

## **Exhibit 1**

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

IN RE BEACON ASSOCIATES LITIGATION  This Document Relates to: ALL ACTIONS	No. 09 Civ. 0777 (LBS)
IN RE J.P. JEANNERET ASSOCIATES, INC., <i>et al.</i>  This Document Relates to: ALL ACTIONS	Case No. 09 Civ. 3907 (CM)
BOARD OF TRUSTEES OF THE BUFFALO LABORERS SECURITY FUND, WELFARE FUND AND WELFARE STAFF FUND, in their capacity as fiduciaries of the respective funds, individually and on behalf of all others similarly situated,  Plaintiffs,  v.  J.P. JEANNERET ASSOCIATES, INC., JOHN P. JEANNERET, PAUL L. PERRY and IVY ASSET MANAGEMENT CORPORATION,  Defendants.	No. 09 Civ. 8362 (LBS) (AJP)

SUPREME COURT OF THE STATE OF NEW YORK

COUNTY OF NEW YORK

DONNA M. McBRIDE, individually and derivatively on behalf of Beacon Associates LLC II,  Plaintiff,  v. KPMG INTERNATIONAL et al., -and- BEACON ASSOCIATES LLC II, Nominal Defendant.	Index No. 650632/2009E
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SUPREME COURT OF THE STATE OF NEW YORK  
COUNTY OF NASSAU

<p>JOEL SACHER and SUSAN SACHER, derivatively on behalf of BEACON ASSOCIATES LLC II, Plaintiffs, v. BEACON ASSOCIATES MANAGEMENT CORP. et al., Defendants, -and- BEACON ASSOCIATES LLC II, Nominal Defendant.</p>	Index No. 005424/2009
<p>CHARLES J. HECHT, derivatively on behalf of ANDOVER ASSOCIATES LLC I, Plaintiff, v. ANDOVER ASSOCIATES MANAGEMENT CORP. et al., Defendants, -and- ANDOVER ASSOCIATES LLC I, Nominal Defendant.</p>	Index No. 006110/2009
<p>THE JORDAN GROUP LLC, derivatively on behalf of BEACON ASSOCIATES LLC I, Plaintiff, v. BEACON ASSOCIATES MANAGEMENT CORP. et al., Defendants, -and- BEACON ASSOCIATES LLC I, Nominal Defendant.</p>	Index No. 003757/2011

**AFFIDAVIT OF LYNDA S BORUCKI OF THE BRATTLE GROUP IN SUPPORT  
OF FINAL APPROVAL OF THE PLAN OF ALLOCATION**

## I. INTRODUCTION

1. *The Brattle Group* (Brattle) was retained by Lead Counsel Lowey Dannenberg Cohen & Hart, P.C. (“Lowey Dannenberg”) and other Private Plaintiffs’ Counsel and worked with Lowey Dannenberg and other Private and Regulatory Counsel to provide an analysis of the allocation of settlement recoveries from Ivy Asset Management LLC (“Ivy”), J.P. Jeanneret Associates, Inc. (“JPJA”), and Beacon Associates Management Corp. (“BAMC”), plus certain individual Defendants, to investors in Beacon Associates (“Beacon”), The Master Income Plus Group Trust (“Income Plus”) and Andover Associates (“Andover”) funds, as well as direct investors in Madoff who had a Discretionary Investment Management Agreement with JPJA, collectively the “Investors.”
2. *The Brattle Group* is an international economic consultancy active in finance and litigation. The firm was founded in 1990 and has since grown to a staff size of about 200 people in Cambridge, Massachusetts, Washington, DC, San Francisco, London, Madrid, and Rome. Our professionals have advanced degrees and expertise in finance, economics, accounting, business administration, public policy and engineering. We bring this extensive knowledge and experience to the practice of assessing value in a wide range of assignments.
3. I am a financial economist and head of *The Brattle Group*’s finance practice. I have over twenty years of experience providing expert advice on the application of economics and finance to litigation and strategic engagements. My activities include detailed analysis of financial statements, estimation of losses and building financial models. A complete description of my qualifications and experience can be found in my resume, attached as Exhibit A.
4. This affidavit is designed to provide an overview of the work we performed, in conjunction with Lead Counsel Lowey Dannenberg Cohen & Hart, P.C. (“Lowey Dannenberg”) and other counsel, to obtain, analyze and verify all of the data used to formulate the Plan of Allocation. This affidavit concerns the work we performed to obtain, validate and audit all of the investment data for all class members, to inform the Plan of Allocation discussions and negotiations and to implement the Plan of Allocation as instructed by Lowey Dannenberg (in consultation with the DOL, NYAG, and other counsel). The remainder of

this affidavit is organized as follows. I first discuss the methodology and data underlying the allocation analysis. This is followed by the specifics of our analysis. I end with a discussion of the data verification and due diligence undertaken to validate the final allocation amounts.

## II. METHODOLOGY AND DATA

### A. METHODOLOGY

5. We were retained to calculate an allocation of the net settlement to each investor in dollars. In order to accomplish this objective, we worked closely with Lowey Dannenberg and all Plaintiffs' counsel. We provided data and calculations as counsel undertook a series of debates and discussions to make sure that the interests of all Class Members were vigorously, accurately and fairly represented.
6. We worked diligently with all Plaintiffs' counsel over the course of several months to craft the Plan of Allocation and verify the underlying data. This included many conference calls with counsel and numerous rounds of analysis of the underlying assumptions and calculations, which were provided to and discussed with counsel until an agreed-upon Plan of Allocation was crafted. Ultimately, the approach to calculating the investor level allocation was comprised of three steps:
  - *Step 1 - Calculate the Net Settlement Fund ("Net Settlement Fund"):* the Gross Settlement Fund of \$219,857,694, less payments to the Department of Labor and the New York Attorney General, and an estimate of projected attorneys' fees and expenses.
  - *Step 2 - Allocation of the Net Settlement Fund at the Fund or "Bucket" Level:* the Buckets are (a) Beacon, (b) Income Plus, (c) Andover and (d) the Direct Investors.
  - *Step 3 - Allocation of the Bucket Level Settlement Share to Investors within Each Bucket:* this step takes the dollars allocated to each Bucket, and allocates them to each investor in the Bucket based on a *pro-rata* share of their "net loss."

