CUSIP GLOBAL SERVICES SUBSCRIPTION AGREEMENT

This CUSIP Global Services Subscription Agreement is entered into as of the Effective Date (as set forth below), by and between the CUSIP Global Services ("CGS"), having its principal offices at 55 Water Street, New York, New York 10041-0003 and Client (as defined below). CGS is managed by S&P Global Market Intelligence LLC ("S&P"), a Delaware fimited liability company, on behalf of the American Bankers Association.

CLIENT:	Teachers' Retirement System of the State of Kentucky
ADDRESS:	477 Versailles Rd., Frankfort, KY 40601
ACCOUNT EXECUTIVE:	Eric Bauer
EFFECTIVE DATE:	June 1, 2017

WHEREAS, CGS, pursuant to an exclusive agreement with the American Bankers Association ("ABA"), has the right to license all proprietary rights to the CUSIP databases ("CUSIP Database") as described in the Services Attachment(s) attached hereto, which contains CUSIP standard identifiers, CUSIP standard descriptions, CGS ISIN identifiers, CINS identifiers, and other information about financial instruments (the "CGS Data") which CGS regularly maintains and periodically enhances and further develops; and

WHEREAS, the Subscriber desires to subscribe to the Service(s) as defined in the Service Attachment(s) attached to this Agreement upon the following terms and conditions.

The parties hereto agree as follows:

I. License.

- 1.1 Subject to the terms and conditions of this Agreement, COR hereby grants to Subscriber (as defined below) a non-exclusive, non-transferable, limited license to access and use the proprietary COS Service (the "Service") described in the applicable Service Attachments) attached hereb and incorporated Herein in accordance with this Agreement, at the location identified thereon as the "Definer To" address. The License granted herein is strictly limited to the geographical territory set forth in the CUSIP Use of Service Statement ("UOSS") which is attached to the applicable Services Attachment(s) (the "Territory"). Unless specified otherwise, reference to a Services Attachment shall include the accompanying UOSS. Any transmission or receipt of the Data provided by the Service, in whatever form, outside the Territory, is a material breach of this Agreement unless the parties hereto have agreed in writing to such extraterritorial transmission or receipt and the applicable additional fees pertaining thereto.
- 1.2 All access to and use of the Services subscribed to hereunder shall be subject to the restrictions stated in each applicable Services Attachment(s). Any capitalized terms used and defined in this Agreement shall have the same meaning when used in the applicable Services Attachment(s) unless otherwise stated therein. For the purpose of this Agreement, the following terms shall have the meanings given below:
 - 1.2.1 "Affiliate" means an entity either directly or indirectly Controlled by, Controlling or under common Control (as defined below) with the entity named as Client.
 - 1.2.2 "Client" means the entity identified above.
 - 1.2.3 "Controlled" means a one hundred percent (100%) equity voting interest or the sole power to direct or cause the direction of the management or policies of the entity whether through the ability to exercise voting power, by contract or otherwise.
 - 1.2.4 "Distributor" means a third-party distributor or vendor over whose network or through whose services Subscriber may access the Service.
 - 1.2.5 "Effective Date" means the date this Agreement becomes effective as set forth above.
 - 1.2.6 "Subscriber" means the entity or entities (either Client and/or Affiliates(s)) as set forth on any Services Attachment.
- 1.3 The Service is solely and exclusively for the internal use of Subscriber as described in the UOSS. The Subscriber shall not sell, transfer, assign, publish, distribute, disseminate or convey any of the Data or any derivation, revision or combination of the Data to any other person, organization, affiliate or subsidiary.

- 1.4 Subscriber represents and agrees that Subscriber shall not display or disseminate any or all of the CUSIP identifiers or CUSIP uniform descriptions furnished pursuant to this Agreement on any computer screen terminals or any other electronic service or in any CD-ROMS utilized by third party recipients of information provided by Subscriber.
- 1.5 Client and Subscriber shall each ensure compliance with the terms and conditions of this Agreement and the applicable Services Attachment(s). Client and each Subscriber shall be jointly and severally liable for failure of either Client or Subscriber to comply with the terms and conditions of this Agreement and the applicable Services Attachment(s).

