

**SUPERIOR COURT  
OF THE  
STATE OF DELAWARE**

RICHARD R. COOCH  
RESIDENT JUDGE

NEW CASTLE COUNTY COURTHOUSE  
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***Re: First State Construction, Inc. v. Thoro-  
Good's Concrete Co., Inc.***  
**C.A. No. 08C-12-041 RRC**

Submitted: February 12, 2010

Decided: May 3, 2010

Verdict Following a Non-Jury Trial.  
**JUDGMENT FOR PLAINTIFF.**

Dear Counsel:

**INTRODUCTION**

Plaintiff, First State Construction, Inc., filed this breach of contract action against Defendant, Thoro-good's Concrete Co. Inc., on December 3, 2008.<sup>1</sup> A bench trial was held before this Court on November 2, 2009; the only issue was whether Defendant had breached its contract with Plaintiff to provide "no-air concrete" to a job site by not providing concrete to Plaintiff

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<sup>1</sup> Op. Br. at 1.

that had 1.2% air by volume. The amount of damages, if this Court were to find that Defendant did breach the contract, is not in dispute. This Court reserved judgment until completion of post-trial briefing on the issue of liability. This is the Court's post-trial decision finding, for the reasons set forth below, that Plaintiff has shown, by a preponderance of the evidence, that Defendant breached the contract.

### **PERTINENT FACTS**

On November 28, 2007, Plaintiff requested that Defendant provide a price estimate for approximately 70 cubic yards of air-entrained concrete mix and approximately 160 cubic yards of a no-air concrete mix for use at a Walgreen's construction project in Milford.<sup>2</sup> Defendant responded that its mix design for air-entrained concrete contained 4.5% air by volume and the mix design for the no-air concrete contained 1.2% air content by volume.<sup>3</sup> The industry standard for no-air concrete as defined by the American Concrete Institute is concrete having less than 3% total air by volume.<sup>4</sup> Based on Defendant's representations, Plaintiff placed an order for a shipment of no-air concrete with an understanding that Defendant would provide concrete with 1.2% air by volume.<sup>5</sup>

On March 18, 2009, Defendant supplied 171 cubic yards of concrete that was identified as no-air concrete.<sup>6</sup> Plaintiff took delivery of the concrete and used it to create a slab for the floor of a new Walgreen's store.<sup>7</sup>

Plaintiff continued to work on the construction project after installing the concrete floor slab, but in September 2008 Plaintiff was informed by its general contractor that the concrete floor slab was delaminating.<sup>8</sup>

Plaintiff informed Defendant of the delamination on September 26, 2008, and Defendant responded that it would take care of the problem if air entrainment caused the delamination.<sup>9</sup> Plaintiff informed Defendant that

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<sup>2</sup> Tr. Ex. 1. Plaintiff was constructing a Walgreens facility. The air-entrained concrete would be used for foundations and the no-air concrete would be used to create a concrete slab for the floor of the facility.

<sup>3</sup> Tr. Ex. 3 & 4.

<sup>4</sup> Trans. of November 2, 2009 Trial at 15-16.

<sup>5</sup> Tr. Ex. 6.

<sup>6</sup> Op. Br. at 4 (citing Tr. Ex. 7).

<sup>7</sup> Trans. of November 2, 2009 Trial at 20, 26-27.

<sup>8</sup> *Id.* at 27.

<sup>9</sup> *Id.* at 30.

Plaintiff would attempt to recover damages from Defendant if Defendant had provided the incorrect concrete mix.<sup>10</sup>

Plaintiff retained engineering consultant, Duffield Associates, Inc. (“Duffield”), to drill and examine core samples from the slab to determine the cause of the delamination.<sup>11</sup> At trial, James Cloonan, P.E. testified on behalf of Duffield as an expert witness in evaluating concrete construction and opined that “[delamination] was pretty extensive throughout the concrete slab area.”<sup>12</sup> Mr. Cloonan stated that he obtained four representative core samples from the slab’s four different quadrants<sup>13</sup>, which Defendant admitted did not come from the same batch of concrete. These samples were sent to a sub-consultant, H.C. Nutting Company, Inc. (“Nutting”), so that the samples could be analyzed for the purpose of determining the air entrainment of the concrete.<sup>14</sup>

Mr. Cloonan testified that Nutting performed the required tests pursuant to industry standards and, in an effort to keep Mr. Cloonan’s report unbiased, Nutting was not provided with “any information regarding mix designs, pour conditions, curing practices, early age strengths, or construction procedures prior to conducting its testing.”<sup>15</sup>

Nutting determined that Core Sample One contained 4.7% total air and Core Sample Two contained 4.8% total air.<sup>16</sup> Nutting also conducted a visual inspection of the samples and noted that “the concrete was air-entrained based on the size and distribution of the air bubbles in the concrete.”<sup>17</sup>

Mr. Cloonan based his expert report in part on Nutting’s findings and gave an expert opinion within a reasonable degree of engineering certainty that the cause of the delamination was “because of trapped bleed water under the surface of the concrete[,]”<sup>18</sup> which was caused by the use of air-entrained concrete.<sup>19</sup> Mr. Cloonan further stated that when air is added to concrete by natural means, such as using water, the air will coalesce and leave the concrete; use of an air-entraining agent will trap the air inside of

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<sup>10</sup> Tr. Ex. 9.

