



Form ATS Page 2	<p style="text-align: center;">UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549</p> <p style="text-align: center;">INITIAL OPERATION REPORT, AMENDMENT TO INITIAL OPERATION REPORT AND CESSATION OF OPERATIONS REPORT FOR ALTERNATIVE TRADING SYSTEMS</p>	OFFICIAL USE	OFFICIAL USE ONLY
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Alternative trading system name: CODA Markets, Inc. (f/k/a PDQ ATS, Inc.) CRD Number: 36187  
Filing date: 9/14/16 SEC File Number: 8-47077

2. If this is an initial operation report, the date the alternative trading system expects to commence operation: \_\_\_\_\_
3. Attach as Exhibit A, a description of classes of subscribers (for example, broker-dealer, institution, or retail). Also describe any differences in access to the services offered by the alternative trading system to different groups or classes of subscribers.
4. Attach as Exhibit B:
  - a. A list of the types of securities the alternative trading system trades (for example, debt, equity, listed, Nasdaq NM), or if this is an initial operation report, the types of securities it expects to trade. Note whether any types of securities are not registered under Section 12(a) of the Exchange Act of 1934 ("Exchange Act").
  - b. A list of the securities the alternative trading system trades, or if this is an initial operation report, the securities it expects to trade. Note whether any securities are not registered under Section 12(a) of the Exchange Act.
5. Attach as Exhibit C, the name, address, and telephone number of counsel for the alternative trading system.
6. Attach as Exhibit D, a copy of the constitution, articles of incorporation or association, with all amendments, and of the existing bylaws or corresponding rules or instruments, whatever the name, of the alternative trading system. If this information is publicly available on a continuous basis on an Internet site controlled by the alternative trading system, the alternative trading system may indicate the location of the Internet web site where such information may be found in lieu of filing such information with the Commission.
7. Attach as Exhibit E, the name of any entity, other than the alternative trading system, that will be involved in operation of the alternative trading system, including the execution, trading, clearing, and settling of transactions on behalf of the alternative trading system. Provide a description of the role and responsibilities of each entity
8. Attach as Exhibit F, the following information:
  - a. The manner of operation of the alternative trading system;
  - b. Procedures governing entry of orders into the alternative trading system;
  - c. The means of access to the alternative trading system;
  - d. The procedures governing execution, reporting, clearance, and settlement of transactions effected through the alternative trading system;
  - e. Procedures for ensuring subscriber compliance with system guidelines; and
  - f. A copy of the alternative trading system's subscriber manual and any other materials provided to subscribers.
9. Attach as Exhibit G, a brief description of the alternative trading system's procedures for reviewing system capacity, security, and contingency planning procedures.
10. If any other entity other than the alternative trading system, will hold or safeguard subscriber funds or securities on a regular basis, attach as Exhibit H the name of such entity and a brief description of the controls that will be implemented to ensure the safety of such funds and securities.
11. Attach as Exhibit I, a list providing the full legal name of those direct owners reported on Schedule A of Form BD.

**Exhibit A**

**A description of classes of subscribers (for example, broker-dealer, institution, or retail). Also describe any differences in access to the services offered by the alternative trading system to different groups or classes of subscribers.**

CODA Markets Inc. (formerly known as PDQ ATS, Inc.) is the sponsor of the Alternative Trading System, CODA Markets (“CODA”). CODA is formerly known as the PDQ Alternative Trading System, PDQ ATS and PDQ. Registered broker-dealers and institutions are eligible to become subscribers to CODA. As participants of CODA, all subscribers are required to meet credit and other criteria pursuant to CODA’s policies and procedures set forth in its Written Supervisory Procedures, which include “know your customer” guidelines.

CODA has two classes of subscribers:

**1) Liquidity Seekers**

Liquidity Seekers are generally agency execution firms, algorithmic execution desks, retail brokers and institutional subscribers seeking liquidity discovery and potential price improvement by routing orders to CODA. Liquidity Seekers may access and trade at CODA using a variety of order types, including order types that allow Liquidity Seekers to “provide liquidity.” These order types include, but are not necessarily limited to, Market, Limit, Managed and Conditional orders. Please refer to Section (b) and (c) of Exhibit F for additional detail related to access and available services specific to Liquidity Seekers.

**2) Liquidity Providers**

Liquidity Providers are generally market makers, quantitative trading firms, proprietary trading firms, high-frequency trading firms and agency execution firms, all of which trade electronically by responding to liquidity-seeking order flow. Liquidity Providers may only trade at CODA on an Immediate or Cancel (“IOC”) basis using Limit or Pegged order types. Please refer to Section (a) and (c) of Exhibit F for additional detail related to access and available services specific to Liquidity Providers.

Institutions and other non-broker-dealer trading firms may also become users of CODA via sponsored access by CODA subscribers.

It is the policy of CODA Markets, Inc. and its parent company, PDQ Enterprises, LLC, that CODA Markets, Inc., PDQ Enterprises, LLC, and their employees shall not act as principal in any trading activity, or trade for their own account, in CODA.

**Exhibit B**

**A list of the types of securities the alternative trading system trades (for example, debt, equity, listed, NASDAQ NM), or if this is an initial operation report, the types of securities it expects to trade. Note whether any types of securities are not registered under Section 12(a) of the Exchange Act of 1934 (“Exchange Act”).**

CODA trades only listed equity securities as defined by Regulation NMS rule 600(b)(34) which defines a listed equity security as any equity security listed and registered, or admitted to unlisted trading privileges, on a national securities exchange.

**Exhibit C**

**Name, address, and telephone number of counsel for the alternative trading system.**

David L Haselkorn, Esq.  
Law Office of David L Haselkorn, PC

[REDACTED]

Washington, DC 20016

Telephone: [REDACTED]

Facsimile: [REDACTED]

Email: [REDACTED]

**Exhibit D**

**Copy of the constitution, articles of incorporation or association, with all amendments, and of the existing by-laws or corresponding rules or instruments, whatever the name, of the alternative trading system. If this information is publicly available on a continuous basis on an Internet site controlled by the alternative trading system, the alternative trading system may indicate the location of the Internet web site where such information may be found in lieu of filing such information with the Commission.**

- Certificate of Incorporation (as amended) of CODA Markets, Inc. (formerly known as PDQ ATS, Inc.)
- Bylaws of CODA Markets Inc. (formerly known as PDQ ATS, Inc.)

Copies of each were provided with Exhibit D of the Initial Operating Report for CODA Markets, Inc. (formerly known as PDQ ATS Inc., filed 8/21/2008) and with Amendment to Initial Operating Report filed 9/14/2016).

**Exhibit E**

**Name of any entity, other than the alternative trading system, that will be involved in operation of the alternative trading system, including the execution, trading, clearing, and settling of transactions on behalf of the alternative trading system. Provide a description of the role and responsibilities of each entity.**

The CODA Markets Alternative Trading System, or CODA Markets (“CODA”), is operated by CODA Markets, Inc. (formerly known as PDQ ATS, Inc.) and its parent company/technology provider, PDQ Enterprises, LLC. CODA Markets, Inc. serves as the broker-dealer sponsor and executing broker-dealer for all trades matched by CODA. PDQ Enterprises, LLC provides CODA Markets, Inc. a license to the technology and software used to operate CODA. PDQ Enterprises, LLC is responsible for the maintenance and continued development of the technology and software. PDQ Enterprises, LLC may also provide operational and administrative support to CODA.

Subscribers are able to route orders to CODA by various methods, including subscribers’ proprietary algorithms and proprietary or third-party order/execution management systems. All trade executions are executed at CODA or a destination market center such as an exchange (if requested by the subscriber). Clearing and settlement for CODA of all such executed trades are handled by CODA’s clearing firm, Merrill Lynch, Pierce, Fenner & Smith Inc. (Broadcort division).