2. Copyrights and Other Proprietary Rights.

Subscriber expressly acknowledges that the Data was compiled, prepared, revised, selected, arranged and published by CGS under authority from the ABA through the application of methods and standards of judgment developed and applied through the expenditure of substantial time, effort and money, and that the Data constitutes valuable intellectual property of CGS and the ABA and that no proprietary rights are being transferred to Subscriber in such materials or in any of the information contained therein. Subscriber agrees that misappropriation or misuse of such materials will cause serious damage to CGS and ABA and that in such event money damages may not constitute sufficient compensation to CGS and ABA; consequently, Subscriber agrees that in the event of any misappropriation or misuse, CGS and ABA shall have the right to obtain injunctive relief. Subscriber agrees to protect the copyright and other proprietary rights of CGS and the ABA during the term, as well as after the termination, of this Agreement to the extent that Subscriber is in possession of any Data beyond the term thereof. Subscriber shall honor and comply with reasonable written requests made by CGS to protect its contractual, statutory and common law rights in the Data licensed hereunder.

3. Disclaimer of Warranties and Limitation of Liabilities.

DATA HAS BEEN OBTAINED BY CGS FROM SOURCES BELIEVED TO BE RELIABLE. HOWEVER, BECAUSE OF THE POSSIBILITY OF HUMAN OR MECHANICAL ERROR BY CGS'S SOURCES, CGS OR OTHERS, CGS DOES NOT GUARANTEE THE ACCURACY, ADEQUACY OR COMPLETENESS OF ANY DATA IN THE SERVICE AND IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS OR FOR THE RESULTS OBTAINED FROM THE USE OF SUCH DATA. THERE ARE NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE. ALL SUCH MATERIALS ARE

PROVIDED TO SUBSCRIBER ON AS IS BASIS.

IN NO EVENT SHALL CGS IE ABY OR THEIR RESPECTIVE AFFI. TES E LIMBLE FOR INCIDENTAL, INDIRECT, SPECIAL OR SEQUENTIAL DAMAGES, EVEN IF C TH ABA OR THEIR RESPECTIVE AFFILIATES HAS BEEN A ISED OF THE POSSIBILITY OF SUSH DAM ES. HE LABILITY OF CGS OR THE ABA AND THEIR AFFILI S IN ANY AND ALL CATEGORIES, WHET R A SING FROM CONTRACT, TORT, WARRANTY, NEGLIGENC OR OTHE VISE SHALL, IN THE AGGREGA IN EVENT EXCEED THE FEE PAID BY SUBSCRIBER FOR ACCE OF CUSINDATABASE IN THE MO. IN CH SUCH CAUSE OF ACTION IS ALLEGED TO HAVE ARISEN.

Neither party shall be liable to the other for any default resulting from circumstances beyond such party's reasonable control. No action, regardless of form, arising out of or pertaining to the Service may be brought by Subscriber more than one year from the date such cause of action occurred.

4. Usage Review.

Subscriber shall at all times during the term of this Agreement maintain full and accurate records (including applicable data in electronic format) with respect to access to and usage of the Service for the most recent thirty-six (36) months. During the term of this Agreement and for a twenty-four (24) month period thereafter, CGS shall have the right, during normal business hours, upon reasonable notice to Subscriber and subject to Subscriber's reasonable security procedures, to (i) review relevant portions of those records; and (ii) review the manner of access to and usage of the Service, in each case to confirm that fees and charges have been accurately determined and that restrictions on use and access have been observed. In connection therewith, Subscriber agrees, at Subscriber's location, to permit CGS or its representatives to review or receive a demonstration of, any network on or by which any portion of the Service are accessed for purposes of establishing compliance with the terms of this Agreement. The costs of any such review shall be borne by CGS unless such review reveals an underpayment to CGS of five percent (5%) or more; in such case, Subscriber shall reimburse CGS for its actual costs and expenses in conducting such review. Information provided by Subscriber to CGS in connection with the review shall be deemed Confidential Information pursuant to Section 11.5 below.

5. Delivery.

CGS shall provide access to the Service through the means as stated in the applicable Services Attachment(s) and only in accordance with the limitations and restrictions set forth herein and in such Services Attachment(s).

6. Term and Termination.

6.1 The term of this Agreement shall commence on the Effective Date and shall continue in effect thereafter for as long as any Services Attachment entered into pursuant to this Agreement remains in effect. The term of each Services Attachment will commence on the Commencement Date stated therein and shall continue for the period(s) specified therein and in accordance with the provisions stated therein. Subscriber understands that this Agreement is not subject

to cancellation during the first year of service. In the event of termination of a Service included on a Services Attachment containing fees/charges payable to CGS for other Services not being terminated, then the fees/charges stated in the Services Attachment for the non-terminated Services shall be adjusted by CGS in accordance with its thenapplicable rates.

In the event of any breach of any material term or provision by either party of any Services Attachment, the other party may terminate the applicable Services Attachment by giving thirty (30) days' prior written notice thereof, provided, however, that such termination shall not take effect if the party in breach cures or corrects the breach within such notice period. In the event of a breach of any material term or provision of this Agreement on the part of Subscriber, CGS shall have the right to terminate this Agreement in its entirety.

