IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF IOWA
WESTERN DIVISION

RICHWAY INDUSTRIES LTD., Plaintiff, v. Cellular Concrete, Inc. d/b/a Aerix Industries, Cellular Concrete, LLC, d/b/a Aerix Industries, and Cellular Concrete Solutions, LLC d/b/a Aerix Industries Defendant.	Civil Action No. 1:22-cv-8 **COMPLAINT** **JURY TRIAL DEMANDED**

COMES NOW the Plaintiff, Richway Industries Ltd. ("Richway"), for its Complaint for Declaratory Judgment against the Defendants, Cellular Concrete, Inc., Cellular Concrete, LLC, and Cellular Concrete Solutions, LLC, each doing business as Aerix Industries, (collectively "Aerix"), hereby states and alleges as follows:

I. THE PARTIES

1. Richway Industries Ltd. is an Iowa corporation with its principal place of business at 504 N Maple Street, Janesville, IA 50647.

2. Upon information and belief, Aerix Industries is registered Trade Name of Cellular Concrete Solutions LLC, a Colorado limited liability company organized and existing under the laws of the State of Colorado.

3. Upon information and belief, Cellular Concrete Solutions LLC is a delinquent Colorado limited liability company and that is related to Cellular Concrete, LLC.

4. Upon information and belief, Cellular Concrete, LLC is a delinquent Colorado limited liability company organized and existing under the laws of the State of Colorado, with its principal place of business at 421 Schantz Road, Allentown, PA 18104.

5. Upon information and belief, Cellular Concrete, LLC has filed a Statement of Foreign Entity Authority in Pennsylvania stating that its principal place of business is at 421 Schantz Road, Allentown, PA 18104.

6. Upon information and belief, Cellular Concrete, Inc. is a corporation organized under the laws of Minnesota having its principal place of business at 25385 US Highway 169 NW, Zimmerman, MN 55398, and is a registered foreign entity in Colorado.

7. Upon information and belief, Cellular Concrete, LLC formed into Cellular Concrete, Inc.

8. Upon information and belief, Cellular Concrete, LLC and Cellular Concrete Solutions, LLC are related entities that both act under the tradename Aerix Industries.

9. Upon information and belief, Cellular Concrete, LLC d/b/a Aerix Industries sold its lightweight foamed concrete product for installation and/or installed its lightweight foamed concrete product in Pottawattamie County Iowa in 2017 to 2018.

10. Upon information and belief, Cellular Concrete Solutions, LLC d/b/a Aerix Industries sold its lightweight foamed concrete product for installation and/or installed its lightweight foamed concrete product in Pottawattamie County Iowa in 2017 to 2018.

II. JURISDICTION AND VENUE

11. This action arises under the Declaratory Judgment Act, 28 U.S.C. §§ 2201 and 2202, for a declaration pursuant to the patent laws of the United States, 35 U.S.C. § 1, *et seq.*, of noninfringement of United States Patent No. 8,172,937 by Richway Industries Ltd.

12. This Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 1331 and 1338.

13. This Court has personal jurisdiction over Cellular Concrete Solutions, LLC. And Cellular Concrete, LLC, as both entities, upon information and belief, purposefully direct their activities to the State of Iowa and this district and have transacted business in the State of Iowa and this district by, inter alia, selling and/or offering to sell products and services within this district under the names Cellular Concrete, Inc. and/or Aerix Industries, including for example in Pottawattamie County, Iowa.

14. Upon information and belief, Cellular Concrete Solutions, LLC and Cellular Concrete, LLC are entities highly intertwined in their operations and business dealings such that they often act in each other's place and under the common names: Cellular Concrete and Aerix Industries.

15. Venue in this judicial district is proper under 28 U.S.C. §§ 1391.

16. Richway has received letters alleging patent infringement from counsel identified as representing "Cellular Concrete, Inc."

17. Richway has received letters alleging patent infringement from counsel identified as representing "Cellular Concrete Solutions, LLC."

18. Richway has received letters alleging patent infringement from counsel identified as representing "Aerix Industries."

19. Upon information and belief, Aerix has installed, and/or sold for installation, lightweight drainable cellular concrete in the state of Iowa.

20. Upon information and belief, Cellular Concrete, Inc. is a registered contractor with Iowa Workforce Development.

III. FACTUAL ALLEGATIONS

13. Cellular Concrete, LLC is the assignee of United States Patent No. 8,172,937 ("the '937 Patent") (A true and correct copy of the '937 Patent is attached hereto as Exhibit A), entitled LIGHTWEIGHT DRAINABLE CELLULAR CONCRETE. The application that matured into U.S. Pat. No. 8,172,937 was filed on October 11, 2007, and claims priority to provisional application no. 60/972,535, which was filed on September 14, 2007.

14. The '937 patent claims are directed to a pervious concrete product, and to a method of forming pervious concrete.

15. The '937 Patent uses "pervious" and "permeable" interchangeably.

16. Aerix sells a product called AQUAERiX, which is a permeable low-density cellular concrete.

17. Aerix manufactures and sells its AQUAERiX concrete product.

18. Aerix identifies its AQUAERiX concrete as the patented technology in the '937 Patent.

19. Aerix first introduced AQUAERiX into the market in the year 2000.

20. Aerix installed its AQUAERiX product at Citi Field, also known as Mets Stadium, in the summer of 2006.

21. Construction on Citi Field began in July 2006.

22. Aerix offered its AQUAERiX product for sale more than one-year before September 14, 2007.

23. AQUAERiX was sold and installed more than one-year before September 14, 2007.

24. AQUAERiX was in public use more than one year before September 14, 2007.

25. In the examination of the patent application that issued as the '937 Patent, the inventors touted the commercial success of their pervious concrete installation at Citi Field.

26. The named inventors, via sworn affidavits, identified the pervious concrete installed at Citi Field to be encompassed by the claims of the patent application that issued as the '937 Patent.

27. Aerix, by and through its counsel, sent a letter to Richway alleging that Richway infringes one or more claims of the '937 Patent.

28. Upon information and belief, Cellular Concrete, Inc. is a licensee of the '937 Patent with right to enforce the '937 Patent.

29. Upon information and belief, Cellular Concrete, Inc. is a licensee of the '937 Patent with right to practice the patented technology.

30. Richway denies the validity and infringement of the '937 Patent.

31. Aerix and Richway have exchanged multiple communications addressing Aerix's allegations of infringement and Richway's allegations that the '937 Patent is invalid.

IV. CLAIM I
(Invalidity of U.S. Patent No. 8,172,937 under 35 U.S.C. § 102 – "on sale")

32. Plaintiff repeats and realleges paragraphs 1-31 as though set forth herein.

33. Claims 1-23 are invalid for being on sale more than one year prior to September 14, 2007.

34. The '937 Patent's technology was on sale and sold more than one year prior to September 14, 2007.

35. In particular, the '937 Patent's pervious concrete of claims 1-13 and 22-23 were sold and installed as a sub-base under the playing field at Citi Field, home of the New York Mets.