**Exhibit F**

- a) **Manner of Operation of the Alternative Trading System**
- b) **Procedures Governing Entry of Orders into the Alternative Trading System**
- c) **Means of Access to the Alternative Trading System**
- d) **Procedures Governing Execution, Reporting, Clearance, and Settlement of Transactions Effected through the Alternative Trading System**
- e) **Procedures for Ensuring Subscriber Compliance with System Guidelines**
- f) **Copy of the Alternative Trading System's Subscriber Manual and any Other Materials Provided to Subscribers**

**a) Manner of Operation of the Alternative Trading System**

The CODA Markets Alternative Trading System, or CODA Markets ("CODA"), which is operated by CODA Markets, Inc. and its parent company/technology provider, PDQ Enterprises, LLC, identifies and executes orders that can be matched or crossed in an agency capacity via CODA's on-demand order initiated auction matching protocols. The auction matching engine logics are designed to optimize liquidity and price discovery while minimizing information leakage and promoting fair competition among subscribers. To address the varying liquidity needs and diverse workflows of its subscriber base, CODA offers three Auction Types, which are discussed individually and in detail below: (1) CODA MICRO, (2) CODA ONE, and (3) CODA BLOCK.

CODA accepts orders from CODA subscribers including broker-dealers, institutions and users that are sponsored participants of broker-dealer subscribers of CODA (all of which are referred to as "subscribers" in this document). CODA is intended to provide subscribers a way of discovering unique liquidity while receiving executions consistent with best execution requirements, minimizing market impact and helping to reduce overall execution costs.

CODA does not provide any visible quote book or disseminate market data or quote information to subscribers or to any third parties except to PDQ Enterprises, LLC as needed for software and technology development as well as for operational and administrative support. CODA uses market data provided by the SIP (Securities Information Processor).

All three Auction Types utilize the on-demand order initiated auction market structure. Individual auctions are initiated by unique Liquidity Seeker orders. Only Liquidity Seeker orders deemed "marketable" upon receipt can initiate auctions. For purposes of auction initiation, "marketable" is defined as Buy orders priced greater than the national best bid and Sell/Sell Short orders priced less than the national best offer. Initiating orders are paused at CODA while the auction process occurs (the "Pause"). Once an auction is initiated CODA sends "symbol-only" notifications, referred to as Request-for-Trades ("RFT") or Auction Alerts, to other subscribers (both Liquidity Providers and other Liquidity Seekers depending on the Auction Type). The RFT/Auction Alert process is used to attract liquidity from other subscribers that will potentially trade with the initiating liquidity-seeking order. To minimize information leakage and protect initiating Liquidity Seekers' orders, the information included in RFT/Auction Alerts sent to subscribers is limited to the ticker symbol from the initiating

Liquidity Seekers' orders. This document and other CODA materials refer to this RFT/Auction Alert format as "symbol only." Subscribers may receive additional information related to the trading opportunity on RFT/Auction Alerts, including a commission amount to be assessed if a trade occurs, midpoint pegging instructions (not supported in CODA BLOCK), and/or the duration of the Auction Type or matching engine logic for the corresponding auction (discussed in detail below). In order to provide Liquidity Seekers with additional flexibility, they may request in writing that CODA send RFT/Auction Alerts containing their full order detail (symbol, side, size and price) to one or more Liquidity Providers instead of the default "symbol only" format.

Liquidity Seekers may also choose to rest orders in CODA's non-displayed Managed Order Facility ("MOF") which receives RFT/Auction Alerts along with the Liquidity Providers. The MOF responds on behalf of Liquidity Seekers' resting orders if the resting orders are executable in auctions initiated by other liquidity seeking orders. Orders resting in the MOF are referred to as "Managed Orders".

## **AUCTION TYPES AND MATCHING PROTOCOLS**

### **CODA MICRO**

CODA MICRO is CODA's fastest Auction Type. During a CODA MICRO a liquidity seeking order is routed to CODA and subjected to a Pause of up to 20 milliseconds (ms)<sup>1</sup>. Liquidity Seekers may opt to lower the maximum Pause time. Currently the shortest available maximum Pause is 5 milliseconds (ms). Following receipt of the order and standard risk checks, a RFT/Auction Alert is sent to all Liquidity Providers simultaneously and anonymously (unless directed otherwise by Liquidity Seeker). Any executable contra side liquidity generated from the Liquidity Providers and/or MOFs during the Pause is crossed based on one of two CODA MICRO matching protocols:

- 1) "First-to-respond-first-to-trade" (time priority for Liquidity Provider/MOF responses):
  - a. Liquidity-seeking orders tagged to use CODA MICRO's "first-to-respond-first-to-trade" protocol trade with Liquidity Provider responses on a first-come, first-served basis provided that the response is at or inside the National Best Bid and Offer ("NBBO") and at or better than the initiating order's limit price.
  - b. Executed trades print individually to the Trade Reporting Facility ("TRF") as they occur. For example, a liquidity-seeking order configured for a 20ms Pause may execute and print in 2ms if a Liquidity Provider responds with executable contra side liquidity within the 2ms timeframe.

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<sup>1</sup> As determined and specified by the Liquidity Seeker. The Pause may be longer or shorter than the default 20ms based on preference or strategy of the Liquidity Seeker. Currently, the minimum Pause time is 5 milliseconds and the maximum is 20 milliseconds. CODA ONE uses an "up to a second" Pause. CODA BLOCK uses a 30-second Pause.

- 2) “Price improvement auction” (price / time priority for Liquidity Provider/MOF responses):
- a. Liquidity-seeking orders tagged to use CODA MICRO’s “price improvement auction” protocol trade with Liquidity Provider responses and Managed Orders at the end of an auction order entry period.
  - b. During the Pause, CODA assembles the Liquidity Provider responses and Managed Orders based on price (price improvement) / time priority into an Auction Book.
  - c. Orders in the Auction Book are non-displayed and non-executable until the end of the auction.
  - d. Orders in the Auction Book may be cancelled or replaced during the auction order entry period.
  - e. At the end of the order entry period the Auction Book is closed and all orders are deemed firm.
  - f. CODA rechecks the NBBO. The auction matching logic calculates the final execution price or prices for the trade(s) based on price (price improvement) / time priority.
  - g. The liquidity-seeking order first trades against the best priced order that arrived in response to the RFT/Auction Alert during the Pause, then moves to the second best priced order, if necessary, and so on until the entire liquidity-seeking order is filled, cancelled back, sent to the MOF or routed out as directed by the Liquidity Seeker.
  - h. Trades are individually printed to the TRF at the completion of the auction.
  - i. RFT/Auction Alerts for “price improvement auction” CODA MICROS are identified as such to encourage price competition and so that Liquidity Providers do not interpret the additional latency as a system defect or error.

Prior to execution in both CODA MICRO matching protocols, CODA ensures that all trades are at or inside the NBBO. Executed trades are reported to a TRF. Residual liquidity from the initiating order can be cancelled back, rest in the MOF or routed out to other market centers or brokers, as directed by the Liquidity Seeker. Outbound routing may occur using CODA’s Market Participant ID (“MPID”), the subscriber’s MPID or the subscriber/participant’s clearing/sponsoring firm’s MPID. External routing functionality is discussed below in Section (c) under the Service Bureau/Agency Routing Broker sub-section. Liquidity Provider orders are not eligible for outbound routing outside of CODA.

Additional CODA MICRO rules include:

- Multiple CODA MICROS in the same symbol can run simultaneously.
- Minimum fill Quantity instructions are supported and satisfied one-to-one (no aggregation).
- Liquidity Seekers may enter orders with quantities within their established risk limits, including odd lots.
- Odd lots are not accepted from Liquidity Providers.
- Managed Orders are eligible to participate in CODA MICRO.
- At the direction of the Liquidity Seeker, Conditional orders (discussed later) may be eligible to interact with residual shares on the Liquidity Seeker's order following a CODA MICRO.
- Trades print to the TRF as individual prints.
- Any price improvement is awarded to the initiator.
- CODA MICRO trades are priced at or within the NBBO

### **CODA ONE**

CODA ONE utilizes a similar matching protocol to the above-described “price improvement auction;” however, CODA ONE allows for an “up to one second” Pause or auction order entry period (start/stop time). An initiating liquidity-seeking order first interacts (prioritizes) with Managed and Conditional orders using the matching protocol for “price improvement auctions.” Additional liquidity is then sourced from Liquidity Providers, again via the “price improvement auction” protocol. CODA enforces minimum quantity requirements for both Liquidity Seekers and Liquidity Providers in CODA ONE (see rules below). When a CODA ONE process is complete, all trades are printed to the TRF as a single print and at a single price. As a result, CODA aggregates multiple participating orders to satisfy minimum fill execution quantities (described below) in CODA ONE.