<sup>11</sup> Trans. of November 2, 2009 Trial at 58-59.

<sup>12</sup> *Id.* at 60-61.

<sup>13</sup> These quadrants represented opposite ends of the floor.

<sup>14</sup> Trans. of November 2, 2009 Trial at 62-64.

<sup>15</sup> Tr. Ex. 10.

<sup>16</sup> Trans. of November 2, 2009 Trial at 67.

<sup>17</sup> Op. Br. at 5 (citing Trans. of November 2, 2009 Trial at 68).

<sup>18</sup> Trans. of November 2, 2009 Trial at 70-71.

<sup>19</sup> Tr. Ex. 10.

the concrete.<sup>20</sup> Mr. Cloonan stated that, based on the tests and observations of the concrete, he believed an air-entraining agent had been added.<sup>21</sup>

Defendant did not refute Nutting's findings or Mr. Cloonan's expert opinion. Instead, Defendant cross-examined Mr. Cloonan and Mr. Cloonan acknowledged that "[w]ater can add a small amount of air to concrete, but not entrained air."<sup>22</sup> Additionally, Mr. Miller, Defendant's representative, stated that air entrainment agents must be added to concrete to produce air-entrained concrete.<sup>23</sup> Mr. Miller testified that:

Q: Would the contractor adding water to the concrete at the job site change the slump?

A: Yes, it would.

Q: Would water being added by the contractor at the job site change the air content?

A: Yes, it would.<sup>24</sup>

Defendant also presented evidence of "batch tickets."<sup>25</sup> These computer generated batch tickets record the "ingredients" added by Defendant to the concrete mixture before the concrete is shipped.<sup>26</sup> Defendant's expert witness, Ted Massimiano, testified that batch tickets such as the ones produced in this case show whether an air-entrainment agent was added to the concrete mix.<sup>27</sup> Mr. Massimiano testified that review of the batch tickets indicated that no-air concrete had been loaded onto Defendant's delivery trucks.<sup>28</sup>

Mr. Miller testified that all manufacturing of concrete by Defendant is controlled by computer,<sup>29</sup> and Defendant's expert witness, Roy M. Gunter, a computer specialist, testified that the computer system "appeared" to be operating properly on March 18, 2008.<sup>30</sup> He further testified that the batch tickets would show whether the machine was working improperly.<sup>31</sup>

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<sup>20</sup> Trans. of November 2, 2009 Trial at 68-75.

<sup>21</sup> *Id.* at 68-69.

<sup>22</sup> *Id.* at 75.

<sup>23</sup> *Id.* at 82.

<sup>24</sup> *Id.* at 91.

<sup>25</sup> Tr. Ex. 8.

<sup>26</sup> Trans. of November 2, 2009 Trial at 121-23.

<sup>27</sup> *Id.*

<sup>28</sup> *Id.*

<sup>29</sup> *Id.* at 84.

<sup>30</sup> *Id.* at 108; Trial Ex. 8.

<sup>31</sup> Trans. of November 2, 2009 Trial at 114.

## DISCUSSION

The only issue before this Court is whether Defendant breached its contract with Plaintiff by delivering Plaintiff something other than the “no air concrete,” which Defendant expressly agreed to provide in the contract. This Court finds that Plaintiff has proven a breach of contract by a preponderance of the evidence.

In any breach of contract action, a plaintiff must prove each element by a preponderance of the evidence.<sup>32</sup>

Proof by a preponderance of the evidence means proof that something is more likely than not. It means that certain evidence, when compared to the evidence opposed to it, has the more convincing force and makes you believe that something is more likely true than not. Preponderance of the evidence does not depend on the number of witnesses. If the evidence on any particular point is evenly balanced, the party having the burden of proof has not proved that point by a preponderance of the evidence, and you must find against the party on that point.<sup>33</sup>

The elements that must be proven in any breach of contract action are: (1) a contractual obligation; (2) a breach of that obligation; and (3) damages resulting from said breach.<sup>34</sup> Both parties admit the existence of a contract, and the amount of damages resulting from a potential breach is undisputed. Thus, the only element in dispute is whether there was a breach of a contractual obligation.

