IN THE CIRCUIT COURT OF COOK COUNTY, ILLINOIS
COUNTY DEPARTMENT, CHANCERY DIVISION

HEADLANDS TECH ORGANIZATION, LLC, HEADLANDS TECH HOLDINGS, LLC, and HEADLANDS TECH IP HOLDINGS, LLC,

Plaintiffs,

v.

CHEUK FUNG RICHARD HO, ONE R SQUARED, LLC, and HAI-SON LE

Defendants.

Case No. 2023-CH-05586

SECOND AMENDED COMPLAINT FOR INJUNCTIVE RELIEF, MONETARY DAMAGES, AND OTHER RELIEF

JURY TRIAL DEMAND

Plaintiffs Headlands Tech Organization, LLC, Headlands Tech Holdings, LLC, and Headlands Tech IP Holdings, LLC (together, "HT"), by and through their counsel, Orrick, Herrington & Sutcliffe LLP, by way of this Second Amended Complaint allege as follows:

INTRODUCTION

1. This case concerns a massive theft of unique and complex proprietary source code ("Proprietary Source Code" or "Code") and other technical trade secrets used to develop, enhance, and operate automated trading strategies responsible for generating billions of dollars in profits. The theft arose out of a fraudulent scheme hatched by Defendant Cheuk Fung Richard Ho and perpetrated against HT starting in early 2021. It ultimately led to the Defendants—Ho, his quantitative trading firm One R Squared, LLC ("ORS"), and an employee, Defendant Hai-Son Le—deploying stolen trade secrets to compete directly against HT in coordination with their well-

funded backer, Tower Research Capital LLC ("Tower")[1]. By September 2022, the scheme had progressed into a racketeering enterprise through which Defendants, operating through Tower, unleashed a systematic pattern of fraudulent trading in CME Group ("CME"), Intercontinental Exchange ("ICE"), and other markets around the world.

2. Based in Chicago, Illinois, with offices on three continents, HT is a leading quantitative trading company that trades in global financial markets, including the world's leading derivatives markets operated by CME Group in Chicago, Illinois. HT profits from its use of its sophisticated automated trading strategies ("ATS") that, as their name implies, trade without active human intervention. The ATS that HT utilizes are powered by Code that took HT many years of painstaking quantitative research and sophisticated engineering, along with hundreds of millions of dollars of investment and extensive experimentation, to create.

3. The Code—essentially, detailed layers of computer instructions directing certain actions—is the main driver of HT's profitability. It operates the ATS that generate HT's profits. At the core of the Code rests a unique combination of custom-built "atoms" ("HT Atoms"), which are distinctly engineered segments of computer code that carry out pre-programmed functions. HT Atoms are designed by HT's quantitative research and software engineering teams to rapidly digest a wide array of market data, perform complex algorithmic calculations, and predict future market events. In many cases, they take months, if not years, of intensive quantitative research and experimentation to create and refine. Critically, the HT Atoms do not merely carry out pre-

[1] Because Tower and HT are both CME members, HT is required by CME rules to raise its dispute with Tower over its involvement in the fraudulent trading scheme in the context of CME Arbitration. *See* CME Rule 600.A, *available at* https://www.cmegroup.com/content/dam/cmegroup/rulebook/CME/I/6/6.pdf (last accessed May 21, 2024).

programmed functions; they also reflect and implement the secret combination of signals that HT has determined to be most critical to guiding trading decisions.

4. When synced together in bespoke combinations invented by HT, the HT Atoms morph into predictive formulas called "alphas" ("HT Alphas"). HT Alphas generate the actual price predictions that trigger HT's ATS to trade profitably across a broad range of markets and products. So, as a hypothetical and simplified example, an HT Alpha might draw on a group of HT Atoms to conclude that the price of contracts for precious metals futures beginning with the letter "P" usually dropped on Tuesdays at 2:30pm before rising again at 2:32pm, and thus direct HT's ATS to sell contracts for platinum and palladium at 2:29pm and purchase them back at 2:31pm. In doing so, the HT Atoms and HT Alphas drive profitability by allowing HT to take advantage of the predicted price movements to sell high and buy low. The HT Atoms and HT Alphas are among HT's most valuable Proprietary Source Code.

5. Because the HT Atoms and HT Alphas drive the profitability of HT's ATS, they are highly valuable and highly confidential trade secrets. To protect them, HT implements a range of robust security protections and grants only a relatively small technical team direct access to them. For those to whom it gives access, HT provides it only under agreements that impose strict duties of loyalty, invention assignment, and confidentiality, including the duty to never use or disclose HT's trade secrets and confidential information outside of HT in perpetuity.

6. As a quantitative researcher for HT, Ho was among the technical employees with direct access to the HT Atoms and HT Alphas. Despite the duties of loyalty and confidentiality that came with that access, Ho abused his position of trust and betrayed HT in the most egregious way possible. Ho (a) outright stole core HT Atoms and HT Alphas and misappropriated other technical trade secrets that comprise the lifeblood of HT's business and (b) used them as the

technical foundation for ORS, the new quantitative trading firm that he secretly founded while still employed with HT, in coordination with one of HT's direct competitors, Tower.

7. Along the way, Ho convinced two other HT employees to join him in the fraudulent scheme and help ORS replicate ATS and other technical trade secrets that HT uses to generate and sustain trading profits. Ho recruited Wen Jia Liu, now a voluntary witness in HT's investigation of Ho's theft, and Defendant Hai-Son Le ("Le"), both of whom shared the same duties of loyalty to HT as well as the same non-compete, non-use, and non-disclosure obligations to HT.

8. The jig is now up: although HT has only scratched the surface of its investigation, it already has amassed unusually clear and specific evidence of Ho and ORS's pervasive theft and misappropriation. Specifically, through its own diligent investigation and prosecution of its claims, including by issuing subpoenas to two former ORS employees, HT has uncovered the following:

a. ORS source code confirming that Ho and ORS stole large swaths of HT's most valuable Code: namely, the HT Atoms and HT Alphas, along with the specific parameters and Code functions that HT deploys with them. ORS source code confirming that Defendants stole large swaths of HT's most valuable Code: namely, the HT Atoms and HT Alphas, along with the specific parameters and Code functions that HT deploys with them. More specifically, within a large computer file titled "ORS," ORS source code files show that Ho and ORS directly copied critical HT Atoms and HT Alphas, together with the custom parameters and Code functions with which HT deploys them, straight into the ORS code base. In example after example, Ho copied them on a line-by-line level, even going as far as to copy over distinct engineering notes left over from HT code reviews and recording ORS "TODO" reminders to "implement" the stolen Code.

b. ORS source code files showing that Ho reclassified HT Atoms as "nodes" and implanted copycat versions of them throughout the ORS code base in a systemic fashion, complete with HT's customized parameters for their use in its ATS. As just one of many examples of Ho's rampant theft, an ORS source code file designated as the "node_library" for the ORS "platform," consists of "nodes" and parameters that "checked out" of the HT's Atoms library and copied for ORS.

c. ORS source code files showing that Ho and ORS directly stole the Code for HT Alphas, along with their accompanying parameters and Code functions, in the same systemic fashion—including, as just another example of the rampant theft, an ORS source code file designated as a "cookbook" for "alphas," which contains copycat versions of the key recipes to HT's trading success: the HT Alphas. ORS source code files showing that Ho and ORS directly stole the Code for HT Alphas, along with their accompanying parameters and Code functions, in the same systemic fashion—including, as just another example of the rampant theft, an ORS source code folder designated as a "cookbook" for "alphas," which contains copycat versions of the key recipes to HT's trading success: the HT Alphas.

d. Schematic files automatically generated by ORS code showing many thousands of direct and explicit references to HT Atoms, inclusive of HT's customized parameters, further confirming that Ho and ORS misappropriated HT Atoms and HT Alphas on a massive scale and used them to power the ATS that ORS and Tower subsequently deployed—and, on information and belief, continue to deploy—in direct competition with HT – through and with the assistance of Tower. Schematic files automatically generated by ORS code showing many thousands of direct and

explicit references to HT Atoms, inclusive of HT's customized parameters, further confirming that Ho and ORS misappropriated HT Atoms and HT Alphas on a massive scale and used them to power the ATS that ORS and Tower subsequently deployed—and, on information and belief, continue to deploy—in direct competition with HT—through and with the assistance of Tower.

e. Direct confirmation from an ORS insider and ORS source code files evidencing that ORS (i) assembled an ATS designed to mimic one of HT's most profitable trading strategies known internally at HT as "AP1," drawing upon stolen HT Atoms and HT Alphas to do so; and (ii) misappropriated the unique simulation methodology and underlying Code that HT invented to optimize its ATS, as well as its distinctive research architecture, inclusive of a range of nearly-identical features that would be impossible to duplicate from memory or by coincidence (collectively, the "Simulation and Research Technology").

f. Direct confirmation from ORS insiders that Ho and ORS misappropriated the proprietary visualizer technology (the "Visualizer") that generates customized overlays of live market activity and allows HT to detect market trends and developments more efficiently than other market participants. Direct confirmation from ORS insiders that Ho and ORS misappropriated the proprietary visualizer technology (the "Visualizer") that generates customized overlays of live and historical market activity and allows HT to detect market trends and developments more efficiently than other market participants.

g. First-hand accounts from three ORS insiders chronicling Defendants' long-running deception and widespread misappropriation of HT's trade secrets, including

admissions as to how the ORS team regularly discussed the inner workings of HT's Code and HT's ATS in internal Slack messages.

h. Direct proof of a multi-faceted campaign to cover up the evidence of Defendants' misconduct, first by utilizing different naming conventions for Code stolen directly from HT and repurposed for ORS, and later through the deliberate and widespread destruction of incriminating evidence after HT notified Ho, ORS, Liu, and Tower of their duty to preserve all potentially relevant information.

9. Even at this early stage of discovery, this specific evidence makes clear that Ho designed ORS to be a vehicle to launder HT's trade secrets, with the specific aim of siphoning away the value of those trade secrets and using them to usurp trading profits that would otherwise be realize by HT for the mutual benefit of ORS and Tower.

10. Making matters worse, and underscoring the extreme dishonesty and hubris with which Ho operated, he commenced building ORS on the back of these stolen trade secrets while still employed at HT. Along the way, Ho also surreptitiously recruited Liu, who secretly began working for ORS in or around April 2021, while Ho remained at HT.

11. Throughout this time, Ho actively concealed the scheme from HT. After Ho eventually resigned and left HT in August 2021, he and Liu spent their post-employment non-competition periods (12 months each)—during which HT continued to pay them their pro rata base salaries—covertly assembling ATS and other advanced trading technology infused with HT's trade secrets for eventual use by ORS in trading against HT with Tower's support. The two former HT employees affirmatively misled HT about what they were doing at numerous junctures along the way, including when they resigned and when HT provided them with routine reminders as to their post-employment obligations.

12. In flagrant violation of his HT non-compete agreement, just a month after he resigned from HT, Ho caused ORS to enter into a purported "consulting agreement" with Tower, just as he and Tower had planned all along. Under the guise of this agreement, ORS would later disclose HT Code directly to Tower, in anticipation of piping ATS—powered by copycat versions of the HT Atoms and HT Alphas—through Tower's high-speed execution platform. ORS and Tower then used pirated ATS to trade through electronic wires on Tower's high-speed platform in direct competition with HT, including in CME, ICE, and other markets.

13. As the scheme progressed, Ho and ORS recruited another quantitative researcher from HT, Defendant Hai-Son Le, to help ORS misappropriate HT's latest innovations since Ho and Liu had left. Although Le had agreed to refrain from competing against HT until March 11, 2023, and shared the same non-use and non-disclosure obligations as Ho and Liu, Ho and ORS blew right through them. And to help obscure Le's work for ORS during the pendency of his non-compete agreement, Ho assigned Le "guestuser" credentials at ORS. In his capacity as an ORS employee, Le aided in the misappropriation of HT's trade secrets, including by using his intimate familiarity with HT's latest Simulation and Research Technology to bolster ORS's knock-off version and otherwise enhance its quantitative research capabilities.

14. With another former HT employee in the fold, Defendants doubled down on their illicit scheme. Using ORS's Slack messaging platform, the former HT employees frequently discussed the details and nuances of HT's secret trading technology to advance ORS's efforts to replicate that technology in its own operations. By September 2022, in coordination with Tower, Defendants were deploying pirated ATS powered by copycat versions of HT Atoms and HT Alphas in direct competition with HT on CME, ICE, and other exchanges. One such pirated ATS was specifically designed to mimic AP1, one of HT's most profitable trading strategies.

15. By knowingly deploying pirated ATS derived from and infused with stolen trade secrets through Tower in violation of CME exchange rules ("CME Rules") and the Rules of the Intercontinental Exchange ("ICE Rules"), ORS and Tower implicitly—and systematically—misrepresented their compliance with CME Rules and ICE Rules. With every order placed by the pirated ATS, they misrepresented their compliance with, for instance, CME Rules 432.C (prohibiting "dishonest conduct") and 432.B (prohibiting "bad faith" and conduct "inconsistent with just and equitable principles of trade"), and ICE Rule 4.04 (prohibiting "conduct or practices inconsistent with just and equitable principles of trade or conduct detrimental to the best interests of the Exchange"). And they did so without regard for the integrity of the exchanges and with the intent of unfairly competing against HT.

16. By virtue of these misrepresentations, each of the thousands upon thousands of orders that ORS placed through Tower in CME and ICE markets using the pirated ATS constituted an individual act of wire fraud.

17. Defendants further exacerbated the harm to HT by using Tower's trading platform. Defendants used Tower's high-speed execution platform to enhance the speed of its pirated source code and ATS, thereby usurping profitable trades that HT otherwise would have captured using the original proprietary Code and ATS from which Defendants illegally derived their knock offs. These fraudulent, high-speed trades directly and proximately harmed HT, which at all relevant times expected and relied upon other CME and ICE market participants to comply with exchange rules. As a direct consequence of this fraudulent scheme and corrupt racketeering enterprise, HT began sustaining millions of dollars in damages and saw the profitability of its ATS, including AP1, plummet in CME, ICE, and other markets after ORS commenced trading in them through Tower.

18. Through this action, HT seeks urgent judicial intervention (a) to recover the trade secrets that Defendants misappropriated from HT; (b) to enjoin Defendants—and any of their agents, affiliates, employees, or co-conspirators—from making further unauthorized disclosures or use of HT's trade secrets and confidential information; (c) to order that any ORS source code, ATS, and other technology derived from misappropriated HT trade secrets or other HT confidential information be placed in a constructive trust for the benefit of HT; and (d) to order that Defendants pay all damages caused by their flagrant misconduct, including, without limitation, treble damages and attorneys' fees, compensatory and punitive damages, reasonable royalty damages, lost profits, consequential damages, and unjust enrichment damages.

PARTIES

19. Plaintiff Headlands Tech Organization, LLC is a Delaware limited liability company, with its principal place of business in Chicago, Illinois.

20. Plaintiff Headlands Tech Holdings, LLC is a Delaware limited liability company, with its principal place of business in Chicago, Illinois.

21. Plaintiff Headlands Tech IP Holdings, LLC is a Delaware limited liability company, with its principal place of business in Chicago, Illinois.

22. Defendant Ho currently resides in Rhode Island. During a substantial number of the events giving rise to this lawsuit, including those that occurred in 2021, Ho resided in Chicago, Illinois. He engaged in the complained-of wrongful acts in Chicago, Illinois. In addition, Ho signed an employment agreement with HT in Illinois. That agreement is governed by Illinois law.

23. Defendant One R Squared LLC (again, "ORS") is a limited liability company formed under the laws of Delaware, with its current principal place of business in New York, New York. At the time of many of the key events and omissions giving rise to this lawsuit, ORS's

principal place of business was in Chicago, Illinois, and ORS engaged in the complained-of wrongful acts in Chicago, Illinois.

24. Defendant Hai-Son Le is an employee of ORS who currently resides in San Diego, California. Le signed an employment agreement with HT in Illinois. That agreement is governed by Illinois law. Le worked in HT's Illinois office for the entire period of his employment.

JURISDICTION AND VENUE

25. Pursuant to 735 ILCS 5/2-209, this Court has personal jurisdiction over Ho and Le because HT's claims against Ho and Le arise out of the commission of tortious acts within this state and the breach of fiduciary duties in this state.

26. This Court also has personal jurisdiction over Ho and Le because HT's claims against them arise out of the breach of their contractual obligations in Illinois.

27. The employment agreements signed by each Ho and Le expressly acknowledge that the terms of their agreements shall be construed in accordance with Illinois law, and that any dispute would be heard by courts in Illinois. In addition, HT's claims against Ho and Le arise out of the making or performance of a contract substantially connected to Illinois, and jurisdiction otherwise comports with due process requirements under the Illinois Constitution.

28. This Court has personal jurisdiction over ORS because HT's claims arise from tortious acts committed in Illinois by ORS, and jurisdiction otherwise comports with due process requirements under the Illinois Constitution given that a substantial amount of the events at issue took place in Illinois. Further, ORS was developed in Illinois and had its principal place of business in Illinois when it committed much of the misconduct underlying this lawsuit.

29. Venue is proper in this judicial district because HT does business in this district, and this is a judicial district in which a substantial portion of the events or omissions giving rise to HT's claims occurred.

FACTS

HT Is a Leading Quantitative Trading Firm Whose Lifeblood Is Its Trade Secrets

30. Co-founded in Chicago, Illinois in 2010, HT is one of the world's leading electronic global quantitative trading companies, operating from various offices on three continents and accounting for significant volumes across global financial markets. Through its state-of-the-art electronic trading platform that it built entirely in-house, HT trades on numerous exchanges and in multiple asset classes around the world by deploying ATS capable of responding to evolving market conditions by placing, canceling, and modifying orders within tiny fractions of seconds.

31. At a high level, quantitative trading involves a technically sophisticated, data-driven approach to trading in financial markets that relies on interconnected algorithms comprised of source code to place, cancel, or modify orders and execute trades in high volume and at speeds measured in tiny fractions of seconds—often measured in nanoseconds (billionths of a second). Quantitative trading firms generally engage in systematic quantitative analysis of vast amounts of market data, using statistical methods and computational power to, among other things, identify discrete patterns and market trends that may be predictive of future price movements. By automating the decision-making process through complex logic encapsulated in source code, quantitative trading firms like HT are capable of analyzing and responding to evolving market conditions at speeds many times faster than the blink of an eye. The ultimate goal of electronic quantitative trading is to achieve consistent profitability by rapidly identifying and capitalizing on trading opportunities in ways that other market participants cannot replicate.