36. Further, upon information and belief, the '937 Patent's methods of claims 14-21 were utilized to manufacture the pervious concrete sold and installed as a sub-base at Citi Field.

37. Aerix promotes its sale of the '937 Patent's technology at the Met's stadium: "AQUAERiX permeable low-density cellular concrete was installed as a sub-base under the playing field at Citi Field, home of the NY Mets."

38. During examination of the patent application that issued as the '937 Patent, Aerix relied upon the Citi Field sale and installation as evidence that the claimed invention was "commercially successful."

39. Aerix states that its AQUAERiX was introduced to the market in 2000.

40. AQUAERiX is the tradename for Aerix's product covered by the '937 Patent.

V. CLAIM II
(Invalidity of U.S. Patent No. 8,172,937 under 35 U.S.C. § 102 – "in public use")

41. Plaintiff repeats and realleges paragraphs 1-40 as though set forth herein.

42. Claims 1-23 are invalid for being in public use more than one year prior to September 14, 2007.

43. The '937 Patent's technology, including the pervious concrete and methods of manufacture, was in public use more than one year prior to September 14, 2007.

44. Aerix states that its AQUAERiX concrete was introduced to the market in 2000.

45. Further, the patented technology was installed at Citi Field more than one year prior to the filing date.

VI. CLAIM III
(Invalidity of U.S. Patent No. 8,172,937 under 35 U.S.C. § 102 – lacking novelty over "Specification for Foamed Concrete" by K.C. Brady, G.R.A Watts, and M.R. Jones)

46. Plaintiff repeats and realleges paragraphs 1-45 as though set forth herein.

47. *Specification for Foamed Concrete*, by K.C. Brady, G.R.A Watts, and M.R. Jones (hereinafter "Brady" or "Brady et al.") is a printed publication.

48. Brady was published in 2001.

49. Brady was published more than one year before September 14, 2007.

50. Brady discloses each element of the claims in U.S. Patent No. 8,172,937.

51. Below is a claim chart demonstrating how Brady discloses each claim of the '937 Patent:

Claim 1	All claims are Anticipated by Brady et al., *Specification for Foamed Concrete*, 2001.
A pervious concrete having	Brady is directed to foamed concrete. Foamed concrete is a synonym for cellular concrete. (p. 2) The '937 patent is directed to forming a pervious cellular concrete. For Example, the title of the '937 patent is LIGHTWEIGHT DRAINABLE CELLULAR CONCRETE and provides "formulations for a lightweight, pervious, pumpable cellular concrete," as well as "a method for forming a pervious cellular concrete." (Title; col. 1, lines 55-58; col. 2, lines 23-24). Furthermore, in the Applicant's response dated 08/29/2011 to a Final Office Action, in arguing against a §112 rejection, Applicant states that "the claims may recite a scope encompassing, but not limited to, 'cellular concrete' and still satisfy the written description requirements," and further states that "the claimed 'pervious concrete' applies to 'cellular concrete,' but may also apply to other types of concrete that satisfy the claimed features."
interconnected capillaries formed from bubbles of a foaming agent coalesced	Brady teaches that synthetic foaming agents such as surfactant are used to produce foam. Synthetic foaming agents may be anionic, cationic, or nonionic surfactants and rarely amphoteric or zwitterionic surfactants. (p. C4) The '937 only describes the foaming agent as "in some implementations a cationic or anionic surfactant." (col. 4, lines 13-15) Additionally, Brady states that bubbles in the foam coalesce. (p. C4)

<table>
<tr><td></td><td>Brady teaches that permeability of foamed concrete is “governed by the extent of cracking in the bulk,” and “where air voids are interconnected by micro-cracks, permeability will be much higher.” (p. C13)

The ‘937 patent does not define capillaries, except to describe it as “open-pore,” and “created from coalesced micro-bubbles” from the foam. The ‘937 patent gives a basic sketch of what an interconnected capillary network looks like in Figure 3. (col. 4, lines 44-47).

In this case, the micro-cracks of Brady are analogous to the capillaries described in the disclosure of the ‘937 patent.</td></tr>
<tr><td>within a base mix</td><td>Brady describes a base mix as comprising Portland cement as the most common binder and water, and optionally additional mixtures. (p. A1, C1)

The ‘937 patent defines a base mix as water and cement, with Portland cement as the most common cement type. (col. 1, lines 20-25; col. 2, lines 15-18).</td></tr>
<tr><td>wherein the pervious concrete has a permeability K value of about 1 to about 1x10-5 centimeters per second when cured.</td><td>Brady discloses an embodiment with a permeability value of 1x10-4 centimeters per second, which is within the range of about 1x10-5. (Figure C15)

The claims of the ‘937 patent are directed to “pervious concrete” but the claimed permeability range includes concrete with “very low permeability” (1x10-5 cm/sec) according to Table 1 in the disclosure of the ‘937 patent:

TABLE 1
<table><tr><th>Relative Permeability</th><th>Values of K (cm/sec)</th><th>Typical Formation</th></tr><tr><td>Very permeable</td><td>1</td><td>coarse gravel, rock</td></tr><tr><td>Medium permeability</td><td>1×10^{-3}</td><td>sand, fine sand</td></tr><tr><td>Low permeability</td><td>1×10^{-3}-1×10^{-5}</td><td>silty sand, dirty sand</td></tr><tr><td>Very low permeability</td><td>1×10^{-5}-1×10^{-7}</td><td>silt, fine sandstone</td></tr><tr><td>Impervious</td><td>$>1 \times 10^{-7}$</td><td>clay, mudstone</td></tr></table></td></tr>
<tr><td>Claim 2</td><td></td></tr>
<tr><td>The pervious concrete of claim 1, wherein the pervious concrete is pumpable, when wet</td><td>Brady teaches that the foamed concrete described therein “can be pumped successfully over significant heights and distances.” (p. 2)</td></tr>
<tr><td>Claim 3</td><td></td></tr>
</table>

