

Offering Circular Supplement
(To Offering Circular
Dated February 23, 2017)

\$1,097,630,000
(Approximate)



Freddie Mac

Structured Pass-Through Certificates (SPCs) Series K-103

Offered Classes: Classes of SPCs shown below
Underlying Classes: Each Class of SPCs represents a pass-through interest in a separate class of securities issued by the Underlying Trust
Underlying Trust: FREMF 2019-K103 Mortgage Trust
Mortgages: Fixed-rate, multifamily mortgages
Underlying Originators: Berkadia Commercial Mortgage LLC, Berkeley Point Capital LLC, d/b/a Newmark Knight Frank, Capital One, National Association, CBRE Capital Markets, Inc., Citibank, N.A., Grandbridge Real Estate Capital LLC, Greystone Servicing Company LLC, Holliday Fenoglio Fowler, L.P., Hunt Mortgage Partners, LLC, KeyBank National Association, M&T Realty Capital Corporation, NorthMarq Capital, LLC, PNC Bank, National Association, Prudential Affordable Mortgage Company, LLC, Walker & Dunlop, LLC and Wells Fargo Bank, National Association
Underlying Seller: Freddie Mac
Underlying Depositor: Banc of America Merrill Lynch Commercial Mortgage Inc.
Underlying Master Servicer: Midland Loan Services, a Division of PNC Bank, National Association
Underlying Special Servicer: Wells Fargo Bank, National Association
Underlying Trustee: U.S. Bank National Association
Underlying Certificate Administrator and Custodian: Citibank, N.A.
Payment Dates: Monthly beginning in January 2020
Optional Termination: The Underlying Trust is subject to certain liquidation rights, as described in this Supplement; the SPCs are not subject to a clean-up call right
Form of SPCs: Book-entry on DTC System
Offering Terms: The placement agents named below are offering the SPCs in negotiated transactions at varying prices, and in accordance with the selling restrictions set forth in *Appendix A*
Closing Date: On or about December 19, 2019

Class	Original Principal Balance or Notional Amount ⁽¹⁾	Class Coupon	CUSIP Number	Expected Ratings Fitch/KBRA ⁽³⁾	Expected Unenhanced Ratings Excluding Our Guarantee Fitch/KBRA ⁽³⁾	Final Payment Date
A-1	\$ 109,473,000	2.31200%	3137FQKM4	AAAsf/AAA(sf)	AAAsf/AAA(sf)	June 25, 2029
A-2	929,128,000	2.65100%	3137FQKN2	AAAsf/AAA(sf)	AAAsf/AAA(sf)	November 25, 2029
A-M	59,029,000	2.35900%	3137FQKP7	AAAsf/A+(sf)	A+sf/A+(sf)	November 25, 2029
X1	1,038,601,000	(2)	3137FQKQ5	AAAsf/AAA(sf)	AAAsf/AAA(sf)	November 25, 2029
XAM	59,029,000	(2)	3137FQKS1	AAAsf/AAA(sf)	A+sf/AAA(sf)	November 25, 2029
X3	178,684,806	(2)	3137FQKR3	NR/NR	NR/NR	December 25, 2046

- (1) Approximate. May vary by up to 5%.
(2) See *Terms Sheet — Interest*.
(3) The Expected Ratings column, in the case of the **Fitch** ratings, sets forth the ratings that are expected to be issued, which take into account our guarantee. The Expected Ratings column, in the case of the **KBRA** ratings, sets forth the ratings that are expected to be issued, which do not take into account our guarantee. The Expected Unenhanced Ratings Excluding Our Guarantee column sets forth the ratings that are expected to be issued by Fitch and KBRA, based on the underlying creditworthiness of the SPCs, without taking into account our guarantee. See *Ratings*.

The SPCs may not be suitable investments for you. You should not purchase SPCs unless you have carefully considered and are able to bear the associated prepayment, interest rate, yield and market risks of investing in them. *Certain Risk Considerations* on page S-2 highlights some of these risks.

You should purchase SPCs only if you have read and understood this Supplement, our Giant and Other Pass-Through Certificates (Multifamily) Offering Circular dated February 23, 2017 (the “**Offering Circular**”) and the other documents identified under *Available Information*.

We guarantee certain principal and interest payments on the SPCs. These payments are not guaranteed by, and are not debts or obligations of, the United States or any federal agency or instrumentality other than Freddie Mac. The SPCs are not tax-exempt. Because of applicable securities law exemptions, we have not registered the SPCs with any federal or state securities commission. No securities commission has reviewed this Supplement.

Co-Lead Managers and Joint Bookrunners

BofA Securities

Barclays

Co-Managers

Brean Capital

Goldman Sachs & Co. LLC

Morgan Stanley

Multi-Bank Securities Inc.

December 13, 2019

CERTAIN RISK CONSIDERATIONS

Although we guarantee the payments on the SPCs, and so bear the associated credit risk, as an investor you will bear the other risks of owning mortgage securities. This section highlights some of these risks. You should also read *Risk Factors and Prepayment, Yield and Suitability Considerations* in the Offering Circular and *Risk Factors* in the Information Circular for further discussions of these risks.

SPCs May Not be Suitable Investments for You. The SPCs are complex securities. You should not purchase SPCs unless you are able to understand and bear the associated prepayment, basis, termination, interest rate, yield and market risks.

Prepayments Can Reduce Your Yield. Your yield could be lower than you expect if:

- You buy A-1, A-2 or A-M at a premium over its principal balance, or if you buy X1, XAM or X3, and prepayments on the Mortgages are faster than you expect.
- You buy A-1, A-2 or A-M at a discount to its principal balance and prepayments on the Mortgages are slower than you expect.

Rapid prepayments on the Mortgages, especially those with relatively high interest rates, would reduce the yields on X1, XAM and X3, which are Interest Only Classes, and could even result in the failure of investors in those Classes to recover their investments.

X1, XAM and X3 are Subject to Basis Risk. X1, XAM and X3 may bear interest at a rate based in part on the **Weighted Average Net Mortgage Pass-Through Rate**. As a result, these Classes may be subject to basis risk, which may reduce their yields.

The SPCs are Subject to Termination Risk. If the Underlying Trust is terminated, the effect on the SPCs will be similar to a full prepayment of all the Mortgages.

The SPCs are Subject to Market Risks. You will bear all of the market risks of your investment. The market value of your SPCs will vary over time, primarily in response to changes in prevailing interest rates. If you sell your SPCs when their market value is low, you may experience significant losses. The placement agents named on the front cover (the “**Placement Agents**”) intend to deliver the SPCs on our behalf to third party purchasers (except it is expected that we will purchase all or a portion of X3); however, if the SPCs are not placed with third parties, they will be resold to us by the Placement Agents.

Credit Ratings Do Not Take into Consideration Certain Risks and Could be Adversely Affected by Future Events. The credit ratings assigned to A-1, A-2, A-M, X1 and XAM do not reflect the potential impact of non-credit related risks associated with an investment in such Classes of SPCs, including, without limitation, prepayment, price, market, liquidity, structure and termination risks. The ratings will be subject to ongoing monitoring, upgrades, downgrades, withdrawals and surveillance by each **Rating Agency** after the date of issuance. Changes affecting the properties securing the Mortgages, the Underlying Trustee, the Underlying Certificate Administrator, the Underlying Custodian, the Underlying Master Servicer, the Underlying Special Servicer or Freddie Mac and the issuance by other rating agencies of unsolicited ratings that are lower than those assigned by the Rating Agencies may have an adverse effect on the liquidity, market value and regulatory characteristics of these Classes. See *Risk Factors* in the Information Circular for a description of the risks applicable to the ratings of the Underlying Classes, which risks are generally applicable to the ratings of the related SPCs. X3 will not be rated by either Rating Agency or another **NRSRO** (unless an NRSRO issues an unsolicited rating), which may adversely affect the ability of an investor to purchase or retain, or otherwise impact the liquidity, market value and regulatory characteristics of, X3.

TERMS SHEET

This Terms Sheet contains selected information about this Series. You should refer to the remainder of this Supplement and to the Offering Circular and the attached Information Circular for further information.

The Offering Circular defines many of the terms we use in this Supplement. The Underlying Depositor's Information Circular dated the same date as this Supplement (the "**Information Circular**"), attached to this Supplement, defines terms that appear in **bold type** on their first use and are not defined in this Supplement or the Offering Circular.

In this Supplement, we sometimes refer to Classes of SPCs only by their number and letter designations. For example, "A-1" refers to the A-1 Class of this Series.

General

Each Class of SPCs represents the entire undivided interest in a separate pass-through pool. Each pass-through pool consists of a class of securities (each, an "**Underlying Class**") issued by the Underlying Trust. Each Underlying Class has the same designation as its corresponding Class of SPCs. Each Mortgage is a fixed-rate, multifamily balloon mortgage loan that provides for an amortization schedule that is significantly longer than its remaining term to stated maturity or no amortization prior to stated maturity and, in either case, a substantial payment of principal on its maturity date.

In addition to the Underlying Classes, the Underlying Trust is issuing six other classes of securities: the series 2019-K103 class X2-A, class X2-B, class B, class C, class D and class R certificates.

Interest

A-1, A-2 and A-M each will bear interest at its Class Coupon shown on the front cover.

X1, XAM and X3 each will bear interest at a Class Coupon equal to the interest rate of its Underlying Class, which is equal to the weighted average of its related "strip rates," as described in the Information Circular. Accordingly, the Class Coupons of X1, XAM and X3 will vary from month to month. The initial Class Coupons of X1, XAM and X3 are approximately 0.75659% *per annum*, 1.01285% *per annum* and 1.91349% *per annum*, respectively.

See Payments — Interest in this Supplement and Description of the Underlying Mortgage Loans — Certain Terms and Conditions of the Underlying Mortgage Loans and Description of the Certificates — Distributions — Interest Distributions in the Information Circular.

Interest Only (Notional) Classes

X1, XAM and X3 do not receive principal payments. To calculate interest payments, X1 has a notional amount equal to the sum of the outstanding principal balances of Underlying Classes A-1 and A-2, XAM has a notional amount equal to the outstanding principal balance of Underlying Class A-M and X3 has a notional amount equal to the sum of the outstanding principal balances of the series 2019-K103 class B, class C and class D certificates.

For more specific information, see *Description of the Certificates — Distributions — Interest Distributions* in the Information Circular.

Principal

On each Payment Date, we pay principal on each of A-1, A-2 and A-M in an amount equal to the principal, if any, required to be paid on that Payment Date on its corresponding Underlying Class.

See *Payments — Principal and Prepayment and Yield Analysis* in this Supplement and *Description of the Certificates — Distributions — Principal Distributions* in the Information Circular.

Static Prepayment Premiums and Yield Maintenance Charges

Any **Static Prepayment Premium** or **Yield Maintenance Charge** collected in respect of any of the Mortgages will be distributed to Underlying Classes A-1, A-2 and A-M, the series 2019-K103 class X2-A, class X2-B, class B and class C certificates and Underlying Classes X1, XAM and X3, in the proportions described under *Description of the Certificates — Distributions — Distributions of Static Prepayment Premiums and Yield Maintenance Charges* in the Information Circular. Any Static Prepayment Premiums or Yield Maintenance Charges distributed to Underlying Classes A-1, A-2, A-M, X1, XAM or X3 will be passed through to the corresponding Classes of SPCs.

Our guarantee does not cover the payment of any Yield Maintenance Charges, Static Prepayment Premiums or any other prepayment premiums related to the Mortgages.

Federal Income Taxes

If you own a Class of SPCs, you will be treated for federal income tax purposes as owning an undivided interest in the related Underlying Class. Each Underlying Class represents ownership in a REMIC “regular interest.”

See *Certain Federal Income Tax Consequences* in this Supplement, in the Offering Circular and in the Information Circular.

Weighted Average Lives

The Information Circular shows the weighted average lives and declining principal balances for Underlying Classes A-1, A-2 and A-M and the weighted average lives and pre-tax yields for Underlying Classes X1, XAM and X3, in each case, based on the assumptions described in the Information Circular. The weighted average lives, declining principal balances and pre-tax yields, as applicable, for each Class of SPCs would be the same as those shown in the Information Circular for its corresponding Underlying Class, based on these assumptions. However, these assumptions are likely to differ from actual experience in many cases.

See *Yield and Maturity Considerations — Weighted Average Lives of the Offered Principal Balance Certificates, — Yield Sensitivity of the Class X1, XAM and X3 Certificates* and *Exhibits D and E* in the Information Circular.

Ratings

It is a condition to the issuance of the SPCs that they receive the ratings below from Fitch and KBRA. X3 will not be rated. See *Ratings* in this Supplement.

<u>Class</u>	<u>Ratings Fitch/KBRA⁽¹⁾</u>	<u>Unenhanced Ratings Excluding Our Guarantee Fitch/KBRA⁽²⁾</u>
A-1	AAAsf/AAA(sf)	AAAsf/AAA(sf)
A-2	AAAsf/AAA(sf)	AAAsf/AAA(sf)
A-M	AAAsf/A+(sf)	A+sf/A+(sf)
X1	AAAsf/AAA(sf)	AAAsf/AAA(sf)
XAM.....	AAAsf/AAA(sf)	A+sf/AAA(sf)

- (1) The Ratings column, in the case of the Fitch ratings, sets forth the ratings that are expected to be issued, which take into account our guarantee. The Ratings column, in the case of the KBRA ratings, sets forth the ratings that are expected to be issued, which do not take into account our guarantee.
- (2) The Unenhanced Ratings Excluding Our Guarantee column sets forth the ratings that are expected to be issued by Fitch and KBRA, based on the underlying creditworthiness of the SPCs, without taking into account our guarantee.

The ratings will be subject to ongoing monitoring, upgrades, downgrades, withdrawals and surveillance by each Rating Agency after the date of issuance. The ratings do not address the likely actual rate of prepayments on the Mortgages or the likelihood of payment of Static Prepayment Premiums or Yield Maintenance Charges. The rate of prepayments, if different than originally anticipated, could result in a lower than anticipated yield on the SPCs. In the case of X1 and XAM, reductions in their notional amounts due to rapid prepayments on the Mortgages or the application of Realized Losses could cause the Holders of those Classes to fail to recover their initial investments. This would be consistent with the ratings received on X1 and XAM because all amounts due on X1 and XAM will have been paid. Therefore, the ratings on X1 and XAM should be evaluated independently from similar ratings on other types of securities. See also Ratings in the Information Circular for a description of the considerations applicable to the ratings of the Underlying Classes, which considerations are generally applicable to the ratings of the related SPCs.

AVAILABLE INFORMATION

You should purchase SPCs only if you have read and understood:

- This Supplement.
- The Offering Circular.
- The attached Information Circular.
- The Incorporated Documents listed under *Additional Information* in the Offering Circular.

This Supplement incorporates the Offering Circular, including the Incorporated Documents, by reference. When we incorporate documents by reference, that means we are disclosing information to you by referring to those documents rather than by providing you with separate copies. The Offering Circular, including the Incorporated Documents, is considered part of this Supplement. Information that we incorporate by reference will automatically update information in this Supplement. You should rely only on the most current information provided or incorporated by reference in this Supplement.

You may read and copy any document we file with the SEC at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. The SEC also maintains a website at <http://www.sec.gov> that contains reports, proxy and information statements, and other information regarding companies that file electronically with the SEC.

You can obtain, without charge, copies of the Offering Circular, including the Incorporated Documents, any documents we subsequently file with the SEC, the Multifamily Pass-Through Trust Agreement and current information concerning the SPCs, as well as the disclosure documents and current information for any other securities we issue, from:

<p>Freddie Mac — Investor Inquiry 1551 Park Run Drive, Mailstop D50 McLean, Virginia 22102-3110 Telephone: 1-800-336-3672 ((571) 382-4000 within the Washington, D.C. area) E-mail: Investor_Inquiry@freddiemac.com</p>
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We also make these documents available on our internet website at this address:

Internet Website*: www.freddiemac.com

The multifamily investors section of the website (initially located at <https://mf.freddiemac.com/investors/>) will also be updated, from time to time, with any information on material developments or other events that may be important to investors. You should access this website on a regular basis for such updated information.

* We are providing this internet address solely for the information of investors. We do not intend this internet address to be an active link and we are not using references to this address to incorporate additional information into this Supplement, except as specifically stated in this Supplement.

You can also obtain the documents listed above from the Placement Agents named below at:

BofA Securities, Inc.
Attn: CMBS Prospectus Department
One Bryant Park, NY-100-11-07
New York, New York 10036
(646) 855-2457

Barclays Capital Inc.
Attn: MBS Syndicate Operations
400 Jefferson Park
Whippany, New Jersey 07981
(201) 499-0388

The Underlying Depositor has prepared the Information Circular in connection with its sale of the Underlying Classes to us. The Underlying Depositor is responsible for the accuracy and completeness of the Information Circular, and we do not make any representations that it is accurate or complete.

GENERAL INFORMATION

Multifamily Pass-Through Trust Agreement

We will form a trust fund to hold the Underlying Classes and to issue the SPCs, each pursuant to the Multifamily Pass-Through Certificates Master Trust Agreement dated February 23, 2017, as amended by an Amendment dated March 1, 2019, and a Terms Supplement dated the Closing Date (together, the “**Multifamily Pass-Through Trust Agreement**”). We will act as Trustee and Administrator under the Multifamily Pass-Through Trust Agreement.

You should refer to the Multifamily Pass-Through Trust Agreement for a complete description of your rights and obligations and those of Freddie Mac. You will acquire your SPCs subject to the terms and conditions of the Multifamily Pass-Through Trust Agreement, including the Terms Supplement.

Form of SPCs

The SPCs are issued, held and transferable on the DTC System. DTC or its nominee is the Holder of each Class. As an investor in SPCs, you are not the Holder. See *Description of Pass-Through Certificates — Form, Holders and Payment Procedures* in the Offering Circular.

Denominations of SPCs

A-1, A-2 and A-M will be issued, and may be held and transferred, in minimum original principal amounts of \$1,000 and additional increments of \$1. X1, XAM and X3 will be issued, and may be held and transferred, in minimum original notional principal amounts of \$100,000 and additional increments of \$1.

Structure of Transaction

General

Each Class of SPCs represents the entire interest in a pass-through pool consisting of its corresponding Underlying Class. Each Underlying Class represents an interest in the Underlying Trust formed by the Underlying Depositor. The Underlying Trust consists primarily of the Mortgages described under *Description of the Underlying Mortgage Loans* in the Information Circular. Each Class of SPCs receives the payments of principal and/or interest required to be made on its corresponding Underlying Class.

In addition to the Underlying Classes, the Underlying Trust is issuing six other classes, certain of which are subordinate to Underlying Classes A-1, A-2, A-M, X1 and XAM to the extent described in the Information Circular. These additional classes will not be assets underlying the Classes of SPCs offered hereby. The pooling and servicing agreement for the Underlying Trust (the “**Pooling Agreement**”) governs the Underlying Classes and these additional classes.

Each Underlying Class will bear interest at the same rate, and at all times will have the same principal balance or notional amount, as its corresponding Class of SPCs. On the Closing Date, we will acquire the Underlying Classes from the Underlying Depositor. We will hold the Underlying Classes in certificated form on behalf of investors in the SPCs.

See *Description of Pass-Through Certificates — Structured Pass-Through Certificates* in the Offering Circular.

Credit Enhancement Features of the Underlying Trust

Underlying Classes A-1, A-2, X1 and XAM will have a payment priority over the subordinated classes issued by the Underlying Trust to the extent described in the Information Circular. Underlying Class A-M, which is subordinate to Underlying Classes A-1, A-2, X1 and XAM, and the series 2019-K103 class X2-A and class X2-B certificates, will have a payment priority over the other subordinated classes issued by the Underlying Trust to the extent described in the Information Circular. Subordination is designed to provide the holders of those Underlying Classes with protection against most losses realized when the remaining unpaid amount on a Mortgage exceeds the amount of net proceeds recovered upon the liquidation of that Mortgage. In general, this is accomplished by allocating the Realized Losses among subordinated certificates as described in the Information Circular. See *Description of the Certificates — Distributions — Subordination* in the Information Circular.

Underlying Classes A-1, A-2 and A-M, in that order, will receive all of the principal payments on the Mortgages until they are retired. Thereafter, the series 2019-K103 class B, class C and class D certificates, in that order, will be entitled to receive such principal payments. Because of losses on the Mortgages and/or default-related or other unanticipated expenses of the Underlying Trust, the total principal balance of the Underlying Class A-M and the series 2019-K103 class B, class C and class D certificates could be reduced to zero at a time when both Underlying Classes A-1 and A-2 remain outstanding. Under those circumstances, any principal payments to Underlying Classes A-1 and A-2 will be made on a pro rata basis in accordance with the then-outstanding principal balances of those classes. See *Description of the Certificates — Distributions — Principal Distributions* and *— Priority of Distributions* in the Information Circular.

Ratings of Certain Underlying Classes

It is a condition to the issuance of Underlying Classes A-1, A-2, A-M, X1 and XAM (which back A-1, A-2, A-M, X1 and XAM, respectively, offered hereby) that Underlying Classes A-1, A-2, A-M, X1 and XAM receive the ratings below from Fitch and KBRA. Underlying Class X3 (which backs X3 offered hereby) will not be rated. The ratings assigned to Underlying Classes A-1, A-2, A-M, X1 and XAM will be subject to on-going monitoring, upgrades, downgrades, withdrawals and surveillance by Fitch and KBRA after the date of issuance of such Underlying Classes.

<u>Underlying Class</u>	<u>Ratings Fitch/KBRA⁽¹⁾</u>	<u>Unenhanced Ratings Excluding Our Guarantee Fitch/KBRA⁽²⁾</u>
A-1	AAAsf/AAA(sf)	AAAsf/AAA(sf)
A-2	AAAsf/AAA(sf)	AAAsf/AAA(sf)
A-M.....	AAAsf/A+(sf)	A+sf/A+(sf)
X1.....	AAAsf/AAA(sf)	AAAsf/AAA(sf)
XAM	AAAsf/AAA(sf)	A+sf/AAA(sf)

- (1) The Ratings column, in the case of the Fitch ratings, sets forth the ratings that are expected to be issued, which take into account our guarantee. The Ratings column, in the case of the KBRA ratings, sets forth the ratings that are expected to be issued, which do not take into account our guarantee.
- (2) The Unenhanced Ratings Excluding Our Guarantee column sets forth the ratings that are expected to be issued by Fitch and KBRA, based on the underlying creditworthiness of the Underlying Classes, without taking into account our guarantee.

See *Ratings* in the Information Circular, which further describes the ratings of Underlying Classes A-1, A-2, A-M, X1 and XAM and the series 2019-K103 class X2-A, class X2-B, class B and class C certificates.

The Mortgages

The Mortgages consist of 46 fixed-rate mortgage loans, secured by 46 multifamily properties, including 6 manufactured housing community properties and 1 assisted living, memory care and/or independent living facility property. The Mortgages have an **initial mortgage pool balance** of approximately \$1,276,314,807 as of December 1, 2019. All of the Mortgages are **Balloon Loans**.

Mortgages representing 82.7% of the initial mortgage pool balance provide for an interest-only period of between 24 and 60 months following origination, followed by amortization for the balance of the loan term. Mortgages representing 14.1% of the initial mortgage pool balance do not provide for any amortization prior to the related scheduled maturity date. 1 Mortgage representing 3.2% of the initial mortgage pool balance provides for amortization through the loan term. Mortgages representing 95.3% of the initial mortgage pool balance permit the borrowers to defease such Mortgages, if certain conditions are met. See *Description of the Underlying Mortgage Loans — Certain Terms and Conditions of the Underlying Mortgage Loans — Additional Amortization Considerations and — Release of Property Through Defeasance or Prepayment* in the Information Circular.

Description of the Underlying Mortgage Loans and Exhibits A-1, A-2 and A-3 in the Information Circular further describe the Mortgages.

Credit Risk Retention

Freddie Mac, as the sponsor of the securitization in which the SPCs are to be issued, will satisfy its credit risk retention requirement under the Credit Risk Retention Rule of the Federal Housing Finance Agency (“FHFA”) at 12 C.F.R. Part 1234 pursuant to Section 1234.8 thereof. Freddie Mac is currently operating under the conservatorship of the FHFA with capital support from the United States and will fully guarantee the timely payment of principal and interest on all the SPCs.

PAYMENTS

Payment Dates; Record Dates

We make payments of principal and interest on the SPCs on each Payment Date, beginning in January 2020. A “**Payment Date**” is the 25th of each month or, if the 25th is not a **Business Day**, the next Business Day.

On each Payment Date, DTC credits payments to the DTC Participants that were owners of record on the close of business on the last Business Day of the related Accrual Period.

Method of Payment

The Registrar makes payments to DTC in immediately available funds. DTC credits payments to the accounts of DTC Participants in accordance with its normal procedures. Each DTC Participant, and each other financial intermediary, is responsible for remitting payments to its customers.

Interest

General

We pay interest on each Payment Date on each Class of SPCs. The Classes bear interest as described under *Terms Sheet — Interest* in this Supplement.

Accrual Period

The “**Accrual Period**” for each Payment Date is the preceding calendar month.

We calculate interest based on a 360-day year of twelve 30-day months.

Principal

We pay principal on each Payment Date on each of A-1, A-2 and A-M to the extent principal is payable on its corresponding Underlying Class. Investors receive principal payments on a *pro rata* basis among the SPCs of their Class.

See *Terms Sheet — Principal* in this Supplement and *Description of the Certificates — Priority of Distributions* and — *Distributions — Principal Distributions* in the Information Circular.

Static Prepayment Premiums and Yield Maintenance Charges

Any Static Prepayment Premium or Yield Maintenance Charge collected in respect of any of the Mortgages will be distributed to Underlying Classes A-1, A-2 and A-M, the series 2019-K103 class X2-A, class X2-B, class B and class C certificates and Underlying Classes X1, XAM and X3, in the proportions described under *Description of the Certificates — Distributions — Distributions of Static Prepayment Premiums and Yield Maintenance Charges* in the Information Circular. Any Static Prepayment Premiums or Yield Maintenance Charges distributed to Underlying Classes A-1, A-2, A-M, X1, XAM or X3 will be passed through to the corresponding Classes of SPCs.

Our guarantee does not cover the payment of any Yield Maintenance Charges, Static Prepayment Premiums or any other prepayment premiums related to the Mortgages.

Class Factors

General

We make Class Factors for the Classes of SPCs available on or prior to each Payment Date. See *Description of Pass-Through Certificates — Payments — Class Factors* in the Offering Circular.

Use of Factors

You can calculate principal and interest payments by using the Class Factors.