32. Due to the technical complexity and highly competitive nature of electronic trading, there is a significant barrier to entry in the global quantitative trading industry. That barrier exists because developing a successful quantitative research and trading platform requires, among other things, enormous upfront financial investment in technical infrastructure, years of intense quantitative research, data analysis, and experimentation, and the painstaking engineering of complex, multi-layered algorithms that distill and seamlessly integrate the fruits of quantitative research labor into trading logic and customized parameters that guide the operation of ATS or other technology-driven trading strategies.

33. To overcome these challenges, HT has consistently deployed a world-class team of experts in computer science, mathematics, engineering, and physics, many of whom hold advanced degrees, to develop, enhance, and maintain the stable of technical trade secrets necessary to operate a successful quantitative trading firm. HT's hiring process is extremely competitive, with less than 1% of candidates for positions as quantitative researcher or software engineers receiving offers of employment. Given the highly specialized expertise required to occupy a position on its technical team and intense competition to hire and retain top talent in the quantitative trading industry, HT has invested hundreds of millions of dollars in human capital over the years, with the goal of developing the most sophisticated and profitable automated trading platform in the world.

34. Notably, even with all of HT's technical expertise, intensive financial investment, and singular focus on building a profitable quantitative trading platform, it took ***years*** for HT to develop ATS capable of sustaining meaningful profitability. And since HT's inception in 2010, the sophistication of quantitative trading and levels of competition have dramatically increased in electronic markets, lifting the barriers to entry and profitability correspondingly higher with each passing year. Given these market realities, even with substantial financial backing and significant

industry expertise, it is highly implausible that anyone could build a new quantitative trading firm from scratch and independently engineer ATS capable of achieving sustained profitability in some of the world's most competitive markets in a matter of months.

35. Certainly, as HT's own experience demonstrates, it would not be possible to independently develop a large compilation of HT Atoms and HT Alphas in a matter of months. The required level of effort and expertise is such that there have been many instances at HT where experienced quantitative researchers and software developers have spent months focusing on a single development project. Indeed, in one notable example, Liu spent multiple months working to engineer a single component of HT source code, at one point asking for a break from the project out of frustration that he could not achieve a breakthrough.

36. As that example well illustrates, unlike Defendants, HT did not take any illegal short cuts to build its quantitative trading business. Instead, HT invested hundreds of millions of dollars, including through seven-figure compensation packages for quantitative researchers like Ho, and many years of time and intensive effort to develop, enhance, and maintain the HT Atoms and HT Alphas that drive its ATS.

37. Those extraordinary investments eventually paid off to the tune of billions of dollars in trading profits. But the profitability of HT's ATS has dropped notably in the wake of ORS's widespread misappropriation.

38. With ORS competing directly against HT in CME, ICE, and other markets and usurping profitable trading opportunities with a pirated ATS boosted by Tower's high-speed execution infrastructure, the profitability of HT's high-frequency ATS, which includes AP1, dramatically declined month-after-month and year-over-year on CME, ICE, and other markets. Accordingly, the profitability of HT's business depends on protecting its core technical trade

secrets from further use and disclosure by Defendants, including those set forth below (collectively, the "Stolen Trade Secrets"):

HT Atoms and HT Alphas

39. The principal driver of HT's competitive advantage in trading arises from HT Atoms and HT Alphas responsible for generating the predictions about future price movements that trigger the ATS to engage with the market and execute profitable trades.

40. HT Atoms consist of Proprietary Source Code developed through many millions of dollars of concentrated investment and years of quantitative research and development efforts, extensive trial and error, and substantial intellectual collaboration among HT's team of leading quantitative researchers and software developers. These Atoms are designed to continuously digest data from a broad array of markets, scan for a proprietary mix of market variables and trading signals, perform complex algorithmic calculations, and apply customized logic encoded in algorithms to predict future market events. Each of these functions is critical and necessary to the operation and profitability of HT's ATS, and each HT Atom was uniquely engineered by HT to be flexibly applied and integrated into the ATS that rely on them to function and profitably trade.

41. HT Atoms are not isolated snippets of source code; they are modular, plug-and-play building blocks that can be flexibly applied in an asset-neutral way, allowing for rapid experimentation and adaptation in ATS across a broad range of financial products. HT Atoms and HT Alphas reflect and provide distinct—and enormous—economic value to HT, including as follows:

a. HT Atoms reflect and encompass the secret combination of variables, calculations, and trading signals that HT, through many years of intensive quantitative research, has determined to be most predictive of future price changes and, therefore, most

essential to entering and exiting positions at a profit. Given the complexity of financial markets, particularly commodities futures markets, and different degrees of correlation between the broad range of products available in those markets, the number of variables, calculations, and signals that could on their own or, in combination with others, serve as potential indicators of future price movement is virtually limitless. Through intensive quantitative research over many years, HT distilled this vast ocean of potential signals to a pool of hundreds, rather than thousands or millions, which are reflected and incorporated into the HT Atoms. Many of the HT Atoms thus provide independent value as a trading signal that HT relies on to inform its trading decisions. And until Defendants misappropriated the HT Atoms, no other trading firm in the world had access to this secret and unique combination of selection criteria that provides a veritable roadmap for achieving profitable trading with ATS. The value of this selection criteria would be entirely lost if the HT Atoms that embody them were made publicly available.

b. The HT Atoms consist of Proprietary Source Code that is the byproduct of intensive development efforts that require multiple layers of collaborative review and refinement by members of HT's technical team. As a result, each HT Atom reflects Code that is unique to HT and that provides a distinct and significant competitive advantage because of the ways in which it is painstakingly designed to perform algorithmic calculations with maximum efficiency and minimal risk of errors, thereby enhancing the overall profitability of HT's trading while minimizing the errors that cause other competing trading firms to incur unexpected losses. This competitive advantage afforded by HT's uniquely sophisticated source code

engineering would be altogether lost for any HT Atom that is publicly disclosed and available for replication by competitors.

c. Through the same intensive development and review process, HT Atoms are uniquely constructed for seamless integration with other HT Atoms, Alphas, and ultimately the ATS. This, too, provides a distinct and significant competitive advantage insofar as HT Atoms can be flexibly applied, which allows HT to adapt its ATS more efficiently than other competing trading firms and avoid the inefficiencies and higher error rates that arise from less modular software. This allows HT to operate at a higher level of efficiency that leads to greater profitability than competitors. However, the competitive advantage arising from the unique design of the HT Atoms would be lost if the HT Atoms are publicly disclosed and competitors are able to replicate these distinctive design features for the Code that powers their own competing ATS.

d. HT Atoms misappropriated by Defendants also feature unique algorithms that predict future market events—for example, whether and when additional trades might be expected at prevailing market prices. These predictive algorithms—all of which are uniquely designed by and distinct to HT—provide an enormous competitive advantage insofar as they help HT to anticipate future price movements before other traders, leading directly to profitable trading.

e. When synced together in bespoke combinations known only to HT insiders, the HT Atoms form into HT Alphas. Alphas are higher-order constructs comprised of groups of HT Atoms that work in concert to generate the actual price predictions that trigger the ATS to engage with the market. Though the structure of an Alpha

involves a complex series of interconnected HT Atoms, the output of an Alpha plays a pivotal role in driving profitable trading decisions. In the simplest terms, HT Alphas are complex predictive formulas that generate a trading signal informing the ATS whether a price is poised to move in one direction or another, thereby allowing the ATS to enter or exit market positions in anticipation of price movements. This allows HT to make profitable trades that other participants cannot identify. Because HT Alphas make these price predictions with exceptional efficiency and accuracy, HT has generated billions of dollars of trading profits by relying on them to power its ATS. But the value intrinsic to each HT Alpha is dependent on its secrecy, and HT would not be able to profitably trade on the predictive signal generated by an HT Alpha if the broader marketplace had access to the same predictive signal.

f. Each HT Alpha is also the byproduct of deep quantitative research and extensive experimentation to determine the most optimal combination of HT Atoms to combine to generate accurate price predictions on which HT's ATS trade to make money. This bespoke set of selection criteria provides a blueprint for generating accurate price predictions under specific market conditions, the enormous value of which would be lost for any HT Alpha that is not maintained as a secret and is publicly disclosed.

g. HT Atoms and HT Alphas operate with a proprietary methodology that allows HT to maximize the value of their versatility and rapidly integrate or extract them to maximize the productivity and, therefore, profitability of the ATS. This modular approach to quantitative trading contrasts sharply with traditional methods

employed by many other quantitative trading firms. Whereas other quantitative trading firms are forced to go through the time-consuming process of reconfiguring entire codebases when making significant alterations to ATS, the enhanced flexibility afforded by HT Atoms and HT Alphas allows for much more efficient testing and refining of trading hypotheses to determine the most accurate way to predict future price movements, all of which provides a significant competitive advantage that depends on the ongoing secrecy of the HT Atoms and HT Alphas.

42. Notwithstanding the spirit of collaboration among quantitative researchers and software developers within HT, the HT Atoms and HT Alphas are closely guarded trade secrets that HT zealously protects, and HT employees are strictly prohibited from disclosing them to outsiders. Indeed, HT has repeatedly instructed employees working on HT Atoms and HT Alphas, in employee trainings and direct communications, to maintain the confidentiality of HT Atoms, HT Alphas, and related Code, and not to share or discuss them with those outside of HT.

43. No other company in the trading industry—other than ORS and Tower, by virtue of Defendants' misappropriation—has had access to HT Atoms or HT Alphas.

44. Defendants' misappropriation of the HT Atoms and HT Alphas and subsequent disclosure of these core trade secrets to Tower has seriously impaired HT's profitability, as evidenced by the marked drop in trading profits that HT experienced in CME, ICE, and other markets after ORS began trading with ATS powered by copycat versions of the HT Atoms and HT Alphas. Nonetheless, the HT Atoms and HT Alphas continue to drive profitable trading for HT to this day, which is only possible because they are kept secret from the rest of the market and broader public.

45. Based on the extraordinary track record of driving profitability for ATS and many unique characteristics, the HT Atoms and HT Alphas would command substantial annual licensing fees, likely well in excess of $100,000,000, on the open market. And they would command a much greater sum if they were to be sold. If the HT Atoms and HT Alphas were not kept secret, however, there would be no potential to sell or license them, and HT would lose the substantial competitive advantage that it currently enjoys in trading on account of their secrecy.

46. Accordingly, HT unquestionably derives substantial economic value from the secrecy of the HT Atoms and HT Alphas.

AP1 Automated Trading Strategy

47. AP1 is one of multiple ATS employed by HT and has been and continues to be a material contributor to HT's overall profitability. Like HT's other trade secrets, AP1 is not readily ascertainable to anyone outside of the HT employees that worked on it under strict confidentiality protocols. Further, HT has repeatedly conveyed to HT employees working on AP1, in employee trainings and direct communications, that specific details about AP1 and other ATS must remain strictly confidential and may not be externally disclosed.

48. Drawing upon bespoke combinations of HT Atoms and HT Alphas working in unison, AP1 evaluates predictive signals relayed by the HT Atoms and HT Alphas against a pre-programmed set of customized criteria, subjects those signals to precise sizing and weighting parameters embedded in configuration files, and if the signals align with the requirements of the strategy, executes profitable trades—all within tiny fractions of seconds. Ultimately, it is the specific combination of HT Atoms and HT Alphas, together with specific pre-programmed parameters, configuration files, and accompanying Code functions, that comprise the AP1 ATS, which HT deploys to generate substantial trading profits.

49. As with the HT Atoms and HT Alphas, AP1 is specially designed to be asset neutral and is capable of simultaneously trading across a broad range of financial products. It does so by overlaying a customized set of configuration files on a product-by-product basis that, consistent with HT's modular approach to trading, can be easily adjusted to reflect different parameters and weightings for the HT Atoms and HT Alphas that power its operation.

50. Other than ORS and Tower on account of misappropriation, no other outside parties have access to AP1 or know the bespoke combinations of HT Atoms and HT Alphas, along with the customized parameters, and configuration files, and accompanying Code functions, on which AP1 draws to trade. The public disclosure of AP1 or any of its core components would significantly erode the competitive advantage that AP1 provides to HT. And if the specific combination of Code, customized parameters, and configuration files utilized by AP1 were publicly disclosed and made available to competitors, HT would altogether lose the ability to trade profitably with AP1.

51. Over the years, the AP1 strategy has performed exceptionally well, generating well in excess of a billion dollars in profits for HT. HT relied on AP1 to drive its trading profitability prior to and throughout the period of Ho's, Liu's, and Le's employment at HT and the duration of their post-employment restrictive covenants. And like the HT Atoms and HT Alphas that it draws upon, AP1 has retained substantial value over time, albeit with reduced profitability in light of Defendants' use of a pirated version of AP1.

52. Based on the extraordinary track record of profitability, AP1 would command substantial annual licensing fees, likely well in excess of $100,000,000, on the open market. And it could command a much greater sum if it were to be sold. If AP1 was not kept secret, however, there would be no potential to sell or license it, and the substantial competitive advantage and

trading profits that HT derives from its ongoing secrecy would be lost. Thus, HT derives substantial economic value from the secrecy of AP1.

53. Critically, however, AP1 is liquidity sensitive, which means that HT's success in generating trading profits through AP1 is substantially diminished if any other market participant emulates the same strategy with incrementally faster execution speed. In today's electronic markets, market conditions are capable of evolving far faster than the human eye can detect—at speeds measured in nanoseconds. As a result, opportunities to capitalize on profitable trading opportunities are necessarily fleeting.

54. Unlike many of its competitors, HT has placed substantial emphasis on developing the HT Atoms and HT Alphas that, as a result of intense quantitative research and integrated engineering, generate unique predictions that no other market participant is capable of making at the time they are made. When a rogue competitor like ORS steals Code, parameters, and configurations used to generate unique predictive signals for AP1, and then pipes a pirated version of AP1 through an execution platform capable of placing orders even one millionth of a second faster than HT's execution platform, it can take advantage of the limited opportunity to profitability trade before AP1 can capitalize on it. And that is precisely what ORS did thousands of times on CME, ICE, and other markets, usurping profitable trades that would otherwise be available to HT but for the intervention of ORS and directly causing AP1 to lose profitability in those markets (among others).

55. As the damage inflicted on HT in multiple markets by ORS's piracy well illustrates, the enormous economic value and profitability generated by the HT Atoms, HT Alphas, and AP1, is dependent on their ongoing secrecy and preventing rogue competitors like ORS and Tower from accessing them. As it stands, HT has already suffered many millions of dollars of damages as a

result of ORS and Tower usurping trading profits that would otherwise be realized by HT. Any further unauthorized dissemination and use of these core trade secrets would only further diminish, if not entirely destroy, their remaining economic value to HT.

56. Accordingly, HT derives substantial economic value from the secrecy of AP1.

Simulation and Research Technology

57. The Simulation and Research Technology invented by HT is based on a secret and proprietary methodology for developing, testing, training, and ultimately optimizing ATS with a combination of speed, flexibility, and precision that provides a substantial competitive advantage to HT. The proprietary methodology for the Simulation and Research Technology is operationalized by Proprietary Source Code that is likewise unique in concept and design. As is characteristic of HT software engineering, the Simulation and Research Technology was designed with painstaking attention to detail and encoded in a distinctive manner to allow for enhanced flexibility and operational efficiency in conducting quantitative experiments and simulations for ATS.

58. HT invested significant time and resources into developing, refining, and customizing the Simulation and Research Technology to allow its quantitative research team to test and train HT's ATS against a broad range of complex market scenarios and with large volumes of data with unparalleled efficiency and precision. And that investment paid off in the form of a substantial competitive advantage for HT, insofar as the Simulation and Research Technology allows HT's quantitative research team to run thousands of experiments and simulations in parallel with minimal computational resources.

59. The single most valuable component of the Simulation and Research Technology is the proprietary methodology that allows HT to scale its quantitative research to an exponential

degree. In the simplest terms, the Simulation and Research Technology provides an important technical shortcut that allows HT to conduct its quantitative research with a much smaller team than its competitors, and on a production scale that exceeds what competitors could accomplish without equivalent technology. By allowing HT's quantitative researchers to run thousands of permutations of ATS simultaneously, the Simulation and Research Technology plays a vital role in evaluating API and other ATS that generate all of HT's profits. The misappropriation of the proprietary methodology underlying the Simulation and Research Technology erodes the competitive advantage it affords HT, insofar as any competitor that accessed it would be able to conduct quantitative research on a much greater scale and, therefore, more effectively compete to develop the trading insights that lead to profitable trades.

60. Like HT's other trade secrets, HT's Simulation and Research Technology is not available anywhere in the public domain. To the contrary, it is a closely guarded trade secret, the competitive value of which would be lost if the Simulation and Research Technology were to be publicly disclosed.

61. Based on the Simulation and Research Technology's track record of seeding the development and optimization of ATS that have collectively generated billions of dollars in profits, the Simulation and Research Technology would command substantial annual licensing fees, likely well in excess of $10,000,000, on the open market. And it would command a much higher sum if sold on the open market. If the Simulation and Research Technology was not kept secret, however, there would be no potential to sell or license it. Accordingly, HT derives substantial economic value from the secrecy of API.

The Visualizer

62. HT's Visualizer is a proprietary software program with a unique technical orientation that allows HT to present other data (including internal data) on top of market data, all of which is seamlessly integrated and made visible to the technical teams responsible for monitoring and optimizing the performance of HT's ATS. The Visualizer integrates and displays data in a way that that empowers HT personnel to obtain a comprehensive understanding of market movements down to the nanosecond, enabling HT's technical team to quickly identify trading patterns, market anomalies, or other key developments that merit tactical adjustments to ATS.

63. HT has invested significant financial resources and human capital to develop, enhance, and maintain its unique Visualizer.

64. Like HT's other trade secrets, the Visualizer is unknown and not readily ascertainable to those outside of HT. Underscoring the point, HT used the Visualizer in its annual employee trainings, which Ho, Le, and Liu attended, as an example of highly sensitive in-house technology that could not be shown or shared with anyone outside HT.

65. While many trading firms utilize some form of market visualizer, HT's Visualizer is significantly different than and much more sophisticated than "open source" visualizers available for purchase or license on the open market, in that HT's software and research developers carefully tailored it to enable HT to gauge the effectiveness of its ATS, including API, in real time. Further, the layout, functionality, and user experience of the Visualizer offers insights and capabilities not available in publicly available visualization tools.

66. These insights and capabilities are valuable because they allow for the detection of opportunities and provide actionable insights that would otherwise be unavailable in real time without the Visualizer. In this way, the Visualizer has enhanced the profitability of HT's ATS.

67. Moreover, due to its unique characteristics and functionality, the Visualizer would command substantial annual licensing fees, likely in excess of $1,000,000, on the open market. And it would command a much higher sum if sold on the open market. If the Visualizer was not kept secret, however, there would be no potential to sell or license it.

