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Administrative Rules Stamp

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MATT BLUNT
Secretary of State
Administrative Rules Division
RULE TRANSMITTAL

Missouri Public
Service Commission

SECRET
ADMINISTRATIVE

A "SEPARATE" rule transmittal sheet must be used for EACH individual rulemaking.

A. Rule Number 4 CSR 240-124.045
 Diskette File Name _____
 Name of Person to call with questions about this rule: Bruce H. Bates
 Context Associate General Counsel Phone 573-751-7434 FAX 573-751-9285
 Data Entry Same as above Phone Same as above FAX Same as above
 Interagency Mailing Address Governor Office Bldg., 200 Madison St., Room 831, Jefferson City, MO

Statutory Provision for Rulemaking
 Authority 700.076 Provide Most Current RSMo Year 2000

Date Filed With the Joint Committee on Administrative Rules Exempt per Sections 536.024 and 536.037, RSMo Supp. 1998, and Executive Order No. 97-97 (June 27, 1997)

B. CHECK, IF INCLUDED: FORMS, List by Mo-Form Number, # of Pages

<u>Y</u>	Cover Letter	_____
<u>Y</u>	Affidavit	_____
<u>Y</u>	Cost Statements	_____
_____	Public Entity Fiscal Note	<u>OTHER</u>
_____	Private Entity Fiscal Note	_____

C. RULEMAKING ACTION TO BE TAKEN

_____ Emergency Rulemaking, Must Specify Effective Date
X Proposed Rulemaking (New Rule or Amendment or Rescission of Existing Rule)
 _____ Order of Rulemaking (MUST complete page 2 of this transmittal)
 _____ Withdrawal (Rule, Amendment, Rescission or Emergency)
 _____ Rule Action Notice
 _____ In Addition

D. SPECIFIC INSTRUCTIONS: In this space indicate any special instructions (e.g., specify publication date preference, identify material incorporated by references, etc.)

2

E. ORDER OF RULEMAKING: Rule Number 4 CSR 240-124.045

1a. Effective Date for the Order
Statutory 30 days X or later specific date _____

1b. Does the Order of Rulemaking contain changes to the rule text?
YES _____ NO X

1c. If the answer is YES, please complete section F. If the answer is NO, Stop here.

F. Please provide a complete list of the changes in the rule text for the order or rulemaking, indicating the specific section, subsection, subparagraph, part, etc., where each change is found.

(Start text here. If text continues to a third page, insert a continuous section break and, in section 3, delete the footer language that appears at the bottom of this page.)

NOTE: ALL changes MUST be specified here in order for those changes to be made in the rule as published in the *Missouri Register* and the *Code of State Regulations*.

Add additional sheet(s), if more space is needed.



Commissioners

SHEILA LUMPE
Chair

M. DIANNE DRAINER
Vice Chair

CONNIE MURRAY

KELVIN L. SIMMONS

STEVE GAW

Honorable Matt Blunt
Secretary of State
600 West Main Street
Jefferson City, Missouri 65101

Missouri Public Service Commission

POST OFFICE BOX 360
JEFFERSON CITY, MISSOURI 65102
573-751-3234
573-751-1847 (Fax Number)
<http://www.psc.state.mo.us>

June 11, 2001

BRIAN D. KINKADE
Executive Director

WESS A. HENDERSON
Director, Utility Operations

ROBERT SCHALLENBERG
Director, Utility Services

DONNA M. KOLILIS
Director, Administration

DALE HARDY ROBERTS
Secretary/Chief Regulatory Law Judge

DANA K. JOYCE
General Counsel

ATTENTION: Administrative Rules Division

I do hereby certify that the attached are accurate and complete copies of the Proposed Rule lawfully submitted by the Missouri Public Service Commission for filing this 11th day of June, 2001, and that a takings analysis and small business impact analysis have occurred.

Rule: 4 CSR 240-124.045-Anchoring Standards

Statutory authority: 700.076, RSMo (2000)

Missouri Public Service Commission Case No.: MX-2000-449

If there are any questions, please contact: Bruce H. Bates
Associate General Counsel
Missouri Public Service Commission
200 Madison St.
Post Office Box 360
Jefferson City, Missouri 65102
(573) 751-7434

BY THE COMMISSION

Dale Hardy Roberts
Secretary/Chief Regulatory Law Judge

Enclosures:

Proposed Rule 4 CSR 240-124.045(hard copy and electronic copy on diskette); Rule Transmittal;
Takings Analysis; Small Business Impact Analysis



Commissioners

SHEILA LUMPE
Chair

M. DIANNE DRAINER
Vice Chair

CONNIE MURRAY

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May 7, 2001

BRIAN D. KINKADE
Executive Director

WESS A. HENDERSON
Director, Utility Operations

ROBERT SCHALLENBERG
Director, Utility Services

DONNA M. KOLILIS
Director, Administration

DALE HARDY ROBERTS
Secretary/Chief Regulatory Law Judge

DANA K. JOYCE
General Counsel

Mr. Dale Hardy Roberts
Secretary/Chief Regulatory Law Judge
Missouri Public Service Commission
P. O. Box 360
Jefferson City, MO 65102

Re: Proposed Rule 4 CSR 240-124.045

Dear Mr. Roberts:

Executive Order 96-18 requires state agencies to determine whether a proposed rulemaking will have direct economic impact on small businesses of five hundred dollars or more in the aggregate. A small business is defined in the Executive Order as an independently owned and operated business entity that employs fifty or fewer full time employees.