7. We competed for this work both on our qualifications and with a cap on our initial budget. We were directed to be responsive and accessible to all counsel. From May 8, 2012, to November 30, 2012, we worked a total of 593.75 hours. This included numerous conference calls and emails with various Plaintiffs' counsel. Our instructions were to field questions from all counsel who were parties to the Settlement and perform calculations that would inform the negotiations as requested. Our work up until the May 30, 2012 mediation session between and among Plaintiffs and their counsel and the DOL and NYAG (with JAMS mediator David Geronemus), which we have termed Phase 1, focused on allocation at the fund or Bucket level. The work we performed after May 30, 2012 (Phase 2) focused on allocation at the investor level.
8. The loss method employed is the "money-in-money-out" approach. It is also known as the "net investment" or "net equity" method. This approach calculates a fund's or direct investor's claimable loss as principal investment less life-time distributions. Time-value-of-money issues are addressed below.

#### B. DATA

9. In order to calculate net investment we obtained contribution and withdrawal data by month at the Bucket and investor level. Contributions and withdrawals directly to and from Madoff by Beacon, Income Plus, and Andover were obtained from documents produced in discovery. Similarly, for the Direct Investors, we received each Direct Investors' contributions to and withdrawals from Madoff by month from documents produced in the litigation.
10. For the Direct Investors, net investment is calculated separately and then aggregated up to create the net investment for the Direct Investor Bucket.
11. Data for investors in Beacon, Income Plus and Andover (the "Funds") were obtained in native Excel format. We received a separate file for each year which contained the contributions and withdrawals by month for each investor in a Fund. For Beacon, we received separate Excel files for Beacon I and Beacon II. For purposes of our analysis we aggregated all the data and created a single Beacon file.

12. To the extent any of Plaintiffs' counsel had any concerns about the contribution and withdrawal data in the native files, these issues were raised directly with me. We requested documentation for any change from the data provided in the native Excel files.
13. A challenging aspect of our analysis was dealing with investor name modifications over time. This might sound easy, but funds merged, split and changed names and the account records had to be tracked through these incarnations over this very long time period. For example, investor account names may have changed through time, investor names could be spelled slightly differently from one year to another, or there may have been transfers from one investor to another. Brattle spent over six weeks working through various such issues with Plaintiffs' counsel with respect to all investors, and directly with the current CFO and COO of the Beacon-Andover Group for the Beacon and Andover Funds.
14. Beacon and Andover had roughly 650 investors at the end of December 2008. Thus, data validation and name mapping was time-consuming. For Beacon and Andover, the assistance of the current CFO and COO of the Beacon-Andover Group was invaluable for ensuring the accuracy of our data. The current Beacon-Andover Group has its own set of records and analysis tracking contributions and distributions.<sup>1</sup> My team spent considerable time with the Beacon-Andover Group team validating the data for the Beacon/Andover investors, checking names and investor mappings. I note that our work served as a check on their analysis as well as vice versa. By contrast, for Income Plus and Direct investors (which were fewer in number than Beacon and Andover), Plaintiffs' counsel had documentation to validate any name changes or discrepancy in contribution and withdrawal data based on their records.
15. Our analysis of the data included insuring that "excluded persons," as defined in the Stipulation of Settlement, were not allocated a portion of the settlement. Specifically, our analysis tracks defendants Danziger and Markhoff and their wives as well as Sandra Simon. We separately tracked family members of Defendants (other than spouses) as they are allowed to submit a proof of claim.

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<sup>1</sup> Since these two funds, as well as Income Plus are still in existence, they still need administrative oversight.

16. The data we received included investors who closed their accounts prior to December 2008. Any closed accounts that did not re-open prior to December 2008, were excluded from receiving any share of the settlement. Investors who closed their account, and then re-opened it prior to December 2008, were treated as if their account was never closed. Thus, contributions and withdrawals were tracked from the very first investment into a fund, as opposed to just when it was re-opened.
17. The Phase 2 analysis incorporated information on distributions made by Beacon, Andover, and Income Plus to investors in their Funds following disclosure of the Madoff Ponzi scheme (“Post-Disclosure Distributions”). These monies remained in the Funds after disclosure of the Madoff Ponzi scheme because Beacon, Andover and Income Plus were not 100% invested in Madoff as of December 11, 2008. Thus, any non-Madoff investments were available to be returned to the existing investors as the Funds wound down. The Beacon investors received distributions on August 25, 2010 and September 29, 2010. The Andover investors received distributions on August 25, 2010 and October 13, 2010. Income Plus investors received a distribution in April 2009.

### **III. PHASE 1 ANALYSIS**

#### **A. CALCULATION OF NET SETTLEMENT FUND**

18. In Phase 1, the Net Settlement Fund was calculated as the Gross Settlement Fund of \$219,857,694, less the DOL payment, the New York Attorney General payment, and projected expenses and attorneys' fees. In Phase 1, allocation of the Net Settlement Fund at the Bucket level is based on a pro-rata share of the Bucket's net investment.
19. Allocation at the Bucket level recognizes that the Beacon recovery of \$6,857,694 is appropriately allocated only to Beacon investors. That figure is adjusted to reflect a pro-rata share of Phase 1 fees and expenses. Similarly, the analysis recognizes that the \$3,000,000 Jeanneret recovery will be allocated only to investors who had Discretionary Investment Management Agreements with JPJA.
20. Each Investor's net investment was calculated as contributions to Madoff less withdrawals from Madoff (either directly or through one of the Funds).

21. Various time value of money sensitivities were considered, to analyze the impact of various opportunity cost sensitivities on the overall plan of allocation.
22. We also considered various sensitivities to the treatment of the SIPC Trustee's claw-back claims against the Beacon and Andover Funds, and the impact of that analysis on the amount which the Beacon and Andover Funds (and their investors) lost as a result of the Madoff Ponzi scheme—*i.e.* if the Beacon and Andover Funds were forced to pay the Trustee money that would otherwise be distributed to Beacon and investors (out of non-Madoff defrauded assets) it would increase the amount of losses suffered by the Beacon and Andover investors, and also increase the amount by which the Beacon and Andover Funds could seek to recover from the monies recovered by the SIPC Trustee for distribution to all Madoff investors. Case sensitivities included (1) not adding any of the approximately \$28.3 million claw-back amount to the Beacon/Andover net investment; (2) adding 40% of the \$28.3 million to the Beacon/Andover net investment; and (3) adding 100% of the \$28.3 million to the Beacon/Andover net investment.
23. Finally, we also looked at sensitivities to the inclusion of SIPC recoveries at the Bucket level—\$500,000 each for Beacon, Andover and Income Plus, and \$8,400,000 million for the direct investors (\$500,000 for each of 16 direct investors, and \$400,000 for one direct investor). The two scenarios were either with SIPC recovery or without.
24. As described herein, this resulted in **42** different scenarios:
  - seven interest rate scenarios;
  - three Beacon/Andover claw back scenarios; and
  - two SIPC recovery scenarios.