The pervious concrete of claim 1, having a density of between about 10 to about 100 pounds per cubic foot, when cured	Brady teaches density ranging from 400 to 1600 kg/m3 when cured, which converts to about 25 to about 100 pounds per cubic foot. (p. 2)
Claim 4	
The pervious concrete of claim 1, having a compressive strength between about 10 to about 1000 pounds per square inch, when cured.	Brady states that the compressive strength of foamed concrete can typically range between 1 N/mm2 and 25 N/mm2, which converts to about 145 to about 3625 pounds per square inch, when cured.
Claim 5	
The pervious concrete of claim 1, having a slump value of about 2 to about 11.5 when wet.	Brady states that for most applications the slump of the base mix should be between about 75 and 100mm which corresponds to between about 2.95 to about 3.94 inches. (p. 5) The '937 patent does not includes units for the slump value, but generally uses US customary units. Therefore it is inferred that this claim refers to a slump value of about 2 to about 11.5 *inches* when wet.
Claim 6	
The pervious concrete of claim 1, wherein foam is pre-generated from the foaming agent and injected into the base mix.	Brady teaches a method wherein the foam is prepared and then blended into the base mix. (p. C17)
Claim 7	
The pervious concrete of claim 6, wherein the pre-generated foam comprises from about 10% to about 95% of a base composite volume of the pervious concrete.	Brady defines foamed concrete as a cementitious material having a minimum of 20% by volume of foam. (p. 2) Additionally, Brady teaches that foamed concrete is proportioned on a volumetric rather than a weight basis and has an embodiment of 1 cubic meters base mix and 4 cubic meters foam, which converts to 4/5 or 80% of the base composite volume. (p. C6)
Claim 8	
The pervious concrete of claim 1, wherein the base mix comprises from about 2% to about 60% water by weight and about 5% to about 80% cement by weight, when wet.	Brady teaches a general water to cement ratio of between 0.4 and 0.8 by weight, with embodiments at 0.3. (p. C3; Tables C6, C11, C13) This corresponds to a range of about 23% water to about 44% water by weight and from about 55% to about 77% cement by weight.
Claim 9	
The pervious concrete of claim 8, wherein the base mix further comprises about 5%	Brady states that pozzolanic fillers such as PFA (pulverized-fuel ash) and silica fume can be added to the base mix. Brady states that the addition of PFA of up to 80% by weight increases the

to about 95% pozzolan by weight.	strength of some foamed concrete. Brady has embodiments with 20%, 25%, and 30% PFA in the base mix. (p. 13, C1, C2, C10; Table C3)
Claim 10	
The pervious concrete of claim 8, wherein the base mix further comprises about 5% to about 80% sand by weight.	Brady states that sand may be included within foamed concrete. Brady includes embodiments with 66% sand, 69% sand, and 24% sand. (p. C2, C20)
Claim 11	
The pervious concrete of claim 8, wherein the base mix further comprises one or more of zeolite, pumice, high-carbon fly ash, and vermiculite to absorb contaminants.	Brady states that the base mix may further comprise PFA (pulverized-fuel ash). Brady teaches that the PFA may be a high carbon-content ash. (p. 13, C2) Brady does not specify that the ash is to absorb contaminants, but contaminant absorption is an inherent quality of the filler.
Claim 12	
The pervious concrete of claim 11, wherein the base mix comprises about 0% to about 80% of the one or more of zeolite, pumice, high-carbon fly ash, and vermiculite to absorb contaminants.	Brady states that the base mix may further comprise PFA (pulverized-fuel ash). Brady teaches the addition of PFA of up to 80% by weight. (p. 13, C1, C2) Brady teaches that the PFA may be a high carbon-content ash. (p. 13, C2) Brady does not specify that the ash is to absorb contaminants, but contaminant absorption is an inherent quality of the filler.
Claim 22	
The pervious concrete of claim 1, wherein the interconnected capillaries form an interconnected capillary network that allows for water drainage through the pervious concrete, when cured.	Brady teaches that permeability of foamed concrete is "governed by the extent of cracking in the bulk," and "where air voids are interconnected by micro-cracks, permeability will be much higher." (p. C13)
Claim 13	
A pervious concrete	Brady is directed to foamed concrete. Foamed concrete is a synonym for cellular concrete. (p. 2) The '937 patent is directed to forming a pervious cellular concrete. For Example, the title of the '937 patent is LIGHTWEIGHT DRAINABLE CELLULAR CONCRETE and provides "formulations for a lightweight, pervious, pumpable cellular concrete," as well as "a method for forming a pervious cellular concrete." (Title; col. 1, lines 55-58; col. 2, lines 23-24).

	Furthermore, in the Applicant's response dated 08/29/2011 to a Final Office Action, in arguing against a §112 rejection, Applicant states that "the claims may recite a scope encompassing, but not limited to, 'cellular concrete' and still satisfy the written description requirements," and further states that "the claimed 'pervious concrete' applies to 'cellular concrete,' but may also apply to other types of concrete that satisfy the claimed features."
comprising a base mix and a foaming agent	Brady teaches a foamed concrete wherein a foaming agent and a base mix are combined. (p. C16.) Brady describes a base mix as comprising Portland cement as the most common binder and water, and optionally additional mixtures. (p. A1, C1) The '937 patent defines a base mix as water and cement, with Portland cement as the most common cement type. (col. 1, lines 20-25; col. 2, lines 15-18). Brady teaches that synthetic foaming agents such as surfactant are used to produce foam. Synthetic foaming agents may be anionic, cationic, or nonionic surfactants and rarely amphoteric or zwitterionic surfactants. (p. C4) The '937 only describes the foaming agent as "in some implementations a cationic or anionic surfactant." (col. 4, lines 13-15)
with interconnected capillaries there through,	Brady states that bubbles in the foam coalesce and that air voids are interconnected by micro-cracks. (p. C4, C13) Brady teaches that permeability of foamed concrete is "governed by the extent of cracking in the bulk," and "where air voids are interconnected by micro-cracks, permeability will be much higher." (p. C13) The '937 patent does not define capillaries, except to describe it as "open-pore," and "created from coalesced micro-bubbles" from the foam. The '937 patent gives a basic sketch of what an interconnected capillary network looks like in Figure 3. (col. 4, lines 44-47). In this case, the micro-cracks of Brady are analogous to the capillaries described in the disclosure of the '937 patent.

wherein the pervious concrete is pumpable when wet	Brady teaches that the foamed concrete described therein "can be pumped successfully over significant heights and distances." (p. 2)
and has a permeability K value of about 1 to about 1x10-5 centimeters per second when cured.	Brady discloses an embodiment with a permeability value of 1x10-4 centimeters per second, which is within the range of about 1x10-5. (Figure C15) The claims of the '937 patent are directed to "pervious concrete" but the claimed permeability range includes concrete with "very low permeability" (1x10-5 cm/sec) according to Table 1 in the disclosure of the '937 patent: TABLE 1 Relative Permeability / Values of K (cm/sec) / Typical Formation Very permeable / 1 / coarse gravel, rock Medium permeability / 1×10^{-3} / sand, fine sand Low permeability / 1×10^{-3}-1×10^{-5} / silty sand, dirty sand Very low permeability / 1×10^{-5}-1×10^{-7} / silt, fine sandstone Impervious / $>1 \times 10^{-7}$ / clay, mudstone
Claim 23	
The pervious concrete of claim 13, wherein the interconnected capillaries form an interconnected capillary network that allows for water drainage through the pervious concrete, when cured.	Brady states that bubbles in the foam coalesce and air voids are interconnected by micro-cracks. (p. C4, C13) Brady teaches that permeability of foamed concrete is "governed by the extent of cracking in the bulk," and "where air voids are interconnected by micro-cracks, permeability will be much higher." (p. C13)
Claim 14	
A method of forming a pervious concrete comprising:	Brady describes methods for forming foamed concrete. Foamed concrete is a synonym of cellular concrete. (p. 1-2) The '937 patent is directed to forming a pervious cellular concrete. For Example, the title of the '937 patent is LIGHTWEIGHT DRAINABLE CELLULAR CONCRETE and provides "formulations for a lightweight, pervious, pumpable cellular concrete," as well as "a method for forming a pervious cellular concrete." (Title; col. 1, lines 55-58; col. 2, lines 23-24). Furthermore, in the Applicant's response dated 08/29/2011 to a Final Office Action, in arguing against a §112 rejection, Applicant states that "the claims may recite a scope encompassing, but not limited to, 'cellular concrete' and still satisfy the written description requirements," and further states

