SENATE DOCKET, NO. 1688 FILED ON: 2/18/2021

SENATE . . . . . No. 548

The Commonwealth of Massachusetts

PRESENTED BY:

Anne M. Gobi

To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:

The undersigned legislators and/or citizens respectfully petition for the adoption of the accompanying bill:

An Act relative to crumbling concrete foundations.

PETITION OF:

NAME:	DISTRICT/ADDRESS:	
Anne M. Gobi	*Worcester, Hampden, Hampshire and Middlesex*	
Eric P. Lesser	*First Hampden and Hampshire*	
Brian M. Ashe	*2nd Hampden*	*2/18/2021*
Joanne M. Comerford	*Hampshire, Franklin and Worcester*	*2/19/2021*
Kimberly N. Ferguson	*1st Worcester*	*2/25/2021*
Lindsay N. Sabadosa	*1st Hampshire*	*2/25/2021*
Jacob R. Oliveira	*7th Hampden*	*2/25/2021*
Donald R. Berthiaume, Jr.	*5th Worcester*	*2/25/2021*
Timothy R. Whelan	*1st Barnstable*	*2/25/2021*
Angelo J. Puppolo, Jr.	*12th Hampden*	*2/25/2021*
Joseph D. McKenna	*18th Worcester*	*2/25/2021*
Ryan C. Fattman	*Worcester and Norfolk*	*2/25/2021*
David Henry Argosky LeBoeuf	*17th Worcester*	*3/1/2021*
Todd M. Smola	*1st Hampden*	*3/1/2021*
James B. Eldridge	*Middlesex and Worcester*	*3/5/2021*
Michael O. Moore	*Second Worcester*	*3/5/2021*
Hannah Kane	*11th Worcester*	*3/10/2021*

Marcos A. Devers	*16th Essex*	*3/10/2021*
Harriette L. Chandler	*First Worcester*	*3/10/2021*
David K. Muradian, Jr.	*9th Worcester*	*3/29/2021*
Susan L. Moran	*Plymouth and Barnstable*	*4/8/2021*
Brian W. Murray	*10th Worcester*	*4/8/2021*
Susannah M. Whipps	*2nd Franklin*	*4/8/2021*
Patrick M. O'Connor	*Plymouth and Norfolk*	*4/8/2021*
Jack Patrick Lewis	*7th Middlesex*	*4/8/2021*
James J. O'Day	*14th Worcester*	*5/11/2021*
Adam Gomez	*Hampden*	*3/15/2022*

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SENATE . . . . . No. 548

By Ms. Gobi, a petition (accompanied by bill, Senate, No. 548) of Anne M. Gobi, Eric P. Lesser, Brian M. Ashe, Joanne M. Comerford and other members of the General Court for legislation relative to crumbling concrete foundations. Environment, Natural Resources and Agriculture.

The Commonwealth of Massachusetts

In the One Hundred and Ninety-Second General Court
(2021-2022)

An Act relative to crumbling concrete foundations.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1. Chapter 21B of the General Laws is hereby amended by adding the following section:-

Section 16. Notwithstanding any general or special law to the contrary, an entity seeking a permit to mine or expand a quarry shall, as a condition of obtaining the permit, test the proposed area for the presence of pyrite or pyrrhotite and provide a geological source report prepared by a geologist certified by the American Institute of Professional Geologists, licensed in an adjacent state or with an acceptable equivalent credential or experience to the state geologist. The content and scope of the geological source report are subject to approval by the executive office of energy and environmental affairs in consultation with the state geologist. The report shall include an operations plan, the requirements of which shall be established by the executive office in consultation with the state geologist and a representative nominated by the Massachusetts Concrete and Aggregate Producers Association, Inc., and core samples; provided,

however, that an entity seeking a permit for a currently active quarry that has a satisfactory performance history shall not be required to include core samples.

Active quarries with satisfactory performance histories shall have a certified geologist perform an inspection of the face material, prepare a log of the geology and prepare an update to the operations plan annually. Active quarries shall update their geological source report every 4 years.

Aggregate testing shall be performed by a testing laboratory in accordance with appropriate and available American Society for Testing and Materials standards or other suitable procedures to measure total sulfur content and to identify the existence of pyrrhotite. A rapid total sulfur test shall be performed to determine whether a representative aggregate sample is at risk to contain deleterious sulfides with a focus on pyrrhotite. This test may be conducted using an X-ray florescence test or purge and trap gas chromatography analysis. Representative samples weighing 10 pounds shall be collected and managed in accordance with the American Society for Testing and Materials' D75/D75M-19 Standard Practice for Sampling Aggregates and analyzed. If the total sulfur content in per cent-by-mass is less than 0.1 per cent, the test shall be filed with state geologist and the aggregate approved for 4 years. If the total sulfur content in per cent-by-mass is greater than 1.0 per cent, the aggregate shall not be permitted for use in concrete. If the total sulfur content in per cent-by-mass is less than 1.0 per cent but greater 0.1 per cent, further testing is required as set forth in stage 2 of this aggregate testing protocol. In stage 2 of aggregate testing, additional testing shall include testing for pyrrhotite using X-ray diffraction, magnetic susceptibility or petrographic analysis to determine the presence and relative abundance of

35 pyrrhotite. If no pyrrhotite is present, the test shall be filed with state geologist and the aggregate
36 approved for 1 year. If pyrrhotite is present, petrographic analysis based on the American Society
37 for Testing and Materials' C295/C295M-19 Standard Guide for Petrographic Examination of
38 Aggregates for Concrete and definitions in the American Society for Testing and Materials'
39 C294-19 Standard Descriptive Nomenclature for Constituents of Concrete Aggregates shall be
40 used to make determinations that affect the acceptance and use of an aggregate.