The proposed new rule will not have a direct economic impact on small businesses of five hundred dollars or more in the aggregate.

Please let me know if you have any questions on this issue

Sincerely,

Bruce H. Bates
Associate General Counsel
(573) 751-7434
(573) 751-9285 (Fax)
bbates@mail.state.mo.us (E-Mail)

BHB/



Commissioners

SHEILA LUMPE
Chair

M. DIANNE DRAINER
Vice Chair

CONNIE MURRAY

KELVIN L. SIMMONS

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DALE HARDY ROBERTS
Secretary/Chief Regulatory Law Judge

DANA K. JOYCE
General Counsel

May 7, 2001

Mr. Dale Hardy Roberts
Secretary/Chief Regulatory Law Judge
Missouri Public Service Commission
P. O. Box 360
Jefferson City, MO 65102

Re: Proposed Rule 4 CSR 240-124.045

Dear Mr. Roberts:

Executive Order 93-13 requires state agencies to undertake a "takings analysis" of each proposed rule or regulation in light of the United States Supreme Court decision in *Lucas v. South Carolina Coastal Council*, 112 S.Ct. 2886 (1992). Pursuant to that order, I have undertaken a "takings analysis" of the above-referenced proposed rulemaking. In *Lucas*, the Court held that state regulation depriving an owner of real property of all economically beneficial use of that property constitutes a "taking" under the Fifth and Fourteenth Amendments of the U.S. Constitution, for which the property owner must be compensated. The Court also held that when state regulations compel a property owner to suffer a permanent physical invasion of his/her property, such an invasion is compensable.

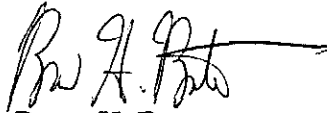
The proposed rule prescribes anchoring standards for manufactured homes.

The proposed new rule does not implicate the takings clause of the U.S. Constitution, because neither rule involves the taking of real property.

Mr. Dale Hardy Roberts
May 7, 2001
Page 2

Please let me know if you have any questions on this issue.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Bruce H. Bates", with a long horizontal flourish extending to the right.

Bruce H. Bates
Associate General Counsel
(573) 751-7434
(573) 751-9285 (Fax)
bbates@mail.state.mo.us (E-Mail)

BHB
Enclosure

Title 4-DEPARTMENT OF ECONOMIC DEVELOPMENT
Division 240-Public Service Commission
Chapter 124-Manufactured Home Tiedown Systems

(PROPOSED RULE)

4 CSR 240-124.045 Anchoring Standards

PURPOSE: This rule applies to the anchoring of any manufactured home purchased or relocated on or after the effective date of this rule. This rule shall not be applicable to any manufactured home which has previously been anchored at its existing location and which has not been relocated subsequent to the effective date of this rule.

(1) DEFINITIONS

The following definitions, as well as those set out in Section 700.010 RSMo apply to this Chapter:

- (A) Anchor means any device designed to transfer wind loads imposed on a manufactured home to the ground;
- (B) Anchoring equipment means straps, seals, cables, turnbuckles, and tensioning devices, which are used to secure a manufactured home to anchors;
- (C) Anchoring systems means a combination of ties, anchoring equipment, and ground anchors that will, when properly designed and installed, resist overturning and lateral movement of the manufactured home from wind forces;
- (D) Classified soil means soil that have been evaluated through the use of a standard soil torque probe or other approved method to determine anchor-holding capacity;
- (E) Installed means the arrangement and assembly at the occupancy site of all portions of an anchoring system, in accordance with the manufacturer's design, that renders the anchoring system fit for its intended use;
- (F) Stabilizing device means a lateral support device such as a steel plate or a concrete collar used in connection with an anchor to limit lateral movement of the anchor;
- (G) Tie means straps, cable, or securing devices used to connect the manufactured home to the anchor; and
- (H) Unclassified soil means soils that have not been evaluated to determine anchor holding capacity.

(2) ANCHORING SYSTEM

Each manufactured home installed after the effective date of the rule must be anchored in accordance with the minimum standards specified in the rule. At a minimum, each anchoring system must also meet or exceed the design wind load requirements for Wind Zone 1, as defined in 3280.305 in the Federal Manufactured Home Construction and Safety Standards.

(3) ANCHORING EQUIPMENT

(A) Load

Anchoring equipment, when installed, must be capable of resisting an allowable working load equal to or exceeding 3,150 pounds and must be capable of withstanding a 50 percent overload (4,725 pounds total) without failure of either the anchoring equipment or the attachment point on the manufactured home.

