dwelling unit either:
 - (a) has an exit that discharges directly to the exterior at the level of exit discharge; or
 - (b) has an exit access outside the entrance door that provides access to at least two approved independent exits.
- 6. A single exit shall be permitted to serve apartment houses classified as Group R-2 occupancies in buildings where the total number of stories does not exceed four, provided that all of the following conditions are met:
 - 6.1. There are four or fewer dwelling units per story.
 - 6.2. The vertical exit enclosure only serves dwelling units
 - 6.3. The stairway and any associated corridors shall be a minimum of 44" in width and shall not serve stories defined as a basement.
 - 6.4. The building shall be equipped throughout with an automatic sprinkler system in accordance

with Section 903.3.1.1.

- 6.5. The travel distance from the entrance door of any dwelling unit to an exit does not exceed 35 feet.
- 6.6. Exit access travel distance measured in accordance with Section 1017.3 does not exceed 125 feet.
- 6.7. All corridors serving as access to the exit shall have a minimum 1-hour fire resistance rating.
- 6.8. Mezzanines are prohibited
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

Section 1006.3.3 of the Minnesota State Fire Code would need to be changed with the same language.

Need and Reason

1. Why is the proposed code change needed? Please provide a general explanation as well as a specific explanation for any changes to numerical values (heights, area, etc.)

Housing demand in Minnesota's cities has grown, and societal concerns about sprawl have increased since the I-codes were developed. Minneapolis in particular is zoning for infill multifamily development on single-family lots, which the current requirement for two remote exits in even very small four-story buildings is not compatible with. In developing the International Building Code on which the Minnesota Building Code is based, the International Code Council has not generally considered the need to accommodate such development, instead being dominated by interests more focused on single-family residential, commercial buildings, and low-rise garden apartment and large-lot, mid-rise multifamily typologies. As such, we are proposing the adoption of a different model code section that is more compatible with small-lot multifamily development.

2. Why is the proposed code change a reasonable solution?

Our proposed code section duplicates the requirements of NFPA 101 (30.2.4.6) and 5000 (equivalent language), which have been vetted through the National Fire Protection Association's national consensus process. Seattle and New York City have extensive experience with single-exit buildings up to six stories, and officials from those jurisdictions have stated that they have not encountered issues with fires.

In addition, a review of NFIRS and media accounts of fires in Seattle and New York City by one of the proponents (Stephen Smith), in conjunction with the Pew Charitable Trusts, has found no fire fatalities related to the exit in single-exit buildings above three stories. Vermont and Georgia (through their adoption of NFPA 101, which is the inspiration for this code change, in lieu of IBC Chapter 10) and the consolidated City and County of Honolulu (through its adoption of Seattle's unique code section) also allow taller single-stair buildings than what is currently allowed by the IBC and Minnesota's current code. This code section is on par with what is allowed statewide in Vermont and Georgia, and more conservative than what is allowed in New York City, Seattle, and Honolulu.

3. What other factors should the TAG consider?

The current philosophy around egress in multifamily buildings was developed long before many modern fire protection features, from fire sprinklers to enclosed stair shafts to fire-rated gypsum board.

Current code sections were developed with large, double-loaded corridor buildings in mind, and apply the same standards for number of exits to four-story buildings with 2,500-sq. ft. floor plates as they do to 30-story buildings with 25,000-sq. ft. floor plates. Fatalities from fires in this country by parties not intimate with the source of ignition, especially related to egress, are now limited almost exclusively to unsprinklered dwellings.

After an initial committee hearing on September 5, 2024, we heard feedback from the committee and have adjusted our proposal. Below is a summary table of the feedback received, and our response.

Questions and concerns	Revisions and clarifications
Proposal should clearly outline technical equivalencies proposed in lieu of a second stair	 NFPA 13 sprinklers (in lieu of 13R) 44" minimum stairway and corridor width (current code would allow 36" in most cases, since stairway occupant load typically would not exceed 50)
Current MN code for two-stair buildings allows exceptions that can reduce the width of a stairway from 44" to 36"	Require 44" stairway
NFPA 101 has a lower required fire resistance rating for stairway enclosure (1 hr.) compared to MN code (2 hr.)	Defer to existing code – 2-hr. rated stairway shaft is required, by striking item 6.7 in our proposal
Current MN code does not define "one-half story"	Change 6.3 to "does not serve stories defined as a basement"
Can the stair also access a rooftop amenity?	No. We have added a restriction (at item 6.8) to forbid occupiable roofs.
How do we clarify discharge requirements?	Defer to existing code – Section 1028.1.
What is allowed in the stairway?	Defer to existing code.
What is required in the stairway (e.g., standpipe)?	Defer to existing code – standpipe is required in four-story buildings per 905.3.1.

The intent of this code change is to harmonize IBC 1006.3.3 with NFPA 101 30.2.4.6 (see below) and the feedback provided by the CCAC Commercial TAG at its meeting on September 5, 2024.

30.2.4.6 A single exit shall be permitted in buildings where the total number of stories does not exceed four, provided that all of the following conditions are met:

- (1) There are four or fewer dwelling units per story.
- (2) The building is protected throughout by an approved, supervised automatic sprinkler system in accordance with 30.3.5.
- (3) The exit stairway does not serve more than one-half story below the level of exit discharge.
- (4) The travel distance from the entrance door of any dwelling unit to an exit does not exceed 35 ft (10.7 m).
- (5) The exit stairway is completely enclosed or separated from the rest of the building by barriers having a minimum 1-hour fire resistance rating.

- (6) All openings between the exit stairway enclosure and the building are protected with self-closing door assemblies having a minimum 1-hour fire protection rating.
- (7) All corridors serving as access to exits have a minimum 1-hour fire resistance rating.
- (8) Horizontal and vertical separation having a minimum ½-hour fire resistance rating is provided between dwelling units.

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.

For small lots, this proposed code change will reduce costs by roughly 7 percent, by reducing the amount of floor area that must be built to serve an equal amount of rentable space by the same amount. See here for some examples of floor plans which illustrate the point.

2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. If the benefit is quantifiable (for example energy savings), provide an estimate if possible.

This code section will decrease costs for very small buildings.

3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.

This code section will decrease costs for very small buildings.

4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

The proposed code change is simple and should not increase enforcement or compliance costs.

5. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city (Minn. Stat. § 14.127)? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

1. What parties or segments of industry are affected by this proposed code change?

Developers and architects will be affected, in that they will be allowed to build/design multifamily buildings that are one story taller than currently allowed with a single stair, which will be especially impactful on smaller lots. The sprinkler industry will be affected, in that more sprinklered structures will become economically viable (Minnesota does not currently require sprinklers in single-family houses, and almost none are provided with them). The fire service will be affected, in that more structures within their service area will be sprinklered and built with modern materials. In very rare circumstances, the fire service may be called upon to fight fires that are not suppressed by sprinkler systems in small, four-story multifamily buildings with a single exit. Building code officials will be affected, in that they will have to learn to approve plans meeting our proposed compliance option.

2. Can you think of other means or methods to achieve the purpose of the proposed code change? What might someone opposed to this code change suggest instead? Please explain what the alternatives are and why your proposed change is the preferred method or means to achieve the desired result.

In speaking with stakeholders while developing this code language, we were presented with two options to achieve our goals without modifying the code language: an alternative means and methods process, and presenting this code change to the International Code Council for inclusion in their 2027 model code. The former process is not realistic for small multifamily buildings, since the financial stakes are too low to justify costly and uncertain discretionary processes – as general a rule, performance-based and other non-prescriptive compliance routes are only financially justifiable with on large, profitable projects. One of the co-proponents to this Minnesota Building Code proposal did present a code change proposal to the ICC in Orlando in April, and while it is working its way through the process, a number of opponents suggested this code change would be better left to cities and states who feel they have an interest in allowing such buildings. Furthermore, even if the ICC does adopt our proposal for the 2027 edition, based on the lag in state adoptions, Minnesota would likely not potentially adopt the language until the late 2020s – an unacceptably long delay in our view given the urgency of the housing and climate crises, and the desire by localities (like Minneapolis) to allow the development of more multifamily housing.

3. What are the probable costs or consequences of not adopting the code change, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

The cost of not adopting this code change is in continuing to make it very difficult to develop small multifamily buildings in Minnesota. Cities like Minneapolis which seek to allow small multifamily development on single-family and small commercial lots will be practically limited to three stories, working at cross-purposes with land use goals, and also making it highly unlikely that any project will be large enough to carry the financial burden of an elevator, making such structures inaccessible to those with disabilities, to the state's large and growing senior population, and to families with young children.

4. Are you aware of any federal or state regulation or requirement related to this proposed code change? If so, please list the federal or state regulation or requirement and your assessment of any differences between the proposed code change and the federal regulation or requirement. No.

***Note: The information you provide in this code change proposal form is considered Public Data and used by the TAG to consider your proposed modification to the code. Any code change proposal form submitted to DLI may be reviewed at public TAG meetings and used by department staff and the Office of Administrative Hearings to justify the need and reasonableness of any proposed rule draft subject to administrative review and is available to the public.

****Note: Incomplete forms will be returned to the submitter with instruction to complete the form. Only completed forms will be accepted and considered by the TAG. The submitter may be asked to provide additional information in support of the proposed code change.

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 8/12/2022

Model Code: IBC 2024

Code or Rule Section:

	Firm/Association affiliation, if any: DLI/CCLD IBC 1023.5 Stairway Penetrations Code or rule section to be changed: MR 1305				
<u>Gene</u>	ral Information	<u>Yes</u>	<u>No</u>		
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?				
	osed Language The proposed code change is meant to:				
	change language contained the model code book? If so, list section(s).				
	☐ change language contained in an existing amendment in Minnesota Rule?	If so, list	Rule part(s).		
	delete language contained in the model code book? If so, list section(s).				
	delete language contained in an existing amendment in Minnesota Rule? If part(s).	f so, list R	Rule		
	□ add new language that is not found in the model code book or in Minnesota □ IBC 1023.5 Penetrations.	a Rule.			
2.	Is this proposed code change required by Minnesota Statute? If so, please pro	ovide the	citation.		

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

IBC 1023.5 Penetrations. Penetrations into or through interior exit stairways and ramps are prohibited except for the following:

- 1. Equipment and ductwork necessary for independent ventilation or pressurization.
- 2. Fire protection systems <u>where penetrations are limited to the penetration of sprinklers</u> serving the exit stairway or exit ramp enclosure.
- 3. Security systems that serve the exit stairway or ramp.
- 4. Wiring that serves the exit stairway or ramp.
- 5. Two-way communication systems that serve the exit stairway or ramp.
- 6. Electrical raceway for fire department communication systems.
- 7. Electrical raceway serving the interior exit stairway or ramp and terminating in a steel box not exceeding 16 square inches.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No.

Need and Reason

1. Why is the proposed code change needed?

Fire protection systems are frequently routed through stairway shafts to save cost. The sprinkler piping is cause for multiple penetrations in the protected enclosure when the purpose for the penetration is not serving to enhance enclosure protection but rather other parts of the building

- 2. Why is the proposed code change a reasonable solution?

 Fire protection systems is the only item listed that does not specifically state that the penetration is strictly limited to those penetrations directly serving the protected enclosure.
- 3. What other considerations should the TAG consider?

