TIAA PERSONAL PORTFOLIO ADVISORY AGREEMENT

This Agreement sets forth the terms and conditions governing participation in the TIAA Personal Portfolio program (the “Program”).

By acknowledging your consent electronically, you agree to enter into and be bound by the terms and conditions of this Agreement.

Advice and Planning Services (“APS”) serves as the sponsor, manager and administrator of the Program and is a division of TIAA-CREF Individual & Institutional Services, LLC (“TC Services”), an investment adviser registered with the Securities and Exchange Commission.

By entering into this Agreement, you acknowledge that you have received the Program’s Disclosure Brochure, which provides important information about the services, fees and conflicts of interest related to the Program. A copy of the Program’s Disclosure Brochure and this Agreement is also accessible through the interactive website, mobile application, or other electronic platform that is used to operate the Program (the “Site”). You should read the Program’s Disclosure Brochure prior to signing up for the Program.

You understand and agree to the following:

A. **Program Overview.** The Program is a discretionary advisory service offered online through the Site. After providing the Program with information relating to your investment goals, risk tolerance, timeframe and Investing Style (as further described in Paragraph H), the Program will recommend a portfolio that may include a combination of both registered mutual funds and exchange traded funds (“ETFs”) (collectively, the “Funds”) in exchange for a fee of 30 basis points (0.30%) annually.

The portfolio recommended for you is based on a number of models ranging from conservative to aggressive risk levels. Your proposed asset allocation and investment strategy is based on and limited to only the information you provide through the Site in connection with your Program account. APS will continue to rely on such information in managing your Program account in line with the appropriate model portfolio. Therefore, it is important that the information you provide through the Site is accurate and complete and that you update that information immediately if it changes. APS will not independently verify any information you provide through the Site. While the Site may allow you to enter information regarding accounts that you have outside of the Program account (“Other Accounts”), APS uses that information solely for the purpose of calculating your potential retirement income in connection with the Retirement Check-Up tool. APS will not consider information about your Other Accounts in managing your Program account. The Program also does not manage any Other Accounts.
APS currently uses a variety of Funds to build a portfolio of diversified holdings appropriate for clients enrolled in the Program. APS, at its discretion, may use all or a subset of these types of Funds to construct the portfolios. The Funds include affiliated TIAA investment products as well as unaffiliated investment products. TIAA investment products are manufactured by TIAA affiliates, such as the TIAA family of mutual funds and the various registered funds of Nuveen Investments, Inc., including the Nuveen Funds (we refer to all such affiliated products as “Affiliated Funds”).

The Program is appropriate for investors with a minimum three year investment timeframe and a $5,000 minimum investment (unless approved for a lesser amount).

B. **Online Operation.** The Program is offered only online through the Site. You acknowledge that the Program does not offer you a dedicated investment advisor, as certain other investment advisory programs may offer. By entering into this Agreement, you consent to electronic delivery of all current and future Form ADVs, brochure supplements, privacy notices, prospectuses and offering documents, tax forms and other legal and regulatory notices, disclosures and communications (collectively “Communications”) delivered or provided by APS in connection with services offered through the Program. You also understand that you are expected to communicate with APS primarily via electronic channels (i.e., email, chat, the Site or other electronic medium). You authorize APS to post Communications on your tiaa.org page or such other password protected website as APS may designate, and you understand that APS will, to the extent required by law, send you an email notification directing you to the relevant website. You also authorize APS to deliver the Communications to your email address of record. You agree that all Communications provided in any of the ways described above will constitute good and effective delivery of those Communications to you when posted or sent, regardless of whether you actually or timely access, view or otherwise retrieve the Communications. You may request paper copies of any Communication that APS is required by law to provide to you, however, APS reserves the right to charge you a reasonable service fee for the delivery of paper copies of such documents as permitted by law.