	that "the claimed 'pervious concrete' applies to 'cellular concrete,' but may also apply to other types of concrete that satisfy the claimed features."
combining a base mix and a foaming agent together to form a pervious concrete	Brady teaches a production method wherein foamed concrete is manufactured by adding a foaming agent to a base mix and mixing. (p. C16.) Brady describes a base mix as comprising Portland cement as the most common binder and water, and optionally additional mixtures. (p. A1, C1) The '937 patent defines a base mix as water and cement, with Portland cement as the most common cement type. (col. 1, lines 20-25; col. 2, lines 15-18). Brady teaches that synthetic foaming agents such as surfactant are used to produce foam. Synthetic foaming agents may be anionic, cationic, or nonionic surfactants and rarely amphoteric or zwitterionic surfactants. (p. C4) The '937 only describes the foaming agent as "in some implementations a cationic or anionic surfactant." (col. 4, lines 13-15)
having interconnected capillaries	Brady teaches that permeability of foamed concrete is "governed by the extent of cracking in the bulk," and "where air voids are interconnected by micro-cracks, permeability will be much higher." (p. C13) The '937 patent does not define capillaries, except to describe it as "open-pore," and "created from coalesced micro-bubbles" from the foam. The '937 patent gives a basic sketch of what an interconnected capillary network looks like in Figure 3. (col. 4, lines 44-47). In this case, the micro-cracks of Brady are analogous to the capillaries described in the disclosure of the '937 patent.
wherein the pervious concrete has a permeability K value of about 1 to about 1x10-5 centimeters per second, when cured.	Brady discloses an embodiment with a permeability value of 1x10-4 centimeters per second, which is within the range of about 1x10-5. (Figure C15) The claims of the '937 patent are directed to "pervious concrete" but the claimed permeability range includes concrete with "very low permeability" (1x10-5 cm/sec) according to Table 1 in the disclosure of the '937 patent:

	TABLE 1 Relative Permeability / Values of K (cm/sec) / Typical Formation Very permeable / 1 / coarse gravel, rock Medium permeability / 1×10^{-3} / sand, fine sand Low permeability / 1×10^{-3}-1×10^{-5} / silty sand, dirty sand Very low permeability / 1×10^{-5}-1×10^{-7} / silt, fine sandstone Impervious / $>1 \times 10^{-7}$ / clay, mudstone
Claim 15	
The method of claim 14, wherein the combining further includes: forming a base mix slurry from the base mix and a solvent in a vessel;	The '937 patent does not define this solvent, other than to state that a solvent is typically water. (col. 4, line 15) The '937 patent defines a base mix slurry as comprising water and cement, and in some embodiments sand, fly ash, bottom ash or other pozzolan, and/or a highly-absorbent component such as zeolite pumice, or high-carbon fly ash. (col. 3, lines 47-55) The vessel is taught as a continuous-type tumbling mixer or by an auger configuration, or a hose line. Brady teaches a production method wherein cement and water are combined in a concrete mixer, including rotary drum mixers. Mixers with paddles rotating on a horizontal shaft or screw action in a trough are recommended. (p. C17-18)
preparing a foam from the foaming agent; injecting the foam into the base mix slurry to form a foam mix; mixing the foam mix to form wet pervious concrete; and	Brady teaches a production method wherein preformed foam is mixed with a base mix to form the wet concrete. (p. C16, C17)
pumping the wet pervious concrete.	Brady teaches that foamed concrete "can be pumped successfully over significant heights and distances." (p. 2)
Claim 16	
The method of claim 14, wherein the combining operation further includes: forming a base mix slurry from the base mix and a solvent in a vessel;	The '937 patent does not define this solvent, other than to state that a solvent is typically water. (col. 4, line 15) The '937 patent defines a base mix slurry as comprising water and cement, and in some embodiments sand, fly ash, bottom ash or other pozzolan, and/or a highly-absorbent component such as zeolite pumice, or high-carbon fly ash. (col. 3, lines 47-55) The vessel is taught as a continuous-type tumbling mixer or by an auger configuration, or a hose line. Brady teaches a production method wherein cement and water are combined in a concrete mixer, including rotary drum mixers. Mixers with paddles rotating on a horizontal shaft or screw action in a trough are recommended. (p. C17-18)

injecting the foaming agent into the base mix slurry; mixing the foaming agent and the base mix slurry to form wet pervious concrete; and	Brady teaches a production method wherein foamed concrete is manufactured by adding a foaming agent to a base mix and mixing. (p. C16).
pumping the wet pervious concrete.	Brady teaches that foamed concrete "can be pumped successfully over significant heights and distances." (p. 2)
Claim 17	
The method of claim 15, wherein the base mix slurry comprises about 2% to about 60% water by weight and about 5% to about 80% cement by weight.	Brady teaches a general water to cement ratio of between 0.4 and 0.8, with embodiments at 0.3. (p. C3; Tables C6, C11, C13) This corresponds to a range of about 23% water to about 44% water by weight and from about 55% to about 77% cement by weight.
Claim 18	
The method of claim 14, wherein the base mix comprises about 5% to about 80% sand by weight.	Brady states that sand may be included within foamed concrete. Brady includes embodiments with 66% sand, 69% sand, and 24% sand. (p. C2, C20)
Claim 19	
The method of claim 14, wherein the base mix comprises about 0% to about 95% pozzolan by weight.	Brady states that pozzolanic fillers such as PFA (pulverized-fuel ash) and silica fume can be added to the base mix. Brady states that the addition of PFA of up to 80% by weight increases the strength of some foamed concrete. Brady has embodiments with 20%, 25%, and 30% PFA in the base mix. (p. 13, C1, C2, C10; Table C3)
Claim 20	
The method of claim 14, wherein the base mix comprises about 0% to about 80% of one or more of zeolite, pumice, high-carbon fly ash, or vermiculite by weight to absorb contaminants.	Brady states that the base mix may further comprise PFA (pulverized-fuel ash). Brady teaches the addition of PFA of up to 80% by weight. (p. 13, C1, C2) Brady teaches that the PFA may be a high carbon-content ash. (p. 13, C2) Brady does not specify that the ash is to absorb contaminants, but contaminant absorption is an inherent quality of the filler.
Claim 21	
The method of claim 15, wherein the foam comprises from about 10% to about 95% of a base composite volume of the wet pervious concrete.	Brady defines foamed concrete as a cementitious material having a minimum of 20% by volume of foam. (p. 2) Additionally, Brady teaches that foamed concrete is proportioned on a volumetric rather than a weight basis and has an embodiment of 1 cubic meters base mix and 4 cubic meters foam, which converts to 4/5 or 80% of the base composite volume. (p. C6)