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain. No cost change.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule? No
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Continued installation of fire sprinkler distribution piping in stair enclosures with multiple penetrations through the protected enclosure.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

No



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Autho	r/requestor: C. Scott Anderson	Date: 5/29/24		
Email	address: c.scott.anderson@minneapolismn.gov	Model Code: 202	4 IBC	
Telepi	hone number: 612-246-7303	Code or Rule Sect	ion: 102	7.2
Firm/A	Association affiliation, if any: City of Minneapolis	Topic of proposal:	1027.2	
Code	or rule section to be changed: 1027.2			
Intena	led for Technical Advisory Group ("TAG"):			
Genei	ral Information		Yes	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Minneson Is the proposed change required due to climatic condition Will the proposed change encourage more uniform enfolds Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, change the proposed change be appropriate through the development process?	ons of Minnesota? orcement? apter amendment?		
	osed Language The proposed code change is meant to:			
	change language contained the model code book? I	f so, list section(s).		
	change language contained in an existing amendme	ent in Minnesota Rule?	If so, list I	Rule part(s).
	delete language contained in the model code book?	If so, list section(s).		
	delete language contained in an existing amendment part(s).	nt in Minnesota Rule? I	f so, list R	ule
	□ add new language that is not found in the model cool 1027.2	de book or in Minnesot	a Rule.	
2.	Is this proposed code change required by Minnesota St	atute? If so, please pro	ovide the o	citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikethrough</u> words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

Add new text as follows:

1027.2 Use in a means of egress.

Exterior exit stairways shall not be used as an element of a required means of egress for Group I-2 occupancies. For occupancies in other than Group I-2, exterior exit stairways and ramps shall not be used as an element of a required means of egress for buildings exceeding six stories above grade plane or that are high-rise buildings. where the highest walking surface of the excterio exit stairway or ramp exceeds 65 feet above the lowest finishe grade below the stairway.

 Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.
 NO

Need and Reason

- 1. Why is the proposed code change needed? Please provide a general explanation as well as a specific explanation for any changes to numerical values (heights, area, etc.)

 This change ties the limits of exterior exit stairs to a specific height of the landing above grade below. 65' (20M) is the height at which significant vertigo will appear in most individuals. See NIH published studies by D Huppert 2020 and R Teggi 2019. It makes sense to use this limitation as it is specific to the stair in question nstead of a building classification. As currently written in code, if the building is a highrise or exceeds 6 stories then no exterior stair may be permitted regardless of the height or location of the stair.
- 2. Why is the proposed code change a reasonable solution? This change addressed the specific issue of the exterior stair.
- 3. What other factors should the TAG consider? None

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.
 - This is an editorial change and may result in reduced cost of construction because now exterior stairs may be used in situations where they previously would not have been allowed.
- If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. If the benefit is quantifiable (for example energy savings), provide an estimate if possible.
 No cost change
- If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.
 NA

4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

5. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city (Minn. Stat. § 14.127)? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

Regulatory Analysis

- 1. What parties or segments of industry are affected by this proposed code change?

 Architects, Contractors, Developers, Building Owners, Contractors, Building Officials
- Can you think of other means or methods to achieve the purpose of the proposed code change?
 What might someone opposed to this code change suggest instead? Please explain what the
 alternatives are and why your proposed change is the preferred method or means to achieve the
 desired result.

No

- 3. What are the probable costs or consequences of not adopting the code change, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 Not adopting this change will result in continued difficulty in use of the exterior exit stair provisions.
- 4. Are you aware of any federal or state regulation or requirement related to this proposed code change? If so, please list the federal or state regulation or requirement and your assessment of any differences between the proposed code change and the federal regulation or requirement. This change was adopted by the ICC egress committee at the April 2024 Code Action Hearings by a vote of 14-0 and is unlikely to be overturned at the final action hearings and voting. Regardless of the ICC actions this is a significant improvement to the current code language.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 8/12/2022

Telep Firm/	il address: greg.metz@state.mn.us phone number: 651-284-5884 (Association affiliation, if any: DLI/CCLD e or rule section to be changed: MR 1305	Revised: 6/6/2024 Model Code: IBC 2024 Code or Rule Section: IBC 1028.5 Exit Discharge A	Access to	Public Way
Gener	ral Information		<u>Yes</u>	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Is the proposed change required due to climat Will the proposed change encourage more uni Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Would this proposed change be appropriate the development process?	ic conditions of Minnesota? iform enforcement? Rule, chapter amendment?		
	The proposed code change is meant to: Change language contained the model code	e book? If so, list section(s).		
	change language contained in an existing a	amendment in Minnesota Rule?	If so, list	Rule part(s)
	delete language contained in the model co	de book? If so, list section(s).		
	delete language contained in an existing arpart(s).	mendment in Minnesota Rule? I	f so, list R	tule
	⊠ add new language that is not found in the r IBC 1028.5 Access to Public Way	model code book or in Minnesot	a Rule.	
2.	Is this proposed code change required by Mini	nesota Statute? If so, please pro	ovide the	citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

IBC 1028.5 Access to a public way. The *exit discharge* shall provide a direct and unobstructed access to a *public way*. The surface of the exit discharge to the public way shall be a maintainable surface able to be cleared free of ice and snow.

Exception: Where access to a *public way* cannot be provided, a safe dispersal area shall be provided where all of the following are met:

- 1. The area shall be of a size to accommodate not less than 5 square feet (0.46 m2) for each person.
- 2. The area shall be located on the same lot not less than 50 feet (15.24 m) away from the *building* requiring egress.
- 3. The area shall be permanently maintained and identified as a safe dispersal area. The safe dispersal area shall be a maintainable surface able to be kept free and clear of ice and snow.
- 4. The area shall be provided with a safe and unobstructed path of travel from the *building* having a maintainable surface able to be kept free and clear of ice and snow.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.
 No.

Need and Reason

- 1. Why is the proposed code change needed?
 - Exit discharge to turf or landscaped areas are ineffective as means of egress during the six months when the ground can be covered with ice and snow.
- Why is the proposed code change a reasonable solution?
 It does not dictate specific surface requirements but does reinforce that means of egress must be unobstructed. In Minnesota, snow and ice can obstruct the means of egress
- 3. What other considerations should the TAG consider? None

Cost/Benefit Analysis

- Will the proposed code change increase or decrease costs? Please explain.
 No cost change. This is a code clarification specific to Minnesota climate. The model code already requires means of egress to be clear and unobstructed. The addition merely clarifies that snow and ice are obstructions.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Continued arguments over whether it is acceptable for exit discharge doors to discharge to a stoop and then landscaping or turf.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.

 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Autho	or/requestor: Greg Metz	Date: 8/24/2022		
		Revised: 5/15/2024		
		Revised 6/6/2024		
Email	address: greg.metz@state.mn.us	Model Code: IBC 2024		
Telep	hone number: 651-284-5884	Code or Rule Section:		
Firm/	Association affiliation, if any: DLI/CCLD	IBC 1029.2 1030.2 Assembly I	Main Ex	it
Code	or rule section to be changed: MR 1305			
Gener	al Information		Yes	<u>No</u>
 A. Is the proposed change unique to the State of Minnesota? B. Is the proposed change required due to climatic conditions of Minnesota? C. Will the proposed change encourage more uniform enforcement? D. Will the proposed change remedy a problem? E. Does the proposal delete a current Minnesota Rule, chapter amendment? F. Would this proposed change be appropriate through the ICC code 				
	development process?	- ng		\boxtimes
	sed Language The proposed code change is meant to:			
	☐ change language contained the model code IBC 1029.2 Assembly main exit	book? If so, list section(s).		
	change language contained in an existing ar	mendment in Minnesota Rule? If	so, list	Rule part(s).
	delete language contained in the model code	e book? If so, list section(s).		
	delete language contained in an existing am part(s).	endment in Minnesota Rule? If s	o, list R	ule
	add new language that is not found in the me	odel code book or in Minnesota I	Rule.	

2. Is this proposed code change required by Minnesota Statute? If so, please provide the citation.

- 3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.
 - **1030.2 Assembly main exit.** A *building*, room or space used for assembly purposes that has an *occupant load* of greater than 300 and is shall be provided with a main *exit*. —, that The main *exit* shall be of sufficient capacity to accommodate not less than one-half of the *occupant load*. —, but such Each *exit* capacity shall be not less than the total required capacity of all *means of egress* leading to the that *exit*. Where the *building* is classified as a Group A occupancy, the main *exit* shall front on not less than one street or an unoccupied space of not less than 10 feet in width that adjoins a street or *public way*. In a building, room or space used for assembly purposes where there is not a well-defined main exit or where multiple main exits are provided, exits shall be permitted to be distributed around the perimeter of the building provided that the total capacity of egress is not less than 100 percent of the required capacity.

Exception: In assembly occupancies, rooms or spaces having an occupant load of 300 or more where there is no well-defined main exit or where multiple exits are provided, exits shall be permitted to be distributed around the perimeter of the building provided that:

- 1. Some of the distributed exits shall be grouped to account for the total width required for the main exit and shall, as a group, count as one exit, and
- 2. The total number of exits shall comply with Section 1006.2.1 and subsections when the main exit grouping counts as one exit, and
- 3. The total width of egress is not less than 100 percent of the required width.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No.

Need and Reason

- Why is the proposed code change needed?
 The model code language is changed and is very unclear. Interpretation will lead to non-uniform application of this section across the state.
- 2. Why is the proposed code change a reasonable solution?

 The revised language proposed represents the interpretation and application consistent with DLI/CCLD protocols and would result in no change to the application of this section.
- 3. What other considerations should the TAG consider?

Cost/Benefit Analysis

- Will the proposed code change increase or decrease costs? Please explain.
 No. The code change proposed will result in consistency with the current building code.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.
No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule? No
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Wide interpretation of when main exits are required and what it takes to avoid/disregard this section. Model code can be interpreted as optional. Where the occupant load is greater than 300 and a main exit is provided then follow these requirements. If a main exit is not provided, the rest is essentially moot.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 8/23/2022

Model Code: IBC 2024

Code or Rule Section:

	/Association affiliation, if any: DLI/CCLD IBC 1202.1 Ventilation- Gen e or rule section to be changed: MR 1305	eral	
Gene	ral Information	Yes	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?		
	osed Language The proposed code change is meant to:		
	□ change language contained the model code book? If so, list section(s). □ IBC 1202.1 Ventilation- General		
	☐ change language contained in an existing amendment in Minnesota Rule?	If so, list	Rule part(s).
	delete language contained in the model code book? If so, list section(s).		
	☐ delete language contained in an existing amendment in Minnesota Rule? I part(s).	f so, list R	Rule
	add new language that is not found in the model code book or in Minnesot	a Rule.	
2.	Is this proposed code change required by Minnesota Statute? If so, please pro	ovide the	citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

2020 MSBC current amendment

1202.1 General. Buildings shall be provided with natural ventilation in accordance with Section 1202.5 or mechanical ventilation in accordance with Minnesota Rules, Chapter 1346. For additional ventilation requirements, see Minnesota Rules Chapters 1322 and 1323 as applicable. Not less than one space within a dwelling unit shall comply with natural ventilation in accordance with Section 1202.5 in addition to complying with mechanical ventilation requirements.

Exceptions:

- 1. Buildings or portions thereof that are not intended for normal human occupancy, or where the primary purpose is not associated with human comfort.
- 2. Group U occupancies.
- 3. <u>Spaces not defined as conditioned space by the Minnesota Energy Code may comply with Section 1202.5 Natural Ventilation.</u>
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No.