(B) Resistance to Weather Deterioration

Anchoring equipment exposed to weathering shall have a coating that is resistant to weather deterioration at least equivalent to that provided by a coating of zinc on steel of not less than 0.30 ounces per square foot of surface (.0005 inches in thickness), and in accordance with the following:

1. Slit or cut edges of zinc-coated steel strapping do not need to be zinc coated;
2. Flat steel strapping shall be Type 1, Heavy Duty, Finish B, Grade 1, 1-1/4 inches wide and 0.035 inches in thickness, certified by a registered professional engineer as conforming with ASTM Standard Specification D3953-91, Standard Specification for strapping, flat steel, and seals; and
3. Seals shall be Class H, Heavy Duty, Finish B, Grade 1, for steel strapping, certified by the manufacturer as conforming with ASTM Standard Specification D3953-91.

(C) Permanency of Connections

Anchoring equipment shall be designed and installed to prevent self-disconnection when ties are slack.

(4) TENSIONING DEVICES

Tensioning devices such as turnbuckles or yoke-type fasteners shall be ended with clevis or forged or welded eyes.

(5) TIES

(A) Material

Flat steel strapping and seals or other approved methods or materials shall be used for ties. All ties shall be fastened to anchors and drawn tight with turnbuckles or other adjustable tensioning devices or devices approved for use with the anchor.

Tie materials shall be either as described in 3 (B)(2) of this standard or other approved material capable of resisting an allowable working load of 3,150 pounds with no more than 12 percent elongation and shall withstand a 50 percent overload (4,725 pounds total).

(B) Attachment

Ties shall connect the anchor and the main structural steel frame that runs lengthwise under the manufactured home. Ties shall not connect to steel outrigger or cross beams that fasten to and intersect the main structural frame. Tie down straps shall be routed from the anchor to the top of the main structural steel frame.

Tie down straps shall be attached to the anchor in accordance with the anchor manufacturer's instructions. A permanently attached strap that has been cut off may be spliced, provided an approved splicing device is used.

(C) Vertical Ties

Vertical ties are not required in Wind Zone 1, as defined in 3280.305 in the Federal Manufactured Home Construction and Safety Standards.

(6) **ANCHORS**

(A) **Performance of Anchors**

Each anchor, when installed in classified soil, must be capable of resisting a minimum allowable working load of 3,150 pounds in the direction of the tie, plus a 50 percent overload (4,725 pounds total) without failure. Failure shall be considered to have occurred when the connection between the tie and anchor moves more than 2 inches vertically or 3 inches horizontally when pulled at an angle of 45 degrees under a force of 4,725 pounds.

(B) **Installation and Testing**

Each manufactured anchor shall be tested and installed in accordance with the terms of its specified testing procedures and the anchor manufacturer's instructions. Each anchor shall be installed with a minimum of 750 pounds of pre-load with a minimum of 4 wraps after installation.

(C) **Spacing and Location**

1. **Classified soil**

- A. All anchors shall be installed at the intervals and in the locations specified by the manufactured home manufacturer's installation instructions, and in the correct soil class for which they are approved.
- B. In the event that the manufacturer's installation instructions are unavailable, all anchors shall be installed in accordance with Tables (A) through (C) of this standard, and in the correct soil class for which they are approved.

2. **Unclassified soil**

- A. All anchors installed in unclassified soil shall be in accordance with Tables (A) through (C) of this standard. A 30-inch double 4-inch helix anchor with a 12-inch stabilizer shall be used in unclassified soil.

3. **Spacing**

- A. Spacing shall be as even as practicable along the entire length of the home with the first anchor on each end no more than 2 feet from the end of the home.

(D) **Soil Testing**

A determination for soil classification should be made at each anchor location through the use of a standard torque probe, as described in ASTM Standard D2573-94, or equivalent method. If no soil classification test is performed for the anchor location, then the soil at the location shall be considered as unclassified.

(7) **DIAGONAL TIE DOWN STRAP SPACING**

Strap spacing for anchors is illustrated in the following Tables.

(A) Tables (A) through (C) illustrate the strap spacing for single section and multi-section homes with anchors located in classified and unclassified soils;

1. Note that the maximum vertical distance is measured from the anchor head to the top of the I-beam (i.e., bottom of the floor).
2. The maximum distance to the first tie down strap at each end of the home shall be two feet (2'0").

3. Strap spacing calculations are based on the fact that single disk anchors and double disk anchors have the same holding capacity if installed in accordance with the anchor manufacturer's installation instructions and in the proper soil classification.
4. Anchors shall be installed just inside the skirting line in order to maintain the angles identified in each table.
5. Anchor strap attachments to the home must be in accordance with the anchor manufacturer's methods.

(B) Tables (D) and (E) illustrate the criss-cross strapping system for elevated single and multi-sections homes (or portion thereof) to be used in lieu of diagonal tie down strap spacing tables; and

(C) Table (F) illustrates approved methods of ground anchor installation.