52. The '937 lacks novelty over Brady.

53. The '937 is obvious over Brady.

VII. CLAIM IV
(Invalidity of U.S. Patent No. 8,172,937 under 35 U.S.C. § 102 – lacking novelty over "Cellular Concrete" by Leo A. Legatski)

54. Plaintiff repeats and realleges paragraphs 1-53 as though set forth herein.

55. *Cellular Concrete*, by Leo A. Legatski (hereinafter "Legatski") is a printed publication.

56. Legatski was published in 1994.

57. Legatski was published more than one year before September 14, 2007.

58. Legatski discloses each element of U.S. Patent No. 8,172,937 claims 1-4, 6, 7, 11, 13-16, and 21-23.

59. Below is a claim chart demonstrating how Legatski discloses each claim element of the '937 Patent's claims 1-4, 6, 7, 11, 13-16, and 21-23:

Claim 1	Anticipated by Leo A Legatski, *Cellular Concrete*, 1994.
A pervious concrete having	Legatski discloses "cellular concrete applications, physical properties, and mixture proportioning." (p. 533). The '937 patent is directed to forming a pervious *cellular* concrete. For Example, the title of the '937 patent is LIGHTWEIGHT DRAINABLE CELLULAR CONCRETE and provides "formulations for a lightweight, pervious, pumpable cellular concrete," as well as "a method for forming a pervious cellular concrete." (Title; col. 1, lines 55-58; col. 2, lines 23-24). Furthermore, in the Applicant's response dated 08/29/2011 to a Final Office Action, in arguing against a §112 rejection, Applicant states that "the claims may recite a scope encompassing, but not limited to, 'cellular concrete' and still satisfy the written description requirements," and further states that "the claimed 'pervious concrete' applies to 'cellular concrete,' but may also apply to other types of concrete that satisfy the claimed features."
interconnected capillaries formed from bubbles of a foaming agent coalesced	Legatski states that cellular concrete comprises air cells (bubbles) preformed as foam, and that the cell structures can interconnect resulting in channels for high water absorption. (p. 533, 537-38).

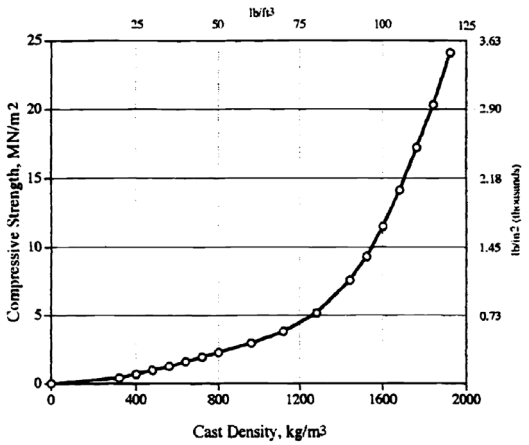
<table>
<tr><td></td><td>The ‘937 patent does not define capillaries, except to describe it as “open-pore,” and “created from coalesced micro-bubbles” from the foam. The ‘937 patent gives a basic sketch of what an interconnected capillary network looks like in Figure 3. (col. 4, lines 44-47).</td></tr>
<tr><td>within a base mix</td><td>Legatski teaches that cellular concrete, at its base, consists of Portland cement, water, and preformed foam. (p. 533)

The ‘937 patent defines a base mix as water and cement, with Portland cement as the most common cement type. (col. 1, lines 20-25; col. 2, lines 15-18).</td></tr>
<tr><td>wherein the pervious concrete has a permeability K value of about 1 to about 1x10-5 centimeters per second when cured.</td><td>Legatski teaches a permeability range from 1x10-4 to 1x10-8 centimeters per second. (p. 537).

The claims of the ‘937 patent are directed to “pervious concrete” but the claimed permeability range includes concrete with “very low permeability” (1x10-5 cm/sec) according to Table 1 in the disclosure of the ‘937 patent:

TABLE 1
<table><tr><th>Relative Permeability</th><th>Values of K (cm/sec)</th><th>Typical Formation</th></tr><tr><td>Very permeable</td><td>1</td><td>coarse gravel, rock</td></tr><tr><td>Medium permeability</td><td>1×10^{-3}</td><td>sand, fine sand</td></tr><tr><td>Low permeability</td><td>1×10^{-3}-1×10^{-5}</td><td>silty sand, dirty sand</td></tr><tr><td>Very low permeability</td><td>1×10^{-5}-1×10^{-7}</td><td>silt, fine sandstone</td></tr><tr><td>Impervious</td><td>$>1 \times 10^{-7}$</td><td>clay, mudstone</td></tr></table></td></tr>
<tr><td>Claim 2</td><td>Anticipated by Legatski</td></tr>
<tr><td>The pervious concrete of claim 1, wherein the pervious concrete is pumpable, when wet</td><td>Legatski teaches that the cellular concrete described therein is “pumped or otherwise transported to the point of placement.” (p. 533)

Legatski describes application techniques wherein the wet concrete is pumped. For example, Legatski teaches that “the preformed foam is added and blended prior to or during placement with a positive displacement pump.” (p. 535) Additionally, “positive displacement pumps such as moyno or peristaltic pumps are used for low-density mixtures.” (p. 539)</td></tr>
<tr><td>Claim 3</td><td>Anticipated by Legatski</td></tr>
<tr><td>The pervious concrete of claim 1, having a density of between about 10 to about 100 pounds per cubic foot, when cured</td><td>Legatski teaches a typical cast density range of 20-120 founds per cubic although concrete densities of 10-130 pounds per cubic foot have been produced. (p. 534) Legatski states that cast densities can have losses approaching 10 pounds per cubic foot after cured and air dried in low-humidity environments.</td></tr>
</table>