Need and Reason

1. Why is the proposed code change needed?

To clarify that natural ventilation is not viable in Minnesota. Natural ventilation relies upon being able to open doors and windows to fully ventilate a space at <u>any time of year AND</u> still maintain minimum temperatures. The result is oversizing of mechanical equipment to heat a space to accommodate design temperatures (-15°F in the twin cities) with the windows and doors open and maintain a minimum indoor temperature of 68°F throughout the habitable space.

The building code is the minimum standard, and there is currently no requirement that a dwelling unit is provided with openings to the outside. The code becomes the standard for the poorest of the poor who may not have the funds to air condition during summer months and need to be able to open a space to the outside to cool their dwelling.

2. Why is the proposed code change a reasonable solution?

The Minnesota Mechanical Code Section 401.3 requires ventilation when rooms or spaces are occupied. Minnesota Building Code Section 1204.1 requires that spaces intended for human occupancy shall be capable of being heated to a minimum indoor temperature of 68°F. Since Minnesota's weather requires heating 6 months of the year, it is reasonable to have the doors and windows closed while the heat is on and control the ventilation.

Operable windows in at least one habitable space is not unreasonable in order to ensure that everyone has access to outdoor air in at least one space.

3. What other considerations should the TAG consider? Minnesota Energy Code

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.

No. The cost to provide a correctly sized mechanical ventilation system will be offset by the size reduction in correctly sized mechanical heating equipment when spaces are being naturally ventilated at design heating temperatures.

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

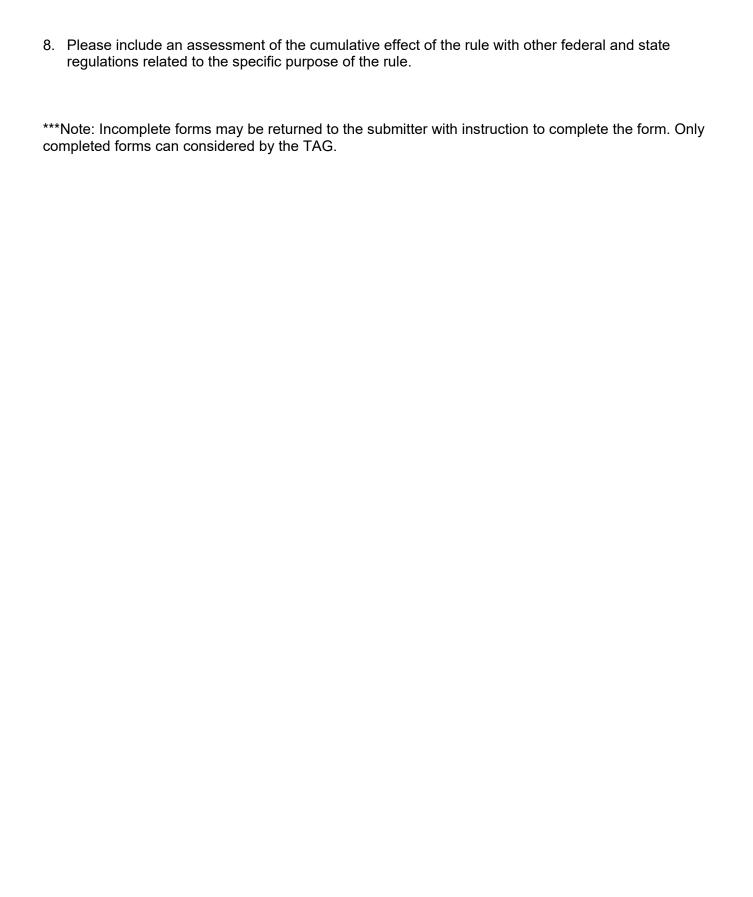
None.

6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Continued mis-use of natural ventilation as a means for space ventilation without adequately sizing mechanical heating systems to comply with code requirements, resulting in poor indoor air quality.

Without including a requirement for operable windows in at least one space within a dwelling unit, all dwelling units may be fitted with fixed glazing as a cost-saving measure making air conditioning mandatory. Those forced into minimum standard housing are typically financially challenged and would be required to air condition in order to be comfortable.

7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
No



Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 8/30/2022

Model Code: IBC 2024

Code or Rule Section:

Firm	'Association affiliation, if any: DLI/CCLD	IBC 1202.2.1 Ventilated Attics and Rafter Spaces (Smart Vapor Retarders)			
Code	e or rule section to be changed: MR 1305				
Gene	ral Information		Yes	<u>No</u>	
B. C. D. E.	Is the proposed change unique to the State of M Is the proposed change required due to climatic Will the proposed change encourage more unifor Will the proposed change remedy a problem? Does the proposal delete a current Minnesota R Would this proposed change be appropriate thre development process?	conditions of Minnesota? orm enforcement? ule, chapter amendment?			
	The proposed code change is meant to: Change language contained the model code	book? If so, list section(s).			
	☐ change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(Rule part(s).	
	delete language contained in the model code book? If so, list section(s).				
	delete language contained in an existing ampart(s).	endment in Minnesota Rule? It	so, list R	Rule	
	□ add new language that is not found in the modern lBC 1202.2.1 Exception	odel code book or in Minnesota	a Rule.		
2.	Is this proposed code change required by Minne No	esota Statute? If so, please pro	vide the	citation.	

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

Exception: The net free cross-ventilation area shall be permitted to be reduced to 1/300 provided both <u>all</u> of the following conditions are met:

- 1. In Climate Zone 6, a vapor retarder with a perm rating of 1.0 or lower under 30 percent or lower humidity conditions and having a perm rating of 5.0 or higher in 60 percent or higher humidity conditions is installed on the warm-in-winter side of the ceiling.
- 2. In Climate Zones 6, 7 and 8, a Class I or II vapor retarder is installed on the warm-in-winter side of the ceiling.
- 3. At least 40 percent and not more than 50 percent of the required venting area is provided by ventilators located in the upper portion of the attic or rafter space. Upper ventilators shall be located not more than 3 feet (914 mm) below the ridge or highest point of the space, measured vertically, with the balance of the ventilation provided by eave or cornice vents. Where the location of wall or roof framing members conflicts with the installation of upper ventilators, installation more than 3 feet (914 mm) below the ridge or highest point of the space shall be permitted.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.
 No.

Need and Reason

1. Why is the proposed code change needed?

More and more buildings in southern and central Minnesota are air conditioned during the warm humid summer months. The increase in the prevalence of air conditioning combined with the more recent increase in both temperature and humidity during the summer months increase the likelihood of condensation and wetting behind standard vapor retarders during summer conditions.

2. Why is the proposed code change a reasonable solution?

Smart vapor retarders can be high tech products or can be as simple and inexpensive as kraft paper backed insulation with sealed edges. Smart vapor retarders are an easy way to incorporate best practices for building science and building longevity.

3. What other considerations should the TAG consider?

Smart vapor retarders in walls within Climate Zone 6, Section 1404.3

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.

No. The proposed describes a performance requirement that can be met with inexpensive materials which may already be incorporated into construction.

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has

less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Condensation problems in ceiling/attic spaces resulting in microbial growth, reduction in indoor air quality, and moisture damage to roof structural materials and ceiling materials.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Email address: greg.metz@state.mn.us

Firm/Association affiliation, if any: DLI/CCLD

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 8/23/2022

Model Code: IBC 2024

Code or Rule Section:

IBC 1202.4.2 Under floor ventilation in cold

Code	or rule section to be changed: MR 1305			
Gener	al Information	Yes	<u>No</u>	
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?			
	The proposed code change is meant to: ☐ change language contained the model code book? If so, list section(s). ☐ IBC 1202.4.2			
	☐ change language contained in an existing amendment in Minnesota Rule?	If so, list	Rule part(s	s).
	delete language contained in the model code book? If so, list section(s).			
	delete language contained in an existing amendment in Minnesota Rule? If part(s).	so, list R	ule	
	add new language that is not found in the model code book or in Minnesota	a Rule.		
2.	Is this proposed code change required by Minnesota Statute? If so, please pro	vide the	citation.	

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

1202.4.2 Ventilation in cold climates. In extremely cold climates Climate Zone 6 and Climate Zone 7, where a ventilation opening will cause a detrimental loss of energy, ventilation openings to the interior of the structure shall be provided crawl spaces shall comply with one of the following:

- 1. Crawl spaces shall be thermally isolated from the building interior in accordance with the Minnesota Energy Code and ventilation shall be provided in accordance with Section 1202.4.3.1. Foundations adjacent to the crawl space shall be protected from frost assuming that the crawl space temperature is the same as the exterior temperature.
- 2. <u>Crawl spaces shall be included within the building thermal envelope and the space mechanically ventilated to the building interior per Section 1202.4.3.2.</u>
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No.

Need and Reason

- 1. Why is the proposed code change needed?

 The term "extremely cold climate" is undefined in the building code.
- 2. Why is the proposed code change a reasonable solution?

 Climate Zone 7 is termed by the energy code as "very cold". The next climate zone north is considered "sub arctic". It is reasonable to interpret that "very cold" is extreme and in effort to provide uniformity for ventilation requirements, it is reasonable to treat Climate Zone 6 "Cold" and Climate Zone 7 "Very Cold" as the same.
- 3. What other considerations should the TAG consider?
 Minnesota Energy Code

Cost/Benefit Analysis

- Will the proposed code change increase or decrease costs? Please explain.
 No. The requirements are already in place but the code section needs clarification to establish the parameters of each ventilation option.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain. No.

Regulatory Analysis

1. What parties or segments of industry are affected by this proposed code change?

2

Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.

- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 - Continued construction of underfloor crawl spaces that are poorly insulated, under ventilated, and contributors to poor indoor air quality.
- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 8/30/2022

Model Code: IBC 2024

Code or Rule Section:

	n/Association affiliation, if any: DLI/CCLD IBC 1204.1 Lighting- General	l	
Coa	le or rule section to be changed: MR 1305		
Gene	eral Information	Yes	<u>No</u>
OCITO	- Tal mormation	103	<u>140</u>
	. Is the proposed change unique to the State of Minnesota?		\boxtimes
	. Is the proposed change required due to climatic conditions of Minnesota?	\boxtimes	
	. Will the proposed change encourage more uniform enforcement?	\boxtimes	
	Will the proposed change remedy a problem?Does the proposal delete a current Minnesota Rule, chapter amendment?	\boxtimes	
	. Would this proposed change be appropriate through the ICC code		
	development process?		\boxtimes
	osed Language		
1	The proposed code change is meant to:		
	change language contained the model code book? If so, list section(s).		
	☐ change language contained in an existing amendment in Minnesota Rule?	If so, list	Rule part(s)
	delete language contained in the model code book? If so, list section(s).		
	delete language contained in an existing amendment in Minnesota Rule? If part(s).	so, list R	Rule
	☑ add new language that is not found in the model code book or in Minnesota IBC 1204.1 General	a Rule.	
2	. Is this proposed code change required by Minnesota Statute? If so, please pro	vide the	citation.

- 3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.
 - **1204.1 General:** Every space intended for human occupancy shall be provided with natural light by means of exterior glazed openings in accordance with Section 1204.2 or shall be provided with artificial light in accordance with Section 1204.3. Exterior glazed openings shall open directly onto a *public way* or onto a *yard* or *court* in accordance with Section 1205. <u>All dwelling units shall have not less than one habitable space that complies with the requirements of Section 1204.2 Natural light.</u>
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

Need and Reason

1. Why is the proposed code change needed?

There is currently no requirement that a person's dwelling must be provided with any windows at all. Since the code is a minimum standard, at least one space with windows should be included in that standard for a person's dwelling. The minimum standard becomes the bottom threshold for the very poor.