After carefully analyzing these scenarios, we discussed them at length with Private Plaintiffs' Counsel and the Regulators. Then, Private Plaintiffs' Counsel and the Regulators discussed these matters among themselves and negotiated these issues to resolution, as reflected in the Plan of Allocation.

25. The NYAG requested that the allocation should make the funds whole (including an assumed projected recovery from the Bankruptcy Trustee of 60% of net dollars invested

with Madoff) before allocating any of the settlement dollars using a time value of money component.

26. Thus, the allocation at the Bucket level was modified so that the dollar recovery to each fund was calculated as a fixed amount and then a variable portion that changed relative to the time value of money. The fixed portion was equal to the Bucket's total net investment times 40%. This assumes a 60% of net dollars lost recovery from the Bankruptcy Trustee. The variable portion equaled the Bucket's total *pro rata* allocation based on net investment (with or without time value of money) of the residual amount of the net settlement. The residual is the Net Settlement Fund less the sum of the fixed amounts allocated to each fund.

#### **B. ALLOCATION AT THE INVESTOR LEVEL**

27. Distribution within a Bucket, at the investor level, was based on a *pro-rata* share of the total net investment for the Bucket. So for example, if the total net investment for a Bucket was \$100 million, and Investor A had a net investment of \$1.5 million in the investment relevant to that Bucket, that investor would be allocated 1.5% of the amount of the Net Settlement Fund allocated to that Bucket.
28. The time value of money interest rate scenarios discussed above were also applied at the investor level on a pro rata basis when calculating net investment. SIPC and the Beacon/Andover claw back amounts were not passed down to the investor level when calculating net investment in Phase 1.
29. Investors with a negative net investment, where withdrawals exceeded contributions, did not receive an allocation from the Bucket's share of the Net Settlement Fund. Excluded Persons, such as Individual Defendants, also did not receive an allocation from the Bucket's share of the Net Settlement Fund.

#### **IV. PHASE 2 ANALYSIS**

30. Phase 2 of our analysis relied on the outcome of the May 30, 2012 mediation. It focused on allocation at the investor level.

**A. CALCULATION OF NET SETTLEMENT FUND AT THE FUND OR BUCKET LEVEL**

31. At the May 30, 2012 mediation and based on subsequent negotiations thereafter, it was agreed that, for purposes of calculating the amount of attorneys' fees which Private Plaintiffs' Counsel would seek, the NYAG and DOL payments plus an additional \$4,000,000 would first be deducted, and Private Plaintiffs' Counsel would seek 20% of the balance. Thus, Private Plaintiffs' Counsel's projected attorneys' fees were calculated as \$40,771,539 (\$219,847,694 less the NYAG and DOL payments and an additional \$4,000,000 on which Private Plaintiffs' Counsel will not be seeking fees, multiplied by 20%).
32. Once the attorneys' fees were calculated, \$250,000 was set aside for the "expense fund" for payment of settlement administration and plan of allocation expenses. General litigation expenses were estimated at \$2,000,000. Allocation of these expenses is discussed in section IV.B. below.
33. Based on these amounts, the Net Settlement Fund was estimated at \$164,836,155. It was further agreed that approximately 1.2% (\$2.65 million) of the total settlement amount, would be allocated to Investors Recovering Only Opportunity Cost Payments. This left \$162,186,155 (\$164,186,155 before \$2,000,000 in expenses) as the Net Settlement Fund to be allocated to the four Buckets. Table 1 shows this calculation.

**Table 1**  
**Net Settlement Fund Calculation**  
**Based on Terms of Mediations**

[1]	Gross Settlement Fund	219,857,694
[2]	Department of Labor Payment	11,000,000
[3]	New York Attorney General Payment	5,000,000
[4]	<b>Sub-Total - For Attorneys' Fees</b>	203,857,694
[5]	Attorneys' Fees at 20%	40,771,539
[6]	Expense Fund	250,000
[7]	<b>Sub-Total Net Settlement Fund</b>	162,836,155
[8]	\$4 million on which counsel will not seek fees	4,000,000
[9]	Less Expenses	2,000,000
[10]	<b>Sub-Total Net Settlement Fund</b>	164,836,155
[11]	Settlement for Opportunity Cost Investors	2,650,000
[12]	<b>Net Settlement Fund - Post-Expenses</b>	162,186,155
[13]	<b>Net Settlement Fund - Pre-Expenses</b>	164,186,155

- 34. The Hartman plaintiffs will separately pay their attorneys' expenses and are not sharing in the allocation of the litigation expenses of Class Counsel and other counsel. The Hartman plaintiffs are in both the Income Plus and Direct Investor Buckets. Thus we had to come up with an alternative way to allocate the expenses across the funds besides the percentages cited in the paragraph above. The method we used was to re-calculate at the Bucket level the net investment into Madoff by netting out the share of the net investment allocated to the Hartman plaintiffs. This calculation resulted in an expense allocation as follows: \$1,519,296 to the Beacon fund, \$114,293 to Income Plus, \$56,969 to Andover and \$309,442 to the Direct Investors.
- 35. The May 30, 2012 mediation and subsequent discussions resulted in an agreed upon allocation of the Net Settlement Fund, at the Fund level, to the four Buckets and the

Investors Recovering Only Opportunity Cost Payments, as set forth in the Plan of Allocation.<sup>2</sup>

#### **B. ALLOCATION AT THE INVESTOR LEVEL**

36. In Phase 2, net investment includes two additional components, post-disclosure distributions and an allocation of the SIPC advance. Thus, net investment is calculated as contributions less withdrawals into the Bucket, less any post-disclosure distributions as of November 28, 2012, less any allocation of the SIPC advance. As discussed above in the section describing the data, Beacon, Andover and Income Plus distributed cash to fund investors as the fund is winding down. The Direct Investors did not receive any post-disclosure distributions as they were 100% invested in Madoff.
37. The net investment figures did not include any time value of money component in Phase 2.
38. For Beacon, Andover and Income Plus investors, the \$500,000 SIPC recovery was allocated based on a pro-rata share of the total net investment (prior to deducting SIPC), summed across all investors in the fund. The total excludes any investors with negative net investment (where contributions plus distributions exceed withdrawals) and individual defendants.