(8) **SPACING FOR FEDERAL MANUFACTURED HOME CONSTRUCTION AND SAFETY STANDARDS
WIND ZONE 1 CONDITIONS**

(A) If the floor width is 166 inches (typical 14-wide), with I-beam spacing 95-98 inches center to center and the distance from the top of the footer to the top of the I-beam is no higher than 64 inches, anchors shall be spaced 8 feet apart for classified soil, or 5 feet apart for unclassified soil.

(B) If the floor width is 141 inches (typical 12-wide), with I-beam spacing 75.5-83 inches center to center and the distance from the top of the footer to the top of the I-beam is no higher than 52 inches, anchors shall be spaced 6 foot apart for classified soil, or 4 foot apart for unclassified soil.

(C) Anchors must be installed just inside the skirting line, or as close to the skirting line as possible.

Auth: section 700.076, RSMo 2000

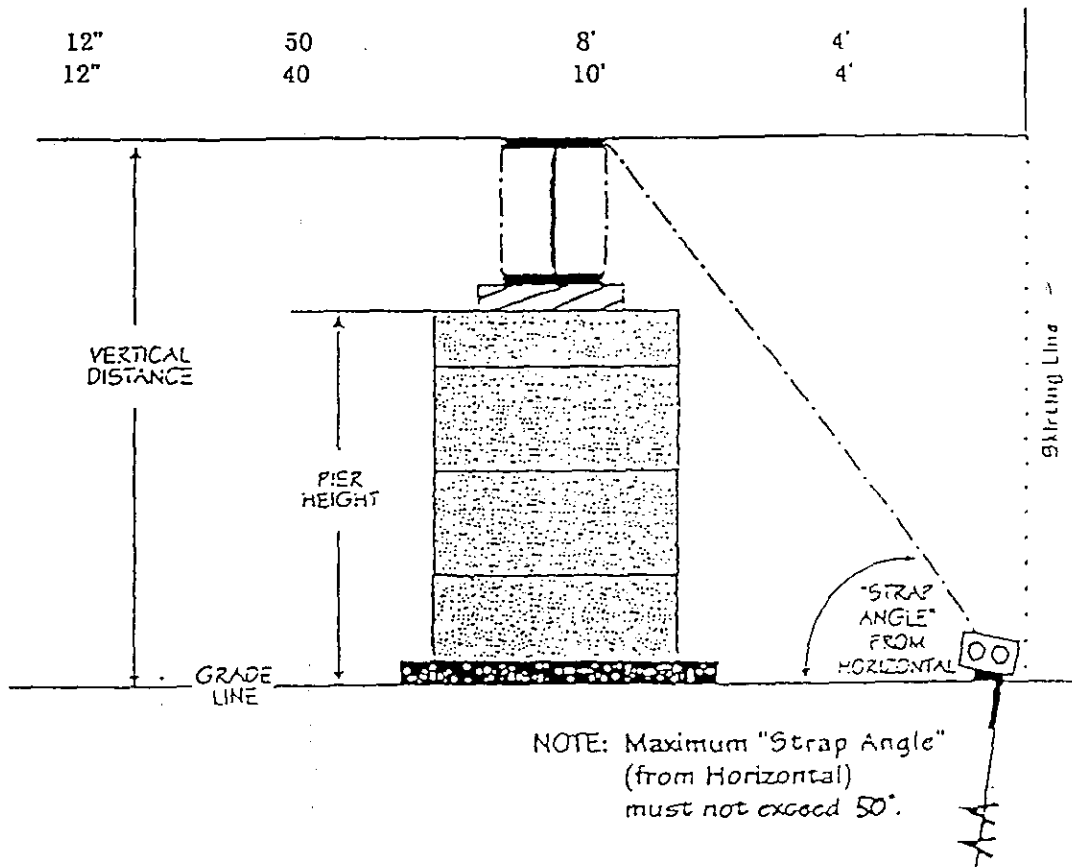
PUBLIC COST: This proposed rule would cost state agencies or political subdivisions less than \$500.00 in the aggregate for the life of the rule.

PRIVATE COST: This proposed rule would cost private entities less than \$500.00 in the aggregate for the life of the rule.

NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rule with the Public Service Commission, Dale Hardy Roberts, Secretary, P.O. Box 360, Jefferson City, MO 65102. To be considered, comments must be received within thirty days after publication of this notice in the Missouri Register. No public hearing is scheduled.

TABLE (A)
DIAGONAL TIE DOWN STRAP SPACING
FOR SINGLE SECTION AND MULTI-SECTION HOMES
TYPICAL 12' WIDE

Minimum Pier Height	Maximum Strap Angle (From Horiz.)	Maximum Strap Spacing (for classified soils)	Maximum Strap Spacing (for unclassified soils)
12"	50	8'	4'
12"	40	10'	4'



- Classified soil is soil that has been evaluated through the use of a standard torque probe, or other approved method to determine anchor-holding capacity. Each anchor location must be probed to confirm ground anchor models to be installed are consistent with soil classification.
- Unclassified soil is soil that has not been evaluated to determine anchor-holding capacity. At a minimum, a 30" double 4" helix anchor with a 12" stabilizing plate shall be used in unclassified soils.
- Anchors must be installed just inside the skirting line or as close to the skirting line as possible.