2. Why is the proposed code change a reasonable solution?

Minnesota has long periods with very little daylight. Requiring that the minimum standard for someone's home includes at least one space with a window meeting minimum requirements is reasonable. It is not unreasonable that even the poorest of the poor among us would have some access to daylight in one of their living spaces.

3. What other considerations should the TAG consider?

Minimum natural ventilation requirements for not less than one space within a dwelling. MBC 1202.1 General Ventilation.

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.

No. Most construction today already includes this because the housing market demands it, but as housing becomes more expensive and scarce, the minimum standards for reasonable habitation will become more critical.

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

1. What parties or segments of industry are affected by this proposed code change?

Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.

- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

In effort to provide housing at what is perceived as affordable cost, the minimum standards will be pushed to their limits and housing will be constructed with minimal to no windows.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 7/27/2022

Model Code: IBC 2024

Code or Rule Section:

	Association affiliation, if any: DLI/CCLD IBC 1208.4 Equipment and see or rule section to be changed: MR 1305	ervice pit	s	
Gene	ral Information	Yes	<u>No</u>	=
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?			
	osed Language The proposed code change is meant to:			
	☐ change language contained the model code book? If so, list section(s).			
	☐ change language contained in an existing amendment in Minnesota Rule? If so, list Rule part			
	delete language contained in the model code book? If so, list section(s).			
	delete language contained in an existing amendment in Minnesota Rule? If part(s).	so, list R	tule	
	□ add new language that is not found in the model code book or in Minnesota ■ MBC 1208.4 Equipment and service pits	a Rule.		
2.	Is this proposed code change required by Minnesota Statute? If so, please pro	vide the	citation.	

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

2024 IBC

<u>1209.4 Equipment and service pits</u>. A permanent stair shall be provided to access equipment pits and service pits. The permanent stair shall, at a minimum, meeting the following:

- 1. The stair shall be installed at an angle of not more than 60 degrees measured from the horizontal plane.
- 2. The stair shall have flat treads at least 6 inches (152mm) deep and a clear width of at least 18 inches (457 mm) with equally spaced risers at least 10.5 inches (267 mm) high and not exceeding 14 inches (356 mm).
- 3. The stair shall have intermediate landings not exceeding 18 feet (5.5 m) vertically.
- 4. Continuous handrails shall be installed on both sides of the stair.
- 5. The clear distance above the tread nosings shall not be less than 80 inches (2032 mm).

Exception: Elevator pits.

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

No.

Need and Reason

1. Why is the proposed code change needed?

Currently access to equipment platforms is addressed for gaining access to elevated equipment, but no guidance is provided for depressed areas. Access to pits for vehicle maintenance and pits for mechanical or electrical equipment are not addressed.

2. Why is the proposed code change a reasonable solution?

This code section clarifies that a stair compliant with building code section 1012 is not necessary, but access to service locations and equipment located in pits can be safely gained via the same type of ship's ladder as elevated platforms.

3. What other considerations should the TAG consider?
None

Cost/Benefit Analysis

Will the proposed code change increase or decrease costs? Please explain.
 The proposed will decrease construction costs by allowing less expensive and space intensive stair construction.

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.

 The cost is readily offset by the assurance that fire walls are constructed correctly and reviewed by a third-party.
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has

less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Non-uniformity in code application and undue expense when standard stairs are required into pits.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 8/30/2022

Model Code: IBC 2024

Code or Rule Section:

	/Association affiliation, if any: DLI/CCLD IBC 1502.3 se or rule section to be changed: MR 1305	Scuppers		
Gene	ral Information		Yes	<u>No</u>
B. C. D. E.	 Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Will the proposed change encourage more uniform enforcement Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter at Would this proposed change be appropriate through the ICC of development process? 	ent? mendment?		
	osed Language The proposed code change is meant to:			
	☐ change language contained the model code book? If so, list	st section(s).		
	 ☐ change language contained in an existing amendment in No. ☐ delete language contained in the model code book? If so, It 		so, list∃	Rule part(s).
	delete language contained in an existing amendment in Mi part(s).	nnesota Rule? If so	o, list R	ule
	add new language that is not found in the model code boo	k or in Minnesota F	Rule.	
2.	Is this proposed code change required by Minnesota Statute?	If so, please provi	de the	citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

2020 MSBC and 2024 IBC deleted this section.

1502.3 Scuppers. Deleted. The quantity, size, location and inlet elevation of the scuppers shall be sized to prevent the depth of ponding water from exceeding the structural design capacity of the roof as determined by Section 1611.1. Suppers shall be sized in accordance with Table 1502.2.3. Scuppers shall not have an opening weir width of less than 4 inches (102 mm). The flow through the primary roof drainage system, including flow through primary drainage scuppers, shall not be considered when locating and sizing secondary (emergency) scuppers. Scuppers shall not discharge onto public sidewalks or sidewalks used as a part of the means of egress.

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

Need and Reason

1. Why is the proposed code change needed?

The model building code previously correctly included scuppers within the scoping, Minnesota has also previously deleted it out. Minnesota needs to include scuppers as part of the building code design criteria so that they get sized correctly.

2. Why is the proposed code change a reasonable solution?

Secondary drainage systems are required to equal the capacity of primary drainage systems. Minnesota includes a sizing table for emergency overflow scuppers that matches the drainage requirements in the plumbing code. It is reasonable to refer to the same table in order to properly size scuppers that are used as the primary drainage system.

3. What other considerations should the TAG consider?
Minnesota plumbing code coordination.

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.

No. The requirements are already in place but the code section needs clarification to establish the parameters scupper sizing for both primary drainage scuppers as well as emergency overflow scuppers.

2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A

3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

1. What parties or segments of industry are affected by this proposed code change?

Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.

- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Continued confusion over how to properly size scuppers used as the primary system for roof drainage. Continued confusion if a secondary drainage system is required if scuppers are used as the primary drainage system.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 7/26/2022

Model Code: IBC 2024

Code or Rule Section:

	Association affiliation, if any: DLI/CCLD IBC 1705.19 Special inspecti e or rule section to be changed: MR 1305	ons of fire	e walls
Gene	ral Information	Yes	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?		
	osed Language The proposed code change is meant to:		
	change language contained the model code book? If so, list section(s).		
	☐ change language contained in an existing amendment in Minnesota Rule?	lf so, list	Rule part(s).
	delete language contained in the model code book? If so, list section(s).		
	delete language contained in an existing amendment in Minnesota Rule? If part(s).	so, list R	dule
	□ add new language that is not found in the model code book or in Minnesota ■ MBC 1705.19 Special Inspections of Fire Walls	a Rule.	
2.	Is this proposed code change required by Minnesota Statute? If so, please pro	vide the	citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

<u>1705.21 Special inspections of fire walls.</u> For the fire resistance systems of fire walls, periodic special inspections shall be required for the following:

- a. fastening of fire resistance rated panel systems to substrates,
- **b.** installation of fire-resistance-rated joint systems,
- **c.** Installation of fire and smoke damper systems
- d. verification of structural independence on each side of the fire wall.
- e. visual inspection that there are no unprotected openings in the fire wall.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No.

Need and Reason

1. Why is the proposed code change needed?

Fire walls are complex and highly detailed building elements. Building inspectors cannot be present for each part of the firewall construction to verify conformance for this critical part of passive fire protection.

2. Why is the proposed code change a reasonable solution?

Buildings large enough to have fire walls also typically have a special inspections program for other building components. Adding periodic inspections for these critical components will help ensure that this critical fire protection element is constructed correctly.

3. What other considerations should the TAG consider?

None

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.

The proposed will increase construction costs by adding special inspections to larger buildings that have fire walls.

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. The cost is readily offset by the assurance that fire walls are constructed correctly and reviewed by a third-party.
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

1. What parties or segments of industry are affected by this proposed code change?

Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners of buildings large enough to require a fire wall.

- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Continued spot inspection of fire walls at or near completion where most of the critical work is covered or concealed.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 8/30/2022

Model Code: IBC 2024

Code or Rule Section:

	/Association affiliation, if any: DLI/CCLD 1805.1.3 Ground water con e or rule section to be changed: MR 1305	trol	
Gene	ral Information	Yes	No.
A. B. C D	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?		
	osed Language The proposed code change is meant to: ☐ change language contained the model code book? If so, list section(s).		
	☐ change language contained in an existing amendment in Minnesota Rule?	If so, list	Rule part(s)
	delete language contained in the model code book? If so, list section(s).		
	delete language contained in an existing amendment in Minnesota Rule? If part(s).	so, list R	Rule
	☑ add new language that is not found in the model code book or in Minnesota IBC 1805.1.3 Ground water control	a Rule.	
2.	Is this proposed code change required by Minnesota Statute? If so, please pro No	vide the	citation.

- 3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.
 - **1805.1.3 Ground water control.** Where the ground water table is lowered and maintained at an elevation not less than 6 inches (152 mm) below the bottom of the lowest floor <u>by means which do not include the use of pumps, electricity or fossil fuels</u>, the floor and walls shall be dampproofed in accordance with Section 1805.2. The design of the system to lower the ground water table shall be based on accepted principals of engineering that shall consider, but not necessarily be limited to, permeability of the soil, rate at which the water enters the drainage system, rated capacity of pumps drainage system, head against which pumps are to operate and the rated capacity of the disposal area of the system.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

 Yes, Section 1805.3 Waterproofing

Need and Reason

1. Why is the proposed code change needed?

Minnesota Statute 103G.271 limits the amount of ground water that can be removed and discharged to 1,000,000 gallons/year which equates to approximately 2,700 gallons of water per day.

Dewatering a building excavation and mandating continuous use of energy for pumping in order to defray the cost of waterproofing is counter to energy conservation measures sought by the state.

2. Why is the proposed code change a reasonable solution?

New construction below the water table should be waterproofed and not rely on pumping groundwater to keep below grade spaces dry. If the power should fail, lower-level spaces would flood.

Minnesota Rule 1335 no longer allows pumping for spaces below grade located in areas susceptible to flooding which may not have a high-water table and only require pumping seasonally. It is not reasonable to allow buildings to continually pump ground water to keep spaces dry when other buildings which only require periodic pumping are not permitted to do so because of the risk of power outage.

3. What other considerations should the TAG consider?

Minnesota statutes and regulations against pumping and dumping groundwater for other purposes. Sustainability and resiliency concerns for long term impact of building viability. The code does not require that the pumps have any sort of back-up power, so spaces located below the water table will flood if there is a power outage.

If this proposal is rejected, consider adding to this section a reference to Minnesota Statute 103G.271 for "Appropriation and use of waters."

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.

Yes, the proposed change will increase construction costs for buildings designed with spaces located below the ground water table. Spaces located below the water table will be required to be waterproofed rather than dampproofed. Waterproofing is more expensive

than dampproofing. Some of the cost will be deferred by eliminating the need for a building drainage system, ground water pumps and the power system infrastructure to support them.

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. Yes. Spaces constructed below the water table will not be at risk of flood during a power failure. Flooding is detrimental to most standard building materials and the moisture associated with flooding and dampness fosters microbial growth which adversely affects indoor air quality. Requiring waterproofing in lieu of allowing pumping when spaces are located below the water table will save energy associated with pumping, save groundwater resources by allowing groundwater to stay in place, and maintain the capacity of stormwater management systems which are typically used to dump groundwater.
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule? No
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

None.

