



DEPARTMENT OF ADMINISTRATIVE SERVICES

PROPOSED CHANGE OF THE CONNECTICUT STATE BUILDING CODE AND FIRE SAFETY CODE

DATE SUBMITTED: April 15, 2024

CODE INFORMATION

Proposed change to: [X] Building Code [] Fire Safety Code
Code section(s): IPC Chap.3/Sec. 308/Table 308.5,IMC Chap.3/Sec. 305/Table 305.4
IRC Chap.21/Sec.M2101.9/TableM2101.9,Chap.26/Sec.P2605.1/TableP2605.1

PROPONENT INFORMATION

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PROPOSAL INFORMATION

Description of change and reason for change (attach additional information as needed):
Language to accomodate larger PEX-AL-PEX pipe sizes as well as update hanger space req

Proposed text change, addition or deletion (attach additional information as needed):
4 Proposed updated charts with note language added

Supporting data and documents (attach additional information as needed)
Manufacturer's installation requirements governing appropriate hanger spacing of 3/8" - 4" pipe

- [] This Proposal is original material. (Note: Original material is considered to be the submitter's own idea based on or as a result of his/her own experience, thought or research and, to the best of his/her knowledge, is not copied from another source.)
[X] This Comment is not original material, its source (if known) is as follows: (such as material / code development proposal from a prior development cycle or proposal submitted to model code committee etc.)
This information is based on manufacturers installation requirements
[] I would like to make an in-person presentation of my proposal.

Release

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Proponent's Signature

Roger Stolting
Printed Name

PLEASE EMAIL (PREFERRED) TO DAS.CodesStandards@CT.GOV OR MAIL OR FAX (SEE BELOW)

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2024 IMC TABLE 305.4 PIPING SUPPORT SPACING^a

PIPING MATERIAL	MAXIMUM HORIZONTAL SPACING (feet)	MAXIMUM VERTICAL SPACING (feet)
ABS pipe	4	10 ^c
Aluminum pipe and tubing	10	15
Cast-iron pipe ^b	5	15
Copper or copper-alloy pipe	12	10
Copper or copper-alloy tubing	8	10
CPVC pipe or tubing, 1 inch and smaller	3	10 ^c
CPVC pipe or tubing, 1 ¹ / ₄ -inches and larger	4	10 ^c
Lead pipe	Continuous	4
PB pipe or tubing	2 ² / ₃ (32 inches)	4
PE-RT 1 inch and smaller	2 ² / ₃ (32 inches)	10 ^c
PE-RT 1 ¹ / ₄ inches and larger	4	10 ^c
PEX tubing 1 inch and smaller	2 ² / ₃ (32 inches)	10 ^c
PEX tubing 1 ¹ / ₄ inches and larger	4	10 ^c
Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe smaller than 1 inch	2 ² / ₃ (32 inches) ^d	10 ^c
Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe 1 inch and larger	4 ^d	10 ^c
Polypropylene (PP/PP-R/PP-RCT) pipe or tubing, 1 inch and smaller	2-2/3 (32 inches) ^d	10 ^c
Polypropylene (PP/PP-R/PP-RCT) pipe or tubing, 1 ¹ / ₄ inch and larger	4 ^d	10 ^c
PVC pipe	4	10 ^c
Steel pipe	12	15
Steel tubing	8	10

For SI 1 inch = 25.4 mm 1 foot = 304 mm

a. See Section 301.18

b. The maximum horizontal spacing of cast-iron pipe hangers shall be increased to 10 feet where 10 foot lengths of pipe are installed

c. Mid story guide

d. The maximum horizontal or Vertical spacing of PP/PP-RCT or PEX-AL-PEX pipe hangers shall be increased to manufacturer's installation requirements based on maximum operating temperature design and/or incorporation of Pipe/Tube supports