For example, the reduction in the balance of a Class in February will equal its original balance times the difference between its January and February Class Factors. The amount of interest to be paid on a Class in February will equal interest at its Class Coupon, accrued during the related Accrual Period, on its balance determined by its January Class Factor.

Guarantees

We guarantee to each Holder of each Class of SPCs (a) the timely payment of interest at its Class Coupon; (b) the payment of principal on A-1, A-2 and A-M, on the Payment Date immediately following the maturity date of each Balloon Loan (to the extent of principal on such Class of SPCs that would have been payable from such Balloon Loan); (c) the reimbursement of any Realized Losses (including as a result of **Additional Issuing Entity Expenses**) allocated to each Class of SPCs; and (d) the ultimate payment of principal on A-1, A-2 and A-M by the Final Payment Date of such Class. Our guarantee does not cover any loss of yield on X1, XAM or X3 following a reduction of its notional amount due to a reduction of the principal balance of any Underlying Classes or of the series 2019-K103 class B, class C or class D certificates, nor does it cover the payment of any Yield Maintenance Charges, Static Prepayment Premiums or any other prepayment premiums related to the Mortgages. See *Description of Pass-Through Certificates — Guarantees* in the Offering Circular and *Description of the Certificates — Distributions — Freddie Mac Guarantee* in the Information Circular.

Optional Termination

The **Controlling Class Majority Holder** for the Underlying Trust, but excluding Freddie Mac (as defined in the Information Circular), the Underlying Special Servicer and the Underlying Master Servicer each will have the option, in a prescribed order, to purchase the Mortgages and other trust property and terminate the Underlying Trust on any Payment Date on which the total **Stated Principal Balance** of the Mortgages is less than 1% of the initial mortgage pool balance. In addition, with the satisfaction of the conditions set forth in the proviso to the definition of “Sole Certificateholder” in the Information Circular and with the consent of the Underlying Master Servicer, the **Sole Certificateholder** for the Underlying Trust (excluding Freddie Mac (as defined in the Information Circular)) will have the right to exchange all of its certificates issued by the Underlying Trust (other than the series 2019-K103 class R certificates) for all of the Mortgages and the Underlying Trust’s interest in **REO Properties** remaining in the Underlying Trust, resulting in the liquidation of the Underlying Trust. See *The Pooling and Servicing Agreement — Termination* in the Information Circular.

If a termination of the Underlying Trust occurs, each Class of SPCs will receive its unpaid principal balance, if any, plus interest for the related Accrual Period. We will give notice of termination to Holders not later than the fifth Business Day of the month in which the termination will occur, and each Class Factor we publish in that month will equal zero.

The SPCs are not subject to a clean-up call right.

PREPAYMENT AND YIELD ANALYSIS

Mortgage Prepayments

The rates of principal payments on the Classes will depend primarily on the rates of principal payments, including prepayments, on the related Mortgages. Each Mortgage may be prepaid, subject to certain restrictions and requirements, including one of the following:

- a prepayment lockout and defeasance period during which voluntary principal prepayments are prohibited (although, for a portion of that period, beginning no sooner than the second anniversary of the Closing Date, the related Mortgage may be defeased), followed by an open prepayment period prior to maturity during which voluntary principal prepayments may be made without payment of any prepayment consideration; or
- a prepayment consideration period during which voluntary principal prepayments must be accompanied by the greater of a Static Prepayment Premium and a Yield Maintenance Charge, followed by a prepayment consideration period during which voluntary principal prepayments must be accompanied by a Static Prepayment Premium, followed by an open prepayment period prior to maturity during which voluntary principal prepayments may be made without payment of any prepayment consideration.

In addition, 3 Mortgages allow the lender to require the related borrower to prepay in part such Mortgage if the tax abatement expected to benefit the related property is not obtained. In addition, with respect to 1 Mortgage, the lender collected a reserve at origination that the lender may use to prepay in part the related Mortgage or to cover any difference between the monthly payment due on the related Mortgage and the net operating income for the mortgaged real property.

Mortgage prepayment rates may fluctuate continuously and, in some market conditions, substantially.

See *Prepayment, Yield and Suitability Considerations — Prepayments* in the Offering Circular for a discussion of mortgage prepayment considerations and risks. *Risk Factors, Description of the Underlying Mortgage Loans and Yield and Maturity Considerations* in the Information Circular discuss prepayment considerations for the Underlying Classes.

Yield

As an investor in SPCs, your yield will depend on:

- Your purchase price.
- The rate of principal payments on the Mortgages.
- Whether an optional termination of the Underlying Trust occurs.
- The actual characteristics of the Mortgages.
- In the case of X1, XAM or X3, the extent to which its Class Coupon formula results in reductions or increases in its Class Coupon.
- The delay between each Accrual Period and the related Payment Date.

See *Prepayment, Yield and Suitability Considerations — Yields* in the Offering Circular for a discussion of yield considerations and risks.

Suitability

The SPCs may not be suitable investments for you. See *Prepayment, Yield and Suitability Considerations — Suitability* in the Offering Circular for a discussion of suitability considerations and risks.

FINAL PAYMENT DATES

The Final Payment Date for each Class of SPCs is the latest date by which it will be paid in full and will retire. The Final Payment Dates generally reflect the maturity dates of the Mortgages (except that the X3 Final Payment Date is based on the latest date to which the maturity date of a Mortgage may be modified under the terms of the Pooling Agreement) and assume, among other things, no prepayments or defaults on the Mortgages. The actual retirement of each Class may occur earlier than its Final Payment Date.

CERTAIN FEDERAL INCOME TAX CONSEQUENCES

General

The following is a general discussion of federal income tax consequences of the purchase, ownership and disposition of the Classes of SPCs. It does not address all federal income tax consequences that may apply to particular categories of investors, some of which may be subject to special rules. The tax laws and other authorities for this discussion are subject to change or differing interpretations, and any change or interpretation could apply retroactively. You should consult your tax advisor to determine the federal, state, local and any other tax consequences that may be relevant to you.

Neither the SPCs nor the income derived from them is exempt from federal income, estate or gift taxes under the Code by virtue of the status of Freddie Mac as a government-sponsored enterprise. Neither the Code nor the Freddie Mac Act contains an exemption from taxation of the SPCs or the income derived from them by any state, any possession of the United States or any local taxing authority.

Classification of Investment Arrangement

The arrangement under which each Class of SPCs is created and sold and the related pass-through pool is administered will be classified as a grantor trust under subpart E, part I of subchapter J of the Code. As an investor in SPCs, you will be treated for federal income tax purposes as the owner of a *pro rata* undivided interest in the related Underlying Class.

Status of Classes

Upon the issuance of the Underlying Classes, Cadwalader, Wickersham & Taft LLP, counsel for the Underlying Depositor, will deliver its opinion generally to the effect that, assuming compliance with all the provisions of the Pooling Agreement and certain other documents:

- Specified portions of the assets of the Underlying Trust will qualify as multiple REMICs under the Code.
- Each Underlying Class will represent ownership of a “regular interest” in one of those REMICs.

Accordingly, an investor in a Class of SPCs will be treated as owning a REMIC regular interest.

For information regarding the federal income tax consequences of investing in an Underlying Class, see *Certain Federal Income Tax Consequences* in the Information Circular.

Information Reporting

Within a reasonable time after the end of each calendar year, we will furnish or make available to each Holder of each Class of SPCs such information as Freddie Mac deems necessary or desirable to assist beneficial owners in preparing their federal income tax returns, or to enable each Holder to make such information available to beneficial owners or financial intermediaries for which the Holder holds such SPCs as nominee.

Foreign Account Tax Compliance Act

Investors should be aware that FATCA-related proposed Treasury regulations announced on December 13, 2018 eliminate withholding of U.S. federal income tax at a rate of 30% with respect to payments of gross proceeds from the sale or disposition of an SPC or a Mortgage received by a non-U.S. entity that was to apply to such payments after December 31, 2018. Investors should consult their tax advisors regarding the potential application and impact of the FATCA withholding rules based on their particular circumstances. See *Certain Federal Income Tax Consequences — Foreign Account Tax Compliance Act* in the Offering Circular for a further discussion.

LEGAL INVESTMENT CONSIDERATIONS

You should consult your legal advisor to determine whether the SPCs are a legal investment for you and whether you can use the SPCs as collateral for borrowings. See *Legal Investment Considerations* in the Offering Circular.

ACCOUNTING CONSIDERATIONS

You should consult your accountant for advice on the appropriate accounting treatment for your SPCs. See *Accounting Considerations* in the Offering Circular.

ERISA CONSIDERATIONS

Fiduciaries of employee benefit plans should review *ERISA Considerations* in the Offering Circular.

In addition, because the Underlying Trust, the Underlying Originators, the Underlying Seller, the Underlying Depositor, the Underlying Master Servicer, the Underlying Special Servicer, the Underlying Trustee, the Underlying Certificate Administrator, the Underlying Custodian, the Placement Agents (the “**Transaction Parties**”) or their respective affiliates, may receive certain benefits in connection with the sale or holding of the SPCs, the purchase or holding of the SPCs using “plan assets” of any plan subject to Title I of ERISA and/or Section 4975 of the Code (each, a “**Plan**”) over which any of these parties or their affiliates has discretionary authority or control, or renders “investment advice” (within the meaning of Section 3(21) of ERISA and/or Section 4975 of the Code and applicable regulations) for a fee (direct or indirect) with respect to the assets of a Plan, or is the employer or other sponsor of a Plan, might be deemed to be a violation of the prohibited transaction provisions of Part 4, Subtitle B, Title I of ERISA or Section 4975 of the Code (or could otherwise constitute a violation of fiduciary responsibilities under Title I of ERISA). Accordingly, the SPCs may not be purchased using the assets of any Plan if any Transaction Party or any of their respective affiliates has discretionary authority or control or renders investment advice for a fee with respect to the assets of the Plan, or is the employer or other sponsor of the Plan, unless an applicable prohibited transaction exemption is available (all of the conditions of which are satisfied) to cover the purchase and holding of the SPCs or the transaction is not otherwise prohibited.

RATINGS

It is a condition to the issuance of the SPCs that they receive the ratings below from Fitch and KBRA. X3 will not be rated.

<u>Class</u>	<u>Ratings Fitch/KBRA⁽¹⁾</u>	<u>Unenhanced Ratings Excluding Our Guarantee Fitch/KBRA⁽²⁾</u>
A-1	AAAsf/AAA(sf)	AAAsf/AAA(sf)
A-2	AAAsf/AAA(sf)	AAAsf/AAA(sf)
A-M	AAAsf/A+(sf)	A+sf/A+(sf)
X1	AAAsf/AAA(sf)	AAAsf/AAA(sf)
XAM.....	AAAsf/AAA(sf)	A+sf/AAA(sf)

- (1) The Ratings column, in the case of the Fitch ratings, sets forth the ratings that are expected to be issued, which take into account our guarantee. The Ratings column, in the case of the KBRA ratings, sets forth the ratings that are expected to be issued, which do not take into account our guarantee.
- (2) The Unenhanced Ratings Excluding Our Guarantee column sets forth the ratings that are expected to be issued by Fitch and KBRA, based on the underlying creditworthiness of the SPCs, without taking into account our guarantee.

A credit rating is not a recommendation to buy, sell or hold securities and may be revised or withdrawn at any time by the assigning rating agency. The ratings may not reflect the potential impact of all risks related to prepayment, price, market, liquidity, structure, termination and other factors that may affect the value of the rated securities. A reduction in any of the current ratings of A-1, A-2, A-M, X1 or XAM could adversely affect their liquidity, market value and regulatory characteristics.

The ratings will be subject to ongoing monitoring, upgrades, downgrades, withdrawals and surveillance by each Rating Agency after the date of issuance. The ratings do not address the likely actual rate of prepayments on the Mortgages or the likelihood of payment of Static Prepayment Premiums or Yield Maintenance Charges. The rate of prepayments, if different than originally anticipated, could result in a lower than anticipated yield on the SPCs. In the case of X1 and XAM, reductions in their notional amounts due to rapid prepayments on the Mortgages or the application of **Realized Losses** could cause the Holders of those Classes to fail to recover their initial investments. This would be consistent with the ratings received on X1 and XAM because all amounts due on X1 and XAM will have been paid. Therefore, the ratings on X1 and XAM should be evaluated independently from similar ratings on other types of securities. See also *Ratings* in the Information Circular for a description of the considerations applicable to the ratings of the Underlying Classes, which considerations are generally applicable to the ratings of the related SPCs.

PLAN OF DISTRIBUTION

Under an agreement with the Placement Agents, they have agreed to purchase all of the SPCs not placed with third parties for resale to us.

Our agreement with the Placement Agents provides that we will indemnify them against certain liabilities.

LEGAL MATTERS

Our General Counsel or one of our Deputy General Counsels will render an opinion on the legality of the SPCs. Cadwalader, Wickersham & Taft LLP is representing the Underlying Depositor and the Placement Agents on legal matters concerning the SPCs. That firm is also rendering certain legal services to us with respect to the SPCs.

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Appendix A

Selling Restrictions

NOTICE TO RESIDENTS OF THE REPUBLIC OF KOREA

THIS OFFERING CIRCULAR SUPPLEMENT IS NOT, AND UNDER NO CIRCUMSTANCES IS TO BE CONSTRUED AS, A PUBLIC OFFERING OF SECURITIES IN KOREA. NEITHER FREDDIE MAC NOR ANY OF ITS AGENTS MAKE ANY REPRESENTATION WITH RESPECT TO THE ELIGIBILITY OF ANY RECIPIENTS OF THIS OFFERING CIRCULAR SUPPLEMENT TO ACQUIRE THE SPCs UNDER THE LAWS OF KOREA, INCLUDING, BUT WITHOUT LIMITATION, THE FOREIGN EXCHANGE TRANSACTION LAW AND REGULATIONS THEREUNDER (THE “FETL”). THE SPCs HAVE NOT BEEN REGISTERED WITH THE FINANCIAL SERVICES COMMISSION OF KOREA FOR PUBLIC OFFERING IN KOREA, AND NONE OF THE SPCs MAY BE OFFERED, SOLD OR DELIVERED, DIRECTLY OR INDIRECTLY, OR OFFERED OR SOLD TO ANY PERSON FOR RE-OFFERING OR RESALE, DIRECTLY OR INDIRECTLY IN KOREA OR TO ANY RESIDENT OF KOREA EXCEPT PURSUANT TO THE FINANCIAL INVESTMENT SERVICES AND CAPITAL MARKETS ACT AND THE DECREES AND REGULATIONS THEREUNDER (THE “FSCMA”), THE FETL AND ANY OTHER APPLICABLE LAWS, REGULATIONS AND MINISTERIAL GUIDELINES IN KOREA.

NOTICE TO RESIDENTS OF THE PEOPLE’S REPUBLIC OF CHINA

THE SPCs WILL NOT BE OFFERED OR SOLD IN THE PEOPLE’S REPUBLIC OF CHINA (EXCLUDING HONG KONG, MACAU AND TAIWAN, THE “PRC”) AS PART OF THE INITIAL DISTRIBUTION OF THE SPCs BUT MAY BE AVAILABLE FOR PURCHASE BY INVESTORS RESIDENT IN THE PRC FROM OUTSIDE THE PRC.

THIS OFFERING CIRCULAR SUPPLEMENT DOES NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY ANY SECURITIES IN THE PRC TO ANY PERSON TO WHOM IT IS UNLAWFUL TO MAKE THE OFFER OR SOLICITATION IN THE PRC.

THE PRC DOES NOT REPRESENT THAT THIS OFFERING CIRCULAR SUPPLEMENT MAY BE LAWFULLY DISTRIBUTED, OR THAT ANY SPCs MAY BE LAWFULLY OFFERED, IN COMPLIANCE WITH ANY APPLICABLE REGISTRATION OR OTHER REQUIREMENTS IN THE PRC, OR PURSUANT TO AN EXEMPTION AVAILABLE THEREUNDER, OR ASSUME ANY RESPONSIBILITY FOR FACILITATING ANY SUCH DISTRIBUTION OR OFFERING. IN PARTICULAR, NO ACTION HAS BEEN TAKEN BY THE PRC WHICH WOULD PERMIT A PUBLIC OFFERING OF ANY SPCs OR THE DISTRIBUTION OF THIS OFFERING CIRCULAR SUPPLEMENT IN THE PRC. ACCORDINGLY, THE SPCs ARE NOT BEING OFFERED OR SOLD WITHIN THE PRC BY MEANS OF THIS OFFERING CIRCULAR SUPPLEMENT OR ANY OTHER DOCUMENT. NEITHER THIS OFFERING CIRCULAR SUPPLEMENT NOR ANY ADVERTISEMENT OR OTHER OFFERING MATERIAL MAY BE DISTRIBUTED OR PUBLISHED IN THE PRC, EXCEPT UNDER CIRCUMSTANCES THAT WILL RESULT IN COMPLIANCE WITH ANY APPLICABLE LAWS AND REGULATIONS.

NOTICE TO RESIDENTS OF JAPAN

THE SPCs HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE FINANCIAL INSTRUMENTS EXCHANGE ACT OF JAPAN (LAW NO. 25 OF 1948, AS AMENDED (THE “FIEL”)), AND EACH INITIAL PURCHASER HAS AGREED THAT IT WILL NOT OFFER OR SELL ANY SPCs, DIRECTLY OR INDIRECTLY, IN JAPAN OR TO, OR FOR THE BENEFIT OF, ANY JAPANESE PERSON, OR TO OTHERS FOR RE-OFFERING OR RESALE, DIRECTLY OR INDIRECTLY, IN JAPAN OR TO ANY JAPANESE PERSON, EXCEPT PURSUANT TO AN EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF, AND OTHERWISE IN COMPLIANCE WITH, THE FIEL AND ANY OTHER APPLICABLE LAWS AND REGULATIONS. FOR THE PURPOSES OF THIS PARAGRAPH, “JAPANESE PERSON” SHALL MEAN ANY PERSON RESIDENT IN JAPAN, INCLUDING ANY CORPORATION OR OTHER ENTITY ORGANIZED UNDER THE LAWS AND REGULATIONS OF JAPAN.

JAPANESE RISK RETENTION REQUIREMENT

THE JAPANESE FINANCIAL SERVICES AGENCY (“JFSA”) PUBLISHED A RISK RETENTION RULE AS PART OF THE REGULATORY CAPITAL REGULATION OF CERTAIN CATEGORIES OF JAPANESE INVESTORS SEEKING TO INVEST IN SECURITIZATION TRANSACTIONS (THE “JRR RULE”), THE JRR RULE MANDATES AN “INDIRECT” COMPLIANCE REQUIREMENT, MEANING THAT CERTAIN CATEGORIES OF JAPANESE INVESTORS WILL BE REQUIRED TO APPLY HIGHER RISK WEIGHTING TO SECURITIZATION EXPOSURES THEY HOLD UNLESS THE RELEVANT ORIGINATOR COMMITS TO HOLD A RETENTION INTEREST IN THE SECURITIES ISSUED IN THE SECURITIZATION TRANSACTION EQUAL TO AT LEAST 5% OF THE EXPOSURE OF THE TOTAL UNDERLYING ASSETS IN THE SECURITIZATION TRANSACTION (THE “JAPANESE RISK RETENTION REQUIREMENT”), OR SUCH INVESTORS DETERMINE THAT THE UNDERLYING ASSETS WERE NOT “INAPPROPRIATELY ORIGINATED,” IN THE ABSENCE OF SUCH A DETERMINATION BY SUCH INVESTORS THAT SUCH UNDERLYING ASSETS WERE NOT “INAPPROPRIATELY ORIGINATED,” THE JAPANESE RISK RETENTION REQUIREMENT WOULD APPLY TO AN INVESTMENT BY SUCH INVESTORS IN SUCH SECURITIES.

NO PARTY TO THE TRANSACTION DESCRIBED IN THIS OFFERING CIRCULAR SUPPLEMENT HAS COMMITTED TO HOLD A RISK RETENTION INTEREST IN COMPLIANCE WITH THE JAPANESE RISK RETENTION REQUIREMENT, AND WE MAKE NO REPRESENTATION AS TO WHETHER THE TRANSACTION DESCRIBED IN THIS OFFERING CIRCULAR SUPPLEMENT WOULD OTHERWISE COMPLY WITH THE JRR RULE.

NOTICE TO RESIDENTS OF HONG KONG

THE SPCs ARE NOT BEING OFFERED OR SOLD AND WILL NOT BE OFFERED OR SOLD IN HONG KONG, BY MEANS OF ANY DOCUMENT (EXCEPT FOR SPCs WHICH ARE A “STRUCTURED PRODUCT” AS DEFINED IN THE SECURITIES AND FUTURES ORDINANCE (CAP. 571) (THE “SFO”) OF HONG KONG) OTHER THAN (A) TO “PROFESSIONAL INVESTORS” AS DEFINED IN THE SFO AND ANY RULES MADE UNDER THE SFO; OR (B) IN OTHER CIRCUMSTANCES WHICH DO NOT RESULT IN THE DOCUMENT BEING A “PROSPECTUS” AS DEFINED IN THE COMPANIES (WINDING UP AND MISCELLANEOUS PROVISIONS) ORDINANCE (CAP. 32) (THE “C(WUMPO)”) OF HONG KONG OR WHICH DO NOT CONSTITUTE AN OFFER TO THE PUBLIC WITHIN THE MEANING OF THE C(WUMPO). NO ADVERTISEMENT, INVITATION OR DOCUMENT RELATING TO THE SPCs HAS BEEN ISSUED OR WILL BE ISSUED, WHETHER IN HONG KONG OR ELSEWHERE, WHICH IS

DIRECTED AT, OR THE CONTENTS OF WHICH ARE LIKELY TO BE ACCESSED OR READ BY, THE PUBLIC OF HONG KONG (EXCEPT IF PERMITTED TO DO SO UNDER THE SECURITIES LAWS OF HONG KONG) OTHER THAN WITH RESPECT TO SPCs WHICH ARE OR ARE INTENDED TO BE DISPOSED OF ONLY TO PERSONS OUTSIDE HONG KONG OR ONLY TO “PROFESSIONAL INVESTORS” AS DEFINED IN THE SFO AND ANY RULES MADE UNDER THE SFO.

NOTICE TO RESIDENTS OF THE EUROPEAN ECONOMIC AREA

THIS OFFERING CIRCULAR SUPPLEMENT IS NOT A PROSPECTUS FOR THE PURPOSES OF THE PROSPECTUS REGULATION (AS DEFINED BELOW).

THE SPCs ARE NOT INTENDED TO BE OFFERED, SOLD OR OTHERWISE MADE AVAILABLE TO AND SHOULD NOT BE OFFERED, SOLD OR OTHERWISE MADE AVAILABLE TO ANY RETAIL INVESTOR IN THE EUROPEAN ECONOMIC AREA (THE “EEA”). FOR THESE PURPOSES, A RETAIL INVESTOR MEANS A PERSON WHO IS ONE (OR MORE) OF THE FOLLOWING:

- (I) A RETAIL CLIENT AS DEFINED IN POINT (11) OF ARTICLE 4(1) OF DIRECTIVE 2014/65/EU (AS AMENDED, “MIFID II”); OR
- (II) A CUSTOMER WITHIN THE MEANING OF DIRECTIVE 2016/97/EU, WHERE THAT CUSTOMER WOULD NOT QUALIFY AS A PROFESSIONAL CLIENT AS DEFINED IN POINT (10) OF ARTICLE 4(1) OF MIFID II; OR
- (III) NOT A QUALIFIED INVESTOR AS DEFINED IN REGULATION 2017/1129/EU (AS AMENDED, THE “PROSPECTUS REGULATION”).

CONSEQUENTLY, NO KEY INFORMATION DOCUMENT REQUIRED BY REGULATION (EU) NO 1286/2014 (AS AMENDED, THE “PRIIPS REGULATION”) FOR OFFERING OR SELLING THE SPCs OR OTHERWISE MAKING THEM AVAILABLE TO RETAIL INVESTORS IN THE EEA HAS BEEN PREPARED AND THEREFORE OFFERING OR SELLING THE SPCs OR OTHERWISE MAKING THEM AVAILABLE TO ANY RETAIL INVESTOR IN THE EEA MAY BE UNLAWFUL UNDER THE PRIIPS REGULATION. FURTHERMORE, THIS OFFERING CIRCULAR SUPPLEMENT HAS BEEN PREPARED ON THE BASIS THAT ANY OFFER OF SPCs IN THE EEA WILL ONLY BE MADE TO A LEGAL ENTITY WHICH IS A QUALIFIED INVESTOR UNDER THE PROSPECTUS REGULATION. ACCORDINGLY, ANY PERSON MAKING OR INTENDING TO MAKE AN OFFER IN THE EEA OF THE SPCs MAY ONLY DO SO WITH RESPECT TO QUALIFIED INVESTORS. NONE OF THE ISSUING ENTITY, FREDDIE MAC OR ANY PLACEMENT AGENT HAS AUTHORIZED, NOR DOES ANY OF THEM AUTHORIZE, THE MAKING OF ANY OFFER OF SPCs OTHER THAN TO QUALIFIED INVESTORS.

MIFID II PRODUCT GOVERNANCE

ANY DISTRIBUTOR SUBJECT TO MIFID II THAT IS OFFERING, SELLING OR RECOMMENDING THE SPCs IS RESPONSIBLE FOR UNDERTAKING ITS OWN TARGET MARKET ASSESSMENT IN RESPECT OF THE SPCs AND DETERMINING ITS OWN DISTRIBUTION CHANNELS FOR THE PURPOSES OF THE MIFID II PRODUCT GOVERNANCE RULES UNDER COMMISSION DELEGATED DIRECTIVE (EU) 2017/593 (AS AMENDED, THE “DELEGATED DIRECTIVE”). NONE OF THE ISSUING ENTITY, FREDDIE MAC OR ANY PLACEMENT AGENT MAKES ANY REPRESENTATIONS OR WARRANTIES AS TO A DISTRIBUTOR’S COMPLIANCE WITH THE DELEGATED DIRECTIVE.

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\$1,097,630,000

(Approximate)

**Multifamily Mortgage Pass-Through Certificates,
Series 2019-K103**

FREMF 2019-K103 Mortgage Trust
issuing entity

Banc of America Merrill Lynch Commercial Mortgage Inc.
depositor

Federal Home Loan Mortgage Corporation
mortgage loan seller and guarantor

We, Banc of America Merrill Lynch Commercial Mortgage Inc., intend to establish a trust to act as an issuing entity, which we refer to in this information circular as the “issuing entity.” The primary assets of the issuing entity will consist of 46 multifamily mortgage loans secured by 46 mortgaged real properties with the characteristics described in this information circular. The issuing entity will issue 12 classes of certificates, 6 of which, referred to in this information circular as the “offered certificates,” are being offered by this information circular, as listed below. The issuing entity will pay interest and/or principal monthly, commencing in January 2020. The offered certificates represent obligations of the issuing entity only (and, solely with respect to certain payments of interest and principal pursuant to a guarantee of the offered certificates described in this information circular, Freddie Mac), and do not represent obligations of or interests in us or any of our affiliates. We do not intend to list the offered certificates on any national securities exchange or any automated quotation system of any registered securities association.

