

BALDWIN COUNTY, ALABAMA



RESPONSE TO REQUEST FOR STATEMENT OF QUALIFICATIONS UNDERWRITING SERVICES

PROPOSED GENERAL OBLIGATION WARRANTS SERIES 2019

Piper Jaffray

Walter D. Lewis
Managing Director
(205) 414-7511
walter.d.lewis@pjc.com

MINNEAPOLIS | BIRMINGHAM | ATLANTA | MEMPHIS | NASHVILLE | CHARLOTTE | NEW YORK

November 22, 2019

Mr. Ronald Cink
County Administrator
Baldwin County, Alabama
322 Courthouse Square
Bay Minette, Alabama 36507
rcink@baldwincountyal.gov

Mr. Reid Cavnar
STIFEL
2660 Eastchase Lane
Suite 400
Montgomery, Alabama 36117
CavnarR@stifel.com

Mr. Ken Funderburk
STIFEL
2660 Eastchase Lane
Suite 400
Montgomery, Alabama 36117
FunderburkK@stifel.com

Dear Mr. Cink, Mr. Cavnar and Mr. Funderburk:

On behalf of Piper Jaffray & Co., thank you for the opportunity to respond to Baldwin County's (the "County") request for qualifications for bond underwriting services for the County's upcoming General Obligation Warrants Issue and the Public Building Authority Revenue Warrants ("the Warrants" or "the Issue").

Piper Jaffray & Co. is a regionally-based full service investment banking firm that has been providing financial services to a wide variety of clients since 1895. Piper Jaffray prides itself on offering its Alabama clients local financing expertise supported by a national platform. Providing investment banking services to municipal issuers has been an important part of Piper Jaffray's business and is a major focus for the firm's future. Below are some of the key advantages of working with Piper Jaffray.

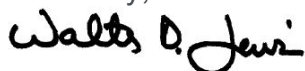
- ◆ **Regional Firm with strong Public Finance focus and commitment** – Piper Jaffray has a unique position among underwriting firms – we are a large, well established and well capitalized regional firm. In 2018, Piper Jaffray ranked #2 nationally by number of issues in negotiated underwritings and private placements while serving as Senior/Sole Manager on 438 transactions totaling \$11.7 billion in par amount. From 2014 to 2018, Piper Jaffray served as Senior or Sole Managing underwriter on 4,048 transactions for a total par amount of over \$85 billion. This extensive experience demonstrates our ability to reach a wide buyer based and achieve the lowest cost of capital for the County.
- ◆ **Local Presence and Expertise** – Piper Jaffray is committed to serving issuers throughout the state of Alabama. Walter Lewis, the proposed Lead Banker, has 26 years of experience serving issuers in the state and is supported by an experienced banking analytical team in Memphis, Tennessee. Since 2013, Piper Jaffray has served as Underwriter or Placement Agent on 61 transactions for a total par amount of \$2.6 billion in Alabama, 47 of which were as Senior/Sole Manager for a par amount of \$1 Billion. **Additionally, since starting in Alabama Public Finance in 1992 and prior to joining Piper Jaffray, Walter Lewis served as Investment Banker on over \$18 billion in financings in Alabama.**
- ◆ **Extensive Distribution Capabilities** – The banking team is supported by a top caliber underwriting, sales, and distribution team which stretches from California to Minneapolis to the Southeast to New York City. Piper Jaffray's fixed income sales effort

is structured to provide comprehensive coverage of every tier of municipal investor. The firm's 139-person institutional sales force enables Piper Jaffray to provide the County access to virtually every investor sector including Alabama retail buyers, major institutional buyers of Alabama municipal bonds and small/medium sized institutional investors.

- ◆ **Direct Placement Experience & Capabilities** – Piper Jaffray is one of only a few investment banks with a Loan Placement Group focused exclusively on direct placements maintaining relationships with a national network of over 2,000 banks/lenders. Since 2012, Piper Jaffray has completed over 1,000 private placements for a total par amount of \$13.3 billion; in 2018 alone Piper successfully executed 122 private placement transactions totaling \$1.04 billion. We are one of only a handful of “super-regional” firms that boasts capabilities and expertise on par with national firms.
- ◆ **Strong Continuing Commitment to Municipal Finance** –Piper Jaffray has committed to growing its municipal effort while many of its competitors have been forced to scale back or exit the municipal market completely. The firm has added 35 bankers, 82 salespersons and 16 underwriter/traders and opened new municipal offices around the country, including **Alabama**, since 2011. Public Finance and municipal underwriting have historically represented 30% of our firm's staffing resources. Our organizational structure ensures that all levels of management are committed to providing the staff and financial resources needed to effectively serve our clients, including committing capital to underwrite bonds. In October of 2015 Piper acquired BMO Capital Markets GKST, Inc., a broker dealer subsidiary of BMO Financial Group. This acquisition further strengthens and adds scale to Piper's fixed income sales and trading business by adding approximately 40 personnel to our middle market sales staff.

For the reasons described above, we feel that Piper Jaffray is uniquely positioned and completely capable of assisting the County in accessing the lowest cost of financing with the best structure possible in the marketplace. We look forward to the opportunity to serve the County as Underwriter on its upcoming transaction. If we can provide additional information or assistance, please do not hesitate to contact us.

Sincerely,



Walter D. Lewis
Managing Director
205.414.7511

Walter.D.Lewis@pjc.com

TABLE OF CONTENTS

	<u>Page Number</u>
I. Capital Position and Willingness to Underwrite	1
II. Piper Jaffray Financing Team	2
III. Municipal Bond Sales - Employees	4
IV. Alabama Office and Underwriting Experience	8
V. Experience – GO & Public Building Authority Case Studies	9
VI. Litigation Disclosure	11
VII. Political Contributions	11
VIII. Additional Information	11

Appendices

- A. PJC Alabama Underwriting Experience
- B. PJC Select General Obligation Underwriting Experience



I. Capital Position and Willingness to Underwrite

Describe the firm's net capital position and its underwriting ability and willingness to underwrite bonds.

Piper Jaffray Capital Position

Piper Jaffray has no debt in its capital structure. The firm's uncommitted excess net capital as of September 30, 2019 was \$178 million. Our underwriting desk has standing authority to take down \$100 million worth of bonds in a single transaction and may commit more on a per-transaction basis with management approval. Additionally, our theoretical limitation on underwriting liability is \$2.55 billion. Detailed capital numbers are in the table below.

	9/30/2019	9/30/2018	12/31/2017
Total Capital	\$696,741,000	\$700,211,000	\$693,332,000
Equity Capital	696,741,000	700,211,000	693,332,000
Net Capital	179,887,000	199,000,000	137,617,000
Uncommitted Excess Net Capital	178,887,000	198,000,000	136,617,000

Source: Piper Jaffray, September 30, 2019

Piper Jaffray Willingness to Commit Capital

Piper Jaffray utilizes a significant amount of its capital for the municipal business. Unlike banks and Wall Street firms with a wide variety of business lines that are capital-dependent, our only focus is on three business lines: fixed income, equity capital markets and asset management. Piper Jaffray has significant underwriting capacity for municipal issues. Piper maintains average daily inventory of approximately \$500 million of long-term municipal bonds. We consistently use our capital to assure that our clients' transactions are fairly priced and to deliver the lowest possible cost of capital. Below is a summary of Piper's demonstrated willingness to underwrite unsold balances to support its clients' transactions.

Year	# of Transactions	Par Amount	Underwriting Commitment	% Underwritten
2019 Totals:	540	\$11,125,008,307	\$ 932,242,637	8.38%
2018 Totals:	427	\$11,811,368,693	\$1,400,847,834	11.86%
2017 Totals:	541	\$14,493,333,989	\$1,455,669,000	10.04%
2016 Totals:	722	\$17,050,407, 517	\$2,099,057,786	12.31%
2015 Totals:	692	\$13,684,201,361	\$1,973,570,395	14.42%



II. Piper Jaffray Financing Team

Discuss your proposed transaction team which would be assigned to serve as underwriter to the County. Be specific regarding the person(s) who would have primary and/or day-to-day responsibility for directing your firm's efforts. Provide a resume for each individual assigned to the County's service including their title, address, phone, and e-mail.

Professionals

Piper Jaffray brings a variety of individuals with significant experience in various sectors of the municipal finance industry. The proposed project team will be led by Walter Lewis as lead banker, who will manage the transaction and will interface with County regarding events related to the transaction. Mr. Lewis has 26 years of experience and is responsible for over \$18 billion in financings for Alabama issuers. Mr. Lewis will be supported by Jonathan McCoy and Mary Kathryn Phillips out of Piper Jaffray's Memphis office. Stephen Cavalier, the Head of Municipal Trading at Piper Jaffray, will lead the underwriting and sales effort at time of pricing for Piper Jaffray. Mr. Cavalier will be available as needed. Each individual and other personnel as necessary will be made available to the County over the course of the transaction. A brief description of each persons role, more detailed resumes, and professional certifications are included below.

PROJECT TEAM		Available
Walter Lewis <i>Managing Director</i> (205) 414-7511 walter.d.lewis@pjc.com 2100 Southbridge Pkwy, Suite 650 Birmingham, AL 35209	Project Manager, 26 Years of Experience - Coordinate all Piper Jaffray resources - Develop/implement financing plan - Negotiate terms of the financing - Rating/ credit enhancement presentations	Daily Basis
Jonathan McCoy <i>Vice President</i> (901) 302-1643 jonathan.b.mccoy@pjc.com 3400 Player's Club Pkwy, Ste. 150 Memphis, TN 38125	Quantitative Analysis, 9 Years of Experience - Banking and Analytical expertise - Provide banking advice on financing plan - Assist with Transaction Execution - Quantitative and credit analytical support	Daily Basis
Mary Kathryn Phillips <i>Analyst</i> (901) 302-1647 mary.k.phillips@pjc.com 3400 Player's Club Pkwy, Suite 150 Memphis, TN 38125	Quantitative Analysis, 9 Years of Experience - Banking and Analytical expertise - Provide banking advice on financing plan - Assist with Transaction Execution - Quantitative and credit analytical support	Daily Basis
Stephen Cavalier <i>Managing Director</i> (612) 303-8235 stephen.a.cavalier@pjc.com 800 Nicollet Mall, Ste. 1000 Minneapolis, MN 55402	Lead Underwriter, 27 Years of Experience - General transaction processing assistance - Develop/implement financing plan - Transaction Execution support	As Needed



Walter Lewis – Managing Director, Alabama Public Finance: Walter D. Lewis joined Piper Jaffray in 2015 as Managing Director in Public Finance in Alabama. After playing football at the University of Alabama and a 2 year stint in the NFL, Mr. Lewis entered the securities industry in 1992 with the Public Finance department of Compass Bank. While at Compass Bank he developed his technical skill in structuring municipal financings in approximately 33 transactions totaling over \$500 Million. In 1996, Mr. Lewis joined Gardnry Michael Capital, Inc. as a Senior Vice President responsible for marketing and public finance activities in Mississippi, Florida, and Alabama. Since that point, he has managed over \$17 Billion in municipal underwritings. While at Benchmark Securities from 2012 to 2015, LLC, Mr. Lewis was responsible for \$220,775,000 in sole managed transactions and \$270,220,000 in co-managed transactions. Since joining Piper Jaffray as Managing Director, Mr. Lewis has served as lead banker on 36 Senior/ Sole Managed transactions for a total par amount of \$550,500,000 and as Lead Banker for Piper on 15 Co-Managed transactions for a total par amount of \$1.7 billion. Mr. Lewis has a B.S in Electrical Engineering from the University of Alabama and holds a Municipal Advisor Series 50 License, Municipal Securities Principal Series 53 License, and a Uniform Securities Agent Series 63 License.

Jonathan McCoy – Vice President: Mr. McCoy, a Mobile native, joined Piper Jaffray in 2011 and heads the Southeast's analytics. He provides banking and senior analytical support for an array of clients including states, cities, counties, school districts and other local government issuers. His experience includes debt structure and refunding analysis, cash flow modeling, financial analysis of local governments, project finance and interest rate derivative analysis. Prior to joining Piper, Mr. McCoy gained 2 years' experience as an analyst in public finance. Mr. McCoy has a Bachelor of Arts degree in Business and Economics from Rhodes College. He holds a General Securities Registered Representatives Series 7 License and Uniform Securities Agent Series 63 License.

Mary Phillips - Analyst: Mary Kathryn Phillips is an investment banking analyst in the Memphis, Tennessee office and has been with Piper Jaffray & Co. since June 2017. Phillips's responsibilities include financial modeling and refunding analysis, market research, bond sale preparation and pricing, as well as other support functions for the Southeast's senior bankers. Phillips graduated cum laude from the University of Mississippi in May 2017 with a Bachelor of Science degree in Integrated Marketing and Communications and Business Administration.

Stephen Cavalier – Managing Director/ Head of Municipal Underwriting and Trading: Mr. Cavalier is a Managing Director of Municipal Underwriting and Trading based in Minneapolis, MN. He is currently a senior underwriter for both negotiated and competitive issues. Mr. Cavalier has over twenty years of experience in the municipal markets. Mr. Cavalier has served as an institutional trader and underwriter throughout his career which began at Gruntal & Co. in San Francisco, CA. He moved to Kemper Securities as a Regional Manager in 1992 and proceeded to join Seattle Northwest Securities as a Senior Institutional Trader before coming to Piper Jaffray in 2003. He graduated from Santa Clara University in 1987 with a BSC in Finance.



III. Municipal Bond Sales - Employees

Provide number of full-time employees dedicated to municipal bond sales.

Piper Jaffray maintains a sales force of 106 full time individuals plus 28 traders and 9 underwriters in 22 different offices. Below is a more detailed description of our underwriting, distribution, and sales capabilities.

UNDERWRITING DISTRIBUTION OVERVIEW

- One of the nation's largest institutional sales forces, covering large, mid-market and small institutions;
- A comprehensive retail distribution network including deep relationships of asset managers and registered investment advisors; and
- The capital and willingness to underwrite unsold balances.

Piper Jaffray's marketing and sales approach for every transaction we underwrite is to place bonds in the hands of investors at the lowest interest cost. Obtaining the lowest interest rates for our clients is a function of identifying the active buyers of each type of security and maturity offered to target the widest universe of investors possible. Piper Jaffray's industry leading national distribution network reaches both institutional and retail accounts across the country, ensuring the County's financings are effectively marketed to a deep investor audience and our underwriters are able to price bonds aggressively and achieve the lowest cost of financing.

Piper Jaffray consistently ranks as one of the nation's leading municipal underwriters in terms of number of issues brought to market, having senior managed over 4,048 municipal bond offerings from 2014 - 2018 representing more than \$85 billion in par value. Our regionally based team of 9 underwriters, with desks in Minneapolis, New York, Portland and San Francisco, are in the market every day participating in transactions from under \$1 million to over \$1 billion, both negotiated and competitive, in every market sector. As a result, Piper Jaffray is able to provide our issuer clients up-to-the-moment, regionally and sector focused, insight to market trends. In addition to our extensive underwriting capabilities, the firm maintains trading desks in Baltimore, Charlotte, Chicago, El Segundo, Lincoln, Milwaukee, Minneapolis, New York, Red Bank and Seattle staffed with a total of 28 traders. Our geographically oriented trading desks provide excellent access to the primary and secondary bond market within the regions we serve. The traders are responsible for assuring that we have an adequate supply of bonds to meet the needs of our investor clients as well as maintaining a secondary market for the bonds of each of our issuing clients.

As Piper Jaffray prices over 400 new long-term issues each year and perennially ranks in the top ten underwriters nationally based on the number of issues sole or senior managed, it is essential to have an effective distribution system and be able to adapt to the rapid changes that occur in the market. Piper Jaffray focusses a significant amount of resources on our sales



orientation and distribution capabilities by doing the following:

- Maintaining deep relationships with traditional buyers;
- Continually expanding coverage of alternative buyers;
- Enhancing our focus on mid-tier money managers and high net worth wrap accounts for retail investors.

INSTITUTIONAL INVESTOR SALES CAPABILITY

Piper Jaffray's underwriting effort is supported by a 106 member institutional sales force, one of the largest in the industry, located in 22 offices across the U.S., including Minneapolis, Chicago, New York, San Francisco, Kansas City, Denver and St. Louis. Such broad regional coverage allows us to develop deep relationships with accounts unsurpassed by other industry firms. We believe our presence in regional markets is one way we broaden the investor base for the District's bonds, and is a key competitive advantage of working with Piper Jaffray.

Another competitive advantage of working with Piper Jaffray is our ability to broaden the investor base by reaching not only Tier 1 institutions, but Tier 2 and Tier 3 institutions as well. Piper Jaffray's dedicated staff of 27 salespeople provides extensive coverage of the top 250 Tier I institutional investors, the largest most recognizable firms that manage multi-billions of dollars in assets. These accounts typically focus on liquidity, more familiar names and larger block sizes (\$1+ million per maturity) and are commonly the focal point of our larger competitors. As Tier 1 accounts often provide anchor orders to help distribute larger transactions, our strong relationships and daily interaction with these buyers ensure maximum exposure for each transaction we underwrite.

While Piper Jaffray recognizes the importance of Tier 1 investors to a transaction, we believe it is equally important to stimulate demand from the more than 3,000 Tier 2 and Tier 3 investors in order to provide balanced distribution and broaden demand to achieve the lowest borrowing cost for the District. Piper Jaffray maintains a complimentary 85 member sales team focused on building strong relationships with Tier 2 and Tier 3 institutional investors, as well as smaller regional institutional investors, community banks, and money management firms serving individual investors ("professional retail"). Piper Jaffray's middle market sales focus provides a distinct marketing advantage over other members of the underwriting syndicate because the size of our sales force and its deep footprint throughout the U.S. allows us to reach investors not given the same attention by other firms.



Sales

The fixed income sales team consists of 106 sales people in 22 locations who specialize in selling municipal bonds to large, national institutional investors. This sales group covers Tier I institutions (defined by Wall Street as top 100 accounts), investment funds of all types, insurance companies, large banks and trust departments, and money managers. The institutional ability of Piper Jaffray to distribute municipal bonds is unsurpassed within our region and exceeds many national firms. Our sales force is among the nation's largest and provides us with the capability to sell a wide variety of taxable and other specialized fixed-income products, in addition to our traditional municipal bond business.

Trading

Piper Jaffray has 28 traders located in Baltimore, Charlotte, Chicago, El Segundo, Lincoln, Milwaukee, Minneapolis, New York, Red Bank, and Seattle. In 2018, these traders completed 411 negotiated and competitive sole or senior managed municipal bond issues (*Source: Thomson Reuters*). Our traders are committed to making a primary and secondary market in as many municipal securities as possible, including both larger, rated issues and smaller, unrated issues. The traders are responsible for assuring an adequate supply of bonds to meet the needs of our institutional sales forces and our investor clients. The fixed income services group carries an average fixed income daily bond inventory of approximately \$400 million in long- and short-term municipal bonds. This capital commitment to the secondary market varies due to changes to economic conditions and/or investor demand.

Private Placement Desk

Piper Jaffray also maintains a private placement desk with 2 dedicated placement sales people who manage relationships with over 200 banks and investors interested in private placements and syndicated loans. Our placement team maintains daily communications with these investors, developing extensive knowledge of their criteria and portfolio holdings and providing issuer clients up-to-date knowledge of market conditions. Piper Jaffray's Private Placement team has handled over 1,000 private placements raising over \$13.3 billion in capital since 2012.

RETAIL DISTRIBUTION EFFORT

Although Piper Jaffray's sales force does not include traditional retail brokers dedicated to individual investors, we do have five sales professionals that cover 2,000 high net worth retail accounts, as well as a dedicated team to cover "professional retail" accounts. To complement our in-house capability, Piper Jaffray maintains a retail redistribution agreement with Charles Schwab & Co., the largest retail firm in the U.S, with an in-house sales force covering 2,000 high net worth individuals through 1,300 Financial Consultants, 7,500 Registered Investment Advisors and \$1.55 trillion in assets under management. As Piper Jaffray's client, you will have



access to Charles Schwab’s network of retail investors. In our view there are 2 types of “retail” investors in the current market environment:

- **“Direct retail”**: individual investors acting through individual brokers that purchase bonds in lots from roughly \$10m to \$500m. Direct Retail investors make up between 1 and 5% of the investor base in today’s municipal market and Direct Retail orders generally do not influence the pricing of a large transaction.
- **“Professional retail”**: institutions acting on behalf of individuals that purchase bonds in lots ranging from \$100m to \$2mm+ (SMA’s, Trust Departments, Private Client Services) Examples include Nuveen SMA, Eaton Vance SMA, Northern Trust, and Franklin PCS. For the right credit, the inclusion of professional retail can be influential in the pricing of a transaction.

PROFESSIONAL RETAIL SALES CAPABILITY

Recent advancements in technology have changed how bonds are delivered to the end investor. Increased use of privately managed accounts, sometimes called “wrap accounts”, and reduced compensation for retail brokers led to a reduction in bonds sold directly to individual investors by retail brokers in the primary market. Conversely, money flows into bank/trust portfolios, professional money managers and registered investment advisors – all of whom manage funds on behalf of retail investors – have grown substantially. This investor base, often referred to as “professional retail” is a key component of Piper Jaffray’s Tier 1, Tier 2 and Tier 3 coverage described above. Piper Jaffray has a dedicated sales liaison to these accounts reflecting a concerted effort to enhance our coverage of professional retail investors in response to the increasing shift of retail funds. Piper Jaffray focuses heavily on retail wrap accounts and professional money management firms, and some of our most active professional retail accounts are listed below.

Boston Company	Eaton Vance	Northern Trust
Breckenridge Capital Advisors	Franklin PCS	Nuveen Asset Management
Buckingham Asset Management	Goldman Asset Management	Pimco
Charles Fish Investments	J.P. Morgan Investment/Advisors	Payden & Rygel Investment Counsel
Columbia Management	Lord Abbett	Wasmer Schroeder & Company Inc.
Dodge & Cox	Merrill PPG, Merrill Wrap	Wells Fargo Private

Additional Retail Distribution Channels: Piper Jaffray utilizes a wide range of online trading platforms, or Electronic Trading Networks (ETNs), to help market and trade municipal securities in the retail market. We utilize BondDesk Group, MuniCenter, Trade Web, Knight Trading and Bloomberg Trade Book to reach over 100,000 retail brokers. With these platforms, a retail broker can view the inventory of dozens of brokerage firms, not just the firm for which they work. These ETNs create the greatest amount of exposure and demand for a bond issue.



IV. Alabama Office & Underwriting Experience



Does your firm maintain a public finance office or a retail and/or brokerage office in the State of Alabama? If so, please provide the address and phone number for this office and primary contact person.

Yes, Piper Jaffray is committed to serving issuers throughout the State of Alabama and maintains a local office at 2100 Southbridge Pkwy, Suite 650, Birmingham, AL 35209. Walter Lewis is the primary contact person at (205) 414-7511 or walter.d.lewis@pjc.com.



V. Experience – GO & Public Building Authority Case Studies

Provide no more than three (3) case studies which describe the experience of your assigned professionals with general obligation and public building authority transactions.

Since January 2013, Piper Jaffray has served as underwriter or placement agent on 61 transactions in the State of Alabama with a total par amount of over \$2.6 Billion. This experience includes 47 senior or sole managed transactions (total par amount of \$1 Billion). This also includes serving as Co-Manager on 14 transactions. (total par amount of \$1.6 Billion). A complete list of Piper’s Alabama experience since January 2013 is in Appendix A. Piper is intimately familiar with the buyers of Alabama municipal bonds and has the experience to provide the lowest cost of capital and solid execution.

City of Tuscaloosa Series 2016-B General Obligation Warrant (\$32,750,000) - Piper Jaffray served as Placement Agent for the City of Tuscaloosa on its \$32,750,000 Series 2016-B General Obligation Warrant, a refunding which generated approximately \$3.3 million in net present value savings or 12% of the par refunded. Prior to marketing and subsequently placing the Warrant, Piper Jaffray as underwriter guided the City through the entire process of preparing the warrants for sale. Piper assisted the City in preparation of financing documents and an official statement as well as the facilitation of two rating agency presentations and discussions.

After the national election on November 8th, 2016 bond markets were in disarray and the equity markets rallied as market participants digested the unexpected results and their potential impact on economic and business conditions for the future. As investors poured into equities, bond prices began to fall and interest rates increased dramatically over the course of several weeks. Throughout the weeks of extreme volatility, deals that did price were characterized by wide credit spreads at the onset of pricing and were subject to swings of 5 to 10 bps pricing adjustments based on buyer participation. Underwriters were forced to start cheap and tighten where possible after marketing.

During the initial period of the market volatility described above, the City’s pricing changed drastically due to the unexpected 2016 election results and the estimated savings deteriorated overnight. Prior to pricing the public offering, Piper Jaffray changed gears and was able to find a direct lender who provided a competitive rate and allowed the City to achieve significant refunding savings in line with expectations prior to the market shift. This flexibility and expertise demonstrates Piper Jaffray’s ability and commitment to serve its underwriting and placement clients to achieve the optimal financing terms available.

Shelby County Public Building Authority Series 2019 Building Revenue Warrants (DHR Project) (\$4,895,000) – Piper Jaffray served as Underwriter for the Shelby County Public Building Authority on its \$4,895,000 Building Revenue Warrants (DHR Project) in May 2019. The Warrants were issued to fund the construction of an office and administration building for the Shelby County branch of the Alabama Department of Human Resources. The project cost of about \$5.1 million included the construction of the building, as well as new equipment and installation costs and the costs of various professional services.



Piper Jaffray received \$6,890,000 in orders for the \$4,895,000 issue and achieved an all in true interest rate of 3.147%. Piper Jaffray worked with the State Department of Human Resources and the local members of the Public Building Authority, along with the other deal team members, to complete the financing successfully.

City of Gadsden, Alabama Series 2017 General Obligation Warrants (\$20,615,000) – Piper Jaffray served as Underwriter for the City of Gadsden, Alabama’s issuance of its Series 2017 General Obligation Warrants in November 2017. The City issued the Warrants in order to fund various improvements throughout the City. The Warrants were structured to wrap around the City’s existing debt service and keep the term short within 2030.

The City was interested in exploring shorter call features to provide additional flexibility and Piper Jaffray was able to assist the City in valuing the difference between a 7 year call and a 10 year call. The City ultimately chose to issue the Warrants with a 10 year call, but the City retained the option right up until pricing day to make that choice. Additionally, in order to generate the maximum amount of interest in the Warrants, Piper Jaffray structured certain maturities with bifurcated coupons (2% and 5%) and (3% and 5%). This allowed the City to achieve the lowest interest cost available in the market at the time of pricing of 2.82%.



VI. Litigation

Discuss any pending or threatened investigations or litigation by any private or public entity or any lapse or other deficiency in insurance coverage or professional licensure which may impact your firm’s ability to serve as underwriter.

No members of the assigned team are the subject of any litigation, investigations or any enforcement or disciplinary actions or any pending controversies or other situations which would damage such person’s or the firm’s professional standing. Piper Jaffray has no reason to believe that current and past regulatory matters or litigation will affect in any way Piper's ability to provide any of the services contemplated by this Request for Qualifications.

VII. Political Contributions

Has any municipal finance professional or associated person within your firm made or directed any political contributions, provided things of value, or provided financial advice to the extent it would be disqualified, under current laws, rules, and regulations, from acting as underwriter of the bonds?

None of the municipal finance professionals or associated people from Piper Jaffray have directed any political contributions, provided things of value or provided financial advice to the extent it would be disqualify us from underwriting the bonds.

VIII. Additional Information

Please provide any other information the County should consider when assessing your firm’s ability to serve as underwriter.

Piper Jaffray is uniquely suited to serve the County as Sole Book-Running Manager for the Warrants. If not chosen as Sole Manager, we would be honored to serve the County in a capacity determined by the County. Piper Jaffray is a leading middle market investment bank with a vast amount of expertise in Public Finance both nationally, in the Southeast, and in the State of Alabama specifically. Piper Jaffray’s banking team is composed of seasoned investments bankers with local expertise supported by a national underwriting platform. Piper is nimble and specialized enough to tailor its services to the needs of its local clients while simultaneously providing the capital base and national distribution network necessary to sole manage large and small transactions across a variety of credit types and geographic sectors.

We have provided below a summary of Piper Jaffray’s experience on General Obligation issues and Public Building Authority or conduit issuer transactions.