Either party may terminate any or all Services Attachments upon written notice to the other if the other party is adjudicated as bankrupt or if a petition in bankruptcy is filed by or against the other party or if the other party makes an assignment for the benefit of creditors or an arrangement pursuant to any bankruptcy act or insolvency laws.

Upon termination of this Agreement by either party for any reason, Subscriber shall promptly return to CGS any and all copyrighted Data and expunge all Data obtained from the Service in any data storage facilities. Notwithstanding the foregoing, Subscriber may retain those portions of the Services that are necessary for statutory audit requirements. regulatory compliance purposes or as required by law and may provide access to such retained portions to regulators or other legal authority solely as required in connection with their regulatory or other legal functions. For the avoidance of doubt, such retained portions of the Services may not be repurposed (e.g., incorporated into new materials) or otherwise used after termination of this Agreement, Subscriber shall certify in writing to CGS that Subscriber has complied with this section.

Upon termination of all the Services Attachment(s), this Agreement shall automatically terminate. 6.5

Subscription Price.

Invoices shall be sent to the "Bill To" address set forth in the applicable Services Attachment(s). Subscriber shall be invoiced for the Service according to the Pricing Schedule set forth in the applicable Services Attachment(s). Subscriber shall pay such invoice, together with all applicable sales, use and similar taxes, within thirty (30) days of receipt of such invoice.

receipt of such invoice.

CGS may increase its fees and charges for the Service at my time after the initial term provided in the applicable Services Attachments of by providing advance written notific to Subscribed which may be the form of an invoice, but CGS shall not increase its fees and charges for each Service subscribed to hereunder mo han once during any twelve (12) month period. Subscriber shall have the right to terminate this Agreement e ective upon the renewal date by giving CGS written violece of such termination within thirty (30) days of such adjustment to fees; if CGS does not receive written notice of termination within thirty (30) days of such adjustment to fees; if CGS does not receive written notice of termination within thirty (30) days of such adjustment of feet.

In addition to all other rights and remedies available to CGS in law or in equity, CGS may suspend delivery of the Service for as long as any involve remains unpaid offer the thirty (30) day needed referred to in Service 7.1.

Service, for as long as any invoice remains unpaid after the thirty (30) day period referred to in Section 7.1

Subscriber shall, at CGS's request, promptly provide a written certification by a senior officer that Subscriber is in full compliance with the license restrictions set forth in this Agreement, any Services Attachment(s), and UOSS. In the event that Subscriber accesses the Services via a Distributor, CGS may use information obtained by CGS from such Distributor to verify access to and use of the Services by Subscriber. Subscriber agrees to cooperate fully with CGS in reconciling any disparities revealed by such verification procedure, and Subscriber shall promptly pay CGS or CGS shall credit Subscriber's account, as appropriate, for the prorated difference, if any, between the amount of fees actually charged Subscriber by CGS and the amount that should have been charged.

CGS reserves the right to change the content, format or means of delivery of the Service from time to time. If any such changes should be of such a substantial nature so as to make the Service unusable by Subscriber, Subscriber may terminate this Agreement as of the date of such change upon written notice to CGS.

9. Indemnisication.

CGS at its own cost and expense shall defend, indemnify and hold Subscriber harmless from and against all damages, costs, judgments and expenses, including reasonable attorneys' fees, directly incurred relating to any claim or litigation against Subscriber that the Service as furnished by CGS infringes any copyright or proprietary right of any third party. CGS's indemnification obligation shall be subject to Subscriber promptly notifying CGS of the claim or the commencement of litigation against it covered by such indemnissication and permitting CGS, at its election, to defend such claim or litigation or to settle it upon such terms as CGS may find acceptable.

10. Remedies.

- 10.1 In the event of a breach or threatened breach of any of the provisions of this Agreement by the Subscriber, CGS shall be entitled to preliminary and permanent injunctive relief to enforce the provisions hereof. Nothing herein shall preclude CGS from pursuing any action or other remedy for any breach or threatened breach of this Agreement, all of which shall be cumulative.
- 10.2 CGS may terminate this Agreement with no notice in the event that CGS has reasonable grounds to believe Subscriber is violating any of CGS's proprietary rights as set out in Section 2 of this Agreement, Nothing in the Agreement however, shall be deemed a waiver by either party of any other right to terminate this Agreement that it may have under

11. Miscellaneous.

- 11.1 This Agreement shall not be assigned or transferred by Subscriber without the prior written consent of CGS and any purported transfer or assignment shall be null and void.
- 11.2 This Agreement represents the entire Agreement between the parties hereto with respect to the subject matter hereof and supersedes all prior Agreements (either written or oral).
- 11.3 No amendment of this Agreement shall be binding upon the parties unless in writing and signed by an authorized representative of CGS and Subscriber. No waiver of any term or condition of this Agreement shall be effective unless agreed to in writing by the party making the waiver.