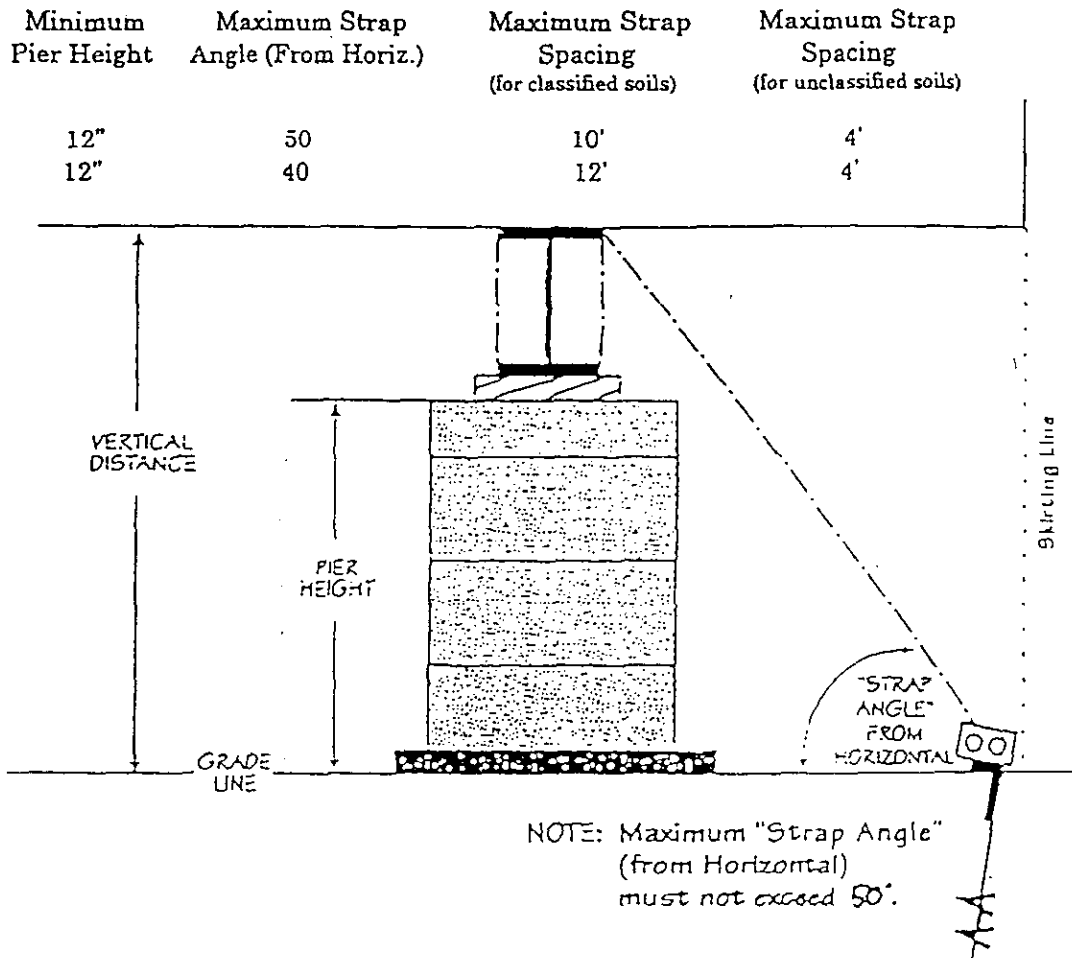
TABLE (B)
DIAGONAL TIE DOWN STRAP SPACING
FOR SINGLE SECTION AND MULTI-SECTION HOMES
TYPICAL 14' WIDE

Minimum Pier Height	Maximum Strap Angle (From Horiz.)	Maximum Strap Spacing (for classified soils)	Maximum Strap Spacing (for unclassified soils)
12"	50	10'	4'
12"	40	12'	4'

NOTE: Maximum "Strap Angle"
 (from Horizontal)
 must not exceed 50°.