This information circular was prepared solely in connection with the offering and sale of the offered certificates to Freddie Mac.

Investing in the offered certificates involves risks. See “Risk Factors” beginning on page 35 of this information circular.

Offered Classes	Total Initial Principal Balance or Notional Amount	Initial Pass- Through Rate	Assumed Final Distribution Date
Class A-1	\$ 109,473,000	2.31200%	June 25, 2029
Class A-2	\$ 929,128,000	2.65100%	November 25, 2029
Class A-M	\$ 59,029,000	2.35900%	November 25, 2029
Class X1	\$1,038,601,000	0.75659%*	November 25, 2029
Class XAM	\$ 59,029,000	1.01285%*	November 25, 2029
Class X3	\$ 178,684,806	1.91349%*	June 25, 2030

* Approximate.

Delivery of the offered certificates will be made on or about December 19, 2019. Credit enhancement will be provided by (i) the subordination of certain classes of certificates to certain other classes of such certificates as described in this information circular under “Summary of Information Circular—The Offered Certificates—Subordination,” “—Priority of Distributions” and “Description of the Certificates—Distributions—Subordination” and (ii) the guarantee of the offered certificates by Freddie Mac as described under “Summary of Information Circular—The Offered Certificates—Freddie Mac Guarantee” and “Description of the Certificates—Distributions—Freddie Mac Guarantee” in this information circular.

The issuing entity will be relying on an exclusion or exemption from the definition of “investment company” under the Investment Company Act of 1940, as amended (the “Investment Company Act”), contained in Section 3(c)(5) of the Investment Company Act or Rule 3a-7 under the Investment Company Act, although there may be additional exclusions or exemptions available to the issuing entity. The issuing entity is being structured so as not to constitute a “covered fund” for purposes of the Volcker Rule under the Dodd-Frank Act.

It is a condition to the issuance of the offered certificates that they be purchased and guaranteed by Freddie Mac as described in this information circular. The obligations of Freddie Mac under its guarantee of the offered certificates are obligations of Freddie Mac only. **Freddie Mac will not guarantee any class of certificates other than the offered certificates.** The offered certificates are not guaranteed by the United States of America (“United States”) and do not constitute debts or obligations of the United States or any agency or instrumentality of the United States other than Freddie Mac. Income on the offered certificates has no exemption under federal law from federal, state or local taxation.

FREMF 2019-K103 Mortgage Trust

Multifamily Mortgage Pass-Through Certificates Series 2019-K103

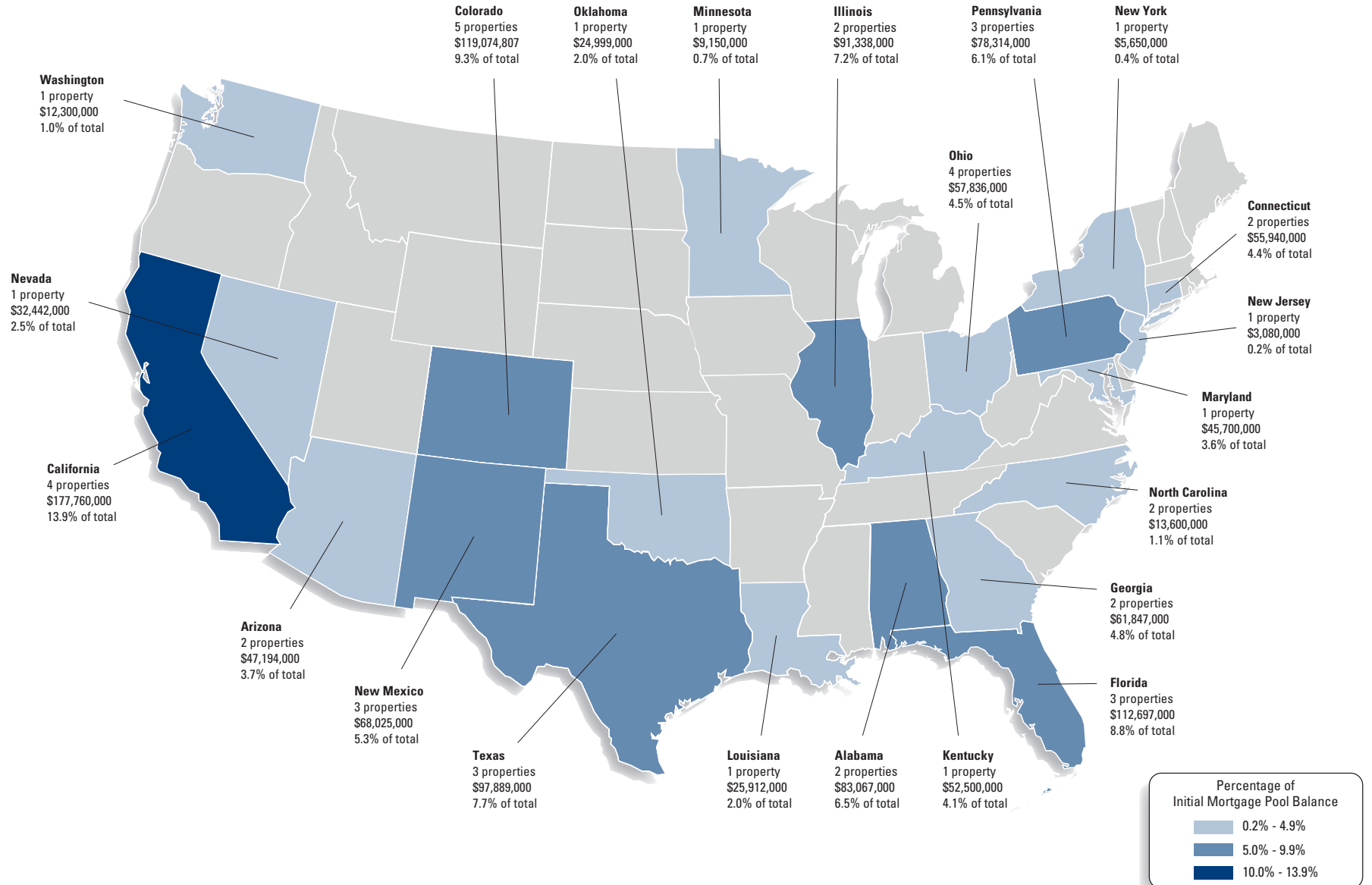


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Exhibits to Information Circular

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You should rely only on the information contained in this document or to which we have referred you. We have not authorized anyone to provide you with information that is different. This document may only be used where it is legal to sell these securities. The information in this document may only be accurate on the date of this document.

IMPORTANT NOTICE REGARDING THE CERTIFICATES

NONE OF THE DEPOSITOR, THE INITIAL PURCHASERS, FREDDIE MAC, THEIR RESPECTIVE AFFILIATES OR ANY OTHER PERSON INTENDS TO RETAIN A MATERIAL NET ECONOMIC INTEREST IN THE SECURITIZATION CONSTITUTED BY THE ISSUANCE OF THE CERTIFICATES IN A MANNER THAT WOULD CONSTITUTE A RETENTION OF A MATERIAL NET ECONOMIC INTEREST FOR THE PURPOSE OF ARTICLE 6 OF REGULATION (EU) 2017/2402 (THE “EU SECURITIZATION REGULATION”) OR TO TAKE ANY OTHER ACTION THAT MAY BE REQUIRED BY INSTITUTIONAL INVESTORS (AS DEFINED IN THE EU SECURITIZATION REGULATION) FOR THE PURPOSES OF THEIR COMPLIANCE WITH THE DUE DILIGENCE REQUIREMENTS UNDER ARTICLE 5 OF THE EU SECURITIZATION REGULATION. FOR ADDITIONAL INFORMATION IN THIS REGARD, SEE “RISK FACTORS—RISKS RELATED TO THE OFFERED CERTIFICATES—LEGAL AND REGULATORY PROVISIONS AFFECTING INVESTORS COULD ADVERSELY AFFECT THE LIQUIDITY OF YOUR INVESTMENT” IN THIS INFORMATION CIRCULAR. IN ADDITION, NO PARTY WILL RETAIN RISK WITH RESPECT TO THIS TRANSACTION IN A FORM OR AN AMOUNT PURSUANT TO THE TERMS OF THE U.S. CREDIT RISK RETENTION RULE (12 C.F.R. PART 1234). SEE “DESCRIPTION OF THE MORTGAGE LOAN SELLER AND GUARANTOR—CREDIT RISK RETENTION” IN THIS INFORMATION CIRCULAR.

IMPORTANT NOTICE ABOUT INFORMATION PRESENTED IN THIS INFORMATION CIRCULAR

THE PLACEMENT AGENTS DESCRIBED IN THIS INFORMATION CIRCULAR MAY FROM TIME TO TIME PERFORM INVESTMENT BANKING SERVICES FOR, OR SOLICIT INVESTMENT BANKING BUSINESS FROM, ANY COMPANY NAMED IN THIS INFORMATION CIRCULAR. THE PLACEMENT AGENTS AND/OR THEIR RESPECTIVE EMPLOYEES MAY FROM TIME TO TIME HAVE A LONG OR SHORT POSITION IN ANY SECURITY OR CONTRACT DISCUSSED IN THIS INFORMATION CIRCULAR.

THE INFORMATION CONTAINED IN THIS INFORMATION CIRCULAR SUPERSEDES ANY PREVIOUS SUCH INFORMATION DELIVERED TO ANY INVESTOR.

We provide information to you about the offered certificates in this information circular, which describes the specific terms of the offered certificates.

You should read this information circular in full to obtain material information concerning the offered certificates.

This information circular includes cross-references to sections in this information circular where you can find further related discussions. The Table of Contents in this information circular identifies the pages where these sections are located.

When deciding whether to invest in any of the offered certificates, you should only rely on the information contained in this information circular or as provided in “Description of the Mortgage Loan Seller and Guarantor—Freddie Mac Conservatorship” and “—Litigation Involving the Mortgage Loan Seller and Guarantor” in this information circular. We have not authorized any dealer, salesman or other person to give any information or to make any representation that is different. In addition, information in this information circular is current only as of the date on its cover. By delivery of this information circular, we are not offering to sell any securities, and are not soliciting an offer to buy any securities, in any state or other jurisdiction where the offer and sale is not permitted.

SUMMARY OF INFORMATION CIRCULAR

This summary highlights selected information from this information circular and does not contain all of the information that you need to consider in making your investment decision. To understand all of the terms of the offered certificates, you should carefully read this information circular in its entirety prior to making an investment in any offered certificates, including the information set forth under “Risk Factors” in this information circular. This summary provides an overview of certain information to aid your understanding and is qualified by the full description presented in this information circular.

Transaction Overview

The offered certificates will be part of a series of multifamily mortgage pass-through certificates designated as the Series 2019-K103 Multifamily Mortgage Pass-Through Certificates. The certificates will consist of 12 classes. The table below identifies and specifies various characteristics for those classes other than the class R certificates.

Class ⁽¹⁾	Total Initial Principal Balance or Notional Amount	Approximate % of Total Initial Principal Balance	Approximate Initial Credit Support	Pass-Through Rate Description	Initial Pass-Through Rate	Assumed Weighted Average Life (Years) ⁽²⁾⁽³⁾	Assumed Principal Window ⁽²⁾⁽⁴⁾	Assumed Final Distribution Date ⁽²⁾⁽⁵⁾
<u>Offered Certificates:</u>								
A-1	\$ 109,473,000	8.577%	18.625% ⁽⁶⁾	Fixed	2.31200%	6.98	1 – 114	June 25, 2029
A-2	\$ 929,128,000	72.798%	18.625% ⁽⁶⁾	Fixed	2.65100%	9.85	114 – 119	November 25, 2029
A-M	\$ 59,029,000	4.625%	14.000%	Fixed	2.35900%	9.93	119 – 119	November 25, 2029
X1	\$ 1,038,601,000	N/A	N/A	Variable IO	0.75659% ⁽⁷⁾	9.55	N/A	November 25, 2029
XAM	\$ 59,029,000	N/A	N/A	Variable IO	1.01285% ⁽⁷⁾	9.93	N/A	November 25, 2029
X3	\$ 178,684,806	N/A	N/A	Variable IO	1.91349% ⁽⁷⁾	9.98	N/A	June 25, 2030
<u>Non-Offered Certificates:</u>								
X2-A	\$ 1,038,601,000	N/A	N/A	Fixed IO	0.10000%	9.55	N/A	November 25, 2029
X2-B	\$ 237,713,806	N/A	N/A	Fixed IO	0.10000%	9.97	N/A	June 25, 2030
B	\$ 51,053,000	4.000%	10.000%	WAC	3.57185% ⁽⁷⁾	9.93	119 – 119	November 25, 2029
C	\$ 31,908,000	2.500%	7.500%	WAC	3.57185% ⁽⁷⁾	9.93	119 – 119	November 25, 2029
D	\$ 95,723,806	7.500%	0.000%	N/A	N/A	10.02	119 – 126	June 25, 2030

- (1) The class R certificates are not represented in this table and are not being offered by this information circular. The class R certificates will not have a principal balance, notional amount or pass-through rate.
- (2) As to any given class of certificates shown in this table, the assumed weighted average life, the assumed principal window and the Assumed Final Distribution Date have been calculated based on the Modeling Assumptions, including, among other things, that—
 - (i) there are no voluntary or involuntary prepayments with respect to the underlying mortgage loans,
 - (ii) there are no delinquencies, modifications or losses with respect to the underlying mortgage loans,
 - (iii) there are no modifications, extensions, waivers or amendments affecting the monthly debt service or balloon payments by borrowers on the underlying mortgage loans, and
 - (iv) the certificates are not redeemed prior to their Assumed Final Distribution Date pursuant to the clean-up call described under the heading “—The Offered Certificates—Optional Termination” below.
- (3) As to the class A-1, A-2, A-M, B, C and D certificates, the assumed weighted average life is the average amount of time in years between the assumed settlement date for the certificates and the payment of each dollar of principal on that class. As to the class X1, X2-A, XAM, X2-B and X3 certificates, the assumed weighted average life is the average amount of time in years between the assumed settlement date for that class and the application of each dollar to be applied in reduction of the notional amount of that class.
- (4) As to the class A-1, A-2, A-M, B, C and D certificates, the assumed principal window is the period during which holders of that class are expected to receive distributions of principal.
- (5) As to the class A-1, A-2, A-M, B, C and D certificates, the Assumed Final Distribution Date is the distribution date on which the last distribution of principal and interest (if any) is assumed to be made on that class. As to the class X1, X2-A, XAM, X2-B and X3 certificates, the Assumed Final Distribution Date is the distribution date on which the last reduction to the notional amount of that class is expected to occur.
- (6) The approximate initial credit support is the approximate initial credit support for the aggregate initial principal balance of the class A-1 and A-2 certificates.
- (7) Approximate.

In reviewing the table above, please note that:

- Only the class A-1, A-2, A-M, X1, XAM and X3 certificates are offered by this information circular.
- The class A-1, A-2, A-M, B, C and D certificates will have principal balances (collectively, the “Principal Balance Certificates”). The class A-1, A-2 and A-M certificates are the classes of Principal Balance Certificates offered by this information circular (collectively, the “Offered Principal Balance Certificates”). The class X1, X2-A, XAM, X2-B and X3 certificates constitute the “interest-only certificates.”
- The initial principal balance or notional amount of any class shown in the table may be larger or smaller depending on, among other things, the actual initial mortgage pool balance. The initial mortgage pool balance may be up to 5% more or less than the amount shown in the table on page 33. The initial mortgage pool balance refers to the aggregate outstanding principal balance of the underlying mortgage loans as of the Cut-off Date, after application of all payments of principal due with respect to the underlying mortgage loans on or before the Cut-off Date, whether or not received.
- Each class of certificates shown in the table (other than the class D certificates) will bear interest and such interest will accrue based on the assumption that each year is 360 days long and consists of 12 months each consisting of 30 days (a “30/360 Basis”).
- Each class of certificates identified in the table as having a “Fixed” pass-through rate has a fixed pass-through rate that will remain constant at the initial pass-through rate shown for that class in that table.
- Each class of certificates identified in the table as having a “WAC” pass-through rate has a *per annum* pass-through rate equal to the excess, if any, of (i) the Weighted Average Net Mortgage Pass-Through Rate for the related distribution date over (ii) the Class X2-B Strip Rate (*provided*, that in no event may such pass-through rate be less than zero).
- The class D certificates are principal-only certificates that will not bear interest and will not have a pass-through rate.
- For purposes of calculating the accrual of interest as of any date of determination, (i) the class X1 certificates will have a notional amount that is equal to the total outstanding principal balance of the class A-1 and A-2 certificates, (ii) the class X2-A certificates will have a notional amount that is equal to the total outstanding principal balance of the class A-1 and A-2 certificates, (iii) the class XAM certificates will have a notional amount that is equal to the outstanding principal balance of the class A-M certificates, (iv) the class X2-B certificates will have a notional amount that is equal to the total outstanding principal balance of the class A-M, B, C and D certificates and (v) the class X3 certificates will have a notional amount that is equal to the total outstanding principal balance of the class B, C and D certificates.
- The pass-through rate for the class X1 certificates for any Interest Accrual Period will equal the weighted average of the Class X1 Strip Rates (weighted based on the relative sizes of their respective components). The “Class X1 Strip Rates” means, for the purposes of calculating the pass-through rate for the class X1 certificates, the *per annum* rates at which interest accrues from time to time on the two components of the notional amount of the class X1 certificates outstanding immediately prior to the related distribution date. One component will be comprised of the outstanding principal balance of the class A-1 certificates and one component will be comprised of the outstanding principal balance of the class A-2 certificates. For purposes of calculating the pass-through rate for the class X1 certificates for each Interest Accrual Period, the applicable Class X1 Strip Rate with respect to each such component for each such Interest Accrual Period will be a *per annum* rate equal to the excess, if any, of (i) the Weighted Average Net Mortgage Pass-Through Rate for the related distribution date minus the sum of (a) the Class X2-A Strip Rate and (b) the Guarantee Fee Rate, over (ii) the pass-through rate in effect during such Interest Accrual Period for the class A-1 or A-2 certificates, as applicable. In no event may any Class X1 Strip Rate be less than zero.
- The pass-through rate for the class XAM certificates for any Interest Accrual Period will equal the Class XAM Strip Rate. The “Class XAM Strip Rate” means, for the purposes of calculating the pass-through rate for the class XAM certificates, the *per annum* rate at which interest accrues from time to time on the notional amount of the class XAM certificates outstanding immediately prior to the related distribution date. For purposes of calculating the pass-through rate for the class XAM certificates for each Interest Accrual Period, the Class XAM Strip Rate for each such Interest Accrual Period will be a *per annum* rate equal to the excess, if any, of (i) the Weighted Average Net Mortgage Pass-Through Rate for the related

distribution date minus the sum of (a) the Class X2-B Strip Rate and (b) the Guarantee Fee Rate, over (ii) the pass-through rate in effect during such Interest Accrual Period for the class A-M certificates. In no event may the Class XAM Strip Rate be less than zero.

- The pass-through rate for the class X2-A certificates for any Interest Accrual Period will equal the Class X2-A Strip Rate. The “Class X2-A Strip Rate” will equal a *per annum* rate equal to 0.10000%.
- The pass-through rate for the class X2-B certificates for any Interest Accrual Period will equal the Class X2-B Strip Rate. The “Class X2-B Strip Rate” will equal a *per annum* rate equal to 0.10000%.
- The pass-through rate for the class X3 certificates for any Interest Accrual Period will equal the weighted average of the Class X3 Strip Rates (weighted based on the relative sizes of their respective components). The “Class X3 Strip Rates” means, for the purposes of calculating the pass-through rate for the class X3 certificates, the *per annum* rates at which interest accrues from time to time on the three components of the notional amount of the class X3 certificates outstanding immediately prior to the related distribution date. One component will be comprised of the outstanding principal balance of the class B certificates, one component will be comprised of the outstanding principal balance of the class C certificates and one component will be comprised of the outstanding principal balance of the class D certificates. For purposes of calculating the pass-through rate for the class X3 certificates for each Interest Accrual Period, the applicable Class X3 Strip Rate with respect to each such component for each such Interest Accrual Period will be a *per annum* rate equal to the excess, if any, of (i) the Weighted Average Net Mortgage Pass-Through Rate for the related distribution date minus the Class X2-B Strip Rate over (ii) (a) with respect to the components related to the class B and C certificates, the pass-through rate in effect during such Interest Accrual Period for the class B or C certificates, as applicable, and (b) with respect to the component related to the class D certificates, 0.00000%. In no event may any Class X3 Strip Rate be less than zero.
- “Net Mortgage Pass-Through Rate” means, with respect to any underlying mortgage loan (including any successor REO Loan) that accrues interest on a 30/360 Basis, for any distribution date, a *per annum* rate equal to the greater of (i) the Net Mortgage Interest Rate for such underlying mortgage loan and (ii) the Original Net Mortgage Interest Rate for such underlying mortgage loan; and with respect to any underlying mortgage loan (including any successor REO Loan) that accrues interest on an Actual/360 Basis for any distribution date, a *per annum* rate equal to 12 times a fraction, expressed as a percentage (a) the numerator of which fraction is, subject to adjustment as described below in this definition, an amount of interest equal to the product of (1) the number of days in the related interest accrual period for such underlying mortgage loan with respect to the due date for such underlying mortgage loan that occurs during the Collection Period related to such distribution date, multiplied by (2) the Stated Principal Balance of that underlying mortgage loan immediately preceding that distribution date, multiplied by (3) 1/360, multiplied by (4) the greater of (A) the Net Mortgage Interest Rate for such underlying mortgage loan and (B) the Original Net Mortgage Interest Rate for such underlying mortgage loan, and (b) the denominator of which is the Stated Principal Balance of that underlying mortgage loan immediately preceding that distribution date.

However, if such distribution date occurs during January, except during a leap year, or February (unless in either case, such distribution date is the final distribution date), then, in the case of any underlying mortgage loan (including any successor REO Loan) that accrues interest on an Actual/360 Basis, the Net Mortgage Pass-Through Rate will be decreased to reflect any interest reserve amount with respect to the underlying mortgage loan that is transferred from the distribution account to the interest reserve account during that month. Furthermore, if such distribution date occurs during March (or February, if the final distribution date occurs in such month), then in the case of any underlying mortgage loan (including any successor REO Loan) that accrues interest on an Actual/360 Basis, the Net Mortgage Pass-Through Rate will be increased to reflect any interest reserve amount(s) with respect to the underlying mortgage loan that are transferred from the interest reserve account to the distribution account during that month for distribution on such distribution date.

- “Net Mortgage Interest Rate” means, with respect to any underlying mortgage loan (including any successor REO Loan), as of any date of determination, the related mortgage interest rate then in effect reduced by the sum of the annual rates at which the master servicer surveillance fee (if any), the special servicer surveillance fee (if any), the master servicing fee, the sub-servicing fee, the certificate administrator fee, the trustee fee and the CREFC® Intellectual Property Royalty License Fee are calculated.

- “Original Net Mortgage Interest Rate” means, with respect to any underlying mortgage loan (including any successor REO Loan), the Net Mortgage Interest Rate in effect for such underlying mortgage loan as of the Cut-off Date (or, in the case of any underlying mortgage loan substituted in replacement of another underlying mortgage loan pursuant to or as contemplated by the mortgage loan purchase agreement, as of the date of substitution).
- “Weighted Average Net Mortgage Pass-Through Rate” means, with respect to any distribution date, the weighted average of the Net Mortgage Pass-Through Rates of all of the underlying mortgage loans (including any REO Loans) for such distribution date, weighted on the basis of their respective Stated Principal Balances immediately prior to that distribution date.
- Subject to the discussion under “Ratings” in this information circular, the ratings on the rated certificates address the likelihood of the timely receipt by holders of all payments of interest to which they are entitled on each distribution date and the ultimate receipt by holders of all payments of principal to which they are entitled on or before the applicable rated final distribution date. The rated final distribution date for each class of rated certificates is the distribution date in December 2051 (the “Rated Final Distribution Date”).

See “Description of the Certificates—Distributions—Calculation of Pass-Through Rates” in this information circular.

The document that will govern the issuance of the certificates, the creation of the related issuing entity and the servicing and administration of the underlying mortgage loans will be a pooling and servicing agreement to be dated as of December 1, 2019 (the “Pooling and Servicing Agreement”) among us, as depositor, Midland Loan Services, a Division of PNC Bank, National Association, as master servicer, Wells Fargo Bank, National Association, as special servicer, U.S. Bank National Association, as trustee, Citibank, N.A., as certificate administrator and custodian, and Freddie Mac.

The certificates will evidence the entire beneficial ownership of the issuing entity that we intend to establish. The primary assets of that issuing entity will be a segregated pool of multifamily mortgage loans, including 6 underlying mortgage loans secured by manufactured housing community properties and 1 underlying mortgage loan secured by an assisted living, memory care and/or independent living facility property. The underlying mortgage loans will provide for monthly debt service payments and, except as described under “—The Underlying Mortgage Loans” below, will have fixed mortgage interest rates in the absence of default. We will acquire the underlying mortgage loans, for deposit in the issuing entity, from the mortgage loan seller. As of the applicable due dates in December 2019 for the underlying mortgage loans (which will be December 1, 2019, subject, in some cases, to a next succeeding business day convention), which we refer to in this information circular as the “Cut-off Date,” the underlying mortgage loans will have the general characteristics discussed under the heading “—The Underlying Mortgage Loans” below.