Your consent is effective immediately and you agree that your access to the services provided through the Program is conditioned on your consent to electronic delivery. If you do not wish to receive Communications electronically, please do not accept this Agreement. You may revoke this electronic consent at any time by contacting APS at 844-362-8422. However, if you revoke this consent to electronic delivery, this Program may not be appropriate for you and APS thereby reserves the right to terminate this Agreement and your participation in the Program.
If an email notification sent to you at your electronic address of record is returned as undeliverable and APS is unable to obtain a valid email address, Communications that are required by law will be delivered by regular mail until you verify your e-mail address. If APS is unable to obtain a valid e-mail address, you will be deemed to have revoked your consent to electronic delivery. You understand that if you revoke your consent, APS reserves the right to terminate this Agreement and will no longer manage your Program account on a discretionary basis. You agree that your revocation of consent will not affect the legal effectiveness, validity, or enforceability of any previous electronic delivery. You agree that, during the term of this Agreement, you will ensure that APS has a valid email address for you and you will notify APS promptly of any change in your email address by changing your email address on the Site. Until APS has received and had a reasonable time to act on any notice of a change, we may continue to send Communications to your previous email address. You acknowledge that you have access to a computer with adequate hardware and software capability to access and view any Communications sent electronically, including Internet access, a valid e-mail address and a printer or other device to download and save any information you wish to retain. You are aware that there may be other costs associated with that use (such as Internet access fees, phone charges, printing costs, etc.) for which you are responsible.

C. Retirement Education on the Site. Depending on how you access the Site, for information about your retirement goal the Site may provide an optional tool that can help you calculate potential retirement income based on your stated retirement savings. For all clients that select the retirement goal, the Site also provides information and education regarding the differences between Traditional and Roth IRA account types that are available for a Program IRA account. While these tools may inform your decision about how much to invest in a Program IRA account or the type of Program IRA account that you open, you acknowledge that the availability of these tools should not be viewed or construed as a suggestion that you take or refrain from taking a particular course of action, as the advice of an impartial fiduciary, or as an offer to sell or a solicitation to buy any securities. In making the tools and information available to you, APS assumes that you are capable of evaluating the information and exercising independent judgment. You should not invest a particular dollar amount in the Program or select a particular account type without first considering whether it is appropriate for you based on your own particular situation. You are aware that APS will not perform any suitability or other analysis to check, for example, whether the amount you choose to invest is appropriate or consistent with your investment objectives nor whether the Program IRA account type selected is appropriate for you. The information that you may derive from these tools are for illustrative purposes only. The purpose of these tools and information is not to predict future returns, but to be used as education. You understand that you should not rely on these tools and information as the sole source of making any financial decisions.
D. **Appointment.** By enrolling in the Program, you are granting APS discretionary authority to manage your Program account by purchasing and selling securities on your behalf in accordance with your responses to the questions on the Site, market conditions, and any reasonable restrictions/personalizations (accepted by APS) that you may impose on the management of your assets.

E. **Minimum Investment and Funding.** The minimum investment for participation in the Program is $5,000, unless approved for a lesser amount. Should you fund the Program account by a transfer of securities, you direct APS to sell those holdings as soon as practicable upon their receipt in the Program account in good order; provided, however, that you understand and acknowledge that market factors and the nature of the securities funding the Program account, including but not limited to liquidity considerations, may delay or otherwise impact the timing of the sale of securities. Program management of the Program account will not begin until such securities have been sold. The sale of transferred securities may cause a taxable event. It is your responsibility to consult with your tax advisor regarding potential tax consequences. APS does not provide tax advice.

F. **Non-Exclusive Management.** You acknowledge that APS and its affiliates perform investment management or advisory services for other clients and you agree that APS may give advice to and take action for other clients, which may be the same as or differ from the advice given to or action taken for you. In addition, transactions in a specific security may not be accomplished for all client accounts at the same time or at the same price.

G. **Rebalancing.** APS will monitor the model portfolio used in connection with your Program account daily. When market conditions cause your assets to deviate over time from the model portfolio used to manage your Program account and such deviation becomes materially significant (as determined by APS), then your Program account will be rebalanced to align it with the model portfolio. Program accounts with values that drop below the $5,000 minimum may not be able to achieve optimal rebalancing because a rebalance may mean that the Program account should hold certain securities that it cannot hold as a result of such lack of funds.