National General Obligation and Local Authority Underwriting Experience

Since January 2016, Piper Jaffray has served as Underwriter on 2,207 General Obligation transactions for a total par amount of \$101 Billion including private placements, negotiated offerings, or competitive offerings. This experience includes 1,590 transactions as Senior or Sole Manager with a total par amount of \$47.8 Billion and 437 transactions as Co-Manager for a total par amount of \$53.2 Billion. Of the total 2,027 deals, 1,453 were negotiated



offerings. Lastly, since 2016 Piper Jaffray has served as Underwriter on 436 transactions with a total par amount of \$22.9 Billion for issues that were Local Authority's, like the Public Building Authority of Baldwin County

A complete list of Piper Jaffray's General Obligation experience since January 2016 can be found in Appendix B. This extensive sampling of our underwriting experience demonstrates that we have the market penetration and experience to underwrite the County's warrants, reach a broad range of investors, and achieve the lowest cost of capital available in the marketplace.

Additional Piper Jaffray Case Study – Washington South Correctional Entity Facility Public Development Authority, \$50,385,000 Refunding Bonds, Series 2019

The South Correctional Entity ("SCORE") Facility Public Development Authority was formed for the purpose of issuing bonds to finance the South Correctional Entity Facility located in southern King County, WA and operated by SCORE, a governmental administrative agency formed via an interlocal agreement. The facility has a capacity to hold 802 inmates.

Piper Jaffray served as Sole Managing Underwriter for the Authority on its issuance of the 2019 Refunding Bonds which refunded all of the outstanding 2009 bonds. SCORE's bonds are secured by the full faith and credit pledge of each of the owner cities, all of which are rated in the "AA" category by both Moody's and S&P – hence SCORE's rating of Aa2/AA+.

The bonds priced during the week of November 11 which marked one of the largest weekly issuances this year. Piper initially marketed the bonds with considerably aggressive rates compared to similar pricings around the same time despite the heavy issuance. Notwithstanding the strong underlying full faith and credit of the owner cities, Piper's marketing feedback revealed a negative sentiment in the market around jail/correctional credits. Despite those factors, Piper Jaffray offered to purchase the bonds at yields which generated \$11.1 million in NPV Savings (or 15.5% of the par refunded) by taking 54% of the bonds into inventory at the agreed upon remarketed levels. The financing resulted in a True Interest Cost of 2.68%.

This transaction demonstrates Piper Jaffray's ability to market bonds for conduit issuers in any market environment and also use our capital to achieve successful results for our clients.

Appendix A

PJC Alabama Underwriting Experience Since January 2013

Sale Date	Amount	Issuer	Description	Role	Sale Type
11/5/2019	336,380,000	Birmingham Water Works Board	Series 2019 Senior Water Revenue Bonds	Senior	Negotiated
10/2/2019	2,940,000	Pickens County Water Authority	Series 2019 Water Revenue Refunding Bonds	Sole	Negotiated
5/16/2019	9,515,000	City of Daphne	Series 2019 General Obligation Warrants	Sole	Negotiated
5/15/2019	4,895,000	Shelby County PBA	Series 2019 Building Revenue Warrants	Sole	Negotiated
12/27/2018	3,470,000	Bullock County PBA	Series 2018 Building Revenue Warrants	Sole	Negotiated
12/27/2018	5,500,000	Etowah Sports Complex Authority	Series 2018 Special Tax Bonds	Sole	Priv. Place.
10/24/2018	86,815,000	Birmingham Water Works Board	Senior Water Revenue Bonds, Series 2018	Senior	Negotiated
8/1/2018	4,590,000	Electric Board of Guntersville	Electric Revenue Bond, Series 2018	Sole	Priv. Place.
5/23/2018	26,815,000	Jefferson County	Series 2018-B GO Warrants	Co-Mgr	Negotiated
5/23/2018	111,360,000	Jefferson County	Series 2018-A GO Warrants	Co-Mgr	Negotiated
12/19/2017	675,000	City of Center Point	Series 2017-B General Obligation Warrants (Federally Taxable)	Sole	Negotiated
12/19/2017	1,430,000	City of Center Point	Series 2017-A General Obligation Warrants	Sole	Negotiated
12/19/2017	27,455,000	City of Bessemer	Series 2017 Water Revenue Warrants	Sole	Negotiated
12/18/2017	30,610,000	Gadsden Water Works & Sewer Board	Series 2017 Water & Sewer Revenue Bonds	Sole	Negotiated
12/12/2017	37,465,000	Mobile County	Series 2017 General Obligation Warrants	Co-Mgr	Negotiated
11/21/2017	20,615,000	City of Gadsden	Series 2017-B General Obligation Warrants	Sole	Negotiated
10/26/2017	48,710,000	Bessemer GUSC	Series 2017 Water Supply Revenue Bonds	Sole	Negotiated
9/13/2017	12,195,000	City of Sylacauga	Series 2107-A and 2017-B GO Warrants	Sole	Negotiated
8/2/2017	2,445,000	City of Brewton	Series 2017A General Obligation Warrants (Taxable)	Sole	Negotiated
8/2/2017	685,000	City of Brewton	Series 2017B General Obligation Gas Revenue Warrants	Sole	Negotiated
7/13/2017	338,925,000	Jefferson County	Series 2017 Limited Obligation Warrants	Co-Mgr	Negotiated
6/20/2017	556,620,000	AL Federal Aid Highway Fin. Auth.	Series 2017-A and 2017-B Special Obligation Rev. Bonds	Co-Mgr	Negotiated
2/22/2017	6,505,000	Russell County Public Building Authority	Series 2017 Revenue Warrants	Sole	Priv. Place.
12/22/2016	32,750,000	City of Tuscaloosa	Series 2016 General Obligation Warrant	Sole	Priv. Place.
12/13/2016	152,130,000	Tuscaloosa City Board of Education	Series 2016 School Tax Warrants	Senior	Negotiated
12/12/2016	735,000	City of East Brewton	General Obligation Warrants	Sole	Negotiated
11/15/2016	236,395,000	AL Federal Aid Highway Fin. Auth.	Series 2016-A Special Obligation Revenue Bonds	Co-Mgr	Negotiated
11/9/2016	2,275,000	Brewton Water Works Board	Series 2016 Water Revenue Bonds	Sole	Negotiated
10/19/2016	15,000	City of Brewton	General Obligation Warrants, Series 2016-B	Sole	Negotiated
10/19/2016	5,640,000	City of Brewton	General Obligation Warrants, Series 2016-A	Sole	Negotiated
9/14/2016	1,525,000	Town of Butler	General Obligation Warrants	Sole	Negotiated
8/12/2016	8,515,000	City of Clanton	Series 2016 General Obligation Warrants	Sole	Negotiated
6/28/2016	68,615,000	City of Hoover	Series 2016 General Obligation Warrants	Co-Mgr	Negotiated
6/21/2016	6,795,000	Ozark Utilities Board	Series 2016 Water and Sewer Revenue Bonds	Sole	Negotiated
5/19/2016	1,965,000	City of Jemison	Series 2016-A Water and Sewer Revenue Warrants	Sole	Negotiated
5/19/2016	1,690,000	City of Jemison Public Building Authority	Series 2016-B Revenue Bonds	Sole	Negotiated
5/17/2016	6,745,000	Blount County Water Authority	Series 2016 Water Revenue Bonds	Sole	Negotiated
3/7/2016	6,640,000	Cullman County	Series 2016 Water Revenue Warrants	Sole	Negotiated
1/28/2016	16,940,000	City of Cullman	Series 2016 General Obligation Warrants	Sole	Negotiated
12/10/2015	280,000	Conecuh County Public Building Authority	Series 2015-A Revenue Warrants	Sole	Negotiated
12/10/2015	6,270,000	Conecuh County Public Building Authority	Series 2015-B Revenue Warrants	Sole	Negotiated
9/23/2015	26,285,000	County of Mobile	General Obligation Warrants, Series 2015	Co-Mgr	Negotiated
9/2/2015	8,320,000	Cullman County	Water Revenue Warrants, Series 2015	Sole	Negotiated
7/20/2015	17,550,000	City of Sylacauga	General Obligation Warrants Series 2015	Sole	Negotiated
7/8/2015	12,730,000	AltaPointe Health Systems, Inc.	Tobacco Tax Revenue Bonds, Series 2015-A	Sole	Negotiated
4/30/2015	7,090,000	Dekalb-Cherokee Counties Gas District	Gas Rev Bonds, Series 2015-A	Sole	Negotiated
4/15/2015	270,000	Conecuh County	Taxable GO Refunding Warrants 2015-B	Sole	Negotiated
4/15/2015	1,930,000	Conecuh County	GO Refunding Warrants 2015-A	Sole	Negotiated
3/30/2015	75,760,000	Birmingham Water Works Board	Water Revenue Bonds, Series 2015-B	Co-Mgr	Negotiated
3/30/2015	100,205,000	Birmingham Water Works Board	Water Revenue Refunding Bonds, Series 2015-A	Co-Mgr	Negotiated
2/26/2015	42,110,000	Utilities Board of the City of Cullman	Water Rev Bonds (Duck River Reservoir Project), Series 2015	Senior	Negotiated
2/9/2015	9,260,000	City of Fultondale	GO Ref Warrants, Series 2015	Sole	Negotiated
10/22/2014	44,980,000	City of Birmingham	GO Ref Bonds, Series 2014A-A	Co-Mgr	Negotiated
10/22/2014	40,610,000	City of Birmingham	GO Ref Warrants, Series 2014-B	Co-Mgr	Negotiated
6/25/2014	7,510,000	City of Gadsden	GO School Warrants, Series 2014-B	Senior	Negotiated
6/25/2014	2,105,000	City of Gadsden	GO Warrants, Series 2014-C	Senior	Negotiated
2/26/2014	9,850,000	Cullman Board of Education	Special Tax School Warrants, Tax-Exempt Series 2014-A	Co-Mgr	Negotiated
2/26/2014	2,700,000	Cullman Board of Education	Special Tax School Warrants, Taxable Series 2014-B	Co-Mgr	Negotiated
9/11/2013	34,680,000	Mobile Co Communications District	Capital Imp Rev Bonds (E-911 Equipment Financing) Series 2013	Sole	Priv. Place.
1/29/2013	1,635,000	Gas Board of the City of Fultondale	Gas Rev Ref Bonds, Series 2013A	Sole	Priv. Place.
1/29/2013	1,750,000	Gas Board of the City of Fultondale	Taxable Gas Rev Ref Bonds, Series 2013B	Sole	Priv. Place.

Appendix B

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
11/20/19	317	Oregon	OR	Series 2019 B Hway User Tax Sub Lien	GO	NEG	CO-MGR
11/20/19	289	Oregon	OR	Series 2019 A Hway User Tax Sub Lien	GO	NEG	CO-MGR
11/20/19	23	Allegheny Co (Gateway) SD	PA	General Obligation Bonds	GO	NEG	SOLE
11/20/19	163	Wyandotte (Kansas) USD #500	KS	GO Refunding Bonds	GO	NEG	SOLE
11/19/19	7	Beatrice City-Nebraska	NE	Series 2019 Sales Tx & GO Fire Station	GO	NEG	SOLE
11/15/19	3	Dakota City-Nebraska	NE	Series 2019 GO Various Purpose Bonds	GO	NEG	SOLE
11/15/19	41	Kendall Co (Boerne) ISD	TX	Series 2019 Refunding Bonds	GO	NEG	CO-MGR
11/15/19	34	Santa Clarita Comm College Dt	CA	2019 Series GO Refunding Bonds	GO	NEG	SOLE
11/14/19		Elgin City-Nebraska	NE	Series 2019 GO Various Purpose Bonds	GO	NEG	SOLE
11/14/19		Friend City-Nebraska	NE	Series 2019 Hway Alloc Fund Pledge Ref	GO	NEG	SOLE
11/14/19	113	Solano Comm College Dt	CA	2019 Series GO Refunding Bonds	GO	NEG	LEAD
11/13/19	1	Columbus-Kansas	KS	Series 2019 GO Refunding Bonds	GO	NEG	SOLE
11/13/19	1	Dorchester Village-Nebraska	NE	Series 2019 GO Water Refunding Bonds	GO	NEG	SOLE
11/07/19	30	Lane Co (Bethel) SD #52	OR	Series 2019 GO Refunding Bonds	GO	NEG	SOLE
11/06/19	26	King Co (Highline) SD #401	WA	Series 2019 GO Refunding Bonds	GO	NEG	SOLE
11/06/19	1	Osmond City-Nebraska	NE	Series 2019 GO Swimming Pool Bonds	GO	NEG	SOLE
11/05/19	4	Lubbock Co (Lubbock-Cooper) ISD	TX	Series 2019 A Unlimited Tax Refunding	GO	NEG	CO-MGR
11/05/19	4	Titus Co-Texas	TX	Series 2019 Refunding Bonds	GO	NEG	CO-MGR
11/05/19	30	Titus Co-Texas	TX	Series 2019 Refunding Bonds	GO	NEG	CO-MGR
11/01/19	1	Hickman Rural Fire Protect Dt	NE	Series 2019 B Fire Station and Refunding	GO	NEG	SOLE
11/01/19	10	Leavensworth Co (Tonganoxie) #464	KS	Series 2019 B GO Refunding Bonds	GO	PVT	SOLE
11/01/19	4	Cloud Co (Concordia) UFSD #333	KS	Series 2019 GO Refunding Bonds	GO	PVT	SOLE
10/31/19	95	Denton Co (Northwest) ISD	TX	Series 2019 Unltd Tax Refunding Bonds	GO	NEG	CO-MGR
10/31/19		Ponca Hills Fire Dt #9	NE	Series 2019 Ltd Oblig Fire Equipment	GO	NEG	SOLE
10/30/19	5	Plum Borough-Pennsylvania	PA	Series B of 2019 General Obligation	GO	NEG	SOLE
10/30/19	20	Plum Borough-Pennsylvania	PA	Series A of 2019 General Obligation	GO	NEG	SOLE
10/30/19	45	Collin Co (Prosper) ISD	TX	Series 2019 A School Building Bonds	GO	NEG	LEAD
10/30/19	12	Chambers Co (Barbers Hill) ISD	TX	Series 2019 School Building Bonds	GO	NEG	LEAD
10/29/19	60	Chambers Co (Barbers Hill) ISD	TX	Series 2019 Refunding Bonds	GO	NEG	CO-MGR
10/29/19	91	King Co (Northshore) SD #417	WA	Series 2019 GO Unlimited Tax Bonds	GO	NEG	SOLE
10/29/19	8	Verrado Western Overlay CFD	AZ	Series 2019 GO Refunding Bonds	GO	PVT	SOLE
10/25/19	3	Falls City-Nebraska	NE	Series 2019 GO Water Bonds	GO	NEG	SOLE
10/25/19	140	Riverside Comm College Dt	CA	2019 & Series F GO & Refunding Bonds	GO	NEG	SOLE
10/23/19	6	Johnson (Warrensburg) SD #R-6	MO	Series 2019 GO Refunding Bonds	GO	NEG	SOLE
10/23/19	7	Seward Co-Nebraska	NE	Series 2019 Limited Tax GO Refunding	GO	NEG	SOLE
10/22/19	180	Sonoma Co Junior College Dt	CA	Series B General Obligation Bonds	GO	NEG	LEAD
10/22/19	125	University of Kansas Hosp Auth	KS	Series 2019 B Health Facilities Revenue	GO	NEG	LEAD
10/22/19	353	Harris Co (Cypress-Fairbanks) ISD	TX	Series 2019 A Unltd Tax School Building	GO	NEG	CO-MGR
10/22/19	81	Sonoma Co Junior College Dt	CA	2019 Series GO Refunding Bonds	GO	NEG	LEAD
10/18/19	12	Bell Co (Killeen) ISD	TX	Series 2019 Refunding Bonds	GO	NEG	SOLE
10/17/19	20	Saline Co (Crete) PSD #0002	NE	Series 2019 B GO Refunding Bonds	GO	NEG	SOLE
10/17/19	9	Saline Co (Crete) PSD #0002	NE	Series 2019 A GO Refunding Bonds	GO	NEG	SOLE
10/17/19	67	Montgomery Co (Conroe) ISD	TX	Series 2019 Refunding Bonds	GO	NEG	LEAD
10/17/19	17	Montgomery Co (New Caney) ISD	TX	Series 2019 Unltd Tax Refunding Bonds	GO	NEG	CO-MGR
10/17/19	4	Plymouth Town-Connecticut	CT	Issue of 2019 GO Refunding Bonds	GO	NEG	SOLE
10/16/19	7	Bradford Co (Athens) ASD	PA	Series 2019 General Obligation Bonds	GO	NEG	SOLE
10/11/19	8	Interboro SD Authority	PA	Series of 2019 General Obligation Bonds	GO	NEG	SOLE
10/11/19	1	Douglas Co Sanit & Imp Dt #573	NE	Series 2019 General Obligation Bonds	GO	NEG	SOLE
10/10/19	9	Bethel Park Municipal Authority	PA	Series 2019 General Obligation Bonds	GO	NEG	SOLE
10/10/19	12	Oxford Town-Connecticut	CT	Issue of 2019Ser A&B GO & Refunding	GO	NEG	SOLE
10/10/19	10	Oxford Town-Connecticut	CT	Issue of 2019 Ser C GO Refunding Bonds	GO	NEG	SOLE
10/09/19	5	Collin Co (Anna) ISD	TX	Series 2019 A Refunding Bonds	GO	NEG	SOLE
10/08/19	12	Neosho Co (Chanute) USD #413	KS	Series 2019 GO Refunding Bonds	GO	NEG	SOLE
10/08/19	176	Oregon	OR	2019 Series L,P,Q General Obligation	GO	NEG	CO-MGR
10/08/19	191	Oregon	OR	2019 Series K,M,N,O General Obligation	GO	NEG	CO-MGR

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
10/08/19	67	Long Beach Comm College Dt	CA	2019 Series H GO Refunding Bonds	GO	NEG	LEAD
10/08/19	130	Long Beach Comm College Dt	CA	2019 Series C General Obligation Bonds	GO	NEG	LEAD
10/04/19	13	Blair Co (Spring Cove) SD	PA	Series A & B of 2019 GO Refunding Bonds	GO	NEG	SOLE
10/04/19	3	Somerset Co (Meyersdale) ASD	PA	Series 2019 General Obligation Bonds	GO	NEG	SOLE
10/03/19	36	Imperial Community College Dt	CA	2019 Series GO Refunding Bonds	GO	NEG	SOLE
10/02/19	3	Sedgwick Co (Maize) USD #266	KS	Series 2019-B General Obligation Bonds	GO	NEG	SOLE
10/02/19	108	Sedgwick Co (Maize) USD #266	KS	Series 2019-A General Obligation Bonds	GO	NEG	SOLE
10/02/19	4	Buffalo Co (Pleasanton) SD #105	NE	Series 2019 GO Refunding Bonds	GO	NEG	SOLE
10/01/19	5	Dickinson (Abilene) USD #435	KS	Series 2019 GO Refunding Bonds	GO	NEG	SOLE
10/01/19	1	Hartington Rural Fire Protection Dt	NE	Series 2019 Ltd Oblig Fire Station Ref	GO	NEG	SOLE
09/27/19	52	Leavensworth Co (Tonganoxie) #464	KS	Series 2019-A GO Refunding &	GO	NEG	SOLE
09/26/19	2	Fairview City-Oregon	OR	Series 2019 B Full Faith & Credit Fin Notes	GO	PVT	SOLE
09/26/19	2	Connecticut Regional SD #10	CT	Series 2019 GO Refunding Bonds	GO	NEG	SOLE
09/26/19	6	Neosho Co (Erie) USD #101	KS	Series 2019 GO Refunding Bonds	GO	NEG	SOLE
09/25/19	10	Butler Co (Augusta) USD #402	KS	Series 2019 GO Refunding Bonds	GO	NEG	SOLE
09/25/19	2	Cedar Co-Nebraska	NE	Series 2019 Highway Alloc Fund Pledge	GO	NEG	SOLE
09/25/19	1	Lyman Village-Nebraska	NE	Series 2019 GO Water Refunding Bonds	GO	NEG	SOLE
09/24/19	40	Collin Co (Melissa) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	CO-MGR
09/24/19	15	Sedgwick Co (Valley Ctr) USD #262	KS	Series 2019 GO Refunding Bonds	GO	NEG	SOLE
09/24/19	3	Williamsburg City-Iowa	IA	Series 2019 GO Refunding Bonds	GO	NEG	SOLE
09/20/19	8	Marley Park Comm Facs Dt	AZ	Series 2019 General Obligation Bonds	GO	NEG	SOLE
09/19/19	6	West Mifflin Boro-Pennsylvania	PA	Series of 2019 General Obligation Bonds	GO	NEG	SOLE
09/18/19	1	Otoe Co (Palmyra) SD #501	NE	Series 2019 Ltd Tax Obligation School	GO	NEG	SOLE
09/18/19	2	Saguaro Springs CFD	AZ	Series 2019 General Obligation Bonds	GO	NEG	SOLE
09/18/19	29	Skagit Co Public Hospital Dt #1	WA	Series 2019 Unltd Tax GO Bonds	GO	PVT	SOLE
09/17/19	35	Harris Co (Deer Park) ISD	TX	Series 2019 School Building Bonds	GO	NEG	LEAD
09/17/19	1	Polk Co (Dallas) SD #2	OR	Series 2019	GO	PVT	SOLE
09/17/19	18	Cabrillo Comm College Dt	CA	2019 Series B GO Refunding Bonds	GO	NEG	SOLE
09/17/19	41	Cabrillo Comm College Dt	CA	2019 Series A GO Refunding Bonds	GO	NEG	SOLE
09/13/19	2	Central Cass Co Fire Protect Dt	MO	Series 2019 General Obligation Bonds	GO	PVT	SOLE
09/13/19	11	Dickinson Co (Herington) SD #487	KS	Series 2019 GO Refunding Bonds	GO	NEG	SOLE
09/12/19	5	Clark Co (Camas) SD #117	WA	Series 2019 Ltd General Obligation Bonds	GO	PVT	SOLE
09/12/19	35	Multnomah Co (Parkrose) SD #3	OR	Series 2019 GO Refunding Bonds	GO	NEG	SOLE
09/12/19	104	Fresno Co USD	CA	2019 Series GO Refunding Bonds	GO	NEG	CO-MGR
09/11/19	5	Hillsboro City-Kansas	KS	Series B 2019 GO Refunding Bonds	GO	NEG	SOLE
09/11/19	25	Maricopa Co (Creighton) ESD #14	AZ	Series B (2019) School Improvement	GO	NEG	SOLE
09/11/19	85	Dallas Co (Mesquite) ISD	TX	Series 2019 School Building Bonds	GO	NEG	CO-MGR
09/11/19	2	Henry Co (Winfield-Mt Union) CSD	IA	Series 2019 GO School Capital Loan	GO	PVT	SOLE
09/10/19	6	Arnolds Park City-Iowa	IA	Series 2019 GO Capital Loan Notes	GO	NEG	SOLE
09/10/19	55	Austin City-Texas	TX	Series 2019 Pub Imp Bonds & Certs of	GO	NEG	CO-MGR
09/10/19	177	Austin City-Texas	TX	Series 2019 Pub Imp & Ref & Certs of	GO	NEG	CO-MGR
09/10/19	69	San Jose-Evergreen Comm Coll Dt	CA	2019 Series GO Refunding Bonds	GO	NEG	SOLE
09/06/19	8	Snyder Co (Selinsgrove) ASD	PA	Series C of 2019 General Obligation	GO	NEG	SOLE
09/06/19	1	Kenesaw Village-Nebraska	NE	Series 2019 GO Paving Bonds	GO	NEG	SOLE
09/05/19	8	Leavenworth Co (Basehor-Linwood) USD #458	KS	Series 2019 GO Refunding Bonds	GO	PVT	SOLE
09/05/19	98	Ohlone Community College Dt	CA	2019 Series GO Refunding Bonds	GO	NEG	SOLE
09/05/19	82	California	CA	Various Purpose GO Bonds	GO	NEG	CO-MGR
09/05/19	2324	California	CA	Various Purpose GO & Ref Bonds	GO	NEG	CO-MGR
08/29/19	2	Briscoe Co (Silverton) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	SOLE
08/29/19	11	Corcoran Hospital Dt	CA	Series 2019 GO Refunding Bonds	GO	PVT	SOLE
08/28/19	93	Indiana Co (Armstrong) SD	PA	Series A & B of 2019 GO Refunding Bonds	GO	NEG	SOLE
08/28/19	1	Grant Co (Dayville) SD #16J	OR	Series 2019 General Obligation Bonds	GO	PVT	SOLE
08/28/19	2	Orland Park Village-Illinois	IL	Series 2019 GO Refunding Bonds	GO	PVT	SOLE
08/28/19	4	West Sacramento City-California	CA	Series 2019 Special Tax Bonds	GO	NEG	SOLE
08/27/19	2	Shasta Co (Black Butte) UESD	CA	Series 2019 B General Obligation Bonds	GO	NEG	SOLE

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
08/22/19	5	Ohio Twp-Pennsylvania	PA	Series of 2019 GO Refunding Bonds	GO	NEG	SOLE
08/21/19	57	Rancho-Santiago Comm College Dt	CA	2019 Series C General Obligation Bonds	GO	NEG	SOLE
08/20/19	5	Clackamas Co (West Linn) SD #3JT	OR	Series 2019 General Obligation Bonds	GO	PVT	SOLE
08/19/19	70	Jefferson Co (Nederland) ISD	TX	Series 2019 Untd Tx School Building	GO	NEG	CO-MGR
08/16/19	12	Derby City-Connecticut	CT	Issue of 2019 Ser B General Obligation	GO	NEG	SOLE
08/16/19	11	Derby City-Connecticut	CT	Issue of 2019 Ser A General Obligation	GO	NEG	SOLE
08/15/19	3	Northeast Bradford SD	PA	Series of 2019 General Obligation Bonds	GO	NEG	SOLE
08/15/19	7	Snyder Co (Selinsgrove) ASD	PA	Series A & B of 2019 General Obligation	GO	NEG	SOLE
08/15/19	2	Clackamas Co (Oregon City) SD #62	OR	Series 2019 Full Faith and Credit	GO	PVT	SOLE
08/14/19	4	Whatcom Co (Mount Baker) SD #507	WA	Serues 2019 Ltd General Obligation	GO	PVT	SOLE
08/14/19	63	Alameda USD	CA	Series C General Obligation Bonds	GO	NEG	CO-MGR
08/14/19	3	Williamsburg City-Iowa	IA	Series 2019 GO Corporate Purpose Bonds	GO	NEG	SOLE
08/13/19	34	Collin Co (Community) ISD	TX	Series 2019 School Building Bonds	GO	NEG	CO-MGR
08/13/19	18	Yamhill Co (Dayton) SD #8	OR	Series 2019 GO & Refunding Bonds	GO	NEG	SOLE
08/08/19	9	Douglas(Winston-Dillard)Sd 116	OR	Series 2019 B General Obligation Bonds	GO	NEG	SOLE
08/08/19	7	Douglas(Winston-Dillard)Sd 116	OR	Series 2019 A GO Deferred Interest Bonds	GO	NEG	SOLE
08/08/19	1	Fairfield City-Iowa	IA	Series 2019 GO Capital Loan Notes	GO	PVT	SOLE
08/07/19	3	Maricopa Co (Fowler) ESD #45	AZ	Series D 2019 School Improvement Bonds	GO	NEG	SOLE
08/07/19	98	Honolulu City & Co-Hawaii	HI	Series 2019 I & J General Obligation	GO	NEG	CO-MGR
08/07/19	176	Honolulu City & Co-Hawaii	HI	Series 2019 E General Obligation Bonds	GO	NEG	CO-MGR
08/07/19	265	Honolulu City & Co-Hawaii	HI	Series 2019 C D& G General Obligation	GO	NEG	CO-MGR
08/07/19	85	Santa Clarita Comm College Dt	CA	Series 2019 General Obligation Bonds	GO	NEG	SOLE
08/06/19	109	Galveston Co (Clear Creek) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	LEAD
08/06/19	4	Lake Co (North Lake) SD #14	OR	Series 2019 General Obligation Bonds	GO	NEG	SOLE
08/01/19	73	Bexar Co (Southwest) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	CO-MGR
08/01/19	17	East Lyme Town-Connecticut	CT	Issue of 2019 General Obligation Bonds	GO	NEG	SOLE
08/01/19	25	Tahoe Forest Hospital Dt	CA	2019 Series GO Refunding Bonds	GO	NEG	CO-MGR
07/31/19	13	Elwood Village-Illinois	IL	Series 2019 B GO Refunding Bonds	GO	NEG	SOLE
07/31/19	2	Elwood Village-Illinois	IL	Series 2019 A GO Refunding Bonds	GO	NEG	SOLE
07/31/19	29	Collin Co (McKinney) ISD	TX	Series 2019 School Building & Refunding	GO	NEG	LEAD
07/30/19	4	Imperial Co (El Centro) ESD	CA	Series B General Obligation Bonds	GO	NEG	SOLE
07/30/19	178	Bexar Co (Northside) ISD	TX	Series 2019 A Unltd Tax Refunding Bond	GO	NEG	CO-MGR
07/30/19	18	Linn Co (Santiam Canyon) SD #129J	OR	Series 2019 General Obligation Bonds	GO	NEG	SOLE
07/25/19	56	Bell Co (Killeen) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	CO-MGR
07/25/19	59	Bell Co (Killeen) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	CO-MGR
07/25/19	36	Collin Co (Celina) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	LEAD
07/24/19	7	Lycoming Co (Muncy) SD	PA	Series of 2019 General Obligation Bonds	GO	NEG	SOLE
07/24/19	13	Washington Co (Charleroi) ASD	PA	Series of 2019 GO Refunding Bonds	GO	NEG	SOLE
07/24/19	153	Clark Co (Vancouver) SD #37	WA	Series 2019 General Obligation Bonds	GO	NEG	LEAD
07/23/19	4	Coraopolis Borough-Pennsylvania	PA	Series of 2019 General Obligation Bonds	GO	NEG	SOLE
07/23/19	23	Collin Co (Blue Ridge) ISD	TX	Series 2019 School Building Bonds	GO	NEG	LEAD
07/17/19	32	Guadalupe Co (Seguin) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	CO-MGR
07/16/19	60	Harris Co (Goose Creek) CISD	TX	Series 2019 A Unltd Tx School Building	GO	NEG	CO-MGR
07/16/19	27	Flower Mound Town-Texas	TX	Series 2019 Certificates of Obligation	GO	NEG	LEAD
07/16/19	6	White Salmon Valley SD #405-17	WA	Series 2019 General Obligation Bonds	GO	NEG	SOLE
07/10/19	5	Darien-Woodridge Fire Prot Dt	IL	Series 2019 Ref Fire Protection Notes	GO	PVT	SOLE
07/10/19	1	Lake Winnebago City-Missouri	MO	Series 2019 General Obligation Bonds	GO	PVT	SOLE
07/10/19	59	Montgomery Co (New Caney) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	CO-MGR
07/10/19	5	Whatcom Co (Blaine) SD #503	WA	Series 2019 Limited GO Bonds	GO	PVT	SOLE
07/09/19	37	Denton Co (Lewisville) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	LEAD
07/09/19	72	Denton Co (Lewisville) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	LEAD
06/28/19	5	Iowa Co (Williamsburg) CSD	IA	Series 2019 GO School Capital Loan	GO	PVT	SOLE
06/27/19	3	Penn Hills Municipality-Pennsylvania	PA	Series B of 2019 GO Refunding Bonds	GO	NEG	SOLE
06/27/19	4	Penn Hills Municipality-Pennsylvania	PA	Series A of 2019 GO Refunding Bonds	GO	NEG	SOLE
06/27/19	72	King Co (Issaquah) SD #411	WA	Series 2019 Unltd Tax GO Bonds	GO	NEG	SOLE