#### **C. NET OPPORTUNITY COST INVESTORS**

39. As noted above, approximately 1.2 % (\$2,650,000) of the total settlement amount would be allocated to Investors Recovering Only Opportunity Cost Payments.

#### **V. DATA VERIFICATION AND DUE DILIGENCE**

40. We have continually sought to verify and audit all information to ensure that the underlying data is as accurate as possible. We have utilized information produced in discovery, had access to all counsel, and cross-checked our data and calculations with various parties. As a

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<sup>2</sup> The net investment at the Bucket level included current data on the Beacon Andover claw-back of \$24,250,000, split \$21,543,183 to Beacon and \$2,706,817 to Andover. The assumptions regarding percent invested in Madoff were 74% for Beacon, 33.6% for Income Plus, 26.10% for Andover and 100% for the Direct Investors.

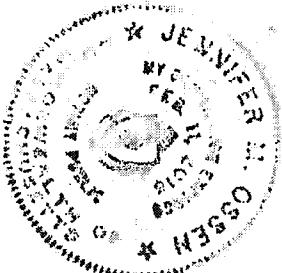
last precaution, the proof of claim form will provide the data to Class Members to verify that their net investments (total deposits less total withdrawals) are accurately reflected.

41. Based on all the work we performed, I believe that the information we have compiled and used in our work is accurate and complete, and that the Plan of Allocation reflects a fair, reasonable and accurate allocation of the Net Settlement Fund to the Investors in each of the four Buckets.

I hereby declare under penalty of perjury that the foregoing is true and correct.

Sworn to before me this  
21<sup>st</sup> day of December 2012  
  
Notary Public

Lynda S. Borucki  
LYNDA S. BORUCKI



# EXHIBIT A

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**LYNDA S. BORUCKI**

**Principal**

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**Lynda Borucki** is a financial economist and head of *The Brattle Group*'s finance practice. She has twenty years of experience providing advice and developing expert testimony on the application of corporate finance and economics in both litigation and strategic engagements. Her background includes a wide range of assignments for the banking, electric, insurance, natural gas, oil, pharmaceutical and telecommunications industries. Her projects have included the development and critique of damage claims, development and critique of causation claims, the valuation of assets, businesses and securities, cost of capital/discount rate estimation, and the evaluation of complex structured finance transactions.

She has been a consulting expert to clients named in securities litigation matters and has led large teams supporting multiple academics in some of the most recent high profile fraud cases. This work involved estimation of damages in securities class actions where she evaluated both defendant and plaintiff damages analyses, evaluation of market efficiency in the bond market, evaluation and determination of loss causation in securities class actions, and analysis of causation issues and estimation of damages in the associated bankruptcy and state matters. Ms. Borucki has also been retained as an expert witness on various finance matters relating to liability issues and damages. She has been a lead speaker at the Law Seminars International Conference on "Estimating Damages in Securities Litigation." For the past five years she has spoken at the Accountants' Liability conference on causation, class certification and damages issues.

During her tenure at *The Brattle Group*, she has collaborated over several years with financial expert Professor Stewart C. Myers, co-author of the leading graduate textbook on corporate finance. Prior to joining *The Brattle Group*, Ms. Borucki was an Associate with Putnam, Hayes and Bartlett, Inc. She also taught economics at the Kellogg Graduate School of Management at Northwestern University. She has a bachelor's degree from the University of Wisconsin-Madison in Math and Economics and a graduate degree in Managerial Economics and Decisions Sciences from the Kellogg Graduate School of Management at Northwestern University.

## REPRESENTATIVE CONSULTING EXPERIENCE

- ◆ *Commercial Litigation/Business Damages:* Development of expert testimony, testifying expert and general litigation support on cases involving securities act violations, class actions, bankruptcy, breach of contract, causation, fraud, corporate acquisitions/contested mergers, tax disputes and tortious interference. These engagements involved the analysis of complex structured finance structures, analysis of risk management strategies, development of sophisticated valuation models and statistical data analysis.
- ◆ *Finance:* General consulting, studies and the development of expert testimony on asset valuation, capital structure, capital budgeting, cost of capital estimation, profitability, risk management strategies and transfer pricing.
- ◆ *Regulation:* General consulting, studies and the development of expert testimony on issues surrounding the restructuring and deregulation of the electric power industry, including asset valuation, market price forecasting, valuation of purchase power option contracts, stranded cost recovery and the impact of restructuring on generation and fuel use. Her consulting in regulation has also included the development of restructuring plans, examination of risk compensation in a regulatory setting, rate design, design and pricing for insurance in a regulated setting, evaluation of costs and benefits of attempted mergers, bankruptcies, evaluation of pollution control strategies and time-of-day pricing analysis.

## EXPERIENCE

- Ms. Borucki was retained to critique the valuation of an on-line gaming company. She was also retained to provide advice on other financial analysis for use in an ability to pay analysis with the Government.
- In *Akamai Technologies, Inc. and Akamai Securities Corporation v. Deutsche Bank Ag*, Ms. Borucki was retained as an expert to opine on damages related issues to purchases of auction rate securities. The case was settled prior to the start of the arbitration.
- Ms. Borucki was part of a team providing testimony on the economic damages resulting from allegations that a billing system was not implemented per the specifications of the contract. The matter was litigated in UK courts.
- Ms. Borucki was part of a team assisting the DOJ to evaluate the ability of a mining company to pay for a large environmental settlement. The analysis included modeling of alternative settlement scenarios, which included warrants. Our analysis included the valuation of the warrants as well as evaluating the companies financial model..