Relevant Parties/Entities

Issuing Entity	FREMF 2019-K103 Mortgage Trust, a New York common law trust, will be formed on the Closing Date pursuant to the Pooling and Servicing Agreement. See “Description of the Issuing Entity” in this information circular.
Mortgage Loan Seller	Freddie Mac, a corporate instrumentality of the United States created and existing under Title III of the Emergency Home Finance Act of 1970, as amended (the “ <u>Freddie Mac Act</u> ”), or any successor to it, will act as the mortgage loan seller. Freddie Mac will also act as the guarantor of the offered certificates (in such capacity, the “ <u>Guarantor</u> ”) and servicing consultant with respect to the underlying mortgage loans. Freddie Mac maintains an office at 8200 Jones Branch Drive, McLean, Virginia 22102. See “Description of the Mortgage Loan Seller and Guarantor” in this information circular.
Depositor	Banc of America Merrill Lynch Commercial Mortgage Inc., a Delaware corporation, will create the issuing entity and transfer the underlying mortgage loans to it. We are an affiliate of BofA Securities, Inc., which will be one of the initial purchasers of certain classes of certificates (together with Barclays Capital Inc., in such capacities, the “ <u>Initial Purchasers</u> ”) and is one of the placement agents for the SPCs. Our principal executive office is located at One Bryant Park, New York, New York 10036. All references to “we,” “us” and “our” in this information circular are intended to mean Banc of America Merrill Lynch Commercial Mortgage Inc. See “Description of the Depositor” in this information circular.
Originators	Each underlying mortgage loan was originated by one of the Originators and was acquired by the mortgage loan seller. As of the Closing Date, certain of the underlying mortgage loans will be sub-serviced by various sub-servicers pursuant to sub-servicing agreements between the master servicer and each of the sub-servicers (each, a “ <u>Sub-Servicing Agreement</u> ”). Subject to meeting certain requirements, each Originator has the right to, and may, appoint itself or its affiliate as the sub-servicer for any of the underlying mortgage loans it originated. See Exhibit A-1 for the identity of the applicable Originator for each underlying mortgage loan.
Master Servicer	Midland Loan Services, a Division of PNC Bank, National Association, a national banking association (“ <u>Midland</u> ” or “ <u>PNC Bank</u> ”), will act as the master servicer with respect to the underlying mortgage loans. PNC Bank also originated 4 of the underlying mortgage loans, collectively representing 12.7% of the initial mortgage pool balance. Midland often acts as an interim servicer in connection with mortgage loans contributed to CMBS securitization transactions. Midland also acts as the interim servicer of, and is expected to primary service, the underlying mortgage loans originated by PNC Bank. Midland has also assisted with the interim servicing of the underlying mortgage loans originated by Berkeley Point Capital LLC, d/b/a Newmark Knight Frank and Walker & Dunlop, LLC. Certain servicing and administrative functions will also be provided by one or more primary servicers that previously serviced the underlying mortgage loans. Midland is not affiliated with the issuing entity, the depositor, the

special servicer, the trustee, the custodian, the certificate administrator, the mortgage loan seller, any other Originator or any other sub-servicer. The principal servicing offices of the master servicer are located at 10851 Mastin Street, Building 82, Suite 300, Overland Park, Kansas 66210.

As consideration for servicing the underlying mortgage loans, the master servicer will receive a master servicing fee and a sub-servicing fee with respect to each underlying mortgage loan. In addition, the master servicer will receive a master servicer surveillance fee with respect to each Surveillance Fee Mortgage Loan, subject to the rights of the sub-servicers described in “The Pooling and Servicing Agreement—Servicing and Other Compensation and Payment of Expenses—The Servicing Fee” in this information circular. See “Description of the Certificates—Fees and Expenses” in this information circular for the applicable rates at which such fees accrue and “The Pooling and Servicing Agreement—Servicing and Other Compensation and Payment of Expenses—The Servicing Fee” in this information circular for further information regarding such fees.

The master servicing fee rate, the master servicer surveillance fee rate and the sub-servicing fee rate are components of the “Administration Fee Rate” set forth on Exhibit A-1. Such fees are calculated on the same basis as interest on each underlying mortgage loan and will be paid out of interest payments received from the related borrower prior to any distributions being made on the offered certificates. The master servicer will also be entitled to additional servicing compensation in the form of borrower-paid fees as more particularly described in this information circular. See “The Pooling and Servicing Agreement—Servicing and Other Compensation and Payment of Expenses—Additional Servicing Compensation” and “—The Master Servicer” in this information circular. In the event that Midland resigns or is terminated as master servicer, Midland will be entitled to retain, subject to certain exceptions, a portion of interest on each underlying mortgage loan referred to as the “Excess Servicing Strip,” as described in this information circular. The Pooling and Servicing Agreement provides that the master servicer may consult with Freddie Mac (in its capacity as servicing consultant) with respect to the application of Freddie Mac Servicing Practices to any matters related to non-Specially Serviced Mortgage Loans.

Special Servicer..... Wells Fargo Bank, National Association, a national banking association (“Wells Fargo Bank”) will act as the initial special servicer with respect to the underlying mortgage loans. Wells Fargo Bank will also act as the Affiliated Borrower Loan Directing Certificateholder with respect to Affiliated Borrower Loans that are not Affiliated Borrower Special Servicer Loans and may, if requested, act as the Directing Certificateholder Servicing Consultant. Wells Fargo Bank also originated 4 of the underlying mortgage loans, collectively representing 15.0% of the initial mortgage pool balance, and is expected to sub-service such underlying mortgage loans. The principal west coast commercial mortgage servicing offices of Wells Fargo Bank are located at MAC A0293-080, 2001 Clayton Road, Concord, California 94520. The principal east coast commercial mortgage servicing offices of Wells Fargo Bank are located at Three Wells Fargo, MAC D1050-084, 401 South Tryon Street, Charlotte, North Carolina 28202.

The special servicer will, in general, be responsible for servicing and administering:

- underlying mortgage loans that, in general, are in default or as to which default is reasonably foreseeable; and
- any real estate acquired by the issuing entity upon foreclosure of a Defaulted Loan.

As consideration for servicing each Specially Serviced Mortgage Loan and each underlying mortgage loan as to which the corresponding mortgaged real property has become subject to a foreclosure proceeding, the special servicer will receive a special servicing fee. In addition, the special servicer will receive a special servicer surveillance fee with respect to each Surveillance Fee Mortgage Loan. The special servicer surveillance fee rate is a component of the “Administration Fee Rate” set forth on Exhibit A-1. Such fees will be calculated on the same basis as interest on each underlying mortgage loan and will generally be payable to the special servicer monthly from collections on the underlying mortgage loans. Additionally, the special servicer will, in general, be entitled to receive a workout fee with respect to each Specially Serviced Mortgage Loan that has been returned to performing status. The special servicer will also be entitled to receive a liquidation fee with respect to each Specially Serviced Mortgage Loan for which it obtains a full, partial or discounted payoff or otherwise recovers Liquidation Proceeds. However, no liquidation fee is payable in connection with certain purchases by the directing certificateholder, the mortgage loan seller or the special servicer. See “Description of the Certificates—Fees and Expenses” in this information circular for the applicable rates at which such fees accrue and “The Pooling and Servicing Agreement—Servicing and Other Compensation and Payment of Expenses—Principal Special Servicing Compensation” in this information circular for further information regarding such fees.

The special servicer may be terminated by the directing certificateholder, who may appoint a successor special servicer meeting the Successor Servicer Requirements, including Freddie Mac’s approval, which approval may not be unreasonably withheld or delayed. See “The Pooling and Servicing Agreement—Resignation, Removal and Replacement of Servicers; Transfer of Servicing Duties” and “—The Special Servicer” in this information circular.

The Pooling and Servicing Agreement provides that in certain circumstances the Approved Directing Certificateholder (if any) may, at its own expense, request that a person (which may be the special servicer) (in such capacity, the “Directing Certificateholder Servicing Consultant”) prepare and deliver a recommendation relating to a requested waiver of a “due-on-sale” or “due-on-encumbrance” clause or, with respect to non-Specially Serviced Mortgage Loans, a requested consent to certain major decisions affecting the underlying mortgage loans or related mortgaged real properties. See “The Pooling and Servicing Agreement—Enforcement of “Due-on-Sale” and “Due-on-Encumbrance” Clauses” and “—Modifications, Waivers, Amendments and Consents” in this information circular.

If at any time an Affiliated Borrower Special Servicer Loan Event occurs (other than with respect to any Affiliated Borrower Special

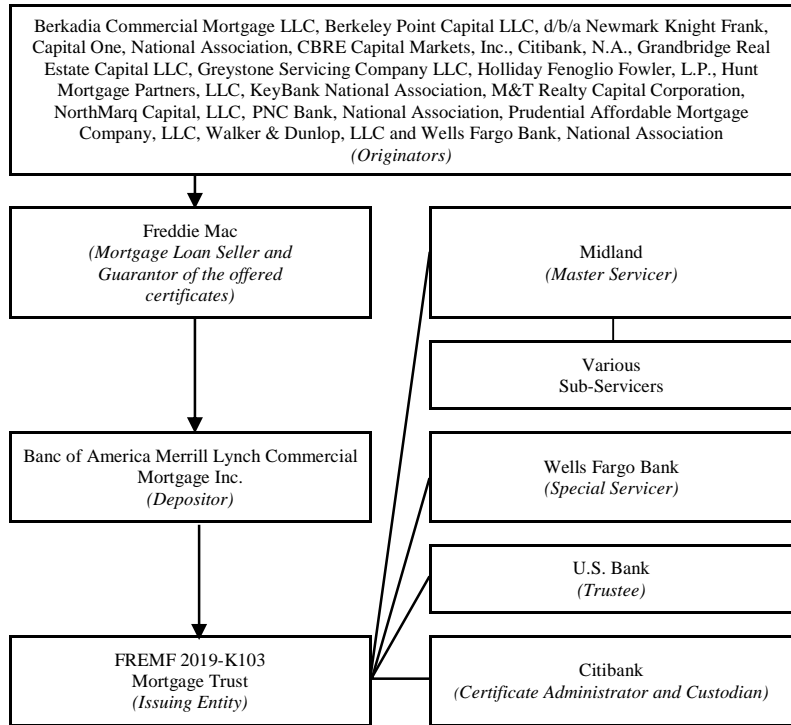
Servicer Loan Event that exists on the Closing Date and is described in the definition of Affiliated Borrower Special Servicer Loan Event), the Pooling and Servicing Agreement will require that the special servicer promptly resign as special servicer of the related Affiliated Borrower Special Servicer Loan and provides for the appointment of a successor Affiliated Borrower Special Servicer to act as the special servicer with respect to such Affiliated Borrower Special Servicer Loan. For further information relating to Affiliated Borrower Special Servicer Loan Events, see “The Pooling and Servicing Agreement—Resignation, Removal and Replacement of Servicers; Transfer of Servicing Duties—Resignation of the Master Servicer or the Special Servicer” and “—Removal of the Master Servicer, the Special Servicer and any Sub-Servicer” in this information circular.

Trustee U.S. Bank National Association, a national banking association (“U.S. Bank”), will act as the trustee on behalf of the certificateholders. The trustee’s principal address is One Federal Street, 3rd Floor, Mail Code EX-MA-FED, Boston, Massachusetts 02110. As consideration for acting as trustee, U.S. Bank will receive a trustee fee. The trustee fee rate is a component of the “Administration Fee Rate” set forth on Exhibit A-1. Such fee will be calculated on the same basis as interest on each underlying mortgage loan. See “Description of the Certificates—Fees and Expenses” in this information circular for the applicable rate at which such fee accrues and “The Pooling and Servicing Agreement—Matters Regarding the Trustee, the Certificate Administrator and the Custodian” in this information circular for further information regarding such fee and “The Pooling and Servicing Agreement—The Trustee” in this information circular for further information about the trustee.

Certificate Administrator and Custodian Citibank, N.A., a national banking association (“Citibank”), will act as the certificate administrator, the custodian and the certificate registrar. Citibank also originated 2 underlying mortgage loans, collectively representing 1.5% of the initial mortgage pool balance. The certificate administrator’s principal address is 388 Greenwich Street, New York, New York 10013, and for certificate transfer purposes is 480 Washington Boulevard, 30th Floor, Jersey City, New Jersey 07310, Attention: Securities Window. As consideration for acting as certificate administrator, custodian and certificate registrar, Citibank will receive a certificate administrator fee. The certificate administrator fee rate is a component of the “Administration Fee Rate” set forth on Exhibit A-1. Such fee will be calculated on the same basis as interest on each underlying mortgage loan. See “Description of the Certificates—Fees and Expenses” in this information circular for the applicable rate at which such fee accrues and “The Pooling and Servicing Agreement—Matters Regarding the Trustee, the Certificate Administrator and the Custodian” in this information circular for further information regarding such fee. See “The Pooling and Servicing Agreement—The Certificate Administrator and Custodian” in this information circular for further information about the certificate administrator and the custodian.

Parties

The following diagram illustrates the various parties involved in the transaction and their functions.



Directing Certificateholder

The “directing certificateholder” will be the Controlling Class Majority Holder or its designee; *provided*, that if the class A-1, A-2 and A-M certificates are the Controlling Class, Freddie Mac, as the holder of the class A-1, A-2 and A-M certificates, or its designee will act as the directing certificateholder and be deemed the Approved Directing Certificateholder. It is anticipated that New York Mortgage Trust, Inc., a Maryland corporation, will be designated to serve as the initial directing certificateholder (the “Initial Directing Certificateholder”). For more information regarding the identity and selection of the directing certificateholder and the procedure for a Controlling Class Majority Holder becoming or designating an Approved Directing Certificateholder, see “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Directing Certificateholder” in this information circular.

As and to the extent described under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Asset Status Report” in this information circular, the Approved Directing Certificateholder (if any) may direct the master servicer or the special servicer with respect to various servicing matters involving each of the underlying mortgage loans. A directing certificateholder that is not an Approved Directing Certificateholder will not have such rights with respect to such servicing matters, but will be entitled to exercise the Controlling Class Majority Holder Rights described in this information circular. Upon the occurrence and during the continuance of any Affiliated Borrower Loan Event with respect to any underlying mortgage loan, any right of the directing certificateholder to (i) approve and consent to certain actions with respect to such underlying mortgage loan, (ii) exercise an option to purchase such underlying mortgage loan (if it

is a Defaulted Loan) from the issuing entity and (iii) access certain information and reports regarding such underlying mortgage loan will be restricted as described in “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Asset Status Report” and “—Purchase Option,” as applicable, in this information circular. Upon the occurrence and during the continuance of an Affiliated Borrower Loan Event, the special servicer, as the Affiliated Borrower Loan Directing Certificateholder, will be required to exercise any approval, consent, consultation or other rights with respect to any matters related to an Affiliated Borrower Loan as described in “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Asset Status Report” in this information circular.

As of the Closing Date, no Affiliated Borrower Loan Event is expected to exist with respect to the Initial Directing Certificateholder.

The Pooling and Servicing Agreement provides that in certain circumstances the Approved Directing Certificateholder (if any) may, at its own expense, request that the Directing Certificateholder Servicing Consultant prepare and deliver a recommendation relating to a requested waiver of a “due-on-sale” or “due-on-encumbrance” clause or, with respect to non-Specially Serviced Mortgage Loans, a requested consent to certain major decisions affecting the underlying mortgage loans or related mortgaged real properties. See “The Pooling and Servicing Agreement—Enforcement of “Due-on-Sale” and “Due-on-Encumbrance” Clauses” and “—Modifications, Waivers, Amendments and Consents” in this information circular. The Approved Directing Certificateholder (if any) will be entitled to certain borrower-paid fees in connection with such assumptions, modifications, waivers, amendments or consents. See “Description of the Certificates—Fees and Expenses” in this information circular.

Guarantor..... Freddie Mac will act as Guarantor of the class A-1, A-2, A-M, X1, XAM and X3 certificates offered by this information circular. Freddie Mac is entitled to a Guarantee Fee described under “Description of the Certificates—Distributions—Freddie Mac Guarantee” in this information circular. For a discussion of the Freddie Mac Guarantee, see “—The Offered Certificates—Freddie Mac Guarantee” below and “Description of the Mortgage Loan Seller and Guarantor—Proposed Operation of Multifamily Mortgage Business on a Stand-Alone Basis” in this information circular. Freddie Mac will also be entitled to retain any MHC Tenant Protections Fees as additional compensation for serving as Guarantor as more particularly described in this information circular. See “Description of the Certificates—Fees and Expenses” in this information circular for further information regarding such fees.

Junior Loan Holder Although all of the underlying mortgage loans are secured by first-liens on the related mortgaged real properties, if the related borrowers exercise their options to obtain supplemental secured financing as described under “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Permitted Additional Debt” in this information circular, Freddie Mac will be the initial holder of junior loans secured by junior liens on the applicable mortgaged real properties (subject to intercreditor agreements). Freddie Mac may at any time transfer any junior lien

loans it holds in secondary market transactions, including securitizations.

Significant Dates and Periods

Cut-off Date	The underlying mortgage loans will be considered assets of the issuing entity as of their applicable due dates in December 2019 (which will be December 1, 2019, subject, in some cases, to a next succeeding business day convention). All payments and collections received on each of the underlying mortgage loans after the Cut-off Date, excluding any payments or collections that represent amounts due on or before the Cut-off Date, will belong to the issuing entity.
Closing Date	The date of initial issuance for the certificates will be on or about December 19, 2019.
Due Dates	Subject, in some cases, to a next succeeding business day convention, monthly installments of principal and/or interest will be due on the first day of the month with respect to each of the underlying mortgage loans.
Determination Date	The monthly cut-off for collections on the underlying mortgage loans that are to be distributed, and information regarding the underlying mortgage loans that is to be reported, to the holders of the certificates on any distribution date will be the close of business on the determination date in the same month as that distribution date. The determination date will be the 11th calendar day of each month, commencing in January 2020, or, if the 11th calendar day of any such month is not a Business Day, then the next succeeding Business Day.
Distribution Date	Distributions of principal and/or interest on the certificates are scheduled to occur monthly, commencing in January 2020. The distribution date will be the 25th calendar day of each month, or, if the 25th calendar day of any such month is not a Business Day, then the next succeeding Business Day.
Record Date	The record date for each monthly distribution on a certificate will be the last Business Day of the prior calendar month. The registered holders of the certificates at the close of business on each record date will be entitled to receive any distribution on those certificates on the following distribution date, except that the final distribution on any offered certificate will be made only upon presentation and surrender of that certificate at a designated location.
Collection Period	Amounts available for distribution on the certificates on any distribution date will depend on the payments and other collections received, and any advances of payments due, on or with respect to the underlying mortgage loans during the related Collection Period. Each Collection Period— <ul style="list-style-type: none">• will relate to a particular distribution date;• will begin when the prior Collection Period ends or, in the case of the first Collection Period, will begin on the Cut-off Date; and• will end at the close of business on the determination date that occurs in the same month as the related distribution date.

Interest Accrual Period The amount of interest payable with respect to the interest-bearing classes of certificates on any distribution date will be a function of the interest accrued during the related “Interest Accrual Period,” which for any distribution date will be the calendar month immediately preceding the month in which that distribution date occurs and will be deemed to consist of 30 days.

Assumed Final Distribution Date For each class of offered certificates, the applicable date set forth on the cover page.

Rated Final Distribution Date The distribution date occurring in December 2051.

The Offered Certificates

General The certificates offered by this information circular are the class A-1, A-2, A-M, X1, XAM and X3 certificates. Each class of offered certificates will have the initial principal balance or notional amount and pass-through rate set forth or described in the table on page 5 or otherwise described above under “—Transaction Overview.” There are no other securities offered by this information circular.

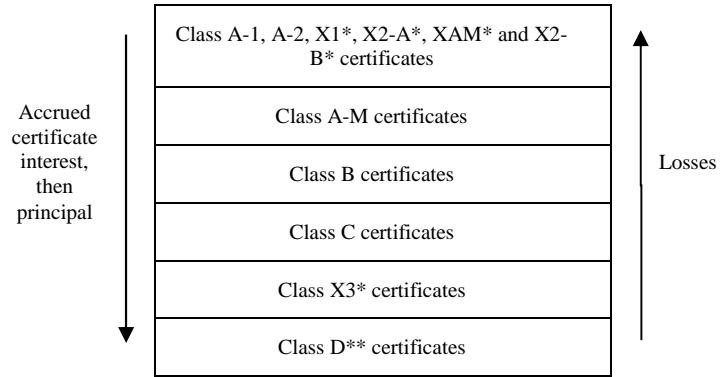
Collections The master servicer or the special servicer, as applicable, will be required to make reasonable efforts in accordance with the Servicing Standard to collect all payments due under the terms and provisions of the underlying mortgage loans. Such payments will be deposited in the collection account on a daily basis.

Distributions Funds collected or advanced on the underlying mortgage loans will be distributed on each corresponding distribution date, net of (i) specified issuing entity expenses, including master servicing fees, special servicing fees, sub-servicing fees, master servicer surveillance fees, special servicer surveillance fees, certificate administrator fees, trustee fees, Guarantee Fees, CREFC® Intellectual Property Royalty License Fees, certain expenses, related compensation and indemnities, (ii) amounts used to reimburse advances made by the master servicer or the trustee and (iii) amounts used to reimburse Balloon Guarantor Payments or interest on such amounts.

Subordination The chart below under “—Priority of Distributions” describes the manner in which the rights of various classes will be senior to the rights of other classes. Entitlement to receive principal and interest on any distribution date is depicted in descending order. The manner in which mortgage loan losses are allocated is depicted in ascending order.

Priority of Distributions

The following chart illustrates generally the distribution priorities and the subordination features applicable to the certificates:



* Interest-only.
** Principal-only.

The allocation of interest distributions among the class A-1, A-2, X1, X2-A, XAM and X2-B certificates is to be made concurrently on a *pro rata* basis based on the interest accrued with respect to each such class.

The allocation of principal distributions between the class A-1 and A-2 certificates will be made sequentially to the class A-1 and A-2 certificates, in that order, unless the total outstanding principal balance of the class A-M, B, C and D certificates has been reduced to zero as a result of losses on the underlying mortgage loans and/or default-related or other unanticipated issuing entity expenses, in which event such distributions will be made to the class A-1 and A-2 certificates concurrently on a *pro rata* basis based on the outstanding principal balances of those classes, in each case, as described under “—Principal Distributions” below. The class X1, X2-A, XAM, X2-B and X3 certificates do not have principal balances and do not entitle holders to distributions of principal.

No form of credit enhancement will be available to you as a holder of offered certificates other than as described under “—Freddie Mac Guarantee” below and “Description of the Certificates—Distributions—Subordination” in this information circular.

Freddie Mac Guarantee

It is a condition to the issuance of the offered certificates that they be purchased by Freddie Mac and that Freddie Mac guarantee certain payments on the offered certificates, as described in this information circular (the “Freddie Mac Guarantee”). Any Guarantor Payment made to the class A-1, A-2 or A-M certificates in respect of principal will reduce the outstanding principal balance of such class by a corresponding amount and will also result in a corresponding reduction in the notional amount of the corresponding component of the class X1 certificates (in the case of Guarantor Payments made to the class A-1 or A-2 certificates) or the class XAM certificates (in the case of Guarantor Payments made to the class A-M certificates). The Freddie Mac Guarantee does not cover Yield Maintenance Charges, Static Prepayment Premiums or any other prepayment premiums related to the underlying mortgage loans. In addition, the Freddie Mac Guarantee does not cover any loss of yields on the class X1, XAM or X3 certificates following a reduction in their notional amounts resulting

from a reduction of the outstanding principal balance of any class of certificates. See “Description of the Certificates—Distributions—Freddie Mac Guarantee” in this information circular.

Freddie Mac is entitled to a Guarantee Fee and any MHC Tenant Protections Fees, as described under “Description of the Certificates—Fees and Expenses” and “—Distributions—Freddie Mac Guarantee” in this information circular.

The offered certificates are not guaranteed by the United States and do not constitute debts or obligations of the United States or any agency or instrumentality of the United States other than Freddie Mac. If Freddie Mac were unable to pay under the Freddie Mac Guarantee, the offered certificates could be subject to losses.

Freddie Mac will not guarantee any class of certificates other than the offered certificates.

Interest Distributions Each class of offered certificates will bear interest that will accrue on a 30/360 Basis during each Interest Accrual Period based on:

- the pass-through rate with respect to that class for that Interest Accrual Period; and
- the outstanding principal balance or notional amount, as the case may be, of that class outstanding immediately prior to the related distribution date.

Although the loan documents require the payment of a full month’s interest on any voluntary prepayment not made on a due date, a whole or partial prepayment on an underlying mortgage loan may not be accompanied by the amount of a full month’s interest on the prepayment in some instances. To the extent those shortfalls are not covered by the master servicer as described under “The Pooling and Servicing Agreement—Servicing and Other Compensation and Payment of Expenses” in this information circular, they will be allocated, as described under “Description of the Certificates—Distributions—Interest Distributions” in this information circular, to reduce the amount of accrued interest otherwise payable to the holders of one or more of the interest-bearing classes of certificates, including the offered certificates. However, such shortfalls with respect to the offered certificates will be covered under the Freddie Mac Guarantee.

On each distribution date, subject to available funds and the distribution priorities described under “—Priority of Distributions” above, holders of offered certificates will be entitled to receive their proportionate share of all unpaid distributable interest accrued with respect to those classes of offered certificates for the related Interest Accrual Period if such amounts were not paid pursuant to the Freddie Mac Guarantee. See “Description of the Certificates—Distributions—Interest Distributions” and “—Distributions—Priority of Distributions” in this information circular.

Principal Distributions Subject to—

- available funds,
- the distribution priorities described under “—Priority of Distributions” above, and
- the reductions to the outstanding principal balances described under “—Reductions of Certificate Principal Balances in Connection with Losses and Expenses” below,

the Offered Principal Balance Certificates will be entitled to a total amount of principal distributions over time equal to the respective outstanding principal balances of such classes.

The total distributions of principal to be made on the certificates on any distribution date will, in general, be a function of—

- the amount of scheduled payments of principal due or, in some cases, deemed due, on the underlying mortgage loans during the related Collection Period, which payments are either received as of the end of that Collection Period, advanced by the master servicer and/or the trustee, as applicable, or are the subject of a Balloon Guarantor Payment, and
- the amount of any prepayments and other unscheduled collections of previously unadvanced principal with respect to the underlying mortgage loans that are received during the related Collection Period.

However, if the master servicer or the trustee is reimbursed for any Nonrecoverable Advance or Workout-Delayed Reimbursement Amount (in each case, together with accrued interest on such amounts), such amount will be deemed to be reimbursed first out of payments and other collections of principal on all the underlying mortgage loans (thereby reducing the amount of principal otherwise distributable on the certificates on the related distribution date), prior to being deemed reimbursed out of payments and other collections of interest on all the underlying mortgage loans. See “Description of the Certificates—Advances of Delinquent Monthly Debt Service Payments” and “The Pooling and Servicing Agreement—Servicing and Other Compensation and Payment of Expenses—Servicing Advances” in this information circular.