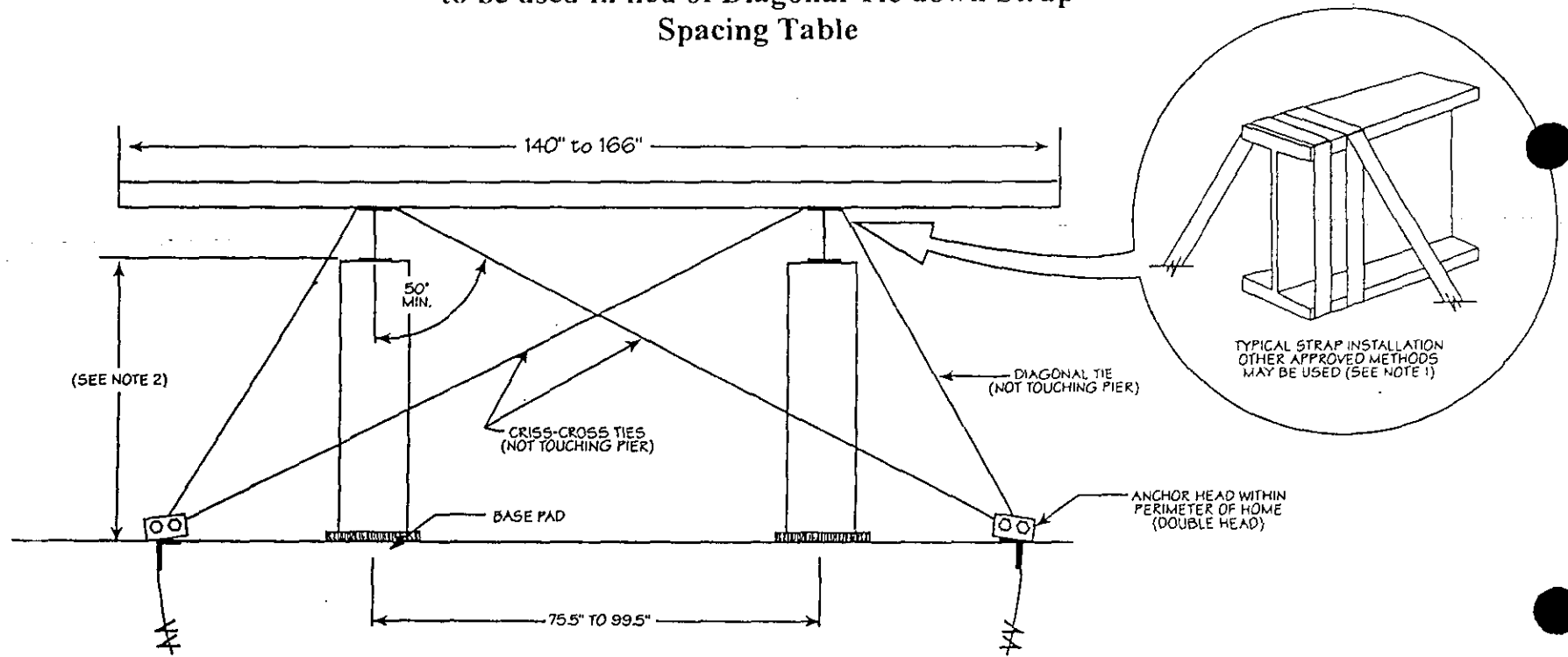
- Classified soil is soil that has been evaluated through the use of a standard torque probe, or other approved method to determine anchor-holding capacity. Each anchor location must be probed to confirm ground anchor models to be installed are consistent with soil classification.
- Unclassified soil is soil that has not been evaluated to determine anchor-holding capacity. At a minimum, a 30" double 4" helix anchor with a 12" stabilizing plate shall be used in unclassified soils.
- Anchors must be installed just inside the skirting line or as close to the skirting line as possible.

TABLE (C)
DIAGONAL TIE DOWN STRAP SPACING
FOR SINGLE SECTION AND MULTI-SECTION HOMES
TYPICAL 16' WIDE



- Classified soil is soil that has been evaluated through the use of a standard torque probe, or other approved method to determine anchor-holding capacity. Each anchor location must be probed to confirm ground anchor models to be installed are consistent with soil classification.
- Unclassified soil is soil that has not been evaluated to determine anchor-holding capacity. At a minimum, a 30" double 4" helix anchor with a 12" stabilizing plate shall be used in unclassified soils.
- Anchors must be installed just inside the skirting line or as close to the skirting line as possible.

TABLE (D)
CRISS-CROSS STRAPPING SYSTEM
 For elevated single section homes
 (or portions thereof)
 to be used in lieu of Diagonal Tie down Strap
 Spacing Table

