



DEPARTMENT OF ADMINISTRATIVE SERVICES

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

DATE SUBMITTED: _____

CODE INFORMATION

Proposed change to: ☐ Building Code ☐ Fire Safety Code

Code section(s): _____

PROPONENT INFORMATION

Name: _____ Representing: _____

Telephone: _____ Email: _____

Address: _____
Street Address Town State Zip Code

PROPOSAL INFORMATION

Description of change and reason for change (attach additional information as needed):

Proposed text change, addition or deletion (attach additional information as needed):

Supporting data and documents (attach additional information as needed)

☐ **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.)

☐ **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.)

☐ **I would like to make an in-person presentation of my proposal.**

Release

I hereby grant the State of Connecticut full rights to the use of this material without benefit to me, including, but not limited to, publication and reproduction rights.

Proponent's Signature

Printed Name

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

*Department of Administrative Services
Office of the State Building Inspector
450 Columbus Boulevard, Suite 1303
Hartford, CT 06103
Tel: 860-713-5900 Fax: 860-713-7410
Affirmative Action/Equal Opportunity Employer*

12/29/16

Proposed Amendment to 2021 IMC Chapter 3 Section 305

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) pipe or tubing, 1 inch and smaller | 22/3 (32 inches) ^d | 10 ^c |
| Polypropylene (PP) pipe or tubing, 1 1/4 inches 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

c. The maximum horizontal spacing of PP or PP-RCT pipe hangers shall be increased to manufacturer's installation requirements based on maximum operating temperature design.

Proposed Amendment to 2021 IPC Chapter 3 Hanger Spacing Chart

| 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 |
| Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe larger than 1 inch | 4 ^c | 10 ^b |
| 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) pipe or tubing 1 inch and smaller | 2.67 (32 inches) | 10 ^b |
| Polypropylene (PP) pipe or tubing, 1 1/4 inches and larger tubing | 4 ^c | 10 ^b |
| 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 spacing of PP or PP-RCT pipe hangers shall be increased to manufacturer's installation requirements based on maximum operating temperatures design

Proposed Amendment to 2021 IRC Chapter 21 Section M2101.9 Hanger Spacing Chart

TABLE M2101.9 HANGER SPACING INTERVALS

| PIPING MATERIAL | MAXIMUM HORIZONTAL SPACING (feet) | MAXIMUM VERTICAL SPACING (feet) |
|--|-----------------------------------|---------------------------------|
| ABS pipe | 4 | 10 ^a |
| CPVC ≤1- inch pipe or tubing | 3 | 5 ^a |
| CPVC ≥1¼-inches | 4 | 10 ^a |
| Copper or copper-alloy pipe | 12 | 10 |
| Copper or copper-alloy tubing | 6 | 10 |
| PB pipe or tubing | 2.67 | 4 |
| PE pipe or tubing | 2.67 | 4 |
| PE-RT ≤1 inch | 2.67 | 10 ^a |
| PE-RT ≥1¼ inches | 4 | 10 ^a |
| PEX tubing ≤ 1 inch | 2.67 | 4 |
| PEX tubing ≥ 1¼ inches | 4 | 10 ^a |
| Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe smaller than 1 inch | 2.67 ^b | 10 ^a |
| Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe 1 inch and larger | 4 ^b | 10 ^a |
| PP < 1- inch pipe or tubing | 2.67 ^b | 4 |
| PP > 1- inch pipe or tubing | 4 ^b | 10 ^a |
| PVC pipe | 4 | 10 ^a |
| Steel pipe | 12 | 15 |
| Steel tubing | 8 | 10 |

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

a .Mid story guide

b. The maximum horizontal spacing of PP or PP-RCT pipe hangers shall be increased to manufacturer's installation requirements based on maximum operating temperature design.

Proposed Amendment to 2021 IRC Chapter 26 Section P2603 Hanger Spacing

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 (1¼ inches in diameter and smaller) | 6 | 10 |
| Copper or copper-alloy tubing (1½ 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, 1¼ 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 (1¼ 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, 1¼ 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 (1¼ 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 spacing of PP or PP-RCT pipe hangers shall be increased to manufacturer's installation requirements based on maximum operating temperature design.