Additional CODA ONE rules include:

- A minimum quantity of 2,500 shares is required to initiate a CODA ONE.
- A minimum quantity of 500 shares is required to participate as a Liquidity Provider in response to CODA ONE or for a Managed / Conditional Order from a Liquidity Seeker to be eligible for participation (order types discussed in Exhibit F, Section (b)).
- Executions occur at the price where the most shares can trade after all participating and responding orders are submitted.
- Executions are printed at the TRF at a single price and via a single print.
- Minimum fill quantity instructions from the Liquidity Seeker initiating CODA ONE may be satisfied by the participating / responding liquidity in aggregate, but at no time will a participating / responding order less than 500 shares be eligible to trade in CODA ONE.
- The length of CODA ONE will vary, but at no point will the Pause exceed one second. The variance is based on the number of eligible participating orders and the latency involved in the aggregation process.
- Multiple CODA ONES in the same symbol can run simultaneously.
- CODA ONE trades are priced at or within the NBBO.

## **CODA BLOCK**

CODA BLOCK is CODA's on-demand block auction type. CODA BLOCK utilizes a multilateral, call auction price discovery model providing trading opportunities for large orders and latent liquidity which may reside outside the NBBO and therefore may execute outside the NBBO. As described below, CODA BLOCK and CODA are compliant with Rule 611 of Regulation NMS. A 30-second Pause serves as the approximate time length of the auction and order entry period during which orders are entered by subscribers into a non-displayed auction order book.

The CODA BLOCK auction process contains four stages:

- 1) Auction Initiation
- 2) Auction Alert & Participation
- 3) Auction Pricing, Share Allocation and Trade Reporting
- 4) Post Auction

**Auction Initiation** – A CODA BLOCK eligible order is sent to CODA and triggers the start of a CODA BLOCK auction. Only one CODA BLOCK auction can be in progress at a time for each symbol. A snapshot of the NBBO is taken at this time.

Liquidity Seeker orders can initiate CODA BLOCK during the Core Trading Session with firm orders up until 3:59:00 p.m. Eastern Time. No CODA BLOCK auctions will be initiated after that time. As with other auction types only Buy orders priced greater than the NBB and Sell/Sell Short orders priced less than the NBO upon receipt are eligible to initiate a CODA BLOCK auction.

A minimum order quantity is required to initiate CODA BLOCK based on the following criteria:

- Middle Market Capitalization or Larger (greater than \$2 billion market capitalization). Initiating order size must be at least 15,000 shares.
- Small Market Capitalization or Smaller (\$2 billion or smaller market capitalization). Initiating order size must be at least 5,000 shares.
- Odd lot orders are not accepted in CODA BLOCK auctions and will be rejected.
- Mixed lot orders are accepted in CODA BLOCK auctions, but only the round lot portion will be eligible for participation in CODA BLOCK auctions.
- Stocks priced less than \$1.00 are not eligible for CODA BLOCK and orders in these securities will be rejected.

- If the NBB is less than \$1.00 upon receipt of an initiating order, the order will be rejected.
- No CODA BLOCK auction will execute with a trade price less than \$1.00 (CODA BLOCK auction pricing is discussed below).

Following successful eligibility and CODA standard risk checks on the initiating order the “30-second” order entry period begins (discussed further under “Auction Alert & Participation” below) and no further CODA BLOCK auctions can be initiated in that symbol until the end of the current CODA BLOCK auction. All CODA BLOCK auction orders received in that symbol while a “30-second” order entry period is open are included in the existing CODA BLOCK auction for that symbol as “participating orders” (discussed further below). If the initiator cancels the order before completion of a CODA BLOCK auction, the auction and all related orders are cancelled. CODA will monitor for repeated cancelling by initiators and will address and take action as it deems necessary.

**Auction Alert & Participation** – A successful initiation of a CODA BLOCK auction is followed by the distribution of CODA BLOCK Auction Alerts and the opening of a “30-second” order entry period. CODA distributes Auction Alerts to its subscribers using its “symbol only” RFT similar to other CODA auction types. The alerts notify participants that a CODA BLOCK auction has been initiated in that symbol and is in progress.

Subscribers (both Liquidity Seekers and Liquidity Providers) can receive Auction Alerts at three distinct times, in order to accommodate the varied trading workflow needs and latency sensitivities of CODA and CODA BLOCK’s diverse subscriber community. The first of the three Auction Alerts, Phase 1 Auction Alert, is sent at the start of this stage.

Auction Alerts are distributed to participants via IOI, Instant Message (“IM”), OMS/EMS, direct FIX connections and other third party messaging platforms and networks. If any alert distribution platforms or networks require “Side” in their specification, then CODA will send both a Buy Auction Alert and a Sell Auction Alert to the platform or network to avoid disclosing the direction of the initiating order. The Auction Alerts can also include the start and stop time for the order entry period.

Orders received during the order entry period are placed in the CODA BLOCK auction order book for that symbol as participating orders. There is no time priority in the auction pricing process (allocation rules are described later in this document); therefore, a subscriber can respond to any of the three Auction Alerts at any time. CODA BLOCK enforces the following requirements on participating orders:

- Participating orders may be priced below, at, inside or above the NBBO.
- A minimum order quantity of 1,000 shares is required for a participating (responding) order.

- Managed Orders and Conditional orders are eligible for participating in CODA BLOCK auctions if they meet the aforementioned criteria.
  - If the CODA BLOCK auction is priced outside the NBBO (as described below), Managed Orders will only participate in the allocation if the order is receiving price improvement on the passive side of the NBBO.

The Phase 2 and Phase 3 Auction Alerts are designed to accommodate quantitative, algorithmic and Conditional Order subscribers. The Phase 2 Auction Alert is sent approximately 29.7 seconds after the Phase 1 Auction Alert. This time is also 300 milliseconds prior to the end of the “30-second” order entry period. Conditional order invites are sent to all eligible Conditional Orders as part of the Phase 2 Auction Alert.

The Phase 3 Auction Alert is the final Auction Alert and is sent 10 milliseconds prior to the end of the “30-second” order entry period. Managed Orders in the CODA system that are CODA BLOCK auction eligible are reserved for the auction book at this time.

The Auction Alerts are sent to participants according to the following schedule:

- Phase 1 Auction Alert: Time ~0 seconds
  - This is the start of the auction.
- Phase 2 Auction Alert: Time ~29.7 seconds (29 seconds and 700 milliseconds).
  - This is 300 milliseconds before the end of the order entry window.
- Phase 3 Auction Alert: Time ~ 29.990 seconds (29 seconds and 990 milliseconds).
  - This is 10 milliseconds before the end of the order entry window.

Participating orders in the auction order book may be entered, replaced or cancelled at any time during the order entry period. All participating orders in the CODA BLOCK auction order book are non-displayed and not executable until the end of the “30-second” order entry period. The stage is complete at the end of the “30-second” order entry period. At that time all participating orders in the auction order book are deemed firm and cannot be cancelled.

**Auction Pricing, Share Allocation and Trade Reporting** – During this stage the CODA BLOCK auction matching logic determines the price for the auction, the allocation of shares to each participant, and the sending of trade reports as required to a TRF. CODA rechecks the NBBO to establish the current NBBO for pricing and allocation as well as identifying the protected markets “top of book” should the CODA BLOCK auction be priced outside the NBBO requiring CODA to fulfill any Rule 611 of Regulation NMS obligations.