All notices and other communications under this Agreement shall be in writing and shall be deemed to have been duly delivered if defivered by hand or sent by prepaid registered or certified mail, return receipt requested, with acknowledgment by the receiving party as of the date received, addressed as follows or to such other address as either party shall specify in a written notice to the others

If to CGS:

CUSIP Global Services

55 Water Street, New York, New York 10041

Attention: Managing Director, 45th Floor, with a copy to:

Legal Department, 43rd Floor

If to Subscriber: SUBSCRIBER Conterns in iteration each Services Attractment.

11.4 This Agreement shall be governed by and construed in accordance with the law of the State of New York, without giving effect to its reason for conflict of laws. Subscriber agrees to the exclusive jurisdiction of the state and federal courts sitting in New York, New York for the resolution of any disputes arising firm or related to this Agreement.

11.5 Confidential Information. The parties understand and agree that during the otherse of their performance under this Agreement each party may have greess to Confidential Information of the other party. For purposes of this Agreement, "Confidential Information" shall mean information or data (i) that is labeled or identified clearly as confidential by the disclosing party; or (ii) in respect of which the receiving party has received from the disclosing party specific written notice of its proprietary and confidential nature, either prior to or concurrently with the disclosure. Neither party shall disclose, directly or indirectly, in whole or in part, to any third person, firm or corporation, any Confidential Information which it receives from the other party, except that any such information may be disclosed to a party's employees, agents or advisors (i) to the extent that party reasonably determines such disclosure to be necessary; and (ii) provided that the receiving party is under the same obligations of confidentiality as are set out in this Section. Neither party shall use the Confidential Information for its own benefit, or copy or reproduce the Confidential Information, except as reasonably determined to perform its obligations under this Agreement or any Service Attachment (s). Each party shall use the same degree of care as it uses for its own confidential and proprietary information, but in no event less than a reasonable degree of care, in safeguarding the Confidential Information. Notwithstanding anything contained herein, information and data disclosed shall not be deemed to be Confidential Information, and the receiving party shall have no obligation to treat such information and data as Confidential Information, if such information and data: (i) was substantially known by the receiving party at the time of such disclosure; (ii) was known to the public at the time of such disclosure; (iii) becomes known to the public (other than by act of the receiving party) subsequent to such disclosure; (iv) is disclosed lawfully to the receiving party by a third party subsequent to the disclosure; (v) is developed independently by the receiving party without reference to the Confidential Information; (vi) are approved in writing by the disclosing party for disclosure; or (vii) is required by law to be disclosed by the receiving party, provided prior written notice of such required disclosure is given to the disclosing party. Upon request by the disclosing party or upon termination of this Agreement (or the applicable Service Attachment(s)), the receiving party shall return to the disclosing party all copies of the Confidential Information or other materials incorporating Confidential Information in the possession of its employees, agents or advisors or, if so instructed by the disclosing party, the receiving party shall destroy all such copies. Notwithstanding the aforementioned, the receiving party shall not be required to return or destroy any copies of the Confidential Information in the possession of its employees, agents or advisors and shall retain such Confidential Information as is necessary for compliance purposes, required in connection with its regulatory or other legal functions, and enforcing its rights under the Agreement. The parties agree that the terms and conditions in

this Section shall survive termination of this Agreement or any Service Attachment(s). Notwithstanding anything to the contrary set forth herein, the parties agree and acknowledge that the terms and conditions of this Agreement and any applicable amendments and/or Service Attachment(s) shall be deemed, and protected as, Confidential Information and shall not be disclosed to any third parties; provided however, either party may disclose the terms and conditions of this Agreement and any applicable amendments and/or Service Attachment(s) in summary form in connection with the sale or transfer of substantially all of its assets.

12. Electronic Agreement.

Subject to the Opt Out provision in this Agreement, the parties agree that the electronic copy of this Agreement retained by CGS constitutes the "original", complete and exclusive statement of this Agreement, and that no paper copy of this Agreement (including any paper copy retained by Subscriber) may be claimed to be the document memorializing this Agreement. This section shall survive any termination of this Agreement,

13. Electronic Agreement "Opt Out".

☐ Check here if a party executing this Agreement does not consent to the electronic copy of this Agreement serving as the "original" pursuant to Section 12 and requires that the original Agreement be maintained in paper form. This section shall survive any termination of this Agreement.