H. **Reasonable Restrictions/Personalizations.** You may impose reasonable restrictions (otherwise referred to on the Site or in this Agreement as “personalizations”) upon the management of your Program account by calling 844-362-8422 to request that APS select an alternative security in place of a security initially selected for your Program account. Any such personalizations are subject to acceptance by APS at its discretion. You acknowledge that any such personalizations may cause the performance of your Program account to
differ from that of the recommended model portfolio, possibly causing higher or lower results. In addition to the ability to impose a reasonable restriction, you acknowledge that you have the ability to further personalize your portfolio by selecting among Investing Styles – you can select from a mostly passive strategy (referred to as Basic), a mostly active strategy (referred to as Insight) or a mostly socially responsible strategy (referred to as Impact). APS may include additional preferences from time to time with notice to you.

I. **Quarterly Check-In.** APS will inquire quarterly whether there have been any changes to your life or finances that should be reflected in the information provided to APS on the Site, or whether you wish to impose or modify any personalizations on the management of your Program account. In the interim, you are responsible for contacting APS whenever a material change in your life or finances occurs, as such changes may affect the continued appropriateness of your current model portfolio.

J. **Brokerage Account.** In order to participate in the Program, you must open a brokerage account through TC Services’ retail brokerage business, TIAA Brokerage Services (“TBS”), and fund the brokerage account with the Program minimum investment of $5,000 (unless approved for a lesser amount). TC Services holds your assets in custody with Pershing LLC, its clearing firm. Pershing LLC is a subsidiary of BNY Mellon and is located at One Pershing Plaza, Jersey City, NJ 07399. You understand that the Program uses TBS to effect all transactions and you hereby direct APS to trade through TBS on behalf of your Program account. You will receive account statements from Pershing LLC at least quarterly and are responsible for reviewing each account statement in a timely manner and contacting APS to discuss any concerns or discrepancies identified therein.

This Agreement constitutes an amendment and supplement to the Brokerage Account Customer Agreement (the “Brokerage Agreement”), as it may previously have been amended or supplemented, which you acknowledge having received, read, and understood. You acknowledge that the Program account will be governed by the terms and conditions of the Brokerage Agreement (including the arbitration provisions contained therein), and this Agreement, which together represent the entire agreement between the parties with respect to the services described herein and therein and supersede all previous agreements and understandings between the parties with respect to the Program. Termination of this Agreement will not result in termination of the Brokerage Agreement, the terms and conditions of which will continue to remain in full force and effect. If any provision of this Agreement shall be held or made invalid by a court decision, statute, rule, or otherwise, the remainder of this Agreement shall not be affected thereby.
K. **Fees.** You will be charged an asset-based fee of 30 basis points (0.30%) annually (the “Program Fee”) for participation in the Program. The Program Fee covers the costs associated with managing the Program account, developing the Program’s advice, custody of Program assets, trade execution, client reporting, and other administrative expenses. The Program excludes cash balances that are in your Program account when calculating the Program Fee. The Program Fee does not include any fees, costs, and expenses inherent in underlying mutual funds or ETFs, including investment advisory, administrative, distribution, transfer agent, custodial, legal, audit, contingent deferred sales charges or redemption fees and other customer fees and expenses related to investments in these products, which are described in the relevant prospectus or similar disclosure documents. Consequently, this means you will pay the Fund fees and expenses as a Fund shareholder, except where expressly qualified below in connection with your individual retirement accounts enrolled in the Program (“IRAs”). The Program Fee does not include costs associated with additional services requested by you, including wire or electronic fund transfer fees, overnight delivery fees, duplicate statement fees, account transfer fees, and reorganization fees.

The Program Fee is payable quarterly in arrears. It is calculated by multiplying the daily market value of your Program account by the pro-rata daily Program Fee (the “daily fee calculation”) and summing the value of the daily fee calculations during the preceding quarter. The Program determines market value in reliance upon published net asset values and prices reported on national exchanges. Should neither be available for a particular security, the Program will price the relevant security based upon fair valuation principles that attempt to estimate what the security would bring upon sale. APS will deduct the Program Fee from the Program account on a quarterly basis, generally within thirty business days after each quarter’s end, by charging cash balances or redeeming Fund shares within the Program account. For the initial enrollment quarter, Program Fees will be deducted as described above for the remainder of that quarter.