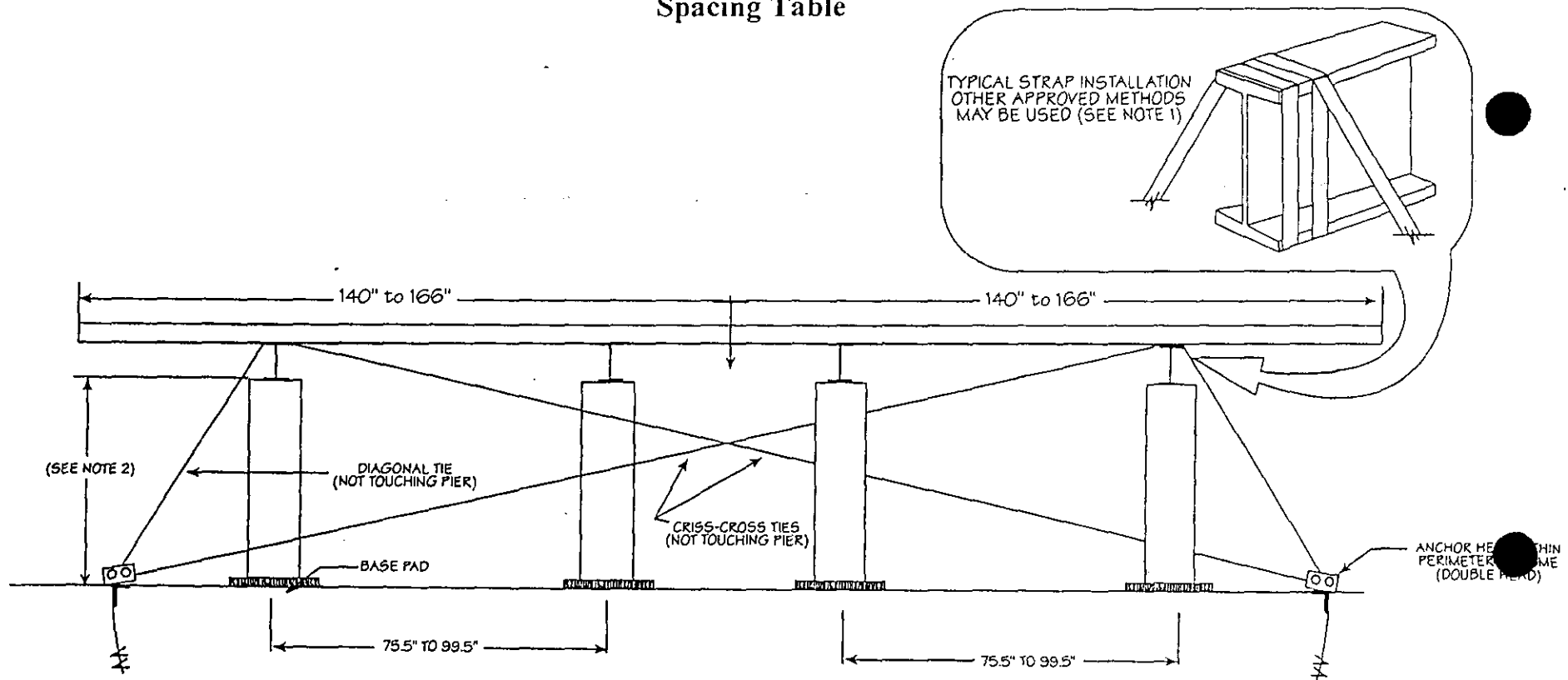


- 50° Min. Strap Angle applies only to homes with 75.5" or less I-Beam spacing.

NOTES:

1. Inset drawing shows typical strap installation. All anchors, devices, and tiedown straps to be rated for a 3150 lbs. working load (4725 lbs. overload capacity), in classified soils.
2. Pier height is measured from the top of the ground to the top of the I-Beam. Pier heights exceeding 80" must have piers and tiedowns designed by a Professional Engineer. Minimum pier height is 12"