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
06/26/19	13	Roseville City-California	CA	Series 2019 Special Tax Bonds	GO	NEG	SOLE
06/25/19	14	Ada Co (Boise City) ISD	ID	Series 2019 General Obligation Bonds	GO	NEG	SOLE
06/25/19	50	Ada Co (Boise City) ISD	ID	Series 2019 General Obligation Bonds	GO	NEG	SOLE
06/24/19	48	Titus Co (Mount Pleasant) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	CO-MGR
06/20/19	34	Rockwall Co (Royse) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	CO-MGR
06/20/19	7	North Kingstown Town-Rhode Island	RI	2019 Series A General Obligation Bonds	GO	NEG	SOLE
06/19/19	31	Williamson Co (Liberty Hill) ISD	TX	Series 2019 Refunding Bonds	GO	NEG	LEAD
06/18/19	18	Brazoria Co (Pearland) ISD	TX	Series 2019 A School Building Bonds	GO	NEG	LEAD
06/18/19	9	South Windsor Town-Connecticut	CT	Issuer of 2019 Ser B GO Refunding Bonds	GO	NEG	SOLE
06/13/19	47	District of Columbia Hsg Fin Agy	DC	Series 2019 A MultiFamAssitedLiving Prog	GO	PVT	SOLE
06/13/19	191	Fort Bend Co (Katy) ISD	TX	Series 2019 Unltd Tax Sch Bldg Bonds	GO	NEG	LEAD
06/13/19	25	Orange Co (Placentia-Yorba Linda) USD	CA	2019 Series General Obligation Ref Bonds	GO	NEG	SOLE
06/12/19	3	Newport Twp Fire Protection Dt	IL	Series 2019 General Obligation Bonds	GO	NEG	SOLE
06/12/19	124	Pierce Co (Bethel) SD #403	WA	Series 2019 General Obligation Bonds	GO	NEG	LEAD
06/07/19	5	Los Angeles Co (Redondo Beach) USD	CA	Series D General Obligation Bonds	GO	NEG	SOLE
06/07/19	5	Allegheny Co (Wilkinsburg Boro) SD	PA	Series B of 2019 General Obligation	GO	NEG	SOLE
06/07/19	12	Los Angeles Co (Redondo Beach) USD	CA	2020 Series GO Refunding Bonds	GO	NEG	SOLE
06/05/19	4	Tigard-Tualatin SD #23J	OR	Series 2019 B GO Refunding Bonds	GO	NEG	LEAD
06/05/19	90	Tigard-Tualatin SD #23J	OR	Series 2019 A General Obligation Bonds	GO	NEG	LEAD
06/05/19	5	Lafayette-Oregon	OR	Series 2019 General Obligation Bonds	GO	NEG	SOLE
06/05/19	4	Riley Co (Manhattan) USD #383	KS	Series 2019 GO Refunding Bonds	GO	NEG	SOLE
06/04/19	2	Tama Co (GMG) CSD	IA	Series 2019 GO School Refunding Bonds	GO	NEG	SOLE
05/31/19	24	Wisconsin Hlth & Ed Fac Auth (WHEFA)	WI	Series 2019 Revenue Bonds	GO	PVT	SOLE
05/30/19	45	Maricopa Co (Phoenix) UHSD #210	AZ	Series B 2019 School Improvement Bonds	GO	NEG	LEAD
05/29/19	150	North Orange Co Comm College Dt	CA	Series B General Obligation Bonds	GO	NEG	CO-MGR
05/24/19	55	Canyon Co (Vallivue) SD #139	ID	Series 2019 A & B GO Sales Tax Guaranty	GO	NEG	SOLE
05/23/19	5	Bradford Co (Sayre) ASD	PA	Series of 2019 General Obligation Notes	GO	NEG	SOLE
05/23/19	46	Maricopa Co (Deer Valley) USD #97	AZ	Series E 2019 School Improvement Bonds	GO	NEG	LEAD
05/22/19	8	Allegheny Co (Wilkinsburg Boro) SD	PA	Series A of 2019 General Obligation	GO	NEG	SOLE
05/22/19	63	Snohomish Co (Everett) SD #2	WA	Series 2019 GO & Refunding Bonds	GO	NEG	CO-MGR
05/21/19	70	Denton Co (Argyle) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	CO-MGR
05/21/19	23	Upshur Co (Gilmer) ISD	TX	Series 2019 Unltd Tax School Bldg Bonds	GO	NEG	CO-MGR
05/16/19	10	Bradford Co (Troy) ASD	PA	Series of 2019 General Obligation Bonds	GO	NEG	SOLE
05/16/19	10	Daphne City-Alabama	AL	Series 2019 GO Ref & Improvement	GO	NEG	SOLE
05/15/19	13	Allegheny Co (Shaler) ASD	PA	Series of 2019 General Obligation Bonds	GO	NEG	SOLE
05/15/19	10	Collin Co (Richardson) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	CO-MGR
05/15/19	107	Collin Co (Richardson) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	CO-MGR
05/15/19	16	Kootenai Co (Post Falls) SD #273	ID	Series 2019 General Obligation Bonds	GO	NEG	SOLE
05/14/19	11	Solano Co (Dixon) USD	CA	Series 2019 General Obligation Bonds	GO	NEG	SOLE
05/10/19	8	Wayne Co (Western Wayne) SD	PA	Series of 2019 General Obligation Bonds	GO	NEG	SOLE
05/09/19	2	Woodburn City-Oregon	OR	Series 2019 Full Faith&Credit Fin Agree	GO	PVT	SOLE
05/08/19	27	Stanislaus Co (Modesto) ESD	CA	Series A General Obligation Bonds	GO	NEG	CO-MGR
05/08/19	8	Williamson Co (Leander) ISD	TX	Series 2019 C School Building Bonds	GO	NEG	CO-MGR
05/08/19	77	Williamson Co (Leander) ISD	TX	Series 2019 C School Building Bonds	GO	NEG	CO-MGR
05/07/19	9	Fresno Co (Kerman) USD	CA	Series 2019 General Obligation Bonds	GO	NEG	SOLE
05/03/19	13	Douglas Co (Eastmont) SD #206	WA	Series 2019 Ltd General Obligation Bonds	GO	NEG	SOLE
05/03/19	65	Lower Kennebec Region Sch Unit #1	ME	Series 2019 General Obligation Bonds	GO	NEG	SOLE
05/01/19	9	Bradford Co (Wyalusing) ASD	PA	Series 2019 General Obligation Bonds	GO	NEG	SOLE
05/01/19	135	El Paso Co (Socorro) ISD	TX	Series 2019 School Building Bonds	GO	NEG	LEAD
05/01/19	71	Pierce Co (Peninsula) SD #401	WA	Series 2019 General Obligation Bonds	GO	NEG	SOLE
04/30/19	1	Alton City-Iowa	IA	Series 2019 Capital Loan Notes	GO	PVT	SOLE
04/30/19	20	Iowa Finance Authority	IA	2019 Series C Single Family Mortgage	GO	NEG	CO-MGR
04/29/19	92	Denton Co (Northwest) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	CO-MGR
04/25/19	76	Dallas Co (Coppell) ISD	TX	Series 2019 School Building Bonds	GO	NEG	CO-MGR
04/25/19	11	Johnson Co (Joshua) ISD	TX	Series 2019 Unlimited Tax Refunding	GO	NEG	CO-MGR

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
04/25/19	27	Round Rock City-Texas	TX	Series 2019 Comb Tax & Ltd Rev Certs of	GO	NEG	CO-MGR
04/25/19	14	Yakima Co (Sunnyside) SD #201	WA	Series 2019 Unlimited Tax GO BOnDs	GO	NEG	SOLE
04/24/19	7	North Fayette Twp-Pennsylvania	PA	Series of 2019 GO Refunding Bonds	GO	NEG	SOLE
04/24/19	44	Carrollton City-Texas	TX	Series 2019 GO Improvement & Ref	GO	NEG	LEAD
04/24/19	265	Collin Co (Frisco) ISD	TX	Series 2019 Unit Tx School Bldg & Ref	GO	NEG	CO-MGR
04/24/19	239	University of Connecticut	CT	2019 & Ref Series A General Obligation	GO	NEG	LEAD
04/23/19	20	University of Minnesota Regents	MN	Series 2019 C General Obligation Bonds	GO	NEG	CO-MGR
04/23/19	132	Fort Bend ISD	TX	Series 2019 B Unlimited Tax Refunding	GO	NEG	CO-MGR
04/23/19	155	University of Minnesota Regents	MN	Series 2019 A & B GO & Refunding Bonds	GO	NEG	CO-MGR
04/23/19	21	Dallas Co (Coppell) ISD	TX	Series 2019 A Unlimited Tax Refunding	GO	NEG	CO-MGR
04/23/19	7	Collin Co (Prosper) ISD	TX	Series 2019 Unlimited Tax Refunding	GO	NEG	SOLE
04/22/19	4	Collin Co (Anna) ISD	TX	Series 2019 Unlimited Tax Refunding	GO	NEG	SOLE
04/22/19	20	Temple City-Texas	TX	Series 2019 GO Refunding Bonds	GO	NEG	LEAD
04/18/19	10	Berks Co (Conrad Weiser) ASD	PA	Series of 2019 General Obligation Bonds	GO	NEG	SOLE
04/17/19	22	Mississippi Development Bank	MS	Series 2019 Special Obligation BOnDs	GO	NEG	LEAD
04/16/19	56	Maricopa Co (Mesa) USD #4	AZ	Series A (2019) School Improvement	GO	NEG	CO-MGR
04/16/19	4	Tehama Co (Red Bluff) UHSD	CA	Series 2019 General Obligation Bonds	GO	NEG	SOLE
04/11/19	2024	California	CA	Various Purpose GO & Ref Bonds	GO	NEG	CO-MGR
04/09/19	18	Multnomah Co (Gresham-Barlow) SD #10JT	OR	Series 2019 B General Obligation Bonds	GO	NEG	SOLE
04/09/19	32	Multnomah Co (Gresham-Barlow) SD #10JT	OR	Series 2019 A GO Deferred Interest Bonds	GO	NEG	SOLE
04/09/19	9	Douglas Co (Reedsport) SD #105	OR	Series 2019 GO Refunding Bonds	GO	PVT	SOLE
04/05/19	9	Hutto City-Texas	TX	Series 2019 B General Obligation Bonds	GO	NEG	LEAD
04/05/19	15	Hutto City-Texas	TX	Series 2019 A General Obligation Bonds	GO	NEG	LEAD
04/02/19	11	Gavilan Jt Community College Dt	CA	Series A-1 General Obligation Bonds	GO	NEG	SOLE
04/02/19	27	Gavilan Jt Community College Dt	CA	Series A General Obligation Bonds	GO	NEG	SOLE
04/02/19	3	Pleasant Prairie Vlg-Wisconsin	WI	Series 2019 GO promissory Notes	GO	NEG	SOLE
04/02/19	6	Pleasant Prairie Vlg-Wisconsin	WI	Series 2019 GO Promissory Notes	GO	NEG	SOLE
04/02/19	8	Pleasant Prairie Vlg-Wisconsin	WI	Series 2019 GO Promissory Notes	GO	NEG	SOLE
04/01/19	5	Burlington City-Iowa	IA	Series 2019 A GO Corporate Purpose	GO	NEG	SOLE
03/29/19	96	Connecticut	CT	2019 Series A-7 General Obligation Bonds	GO	NEG	CO-MGR
03/29/19	8	Connecticut	CT	2019 Series A-6 General Obligation Bonds	GO	NEG	CO-MGR
03/29/19	15	Connecticut	CT	2019 Series A-5 General Obligation Bonds	GO	NEG	CO-MGR
03/29/19	153	Connecticut	CT	2019 Series A-5 General Obligation Bonds	GO	NEG	CO-MGR
03/29/19	2	Connecticut	CT	2019 Series A-4 General Obligation Bonds	GO	NEG	CO-MGR
03/29/19	33	Connecticut	CT	2019 Series A-4 General Obligation Bonds	GO	NEG	CO-MGR
03/29/19	68	Connecticut	CT	2019 Series A-3 General Obligation Bonds	GO	NEG	CO-MGR
03/29/19	317	Connecticut	CT	2019 Series A-3 General Obligation Bonds	GO	NEG	CO-MGR
03/29/19	7	Connecticut	CT	2019 Series A-2 General Obligation Bonds	GO	NEG	CO-MGR
03/29/19	95	Connecticut	CT	2019 Series A-2 General Obligation Bonds	GO	NEG	CO-MGR
03/29/19	49	Connecticut	CT	2019 Series A-1 General Obligation Bonds	GO	NEG	CO-MGR
03/29/19	159	Connecticut	CT	2019 Series A-1 General Obligation Bonds	GO	NEG	CO-MGR
03/28/19	39	Ohlone Community College Dt	CA	Series D General Obligation Bonds	GO	NEG	SOLE
03/28/19	5	Wyandotte Co (Turner) USD #202	KS	Series 2019-B General Obligation Bonds	GO	NEG	SOLE
03/28/19	44	Wyandotte Co (Turner) USD #202	KS	Series 2019-A General Obligation Bonds	GO	NEG	SOLE
03/28/19	273	Travis Co-Texas	TX	Series 2019 A Certificates of Obligation	GO	NEG	CO-MGR
03/28/19	12	Clinton Town-Connecticut	CT	Issue of 2019 GO Refunding Bonds	GO	NEG	SOLE
03/27/19	8	Los Angeles Co (Paramount) USD	CA	Series 2019 B GO Capital Appreciation	GO	NEG	CO-MGR
03/27/19	22	Los Angeles Co (Paramount) USD	CA	Series 2019 B General Obligation Bonds	GO	NEG	CO-MGR
03/26/19	49	Travis Co (Pflugerville) ISD	TX	Series 2019 B Unltd Tax School Building	GO	NEG	CO-MGR
03/26/19	38	Travis Co (Pflugerville) ISD	TX	Series 2019 A Unltd Tax School Building	GO	NEG	CO-MGR
03/26/19	137	Travis Co (Pflugerville) ISD	TX	Series 2019 A Unltd Tax School Building	GO	NEG	CO-MGR
03/26/19	150	West Valley-Mission Comm Coll Dt	CA	Series 2019 A General Obligation Bonds	GO	NEG	CO-MGR
03/21/19	9	Allegheny Co (Keystone Oaks) SD	PA	Series A & B of 2019 GO Refunding Bonds	GO	NEG	SOLE
03/20/19	3	Ventura Co (Moorpark) USD	CA	20149 Series E General Obligation Bonds	GO	PVT	SOLE
03/19/19	10	San Mateo Co (Portola Valley) SD	CA	Series 2019 A General Obligation Bonds	GO	NEG	SOLE

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
03/19/19	176	Collin Co (Prosper) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	LEAD
03/19/19	3	San Mateo Co (Portola Valley) SD	CA	2020 Series GO Refunding Bonds	GO	NEG	SOLE
03/15/19	6	Redmond City-Oregon	OR	Series 2019 C Full Faith & Credit Bonds	GO	NEG	SOLE
03/15/19	3	Redmond City-Oregon	OR	Series 2019 B-2 Full Faith & Credit Bonds	GO	NEG	SOLE
03/15/19	31	Redmond City-Oregon	OR	Series 2019 A & B-1 Full Faith & Credit Ref	GO	NEG	SOLE
03/15/19	1	New London City-Connecticut	CT	Issue of 2019 General Obligation Bonds	GO	NEG	SOLE
03/15/19	15	New London City-Connecticut	CT	Issue of 2019 General Obligation Bonds	GO	NEG	SOLE
03/11/19	6	Kankakee Co Comm Coll Dt #520	IL	Series 2019 Debt Certificates	GO	PVT	SOLE
03/08/19	9	Maricopa Co (Pendergast) ESD #92	AZ	Series C (2018) School Improvement	GO	NEG	SOLE
03/07/19	38	Minnesota Housing Fin Agency	MN	2019 Series C Residential Hsg Finance	GO	NEG	CO-MGR
03/07/19	98	Minnesota Housing Fin Agency	MN	2019 Series B Residential Hsg Finance	GO	NEG	CO-MGR
03/07/19	8	Minnesota Housing Fin Agency	MN	2019 Series A Residential Hsg Finance	GO	NEG	CO-MGR
03/05/19	171	Brazoria Co (Alvin) ISD	TX	Series 2019 Unltd Tax Schoolhouse & Ref	GO	NEG	CO-MGR
02/28/19	57	Chester Co-Pennsylvania	PA	Series of 2019 General Obligation Bonds	GO	NEG	LEAD
02/27/19	27	Williamson Co (Franklin) SSD	TN	Series 2019 Ltd Tax School Improvement	GO	NEG	SOLE
02/26/19	53	Alameda Co (San Leandro) USD	CA	Series B-C General Obligation Bonds	GO	NEG	SOLE
02/26/19	3	York Center Fire Protection Dt	IL	Series 2019 General Obligation Bonds	GO	PVT	SOLE
02/22/19	20	Clatsop Co-Oregon	OR	Series 2019 General Obligation Bonds	GO	NEG	SOLE
02/18/19	1	Itasca Park Dt	IL	Series 2019 B Debt Certificates	GO	PVT	SOLE
02/18/19	2	Itasca Park Dt	IL	Series 2019 A GO Limited Tax Park Bonds	GO	PVT	SOLE
02/15/19	2	Illinois Comm College Dt #518	IL	Series 2019 B GO Refunding Comm Coll	GO	PVT	SOLE
02/15/19	1	Illinois Comm College Dt #518	IL	Series 2019 A GO Refunding Bonds	GO	NEG	SOLE
02/14/19	80	Sierra Joint Comm College Dt	CA	Series A General Obligation Bonds	GO	NEG	SOLE
02/14/19	1	Canyon Co (Middleton) SD #134	ID	Series 2019 General Obligation Bonds	GO	PVT	SOLE
02/14/19	9	Northbrook Park Dt	IL	Series 2019 GO Limited Tax Park Bonds	GO	NEG	SOLE
02/13/19	4	Wasco Co (Dufur) SD #29	OR	Series 2019 General Obligation Bonds	GO	NEG	SOLE
02/13/19	20	Oregon	OR	2019 Series C General Obligation Bonds	GO	NEG	CO-MGR
02/13/19	40	Oregon	OR	2019 Series B General Obligation Bonds	GO	NEG	CO-MGR
02/13/19	466	Oregon	OR	2019 Series A & D General Obligation	GO	NEG	CO-MGR
02/12/19	13	Marion Co (Woodburn) SD #103	OR	Series 2019 Full Faith & Credit & Ref Oblig	GO	NEG	SOLE
02/08/19	4	Greater Round Lake Fire Protect Dt	IL	Series 2019 General Obligation Bonds	GO	NEG	SOLE
02/07/19	2	Marion Co (Woodburn) SD #103	OR	Series 2019 General Obligation Bonds	GO	NEG	SOLE
02/07/19	30	Minnesota Housing Fin Agency	MN	2019 Series B Homeownership Finance	GO	NEG	CO-MGR
02/07/19	36	Minnesota Housing Fin Agency	MN	2019 Series A Homeownership Finance	GO	NEG	CO-MGR
02/06/19	143	San Jacinto Comm College Dt	TX	Series 2019 A & B Ltd Tax GO Building &	GO	NEG	CO-MGR
02/06/19	75	Brazoria Co (Pearland) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	LEAD
02/05/19	5	Kenosha City-Wisconsin	WI	Series 2019 A GO Promissory Notes	GO	NEG	SOLE
02/05/19	12	Bolingbrook Park Dt	IL	Series 2019 B GO Parks Bonds	GO	NEG	SOLE
02/05/19	2	Bolingbrook Park Dt	IL	Series 2019 A GO Parks Bonds	GO	NEG	SOLE
02/05/19	34	Kenosha City-Wisconsin	WI	Series 2019 A GO Promissory Notes	GO	NEG	SOLE
02/05/19	9	Kenosha City-Wisconsin	WI	Series 2019 GO Refunding Bonds	GO	NEG	SOLE
01/31/19	4	Bridgeport City-Connecticut	CT	2019 Series B General Obligation Bonds	GO	NEG	CO-MGR
01/31/19	34	Bridgeport City-Connecticut	CT	2019 Series A General Obligation Bonds	GO	NEG	CO-MGR
01/30/19	21	Warrenton-Hammond SD #30	OR	Series 2019 B General Obligation Bonds	GO	NEG	SOLE
01/30/19	17	Warrenton-Hammond SD #30	OR	Series 2019 A General Obligation Bonds	GO	NEG	SOLE
01/30/19	241	El Paso ISD	TX	Series 2019 Unlimited Tax School Bldg	GO	NEG	CO-MGR
01/29/19	98	Harris Co (Spring) ISD	TX	Series 2019 Unlimited Tax School Bldg	GO	NEG	CO-MGR
01/24/19	70	Marin Comm College Dt	CA	Series B General Obligation Bonds	GO	NEG	SOLE
01/24/19	98	Marin Comm College Dt	CA	Series 2019 B-1 General Obligation Bonds	GO	NEG	SOLE
01/24/19	33	Galveston City-Texas	TX	Series 2019 Comb Tax & Rev Certs of	GO	NEG	CO-MGR
01/24/19	49	Kerr Co (Kerrville) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	CO-MGR
01/23/19	4	Merced Co (Loma Prieta) JUESD	CA	Series A General Obligation Bonds	GO	NEG	SOLE
01/23/19	250	Honolulu City & Co-Hawaii	HI	Series 2019 A & B General Obligation	GO	NEG	CO-MGR

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
01/23/19	18	Clatsop Co (Astoria) SD #1C	OR	Series 2019 General Obligation Bonds	GO	NEG	SOLE
01/23/19	52	Clatsop Co (Astoria) SD #1C	OR	Series 2019 General Obligation Bonds	GO	NEG	SOLE
01/23/19	68	Dallas ISD	TX	Series 2019 Unlimited Tax Refunding	GO	NEG	CO-MGR
01/22/19	5	Pflugerville City-Texas	TX	Series 2019 Ltd Tx & Comb Tx & Ltd Rev	GO	NEG	CO-MGR
01/22/19	19	Pflugerville City-Texas	TX	Series 2019 Ltd Tx & Comb Tx & Ltd Rev	GO	NEG	CO-MGR
01/17/19	48	Maricopa Co (Tempe) ESD #3	AZ	Series B (2019) School Improvement	GO	NEG	SOLE
01/17/19	46	Bell Co (Salado) ISD	TX	Series 2019 Unlimited Tax School Bldg	GO	NEG	CO-MGR
01/17/19	260	Harris Co (Cypress-Fairbanks) ISD	TX	Series 2019 Unlimited Tax Refunding	GO	NEG	CO-MGR
01/17/19	21	Woodland City-California	CA	Series 2019 Special Tax Bonds	GO	NEG	SOLE
01/16/19	1	North Central Educ Svc Dt #171	WA	Series 2019 Limited Tax GO Bonds	GO	PVT	SOLE
01/16/19	8	Sangamon (Rochester) CUSD #3A	IL	Series 2019 GO School Refunding Bonds	GO	PVT	SOLE
01/15/19	21	Tarrant Co (Birdville) ISD	TX	Series 2019 Unlimited Tax School Bldg	GO	NEG	CO-MGR
01/15/19	136	Tarrant Co (Birdville) ISD	TX	Series 2019 Unlimited Tax School Bldg	GO	NEG	CO-MGR
01/15/19	93	Williamson Co (Liberty Hill) ISD	TX	Series 2019 Unltd Tax School Building	GO	NEG	CO-MGR
01/10/19	22	Maricopa Co (Madison) ESD #38	AZ	Series C 2019 School Improvement Bonds	GO	NEG	SOLE
12/21/18	9	Coralville City-Iowa	IA	Series 2018 K General Obligation Bonds	GO	PVT	SOLE
12/21/18	7	Coralville City-Iowa	IA	Series 2018 J General Obligation Bonds	GO	PVT	SOLE
12/21/18	11	Coralville City-Iowa	IA	Series 2018 I General Obligation Bonds	GO	PVT	SOLE
12/21/18	12	Coralville City-Iowa	IA	Series 2018 F-2 General Obligation Bonds	GO	PVT	SOLE
12/21/18	3	Coralville City-Iowa	IA	Series 2018 F-1 General Obligation Bonds	GO	PVT	SOLE
12/20/18	10	Wheeling City-West Virginia	WV	Series 2018 Comb Wtrwrks & Sewerage	GO	PVT	SOLE
12/19/18	36	Grays Harbor Co Pub Hosp Dt #2	WA	Series 2018 Limited Tax GO & Refunding	GO	NEG	SOLE
12/19/18	1	Lake Bluff Park Dt	IL	Series 2018 Refunding Debt Certificates	GO	PVT	SOLE
12/14/18	4	Coralville City-Iowa	IA	Annual Appro GO Lease Purch COPs	GO	PVT	SOLE
12/13/18	25	Coralville City-Iowa	IA	Series 2018 E GO Annual Appropriation	GO	NEG	SOLE
12/13/18	6	Grays Co (Hoquiam) SD #28	WA	Series 2018 Unlimited Tax GO Bonds	GO	NEG	SOLE
12/12/18	7	Lewis Co (Toledo) SD #237	WA	Series 2018 Unlimited Tax GO Bonds	GO	NEG	SOLE
12/12/18	40	Montana Board of Housing	MT	2019 Series A Single Family Program	GO	NEG	CO-MGR
12/11/18	7	Clackamas Co (Oregon City) SD #62	OR	Series 2018 C GO & Refunding Bonds	GO	NEG	SOLE
12/11/18	128	Clackamas Co (Oregon City) SD #62	OR	Series 2018 B GO & Refunding Bonds	GO	NEG	SOLE
12/11/18	22	Clackamas Co (Oregon City) SD #62	OR	Series 2018 A GO & Refunding Bonds	GO	NEG	SOLE
12/06/18	53	Maricopa Co (Paradise Valley) USD #69	AZ	Series D (2018) School Improvement	GO	NEG	SOLE
12/06/18	8	Tillamook Co-Oregon	OR	Series 2018 General Obligation Bonds	GO	NEG	SOLE
12/04/18	110	Clackamas (No Clackamas) SD #12	OR	Series 2018 General Obligation Bonds	GO	NEG	SOLE
11/29/18	3	Arlington Heights Park Dt	IL	Series 2018 B Ref Debt Certificates	GO	PVT	SOLE
11/29/18	36	Oregon Education Dt	OR	Series 2018 Full Faith & Credit Pension	GO	NEG	SOLE
11/29/18	1	Reno Co-Kansas	KS	Series 2018 General Obligation Bonds	GO	NEG	SOLE
11/28/18	1	Riley Co (Manhattan) USD #383	KS	Series 2018 B General Obligation Bonds	GO	NEG	SOLE
11/28/18	130	Riley Co (Manhattan) USD #383	KS	Series 2018 A General Obligation Bonds	GO	NEG	SOLE
11/28/18	95	Snohomish (Stanwood) SD #401	WA	Series 2018 Unlimited Tax GO Bonds	GO	NEG	SOLE
11/28/18	7	Weston Town-Connecticut	CT	Issue of 2018 Ser B GO Refunding Bonds	GO	NEG	SOLE
11/28/18	3	Weston Town-Connecticut	CT	Issue of 2018 Ser A GO Refunding Bonds	GO	NEG	SOLE
11/27/18	102	King Co Public Hospital Dt #1	WA	Series 2018 Ltd Tax GO & Refunding	GO	NEG	SOLE
11/20/18	1	Niles Park Dt	IL	Series 2018 GO Ltd Park Bonds	GO	PVT	SOLE
11/15/18	7	Hampton Twp-Pennsylvania	PA	Series of 2018 General Obligation Bonds	GO	NEG	SOLE
11/15/18	5	Arlington Heights Park Dt	IL	Series 2018 A GO Limited Tax Park Bonds	GO	NEG	SOLE
11/15/18	3	Bear Lake Co-Idaho	ID	Series 2018 General Obligation Bonds	GO	NEG	SOLE
11/15/18	4	Dundee Twp Park Dt	IL	Series 2018 GO Alt Rev Source Ref Pk	GO	PVT	SOLE
11/14/18	2	Ohio Twp-Pennsylvania	PA	Series of 2018 General Obligation Bonds	GO	NEG	SOLE
11/14/18	1	Iowa Central Comm College	IA	Series 2018-2 GO Plant Fund Capital Loan	GO	NEG	SOLE
11/14/18	3	Hinckley-Big Rock CUSD #429	IL	Series 2018 GO Refunding School Bonds	GO	PVT	SOLE
11/12/18	2	Addison Park Dt	IL	Series 2018 GO Ltd Tax Park Bonds	GO	PVT	SOLE