L. **Fee Credit for IRAs.** For IRAs enrolled in the Program, APS will reduce the Program Fee by a fee credit for IRA assets invested in Affiliated Funds. The fee credit will be calculated by offsetting both (i) the investment management portion of the proprietary fund expenses (“Affiliated Fund management fees”) that TIAA affiliates receive in connection with the Affiliated Funds held in the IRA, and (ii) the administrative and other fees that TIAA affiliates receive from such Affiliated Funds included in the Affiliated Fund’s expenses. APS may exclude from the fee credit amount any reimbursable expenses paid by the Affiliated Funds to TIAA affiliates which are reasonable direct expenses of the TIAA affiliates. This includes expenses such as salaries of affiliate personnel attributable to work performed for the Affiliated Funds held in your IRA and third party custodial fees and transfer agent fees associated with the Affiliated Funds.
Funds held in your IRA. APS also may reduce the fee credit amount to reflect fee waivers and reimbursements granted by TIAA affiliates to the Affiliated Funds as disclosed in the applicable fund prospectus. The fee credit may vary depending upon the particular Affiliated Fund employed, as the fees differ from fund to fund.

M. Rule 12b-1 and Other Fund Fee Reimbursements. With regard to any Funds held in your Program account which levy a Rule 12b-1 fee or other fund fees for distribution, administrative, sub-transfer agency, or shareholder services (referred to as “Other Fund Fees”), APS will deposit directly into your Program account whatever portion of the Rule 12b-1 fee and Other Fund Fees it receives. Other service providers, such as Pershing LLC, receive Rule 12b-1 fees and Other Fund Fees in connection with the Funds held in your Program account and APS will not reimburse these fees that are retained by Pershing LLC.

N. Bank Sweep. You acknowledge and agree that cash balances held in your Program account that are pending investment as well as any strategic cash balances allocated to cash within your portfolio are invested in the bank sweep product described below. TBS may change the terms and conditions of the sweep program it makes available to brokerage accounts, including adding, changing or deleting available sweep vehicle options. Cash balances in your Program account, up to a maximum deposit amount (currently $248,500) will be swept into deposit accounts with TIAA, FSB (the “Affiliate Bank Sweep”). TIAA, FSB is a federal savings bank and an affiliate of APS. See the Bank Sweep Product Terms and Conditions for more information. In the event your Program account holds a cash balance in excess of the maximum deposit amounts, a separate overflow bank sweep product – the Liquid Insured Deposits product (“LIDs”) – will be used for such excess amounts. Through LIDs, a variety of participating banks unaffiliated with TIAA may receive deposits. See the LIDs Terms and Conditions for more information.

O. Investment Information and Risk Factors. You will receive prospectuses or similar disclosure documents for securities purchased within your Program account. You also acknowledge having received and read the Program’s Disclosure Brochure. You are responsible for reviewing these materials and will be subject to all of the terms and conditions stated therein.

In connection with IRAs, you acknowledge and agree that the Program may invest your IRA in Affiliated Funds, subject to the fee credit offset described in Paragraph K where it deems them appropriate given your investment objectives. Each Affiliated Fund prospectus describes the investment characteristics, the schedule of fees paid to TIAA
affiliates by the Affiliated Fund, and the schedule of fees paid to TIAA affiliates for any additional services provided by them to the Affiliated Fund.

You acknowledge and understand that the following risks are among those that must be considered when determining whether to enroll in the Program. The following list does not purport to be an exhaustive list of all risk factors associated with the Program.

- Investing in securities and other property involves risk of loss that you should understand and be prepared to bear. Investment performance of any kind can never be predicated or guaranteed and the value of your Program account will fluctuate due to market conditions and other factors. Past performance does not guarantee future results.

- No assurance has been, or can be, given that you will achieve your goal by granting discretionary investment management authority to APS through the Program.