Here, the Court finds that Plaintiff has proven a breach of a contractual obligation by a preponderance of the evidence. The contract called for Plaintiff to deliver “no-air” concrete. Specifically, the terms of the contract were for a no-air concrete mix with an air content of 1.2% air by volume.<sup>35</sup>

This Court concludes that Defendant failed to deliver acceptable no-air concrete. This Court finds the expert testimony of Mr. Cloonan credible and un rebutted. Mr. Cloonan testified that when air is added to concrete by natural means, such as using water, the air will coalesce and leave the concrete.<sup>36</sup> He also stated that the same result will not occur when an air-

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<sup>32</sup> *Patel v. Patel*, 2009 WL 427977, at \* 3 (Del. Super.).

<sup>33</sup> *Cuonzo v. Shore*, 2008 WL 193298, at \* 4 (Del. Super.) (citing DEL. P.J.I. CIV. § 4.1 (2000)).

<sup>34</sup> *Interim Healthcare, Inc. v. Spherion Corp.*, 884 A.2d 513, 548 (Del. Super. 2005).

<sup>35</sup> Tr. Ex. 6.

<sup>36</sup> Trans. of November 2, 2009 Trial at 68-75.

entraining agent is added.<sup>37</sup> Finally, Mr. Cloonan testified that based on Nutting's tests and observations of the concrete, he believed that an air-entraining agent had been added to the concrete used in the slab.<sup>38</sup>

Mr. Cloonan's expert testimony appears to directly rebut Defendant's theory of the case. Defendant contends that the proper concrete was delivered to the construction site and was improperly mixed with water upon arrival at the site.<sup>39</sup> In support of this theory, Mr. Miller testified that:

Q: Would the contractor adding water to the concrete at the job site change the slump?

A: Yes, it would.

Q: Would water being added by the contractor at the job site change the air content?

A: Yes, it would.<sup>40</sup>

Additionally, Mr. Massimiano testified that a review of the batch tickets indicated that no-air concrete had been loaded onto Defendant's delivery trucks.<sup>41</sup> Defendant also offered the testimony of expert witness, Roy M. Gunter, a computer specialist, who testified that there "appeared" to be no evidence of a computer malfunction.<sup>42</sup>

Despite Defendant's theory, Nutting's review of the concrete established that the concrete was air-entrained based on the "size and distribution of the air bubbles in the concrete."<sup>43</sup> Additionally, Mr. Cloonan explained that adding an air-entraining agent to the concrete would cause air to become trapped in the concrete and explains Nutting's observations and results.<sup>44</sup> Mr. Cloonan also testified that introducing water to the concrete would not cause the same testing results and observations identified by Nutting.<sup>45</sup>

Mr. Cloonan's expert opinion was unrefuted. Although Defendant had no obligation to present expert testimony, Defendant's theory that water added at the job site contributed to the test results was not supported by expert testimony, was rebutted by Mr. Cloonan, and was not supported by

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<sup>37</sup> *Id.* at 68-69.

<sup>38</sup> *Id.*

<sup>39</sup> *Id.* at 91.

<sup>40</sup> *Id.*

<sup>41</sup> *Id.*

<sup>42</sup> *Id.* at 108.

<sup>43</sup> Op. Br. at 5 (citing Trans. of November 2, 2009 Trial at 68).

<sup>44</sup> Trans. of November 2, 2009 Trial at 68-69.

<sup>45</sup> *Id.*

any facts. Thus, this Court is left with the unrefuted testimony of Mr. Cloonan as an explanation of why the floor delaminated.

Even though the computer batch tickets appear to establish that the concrete was no-air concrete, this Court ultimately finds the testimony of Mr. Cloonan more credible than the percentages displayed on the batch tickets. Although Roy Gunter testified that his review of the batch tickets showed that the computer system was working properly, he was not actually present when the trucks were loaded. In fact, Defendant did not call any witnesses who were present when the delivery trucks were loaded or were in charge of loading the trucks.

This Court ultimately accepts Mr. Cloonan's theory, based on scientific evidence, that an air-entraining agent was added to the concrete in violation of the contract, over Defendant's hypothetical alternative. Defendant presented testimony about how the computer system worked, but failed to produce any evidence, either direct or circumstantial, of what happened on the day when the delivery trucks were loaded with concrete. This Court will not speculate on that point.

Therefore, for all the reasons stated above, this Court finds that Defendant breached its contract with Plaintiff by failing to provide no-air concrete with 1.2% air by volume. Accordingly, Plaintiff is entitled to damages, the amount of which is undisputed, of \$63,623.26.

**IT IS SO ORDERED.**

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Richard R. Cooch

oc: Prothonotary