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
11/09/18	2	Johnson Co (Spring Hill) USD #230	KS	Series 2018-B GO Refunding Bonds	GO	NEG	SOLE
11/09/18	72	Johnson Co (Spring Hill) USD #230	KS	Series 2018 A General Obligation Bonds	GO	NEG	SOLE
11/08/18	3	Fairview City-Oregon	OR	Series 2018 Full Faith & Credit Fin	GO	PVT	SOLE
11/08/18	52	Leavenworth Co (Basehor-Linwood) USD #458	KS	Series 2018 General Obligation Bonds	GO	NEG	SOLE
11/06/18	5	Canyon Co (Parma) Sd 137	ID	Series 2018 General Obligation Bonds	GO	NEG	SOLE
11/06/18	1	Pleasant Prairie Vlg-Wisconsin	WI	Series 2018 GO Promissory Notes	GO	NEG	SOLE
11/06/18	172	Portland Community College Dt	OR	Series 2018 Full Faith & Credit Pension	GO	NEG	SOLE
11/01/18	8	Everett Public Facilities Dt	WA	Series 2018 B Limited GO Refunding	GO	NEG	SOLE
11/01/18	12	Everett Public Facilities Dt	WA	Series 2018 A Limited GO Refunding	GO	NEG	SOLE
10/31/18	10	Naperville Park Dt	IL	Series 2018 B GO Limited Tax Park Bonds	GO	NEG	SOLE
10/31/18	1	Naperville Park Dt	IL	Series 2018 A GO Limited Tax Park Bonds	GO	NEG	SOLE
10/31/18	2	Wilmette Park Dt	IL	Series 2018 A GO Limited Park Bonds	GO	PVT	SOLE
10/31/18	15	Rockwall ISD	TX	Series 2018 Unltd Tax School Building	GO	NEG	CO-MGR
10/31/18	27	Rockwall ISD	TX	Series 2018 Unltd Tax School Building	GO	NEG	CO-MGR
10/30/18	1	Yuba Co (Marysville) JUSD	CA	Series 2018 General Obligation Bonds	GO	NEG	SOLE
10/30/18	12	Yuba Co (Marysville) JUSD	CA	Series 2018 General Obligation Bonds	GO	NEG	SOLE
10/30/18	9	Galveston Co (Santa Fe) ISD	TX	Series 2018 Unlimited Tax Refunding	GO	NEG	CO-MGR
10/25/18	16	North Strabane Twp-Pennsylvania	PA	Series of 2018 General Obligation Bonds	GO	NEG	SOLE
10/24/18	1	Johnson Co Fire Protection Dt	MO	Series 2018 General Obligation Bonds	GO	PVT	SOLE
10/24/18	59	King Co (Highline) SD #401	WA	Series 2018 Unlimited Tax GO Bonds	GO	NEG	SOLE
10/23/18	6	Johnson (Warrensburg) SD #R-6	MO	Series 2018 GO Refunding Bonds	GO	NEG	SOLE
10/18/18	189	Mississippi	MS	Series 2018 A General Obligation Bonds	GO	NEG	LEAD
10/18/18	26	Chambers Co (Barbers Hill) ISD	TX	Series 2018 Unlimited Tax Refunding	GO	NEG	SOLE
10/17/18	5	Jefferson Co-Illinois	IL	Series 2018 GO Alt Rev Source Ref Bonds	GO	PVT	SOLE
10/16/18	4	Kenosha City-Wisconsin	WI	Series 2018 C GO Promissory Notes	GO	NEG	SOLE
10/16/18	5	Kenosha City-Wisconsin	WI	Series 2018 GO Promissory Notes	GO	NEG	SOLE
10/11/18	422	Maricopa Co Spec Health Care Dt	AZ	Series C 2018 General Obligation Bonds	GO	NEG	CO-MGR
10/11/18	5	Fresno Co (Kerman) USD	CA	Series 2018 General Obligation Bonds	GO	NEG	SOLE
10/11/18	45	Grant Co (Moses Lake) SD #161	WA	Series 2018 Unlimited Tax GO Bonds	GO	NEG	SOLE
10/11/18	72	King Co (Kent) SD #415	WA	Series 2018 General Obligation Bonds	GO	NEG	LEAD
10/03/18	110	Clark Co (Vancouver) SD #37	WA	Series 2018 Unlimited Tax GO Bonds	GO	NEG	LEAD
10/02/18	1	Woodridge Park Dt	IL	Series 2018 Limited Park Bonds	GO	PVT	SOLE
10/01/18	1	Lockport Twp Park Dt	IL	Series 2018 GO Limited Tax Park Bonds	GO	PVT	SOLE
09/28/18	6	North Kingstown Town-Rhode Island	RI	2018 Series A GO Refunding Bonds	GO	NEG	SOLE
09/26/18	35	Collin Co (Melissa) ISD	TX	Series 2018 Unltd Tax School Building	GO	NEG	LEAD
09/25/18	6	McHenry Co (Huntley) CSD #158	IL	Series 2018 GO Refunding School Bonds	GO	NEG	SOLE
09/21/18	5	Denton Co (Pilot Point) ISD	TX	Series 2018 Unlimited Tax Refunding	GO	NEG	SOLE
09/21/18	31	King Co (Tukwila) SD #406	WA	Series 2018 General Obligation Bonds	GO	NEG	SOLE
09/18/18	4	Ludlow Town-Massachusetts	MA	Series of 2018 Unltd Tax GO Muni Purp	GO	NEG	SOLE
09/18/18	1	Thornton Village-Illinois	IL	Series 2018 GO Refunding Bonds	GO	PVT	SOLE
09/18/18	34	Pasadena City-Texas	TX	Series 2018 Comb Tax & Revenue Certs	GO	NEG	CO-MGR
09/14/18	2	South Hutchinson City-Kansas	KS	Series 2018 General Obligation Bonds	GO	NEG	SOLE
09/13/18	2	Highpointe Park Metropolitan Dt	CO	Series 2018 GO Refunding & Improvement	GO	PVT	SOLE
09/11/18	86	Oklahoma City Economic Dev Trust	OK	Series 2018 Annual Appropriation Bonds	GO	NEG	CO-MGR
09/10/18	46	Snohomish Co (Everett) SD #2	WA	Series 2018 Unlimited Tax GO Bonds	GO	NEG	CO-MGR
09/06/18	56	Riverside Co (Moreno Valley) USD	CA	Series B General Obligation Bonds	GO	NEG	SOLE
09/05/18	10	Madison (Newman Grove) CSD #13	NE	Series 2018 GO School Building Bonds	GO	NEG	SOLE
09/04/18	1	Rockwall Co (Royse) ISD	TX	Series 2018 Unlimited Tax School Bldg	GO	NEG	CO-MGR
09/04/18	24	Rockwall Co (Royse) ISD	TX	Series 2018 Unlimited Tax School Bldg	GO	NEG	CO-MGR
08/30/18	7	North Lincoln Fire & Rescue Dt #1	OR	Series 2018 General Obligation Bonds	GO	NEG	SOLE
08/29/18	3	Port of Alsea-Oregon	OR	Series 2018 General Obligation Bonds	GO	NEG	SOLE
08/29/18	727	Massachusetts	MA	2018 of Series E & C GO Consolidated	GO	NEG	CO-MGR

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
08/28/18	4	Maple Valley-Washington	WA	Series 2018 Limited Tax GO Bonds	GO	NEG	SOLE
08/28/18	298	Texas Public Finance Auth (TPFA)	TX	Series 2018 GO & Refunding Bonds	GO	NEG	LEAD
08/27/18		Ellsworth City-Kansas	KS	Series 2018 GO Temporary Notes	GO	PVT	SOLE
08/24/18	3	Minnesota Tax & Aid Borrow Program	MN	Series 2018 A Certs of Participation Aid	GO	NEG	SOLE
08/24/18	1	Baxter Springs City-Kansas	KS	Series 2018 General Obligation Bonds	GO	NEG	SOLE
08/22/18	15	Rockland Co Solid Waste Mgmt Auth	NY	Series 2018 A GO Refunding Bonds	GO	NEG	SOLE
08/21/18	4	Banks Fire Dt #13	OR	Series 2018 General Obligation Bonds	GO	NEG	SOLE
08/21/18	10	Hartley-Melvin Sanborn CSD	IA	Series 2018 GO School Bonds	GO	NEG	SOLE
08/16/18	239	Connecticut	CT	2018 Series F GO Refunding Bonds	GO	NEG	CO-MGR
08/16/18	254	Connecticut	CT	2018 Series E-4 General Obligation Bonds	GO	NEG	CO-MGR
08/16/18	26	Connecticut	CT	2018 Series E-3 General Obligation Bonds	GO	NEG	CO-MGR
08/16/18	75	Connecticut	CT	2018 Series E-2 General Obligation Bonds	GO	NEG	CO-MGR
08/16/18	45	Connecticut	CT	2018 Series E-1 General Obligation Bonds	GO	NEG	CO-MGR
08/16/18	45	Connecticut	CT	2018 Series A-2 General Obligation Bonds	GO	NEG	CO-MGR
08/16/18	205	Connecticut	CT	2018 Series A-1 General Obligation Bonds	GO	NEG	CO-MGR
08/15/18	185	Honolulu City & Co-Hawaii	HI	Series 2018 E & F General Obligation	GO	NEG	CO-MGR
08/15/18	5	Honolulu City & Co-Hawaii	HI	Series 2018 C & D General Obligation	GO	NEG	CO-MGR
08/15/18	279	Honolulu City & Co-Hawaii	HI	Series 2018 A & B General Obligation	GO	NEG	CO-MGR
08/14/18	50	El Camino Community College Dt	CA	Series 2018 B General Obligation Bonds	GO	NEG	LEAD
08/14/18	44	Whatcom Co (Bellingham) SD #501	WA	Series 2018 Unlimited Tax GO Bonds	GO	NEG	SOLE
08/14/18	75	Denton Co ISD	TX	Series 2018 Unltd Tax School Building	GO	NEG	LEAD
08/14/18	325	Denton Co ISD	TX	Series 2018 Unltd Tax School Building	GO	NEG	LEAD
08/14/18	29	Lubbock Co (Lubbock-Cooper) ISD	TX	Series 2018 Unltd Tax School Building	GO	NEG	LEAD
08/13/18	14	Scott Co (Pleasant Valley) CSD	IA	Series 2018 Infra Sales Svcs & Use Tx	GO	PVT	SOLE
08/09/18	12	Riverside Co (Beaumont) USD	CA	Series E General Obligation Bonds	GO	NEG	SOLE
08/09/18	26	Riverside Co (Beaumont) USD	CA	2018Series C GO Refunding Bonds	GO	NEG	SOLE
08/08/18	24	Tualatin City-Oregon	OR	Series 2018 GO & Refunding Bonds	GO	NEG	SOLE
08/07/18	7	Linn Co (Harrisburg) SD #7	OR	Series 2018 B General Obligation Bonds	GO	NEG	SOLE
08/07/18	2	Linn Co (Harrisburg) SD #7	OR	Series 2018 A General Obligation Bonds	GO	NEG	SOLE
08/07/18		Johnson Co-Missouri	MO	Series 2018 Neighborhood Imp District	GO	PVT	SOLE
08/02/18	23	Tillamook (Nestucca Vly) JSD #101	OR	Series 2018 B General Obligation Bonds	GO	NEG	SOLE
08/02/18	3	Tillamook (Nestucca Vly) JSD #101	OR	Series 2018 A General Obligation Bonds	GO	NEG	SOLE
08/01/18	10	Imperial Community College Dt	CA	Series 2018 C General Obligation Bonds	GO	NEG	SOLE
08/01/18	22	Imperial Community College Dt	CA	Series 2018 C General Obligation Bonds	GO	NEG	SOLE
07/31/18	3	Gladstone-Oregon	OR	Series 2018 Full Faith & Credit Fin	GO	PVT	SOLE
07/26/18	24	Denton Co (Little Elm) ISD	TX	Series 2018 A Unltd Tax School Building	GO	NEG	CO-MGR
07/24/18	115	Harris Co (Humble) ISD	TX	Series 2018 Unltd Tax School Building	GO	NEG	CO-MGR
07/18/18	117	Benton Co (Corvallis) SD #509-J	OR	Series 2018 B General Obligation Bonds	GO	NEG	SOLE
07/18/18	43	Benton Co (Corvallis) SD #509-J	OR	Series 2018 A General Obligation Bonds	GO	NEG	SOLE
07/17/18	10	Flower Mound Town-Texas	TX	Series 2018 A Certificates of Obligation	GO	NEG	LEAD
07/17/18	3	DuPage Co (York) CUSD #205	IL	Series 2018 Refunding Debt Certificates	GO	PVT	SOLE
07/12/18	2	Dubuque Co-Iowa	IA	Series 2018 B General Obligation Project	GO	PVT	SOLE
07/12/18	3	Millersburg City-Oregon	OR	Series 2018 Full Faith & Credit Ref Oblig	GO	PVT	SOLE
07/12/18	5	Pacific Co (South Bend) SD #118	WA	Series 2018 Unlimited Tax GO Bonds	GO	NEG	SOLE
07/12/18	148	Harris Co (Aldine) ISD	TX	Series 2018 Unltd Tax School Building	GO	NEG	LEAD
07/12/18	50	Montana Board of Housing	MT	2018 Series B Single Family Mortgage	GO	NEG	CO-MGR
07/11/18	2	Washington Co (Charleroi) ASD	PA	Series of 2018 General Obligation Bonds	GO	NEG	SOLE
07/11/18	3	Kittitas Co Public Hosp Dt #1	WA	Series 2018 Limited Tax GO & Refunding	GO	PVT	SOLE
07/11/18	383	Marion Co (Salem-Keizer) SD #24-J	OR	Series 2018 General Obligation Bonds	GO	NEG	SOLE
07/11/18	48	Texas Water Development Board	TX	Ser 18B Sub B2 GO Wtr Fin Assistance	GO	NEG	LEAD
07/11/18	191	Texas Water Development Board	TX	Ser 18B Sub B1 & B3 GO Wtr Fin	GO	NEG	LEAD
06/29/18	5	Sangamon (Rochester) CUSD #3A	IL	Series 2018 GO School Refunding Bonds	GO	PVT	SOLE

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
06/28/18	3	Whatcom Co (Mount Baker) SD #507	WA	Series WA Ltd Tax General Obligation	GO	PVT	SOLE
06/28/18	3	Newport City-Oregon	OR	Series 2018 Full Faith & Credit Fin Agency	GO	PVT	SOLE
06/28/18	3	Madera Co (Yosemite) USD	CA	2018-2019 Series A TRANS	GO	NEG	SOLE
06/27/18	153	King Co (Northshore) SD #417	WA	Series 2018 Unlimited Tax GO Bonds	GO	NEG	SOLE
06/27/18	113	Fort Bend Co (Lamar) CISD	TX	Series 2018 Unltd Tax Schoolhouse	GO	NEG	CO-MGR
06/27/18	176	Fort Bend Co (Lamar) CISD	TX	Series 2018 Unltd Tax Schoolhouse	GO	NEG	CO-MGR
06/27/18	12	Rio Vista City-California	CA	Series 2018 Special Tax Bonds	GO	NEG	CO-MGR
06/26/18	18	Bowie Co (Pleasant Grove) ISD	TX	Series 2018 Unltd Tax School Building	GO	NEG	LEAD
06/26/18	41	Bexar Co (San Antonio) ISD	TX	Series 2014 B Unlimited Tax Refunding	GO	NEG	CO-MGR
06/26/18	127	California Sch Cash Reserve Auth	CA	2018-2019 Series A-C TRANS	GO	NEG	SOLE
06/20/18	22	Los Angeles Co (Claremont) USD	CA	Series B General Obligation Bonds	GO	NEG	SOLE
06/20/18	6	Navarro Co (Rice) ISD	TX	Series 2018 Unltd Tax School Bldg Bonds	GO	NEG	SOLE
06/20/18	24	Bridgeport City-Connecticut	CT	2018 Series C General Obligation Bonds	GO	NEG	CO-MGR
06/20/18	208	Grossmont-Cuyamaca Comm Coll Dt	CA	2018 & Series B GO & Refunding Bonds	GO	NEG	CO-MGR
06/19/18	177	Port of Houston Auth	TX	Series 2018 A Unlimited Tax Refunding	GO	NEG	CO-MGR
06/18/18	6	Grayson Co (Howe) ISD	TX	Series 2018 Unltd Tax School Building	GO	NEG	CO-MGR
06/18/18	10	Grayson Co (Howe) ISD	TX	Series 2018 Unltd Tax School Building	GO	NEG	CO-MGR
06/15/18	11	Whitman Co Public Hosp Dt #1A	WA	Series 2018 Limited Tax GO & Rev Ref	GO	PVT	SOLE
06/14/18	15	Williamson Co (Leander) ISD	TX	Series 2018 A Unltd Tax School Building	GO	NEG	LEAD
06/14/18	58	Williamson Co (Leander) ISD	TX	Series 2018 A Unltd Tax School Building	GO	NEG	LEAD
06/13/18	15	Monroe Town-Connecticut	CT	Series A & B of 2018 GO & Refunding	GO	NEG	SOLE
06/13/18	87	King Co (Issaquah) SD #411	WA	Series 2018 Unltd Tx General Obligation	GO	NEG	SOLE
06/11/18	15	Skagit Co Public Hospital Dt #2	WA	Series 2018 Limited Tax GO Bonds	GO	PVT	SOLE
06/07/18	175	Harris Co (Houston) ISD	TX	Series 2018 Maintenance Tax Notes	GO	NEG	CO-MGR
06/07/18	25	Minnesota Housing Fin Agency	MN	2018 Series C Residential Housing	GO	NEG	CO-MGR
06/07/18	44	Minnesota Housing Fin Agency	MN	2018 Series B Residential Housing	GO	NEG	CO-MGR
06/07/18	29	Minnesota Housing Fin Agency	MN	2018 Series A Residential Housing	GO	NEG	CO-MGR
06/06/18		Lake Winnebago City-Missouri	MO	Series 2018 General Obligation Bonds	GO	PVT	SOLE
06/06/18	80	Cleveland City-Ohio	OH	Series 2018 Various Purpose GO Bonds	GO	NEG	CO-MGR
06/05/18	30	Garland City-Texas	TX	Series 2018 Comb Tax & Rev Certs of	GO	NEG	CO-MGR
06/04/18	2	Douglas Co (Eastmont) SD #206	WA	Seris 2018 Limited GO Bonds	GO	PVT	SOLE
06/01/18	12	Coffeyville City-Kansas	KS	Series 2018-A GO Electric Utility Sys Ref	GO	NEG	SOLE
06/01/18	10	Grimes City-Iowa	IA	Series 2018 A GO Corporate Purpose	GO	NEG	SOLE
05/31/18	85	Ada Co (West Ada) JSD #2	ID	Series 2018 A & B General Obligation	GO	NEG	SOLE
05/31/18	17	Whitman Co (Colfax) SD #300	WA	Series 2018 General Obligation Bonds	GO	NEG	SOLE
05/30/18	25	Maricopa Co (Roosevelt) ESD #66	AZ	Series A & 2018 School Improvement &	GO	NEG	CO-MGR
05/30/18	6	Denton Co (Northwest) ISD	TX	Series 2018 Unltd Tax School Building	GO	NEG	CO-MGR
05/30/18	89	Denton Co (Northwest) ISD	TX	Series 2018 Unltd Tax School Building	GO	NEG	CO-MGR
05/24/18	27	Jefferson Co-Alabama	AL	Series 2018-B GO Refunding Warrants	GO	NEG	CO-MGR
05/24/18	111	Jefferson Co-Alabama	AL	Series 2018-A GO Refunding Warrants	GO	NEG	CO-MGR
05/24/18	42	Clark Co (La Center) SD #101	WA	Series 2018 Unlimited Tax GO Bonds	GO	NEG	SOLE
05/24/18	13	Folsom Ranch Financing Auth	CA	Series 2018 Special Tax Revenue Bonds	GO	NEG	SOLE
05/23/18	7	Ridgefield City-Washington	WA	Series 2018 Limited Tax GO Bonds	GO	NEG	SOLE
05/22/18	84	West Virginia	WV	Series 2018 A GO State Road Bonds	GO	NEG	CO-MGR
05/22/18	84	West Virginia	WV	Series 2018 A GO State Road Bonds	GO	NEG	CO-MGR
05/18/18	38	Fresno Co USD	CA	Series A General Obligation Bonds	GO	NEG	LEAD
05/18/18	39	Fresno Co USD	CA	Series A General Obligation Bonds	GO	NEG	LEAD
05/16/18	57	Cowlitz Co (Kalama) SD #402	WA	Series 2018 Unltd Tx General Obligation	GO	NEG	SOLE
05/16/18	22	San Diego Co (San Dieguito) UHSD	CA	2018 Series D-2 General Obligation Bonds	GO	NEG	SOLE
05/16/18	3	San Diego Co (San Dieguito) UHSD	CA	2018 Series D-1 General Obligation Bonds	GO	NEG	SOLE
05/15/18	4	San Jose-Evergreen Comm Coll Dt	CA	Series A General Obligation Bonds	GO	NEG	SOLE
05/15/18	35	San Jose-Evergreen Comm Coll Dt	CA	Series A General Obligation Bonds	GO	NEG	SOLE

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
05/15/18	31	Bonneville-Bingham Cos JSD #93	ID	Series 2018 General Obligation Bonds	GO	NEG	SOLE
05/15/18	11	Mountlake Terrace City-Washington	WA	Series 2018 Unlimited Tax GO Bonds	GO	NEG	SOLE
05/15/18	132	Harris Co (Spring Branch) ISD	TX	Series 2018 Schoolhouse Bonds	GO	NEG	CO-MGR
05/15/18	46	San Jose-Evergreen Comm Coll Dt	CA	2018 Series A-1 General Obligation Bonds	GO	NEG	SOLE
05/14/18	1	Fairfield City-Iowa	IA	Series 2018 GO Capital Loan Notes	GO	PVT	SOLE
05/11/18	4	Summit Co-Utah	UT	Series 2018 B Special Assessment Bonds	GO	PVT	SOLE
05/11/18	22	Summit Co-Utah	UT	Series 2018 A Special Assessment Bonds	GO	PVT	SOLE
05/10/18	83	Bexar Co (Alamo Heights) ISD	TX	Series 2018 A Unlimited Tax School Bldg	GO	NEG	LEAD
05/09/18	28	Maricopa Co (Gilbert) USD #41	AZ	Series B 2018 GO School Improvement	GO	NEG	CO-MGR
05/09/18	10	Orange Co (Buena Park) SD	CA	Series 2018 General Obligation Bonds	GO	NEG	SOLE
05/09/18	15	Oregon City-Oregon	OR	Series 2018 Full Faith & Credit Obligations	GO	NEG	SOLE
05/09/18	202	Bexar Co (Northside) ISD	TX	Series 2018 Unlimited Tax Refunding	GO	NEG	CO-MGR
05/09/18	30	Oregon	OR	2018 Series C & D General Obligation	GO	NEG	CO-MGR
05/09/18	40	Oregon	OR	2018 Series B General Obligation Bonds	GO	NEG	CO-MGR
05/09/18	70	Oregon	OR	2018 Series A General Obligation Bonds	GO	NEG	CO-MGR
05/08/18	6	Iowa Higher Ed Loan Authority	IA	Series 2018 A RANs	GO	NEG	SOLE
05/03/18	2	Clallam Co (Sequim) SD #323	WA	Series 2018 Limited GO Bonds	GO	PVT	SOLE
05/02/18	6	Wamego City-Kansas	KS	Series 2018-A GO Refunding	GO	NEG	SOLE
05/02/18	2	Wamego City-Kansas	KS	Series 2018-1 GO Temporary Notes	GO	NEG	SOLE
05/02/18	1	Genesee City-Idaho	ID	Series 2018 General Obligation Bonds	GO	PVT	SOLE
05/02/18	3	Genesee Rural Fire Dt	ID	Series 2018 General Obligation Bonds	GO	PVT	SOLE
05/02/18	3	Nine Mile Falls SD #325-179	WA	Series 2018 Limited GO Bonds	GO	PVT	SOLE
05/01/18	2	Lane Co (Bethel) SD #52	OR	Series 2018 Full Faith & Credit Fin	GO	PVT	SOLE
05/01/18	133	Fort Bend ISD	TX	Series 2018 Unlimited Tax Refunding	GO	NEG	LEAD
05/01/18	9	Denton Co (Lewisville) ISD	TX	Series 2018 Unlimited Tax Refunding	GO	NEG	CO-MGR
04/26/18	30	Chester Co-Pennsylvania	PA	Series of 2018 General Obligation Bonds	GO	NEG	LEAD
04/26/18	2	Keizer City-Oregon	OR	Series 2018 Full Faith & Credit Obligations	GO	PVT	SOLE
04/26/18	27	Collin Co (Anna) ISD	TX	Series 2018 Unltd Tax School Building	GO	NEG	LEAD
04/26/18	10	Connecticut Regional SD #5	CT	Issue of 2018 GO Refunding Bonds	GO	NEG	SOLE
04/26/18	81	West Contra Costa USD	CA	2018 Series GO Refunding Bonds	GO	NEG	CO-MGR
04/19/18	276	University of Connecticut	CT	2018 Series A General Obligation Bonds	GO	NEG	CO-MGR
04/18/18	2	Guthrie Co (Panorama) CSD	IA	Series 2018 A B C GO School Refunding	GO	PVT	SOLE
04/17/18	148	Maricopa Co (Phoenix) UHSD #210	AZ	Series 2018 School Improvement Bonds	GO	NEG	CO-MGR
04/17/18	2147	California	CA	Various GO & Refunding Bonds	GO	NEG	CO-MGR
04/13/18	5	Aspen Grove Business Imp Dt	CO	Series 2018 Limited Tax GO Refunding	GO	PVT	SOLE
04/12/18	20	Minnesota Housing Fin Agency	MN	2018 Series D Homeownership Finance	GO	NEG	CO-MGR
04/12/18	30	Minnesota Housing Fin Agency	MN	2018 Series C Homeownership Finance	GO	NEG	CO-MGR
04/11/18	10	Allegheny Co (Hampton) TSD	PA	Series A & B of 2018 General Obligation	GO	NEG	SOLE
04/09/18	1	Dallas Co (Adel-DeSoto) CSD	IA	Series 2018 GO School Capital Loan	GO	PVT	SOLE
04/09/18	3	Lyon Co (West Lyon) CSD	IA	Series 2018 GO School Bonds	GO	PVT	SOLE
04/05/18	28	Union Co-Ohio	OH	Series 2018 General Obligation Bonds	GO	NEG	SOLE
04/04/18	40	Coos Co (Coos Bay) SD #9	OR	Series 2018 General Obligation Bonds	GO	NEG	SOLE
04/03/18	10	Kenosha City-Wisconsin	WI	Series 2018 B GO Promissory Notes	GO	NEG	SOLE
04/03/18	15	Kenosha City-Wisconsin	WI	Series 2018 A GO Promissory Notes	GO	NEG	SOLE
04/03/18	1	Palatine Park Dt	IL	Series 2018 Limited Tax Park Bonds	GO	PVT	SOLE
04/03/18	2	Roscoe Village-Illinois	IL	Series 2018 GO Ref Alt Telecom Tx Alt	GO	PVT	SOLE
04/03/18	135	Denton Co (Little Elm) ISD	TX	Series 2018 Unlimited Tax School Bldg	GO	NEG	CO-MGR
04/02/18	8	Burlington City-Iowa	IA	Series 2018 A GO Corporate Purpose	GO	NEG	SOLE
03/29/18	3	Newberg City-Oregon	OR	Series 2018 B Full Faith & Credit	GO	PVT	SOLE
03/29/18		Newberg City-Oregon	OR	Series 2018 A Full Faith & Credit	GO	PVT	SOLE
03/28/18	4	Mills Co (Glenwood) CSD	IA	Series 2018 GO School Capital Loan	GO	NEG	SOLE
03/28/18	51	Chambers Co (Barbers Hill) ISD	TX	Series 2018 Unlimited Tax School Bldg	GO	NEG	LEAD