	Legatski teaches a roof deck embodiment with a density of 30-40 pounds per cubic foot and an engineered fill with a density of 30 pounds per cubic foot. (p. 535).
Claim 4	Anticipated by Legatski
The pervious concrete of claim 1, having a compressive strength between about 10 to about 1000 pounds per square inch, when cured.	Legatski shows compressive strength versus cast density in Figure 1. In pounds per square inch, Legatski discloses a compressive strength from about 145 to about 3500. 
Claim 6	Anticipated by Legatski
The pervious concrete of claim 1, wherein foam is pre-generated from the foaming agent and injected into the base mix.	Legatski is directed to cellular concrete consisting of a system of air cells preformed as foam and added to the cementitious mixture either in the mixer of in the pumping hose. (p. 533)
Claim 7	Anticipated by Legatski
The pervious concrete of claim 6, wherein the pre-generated foam comprises from about 10% to about 95% of a base composite volume of the pervious concrete.	Legatski discloses that a predetermined quantity of foam is added to result in a certain, desired density. (p. 535, 538) Legatski further discloses that a significant portion of the material volume – one-fourth to three-fourths (25%-75%) – is air. (p. 539)
Claim 11	Anticipated by Legatski
The pervious concrete of claim 8, wherein the base mix further comprises one or more of zeolite, pumice, high-carbon fly ash, and vermiculite to absorb contaminants.	Legatski teaches that the base mix can further comprise fly ash to improve flowability, increase compressive strength, reduce the heat of hydration and reduce water permeability. (p. 534) Legatski and Brady does not specify that the ash is to absorb contaminants, but contaminant absorption is an inherent quality of the filler.
Claim 13	Anticipated by Legatski
A pervious concrete	Legatski discloses "cellular concrete applications, physical properties, and mixture proportioning." (p. 533).

<table>
<tr><td></td><td>The ‘937 patent is directed to forming a pervious cellular concrete. For Example, the title of the ‘937 patent is LIGHTWEIGHT DRAINABLE CELLULAR CONCRETE and provides “formulations for a lightweight, pervious, pumpable cellular concrete,” as well as “a method for forming a pervious cellular concrete.” (Title; col. 1, lines 55-58; col. 2, lines 23-24).

Furthermore, in the Applicant’s response dated 08/29/2011 to a Final Office Action, in arguing against a §112 rejection, Applicant states that “the claims may recite a scope encompassing, but not limited to, ‘cellular concrete’ and still satisfy the written description requirements,” and further states that “the claimed ‘pervious concrete’ applies to ‘cellular concrete,’ but may also apply to other types of concrete that satisfy the claimed features.”</td></tr>
<tr><td>comprising a base mix and a foaming agent</td><td>The cellular concrete of Legatski consists of Portland cement, water and preformed foam. (p. 533)</td></tr>
<tr><td>with interconnected capillaries there through,</td><td>Legatski states that cellular concrete comprises air cells (bubbles) preformed as foam, and that the cell structures can interconnect resulting in channels for high water absorption. (p. 533, 537-38).</td></tr>
<tr><td>wherein the pervious concrete is pumpable when wet</td><td>Legatski teaches that the cellular concrete described therein is “pumped or otherwise transported to the point of placement.” (p. 533)

Legatski describes application techniques wherein the wet concrete is pumped. For example, Legatski teaches that “the preformed foam is added and blended prior to or during placement with a positive displacement pump.” (p. 535) Additionally, “positive displacement pumps such as moyno or peristaltic pumps are used for low-density mixtures.” (p. 539)</td></tr>
<tr><td>and has a permeability K value of about 1 to about 1x10-5 centimeters per second when cured.</td><td>Legatski teaches a permeability range from 1x10-4 to 1x10-8 centimeters per second. (p. 537).

The claims of the ‘937 patent are directed to “pervious concrete” but the claimed permeability range includes concrete with “very low permeability” (1x10-5 cm/sec) according to Table 1 in the disclosure of the ‘937 patent:

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</table>

<table>
<tr><th>Claim 14</th><th>Anticipated by Legatski</th></tr>
<tr><td>A method of forming a pervious concrete comprising:</td><td>Legatski discloses “cellular concrete applications, physical properties, and mixture proportioning,” including a method of forming said concrete. (p. 533; p. 538-39)

The ‘937 patent is directed to forming a pervious cellular concrete. For Example, the title of the ‘937 patent is LIGHTWEIGHT DRAINABLE CELLULAR CONCRETE and provides “formulations for a lightweight, pervious, pumpable cellular concrete,” as well as “a method for forming a pervious cellular concrete.” (Title; col. 1, lines 55-58; col. 2, lines 23-24).

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<tr><td>combining a base mix and a foaming agent together to form a pervious concrete</td><td>The cellular concrete of Legatski consists of Portland cement, water and preformed foam. (p. 533) The method comprises mixing the cement, water and foam together. (p. 538-39)</td></tr>
<tr><td>having interconnected capillaries</td><td>Legatski states that cellular concrete comprises air cells (bubbles) preformed as foam, and that the cell structures can interconnect resulting in channels for high water absorption. (p. 533, 537-38).</td></tr>
<tr><td>wherein the pervious concrete has a permeability K value of about 1 to about 1x10-5 centimeters per second, when cured.</td><td>Legatski teaches a permeability range from 1x10-4 to 1x10-8 centimeters per second. (p. 537)

The claims of the ‘937 patent are directed to “pervious concrete” but the claimed permeability range includes concrete with “very low permeability” (1x10-5 cm/sec) according to Table 1 in the disclosure of the ‘937 patent:

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<tr><th>Claim 15</th><th>Anticipated by Legatski</th></tr>
<tr><td>The method of claim 14, wherein the combining further includes: forming a</td><td>Legatski teaches that after a cement/water slurry is produced in a mixer, preformed foam is added to said mixer. The mixer can be a rotary drum mixer, or paddle type or shear mixers. (p. 535).</td></tr>
</table>

base mix slurry from the base mix and a solvent in a vessel;	The ’937 patent does not define this solvent, other than to state that a solvent is typically water. (col. 4, line 15) The ‘937 patent defines a base mix slurry as comprising water and cement, and in some embodiments sand, fly ash, bottom ahs or other pozzolan, and/or a highly-absorbent component such as zeolite pumice, or high-carbon fly ash. (col. 3, lines 47-55) The vessel is taught as a continuous-type tumbling mixer or by an auger configuration, or a hose line.
preparing a foam from the foaming agent; injecting the foam into the base mix slurry to form a foam mix; mixing the foam mix to form wet pervious concrete; and	Legatski teaches preformed foam, wherein the foam is prepared before injecting the foam into the base mix slurry to form the cellular concrete. “After the cement/water slurry is produced in these mixers, the preformed foam is added and blended” prior to placement. (p. 535)
pumping the wet pervious concrete.	“After the cement/water slurry is produced in these mixers, the preformed foam is added and blended” prior to placement “with a positive displacement pump.” (p. 535)
Claim 16	Anticipated by Legatski
The method of claim 14, wherein the combining operation further includes: forming a base mix slurry from the base mix and a solvent in a vessel;	Legatski teaches that after a cement/water slurry is produced in a mixer, preformed foam is added to said mixer. The mixer can be a rotary drum mixer, or paddle type or shear mixers. (p. 535). The ’937 patent does not define this solvent, other than to state that a solvent is typically water. (col. 4, line 15) The ‘937 patent defines a base mix slurry as comprising water and cement, and in some embodiments sand, fly ash, bottom ahs or other pozzolan, and/or a highly-absorbent component such as zeolite pumice, or high-carbon fly ash. (col. 3, lines 47-55) The vessel is taught as a continuous-type tumbling mixer or by an auger configuration, or a hose line.
injecting the foaming agent into the base mix slurry; mixing the foaming agent and the base mix slurry to form wet pervious concrete; and	Legatski teaches preformed foam, wherein the foam is prepared before injecting the foam into the base mix slurry to form the cellular concrete. “After the cement/water slurry is produced in these mixers, the preformed foam is added and blended” prior to placement. (p. 535)
pumping the wet pervious concrete.	“After the cement/water slurry is produced in these mixers, the preformed foam is added and blended” prior to placement “with a positive displacement pump.” (p. 535)
Claim 21	Anticipated by Legatski
The method of claim 15, wherein the foam comprises from about 10% to about 95%	Legatski discloses that a predetermined quantity of foam is added to result in a certain, desired density. (p. 535, 538)