Pipe Support Distances

Clamp Support Distance - Fusion-Tech **BLUE** Striped and **VIOLET** Pipe SDR 11 (in ft.)

| ND Ø | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" | 2 1/2" | 3" | 3 1/2" | 4" | 6" | 8" |
|-------------|-------|-------|-------|--------|--------|-------|--------|-------|--------|-------|------|-------|
| ext. Ø | 0.79" | 0.98" | 1.26" | 1.57" | 1.97" | 2.48" | 2.95" | 3.54" | 4.33" | 4.92" | 6.3" | 7.87" |
| ext. Ø mm | 20 | 25 | 32 | 40 | 50 | 63 | 70 | 90 | 110 | 125 | 160 | 200 |
| ΔT | | | | | | | | | | | | |
| 0°F | 3 | 4 | 4 | 5 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 9 |
| 36°F | 2 | 3 | 3 | 3 | 4 | 5 | 5 | 5 | 6 | 7 | 7 | 6 |
| 54°F | 2 | 3 | 3 | 3 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 |
| 72°F | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 6 |

Clamp Support Distance - Fusion-Tech FASERT **RED** Striped Pipe (in ft.)

| ND Ø | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" | 2 1/2" | 3" | 3 1/2" | 4" | 6" | 8" | 10" | 12" | 14" | 16" |
|--------------|-------|-------|-------|--------|--------|-------|--------|-------|--------|-------|------|-------|-------|--------|--------|--------|
| ext. Ø | 0.79" | 0.98" | 1.26" | 1.57" | 1.97" | 2.48" | 2.95" | 3.54" | 4.33" | 4.92" | 6.3" | 7.87" | 9.84" | 12.40" | 13.98" | 15.75" |
| ext. Ø mm | 20 | 25 | 32 | 40 | 50 | 63 | 70 | 90 | 110 | 125 | 160 | 200 | 250 | 315 | 355 | 400 |
| ΔT | | | | | | | | | | | | | | | | |
| 0°F | 4 | 5 | 5 | 6 | 7 | 8 | 8 | 9 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 36°F | 3 | 3 | 4 | 4 | 5 | 6 | 6 | 6 | 7 | 8 | 7 | 7 | 8 | 8 | 7.5 | 8 |
| 54°F | 3 | 3 | 4 | 4 | 5 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7.5 | 7 | 7.5 |
| 72°F | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 6 | 7 | 7 | 7.5 | 7 | 7 |
| 90°F | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 6.5 | 7 |
| 108°F | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6.5 | 6 | 6 |
| 126°F | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 5 | 6 | 6 | 6 | 6 | 6 |

Clamp Support Distance - Fusion-Tech FIBER-COND GREY Striped Pipe (in ft.)

| ND Ø | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" | 2 1/2" | 3" | 3 1/2" | 4" | 6" | 8" | 10" | 12" | 14" | 16" |
|------------|-------|-------|-------|--------|--------|-------|--------|-------|--------|-------|------|-------|-------|--------|--------|--------|
| ext. Ø | 0.79" | 0.98" | 1.26" | 1.57" | 1.97" | 2.48" | 2.95" | 3.54" | 4.33" | 4.92" | 6.3" | 7.87" | 9.84" | 12.40" | 13.98" | 15.75" |
| ext. Ø mm | 20 | 25 | 32 | 40 | 50 | 63 | 70 | 90 | 110 | 125 | 160 | 200 | 250 | 315 | 355 | 400 |
| ΔT | | | | | | | | | | | | | | | | |
| 0°F | 4 | 5 | 5 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 10 | 10 | 10 | 10 |
| 36°F | 3 | 3 | 4 | 4 | 5 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 8 | 8 | 7.5 | 8 |
| 54°F | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7.5 | 7 | 7.5 |
| 72°F | 3 | 3 | 3 | 4 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7.5 | 7 | 7 |
| 90°F | 3 | 3 | 3 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 6.5 | 7 |
| 108°F | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6.5 | 6 | 6 |
| 126°F | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 |

Aquatechnik Safety-Pol PEX AL PEX

| ΔT | Ø 3/8" | Ø 1/2" | Ø 5/8" | Ø 7/8" | Ø 1" | Ø 1 1/4" | Ø 1 1/2" | Ø 2" | Ø 2 1/2" | Ø 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 |