6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Construction of buildings seemingly allowed to build to any depth below the water table and pump groundwater in lieu of providing waterproofing and potentially inadvertently violating Minnesota Statute 103G.271 which limits the amount of groundwater that can be pumped.

7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.

No

8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

Change in this rule will support compliance with Minnesota Statute 103G.271 which regulates pumping of groundwater.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author	/requestor: C. Scott Anderson	Date:	6/13/2	4 Revis	sed 7/8/	24 9/19/24
Email a	address: c.scott.anderson@minneapolismn.gov	Model	Code:	2024	IBC	
Teleph	one number: 612-246-7303	Code	or Rule	Section	: 1809	.5
Firm/A	ssociation affiliation, if any: City of Minneapolis	Topic (of propo	sal: 1	809.5	
Code c	or rule section to be changed: 1809.5					
Intende	ed for Technical Advisory Group ("TAG"):					
Genera	al Information				Yes	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions Will the proposed change encourage more uniform enforce Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapte Would this proposed change be appropriate through the IC development process?	ement? er amen	dment?			
	sed Language The proposed code change is meant to:					
	⊠ change language contained the model code book? If so	o, list se	ction(s)	1809	.5	
	change language contained in an existing amendment i	n Minne	esota R	ule? If	so, list F	Rule part(s).
	delete language contained in the model code book? If s	so, list s	ection(s	s).		
	delete language contained in an existing amendment in part(s).	Minnes	sota Ru	le? If so	o, list Ri	ule
	☑ add new language that is not found in the model code be 1809.5	oook or	in Minn	esota R	Rule.	

2. Is this proposed code change required by Minnesota Statute? If so, please provide the citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikethrough</u> words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

2020 MSBC

1809.5 Frost protection.

Except where otherwise protected from frost, foundations and other permanent supports of *buildings* and *structures* shall be protected from frost by one or more of the following methods:

- 1. Extending below the frost line of the locality. Constructed in accordance with 1303.1600.
- 2. Constructing in accordance with ASCE 32.
- 3. Erecting on solid rock.

Exception: Freestanding buildings constructed in accordance with Minnesota Rules, <u>Chapter 1303</u>, shall not be required to be protected.

Exception: Free-standing *buildings* meeting all of the following conditions shall not be required to be protected:

- 1. Assigned to Risk Category I. Classified as group U occupancy
- 2. Area of 600 1,000 square feet (56 m²) or less for *light-frame construction* or 400 square feet (37 m²) or less for other than *light-frame construction*.
- 3. Eave height of 10 feet (3048 mm) or less.

Shallow foundation shall not bear on frozen soil unless such frozen condition is of a permanent character.

103.1600 subp 2

Exception: Slab on grade construction may be placed on any soil except peat or muck for detached onestory private garage, carport, and shed buildings not larger than 1,000 square feet (92.9 m²).

 Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

No

Need and Reason

1. Why is the proposed code change needed? Please provide a general explanation as well as a specific explanation for any changes to numerical values (heights, area, etc.)

The Mn amendment referencing to chapter 1303 should be deleted.

The model code language provides more clear language and addresses more options. There is a reference in 1300.1600 to soils under slab on grade buildings that I believe is intended to address a size limit for these structures so I have modified the model code language to match up with the current Mn allowance of 1,000 s.f. but only for light frame construction.

2. Why is the proposed code change a reasonable solution? It addresses a life safety issue unique to cold weather climates.

3. What other factors should the TAG consider?
None

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.

This is an editorial change and should not impact the cost of construction. Structures are required to have foundations. A stoop or landing is a structure per the IBC definition.

- If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. If the benefit is quantifiable (for example energy savings), provide an estimate if possible.
 No cost change
- 3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.

NA

4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

5. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city (Minn. Stat. § 14.127)? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.
No

Regulatory Analysis

- 1. What parties or segments of industry are affected by this proposed code change?

 Architects, Contractors, Developers, Building Owners, Contractors, Building Officials
- 2. Can you think of other means or methods to achieve the purpose of the proposed code change? What might someone opposed to this code change suggest instead? Please explain what the alternatives are and why your proposed change is the preferred method or means to achieve the desired result.

No

- 3. What are the probable costs or consequences of not adopting the code change, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 Egress doors could become unusable during cold weather conditions thus trapping people inside a structure.
- 4. Are you aware of any federal or state regulation or requirement related to this proposed code change? If so, please list the federal or state regulation or requirement and your assessment of any differences between the proposed code change and the federal regulation or requirement.

no





CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author	r/requestor: C. Scott Anderson	Date: 6/13/	24 Re	evised 7/8	/24 9/19	9/24
Email	address: c.scott.anderson@minneapolismn.gov	Model Code:	202	4 IBC		
Teleph	none number: 612-246-7303	Code or Rule 1010.1.5	e Sect	ion: 1809).5.1 +	
Firm/A	Association affiliation, if any: City of Minneapolis	Topic of prop	osal:	1809.5.1	. + 1010	.1.5
Code	or rule section to be changed: 1809.5.1 + 1010.1.5					
Intend	ed for Technical Advisory Group ("TAG"):					
Gener	al Information			Yes	<u>No</u>	
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions. Will the proposed change encourage more uniform enforce. Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapte. Would this proposed change be appropriate through the IC development process?	of Minnesota ement? er amendmen				
	sed Language The proposed code change is meant to:					
	⊠ change language contained the model code book? If so	o, list section(s	s). 18	09.5.1		
	change language contained in an existing amendment	in Minnesota I	Rule?	If so, list	Rule pai	rt(s).
	delete language contained in the model code book? If	so, list section	(s).			
	delete language contained in an existing amendment in part(s).	n Minnesota R	ule? I	so, list R	ule	
	☑ add new language that is not found in the model code to 1809.5.1 + 1010.1.5	oook or in Min	nesota	a Rule.		

- 2. Is this proposed code change required by Minnesota Statute? If so, please provide the citation.
- 3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikethrough</u> words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

1809.5.1 Frost protection at required exits. exterior landings

Frost protection shall be provided at exterior landings for all required exterior doors used for egress purposes exits-with outward-swinging doors. Frost protection shall only be required to the extent necessary to ensure the unobstructed opening of the required exit doors.

Add new section

1010.1.5.1 Landings at Exterior Exit Doors

Frost protection in accordance with 1809.5 shall be provided at exterior landings for at all exterior doors used for egress purposes with outward swinging doors.

 Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.
 No

Need and Reason

1. Why is the proposed code change needed? Please provide a general explanation as well as a specific explanation for any changes to numerical values (heights, area, etc.)

Section 1809.5.1 is relocated to 1010.5 as it is addressing landings and it is more likely that this requirement will be identified here than in the foundations section.

The word "required" has been removed because all exit doors need to be safe. Section 1010.1 requires that all doors provided for egress purposes in excess of those required for egress are required to meet the requirements of chapter 10. Therefore frost protection should also be extended to all doors provided for egress purposes.

- 2. Why is the proposed code change a reasonable solution? It addresses a life safety issue unique to cold weather climates.
- 3. What other factors should the TAG consider?
 None

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.

This is an editorial change and should not impact the cost of construction. Structures are required to have foundations. A stoop or landing is a structure per the IBC definition.

2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. If the benefit is quantifiable (for example energy savings), provide an estimate if possible.

No cost change

3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.

NA

4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

5. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city (Minn. Stat. § 14.127)? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

Regulatory Analysis

- 1. What parties or segments of industry are affected by this proposed code change?

 Architects, Contractors, Developers, Building Owners, Contractors, Building Officials
- Can you think of other means or methods to achieve the purpose of the proposed code change?
 What might someone opposed to this code change suggest instead? Please explain what the
 alternatives are and why your proposed change is the preferred method or means to achieve the
 desired result.

No

- 3. What are the probable costs or consequences of not adopting the code change, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 Egress doors could become unusable during cold weather conditions thus trapping people inside a structure.
- 4. Are you aware of any federal or state regulation or requirement related to this proposed code change? If so, please list the federal or state regulation or requirement and your assessment of any differences between the proposed code change and the federal regulation or requirement.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Email address: greg.metz@state.mn.us



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 9/1/2022

Model Code: IBC 2024

Telephone number: 651-284-5884		Code or Rule Section:			
		IBC 2603.5 Exterior walls of buildings of any height; and			
Code	e or rule section to be changed: MR 1305	MBC 2603.5.8 Exterior walls v safety features	vith add	itional façade	
Gener	ral Information		Yes	<u>No</u>	
B. C. D. E.	Is the proposed change unique to the State of M Is the proposed change required due to climatic Will the proposed change encourage more unifor Will the proposed change remedy a problem? Does the proposal delete a current Minnesota R Would this proposed change be appropriate throdevelopment process?	conditions of Minnesota? orm enforcement? ule, chapter amendment?			
	The proposed code change is meant to: Change language contained the model code	book? If so, list section(s).			
	change language contained in an existing an	nendment in Minnesota Rule? If	so, list	Rule part(s).	
	delete language contained in the model code	e book? If so, list section(s).			
	delete language contained in an existing ame part(s).	endment in Minnesota Rule? If s	so, list R	Rule	
	☑ add new language that is not found in the mo IBC 2603.5 Exterior walls of buildings of				
2.	Is this proposed code change required by Minne	esota Statute? If so, please prov	vide the	citation.	

- 3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.
 - **2603.5 Exterior walls of buildings of any height.** *Exterior walls* of buildings of Type I, II, III, or IV construction of any height shall comply with Sections 2305.1 through 2305.7. *Exterior walls* of cold storage *buildings* required to be constructed of noncombustible materials, where the *building* is more than one *story* in height, shall comply with the provisions of Sections 2603.5.1 through 2603.5.7. *Exterior walls* of *buildings* of Type V construction shall comply with Sections 2603.2, 2603.3 and 2603.4. *Fire blocking* shall be in accordance with Section 718.2.

Exception: Buildings of Type II, III, or IV construction where the exterior wall height does not exceed 70 feet in height above the level of fire department access, and where the exterior walls comply with Sections 2603.5.1, 2603.5.2, 2603.5.4, 2603.5.6, 2603.5.7, and 2603.5.8.

<u>2603.5.8 Exterior walls with additional façade safety features.</u> Exterior walls with additional façade safety features shall include the following:

- 1. The building is equipped with an automatic sprinkler system per Section 903.3.1.1, and fire flow analysis has been performed without sprinkler decrease allowance that shows adequate water is available.
- 2. There is not less than 30 feet (9144 mm) of clear yard space on each side of the building that will allow fire fighter access to the exterior walls.
- 3. A fire department access lane compliant with Minnesota Fire Code Section 503 is located within 150 feet (45270 mm) of any façade location requiring additional façade safety features.
- 4. Exterior walls in which concealed spaces contain combustible components are provided with Fireblocking in such a manner so as to interrupt and cut off concealed air spaces (both vertical and horizontal)
 - a. Fireblocking shall be installed within concealed spaces of exterior wall assemblies at every floor level or at maximum vertical intervals not exceeding 20 feet. Fireblocking shall be installed at horizontal intervals not exceeding 40 feet in exterior walls of noncombustible construction.
 - b. <u>Materials used for Fireblocking in exterior wall assemblies shall comply with Section</u> 7.18.2.1.
- 5. Exterior walls containing foam plastic insulation are not designed with horizontal projections or elements that would block a fire hose stream from the ground unless the projections are provided with frost protected exterior sprinkler coverage above the projection.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

 No.