- Ms. Borucki was the consulting expert on behalf a Deutsche Bank seeking insurance recovery for settlements related to a large securities/fraud dispute. She directed analysis to assess the reasonableness of the settlements. The project included review and in some cases calculation of damages.
- ◆ *In re MBIA Inc. Securities Litigation* Ms. Borucki was retained as a consulting expert to estimate 10(b)-5 damages. Ms. Borucki participated in the mediation talks. The event study analysis included use of sophisticated modeling techniques to control for intra-day effects and issues arising from the credit crisis. The case settled successfully for her client.
- ◆ Ms. Borucki was retained as a expert to estimate 10(b)-5 damages for a mediation on behalf of Quest Resource Corporation for an oil and gas company. The case settled favorably for her client.
- In a bankruptcy arising out of an LBO, Ms. Borucki led a team that was retained by the lender to investigate the solvency of the entity taken private.
- ◆ Ms. Borucki was retained as an expert to opine on the underlying economics of a business structure..
- ◆ On behalf of AstraZeneca Ms. Borucki lead a team to estimate the value of several drugs of a pharmaceutical company in a transfer pricing matter.
- ◆ *In re Refco Capital Markets, LTD. Brokerage Customer Securities Litigation*, on behalf of Ernst & Young,Ms. Borucki was retained as a consulting expert on but-for and proximate causation issues, deepening insolvency damages, and general damages on behalf of a large accounting firm. The litigation arose due to fraud and eventually bankruptcy of a large broker dealer.
- ◆ In a shareholder class action Ms. Borucki was retained to provide assistance developing a complaint against a failed financial institution for allegations of 10(b)-5 violations.
- ◆ In a bankruptcy matter, *In re Adelphia Communications Corp., et al., v. Motorola, Inc. et al.* Ad alleging fraud from a series of alleged “wash” transactions, she supported a corporate finance professor to determine if the transactions caused harm to the creditors, estate and shareholders.
- ◆ On behalf of an investor in a failed hedge fund that invested largely in ABS CDOs and CDO-squareds, Ms. Borucki led a team to analyze the performance of the portfolio broadly, the hedging strategy and the valuation of the assets.
- ◆ On behalf of an Australian property trust, Ms. Borucki was retained to provide expert advice on the quantum of damages related to a securities lawsuit by a class of shareholders arising from a misrepresentation regarding current liabilities. The evolving credit crisis was critical to evaluating the underlying potential damage over time. Damages were calculated comparable to those in U.S. 10(b)-5 cases.
- ◆ Ms. Borucki led a team providing expert consulting and supporting an academic to evaluate tax accounting issues arising from a securities class action against a firm in the reinsurance business.

- ◆ On an options backdating matter, Ms. Borucki provided expert consulting to estimate damages and potential settlement amounts arising from a 10(b)-5 securities violation. She also provided advice on the potential range of settlements. The case settled favorably for her client.
- ◆ Ms. Borucki was retained as a testifying expert to estimate damages arising from a breach of contract claim against an auditor for an emerging company. The case settled.
- ◆ Ms. Borucki was retained as a consulting expert to provide advice on the potential damages and loss causation issues related to a 10(b)-5 claim. The client was looking for assistance in support of writing their amended complaint. The case was in the computer industry.
- ◆ Ms. Borucki was retained as an expert to estimate the expected settlement to shareholders in a 10(b)-5 securities class action for a company emerging from bankruptcy. As part of this engagement she also worked with an academic to develop expert testimony on the use of rights offerings for a company coming out of bankruptcy.
- ◆ Ms. Borucki worked with an academic to provide expert testimony in an international arbitration addressing issues of piercing the corporate veil.
- ◆ On behalf of Bank of America in the Parmalat litigation, Ms. Borucki heads a team providing expert consulting and manages four experts for a large securities fraud case involving issues of damages, bank credit policies, valuation of IPOs, “deepening insolvency”, and structured financing for international corporations. Critical issues related to the pricing of the loans and political risk for Latin American countries.
- ◆ On behalf of Deutsche Bank in the Enron securities and Bankruptcy litigation, Ms. Borucki led a team providing expert consulting and expert testimony on damages in the Enron securities and bankruptcy litigation. The matter involved accounting fraud and tax issues. The team included six expert witnesses over the course of the engagement. The team estimated damages for violations of 10b-5, Section 11, Section 12 and state securities laws. Damages in a related bankruptcy suit were also calculated as the company declared bankruptcy in conjunction with the disclosure of the fraud. The assignment has included analysis and testimony for class certification and causation. Both equity and bond securities were analyzed.
- ◆ Provided expert testimony on damages on behalf of a plaintiff in a bankruptcy matter relating to the value of a lost opportunity in the energy industry. Required power plant valuation and assessment of ability to build and finance a power plant.
- ◆ Provided expert testimony on the damages to a plaintiff in a bankruptcy issue. Damages arose from the value of lost time and out of pocket costs.
- ◆ Provided expert testimony on behalf of a creditor in a recharacterization matter. Analysis involved differentiating debt and equity claims.

- ◆ For a large publicly traded telecommunications company alleged to have violated federal securities laws due to accounting fraud, Ms. Borucki was part of a team which examined the revenue recognition accounting principles followed by the firm. Ms. Borucki also provided analysis of the cost of capital, developed a valuation model and performed statistical analysis of the cost structure of telecommunication's companies and how it evolved over time.
- ◆ Led a team that developed a valuation model for the pharmaceutical industry. The model was used to evaluate transfer prices used by the drug company. The analysis was used for litigation in a tax related matter.
- ◆ In a potential securities class action arising from alleged market manipulation, Ms. Borucki provided expert advice to counsel on the range of damages to plaintiffs.
- ◆ On behalf of the Department of Justice, Ms. Borucki lead two teams two develop expert testimony for a tax dispute with a large international financial institution. At issue was the appropriate capital requirement for the entity and whether the interest rates paid on inter-branch transactions were at arm's-length.
- ◆ For a cost of capital proceeding in Canada, Ms. Borucki provided analysis of Canadian income trusts including an examination of their rate of return. .
- ◆ The U.S. Supreme Court ruled in 1996 that certain provisions of the Financial Institutions Reform and Recovery Act (FIRREA) constituted a breach of contract by the U.S. government. As a result, 120 damage suits were filed with the U.S. Court of Claims. Over the last five years, Ms. Borucki has assisted in the preparation of expert testimony on behalf of four "Winstar" Plaintiffs. She has managed several project teams which undertook extensive analysis to estimate damages and to provide litigation support for the attorneys. Ms. Borucki served as the non-testifying expert as well as managed the economic analysis for the expert witnesses in these matters. Many alternative damage theories were considered for the cases, reliance, restitution, lost profits/expectancy and mitigation. These analyses required building complex financial models as well as rigorous analysis of thrift financial data and understanding of thrift activities like securitization. Ms. Borucki provided expert consulting to the attorneys in bringing three of these cases to trial. Two recent decisions in these matters have returned damages of \$300 and \$134 million, exactly the damages estimate put forth, to the benefit of her client.
- ◆ On behalf of a large, publicly held company in the energy sector involved in a breach of contract associated with an aborted merger, Ms. Borucki was one of the team leaders involved in developing case theory and analyses revolving around forensic accounting and financial contracting issues for the purposes of developing damage estimates. Her focus was to examine the change in market value of the parties, and consider the potential impact of announcements on the stock prices at various points in time. She relied extensively on event study analysis using daily as well as tick, intra-day trading data. Damages under 10b-5 violations were estimated.