If any borrower fails to pay the entire outstanding principal balance of any Balloon Loan on its scheduled maturity date, the Guarantor will be required, pursuant to the Freddie Mac Guarantee, to make a Balloon Guarantor Payment in an amount equal to the amount of principal that otherwise would have been paid on the Offered Principal Balance Certificates if such Balloon Loan had been paid in full on its scheduled maturity date. However, such payment may not exceed the outstanding principal balance of the Offered Principal Balance Certificates less any principal scheduled to be distributed to the Offered Principal Balance Certificates on such distribution date. The amount of any such Balloon Guarantor Payment made to any class of Offered Principal Balance Certificates will reduce the outstanding principal balance of such class by the corresponding amount and will also result in a corresponding reduction in the notional amount of the corresponding component of

the class X1 certificates (in the case of a Balloon Guarantor Payment made to the class A-1 or A-2 certificates) or the class XAM certificates (in the case of a Balloon Guarantor Payment made to the class A-M certificates). See “Description of the Certificates—Distributions—Freddie Mac Guarantee” in this information circular. Each Balloon Guarantor Payment will be reimbursed to the Guarantor first from subsequent collections on the related Balloon Loan, net of any such collections used to reimburse the master servicer or the trustee, as applicable, for advances made by them (including interest on those advances) on such Balloon Loan or on other underlying mortgage loans if determined to be nonrecoverable (and therefore the principal portion of any such subsequent collections will not be included in the Principal Distribution Amount for future distribution dates) and second as described under “Description of the Certificates—Distributions—Priority of Distributions” in this information circular.

On each distribution date, the certificate administrator will be required to make principal distributions on the Offered Principal Balance Certificates in the sequential order described below, taking account of whether the payments (or advances in lieu of the payments) and other collections of principal that are to be distributed were received and/or made with respect to the underlying mortgage loans, that generally equal:

- in the case of the class A-1 certificates, an amount (not to exceed the principal balance of the class A-1 certificates outstanding immediately prior to such distribution date) equal to the Principal Distribution Amount for such distribution date, until the outstanding principal balance of such class of certificates is reduced to zero;
- in the case of the class A-2 certificates, an amount (not to exceed the principal balance of the class A-2 certificates outstanding immediately prior to such distribution date) equal to the Principal Distribution Amount for such distribution date (exclusive of any distributions of principal to which the holders of the class A-1 certificates are entitled on such distribution date as described in the preceding bullet point), until the outstanding principal balance of such class of certificates is reduced to zero; and
- in the case of the class A-M certificates, an amount (not to exceed the principal balance of the class A-M certificates outstanding immediately prior to such distribution date) equal to the Principal Distribution Amount for such distribution date (exclusive of any distributions of principal to which the holders of the class A-1 and A-2 certificates are entitled on such distribution date as described in the two preceding bullet points), until the outstanding principal balance of such class of certificates is reduced to zero.

So long as the Offered Principal Balance Certificates are outstanding, no portion of the Principal Distribution Amount for any distribution date will be allocated to any other class of Principal Balance Certificates.

The class X1, X2-A, XAM, X2-B and X3 certificates do not have principal balances and are not entitled to any distributions of principal.

See “Description of the Certificates—Distributions—Principal Distributions” and “—Priority of Distributions” in this information circular.

Distributions of Static Prepayment Premiums and Yield Maintenance Charges

Any Static Prepayment Premium or Yield Maintenance Charge collected in respect of any of the underlying mortgage loans will be distributed to the holders of the class A-1, A-2, A-M, B, C, X1, X2-A, XAM, X2-B and/or X3 certificates, in the proportions described under “Description of the Certificates—Distributions—Distributions of Static Prepayment Premiums and Yield Maintenance Charges” in this information circular.

Reductions of Certificate Principal Balances in Connection with Losses and Expenses

As and to the extent described under “Description of the Certificates—Reductions of Certificate Principal Balances in Connection with Realized Losses and Additional Issuing Entity Expenses” in this information circular, losses on, and default-related or other unanticipated issuing entity expenses attributable to, the underlying mortgage loans will, in general, be allocated on each distribution date, after making distributions on such distribution date, to reduce the outstanding principal balances of the Principal Balance Certificates, sequentially, in the following order:

Reduction Order	Class
1 st	Class D certificates
2 nd	Class C certificates
3 rd	Class B certificates
4 th	Class A-M certificates
5 th	Class A-1 and A-2 certificates

Any reduction of the outstanding principal balances of the class A-1 and A-2 certificates as a result of losses will be made on a *pro rata* basis based on the outstanding principal balances of those classes at the time of the reduction. Any reduction of the outstanding principal balances of the class A-1 or A-2 certificates will result in a corresponding reduction in the notional amount of the corresponding component of the class X1 certificates. Any reduction of the outstanding principal balance of the class A-M certificates will result in a corresponding reduction in the notional amount of the corresponding component of the class XAM certificates. Any reduction of the outstanding principal balances of the class B, C or D certificates will result in a corresponding reduction in the notional amount of the corresponding component of the class X3 certificates.

However, Freddie Mac will be required under its guarantee to pay the holder of any Offered Principal Balance Certificate an amount equal to any such loss allocated to its Offered Principal Balance Certificates as set forth in “Description of the Certificates—Distributions—Freddie Mac Guarantee” in this information circular.

Advances of Delinquent Monthly Debt Service Payments

Except as described below in this “—Advances of Delinquent Monthly Debt Service Payments” section, the master servicer will be required to make advances with respect to any delinquent scheduled monthly payments, other than certain payments (including balloon payments), of principal and/or interest due on the underlying mortgage loans. The master servicer will be required to make advances of assumed monthly payments for those underlying mortgage loans that become defaulted upon their maturity dates on the same amortization schedule as if the maturity date had not occurred. In addition, the trustee must make any of those advances to the extent that the master servicer fails to make such advances, in each case subject to a nonrecoverability determination. As described under “Description of the Certificates—Advances of Delinquent Monthly Debt Service Payments” in this information circular, if the master servicer or the trustee, as applicable, makes an advance, it will be entitled to be reimbursed for the advance, together with interest at the Prime Rate.

However, neither the master servicer nor the trustee will advance master servicing fees, master servicer surveillance fees, special servicer surveillance fees or sub-servicing fees. Moreover, neither the master servicer nor the trustee will be required to make any advance if the master servicer, the trustee or the special servicer determines that such advance is or would constitute a Nonrecoverable Advance. In addition, the trustee may conclusively rely on any determination made by the master servicer that an advance would constitute a Nonrecoverable Advance, and the master servicer and the trustee will be required to conclusively rely on any determination made by the special servicer that an advance would constitute a Nonrecoverable Advance.

In addition, if any of the adverse events or circumstances that we refer to under “The Pooling and Servicing Agreement—Required Appraisals” in this information circular occur or exist with respect to any underlying mortgage loan, the special servicer will generally be obligated to use reasonable efforts to obtain a new appraisal or, in some cases involving underlying mortgage loans with outstanding principal balances of less than \$2,000,000, conduct an internal valuation of the related mortgaged real property. If, based on that appraisal or internal valuation, it is determined that an Appraisal Reduction Amount exists with respect to such underlying mortgage loan, then the amount otherwise required to be advanced (subject to a nonrecoverability determination) with respect to interest on such underlying mortgage loan will be reduced. That reduction will generally be in the same proportion that the Appraisal Reduction Amount bears to the Stated Principal Balance of such underlying mortgage loan. Due to the distribution priorities, any such reduction in advances will first reduce the funds available to pay interest on the most subordinate interest-bearing class of certificates outstanding and then on the other certificates in reverse sequential order, as follows:

Reduction Order	Class
1 st	Class X3 certificates
2 nd	Class C certificates
3 rd	Class B certificates
4 th	Class A-M certificates
5 th	Class A-1, A-2, X1, X2-A, XAM and X2-B certificates

Any reduction of the funds available to pay interest on the class A-1, A-2, X1, X2-A, XAM and X2-B certificates will be made on a *pro rata* basis in accordance with the relative amounts of interest to which each such class is entitled from the applicable underlying mortgage loans at the time of the reduction. There will be no such reduction in any advance for delinquent monthly debt service payments due to an Appraisal Reduction Event at any time after the total outstanding principal balance of the class B, C and D certificates has been reduced to zero.

See “Description of the Certificates—Advances of Delinquent Monthly Debt Service Payments” and “The Pooling and Servicing Agreement—Required Appraisals” in this information circular.

Reports to Certificateholders.....

On each distribution date, the certificate administrator will be required to provide or make available to any Privileged Person a monthly report substantially in the form of and containing the information substantially as set forth on Exhibit B. The certificate administrator’s report will be required to detail, among other things, the distributions made to the certificateholders on that distribution date and the performance of the underlying mortgage loans and the mortgaged real properties. The certificate administrator will also be required to make available to any Privileged Person via its website initially located at <https://sf.citidirect.com>, certain underlying mortgage loan information as presented in the standard CREFC Investor Reporting Package® in accordance with the Pooling and Servicing Agreement.

You may also review via the certificate administrator’s website or, upon reasonable prior notice, at the master servicer’s, the special servicer’s, the certificate administrator’s or the custodian’s offices during normal business hours, a variety of information and documents that pertain to the underlying mortgage loans and the mortgaged real properties. Borrower operating statements, rent rolls and property inspection reports will be available at the office of the master servicer or the special servicer, as applicable, and may be available on the master servicer’s website. There are restrictions on the information that may be made available to you if you are a borrower or an affiliate of a borrower with respect to an underlying mortgage loan.

See “Description of the Certificates—Reports to Certificateholders and Freddie Mac; Available Information” in this information circular.

Deal Information/Analytics.....

Certain information concerning the underlying mortgage loans and the certificates may be available through the following services:

- BlackRock Financial Management, Inc., Bloomberg, L.P., Moody’s Analytics, Trepp, LLC, Intex Solutions, Inc., CMBS.com and Thomson Reuters Corporation;
- the certificate administrator’s website initially located at <https://sf.citidirect.com>; and
- the master servicer’s website initially located at www.pnc.com/midland.

Sale of Defaulted Loans..... If any underlying mortgage loan becomes a Defaulted Loan, then (subject to the rights of Freddie Mac and any related Junior Loan Holder as described below) the directing certificateholder will have an assignable option to purchase that underlying mortgage loan from the issuing entity at the price and on the terms, including the restrictions applicable to Affiliated Borrower Loans and any applicable time limits, described in “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Purchase Option” in this information circular.

If the fair value price to be paid by the directing certificateholder or any assignee for the underlying mortgage loan is less than 99% of the Purchase Price for such underlying mortgage loan, then Freddie Mac will also have the right to purchase such underlying mortgage loan. In addition, any Junior Loan Holder holding a subordinate lien on the related mortgaged real property will have the first option to purchase such underlying mortgage loan from the issuing entity; *provided* that if any such Junior Loan Holder elects not to exercise its purchase option, then the holder of the next most subordinate Junior Loan (if any) will be entitled to exercise such option. The directing certificateholder, Freddie Mac and any Junior Loan Holder may each assign their respective purchase options.

See “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans” in this information circular.

Repurchase Obligation..... If the mortgage loan seller has been notified of, or itself has discovered, a defect in any mortgage file or a breach of any of its representations and warranties that materially and adversely affects the value of any underlying mortgage loan (including any foreclosure property acquired in respect of any foreclosed mortgage loan) or any interests of the holders of any class of certificates, then the mortgage loan seller will be required to either cure such breach or defect, repurchase the affected underlying mortgage loan from the issuing entity or, within two years of the Closing Date, substitute the affected underlying mortgage loan with another mortgage loan. If the mortgage loan seller opts to repurchase any affected underlying mortgage loan, such repurchase would have the same effect on the certificates as a prepayment in full of such underlying mortgage loan (without payment of any Static Prepayment Premium or Yield Maintenance Charge). See “Description of the Underlying Mortgage Loans—Cures, Repurchases and Substitutions” in this information circular.

Optional Termination..... The (i) Controlling Class Majority Holder, but excluding Freddie Mac, (ii) special servicer and (iii) master servicer, in that order, will each in turn have the option to purchase all of the underlying mortgage loans and all other property remaining in the issuing entity on any distribution date on which the total Stated Principal Balance of the underlying mortgage loans is less than 1.0% of the initial mortgage pool balance.

If any party so entitled exercises this option, the issuing entity will terminate and all outstanding certificates will be retired, as described in more detail under “The Pooling and Servicing Agreement—Termination” in this information circular.

In addition, with the satisfaction of the conditions set forth in the proviso to the definition of Sole Certificateholder and with the consent

of the master servicer, the Sole Certificateholder (excluding Freddie Mac) may exchange all of its certificates (other than the class R certificates) for all of the underlying mortgage loans and REO Properties remaining in the issuing entity as described in more detail under “The Pooling and Servicing Agreement—Termination” in this information circular.

Denominations The offered certificates will be issuable in registered form, in the denominations set forth under “Description of the Certificates—Registration and Denominations” in this information circular.

Physical Certificates Freddie Mac will hold the offered certificates in the form of fully registered physical certificates. Freddie Mac will include the offered certificates in pass-through pools that it will form for its series K-103 structured pass-through certificates (the “SPCs”).

Ratings It is a condition to the issuance of the certificates that the class A-1, A-2, A-M, X1, X2-A, XAM, X2-B, B and C certificates (referred to in this information circular as the “rated certificates”) receive the following credit ratings from Fitch Ratings, Inc. (“Fitch”) and Kroll Bond Rating Agency, Inc. (“KBRA,” and together with Fitch, the “Rating Agencies”):

Class of Certificates	Ratings⁽¹⁾ (Fitch / KBRA)⁽²⁾	Unenhanced Ratings Excluding Freddie Mac Guarantee⁽³⁾ (Fitch / KBRA)⁽²⁾
Class A-1	AAAsf / AAA(sf)	AAAsf / AAA(sf)
Class A-2	AAAsf / AAA(sf)	AAAsf / AAA(sf)
Class A-M	AAAsf / A+(sf)	A+sf / A+(sf)
Class X1	AAAsf / AAA(sf)	AAAsf / AAA(sf)
Class X2-A	AAAsf / AAA(sf)	AAAsf / AAA(sf)
Class XAM	AAAsf / AAA(sf)	A+sf / AAA(sf)
Class X2-B	NR ⁽⁴⁾ / AAA(sf)	NR ⁽⁴⁾ / AAA(sf)
Class B	BBB+sf / BBB+(sf)	BBB+sf / BBB+(sf)
Class C	BBB-sf / BBB-(sf)	BBB-sf / BBB-(sf)

(1) The Ratings column, in the case of the Fitch ratings, sets forth the ratings that are expected to be issued, which take into account the Freddie Mac Guarantee in the case of the offered certificates. The Ratings column, in the case of the KBRA ratings, sets forth the ratings that are expected to be issued, which do not take into account the Freddie Mac Guarantee in the case of the offered certificates.

(2) Fitch and KBRA have informed us that the “sf” designation in the ratings represents an identifier of structured finance product ratings. For additional information about this identifier, prospective investors can go to www.fitchratings.com and www.krollbondratings.com. Neither the depositor nor Freddie Mac has verified, adopts or accepts responsibility for any statements made by the Rating Agencies on their websites.

(3) The Unenhanced Ratings Excluding Freddie Mac Guarantee column sets forth the ratings that are expected to be issued by Fitch and KBRA, based on the underlying creditworthiness of the certificates, without taking into account the Freddie Mac Guarantee in the case of the offered certificates.

(4) The class X2-B certificates will not be rated by Fitch.

The ratings address the likelihood of the timely receipt of distributions of interest to which the holders of the rated certificates are entitled and, with respect to the classes of rated certificates entitled to principal distributions, the ultimate distribution of principal by the Rated Final Distribution Date, and in the case of the Fitch ratings of the offered certificates set forth in the table above in the Ratings (Fitch / KBRA)

column, take into account the Freddie Mac Guarantee. The ratings of the rated certificates should be evaluated independently from similar ratings on other types of securities. The ratings are not a recommendation to buy, sell or hold securities, a measure of asset value or an indication of the suitability of an investment and may be subject to revision or withdrawal at any time by the Rating Agencies.

For further information regarding the ratings of the rated certificates and their limitations, see “Ratings” in this information circular.

The class X3 and D certificates will not be rated by either Rating Agency or another NRSRO (unless an NRSRO issues an unsolicited rating), which may adversely affect the ability of an investor to purchase or retain, or otherwise impact the liquidity, market value and regulatory characteristics of such classes.

Legal and Investment Considerations

Federal Income Tax Consequences The certificate administrator will cause elections to be made to treat designated portions of the assets of the issuing entity as two separate real estate mortgage investment conduits under Sections 860A through 860G of the Internal Revenue Code of 1986 (the “Code”). There will be the following REMICs:

- the Lower-Tier REMIC, which will consist of, among other things—
 1. the underlying mortgage loans, and
 2. any REO Properties; and
- the Upper-Tier REMIC, which will hold the regular interests in the Lower-Tier REMIC.

The offered certificates will be treated as REMIC regular interests. This means that they will be treated as newly issued debt instruments for federal income tax purposes. You will have to report income on the offered certificates in accordance with the accrual method of accounting even if you are otherwise a cash method taxpayer.

For a description of the tax opinions that our counsel will be issuing on the Closing Date and a more detailed discussion of the federal income tax aspects of investing in the offered certificates, see “Certain Federal Income Tax Consequences” in this information circular.

Investment Considerations The rate and timing of payments and other collections of principal on or with respect to the underlying mortgage loans will affect the yield to maturity on each class of offered certificates.

If you purchase Offered Principal Balance Certificates at a premium, then a faster than anticipated rate of payments and other collections of principal on the underlying mortgage loans could result in a lower than anticipated yield to maturity with respect to those certificates. Conversely, if you purchase Offered Principal Balance Certificates at a discount, a slower than anticipated rate of payments and other collections of principal on the underlying mortgage loans could result in a lower than anticipated yield to maturity with respect to those certificates.

If you are contemplating the purchase of any interest-only certificates, you should be aware that—

- the yield to maturity on those certificates will be highly sensitive to the rate and timing of principal prepayments and other liquidations on or with respect to the underlying mortgage loans,
- a faster than anticipated rate of payments and other collections of principal on the underlying mortgage loans could result in a lower than anticipated yield to maturity with respect to those certificates, and
- an extremely rapid rate of amortization, prepayments and/or liquidations on or with respect to the underlying mortgage loans could result in a substantial loss of your initial investment with respect to those certificates.

See “—The Offered Certificates—Interest Distributions” above and “Yield and Maturity Considerations” in this information circular.

If your investment activities are subject to legal investment laws and regulations, regulatory capital requirements or review by regulatory authorities, then you may be subject to restrictions on investment in the certificates. You should consult your own legal advisors for assistance in determining the suitability of and consequences to you of the purchase, ownership, and sale of the certificates.

Credit Risk Retention..... For information as to the compliance of this transaction with the FHFA’s Credit Risk Retention Rule (12 C.F.R. Part 1234), see “Description of the Mortgage Loan Seller and Guarantor—Credit Risk Retention” in this information circular.

The Underlying Mortgage Loans

General We intend to include in the issuing entity 46 mortgage loans, which we refer to in this information circular as the “underlying mortgage loans” and which are secured by the 46 mortgaged real properties identified on Exhibit A-1. Each underlying mortgage loan is secured by a mortgaged real property that consists of a single parcel or two or more contiguous or non-contiguous parcels, and we refer to such parcel or parcels collectively as the “mortgaged real property” securing such underlying mortgage loan. In this section, “—The Underlying Mortgage Loans,” we provide summary information with respect to the underlying mortgage loans. For more detailed information regarding the underlying mortgage loans, you should review the following sections in this information circular:

- “Risk Factors—Risks Related to the Underlying Mortgage Loans”;
- “Description of the Underlying Mortgage Loans”;
- Exhibit A-1—Certain Characteristics of the Underlying Mortgage Loans and the Related Mortgaged Real Properties;
- Exhibit A-2—Certain Mortgage Pool Information; and
- Exhibit A-3—Description of the Ten Largest Underlying Mortgage Loans.

When reviewing the information that we have included in this information circular with respect to the underlying mortgage loans, please note that—

- All numerical information provided with respect to the underlying mortgage loans is provided on an approximate basis.
- All weighted average information provided with respect to the underlying mortgage loans reflects a weighting based on their respective Cut-off Date Principal Balances. We will transfer the underlying mortgage loans with their respective Cut-off Date Principal Balances to the issuing entity. We show the Cut-off Date Principal Balance for each of the underlying mortgage loans on Exhibit A-1.
- In calculating the respective Cut-off Date Principal Balances of the underlying mortgage loans, we have assumed that:
 1. all scheduled payments of principal and/or interest due on the underlying mortgage loans on or before the Cut-off Date are timely made; and
 2. there are no prepayments or other unscheduled collections of principal with respect to any underlying mortgage loan during the period from its due date in November 2019 up to and including the Cut-off Date.
- Whenever we refer to the initial mortgage pool balance in this information circular, we are referring to the total Cut-off Date Principal Balance of the entire mortgage pool.
- When information with respect to mortgaged real properties is expressed as a percentage of the initial mortgage pool balance, the percentages are based on the Cut-off Date Principal Balances of the related underlying mortgage loans.
- If an underlying mortgage loan is secured by a mortgaged real property consisting of multiple parcels of real property, we treat those parcels as a single mortgaged real property.
- Whenever we refer to a particular mortgaged real property by name, we mean the mortgaged real property identified by that name on Exhibit A-1. Whenever we refer to a particular underlying mortgage loan by name, we mean the underlying mortgage loan secured by the mortgaged real property identified by that name on Exhibit A-1.
- Statistical information regarding the underlying mortgage loans may change prior to the Closing Date due to changes in the composition of the mortgage pool prior to that date.

Source of the Underlying

Mortgage Loans

We did not originate the underlying mortgage loans. We will acquire the underlying mortgage loans from Freddie Mac, the mortgage loan seller, pursuant to a mortgage loan purchase agreement dated as of the Cut-off Date. Each underlying mortgage loan was originated by an Originator, and was acquired by Freddie Mac.

For a description of the underwriting criteria utilized in connection with the origination or acquisition of each of the underlying mortgage loans, see “Description of the Underlying Mortgage Loans—Underwriting Matters” in this information circular.

Payment and Other Terms Each of the underlying mortgage loans is the obligation of a borrower to repay a specified sum with interest.

Except for certain limited nonrecourse carveouts, each of the underlying mortgage loans is nonrecourse to the borrower. Although the offered certificates will be guaranteed by Freddie Mac pursuant to the Freddie Mac Guarantee, none of the underlying mortgage loans is insured or guaranteed by any governmental agency or instrumentality or by any private mortgage insurer.

Each of the underlying mortgage loans currently accrues interest at the annual rate specified with respect to that underlying mortgage loan on Exhibit A-1.

45 of the underlying mortgage loans, collectively representing 98.7% of the initial mortgage pool balance, had initial terms to maturity of 120 months. 1 underlying mortgage loan, representing 1.3% of the initial mortgage pool balance, had an initial term to maturity of 132 months.

Balloon Loans..... All of the underlying mortgage loans are Balloon Loans. An underlying mortgage loan is considered to be a “Balloon Loan” if its principal balance is not scheduled to be fully amortized by the underlying mortgage loan’s scheduled maturity date and thus requires a payment at such scheduled maturity date larger than the regular monthly debt service payment due on such underlying mortgage loan.

Mortgage Loans with Interest-Only Periods..... 39 of the underlying mortgage loans, collectively representing 82.7% of the initial mortgage pool balance, provide for an interest-only period of between 24 and 60 months following origination followed by amortization for the balance of the loan term. 6 of the underlying mortgage loans, collectively representing 14.1% of the initial mortgage pool balance, do not provide for any amortization prior to the related scheduled maturity date. 1 underlying mortgage loan, representing 3.2% of the initial mortgage pool balance, provides for amortization through the term of such underlying mortgage loan.

Underlying Mortgage Loans Made to the Same Borrower or Borrowers Under Common Ownership The issuing entity will include 4 groups of underlying mortgage loans that were made to the same borrower or borrowers under common ownership. None of the underlying mortgage loans is cross-collateralized or cross-defaulted with any other underlying mortgage loan or any mortgage loan that is not in the issuing entity.

See “Description of the Underlying Mortgage Loans—Underlying Mortgage Loans Made to the Same Borrower or Borrowers Under Common Ownership” in this information circular.

**Prepayment Characteristics
of the Mortgage Loans.....**

45 of the underlying mortgage loans, collectively representing 95.3% of the initial mortgage pool balance, restrict voluntary prepayments by prohibiting any voluntary prepayments for a specified period of time after the origination of the underlying mortgage loan (during which time defeasance is permitted on or after the second anniversary of the Closing Date), followed by an open prepayment period prior to maturity during which voluntary principal prepayments may be made without payment of any prepayment consideration. See “—Defeasance” below.

1 underlying mortgage loan, representing 4.7% of the initial mortgage pool balance, restricts voluntary prepayments by requiring that any voluntary principal prepayments made during a specified period of time be accompanied by the greater of a Static Prepayment Premium and a Yield Maintenance Charge, followed by a prepayment consideration period during which voluntary principal prepayments must be accompanied by a Static Prepayment Premium, followed by an open prepayment period prior to maturity during which voluntary principal prepayments may be made without payment of any prepayment consideration.

In addition, 3 of the underlying mortgage loans, collectively representing 1.5% of the initial mortgage pool balance, allow the lender to require the related borrower to prepay in part such underlying mortgage loan if the tax abatement expected to benefit the related mortgaged real property is not obtained.

In addition, with respect to 1 of the underlying mortgage loans, representing 1.1% of the initial mortgage pool balance, a reserve collected at origination may be used by the lender to (i) prepay in part the related underlying mortgage loan or (ii) cover any difference between the monthly payment due on the related underlying mortgage loan and the net operating income for the mortgaged real property.

See “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Prepayment Provisions” in this information circular.

The purchase of any underlying mortgage loan by any party that has an option or is otherwise entitled to purchase such underlying mortgage loan from the issuing entity following default (or, with respect to the mortgage loan seller, is required to purchase such underlying mortgage loan as a result of an uncured material breach of a representation and warranty or a material document defect) generally would have the same effect on the offered certificates as a prepayment (without payment of any Static Prepayment Premium or Yield Maintenance Charge).

In general, the underlying mortgage loans that provide for a Yield Maintenance Charge also provide that such Yield Maintenance Charge will not be less than a fixed percentage of the amount prepaid. See “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Release of Property Through Defeasance or Prepayment—Prepayment” in this information circular.

Defeasance 45 of the underlying mortgage loans, collectively representing 95.3% of the initial mortgage pool balance, permit the borrower (no earlier than the second anniversary of the Closing Date) to obtain the release of the related mortgaged real property from the lien of the related mortgage instrument(s) upon the pledge to the trustee of certain securities that are (i) direct, non-callable and non-redeemable U.S. treasury obligations, (ii) non-callable bonds, debentures, notes and other similar debt obligations issued by Freddie Mac or Fannie Mae, and/or (iii) direct, non-callable and non-redeemable securities issued or fully insured as to payment by any Federal Home Loan Bank. Generally, the securities used in connection with a defeasance must provide for payments that equal or exceed scheduled interest and principal payments due under the related mortgage note(s), including balloon payments at the respective scheduled maturity date.