All CODA BLOCK auction eligible orders are aggregated in the CODA BLOCK auction order book at their most aggressive (i.e., highest priced Buy orders/lowest priced Sell/Sell Short

orders) price levels. Since a CODA BLOCK auction is a multilateral trading environment that allows multiple buy orders and multiple sell/sell short orders to compete in a single auction, there may be multiple orders to buy and sell up to or down to any given price level.

**Pricing:** CODA BLOCK's auction pricing logic determines the single price where the most aggregated buy shares can trade with the most aggregated sell/sell short shares while taking into consideration all of the following:

- 1) All Limit prices.
- 2) All Pegged Orders, the limit price on the pegged orders and any peg offset value specified on the order (Pegged orders are pegged to the NBBO snapshot taken at the end of the order entry period).
- 3) Minimum Fill Quantity instructions (CODA BLOCK satisfies Minimum Fill Quantity instructions)
  - a. Unless subscriber specifies another value on the order, CODA BLOCK enforces a default 100 share minimum fill quantity instruction on all initiating and participating orders less than 50,000 shares.
  - b. CODA BLOCK enforces a default 10% Block Order Minimum Fill Quantity on initiating and participating orders of 50,000 shares or greater unless the subscriber specifies its own minimum fill quantity value on the order.
- 4) Maximum contra is not supported in CODA BLOCK (see below).
- 5) Self-trade prevention is not supported in CODA BLOCK, but is actively monitored by CODA. CODA addresses self-trade concerns with subscribers directly as needed.
- 6) CODA BLOCK's Passive Order Rule ("POR")
  - a. Only applied when the auction price will be outside the NBBO.
  - b. Designed to prevent an order that is small in size and passive in price from having an undue influence on the auction trade price (when compared to the aggregate share volume of orders on the passive side of the auction trade).
  - c. The POR establishes a threshold to determine which, if any, passive orders should be excluded based on the distance from the NBBO midpoint of the volume weighted average price of all orders that would be included on the passive side of the auction trade.
- 7) CODA BLOCK's Liquidity Protection Rule ("LPR")
  - a. Only applied when the auction price will be outside the NBBO.

- b. Designed to prevent an auction trade from executing at an unreasonable distance outside the spread given the size of the execution and the liquidity profile of the symbol.
  - c. The LPR uses an equation that is calibrated for each symbol against its historical trade data to determine a typical relationship between notional turnover and price variance. This equation takes the auction trade size as an input and returns the maximum distance the LPR will allow a trade of that size to be executed outside the spread as an output. If the auction trade price would be outside of that threshold, the orders passively priced outside of that threshold are deemed ineligible and the auction is repriced and reallocated.
- 8) If CODA BLOCK determines that the maximum number of shares that can trade is equal at multiple price levels, CODA BLOCK prices the auction at the price where the most shares can trade that is closest to the NBBO midpoint from the snapshot taken at the end of the order entry period.

**Trade Size Requirements:** The CODA BLOCK auction trade size must satisfy CODA BLOCK Trade Size Requirements as follows:

- 1) CODA BLOCK auctions with an execution price at or within the NBBO
  - a. Middle Market Capitalization or Larger (greater than \$2 billion market capitalization): The Auction trade size minimum is 5,000 shares. If the CODA BLOCK auction price and share allocation results in an auction trade that is less than 5,000 shares, the CODA BLOCK auction and all related orders are canceled.
  - b. Small Market Capitalization or Smaller (\$2 billion or smaller market capitalization): The Auction trade size minimum is 2,500 shares. If the CODA BLOCK auction price and share allocation results in an auction trade that is less than 2,500 shares, the CODA BLOCK auction and all related orders are canceled.
- 2) CODA BLOCK auctions with an execution price outside the NBBO
  - a. Middle Market Capitalization or Larger (greater than \$2 billion market capitalization): The Auction trade size minimum is 15,000 shares. If the CODA BLOCK auction price and share allocation results in an auction trade which is less than 15,000 shares, the CODA BLOCK reprices the auction without the passively priced orders in the auction book to determine if a trade can occur at or within the NBBO. If not, the CODA BLOCK auction and all related orders are canceled.
  - b. Small Market Capitalization or Smaller (\$2 billion or smaller market capitalization): The Auction trade size minimum is 5,000 shares. If the CODA BLOCK auction price and share allocation results in an auction trade which is less than 5,000 shares, the CODA BLOCK reprices the auction without the passively

priced orders in the auction book to determine if a trade can occur at or within the NBBO. If not, the CODA BLOCK auction and all related orders are canceled.

- 3) If CODA's protected markets "top of book" snapshot shows more shares available in aggregate at the protected markets "top of book" than the pending CODA BLOCK auction trade size, then CODA, if possible, will reprice and reallocate the CODA BLOCK auction, not including the passively priced orders outside the NBBO, and price the auction at or inside the NBBO. If not possible, the CODA BLOCK auction and all related orders in the auction are cancelled.

If CODA BLOCK Trade Size Requirements are satisfied the allocation process is effected as described below.

**Primary Allocation:** If an initiating or participating order is priced at or through the auction trade price, the order will be allocated shares from the auction order book as follows:

- 1) The initiating order receives 100% allocation priority.
  - a. If the initiating order's limit price, minimum fill quantity or other order instruction prevents it from trading at the auction's trade price, then the initiating order will not be included in the allocation process. (If an initiating order is not included in the CODA BLOCK auction allocation process due to its limit price or other order instructions, it will not result in the cancelation of the auction.)
- 2) Participating orders receive a quantity weighted pro-rata allocation.
  - a. If a participating order's limit price, minimum fill quantity or other order instruction prevents it from trading at the auction's trade price, then the participating order will not be included in the allocation process.
  - b. Multiple orders from the same subscriber on the same side are not aggregated for pro-rata allocation and calculation purposes.
- 3) If the auction price is outside the NBBO, then Rule 611 of Regulation NMS Trade Through requirements are triggered. In these cases, CODA BLOCK will reduce the number of shares allocated to CODA BLOCK participants by the number of shares shown as protected "top of book" according to Rule 611 of Regulation and NMS and CODA BLOCK's NBBO snapshot. CODA will route orders outside CODA to satisfy the requirements of Rule 611 of Regulation NMS in an agency capacity. Any shares filled at the protected prices will be allocated according to the "Secondary Allocation" described below.
- 4) The primary allocation process will not allocate shares in mixed or odd lots. If the final 100 shares need to be allocated to one participating order while there are several participating orders in the CODA BLOCK auction order book, the final 100 shares are allocated to the participating order based on price/time priority (price and time stamp on new order receipt).

**TRF Trade Reporting:** Once the auction trade price and the primary allocation is determined, a trade report is generated as a single price and a single trade execution. This is the media print to the TRF. CODA sends the trade report to a TRF at this time along with any required Intermarket Sweep Orders (“ISO”) (described below).

**Regulation NMS Rule 611 ISO Sweep (if necessary):** To comply with Rule 611 of Regulation NMS, if the auction trade price is outside the NBBO, CODA will route ISOs to access the liquidity deemed as protected markets “top of book” according to CODA’s “protected market” snapshot. CODA will send ISO orders to the protected markets in an agency capacity; therefore, the CODA BLOCK auction trade size may be adjusted as necessary and to comply with Rule 611 of Regulation NMS. The initiator’s 100% allocation priority from the primary allocation is maintained during any auction trade size adjustment. Fills for participating orders are adjusted on a volume weighted pro-rata basis in necessary. If an auction trade size adjustment would result in a violation of CODA BLOCK’s auction Trade Size Requirement then CODA, if possible, will reprice and reallocate the CODA BLOCK auction, not including the passively priced orders outside the NBBO, and price the auction at or inside the NBBO. Should that not be possible, the CODA BLOCK auction and all related orders in the auction are cancelled. The ISO order(s) to the protected markets and the auction trade print to the TRF are sent contemporaneously.

**Secondary Allocation (if necessary):** To comply with Rule 611 of Regulation NMS, if CODA receives full or partial fills on any of the ISO orders, the filled shares will be allocated on a quantity weighted pro-rata basis to the aggressively priced orders (i.e., Buy orders in a CODA BLOCK auction with an auction trade price greater than NBO/Sell orders in a CODA BLOCK auction with an auction trader price less than NBB) that received allocations in the auction (which may include the initiator).