68. HT thus derives substantial economic value from the secrecy of the Visualizer.

HT Protects Its Intellectual Property

69. To say the very least, HT has a critical interest in preventing its trade secrets and other commercially sensitive information from unauthorized disclosure and use. To sustain the viability of its business and protect the livelihoods of HT's members and employees in Chicago and elsewhere around the world, HT goes to great lengths to safeguard the confidentiality of its intellectual property, including all of its trade secrets (such as the Stolen Trade Secrets) and other confidential information of commercial sensitivity (collectively, "HT Intellectual Property").

70. As a starting point, HT implements rigorous security protocols to protect its Intellectual Property. For example, HT strictly limits access to, and knowledge of, its Code to employees responsible for developing, implementing, and safeguarding the Code.

71. HT's security measures include, but are not limited to:

a. ***Physical security*** (24/7 staffed security and monitoring of its Chicago office, video surveillance and multiple security checkpoints requiring use of an electronic access card, through which physical access to facilities are strictly limited, visitors generally not allowed on the floor, and requirement that HT employees shut down computers when they step away from their desks);

b. ***Network and trading operations security*** (advanced use of next-generation firewalls, multi-factor authentication, DNS filtering, risk-based access control,

trading monitoring and control, and strict access controls for access to source code and other sensitive internal data);

c. ***Endpoint security*** (encryption of employees' endpoint devices, endpoint protection, advanced e-mail protection, least privilege access, anti-spoofing and impersonation protection, malware protection, and attachment filtering); and

d. ***General security*** (regular patching and updates, long-term message retention, versioning and backups of data, rigorous physical security at data centers, including biometric authentications, regular e-mail review by HT's compliance team, and no business allowed on personal accounts).

72. Authentication and complex password authorization are required for accessing: (a) Source Code; (b) Office365 (e-mail, Teams, and phone system); (c) HT's ticketing system, documentation, software build system, trading monitoring and control; and (d) HT's corporate data drive, employee private data stores, the recruiting portal, and contracts system.

73. During the COVID-19 pandemic, HT's quantitative researchers and software developers could access Code from their personal computers via a Virtual Private Network (VPN). However, VPN access could only be obtained from certain physical locations, such as an employee's or manager's residence, and required permission from management.

74. Accessing the VPN involved three layers of authentication: (a) connecting to the VPN; (b) logging into a remote desktop application with a username and complex password; and (c) providing credentials again before accessing servers or other areas that featured access to Code (for example, programs used to conduct Code reviews).

75. All of HT's trade secrets are developed in house, and no third parties have access to them. Moreover, unlike many other quantitative trading firms, HT intentionally limits the size

of its quantitative research and software development teams to further mitigate the risk of unauthorized disclosure and use of its Intellectual Property.

76. Further, even amongst HT's technical personnel, there are layers of permissions that control the level of access for individual employees based on their zones of responsibility.

77. HT also implements and, as evidenced by this lawsuit, zealously enforces robust policies that require employees to preserve the confidentiality of its Intellectual Property and to prevent its disclosure to outside parties. Those include:

a. ***HT's Code of Business Conduct and Ethics***, which requires employees to protect HT's confidential information and firm assets, to engage in fair and ethical competition, not to have personal conflicts of interest with HT, and not to misuse corporate opportunities, and otherwise to comply with all applicable laws, rules, regulations, and policies.

b. ***HT's Communications and Acceptable Use Policy***, which requires employees to use the firm's information technology resources to achieve the firm's business objectives and to protect HT's confidential information. It also forbids saving HT documents on any computer other than approved HT's computers, or from copying, downloading, or otherwise removing HT's source code, data, files, or other property from HT's networks.

c. ***HT's Outside Business Activities Policy***, which prohibits employees from becoming an employee, contractor, sole proprietor, officer, director, or partner of another person or entity, or from being compensated or having the reasonable expectation of compensation, as a result of any business activity outside of the scope of their relationship with HT, absent prior written approval. Examples of

Outside Business Activities include, but are not limited to, "consulting or contract work of any kind," or "owning all or a portion of a start-up business."

d. ***HT's Remote Work Policy***, which prohibits transmission of HT's data to "any unauthorized destinations," including personal email accounts, personal computers, or personal storage devices.

78. Employees are provided regular training about their confidentiality and other obligations, and new employees receive additional individual trainings, beyond the mandatory annual trainings. On an annual basis, employees must also complete attestations where they certify their attendance of annual compliance training, attest to familiarity with HT's policies, and confirm their lack of engagement in Outside Business Activity. Periodically, employees also receive company reminders and instructions about their confidentiality obligations.

79. Further, as described in detail below, HT requires employees like Ho, Liu, and Le to agree—as a precondition of employment and in consideration for agreed-upon compensation that is specifically quantified—to robust non-compete, non-solicitation, confidentiality and intellectual property agreements (collectively, the "Employment Agreements").

80. In addition, departing employees are consistently reminded about their continuing obligations to comply with their various obligations.

HT Hires Ho, Liu, and Le to Bolster Its Arsenal of Intellectual Property

81. In early 2019, Ho was looking for a buyer for Tolo Technologies ("Tolo"), a company that Ho publicly described as trading "around the world." After Ho met with HT to discuss the opportunity, HT declined to pursue the acquisition, because Tolo had not performed well, and HT expected that its technology would not approximate the levels of sophistication and value already achieved with the HT Code. Unbeknownst to HT at the time, Ho already had reached

the same conclusion, which is why he chose to later build ORS on the back of the Stolen Trade Secrets, rather than use Tolo technology and source code to drive the ORS ATS.

82. But the fact that Ho had failed to build Tolo into a successful quantitative trading firm was not a dealbreaker for HT. As HT well understood from its own experience, it is enormously difficult to build a quantitative trading start-up into a consistently profitable enterprise without substantial financial investment and years of concentrated effort from a collection of highly motivated industry experts. And so, HT continued to assess Ho as a potential candidate to join its quantitative research and software development team.

83. Ultimately, after an extensive screening process, HT elected to offer Ho a role as quantitative researcher and developer. Ho accepted the offer in April 2019 and began working for HT on July 1, 2019, after HT sponsored him for a H-1B work visa. Ho's annualized compensation package exceeded a million dollars. As a quantitative researcher, Ho was assigned to the AP1 strategy team, with a primary focus on developing, refining, and maintaining the stable of HT Atoms and HT Alphas that power AP1 and HT's other ATS.

84. In addition, at the time Ho was pursuing a professional opportunity with HT, HT was considering diversifying the scope of its trading operations and expanding into new markets, including but not limited to Chinese markets (the "China Initiative"). Ho played a key role in advancing the China Initiative and moving HT towards expanded trading in China. Among other things, he arranged for connectivity to international exchanges and data feeds and worked to establish partnerships with Chinese brokerage firms, telecommunications companies, and data center providers. By virtue of his role in advancing the China Initiative, Ho became intimately familiar with HT's plans to expand its trading operations in China and understood China to be a

region in which HT competes. As one Chinese broker remarked after meeting Ho, "we believe HT will become market leading participants in [the] Chinese market[.]"

85. Meanwhile, Liu had accepted a position with HT as a software developer several months before Ho, on April 15, 2019. Like Ho, Liu was tasked with developing and building upon HT's stable of trade secrets, including the Stolen Trade Secrets on a day-to-day basis, until his departure on April 16, 2021.

86. Le joined HT much earlier and left much later. He accepted a position with HT as a quantitative research developer and commenced work for HT in March 2018, following the terminations of any obligations Le owed to his previous employer.

The Ho, Liu, and Le Employment Agreements

87. Ho, Liu, and Le signed virtually identical Employment Agreements, each of which provided robust protections for HT's Intellectual Property, including in the form of restrictive covenants designed to put HT on notice of and mitigate an increased risk of misappropriation of its Intellectual Property stemming from former employees engaging in any competitive activity or with a competitive business during their employment and restricted periods.

88. Several provisions in the Employment Agreements survived the agreements' termination and "continue[d] in force without limit of time," including the confidentiality, the inventions assignment, and disclosure provisions.

89. Each of Ho, Liu, and Le breached their Employment Agreements in profound ways that directly and foreseeably harmed HT, including by (i) causing HT to pay millions of dollars expressly in consideration for performance that was not provided under the Employment Agreements (Ho Agmt., p. 3, ¶ 10; Le Agmt., p. 3, ¶ 9), and (ii) causing HT to spend hundreds of thousands of dollars to replace Liu and Le over and above what it would have cost to retain them if not for Ho's improper solicitation.

Duty of Loyalty

90. By accepting positions that afforded them access to proprietary, confidential, and trade secret information of the highest commercial sensitivity, Ho, Liu, and Le necessarily assumed fiduciary duties of loyalty and special responsibilities of confidence and trust for HT, and they were obligated not to abuse their special positions of trust to its detriment.

91. The Ho, Liu, and Le Employment Agreements make these obligations perfectly clear. By signing the Employment Agreements, they agreed to devote their "full time and effort" to their respective roles and any subsequent assignments, and to perform their duties "faithfully, industriously, and to the best of [their] abilities, experience, and talents." Ho Agmt. (Ex. A), p. 1, ¶ 1; Liu Agmt. (Ex. B), p. 1, ¶ 1. They also agreed that they owed HT "**an undivided duty of loyalty, and shall take no action adverse to that duty of loyalty.**" Exs. A-B, § 11 (emphasis added). To that effect, they were required to "promptly disclose to the Company any information that might cause the Company to take or refrain from taking any action, or which otherwise might cause the Company to alter its behavior." Further, they were required to "promptly notify the Company at any time that [they] contemplate terminating or decide to terminate employment with the Company, or contemplate entering or enter into competition with the Company . . . as the Company may decide at such time to limit, suspend, or terminate my employment and/or access to the Company's Confidential Information, Intellectual Property, or customer relationships." *Id.*

Confidentiality

92. By executing their Employment Agreements, Ho, Liu, and Le agreed to safeguard HT's confidential information both during and after termination of their employment with HT and acknowledged that "it has value to the Company." *Id.* § 2.

93. "Confidential Information" is defined in Section 1.2 of the Employment Agreements as including, but not limited to:

> [I]nformation regarding securities, futures and other trading positions and investments; trading strategies; transactions; research; computer programs; business plans; methods, operations, processes, business practices, marketing methods, costs, prices, commissions, fees, regulatory status . . . financial information, financing techniques and sources . . . Intellectual Property used or created in the business of the Company or its Affiliates, including ideas, designs, inventions, algorithms, computer programs and related documentation, proprietary trading systems and models, know-how, improvements and/or trade secrets.

94. Under Section 2 of the Employment Agreements, Ho, Liu, and Le agreed that, during their employment, "all Confidential Information provided to [them] or developed by [them] is the sole and exclusive property of the Company (or its respective Affiliates), is provided and held by [them] in trust," and that "the Company makes reasonable efforts to keep it confidential."

95. As part of their confidentiality obligations, Ho, Liu, and Le agreed not to "copy or remove Confidential Information from the Company's offices, except as is necessary in connection with [their] employment or engagement with the Company." *Id.*, § 2.3.

96. Further, they agreed that the Confidential Information shall remain confidential even after termination, and that upon termination, they "shall return all originals and copies of Confidential Information in [their] possession (including, but not limited to, originals and copies of any electronic documents, such as emails, Excel spreadsheets, PowerPoint presentations, and Word documents that exist on any personal computer, computer hard drive or other storage device)." *Id.*, § 2.4.

Inventions Assignment

97. The Employment Agreements contain an Inventions Assignment Provision, pursuant to which Ho, Liu, and Le agreed that:

> Any Intellectual Property made and/or conceived by me individually or jointly with others during the term of my relationship with the Company that relates directly or indirectly to the business of the Company or its Affiliates, that was created using the Company's equipment, supplies, facilities, or trade secrets, or that results from any work I performed for the Company, shall be exclusively owned by the Company or its Affiliates, including, without limitation, all rights to bring proceedings for any infringement thereof . . . and to recover damages in respect thereof.

Id., § 3.1.

98. Ho, Liu, and Le further agreed that "each work within such Intellectual Property is a 'work made for hire'" as defined in the Copyright Act (17 U.S.C. § 101 *et seq.*) *Id.* To the extent such Intellectual Property is not a work made for hire, Ho, Liu, and Le agreed to "hereby irrevocably assign all my right, interest and title therein (if any) to the Company and/or its Affiliates by way of present assignment and future rights." Further, Ho, Liu, and Le agreed that the Company has "an exclusive, irrevocable, royalty-free and fully-paid, sublicensable, perpetual, worldwide right and license to exploit such Intellectual Property (including any modifications, improvements, and derivatives thereof) and exercise all rights therein in any way the Company deems desirable." *Id.*

99. Additionally, Ho, Liu, and Le agreed they "will not be able to use any Intellectual Property of the Company or its Affiliates, even if [they] contributed to it, during or after [their] engagement with the Company, other than in connection with the conduct of the business of the Company and its Affiliates." *Id.*, § 3.3.

100. Ho expressly represented that the only "invention" he had conceived of prior to employment at HT was no invention at all, but rather only general "business know how in accessing and operating a principal trading business in Mainland China, including commodity futures, equity futures, cash equity and spot commodities markets." Ex. A., § 3.4; Schedule 1.

101. Ho also agreed to irrevocably assign to HT any purported invention that he conceived of prior to arriving there if "(i) the invention relates (a) to the business of the Company, or (b) to the Company's actual or demonstrably anticipated research or development; or (ii) the invention results from any work performed by me for the Company." *Id.*, § 3.9.

102. By virtue of Ho's reliance on his general "business know-how" that he had disclosed as a prior "invention" to inform and advance the China Initiative for HT, pursuant to Section 3.9 of the Employment Agreement, he assigned ownership of that purported invention to HT.

103. Indeed, given the shared competitive focus as between ORS and HT in developing advanced technology, quantitative research, and ATS for deployment in electronic trading on global derivatives markets, under a straightforward application of the Employment Agreements, HT is the lawful—and rightful—owner of all intellectual property developed by ORS while Ho remained employed by HT or subject to post-employment restrictive covenants.

Non-Compete Covenant

104. The Employment Agreements also required Ho, Liu, and Le not to engage, "directly or indirectly, in any Competitive Activity with any Competitive Business," during their employment with HT and during a Restricted Period lasting up to 12 months, as elected by the Company within 10 days after termination. Employment Agreements, § 8.

105. Post-termination non-competes, as the ones contemplated in the Employment Agreements, are typical in the trading industry and necessary to foreclose exactly the sort of widespread misappropriation of trade secrets for competitive purposes that Ho and Le engaged in here. Non-competes exist to help protect a firm's intellectual property by having former employees—often, as here, in exchange for additional compensation—agree not to engage in a competitive activity or with a competitive business for a specific period of time following

termination, allowing time for former employees' memory of specific trade secrets and other technical and operational details to fade and mitigate the risk of misappropriation.

106. Given the extreme commercial sensitivity of the Intellectual Property that Ho, Liu, and Le worked on and out of concern that they might be able to recall specific technical components from memory if sidelined for a shorter period, HT elected to impose the maximum 12-month term for each of them upon their departures from the firm.

107. "Competitive Activity" is defined to include, inter alia, "directly or indirectly . . . becoming an employee, advisor or consultant in a capacity that is identical or similar to the capacity I was in, or providing services or having responsibilities that are identical to the services I provided, during my employment with the Company." *Id.*, § 1.4. Further, "Competitive Business" is defined as any business "that engages in, or owns or controls a significant interest in any entity that engages in, any of the business activities identical or similar to any of those engaged in by the Company." *Id.*, § 1.5.

108. Further, the Employment Agreements state that, if HT elected to invoke the non-compete, it would pay Ho, Liu, and Le a pro rata share of their base salaries during the Restricted Period. *Id.*, § 8. It did so here, even though unbeknownst to HT, Ho and Le had no intention of holding up their end of the bargain and already had betrayed HT in profound ways. While getting paid not to engage in a Competitive Activity or with a Competitive Business for a year, they did exactly the opposite. Much worse, they did so while misappropriating large quantities of the most valuable Code that HT invented over more than a decade of concentrated investment and herculean efforts from a range of industry experts employed under strict terms of loyalty and confidentiality.

Non-Solicitation Covenant

109. The Employment Agreements' non-solicitation provision states that, for 18 months following termination, Ho may not "directly or indirectly solicit, induce, recruit, or encourage any

employee of the Company and/or any of its Affiliates or anyone else engaged by the Company or any of its Affiliates, to leave their employment or engagement with the Company or any of its Affiliates or become employed or engaged by [Ho] or for any other person or entity, and [Ho] shall not assist or direct others in such activities." *Id.*, § 9.

110. Similarly, Ho agreed that, for 18 months following termination, Ho would not directly or indirectly "solicit, induce or encourage any client, vendor, customer or investor of the Company for the purpose or effect of terminating, curtailing or adversely affecting its business relationship with the Company." *Id.*, § 10.

Cooperation and Post-Termination Disclosure Obligations

111. The Employment Agreements required Ho, Le, and Liu to "cooperate with and assist the Company and its Affiliates and provide information to the Company and its Affiliates as to matters in which [they were] involved in prior to the termination of [their] employment with the Company . . . ." *Id.*, § 7.

112. Further, Ho and Le agreed that, during the two-year period following termination, they "shall disclose to the Company, in writing, any person or entity with whom [they] become employed, contracted to, or otherwise affiliated, the hire or engagement date, [their] job title, and a complete description of [their] duties," no later than the date on which they become employed, contracted to, or otherwise affiliated with any such person or entity. *Id.*, § 12.4 (the "Disclosure Provision"). They also agreed that, during the two-year period following termination, they would disclose the existence and terms of the Employment Agreements to any person or entity with whom they become employed or affiliated. *Id.*, § 12.3.

113. By failing to adhere to their disclosure requirements, Ho and Le prevented HT from discovering the Defendants' brazen scheme until May 2023, several years after Ho put the scheme

in motion. Even then, HT only managed to discover the Defendants' scheme through the exercise of exemplary diligence and persistent investigation in the face of rampant dissembling by Ho.

114. Because Ho and Le failed to disclose the true nature of competitive activities both before and after departing HT, HT was deceived into paying them undeserved compensation, including bonuses and special payments expressly made in consideration for full compliance with contractual provisions that Ho and Le repeatedly violated.

115. In what can only be described as extraordinary displays of malice and hubris, Ho accepted and retained compensation and benefits from HT, even as he secretly conspired to loot HT of Intellectual Property and to divert away HT's resources for the mutual benefit of ORS and Tower. Even worse, Ho persuaded Liu and Le to do the same.

116. As a direct and foreseeable result of Ho breaching his contractual obligations, HT suffered serious monetary damages, including, most obviously, in the form of funds paid to Ho in reliance on performance under the contract that he did not provide. More specifically, HT's payments to Ho included an annualized base salary of $200,000; a signing bonus of $10,000; annualized cash bonuses of $210,000 for 2019, $620,000 for 2020, and $400,000 for 2021; and, in exchange for agreeing to his non-compete, his base salary of $200,000. Those payments were expressly made contingent on Ho meeting his obligations under the Employment Agreement.