of a base composite volume of the wet pervious concrete.	Legatski further discloses that a significant portion of the material volume – one-fourth to three-fourths (25% to 75%) – is air. (p. 539)
Claim 22	Anticipated by Legatski
The pervious concrete of claim 1, wherein the interconnected capillaries form an interconnected capillary network that allows for water drainage through the pervious concrete, when cured.	Legatski states that cellular concrete comprises air cells (bubbles) preformed as foam, and that the cell structures can interconnect resulting in channels for high water absorption. (p. 533, 537-38).
Claim 23	Anticipated by Legatski
The pervious concrete of claim 13, wherein the interconnected capillaries form an interconnected capillary network that allows for water drainage through the pervious concrete, when cured.	Legatski states that cellular concrete comprises air cells (bubbles) preformed as foam, and that the cell structures can interconnect resulting in channels for high water absorption. (p. 533, 537-38).

60. Claims 1-4, 6, 7, 11, 13-16, and 21-23 of the '937 Patent each lack novelty over Legatski.

61. Claims 1-4, 6, 7, 11, 13-16, and 21-23 of the '937 Patent are each obvious over Legatski.

VIII. CLAIM V
(Invalidity of U.S. Patent No. 8,172,937 under 35 U.S.C. § 103)

62. Plaintiff repeats and realleges paragraphs 1-61 as though set forth herein.

63. U.S. Patent No. 8,172,937 claims 5, 8-10, 12, 17-20 are obvious over Legatski in combination with Brady.

64. Below is a claim chart demonstrating how Legatski in combination with Brady renders obvious the '937 Patent's claims 5, 8-10, 12, 17-20 (to the extent a claim in the below

table is a dependent claim and the corresponding independent claim is not present in the table, Plaintiff relies on the disclosure in paragraph 55 above):

Claim 5	Obvious over Legatski and Brady
The pervious concrete of claim 1, having a slump value of about 2 to about 11.5 when wet.	Legatski states that the cellular concrete described therein may be used as floor fill, wherein the cellular concrete levels the floors (i.e. self-leveling). The '937 patent defines having a high slump value as "virtually self-leveling." (col. 3, lines 55-56) Brady states that for most applications the slump of base mix for cellular concrete should be between about 75 and 100mm which corresponds to between about 2.95 to about 3.94 inches. (p. 5)
Claim 8	Obvious over Legatski and Brady
The pervious concrete of claim 1, wherein the base mix comprises from about 2% to about 60% water by weight and about 5% to about 80% cement by weight, when wet.	Legatski states that proportioning a mixture involves selecting a density and then selecting a water to cement ratio that is compatible with the density. (p. 538) Brady discloses that a general water to cement ratio for cellular concrete is between 0.4 and 0.8 by weight, with embodiments at 0.3. (p. C3; Tables C6, C11, C13) This corresponds to a range of about 23% water to about 44% water by weight and from about 55% to about 77% cement by weight.
Claim 9	Obvious over Legatski and Brady
The pervious concrete of claim 8, wherein the base mix further comprises about 5% to about 95% pozzolan by weight.	Legatski teaches that substitution of pozzolanic materials for a portion of the cement lower the actual cement content and permits higher densities without producing excessive heat of hydration. (p. 533) Brady states that pozzolanic fillers can be added to the base mix, and the addition of up to 80% by weight increases the strength of some foamed concrete. Brady has embodiments with 20%, 25%, and 30% pozzolanic fillers in the base mix. (p. 13, C1, C2, C10; Table C3)
Claim 10	Obvious over Legatski and Brady
The pervious concrete of claim 8, wherein the base mix further comprises about 5% to about 80% sand by weight.	Legatski teaches that the base mix can further comprise sand. (p. 533) Brady states that sand may be included within foamed concrete. Brady includes embodiments with 66% sand, 69% sand, and 24% sand. (p. C2, C20)
Claim 12	Obvious over Legatski and Brady

The pervious concrete of claim 11, wherein the base mix comprises about 0% to about 80% of the one or more of zeolite, pumice, high-carbon fly ash, and vermiculite to absorb contaminants.	Legatski teaches that the base mix can further comprise fly ash to improve flowability, increase compressive strength, reduce the heat of hydration and reduce water permeability. (p. 534) Brady states that the base mix may further comprise high carbon-content PFA (pulverized-fuel ash) up to 80% by weight. (p. 13, C1, C2) Legatski and Brady does not specify that the ash is to absorb contaminants, but contaminant absorption is an inherent quality of the filler.
Claim 17	Obvious over Legatski and Brady
The method of claim 15, wherein the base mix slurry comprises about 2% to about 60% water by weight and about 5% to about 80% cement by weight.	Legatski states that proportioning a mixture involves selecting a density and then selecting a water to cement ratio that is compatible with the density. (p. 538) Brady discloses that a general water to cement ratio for cellular concrete is between 0.4 and 0.8 by weight, with embodiments at 0.3. (p. C3; Tables C6, C11, C13) This corresponds to a range of about 23% water to about 44% water by weight and from about 55% to about 77% cement by weight.
Claim 18	Obvious over Legatski and Brady
The method of claim 14, wherein the base mix comprises about 5% to about 80% sand by weight.	Legatski teaches that the base mix can further comprise sand. (p. 533) Brady states that sand may be included within foamed concrete. Brady includes embodiments with 66% sand, 69% sand, and 24% sand. (p. C2, C20)
Claim 19	Obvious over Legatski and Brady
The method of claim 14, wherein the base mix comprises about 0% to about 95% pozzolan by weight.	Legatski teaches that substitution of pozzolanic materials for a portion of the cement lower the actual cement content and permits higher densities without producing excessive heat of hydration. (p. 533) Brady states that pozzolanic fillers can be added to the base mix, and the addition of up to 80% by weight increases the strength of some foamed concrete. Brady has embodiments with 20%, 25%, and 30% pozzolanic fillers in the base mix. (p. 13, C1, C2, C10; Table C3)
Claim 20	Obvious over Legatski and Brady
The method of claim 14, wherein the base mix comprises about 0% to about 80% of one or more of zeolite, pumice, high-carbon	Legatski teaches that the base mix can further comprise fly ash to improve flowability, increase compressive strength, reduce the heat of hydration and reduce water permeability. (p. 534)

fly ash, or vermiculite by weight to absorb contaminants.	Brady states that the base mix may further comprise high carbon-content PFA (pulverized-fuel ash) up to 80% by weight. (p. 13, C1, C2) Legatski and Brady does not specify that the ash is to absorb contaminants, but contaminant absorption is an inherent quality of the filler.