- ◆ In a large class action against a tire manufacturer accused of fraudulent concealment and breach of warranty, Ms. Borucki managed the analysis on behalf of the Plaintiff to address the financial and physical capacity of the Defendant to pay damages attributed to the misrepresentation. The analysis included an in depth examination of the tire industry and a solvency analysis of the Defendant and its parent.
- ◆ In a class action suit against a large computer company alleged to have violated rule 10b-5 and section 11 of the Securities Exchange act, Ms. Borucki managed the identification of three experts and development of their expert testimony. The expert testimony addressed liability issues on behalf of the Plaintiff on topics including, executive compensation, computer technology development, and the impact of the Asian crisis on company performance and stock prices. A critical issue in this analysis was the timing of market information relative to the stock price performance of the defendant.
- ◆ Ms. Borucki was part of a small team that provided an assessment and recommendation on the appropriate hedging strategy for an international company with a meat processing company in Venezuela. Ms. Borucki managed the analysis which examined purchasing power parity and the cost and benefits of alternative strategies to hedge the company's cash flows from inflation in the Venezuelan Bolivar.
- ◆ Ms. Borucki provided expert consulting on behalf of the plaintiff to estimate damages resulting from the breach of an acquisition agreement in the telecommunications industry. Ms. Borucki managed the development of the expert's damages analysis. The analysis included event studies and the examination of alternative long-range cash flows. The case settled for \$175 million.
- ◆ Ms. Borucki was part of team that developed techniques for estimating discount rates for unregulated electric generation. This engagement relied on modern financial techniques on forward data to estimate key beta parameters.
- ◆ Ms. Borucki managed a project team on an effort to evaluate potential damages for a large producer of commercial satellites accused of breach of contract. The analysis required building a financial model to assess the impact of varying assumptions about market size, price of the product, and potential substitutes for the product.
- ◆ Ms. Borucki was retained to provide expert testimony to estimate damages in a breach of contract matter. The case involved a dispute between a large integrated electric company and a small provider of power. Several alternative measures of damages, including mitigation, reliance, and lost profits were considered. The case settled prior to testifying.
- ◆ For a contested acquisition in the industrial valve industry with allegations of tortious interference, Ms. Borucki managed the team and the development of the expert testimony to estimate damages on behalf of the Plaintiff. The analysis involved development of but-for financial statements for purposes of valuation under alternative merger cost savings assumptions, forgone value, and estimation of the appropriate discount rate.

- ◆ For two hedge funds, Ms. Borucki provided expert consulting on the valuation of certain portfolios of power plants across the nation. She was also engaged to provide general background on the power industry and on the importance of certain regulatory actions to plant valuation.
- ◆ For a large publicly traded energy company, Ms. Borucki managed the development of expert testimony to analyze a proposed plan of reorganization from the viewpoint of modern finance, and to determine the financial and economic effects of the plan on the public interest. A key part of this analysis was the assessment of the financial impact of financial distress and bankruptcy on the company. This analysis was completed using event study techniques.
- ◆ As part of an on going body of EPRI research to understand the impact of restructuring on generation and fuel use patterns, completed a study of the New England Power Pool and ERCOT regions to assess the impacts of competitive entry. The study required extensive modeling of the market regions under alternative capacity entry scenarios. A comprehensive viability assessment was made of the plants under the different scenarios to determine likely candidates for retirement. The market price forecasting tool used to complete this analysis was IREMM (Inter-Regional Electric Market Model). IREMM is a tool designed to analyze dynamic bulk power markets.
- ◆ Ms. Borucki was part of a large team that assisted a telecommunications company in evaluating alternative contracting techniques to handle the unique features of operating in emerging markets. The engagement required extensive analysis of group structure and risks in emerging markets, project financing, and financial modeling of a wireless business.
- ◆ Ms. Borucki valued a proposed subordinated fuel contract for a natural gas producer that was contemplating being the fuel manager for a proposed merchant plant in the southwest. The analysis required assessing the market revenues to the plant in the competitive market, the plants capacity factor and likely payoff to the fuel manager.
- ◆ For the National Rural Utilities Cooperative Finance Corporation, Ms. Borucki managed the preparation of testimony and analysis to recommend a value for a borrowing Cooperative's acquisition of a coal power plant in Utah. The analysis looked at book and market values as well as comparable deals recently transacted in the U.S. In addition, the testimony explained the relationship between FERC's traditional ratemaking and the traditional ratemaking of cooperatives.
- ◆ Ms. Borucki estimated the option value associated with expanding capacity at an existing facility with a 500 megawatt natural gas plant. Our client was interested in the change in the expected purchase price of several generation assets if a condition of the sale was to force the buyer to build a gas plant in the next four years. The estimate we obtained was adopted for use in an arbitration settlement.
- ◆ Asset valuation of electric generating stations using advanced financial modeling tools such as real options. This work involved estimating the premium associated with managerial flexibility over the traditional discounted cash flow value of the asset. The sources of value examined included the options to retire early and forego future fixed operations and maintenance expenses and to mothball

a facility in anticipation of more profitable economic conditions in the future. The client for the assignment was a major independent power producer.