117. Further, a direct and foreseeable result of Le breaching his contractual obligations, HT suffered serious monetary damages, including in the form of funds paid to Le in reliance on performance under the contract that he did not provide. More specifically, HT's payments to Le included an initial annualized base salary of $175,000; a signing bonus of $100,000 in 2018; annualized cash bonuses of $300,000 for 2019, $425,000 for 2020, $508,000 for 2021, and $400,000 for 2022; and, in exchange for agreeing to his non-compete, his base salary of $175,000.

Those payments were expressly made contingent on Le meeting his obligations under the Employment Agreement.

118. Accordingly, at a minimum, by willfully breaching their Employment Agreements, Ho and Le are liable for the compensation expressly contingent on their ongoing adherence to the Employment Agreements in the specific amounts set forth above.

Stipulation of Irreparable Harm

119. Under the Employment Agreements, Ho and Le agreed that, "[i]n the event of any breach of or default . . . by me, the Company will suffer irreparable harm for which there is no adequate remedy at law," and Headlands "will be entitled, without limiting other recourse available to it, to temporary and injunctive relief, specific performance and other equitable relief . . . ." *Id.*, § 12.5. This provision in the Employment Agreement survived the termination of the agreements and respective non-compete covenants, "continu[ing] in force without limit of time." *Id.*, § 12.9.

Ho's Secret Plot to Steal From, and Unlawfully Compete With, HT

120. Notwithstanding these unambiguous contractual requirements, Ho had no intention of letting his Employment Agreement, or any legal or moral duties, stop him from advancing ORS to the detriment of HT. Although Defendants' misconduct culminated in a fraudulent trading scheme and racketeering enterprise that preyed upon HT and polluted the integrity of CME, ICE, and other markets beginning in or around September 2022, the origins of the scheme and the underlying trade secret theft date back to at least early 2021.

121. By late 2020 or early 2021, Ho already had been secretly working in coordination with Tower, for whom Ho had previously worked from 2012 to 2015, to plan for the development and launch of ORS, with the ultimate aim of deploying pirated ATS infused with HT Atoms and HT Alphas through Tower. Remarkably, Ho moved to aggressively implement his illicit plan while still actively employed by HT.

122. On March 13, 2021, while Ho remained actively employed as a quantitative researcher at HT, he formally registered a website for ORS in furtherance of the scheme and, on information and belief, began working to secure office space for ORS.

Ho Recruits Liu in Violation of His Employment Agreement, but Remains at HT While Secretly Advancing ORS's Agenda to Steal HT Intellectual Property

123. Despite owing HT a strict duty of loyalty and expressly agreeing not to compete against HT or poach its employees, Ho also made it a top priority to persuade Liu, another software developer employed at HT, to help him surreptitiously launch ORS with Tower's assistance. Like Ho, Liu had access to HT's Code, Atoms, Alphas, API, Simulation and Research Technology, and Visualizer, which Liu was tasked with developing, enhancing, and maintaining for HT's exclusive benefit.

124. In or around early March 2021, while Liu was still at HT, to create a paper trail making it look like Liu was being recruited by a third party, Ho arranged for a recruiter to contact Liu—ostensibly about an opportunity to work with Tower, purportedly as a software researcher or quantitative developer. Liu met with various Tower personnel including Mohammed Edalati, who explained Tower's onboarding process for new trading teams and asked Liu questions about HT.

125. Liu was also interviewed by John Cogman, Tower's Chief Investment Officer, who was aware at that time of Ho's plan to create a new trading firm that would ultimately trade through Tower's trading platform. Cogman mentioned Ho's name and told Liu that he would be working with Ho, who would be managing things. In other words, Cogman made it clear to Liu that ORS and Tower were coordinating their efforts to recruit and onboard him for their joint enterprise.

126. After receiving numerous recruiting pitches from Ho and senior employees from Tower, Liu felt secure enough about his future employment prospects and resigned from HT on March 19, 2021.

127. Notably, Liu's non-complete obligations were no secret to Tower. At Tower's request, Liu forwarded his non-compete and confidentiality agreements with HT to Tower on March 26, 2021.

128. Thereafter, Tower made an offer of employment to Liu in early April 2021, proposing a start date the following year, when Liu's non-compete was set to expire. But Ho informed Liu that he need not sign the letter, since the actual plan was for Liu to report to Ho within ORS, rather than Tower. Upon information and belief, the only reason that Tower extended Liu an offer was to create a paper trail suggesting that Tower intended to honor Liu's noncompete when, in fact, Ho and Tower planned to disregard it all along.

129. On April 16, 2021, HT provided Liu with formal notice that it had elected to enforce a 12-month non-compete agreement as provided by Liu's Employment Agreement (the "Notice to Liu"). The Notice to Liu reminded him that he was forbidden from engaging, directly or indirectly, in any Competitive Activity with any Competitive Business as defined in the Agreement. In exchange, HT paid Liu his full base salary of $200,000 over the 12-month non-compete period.

130. Notwithstanding the non-compete agreement with HT, at Ho's urging, Liu began secretly performing services for ORS in or around April or May 2021. At the time, Liu understood that ORS would be developing a quantitative research platform and software for ATS, but Ho sought to placate Liu's concerns over the competitive nature of their work at ORS by falsely representing that he had already disclosed ORS to HT.

131. In the wake of Liu's departure, HT was compelled to undergo an expensive and rigorous recruitment process to identify and hire individuals with the appropriate skills to compensate for Liu's departure. The new hires required additional time and resources to reach the level of understanding that Liu had, along with guaranteed compensation that exceeded what it

would have cost HT to retain Liu but for Ho's illicit solicitation of him. Accordingly, Ho's solicitation of Liu directly caused economic harm to HT, including costs associated with recruiting, hiring, and training new personnel.

Ho Misappropriates HT's Trade Secrets While Still at HT

132. After collaborating with Tower to improperly recruit Liu away from HT, Ho himself remained at HT for the next several months, making use of his time there to take additional furtive steps towards advancing his ORS agenda. With Liu in the fold, and while still actively employed at HT, Ho focused on implementing his scheme to siphon away HT's most valuable trade secrets for illicit use by ORS and Tower's collective benefit.

133. In April or May 2021, while Ho was still working at HT and Liu was on his 12-month non-compete period, Ho and Liu began assembling the technical infrastructure for ORS, with Ho instructing Liu to "re-create" HT's Visualizer for ORS. Liu promptly obliged, drawing upon his intimate knowledge that he gained at HT—knowledge that remained fresh considering that Liu had only departed HT weeks earlier.

134. In the months that followed, Ho continued to divert substantial time and energy away from his responsibilities at HT towards preparing ORS for launch in other material ways, including by, among other things, organizing ORS as a Delaware limited liability company in May 2021, conducting research in support of ORS in June 2021, registering ORS to operate in New York in July 2021, and recruiting other software developers to join ORS in the summer of 2021.

135. In the meantime, Ho made use of his ongoing employment at HT to outright steal the HT Code that serves as the technical engine for HT's ATS. Without any apparent respect for the legal, contractual, and moral duties that he owed HT, Ho used his HT security credentials and remote access capabilities during the COVID-19 pandemic to copy HT's Proprietary Source Code,

including a large volume of HT Atoms, HT Alphas, and AP1 configuration and parameters, for direct use and implementation in the ORS code.

136. The months during which Ho remained at HT after Liu's departure and ORS's incorporation were busy ones for Ho. Throughout this period, Ho retained access to HT's systems and was able to access its network and systems from home through a Virtual Private Network (VPN) that HT provided to him.

137. Despite having a strict duty of loyalty and a contractual obligation to dedicate his full professional focus and energy to HT, Ho used his ongoing access to HT's network and systems (including HT's Code) to misappropriate HT trade secrets for use by ORS, including by stealing and implanting HT Atoms and HT Alphas directly into the ORS codebase.

138. For example, to populate ORS's "library" of "nodes," Ho helped himself to HT's library of HT Atoms, directly transferring the substance of HT Atoms, along specific parameters and Code functions that HT deploys with them, into the ORS codebase.

139. A determined and sophisticated bad actor can overcome even the most robust security measures—and that was the case with Ho. Ho covertly extracted the Proprietary Source Code in a manner designed to avoid detection, including during ostensibly work-related use of HT's coding tools and technical infrastructure. He did so by directly copying and pasting HT's Code, including HT Atoms and HT Alphas used for AP1, inclusive of custom HT parameters, configurations, and accompanying Code functions, into separate files that he labeled as belonging to ORS. Then, in an effort to obfuscate his direct theft of these core trade secrets, Ho made various cosmetic and formatting changes to this stolen Code, including translating broad swaths of it into a different computer programming language, switching out select naming conventions

synonymous with HT Code, and scrubbing out references to "HT." In each case, however, Ho ensured that the substance of the misappropriated HT Code remained intact and unaffected.

140. For example, to populate ORS's "library" of "nodes," Ho helped himself to HT's library of HT Atoms, directly transferring the substance of HT Atoms, along specific parameters and Code functions that HT deploys with them, into the ORS codebase. The breadth of Ho's theft of HT Atoms is also documented in ORS schematic files contained in the Zhou production, which include thousands of direct references to HT Atoms.

141. In much the same vein, to fill out ORS's "cookbook" of alphas, Ho liberally drew upon the HT Alphas, implanting copycat versions, inclusive of specific parameters and HT Code functions that HT deploys in connection with trading its most profitable ATS. Not content to stealing underlying HT Code for HT Alphas, in many instances, Ho implanted the exact same parameter values contained in HT Alphas used to power the AP1 strategy in ORS code.

142. To replicate HT's Simulation and Research Technology, Ho not only caused ORS to replicate the proprietary methodology underlying that technology and overall research architecture, complete with abstractions that would be impossible to replicate from memory or reverse engineering, he also drew upon on HT Code for running ATS simulations and the intimate familiarity that he and Le had from their deep experience working with that technology at HT, including Le's fresh exposure to the latest simulation and research innovations at HT, to develop a copycat version that would allow them to approximates the way that HT scales its quantitative research to greatly enhance operational efficiency and optimize ATS.

143. Still more, consistent with what three separate ORS insiders relayed to HT, the ORS source code files reflect a concentrated effort to misappropriate the HT Code most essential to operating the AP1 strategy from which HT has generated billions of dollars in profits.

144. Not coincidentally, Ho caused ORS to focus its efforts on developing an ATS designed to mimic API, which Ho and Le had been specifically assigned to work on at HT, with Liu's support. Ho also openly used API as the technical blueprint for ORS's design of a copycat ATS in conveying instructions to ORS employees, drawing upon the stolen HT Code, including HT Atoms and HT Alphas, to inform those development efforts. Over Slack and otherwise, Ho regularly discussed the specifics of API and other HT Intellectual Property with ORS employees, without disclosing to them that he had stolen the critical HT Code used to power the API strategy.

145. In addition to directly copying HT's Code used for API, Ho used his remaining time at HT to take notes about API and the Proprietary Source Code and made use of them in developing ORS's copycat version.

146. ORS employees would later deploy ORS's copycat version of API through Tower's high-speed trading execution platform to place orders in financial markets around the world, including on the CME and ICE markets in which HT trades.

147. Along the way, in April or May 2021, Ho told Liu and another ORS employee Jiatong Zhou that ORS should create new engineering documentation, but that ORS needed to be careful to designate new names for software components that had been used at HT.

148. But the process of covering their tracks must have become too laborious for Ho, because he did not practice what he preached in all instances. Indeed, as the ORS source code files made available to HT show, in many examples of direct misappropriation of HT Atoms and HT Alphas, Ho elected to retain HT naming conventions and simply cut and paste the HT Code straight into the ORS code base, even going as far as to copy over internal HT's engineering notes, which are the code equivalent of comments left in a Microsoft Word document (and, in this case, further conclusive proof of his direct theft of HT Code).

149. In the end, Ho and ORS failed to fully cover their tracks. Even limited spot checks of the ORS codebase revealed hundreds of undeniable combinations of HT Code in plain sight, including obscure parameter values, variable or type names, line-by-line copies of HT Code, and research architecture that uses the exact same concepts and abstractions as HT, and many other markers that would be impossible to reconstruct from memory or by coincidence. Needless to say, this systemic copying and translation of the Stolen Trade Secrets into ORS's code base could not have been achieved without improper acquisition, use, and disclosure of HT's Stolen Trade Secrets, and accompanying breaches of confidentiality and other obligations with respect to HT's Intellectual Property writ large.

While Still at HT, Ho Hires Additional ORS Employees, and Further Discloses HT's Trade Secrets

150. In or around May 2021, while still working at HT, Ho recruited Jiatong Zhou and Jeff Cai to join ORS as research developers. Zhou and Cai began working for ORS informally, until they signed written employment agreements in July and August 2021, respectively.

151. Ho sent Zhou and Cai employment offer letters featuring ORS on the letterhead, even though Ho was still working at HT.

152. By June 2021, Ho and ORS purported to have already obtained office space in the World Trade Center, even though Ho was still working at HT.

153. Through the employment letters, Ho and ORS represented that Zhou and Cai had the opportunity to participate in employee benefits and to participate in a "phantom stock plan."

154. According to Cai, in recruiting him to join ORS, Ho told Cai he would be joining a quantitative trading platform that blurred research with trading—and that he would be responsible for both—an organizational structure that mirrored HT's.

he would soon "become employed by Tower Research as a Quantitative Developer," and that his "job duties are anticipated to include software development and quantitative research relating to trading strategies and investment management of financial instruments employed by Tower and/or its affiliates." While Liu did work for Tower's benefit on a broad range of competitive activities, he failed to disclose that he had been performing services for ORS since in or around April 2021. In fact, Liu was still employed by ORS while seconded to Tower—a fact that Ho urged Liu not to disclose to HT in order to keep ORS's role in the scheme under wraps.

Ho Recruits Another Former HT Employee in Violation of the Employment Agreements, and Misappropriates Additional Stolen Trade Secrets

175. In another violation of the non-solicitation obligation in his Employment Agreement, Ho recruited another former HT employee, Defendant Hai-Son Le, who was armed with the latest information about how HT was operating its trading platform, including the latest iterations of the Proprietary Source Code and the Simulation and Research Technology.

176. In late 2021 or early 2022, Ho initiated communications with Le with the purpose of persuading him to join ORS. Other ORS employees had observed that Le and Ho were good friends and worked particularly closely together at ORS, so Ho had no trouble connecting with Le over the ORS opportunity.

177. In inducing Le to join ORS, Ho assured Le that Le could work remotely for ORS from San Diego, California, which was important for Le.

178. Le resigned from HT on February 8, 2022, and notified HT on February 15, 2022 that he had accepted an offer at Amazon for a position as an Applied Scientist. On March 10, 2022, when Le's resignation became effective, as with Ho and Liu, HT sent Le a letter electing a 12-month non-compete period in exchange for paying his annual base salary.

179. In early 2022, long before Le's non-compete period expired, Ho extended an offer of employment to Le from ORS, which Le accepted.

180. Ho intentionally obscured Le's involvement with ORS during Le's non-compete period by (i) ensuring there was no formal employment agreement on record and (ii) providing Le "guestuser" login credentials to avoid any record of Le personally accessing ORS's systems.

181. Ho also offered to provide Le with "phantom stock" as an inducement to join ORS, meaning that Ho and ORS promised to pay Le a monetary award equal to a certain percentage of the value of ORS stock in exchange for Le's employment at ORS.

182. Like Liu, Le played an integral role on the AP1 team at HT. Le's departure, together with Liu's the prior year, resulted in significant disruption to the AP1 team. Both Liu and Le had specialized knowledge and intimate familiarity with HT Code—and the sudden loss of that knowledge necessitated urgent and costly measures to maintain the competitiveness and functionality of HT's trading platform.

183. HT expended significant time and resources recruiting a replacement for Le, due to Ho's unlawful solicitation in violation of his Non-Solicitation Clause. In the wake of Le's departure, HT was compelled to undergo an expensive and rigorous recruitment process to identify and hire a replacement with the appropriate skills to compensate for Le's departure, including substantial guaranteed compensation that exceeded what it would have cost HT to retain Le but for Ho's illicit solicitation of him. Accordingly, Ho's solicitation of Le directly caused economic harm to HT, including costs associated with recruiting, hiring, and training new personnel, along with lost productivity among the AP1 team.

184. Further, both Ho's and Le's failure to disclose their affiliations with ORS, and ongoing misconduct in deceiving HT, led HT to incur significant investigative expenses. These

costs included hiring a third-party forensics vendor and incurring tens of thousands of dollars in attorneys' fees to thoroughly investigate the matter. As an ORS employee, Le joined Ho in marshaling the Stolen Trade Secrets to facilitate and accelerate the development of ATS that could be traded through Tower under the Tower Agreement.

185. Given that Ho was still employed at HT when he began coding for ORS, and that both Ho and Le both accepted their base salaries from HT in exchange for 12-month non-compete agreements, Ho and Le each caused HT to unwittingly subsidize the creation and growth of a competitive trading software development and quantitative research trading company whose overriding mission was (and is) to provide technical development and quantitative research trading services to Tower, HT's direct competitor.

186. By hiring Le (in addition to Liu), Ho strategically drew upon HT personnel and their ongoing knowledge of HT Proprietary Source Code to continue Defendants' brazen campaign of misappropriation. With Le's help, for example, Ho and ORS misappropriated the HT Simulation and Research Technology.

ORS Expands Its Trading Activity Through Tower, and Together They Engage in a Pattern of Fraudulent Trades in CME, ICE, and Other Markets That Harmed HT

187. In or about September 2022, ORS—using the Stolen Trade Secrets—began trading through Tower's high-speed execution platform on the CME, ICE, and other markets, after having previously traded with pirated versions of the stolen HT Atoms, HT Alphas, and API elsewhere.

188. Tower benefited from the scheme with ORS because it obtained access to and directly profited from the trading using ATS derived from the Stolen Trade Secrets. Once the requisite ORS employees were seconded to Tower, ORS functionally, if not literally, began trading as an internal trading pod within Tower on various markets, operating under Tower's trading infrastructure and supervision.

189. Through Tower, ORS profitably traded products including the CME FX futures, CME agriculture futures (grains and livestock), CME crude oil and refined products futures, CME metals futures, ICE crude oil and refined products futures, and ICE agriculture futures (grains and soft commodities), with the number of daily trades spanning thousands.

190. These are futures markets and asset classes in which HT traded and continues to trade, on the order of hundreds of thousands of trades per day.

191. On information and belief, Tower's trading platform allows it to execute trades with exceptional speed and precision. Enabled by Tower's high-speed trading platform, Defendants and Tower were able to execute trades based on HT's Atoms, Alphas, and API, before HT could execute the same trades—thus depriving HT of the profit it would have realized on those trades. Put another way, ORS's pirated ATS usurped profitable trades directly from HT by utilizing the Stolen Trade Secrets in combination with Tower's high-speed execution platform to generate and execute on anticipated price movements before HT could capitalize on them.