**Post Auction** – Immediately after the auction price, share allocation, and TRF reporting has been completed:

- Subscriber execution reports:
  - a. Subscribers receiving fills from CODA BLOCK will receive one fill at a single price. That fill price reflects the auction price unless the participant receives secondary allocation shares as described above. Participants receiving secondary allocation shares in addition to primary allocation shares will receive a single fill at the average price.
- Post auction residual processing:
  - a. All unfilled or partially filled IOC orders are cancelled back to the participant.
  - b. Day orders may remain active as Managed Orders as follows:
    - i. If an initiating or participating order received in response to an Auction Alert has residual quantity, it is eligible to interact with future CODA

BLOCK auctions, but not eligible to interact with other CODA auction types.

- ii. If the remaining quantity on a CODA BLOCK auction Day order is less than 1,000 shares, then CODA BLOCK will cancel the order.
  - iii. All CODA BLOCK auction orders that do remain active as Managed Orders will maintain the 100 share minimum fill quantity or 10% block minimum fill quantity (previously described) unless another value is specified by the subscriber.
- c. Conditional Orders that send Day orders as a firm up to a CODA BLOCK auction alert/invite are cancelled after the auction.
  - d. Managed Orders (not designated as CODA BLOCK-only) that were included in a CODA BLOCK auction will remain live and active as Managed Orders in CODA.
- Clearance and settlement – CODA BLOCK’s clearing and settlement procedures are consistent with other CODA auction types.

At the completion or cancellation of a CODA BLOCK auction, the symbol is again available for initiation of a new CODA BLOCK auction.

#### **b) Procedures Governing Entry of Orders into the Alternative Trading System**

CODA accepts orders between 9:30:00 a.m. U.S. Eastern time and 4:00:00 p.m. U.S. Eastern time (“Core Trading Session”) on each trading day except as described below under “Service Bureau/Agency Routing Broker.” Orders residing in CODA at the end of the normal trading day (*i.e.*, 4:00:00 p.m. U.S. Eastern time) are cancelled. CODA will not accept any orders past 4:00:00 p.m. U.S. Eastern time except as described below under “Service Bureau/Agency Routing Broker.”

CODA trades only listed equity securities as defined by Regulation NMS rule 600(b)(34) which defines a listed equity security as any equity security listed and registered, or admitted to unlisted trading privileges, on a national securities exchange. CODA sources this list from the FINRA Start-of-Day file or other equivalent database. At its discretion, CODA may designate certain securities as ineligible for trading.

#### **ORDER TYPES AND TIME IN FORCE**

CODA MICRO and CODA ONE accept and handle the following order types from Liquidity Seekers:

- **Limit**
- **Market**
- **Managed**
  - Managed orders reside in CODA’s MOF and allow Liquidity Seekers to interact with and execute against order flow from other Liquidity Seekers. CODA

automatically generates IOC responses based on the detail of the Managed order and on behalf of the Liquidity Seeker if the Managed order provides executable contra side liquidity to any of the auction types or matching protocols listed above. Managed orders do not have priority over Liquidity Provider responses. Managed orders may be ineligible to interact with certain auctions. Managed orders on the same side in the same symbol are given price / time priority over each other unless otherwise specified (see description of CODA BLOCK auctions).

- **Pegged (midpoint, primary, market)**

- Midpoint pegged orders allow the Liquidity Seeker to use any of the auction types or matching protocols to source liquidity at the midpoint of the NBBO or better (“Midpoint Order”). CODA identifies an order as a Midpoint Order in each RFT/Auction Alert sent to the Liquidity Providers (except in CODA BLOCK auctions). When responding to Midpoint Auction Orders, a Liquidity Provider can send a Midpoint Pegged Order in response. Using both CODA’s market data feed and the limit prices (if present) on the participants’ orders, CODA matches the Liquidity Seeker and Liquidity Provider(s) at the midpoint of the NBBO and prints to the TRF.
- Market pegged orders allow the Liquidity Seeker to instruct CODA to execute its order at the current market price. Market pegged orders maintain a limit price equal to the NBO for buy orders and a limit price equal to the NBB for sell/sell short orders, and trade against orders from other Liquidity Seekers that initiate auctions.
- Primary pegged orders allow the Liquidity Seeker to instruct CODA to execute its order at a limit price that is relative to the NBBO. Primary pegged orders maintain a limit price equal to the NBB for buy orders and a limit price equal to the NBO for sell/sell short orders. Primary pegged orders do not initiate auctions but instead they behave similarly to Managed Orders, as described above.
- Offset: Subscribers may add offset (at a value no less than \$0.01 for stocks priced above \$1.00) to market and primary pegged order instructions. This will maintain a limit price above or below the NBBO equal to offset value. Offset is supported on Primary and Market pegs only.

- **Conditional**

- Conditional orders are a type of Managed Order and offer similar benefits to Managed Orders in that Liquidity Seekers can provide liquidity via all auction types and matching protocols. A Conditional order sent to CODA is invited to firm up when CODA receives an executable contra side liquidity-seeking order (except in CODA BLOCK auctions). Conditional orders may be entered as Market, Limit or Pegged. A Conditional order must be replaced with a firm (Market, Limit or Pegged) order prior to execution. The process of replacing Conditional orders with firm orders, known as a “firm up,” introduces latency to

the execution process. As such, Conditional orders may not be eligible to interact with some liquidity-seeking order flow (see description of CODA MICRO above). During the matching process, Managed Orders that are firm orders are given priority over Conditional orders if their prices are equal. Detailed information regarding use of Conditional orders is available in the Conditional Order Addendum to the CODA Liquidity Seeker Guide – FIX Specification. CODA can peg Conditional orders to the midpoint of the NBBO by default at the request of the Liquidity Seeker.

- **Algorithmic**

- This order type represents a suite of order types for Liquidity Seekers that route orders to CODA as well as other dark and lit market centers. These orders may trade at CODA, but are mostly focused on CODA’s service bureau/agency routing broker offering (described below).

CODA MICRO and CODA ONE accept and handle the following Time in Force (“TIF”) instructions from Liquidity Seekers:

- **Day:** At the request of the Liquidity Seeker, Day orders that remain unfilled or partially filled following one of CODA’s Auction Types and matching protocols may be treated as Managed Orders and/or utilize CODA’s Service Bureau/Agency Routing Broker functionality (described below).
- **Immediate or Cancel (“IOC”):** Liquidity Seekers may specify unique IOC instructions including:
  - IOC CODA Only – non-routable IOC orders (CODA will act solely in the capacity of an ATS)
  - IOC PLUS – routable IOC orders that use CODA’s service bureau / agency routing broker functionality (described below)
  - IOC ALL – routable IOC orders that use CODA’s service bureau / agency routing broker functionality (described below), and may access additional liquidity beyond IOC PLUS
  - Liquidity Seekers using CODA’s service bureau/agency routing broker functionality may request, in writing, that CODA handle orders specified as IOC CODA Only as IOC PLUS or IOC ALL. This may be used if a Liquidity Seeker’s trading platform cannot distinguish between the various IOC instructions.
- **Good Til Cancelled (“GTC”):** GTC orders and other “Good Til...” TIF values are treated as Day orders and cancelled at the end of CODA’s trading day.

- **Managed:** The Liquidity Seeker FIX specification allows orders to be designated as Managed Orders via a time-in-force value in addition to the standard behavior Day orders.