Need and Reason

1. Why is the proposed code change needed?

The Minnesota energy code is increasingly requiring exterior continuous insulation and the most economical insulation for this function is foam plastic. The current code is written as all-or-nothing for buildings of any height over one story for Construction Types I, II, III and IV. Yet, Construction Type VA will allow exterior facades with foam plastics up to 70 feet in height without restrictive testing if the building is fully sprinkled.

2. Why is the proposed code change a reasonable solution? It allows the same type of foam plastic exterior insulation up to the same height as Type V-A construction provided that the building is fully sprinkled on the interior to mitigate fire propagation through windows to the exterior facades, that fire blocking is provided at intervals to inhibit façade fire propagation, and to ensure fire department access to all facades with foam plastics.

3. What other considerations should the TAG consider?

The need for an NFPA 285 test for every variant of a wall assembly for exterior facades given restrictions in height to that which is allowed for Type VA construction without NFPA 285 testing.

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.

The proposed change will decrease construction costs because foam plastic insulation is less expensive than mineral wool insulation of equivalent insulating properties. These are the two primary insulations available for continuous exterior insulation.

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

None.

6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Continued avoidance of continuous exterior insulation in commercial construction resulting in continued significant energy consumption in new buildings.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.

 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Email address: greg.metz@state.mn.us

Firm/Association affiliation, if any: DLI/CCLD

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 9/2/2022

hoistways

Model Code: IBC 2024

Code or Rule Section:

IBC 3002.9 Plumbing & Mechanical systems in

Code	e or rule section to be changed: MR 1305		
Gene	ral Information	Yes	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?		
	the proposed code change is meant to: ☐ change language contained the model code book? If so, list section(s).		
	☐ change language contained in an existing amendment in Minnesota Rule? If	so, list	Rule part(s).
	delete language contained in the model code book? If so, list section(s).		
	□ delete language contained in an existing amendment in Minnesota Rule? If spart(s). □ IBC 3002.9 Plumbing and mechanical systems	so, list R	dule
	add new language that is not found in the model code book or in Minnesota	Rule.	
2.	Is this proposed code change required by Minnesota Statute? If so, please prov	ride the	citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

(MN Amendment) **3002.9 Plumbing and mechanical systems.** Plumbing and mechanical system installed within elevator hoistways shall be provided in accordance with the following:

3002.9.1 Plumbing systems. Plumbing systems in hoistways shall be limited to and provided in accordance with Minnesota Rules Chapter 1307.

3002.9.2 Mechanical systems. Mechanical systems and mechanical components in serving hoistways shall be limited to those serving the hoistway located outside of the hoistway and separated from the hoistway by fire-resistance-rated construction equal to that of the hoistway construction. Mechanical systems serving the hoistway shall not serve other portions of the building.

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

No.

Need and Reason

1. Why is the proposed code change needed?

Minnesota's climate requires heating of hoistways. In many cases, elevator equipment requires mechanical cooling of hoistways. The Minnesota Elevator Code does not allow entrance into the hoistways except by licensed professionals. Mechanical service personnel that provide maintenance and repairs to mechanical equipment are typically not qualified to enter a hoistway to provide that work.

2. Why is the proposed code change a reasonable solution?

The proposed code change allows mechanical systems to condition hoistways, provides protection of the hoistway with a fire-resistance-rated separation between equipment and the hoistway itself, and allows for maintenance personnel to access the mechanical equipment for service.

3. What other considerations should the TAG consider? None.

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.

The proposed change will decrease construction costs by not requiring additional certification/licensure of mechanical contractors in order to access mechanical equipment located within elevator hoistways.

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.
No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Continued confusion over what is allowed and required when hoistways need heating or air conditioning.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 9/7/2022

Model Code: IBC 2024

Code or Rule Section:

	Association affiliation, if any: DLI/CCLD IBC 3005.4.1 Machine Room or rule section to be changed: MR 1305	Access	
Gener	ral Information	Yes	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?		
	sed Language The proposed code change is meant to:		
	☐ change language contained the model code book? If so, list section(s).		
	☐ change language contained in an existing amendment in Minnesota Rule? I	f so, list	Rule part(s).
	delete language contained in the model code book? If so, list section(s).		
	delete language contained in an existing amendment in Minnesota Rule? If part(s).	so, list R	tule
		Rule.	
2.	Is this proposed code change required by Minnesota Statute? If so, please prov	vide the	citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

<u>3005.4.1 Machine and controls access.</u> Access to elevator machine rooms, control rooms, control spaces or machinery spaces shall not require passage through kitchens, toilet rooms, dwelling units, or sleeping units.

Exception: Elevators that serve a single dwelling unit or sleeping unit may access the machine room or control room through the dwelling unit or sleeping unit served.

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

No.

Need and Reason

1. Why is the proposed code change needed?

A handful of projects have designed elevator machine room access through toileting facilities that are separated by sex. There is nothing in the code prohibiting this, but it requires closing the toilet room to work on the elevator.

2. Why is the proposed code change a reasonable solution?

Waiting to vacate toilet rooms and then closing toilet rooms in order to access and maintain elevator and escalator machine rooms is very inconvenient and typically not necessary. If codified, access to the machine rooms and control rooms where not passing through toilet rooms or dwelling/sleeping units is easily accommodated.

3. What other considerations should the TAG consider? None.

Cost/Benefit Analysis

 Will the proposed code change increase or decrease costs? Please explain. No cost

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.

- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

None.

6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Continued occasional location of elevator or escalator machine room/control room access through toilet rooms or dwelling/sleeping units with no code recourse to correct the problem.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Staff Date: August 24, 2024						
Email	address: chris.rosival@state.mn.us	Model Code: 2024 IMC & 20	024 IBC	;		
Teleph	none number: 651-284-5510	Code or Rule Section: 1346 1305.3005.7	.1206.1	.1 &		
Firm/A	ssociation affiliation, if any: DLI	Topic of proposal: Hydronic piping in elevator rooms				
Code	or rule section to be changed: Hydronic Piping					
Intend	ed for Technical Advisory Group ("TAG"):					
Gener	al Information		<u>Yes</u>	<u>No</u>		
B. C. D. E.	Is the proposed change unique to the State of Mini Is the proposed change required due to climatic cowill the proposed change encourage more uniform Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule Would this proposed change be appropriate through development process?	nditions of Minnesota? n enforcement? e, chapter amendment?				
	sed Language The proposed code change is meant to:					
	☐ change language contained the model code both MR 1346.1206.1 & MR 1305.3005.7	ok? If so, list section(s).				
	☐ change language contained in an existing amer	ndment in Minnesota Rule? If	so, list	Rule part(s).		
	delete language contained in the model code book? If so, list section(s).					
	$\ \ \ \ \ \ \ \ \ \ \ \ \ $					
	$oxed{\boxtimes}$ add new language that is not found in the mode	el code book or in Minnesota	Rule.			

2. Is this proposed code change required by Minnesota Statute? If so, please provide the citation.

No

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikethrough</u> words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

SECTION 1206 PIPING INSTALLATION

1206.1 General. Piping, valves, fittings and connections shall be installed in accordance with the conditions of approval.

<u>1206.1.1 Elevator machine rooms. Hydronic piping shall not enter or pass through elevator machine rooms.</u>

3005.7 Mechanical piping. Hydronic piping shall not enter or pass through elevator machine rooms.

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. Copying the amendment in the IMC and IBC.

Need and Reason

- Why is the proposed code change needed? Please provide a general explanation as well as a specific explanation for any changes to numerical values (heights, area, etc.) MR 1307 does not allow hydronic piping in machine rooms and this is not addressed in MR 1346.
- 2. Why is the proposed code change a reasonable solution?

 This CCP is a simple clarification to specify where hydronic piping is not allowed.
- 3. What other factors should the TAG consider? None

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.

N/A

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. If the benefit is quantifiable (for example energy savings), provide an estimate if possible.

 N/A.
- 3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.

N/A

4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

N/A

5. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city (Minn. Stat. § 14.127)? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.
No change

Regulatory Analysis

- 1. What parties or segments of industry are affected by this proposed code change? Designers, installers and mechanical inspectors.
- Can you think of other means or methods to achieve the purpose of the proposed code change?
 What might someone opposed to this code change suggest instead? Please explain what the
 alternatives are and why your proposed change is the preferred method or means to achieve the
 desired result.
 No.
- 3. What are the probable costs or consequences of not adopting the code change, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 Possible cost increases for changes needed to comply with MR 1307
- 4. Are you aware of any federal or state regulation or requirement related to this proposed code change? If so, please list the federal or state regulation or requirement and your assessment of any differences between the proposed code change and the federal regulation or requirement.
 N/A

***Note: The information you provide in this code change proposal form is considered Public Data and used by the TAG to consider your proposed modification to the code. Any code change proposal form submitted to DLI may be reviewed at public TAG meetings and used by department staff and the Office of Administrative Hearings to justify the need and reasonableness of any proposed rule draft subject to administrative review and is available to the public.

****Note: Incomplete forms will be returned to the submitter with instruction to complete the form. Only completed forms will be accepted and considered by the TAG. The submitter may be asked to provide additional information in support of the proposed code change.

Email address: greg.metz@state.mn.us

Firm/Association affiliation, if any: DLI/CCLD

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 9/7/2022

Model Code: IBC 2024

Code or Rule Section:

IBC 3006.2 Hoistway Opening Protection Requried

Code	or rule section to be changed: MR 1305		
Gener	al Information	Yes	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?		
	sed Language The proposed code change is meant to:		
	□ change language contained the model code book? If so, list section(s). □ IBC 3006.2 Hoistway Opening Protection Required		
☐ change language contained in an existing amendment in Minnesota Rule? If so, list Rule p			
	delete language contained in the model code book? If so, list section(s).		
	delete language contained in an existing amendment in Minnesota Rule? If so part(s).	o, list Ru	ıle
	add new language that is not found in the model code book or in Minnesota R	Rule.	
2.	Is this proposed code change required by Minnesota Statute? If so, please providing	de the c	itation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

2024 IBC 3006.2 Elevator hoistway door protection required. Elevator hoistway doors shall be protected in accordance with Section 3006.3 where an elevator hoistway connects more than three *stories*, <u>and</u> is required to be enclosed within a *shaft enclosure* in accordance with Section 712.1.1 and any of the following conditions apply:

- 1. The building is not protected throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
- 2. The building contains a Group I-1, Condition 2 occupancy.
- 3. The building contains a Group I-2 occupancy.
- 4. The building contains a Group I-3 occupancy.
- 5. The building is a high rise and the elevator hoistway is more than 75 feet (22 860 mm) in height. The height of the hoistway shall be measured from the lowest floor to the highest floor of the floors served by the hoistway.
- 6. The elevator hoistway door is located in the wall of a corridor required to be fire-resistance rated in accordance with Section 1020.1
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

Should be considered with changes to Section 3006.3 Hoistway opening protection.

Need and Reason

1. Why is the proposed code change needed?

Elevator lobbies are intended to protect floors from smoke migrating through the elevator shaft since elevator doors that limit the passage of smoke are not widely available.

Elevator lobbies are an opportunity to mitigate stack effect building pressurization and air migration through buildings via elevator shafts. Doors and roll down smoke curtains do not mitigate air movement in non-emergency conditions because they are always open. The condition allows free migration of air through the shaft under normal conditions contributing to stack effect building pressurization, air infiltration, energy loss, and lower indoor air quality

2. Why is the proposed code change a reasonable solution?

The proposed change provides for a low technology, highly effective means to provide significant energy savings benefit, improve indoor air quality, and enhance passive fire safety.