192. And Tower was by no means an unwitting participant in this deceptive scheme. Much to the contrary, Tower helped Ho recruit HT employees to ORS (and, by extension, to Tower via the subsequent secondment agreement), while fully aware of their non-compete and confidentiality agreements with HT and while deploying similar measures to protect its own intellectual property. Notwithstanding its awareness of those protections, Tower required that ORS disclose the source code underlying its pirated ATS directly to it for purported "risk reviews," and allowed ORS to use its high-speed trade execution platform to deploy ATS that it knew or should have known to be derived from HT trade secrets—both because of the level of deception involved in the scheme from the start and due to the impossible timeline in which ORS purported to deliver fully operational ATS capable of operating profitably.

193. Even if Ho had intended to develop ORS from scratch—which he most certainly did not, as evidenced by his rampant theft and dissembling—as Tower well understood, it would be impossible for Defendants to have independently developed competing technology that approximated the conceptual sophistication, technical complexity, and superior engineering reflected in the pirated ATS within mere months, much less just one month after Ho's non-compete ended in August 2022. But that's exactly what happened when ORS started trading its pirated ATS on CME, ICE, and other markets in or around September 2022, with Tower's support, even as Le remained subject to his non-compete agreement.

194. Underscoring its culpability, after HT warned Tower about Ho's ongoing obligations to HT by letter dated August 16, 2022, Tower proceeded to greenlight trading using ATS that Tower knew ORS had assembled during the period of Ho and Liu's non-compete agreements. And even after HT confronted Tower about Ho's fraudulent scheme—privately via letters dated June 12, 2023, and then publicly via court filings in this dispute that laid out direct and specific evidence of Defendants' theft and confidentiality breaches in connection with ORS's development of the ATS, including direct reports from ORS insiders, admissions of wrongdoing by Ho, and evidence of widespread spoliation and ORS employees resigning en masse—Tower continued (and, upon information and belief, continues) to facilitate fraudulent trading on CME, ICE, and other markets by allowing ORS to pipe its pirated ATS through its execution system.[2]

[2] Tower's apparent disregard for the law in respect of the ORS scheme is particularly brazen considering that Tower coordinated with Ho to pull it off while subject to a deferred prosecution agreement with the U.S. Department of Justice arising from another fraudulent scheme that Tower perpetrated in CME markets. *See United States v. Tower Research Capital LLC*, No. 19-cr-819, Deferred Prosecution Agreement (DPA), *available at* https://www.justice.gov/d9/pressreleases/attachments/2019/11/07/tower_dpa_0.pdf (Tower agreement to pay $67,493,849 in criminal monetary penalties, criminal disgorgement and victim

195. Of course, even if Tower was not fully aware of the extent of Ho's misappropriation by the time of these notices, at a minimum, it had every opportunity to investigate HT's claims for itself. But there is no indication that ever happened, and Tower apparently preferred to rest on its prior efforts to engineer plausible deniability for its role in the ORS scheme. It was not until HT obtained access to the incriminating ORS source code files via a nonparty subpoena that Tower suddenly took an interest in this controversy, sending threatening letters to the former ORS employees and joining Defendants' belated efforts to prevent HT from accessing the ORS source code files evidencing theft of HT trade secrets on a massive scale.

196. Ultimately, irrespective of whether Tower had full knowledge of Ho and ORS's theft of HT trade secrets back in 2021, Defendants knew at all relevant times that they were violating CME and ICE rules using pirated ATS derived from HT trade secrets, and Tower certainly knew at all relevant times the ORS ATS had been assembled by Ho, Liu, and Le during the pendency of their non-competes in violation of CME and ICE rules. At a minimum, therefore, Defendants and Tower shared the common purpose of violating CME and ICE rules by knowingly and unlawfully competing against HT and other market participants in CME and ICE markets. Moreover, by virtue of its involvement in the ORS deception, its access to stolen Code, and HT's private and public broadcasting of Ho and ORS's misconduct, at a minimum, Tower should have known that was ORS was trading with pirated trading technology as of the filing of this lawsuit on June 12, 2023.

197. Either way, the specific CME rules violated by ORS and Tower include: Rule 432.C (dishonest conduct), Rule 432.T (dishonorable or uncommercial conduct), Rule 432.B.2

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compensation arising from a Tower trading team's fraudulent placement of orders to buy and sell E-Mini futures contracts with the intent to cancel those orders before execution).

(conduct inconsistent with just and equitable principles of trade), Rule 432.B.1 (fraud or bad faith), Rule 575.B (trading with intent to mislead other market participants), Rule 575.D (trading with reckless disregard for the adverse impact on the orderly conduct of trading or the fair execution of transactions), Rule 432.O (misuse of CME trading facilities), Rule 432.Q (acts detrimental to the interests of CME exchanges), Rule 432.W (failure to diligently supervise employees or agents), and Rule 432.X (aiding and abetting Rule violations).

198. Defendants and Tower also violated ICE Rule 4.04 by engaging in "conduct or practices inconsistent with just and equitable principles of trade," and "conduct detrimental to the best interests of the Exchange."

199. By placing orders in CME and ICE markets using ATS assembled in violation of contractual obligations owed to HT and infused with the Stolen Trade Secrets, Defendants and Tower were implicitly representing that they were complying with all CME and ICE rules. Given their experience trading in such markets, ORS and Tower were familiar with CME and ICE rules, and the market wide expectation that traders would follow them when placing orders. Yet they falsely implied that all of their CME and ICE trades were compliant with the above Rules, while knowing they were not. These implied misrepresentations were made with the intent to defraud other market participants, including HT.

200. HT and other market participants relied on these implied misrepresentations by expecting all CME and ICE traders to comply with the CME and ICE Rules. This reliance was reasonable and foreseeable, as adherence to these Rules is a fundamental expectation in the markets that participants, including HT, had at all relevant times. Consequently, HT and other market participants suffered harm due to Defendants' and Tower's fraudulent actions and the resulting disruption of fair market practices. In the case of HT, the harm includes the direct loss

of profitable trades that otherwise would have been captured by HT but for ORS and Tower usurping them using ATS infused with the Stolen Trade Secrets.

201. All CME and ICE orders, together with orders placed on other exchanges, have a substantial effect on interstate commerce. CME and ICE operate as major trading platforms within the United States, and trades executed on the CME and ICE influence market prices, liquidity, and trading behaviors across state lines and even internationally. Therefore, the fraudulent orders not only impacted HT, but also had broader implications for the integrity and functioning of interstate commerce.

Defendants' Misappropriation and Fraudulent Trading Resulted in Significant and Ongoing Losses to HT, and Unjust Enrichment to Defendants.

202. Between September 2022 and December 2022, HT's ATS profits cratered in its high-frequency trading, amounting to lost profits in the tens of millions of dollars per month.

203. HT's lost profits were particularly acute with respect to its AP1 trading strategy.

204. These dramatic declines in profitability cannot be explained by any corresponding evolution in market conditions, particularly given the flexibility of HT's ATS to profitably operate in any set of market conditions. At a minimum, the fraudulent trading undertaken by ORS through Tower meaningfully contributed to those declines.

205. As the foregoing makes clear, by using, disclosing, refining, or incorporating the Stolen Trade Secrets into their competitive business, Defendants were unjustly enriched and gained a significant advantage avoiding having to spend the many years and the tens of millions of dollars of research and development time and costs that HT has spent.

206. Moreover, by virtue of their deceitful actions, and with knowing disregard of their contractual obligations and governing law, they have substantially profited from—and continue to

substantially—and unjustly—profit from—their ongoing use and disclosure of the misappropriated Stolen Trade Secrets.

207. Indeed, ORS's (and Tower's) trading profits from the use of AP1 and the other Stolen Trade Secrets are directly proportional to HT's lost profits in not being able to execute those same trades, because liquidity in the markets is finite and fleeting.

208. The improper acquisition, use, or disclosure of the Stolen Trade Secrets by a competing software development or trading firms like ORS and Tower unfairly usurps and degrades the extraordinary value of the Stolen Trade Secrets that HT invested so many years and tens of millions of dollars to create. It also compromises the competitive advantage that these trade secrets have historically afforded HT in markets around the world, including U.S. derivatives markets like the CME and ICE exchanges.

209. Among other things, the improper acquisition, use, or disclosure of the Stolen Trade Secrets permits competing trading firms like ORS and Tower to utilize features and functionality unique to HT, and to make profitable trades that would otherwise be available to HT but for ORS and Tower knowingly violating exchange rules by deploying pirated ATS developed in violation of known non-compete violations and infused with the Stolen Trade Secrets.

210. Every day that ORS and Tower continue to utilize the Stolen Trade Secrets, including by deploying the copycat version of AP1, and misrepresent their compliance with CME and ICE rules, HT suffers additional lost profits, and its competitive advantage erodes in the financial markets.

211. The loss of exclusivity in the Stolen Trade Secrets also substantially damages HT's enterprise valuation in an amount that corresponds directly to the profits that ORS and Tower generating trading pirated ATS in breach of known obligations.

Defendants Attempt to Conceal Their Misconduct

212. For his part, Ho certainly understood the gravity of his theft and betrayal. To illustrate: while negotiating the terms of his employment with HT, Ho explicitly acknowledged the industry-wide sensitivity to trade secret protection and repeatedly attested that he understood the importance of safeguarding HT's trade secrets and confidential information both during and after his employment. Ho's blatant misappropriation, notwithstanding his express understanding of its wrongfulness, demonstrates his remarkable hubris and bad faith.

213. Ho did all of this without a word to HT about what he and his ORS confederates were doing. Indeed, notwithstanding strict disclosure requirements in his Employment Agreement—and after Ho certified, on at least three occasions, that he understood and agreed to firm policies mandating that he disclose any outside professional pursuits—Ho secretly worked against the interests of HT and stole its trade secrets and other HT Intellectual Property to develop ORS and eventually compete with HT through Tower.

214. Further evidencing their deliberate wrongdoing, Ho and ORS have attempted to cover their tracks at every turn. Indeed, they have repeatedly lied to HT about the existence and focus of ORS, the nature and extent of their ongoing collaboration with Tower, their future plans, and Ho's purported compliance with his contractual obligations to HT.

215. For example, in April 2022, Liu responded to inquiries from HT regarding his work plans following the expiration of his non-compete period. At Ho's direction, Liu misleadingly claimed that he would "become employed by Tower Research Capital as a Quantitative Developer" in April 2022, with responsibilities "anticipated to include software development and quantitative research relating to trading strategies and investment management of financial instruments employed by Tower and/or its affiliates as required by the company." After HT filed its complaint in this action, Liu admitted that he had started working for ORS in or around April

2021—approximately a full year before the April 2022 date that he had previously reported to HT that he was going to start working with Tower.

216. Consistent with the deceptive manner in which Ho operated during his tenure at HT, on July 25, 2022, when HT—in the exercise of exemplary diligence—reminded Ho of his contractual obligation to disclose any new employment or affiliations as his non-compete period with HT was ending, Ho continued to hide his affiliation with ORS and the nature of its ongoing business. Ex. D, p. 1. Despite having registered the ORS website ***16 months earlier*** and spearheading the development of its business over the intervening period, Ho sought to mislead HT by deliberately omitting any mention of ORS in his responsive disclosures.

217. Worse yet, Ho sought to create the false impression that he had not been engaged in any professional pursuit in the proprietary trading sector for a period of time after departing HT. Instead, any professional plans that he did disclose, he framed in forward-looking terms. For example, on July 26, 2022, Ho represented that he "expected to take on a research and management role" at Tower—an intentionally misleading disclosure designed to obfuscate the reality: namely, that he had already founded ORS and had agreed by no later than 2021 to provide advanced technology and development services to Tower through ORS, with the intent of drawing on the Stolen Trade Secrets to jumpstart his nascent business.

218. On August 9, 2022, HT emailed Ho requesting additional contact information at Tower, as standard procedure, and to confirm Ho's new job title with Tower. *See* Ex. E, p. 1. Ho responded on August 14, 2022 with contact information and his job title. Ex. F, p. 1. HT then sent a letter on August 16, 2022 to Tower regarding Ho's continuing obligations to HT under Ho's Employment Agreement. See Ex. G, pp. 1-2. Tower never responded.

219. Just like Liu and Ho before, Le failed to promptly disclose his relationship with ORS to HT. It was not until April 2023 that Le disclosed that he had just "started" a job with ORS to "write software to analyze financial market data," as he had been doing at HT. As HT would later discover, however, Le had been working at ORS since 2022, using a "guestuser" identifier to obscure violations of non-compete obligations owed to HT.

HT Discovers Defendants' Unlawful Scheme

220. On February 9, 2023, HT informed Ho that it had developed reasons to suspect that he had violated his Employment Agreement and company policies, including the Outside Business Activities policy. It asked Ho, among other things, to confirm that he did not retain, access, or directly or indirectly utilize or disclose HT's Confidential Information. HT also directed Ho to retain and preserve all evidence regarding HT, ORS, and Ho's post-separation professional activities in the financial industry. *See* Ex. H, pp. 1-2.

221. In response, on February 22, 2023, Ho acknowledged for the first time through counsel that he formed ORS while still employed at HT, and that he "began developing software and related services to Tower" upon his resignation. Ho further acknowledged that he "controls [ORS]," and Tower "is the sole client" of ORS. *See* Ex. I, pp. 1-2. Ho's responses to HT included several false and misleading claims, which Liu would contradict the following month. For example:

a. While Ho admitted for the first time that he entered an agreement in September 2021 to begin "developing software and related services to Tower" (in clear violation of his contractual covenants with HT), he attempted to justify this clear breach of his non-compete agreement based on the caveat that these products and "related services" were narrow in scope and were not delivered to Tower until June 2022. But Liu's own disclosures to HT directly belied this purported justification.

To wit: Liu admitted that ORS had been providing a broad array of services to both Tower (a U.S. entity) and its "many affiliated companies, organizations, and trading teams" much earlier than June 2022. And regardless, Ho's non-compete period with HT did not end until August 2022, meaning that he was violating his post-employment restrictive covenants even if the June 2022 delivery date were true.

b. Ho also denied that he had "directly or indirectly disclosed any HT confidential information" to ORS or Tower and, still more, claimed that he had no such information to share. In fact, Ho had stolen the Proprietary Source Code underlying API, along with the unique combination of signals embedded therein, while instructing other ORS employees to replicate other HT Stolen Trade Secrets, including its Visualizer and Simulation and Research Technology.

c. Further, despite the fact that Liu had started working for ORS in or around April 2021 (while Ho remained employed at HT and under a strict duty of loyalty), and Le joined ORS in early 2022, Ho made the obviously false assertion that he had not solicited or encouraged anyone from HT to join him at ORS.

222. HT responded to this letter, through outside counsel, on March 1, 2023. *See* Ex. J, pp. 1-4. Counsel for Ho responded with a letter on March 16, 2023. *See* Ex. K, pp. 1-3.

223. Even after HT pointed out the multitude of ways in which Ho's claims about his work with ORS and Tower could not be reconciled with existing information, Ho continued to double down on his deception. For example, by letter dated March 16, 2023, Ho—through counsel—purported to emphasize the degree of separation between ORS and Tower and again sought to minimize the scope of services that ORS provided to Tower. Here again, however, Ho's claims were directly belied by Liu, who characterized ORS as an "affiliate" of Tower that provided

a broad range of technical development and quantitative research services to Tower. It is clear that Ho intended ORS to serve as a form of corporate window dressing to hide this functional reality.

224. As with Ho, on March 1, 2023, HT informed Liu that it had serious concerns as to whether he violated his Employment Agreement's restrictive covenants. It requested that Liu describe his work for Tower; his affiliation with ORS; his communications with Richard Ho; what, if any, Confidential Information he has had access to following his resignation; and how he used or disclosed it.

225. In response, on March 15, 2023, Liu e-mailed HT acknowledging—for the first time—his ORS affiliation. In the e-mail, Liu stated that he "frequently interact[s] with members of Tower and their affiliates, including [ORS] and including Richard Ho." Liu's response confirmed that ORS did not merely license a specific product or set of products to Tower. Instead, Liu's job responsibilities broadly encompassed "software development and quantitative research relating to trading strategies and investment management of financial instruments employed by Tower and/or its affiliates as required by the company."

226. Ultimately, in June 2023, HT determined that Ho and Liu were not only providing pirated ATS to Tower, but also directly engaging in profitable trading activity through Tower for the mutual benefit of ORS and Tower, including through an agreement to share trading profits. By doing so, Defendants not only inflicted serious and irreparable harm on HT, but also unjustly enriched themselves with financial gains that they had no right to reap.

Ho and ORS Destroy Evidence of the Illegal Scheme

227. When HT began to unravel Ho's deceptive scheme, it sent him a letter on February 9, 2023 that included a litigation hold notice directing him and ORS to "retain and preserve (meaning that you do not delete, destroy, alter, or otherwise tamper with) all documents (whether in hard-copy or electronic form), files, or other materials that relate to, bear upon, or

provide evidence regarding HT, One R Squared, and your post-separation professional activities in the financial industry." Ex. H, p. 2.

228. In July 2023, Liu came to HT with evidence of Ho's illegal conduct. Liu revealed that, after Ho received HT's February 9, 2023 letter, Ho began to talk to ORS personnel about ways that he and ORS could "protect" themselves.

229. As part of this effort, Ho instructed another ORS employee, Zhou, to change the retention policy and turn on the auto-delete function for Slack, which was the predominant way ORS employees communicated with one another. Zhou implemented this change in accordance with Ho's instructions, thereby ensuring all ORS Slack messages from 2021 and the vast majority, if not all, from 2022 would be forever lost.

230. Ho knew that those deleted Slack messages contained the most substantive communications between and among ORS employees relating to the development of trading strategies, source code, and proprietary tools—communications in which Ho frequently described how HT developed the same components.

231. Rather than risk that HT or investigating authorities might see these Slack messages, Ho ensured that they would be permanently lost, flagrantly violating his and ORS's preservation obligations, not to mention Commodities Futures Trading Commission and U.S. futures exchanges' regulatory rules regarding document retention. Still more, in hopes of feeding the false perception that this change was implemented in the ordinary course of business, Ho caused a bulletin to be circulated within ORS describing a policy shift as justification for this massive destruction of evidence.

232. Ho also urged multiple employees to change and delete the ORS's source code history and discussed the idea of using a proposed migration from a server administered by a third-party to a private network as a plausible cover for doing so.

233. That idea was dropped after Zhou and Liu raised concerns over how substantially changing or deleting the ORS source code history might impact ORS's operations and performance. This underscored the integral role that the Stolen Source Code played in ORS's business.