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
03/28/18	276	Connecticut	CT	2018 Series B GO Refunding Bonds	GO	NEG	CO-MGR
03/28/18	15	Connecticut	CT	2018 Series A-4 General Obligation Bonds	GO	NEG	CO-MGR
03/28/18	16	Connecticut	CT	2018 Series A-3 General Obligation Bonds	GO	NEG	CO-MGR
03/28/18	177	Connecticut	CT	2018 Series A-2 General Obligation Bonds	GO	NEG	CO-MGR
03/28/18	42	Connecticut	CT	2018 Series A-1 General Obligation Bonds	GO	NEG	CO-MGR
03/27/18	177	Collin Co (Prosper) ISD	TX	Series 2018 Unltd Tax School Bldg Bonds	GO	NEG	LEAD
03/21/18	7	Pendleton City-Oregon	OR	Series 2018 Full Faith & Credit Ref Bonds	GO	PVT	SOLE
03/20/18	185	Portland Community College Dt	OR	Series 2018 General Obligation Bonds	GO	NEG	SOLE
03/14/18	10	Indiana Co (Armstrong) SD	PA	Series of 2018 General Obligation Bonds	GO	NEG	SOLE
03/14/18	89	Franklin Co (Pasco) SD #1	WA	Series 2018 Unlimited Tax GO Bonds	GO	NEG	SOLE
03/13/18	10	Pend Oreille Co Pub Hosp Dt #1	WA	Series 2018 Unlimited Tax GO Bonds	GO	NEG	SOLE
03/07/18	20	Jackson Co (Phoenix-Talent) SD #4	OR	Series 2018 B General Obligation Bonds	GO	NEG	SOLE
03/07/18	48	Jackson Co (Phoenix-Talent) SD #4	OR	Series 2018 A General Obligation Bonds	GO	NEG	SOLE
03/06/18	155	Galveston Co (Clear Creek) ISD	TX	Series 2018 Unltd Tax School Building	GO	NEG	CO-MGR
03/05/18	109	Travis Co (Lake Travis) ISD	TX	Series 2018 A Unlimited Tax School Bldg	GO	NEG	CO-MGR
03/05/18	1	Marion Co (Knoxville) CSD	IA	Series 2018 GO School Capital Loan	GO	PVT	SOLE
03/01/18	14	Monterey Co (Salinas) ESD	CA	Series C General Obligation Bonds	GO	NEG	LEAD
03/01/18	1	Lisle Park Dt	IL	Series 2018 A Limited Park Bonds	GO	PVT	SOLE
03/01/18	2	Elk Grove Park Dt	IL	Series 2018 Limited Tax Park Bonds	GO	PVT	SOLE
03/01/18	13	Monterey Co (Salinas) ESD	CA	2018 Series A & C GO & Refunding Bonds	GO	NEG	LEAD
03/01/18	12	Monterey Co (Salinas) ESD	CA	2018 Series A GO Refunding Bonds	GO	NEG	LEAD
02/22/18	6	Lane Co (Oakridge) SD #76	OR	Series 2018 General Obligation Bonds	GO	NEG	SOLE
02/15/18	5	Troutdale-Oregon	OR	Series 2018 Full Faith & Credit Obligations	GO	NEG	SOLE
02/14/18	4	Lane Co (Lowell) SD #71	OR	Series 2018 General Obligation Bonds	GO	NEG	SOLE
02/06/18	27	Marion Co (No Marion) SD #15	OR	Series 2018 B General Obligation Bonds	GO	NEG	SOLE
02/06/18	15	Marion Co (No Marion) SD #15	OR	Series 2018 A General Obligation Bonds	GO	NEG	SOLE
02/06/18	26	Harris Co (Deer Park) ISD	TX	Series 2018 Unltd Tax School Building	GO	NEG	LEAD
01/31/18	17	Sonoma Co (Rincon Vly) USD	CA	Series B General Obligation Bonds	GO	NEG	SOLE
01/30/18	24	Washington (Sherwood) SD #88J	OR	Series 2018 B General Obligation Bonds	GO	NEG	SOLE
01/30/18	95	Washington (Sherwood) SD #88J	OR	Series 2018 A General Obligation Bonds	GO	NEG	SOLE
01/25/18	5	Carroll CSD	IA	Series 2018 GO School Capital Loan	GO	NEG	SOLE
01/25/18	1	Golf Maine Park Dt	IL	Series 2018 GO Limited Tax Park Bonds	GO	PVT	SOLE
01/17/18	120	Harris Co (Pasadena) ISD	TX	Series 2018 Unltd Tax School Building	GO	NEG	LEAD
01/11/18	133	Harris Co (Tomball) ISD	TX	Series 2018 Unltd Tax School Building	GO	NEG	CO-MGR
01/10/18	10	Mercer Co (Farrell) ASD	PA	Series of 2018 General Obligation Bonds	GO	NEG	SOLE
01/10/18	61	Texas Water Development Board	TX	Series 2018 A Wtr Financial Assist & Ref	GO	NEG	CO-MGR
12/29/17	7	Prineville-Oregon	OR	Series 2017 Full Faith & Credit Ref Fin	GO	PVT	SOLE
12/28/17	4	Cherokee Co (Galena) USD #499	KS	Series 2017 GO Refunding Bonds	GO	PVT	SOLE
12/28/17	40	Virginia Small Business Fin Auth	VA	Series 2017 Qual Energy Conservation	GO	PVT	SOLE
12/20/17	37	Wyandotte Co/Kansas City Uni Gov Pub Bldg	KS	Series 2017 D GO Refunding Bonds	GO	NEG	SOLE
12/19/17	1	Center Point City-Alabama	AL	Series 2017-B General Obligation	GO	NEG	SOLE
12/19/17	1	Center Point City-Alabama	AL	Series 2017-A General Obligation	GO	NEG	SOLE
12/19/17	49	Pima Co (Tucson) USD #1	AZ	Series 2017 Refunding Bonds	GO	NEG	CO-MGR
12/18/17	3	McHenry Co (Cary) CCSD #26	IL	Series 2017 C Ceht Certificates	GO	PVT	SOLE
12/18/17	19	Lafayette Co (Oxford) SD	MS	Series 2017 GO Refunding Bonds	GO	NEG	LEAD
12/15/17	7	Merced Co (Weaver) USD	CA	Series 2017 A General Obligation Bonds	GO	NEG	SOLE
12/15/17	9	Longview City-Washington	WA	Series 2017 Limited Tax GO & Refunding	GO	NEG	SOLE
12/15/17	27	Gavilan Jt Community College Dt	CA	2017 Series GO Refunding Bonds	GO	NEG	LEAD
12/14/17	72	Chester Co-Pennsylvania	PA	Series of 2017 General Obligation Bonds	GO	NEG	CO-MGR
12/14/17	174	Montgomery Co (Conroe) ISD	TX	Series 2018 Unltd Tax School Building	GO	NEG	CO-MGR
12/14/17	4	Mason Co-Washington	WA	Series 2017 Limited Tax GO Refunding	GO	NEG	SOLE
12/13/17	4	San Joaquin Co (Escalon) USD	CA	Series 2017 C General Obligation Bonds	GO	NEG	SOLE

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
12/13/17	37	Mobile Co-Alabama	AL	Series 2017 General Obligation Bonds	GO	NEG	CO-MGR
12/13/17	103	Oregon	OR	2017 Series U & V General Obligation	GO	NEG	CO-MGR
12/12/17	10	Sedgwick Co (Valley Ctr) USD #262	KS	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
12/12/17	268	Washington Co (Hillsboro) SD #1J	OR	Series 2017 General Obligation Bonds	GO	NEG	SOLE
12/12/17	46	San Bernardino Comm College Dt	CA	2017 Series A & B GO Refunding Bonds	GO	NEG	SOLE
12/11/17	1	San Juan (Orcas Island) SD #137	WA	Series 2017 B Unlimited Tax GO Bonds	GO	NEG	SOLE
12/11/17	9	San Juan (Orcas Island) SD #137	WA	Series 2017 A Unlimited Tax GO Bonds	GO	NEG	SOLE
12/07/17	7	Polk Co (Dallas) SD #2	OR	Series 2017 General Obligation Bonds	GO	NEG	SOLE
12/07/17	7	Santa Clara Co (Orchard) SD	CA	2017 Series GO Refunding Bonds	GO	NEG	SOLE
12/06/17	2	Genoa Twp Park Dt	IL	Series 2017 B GO Refunding Park Bonds	GO	PVT	SOLE
12/06/17	9	Arlington Heights Park Dt	IL	Series 2017 A & B GO Ltd Tx Park Bonds	GO	NEG	SOLE
12/06/17	8	Hartsville City-South Carolina	SC	Series 2017 Combined Syste Imp Rev	GO	PVT	SOLE
12/06/17	51	Sedgwick Co (Maize) USD #266	KS	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
12/06/17	71	Rancho-Santiago Comm College Dt	CA	2017 Series B General Obligation Bonds	GO	NEG	SOLE
12/05/17	6	Pleasant Prairie Vlg-Wisconsin	WI	Series 2017 GO Refunding Promissory	GO	NEG	SOLE
12/04/17	19	Osborne Co-Kansas	KS	Series 2017 GO & Temporary Bonds	GO	PVT	SOLE
12/01/17	42	Bexar Co (North East) ISD	TX	Series 2017 Unlimited Tax Refunding	GO	NEG	CO-MGR
11/30/17	10	North Strabane Twp-Pennsylvania	PA	Series of 2017 General Obligation Bonds	GO	NEG	SOLE
11/30/17	9	Jackson Co (Holton) USD #336	KS	Series 2017-B GO Refunding Bonds	GO	NEG	SOLE
11/30/17	93	Seward Co (Liberal) USD #480	KS	Series 2017-B GO Refunding Bonds	GO	NEG	SOLE
11/30/17	2	Helena City-Montana	MT	Series 2017 Limited Tax GO Bonds	GO	PVT	SOLE
11/30/17	32	Thurston Co (North Thurston) PSD	WA	Series 2017 General Obligation Bonds	GO	NEG	SOLE
11/30/17	4	Woodburn City-Oregon	OR	Series 2017 GO Refunding Bonds	GO	PVT	SOLE
11/30/17	16	Imperial Community College Dt	CA	2017 Series GO Refunding Bonds	GO	NEG	SOLE
11/29/17	6	Fulton Co (Southern Fulton) SD	PA	Series of 2017 General Obligation Bonds	GO	NEG	SOLE
11/29/17	18	Johnson Co (Olathe) USD #233	KS	Series 2017 B GO Refunding Bonds	GO	NEG	SOLE
11/29/17	78	Cook Co Comm College Dt #508	IL	Series 2017 Unltd Tax GO Dedicated Rev	GO	NEG	CO-MGR
11/22/17	25	Scott Co USD #466	KS	Series 2017-A General Obligation Bonds	GO	NEG	SOLE
11/22/17	21	Gadsden City-Alabama	AL	Series 2017 B General Obligation	GO	NEG	SOLE
11/21/17	42	Geary Co USD #475	KS	Series 2017 C General Obligation Bonds	GO	NEG	SOLE
11/21/17	77	Geary Co USD #475	KS	Series 2017 A & B GO & Refunding Bonds	GO	NEG	SOLE
11/21/17	26	West Haven City-Connecticut	CT	Issue of 17 Ser A&B General Obligation	GO	NEG	SOLE
11/17/17	9	Johnson Co (Grandview) ISD	TX	Series 2017 Unlimited Tax Refunding	GO	NEG	SOLE
11/17/17	10	McHenry Co (Huntley) CSD #158	IL	Series 2017 GO Refunding School Bonds	GO	NEG	SOLE
11/17/17	14	Waterbury City-Connecticut	CT	Issue of 2017 Ser B GO Refunding Bonds	GO	NEG	SOLE
11/17/17	50	Waterbury City-Connecticut	CT	Issue of 2017 Ser A General Obligation	GO	NEG	SOLE
11/16/17	3	Wolcott Town-Connecticut	CT	Issue of 2017 Ser B GO Refunding Bonds	GO	NEG	SOLE
11/16/17	83	Long Beach Comm College Dt	CA	2017 Series G GO Refunding Bonds	GO	NEG	CO-MGR
11/16/17	18	Falmouth Town-Maine	ME	2017 Series GO Refunding Bonds	GO	NEG	SOLE
11/16/17	49	Marin Comm College Dt	CA	2017 Series GO Refunding Bonds	GO	NEG	SOLE
11/15/17	8	Bethel Park Municipal Authority	PA	Series of 2017 General Obligation Bonds	GO	NEG	SOLE
11/14/17	59	Bridgeport City-Connecticut	CT	Series 2017 B & C GO Refunding Bonds	GO	NEG	CO-MGR
11/14/17	19	Pflugerville City-Texas	TX	Series 2017 A & B Comb Tax & Ltd Rev	GO	NEG	CO-MGR
11/14/17	35	Bridgeport City-Connecticut	CT	Series 2017 A General Obligation Bonds	GO	NEG	CO-MGR
11/14/17	110	Champaign CUSD #4	IL	Series 2017 GO School Building Bonds	GO	NEG	CO-MGR
11/14/17	31	Pflugerville City-Texas	TX	Series 2017 Limited Tax & Refunding	GO	NEG	CO-MGR
11/14/17	51	Clark Co (Camas) SD #117	WA	Series 2017 Unlimited Tax GO Bonds	GO	NEG	SOLE
11/14/17	1	Niles Park Dt	IL	Series 2017 GO Limited Park Bonds	GO	PVT	SOLE
11/10/17	62	Johnson Co (Olathe) USD #233	KS	Series 2017 A GO School Bonds	GO	NEG	SOLE
11/09/17	72	Williamson Co (Georgetown) ISD	TX	Series 2017 A Unlimited Tax Refunding	GO	NEG	CO-MGR
11/08/17	10	Allegheny Co (So Allegheny) SD	PA	Series A & B of 2017 GO & Refunding	GO	NEG	SOLE
11/08/17	140	Southwestern Comm College Dt	CA	Series A General Obligation Bonds	GO	NEG	LEAD

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
11/08/17	4	Sycamore-Illinois	IL	Series 2017 GO Refunding Bonds	GO	PVT	SOLE
11/07/17	2	Madison Co SD #321	ID	Series 2017 B General Obligation Bonds	GO	NEG	SOLE
11/07/17		Pleasant Prairie Vlg-Wisconsin	WI	Series 2017 B GO Promissory Notes	GO	NEG	SOLE
11/07/17	21	Madison Co SD #321	ID	Series 2017 A & B General Obligation	GO	NEG	SOLE
11/07/17	69	Pierce Co (Franklin Pierce) SD #402	WA	Series 2017 Unlimited Tax GO Bonds	GO	NEG	SOLE
11/03/17	14	Greeley Co Unified Govt	KS	Series 2017-B GO Refunding &	GO	NEG	SOLE
11/03/17	25	Bristol City-Connecticut	CT	Ser B Issue of 2017 GO Refunding Bonds	GO	NEG	SOLE
11/01/17	3	Mattoon City-Illinois	IL	Series 2017 B GO Refunding Alt Rev	GO	PVT	SOLE
11/01/17	4	Mattoon City-Illinois	IL	Series 2017 A GO Refunding Alt Rev	GO	PVT	SOLE
10/25/17	5	North Fayette Twp-Pennsylvania	PA	Series of 2017 GO Refunding Bonds	GO	NEG	SOLE
10/25/17	4500	Illinois	IL	Ser of Nov 2017 D General Obligation	GO	NEG	CO-MGR
10/24/17	44	King Co (Renton) SD #403	WA	Series 2017 Unlimited Tax GO Refunding	GO	NEG	SOLE
10/23/17	8	Hamilton Co (Webster City) CSD	IA	Series 2017 GO School Refunding Bonds	GO	PVT	SOLE
10/18/17	5	Oregon	OR	2017 Series T General Obligation Bonds	GO	NEG	CO-MGR
10/18/17	12	Oregon	OR	2017 Series S General Obligation Bonds	GO	NEG	CO-MGR
10/18/17	17	Oregon	OR	2017 Series R General Obligation Bonds	GO	NEG	CO-MGR
10/17/17	21	San Bernardino City USD	CA	Series E General Obligation Bonds	GO	NEG	SOLE
10/17/17	32	San Bernardino City USD	CA	Series D General Obligation Bonds	GO	NEG	SOLE
10/17/17	4	Loves Park City-Illinois	IL	Series 2017 GO Refunding Bonds	GO	PVT	SOLE
10/16/17	2	Flossmoor Vlg-Illinois	IL	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
10/12/17	91	Fort Bend ISD	TX	Series 2017 E Unlimited Tax Refunding	GO	NEG	CO-MGR
10/12/17	75	Maricopa Co Spec Health Care Dt	AZ	Series 2017 B General Obligation Bonds	GO	PVT	SOLE
10/11/17	25	Trumbull Town-Connecticut	CT	Issue of 2017 Ser B GO Refunding Bonds	GO	NEG	LEAD
10/04/17	3	Boone Co-Iowa	IA	Series 2017 GO Refunding Capital Loan	GO	PVT	SOLE
10/04/17	2	East Syracuse-Minoa CSD	NY	Series 2017 GO School Dt Ref Serial	GO	NEG	SOLE
10/02/17	1	Woodridge Park Dt	IL	Series 2017 Limited Tax Park Bonds	GO	PVT	SOLE
09/28/17	63	San Joaquin Co (Manteca) USD	CA	Series B General Obligation Bonds	GO	NEG	LEAD
09/28/17	1	Reno Co-Kansas	KS	Series 2017-A .55General Obligation	GO	PVT	SOLE
09/28/17	85	Collin Co (Richardson) ISD	TX	Series 2017 Unlimited Tax Refunding	GO	NEG	CO-MGR
09/28/17	5	Cowlitz Co (Longview) SD #122	WA	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
09/28/17	4	Klamath Falls City-Oregon	OR	Series 2017 GO Refunding Bonds	GO	PVT	SOLE
09/26/17	160	Chabot-Las Positas Comm Coll Dt	CA	Series A General Obligation Bonds	GO	NEG	LEAD
09/21/17	9	Ridgefield City-Washington	WA	Series 2017 Limited Tax GO Bonds	GO	NEG	SOLE
09/20/17	4	Oswegoland Park Dt	IL	Series 2017 A & B Ltd Park Bonds &	GO	PVT	SOLE
09/20/17	24	Los Angeles Co (Redondo Beach) USD	CA	2017 Series GO Refunding Bonds	GO	NEG	SOLE
09/14/17	10	Sylacauga City-Alabama	AL	Series 2017-B General Obligation	GO	NEG	SOLE
09/14/17	2	Sylacauga City-Alabama	AL	Series 2017-A General Obligation	GO	NEG	SOLE
09/14/17	51	Oregon	OR	2017 Series N P Q GO & Refunding Bonds	GO	NEG	CO-MGR
09/13/17	9	Yakima Co (Sunnyside) SD #201	WA	Series 2017 Unlimited Tax GO Refunding	GO	NEG	SOLE
09/12/17	100	West Valley-Mission Comm Coll Dt	CA	Series 2017 C General Obligation Bonds	GO	NEG	CO-MGR
09/12/17	4	Madera Co (Golden Valley) USD	CA	2017 Series GO Refunding Bonds	GO	NEG	SOLE
09/12/17	24	Madera Co (Golden Valley) USD	CA	2017 Series GO Refunding Bonds	GO	NEG	SOLE
09/07/17	2	Tama-Iowa	IA	Series 2017 GO Corporate Purpose & Ref	GO	PVT	SOLE
08/31/17	12	Owyhee Co (Marsing) JSD #363	ID	Series 2017 General Obligation Bonds	GO	NEG	SOLE
08/31/17	1	South Hutchinson City-Kansas	KS	Series 2017 General Obligation Bonds	GO	PVT	SOLE
08/30/17	1	New Lenox Comm Park Dt	IL	Series 2017 GO Limited Tax Bonds	GO	PVT	SOLE
08/29/17	5	Austin City-Texas	TX	Series 2017 Pub Imp & Certs of Oblig &	GO	NEG	LEAD
08/29/17	25	Austin City-Texas	TX	Series 2017 Public Improvement Bonds	GO	NEG	LEAD
08/29/17	30	Austin City-Texas	TX	Series 2017 Certificates of Obligation	GO	NEG	LEAD
08/29/17	64	Austin City-Texas	TX	Series 2017 Public Improvement Bonds	GO	NEG	LEAD
08/29/17	9	Canyon Co (Nampa) SD #131	ID	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
08/29/17	2538	California	CA	GO Various Purpose & Ref Bonds	GO	NEG	CO-MGR

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
08/24/17	81	Kendall Co (Boerne) ISD	TX	Series 2017 Unltd Tax School Building	GO	NEG	CO-MGR
08/24/17	4	Clallam Co (Sequim) SD #323	WA	Series 2017 Limited General Obligation	GO	PVT	SOLE
08/24/17	9	Pendleton City-Oregon	OR	Series 2017 General Obligation Bonds	GO	NEG	SOLE
08/23/17	4	Minnesota Tax & Aid Borrow Prog	MN	Series 2017 A Aid Anticipation COPs	GO	NEG	SOLE
08/23/17	26	Norwalk City-Connecticut	CT	Issue of 2017 Ser B GO Refunding Bonds	GO	NEG	SOLE
08/23/17	56	West Contra Costa USD	CA	2017 Series A-2 GO Refunding Bonds	GO	NEG	CO-MGR
08/23/17	4	West Contra Costa USD	CA	2017 Series A-1 GO Refunding Bonds	GO	NEG	CO-MGR
08/22/17	100	Miracosta Community College Dt	CA	Series A General Obligation Bonds	GO	NEG	LEAD
08/22/17	17	Kenosha City-Wisconsin	WI	Series 2017 A GO Promissory Notes	GO	NEG	SOLE
08/22/17	47	Howard Co (Big Spring) ISD	TX	Series 2017 Unlimited Tax Refunding	GO	NEG	CO-MGR
08/22/17	98	Montgomery Co (Conroe) ISD	TX	Series 2017 Unlimited Tax Refunding	GO	NEG	LEAD
08/22/17	10	Kenosha City-Wisconsin	WI	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
08/21/17	33	Fayette Co (La Grange) ISD	TX	Series 2017 Unlimited Tax School Bldg	GO	NEG	CO-MGR
08/17/17	165	Cook Co-Illinois	IL	Series 2017 Sales Tax Revenue Bonds	GO	NEG	CO-MGR
08/17/17	5	Lake Delhi Comb Rec Fac & Wtr Quality Dt	IA	GO Refunding Bonds	GO	PVT	SOLE
08/16/17	20	Honolulu City & Co-Hawaii	HI	Series 2017 G General Obligation Bonds	GO	NEG	CO-MGR
08/16/17	4	Honolulu City & Co-Hawaii	HI	Series 2017 F General Obligation Bonds	GO	NEG	CO-MGR
08/16/17	4	Honolulu City & Co-Hawaii	HI	Series 2017 C General Obligation Bonds	GO	NEG	CO-MGR
08/16/17	389	Honolulu City & Co-Hawaii	HI	Series 2017 ABD&E General Obligation	GO	NEG	CO-MGR
08/16/17	18	Harris Co (Deer Park) ISD	TX	Series 2017 Limited Tax Refunding Bonds	GO	NEG	CO-MGR
08/16/17	9	Okanogan Co Pub Hospital Dt #4	WA	Series 2017 Unltd Tax GO Refunding	GO	NEG	SOLE
08/16/17	67	Whatcom Co (Bellingham) SD #501	WA	Series 2017 Unltd Tax GO & Refunding	GO	NEG	SOLE
08/15/17	160	Clackamas (Lake Oswego) SD #7J	OR	Series 2017 General Obligation Bonds	GO	NEG	CO-MGR
08/15/17	9	Tillamook SD #9	OR	Series 2017 GO & Refunding Bonds	GO	NEG	SOLE
08/10/17	2	Utmatilla Co (Pilot Rock) SD #2R	OR	Series 2017 GO Refunding Bonds	GO	PVT	SOLE
08/10/17	4	South Windsor Town-Connecticut	CT	Issue of 2017 Ser B GO Refunding Bonds	GO	NEG	SOLE
08/09/17	104	King Co (Issaquah) SD #411	WA	Series 2017 Unlimited Tax GO Bonds	GO	NEG	SOLE
08/03/17	6	Brewton City-Alabama	AL	Series 2017-A & B GO & Gas Revenue	GO	NEG	SOLE
08/03/17	3	Jackson Co (Rogue River) SD #35	OR	Series 2017 General Obligation Bonds	GO	PVT	SOLE
08/03/17	9	Saline Co (Salina) USD #305	KS	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
08/03/17	77	New Haven City-Connecticut	CT	Issue of 2017Ser A&B GO & Refunding	GO	NEG	CO-MGR
08/02/17	79	Collin Co (McKinney) ISD	TX	Series 2017 Unlimited Tax School Bldg	GO	NEG	CO-MGR
08/02/17	180	San Antonio City-Texas	TX	Series 2017 Gen Imp Bonds & Comb Tax	GO	NEG	LEAD
08/01/17	3	Columbia Co (Clatskanie) SD #6J	OR	Series 2017 GO Refunding Bonds	GO	PVT	SOLE
08/01/17	1	Fremont Co (Hamburg) CSD	IA	Series 2017 GO School Capital Loan	GO	PVT	SOLE
08/01/17	3	Union Co (North Powder) SD #8J	OR	Series 2017 General Obligation Bonds	GO	NEG	SOLE
08/01/17	5	Cotton Ranch Metropolitan Dt	CO	GO Refunding Notes	GO	PVT	SOLE
07/27/17	8	Allegheny Co (Sto-Rox) SD	PA	Series of 2017 General Obligation Bonds	GO	NEG	SOLE
07/27/17	5	Emmet (Estherville Lincoln) CCSD	IA	Series 2017 GO School Refunding Bonds	GO	PVT	SOLE
07/26/17	60	Contra Costa Co (Liberty) UHSD	CA	Series A General Obligation Bonds	GO	NEG	SOLE
07/26/17	3	Dunkirk City-New York	NY	Series 2017 Pub Improvment Ref Serial	GO	NEG	SOLE
07/26/17	63	Kitsap Co (Central Kitsap) SD #401	WA	Series 2017 General Obligation Bonds	GO	NEG	SOLE
07/26/17	13	Bloomfield Town-Connecticut	CT	Issue of 2017 GO Refunding Bonds	GO	NEG	SOLE
07/24/17	6	Kirkwood Community College	IA	Series 2017 GO School Refunding Bonds	GO	NEG	SOLE
07/21/17	20	Erie Co-Pennsylvania	PA	Series of 2017 GO Refunding Bonds	GO	NEG	SOLE
07/21/17	12	Marion Co (Jefferson) SD #14-J	OR	Series 2017 B General Obligation Bonds	GO	NEG	SOLE
07/21/17	2	Marion Co (Jefferson) SD #14-J	OR	Series 2017 A General Obligation Bonds	GO	NEG	SOLE
07/20/17	3	Columbia Co (Vernonia) SD #47J	OR	Series 2017 B General Obligation Bonds	GO	NEG	SOLE
07/20/17	1	Dubuque Co-Iowa	IA	Series 2017 General Obligation BANs	GO	PVT	SOLE
07/19/17	4	Allegheny Co (Wilkinsburg Boro) SD	PA	Series of 2017 General Obligation Bonds	GO	NEG	SOLE
07/19/17		Linn Co (Center Point-Urbana) CSD	IA	Series 2017 B GO School Bonds	GO	PVT	SOLE
07/19/17	4	Columbia Co (Vernonia) SD #47J	OR	Series 2017 A General Obligation Bonds	GO	NEG	SOLE