CODA BLOCK accepts and handles the following Order Types from Liquidity Seekers:

- **Market Orders:** Market orders are not accepted in CODA BLOCK auctions and will be rejected.
- **Limit Orders:** Limit orders are handled similarly to limit orders in CODA's other auction types.
- **Pegged Orders:** Market, primary and midpoint pegged orders are all accepted and are handled similarly to pegged orders in CODA's other auction types. Peg Offset may also be used as described herein and in the CODA FIX specifications for Market and Primary Pegged Orders.
- **Managed Orders:** Managed Orders greater than 1,000 shares and residing in the CODA system are eligible to interact with CODA BLOCK auctions. Managed Orders are reserved as participating orders in a CODA BLOCK auction during the Phase 3 Auction Alert. If the CODA BLOCK auction is priced outside the NBBO, Managed Orders will only participate if they are receiving price improvement and on the passive side of the NBBO.
- **Conditional Orders:** A Conditional Order resting in CODA can only participate (not initiate) in CODA BLOCK auctions. Conditional Order invites will include an indication that the invite is for a CODA BLOCK auction. CODA BLOCK auction Conditional Order invites will be sent to all eligible Conditional Orders in that symbol regardless of side, size and price of the initiating order. As with all participating orders, Conditional Order "firm up" orders submitted to a CODA BLOCK auction must be at least 1,000 shares to be eligible. Conditional Order "firm up" orders must be Limit or Pegged Orders (Market orders will be rejected). Conditional Orders whose "firm up" orders are submitted to a CODA BLOCK auction are treated with the same priorities and on the same basis as other participating orders. Due to the multilateral matching rules of CODA BLOCK, Conditional Orders and their subsequent "firm up" orders may not participate in the allocation process due to their limit price, minimum fill quantity or other order instructions even following receipt of an invite. As a result of the symbol-only nature of the CODA BLOCK Conditional Order invite, subscribers may choose to not submit a Conditional Order "firm up" order. Any unfilled shares on a firm up order will be cancelled back to the subscriber at the completion of the auction.

CODA BLOCK accepts and handles the following TIF instructions from Liquidity Seekers:

- **IOC Orders:** An IOC order can initiate or participate in a CODA BLOCK auction. If unfilled upon completion of the auction, it will be returned immediately to the subscriber.

IOC responses to CODA BLOCK auctions are live until completion of the auction or cancelled.

- **Day Orders:** A Day Order can initiate or participate in a CODA BLOCK auction and upon completion of the auction, any order with residual shares will rest in CODA as a Managed Order, eligible to participate in future CODA BLOCK auctions or until canceled by subscriber.
- **Managed Orders:** As described previously herein.

CODA MICRO, CODA ONE and CODA BLOCK accept and handle Liquidity Provider orders as follows:

- All CODA auction types and matching protocols allow Liquidity Providers to generate firm IOC orders in response to liquidity-seeking order flow. When responding to CODA MICRO “price improvement auction” orders, CODA ONE and CODA BLOCK RFT/Auction Alerts, the Liquidity Provider responses remain tagged as IOC; however, they are Paused for the full length of the auction in order for CODA to identify and complete the price discovery process.
- Liquidity Providers may send Pegged Orders, with or without peg offset, as previously described for Liquidity Seekers.
- Liquidity Providers may send orders with discretion offset to provide additional price improvement to their orders. Discretion offset values may be no smaller than \$0.01.
- At the completion of any CODA auction, unfilled Liquidity Provider responses are cancelled. Liquidity Providers may only enter orders when responding to a RFT/Auction Alert. All Liquidity Provider orders are IOC and are not eligible for routing via CODA’s service bureau / agency routing broker functionality. If Liquidity Providers send Day orders they will be treated as IOC as described above.

#### Price Improvement / Sub-penny Executions

To provide price improvement to Liquidity Seekers, Liquidity Providers can populate a FIX tag in their response. This tag will identify the amount (numeric value) to which they are willing to provide price improvement beyond their limit price or peg. When CODA matches a Liquidity Provider’s order indicating a willingness to provide price improvement against a liquidity-seeking order, CODA’s matching logic adds the value in that FIX tag to the limit price and/or peg instruction on the Liquidity Provider’s order to calculate the final price for the trade. Liquidity Providers may provide price improvement instructions to limit orders based on their limit price as well as offset to pegged orders based on the NBBO. With the exception of trading in stocks priced below \$1.00, CODA does not accept orders with sub-penny values in the price tag; however, midpoint executions may occur at sub-penny values.

#### Counterparty Restriction

Subscribers (both Liquidity Seekers and Liquidity Providers) may elect to not trade with any number of specified counterparties at CODA. Subscribers can identify such counterparties to CODA by name or by reference to their own historical executions. If identified to CODA by name, CODA will not confirm or deny to such identifying subscriber any active subscriptions of any other subscribers (unless authorized to do so by a subscriber), but CODA will satisfy the do-not-trade request if the identified counterparty is a CODA subscriber. If a trade does not occur due to an active do-not-trade request by a subscriber, neither the identifying subscriber nor the identified counterparty will be notified that this was the reason the order was cancelled.

Two or more subscribers may request to trade exclusively with each other. From the Liquidity Seeker's perspective, its RFT/Auction Alerts will only be sent to the exclusive Liquidity Provider(s) it has designated. From the Liquidity Provider's perspective, it will only receive RFT/Auction Alerts from the exclusive Liquidity Seeker(s) it has designated. The request can be set as a default for the subscribers, or specified at the session level or on an order-to-order basis. CODA can facilitate this exclusivity request between a Liquidity Seeker and Liquidity Provider or between a Liquidity Seeker and another Liquidity Seeker's Managed Orders. As described previously, CODA will not confirm or deny whether any firm or person is a CODA subscriber, but subscribers may disclose their subscription status/participation in CODA to third parties at their discretion, for the purpose of arranging exclusive trading or otherwise.

Currently, counterparty restriction is not fully supported in CODA BLOCK auctions.

#### Service Bureau/Agency Routing Broker

CODA may accept orders from subscribers and route those orders, if instructed to do so, to other market centers or brokers. In such event, subscriber's orders will be routed to other market centers or brokers under CODA's MPID, the subscriber's MPID or the subscriber/participant's clearing/sponsoring firm's MPID. CODA may accept order types and order handling instructions that are not processed or supported by the CODA matching engine (Auction Types) and pass those on to other brokers and marketplaces as part of the service bureau/agency routing broker functionality.

During times outside the Core Trading Session, CODA will not provide subscribers with execution and matching functionality within CODA, but will provide connectivity to other brokers and market centers. Subscribers may also request the ability to enter orders prior to the Core Trading Session that will remain unexecuted in the CODA system until the Core Trading Session begins. The systems used to provide connectivity are the same systems used during the Core Trading Session.

Order acceptance and order routing in the capacity of a service bureau/agency routing broker occurs during the 210-minute period prior and 30-minute period subsequent to the Core Trading Session (the "non-Core Trading Session"). Market, Limit and other pre- and post-order types are accepted and routed during the non-Core Trading Session. CODA only acts in the capacity of an Alternative Trading System during the Core Trading Session, but may also act in the capacity of a service bureau/agency routing broker during that time (as described below). During the non-

Core Trading Session CODA only acts in the capacity of a service bureau/agency routing broker, solely transmitting orders, without the intervention of CODA's matching engine protocols.

During the Core Trading Session, Liquidity Seekers may also request that after (or in some cases before) their order is processed by any of CODA's Auction Types, CODA act as a service bureau/agency routing and execution broker for any unfilled portion of an order. Subscribers opting to utilize this functionality may work with CODA personnel to create customized execution strategies to access liquidity from other market centers and brokers. The routing and execution logic strategies can take into consideration venue, counterparty, latency and price sensitivities of the specific Liquidity Seeker.

### **TICK SIZE PILOT PROGRAM**

The U.S. Securities and Exchange Commission has approved a Tick Size Pilot Program which is scheduled for implementation on October 3, 2016. More information about the Tick Size Pilot Program is available at <http://www.finra.org/industry/tick-size-pilot-program> and [www.sec.gov](http://www.sec.gov). In compliance with the Tick Size Pilot Program, the following additional order acceptance and matching rules will apply to CODA and the previously discussed Auction Types:

<b>Group</b>	<b>Restriction</b>	<b>Order Acceptance</b>	<b>Executions</b>
Control Group	Securities in this group will continue to be quoted and traded in \$0.01 increments.	Order will be accepted in \$0.01 increments.	Executions may occur at all currently permitted increments.
Test Group 1	Quoted in \$0.05 increments. Traded using currently permitted increments.	Orders will be accepted in \$0.05 increments only. All other prices will be rejected. Pegged orders with limit prices not in \$0.05 increments will be rejected.	Executions may occur at the bid, offer, midpoint, or any other price within the spread.
Test Group 2	Quoted and traded in \$0.05 increments.	Orders will be accepted in \$0.05 increments only. All other prices will be rejected. Pegged orders with limit prices not in \$0.05 increments will be rejected.	Executions may occur at the bid, offer, midpoint, or other \$0.05 increments within the spread.