234. Nevertheless, Ho personally deleted source code that Liu identified as having a unique name traceable to HT's source code.

235. Ho also personally swapped out terminology from the ORS source code that had origins unique to HT with different terminology to mitigate the risk that HT would detect the scale of his misappropriation and cover his tracks.

236. Ho also instructed Liu delete his WhatsApp message history with Ho, and his WhatsApp message history with other ORS employees, including Zhou. Liu followed Ho's instructions, and when Liu told Ho he had deleted his WhatsApp message history with Zhou, Ho said "good work." Upon information and belief, Ho also deleted substantial components of his own WhatsApp message history, including most of ORS's formation, development, and operations from 2021 through 2023.

237. Upon information and belief, both Ho and Liu deleted all WhatsApp communications between them from June 2021 through December 2022.

Ho Tacitly Admits to Theft, and Non-Party Discovery Confirms It

238. Later, after HT filed its initial Complaint in this action in June 2023, Liu examined the source code files that Ho had asked Zhou to plug into ORS's code base in August 2021. As

stated above, when Liu reviewed the source code files, he identified exact matches to specific names of HT Atoms.

239. On June 16, 2023, Liu confronted Ho about the copied HT Atom names. Ho replied that he took responsibility for what he did, and that he had "made choices to benefit us." In other words, Ho admitted that he had engaged in theft to benefit himself and ORS, which is what Liu understood him to be conceding. This apparently crossed the red line that Liu, Zhou, and Cai had drawn as to the level of risk they were willing tolerate.

240. Consequently, Liu, Zhou, and Cai resigned from ORS on June 21, 2023.

241. Non-party discovery in this action confirms that Defendants misappropriated the Stolen Trade Secrets by effectuating a systematic theft of the most valuable components of HT's Code and other core technical trade secrets. Specifically, on February 29, 2024, Zhou made a production of ORS files to HT in response to a subpoena requesting relevant information in Zhou's possession, custody, or control. Zhou's subsequent production of responsive and relevant materials provided HT with a window in the depth of Ho and ORS's misappropriation of the Stolen Trade Secrets, inclusive of the findings and observations detailed herein.

242. Defendants' subsequent deployment of pirated ATS through Tower as part of a racketeering enterprise designed to systematically defraud HT and other participants in CME, ICE, and other financial markets only enhances the already enormous damage caused by Defendants' gross misconduct. Through this action, HT seeks to hold Defendants to account for the full array of unlawful conduct through which they have inflicted such serious and ongoing harm.

CAUSES OF ACTION

Count 1: *Trade Secret Misappropriation Under the Illinois Trade Secrets Act* (All Defendants) – 765 ILCS 1065 *et seq.*

243. HT incorporates and re-alleges Paragraphs 1 through 242 as if fully set forth herein.

244. The Stolen Trade Secrets constitute protectable trade secrets within the meaning of the Illinois Trade Secrets Act. Specifically, they constitute "information," which includes "technical . . . data, a formula, pattern, compilation, program, . . . method, technique, process [or] financial data[.]" *See* 765 ILCS 1065/2(d).

245. The Stolen Trade Secrets required an extraordinary amount of time, resources, and effort to develop over the course of HT's existence. HT's developers collaborated, solely within HT, to devise, refine, and maintain the Stolen Trade Secrets.

246. The Stolen Trade Secrets are proprietary and unique to HT. They are not generally known by others in the electronic quantitative trading industry, are not otherwise readily available, and cannot be readily duplicated without considerable time, effort, and expense. The Stolen Trade Secrets differentiate HT from its competitors and allow HT to obtain and sustain its competitive edge in the marketplace. Accordingly, the Stolen Trade Secrets were and are sufficiently secret to derive economic value, both actual and potential, to HT from not being generally known to others outside of HT. *See* 765 ILCS 1065/2(d)(1); *Strata Mktg., Inc. v. Murphy*, 317 IL App (3d) 1054, 1069 (2000).

247. HT took reasonable measures under the circumstances to maintain the secrecy or confidentiality of the Stolen Trade Secrets by imposing strict security protocols and deploying an array of robust contractual protections and internal policies and procedures. *See* 765 ILCS 1065/2(d)(2).

248. Notwithstanding Ho's contractual obligations and legal duties to HT, Defendants misappropriated the Stolen Trade Secrets to unlawfully compete with HT and to provide products and services using the Stolen Trade Secrets for Defendants own economic gain and that of Tower, a proprietary trading firm that Defendants knew to be a direct competitor of HT.

249. Defendants acquired the Stolen Trade Secrets when they knew or had reason to know that they were acquired by improper means. Specifically, Defendants acquired the Stolen Trade Secrets for the purpose of developing ORS and unlawfully competing against HT in trading with pirated ATS, in breach of (i) Ho and Le's contractual duties of confidentiality and loyalty to HT; (ii) HT's Outside Business Activities Policy; (iii) HT's Communications and Acceptable Use Policy; (iv) HT's Code of Business Conduct and Ethics; and (v) HT's Remote Work Policy. *See* 765 ILCS 1065/2(a).

250. In addition, Defendants had no express or implied consent to use or disclose the Stolen Trade Secrets for their and Tower's benefit; and yet they used the Stolen Trade Secrets, and disclosed them to Tower, when they knew or had reason to know that their knowledge of the Stolen Trade Secrets was (i) derived from or through Ho and Le, who used improper means to acquire it; (ii) acquired under circumstances giving rise to a duty to maintain their secrecy or to limit its use, both during and after the periods of Ho's and Le's employment; and (iii) derived from or through a person who owed a duty to HT to maintain the secrecy of the Stolen Trade Secrets or to limit its use. *See* 765 ILCS 1065/2(b)(2)(B)(I-III).

251. Each of the Stolen Trade Secrets was misappropriated in the following ways:

a. **HT Atoms and HT Alphas:** Defendants covertly misappropriated HT Atoms and HT Alphas, together with custom parameters and accompanying Code functions, from HT's Code for incorporation into ORS's code base and use at ORS. Further, Defendants' knowledge of the HT Atoms and HT Alphas was derived from or through Ho, Liu, or Le, who owed a duty to HT to maintain their secrecy, and Defendants used improper means to acquire them for the benefit of ORS and

Tower. Separately, Defendants acquired the HT Atoms and HT Alphas under circumstances giving rise to a duty to maintain their secrecy.

b. **API:** Ho created handwritten and electronic notes about API while at HT, and unlawfully retained and used them at ORS, notwithstanding that he knew or should have known that doing so violated his contractual obligations to HT. Further, Defendants knew or should have been aware that their knowledge of API was derived from or through Ho, Liu, or Le, who owed a duty to HT to maintain its secrecy, and Defendants used improper means to acquire from HT the Proprietary Source Code, HT Atoms, and HT Alphas that express API for the benefit of ORS and Tower. Separately, Defendants acquired HT Code underlying API, together with custom parameters, configurations, and Code functions, under circumstances giving rise to a duty to maintain its secrecy.

c. **Simulation and Research Technology:** Defendants knew or should have been aware that their knowledge of the Simulation and Research Technology, which they incorporated into the ORS code base and used at ORS, was derived from or through Ho, Liu, or Le, who owed a duty to HT to maintain its secrecy, and Defendants used improper means to acquire from HT the Proprietary Source Code containing the Simulation and Research Technology for the benefit of ORS and Tower. Separately, Defendants acquired the Simulation and Research Technology under circumstances giving rise to a duty to maintain its secrecy. Specifically, Ho and Le were either actively employed by HT, or in their respective restricted periods, when they misappropriated and used the Simulation and Research Technology.

d. **Visualizer:** Defendants knew or should have been aware that their knowledge of the Visualizer, which they used at ORS (including by unlawfully showing it to Zhou and using it to illustrate Ho's vision for a competing trading firm),trading firm), was derived from or through Ho or Liu, who owed a duty to maintain its secrecy, and Defendants used improper means to acquire Proprietary Source Code containing the Visualizer. Separately, Defendants acquired the Visualizer under circumstances giving rise to a duty to maintain its secrecy.

252. At a minimum, Ho and Le inevitably disclosed the Stolen Trade Secrets for the following reasons:

a. Ho and Le were former HT employees with knowledge of the Stolen Trade Secrets.

b. Ho and Le's new job duties at ORS were so similar or related to those in their former positions at HT that it would be extremely difficult *not* to rely on or use the Stolen Trade Secrets.

c. Defendants could not operate or function without relying on HT's trading secrets. *Strata Mktg. v. Murphy*, 317 IL App (3d) 1054, 1071 (2000).

253. HT is entitled to the following categories of damages for Defendants' misappropriation of the Stolen Trade Secrets:

a. Actual Losses: HT incurred actual losses from Defendants' misappropriation due to (i) the reduction in HT's trading profits attributable to the loss of exclusivity in the HT Atoms, HT Alphas, and API, along with the accompanying custom parameters, configurations, and Code functions; and (ii) the reduction in HT's enterprise value attributable to the loss of exclusivity in the Stolen Trade Secrets. 765 ILCS 1065/4.

b. Unjust Enrichment Damages: HT is also entitled to recover damages for Ho and ORS's unjust enrichment that are not taken into account in computing actual loss. HT's unjust enrichment damages consist of (i) the benefit conferred on Defendants in the form of avoided development costs, which are the research, testing, infrastructure, and other expenses that Defendants saved from not having to develop its competing technology from scratch, due to the misappropriation of the Stolen Trade Secrets; (ii) Defendants' profits from trading activities, made possible through use of the misappropriated Stolen Trade Secrets; and (iii) any compensation to Defendants by Tower. HT may recover these benefits, conferred on Defendants by Tower, because (i) Defendants procured them from Tower through wrongful conduct and (ii) HT has a better claim to the benefits than Defendants, because the benefits derive directly from the misappropriated Stolen Trade Secrets. *See City of Chicago v. Kankakee*, 2017 IL App (1st) 153531 (citing *HPI Health Care Services*, 131 Ill. 2d 145, 161 (1989)).

c. Reasonable Royalty: Alternatively, if neither damages nor unjust enrichment caused by the misappropriation are proved by a preponderance of the evidence, HT is entitled to damages caused by misappropriation measured in terms of a reasonable royalty for Defendants' unauthorized disclosure or use of the Stolen Trade Secrets. 765 ILCS 1065/4(a).

254. In addition to money damages arising from Defendants' current use and disclosure of the Stolen Trade Secrets, HT is entitled to injunctive relief to forestall Defendants' future use and disclosure of the Stolen Trade Secrets.

255. There is a rebuttable presumption of irreparable harm in cases of trade secret misappropriation. *See Comput. Assocs. Int'l v. Quest Software, Inc.*, 333 F. Supp. 2d 688, 700 (N.D. Ill. 2004) (applying Illinois law).

256. Even if there were no rebuttable presumption of irreparable harm, HT's remedy at law is inadequate, and HT will suffer irreparable harm absent an injunction, for at least three reasons. First, absent injunctive relief, Defendants will continue to exploit the Stolen Trade Secrets. Second, absent injunctive relief, Defendants' activities will continue to erode HT's trading profits and enterprise value, due to the ongoing loss of exclusivity in the Stolen Trade Secrets. Third, even with respect to Defendants' current use and disclosure of the Stolen Trade Secrets, it is difficult to ascertain the precise economic consequences of Ho and ORS's misappropriation, given the large number of markets, asset classes, and anonymous market participants involved. *Liebert Corp. v. Mazur*, 357 IL App (3d) 265, 287 (2005)

257. Further, through a pattern of deceptive conduct, including a series of false claims made directly to HT, Defendants have demonstrated willful and malicious intent in implementing their scheme to misappropriate and monetize HT's Stolen Trade Secrets for the benefit of ORS and Tower.

258. The willful and malicious nature of Defendants' misappropriation of the Stolen Trade Secrets warrants punitive damages. *See* 765 ILCS 1065/4(b); *MG Cap. LLC v. Sullivan*, No. 01-cv-5815, 2001 WL 1609382, at *2, 6 (N.D. Ill. Dec. 17, 2001).

259. The willful and malicious nature of Defendants' misappropriation of the Stolen Trade Secrets warrants an award of reasonable attorneys' fees to HT. *See* 765 ILCS 1065/5; *Lucini Italia Co. v. Grappolini*, No. 01-cv-6405, 2003 WL 1989605, at *1 (N.D. Ill. Apr. 28, 2003).

Count 2: *Trade Secret Misappropriation Under the Defend Trade Secrets Act* (All Defendants) – 18 U.S.C. § 1839 et seq.

260. HT incorporates and re-alleges Paragraphs 1 through 259 as if fully set forth herein.

261. The Stolen Trade Secrets constitute protectable trade secrets within the meaning of the Defend Trade Secrets Act ("DTSA"). Specifically, they are "financial, business, scientific, technical, economic, or engineering information," made up of tangible and/or intangible "patterns, plans, compilations, program devices, formulas, designs, prototypes, methods, techniques, processes, procedures, programs, and/or codes..." *See* 18 U.S.C. § 1839(3); *RVassets Ltd. v. Marex Cap. Mkts. Inc.*, No. 23 C 14192, 2024 WL 1928692, at *5-6 (N.D. Ill. May 2, 2024).

262. The Stolen Trade Secrets required an extraordinary amount of time, money, labor, resources, talent, ingenuity, creativity, and effort to develop and maintain over the course of HT's existence. *Vendavo, Inc. v. Long*, 397 F. Supp. 3d 1115, 1130 (N.D. Ill. 2019) (where courts determine whether a trade secret exists under DTSA and ITSA, the court should consider the amount of time, money, and effort used to develop the information). HT's developers collaborated, solely within HT to devise, refine, and maintain the HT Atoms, HT Alphas, AP1, including customer parameters, configurations, and accompanying Code functions, along with the Simulation and Research Technology and Visualizer.

263. The Stolen Trade Secrets are proprietary and unique to HT. They are not generally known by others in the electronic quantitative trading industry, are not otherwise readily available, and cannot be readily duplicated without considerable time, effort, and expense. *See* 18 U.S.C. § 1839(3); *Gen. Elec. Co. v. Uptake Techs., Inc.*, 394 F. Supp. 3d 815, 831 (N.D. Ill. 2019).

264. The Stolen Trade Secrets are also valuable to HT's competitors, including Ho, ORS, Tower, and others in the quantitative trading industry.

265. The Stolen Trade Secrets differentiate HT from its competitors and allow HT to obtain and sustain its competitive edge in the marketplace. Accordingly, the Stolen Trade Secrets were and are sufficiently secret to derive economic value, both actual and potential, to HT from not being generally known to others outside of HT. *See* 18 U.S.C. § 1839(3); *In re Dealer Mgmt. Sys. Antitrust Litig.*, 362 F. Supp. 3d 558 (N.D. Ill. 2019).

266. HT is the owner of the Stolen Trade Secrets. *See* 18 U.S.C. § 1839(4).

267. At all times, HT took significant steps and reasonable measures under the circumstances to maintain the secrecy or confidentiality of the Stolen Trade Secrets by imposing strict security protocols and deploying an array of robust contractual protections and internal policies and procedures. *See* 18 U.S.C. § 1839(3).

268. Notwithstanding Ho's contractual obligations and legal duties to HT, Defendants Ho and ORS misappropriated the Stolen Trade Secrets to unlawfully compete with HT and to provide products and services using the Stolen Trade Secrets for Ho and ORS's own economic gain and of Tower, a proprietary trading firm that Defendants knew to be a direct competitor of HT.

269. Defendants acquired the Stolen Trade Secrets when they knew or had reason to know that they were acquired by improper means for the benefit of ORS and Tower. Specifically, Defendants acquired the Stolen Trade Secrets for the purpose of developing ORS and unlawfully competing against HT in trading with pirated ATS, in breach of (i) Ho's contractual duties of confidentiality and loyalty to HT; (ii) HT's Outside Business Activities Policy; (iii) HT's Communications and Acceptable Use Policy; and (iv) HT's Code of Business Conduct and Ethics. *See* 18 U.S.C. § 1839(6).

270. In addition, Defendants had no express or implied consent to use or disclose the Stolen Trade Secrets for their and Tower's benefit; and yet they used the Stolen Trade Secrets, and disclosed them to Tower, when they knew or had reason to know that the Stolen Trade Secrets were (i) taken by and through Ho, who used improper means to acquire them; (ii) acquired under circumstances giving rise to a duty to maintain their secrecy or to limit its use, both during and after the period of Ho's employment; and (iii) otherwise derived from or through individuals who owed a duty to HT to maintain the secrecy of the Stolen Trade Secrets or to limit its use. *See* 18 U.S.C. § 1839(5)(B)(ii)(I-III).

271. Each of the Stolen Trade Secrets was misappropriated in the following ways:

a. **HT Atoms and HT Alphas:** Ho, ORS, and upon information and belief, Le, covertly extracted HT Atoms and HT Alphas, inclusive of specific parameters and accompanying Code functions, from HT Code for incorporation into ORS's code base and use at ORS. Further, Defendants' access to and access to and knowledge of the HT Atoms and HT Alphas was derived from or through Ho, Liu, or Le, who owed a duty to HT to maintain their secrecy, and who used improper means to acquire them. Separately, Defendants acquired the HT Atoms and HT Alphas under circumstances giving rise to a duty to maintain their secrecy.

b. **AP1:** Ho created handwritten and electronic notes about AP1 while at HT, and unlawfully retained and used them at ORS, notwithstanding that he knew or should have known that doing so violated his contractual obligations to HT. Further, Defendants knew or should have been aware that their access to and knowledge of AP1 was derived from or through Ho, Liu, or Le, who owed a duty to HT to maintain its secrecy, and who used improper means to acquire from HT the HT

Atoms and HT Alphas, together with specific parameters, configurations, and accompanying Code functions, that power AP1. Separately, Defendants acquired this proprietary AP1 technology under circumstances giving rise to a duty to maintain its secrecy.

c. **Simulation and Research Technology:** Defendants knew or should have been aware that their knowledge of the Simulation and Research Technology, which they incorporated into the ORS code base and used at ORS, was derived from or through Ho, Liu, or Le, who owed a duty to HT to maintain its secrecy, and Defendants used improper means to acquire from HT the HT Code, proprietary methodology, and research architecture underlying and reflecting Simulation and Research Technology, including unique customizations and abstractions. Separately, Defendants acquired the Simulation and Research Technology under circumstances giving rise to a duty to maintain its secrecy. Specifically, Ho and Le were either actively employed by HT, or in their respective restricted periods, when they used the Simulation and Research Technology in ORS's business.

d. **Visualizer:** Defendants knew or should have been aware that their knowledge of the Visualizer, which they used at ORS (including by unlawfully showing it to Zhou and using it as the foundation for a competing product), was derived from or through Ho or Liu, who owed a duty to maintain its secrecy, and who used improper means to acquire Proprietary Source Code containing the Visualizer. Separately, Defendants acquired the Visualizer under circumstances giving rise to a duty to maintain its secrecy.