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
07/18/17	28	Flower Mound Town-Texas	TX	Series 2017 & A GO Refunding & Certs of	GO	NEG	LEAD
07/18/17	20	Titus Co-Texas	TX	Series 2017 Unlimited Tax Refunding	GO	NEG	CO-MGR
07/18/17		Lake Winnebago City-Missouri	MO	Series 2017 General Obligation Bonds	GO	PVT	SOLE
07/18/17	12	Pleasant Prairie Vlg-Wisconsin	WI	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
07/14/17	3	South Hutchinson City-Kansas	KS	Series 2017 GO Temporary Notes	GO	NEG	SOLE
07/13/17	152	Linn Co (Greater Albany) SD #8J	OR	Series 2017 General Obligation Bonds	GO	NEG	SOLE
07/11/17	2	Mill City-Oregon	OR	Series 2017 Full Faith & Credit Ref Oblig	GO	PVT	SOLE
06/28/17	4	Pitcairn Boro-Pennsylvania	PA	Series of 2017 General Obligation Bonds	GO	NEG	SOLE
06/28/17	9	Seward Co (Liberal) USD #480	KS	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
06/27/17	4	Wethersfield Town-Connecticut	CT	Series 2017 A GO Refunding Bonds	GO	NEG	SOLE
06/27/17	40	Dallas Co (Sunnyvale) ISD	TX	Series 2017 Unltd Tax School Building	GO	NEG	CO-MGR
06/26/17	1	Fremont Co (Hamburg) CSD	IA	Series 2017 GO School Capital Loan	GO	PVT	SOLE
06/22/17	15	Waterford Town-Connecticut	CT	Issue of 2017 GO Refunding Bonds	GO	NEG	SOLE
06/21/17	8	Imperial Co (El Centro) ESD	CA	Series A General Obligation Bonds	GO	NEG	SOLE
06/21/17	2	Rice Co (Sterling) USD #376	KS	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
06/20/17	4	Pleasant Prairie Vlg-Wisconsin	WI	Series 2017 B GO Promissory Notes	GO	NEG	SOLE
06/20/17	3	Lockport Twp Park Dt	IL	Series 2017 GO Limited Tax Park Bonds	GO	PVT	SOLE
06/20/17	8	Port of Skagit Co-Washington	WA	Series 2017 Limited Tax GO Bonds	GO	NEG	SOLE
06/19/17	21	Pleasant Prairie Vlg-Wisconsin	WI	Series 2017 GO Promissory Notes	GO	NEG	SOLE
06/16/17		King Co (Vashon Island) SD #402	WA	Series 2017 B General Obligation Bonds	GO	NEG	SOLE
06/16/17	9	King Co (Vashon Island) SD #402	WA	Series 2017 A General Obligation Bonds	GO	NEG	SOLE
06/15/17	7	Huntington Trails Metro Dt	CO	Series 2017 GO Limited Tax Refunding	GO	NEG	SOLE
06/14/17	3	El Paso Co (Socorro) ISD	TX	Series 2017 B Unlimited Tax Refunding	GO	NEG	LEAD
06/14/17	126	El Paso Co (Socorro) ISD	TX	Series 2017 B Unlimited Tax Refunding	GO	NEG	LEAD
06/14/17	36	El Paso Co (Socorro) ISD	TX	Series 2017 A Unlimited Tax Refunding	GO	NEG	LEAD
06/14/17	1	Roseburg City-Oregon	OR	Series 2017 Full Faith & Credit Ref Oblig	GO	PVT	SOLE
06/13/17	6	Los Angeles Co (Sulphur Springs) USD	CA	Series 2017 D General Obligation Bonds	GO	NEG	SOLE
06/13/17	26	Los Angeles Co (Paramount) USD	CA	Series 2017 A General Obligation Bonds	GO	NEG	LEAD
06/13/17	5	Emmet (Estherville Lincoln) CCSD	IA	Series 2017 GO School Refunding Bonds	GO	PVT	SOLE
06/12/17	1	Greeley Co-Kansas	KS	Series 2017-A General Obligation Bonds	GO	PVT	SOLE
06/07/17	7	Imperial Co (Brawley) ESD	CA	2017 & Series A GO & Refunding Bonds	GO	NEG	SOLE
06/06/17	106	Brazoria Co (Pearland) ISD	TX	Series 2017 Unlimited Tax School Bldg	GO	NEG	LEAD
06/06/17	17	Riverside Co (Beaumont) USD	CA	Series 2017 GO Refunding Bonds	GO	PVT	SOLE
06/05/17	2	Wabuansee (Mill Creek) USD #329	KS	Series 2017 GO Refunding Bonds	GO	PVT	SOLE
06/05/17	800	Los Angeles Co-California	CA	2017-18 Series TRANS	GO	NEG	CO-MGR
06/01/17	7	Kern Co (Lost Hills) USD	CA	Series A General Obligation Bonds	GO	NEG	SOLE
06/01/17	51	Nez Perce Co (Lewiston) ISD #1	ID	Series 2017 A & B General Obligation	GO	NEG	SOLE
06/01/17	12	Orange Co (Buena Park) SD	CA	Series 2017 General Obligation Bonds	GO	NEG	SOLE
05/31/17	20	Clackamas Comm College Dt	OR	Series 2017 B General Obligation Bonds	GO	NEG	SOLE
05/31/17	25	Clackamas Comm College Dt	OR	Series 2017 A General Obligation Bonds	GO	NEG	SOLE
05/31/17	219	Travis Co (Austin) ISD	TX	Series 2017 Unltd Tax School Bldg & Ref	GO	NEG	LEAD
05/24/17	4	Castle Shannon Boro-Pennsylvania	PA	Series of 2017 General Obligation Bonds	GO	NEG	SOLE
05/24/17	91	Denton Co (Northwest) ISD	TX	Series 2017 Unltd Tax School Building	GO	NEG	CO-MGR
05/23/17	30	Los Angeles Co (Claremont) USD	CA	Series A General Obligation Bonds	GO	NEG	SOLE
05/23/17	16	Richland City-Washington	WA	Series 2017 Limited Tax GO & Refunding	GO	NEG	SOLE
05/17/17	8	Monroeville Municipality-Pennsylvania	PA	Series of 2017 General Obligation Bonds	GO	NEG	SOLE
05/17/17	2	Dolan-West Dolan Fire Protect Dt	MO	Series E 2017 General Obligation Bonds	GO	PVT	SOLE
05/17/17	4	Ada Co (Kuna) JSD #3	ID	Series 2017 B General Obligation Bonds	GO	NEG	SOLE
05/17/17	31	Ada Co (Kuna) JSD #3	ID	Series 2017 A & B General Obligation	GO	NEG	SOLE
05/17/17	2	Lewis Co (Boistfort) SD #234	WA	Series 2017 Unlimited Tax GO Bonds	GO	NEG	SOLE
05/17/17	5	Lynden City-Washington	WA	Series 2017 Ltd Tax & GO Refunding	GO	NEG	SOLE
05/17/17	27	Maricopa Co (Phoenix) UHSD #210	AZ	Series 2017 Refunding Bonds	GO	NEG	SOLE

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
05/16/17	4	Riverside Co (Beaumont) USD	CA	Series D General Obligation Bonds	GO	NEG	SOLE
05/16/17	10	Riverside Co (Beaumont) USD	CA	Series D General Obligation Bonds	GO	NEG	SOLE
05/16/17	70	Clackamas Co (Oregon Trail) SD #46	OR	Series 2017 GO Refunding Bonds	GO	NEG	CO-MGR
05/16/17	2	Grays Harbor Co (Ocosta) SD #172	WA	Series 2017 Limited General Obligation	GO	PVT	SOLE
05/16/17	37	Snohomish (Stanwood) SD #401	WA	Series 2017 Unlimited Tax GO Bonds	GO	NEG	SOLE
05/12/17	8	Lower Kennebec Region Sch Unit #1	ME	2017 Series GO Refunding Bonds	GO	NEG	SOLE
05/11/17	1	Arnolds Park City-Iowa	IA	Series 2017 GO Capital Loan Notes	GO	NEG	SOLE
05/09/17	6	Iowa Higher Ed Loan Authority	IA	Series 2017 A RANs	GO	NEG	SOLE
05/08/17	2	Hampton-Iowa	IA	Series 2017 GO Capital Loan Notes	GO	PVT	SOLE
05/05/17	4	Lyon Co (Emporia) USD #253	KS	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
05/04/17	100	Riverside USD	CA	Series A General Obligation Bonds	GO	NEG	SOLE
05/04/17	5	Johnson Co (Spring Hill) USD #230	KS	Series 2017-B GO Refunding Bonds	GO	NEG	SOLE
05/03/17	72	Clark Co (Ridgefield) SD #122	WA	Series 2017 General Obligation Bonds	GO	NEG	SOLE
05/03/17	31	Crawford Co (Pittsburg) USD #250	KS	Series 2017 General Obligation Bonds	GO	NEG	SOLE
05/02/17	71	Alameda Co (San Leandro) USD	CA	Series A & 2017 GO & Refunding Bonds	GO	NEG	SOLE
05/02/17	85	Ada Co (Boise City) ISD	ID	Series 2017 General Obligation Bonds	GO	NEG	SOLE
05/01/17	9	Jackson Co (Holton) USD #336	KS	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
05/01/17	16	Pleasant Prairie Vlg-Wisconsin	WI	Series 2017 GO Promissory Notes	GO	NEG	SOLE
05/01/17	22	Pleasant Prairie Vlg-Wisconsin	WI	Series 2017 Note Anticipation Notes	GO	NEG	SOLE
04/27/17	31	Bucks Co-Pennsylvania	PA	Series of 2017 General Obligation Bonds	GO	NEG	LEAD
04/27/17	29	Round Rock City-Texas	TX	Series 2017 General Obligation Bonds	GO	NEG	CO-MGR
04/26/17	149	Washington Co (Beaverton) SD #48J	OR	Series 2017 D General Obligation Bonds	GO	NEG	SOLE
04/26/17	33	Washington Co (Beaverton) SD #48J	OR	Series 2017 C General Obligation Bonds	GO	NEG	SOLE
04/26/17	76	Washington Co (Beaverton) SD #48J	OR	Series 2017 B General Obligation Bonds	GO	NEG	SOLE
04/26/17	39	Washington Co (Beaverton) SD #48J	OR	Series 2017 A General Obligation Bonds	GO	NEG	SOLE
04/26/17	12	Fresno Co (Kerman) USD	CA	Series 2017 General Obligation Bonds	GO	NEG	SOLE
04/25/17	7	Allegheny Co (Hampton) TSD	PA	Series of 2017 General Obligation Bonds	GO	NEG	SOLE
04/25/17	1	Merced Co CSD	CA	Series 2017 General Obligation Bonds	GO	NEG	SOLE
04/25/17	11	Merced Co CSD	CA	Series 2017 General Obligation Bonds	GO	NEG	SOLE
04/20/17	300	California	CA	Series 2017 C High-Speed Passenger	GO	NEG	CO-MGR
04/20/17	300	California	CA	Series 2017 B High-Speed Passenger	GO	NEG	CO-MGR
04/20/17	648	California	CA	Series 2017 A High-Speed Passenger	GO	NEG	CO-MGR
04/20/17	4	Jackson Co-Oregon	OR	Series 2017 GO Refunding Bonds	GO	PVT	SOLE
04/19/17	59	Clark Co (Vancouver) SD #37	WA	Series 2017 Unlimited Tax GO Bonds	GO	NEG	LEAD
04/19/17	9	Imperial Co (Calxico) USD	CA	2017 Series Refunding GO Bonds	GO	NEG	SOLE
04/18/17	262	Fort Bend Co (Katy) ISD	TX	Series 2017 Unltd Tax School Building	GO	NEG	CO-MGR
04/12/17	2	Asbury City-Iowa	IA	Series 2017 GO Corporate Purpose Bonds	GO	NEG	SOLE
04/12/17	50	Santa Clarita Comm College Dt	CA	Series 2017 General Obligation Bonds	GO	NEG	SOLE
04/12/17	3	Sioux Co (Sioux Center) CSD	IA	Series 2017 Infra Sales Svcs & Use Tx	GO	PVT	SOLE
04/11/17	2	Okoboji City-Iowa	IA	Series 2017 GO Capital Loan Notes	GO	PVT	SOLE
04/11/17	102	Palomar Community Coll Dt	CA	2017 Series GO Refunding Bonds	GO	NEG	SOLE
04/10/17	8	El Paso Co (Canutillo) ISD	TX	Series 2017 Unlimited Tax Refunding	GO	NEG	LEAD
04/06/17	90	Solano Comm College Dt	CA	Series C General Obligation Bonds	GO	NEG	LEAD
04/05/17	8	Galesburg City-Illinois	IL	Series 2017 GO Refunding Bonds	GO	NEG	CO-MGR
04/04/17	4	Chemeketa Community College Dt	OR	Series 2017 Refunding Financing	GO	PVT	SOLE
04/04/17	149	Oregon	OR	2017 Series L GO Higher Education Bonds	GO	NEG	CO-MGR
04/04/17	54	Oregon	OR	2017 Series J GO Higher Education Bonds	GO	NEG	CO-MGR
04/04/17	126	Oregon	OR	2017 Series I GO Higher Education Bonds	GO	NEG	CO-MGR
04/03/17	2	New Hampton City-Iowa	IA	Series 2017 GO Capital Loan Notes	GO	PVT	SOLE
04/03/17	1	Palatine Park Dt	IL	Limited Park Bonds	GO	PVT	SOLE
03/29/17	5	Grimes City-Iowa	IA	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
03/29/17	23	Connecticut	CT	2017 Series B-3 GO Refunding Bonds	GO	NEG	CO-MGR

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
03/29/17	142	Connecticut	CT	2017 Series B-2 GO Refunding Bonds	GO	NEG	CO-MGR
03/29/17	32	Connecticut	CT	2017 Series B-1 GO Refunding Bonds	GO	NEG	CO-MGR
03/29/17	60	Connecticut	CT	2017 Series A-6 General Obligation Bonds	GO	NEG	CO-MGR
03/29/17	18	Connecticut	CT	2017 Series A-5 General Obligation Bonds	GO	NEG	CO-MGR
03/29/17	134	Connecticut	CT	2017 Series A-4 General Obligation Bonds	GO	NEG	CO-MGR
03/29/17	56	Connecticut	CT	2017 Series A-3 General Obligation Bonds	GO	NEG	CO-MGR
03/29/17	274	Connecticut	CT	2017 Series A-2 General Obligation Bonds	GO	NEG	CO-MGR
03/29/17	7	Connecticut	CT	2017 Series A-1 General Obligation Bonds	GO	NEG	CO-MGR
03/28/17	8	Glenn Co (Willows) USD	CA	2017 Series A General Obligation Bonds	GO	NEG	SOLE
03/23/17	23	Imperial Co (Calexico) USD	CA	Series A General Obligation Bonds	GO	NEG	SOLE
03/23/17	19	Solano Co (Dixon) USD	CA	Series 2017 General Obligation Bonds	GO	NEG	SOLE
03/22/17	139	Palomar Community Coll Dt	CA	Series D General Obligation Bonds	GO	NEG	SOLE
03/22/17	4	Chicago Heights City-Illinois	IL	Series 2017 B General Obligation Bonds	GO	NEG	SOLE
03/22/17	5	Chicago Heights City-Illinois	IL	Series 2017 A GO Refunding Bonds	GO	NEG	SOLE
03/22/17	4	Niskayuna Town-New York	NY	Series 2017 GO Public Imp Ref Serial	GO	NEG	SOLE
03/21/17	10	Indiana Co (Armstrong) SD	PA	Series of 2017 General Obligation Bonds	GO	NEG	SOLE
03/21/17	49	Brazoria Co (Alvin) ISD	TX	Series 2017 Unlimited Tax Schoolhouse	GO	NEG	LEAD
03/21/17	6	Rensselaer Co (Lansingburgh) CSD	NY	Series 2017 School District Ref Serial	GO	NEG	SOLE
03/16/17	34	Antelope Valley Community Coll Dt	CA	Series A-1 General Obligation Bonds	GO	NEG	CO-MGR
03/16/17	116	Antelope Valley Community Coll Dt	CA	Series A General Obligation Bonds	GO	NEG	CO-MGR
03/16/17	10	Burlington City-Iowa	IA	Series 2017 B GO Corporate Purpose	GO	NEG	SOLE
03/15/17	3	Buena Vista Co (Storm Lake) CSD	IA	Series 2017 B GO School Refunding	GO	PVT	SOLE
03/15/17	1	Jefferson City-Iowa	IA	Series 2017 Urban Renewal Corp Purpose	GO	PVT	SOLE
03/14/17	4	Klamath Co SD	OR	Series 2017 Full Faith & Credit Obligations	GO	NEG	SOLE
03/14/17	4	Plainfield Town-Connecticut	CT	Issue of 2017 General Obligation Bonds	GO	NEG	SOLE
03/13/17	9	Shawnee (Auburn-Wash) USD #437	KS	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
03/13/17	24	Minnesota Housing Fin Agency	MN	2017 Series C Homeownership Finance	GO	NEG	CO-MGR
03/10/17	9	Johnson Co (Spring Hill) USD #230	KS	Series 2017-A GO Refunding Bonds	GO	NEG	SOLE
03/09/17	139	Texas Public Finance Auth (TPFA)	TX	Series 2017 A GO Refunding Bonds	GO	NEG	CO-MGR
03/09/17	4	Linn-Benton Comm Coll Dt	OR	Series 2017 Ltd Tax GO Financing	GO	PVT	SOLE
03/09/17	6	Navajo (Heber-Overgard) USD #6	AZ	Series 2017 Refunding Bonds	GO	PVT	SOLE
03/08/17	20	Coast Community College Dt	CA	Series 2017 E General Obligation Bonds	GO	NEG	CO-MGR
03/08/17	280	Coast Community College Dt	CA	Series 2017 D General Obligation Bonds	GO	NEG	CO-MGR
03/08/17	201	Tigard-Tualatin SD #23J	OR	Series 2017 General Obligation Bonds	GO	NEG	LEAD
03/06/17	7	Kenosha City-Wisconsin	WI	Series 2017 A GO Promissory Notes	GO	NEG	SOLE
03/06/17	3	Grundy Co (Dike-New Hartford) CSD	IA	Series 2017 GO School Refunding Bonds	GO	PVT	SOLE
03/02/17	12	Fresno Co (Fowler) USD	CA	Series A General Obligation Bonds	GO	NEG	SOLE
02/28/17	66	Clatsop (Seaside) SD #10	OR	Series 2017 B General Obligation Bonds	GO	NEG	SOLE
02/28/17	15	Clarksburg City-West Virginia	WV	Series 2017 A Sales Tax BANs	GO	PVT	SOLE
02/28/17	31	Clatsop (Seaside) SD #10	OR	Series 2017 A General Obligation Bonds	GO	NEG	SOLE
02/28/17	2	Elk Grove Park Dt	IL	Series 2017 Limited Park Bonds	GO	PVT	SOLE
02/28/17	4	Mason Co (North Mason) SD #403	WA	Series 2017 Limited General Obligation	GO	NEG	SOLE
02/28/17	1	Norwich City-Connecticut	CT	Issue of 2017 Ser B General Obligation	GO	NEG	SOLE
02/28/17	7	Norwich City-Connecticut	CT	Issue 2017 Series A General Obligation	GO	NEG	SOLE
02/27/17	5	Miami Co (Paola) USD #368	KS	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
02/23/17	2	Genesee Co-New York	NY	Series 2017 GO Public Improvement Ref	GO	NEG	SOLE
02/22/17	47	Columbia Co (St Helens) SD #502	OR	Series 2017 General Obligation Bonds	GO	NEG	SOLE
02/22/17	5	Duvall City-Washington	WA	Series 2017 Limited Tax GO Bonds	GO	PVT	SOLE
02/22/17	1	Huntley Park Dt	IL	Series 2017 GO Ltd Tax Park Bonds	GO	PVT	SOLE
02/17/17	5	Helena City-Montana	MT	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
02/16/17	33	Galveston Co (Santa Fe) ISD	TX	Series 2017 Unltd Tax School Bldg Bonds	GO	NEG	CO-MGR
02/15/17	6	Benton Co (Monroe) SD #1J	OR	Series 2017 General Obligation Bonds	GO	NEG	SOLE

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
02/14/17	168	Multnomah Co (Gresham-Barlow) SD #10JT	OR	Series 2017 B General Obligation Bonds	GO	NEG	SOLE
02/14/17	7	Burlington City-Iowa	IA	Series 2017 A GO Refunding Bonds	GO	NEG	SOLE
02/14/17	73	Multnomah Co (Gresham-Barlow) SD #10JT	OR	Series 2017 General Obligation Bonds	GO	NEG	SOLE
02/09/17	10	Adams Co SD #90	NE	Series 2017 GO School Building Bonds	GO	NEG	SOLE
02/08/17	17	Oregon	OR	2017 Series F General Obligation Bonds	GO	NEG	CO-MGR
02/08/17	48	Oregon	OR	2017 Series E General Obligation Bonds	GO	NEG	CO-MGR
02/08/17	25	Oregon	OR	2017 Series D General Obligation Bonds	GO	NEG	CO-MGR
02/08/17	106	Oregon	OR	2017 Series C General Obligation Bonds	GO	NEG	CO-MGR
02/08/17	43	Oregon	OR	2017 Series B General Obligation Bonds	GO	NEG	CO-MGR
02/08/17	238	Oregon	OR	2017 Series A General Obligation Bonds	GO	NEG	CO-MGR
02/07/17	39	Maricopa Co (Phoenix) UHSD #210	AZ	Series E (2017) School Improvement	GO	NEG	CO-MGR
02/07/17	4	Crow-Applegate-Lorane SD #66	OR	Series 2017 General Obligation Bonds	GO	NEG	SOLE
02/02/17	8	Malheur Co (Vale) SD #84	OR	Series 2017 General Obligation Bonds	GO	NEG	SOLE
01/31/17	2	Siskiyou Co (Yreka) UHSD	CA	Series B General Obligation Bonds	GO	NEG	SOLE
01/31/17	182	Clackamas (No Clackamas) SD #12	OR	Series 2017 B General Obligation Bonds	GO	NEG	LEAD
01/31/17	140	Clackamas (No Clackamas) SD #12	OR	Series 2017 A General Obligation Bonds	GO	NEG	LEAD
01/25/17	3	Barrington Park Dt	IL	Series 2017 B GO Refunding Park Bonds	GO	PVT	SOLE
01/25/17	59	Washington (Sherwood) SD #88J	OR	Series 2017 B General Obligation Bonds	GO	NEG	SOLE
01/25/17	1	Barrington Park Dt	IL	Series 2017 A GO Limited Tax Park Bonds	GO	PVT	SOLE
01/25/17	69	Washington (Sherwood) SD #88J	OR	Series 2017 A General Obligation Bonds	GO	NEG	SOLE
01/25/17	11	Twin Falls Co (Filer) SD #413	ID	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
01/24/17	199	Harris Co (Spring) ISD	TX	Series 2017 Unltd Tax School Building	GO	NEG	CO-MGR
01/24/17	35	Williamson Co (Georgetown) ISD	TX	Series 2017 Unltd Tax School Building	GO	NEG	CO-MGR
01/24/17	3	Iowa Great Lakes Sanitary Dt	IA	Series 2017 GO Capital Loan Notes	GO	PVT	SOLE
01/24/17	29	San Mateo (Belmont-Redwood Shores) SD	CA	2017 Series B GO Refunding Bonds	GO	NEG	LEAD
01/24/17	16	San Mateo (Belmont-Redwood Shores) SD	CA	2017 Series A GO Refunding Bonds	GO	NEG	LEAD
01/20/17	11	San Juan Co (Bloomfield) SD #6	NM	Series 2017 GO Refunding Bonds	GO	NEG	CO-MGR
01/18/17	8	Arrowhead Metropolitan Dt	CO	Series 2017 GO Refunding Bonds	GO	PVT	SOLE
01/12/17	34	University of Connecticut	CT	Series 2017 A GO Refunding Bonds	GO	NEG	LEAD
01/12/17	311	University of Connecticut	CT	Series 2017 A General Obligation Bonds	GO	NEG	LEAD
01/11/17	7	Riverside Co (Moreno Valley) USD	CA	2016 Series Special Tax Bonds	GO	NEG	SOLE
01/10/17	3	Latah Co (Genesee) JSD #282	ID	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
01/06/17	1	Oakbrook Terrace Comm Park Dt	IL	Series 2017 GO Limited Tax Park Bonds	GO	PVT	SOLE
01/05/17	4	McHenry Co (Cary) CCSD #26	IL	Series 2017 B Refunding School Bonds	GO	PVT	SOLE
01/05/17	1	McHenry Co (Cary) CCSD #26	IL	Series 2017 A Refunding School Bonds	GO	PVT	SOLE
01/05/17	168	El Paso Co (Ysleta) ISD	TX	Series 2017 Unltd Tax School Building	GO	NEG	LEAD
01/04/17	182	El Paso ISD	TX	Series 2017 Unltd Tax School Building	GO	NEG	LEAD
12/28/16	1	Chicago Heights Park Dt	IL	Series 2016 A Limited Tax Park Bonds	GO	PVT	SOLE
12/22/16	33	Tuscaloosa City-Alabama	AL	Series 2016 B General Obligation	GO	PVT	SOLE
12/22/16	1	Lewis Co Fire Protection Dt #3	WA	Series 2016 GO Unlimited Tax Bonds	GO	PVT	SOLE
12/16/16	4	Waitsburg SD #401-100	WA	Series 2016 GO Unlimited Tax Bonds	GO	NEG	SOLE
12/15/16	10	Reno Co (Hutchinson) USD #308	KS	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
12/15/16	9	Port of Olympia-Washington	WA	Series 2016 B Limited Tax GO Refunding	GO	PVT	SOLE
12/15/16	9	Port of Olympia-Washington	WA	Series 2016 A Limited Tax GO &	GO	PVT	SOLE
12/13/16	10	Mercer Co (Farrell) ASD	PA	Series of 2016 General Obligation Bonds	GO	NEG	SOLE
12/13/16	100	Los Angeles Co (Montebello) USD	CA	Series A General Obligation Bonds	GO	NEG	CO-MGR
12/13/16	1	East Brewton City-Alabama	AL	Series 2016 General Obligation Warrants	GO	NEG	SOLE
12/13/16	71	Pierce Co (Franklin Pierce) SD #402	WA	Series 2016 General Obligation Bonds	GO	NEG	SOLE
12/13/16	10	New London City-Connecticut	CT	Issue of 2016 GO Refunding Bonds	GO	NEG	SOLE
12/12/16	2	Story Co (Ballard) CSD	IA	Series 2017 GO School Capital Loan	GO	PVT	SOLE
12/08/16	20	Pottawatomie (Wamego) USD #320	KS	Series 2017 A General Obligation Bonds	GO	NEG	SOLE
12/06/16	189	Mississippi	MS	Series 2016 B General Obligation Bonds	GO	NEG	CO-MGR