- 3. What other considerations should the TAG consider?
 - Building compartmentalization in Minnesota Rules Chapter 1323 to mitigate stackeffect air flow in buildings four stories and taller in height.
 - Consider allowing electrically operated automatic sliding doors for elevator lobbies when not part of the means of egress path.

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.

Minor cost change for sprinkled buildings four stories and taller in height. Cost increase will include the cost of a fire resistance rated pair of doors with closers for each story. Cost of a fire resistance rated door pair is approximately \$1,800.

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. The increase in cost will be offset by additional passive fire safety, improved indoor air quality due to a reduction in uncontrolled air infiltration due to stack effect, and improved energy efficiency due to mitigation of stack effect building pressurization.
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule? No
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals? None.

6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Continued air infiltration and exfiltration due to stack-effect, energy loss, increased energy costs, perpetuated poor air quality.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

***Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Or completed forms can considered by the TAG.	ıly
4	

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 8/11/2022

Model Code: IBC 2024

Code or Rule Section:

	/Association affiliation, if any: DLI/CCLD IBC 3006.3 Hoistway Openir or rule section to be changed: MR 1305	ng Protect	tion	
Gene	ral Information	Yes	<u>No</u>	
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?			
	The proposed code change is meant to: ☐ change language contained the model code book? If so, list section(s). ☐ IBC 3006.3 Hoistway Opening Protection			
	☐ change language contained in an existing amendment in Minnesota Rule?	If so, list	Rule part(s).	
	delete language contained in the model code book? If so, list section(s).			
	delete language contained in an existing amendment in Minnesota Rule? If part(s).	so, list R	tule	
	add new language that is not found in the model code book or in Minnesota	a Rule.		
2.	Is this proposed code change required by Minnesota Statute? If so, please pro	ovide the	citation.	

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

2024 IBC 3006.3 Elevator hoistway door protection. Where Section 3006.2 requires protection of the elevator hoistway doors, the protection shall be provided by one of the following:

- 1. An enclosed elevator lobby shall be provided at each floor to separate the elevator hoistway doors from each floor with fire partitions in accordance with Section 708 smoke barriers in accordance with Section 709. In addition, doors protecting openings in the fire partitions smoke barriers shall comply with Section 716.2.2.1 as required for smoke barrier walls. Penetrations of the fire partitions smoke barriers by ducts and air transfer openings shall be protected as required for corridors in accordance with Section 717.5.4.1 Section 717.5.5.
- 2. An enclosed elevator lobby shall be provided at each floor to separate the elevator hoistway doors from each floor by smoke partitions in accordance with Section 710. In addition, doors protecting openings in the smoke partitions shall comply with /Sections 710.5.2.2, 710.5.2.3 and 716.2.6.1. Penetrations of the smoke partitions by ducts and air transfer openings shall be protected as required for corridors in accordance with Section 717.5.4.1.
- 3. Additional doors or other devices shall be provided at each elevator hoistway door in accordance with Section 3002.6. Such doors or other devices shall comply with the smoke and draft control door assembly requirements in Section 716.2.2.1.1 when tested in accordance with UL 1784 without an artificial seal a the bottom.
- 4. The elevator hoistway shall be pressurized in accordance with Section 909.21.
- 5. A smoke-protective curtain assembly for hoistways shall be provided at each elevator hoistway door opening in accordance with Section 3002.6. Such curtain assemblies shall comply with the smoke and draft control requirements in Section 716.2.2.1.1 when tested in accordance with UL 1784 without an artificial bottom seal. Such curtain assemblies shall be equipped with a control unit listed to UL 864. Such curtain assemblies shall comply with Section 2.11.6.3 of ASME A17.1/CSA B44. Installation and maintenance shall be in accordance with NFPA 105.

Note: 2024 IBC removed automatic sprinkler protection as a condition of item 2 utilizing smoke partitions walls.

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

No.

Need and Reason

1. Why is the proposed code change needed?

Elevator lobbies are intended to protect floors from smoke migrating through the elevator shaft since elevator doors that limit the passage of smoke are not widely available. Fire partitions do not have criteria for limiting the passage of smoke.

Elevator lobbies are an opportunity to mitigate stack effect building pressurization and air migration through buildings via elevator shafts. Doors and roll down smoke curtains do not mitigate air movement in non-emergency conditions. The condition allows free migration of air through the shaft under normal conditions contributing to stack effect building pressurization, air infiltration, energy loss, and lower indoor air quality

Elevator pressurization protects the shafts from smoke intrusion during emergency conditions but allows free migration of air through the shaft under normal conditions contributing to stack effect building pressurization, air infiltration, energy loss, and lower indoor air quality.

- 2. Why is the proposed code change a reasonable solution?

 It provides for a low technology, highly effective means to provide for fire safety, save energy and improve indoor air quality.
- 3. What other considerations should the TAG consider?
 - Building compartmentalization in Minnesota Rules Chapter 1323 to mitigate stackeffect air flow in buildings four stories and taller in height.
 - Consider allowing electrically operated automatic sliding doors for elevator lobbies when not part of the means of egress path.

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain. No cost change.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

None.

6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Continued air infiltration and exfiltration due to stack-effect, energy loss, increased energy costs, perpetuated poor air quality.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement. No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 9/7/2022

Model Code: IBC 2024

Code or Rule Section:

Firm/Association affiliation, if any: DLI/CCLD		IBC 3007.2.1 Fire Service Acce Sprinkler system prohibited loc		vator
Code	e or rule section to be changed: MR 1305			
Gene	ral Information		<u>Yes</u>	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Mir Is the proposed change required due to climatic of Will the proposed change encourage more uniform Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Ru Would this proposed change be appropriate through development process?	onditions of Minnesota? m enforcement? le, chapter amendment?		
	The proposed code change is meant to: Change language contained the model code be	ook? If so, list section(s).		
	change language contained in an existing ame	endment in Minnesota Rule? If	so, list l	Rule part(s).
	delete language contained in the model code l	book? If so, list section(s).		
	delete language contained in an existing amer part(s).	ndment in Minnesota Rule? If s	o, list R	ule
	☑ add new language that is not found in the mod IBC 3007.2.1 Prohibited Locations	lel code book or in Minnesota F	₹ule.	
2.	Is this proposed code change required by Minnes	ota Statute? If so, please provi	de the	citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

IBC 3007.2.1 Prohibited locations. Automatic sprinklers shall not be installed in machine rooms, elevator machinery spaces, control rooms, control spaces, and elevator hoistways of fire service access elevators.

Exception: Health care occupancies that are: 1) required to have NFPA 13 systems; 2) licensed by the Minnesota Department of Health; and 3) participate in Title XVIII (Medicare) or Title XIX (Medicaid) of the Social Security Act.

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No.

Need and Reason

1. Why is the proposed code change needed?

To coordinate with federal standards requirements for licensing of federally funded healthcare facilities so that they may maintain their healthcare licenses.

2. Why is the proposed code change a reasonable solution?

It addresses the specific requirement of the healthcare licensing industry without including

other building types where sprinkler discharge in the elevator equipment areas could be problematic.

3. What other considerations should the TAG consider?
None

Cost/Benefit Analysis

Will the proposed code change increase or decrease costs? Please explain.
 No cost change. The change is consistent with MBC 903.3.1.1.1 Exempt Locations, Item 7 exception.

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.

- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Mis-coordinated code sections and continued confusion as to whether sprinklers can be installed in elevator machine rooms or not.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 9/7/2022

Model Code: IBC 2024

Code or Rule Section:

	Association affiliation, if any: DLI/CCLD IBC 3101.1 Special Constructer or rule section to be changed: MR 1305	ction- Sco	pe	
Gene	ral Information	Yes	<u>No</u>	
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?			
Propo	osed Language The proposed code change is meant to:			
	change language contained the model code book? If so, list section(s).			
	☐ change language contained in an existing amendment in Minnesota Rule?	If so, list	Rule part(s).
	delete language contained in the model code book? If so, list section(s).			
	delete language contained in an existing amendment in Minnesota Rule? In part(s).	f so, list R	tule	
	□ add new language that is not found in the model code book or in Minnesota □ IBC 3101.1 Scope	a Rule.		
2.	Is this proposed code change required by Minnesota Statute? If so, please pro	ovide the	citation.	

- 3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.
 - **IBC 3101.1 Scope.** The provisions of this chapter shall govern special building construction including membrane structures, temporary structures, pedestrian walkways and tunnels, awnings and canopies, marquees, signs, telecommunications and broadcast towers, swimming pools, spas and hot tubs, automatic vehicular gates, solar energy systems, greenhouses, relocatable buildings, and intermodal shipping containers, <u>window cleaning safety provisions.</u>
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No.

Need and Reason

- Why is the proposed code change needed?
 To incorporate Minnesota Amendment Section 3114 into the scoping of the chapter.
- 2. Why is the proposed code change a reasonable solution?

 Without scoping from 3101.1, the provisions in Section 3114 are technically not included in the code because there is not a code path incorporating the section into the body of work.
- 3. What other considerations should the TAG consider?
 None

Cost/Benefit Analysis

- Will the proposed code change increase or decrease costs? Please explain.
 No cost change. Section 3114 is already printed in the code and typically enforced. This is a clerical item to ensure consistency.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues? None

- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

None.

6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Costs of arguments and hearings associated with disagreements regarding the legal application of Section 3114.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Author/requestor: Steve Poor



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 6/20/2024

Email	address: steve.poor@minneapolismn.gov	Model Code: Minnesota State	Building	g Code
Telephone number: 612-364-4657 Code or Rule Section		ı: Sectio	on 3103	
Firm/A	ssociation affiliation, if any: City of Minneapolis	Topic of proposal: Te	mporar	ry structures
Code	or rule section to be changed: Section 3103			
Intend	ed for Technical Advisory Group ("TAG"): June 27, 2	2024		
Gener	al Information		<u>Yes</u>	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Minn Is the proposed change required due to climatic con Will the proposed change encourage more uniform Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule Would this proposed change be appropriate throug development process?	nditions of Minnesota? enforcement? , chapter amendment?		
<u>Propo</u> 1.	sed Language The proposed code change is meant to: change language contained the model code book?	If so, list section(s).		
	☐ change language contained in an existing amen☐ Section 3103☐ delete language contained in the model code both		30, list F	Rule part(s).
	delete language contained in an existing amend part(s).	ment in Minnesota Rule? If so	o, list R	ule
	add new language that is not found in the mode	I code book or in Minnesota R	tule.	
2.	Is this proposed code change required by Minnesot	a Statute? If so, please provid	de the d	citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikethrough</u> words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

SECTION 3103 TEMPORARY STRUCTURES

General. The provisions of Sections through shall apply to structures erected for a period of less than 180 210 days. Tents, umbrella structures and other membrane structures erected for a period of less than 180 210 days shall comply with the International Fire Code. Those erected for a longer period of time shall comply with applicable sections of this code.

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

Need and Reason

1. Why is the proposed code change needed? Please provide a general explanation as well as a specific explanation for any changes to numerical values (heights, area, etc.)

This change will allow restaurants and other businesses that use temporary structures during Minnesota winters to ensure the temporary structure can be up throughout all months of inclement weather.

2. Why is the proposed code change a reasonable solution?

This change extends the current 180 day rule to add an extra month.

3. What other factors should the TAG consider?

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.

No – it will not change inspection costs.