272. HT is entitled to the following categories of damages for Ho and ORS's misappropriation of the Stolen Trade Secrets under DTSA:

a. Actual Losses: HT incurred actual losses from Defendants' misappropriation due to (i) the reduction in HT's trading profits attributable to the loss of exclusivity in the HT Atoms, HT Alphas, and AP1, along with accompanying custom parameters, configurations, and Code functions; and (ii) the reduction in HT's enterprise value attributable to the loss of exclusivity in the Stolen Trade Secrets. 18 U.S.C. § 1836(b)(3)(B)(i)(I).

b. Unjust Enrichment Damages: HT is also entitled to recover damages for Ho and ORS's unjust enrichment that are not taken into account in computing actual loss. HT's unjust enrichment damages consist of (i) the benefit conferred on Ho and ORS in the form of avoided development costs, which are the research, testing, infrastructure, and other expenses that ORS saved from not having to develop its platform from scratch, due to the misappropriation of the Stolen Trade Secrets; (ii) Ho and ORS's profits from trading activities, made possible through use of the misappropriated Stolen Trade Secrets; and (iii) any compensation to Ho and ORS by Tower. HT may recover these benefits, conferred on Ho and ORS by Tower, because (i) Ho and ORS procured them from Tower through wrongful conduct and (ii) HT has a better claim to the benefits than Ho and ORS, because the benefits derive directly from the misappropriated Stolen Trade Secrets. 18 U.S.C. § 1836(b)(3)(B)(i)(II).

c. Reasonable Royalty: Alternatively, if neither damages nor unjust enrichment caused by the misappropriation are proved by a preponderance of the evidence, HT

is entitled to damages caused by misappropriation measured in terms of a reasonable royalty for Ho and ORS's unauthorized disclosure or use of the Stolen Trade Secrets. 18 U.S.C. § 1836(b)(3)(B)(ii).

273. In addition to money damages arising from Ho and ORS's current use and disclosure of the Stolen Trade Secrets, HT is entitled to injunctive relief to forestall Ho and ORS's future use and disclosure of the Stolen Trade Secrets. 18 U.S.C. § 1836(b)(3)(A).

274. There is a rebuttable presumption of irreparable harm in cases of trade secret misappropriation. *Vendavo, Inc. v. Long*, 397 F. Supp. 3d 1115, 1143-44 (N.D. Ill. 2019).

275. Even if there were no rebuttable presumption of irreparable harm, HT's remedy at law is inadequate, and HT will suffer irreparable harm absent an injunction, for at least three reasons. First, absent injunctive relief, Ho and ORS will continue to exploit the Stolen Trade Secrets. Second, absent injunctive relief, Ho and ORS's activities will continue to erode HT's trading profits and enterprise value, due to the ongoing loss of exclusivity in the Stolen Trade Secrets. Third, even with respect to Ho and ORS's current use and disclosure of the Stolen Trade Secrets, it is difficult to ascertain the precise economic consequences of Ho and ORS's misappropriation, given the large number of markets, asset classes, and anonymous market participants involved. *Id.* at 1144-45.

276. Further, through a pattern of deceptive conduct, including a series of false claims made directly to HT, Ho and ORS have demonstrated willful and malicious intent in implementing their scheme to misappropriate and monetize HT's Stolen Trade Secrets for the benefit of ORS and Tower.

Count 3: *Racketeer Influenced And Corrupt Organizations Act* (Ho and ORS)

277. HT incorporates and re-alleges Paragraphs 1 through 276 as if fully set forth herein.

278. Section 1962(c) of Title 18 of the United States Code makes it "unlawful for any person employed by or associated with any enterprise engaged in, or the activities of which affect, interstate or foreign commerce, to conduct or participate, directly or indirectly, in the conduct of such enterprise's affairs through a pattern of racketeering activity or collection of unlawful debt."

279. HT is, and was at all relevant times, a "person" for purposes of 18 U.S.C. § 1962(c).

280. Ho is, and was at all relevant times, a "person" for purposes of 18 U.S.C. § 1962(c).

281. ORS is, and was at all relevant times, a "person" for purposes of 18 U.S.C. § 1962(c).

The Enterprise

282. Ho, ORS, and Tower formed an associated in fact enterprise (the "ORS/Tower Enterprise"). The ORS/Tower Enterprise is a group of persons associated in fact and thus are, and were at all relevant times, an "enterprise" for purposes of 18 U.S.C. § 1962(c).

283. The ORS/Tower Enterprise has a common purpose of increasing its members' profits and market share by unlawfully competing against HT, recruiting former HT employees to build a competitive quantitative trading firm (ORS), and ultimately using the Stolen Trade Secrets to feed a pirated ATS, including a knockoff version of AP1, through Tower's high-speed execution platform in order to make fraudulent trades on the CME, ICE, and other markets, along with other illegal conduct alleged herein.

284. At all relevant times, the ORS/Tower Enterprise was engaged in, and their activities affected, interstate commerce because, among other reasons, the conduct alleged herein occurred in Illinois, New York, and other places, and the ORS/Tower Enterprise placed fraudulent orders on CME, ICE, and other markets using interstate wires.

Conduct of the Enterprise / Pattern of Racketeering Activity

285. ORS through Tower, and therefore the ORS/Tower Enterprise, traded on CME, ICE, and other leading derivatives markets around the world.

286. Ho conducted and participated in the management and operation of the ORS/Tower Enterprise by, among other things, (i) misappropriating the HT Stolen Trade Secrets that ORS used to deploy for profitable trading through the ORS/Tower Enterprise, (ii) soliciting former HT employees to join ORS in deploying the Stolen Trade Secrets, and (iii) facilitating the Tower Agreement that led to Tower's trading on the CME, ICE, and other markets using the Stolen Trade Secrets.

287. ORS conducted and participated in the management and operation of the ORS/Tower Enterprise by, among other things, entering into the Tower Agreement, serving as the direct employer of those responsible for developing, and developing competitive ATS derived from HT's Stolen Trade Secrets, including AP1, and including AP1, and deploying them through Tower on the CME, ICE, and other markets.

288. Tower participated in the ORS/Tower Enterprise's operation by providing strategic direction for development of ORS, participating in recruiting Lui to join ORS, and providing the high-speed execution platform and technical support for the ORS/Tower Enterprise to deploy pirated ATS infused with Stolen Trade Secrets that placed trades on the CME, ICE, and other markets.

289. Ho, ORS, and Tower could not have accomplished their shared purpose without each member playing a role in the ORS/Tower Enterprise's coordinated activities. Without each member's participation, the ORS/Tower Enterprise could not have achieved its goal of usurping thousands, if not millions, of trades from HT and amassing significant profits as a result.

290. The ORS/Tower Enterprise engaged in a pattern of racketeering activity by placing fraudulent orders for trades on the CME, ICE, and other markets in violation of 18 U.S.C. § 1343. These orders were fraudulent because (i) they were made using trade secrets and confidential information wrongfully misappropriated from HT, and consequently, (ii) every such order violated exchange rules including CME Rules 432.C, 432.T, 432.B.1, 575.B, 575.D, 432.O, 432.Q, 432.W, and 432.X, and ICE Rule 4.04. Accordingly, the ORS/Tower Enterprise made implicit misrepresentations of compliance with the CME Exchange Rules *every single time* it placed an order using its pirated ATS and the other Stolen Trade Secrets.

291. Each of the ORS/Tower Enterprise's implicit misrepresentations is an act of wire fraud that violates 18 U.S.C. § 1343. See *United States v. Chanu*, 40 F.4th 528 (7th Cir. 2022) (orders placed in violation of CME Rule 432 are implicit misrepresentations to the market); *United States v. Bases*, No. 18 CR 48, 2020 WL 2557342 (N.D. Ill. May 20, 2020) (endorsing same criminal fraud theory based on alleged violations of Rule 432), *aff'd*, *United States v. Pacilio*, 85 F.4th 450 (7th Cir. 2023); *United States v. Smith*, 555 F. Supp. 3d 563, 575 (N.D. Ill. 2021) (same).

292. The ORS/Tower Enterprise made these misrepresentations with the intent to deceive other market participants on the CME, ICE, and other exchanges (including HT) into thinking that its orders complied with the exchange rules. Because each fraudulent order was placed through the CME and ICE, the ORS/Tower Enterprise has used the interstate wires to further its fraudulent scheme. Because the participants in CME trades are anonymous, the precise timing, content, and counterparty to each fraudulent misrepresentation cannot be alleged with greater particularly without access to Defendants' books and records (assuming Ho and his ORS confederates have not destroyed them all).

293. Absent intervention, the ORS/Tower Enterprise's ongoing fraud on CME, ICE, and other exchanges will continue to injure HT.

294. The ORS/Tower Enterprise began trading on CME and ICE using stolen trade secrets, and thus making implicit misrepresentations, in or about September 2022. It continues to make fraudulent CME, ICE, and other market trades on a daily basis; indeed, this fraudulent scheme has become part of how the ORS/Tower Enterprise regularly does business. These related, predicate acts of wire fraud therefore extend over a substantial period of time and threaten to continue into the future as part of an open-ended scheme.

295. The predicate acts of wire fraud were (and are) related insofar as they occur close in time and involve similar participants, victims, methods of commission, and results. Together, they comprise a pattern of unlawful conduct.

296. Ho and ORS further conducted the affairs of the ORS/Tower Enterprise through committing additional racketeering activities by virtue of Ho and ORS stealing HT's trade secrets, including the Stolen Trade Secrets, in violation of 18 U.S.C. § 1832. Ho and ORS (1) stole, or without authorization of the owner, obtained, destroyed or conveyed information; (2) Ho and ORS knew this information was proprietary; (3) the information was a trade secret; (4) Ho and ORS intended to convert the trade secret to the economic benefit of someone other than the owner; (5) Ho and ORS knew or intended that the owner of the trade secret would be injured; and (6) the trade secret was related to or was included in a product that was produced or placed in interstate or foreign commerce.

297. As a direct and proximate result of Ho's and ORS's racketeering activities and violations of 18 U.S.C. § 1962(c), HT has sustained significant and concrete injury to its business in an amount to be determined at trial. This amount includes, but is not limited to, millions of

dollars in lost profits from trades that HT would have made but for the ORS/Tower Enterprise's deployment of its pirated ATS, including a knockoff version of AP1, and HT's other Stolen Trade Secrets via Tower's high-speed execution platform. These harms constitute harms to HT's business under 18 U.S.C. § 1964.

298. HT thus requests treble damages including, but not limited to, HT's lost profits resulting from the ORS/Tower Enterprise's fraudulent trades and the reduction in HT's enterprise value attributable to the loss of exclusivity in the Stolen Trade Secrets. 18 U.S.C. § 1964(c). HT further requests attorney's fees and costs, and injunctive relief to the furthest extent permitted by law, including but not limited to a permanent injunction enjoining all trading by the ORS/Tower Enterprise using the Stolen Trade Secrets. 18 U.S.C. § 1964(c); *Nat'l Org. for Women, Inc. v. Scheidler*, 267 F.3d 687, 700 (7th Cir. 2001), *rev'd on other grounds*, 537 U.S. 393 (2003).

Count 4: *Breach of Contract* (Ho) – Confidentiality, Loyalty, and Disclosure Provisions

299. HT incorporates and re-alleges Paragraphs 1 through 298 as if fully set forth herein.

300. Ho breached his obligations under his Employment Agreement, which he signed as a condition of his employment.

301. Ho breached his obligations to maintain the confidentiality of HT's Intellectual Property, including by using and disclosing it for the mutual benefit of ORS and Tower.

302. Ho breached his obligation under the duty of loyalty provisions by failing to devote his full time and effort into his position, and by failing to perform his duties faithfully, industriously, and to the best of his abilities. Most notably, Ho breached his contractual duty by utilizing HT's resources to develop and further the interests of ORS while actively employed by HT.

303. Ho also breached his obligations to promptly and to accurately disclose the true nature of his intended and actual professional endeavors following his departure from HT.

304. Rather than comply with these obligations, Ho consistently lied about his intended and actual professional endeavors, thereby causing HT to take additional action that it would not have taken, including continuing to pay Ho compensation under his terms of separation from HT. These breaches also caused HT to refrain from taking certain actions, including taking earlier legal action to prevent the misappropriation of its Intellectual Property.

305. Ho agreed that "[i]n the event of any breach of or default under this Agreement by me, the Company will suffer irreparable harm for which there is no adequate remedy at law. In the event of any such breach or default, the Company will be entitled, without limiting other recourse available to it, to temporary and injunctive relief, specific performance and other equitable relief without proof of actual damage[.]" Ex. A, ¶ 12.5.

306. HT is entitled to the following categories of contractual damages, in amounts to be calculated at trial:

a. *Reliance Damages*: HT is entitled to recover from Ho all signing bonuses, cash bonuses, special payments, and salary compensation paid by HT to Ho, in reliance on HT's belief that Ho would fulfill his parts of the contractual bargain—namely, abiding by the confidentiality, loyalty, and disclosure provisions. *Midwest Prop. Mgmt. L.P. v. DesignWise, Inc.*, 2023 IL App. (4th) 230120-U, ¶ 30.

b. *Consequential Damages*: HT is entitled to recover from Ho consequential damages, which are the damages that were reasonably foreseeable or contemplated by the parties as a probable result of a breach when the contract was entered, in the form of (i) the reduction in HT's trading profits attributable to the loss of exclusivity in the Stolen Trade Secrets, resulting from Ho's violations of the confidentiality, loyalty, and disclosure provisions; (ii) the reduction in HT's enterprise value

attributable to the loss of exclusivity in the Stolen Trade Secrets, resulting from Ho's violation of the confidentiality, loyalty, and disclosure provisions of his Employment Agreement; and (iii) the costs incurred in investigating Defendants' contractual breaches. *Westlake Fin. Grp., Inc. v. CDH-Delnor Health Sys.*, 2015 IL App. (2d) 140589, ¶ 32.

c. *Restitution:* In the alternative to reliance damages and consequential damages, HT is entitled to restitutionary damages, due to Ho's total breach of the Employment Agreement, entitling HT to the reasonable value of the benefit conferred on Ho, in the form of: (i) Ho's avoided development costs, which are the research, testing, infrastructure, and other expenses that Ho saved from not having to develop the ORS research and trading platform from scratch, due to his breaches of the confidentiality, loyalty, and disclosure provisions of his Employment Agreement; and (ii) the market value of the Stolen Trade Secrets. *Midwest Prop. Mgmt.*, 2023 IL App. (4th) 230120-U, ¶ 32.

Count 5: *Breach of Contract* (Ho) – Inventions Assignment (*Specific Performance*)

307. HT incorporates and re-alleges Paragraphs 1 through 306 as if fully set forth herein.

308. HT and Ho entered a valid, binding, and enforceable contract in the Employment Agreements.

309. HT complied with the terms of the contract.

310. Ho breached his obligations under the Employment Agreements, which he signed as a condition of his employment.

311. Ho breached his obligations under the Inventions Assignment Provision by assuming dominion and control over, and improperly using and disclosing, HT's Intellectual Property, which constitutes an Invention under his Employment Agreement. In addition, Ho

breached these same provisions by failing to assign to HT ownership of ORS—a company he created and progressed with HT's Intellectual Property and other HT resources while on its payroll.

312. To the extent Ho made and/or conceived intellectual property during his non-compete period, Ho breached the Inventions Assignment Provision because such activity occurred during the term of Ho's relationship with HT and related to the business of HT. Further, any such intellectual property was created using HT's trade secrets and resulted from work Ho performed for HT. Ex. A., ¶¶ 3.1, 3.3.

313. Ho agreed that "[i]n the event of any breach of or default under this Agreement by me, the Company will suffer irreparable harm for which there is no adequate remedy at law. In the event of any such breach or default, the Company will be entitled, without limiting other recourse available to it, to temporary and injunctive relief, specific performance and other equitable relief without proof of actual damage[.]" Ex. A, ¶ 12.5.

314. HT seeks an order for specific performance requiring Ho to assign all rights and titles to ORS to HT, as stipulated in the Invention Assignment Provision. *See Hoxha v. Lasalle Nat'l Bank*, 365 IL App (3d) 80 (1st Dist. 2006).

315. In the alternative to specific performance, HT seeks the following categories of contractual damages, in amounts to be calculated at trial:

a. *Reliance Damages*: HT is entitled to recover from Ho all signing bonuses, cash bonuses, special payments, and salary compensation paid by HT to Ho, in reliance on HT's belief that Ho would abide by the invention assignment provision. *Midwest Prop. Mgmt.*, 2023 IL App. (4th) 230120-U, ¶ 30.

b. *Consequential Damages*: HT is entitled to recover from Ho consequential damages, which are the damages that were reasonably foreseeable or contemplated

by the parties as a probable result of a breach when the contract was entered, in the form of (i) the reduction in HT's trading profits attributable to the loss of exclusivity in the Stolen Trade Secrets, resulting from Ho's violations of the Inventions Assignment Provision; and (ii) the reduction in HT's enterprise value attributable to the loss of exclusivity in the Stolen Trade Secrets, resulting from Ho's violation of the Inventions Assignment Provision. *Westlake Fin. Grp., Inc. v. CDH-Delnor Health Sys.*, 2015 IL App. (2d) 140589, ¶ 32.

Count 6: *Breach of Contract* (Ho and Le) – Non-Compete Provision

316. HT incorporates and re-alleges Paragraphs 1 through 315 as if fully set forth herein.

317. Ho agreed to the Non-Compete Provision in consideration for signing bonuses, cash bonuses, special payments, salary compensation, and a pro-rata share of his annual base salary, all of which his accepted without holding up his end of the bargain.

318. Le agreed to the Non-Compete Provision in consideration for signing bonuses, cash bonuses, special payments, salary compensation, and a pro-rata share of his annual base salary, all of which his accepted without holding up his end of the bargain.

319. Ho and Le had an obligation not to compete, directly or indirectly, in any Competitive Activity with any Competitive Business, as specified in their Employment Agreements, both during their employment, and following their termination over the 12-month Restricted Period elected by HT.

320. Ho breached that obligation by forming, registering, and working for the benefit of ORS, a company focused on developing and providing the same types of products and activities as HT, and by supplying those same services to Tower. Ho also breached his non-compete obligations by disclosing HT's Intellectual Property to ORS and Tower during and after his employment at HT.

321. Le likewise breached his non-compete obligations by working for ORS, using the username "guestuser" to obscure his employment from third parties, and providing products and services to Tower—a direct competitor of HT. Le also breached his non-compete obligations by disclosing HT's Intellectual Property to ORS and Tower during his non-compete period.

322. Ho and Le agreed that "[i]n the event of any breach of or default under this Agreement by me, the Company will suffer irreparable harm for which there is no adequate remedy at law. In the event of any such breach or default, the Company will be entitled, without limiting other recourse available to it, to temporary and injunctive relief, specific performance and other equitable relief without proof of actual damage[.]" Ex. A, ¶ 12.5.