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
12/05/16	2	Highpointe Park Metropolitan Dt	CO	Series 2016 A & B General Obligation	GO	PVT	SOLE
12/01/16	9	Wyandotte (Kansas) USD #500	KS	Series 2016 B GO Refunding Bonds	GO	NEG	SOLE
12/01/16	48	Montgomery Co-Texas	TX	Series 2016 A Limited Tax Refunding	GO	NEG	CO-MGR
12/01/16	74	Montgomery Co-Texas	TX	Series 2016 A Road Bonds	GO	NEG	CO-MGR
12/01/16	227	Wyandotte (Kansas) USD #500	KS	Series 2016 A GO Improvement Bonds	GO	NEG	SOLE
12/01/16	119	Portland Community College Dt	OR	Series 2016 GO Refunding Bonds	GO	NEG	LEAD
11/30/16	9	Lewis Co (Chehalis) SD #302	WA	Series 2016 Unlimited Tax GO Bonds	GO	NEG	SOLE
11/29/16	2	Williamsburg City-Iowa	IA	Series 2016 B GO Corporate Purpose	GO	NEG	SOLE
11/23/16	7	Butler Co (Augusta) USD #402	KS	Series 2017 GO Refunding Bonds	GO	NEG	SOLE
11/17/16	14	Indiana Co (Armstrong) SD	PA	Series of 2016 General Obligation Bonds	GO	NEG	SOLE
11/17/16	38	Marin Comm College Dt	CA	Series A-1 General Obligation Bonds	GO	NEG	SOLE
11/17/16	60	Marin Comm College Dt	CA	Series A General Obligation Bonds	GO	NEG	SOLE
11/17/16	40	Oregon	OR	2016 Series J & K GO & Refunding Bonds	GO	NEG	CO-MGR
11/16/16	25	Los Angeles (Hermosa Beach) CSD	CA	Series A General Obligation Bonds	GO	NEG	SOLE
11/16/16	146	Sonoma Co Junior College Dt	CA	2016 & Series A GO & Refunding Bonds	GO	NEG	LEAD
11/15/16	42	Garland City-Texas	TX	Series 2016 GO Refunding Bonds	GO	NEG	CO-MGR
11/15/16	47	Snohomish Co (Everett) SD #2	WA	Series 2016 Ultd Tax General Obligation	GO	NEG	CO-MGR
11/15/16	8	Fremont-Madison Cos JSD #215	ID	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
11/15/16	9	Bloomfield Town-Connecticut	CT	Issuer of 2016 GO Refunding Bonds	GO	NEG	SOLE
11/10/16	7	De Kalb Co CUSD #300	IL	Series 2016 A Debt Certificates	GO	PVT	SOLE
11/10/16	7	Kennewick City-Washington	WA	Series 2016 Limited Tax GO Bonds	GO	NEG	SOLE
11/09/16	3	Grain Valley City-Missouri	MO	Series 2016 Limited General Obligation	GO	NEG	SOLE
11/09/16	4	Lane Co (Bethel) SD #52	OR	Series 2016 GO Refunding Bonds	GO	PVT	SOLE
11/08/16	1	Kenosha Co-Wisconsin	WI	Series 2016 B GO Promissory Notes	GO	NEG	SOLE
11/08/16	10	McHenry Co (Cary) CCSD #26	IL	Series 2016 A GO Refunding School	GO	PVT	SOLE
11/08/16	8	Kenosha Co-Wisconsin	WI	Series 2016 GO Promissory Notes	GO	NEG	SOLE
11/08/16	1	King Co (Tukwila) SD #406	WA	Series 2016 Limited GO Bonds	GO	PVT	SOLE
11/03/16	36	Leander City-Texas	TX	Series 2016 Ref & Comb Tx & Rev Cert of	GO	NEG	LEAD
11/03/16	5	Emporia City-Kansas	KS	Series 2016 GO Refunding & Improvement	GO	NEG	SOLE
11/03/16	7	Miami Co (Paola) USD #368	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
11/03/16	76	Tacoma Metropolitan Park Dt	WA	Series 2016 Unlimited Tax GO & Ref	GO	NEG	SOLE
11/03/16	13	Meriden City-Connecticut	CT	Issue of 2016 Ser B GO Refunding Bonds	GO	NEG	SOLE
11/02/16	10	Seward Co (Liberal) USD #480	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
11/02/16	18	Alameda Co (San Leandro) USD	CA	2016 Series Refunding GO Bonds	GO	NEG	SOLE
11/01/16	20	Santa Clarita Comm College Dt	CA	Series of 2016 General Obligation Bonds	GO	NEG	SOLE
11/01/16	2	Miller Co Nursing Home Dt	MO	Series 2016 GO Refunding Bonds	GO	PVT	SOLE
11/01/16	2	Waukon City-Iowa	IA	Series 2016 GO Corporate Purpose Bonds	GO	PVT	SOLE
10/26/16	5	Carnegie Boro-Pennsylvania	PA	Series of 2016 General Obligation Bonds	GO	NEG	SOLE
10/26/16	9	Penn Hills Municipality-Pennsylvania	PA	Series of 2016 General Obligation Bonds	GO	NEG	SOLE
10/26/16	2	Genesee Co (Le Roy) CSD	NY	Series 2016 GO School District Ref Bonds	GO	NEG	SOLE
10/26/16	2	Palo Pinto Co (Graford) ISD	TX	Series 2016 Refunding Bonds	GO	NEG	SOLE
10/26/16	35	Snohomish Co Pub Hospital Dt #3	WA	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
10/26/16	1300	New Jersey Trans Trust Fund Au	NJ	2016 Subseries A-2 Revenue Notes	GO	NEG	CO-MGR
10/26/16	1441	New Jersey Trans Trust Fund Au	NJ	2016 Subseries A-1 Revenue Notes	GO	NEG	CO-MGR
10/25/16	25	Clark Co (Washougal) SD #112-6	WA	Series 2016 Unlimited Tax GO Bonds	GO	NEG	SOLE
10/20/16		Brewton City-Alabama	AL	Series 2016 B General Obligation	GO	NEG	SOLE
10/20/16	6	Brewton City-Alabama	AL	Series 2016 A General Obligation	GO	NEG	SOLE
10/20/16	2	Shasta Co (Black Butte) UESD	CA	Series 2016 A General Obligation Bonds	GO	NEG	SOLE
10/20/16	4	El Dorado Co (Camino) USD	CA	Series 2016 General Obligation Bonds	GO	NEG	SOLE
10/20/16	1	Fayette Co (Oelwein) CSD	IA	Series 2016 GO School Capital Loan	GO	PVT	SOLE
10/19/16	9	Allegheny Co (Allegheny Valley) SD	PA	Series of 2016 General Obligation Bonds	GO	NEG	SOLE
10/19/16	6	Naperville Park Dt	IL	Series 2016 GO Ltd Tax Ref Park Bonds	GO	PVT	SOLE

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
10/19/16	65	Connecticut	CT	2016 Series F-1 General Obligation Bonds	GO	NEG	CO-MGR
10/19/16	15	Connecticut	CT	2016 Series E-6 General Obligation Bonds	GO	NEG	CO-MGR
10/19/16	94	Connecticut	CT	2016 Series E-5 General Obligation Bonds	GO	NEG	CO-MGR
10/19/16	134	Connecticut	CT	2016 Series E-4 General Obligation Bonds	GO	NEG	CO-MGR
10/19/16	91	Connecticut	CT	2016 Series E-3 General Obligation Bonds	GO	NEG	CO-MGR
10/19/16	204	Connecticut	CT	2016 Series E-2 General Obligation Bonds	GO	NEG	CO-MGR
10/19/16	47	Connecticut	CT	2016 Series E-1 General Obligation Bonds	GO	NEG	CO-MGR
10/18/16	3	Pleasant Prairie Vlg-Wisconsin	WI	Series 2016 GO Promissory Notes	GO	NEG	SOLE
10/17/16	1	Lake Bluff Park Dt	IL	Series 2016 GO Ltd Tax Park Bonds	GO	PVT	SOLE
10/17/16	8	Plainfield Fire Protection Dt	IL	Series 2016 GO Ref Alt Rev Source Bonds	GO	PVT	SOLE
10/14/16	10	Hampton Twp-Pennsylvania	PA	Series of 2016 General Obligation Bonds	GO	NEG	SOLE
10/14/16	12	Westport Town-Connecticut	CT	Issue of 2016 Ser B GO Refunding Bonds	GO	NEG	SOLE
10/13/16	10	Yolo Co (Washington) USD	CA	Series B General Obligation Bonds	GO	NEG	SOLE
10/13/16	2	Shasta Co (Junction) ESD	CA	Series A General Obligation Bonds	GO	NEG	SOLE
10/13/16		Bolingbrook Park Dt	IL	Series 2016 B GO Limited Park Bonds	GO	NEG	SOLE
10/13/16	7	Bolingbrook Park Dt	IL	Series 2016 A & C GO Ltd Park Bonds &	GO	NEG	SOLE
10/13/16		Williamson Co (Leander) ISD	TX	Series 2016 A Unlimited Tax Refunding	GO	NEG	CO-MGR
10/13/16		Williamson Co (Leander) ISD	TX	Series 2016 A Unlimited Tax Refunding	GO	NEG	CO-MGR
10/13/16	30	Williamson Co (Leander) ISD	TX	Series 2016 A Unlimited Tax Refunding	GO	NEG	CO-MGR
10/13/16	160	Williamson Co (Leander) ISD	TX	Series 2016 A Unlimited Tax Refunding	GO	NEG	CO-MGR
10/13/16	29	Titus Co-Texas	TX	Series 2016 Refunding Bonds	GO	NEG	CO-MGR
10/13/16	129	Victoria ISD	TX	Series 2016 Unlimited Tax Refunding	GO	NEG	CO-MGR
10/13/16	5	Canyon Co (Vallivue) SD #139	ID	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
10/13/16	8	Clackamas Education Svc Dt	OR	Series 2016 FullFaith&Credit Proj & Ref	GO	NEG	SOLE
10/12/16	10	South Elgin Village-Illinois	IL	Series 2016 B GO Alt Rev Source	GO	NEG	SOLE
10/11/16	6	Florida Capital Trust Agency	FL	Series 2016 A Retirement Facility BANs	GO	PVT	CO-MGR
10/05/16	144	Honolulu City & Co-Hawaii	HI	Series 2016 D General Obligation Bonds	GO	NEG	CO-MGR
10/05/16	235	Honolulu City & Co-Hawaii	HI	Series 2016 A B C General Obligation	GO	NEG	CO-MGR
10/05/16	150	Dallas Co (Garland) ISD	TX	Series 2016 Unltd Tax School Building	GO	NEG	CO-MGR
10/05/16	100	Harris Co (Tomball) ISD	TX	Series 2016 Unlimited Tx Sch Bldg & Ref	GO	NEG	LEAD
10/05/16	20	King Co (Vashon Island) SD #402	WA	Series 2016 Unltd Tax GO Refunding	GO	NEG	SOLE
10/05/16	43	Oregon	OR	2016 Series I General Obligation Bonds	GO	NEG	CO-MGR
10/05/16	16	Grafton Co-New Hampshire	NH	2016 Series GO Refunding Bonds	GO	NEG	SOLE
10/04/16	92	Galveston Co (Dickinson) ISD	TX	Series 2016 A & B Unltd Tax Schoolhouse	GO	NEG	CO-MGR
10/04/16	11	South Elgin Village-Illinois	IL	Series 2016 A GO Alt Rev Source Ref	GO	PVT	SOLE
10/04/16	96	Williamson Co (Round Rock) ISD	TX	Series 2016 Unltd Tax School Bldg & Ref	GO	NEG	CO-MGR
10/04/16	1	South Hutchinson City-Kansas	KS	Series 2016 GO Temporary Notes	GO	NEG	SOLE
10/04/16	18	Monterey Co (Carmel) USD	CA	2016 Series GO Refunding Bonds	GO	NEG	SOLE
09/30/16	27	Geary Co-Kansas	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
09/29/16	18	Pierce Co (Bethel) SD #403	WA	Series 2016 Unlimited Tax GO Refunding	GO	NEG	SOLE
09/28/16	19	Allegheny Co (Gateway) SD	PA	Series of 2016 General Obligation Bonds	GO	NEG	SOLE
09/28/16	3	Johnson Co (Spring Hill) USD #230	KS	Series 2016-C GO Refunding Bonds	GO	NEG	SOLE
09/28/16	5	Crawford Co (Pittsburg) USD #250	KS	Series 2016-B GO Refunding Bonds	GO	NEG	SOLE
09/28/16	82	Johnson Co (Spring Hill) USD #230	KS	Series 2016-B GO Improvement Bonds	GO	NEG	SOLE
09/28/16	21	Breckenridge Mountain Metro Dt	CO	Series 2016 GO Refunding & Improvement	GO	NEG	LEAD
09/28/16	4	Dubuque Co-Iowa	IA	Series 2016 General Obligation Bonds	GO	PVT	SOLE
09/28/16	7	Essex Co (Schroon Lake) CSD	NY	Series 2016 School District Ref Serial	GO	NEG	SOLE
09/28/16	101	New Hampshire Muni Bond Bank	NH	2016 Series D Refunding Bonds	GO	NEG	CO-MGR
09/27/16	34	Galveston Co (Santa Fe) ISD	TX	Series 2016 Unlimited Tax Refunding	GO	NEG	CO-MGR
09/27/16	55	Goodyear City-Arizona	AZ	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
09/27/16	5	Warren Co (Carlisle) CSD	IA	Series 2016 GO School Capital Loan	GO	PVT	SOLE
09/23/16	3	Huntley Park Dt	IL	Series 2016 Debt Certificates	GO	PVT	SOLE

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
09/22/16	7	Coral Canyon Special Service Dt	UT	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
09/22/16	20	Los Angeles Co (Claremont) USD	CA	2016 Series GO Refunding Bonds	GO	NEG	SOLE
09/20/16	5	Napa Co (St Helena) USD	CA	Series D General Obligation Bonds	GO	NEG	SOLE
09/20/16	5	Kern Co (Lost Hills) USD	CA	2016 Series GO Refunding Bonds	GO	NEG	SOLE
09/19/16	54	Sta Clara (Los Gatos-Saratoga) JUHSD	CA	Series B General Obligation Bonds	GO	NEG	CO-MGR
09/15/16	10	Adams Co SD #90	NE	Series 2016 GO School Building Bonds	GO	NEG	SOLE
09/15/16	2	Butler-Alabama	AL	Series 2016 General Obligation Warrants	GO	NEG	SOLE
09/15/16	2	Yakima Co (Sunnyside) SD #201	WA	Series 2016 Limited General Obligation	GO	PVT	SOLE
09/14/16	18	Fresno Co USD	CA	Series 2016 B GO Refunding Bonds	GO	NEG	LEAD
09/14/16	132	Fresno Co USD	CA	Ser F & 2016 A & B GO & Refunding	GO	NEG	LEAD
09/13/16	28	Whatcom Co (Blaine) SD #503	WA	Series 2016 Unlimited Tax GO Bonds	GO	NEG	SOLE
09/09/16	13	Gorham Town-Maine	ME	Series B General Obligation Bonds	GO	NEG	SOLE
09/09/16	17	Clay Co-Kansas	KS	Series 2016 GO Refunding & Improvement	GO	NEG	SOLE
09/08/16	41	Riverside Co (Val Verde) USD	CA	Series 2016 A & C GO & Refunding Bonds	GO	NEG	SOLE
09/08/16		McFarland City- Kansas	KS	Series 2016 A General Obligation Bonds	GO	PVT	SOLE
09/08/16		McLennan Co (Bosqueville) ISD	TX	Series 2016 Refunding Bonds	GO	NEG	CO-MGR
09/08/16	1	McLennan Co (Bosqueville) ISD	TX	Series 2016 Refunding Bonds	GO	NEG	CO-MGR
09/08/16	17	Ada Co (Kuna) JSD #3	ID	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
09/08/16	1	Alton City-Iowa	IA	Series 2016 GO Capital Loan Notes	GO	PVT	SOLE
09/07/16	23	Austin City-Texas	TX	Series 2016 Pub Property Fin &	GO	NEG	CO-MGR
09/07/16	44	Austin City-Texas	TX	Series 2016 Certificates of Obligation	GO	NEG	CO-MGR
09/07/16	98	Austin City-Texas	TX	Series 2016 Public Improvement & Ref	GO	NEG	CO-MGR
09/07/16	21	Austin Co-Texas	TX	Series 2016 Public Imp Bonds & Certs of	GO	NEG	CO-MGR
09/07/16	3	North Bend City-Oregon	OR	Series 2016 Full Faith & Credit Ref Oblig	GO	PVT	SOLE
09/01/16	8	West View Borough-Pennsylvania	PA	Series of 2016 General Obligations Bonds	GO	NEG	SOLE
09/01/16	2	Lincoln Co (Dietrich) SD #314	ID	Series 2016 General Obligation Bonds	GO	NEG	SOLE
09/01/16	3	St Lawrence Co (Hermon-De Kalb) CSD	NY	Series 2016 GO School District Ref Bonds	GO	NEG	SOLE
08/31/16	203	Arizona Transportation Board	AZ	Series 2016 Highway Revenue Refunding	GO	NEG	CO-MGR
08/30/16	48	Houston Community College (HCC)	TX	Series 2016 Ltd & Maintenance Tax Ref	GO	NEG	CO-MGR
08/30/16	66	Hood River Co SD	OR	Series 2016 GO & Refunding Bonds	GO	NEG	SOLE
08/26/16	5	Bedford Hills Fire Dt	NY	Series 2016 Fire District Ref Serial Bonds	GO	NEG	SOLE
08/25/16	1	Westmoreland Co-Pennsylvania	PA	Series B of 2016 General Obligation	GO	NEG	CO-MGR
08/25/16	16	Westmoreland Co-Pennsylvania	PA	Series A of 2016 General Obligation	GO	NEG	CO-MGR
08/25/16	61	Johnson Co (Olathe) USD #233	KS	Series 2016 C GO Refunding Bonds	GO	NEG	SOLE
08/25/16	2	Fairfax City-Iowa	IA	Series 2016 A & B Sewer Revenue BANs	GO	PVT	SOLE
08/25/16	15	Longview City-Texas	TX	Series 2016 GO Improvement & Refunding	GO	NEG	CO-MGR
08/25/16		Defiance City-Ohio	OH	Series 2016 GO Water System Imp Ref	GO	NEG	SOLE
08/25/16	3	Defiance City-Ohio	OH	Series 2016 GO Water System Imp Ref	GO	NEG	SOLE
08/24/16	3	Washington Co (Fort Cherry) SD	PA	Series of 2016 General Obligation Bonds	GO	NEG	SOLE
08/24/16	6	Minnesota Tax & Aid Borrow Prog	MN	Series 2016 A Certs of Participation Aid	GO	NEG	SOLE
08/24/16	3	Lewis Co (Mossyrock) SD #206	WA	Series 2016 Unlimited Tax GO Refunding	GO	NEG	SOLE
08/24/16	6	Plainville Town-Connecticut	CT	Issue of 2016 GO Refunding Bonds	GO	NEG	SOLE
08/23/16	226	Phoenix City-Arizona	AZ	Series 2016 GO Refunding Bonds	GO	NEG	LEAD
08/23/16	3	Long Beach Comm College Dt	CA	2016 Series D General Obligation Bonds	GO	NEG	LEAD
08/23/16	73	Long Beach Comm College Dt	CA	2016 Series B General Obligation Bonds	GO	NEG	LEAD
08/23/16	9	Long Beach Comm College Dt	CA	2016 Series A General Obligation Bonds	GO	NEG	LEAD
08/19/16	3	Wyoming Co-New York	NY	Series 2016 GO Public Imp Ref Serial	GO	NEG	SOLE
08/18/16	74	San Jacinto Comm College Dt	TX	Series 2016 C Limited Tax GO Refunding	GO	NEG	CO-MGR
08/18/16	4	Umatilla (Athena-Weston) SD #29RJ	OR	Series 2016 General Obligation Bonds	GO	NEG	SOLE
08/17/16	1	Northern Illinois Special Rec Association	IL	Series 2016 B Refunding Debt Certificates	GO	PVT	SOLE
08/17/16		Northern Illinois Special Rec Association	IL	Series 2016 A Refunding Debt Certificates	GO	PVT	SOLE
08/17/16	13	Cowlitz Co (Longview) SD #122	WA	Series 2016 Unlimited Tax GO Refunding	GO	NEG	SOLE

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
08/17/16	88	Southwestern Comm College Dt	CA	2016 Series A & B GO Refunding Bonds	GO	NEG	LEAD
08/16/16	6	North Fayette Twp-Pennsylvania	PA	Series of 2016 GO Refunding Bonds	GO	NEG	SOLE
08/16/16	4	South Hutchinson City-Kansas	KS	Series 2016 GO Refunding & Improvement	GO	NEG	SOLE
08/15/16	7	Cherokee Co (Baxter Springs) USD #508	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
08/11/16	8	Allegheny Co (Hampton) TSD	PA	Series of 2016 General Obligation Bonds	GO	NEG	SOLE
08/11/16	9	Clanton-Alabama	AL	Series 2016 General Obligation Warrants	GO	NEG	SOLE
08/11/16	5	Malheur Co (Adrian) SD #61	OR	Series 2016 GO & Refunding Bonds	GO	NEG	SOLE
08/10/16	198	Johnson Co (Olathe) USD #233	KS	Series 2016 B GO Refunding Bonds	GO	NEG	SOLE
08/10/16	129	Johnson Co (Olathe) USD #233	KS	Series 2016 A GO School Bonds	GO	NEG	SOLE
08/10/16	7	Malheur Co (Nyssa) SD #26	OR	Series 2016 General Obligation Bonds	GO	NEG	SOLE
08/09/16	30	Coast Community College Dt	CA	Series 2016 C General Obligation Bonds	GO	NEG	CO-MGR
08/09/16	2	Olympia Fields Park Dt	IL	Series 2016 A GO Alt Rev Source Park	GO	PVT	SOLE
08/09/16	5	Lebanon-Tennessee	TN	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
08/05/16	2	Newcastle-Washington	WA	Series 2016 B Limited Tax GO Bonds	GO	NEG	SOLE
08/05/16	3	Newcastle-Washington	WA	Series 2016 A Limited Tax GO Bonds	GO	NEG	SOLE
08/05/16	28	Sacramento Co (Center) USD	CA	Series 2016 & 2016 E GO & Refunding	GO	NEG	SOLE
08/04/16	63	Pima Co (Tucson) USD #1	AZ	Series 2016 Refunding Bonds	GO	NEG	CO-MGR
08/04/16	4	Lane Co (Mapleton) SD #32	OR	Series 2016 General Obligation Bonds	GO	NEG	SOLE
08/04/16	4	North Castle Fire Dt #2	NY	Series 2016 GO Fire Dt Refunding Serial	GO	NEG	SOLE
08/04/16	8	Ontario Co-New York	NY	Series 2016 GO Refunding Serial Bonds	GO	NEG	SOLE
08/03/16	17	Monterey Co (North Monterey) USD	CA	Series B & 2016 GO & Refunding Bonds	GO	NEG	SOLE
08/03/16	9	Deschutes Co (Sisters) SD #6	OR	Series 2016 B General Obligation Bonds	GO	NEG	SOLE
08/03/16	85	Brazoria Co (Alvin) ISD	TX	Series 2016 A Schoolhouse & Refunding	GO	NEG	LEAD
08/03/16	2	Deschutes Co (Sisters) SD #6	OR	Series 2016 A General Obligation Bonds	GO	NEG	SOLE
08/03/16	9	Douglas Co (Baldwin) USD #348	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
08/03/16	26	Vancouver Library Cap Fac Area	WA	Series 2016 Unlimited Tax GO Refunding	GO	NEG	SOLE
08/02/16	86	Harris Co (Humble) ISD	TX	Series 2016 C Unlimited Tax Refunding	GO	NEG	CO-MGR
08/02/16	186	Harris Co (Humble) ISD	TX	Series 2016 A & B School Building &	GO	NEG	CO-MGR
07/28/16		Holden City-Missouri	MO	Series 2016 E GO Refunding &	GO	PVT	SOLE
07/28/16	2	Monroeville Vlg-Ohio	OH	GO Refunding Bonds	GO	PVT	SOLE
07/26/16	1	Plumas Hospital Dt	CA	Series 2016 B General Obligation Bonds	GO	PVT	SOLE
07/26/16	22	Whatcom Co (Lynden) SD #504	WA	Series 2016 Unlimited Tax GO Bonds	GO	NEG	SOLE
07/26/16	88	Yamhill Co (McMinnville) SD #40	OR	Series 2016 General Obligation Bonds	GO	NEG	SOLE
07/21/16	12	Gaston SD #511-555JT	OR	Series 2016 General Obligation Bonds	GO	NEG	SOLE
07/21/16	2	Sigourney City-Iowa	IA	Series 2016 GO Capital Loan Notes	GO	NEG	SOLE
07/20/16	71	Bandera Co (Medina Valley) ISD	TX	Series 2016 Unlimited Tax School Bldg	GO	NEG	CO-MGR
07/20/16	76	Austin Community College Dt	TX	Series 2016 Limited Tax & Refunding	GO	NEG	LEAD
07/20/16	15	Cook Co (Hinsdale) THSD #86	IL	Series 2016 GO Limited Tax Ref School	GO	PVT	SOLE
07/20/16	1	Knob Noster City-Missouri	MO	Series 2016 General Obligation Bonds	GO	NEG	SOLE
07/20/16	14	Yamhill-Carlton SD #1	OR	Series 2016 General Obligation Bonds	GO	NEG	SOLE
07/19/16	16	Lane Co (South Lane) SD #45J3	OR	Series 2016 B General Obligation Bonds	GO	NEG	SOLE
07/19/16	12	Kenosha City-Wisconsin	WI	Series 2016 A GO Promissory Notes	GO	NEG	SOLE
07/19/16	20	Lane Co (South Lane) SD #45J3	OR	Series 2016 A General Obligation Bonds	GO	NEG	SOLE
07/19/16	4	Clatsop Community College Dt	OR	Series 2016 GO Refunding Bonds	GO	PVT	SOLE
07/15/16	23	San Bernardino (Ontario-Montclair) SD	CA	2016 Series A & B GO & Crossover	GO	NEG	SOLE
07/14/16	3	Umatilla Co (Echo) SD #5	OR	Series 2016 B General Obligation Bonds	GO	NEG	SOLE
07/14/16	1	Umatilla Co (Echo) SD #5	OR	Series 2016 A GO Deferred Interest Bonds	GO	NEG	SOLE
07/14/16	23	Eagle River Fire Protection Dt	CO	Series 2016 General Obligation Bonds	GO	NEG	SOLE
07/14/16	15	Lane Co (Junction City) SD #69	OR	Series 2016 General Obligation Bonds	GO	NEG	SOLE
07/13/16	135	King Co (Issaquah) SD #411	WA	Series 2016 Unlimited Tax GO Bonds	GO	NEG	SOLE
07/13/16	247	Chabot-Las Positas Comm Coll Dt	CA	2016 Series GO Refunding Bonds	GO	NEG	LEAD
07/12/16	27	Rogue Community College Dt	OR	Series 2016 A & B GO & Refunding Bonds	GO	NEG	SOLE