See “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Release of Property Through Defeasance or Prepayment” in this information circular.

Delinquency Status None of the underlying mortgage loans was 30 days or more delinquent with respect to any monthly debt service payment as of the Cut-off Date.

Geographic Concentration..... Mortgaged real properties that secure underlying mortgage loans collectively representing 5.0% or more of the initial mortgage pool balance are located in each of the states listed in the table below. The table below shows the number of, and percentage of the initial mortgage pool balance secured by, mortgaged real properties located in these states:

State	Number of Mortgaged Real Properties	% of Initial Mortgage Pool Balance
California.....	4	13.9%
Colorado	5	9.3%
Florida	3	8.8%
Texas	3	7.7%
Illinois.....	2	7.2%
Alabama.....	2	6.5%
Pennsylvania.....	3	6.1%
New Mexico	3	5.3%

The remaining mortgaged real properties are located throughout 14 other states. No more than 4.8% of the initial mortgage pool balance is secured by mortgaged real properties located in any one of these other states.

2 of the California mortgaged real properties, securing underlying mortgage loans collectively representing 13.1% of the initial mortgage pool balance, are located in southern California (*i.e.*, addresses with zip codes of 93600 or below). 2 of the California mortgaged real properties, securing underlying mortgage loans collectively representing 0.8% of the initial mortgage pool balance, are located in northern California (*i.e.*, addresses with zip codes above 93600).

See “Description of the Underlying Mortgage Loans—Certain Legal Aspects of the Underlying Mortgage Loans” in this information circular for a discussion of certain legal aspects related to states in which mortgaged real properties that secure underlying mortgage loans collectively representing 10.0% or more of the initial mortgage pool balance are located, and see Exhibit A-2 for additional information on the geographic distribution of the mortgaged real properties.

Property Type All of the mortgaged real properties are multifamily properties, including 6 manufactured housing community properties securing underlying mortgage loans collectively representing 6.9% of the initial mortgage pool balance and 1 assisted living, memory care and/or independent living facility property securing an underlying mortgage loan representing 1.0% of the initial mortgage pool balance.

Encumbered Interests 43 of the underlying mortgage loans, collectively representing 95.1% of the initial mortgage pool balance, encumber the fee interest of the related borrower in the related mortgaged real property. 2 of the underlying mortgage loans, collectively representing 4.2% of the initial mortgage pool balance, encumber the leasehold interest of the related borrower in the related mortgaged real property. 1 underlying mortgage loan, representing 0.7% of the initial mortgage pool balance, encumbers the fee interest of the related ground lessor and the leasehold interest of the related borrower in the related mortgaged real property.

Subordinate Lien No mortgaged real properties are currently encumbered with a subordinate lien except for limited permitted encumbrances (which limited permitted encumbrances do not secure subordinate mortgage loans).

See “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Permitted Additional Debt—Permitted Subordinate Mortgage Debt” in this information circular.

Significant Underlying Mortgage Loans The ten largest underlying mortgage loans collectively represent 44.9% of the initial mortgage pool balance. See “Description of the Underlying Mortgage Loans” in this information circular and Exhibits A-1, A-2 and A-3.

Additional Statistical Information

General Characteristics..... The underlying mortgage loans that we intend to include in the issuing entity will have the following general characteristics as of the Cut-off Date:

	<u>Mortgage Pool</u>
Initial mortgage pool balance ⁽¹⁾	\$1,276,314,807
Number of underlying mortgage loans	46
Number of mortgaged real properties	46
Largest Cut-off Date Principal Balance	\$86,775,000
Smallest Cut-off Date Principal Balance	\$3,080,000
Average Cut-off Date Principal Balance	\$27,745,974
Highest annual mortgage interest rate	4.540%
Lowest annual mortgage interest rate	3.120%
Weighted average annual mortgage interest rate	3.686%
Longest original term to maturity (months).....	132
Shortest original term to maturity (months).....	120
Weighted average original term to maturity (months).....	120
Longest remaining term to maturity (months)	126
Shortest remaining term to maturity (months).....	114
Weighted average remaining term to maturity (months) ...	118
Highest Underwritten Debt Service Coverage Ratio	3.18x
Lowest Underwritten Debt Service Coverage Ratio	1.20x
Weighted average Underwritten Debt Service Coverage Ratio	1.40x
Highest Cut-off Date LTV	80.0%
Lowest Cut-off Date LTV	48.8%
Weighted average Cut-off Date LTV	70.5%

(1) Subject to a variance of up to 5%, plus or minus.

In reviewing the table above, please note that the Underwritten Net Cash Flow for any mortgaged real property (which is the basis for the Underwritten Debt Service Coverage Ratio for the related underlying mortgage loan) is an estimated number based on numerous assumptions that may not necessarily reflect recent historical performance and may not ultimately prove to be an accurate prediction of future performance.

None of the underlying mortgage loans is cross-collateralized or cross-defaulted with any other underlying mortgage loan or any mortgage loan that is not in the issuing entity.

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RISK FACTORS

The risks and uncertainties described below summarize the material risks in connection with the purchase of the offered certificates. All numerical information concerning the underlying mortgage loans is provided on an approximate basis.

The Certificates May Not Be a Suitable Investment for You

The certificates are not suitable investments for all investors. In particular, you should not purchase any class of certificates unless you understand and are able to bear the prepayment, credit, liquidity and market risks associated with that class of certificates. For those reasons and for the reasons set forth in these “Risk Factors,” the yield to maturity and the aggregate amount and timing of distributions on the certificates are subject to material variability from period to period and give rise to the potential for significant loss over the life of the certificates to the extent the Guarantor does not make Guarantor Payments on the offered certificates. The interaction of these factors and their effects are impossible to predict and are likely to change from time to time. As a result, an investment in the certificates involves substantial risks and uncertainties and should be considered only by sophisticated institutional investors with substantial investment experience with similar types of securities.

Combination or “Layering” of Multiple Risks May Significantly Increase Risk of Loss

Although the various risks discussed in this information circular are generally described separately, you should consider the potential effects of the interplay of multiple risk factors. Where more than one significant risk factor is present, the risk of loss to an investor in the certificates may be significantly increased.

Risks Related to the Underlying Mortgage Loans

The Underlying Mortgage Loans Are Nonrecourse. Except for certain limited nonrecourse carveouts, each of the underlying mortgage loans is a nonrecourse obligation of the related borrower. This means that, in the event of a default, recourse will generally be limited to the related mortgaged real property or properties securing the Defaulted Loan and other assets that have been pledged to secure that underlying mortgage loan. Consequently, full and timely payment on each underlying mortgage loan will depend on one or more of the following:

- the sufficiency of the net operating income of the applicable mortgaged real property to pay debt service;
- the market value of the applicable mortgaged real property at or prior to maturity; and
- the ability of the related borrower to refinance or sell the applicable mortgaged real property at maturity.

In general, the value of any multifamily property, including any manufactured housing community properties and any assisted living, memory care and/or independent living facility properties, will depend on its ability to generate net operating income. The ability of an owner to finance a multifamily property will depend, in large part, on the property’s value and ability to generate net operating income.

None of the underlying mortgage loans will be insured or guaranteed by any governmental entity or private mortgage insurer.

Repayment of Each of the Underlying Mortgage Loans Will Be Dependent on the Cash Flow Produced by the Related Mortgaged Real Property, Which Can Be Volatile and Insufficient to Allow Timely Distributions on the Offered Certificates, and on the Value of the Related Mortgaged Real Property, Which May Fluctuate Over Time. Repayment of loans secured by multifamily rental properties typically depends on the cash flow produced by those properties. The ratio of net cash flow to debt service of an underlying mortgage loan secured by an income-producing property is an important measure of the risk of default on the loan.

Payment on each underlying mortgage loan may also depend on:

- the ability of the related borrower to sell the related mortgaged real property or refinance the underlying mortgage loan, at scheduled maturity, in an amount sufficient to repay the underlying mortgage loan; and/or
- in the event of a default under the underlying mortgage loan and a subsequent sale of the related mortgaged real property upon the acceleration of such underlying mortgage loan's maturity, the amount of the sale proceeds, taking into account any adverse effect of a foreclosure proceeding on those sale proceeds.

In general, if an underlying mortgage loan has a relatively high loan-to-value ratio or a relatively low debt service coverage ratio, a foreclosure sale is more likely to result in proceeds insufficient to satisfy the outstanding debt.

The cash flows from the operation of multifamily real properties are volatile and may be insufficient to cover debt service on the related underlying mortgage loan and pay operating expenses at any given time. This may cause the value of a property to decline. Cash flows and property values generally affect:

- the ability to cover debt service;
- the ability to pay an underlying mortgage loan in full with sales or refinance proceeds; and
- the amount of proceeds recovered upon foreclosure.

Cash flows and property values depend on a number of factors, including:

- national, regional and local economic conditions, including plant closings, military base closings, economic and industry slowdowns and unemployment rates;
- local real estate conditions, such as an oversupply of units similar to the units at the related mortgaged real property;
- increases in vacancy rates;
- changes or continued weakness in a specific industry segment that is important to the success of the related mortgaged real property;
- increases in operating expenses at the mortgaged real property and in relation to competing properties;
- the nature of income from the related mortgaged real property, such as whether rents are subject to rent control or rent stabilization laws;
- a decline in rental rates as leases are renewed or entered into with new tenants;
- if rental rates are less than the average market rental rates for the area and are not offset by low operating expenses;
- the level of required capital expenditures for proper maintenance, renovations and improvements demanded by tenants or required by law at the related mortgaged real property;
- creditworthiness of tenants, a decline in the financial condition of tenants or tenant defaults;
- the number of tenants at the related mortgaged real property and the duration of their respective leases;
- dependence upon a concentration of tenants working for a particular business or industry;
- demographic factors;
- retroactive changes in building or similar codes that require modifications to the related mortgaged real property;
- capable management and adequate maintenance for the related mortgaged real property;
- location of the related mortgaged real property;
- proximity and attractiveness of competing properties;

- whether the mortgaged real property has uses subject to significant regulation;
- the rate at which new rentals occur;
- perceptions by prospective tenants of the safety, convenience, services and attractiveness of the related mortgaged real property;
- the age, construction, quality and design of the related mortgaged real property; and
- whether the related mortgaged real property is readily convertible to alternative uses.

Criminal Activity May Adversely Affect Property Performance. Certain of the underlying mortgage loans are secured by mortgaged real properties that may have been, or may be, the site of criminal activities. Perceptions by prospective tenants of the safety and reputation of any such mortgaged real property may influence the cash flow produced by such mortgaged real property. In addition, in connection with any criminal activities that occur at a related mortgaged real property, litigation may be brought against a borrower or political or social conditions may result in civil disturbances.

Forfeiture (Including for Drug, RICO and Money Laundering Violations) May Present Risks. Federal law provides that property purchased or improved with assets derived from criminal activity or otherwise tainted, or used in the commission of certain offenses, can be seized and ordered forfeited to the United States. A number of offenses can trigger such a seizure and forfeiture including, among others, violations of the Racketeer Influenced and Corrupt Organizations Act, the Bank Secrecy Act, the Money Laundering Control Act, the USA PATRIOT Act and the regulations issued pursuant to all of them, as well as the controlled substance laws. In many instances, the United States may seize the property civilly, without a criminal prosecution.

In the event of a forfeiture proceeding, a financial institution that is a lender of funds may be able to establish its interest in the property by proving that (i) its mortgage was executed and recorded before the commission of the illegal conduct from which the assets used to purchase or improve the property were derived or before the commission of any other crime upon which the forfeiture is based, or (ii) at the time of the execution of the mortgage, despite appropriate due diligence, it “did not know or was reasonably without cause to believe that the property was subject to forfeiture.” However, we cannot assure you that such a defense will be successful.

Borrowers May Be Unable to Make Balloon Payments. All of the underlying mortgage loans are Balloon Loans. Balloon Loans have amortization schedules that are significantly longer than their respective terms, and many of the Balloon Loans require only payments of interest for part or all of their respective terms. See “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Additional Amortization Considerations” in this information circular. A longer amortization schedule or an interest-only provision in an underlying mortgage loan will result in a higher amount of principal outstanding on the underlying mortgage loan at any particular time, including at the maturity date of the underlying mortgage loan, than would have otherwise been the case had a shorter amortization schedule been used or had the underlying mortgage loan had a shorter interest-only period or not included an interest-only period at all. That higher principal amount outstanding could both (i) make it more difficult for the related borrower to make the required balloon payment at maturity and (ii) lead to increased losses for the issuing entity either during the loan term or at maturity if the underlying mortgage loan becomes a Defaulted Loan. The borrower under an underlying mortgage loan of these types is required to make a substantial payment of principal and interest, which is commonly called a balloon payment, on the maturity date of the underlying mortgage loan. The ability of the borrower to make a balloon payment depends on the borrower’s ability to refinance or sell the mortgaged real property securing the underlying mortgage loan. The ability of the borrower to refinance or sell the mortgaged real property will be affected by a number of factors, including—

- the fair market value and condition of the mortgaged real property;
- the level of interest rates;
- the borrower’s equity in the mortgaged real property;
- the borrower’s financial condition;
- the operating history of the mortgaged real property;

- changes in zoning and tax laws;
- changes in competition in the relevant area;
- changes in rental rates in the relevant area;
- changes in governmental regulation and fiscal policy;
- prevailing general and regional economic conditions;
- the state of the fixed income and mortgage markets;
- the availability of credit for mortgage loans secured by multifamily rental properties; and
- the requirements (including loan-to-value ratios and debt service coverage ratios) of lenders for mortgage loans secured by multifamily rental properties.

Neither we nor any of our affiliates, the mortgage loan seller or any of the Originators will be obligated to refinance any underlying mortgage loan.

In addition, compliance with legal requirements, such as the credit risk retention regulations under the Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Dodd-Frank Act”), could cause commercial real estate lenders to tighten their lending standards and reduce the availability of debt financing for commercial real estate borrowers. This, in turn, may adversely affect the borrowers’ ability to refinance the underlying mortgage loan or sell the mortgaged real property on the maturity date. We cannot assure you that each borrower under a Balloon Loan will have the ability to repay the outstanding principal balance of such underlying mortgage loan on the related maturity date.

The master servicer or the special servicer may, within prescribed limits, extend and modify underlying mortgage loans that are in default or as to which a payment default is reasonably foreseeable in order to maximize recoveries on such underlying mortgage loans. The master servicer or the special servicer is only required to determine that any extension or modification is reasonably likely to produce a greater recovery than a liquidation of the real property securing the Defaulted Loan. There is a risk that the decision of the master servicer or the special servicer to extend or modify an underlying mortgage loan may not in fact produce a greater recovery. See “—Modifications of the Underlying Mortgage Loans” below.

Modifications of the Underlying Mortgage Loans. If any underlying mortgage loans become delinquent or are in default, the special servicer will be required to work with the related borrowers to maximize collections on such underlying mortgage loans. This may include modifying the terms of such underlying mortgage loans that are in default or whose default is reasonably foreseeable. At each step in the process of trying to bring a Defaulted Loan current or in maximizing proceeds to the issuing entity, the special servicer will be required to invest time and resources not otherwise required for the master servicer to collect payments on performing underlying mortgage loans. Modifications of underlying mortgage loans implemented by the special servicer in order to maximize the ultimate proceeds of such underlying mortgage loans may have the effect of, among other things, reducing or otherwise changing the mortgage rate, forgiving or forbearing on payments of principal, interest or other amounts owed under the underlying mortgage loan, extending the final maturity date of the underlying mortgage loan, capitalizing or deferring delinquent interest and other amounts owed under the underlying mortgage loan, forbearing payment of a portion of the principal balance of the underlying mortgage loan or any combination of these or other modifications. Any modified underlying mortgage loan may remain in the issuing entity, and the modification may result in a reduction in the funds received with respect to such underlying mortgage loan.

Multifamily Lending Subjects Your Investment to Special Risks that Are Not Associated with Single-Family Residential Lending. The underlying mortgage loans are secured by multifamily income-producing properties.

Multifamily lending is generally thought to be riskier than single-family residential lending because, among other things, larger loans are made to the same borrower or borrowers under common ownership.

Furthermore, the risks associated with lending on multifamily properties are inherently different from those associated with lending on the security of single-family residential properties. For example, repayment of each of

the underlying mortgage loans will be dependent on the performance and/or value of the related mortgaged real property.

There are additional factors in connection with multifamily lending, not present in connection with single-family residential lending, which could adversely affect the economic performance of the respective mortgaged real properties that secure the underlying mortgage loans. Any one of these additional factors, discussed in more detail in this information circular, could result in a reduction in the level of cash flow from those mortgaged real properties that is required to ensure timely distributions on the offered certificates.

Certain Multifamily Properties May Contain Commercial Components. Certain of the mortgaged real properties may contain retail, office or other commercial units. The value of retail, office and other commercial units is significantly affected by the quality of the tenants and the success of the tenant business. The correlation between the success of tenant businesses and a retail unit's value may be more direct with respect to retail units than other types of commercial property because a component of the total rent paid by certain retail tenants may be tied to a percentage of gross sales. In addition, certain retail, office and commercial units may have tenants that are subject to risks unique to their business, such as medical offices, dental offices, theaters, educational facilities, fitness centers and restaurants. These types of leased spaces may not be readily convertible (or convertible at all) to alternative uses if the leased spaces were to become vacant. We cannot assure you that the existence of retail, office or other commercial units will not adversely impact operations at or the value of the mortgaged real properties.

Condominium Ownership May Limit Use of the Mortgaged Real Property and Decision Making Related to the Mortgaged Real Property. In the case of condominiums, a board of managers generally has discretion to make decisions affecting the condominium and the borrower under an underlying mortgage loan secured in whole or in part by a condominium may not have any control over decisions made by the related board of managers. Decisions made by that board of managers, including decisions regarding assessments to be paid by the unit owners, insurance to be maintained on the condominium and many other decisions affecting the maintenance of the condominium, may have an adverse impact on any underlying mortgage loans that are secured by condominium interests. We cannot assure you that the related board of managers will always act in the best interest of the borrower under those underlying mortgage loans. Further, due to the nature of condominiums, a default on the part of the borrower will not allow the applicable special servicer the same flexibility in realizing on the collateral as is generally available with respect to properties that are not condominiums. The rights of other unit owners, the documents governing the management of the condominium units and the state and local laws applicable to condominium units must be considered. In addition, in the event of a casualty with respect to a mortgaged real property which consists of a condominium interest, due to the possible existence of multiple loss payees on any insurance policy covering the mortgaged real property, there could be a delay in the allocation of any related insurance proceeds. Consequently, servicing and realizing upon a condominium property could subject the issuing entity to a greater delay, expense and risk than with respect to a property that is not a condominium.

See "Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Condominium Ownership" in this information circular for additional information relating to underlying mortgage loans secured by mortgaged real properties that are part of a condominium regime. We cannot assure you that such borrowers will abide by the applicable agreement or that these considerations will not adversely impact your investment.

The Source of Repayment on the Offered Certificates Will Be Limited to Payments and Other Collections on the Underlying Mortgage Loans. The offered certificates will represent interests solely in the issuing entity. The primary assets of the issuing entity will be a segregated pool of multifamily mortgage loans. Accordingly, repayment of the offered certificates will be limited to payments and other collections on the underlying mortgage loans, subject to the Freddie Mac Guarantee.

However, the underlying mortgage loans will not be an obligation of, or be insured or guaranteed by:

- any governmental entity;
- any private mortgage insurer;
- the depositor;

- Freddie Mac;
- the master servicer;
- the special servicer;
- any sub-servicer of the master servicer or the special servicer;
- the trustee;
- the certificate administrator;
- the custodian; or
- any of their or our respective affiliates.

All of the Underlying Mortgage Loans Are Secured by Multifamily Rental Properties, Thereby Materially Exposing Offered Certificateholders to Risks Associated with the Performance of Multifamily Rental Properties. All of the mortgaged real properties are primarily used for multifamily rental purposes. A number of factors may adversely affect the value and successful operation of a multifamily rental property. Some of these factors include:

- the number of competing residential developments in the local market, including apartment buildings, assisted living, memory care and/or independent living facilities, manufactured housing communities and site-built single-family homes;
- the physical condition and amenities, including access to transportation, of the property in relation to competing properties;
- the property's reputation;
- applicable state and local regulations designed to protect tenants in connection with evictions and rent increases, including rent control and rent stabilization regulations;
- the tenant mix, such as the tenant population being predominantly students or being heavily dependent on workers from a particular business or personnel from a local military base;
- restrictions on the age of tenants who may reside at the property;
- local factory or other large employer closings;
- the location of the property, for example, a change in the neighborhood over time;
- the level of mortgage interest rates to the extent it encourages tenants to purchase housing;
- the ability of the management team to effectively manage the property;
- the ability of the management team to provide adequate maintenance and insurance;
- compliance and continuance of any government housing rental subsidy programs from which the property receives benefits and whether such subsidies or vouchers may be used at other properties;
- distance from employment centers and shopping areas;
- adverse local or national economic conditions, which may limit the amount of rent that may be charged and may result in a reduction of timely rent payment or a reduction in occupancy level;
- the financial condition of the owner of the property; and
- government agency rights to approve the conveyance of such mortgaged real properties could potentially interfere with the foreclosure or execution of a deed-in-lieu of foreclosure of such properties.

Because units in a multifamily rental property are primarily leased to individuals, usually for no more than a year, the ability of the property to generate net operating income is likely to change relatively quickly where a downturn in the local economy or the closing of a major employer in the area occurs.

In addition, some units in a multifamily rental property may be leased to corporate entities. Expiration or non-renewals of corporate leases and vacancies related to corporate tenants may adversely affect the income stream at a mortgaged real property. We cannot assure you that these circumstances will not adversely impact operations at or the value of the mortgaged real properties.

In addition, some units at the mortgaged real properties may be subject to short-term rentals marketed through online peer-to-peer platforms (“Home Sharing”), which in some cases may include a master lease (a “Home Sharing Master Lease”) entered into between the related borrower and a third-party provider that markets the master leased units online to potential unit occupants. Home Sharing Master Leases may be entered into either upon the origination of an underlying mortgage loan or, subject to any applicable Transfer Processing Fees, during the term of an underlying mortgage loan. Home Sharing may subject a mortgaged real property and the related borrower to various risks and in some cases may conflict with local laws. We cannot assure you that Home Sharing will not adversely impact operations at or the value of the related mortgaged real property.

Particular factors that may adversely affect the ability of a multifamily property to generate net operating income include—

- an increase in interest rates, real estate taxes and other operating expenses;
- an increase in the capital expenditures needed to maintain the property or make renovations or improvements;
- an increase in vacancy rates;
- a decline in rental rates as leases are renewed or replaced; and
- natural disasters and civil disturbances such as earthquakes, hurricanes, floods, eruptions or riots.

The volatility of net operating income generated by a multifamily property over time will be influenced by many of these factors, as well as by—

- the length of tenant leases;
- the creditworthiness of tenants;
- the rental rates at which leases are renewed or replaced;
- the percentage of total property expenses in relation to revenue;
- the ratio of fixed operating expenses to those that vary with revenues; and
- the level of capital expenditures required to maintain the property and to maintain or replace tenants.

Therefore, multifamily properties with short-term or less creditworthy sources of revenue and/or relatively high operating costs can be expected to have more volatile cash flows than multifamily properties with medium- to long-term leases from creditworthy tenants and/or relatively low operating costs. A decline in the real estate market will tend to have a more immediate effect on the net operating income of multifamily properties with short-term revenue sources and may lead to higher rates of delinquency or defaults on the underlying mortgage loans secured by those properties.

In addition, some states regulate the relationship of an owner and its tenants at a multifamily rental property. Among other things, these states may—

- require written leases;
- require good cause for eviction;
- require disclosure of fees;
- prohibit unreasonable rules;
- prohibit retaliatory evictions;
- prohibit restrictions on a resident’s choice of unit vendors;

- limit the bases on which a landlord may increase rent; or
- prohibit a landlord from terminating a tenancy solely by reason of the sale of the owner’s building.

Apartment building owners have been the subject of lawsuits under state “Unfair and Deceptive Practices Acts” and other general consumer protection statutes for coercive, abusive or unconscionable leasing and sales practices.

Some counties and municipalities also impose rent control regulations on apartment buildings. These regulations may limit rent increases to—

- fixed percentages;
- percentages of increases in the consumer price index;
- increases set or approved by a governmental agency; or
- increases determined through mediation or binding arbitration.

Some counties and municipalities have imposed or may impose in the future stricter rent control regulations on apartment buildings. For example, on June 14, 2019, the New York State Senate passed the Housing Stability and Tenant Protection Act of 2019 (the “HSTP Act”), which, among other things, limits the ability of landlords to increase rents in rent stabilized apartments in New York State at the time of lease renewal and after a vacancy. The HSTP Act also limits potential rent increases for major capital improvements and for individual apartment improvements in such rent stabilized apartments. In addition, the HSTP Act permits certain qualified localities in the State of New York to implement the rent stabilization system. We cannot assure you that the HSTP Act will not have an adverse impact on the value of mortgaged real properties located in the State of New York that are subject to the HSTP Act.

For example, with respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “Picnic Grove MHC,” representing 0.2% of the initial mortgage pool balance, the mortgaged real property may be subject to rent control or rent stabilization laws or regulations or other similar statutory or contractual programs.

We cannot assure you that rent control or rent stabilization laws or regulations will not cause a reduction in the rental income or value of any mortgaged real property. Any limitations on a landlord’s ability to raise rents at a multifamily rental property may impair the landlord’s ability to repay an underlying mortgage loan secured by the mortgaged real property or to pay operating expenses.

In addition, multifamily rental properties are part of a market that, in general, is characterized by low barriers to entry. Thus, a particular multifamily rental property market with historically low vacancies could experience substantial new construction and a resultant oversupply of rental units within a relatively short period of time. Because units in a multifamily rental property are typically leased on a short-term basis, the tenants residing at a particular property may easily move to alternative multifamily rental properties with more desirable amenities or locations or to single-family housing.

Certain of the multifamily rental properties that secure the underlying mortgage loans may be subject to certain restrictions imposed pursuant to restrictive covenants, reciprocal easement agreements and operating agreements or historical landmark designations.