41 During the testing protocol, a deleterious materials determination shall be made from
42 aggregate samples that are examined for the presence of various materials known to cause
43 distress such as sulfide minerals. The aggregate may be rejected based on the analytical results or
44 additional testing may be required as directed by the state geologist prior to approval of
45 aggregate for use in concrete. Additional testing may include a mortar bar expansion test under
46 American Society for Testing and Materials' C1293-20a Standard Test Method for
47 Determination of Length Change of Concrete Due to Alkali-Silica Reaction. In any case, if
48 pyrrhotite is present, the level of admissibility for total sulfur content in per cent-by- mass shall
49 be less than 0.1%.

50 If no pyrite or pyrrhotite is detected, the permit may be issued subject to the requirements
51 of the municipality in which it is sought. If pyrite or pyrrhotite is detected, the permit may be
52 issued, subject to the restriction that materials mined from the quarry shall not be used in
53 aggregate product used to make residential or commercial foundations. If material is used in
54 aggregate product used to make residential or commercial foundations, the contractor who used
55 such materials and the entity that owns and operates the quarry shall be liable for property
56 damage resulting from the use of such aggregate product. Producers of aggregate and concrete

57 products shall maintain a record of the aggregate source in concrete batches for not less than 30
58 years.

59 The executive office of energy and environmental affairs in consultation with the state
60 geologist shall catalogue and maintain the quarry data under this section.

61 SECTION 2. Chapter 59 of the General Laws is hereby amended by inserting after
62 section 59A the following section:-

63 Section 59B. (a) Notwithstanding any general or special law to the contrary, the owner of
64 real property in the commonwealth that is: (i) built on or after January 1, 1983; and (ii) located
65 within a 50-mile radius of in Stafford Springs, Connecticut may apply for a residential property
66 tax abatement with their board of assessors due to the presence of pyrite or pyrrhotite minerals in
67 the foundation.

68 (b) To qualify for an abatement under subsection (a), the owner shall provide the
69 following to the board of assessors: (i) not less than 2 core samples from the foundation proving
70 the presence of pyrite and pyrrhotite minerals; or (ii) a certified visual inspection conducted by a
71 professional civil engineer.

72 The owner of the real property shall also provide the board of assessors with a certified
73 estimate of the cost to repair the foundation.

74 (c) Upon the receipt of the documentation under subsection (b), the board of
75 assessors shall determine a value per square foot of foundation and percentage of functional
76 obsolescence. If an abatement is sought on multiple properties within a municipality the board of
77 assessors shall determine a general value per square foot of foundation and percentage of

78 functional obsolescence to be used for all properties with said municipality. The board of
79 assessors shall use the value and percentage to calculate the reduction in assessment for each
80 affected property. Such reductions shall be effective until the foundation is repaired or
81 replaced.

82 SECTION 3. Chapter 143 of the General Laws is hereby amended by adding the
83 following section:-

84

85 Section 110. Notwithstanding any general or special law to the contrary, fees for building
86 permits for work associated with crumbling concrete foundations replacement shall be
87 waived. In order to qualify for the waiver of fees, the applicant shall provide written
88 documentation showing that pyrite or pyrrhotite minerals are present in the foundation to be
89 replaced. Nothing in this section shall waive any of the permit application requirements,
90 including, but not limited to, holding public hearings, associated with a permit application. A
91 determination to waive fees is not a guarantee of the issuance of a permit.

92 SECTION 4. Chapter 175 of the General Laws is hereby amended by adding the
93 following section:-

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95 Section 231. A captive insurance company may operate in the commonwealth for the
96 purpose of providing assistance to owners of residential buildings with concrete foundations that
97 have deteriorated due to the presence of pyrrhotite, including overseeing the evaluation, repair,
98 replacement and reimbursement of qualified residential crumbling foundations; provided,

99 however, that any such captive insurer shall comply with the relevant laws and regulations for
100 the offering of homeowner's insurance coverage; and provided further, that such captive insurer
101 shall register with the state secretary to do business in the commonwealth.

102 SECTION 5. Chapter 184 of the General Laws is hereby amended by adding the
103 following section:-

104 Section 36. A person selling or leasing a residential property, shall provide a written
105 residential condition report to a prospective purchaser prior to the prospective purchaser's
106 execution of a binder, contract to purchase or lease or option. The report shall include, but not be
107 limited to, a statement as to whether:

108

109 (i) the foundation of the property is made of concrete and, if the foundation is made of
110 concrete, a further statement that the prospective purchaser should have the foundation
111 inspected by a professional structural engineer licensed in the commonwealth for deterioration of
112 the foundation due to the presence of the pyrite or pyrrhotite mineral;

113 (ii) the seller has knowledge of any testing or inspection done by any licensed
114 professional related to a foundation on the property; provided, however, that if the seller
115 acknowledges testing or inspection then a report of the findings of the testing or inspection shall
116 be provided to the prospective purchaser;

117 (iii) the seller has knowledge of any repairs related to a foundation on the property;
118 provided, however, that if the seller acknowledges such repairs, any documentation of the nature
119 and scope of the repairs, if available, shall be provided to the prospective purchaser; and

120 (iv) the seller is aware of any prior or pending litigation, government agency or
121 administrative action, order or lien on the premises related to the presence of pyrite or pyrrhotite
122 mineral in the foundation; provided, however, that if the seller acknowledges such prior or
123 pending legislation, government agency or administrative action, order or lien on the premises,
124 the seller shall provide any documentation, if available, to the prospective purchaser.

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