Subscriber: Teachers' Retirement System of the State of Kentucky		Accepted for CUSIP Global Services, managed by S&P Global Market Intelligence LLC on behalf of The American Bankers		
Signature:		Association Signature:		
Date:	11/1/0 3	1/2/3/2/2/		
Name:	Tom Siderewicz	Date:		
Title:	C-\$0	Name: cott I. Preiss		
Email:	Tom Sidercypic Typerty.	Talle: Managing Director		
		Global Head - CGS Rention Procedures, The American Bankers Association.		

CUSIP GLOBAL SERVICES SERVICES ATTACHMENT TO THE CUSIP SUBSCRIPTION AGREEMENT

This CGS Services Attachment (this "Attachment") is entered into by and between Subscriber (as set forth below) and CUSIP Global Services ("CGS") having its principal offices at 55 Water Street, New York, New York 10041-0003, and is made pursuant to, and is incorporated as part of, the CUSIP Subscription Agreement with the Effective Date stated below (the "Agreement") by and between Teachers' Retirement System of the State of Kentucky, 477 Versailles Rd., Frankfort, KY 40601, and CGS. CGS is managed by S&P Global Market Intelligence LLC, a Delaware limited liability company, on behalf of the American Bankers Association. Any term not otherwise defined herein shall have the meaning ascribed thereto in the Agreement.

LIST SUBSCRIBER(S) FOR PURPOSES OF THIS ATTACHMENT: TEACHERS' RETIREMENT SYSTEM OF THE STATE OF KENTUCKY

EFFECTIVE DATE OF THIS ATTACHMENT:	June 1, 2017
EFFECTIVE DATE OF THE AGREEMENT:	June 1, 2017
INTERNAL CONTRACT NUMBER OF AGREEMENT:	00764419.0
ACCOUNT EXECUTIVE:	Eric Bauer -

1. Services:

Subscriber may access one or more of the following Services described below, as designated in the Pricing Schedule:

- CGS Master File License; The CGS Masterfile License service consists of CUSIP, CINS and/or CGS ISIN 1.1 identifiers and standard security descriptions provided by either CGS or a CGS-Licensed third party vendor as part of Subscriber's agreement with such vendor. For deliveries of CGS Data not made by CGS directly, CGS is not responsible for any errors or delays in the delivery of CGS Data through that third party vendor's system.
- CGS CL/SIP Master File: The CGS CUSIP Master File service is a CGS delivery service available exclusively 1.2 through CGS whereby the CGS Master File Database is delivered by CGS via feed on an intraday, daily or weekly basis. In addition, subsets of this service can be provided such as Equity only, Mani Bonds, Corporate Bonds, Mutual Funds, Certificates of Deposit Equity-Common & Preferred Only Corporate Only (includes Corporate, US Government and Sovereign issuers), and All Debt (Corporate, Muni, U.S. Government Subsection).

 CGS Private Placement Numbers? The CGS Private Placement Numbers service contains private placement identifiers assigned for use in insurance company regulatory filling available on a daily or weekly basis via feed.

 CGS Mortgage-Bucked Securities The CGS Mortgage-Backed Securities service contains CUSIP identifiers for mortgage pools issued by U.S. Federal Agonoises.
- 1.3
- CGS CINS Master File: The CGS CINS Master File service contains CUSIP International Numbers (CINS) for debt and equity securities offered outside the U.S. and Canada trading in two or more global markets. The service is available intraday, daily, or weekly via feed. In addition, subsets of this service can be provided such as Equity only.
- CGS CINS Master File with ISIN Master File: The CGS CINS Master File with ISIN Master File contains CUSIP International Numbers (CINS) for debt and equity securities offered outside the U.S. and Canada trading in two or more global markets and is linked to the ISIN (if available). The service is available intraday, daily, or weekly via feed. In addition, subsets of this service can be provided such as Equity only.
- CGS ISIN Master File: The CGS ISIN Master File service contains ISINs assigned by CGS as the U.S. National Numbering Agency and as Substitute Numbering Agency for selected countries, primarily in the Caribbean and South America. The service is available daily or weekly via feed. In addition, subsets of this service can be provided such as Equity only and, Corporate Only (includes Corporate, US Government and Sovereign issuers.
- CGS Syndicated Loans: The CGS Syndicated Loan service provides a file of private bank toans as released by financial institutions acting as administrative agents and is comprised of a deal file and a facility file. The service is available via feed with daily updates. This service is developed through collaboration between CGS and the Loan Syndications and Trading Association (LSTA). In the event this service is selected by SUBSCRIBER, the limitation of liability set forth in the Agreement is hereby amended to include all administrative agents or private bank loans as being excluded from all liability under such section.