- You understand that the recommendations generated through the Program are highly reliant on the accuracy of the information provided by you through the Site regarding your goal, time horizon, risk level, and Investing Style. If you were to provide APS with inaccurate information, this could materially impact the quality and applicability of the recommendations generated. In addition, the recommendations generated through the Program rely exclusively on your responses to the questions regarding your goal, time horizon, risk level and Investing Style asked through the Site. Any additional information gathered is not used in developing the recommendations provided through the Program. Also, there may be additional information or other financial circumstances not considered based on the questions asked at the time you establish your investment goals that would inform the investment advice and recommendations provided through the Program. Given the inherent limitations of the Program, you should carefully consider whether the Program is the right investment solution for your needs.

- The methodologies underlying the Program rely on a number of assumptions based upon a limited amount of client information provided through the Site and a number of variables that may be extracted from complex financial markets or instruments that they intend to replicate. Any one or all of these assumptions, whether or not supported by past experience, could prove over time to be incorrect, which could result in losses.
The offerings within the Program are dependent upon various computer and telecommunication technologies, many of which are provided by or are dependent on third parties. The successful operation of the Program could be severely compromised by system or component failure, telecommunication failure, power loss, a software-related system crash, unauthorized system access or use, computer viruses and similar programs, fire or water damage, human error in using or accessing relevant systems, or various other events or circumstances. Any event that interrupts such computer and/or telecommunication system or operations could have a material adverse effect on your Program account.

P. Proxy Voting. APS will vote proxies on your behalf for the Funds held in your Program account, unless you direct otherwise by calling 844-362-8422. If so directed, proxies will be forwarded to you for your vote. APS will also pass through for you to vote directly any voluntary corporate action notices.

Q. Taxes. Each time securities in your Program account are sold or redeemed, a taxable loss or gain may be generated and you are exclusively responsible for the timely payment of all tax liabilities, if any, arising out of transactions in your Program account, and for the timely filing of all required tax returns. By entering into this Agreement, you agree that APS has not provided, and does not and will not provide, any tax advice. You acknowledge that you, and not APS, are responsible for any tax implications and/or tax obligations resulting from your decision to enroll in the Program and from your choice of investment strategies.

Additionally, your grant of discretionary authority to APS under the Program also extends to the selection of a tax lot relief method (also called a cost accounting method) for your Program account in calculating the gain or loss on the sale of a covered security. A tax lot relief method is a way of computing the realized gain or loss for an asset sold in a taxable transaction. It determines the lot of a security, as well as its associated cost basis, and the holding period used in computing the gain or loss. Although TIAA’s default tax lot relief method, as specified in the Brokerage Agreement, is First In, First Out (“FIFO”), you hereby authorize APS to select the cost basis accounting method which it deems appropriate to select and use in its discretion with respect to any transaction in your Program account. You acknowledge that APS’ default cost basis accounting method is the “minimize short-term gains” method, which minimizes the tax impact on the account by taking losses first and gains last. You hereby grant APS the authority to use any such method as it may select in its discretion, or any such method it may implement by default, for any transaction in your Program account. TIAA and its affiliates shall have no liability for any damages you may incur as a result of (i) TIAA providing the required 1099-B Annual Information Report to the Internal Revenue
Service ("IRS"), or (ii) any differences in the cost basis reported by TIAA to the IRS and your actual adjusted cost basis.

R. **Privacy.** All information furnished by you to APS, and all other information related to your Program account, will be handled in accordance with the TIAA Online Privacy Notice, as amended from time to time. You hereby acknowledge receipt of the TIAA Online Privacy Notice.

S. **Accuracy of Information.** You are solely responsible for the accuracy of any information that you provided to APS in connection with the Program. You must notify APS by making changes on the Site or by sending a message through the Site promptly following any change to your financial or personal information which might affect your Program account, the allocation of assets or the manner in which your assets are invested.

T. **Strict Compliance.** Any failure by APS to insist upon strict compliance with any term or condition of this Agreement at any time shall not constitute an ongoing waiver of the enforceability of such term or condition or any other term or condition. A waiver of a term or condition can only be made in a writing signed by APS that is posted to the Site.