IX. CLAIM VI
(Invalidity of U.S. Patent No. 8,172,937 under 35 U.S.C. § 112 ¶ 1 – lacking enablement)

65. Plaintiff repeats and realleges paragraphs 1-64 as though set forth herein.

66. The '937 Patent's disclosure does not enable one of skill in the art to practice the claims without undue experimentation.

67. The '937 Patent's disclosure is not enabled for the scope of the claims.

68. In particular, the description of a "foaming agent" is insufficient to enable those skilled in the art to practice the scope of the claims.

69. In the '937 patent, the foaming agent is merely described as "in some implementations a cationic or anionic surfactant." (the '937 patent, col. 4, lines 13-15).

70. FIG. 3 is "a simplified illustration of how interconnected capillaries are formed in the pervious cellular concrete of the present technology." (the '937 patent, col. 4, line 66 – col. 5, line 1).

71. The accompanying description states that the "bubbles coalesce into structures with larger void volumes forming a film between the bubbles where the wet cellular concrete paste does not penetrate." These coalesced bubbles form interconnected capillaries allowing for a wide range of permeability with K values indicating a range from "very low permeability" to "very permeable." (the '937 patent, Table 1; col. 5, lines 6-13).

72. Table 2 lists seven different example formulations demonstrating the wide range of pervious cellular concretes possible according the patent disclosure.

73. In Table 2 the addition of foam ranges from 25.5% by volume of the base composite mix to 91% by volume.

74. The base mix for Examples 1-4 is water and cement in a range of 20% water and 80% cement by volume (Example 3) to 55.6% water and 44.4% cement by volume (Example 4).

75. The base mix for Examples 5-7 is water, cement, and sand in a range of from 32.2% sand by volume (Example 7) to 77.6% sand by volume.

76. Embodiments with these same compositions are disclosed in the art, yet a different mechanism for permeability is asserted by Aerix.

77. For example Brady states, "foamed concrete is a cementitious material having a minimum of 20 percent (by volume)" of foam in the wet cellular concrete. (Brady, 2.1).

78. Brady also states that "the water to cement ratio of the base mix required to achieve adequate workability" in most cases will be between 0.4 and 0.8, but can be higher and lower. (Brady, C1.1.3).

79. Foaming agents are described as synthetic surfactants such as the anionic and cationic types, and gives an example wherein the base composite is 80% foam by volume. (Brady C1.2.1, C2).

80. In Figure C15, Brady outlines a relationship between hardened density and permeability, with an embodiment at 10-6 m/s (10-4 cm/s) with a density of around 80-90 pounds per cubic foot.

81. Upon information and belief, Aerix contends the '937 patent is different from Brady because Brady relies on micro-cracking and not coalescing bubbles forming

interconnected capillaries to provide permeability, whereas the '937 patent relies on a different water transport mechanism.

82. The ‘937 patent does not disclose how to achieve a different water transport method than the prior art as the components of the claimed pervious concrete and the methods of making said pervious concrete are not distinct from the art.

83. For example, Examples 1 and 2 in the ‘937 are embodiments with a water to cement ratio of 0.55 and 0.5, respectively, each of which falls under the range taught by Brady.

84. The wet cement (or base composite) of Examples 1 and 2 are 91% foam and 56.4% foam by volume, respectively, which also falls under the teaching of Brady.

85. Further, Brady teaches the same synthetic foam as the ‘937 patent.

86. To the extent the mechanism of the '937 Patent is distinct from that of Brady, that mechanism is not enabled.

X. CLAIM VII

(Invalidity of U.S. Patent No. 8,172,937 under 35 U.S.C. § 112 ¶ 1 – Failure to Disclose Best Mode)

87. Plaintiff repeats and realleges paragraphs 1-86 as though set forth herein.

88. To the extent the mechanism of the '937 Patent is distinct from that of Brady, the '937 Patent fails to disclose how it is achieved in a manner different than the prior art.

89. The '937 Patent fails to disclose how to practice its disclosed methods to arrive at the best mode, i.e., the best pervious concrete according to the formulations in Table 2.

PRAYER FOR RELIEF

WHEREFORE, Richway Industries Ltd. prays for judgment in its favor against Cellular Concrete, Inc. d/b/a Aerix Industries; Cellular Concrete, LLC, d/b/a Aerix Industries; and/or Cellular Concrete Solutions, LLC d/b/a Aerix Industries for the following relief:

A. Entry of judgment that U.S. Patent No. 8,172,937 is invalid under 35 U.S.C. § 102 for being on sale prior more than one year prior to September 14, 2007.

B. Entry of judgment that U.S. Patent No. 8,172,937 is invalid under 35 U.S.C. § 102 for being in public use prior more than one year prior to September 14, 2007.

C. Entry of judgment that each claim of U.S. Patent No. 8,172,937 is invalid under 35 U.S.C. § 102 for lacking novelty over Brady et al.

D. Entry of judgment that claims 1-4, 6, 7, 11, 13, 14, 15, 21-23 of U.S. Patent No. 8,172,937 are invalid under 35 U.S.C. § 102 for lacking novelty over Legatski.

E. Entry of judgment that claims 5, 8-10, 12, 16-20 of U.S. Patent No. 8,172,937 are invalid under 35 U.S.C. § 103 as being obvious over Legatski in combination with Brady.

F. Entry of judgment that each claim of U.S. Patent No. 8,172,937 is invalid under 35 U.S.C. § 112 ¶ 1 for lacking enablement.

G. Entry of judgment that each claim of U.S. Patent No. 8,172,937 is invalid under 35 U.S.C. § 112 ¶ 1 for failing to disclose the best mode.

H. Entry of judgment awarding Plaintiff its costs and reasonable attorneys' fees in this case.

I. Such other and further relief as the Court may deem just and proper.

DEMAND FOR JURY TRIAL

Plaintiff Richway Industries Ltd. hereby demands a trial by jury on all issues so triable.

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Respectfully submitted,

/s/ Jonathan L. Kennedy

Jonathan L. Kennedy
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