- CGS Options: The CGS Options service contains 9-character CUSIP identifiers, ISINs and related data, including OPRA and OCC Symbols for U.S. & Canadian listed options. The service is available with two intraday updates via feed.
- CGS Associated Issuers: The CGS Associated Issuers service contains 6-character CUSIP Issuer Numbers that are 1.10 related through corporate actions or multiple issuances in the CUSIP database. The service is available weekly or daily via feed. Notwithstanding anything to the contrary herein, this service is available to SUBSCRIBER on an internal use basis only and SUBSCRIBER is expressly prohibited from furnishing or providing access to the Service or any portion thereof to any person, firm or entity.

CGS 144A: The CGS 144A service links securities contained within the same private placement offering document. CUSIP identifiers are assigned for each type of qualified institutional buyer in these offerings (144A, Accredited Investor, Registered and Reg S identifiers, where available). This service is available daily via feed.

CGS TBA (To Be Announced): The CGS TBA service contains future contracts on mortgage-backed pools including a specialized numbering scheme that incorporates a security's mortgage type, coupon, maturity, and settlement month. CGS provides a one-time file, comma-dellmited, with periodic updates via feed.

CGS Hedge Fund Service: The CGS Hedge Fund service contains CUSIP identifiers and basic descriptive data for domestic and global hedge funds and funds of funds. This service is available weekly via feed.

CGS Global ISIN Data File: The CGS Global ISIN Data File service provides 12-character ISINs linked to a CUSIP Number or CUSIP International Number (CINS). The ISIN data is sourced directly from over 110 National Numbering Agencies and provides identifier linkages, standard security descriptions and reference data. This service is available daily via feed.

CABRE's Relation Instrument Bundle ("CRIB"): The CRIB service maps the CABRE, CGS' legal entity offering, 1.15 to the securities issued by a single entity historically, CRIB contains thousands of entity "bundles" linking the CABRE to that entity's underlying CUSIP, CINS and ISINs including matured and suspended issues. This service may require additional agreements with third parties and/or CGS. This service is available daily via master file refresh only via feed.

CGS Portfolio Service: The CGS Portfolio service allows users to send in-bound identifiers such as CUSIP, CINS, or ISIN and receive back validation flags and corresponding Issue and Issuer level descriptions and reference data. This data can be delivered and accessed via feed.

CGS Muni Pre-Refunded Linkage Service: The CGS Muni Pre-Refunded Linkage service tracks partially prerefunded municipal bonds. New CUSIP identifiers are assigned when a municipal bond is partially pre-refunded, that is when a portion of the outstanding principal amount of an issue (maturity) is pre-refunded before the scheduled maturity

date. This service links the original pissor with the newly created pre-refunded and numeral under date issues (and any subsequent pre-refunding for the new CUSIPs). This rervice is available daily via red.

CGS CUSIP Access: The CGS CUSIP Access dervice is an on-line look up provide providing near real-time access to the CUSIP/CINS database via SUBSCRIBER'S aveb browser. This revice offers more than 14 million CUSIP and CINS identifiers for U.S. and global dept and equity financial instruments. CGS will assign user login IDs/passwords based on individual email addresses. No sharing of such user IDs/passwords and no simultaneous access via the same password shall be permitted: password shall be permitted:

Core Entitlements include:

- ID and Description search a)
- b) 144A
- c) Corporate Actions
- d)
- Portfolio List service (service to validate and download up to 25 CGS identifiers) e)
- n CUSIP New Issue Alert Service

Supplemental entitlements available (subject to an additional fee):

- Syndicated Bank Loans
- h) Associated Issuers
 - U.S. and Canadian Listed Equity Options
- Portfolio Download service (service to validate and download up to 500 CGS identifiers) j)

Term:

i)

The term of this Attachment as it applies to the Service described above shall be for a period of 12 months(s) from the Effective Date of this Attachment and shall be automatically extended for successive one (1) year terms unless either party shall notify the other in writing of its decision not to extend the term of this Attachment as it applies to the Service at least thirty (30) days prior to the expiration of the term then in effect.

3. Use and Restrictions on Use:

Subject to the terms and conditions of the Agreement and the CUSIP Use of Service Statement dated 5/17/2017 (MM/DD/YYYY) (which may be amended or updated from time to time by mutual consent of the parties), incorporated and made a part hereof the Service, is solely and exclusively for the internal business use and de minimus distribution by Subscriber as stated in the Use of Service Statement provided however, notwithstanding anything to the contrary set forth in the Agreement or the Use of Services Statement, the display of CUSIP identifiers requires the execution of the Web Display Addendum.