2024 IPC Table 308.5 Hanger Spacing

Piping Materials	Maximum Horizontal Spacing (feet)	Maximum Vertical Spacing (Feet)
Acrylonitrile butadiene styrene (ABS) pipe	4	10 ^b
Aluminum tubing	10	15
Brass pipe	10	10
Cast-iron pipe	5	15
Chlorinated polyvinyl chloride (CPVC) pipe and tubing, 1 inch and smaller	3	10 ^b
Chlorinated polyvinyl chloride (CPVC) pipe and tubing, 1-1/4 inch and Larger	3	10 ^b
Copper or copper-alloy pipe	12	10
Copper or copper-alloy tubing, 1 1/4-inch diameter and smaller	6	10
Copper or copper-alloy tubing, 1 1/2-inch diameter and larger	10	10
Cross-linked polyethylene (PEX) pipe 1 inch and smaller	2.67 (32 inches)	10
Cross-linked polyethylene (PEX) pipe 1 1/4 inch and larger	4	10 ^b
Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe smaller than 1 inch	2.67 (32 inches) ^c	10 ^{b/c}
Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe larger than 1 inch	4 ^c	10 ^{b/c}
Lead pipe	Continuous	4
Polyethylene/aluminum/ polyethylene (PE-AL-PE) pipe	2.67 (32 inches)	4
Polyethylene of raised temperature (PE-RT) pipe 1 inch and smaller	2.67 (32 inches)	10 ^b
Polyethylene of raised temperature (PE-RT) pipe 1 1/4 inch and larger	4	10 ^b
Polypropylene (PP/PP-R/PP-RCT) pipe or tubing 1 inch and smaller	2.67 (32 inches) ^c	10 ^{b/c}
Polypropylene (PP/PP-R/PP-RCT) pipe or tubing, 1 1/4 inches and larger tubing	4 ^c	10 ^{b/c}
Polyvinyl chloride (PVC) pipe	4	10 ^b
Stainless steel drainage systems	10	10 ^b
Steel pipe	12	15

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

- a. The maximum horizontal spacing of cast-iron pipe hangers shall be increased to 10 feet where 10-foot lengths of pipe are installed.
- b. For sizes 2 inches and smaller, a guide shall be installed midway between required vertical supports. Such guides shall prevent pipe movement in a direction perpendicular to the axis of the pipe.
- c. The maximum horizontal or vertical spacing of PP/PP-RCT or PEX-AL-PEX pipe hangers shall be increased to manufacturer's installation requirements based on maximum operating temperatures design and/or incorporation of Pipe/Tube supports per manufactures instructions

2024 IRC TABLE M2101.9 PIPING SUPPORT

PIPING MATERIAL	MAXIMUM HORIZONTAL SPACING (feet)	MAXIMUM VERTICAL SPACING (feet)
ABS pipe	4	10 ^b
Aluminum tubing	10	15
Cast-iron pipe	5 ^a	15
Copper or copper-alloy pipe	12	10
Copper or copper-alloy tubing (1 ¹ / ₄ inches in diameter and smaller)	6	10
Copper or copper-alloy tubing (1 ¹ / ₂ inches in diameter and larger)	10	10
Cross-linked polyethylene (PEX) pipe, 1 inch and smaller	2.67 (32 inches)	10 ^b
Cross-linked polyethylene (PEX) pipe, 1 ¹ / ₄ inch and larger	4	10 ^b
Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe smaller than 1 inch	2.67 (32 inches) ^c	4b/c
Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe 1 inch and larger	4 ^c	10 ^b
CPVC pipe or tubing (1 inch in diameter and smaller)	3	10 ^b
CPVC pipe or tubing (1 ¹ / ₄ inches in diameter and larger)	4	10 ^b
Lead pipe	Continuous	4
PB pipe or tubing	2.67 (32 inches)	4
Polyethylene of raised temperature (PE-RT) pipe, 1 inch and smaller	2.67 (32 inches)	10 ^b
Polyethylene of raised temperature (PE-RT) pipe, 1 ¹ / ₄ inch and larger	4	10 ^b
Polypropylene (PP/PP-R/PP-RCT) pipe or tubing (1 inch and smaller)	2.67 (32 inches) ^c	10 ^b
Polypropylene (PP/PP-R/PP-RCT) pipe or tubing (1 ¹ / ₄ inches and larger)	4 ^c	10 ^b
PVC pipe	4	10 ^b
Stainless steel drainage systems	10	10 ^b
Steel pipe	12	15