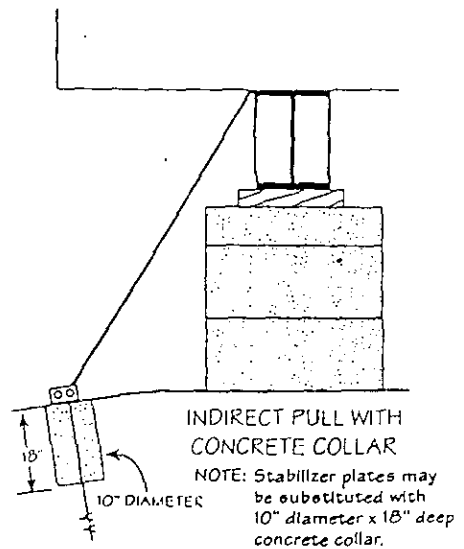
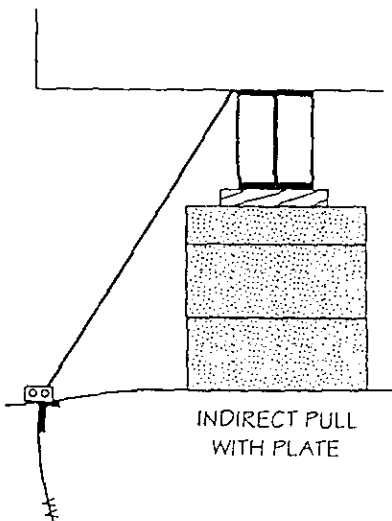
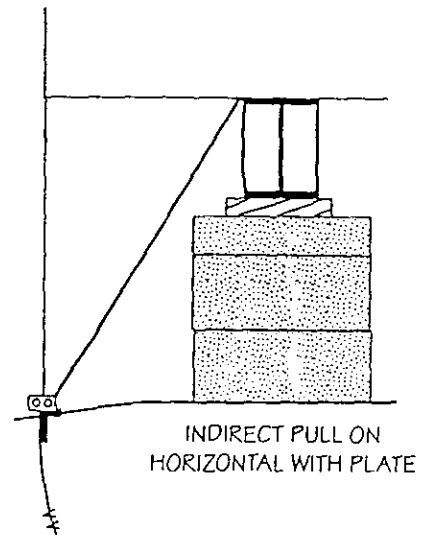
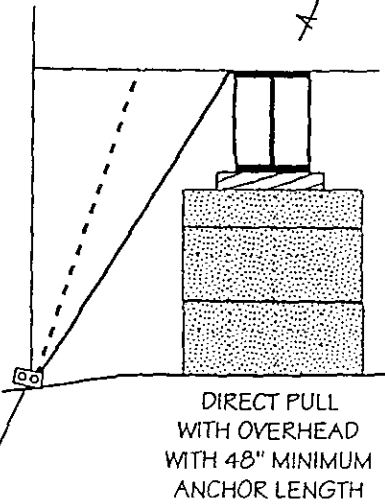
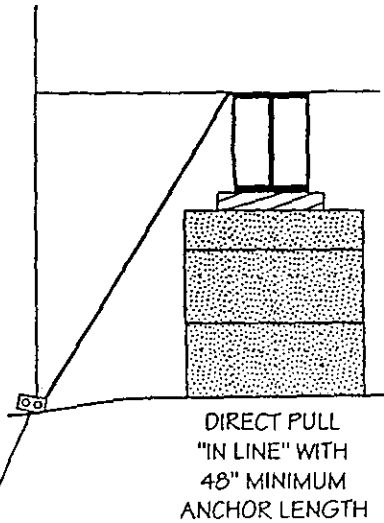
TABLE (E)
CRISS-CROSS STRAPPING SYSTEM
 For elevated multi-section homes
 (or portions thereof)
 to be used in lieu of Diagonal Tie down Strap
 Spacing Table



NOTES:

1. Inset drawing shows typical strap installation. All anchors, devices, and tiedown straps to be rated for a 3150 lbs. working load (4725 lbs. overload capacity), in classified soils.
2. Pier height is measured from the top of the ground to the top of the I-Beam. Pier heights exceeding 80" must have piers and tiedowns designed by a Professional Engineer. Minimum pier height is 12".

TABLE (F)
APPROVED METHODS OF GROUND
ANCHOR INSTALLATION



AFFIDAVIT

STATE OF MISSOURI)
)
COUNTY OF COLE)

I, Joseph L. Driskill, Director of the Department of Economic Development, first being duly sworn on my oath state that it is my opinion that the cost of the ***Proposed Rule, 4 CSR 240-124.045, Anchoring Standards***, is less than five hundred dollars (\$500) in the aggregate to this agency, any other agency of state government or any political subdivision thereof.



Joseph L. Driskill
Director

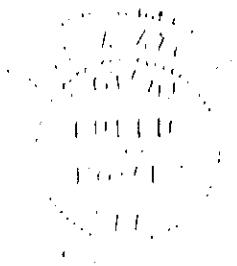
Department of Economic Development

Subscribed and sworn to before me this 23RD day of May, 2001. I
am commissioned as a notary public within the County of Callaway
State of Missouri, and my commission expires on September 21, 2004



NOTARY PUBLIC

JULIE A. ATCHISON
NOTARY PUBLIC STATE OF MISSOURI
COUNTY OF CALLAWAY
MY COMMISSION EXPIRES SEPT 21, 2004



MEMORANDUM

TO: Dale Hardy Roberts, Secretary

DATE: May 31, 2001

RE: Authorization to File Rule 4 CSR 240-124.045 With the
Office of Secretary of State

CASE NO: MX-2000-449

The undersigned Commissioners hereby authorize the Secretary of the Missouri Public Service Commission to file with the Office of Secretary of State, to wit:

4 CSR 240-124.045 -Anchoring Standards



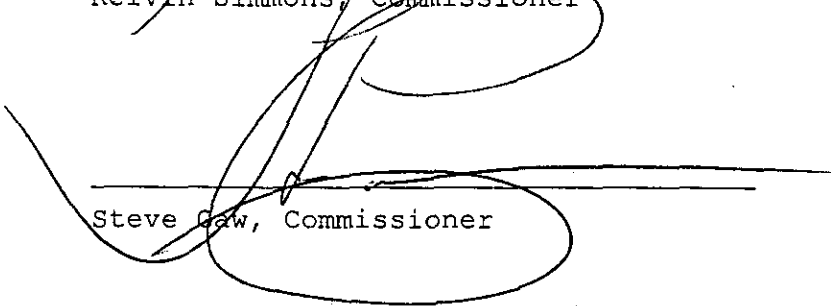
Sheila Lumpe, Chair



Connie Murray, Commissioner



Kelvin Simmons, Commissioner



Steve Gaw, Commissioner