Such use restrictions could include, for example, limitations on the use of the properties, the character of improvements on the properties, the borrowers’ right to operate certain types of facilities within a prescribed radius of the properties and limitations affecting noise and parking requirements, among other things. In addition, certain of the multifamily rental properties that secure the underlying mortgage loans may have access to certain amenities and facilities at other local properties pursuant to shared use agreements, and we cannot assure you that such use agreements will remain in place indefinitely, or that any amenities and facilities at other properties will remain available to the tenants of any multifamily rental property securing an underlying mortgage loan. These limitations could adversely affect the ability of the related borrower to lease the mortgaged real property on favorable terms, thus adversely affecting the borrower’s ability to fulfill its obligations under the related underlying mortgage loan.

Some of the multifamily rental properties that secure the underlying mortgage loans may be subject to land use restrictive covenants or contractual covenants in favor of federal or state housing agencies. The obligations of the related borrowers to comply with such restrictive covenants and contractual covenants, in most cases, constitute encumbrances on the related mortgaged real property that are superior to the lien of the related underlying mortgage loan. In circumstances where the mortgaged real property is encumbered by a regulatory agreement in favor of a federal or state housing agency, the borrower is generally required by the loan documents to comply with any such regulatory agreement. The covenants in a regulatory agreement may require, among other things, that a minimum number or percentage of units be rented to tenants who have incomes that are substantially lower than median incomes in the applicable area or region or impose restrictions on the type of tenants who may rent units, such as imposing minimum age restrictions. These covenants may limit the potential rental rates that may govern rentals at any of those properties, the potential tenant base for any of those properties or both. An owner may subject a multifamily rental property to these covenants in exchange for tax credits or rent subsidies. When the credits or subsidies cease, net operating income will decline. We cannot assure you that these requirements will not cause a reduction in rental income. If rents are reduced, we cannot assure you that the related property will be able to generate sufficient cash flow to satisfy debt service payments and operating expenses.

In addition, restrictive covenants and contractual covenants contained in regulatory agreements may require a borrower, among other conditions, (i) to submit periodic compliance reports and/or permit regulatory authorities to conduct periodic inspections of the related mortgaged real property, (ii) to meet certain requirements as to the condition of affordable units or (iii) to seek the consent of a regulatory authority in connection with the transfer or sale of the mortgaged real property or in connection with a change in the property management. In some cases, regulatory agreements may provide for remedies other than specific performance of restrictive covenants. Such other remedies may include, but are not limited to, providing for the ability of a regulatory authority to replace the property manager. In addition, in some cases, regulatory agreements may impose restrictions on transfers of the mortgaged real property in connection with a foreclosure, including, but not limited to, requiring regulatory authority consent and limiting the type of entities that are permissible transferees of the mortgaged real property. We cannot assure you that these circumstances will not adversely impact operations at or the value of the mortgaged real property, that such consent will be obtained in the event a federal or state housing agency has the right to consent to any change in the property management or ownership of the mortgaged real property or that the failure to obtain such consent will not adversely impact the lender's ability to exercise its remedies upon default of an underlying mortgage loan.

Some of the mortgaged real properties may have tenants that rely on rent subsidies under various government funded programs, including the Section 8 Tenant-Based Assistance Rental Certificate Program of the United States Department of Housing and Urban Development ("Section 8"). In addition, with respect to certain of the underlying mortgage loans, the borrower may receive subsidies or other assistance from government programs. Generally, a mortgaged real property receiving such subsidy or assistance must satisfy certain requirements, the borrower must observe certain leasing practices and/or the tenant(s) must regularly meet certain income requirements. See "Description of the Underlying Mortgage Loans—Additional Loan and Property Information—Rental Subsidy Programs" in this information circular for a description of mortgaged real properties subject to rental subsidy programs, including Section 8.

We cannot assure you that such programs will continue in their present form or that the borrowers will continue to comply with the requirements of the programs to enable the borrowers to receive the subsidies in the future or that the level of assistance provided will be sufficient to generate enough revenues for the borrowers to meet their obligations under the underlying mortgage loans, nor can we assure you that any transferee of the mortgaged real property, whether through foreclosure or otherwise, will obtain the consent of the United States Department of Housing and Urban Development ("HUD") or any state or local housing agency.

Some of the mortgaged real properties that secure the underlying mortgage loans may entitle or may have entitled their owners to receive low income housing tax credits pursuant to Code Section 42. Code Section 42 provides a tax credit for owners of multifamily rental properties meeting the definition of low income housing who have received a tax credit allocation from a state or local allocating agency. The total amount of tax credits to which a property owner is entitled is based on the percentage of total units made available to qualified tenants.

The tax credit provisions limit the gross rent for each low-income unit. Under the tax credit provisions, a property owner must comply with the tenant income restrictions and rental restrictions over a minimum of a 15-year

compliance period. In addition, agreements governing the multifamily rental property may require an “extended use period,” which has the effect of extending the income and rental restrictions for an additional period.

In the event a multifamily rental property does not maintain compliance with the tax credit restrictions on tenant income or rental rates or otherwise satisfy the tax credit provisions of the Code, the property owner may suffer a reduction in the amount of available tax credits and/or face the recapture of all or part of the tax credits related to the period of the noncompliance and face the partial recapture of previously taken tax credits. The loss of tax credits, and the possibility of recapture of tax credits already taken, may provide significant incentive for the property owner to keep the related multifamily rental property in compliance with such tax credit restrictions and limit the income derived from the related property.

See “Description of the Underlying Mortgage Loans—Additional Loan and Property Information—Low Income Housing Tax Credits” in this information circular for a description of mortgaged real properties subject to low income housing tax credits.

Some of the mortgaged real properties that secure the underlying mortgage loans may entitle or may have entitled their owners to receive tax abatements or exemptions or may be subject to reduced taxes in connection with a “payment in lieu of taxes” (“PILOT”) agreement. See “Description of the Underlying Mortgage Loans—Additional Loan and Property Information—Tax Abatements and Exemptions” in this information circular for additional information relating to tax abatements and exemptions applicable to the mortgaged real properties.

With respect to such mortgaged real properties that entitle their owners to receive tax exemptions, the related Cut-off Date LTVs are often calculated using Appraised Values that assume that the owners of such mortgaged real properties receive such property tax exemptions. Such property tax exemptions often require the property owners to be formed and operated for qualifying charitable purposes and to use the property for those qualifying charitable purposes. Claims for such property tax exemptions must often be re-filed annually by the property owners. Although the loan documents generally require the borrower to submit an annual claim and to take actions necessary for the borrower and the mortgaged real property to continue to qualify for a property tax exemption, if the borrower fails to do so, property taxes payable by the borrower on the mortgaged real property could increase, which could adversely impact the cash flow at or the value of the mortgaged real property. In addition, if the issuing entity forecloses on any such mortgaged real property, the issuing entity may be unable to qualify for a property tax exemption. Finally, if the issuing entity sells any such mortgaged real property in connection with a default on the underlying mortgage loan, prospective purchasers may be unwilling to bid on the mortgaged real property if they are unable to satisfy the requirements of a property tax exemption. This could limit the pool of prospective purchasers for any such mortgaged real property.

We cannot assure you that any tax abatements and exemptions or PILOT agreements will continue to benefit the related mortgaged real properties or that the continuance or termination of any of the tax abatements or exemptions will not adversely impact the mortgaged real properties or the related borrowers’ ability to generate sufficient cash flow to satisfy debt service payments and operating expenses.

The Successful Operation of a Multifamily Property Depends on Tenants. Generally, multifamily properties are subject to leases. The owner of a multifamily property typically uses lease or rental payments for the following purposes—

- to pay for maintenance and other operating expenses associated with the property;
- to fund repairs, replacements and capital improvements at the property; and
- to pay debt service on mortgage loans secured by, and any other debt obligations associated with operating, the property.

Factors that may adversely affect the ability of a multifamily property to generate net operating income from lease and rental payments include—

- an increase in vacancy rates, which may result from tenants deciding not to renew an existing lease;
- an increase in tenant payment defaults;

- a decline in rental rates as leases are entered into, renewed or extended at lower rates;
- if rental rates are less than the average market rental rates for the area and are not offset by low operating expenses;
- an increase in the capital expenditures needed to maintain the property or to make improvements; and
- an increase in operating expenses.

Underlying Mortgage Loans That Are Subject to Ground Leases Can Pose Unique Risks. With respect to the underlying mortgage loans secured by the mortgaged real properties identified on Exhibit A-1 as “Broadstone Northpoint” and “The Verge Apartments,” collectively representing 4.2% of the initial mortgage pool balance, each such underlying mortgage loan is secured by the related borrower’s leasehold interest in the related mortgaged real property. In addition, with respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “6210 Roosevelt,” representing 0.7% of the initial mortgage pool balance, such underlying mortgage loan is secured by the related ground lessor’s fee interest in the related mortgaged real property and the related borrower’s leasehold interest in the mortgaged real property. We cannot assure you that circumstances related to the ground lease agreements at any mortgaged real property secured by leasehold and/or subleasehold interests of a borrower and/or subleasehold interests of another party will not adversely impact operations at, or the value of, such mortgaged real property or the borrower’s ability to generate sufficient cash flow to satisfy debt service payments and operating expenses. See “Description of the Underlying Mortgage Loans—Additional Loan and Property Information—Ground Lease” in this information circular.

Manufactured Housing Community Properties Pose Risks Not Associated with Other Types of Multifamily Properties. 6 of the mortgaged real properties, identified on Exhibit A-1 as “Contempo Tempe MHC,” “Tierra West,” “Aztec Village,” “Homestead Village,” “Cottage Cove” and “Picnic Grove MHC,” securing underlying mortgage loans collectively representing 6.9% of the initial mortgage pool balance, are manufactured housing community properties. Manufactured housing community properties are “special purpose” properties that generally cannot be readily converted to traditional multifamily use. Thus, if the operation of any of the manufactured housing community properties becomes unprofitable due to competition, age of the improvements or other factors such that the related borrower becomes unable to meet its obligations on the related underlying mortgage loan, the liquidation value of that manufactured housing community property may be substantially less, relative to the amount owing on the underlying mortgage loan, than would be the case if the manufactured housing community property were readily adaptable to other uses.

- Some manufactured housing community mortgaged real properties may have limited or no amenities, which may also affect property performance.
- Some manufactured housing community mortgaged real properties may have a material number of recreational vehicle pads. Tenants for such pads tend to be more transient and the net cash flow for the related mortgaged real property may be subject to greater fluctuations. Rentals of recreational vehicle pads may also be more seasonal in nature.
- Some manufactured housing community mortgaged real properties may be considered grandfathered with respect to federal safety standards and may not conform to current federal safety standards, and any new or replacement units will be required to conform to such standards.
- Some manufactured housing community mortgaged real properties may have a material number of leased homes that are currently owned by an affiliate of the borrower and rented by the respective tenants like apartments. In circumstances where the leased homes are owned by an affiliate of the borrower, the related pads may, in some cases, be subject to a master lease that is in effect with that affiliate. In such cases, the tenants will tend to be more transient and less tied to the property than if they owned their own home. Such leased homes may not, in all (or, possibly, in any) such cases, constitute collateral for the related underlying mortgage loan. Some of the leased homes that are not collateral for the related underlying mortgage loan may be rented on a lease-to-own basis.
- The borrowers under some underlying mortgage loans secured by manufactured housing community-mortgaged real properties may have affiliates that sell, market, or lease new or pre-owned manufactured homes.

- Some manufactured housing community mortgaged real properties may not be connected to public water and/or sewer systems. In such cases, the borrower could incur a substantial expense if it were required to connect the property to such systems in the future. In addition, the use of well water and/or septic systems or private sewage treatment facilities enhances the likelihood that the property could be adversely affected by a recognized environmental condition that impacts soil and groundwater.
- Some manufactured housing community mortgaged real properties may have tenants that have month-to-month leases and, accordingly, that are not obligated to remain at the mortgaged real property for any extended period.
- Depending on the location of a manufactured housing community property, occupancy and collections may be highly seasonal. For example, a manufactured housing community in the southern portion of the United States might earn most of its income from late fall to early spring. In addition, under such circumstances, a large number of tenants may be in actual occupancy only during a portion of the calendar year and may prepay a substantial amount of their rent for the period that they are not actually living in the community. If a borrower defaults while holding those prepayments of rent, a lender may not be able to recover such amounts.
- Some manufactured housing community mortgaged real properties may have lower insurable values than other multifamily mortgaged real properties. In the event of a casualty related to a manufactured housing community mortgaged real property, insurance proceeds may not be sufficient to cover amounts due under the related underlying mortgage loan. We cannot assure you that these circumstances will not adversely impact operations at or the value of the mortgaged real property.
- For purposes of the statistical presentation in this information circular, the number of units shown for a manufactured housing community mortgaged real property includes manufactured home pads and recreational vehicle pads and may also include manager apartments, rental apartments, stick-built homes or other rentable spaces that are ancillary to the operation of the mortgaged real property.

See “Description of the Underlying Mortgage Loans—Additional Loan and Property Information—Manufactured Housing Community Properties” in this information circular for additional information relating to underlying mortgage loans secured by mortgaged real properties that are manufactured housing community properties.

Manufactured Housing Community Properties Tenant Protections. Certain underlying mortgage loans identified on Exhibit A-1 under the column titled “Non-Compliance Provisions (Y/N)” and the related footnotes may have been underwritten in accordance with Freddie Mac’s MHC Mortgages with Tenant Protections program (each such mortgage loan, a “MHC Tenant Protections Loan”). Each MHC Tenant Protections Loan was underwritten assuming that the related borrower will make certain changes (the “MHC Tenant Protections”) to its leases of manufactured home pads leased to homeowners who own their own manufactured homes (“MHC Homeowner Leases”), generally within 12 months after origination of the underlying mortgage loan. The MHC Tenant Protections include:

- a one-year renewable lease term unless there is good cause for non-renewal;
- 30-days prior written notice of any rent increases;
- a 5-day grace period for rent payments and the right to cure any defaults on rent payments;
- the right of the manufactured homeowner to sell its manufactured home without having to first relocate such home out of the community, provided that the prospective buyer qualifies as a new tenant within the related manufactured housing community;
- the right of the manufactured homeowner to sell its manufactured home in its existing location 30 days after eviction;
- the right to sublease or assign the pad site lease for the unexpired term to a new buyer of the tenant’s manufactured home without any unreasonable restraint, provided that the prospective buyer qualifies as a new tenant within the related manufactured housing community;

- the right to post “For Sale” signs that comply with the rules and regulations of the related manufactured housing community; and/or
- the right to receive at least 60 days’ notice of any planned sale or closure of the related manufactured housing community.

If applicable state law requires the same or greater tenant protections than those included in the MHC Tenant Protections, then the MHC Tenant Protections need not be included in the borrower’s form lease for such MHC Homeowner Leases. The borrower’s form lease may also provide that, if the tenant protections afforded by applicable state law conflict with any of the MHC Tenant Protections, the MHC Tenant Protections may not be enforceable to the extent of any such conflict with applicable state law.

Each borrower that agrees to incorporate the MHC Tenant Protections into its MHC Homeowner Leases within 12 months after origination received certain financial incentives in connection with the origination of its MHC Tenant Protections Loan. Such financial incentives generally include a reduction in the mortgage rate for the related MHC Tenant Protections Loan and a rebate paid by Freddie Mac to the related borrower to cover the out-of-pocket costs incurred by such borrower for various third party reports required in connection with the origination of the related MHC Tenant Protections Loan.

Each year during the term of the related MHC Tenant Protections Loan, the borrower must provide a certification confirming that all of its MHC Homeowner Leases include the MHC Tenant Protections. In addition to such borrower certification, the Pooling and Servicing Agreement requires that the master servicer conduct a randomized audit to further affirm the borrowers’ compliance with the MHC Tenant Protections provisions. The loan documents for each MHC Tenant Protections Loan require that the borrower deliver to the master servicer electronic copies of all MHC Homeowner Leases required to include the MHC Tenant Protections on or before the anniversary of the origination of such MHC Tenant Protections Loan. In the calendar month following the anniversary of the origination of the related MHC Tenant Protections Loan, the master servicer will then randomly select at least 5% of such MHC Homeowner Leases, but not to exceed 20 MHC Homeowner Leases, for each related mortgaged real property to confirm compliance of such MHC Homeowner Leases with the terms of the related MHC Tenant Protections Loan and that all MHC Tenant Protections have been incorporated into each such MHC Homeowner Leases. If (i) the borrower does not certify compliance of all MHC Homeowner Leases or (ii) the lease audit reveals noncompliance, then the borrower will have 30-days to update the noncompliant MHC Homeowner Leases and re-certify that all such MHC Homeowner Leases are in compliance. Failure to so cure within such cure period constitutes an event of default under the related MHC Tenant Protections Loan. Each year, the borrower will be entitled to a new 30-day cure period. If the borrower fails to cure the noncompliance, then a MHC Tenant Protections Fee in the amount of 2% of the original principal balance of such MHC Tenant Protections Loan at origination will be due from the borrower. The MHC Tenant Protections Fee will be paid only one time. Once it is paid, any noncompliance of the related MHC Homeowner Leases under the MHC Tenant Protections Loan will be considered cured, and such underlying mortgage loan will no longer be considered a MHC Tenant Protections Loan and will no longer be tracked for compliance. The MHC Tenant Protections Fee will be paid to Freddie Mac, in its capacity as Guarantor, will not be considered an asset of the issuing entity and will not be used to pay down the principal balance of the related MHC Tenant Protections Loan.

We cannot assure you that the related borrowers will complete any such modification of its form of MHC Homeowner Leases or that such modifications will be completed within 12-months after origination of the underlying MHC Tenant Protections Loan.

See “Description of the Underlying Mortgage Loans—Additional Loan and Property Information—Manufactured Housing Community Properties” and Exhibit A-1 under the column titled “Non-Compliance Provisions (Y/N)” and the related footnotes in this information circular for additional information relating to underlying mortgage loans secured by mortgaged real properties that are manufactured housing community properties.

Healthcare-Related Properties Pose Risks Not Associated with Other Types of Multifamily Properties. 1 mortgaged real property identified on Exhibit A-1 as “Vineyard Park At Bothell Landing,” securing an underlying mortgage loan representing 1.0% of the initial mortgage pool balance, is a healthcare-related property that provides assisted living, memory care and/or independent living services.

Healthcare-related properties may receive a substantial portion of their revenues from government reimbursement programs, primarily Medicaid and Medicare. Medicaid and Medicare are subject to:

- statutory and regulatory changes;
- retroactive rate adjustments;
- administrative rulings;
- policy interpretations;
- delays by fiscal intermediaries; and
- government funding restrictions.

Providers of assisted living and other medical services are also affected by the reimbursement policies of private insurers to the extent that providers are dependent on patients whose fees are reimbursed by such insurers.

All of the foregoing can adversely affect revenues from the operation of a healthcare-related property. Moreover, governmental payors have employed cost-containment measures that limit payments to healthcare providers. In addition, there are currently under consideration various proposals for national healthcare relief that could further limit these payments.

Providers of assisted living and other medical services are highly regulated by federal, state and local law. They are subject to numerous factors which can increase the cost of operation, limit growth and, in extreme cases, require or result in suspension or cessation of operations, including:

- federal and state licensing requirements;
- facility inspections;
- rate setting;
- reimbursement policies; and
- laws relating to the adequacy of medical care, distribution of pharmaceuticals, use of equipment personnel operating policies and maintenance of and additions to facilities and services.

Under applicable federal and state laws and regulations, Medicare and Medicaid reimbursements generally may not be made to any person other than the provider who actually furnished the related material goods and services. Accordingly, in the event of foreclosure on a healthcare-related property, neither a lender nor other subsequent lessee or operator of the property would generally be entitled to obtain from federal or state governments any outstanding reimbursement payments relating to services furnished at the property prior to foreclosure. Furthermore, in the event of foreclosure, we cannot assure you that a lender or other purchaser in a foreclosure sale would be entitled to the rights under any required licenses and regulatory approvals. The lender or other purchaser (or an operator on its behalf) may have to apply in its own right for those licenses and approvals. We cannot assure you that a new license could be obtained or that a new approval would be granted.

Healthcare-related properties are generally special purpose properties that could not be readily converted to general residential, retail or office use. This will adversely affect their liquidation value. Furthermore, transfers of healthcare-related properties may be subject to regulatory approvals under state and, in some cases, federal law that is not required for transfers of most other types of commercial properties.

We cannot assure you that any licensing requirements or reliance upon Medicaid revenues, Medicare revenues or other revenues related to services provided at the healthcare-related mortgaged real property will not adversely impact operations at or the value of the mortgaged real property or that any such licenses or permits will be renewed or kept in place.

See “Description of the Underlying Mortgage Loans—Additional Loan and Property Information—Healthcare-Related Property” in this information circular for additional information relating to the underlying mortgage loan secured by a healthcare-related property.

Student Housing Facilities Pose Risks Not Associated with Other Types of Multifamily Properties. Student housing facilities may be more susceptible to damage or wear and tear than other types of multifamily housing. Such properties are also affected by their reliance on the financial well-being of the college or university to which such housing relates, competition from on-campus housing units (which may adversely affect occupancy), and the physical layout of the housing (which may not be readily convertible to traditional multifamily use). Further, student tenants have a higher turnover rate than other types of multifamily tenants, which in certain cases is compounded by the fact that some student leases are available for periods of less than 12 months. Some of the mortgaged real properties securing the underlying mortgage loans have tenants who are students. For example, with respect to the underlying mortgage loans secured by the mortgaged real properties identified on Exhibit A-1 as “Amber Lakes,” “The Verge Apartments,” “Hillcrest Apartments” and “The Mansion,” collectively representing 6.4% of the initial mortgage pool balance, at the time such underlying mortgage loans were underwritten each of the related mortgaged real properties had a significant student population.

The Success of an Income-Producing Property Depends on Reletting Vacant Spaces. The operations at or the value of an income-producing property will be adversely affected if the owner or property manager is unable to renew leases or relet space on comparable terms when existing leases expire and/or become defaulted. Even if vacated space is successfully relet, the costs associated with reletting can be substantial and could reduce cash flow from the income-producing properties. Moreover, if a tenant at an income-producing property defaults in its lease obligations, the landlord may incur substantial costs and experience significant delays associated with enforcing its rights and protecting its investment, including costs incurred in renovating and reletting the property. We cannot assure you that these circumstances will not adversely impact operations at or the value of the mortgaged real properties. See “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans” in this information circular.

If an income-producing property has multiple tenants, re-leasing expenditures may be more frequent than in the case of a property with fewer tenants, thereby reducing the cash flow generated by the multi-tenanted property. If a smaller income-producing property has fewer tenants, increased vacancy rates may have a greater possibility of adversely affecting operations at or the value of the related mortgaged real property, thereby reducing the cash flow generated by the mortgaged real property. For example, with respect to 6 of the underlying mortgage loans, collectively representing 3.7% of the initial mortgage pool balance, each of the related mortgaged real properties includes 100 or fewer units. Similarly, if an income producing property has a number of short-term leases, re-leasing expenditures may be more frequent, thereby reducing the cash flow generated by such property.

Property Value May Be Adversely Affected Even When Current Operating Income Is Not. Various factors may affect the value of multifamily properties without affecting their current net operating income, including—

- changes in interest rates;
- the availability of refinancing sources;
- changes in governmental regulations, licensing or fiscal policy;
- changes in zoning or tax laws; and
- potential environmental or other legal liabilities.

Maintaining a Property in Good Condition May Be Costly. The owner may be required to expend a substantial amount to maintain, renovate or refurbish a multifamily property. Failure to do so may materially impair the property’s ability to generate cash flow. The effects of poor construction quality will increase over time in the form of increased maintenance and capital improvements. Even superior construction will deteriorate over time if management does not schedule and perform adequate maintenance in a timely fashion. We cannot assure you that an income-producing property will generate sufficient cash flow to cover the increased costs of maintenance and capital improvements in addition to paying debt service on the underlying mortgage loan that encumbers that mortgaged real property.

The proportion of older mortgaged real properties may adversely impact payments on the underlying mortgage loans on a collective basis. For example, with respect to 18 of the mortgaged real properties, securing underlying mortgage loans collectively representing 37.4% of the initial mortgage pool balance, all or part of the mortgaged real properties were constructed prior to 1980. We cannot assure you that a greater proportion of underlying mortgage

loans secured by older mortgaged real properties will not adversely impact cash flow at the mortgaged real properties on a collective basis or that it will not adversely affect payments related to your investment.

Certain of the mortgaged real properties may currently be undergoing or are expected to undergo in the future redevelopment or renovation. We cannot assure you that any current or planned redevelopment or renovation will be completed, that such redevelopment or renovation will be completed in the time frame contemplated, or that, when and if redevelopment or renovation is completed, such redevelopment or renovation will improve the operations at, or increase the value of, the property. Failure of any of these things to occur could have a material negative impact on the related underlying mortgage loan, which could affect the ability of the related borrower to repay the underlying mortgage loan.

In the event the related borrower (or a tenant, if applicable) fails to pay the costs of work completed or material delivered in connection with ongoing redevelopment or renovation, the portion of the mortgaged real property on which there is construction may be subject to mechanic's or materialmen's liens that may be senior to the lien of the related underlying mortgage loan.

The existence of construction at a mortgaged real property may make such mortgaged real property less attractive to tenants and, accordingly, could have a negative effect on net operating income.

If the special servicer forecloses on behalf of the issuing entity on a mortgaged real property that is being redeveloped or renovated, pursuant to the REMIC Provisions, the special servicer will only be permitted to arrange for completion of the redevelopment or renovation if more than 10% of the costs of construction were incurred at the time the default on the related underlying mortgage loan became imminent. As a result, the issuing entity may not realize as much proceeds upon disposition of a foreclosure property as it would if it were permitted to complete construction.

See "Description of the Underlying Mortgage Loans—Additional Loan and Property Information—Redevelopment or Renovation" in this information circular for a description of certain mortgaged real properties subject to current or future redevelopment, renovation or construction.

Competition Will Adversely Affect the Profitability and Value of an Income-Producing Property. Some income-producing properties are located in highly competitive areas. Comparable income-producing properties located in the same area compete on the basis of a number of factors including—

- rental rates;
- location;
- type of services and amenities offered; and
- nature and condition of the particular property.

The profitability and value of an income-producing property may be adversely affected by a comparable property that—

- offers lower rents;
- has lower operating costs;
- offers a more favorable location; or
- offers better facilities and/or amenities.

Costs of renovating, refurbishing or expanding an income-producing property in order to remain competitive can be substantial.

Borrower Bankruptcy Proceedings Can Delay and Impair Recovery on an Underlying Mortgage Loan. Under Title 11 of the United States Code, as amended (the "Bankruptcy Code"), the filing of a petition in bankruptcy by or against a borrower, including a petition filed by or on behalf of a junior lienholder, will stay the sale of a real property owned by that borrower, as well as the commencement or continuation of a foreclosure action.