Test Group 3	Quoted and traded in \$0.05 increments with "Trade At" restrictions and block exemption.	Orders will be accepted in \$0.05 increments only. All other prices will be rejected. Pegged orders with limit prices not in \$0.05 increments will be rejected.	<p>Executions may occur at the midpoint or permissible \$0.05 price increments within the spread.</p> <p>No transactions will occur during locked markets.</p> <p>No transactions will occur at the bid or offer unless the aggregate trade report(s) size is greater than or equal to 5,000 shares.</p>
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Additional conditions specific to the Tick Size Pilot Program include:

- Use of Peg Offset and Discretion Offset will be limited to \$0.05 increments in all Test Groups
- The minimum trade size requirement for CODA BLOCK Auctions in Test Group 3 securities will be modified as follows:
  - Inside the NBBO at permissible increments, including midpoint: 2,500 shares (no change)
  - At the NBBO: 5,000 shares (change from 2,500)
  - Outside the NBBO: 5,000 shares (no change)
- Any potential price improvement from executions in Test Groups 2 & 3 will be awarded in increments of \$0.05 or at the midpoint and according to the matching rules of each Auction Type.
- Executions in Test Group 3 securities in CODA MICRO and CODA ONE Auction Types that are less than 5,000 shares and therefore do not qualify for the block exemption will split price improvement to the nearest permissible increment to a 50/50 split. If a 50/50 split is not possible the greater amount of price improvement will be awarded to the Liquidity Seeker (initiator).

CODA's order acceptance and execution protocols are subject to change should any aspect of the Tick Size Pilot Program be modified before or during implementation.

### c) Means of Access to the Alternative Trading System

CODA's main data center is the Savvis NJ2 data center in Weehawken, NJ. CODA maintains a point of presence ("POP") in NY5, an Equinix data center in Secaucus, NJ. CODA routinely synchronizes its system components with the NIST Atomic Clock.

All CODA subscribers must be either a U.S. registered broker-dealer, a qualified institution or a sponsored access participant through a registered broker-dealer subscriber. As part of the onboarding process CODA performs requisite due diligence on each new subscriber or sponsored participant. All subscribers must have an executed broker-dealer or institutional subscriber agreement with CODA Markets, Inc. (formerly known as PDQ ATS, Inc.) that is in full force and effect.

Before trading at CODA each subscriber must have an appropriate clearing arrangement (for example, a Qualified Service Representative or correspondent clearing agreement) in place with the designated clearing firm of CODA, which is currently Broadcort, a division of Merrill Lynch Pierce, Fenner & Smith Inc., either directly or through the subscriber's clearing firm.

Subscribers are subject to CODA's internal risk controls. CODA performs risk checks on all orders upon receipt. Per order risk limits are specified for each subscriber or subscriber connection and include a maximum allowable order quantity and maximum allowable notional value. Additional risk checks are designed to prevent duplicate orders and orders that are clearly erroneous. CODA will reject orders that are priced a specified percentage above or below the NBBO (currently this is set at 10%, but it may be changed from time to time). Orders that fail any of the aforementioned risk checks are rejected.

CODA, at its discretion or at the request of a subscriber, may impose a maximum order/second threshold for an individual subscriber or subscriber's order entry connection.

Subscribers gain access to CODA through a variety of methods.

- Liquidity Seekers connect to CODA via a third-party network, VPN, extranet, private leased line, or a cross-connect in one of the data centers in which the CODA systems reside. Liquidity Seekers using participating third-party order/execution management systems may have CODA available as a destination ATS/broker-dealer on their order entry tickets and trader consoles. Liquidity Seekers and order/execution management systems code to CODA's Liquidity Seeker Guide – FIX Specification. New connections for Liquidity Seekers and order/execution management systems are tested and certified with CODA prior to being installed in the production environment. Orders are routed to CODA via FIX protocol.
- Liquidity Providers connect to CODA by coding their proprietary algorithms and/or broker approved risk management systems to the CODA Liquidity Provider Guide – FIX Specification. Liquidity Provider algorithms and risk management platforms are tested and certified with CODA and the Liquidity Provider prior to being installed in the production environment. Orders are routed to CODA via FIX protocol.

- Liquidity Provider algorithms are the individual Liquidity Provider's proprietary software code and provide the mechanism to respond to RFT/Auction Alerts from Liquidity Seeker orders. By default, CODA sends RFT/Auction Alerts in all symbols to the Liquidity Providers. Instead of receiving RFTs in all symbols, however, Liquidity Providers may "subscribe" to only the symbols they desire to trade. To subscribe to a particular symbol, a Liquidity Provider can send a Reference Order to CODA for that symbol. CODA can also generate a Reference Order on behalf of the Liquidity Provider. The Reference Order includes the symbol for which the Liquidity Provider would like to receive RFT/Auction Alerts. A Liquidity Provider will then only receive RFT/Auction Alerts for orders for those symbols for which they have active Reference Orders.

#### **d) Procedures Governing Execution, Reporting, Clearance and Settlement of Transactions Effected Through the Alternative Trading System**

##### Procedures Governing Execution

CODA accepts orders from subscribers starting at 6:00:00 a.m. U.S. Eastern time in the capacity of a service bureau/agency routing broker and at 9:30:00 a.m. U.S. Eastern time in the capacity of an Alternative Trading System and service bureau/agency routing broker. At 4:00:00 p.m. U.S. Eastern time CODA ceases operation in the capacity of an Alternative Trading System, but continues to accept orders in the capacity of a service bureau/agency routing broker until 4:30:00 p.m. U.S. Eastern time.

As described above CODA has three auction types that govern execution procedures:

- 1) CODA MICRO
  - "First-to-respond-first-to-trade" – (time / price priority for Liquidity Provider responses)
  - "Price improvement auction" – (price / time priority for Liquidity Provider responses)
- 2) CODA ONE
- 3) CODA BLOCK

Auction Types and matching protocols operate under the execution rules described previously and below.

- Managed and Conditional orders are defined as liquidity-providing order types. As a result, Liquidity Seekers using these order types may award price improvement to the contra side counterparty.
- CODA executes trades during locked markets as a default for all Auction Types, but allows subscribers to opt out of execution during locked markets via written request.

- CODA does not execute trades during crossed markets.
- CODA enforces self-trade prevention at the MPID level in both CODA MICRO and CODA ONE. CODA BLOCK does not support self-trade prevention due to the multilateral auction process. This is a non-configurable setting.
- Currently, all Auction Types are initiated when a liquidity-seeking order is deemed “Marketable.” CODA defines Marketable as a buy order greater than the NBB or a sell/sell short order less than the NBO. CODA checks the marketability of every liquidity-seeking order upon receipt.
- Orders deemed non-Marketable are immediately cancelled (IOC) or routed out for execution as directed by the Liquidity Seeker. Non-Marketable orders may also be treated as Managed and/or Conditional orders. Liquidity Seekers may request that CODA treat their buy orders greater than the NBB and less than the NBO, and sell/sell short orders less than the NBO and greater than the NBB, as non-Marketable.
- At the direction of a Liquidity Seeker, CODA may not initiate auctions for orders in stocks priced less than \$1.00, regardless of an order’s marketability.
- Liquidity Providers are required to respond with a minimum of 100 shares (odd lots are not permitted). To avoid information leakage all RFT/Auction Alerts indicate a minimum fill quantity value equal to 100 (CODA MICRO) or 1,000 (CODA BLOCK), regardless of any different value a Liquidity Seeker may specify.
- Liquidity Provider responses received after any auction order entry period are rejected.
- To further avoid information leakage related to a liquidity-seeking order, CODA does not specify the reason for a cancellation on cancel messages sent to Liquidity Providers. For example, if a trade did not occur because the Liquidity Seeker and Liquidity Provider orders were both buy orders, neither party would know that to be the reason for the cancellation.
- In CODA MICRO and CODA ONE all executions at CODA occur at or inside the NBBO. The NBBO is confirmed and logged upon receipt of Liquidity Seeker orders and confirmed again prior to execution during a “price improvement auction.”
- In a CODA MICRO, Liquidity Seeker orders may receive multiple executions through partial fills for a single order if more than one executable Liquidity Provider order is generated for less than the full size of the liquidity-seeking order. Each executable Liquidity Provider order will trade individually with its share of the Liquidity Seeker order. Unpaired residual from Liquidity Seeker orders will be cancelled, become a Managed order, or routed out as specified by the Liquidity Seeker.