U. **Verification.** You hereby acknowledge that APS or an affiliate is required by law to obtain certain information to verify your identity, and that APS cannot open the Program account if you do not provide sufficient identifying information. APS shall not be liable for any loss or damage you may incur as a result of your failure to provide information sufficient to establish such Program account.

V. **Authority and Validity of Electronic Signature.** You hereby represent that you have the authority to enter into and perform your obligations under this Agreement, have the authority to retain APS to provide the Program and to exercise the powers and authority granted thereto with respect to the Program.

This agreement may be signed electronically, including through secure means that do not include a manual signature, and your acceptance of this Agreement electronically will be deemed to be the legal equivalent of your handwritten signature. You further agree that you will not contest the legally binding nature, validity or enforceability of this Agreement or any related instruction, election or disclosure based on the use of an electronic signature.

W. **Limitation of Liabilities and Delegation.** In the performance of the services provided under this Agreement, APS may, subject to applicable laws and regulations, engage unaffiliated vendors and other contractors to aid it in fulfilling its duties under this
Agreement or to provide ancillary enhancements or features of the services contemplated herein. In performing its obligations under this Agreement, APS may also, at its own discretion, delegate any or all of its discretionary investment advisory and other rights, powers and functions hereunder to any of its affiliates, without notice or your prior written consent. APS will be liable only for its own acts of gross negligence or willful misconduct. APS will not be liable for any act or omission, or the failure or inability to perform any obligation, of any broker, dealer, investment adviser, sub-custodian or other agent, including affiliates, whom APS selected with reasonable care. APS will not be liable for any incidental, indirect, special, punitive or consequential damages. Federal and state securities laws may nonetheless impose liability on persons who act in good faith and nothing in this Agreement shall serve to waive or limit any rights you may have under those laws.

X. Amendment. APS may amend this Agreement upon 30 days prior written notice to you and you will be deemed to have consented to any such amendment if still enrolled in the Program subsequent to the notice period.

Y. Notice. Any written notice contemplated by this Agreement shall be deemed duly given when posted to the Site with notice to the e-mail address you provided or when received by APS on the Site.

Z. Assignment. APS may not assign this Agreement within the meaning of the Investment Advisers Act of 1940, as amended, without your consent.

AA. Incapacity. Your delegation of discretionary authority contained herein is durable and shall not be affected by your subsequent disability, incapacity or incompetence. It shall continue in effect after your death until APS receives written notice from an executor or other representative terminating the authority.

BB. Termination. Either party may terminate your participation in the Program at any time upon written notice to the other. APS specifically reserves the right to terminate your participation in the Program should your balance fall below the Program’s minimum balance of $5,000 due to any withdrawals initiated by you or should APS determine the Program is no longer appropriate for you. Upon termination, APS will cease managing Program account assets and debit from the Program account any fee incurred to date. You agree upon termination to transfer all assets from your Program account within 30 days, and should you fail to do so, direct APS to, at its discretion, either transfer your assets to a separate TBS brokerage account registered identically as the Program account and subject to the TBS standard transaction fee schedule, or redeem the Program account
holdings and mail the proceeds to you. You acknowledge that redemption may result in a taxable event.

CC. **Choice of Law.** This Agreement shall be governed by the laws of the State of New York without giving effect to conflict of law principles, to the extent not inconsistent with federal law.

DD. **Arbitration.** The Brokerage Agreement contains a Predispute Arbitration Provision on Pages 2-3, Paragraph 13, requiring that any controversy arising between you and TC Services be submitted to arbitration before the Financial Industry Regulatory Authority (“FINRA”). You acknowledge reviewing and agreeing to this arbitration provision. Should FINRA decline jurisdiction, the dispute shall be submitted to the American Arbitration Association in accordance with that entity’s commercial dispute resolution procedures. Venue shall be within your state of residence, or any other venue mutually agreed upon. Arbitration must be commenced by service upon the other party of a written demand for arbitration or a written notice of intention to arbitrate.

Last updated: March 2019