323. HT is entitled to the following categories of contractual damages, in amounts to be calculated at trial:

a. *Reliance Damages*: HT is entitled to recover from Ho and Le all the benefits and compensation provided to them by HT, including but not limited to signing bonuses, cash bonuses, special payments, salary compensation, and a pro-rata share of their respective annual base salaries, which were paid in reliance on HT's belief that Ho and Le would abide by their Non-Compete Provision. *Midwest Prop. Mgmt.*, 2023 IL App. (4th) 230120-U, ¶ 30.

b. *Consequential Damages*: HT is entitled to recover from Ho and Le consequential damages, which are the damages that were reasonably foreseeable or contemplated by the parties as a probable result of a breach when the contract was entered, in the form of (i) the reduction in HT's trading profits attributable to the loss of exclusivity in the Stolen Trade Secrets, resulting from Ho and Le's violations of the Non-Compete Provision; (ii) the reduction in HT's enterprise value attributable to the

loss of exclusivity in the Stolen Trade Secrets, resulting from Ho's and Le's violation of the Non-Compete Provision; and (iii) the costs incurred in investigating Defendants' contractual breaches. *Westlake Fin. Grp.*, 2015 IL App. (2d)140589, ¶ 32.

Count 7: *Breach of Contract* (Ho) – Non-Solicitation Provision

324. HT incorporates and re-alleges Paragraphs 1 through 323 as if fully set forth herein.

325. In the Employment Agreements, Ho agreed to abide by the Non-Solicitation Provision. That Provision required him not to directly or indirectly "solicit, induce, recruit or encourage any employee of the Company and/or any of its affiliates . . . to leave their employment or engagement with the Company or any of its Affiliates or become employed or engaged by me or for any other person or entity." Ex. A, ¶ 9.

326. Ho breached the Non-Solicitation Provision with respect to his unlawful solicitation of Liu by: (i) initiating communications with Liu to become employed by ORS while both Ho and Liu were employed at HT; and (ii) arranging for a Tower recruiter to contact Liu, while Liu was still employed at HT, to make it appear that Liu was being recruited by a third party rather than ORS. By reaching out to Liu and arranging that a recruiter contact him, Ho solicited Liu.

327. Ho breached the Non-Solicitation Provision with respect to his unlawful solicitation of Le by: (i) initiating communications with Le, who was employed at HT, to become employed by ORS; (ii) extending an offer of employment to Le, while Le was still working at HT; and (iii) assuring Le that he could work remotely for ORS from San Diego, California, while Le was still working at HT. Thus, by providing an offer of remote employment, and in other ways, Ho encouraged Le to leave his employment at HT.

328. HT is entitled to the following consequential damages, in amounts to be determined at trial: (i) the costs of recruiting and training replacements for Liu and Le, who departed HT due

to the wrongful conduct of Ho in violation of the Non-Solicitation Provision; (ii) the reduction in HT's trading profits attributable to the loss of exclusivity in the Stolen Trade Secrets, resulting from Ho's violations of Non-Solicitation Provision by hiring Liu and Le, which enabled Ho and ORS's wholesale theft and resulted in the unauthorized disclosure of Liu and Le's knowledge of the Stolen Trade Secrets to ORS; and (iii) the reduction in HT's enterprise value attributable to the loss of exclusivity in the Stolen Trade Secrets, resulting from Ho's violation of the Non-Solicitation Provision by hiring Liu and Le. *Westlake Fin. Grp.*, 2015 IL App. (2d) 140589, ¶ 32.

Count 8: *Breach of Contract* (Le) – Confidentiality and Disclosure Provisions

329. HT incorporates and re-alleges Paragraphs 1 through 328 as if fully set forth herein.

330. Le breached his obligations to maintain the confidentiality of HT's Intellectual Property, including by using and disclosing it for the mutual benefit of ORS and Tower.

331. Le further breached his obligation under the Disclosure Provision under his Employment Agreement by failing to promptly and to accurately disclose the true nature of his intended and actual professional endeavors following his departure from HT. That Provision obligated Le, "during the two (2) year period immediately following the termination of my employment with the Company," to "disclose to [HT], in writing, any person or entity with whom I became employed, contracted to, or otherwise affiliated, the hire or engagement date, my job title, and a complete description of my duties," no later than "the date on which I accept or otherwise agree to become employed by or affiliated with such person or entity." Employment Agreements, ¶ 12.4.

332. All compensation paid by HT to Le was expressly conditioned on agreeing to the contractual obligations in the Employment Agreements. Rather than comply with these obligations, Le did not inform HT until his employment at ORS until months after it had begun.

He also took steps to obscure his violations of non-compete obligations to HT, including by using the username "guestuser" at ORS.

333. Le's omissions and obfuscation caused HT to act as it otherwise would not have, including by continuing to pay Le compensation under his terms of separation from HT.

334. These breaches also caused HT to refrain from taking certain actions, including taking earlier legal action to prevent the misappropriation of its Intellectual Property. In these ways, Le's actions exacerbated the irreparable harm HT suffered.

335. HT is entitled to the following categories of contractual damages, in amounts to be calculated at trial:

a. *Reliance Damages*: HT is entitled to recover from Le all the benefits and compensation provided to him by HT, including but not limited to signing bonuses, cash bonuses, special payments, and salary compensation. These benefits and compensation were paid in reliance on HT's belief that Le would abide by the Disclosure and Confidentiality Provisions. *Midwest Prop. Mgmt.*, 2023 IL App. (4th) 230120-U, ¶ 30.

b. *Consequential Damages*: HT is entitled to recover from Le consequential damages, which are the damages that were reasonably foreseeable or contemplated by the parties as a probable result of a breach when the contract was entered, in the form of (i) the costs incurred in investigating Le's contractual breach; (ii) the reduction in HT's trading profits attributable to Le's breaches of confidentiality, by assisting in Ho's misappropriation, and his failure to disclose to HT his relationship with ORS—a failure that continued to obscure ORS's existence from HT; and (iii) the reduction in HT's enterprise value resulting from Le's breaches of confidentiality

and failure to disclose to HT his relationship with ORS. *Westlake Fin. Grp.*, 2015 IL App. (2d) 140589, ¶ 32.

Count 9: ***Breach of Common Law Fiduciary Duty*** **(Ho and Le)** **(*In the Alternative*)**

336. HT incorporates and re-alleges Paragraphs 1 through 335 as if fully set forth herein.

337. HT alleges Count 9 in the alternative to Counts 4-7 as to Ho and Counts 6-8 as to Le.

338. HT placed Ho and Le in special positions of trust and confidence, providing them access to and an opportunity to work with, create, and improve HT's stockpile of Intellectual Property, including the Stolen Trade Secrets.

339. By virtue of occupying special positions of trust and confidence within HT, and by virtue of expressly agreeing to remain strictly loyal to the company, Ho and Le owed HT a fiduciary duty of loyalty, good faith, and fair dealing.

340. Ho willfully and deliberately violated this duty by, among other things, (i) forming a competing company while still employed at HT; (ii) improperly soliciting current and former HT employees to join him; (iii) misappropriating HT's Intellectual Property and resources; (iv) violating his Employment Agreement in numerous respects; (v) retaining his bonus payments, salary, and accepting post-employment compensation while conspiring to defraud HT out of the value of its investments in its Intellectual Property and human capital; and (vi) directly and inevitably misappropriating Stolen Trade Secrets and other Intellectual Property from HT for the benefit of ORS and another direct competitor of HT, while deceiving HT in myriad respects along the way.

341. Le willfully and deliberately breached his fiduciary duties to HT by (i) violating his Employment Agreement in numerous respects, including by facilitating the development of ORS while still employed at HT; (ii) retaining his bonus payments, salary, and accepting post-

employment compensation while failing to disclose the existence and nature of his working relationship with ORS during his restrictive period; and (iii) at a minimum, inevitably misappropriating Stolen Trade Secrets and other Intellectual Property from HT for the benefit of ORS and another direct competitor of HT, while failing to make required disclosures to HT along the way.

342. Accordingly, HT is entitled to full forfeiture of Ho's and Le's compensation from HT during the periods of their respective breaches, in amounts to be calculated at trial. *See LID Assocs. v. Dolan*, 324 IL App (3d) 1047, 1071 (2001).

Count 10: *Fraud* (Ho)

343. HT incorporates and re-alleges Paragraphs 1 through 342 as if fully set forth herein.

344. After signing his Employment Agreement with HT, Ho secretly began developing a new company based on HT's Intellectual Property, in violation of his contractual and common law duties. This was a scheme to defraud HT.

345. As part of this scheme, Ho made a series of false statements and misleading omissions of material facts to HT. Ho knew those statements and omissions were false and misleading.

346. On July 26, 2022, Ho responded to a request from HT that he disclose his new employment affiliation. This was after Ho left HT but during his contractual non-compete period. Ho purported to list his employment affiliations, including that he "expect[ed]" to take a position with Tower. But he conspicuously omitted his ongoing affiliation with ORS.

347. Further, his Employment Agreement obliged Ho to disclose a new employment affiliation as soon as it occurs. In violation of that contract and his common law duties, Ho failed to disclose his affiliation with ORS when it began, or at any point thereafter.

348. On information and belief, Ho intended, through these false statements and misleading omissions, to induce HT to believe that he was honoring and would honor his legal and contractual obligations to HT. On information and belief, Ho intended to induce this belief so that HT would not interfere with his deceptive scheme to misappropriate HT's Intellectual Property and resources for his, ORS's, and Tower's benefit.

349. Ho's false statements and material omissions are the cause in fact and proximate cause of all damages sustained by HT arising from rogue operation of ORS, which would not have been possible if HT had accurate information about Ho's illicit activities and intentions in respect of ORS. Such damages include the following categories of damages, in an amount to be determined at trial:

a. *Consequential Damages*: HT is entitled to recover from Ho consequential damages in the form of (i) the costs incurred in investigating Ho's false statements and misleading omissions, including the cost of hiring a vendor for forensic investigation, and attorneys' fees that were the direct and foreseeable result of having to investigate and respond to the false statements and misleading omissions, amounting to at least tens of thousands of dollars; (ii) the reduction in HT's trading profits attributable to the loss of exclusivity in the Stolen Trade Secrets and confidential information, specifically between May 2022 and February 2023 in which ORS's trading operations went wholly undetected by HT, resulting from Ho's false statements and misleading omissions (ensuring that HT would not discover ORS, and that ORS would therefore continue to unlawfully operate); and (iii) the reduction in HT's enterprise value attributable to the loss of exclusivity in the Stolen Trade Secrets and confidential information, resulting from Ho's false statements and misleading omissions.

b. *Unjust Enrichment Damages:* HT is entitled to unjust enrichment damages in the form of (i) the benefit conferred on Ho and ORS in the form of avoided development costs between July 2021 and February 2023, the time period in which ORS's trading operations went wholly undetected by HT, which are the research, testing, infrastructure, and other expenses that ORS saved from not having to develop its platform from scratch, due to the misappropriation of the Stolen Trade Secrets made possible through Ho's false statements and misleading omissions; (ii) Ho and ORS's profits from its operations between July 2021 and February 2023, the time period in which ORS's operations went wholly undetected by HT, made possible through Ho's false statements and misleading omissions; and (iii) any compensation to Ho and ORS by Tower over the period in which Ho evaded detection due to his false statements and misleading omissions. *Giammanco v. Giammanco,* 253 IL App (3d) 750, 761-62 (1994).

350. HT is also entitled to recover punitive damages from Ho in amounts to be calculated at trial, given that this is a case involving a breach of trust, gross fraud, and other extraordinary or exceptional circumstances clearly showing malice and willfulness.

Count 11: *Tortious Interference with Contract* (Ho and ORS)

351. HT incorporates and re-alleges Paragraphs 1 through 350 as if fully set forth herein.

352. The Employment Agreements of Liu and Le are a valid and enforceable contract as between Liu and HT, and between Le and HT.

353. HT maintains valuable contractual relationships with its employees. It achieves economic gain and avoids economic loss as a result of its contractual relationships with its employees.

354. Defendants Ho and ORS knew of the contractual relationships and obligations between HT and Liu, and between HT and Le.

355. Defendants Ho and ORS intentionally, willfully, and without justification induced or attempted to induce Liu and Le to breach their obligations under the Employment Agreements.

356. On information and belief, Defendants Ho and ORS also intentionally, willfully, and without justification induced or attempted to induce the breach of other employees' agreements with HT.

357. HT is entitled to the following categories of damages, in amounts to be calculated at trial:

a. *Consequential Damages*: HT is entitled to recover from Le consequential damages, which are the damages that were a reasonably foreseeable result of interfering with Liu's and Le's employment agreements with HT, in the form of (i) recruitment and hiring expenses in seeking replacements for Liu and Le, including expenses relating to interviewing and vetting potential candidates, and costs of onboarding processes for new employees; (ii) the reduction in HT's enterprise value attributable to the loss of Liu and Le's specialized skills and knowledge; and (iii) costs related to the transfer and re-establishment of critical institutional knowledge among existing and new employees.

b. *Punitive Damages:* HT is entitled to punitive damages for Ho and ORS' tortious interference with Liu and Le's employment relationship on the basis of Ho and ORS's actual malice. *Stewart v. Ost*, 142 IL App (3d) 373, 376 (1986).

Count 12: *Negligent Spoliation of Evidence* (Ho and ORS) (*In the Alternative*)

358. HT incorporates and re-alleges Paragraphs 1 through 357 as if fully set forth herein.

359. If HT is unable to prove any of Counts 1 through 7 or 9 through 11 due to Ho's and ORS's intentional destruction of relevant evidence, in the alternative to those counts, HT will have suffered damages as a proximate result of its inability to prove those claims. That is, in the

case of HT being unable to prove its claims, Ho and ORS's negligence—their spoilation of evidence—will have caused HT to suffer damages.

Duty

360. Defendants Ho and ORS anticipated litigation with HT at least by September 2022, when Ho retained counsel to develop potential defenses to litigation and prepare a draft letter addressing anticipated legal theories.

361. Defendants Ho and ORS received a letter from HT dated February 9, 2023 that included a litigation hold notice directing Ho to retain evidence. This special circumstance created for Ho and ORS a duty to preserve evidence.

Breach

362. After receiving HT's February 9, 2023 letter, a reasonable person would have foreseen that WhatsApp messages and Slack communications with ORS personnel, and ORS source code were material to a potential civil action. As ORS's former employees have confirmed, ORS's Slack communications frequently mentioned HT.

363. Defendants were in possession and control of WhatsApp messages and Slack communications with ORS personnel, and ORS source code.

364. After receiving the letter, Ho deliberately directed employees to delete WhatsApp messages, Slack communications, and source code. This destruction of evidence breached his duty to HT to preserve evidence.

Actual and Proximate Cause

365. These WhatsApp and Slack communications contained relevant and admissible evidence of Ho's and ORS's misappropriation of trade secrets, fraud, breaches of contract, breaches of fiduciary duty, and tortious interference with contract, including in the form of party

admissions. The ORS source code also contained independent admissible evidence of this wrongdoing. Accordingly, any failure of proof in relation to those claims would be a direct and proximate result of Ho and ORS's intentional destruction of relevant and admissible evidence. *See Boyd v. Travelers Ins. Co.*, 166 Ill. 2d 188 (1995).

366. HT has unusually clear evidence of the misappropriation of HT's Proprietary Source Code and other trade secrets, including ORS source files, and information from ORS insiders. However, if HT cannot prove its claims for misappropriation of trade secrets, fraud, breaches of contract, breaches of fiduciary duty, and tortious interference with contract, that will be the direct result of Ho and ORS's spoilation. Given all the explicit references to copying HT code that exist in the remaining materials, it is highly likely that HT's case would have been even stronger with the destroyed materials. Specifically, it is likely that messages on WhatsApp and Slack would have been able to plug any evidentiary holes because those messages are a medium particularly likely to contain inculpating statements relevant to the claims. For example, those messages could have included specific direction to copy Proprietary Source Code or specific acknowledgement of Ho's breaches.

Damages

367. The damages would be in the amount that HT would have recovered on its underlying claims for misappropriation of trade secrets, fraud, breaches of contract, breaches of fiduciary duty, and tortious interference. Those include but are not limited to reliance damages (including but not limited to signing bonuses, cash bonuses, special payments, and salary compensation), consequential damages (including the reduction in HT's trading profits attributable to the loss of exclusivity in the Stolen Trade Secrets and confidential information, and the corresponding reduction in HT's enterprise value), unjust enrichment and restitutionary damages

(including payments from Tower, trading profits, and avoided development costs), and punitive damages on the basis of Defendants' actual malice.

REQUEST FOR PERMANENT INJUNCTIVE RELIEF

368. HT incorporates and re-alleges the preceding paragraphs as if fully set forth herein.

369. HT seeks all appropriate permanent injunctive relief.

370. Based on the allegations set forth herein and upon a trial on the merits, HT requests that the Court issue a permanent injunction, enjoining Defendants and anyone acting in concert with them:

A. From using any products or services developed or provided by ORS derived from HT's Intellectual Property;

B. From further disclosing any of HT's Intellectual Property to any non-party, including Tower;

C. From possessing any files, documents, computers, or electronic storage devices that contain any information consisting of, informed by, or derived from HT's Intellectual Property;

D. From deleting or destroying any information, or any devices or applications containing information, related to HT's Intellectual Property and the claims asserted in this action; and

E. From dissipating or transferring assets in the possession of ORS or obtained via ORS's activity.

371. Further, HT requests that Defendants be compelled to return to HT, and not retain, copies of all Intellectual Property belonging to HT, including but not limited to source code, algorithms, quantitative research, trading strategies, automated trading tools, and business plans.

PRAYER FOR RELIEF

372. HT requests that this Court enter a final judgment in HT's favor awarding legal and equitable relief as follows:

A. A permanent injunction that provides, at a minimum, the relief requested above;

B. Actual damages suffered by HT, as requested above, including reliance damages, consequential damages, restitution, disgorgement, and all other bases for damages;

C. Treble damages under 18 U.S.C. § 1964;

D. A constructive trust in favor of HT that shall be imposed over ORS and upon all proceeds of Defendants' wrongful acts;

E. HT's reasonable attorneys' fees and costs, and pre-judgment and post-judgment interest in the maximum amounts allowed by law, including but not limited to those authorized pursuant to 28 U.S.C. § 1964;

F. Exemplary damages in the amount reasonable and necessary to punish Defendants for their willful, wanton, and malicious conduct; and

G. Any and all other relief to which HT is entitled at law or in equity.

373. Plaintiffs demand a trial by jury on all issues so triable.

Dated: May 21, 2024

Respectfully submitted,

/s/ David H. McGill

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