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. If the benefit is quantifiable (for example energy savings), provide an estimate if possible.
- 3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.
- 4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

5. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city (Minn. Stat. § 14.127)? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No – this is a minor change to existing code.

Regulatory Analysis

Hospitality businesses			

1. What parties or segments of industry are affected by this proposed code change?

- Can you think of other means or methods to achieve the purpose of the proposed code change?
 What might someone opposed to this code change suggest instead? Please explain what the
 alternatives are and why your proposed change is the preferred method or means to achieve the
 desired result.
- 3. What are the probable costs or consequences of not adopting the code change, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
- 4. Are you aware of any federal or state regulation or requirement related to this proposed code change? If so, please list the federal or state regulation or requirement and your assessment of any differences between the proposed code change and the federal regulation or requirement.

^{***}Note: The information you provide in this code change proposal form is considered Public Data and used by the TAG to consider your proposed modification to the code. Any code change proposal form submitted to DLI may be reviewed at public TAG meetings and used by department staff and the Office of Administrative Hearings to justify the need and reasonableness of any proposed rule draft subject to administrative review and is available to the public.

^{****}Note: Incomplete forms will be returned to the submitter with instruction to complete the form. Only completed forms will be accepted and considered by the TAG. The submitter may be asked to provide additional information in support of the proposed code change.



Email address: greg.metz@state.mn.us

CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 5/30/2024

Model Code: IBC 2024

Tele	phone number: 651-284-5884	Code or Rule Section:		
Firm/Association affiliation, if any: DLI/CCLD		IBC 3114.1 Intermodal shippin	g contai	iners
Code	e or rule section to be changed: MR 1305			
	-			
Gene	ral Information		Yes	<u>No</u>
	Is the proposed change unique to the State of Its the proposed change required due to climatic		\boxtimes	
	Will the proposed change encourage more unif		\boxtimes	
	Will the proposed change remedy a problem?		\boxtimes	
	Does the proposal delete a current Minnesota F Would this proposed change be appropriate thr	•		\boxtimes
٠.	development process?	ough the 100 tode		\boxtimes
Propo	osed Language			
1.	The proposed code change is meant to:			
	□ change language contained the model code MBC 3114.1 General.	book? If so, list section(s).		
	change language contained in an existing a	mendment in Minnesota Rule? If	so, list l	Rule part(s).
	delete language contained in the model cod	e book? If so, list section(s).		
	delete language contained in an existing ampart(s).	endment in Minnesota Rule? If s	o, list R	ule
	add new language that is not found in the m	odel code book or in Minnesota I	Rule.	
2.	Is this proposed code change required by Minn No	esota Statute? If so, please prov	ide the d	citation.

- 3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.
 - 3114.1 General. The provisions of Section 3114 and other applicable sections of this code the Minnesota State Building Code shall apply to *intermodal shipping containers* that are repurposed for use as *buildings* or *structures*, or as a part of *buildings* or *structures*. Intermodal shipping containers used as buildings or parts of buildings shall meet all requirements for new construction.

Exceptions:

- 1. *Intermodal shipping containers* previously *approved* as existing *relocatable buildings* complying with Chapter 14 of the *International Existing Building Code*.
- 2. Stationary storage battery arrays located in *intermodal shipping containers* complying with Chapter 12 of the *International Fire Code*.
- 3. *Intermodal shipping containers* that are *listed* as equipment complying with the standard for equipment, such as air chillers, engine generators, modular *data centers*, and other similar equipment.
- 4. *Intermodal shipping containers* housing or supporting experimental equipment are exempt from the requirements of Section 3114, provided that they comply with all of the following:
 - 4.1. Such units shall be single stand-alone units supported at grade level and used only for occupancies as specified under *Risk Category* I in Table 1604.5.
 - 4.2. Such units are located a minimum of 8 feet (2438 mm) from adjacent *structures*, and are not connected to a fuel gas system or fuel gas utility.
 - 4.3. In *hurricane-prone regions* and *flood hazard areas*, such units are designed in accordance with the applicable provisions of Chapter 16.
- 5. Intermodal shipping containers previously approved as buildings or parts of buildings and not undergoing alteration or relocation.

Need and Reason

1. Why is the proposed code change needed?

There is a need for clarity that the items listed in Section 3114 are not the only requirements for using shipping containers for buildings. There are fire safety requirements, accessibility requirements, energy code requirements, ventilation requirements, and a host of other requirements found in other parts of the State Building Code.

Because the charging language requires shipping containers used for buildings to comply as for new construction for clarity, we need to add an exception that allows existing non-conforming conditions to remain where shipping containers are already used as buildings but are not themselves being altered or moved.

- 2. Why is the proposed code change a reasonable solution?

 The language merely provides clarity and does not add to the requirements already strongly implied but not specifically stated.
- 3. What other considerations should the TAG consider?

Consider requiring special inspections for materials and welds since the containers are not new product, have likely been exposed to salt air and may be damaged or in various states of decay.

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain. No cost change. This is merely clarification.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Electrical inspectors, building owners and building tenants.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues? None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule? No
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals? None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 Designer/owner confusion regarding the requirements for using shipping containers as buildings.
- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- Please include an assessment of the cumulative effect of the rule with other federal and state
 regulations related to the specific purpose of the rule.
 N/A

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

No

Email address: greg.metz@state.mn.us



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 9/7/2022

Model Code: IBC 2024

Firm	chone number: 651-284-5884 (Association affiliation, if any: DLI/CCLD e or rule section to be changed: MR 1305	Code or Rule Section: IBC 3301.1 Scope.		
Gene	ral Information		Yes	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Is the proposed change required due to climat Will the proposed change encourage more unit Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Would this proposed change be appropriate the development process?	ic conditions of Minnesota? iform enforcement? Rule, chapter amendment?		
	esed Language The proposed code change is meant to:			
	change language contained the model code	e book? If so, list section(s).		
	change language contained in an existing a	amendment in Minnesota Rule?	If so, list	Rule part(s)
	delete language contained in the model cod	de book? If so, list section(s).		
	delete language contained in an existing ar part(s).	mendment in Minnesota Rule? I	f so, list R	Rule
	□ add new language that is not found in the r □ IBC 3301.1 Scope.	nodel code book or in Minnesot	a Rule.	
2.	Is this proposed code change required by Mini	nesota Statute? If so, please pr	ovide the	citation.

- 3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.
 - **3301.1 Scope.** The provisions of this chapter shall govern safety during construction and the protection of adjacent public and private properties. Fire safety during construction shall also comply with the applicable provisions of Chapter 33 of the International Fire Code.

<u>3301.2 Partial Occupancy.</u> Where an existing building is intended to be partially occupied during construction, the following conditions shall be met:

- 1. The means of egress for occupied portions of the building shall comply with travel distance limits and number of exits required. Temporary means of egress may include temporary exterior fire escapes or exterior stairways constructed of any materials allowed by code.
- 2. For buildings equipped with an automatic sprinkler system and part or all of the system is required to be non-operational for a period of time, the travel distance limits and number of required exits shall be provided as for non-sprinkled buildings. Fire extinguishers shall be placed within 75 feet of travel distance from any occupied location within the building.
- 3. Spaces located beyond the allowable travel distance limits shall be cordoned off to not be occupied and shall be signed "Limits of safe occupancy, construction workers only beyond this point."
- 4. There shall be not less than a one-hour fire barrier separating the construction work area from occupied portions of the building.
- 5. Means of egress from occupied portions shall not pass through a construction work area.
- 6. Means of egress including temporary means of egress shall include exit discharge to the public way or safe dispersion area that can be maintained free and clear of ice and snow.

Renumber following code sections accordingly.

3301.3 3301.2 Storage and Placement

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No.

Need and Reason

- 1. Why is the proposed code change needed?
 - The code does not provide any guidance on safe partial occupancy of buildings undergoing renovation and construction.
- 2. Why is the proposed code change a reasonable solution?
 - It clarifies what is required for basic occupant safety and provides guidance for handling areas beyond the limits of safe occupancy. The requirements are consistent with current code, and are merely included to reduce construction costs by clarifying requirements in a less subjective manner while maintaining occupant safety during construction.
- 3. What other considerations should the TAG consider?
 None

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain. No cost change.

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

None.

6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Wide variations in requirements for partial occupancy leading to inconsistency in requirements and elevated construction costs to mitigate the uncertainty.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 7/18/2024

Email	Email address: Greg.Metz@State.MN.US Model Code: 2024 IBC		BC .	
Telephone number: 651-284-5884 Code or Rule		Code or Rule	Section	n: 3314.1
Firm/A	Association affiliation, if any: DLI/CCLD	Topic of prop	osal: Fi	re Watch
Code	or rule section to be changed: 3114.1 Fire Watch			
Intena	ed for Technical Advisory Group ("TAG"): MR 1305			
Gener	ral Information		Yes	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minne Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amend Would this proposed change be appropriate through the ICC code development process?			
	sed Language The proposed code change is meant to: ☑ change language contained the model code book? If so, list sec	ction(s).		
	☐ change language contained in an existing amendment in Minne	sota Rule? If	so, list l	Rule part(s).
	delete language contained in the model code book? If so, list se	ection(s).		
	delete language contained in an existing amendment in Minnes part(s).	ota Rule? If so	o, list R	ule
	add new language that is not found in the model code book or i	n Minnesota F	Rule.	
2.	Is this proposed code change required by Minnesota Statute? If so No	, please provi	de the o	citation.

- 3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikethrough</u> words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.
 - **3314.1 Fire watch during construction.** A-When required by the fire code official, fire watch shall be provided during nonworking hours for construction that exceeds 40 feet (12 192 mm) in height above the lowest adjacent grade at any point along the building perimeter, for new multi-story construction with an aggregate area exceeding 50,000 square feet (4645 m2) per story or as required by the fire code official.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No

Need and Reason

- 1. Why is the proposed code change needed? Please provide a general explanation as well as a specific explanation for any changes to numerical values (heights, area, etc.)
 - Model code mandates a fire watch under certain conditions for building size and when construction exceeds normal limits of firefighting capability from the ground. The model code imposes expensive staffing for fire watch when the service may not be necessary.
- 2. Why is the proposed code change a reasonable solution?

 The proposed change gives the discretion to the fire official to require a fire watch or not.
- 3. What other factors should the TAG consider?

Cost/Benefit Analysis

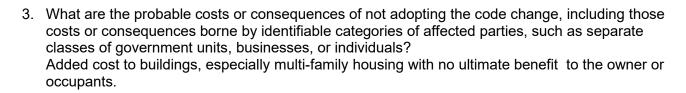
- 1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.
 - The change will decrease construction costs by not mandating fire watch for all buildings taller than three stories (40 feet) or 50,000 square feet.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. If the benefit is quantifiable (for example energy savings), provide an estimate if possible. N/A
- If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.
 N/A
- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain. N/A
- 5. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city (Minn. Stat. § 14.127)? A small business is

any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain. no

Regulatory Analysis

1.	What parties or segments of industry are affected by this proposed code change?
	Architects, engineers, developers, building owners, code officials, firefighters

2.	Can you think of other means or methods to achieve the purpose of the proposed code change? What might someone opposed to this code change suggest instead? Please explain what the alternatives are and why your proposed change is the preferred method or means to achieve the
	desired result.
	No



4.	Are you aware of any federal or state regulation or requirement related to this proposed code
	change? If so, please list the federal or state regulation or requirement and your assessment of any
	differences between the proposed code change and the federal regulation or requirement.

No

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.