Bill to:

Kentucky Teachers' Retirement System (Attn To: Tom Siderewicz)

477 Versailles Rd., Frankfort, KY 40601 United States

Deliver to:

Kentucky Teachers' Retirement System (Attn To: Tom Siderewicz)

477 Versailles Rd., Frankfort, KY 40601 United States

4. Pricing Schedule:

Service: CGS License Fee to 10,000 CGS Identifiers L

Delivery Method: CUSIP Third Party Vendors

Frequency: N/A

Annual Fee (1st Year): \$20,000.00

Quantity: 1

Estimated Grand Total: \$20,000,00

*Fees may be subject to sales to

5. Withholding Tax:

If any fees paid to CGS hereunder are subject to withholding taxes by a country inher than the country of tax residence of CGS ("Home Country"), Subscriber shall provide to CGS an original receipt from the tax authorities of such foreign country evidencing the amount of tax withheld. Such receipt shall be furnished at the time such fee is paid to CGS or as soon thereafter as is practicable. If CGS is denied a foreign tax credit due to the failure of Subscriber to provide satisfactory evidence of the amount withheld, Subscriber shall pay to CGS an amount sufficient to compensate, on an after-tax basis, for the credit denied. The foregoing obligation of Subscriber shall survive the termination of the Agreement or any Services Attachment. If a tax treaty exists between the Home Country and the foreign country subjecting the fees to withholding taxes, CGS hereby elects to apply the withholding rate applicable under such tax treaty. If Subscriber requires a special certificate from CGS to apply the withholding rate under the tax treaty, such certificate should be requested from CGS at the time of execution of this Agreement or the applicable Services Attachment(s).

6. Notices:

Pursuant to the Notice section of the Agreement,

If to Subscriber:

Tom Siderewicz

477 Versailles Rd., Frankfort, KY 40601 United

States

7. Electronic Agreement:

Subject to the Opt Out provision in this Attachment, the parties agree that the electronic copy of this Attachment retained by CGS constitutes the "original", complete and exclusive statement of this Attachment, and that no paper copy of this Attachment (including any paper copy retained by Subscriber) may be claimed to be the document memorializing this Attachment. This section shall survive any termination of this Attachment.

8. Electronic Agreement "Opt Out":

☐ Check here if a party executing this Attachment does not consent to the electronic copy of this Attachment serving as the "original" pursuant to the Electronic Agreement section above and requires that the original Attachment be maintained in paper form. This section shall survive any termination of this Attachment.

[This Space Intentionally Left Blank]



This Attachment supersedes all previous Attachments between the parties with respect to its subject matter. Each of the undersigned acknowledges that he/she is authorized to execute this Attachment on behalf of Subscriber, and CGS respectively. The signatures below are evidence of each party's agreement to be bound by the terms and conditions of this Attachment and the Agreement, the terms and conditions of which are incorporated herein by reference as if set forth at length. Where Subscriber is not a party to the Agreement, Subscriber expressly acknowledges and agrees that, by entering into this Attachment, it shall be bound by, and shall comply in all respects with, the terms and conditions contained in the Agreement. In the event of any conflict between the terms of the Agreement and the terms of this Attachment, the terms of this Attachment shall prevail with respect to this Services Attachment only.

Subscriber: Teachers' Retirement System of the State of Kentucky	Accepted for CUSIP Global Services, managed by S&P Global Market Intelligence LLC on behalf of The American Bankers		
Signature	Association Signature:		
Date: ////7 Name: Tem Sideriwicz	Date:	Scott J. Preiss	
Title: CTO Email: Town, 5, derew; (7, Ptrs, Ky	Name:	Managing Director	
	. ĵ∘ ∩	Global Head - CGS	



^{*} If the Agreement to which this Attachment relates was entered into using any version that predates June 1, 2011, a CUSIP Usage Review Addendum must be executed by Subscriber and accompany this Attachment.



CUSIP Use of Service Statement

Please complete this Use of Service Statement which will be incorporated into the License Agreement and subject to an annual affirmation of usage.

A license agreement is required when a user obtains access to an electronic data feed or bulk download of CUSIP, CINS and CGS ISINs ("CGS Identifiers") and related descriptive data - either directly from CGS or indirectly through one of CGS' authorized data vendors/information providers ("Authorized Distributors"), including when a user's database that contains CGS Identifiers and related descriptive data (including any outsourced databases) is updated, maintained and/or operated by an Authorized Distributor. For additional information, please visit our website at www.cusip.com.