- ◆ For a large electric utility in the Southeastern U.S. evaluated how option pricing techniques could be applied to the valuation of R&D projects in order to enhance their current procedures, which relied on discounted cash flow (DCF) and decision tree analysis.
- ◆ Ms. Borucki co-managed a team assessing strategic opportunities and risks for a Midwestern combination utility evaluating both industry restructuring and a specific merger proposal. The assignment included: (1) conducting a benchmark analysis to quantify the client's strengths and weaknesses by lines of business relative to immediate competitors and the region as a whole; (2) simulating the regional generation market to forecast likely competitive market prices and their sensitivity to factors such as nuclear outages and changes in transmission constraints; (3) valuing the utility and its potential merger partner on both a scenario-specific and business-segment-specific basis; and (4) simulating alternative business strategies' impacts on the company's earnings and overall financial performance.
- ◆ For a large industrial user of electricity, Ms. Borucki has been part of a team estimating the market price of electricity for the ECAR and MAIN regions.
- ◆ Ms. Borucki was part of a *Brattle Group* team assisting in the restructuring of a cooperative utility close to bankruptcy. The assignment involved, rate-redesign, review of reasonableness of financial model assumptions, drafting of contracts for power purchases, transmission, and ancillary services, and development of open-access transmission tariffs in a lease-buyback and power marketing arrangement. The assignment also included the development of a stand-alone restructuring proposal that involved organizational and financial restructuring, rate concessions to customers, renegotiation of above-market fuel contracts, and a sale-leaseback arrangements for a major generation asset. The proposal was presented to the utility's board and creditors, and was selected as one of two finalists in the restructuring process. Most recently she has assisted in drafting the testimony on these issues for the rate case as well as for the restructuring plan.
- ◆ For an EPRI-GRI joint research venture, Ms. Borucki was part of a team that examined the impact of electric utility restructuring on fuel use. Key to this analysis was the development of a new framework to examine the impact of key drivers that were traditionally taken as given in the models used today, such as Pro Mod. The assignment involved developing a broad understanding of each of the nine NERC regions, their interaction with each other and how restructuring is likely to play out in each of the regions.
- ◆ Ms. Borucki was part of a team to estimate the cost of capital for the unbundled components of an electric utility, transmission, distribution and generation. The project involved examination and analysis of the UK industry (specifically estimation of the cost of capital for the different players), estimation of the cost of capital analysis of the utilities overall existing cost of capital, and an understanding of how restructuring historically has affected the industry participant's required rate of return.

- ◆ For a large New England utility, Ms. Borucki analyzed the impacts of industry restructuring/deregulation on the industry participant's required rate of return. Historical evidence from the telecommunications industry, natural gas pipelines and natural gas distribution companies was examined. Ms. Borucki drafted the report, supervised the empirical analyses supporting the report, and gave oral presentations of the results to the clients on a number of occasions.
- ◆ For a utility in a hostile take-over attempt, Ms. Borucki was part of the team quantifying the implications of stranded assets for both the target and acquiring utility. The assignment involved plant-by-plant modeling of revenue requirements, the refinement of a regional generation model to forecast competitive market prices for power, and the valuation of potentially stranded regulatory assets. Total shareholder exposure was then analyzed under various deregulation and cost-recovery scenarios. The analysis showed that the value of the merger offer was significantly reduced by high stranded asset exposure of the acquiring utility.
- ◆ Ms. Borucki was part of a team that assisted a utility in the development of valuation models for comparing the asking prices to fair market values for option contracts. In addition, she helped the client develop estimates of the critical option valuation parameters, such as trend, volatility, and correlations of the future prices of electric power and the various fuel indexes proposed for pricing the optional power.
- ◆ For a large utility interested in estimating the costs associated with the Public Utilities Holding Companies (PUHCA) Act, Ms. Borucki conducted interviews with top management of several utilities to discuss strategies that the company wanted to pursue, with particular interest in those that it was not able to pursue or with limitations because of PUHCA. She also estimated the administrative costs associated with PUHCA compliance.
- ◆ For several engagements, Ms. Borucki managed the development of expert testimony in the estimation of the cost of capital for regulated, integrated electric companies, cable companies, natural gas companies, and electric distribution companies.

## **EDUCATION**

She received a B.A. in math and economics with honors from the University of Wisconsin-Madison, and an M.S. and Ph.D. (A.B.D.) in Managerial Economics and Decision Sciences from the Kellogg Graduate School of Management at Northwestern University. Her Ph.D. thesis topic was on "Asymmetric Information and the Choice of Incorporation: Public or Private?"

## **HONORS AND AWARDS**

- ◆ University Fellowship to Northwestern University
- ◆ Phi Beta Kappa
- ◆ Phi Kappa Phi (Honor Society)
- ◆ Omicron Delta Epsilon (Economics Honor Society)

- ◆ Crucible (Women's Honor Society)
- ◆ Vilas Scholarship to the University of Wisconsin-Madison
- ◆ Who's Who of American Women
- ◆ Who's Who in Finance and Business
- ◆ International Who's Who of Professional & Business Women
- ◆ Manchester's Who's Who

## PROFESSIONAL AFFILIATIONS

- ◆ American Finance Association
- ◆ American Economic Association
- ◆ American Bar Association
- ◆ Boston Bar Association
- ◆ Member of the Economic Advisory Board, UW-Madison

## PUBLICATIONS AND PRESENTATIONS

"Estimating Economic Damages: Examples/Lessons," prepared for American Law Institute/American Bar Association "Accountants Liability" Litigation and Issues in the Wake of the Financial Crisis, program, Chicago, IL, September 13-14, 2012.

"European Debt Crisis" (and other issues related to estimating damages and event studies), prepared for American Law Institute/American Bar Association "Accountants Liability" Litigation and Issues in the Wake of the Financial Crisis, program, Washington, D.C., September 15-16, 2011.

"Trading at the speed of Light: The Impact of High-Frequency Trading on Market Performance, Regulatory Oversight, and Securities Litigation," *The Brattle Group* Newsletter, Issue 02, 2011.

"The Credit Crisis: How It Plays Out in Decisions and Economic Analysis of Causation," prepared for American Law Institute/American Bar Association "Accountants Liability" Litigation and Issues in the Financial Crisis, program, Boston, Massachusetts, July 8-9, 2010.

"Issues in Causation and Class Certification," prepared for American Law Institute/American Bar Association "Accountants Liability" Litigation and Issues in the Financial Crisis, program, Chicago, Illinois, July 9-10, 2009.

"Trends in Securities Class Actions and Loss Causation," prepared for American Law Institute/American Bar Association "Accountants' Liability" program, San Diego, California, May 16, 2008.

"Elements of a Well-Constructed Economic Study," Prepared for "Damages in Securities Litigation - Including Subprime Mortgage-Related Litigation and the Impact of Dura," Law Seminars International, Boston, Massachusetts, May 5, 2008.

"Elements of a Well-Constructed Economic Study," Prepared for "Estimating Damages in Securities Litigation - the Latest challenges and Issues," Law Seminars International, New York, New York, May 7, 2007.