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
07/12/16	10	Harris Co (Deer Park) ISD	TX	Series 2016 Limited Tax Refunding Bonds	GO	NEG	LEAD
07/12/16	1	Freeport Village-New York	NY	2016 Series B Public Improvement Ref	GO	NEG	CO-MGR
07/12/16	14	Freeport Village-New York	NY	2016 Series A Public Improvement Ref	GO	NEG	CO-MGR
07/11/16	18	Cameron Co (Rio Hondo) ISD	TX	Series 2016 Unlimited Tax School Bldg	GO	NEG	CO-MGR
07/11/16	2	Weston City-Missouri	MO	Series 2016 General Obligation Bonds	GO	NEG	SOLE
07/08/16	19	Rankin Co SD	MS	Series 2016 GO School Refunding Bonds	GO	NEG	LEAD
07/08/16	5	Burien City-Washington	WA	Series 2016 Limited Tax GO Refunding	GO	NEG	SOLE
07/07/16	10	Old Saybrook Town-Connecticut	CT	Issue of 2016 GO Refunding Bonds	GO	NEG	SOLE
07/06/16	97	Chester Co-Pennsylvania	PA	Series A of 2016 General Obligation	GO	NEG	CO-MGR
06/30/16	1	Quakertown General Authority	PA	Series 2016 A-T Healthcare Facs Rev	GO	PVT	SOLE
06/30/16	6	Quakertown General Authority	PA	Series 2016 A Healthcare Facs Rev BANs	GO	PVT	SOLE
06/29/16	69	Hoover City-Alabama	AL	Series 2016 General Obligation Warrants	GO	NEG	CO-MGR
06/29/16	2	Medina Co (Wadsworth City) SD	OH	Series 2016 GO Library Improvement Ref	GO	NEG	SOLE
06/29/16	28	Smith Co Public Bldg Commission	KS	Series 2016 Revenue Anticipation Bonds	GO	PVT	SOLE
06/28/16	25	San Bernardino Co (Colton) JUSD	CA	Series D General Obligation Bonds	GO	NEG	LEAD
06/28/16	2	Pflugerville City-Texas	TX	Series 2016 C Comb Tax & Ltd Rev Certs	GO	NEG	CO-MGR
06/28/16	15	Pflugerville City-Texas	TX	Series 2016 A & B Comb Tax & Ltd Rev	GO	NEG	CO-MGR
06/28/16	109	Johnson Co (Clebune) ISD	TX	Series 2016 Unlimited Tax School Bldg	GO	NEG	CO-MGR
06/28/16	53	Pflugerville City-Texas	TX	Series 2016 Limited Tax & Refunding	GO	NEG	LEAD
06/28/16	13	Columbia Co (Vernonia) SD #47J	OR	Series 2016 GO Refunding Bonds	GO	PVT	SOLE
06/28/16	41	Mohave Co (Kingman) USD #20	AZ	Series 2016 Refunding Bonds	GO	NEG	SOLE
06/28/16	68	Ohlone Community College Dt	CA	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
06/28/16	52	San Bernardino Co (Colton) JUSD	CA	2016 Series B GO Refunding Bonds	GO	NEG	LEAD
06/24/16	2	Independence City-Kansas	KS	Series 2016-a GO Refunding Bonds	GO	NEG	SOLE
06/23/16		Lake Winnebago City-Missouri	MO	Series 2016 General Obligation Bonds	GO	NEG	SOLE
06/23/16	10	East Lyme Town-Connecticut	CT	Issue of 2016 GO Refunding Bonds	GO	NEG	SOLE
06/22/16	42	Altoona City-Iowa	IA	Series 2016 C GO Renewed Refunding	GO	NEG	LEAD
06/22/16	3	De Kalb Co CUSD #300	IL	Series 2016 Debt Certificates	GO	PVT	SOLE
06/22/16	33	North Thurston SD #3	WA	Series 2016 General Obligation Bonds	GO	NEG	SOLE
06/16/16	6	Caddo Parish-Louisiana	LA	Series 2016 GO Refunding Bonds	GO	PVT	SOLE
06/16/16	7	Tillamook Bay Comm Coll Dt	OR	Series 2016 GO Refunding Bonds	GO	PVT	SOLE
06/16/16	8	Upshur Co (Ore City) ISD	TX	Series 2016 Unlimited Tax Refunding	GO	NEG	SOLE
06/16/16	3	Washington (Sherwood) SD #88J	OR	Series 2016 GO Refunding Bonds	GO	PVT	SOLE
06/15/16	4	Allegheny (Elizabeth Forward) SD	PA	Series B & C of 2016 GO & Refunding	GO	NEG	SOLE
06/14/16	6	West Mifflin Boro-Pennsylvania	PA	Series of 2016 GO Refunding Bonds	GO	NEG	SOLE
06/14/16	4	Leavenworth Co (Basehor-Linwood) USD #458	KS	Series 2016-B GO Refunding Bonds	GO	NEG	SOLE
06/10/16	13	Torrington City-Connecticut	CT	Series of 2016 GO Refunding Bonds	GO	NEG	SOLE
06/10/16	3	Torrington City-Connecticut	CT	General Obligation BANs	GO	NEG	SOLE
06/09/16	12	Braxton Co BOE	WV	Series 2016 Public School Refunding	GO	NEG	SOLE
06/09/16	9	Gateway Regional Metropolitan Dt	CO	Series 2016 GO Limited Tax Refunding	GO	NEG	SOLE
06/09/16	2	Madison Town-Maine	ME	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
06/09/16	7	Williamette Education Services Dt	OR	Series 2016 Full Faith & Credit Obligation	GO	PVT	SOLE
06/08/16	4	Fairfield-Iowa	IA	Series 2016 Sewer Project RANs	GO	PVT	SOLE
06/08/16	18	Sedgwick Co (Valley Ctr) USD #262	KS	Series 2016 General Obligation Bonds	GO	NEG	SOLE
06/07/16	500	Idaho	ID	Series 2016 TANs	GO	NEG	SOLE
06/06/16	9	Sherman Co (Goodland) USD #352	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
06/03/16	3	Ellis-Kansas	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
06/02/16	100	North Orange Co Comm College Dt	CA	Series 2016 A General Obligation Bonds	GO	NEG	CO-MGR
06/02/16	11	Lorain Co (Amherst) EVSD	OH	Series 2016 GO Refunding Bonds	GO	PVT	SOLE
06/02/16	8	Port of Newport-Oregon	OR	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
06/02/16	8	San Mateo Co (Portola Valley) SD	CA	Series 2016 GO Refunding Bonds	GO	PVT	SOLE
06/01/16	14	Lane Comm College Dt	OR	Series 2016 GO Refunding Bonds	GO	NEG	SOLE

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
05/31/16	3	Cape Girardeau Co Reorg Swr Dt	MO	Series 2016 BANs	GO	PVT	SOLE
05/31/16	4	Frankfort-Illinois	IL	Series 2016 GO Ltd Tax Ref Debt	GO	NEG	SOLE
05/26/16	30	Los Angeles Co (Sulphur Springs) USD	CA	Series 2016 C General Obligation Bonds	GO	NEG	SOLE
05/26/16	2	Story Co-Iowa	IA	Series 2016 GO Refunding Bonds	GO	PVT	SOLE
05/26/16	8	Vancouver City-Washington	WA	Series 2016 Limited Tax GO Refunding	GO	NEG	SOLE
05/25/16	42	Allegheny Co (Shaler) ASD	PA	Series A-D of 2016 GO & Refunding	GO	NEG	SOLE
05/25/16	3	Ventura Co (Moorpark) USD	CA	Series 2016 D General Obligation Bonds	GO	PVT	SOLE
05/25/16	72	Alamo Community College Dt	TX	Series 2016 Limited Tax Refunding Bonds	GO	NEG	CO-MGR
05/25/16	9	Madison Town-Connecticut	CT	Issue of 2016 GO Refunding Bonds	GO	NEG	SOLE
05/24/16	3	Clark Co (Battle Ground) SD #119	WA	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
05/24/16	8	Saline Co (Salina) USD #305	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
05/24/16	1	Scott Co (Sikeston) R-VI SD	MO	Series 2016 GO Refunding Bonds	GO	PVT	SOLE
05/24/16	7	Shasta Co (Enterprise) ESD	CA	2016 Series & C GO & Refunding Bonds	GO	NEG	SOLE
05/19/16	124	Bexar Co (San Antonio) ISD	TX	Series 2016 School Building & Refunding	GO	NEG	CO-MGR
05/19/16	50	Pacific Communities Health Dt	OR	Series 2016 General Obligation Bonds	GO	NEG	LEAD
05/19/16	8	Cayuga Co-New York	NY	Series 2016 GO Public Improvement Ref	GO	NEG	SOLE
05/18/16	58	San Jose-Evergreen Comm Coll Dt	CA	Series D General Obligation Bonds	GO	NEG	SOLE
05/18/16	17	Pasadena City-Texas	TX	Series 2016 A GO Refunding Bonds	GO	NEG	LEAD
05/18/16	56	King Co (Tukwila) SD #406	WA	Series 2016 General Obligation Bonds	GO	NEG	SOLE
05/18/16	9	Kirkwood Community College	IA	Series 2016 GO Refunding Plant Fund	GO	PVT	SOLE
05/17/16	15	Griswold Town-Connecticut	CT	Series of 2016 GO Refunding Bonds	GO	NEG	SOLE
05/17/16	9	Allegheny (Elizabeth Forward) SD	PA	Series A of 2016 GO Refunding Bonds	GO	NEG	SOLE
05/17/16	344	Nashville-Davidson Co Metro Govt	TN	Series 2016 GO Refunding Bonds	GO	NEG	LEAD
05/17/16	1	Butler Co (Flinthills) USD #492	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
05/17/16	94	Santa Clarita Comm College Dt	CA	2016 Series GO Refunding Bonds	GO	NEG	SOLE
05/16/16		Des Moines (West Burlington) ISD	IA	Series 2016 GO School Capital Loan	GO	PVT	SOLE
05/13/16	6	Plum Borough-Pennsylvania	PA	Series of 2016 General Obligation Bonds	GO	NEG	SOLE
05/13/16	24	Addison Town-Texas	TX	Series 2016 GO Refunding Bonds	GO	NEG	CO-MGR
05/12/16	8	Covington-Washington	WA	Series 2016 Limited Tax GO Refunding	GO	NEG	SOLE
05/12/16	3	Minidoka Co JSD #331	ID	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
05/12/16	18	Northern Inyo Co Local Hosp Dt	CA	Series 2016 General Obligation Bonds	GO	PVT	SOLE
05/12/16	13	Tulare Co (Dinuba) USD	CA	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
05/11/16	41	Oregon	OR	2016 Series H General Obligation Bonds	GO	NEG	CO-MGR
05/11/16	47	Oregon	OR	2016 Series G GO Refunding Bonds	GO	NEG	CO-MGR
05/11/16	181	Oregon	OR	2016 Series F GO Refunding Bonds	GO	NEG	CO-MGR
05/11/16	15	Oregon	OR	2016 Series E General Obligation Bonds	GO	NEG	CO-MGR
05/11/16	67	Oregon	OR	2016 Series D General Obligation Bonds	GO	NEG	CO-MGR
05/10/16	41	Dallas Co (Garland) ISD	TX	Series 2016 Unlimited Tax Refunding	GO	NEG	LEAD
05/10/16	3	Plattsburgh City-New York	NY	Series 2016 Pub Improvement Ref Serial	GO	NEG	SOLE
05/10/16	4	Pottawattamie Co (Treyner) CSD	IA	Series 2016 GO School Refunding Bonds	GO	NEG	SOLE
05/10/16	3	Stevens Co (Valley) SD #70	WA	Series 2016 GO Refunding Bonds	GO	PVT	SOLE
05/05/16	5	Iowa Higher Ed Loan Authority	IA	Series 2016 A RANs	GO	NEG	SOLE
05/04/16	2	Fairfield-Iowa	IA	Series 2016 B GO Refunding Capital Loan	GO	NEG	SOLE
05/04/16	3	Fairfield-Iowa	IA	Series 2016 A GO Refunding Capital Loan	GO	NEG	SOLE
05/04/16	55	Clark Co (Camas) SD #117	WA	Series 2016 GO Unlimited Tax Bonds	GO	NEG	SOLE
05/04/16	2	Wallace Co-Kansas	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
05/04/16	18	Williamson Co (Franklin) SSD	TN	Series 2016 Limited Tax Sch Ref & Imp	GO	NEG	SOLE
05/03/16	3	Burlington City-Iowa	IA	Series 2016 A & B GO Corporate Purpose	GO	NEG	SOLE
05/03/16	26	Monterey Peninsula Comm Coll Dt	CA	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
05/03/16	80	Monterey Peninsula Comm Coll Dt	CA	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
04/28/16	37	Niagara Falls City-New York	NY	Series 2016 GO Refunding Bonds	GO	NEG	CO-MGR
04/28/16	7	Leavenworth Co (Lansing) USD #469	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
04/27/16	24	Clackamas (No Clackamas) SD #12	OR	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
04/27/16	6	Grimes City-Iowa	IA	Series 2016 GO Water Improvement & Ref	GO	NEG	SOLE
04/27/16	4	Orange Co (Buena Park) SD	CA	Series 2016 General Obligation BANs	GO	NEG	SOLE
04/26/16	155	Ohlone Community College Dt	CA	Series C General Obligation Bonds	GO	NEG	SOLE
04/26/16	143	Denver City and Co SD #1	CO	Series 2016 GO Refunding Bonds	GO	NEG	CO-MGR
04/26/16	2	Milford City-Iowa	IA	Series 2016 GO Corp Purpose &	GO	NEG	SOLE
04/26/16	53	Riverside USD	CA	2016 Series GO Refunding Bonds	GO	NEG	SOLE
04/22/16	4	Port of Bellingham-Washington	WA	Series 2016 Limited Tax GO Refunding	GO	NEG	SOLE
04/21/16	133	Kitsap Co (Central Kitsap) SD #401	WA	Series 2016 GO Unlimited Tax Bonds	GO	NEG	SOLE
04/21/16	5	Merced Co (Weaver) USD	CA	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
04/21/16	6	Merced Co (Weaver) USD	CA	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
04/20/16	4	Labette Co (Chetopa-St-Paul) USD #505	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
04/19/16	4	Deschutes Co (Bend-La Pine) ASD #1	OR	Series 2016 General Obligation Bonds	GO	PVT	SOLE
04/19/16	8	Grant Co-Kansas	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
04/15/16	1	Golf Maine Park Dt	IL	Series 2016 GO Limited Tax Park Bonds	GO	PVT	SOLE
04/15/16	1	Palatine Park Dt	IL	Series 2016 Limited Park Bonds	GO	PVT	SOLE
04/14/16	153	Harris Co (Klein) ISD	TX	Series 2016 A & B Unlimited Tax	GO	NEG	CO-MGR
04/14/16	13	Harrison Co-Mississippi	MS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
04/13/16	29	Dutchess Co (Arlington) CSD	NY	Series 2016 School District Refunding	GO	NEG	SOLE
04/13/16	4	North Lincoln Fire & Rescue Dt #1	OR	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
04/13/16	19	Santa Clara Co (Orchard) SD	CA	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
04/12/16	228	Ohio	OH	Series S GO Highway Capital Imp Bonds	GO	NEG	CO-MGR
04/12/16	127	Tarrant Co (Keller) ISD	TX	Series 2016 A & B Unlimited Tax	GO	NEG	LEAD
04/12/16	16	Washington Co (Beaverton) SD #48J	OR	Series 2016 Full Faith&Credit Ref Oblig	GO	NEG	SOLE
04/11/16	25	El Paso Co (Clint) ISD	TX	Series 2016 Unlimited Tax Refunding	GO	NEG	LEAD
04/11/16	37	Boone Co (Columbia) SD	MO	Series 2016 GO Refunding & Improv	GO	NEG	SOLE
04/08/16	4	Cattaraugus Co-New York	NY	Series 2016 GO Public Improvement Ref	GO	NEG	SOLE
04/07/16	18	Madera Co (Golden Valley) USD	CA	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
04/07/16	7	Stanton Co-Kansas	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
04/07/16	39	Victor Valley Comm College Dt	CA	2016 Series B GO Refunding Bonds	GO	NEG	SOLE
04/07/16	63	Victor Valley Comm College Dt	CA	2016 Series A & C GO Refunding Bonds	GO	NEG	SOLE
04/07/16	80	University of Connecticut	CT	2016 Series A GO Refunding Bonds	GO	NEG	CO-MGR
04/07/16	262	University of Connecticut	CT	2016 Series A General Obligation Bonds	GO	NEG	CO-MGR
04/07/16	45	Tahoe Forest Hospital Dt	CA	2016 Series GO Refunding Bonds	GO	NEG	CO-MGR
04/06/16	26	Johnson Co (Spring Hill) USD #230	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
04/05/16	1	Finney Co (Garden City) USD #457	KS	Series 2016 C GO Refunding Bonds	GO	NEG	SOLE
04/05/16	21	Finney Co (Garden City) USD #457	KS	Series 2016 B GO Refunding Bonds	GO	NEG	SOLE
04/05/16	35	Collin Co (McKinney) ISD	TX	Series 2016 Unlimited Tax Refunding	GO	NEG	LEAD
04/05/16	20	Flower Mound Town-Texas	TX	Series 2016 GO Refunding Bonds	GO	NEG	LEAD
04/05/16	2	Killingly Town-Connecticut	CT	Issue of 2016 Ser B General Obligation	GO	NEG	SOLE
04/05/16	9	Killingly Town-Connecticut	CT	Issue of 2016 Ser A General Obligation	GO	NEG	SOLE
04/05/16	4	Keizer Rural Fire Protection Dt	OR	2016 General Obligation Bonds	GO	NEG	SOLE
04/01/16	3	Wilmette Park Dt	IL	Series 2016 A-C Ltd Park & Ref Bonds &	GO	PVT	SOLE
04/01/16	6	Grant Co (Moses Lake) SD #161	WA	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
04/01/16	21	Huntertown Town-Indiana	IN	Series 2016 BANs	GO	PVT	SOLE
04/01/16	1	Woodridge Park Dt	IL	Series 2016 Limited Park Bonds	GO	PVT	SOLE
03/31/16	121	Denton Co-Texas	TX	Series 2016 Permanent Improvement Ref	GO	NEG	CO-MGR
03/30/16	38	Los Angeles Co (Redondo Beach) USD	CA	Series 2016 A & C GO & Refunding Bonds	GO	NEG	SOLE
03/30/16	22	Canyon Co (Nampa) SD #131	ID	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
03/30/16	5	Grays Harbor (Montesano) SD #66	WA	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
03/29/16	122	University of Minnesota Regents	MN	Series 2016 A General Obligation Bonds	GO	NEG	CO-MGR
03/29/16	1	Williamsburg City-Iowa	IA	Series 2016 GO Refunding Bonds	GO	NEG	SOLE

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
03/29/16	8	Darien Town-Connecticut	CT	Issues of 2016 GO Refunding Bonds	GO	NEG	SOLE
03/24/16	46	Texas Water Development Board	TX	Series 2016 A GO Wtr Financial	GO	NEG	LEAD
03/24/16	8	Medina Co (Wadsworth City) SD	OH	Series 2016 GO School Improvement Ref	GO	NEG	SOLE
03/23/16	3	Tarentum Boro-Pennsylvania	PA	Series of 2016 General Obligation Bonds	GO	NEG	SOLE
03/23/16	4	Auburn City-Washington	WA	Series 2016 Limited Tax GO Refunding	GO	PVT	SOLE
03/23/16	7	Nine Mile Falls SD #325-179	WA	Series 2016 GO Unlimited Tax Refunding	GO	NEG	SOLE
03/23/16	1	Solano Co (Dixon) USD	CA	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
03/23/16	4	Solano Co (Dixon) USD	CA	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
03/23/16	7	Solano Co (Dixon) USD	CA	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
03/23/16	27	Fairfield Town-Connecticut	CT	Issue of 2016 GO Refunding Bonds	GO	NEG	SOLE
03/22/16	6	Cheshire Town-Connecticut	CT	Series of 2016 GO Refunding Bonds	GO	NEG	SOLE
03/22/16	3	Stowe Twp-Pennsylvania	PA	Series of 2016 GO Refunding Bonds	GO	NEG	SOLE
03/22/16	35	San Diego Co (Oceanside) USD	CA	Series D General Obligation Bonds	GO	NEG	SOLE
03/22/16	143	De Kalb Co-Georgia	GA	Series 2016 GO Refunding Bonds	GO	NEG	CO-MGR
03/22/16	4	Iowa Great Lakes Sanitary Dt	IA	Series 2016 GO Refunding Capital Loan	GO	NEG	SOLE
03/22/16	22	Scott Co-Kansas	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
03/18/16	4	Columbus City-Indiana	IN	Series 2016 A Redevelopment Dt Ref	GO	NEG	SOLE
03/18/16	3	Iowa Co (H-L-V) CSD	IA	Series 2016 GO School Refunding Bonds	GO	NEG	SOLE
03/17/16	4	Wilmette Park Dt	IL	Series 2016 D GO Limited Refunding Park	GO	PVT	SOLE
03/17/16	65	Finney Co (Garden City) USD #457	KS	Series 2016 A GO Refunding Bonds	GO	NEG	SOLE
03/17/16	3	Benton Co (Belle Plaine) CSD	IA	Series 2016 GO School Refunding Bonds	GO	NEG	SOLE
03/17/16	23	Eagle River Wtr & Sanitation Dt	CO	Series 2016 General Obligation Bonds	GO	NEG	SOLE
03/17/16	10	Fayette (West Central Valley) CSD	IA	Series 2016 GO School Refunding Bonds	GO	NEG	SOLE
03/17/16	2	Lorain Co (Amherst) EVSD	OH	Series 2016 GO Limited TANs	GO	PVT	SOLE
03/16/16	10	Mercer Co ASD	PA	Series of 2016 GO Refunding Bonds	GO	NEG	SOLE
03/16/16	4	Fayetteville-New York	NY	Series 2016 GO Pub Imp Ref Bonds	GO	NEG	SOLE
03/16/16	8	Monroe Co (Greece) CSD	NY	Series 2016 School District Ref Bonds	GO	NEG	SOLE
03/10/16	4	Arnolds Park City-Iowa	IA	Series 2016 A & B GO Refunding Bonds	GO	NEG	SOLE
03/10/16	2	Rush Co-Kansas	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
03/10/16	15	Guilford Town-Connecticut	CT	2016 Series A GO Refunding Bonds	GO	NEG	SOLE
03/09/16	4	Naugatuck Boro-Connecticut	CT	Issue of 2016 GO Refunding Bonds	GO	NEG	SOLE
03/09/16	8	Naugatuck Boro-Connecticut	CT	General Obligation BANs	GO	NEG	SOLE
03/08/16	59	King Co (Renton) SD #403	WA	Series 2016 GO Unlimited Tax Refunding	GO	NEG	SOLE
03/08/16	8	Story Co (Ballard) CSD	IA	Series 2016 GO School Refunding Bonds	GO	NEG	SOLE
03/02/16	11	Avon Town-Connecticut	CT	Series of 2016 GO Refunding Bonds	GO	NEG	SOLE
03/02/16	5	Crawford Co (Pittsburg) USD #250	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
03/01/16	2	Elk Grove Park Dt	IL	Series 2016 Limited Park Bonds	GO	PVT	SOLE
03/01/16	6	Lee Co-Iowa	IA	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
03/01/16	1	Lisle Park Dt	IL	Series 2016 GO Limited Tax Park Bonds	GO	PVT	SOLE
03/01/16	5	McHenry Co (Huntley) CSD #158	IL	Series 2016 Refunding Bonds	GO	PVT	SOLE
03/01/16	43	West Contra Costa USD	CA	2016 Series D & C General Obligation	GO	NEG	LEAD
03/01/16	148	West Contra Costa USD	CA	2016 Series A, C & D GO & Refunding	GO	NEG	LEAD
02/26/16	18	Park Hospital Dt	CO	Series 2016 Loan Agreement & Promisorry	GO	PVT	SOLE
02/25/16	58	Chester Co-Pennsylvania	PA	Series of 2016 General Obligation Bonds	GO	NEG	LEAD
02/25/16	19	San Marcos City-Texas	TX	Series 2016 GO Refunding Bonds	GO	NEG	CO-MGR
02/24/16	116	Lake Co (Willoughby-Eastlake City) SD	OH	Series 2016 GO Unltd Tax School Imp	GO	NEG	SOLE
02/24/16	14	Pierce Co (University Place) SD #83	WA	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
02/23/16	75	Bonneville-Bingham Cos JSD #93	ID	Series 2016 A & B GO & Refunding Bonds	GO	NEG	SOLE
02/23/16	89	Galveston Co (Friendswood) ISD	TX	Series 2016 Unlimited Tax Refunding	GO	NEG	CO-MGR
02/19/16	6	Dickinson Co (Chapman) USD #473	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
02/18/16	41	Marin Comm College Dt	CA	2016 Series GO Refunding Bonds	GO	NEG	SOLE
02/17/16	130	Brazoria Co (Alvin) ISD	TX	Series 2016 Unltd Tax Schoolhouse & Ref	GO	NEG	LEAD

Piper Jaffray General Obligation Negotiated Underwriting Experience

Sale Date	Par Size (MM's)	Issuer	State	Description	Security Type	Bid Type	Piper Role
02/17/16	7	Redding Town-Connecticut	CT	Issue of 2016 GO Refunding Bonds	GO	NEG	SOLE
02/15/16	1	Itasca Park Dt	IL	Series 2016 GO Limited Tax Park Bonds	GO	PVT	SOLE
02/15/16	6	Northbrook Park Dt	IL	Series 2016 GO Limited Tax Park Bonds	GO	PVT	SOLE
02/12/16	8	Pottawatomie (Wamego) USD #320	KS	Sereis 2016 GO Refunding Bonds	GO	NEG	SOLE
02/11/16	3	Beloit City-Kansas	KS	Series 2016-A GO Electric Util Sys Ref	GO	NEG	SOLE
02/11/16	51	Riley Co (Manhattan) USD #383	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
02/11/16	4	Clinton Town-Connecticut	CT	Issue of 2016 Ser B GO Refunding Bonds	GO	NEG	SOLE
02/10/16	41	Brazoria Co (Pearland) ISD	TX	Series 2016 Unlimited Tax Refunding	GO	NEG	LEAD
02/10/16		Okoboji City-Iowa	IA	Series 2016 GO Capital Loan Notes	GO	NEG	SOLE
02/09/16	27	Johnson Co (Joshua) ISD	TX	Series 2016 Unlimited Tax Refunding	GO	NEG	CO-MGR
02/09/16	19	Montgomery Co (Independence) USD #446	KS	Series 2016 GO Refunding Bonds	GO	NEG	SOLE
02/08/16	4	Defiance City-Ohio	OH	Series 2016 A & B GO Water & Sanit Imp	GO	NEG	SOLE
02/04/16	8	Grayson Co (Collinsville) ISD	TX	Series 2016 Unlimited Tax School Bldg	GO	NEG	SOLE
02/04/16	15	Los Angeles Co (Montebello) USD	CA	2016 Series A GO Refunding Bonds	GO	NEG	SOLE
02/04/16	19	San Bernardino Co (Colton) JUSD	CA	2016 Series GO Refunding Bonds	GO	NEG	CO-MGR
02/03/16	55	Bucks Co-Pennsylvania	PA	Series of 2016 General Obligation Bonds	GO	NEG	LEAD
02/03/16	10	Schertz-Cibolo-Universal City ISD	TX	Series 2016 Unlimited Tax Refunding	GO	NEG	CO-MGR
02/03/16	94	Schertz-Cibolo-Universal City ISD	TX	Series 2016 Unlimited Tax Refunding	GO	NEG	CO-MGR
02/02/16	36	St Charles Co (Francis Howell) SD #R-III	MO	Series 2016 GO Refunding Bonds	GO	NEG	CO-MGR
01/26/16	10	Temple City-Texas	TX	Series 2016 GO Refunding Bonds	GO	NEG	LEAD
01/26/16	18	Temple City-Texas	TX	Series 2016 Comb Tax & Rev Certs of	GO	NEG	LEAD
01/25/16	20	Cullman City-Alabama	AL	Series 2016 General Obligation Warrants	GO	NEG	SOLE
01/21/16	9	St Louis Co (University City) SD	MO	Series 2016 GO Refunding Bonds	GO	NEG	CO-MGR
01/20/16	1	Chicago Heights Park Dt	IL	Series 2016 GO Limited Tax Park Bonds	GO	PVT	SOLE
01/20/16	10	Lewis Co (White Pass) SD #303	WA	Series 2016 GO Unlimited Tax Refunding	GO	NEG	SOLE
01/14/16	138	Montgomery Co (Conroe) ISD	TX	Series of 2016 School Building &	GO	NEG	CO-MGR
01/14/16	6	Sisters-Oregon	OR	Series 2016 Full Faith & Credit Ref Bonds	GO	NEG	SOLE
01/14/16	186	El Camino Community College Dt	CA	2016 Series & A GO & Refunding Bonds	GO	NEG	CO-MGR
01/08/16	6	Bremer Co (Wapsie Valley) CSD	IA	Series 2016 GO School Refunding Bonds	GO	NEG	SOLE
01/07/16	216	El Paso Co (Ysleta) ISD	TX	Series 2016 Unltd Tax School Building	GO	NEG	LEAD
01/07/16	18	Redmond City-Washington	WA	Series 2016 Ltd Tax GO & Refunding	GO	NEG	SOLE
01/07/16	9	Los Angeles Co (Bassett) USD	CA	2016 Series GO Refunding Bonds	GO	NEG	SOLE
01/06/16	8	Sparta City-Illinois	IL	Series 2016 GO Refunding Bonds	GO	NEG	SOLE



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