Company Information				
Date: 05/17/2017	Contact: Tom Siderewicz			
Subscriber: Teachers' Retirement System of the State of	Address: 477 Versuilles Rond			
Kentucky				
Parent Company:	City: Frankfort			
Company Website:	State / Province: KY			
Affiliates: ☐ Yes, listed on Exhibit "Z" ☒ No	Zip / Postal Code: 40601			
1. Our firm uses these CGS Identifiers: ☐ CUSIPS	☐ CINS ☐ CGS ISINs			
2. Please briefly describe your company's overarching to CGS Identifiers in their internal operations (including a	business lines, including how they store/maintain and use			
	ublic Pension Plan. CGS Identifiers are stored within interna			
	pe distributed (including web display) outside our firm (e.g ies, regulatory agencies, etc.)			
	gs only (including trading & settlement) with associated CG ic Download (read-only format), and Web Access to a securonly).			
5. Institutional Client Statements containing client holdings only (including trading & settlement) with associated CGS identifiers will be distributed to clients in Print, Electronic Download (read-only format), and Web Access to a secure client account (limited file download of up to 500 CGS Identifiers on a monthly basis – client's holdings only. If your firm sends more than 500 CGS Identifiers on a monthly basis, please describe in Section 6).				
6. The following describes our firm's external use, display and/or distribution of CGS Identifiers and related descriptive data, including which data elements are distributed externally and to whom they are delivered:				
KY Teachers Retirement System shares CGS Data only for Bank (BNY) ongoing: KY Legislative Research Commission	r internal purposes and state compliance regulations: Custodia (LRC) - we file an annual report of all holdings.			
7. Our firm offers the following products, services, and capabilities that display or distribute CGS Identifiers: Reference Data				
☐ Indices ☐ Fund Admir	nistration			
	sk & Analytics			
	(e.g. IT, Operations, Data			
	nt, Back Office Services)			
☐ Credit Ratings Agency	_ Ouigi			
8. Our firm markets the following products (names and locations) that distribute CGS Identifiers: Display Product (including Web, Desktop API, Terminal) N/A Bulk Download/Feeds (including Portfolio, Downloadable API)				

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Other (including Print)					
9. Does your firm act as a hosted solution provider where a client's database containing CGS Data is stored on your company's data storage systems? Yes No Does your firm update and/or maintain the CGS Data hosted on your client's behalf? Yes No If yes, please name and describe the service(s)					
10. Our firm receives CGS Identifiers from the following but not limited to Bloomberg, Thomson Reuters, Six Fina Loan Performance, NASD Trace, FactSet, Morningstar, MQED, IDC, Bloomberg, FactSet	ing data providers (please include update frequency) (Including ancial Information, FT/IDC, Ratings Agencies, Index Providers, MSRB/FINRA etc.):				
11. Our firm receives CGS Identifiers as follows: ☑ File Download ☐ Bulk Feed ☑ View Only Dis					
12. Our firm stores/maintains in a database (whether lead of unique CGS Identifiers (excluding matured and defendance of Under 500 ☐ Up to 5,000 ☐ Up to 2,500 ☐ Up to 10,000	located internally or outsourced) the following total number funct securities): Up to 20,000 Up to 30,000 Up to 30,000 More than 40,000				
13. Our firm uses CGS Identifiers in the following instrument types: ☑ All stocks and bonds ☐ Municipal Bonds ☐ Equities ☐ Corporate — Stocks and Bonds ☐ Corporate Bonds ☐ MBS (Pools) ☐ Options ☐ Syndicated Loans ☐ Hedge Funds ☐ Other (PPN, TBA, 144A, etc.)					
14. The following Industry Classification(s) describe(s) our firm's business: □ Accounting Firm □ Asset Management □ Audit/Consulting Firm □ Open & Closed End Funds □ Broker-Dealer □ Insurance Company □ Investment Banking □ Regulator/Government □ Bank- Other Services □ Other ○ Other					
15. Our firm has access to and usage of CGS Identifier	rs in the following geographic region(s):				
North America South America Europe □ USA □ Argentina □ UK □ Spain □ Canada □ Brazil □ France □ German □ Mexico □ Colombia □ Switzerland □ Caribbean □ Other □ Italy □ Other □ Other □ Other	Middle East & Africa				
Teachers' Retirement System of the State of Kentucky	CUSIP Global Services				
Company					
Tom Siderewicz / CIO	Alison Romeo				
Contact Name/Title X	Print Name/Title X 07/24/2017				
Signature / Date	Signature Date				
502-848-8603	(Internal Use Only)				
Contact Phone	ØAMERICAS □ EMEA □ ASIA-PAC				

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tom.siderewicz@trs.ky.gov		Notes:		
Contact E-Mail		Sales Rep: Eric Bauer		
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		Affiliates		
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Company				
Contact Name/Title		Print Name/Title		
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Signature	Date	Signature	Date	