- Subscribers may enable a maximum contra size feature that will prevent orders from executing against contra side orders of greater size. Subscribers may also use a multiplier feature to allow executions with contra side liquidity that are larger in quantity, but within a specific threshold. For example, a Subscriber may request a maximum contra size setting of two times the quantity on any potential execution. This feature is available to Liquidity Seekers using Managed Orders and to Liquidity Providers. As described above, any cancels generated as a result of this feature will not contain information indicating the reason for the cancellation and, therefore, the parties will not know this feature was the cause of the cancellation. This feature is not available in CODA BLOCK.
- Subscribers may submit orders with a minimum fill quantity on an order-by-order basis. Subscribers may contact CODA to request a default minimum fill quantity at either the subscriber or session level. CODA does not aggregate contra side orders to satisfy a minimum fill execution quantity of a liquidity-seeking order except as described in CODA ONE and CODA BLOCK.

For additional detail on the CODA auction types and matching logic please refer to Exhibit F – Section (b).

#### Reporting, Clearance and Settlement Procedures

CODA utilizes much of the operational infrastructure of CODA Markets, Inc. (the broker-dealer) and, for clearing and settlement, Merrill Lynch, Pierce, Fenner & Smith, Inc. (Broadcort division). In this regard, CODA executions are cleared by Merrill Lynch, Pierce, Fenner & Smith, Inc. Following an execution, all sides of the trade are reported to a TRF to post the trade on the consolidated tape. Currently, CODA reports executed trades to the NYSE/FINRA TRF, but may report to any other registered TRF. Merrill Lynch, Pierce, Fenner & Smith, Inc. completes any additional required regulatory reporting and completes the clearance and settlement process of the trade.

CODA generates and sends a daily OATS report on data created for all CODA activity in OATS reportable securities. The report contains combined new order/route events, combined new order/execution events, and any required OATS data to be submitted to FINRA.

Execution quality reports, in accordance with Regulation NMS, Rule 605 requirements, are made available through CODA's third-party vendor and are also posted to CODA's website, [codamarkets.com](http://codamarkets.com) (formerly: [pdqats.com](http://pdqats.com)).

CODA may use third parties that are bound by confidentiality agreements with CODA to perform transaction cost analysis and other trading performance analytical services, and may disclose or disseminate the results in an aggregated, anonymized format.

Historical/end-of-day internal and external order/execution reports may be prepared identifying data such as aggregate received volume by symbol. Subscribers may request and approve CODA

to share data, specific solely to such subscriber's activity at CODA, with other subscribers or third parties on an anonymous or fully disclosed basis as elected by such authorizing subscriber.

As previously described, CODA may send drop copies of execution reports to subscribers and/or their clearing firms or third-party risk management systems, upon request. CODA may send additional drop copies to CODA's clearing firm.

#### **e) Procedures for Ensuring Subscriber Compliance with System Guidelines**

CODA has built-in compliance and procedures for ensuring subscriber compliance with the CODA system requirements. CODA operations staff monitors all trade activity throughout the trading day via a CODA administrative front-end, CODA error monitoring system and a CODA risk monitor.

CODA staff with administrative privileges can use the CODA administrative front-end to manually cancel orders if necessary.

The CODA error monitoring system continually monitors all system and trade activity throughout the day. All software components at CODA are capable of outputting information to the CODA error monitoring system. All errors are logged to a database. CODA personnel monitor the error monitoring system throughout the trading day.

If CODA encounters a matching engine or other system malfunction, CODA, in the capacity of an ATS, will suspend that operation if deemed necessary. If CODA loses access to the TRF or the TRF experiences a system malfunction, CODA will suspend trading in the capacity of an ATS if deemed necessary. CODA may still accept orders and act in the capacity of a service bureau/agency routing broker if trading within CODA is suspended.

#### **f) Copy of Alternative Trading System's Subscriber Manual and any Other Materials Provided to Subscribers**

The following CODA documents and materials will be provided to subscribers based on their business activity or upon request.

- CODA Markets Broker Dealer Subscriber Agreement 2016 v1.3
- CODA Markets Subscriber Information Request 2016 v1.1
- CODA Markets, Inc. Compliance Disclosure Notice – August 2016
- CODA Markets Liquidity Provider Guide – FIX Specification v2.9
- CODA Markets Liquidity Seeker Guide - FIX Specification v3.8
- CODA Markets Conditional Addendum to LS Guide – FIX Specification v1.8
- CODA Markets CODA BLOCK AUCTION ALERT – FIX Specification v1.0
- CODA Markets OMS EMS Ticket - Alternative New Order Addendum to LS Guide v1.1 – FIX Specification
- CODA Markets Institutional Subscriber Agreement 2016 v1.3
- CODA Markets Customer Account Information Request (Institutional Accounts)
- CODA Markets Business Continuity Plan
- CODA Markets OSO Agreement

**Exhibit G****A brief description of the alternative trading system's procedures for reviewing system capacity, security, and contingency planning procedures.**

CODA monitors system capacity utilization while it is in operation. This allows the staff to proactively increase or decrease capacity before limiting thresholds are met. The main CODA system resides at Savvis NJ2 in Weehawken, N.J. Savvis is a SSAE-16 audited facility that will not allow unauthorized personnel access to CODA's equipment. The system is accessible only to CODA personnel, as part of their job requirements, over an encrypted VPN tunnel. Each individual user has his or her own unique username and password for tunnel authorization and authentication. New credentials are issued upon approval to new users and credentials are removed for users leaving the firm. CODA's New York, NY, Glenview, IL, and Westport, CT, offices may all be used for system management if one of the offices were to become unavailable. CODA also conducts annual reviews and testing of its systems.

In addition to electronic security measures, CODA has written policies governing employees' use of confidential information. All employees are required to read, acknowledge their understanding of, and agree to adhere to, these policies and other employment-related rules and policies.

In accordance with FINRA Rule 4370, CODA has established a business continuity plan ("BCP") that addresses alternative sites for operations in the event of a significant business disruption as well as data back-up and recovery, mission critical systems including financial and operational assessments and interaction with our subscribers. Disclosure of the BCP is available to subscribers at the time a relationship is established and the BCP is summarized on CODA's website. The BCP is reviewed and approved no less than annually by senior management.

**Exhibit H**

**If any other entity, other than the alternative trading system, will hold or safeguard subscriber funds or securities on a regular basis, attach as Exhibit H the name of such entity and a brief description of the controls that will be implemented to ensure the safety of such funds and securities.**

CODA will not hold or safeguard subscriber funds or securities.

All subscribers to CODA are execution clients of CODA Markets, Inc. (the broker/dealer) and will clear and settle trades through Merrill Lynch, Pierce, Fenner & Smith, Inc. (Broadcort division).

**Exhibit I**

**Attach as Exhibit I a list providing the full legal name of those direct owners reported on Schedule A of Form BD.**

CODA Markets, Inc. is a FINRA-registered broker-dealer wholly-owned by PDQ Enterprises, LLC, a New York limited liability company.