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

- a. The maximum horizontal spacing of cast-iron pipe hangers shall be increased to 10 feet where 10-foot lengths of pipe are installed.
- b. For sizes 2 inches and smaller, a guide shall be installed midway between required vertical supports. Such guides shall prevent pipe movement in a direction perpendicular to the axis of the pipe

c. The maximum horizontal or Vertical spacing of PP/PP-RCT or PEX-AL-PEX pipe hangers shall be increased to manufacturer's installation requirements based on maximum operating temperature design and/or incorporation of Pipe/Tube supports per manufactures instructions

2024 IRC TABLE P2605.1 PIPING SUPPORT

PIPING MATERIAL	MAXIMUM HORIZONTAL SPACING (feet)	MAXIMUM VERTICAL SPACING (feet)
ABS pipe	4	10 ^b
Aluminum tubing	10	15
Cast-iron pipe	5 ^a	15
Copper or copper-alloy pipe	12	10
Copper or copper-alloy tubing (1 ¹ / ₄ inches in diameter and smaller)	6	10
Copper or copper-alloy tubing (1 ¹ / ₂ inches in diameter and larger)	10	10
Cross-linked polyethylene (PEX) pipe, 1 inch and smaller	2.67 (32 inches)	10 ^b
Cross-linked polyethylene (PEX) pipe, 1 ¹ / ₄ inch and larger	4	10 ^b
Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe smaller than 1 inch	2.67 (32 inches) ^c	4 ^b
Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe 1 inch and larger	4 ^c	10 ^b
CPVC pipe or tubing (1 inch in diameter and smaller)	3	10 ^b
CPVC pipe or tubing (1 ¹ / ₄ inches in diameter and larger)	4	10 ^b
Lead pipe	Continuous	4
PB pipe or tubing	2.67 (32 inches)	4
Polyethylene of raised temperature (PE-RT) pipe, 1 inch and smaller	2.67 (32 inches)	10 ^b
Polyethylene of raised temperature (PE-RT) pipe, 1 ¹ / ₄ inch and larger	4	10 ^b
Polypropylene (PP) pipe or tubing (1 inch and smaller)	2.67 (32 inches) ^c	10 ^b
Polypropylene (PP) pipe or tubing (1 ¹ / ₄ inches and larger)	4 ^c	10 ^b
PVC pipe	4	10 ^b
Stainless steel drainage systems	10	10 ^b
Steel pipe	12	15

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

a. The maximum horizontal spacing of cast-iron pipe hangers shall be increased to 10 feet where 10-foot lengths of pipe are installed.

b. For sizes 2 inches and smaller, a guide shall be installed midway between required vertical supports. Such guides shall prevent pipe movement in a direction perpendicular to the axis of the pipe

c. The maximum horizontal or Vertical spacing of PP/ PP-RCT or PEX-AL-PEX pipe hangers shall be increased to manufacturer's installation requirements based on maximum operating temperature design and/or incorporation of Pipe/Tube supports per manufactures instructions

Example of One Manufacturers (Aquatechnik) PEX-AL-PEX Hanger Spacing

ΔT	$\varnothing 3/8''$	$\varnothing 1/2''$	$\varnothing 5/8''$	$\varnothing 7/8''$	$\varnothing 1''$	$\varnothing 1 1/4''$	$\varnothing 1 1/2''$	$\varnothing 2''$	$\varnothing 2 1/2''$	$\varnothing 3''$
0°F	4	4.2	5	5.6	6.2	7.5	8.3	9.8	9.8	10
20°F	3.6	3.8	4.6	5	5	6.2	7.7	9.5	9.8	10
40°F	3.6	3.2	4	4.2	5	6.2	7.7	9.5	9.8	10
55°F	3.6	3.2	4	4.2	5	5.7	7.4	9.2	9.8	10
70°F	3	3.2	3.6	4	4.7	5.7	7	9.2	9.8	10
90°F	3	3	3.6	4	4.7	5.6	7	8.8	9.8	10
105°F	2.6	2.6	3.2	3.6	4.6	5.2	6.2	8.2	9.8	10
125°F	2.3	2.3	3.8	3.2	4.2	5	5.9	7.5	9.8	10