"Damages & Causation," Prepared for "Accountants' Liability," American Law Institute/American Bar Association, Boston, Massachusetts, May 4, 2007.

"Elements of a Well Constructed Damages Study," Presented at Law Seminars International workshop on Current Damages Issues in Securities Litigation, New York, New York, June 5, 2006

"Elements of a Well Constructed Damages Study," Presented at Law Seminars International workshop on Estimating Damages in Securities Litigation, Stamford, Connecticut, June 21, 2004 and In New York, New York, June 6, 2005.

"Near-Term Implications of the Energy Industry's 'Perfect Storm,'" Presented at Energy & Mineral Law Foundation Winter Workshop, Marco Island, FL, February 13, 2003.

"Financial Consequences of Re-Regulating American Railroads," (with Stewart C. Myers), *Brattle* report prepared for the Association of American Railroads, March 2002.

*Impact of Changing Fuel and Power Market Structures on Price Behavior* (with F.C. Graves, S.L. Thumb, A.M. Schaal, and R. Broehm), Final Report August 2001, (Palo Alto, CA: Electric Power Research Institute, 2001).

"New Advances in Capital Budgeting for Generation Assets: Survey and Interpretation," Presented to EPRI Fall Seminar on Energy Markets and Generation Response, Washington, DC, November 14, 2000.

*Impact of Competitive Market Dynamics on Power Plant Profitability and Investment Decisions in the Central United States* (with A.M. Schaal), Final Report, November 2000, EPRI TR-1000447 (Palo Alto, CA: Electric Power Research Institute, 2000).

"Generation Asset Valuation in Transmission Constrained Markets," Presented at Infocast's Merchant Plant Development & Finance Conference, Houston, TX, September 29 - October 1, 1999.

"A Non-Practitioner's Guide to the State of the Art in Cost of Capital Estimation," (with others) *Brattle* report prepared for GPU PowerNet, Melbourne, Australia.

"The Impact of Stranded-Cost Risk on Required Rates of Return for Electric Utilities: Theory and An Example" (with A. Lawrence Kolbe). *Journal of Regulatory Economics* Vol. 13 (1998), 255-275.

*How Competitive Market Dynamics Affect Coal, Nuclear and Gas Generation and Fuel Use - A 10 Year Look Ahead* (with F.C. Graves, S.L. Thumb, A.M. Schaal, and R. Broehm), Final Report, December 1998, EPRI TR-111506 (Palo Alto, CA: Electric Power Research Institute, 1998).

*Energy Market Impacts of Electric Industry Restructuring: Understanding Wholesale Power Transmission and Trading* (with F.C. Graves, S.L. Thumb, A.M. Schaal, and R. Broehm), Final Report, March 1998, EPRI TR-108999, GRI-97/0289 (Palo Alto, CA: Electric Power Research Institute, 1998).

*Regional Impacts of Electric Utility Restructuring on Fuel Markets* (with F.C. Graves, S.L. Thumb, A.M. Schaal), Final Report, April 1997, EPRI TR-107900-V1, GRI-97/0108.1 (Palo Alto, CA: Electric Power Research Institute, 1997).

“Common Pitfalls in Market Price Forecasting,” Presented at The International Business Communications Market Price Forecasting Conference in San Francisco, CA, March 9-10, 1998 and Washington, D.C., October 23-24, 1997.

“Forecasting Competitive Market Prices and Generation Values,” (with Joseph B. Wharton). Presented at The Generation Asset Management Conference in San Francisco, California, October 29, 1997.

“Regional Impacts of Electric Utility Restructuring on Fuel Markets,” (with Energy Ventures Analysis, Inc.). Presented at The GRI Special Project Review Session on Gas-Fired Power Generation Implications of Electric Utility Restructuring in San Antonio, Texas, October 27-29, 1997.

“Basis Risk in Energy Markets,” Presented at The 16th Annual Electric & Natural Gas Conference in Atlanta, Georgia, September 17, 1996.

“Impact of Deregulation on Capital Costs: Case Studies of Telecommunications and Natural Gas,” (with A. Lawrence Kolbe). Brattle report prepared for The Energy Association of New York State (January 1996, released July 1996).

*The Utility Capital Budgeting Notebook* (with others), EPRI TR-104369, Palo Alto, CA: Electric Power Research Institute, September 1994.

“Discounted Cash Flow Estimates of the Cost of Equity Capital,” *Financial Markets, Institutions and Investments*, August 1994, (with Stewart C. Myers).

“Rate of Return Recommendations in Cable Television Cost-of-Service Regulation” (with A. Lawrence Kolbe). Brattle report filed in Federal Communications Commission Docket No. 93-215, CS Docket No. 94-28, July 1994.

“Event Study of the Effects on Pacific Gas & Electric’s Debt of the Guarantee of Pacific Gas Transmission’s Debt” (with A. Lawrence Kolbe). Brattle report prepared for Pacific Gas & Electric Company, May 1993.

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## TESTIMONY AND EXPERT REPORTS

Declaration in *United States of America v. Hecla Limited*, In the United States District Court for the District of Idaho, Nos. 96-0122-N-EJL, 91-0342-N-EJL, and 94-0206-N-HLR.

Testimony in *The Cadle Co. v. Jan R. Schlichtmann et al.*, Case No. 05-00603-D. Essex County Superior Court, June 22, 2010.

Deposition in Britestarr Homes, Inc., v. Piper Rudnick LLP, August 23, 2004.

Expert Report on Damages in Britestarr Homes, Inc., v. Piper Rudnick LLP, June 25, 2004.

Affidavit in *Re Jan Richard Schlichtmann*, 029-38-8530, United States Bankruptcy Court, District of Massachusetts, Bankruptcy No. 91-1837-CJK, January 5, 2004.

Expert Report in *American Twine Limited Partnership v. Gregory F. Whitten, Ruth Whitten and DKSW, LLC*, United States District Court of Massachusetts, December 17, 2003. Trial testimony given in July 2005.

Affidavit in *Donald J. Clegg v. The Cadle Company*, Commonwealth of Massachusetts Land Court, Miscellaneous 276149, November 17, 2003.

Affidavit in *Re Jan Richard Schlichtmann*, 029-38-8530, United States Bankruptcy Court, District of Massachusetts, Bankruptcy No. 91-1837-CJK, October 17, 2003 and December 31, 2003. Trial testimony given in June 2005.

November 27, 2012