In addition, if a bankruptcy court determines that the value of a mortgaged real property is less than the principal balance of the underlying mortgage loan it secures, the bankruptcy court may reduce the amount of secured indebtedness to the then-current value of the property. This would make the lender a general unsecured creditor for the difference between the then-current value of the property and the amount of its outstanding mortgage indebtedness.

A bankruptcy court also may—

- grant a debtor a reasonable time to cure a payment default on an underlying mortgage loan;
- reduce monthly payments due under an underlying mortgage loan;
- change the rate of interest due on an underlying mortgage loan; or
- otherwise alter an underlying mortgage loan's repayment schedule.

Furthermore, the borrower, as debtor-in-possession, or its bankruptcy trustee has special powers to avoid, subordinate or disallow debts. In some circumstances, the claims of a secured lender, such as the issuing entity, may be subordinated to financing obtained by a debtor-in-possession subsequent to its bankruptcy.

Under the Bankruptcy Code, a lender will be stayed from enforcing a borrower's assignment of rents and leases. The legal proceedings necessary to resolve these issues can be time consuming and may significantly delay the receipt of rents. Rents also may escape an assignment to the extent they are used by a borrower to maintain its property or for other court authorized expenses.

As a result, the issuing entity's recovery with respect to borrowers in bankruptcy proceedings may be significantly delayed, and the total amount ultimately collected may be substantially less than the amount owed. Certain of the key principals or sponsors of the applicable borrowers may have declared bankruptcy in the past, which may mean they are more likely to declare bankruptcy again in the future or put the borrowing entities into bankruptcy in the future.

Pursuant to the doctrine of substantive consolidation, a bankruptcy court, in the exercise of its equitable powers, has the authority to order that the assets and liabilities of a borrower be consolidated with those of a bankrupt affiliate for the purposes of making distributions under a plan of reorganization or liquidation. Thus, property that is ostensibly the property of a borrower may become subject to the bankruptcy case of an affiliate, the automatic stay applicable to such bankrupt affiliate may be extended to a borrower and the rights of creditors of a borrower may become impaired.

In connection with the origination of 35 of the underlying mortgage loans, collectively representing 55.8% of the initial mortgage pool balance, including certain underlying mortgage loans with original principal balances over \$40,000,000 that are identified on Exhibit C-2, no non-consolidation opinion with respect to the related borrower entity was obtained at origination.

In addition, with respect to the underlying mortgage loans secured by the mortgaged real properties identified on Exhibit A-1 as "York Brook Apartments" and "Madison Ellis Preserve," collectively representing 9.4% of the initial mortgage pool balance, the sponsor of each related borrower reported at least one prior discounted payoff, default, bankruptcy, foreclosure or deed-in-lieu of foreclosure with respect to the other properties of such sponsor.

We cannot assure you that these circumstances will not have an adverse impact on the liquidity of the related borrowers or the related sponsors and therefore will not adversely impact the borrowers' or the sponsors' ability to maintain the related mortgaged real properties or pay amounts owed on the related underlying mortgage loans.

Property Management is Important to the Successful Operation of the Mortgaged Real Property. The successful operation of a real estate project depends in part on the performance and viability of the property manager. The property manager is generally responsible for:

- operating the property and providing building services;
- establishing and implementing the rental structure;

- managing operating expenses;
- responding to changes in the local market; and
- advising the borrower with respect to maintenance and capital improvements.

Properties deriving revenues primarily from short-term leases, such as the leases at multifamily properties, generally are more management intensive than properties leased to creditworthy tenants under long-term leases.

A good property manager, by controlling costs, providing necessary services to tenants and overseeing and performing maintenance or improvements on the property, can improve cash flow, reduce vacancies, reduce leasing and repair costs and preserve building value. On the other hand, management errors can, in some cases, impair short-term cash flow and the long-term viability of an income-producing property.

We do not make any representation or warranty as to the skills of any present or future property managers with respect to the mortgaged real properties that will secure the underlying mortgage loans. Furthermore, we cannot assure you that any property managers will be in a financial condition to fulfill their management responsibilities throughout the terms of their respective management agreements. In addition, certain of the mortgaged real properties are managed by affiliates of the applicable borrower. If an underlying mortgage loan is in default or undergoing special servicing, this could disrupt the management of the mortgaged real property and may adversely affect cash flow.

The Performance of an Underlying Mortgage Loan and the Related Mortgaged Real Property Depends in Part on Who Controls the Borrower and the Related Mortgaged Real Property. The operation and performance of an underlying mortgage loan will depend in part on the identity of the persons or entities that control the related borrower and the related mortgaged real property. The performance of the underlying mortgage loan may be adversely affected if control of the borrower changes, which may occur, for example, by means of transfers of direct or indirect ownership interests in such borrower. See “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Due-on-Sale and Due-on-Encumbrance Provisions” in this information circular.

Losses on Larger Underlying Mortgage Loans May Adversely Affect Distributions on the Certificates. Certain of the underlying mortgage loans have Cut-off Date Principal Balances that are substantially higher than the average Cut-off Date Principal Balance. In general, these concentrations can result in losses that are more severe than would be the case if the total principal balance of the underlying mortgage loans backing the offered certificates were more evenly distributed. See Exhibits A-1, A-2 and A-3 for information relating to significant underlying mortgage loans including the ten largest underlying mortgage loans.

Underlying Mortgage Loans to the Same Borrower or Borrowers Under Common Ownership May Result in More Severe Losses on the Offered Certificates. Certain groups of the underlying mortgage loans were made to the same borrower or to borrowers under common ownership. None of the underlying mortgage loans is cross-collateralized or cross-defaulted with any other underlying mortgage loan or any mortgage loan that is not in the issuing entity. Underlying mortgage loans made to the same borrower or borrowers under common ownership pose additional risks. Among other things:

- financial difficulty at one mortgaged real property could cause the owner to defer maintenance at another mortgaged real property in order to satisfy current expenses with respect to the troubled mortgaged real property; and
- the owner could attempt to avert foreclosure on one mortgaged real property by filing a bankruptcy petition that might have the effect of interrupting monthly payments for an indefinite period on all of the related underlying mortgage loans.

In addition, multiple real properties owned by the same borrower or borrowers under common ownership are likely to have common management. This would increase the risk that financial or other difficulties experienced by the property manager could have a greater impact on the owner of the underlying mortgage loans.

See “Description of the Underlying Mortgage Loans—Underlying Mortgage Loans Made to the Same Borrower or Borrowers Under Common Ownership” in this information circular.

A Borrower’s Other Loans May Reduce the Cash Flow Available to Operate and Maintain the Related Mortgaged Real Property or May Interfere with the Issuing Entity’s Rights Under the Related Underlying Mortgage Loan, Thereby Adversely Affecting Distributions on the Offered Certificates. As described under “—Subordinate Financing Increases the Likelihood That a Borrower Will Default on an Underlying Mortgage Loan” below and “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Permitted Additional Debt” in this information circular, any of the mortgaged real properties may be encumbered in the future by other subordinate debt. In addition, subject, in some cases, to certain limitations relating to maximum amounts, the borrowers generally may incur trade and operational debt or other unsecured debt and enter into equipment and other personal property and fixture financing and leasing arrangements, in connection with the ordinary operation and maintenance of the related mortgaged real property. Furthermore, in the case of any underlying mortgage loan that requires or allows letters of credit to be posted by the related borrower as additional security for the underlying mortgage loan, in lieu of reserves or otherwise, such borrower may be obligated to pay fees and expenses associated with the letter of credit and/or to reimburse the letter of credit issuer in the event of a draw on the letter of credit by the lender.

The existence of other debt could:

- adversely affect the financial viability of a borrower by reducing the cash flow available to the borrower to operate and maintain the mortgaged real property or make debt service payments on the underlying mortgage loan;
- adversely affect the security interest of the lender in the equipment or other assets acquired through its financings;
- complicate workouts or bankruptcy proceedings; and
- delay foreclosure on the mortgaged real property.

We cannot assure you that these circumstances will not adversely impact operations at or the value of the related mortgaged real properties.

Changes in Mortgage Pool Composition Can Change the Nature of Your Investment. The underlying mortgage loans will amortize at different rates and mature on different dates. In addition, some of those mortgage loans may be prepaid or liquidated. As a result, the relative composition of the mortgage pool will change over time.

If you purchase certificates with a pass-through rate that is equal to or calculated based on a weighted average of interest rates on the underlying mortgage loans, your pass-through rate will be affected, and may decline, as the relative composition of the mortgage pool changes.

In addition, the composition of the mortgage pool may change if the mortgage loan seller repurchases or substitutes for an underlying mortgage loan due to a defect in any mortgage file or a breach of any of its representations and warranties that materially and adversely affects the value of any underlying mortgage loan (including any foreclosure property acquired in respect of any foreclosed mortgage loan) or any interests of the holders of any class of certificates. Further, as payments and other collections of principal are received with respect to the underlying mortgage loans, the remaining mortgage pool backing the certificates may exhibit an increased concentration with respect to number and affiliation of borrowers and geographic location.

See “Description of the Underlying Mortgage Loans—Cures, Repurchases and Substitutions” and “Yield and Maturity Considerations—Yield Considerations—Rate and Timing of Principal Payments” in this information circular.

Geographic Concentration of the Mortgaged Real Properties May Adversely Affect Distributions on the Offered Certificates. The concentration of mortgaged real properties in a specific state or region will make the performance of the underlying mortgage loans, as a whole, more sensitive to the following factors in the state or region where the borrowers and the mortgaged real properties are concentrated:

- economic conditions, including real estate market conditions;
- changes in governmental rules and fiscal policies;
- regional factors such as earthquakes, floods, tornadoes, forest fires or hurricanes;
- acts of God, which may result in uninsured losses; and
- other factors that are beyond the control of the borrowers.

See Exhibit A-2 for additional information relating to the geographic concentration of the mortgaged real properties.

Subordinate Financing Increases the Likelihood That a Borrower Will Default on an Underlying Mortgage Loan. No mortgaged real properties are currently encumbered with a subordinate lien, except for limited permitted encumbrances (which limited permitted encumbrances do not secure subordinate mortgage loans). See “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Permitted Additional Debt” in this information circular.

Other than with respect to future subordinate debt meeting specified criteria, as described under “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Permitted Additional Debt” in this information circular, the underlying mortgage loans require the consent of the holder of the underlying mortgage loan prior to so encumbering the related mortgaged real property. However, a violation of this prohibition may not become evident until the affected underlying mortgage loan otherwise defaults, and a lender, such as the issuing entity, may not realistically be able to prevent a borrower from incurring subordinate debt.

The existence of any secured subordinated indebtedness or unsecured indebtedness increases the difficulty of making debt service payments or refinancing an underlying mortgage loan at its maturity. In addition, the related borrower may have difficulty repaying multiple loans. Moreover, the filing of a petition in bankruptcy by, or on behalf of, a junior lienholder may stay the senior lienholder from taking action to foreclose out the junior lien.

The Type of Borrower May Entail Risk. Mortgage loans made to partnerships, corporations or other entities may entail risks of loss from delinquency and foreclosure that are greater than those of mortgage loans made to individuals. The borrower’s sophistication and form of organization may increase the likelihood of protracted litigation or bankruptcy in default situations.

A number of the borrowers are partnerships. The bankruptcy of the general partner in a partnership may result in the dissolution of the partnership. The dissolution of a borrower that is a partnership, the winding up of its affairs and the distribution of its assets could result in an acceleration of its payment obligations under the related underlying mortgage loan.

With respect to all of the underlying mortgage loans, the borrowers’ organizational documents or the terms of the underlying mortgage loans limit the borrowers’ activities to the ownership of only the related mortgaged real properties and, subject to exceptions, including relating to future subordinate debt secured by the mortgaged real properties, generally limit the borrowers’ ability to incur additional future indebtedness other than trade payables and equipment financing relating to the mortgaged real properties in the ordinary course of business. These provisions are designed to mitigate the possibility that the borrowers’ financial condition would be adversely impacted by factors unrelated to the mortgaged real property and the underlying mortgage loan. However, we cannot assure you that the borrowers will comply with these requirements. Also, although a borrower may currently be structured as a single-purpose entity, such borrower may have previously owned property other than the mortgaged real property and/or may not have observed all covenants and conditions which typically are required to view a borrower as a “single purpose entity” under standard NRSRO criteria. We cannot assure you that circumstances arising from a borrower’s failure to observe the required covenants will not impact the borrower or the mortgaged real property. In addition, borrowers that are not single-purpose entities structured to limit the possibility of

becoming insolvent or bankrupt may be more likely to become insolvent or subject to a voluntary or involuntary bankruptcy proceeding because the borrowers may be operating entities with a business distinct from the operation of the mortgaged real property with the associated liabilities and risks of operating an ongoing business or individuals that have personal liabilities unrelated to the mortgaged real property. However, any borrower, even a single-purpose entity structured to be bankruptcy-remote, as an owner of real estate, will be subject to certain potential liabilities and risks. We cannot assure you that any borrower will not file for bankruptcy protection or that creditors of a borrower or a corporation or individual general partner or managing member of a borrower will not initiate a bankruptcy or similar proceeding against the borrower or corporate or individual general partner or managing member.

None of the borrowers or their owners have an independent director whose consent would be required to file a voluntary bankruptcy petition on behalf of such borrower. One of the purposes of an independent director of the borrower (or of a single purpose entity having an interest in the borrower) is to avoid a bankruptcy petition filing which is intended solely to benefit an affiliate and is not justified by the borrower's own economic circumstances. Borrowers (and any single purpose entity having an interest in any such borrowers) that do not have an independent director may be more likely to file a voluntary bankruptcy petition and therefore less likely to repay the related underlying mortgage loan. Even in the case of borrowers with independent directors, we cannot assure you that a borrower will not file for bankruptcy protection, that creditors of a borrower will not initiate a bankruptcy or similar proceeding against such borrower, or that, if initiated, a bankruptcy case of the borrower could be dismissed.

Pursuant to Section 364 of the Bankruptcy Code, a bankruptcy court may, under certain circumstances, authorize a debtor to obtain credit after the commencement of a bankruptcy case, secured among other things, by senior, equal or junior liens on property that is already subject to a lien. In the recent bankruptcy case of General Growth Properties, the debtors initially sought approval of a debtor-in-possession loan to the corporate parent entities guaranteed by the property-level single purpose entities and secured by second liens on their properties. Although the debtor-in-possession loan ultimately did not include these subsidiary guarantees and second liens, we cannot assure you that, in the event of a bankruptcy of a sponsor of a borrower, the sponsor of such borrower would not seek approval of a similar debtor-in-possession loan, or that a bankruptcy court would not approve a debtor-in-possession loan that included such subsidiary guarantees and second liens on such subsidiaries' properties.

Furthermore, with respect to underlying mortgage loans made to the same borrower or borrowers under common ownership, creditors of a common parent in bankruptcy may seek to consolidate the assets of those borrowers with those of the parent. Consolidation of the assets of the borrowers would likely have an adverse effect on the funds available to make distributions on the certificates, and may lead to a downgrade, withdrawal or qualification of the ratings of the certificates. The bankruptcy of a borrower, or the general partner or the managing member of a borrower, may impair the ability of the lender to enforce its rights and remedies under the related mortgage.

In addition, certain of the underlying mortgage loans may have borrowers that are wholly or partially (directly or indirectly) owned by one or more crowd funding investor groups or other diversified ownership structures. Investments in commercial real estate through crowd funding investor groups are a relatively recent development. There may be certain unanticipated risks to this new ownership structure that may adversely affect such underlying mortgage loans. Typically, such crowd funding investor groups are made up of a large number of individual investors who invest relatively small amounts in the group pursuant to a securities offering, typically via the internet. With respect to equity investments in a borrower, the crowd funding investor group in turn purchases a stake in the borrower. Accordingly, equity in the borrower is indirectly held by the individual investors in the crowd funding investor group. We cannot assure you that either the crowd funding investor group or the individual investors in the crowd funding investor group or other diversified ownership structure have relevant expertise in the management of commercial real estate or in the commercial real estate market in general. Additionally, crowd funding investor groups are required to comply with various securities regulations. We cannot assure you that any enforcement action or legal proceeding regarding failure to comply with such securities regulations would not delay realization upon the related underlying mortgage loan or otherwise impair a borrower's ability to operate a mortgaged real property. Furthermore, we cannot assure you that a bankruptcy proceeding by a crowd funding investor group or other diversified ownership structure will not delay enforcement of an underlying mortgage loan. We cannot assure you that these circumstances will not adversely impact operations at or the value of such mortgaged real properties.

With respect to some of the underlying mortgage loans, the related nonrecourse carveout provisions of the related loan documents may be guaranteed, in whole or in part, by non-U.S. individuals or entities, which may decrease the likelihood of recovery under such guarantee. In addition, some of the underlying mortgage loans may be guaranteed, in whole or in part, by the sponsors of the respective borrowers or other parties that are funds or other entities, the terms of which may be subject to expiration or other structural contingencies. In such cases, such loan documents may require such entities to extend their terms or to otherwise take action or provide additional security to the lender regarding the continued existence of such entities during the terms of such underlying mortgage loans.

Tenants-in-Common. With respect to the underlying mortgage loans secured by the mortgaged real properties identified on Exhibit A-1 as “Villas At Wood Ranch,” York Brook Apartments,” “ARIUM Lakeshore” and “Grand Reserve Orange Apartments,” collectively representing 16.0% of the initial mortgage pool balance, the related borrowers own such mortgaged real properties as tenants-in-common.

Generally, in tenant-in-common ownership structures, each tenant-in-common owns an undivided share in the applicable real property. If a tenant-in-common desires to sell its interest in the real property and is unable to find a buyer or otherwise desires to force a partition, the tenant-in-common has the ability to request that a court order a sale of the real property and distribute the proceeds to each tenant-in-common owner proportionally. To reduce the likelihood of a partition action, each tenant-in-common borrower under the underlying mortgage loan referred to above has waived its partition right. However, we cannot assure you that, if challenged, this waiver would be enforceable or that it would be enforced in a bankruptcy proceeding.

The enforcement of remedies against tenant-in-common borrowers may be prolonged because each time a tenant-in-common borrower files for bankruptcy, the bankruptcy court stay is reinstated. While a lender may seek to mitigate this risk after the commencement of the first bankruptcy of a tenant-in-common by commencing an involuntary proceeding against the other tenant-in-common borrowers and moving to consolidate all those cases, we cannot assure you that a bankruptcy court would consolidate those separate cases.

The bankruptcy, dissolution or action for partition by one or more of the tenants-in-common could result in an early repayment of the related underlying mortgage loan, a significant delay in recovery against the tenant-in-common borrowers, a material impairment in property management and a substantial decrease in the amount recoverable on the underlying mortgage loan.

Certain of the Underlying Mortgage Loans May Have Land Trust Borrowers. With respect to certain of the underlying mortgage loans, the related borrower may be the beneficiary of a land trust. If the mortgaged real property is in a land trust, legal title to the mortgaged real property will typically be held by a land trustee under a land trust agreement for the benefit of the borrower as beneficiary. At origination of a mortgage loan involving a land trust, the trustee typically mortgages the property to secure the beneficiary’s obligation to make payments on the mortgage note. The lender’s authority under a mortgage, the trustee’s authority under a deed of trust and the grantee’s authority under a deed to secure debt are governed by the express provisions of such mortgage or deed, the law of the state in which the mortgaged real property is located and certain federal laws. In addition, certain decisions regarding the mortgaged real property may require the consent of the holders of the beneficial interests in the land trust and, in such event, there is a risk that obtaining such consent will be time consuming and cause delays in the event certain actions need to be taken by or on behalf of the borrower or with respect to the mortgaged real property. At least one state bankruptcy court has held that the doctrine of merger applied to extinguish a land trust where the land trustee was the holder of 100% of the beneficiary ownership interest in the land trust. Whether a land trust can be a debtor eligible for relief under the Bankruptcy Code depends on whether the land trust constitutes a business trust under the Bankruptcy Code. That determination is dependent on the business activity that the land trust conducts. We cannot assure you that, given the business activities that the land trustee has been authorized to undertake, a bankruptcy court would find that the land trust is ineligible for relief as a debtor under the Bankruptcy Code or that there will not be delays with respect to any actions needed to be taken at the mortgaged real property.

Certain of the Underlying Mortgage Loans Lack Customary Provisions. A number of the underlying mortgage loans lack one or more features that are customary in mortgage loans intended for securitization. Among other things, the borrowers with respect to those underlying mortgage loans may not be required to have an independent director or to make payments to lockboxes or to maintain reserves for certain expenses, such as taxes, insurance premiums, capital expenditures, tenant improvements and leasing commissions or the requirements to make such payments may be suspended if the related borrower complies with the terms of the related loan

documents, or the lenders under such underlying mortgage loans may not have the right to terminate the related property manager upon the occurrence of certain events or require lender approval of a replacement property manager. In addition, although mortgage loans intended to be securitized often have a guarantor with respect to certain bad acts such as fraud, guarantors may not be required with respect to certain of the underlying mortgage loans.

Some Remedies May Not Be Available Following a Mortgage Loan Default. The underlying mortgage loans contain, subject to certain exceptions, “due-on-sale” and “due-on-encumbrance” clauses. These clauses permit the holder of an underlying mortgage loan to accelerate the maturity of the underlying mortgage loan if the related borrower sells or otherwise transfers or encumbers the related mortgaged real property or its interest in the mortgaged real property in violation of the terms of the mortgage. All of the underlying mortgage loans also include a debt-acceleration clause that permits the lender to accelerate the debt upon specified monetary or non-monetary defaults of the borrower.

The courts of all states will enforce clauses providing for acceleration in the event of a material payment default. The equity courts of a state, however, may refuse the foreclosure or other sale of a mortgaged real property or refuse to permit the acceleration of the indebtedness as a result of a default deemed to be immaterial or if the exercise of these remedies would be inequitable or unjust. See “Description of the Underlying Mortgage Loans—Certain Legal Aspects of the Underlying Mortgage Loans” in this information circular for a discussion of certain legal aspects related to states in which mortgaged real properties that secure underlying mortgage loans collectively representing 10.0% or more of the initial mortgage pool balance are located.

The related borrower generally may collect rents for so long as there is no default. As a result, the issuing entity’s rights to these rents will be limited because:

- the issuing entity may not have a perfected security interest in the rent payments until the master servicer, special servicer or sub-servicer collects them;
- the master servicer, special servicer or sub-servicer may not be entitled to collect the rent payments without court action; and
- the bankruptcy of the related borrower could limit the ability of the master servicer, special servicer or sub-servicer to collect the rents.

Sponsor Defaults on Other Mortgage Loans May Adversely Impact and Impair Recovery on an Underlying Mortgage Loan. Principals of the related borrowers under certain of the underlying mortgage loans and/or their affiliates may be subject to defaults with respect to unrelated mortgage loans or, in some cases, with respect to prior mortgage loans that had been secured by real properties currently securing underlying mortgage loans that are assets of the issuing entity. For example, with respect to the underlying mortgage loans secured by the mortgaged real properties identified on Exhibit A-1 as “York Brook Apartments” and “Madison Ellis Preserve,” collectively representing 9.4% of the initial mortgage pool balance, the sponsor of each related borrower reported at least one prior discounted payoff, default, bankruptcy, foreclosure or deed-in-lieu of foreclosure with respect to the other properties of such sponsor. We cannot assure you that these circumstances will not have an adverse effect on the liquidity of the sponsors or the borrowers or that such circumstances will not adversely affect the sponsors’ or the borrowers’ ability to maintain each related mortgaged real property, to pay amounts owed on each related underlying mortgage loan or to refinance each related underlying mortgage loan. See “—Borrower Bankruptcy Proceedings Can Delay and Impair Recovery on an Underlying Mortgage Loan” above.

Lending on Income-Producing Real Properties Entails Environmental Risks. Under various federal and state laws, a current or previous owner or operator of real property may be liable for the costs of cleanup of environmental contamination on, under, at or emanating from, the property. These laws often impose liability whether or not the owner or operator knew of, or was responsible for, the presence of the contamination. The costs of any required cleanup and the owner’s liability for these costs are generally not limited under these laws and could exceed the value of the property and/or the total assets of the owner. Contamination of a property may give rise to a lien on the property to assure the costs of cleanup. An environmental lien may have priority over the lien of an existing mortgage. In addition, the presence of hazardous or toxic substances, or the failure to properly clean up contamination on the property, may adversely affect the owner’s or operator’s future ability to refinance the property.

Certain environmental laws impose liability for releases of asbestos into the air, and govern the responsibility for the removal, encapsulation or disturbance of asbestos-containing materials when the asbestos-containing materials are in poor condition or when a property with asbestos-containing materials undergoes renovation or demolition. Certain laws impose liability for lead-based paint, lead in drinking water, elevated radon gas inside buildings and releases of polychlorinated biphenyl compounds. Third parties may also seek recovery from owners or operators of real property for personal injury or property damage associated with exposure to asbestos, lead, radon, polychlorinated biphenyl compounds and any other contaminants.

Pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, (“CERCLA”) as well as some other federal and state laws, a secured lender, such as the issuing entity, may be liable as an “owner” or “operator” of the real property, regardless of whether the borrower or a previous owner caused the environmental damage, if—

- prior to foreclosure, agents or employees of the lender participate in the management or operational affairs of the borrower; or
- after foreclosure, the lender fails to seek to divest itself of the facility at the earliest practicable commercially reasonable time on commercially reasonable terms, taking into account market conditions and legal and regulatory requirements.

Although the Asset Conservation, Lender Liability, and Deposit Insurance Protection Act of 1996 attempted to clarify the activities in which a lender may engage without becoming subject to liability under CERCLA or under the underground storage tank provisions of the federal Resource Conservation and Recovery Act, that legislation itself has not been clarified by the courts and has no applicability to other federal laws or to state environmental laws except as may be expressly incorporated. Moreover, future laws, ordinances or regulations could impose material environmental liability.

Federal law requires owners of residential housing constructed prior to 1978 to disclose to potential residents or purchasers—

- any condition on the property that causes exposure to lead-based paint; and
- the potential hazards to pregnant women and young children, including that the ingestion of lead-based paint chips and/or the inhalation of dust particles from lead-based paint by children can cause permanent injury, even at low levels of exposure.

Property owners may be liable for injuries to their tenants resulting from exposure under various laws that impose affirmative obligations on property owners of residential housing containing lead-based paint.

See “Description of the Underlying Mortgage Loans—Underwriting Matters—Environmental Assessments and Physical Risk Reports” in this information circular for information relating to environmental site assessments (each, an “ESA”) and physical risk reports prepared in connection with the origination of the underlying mortgage loans.

Furthermore, any particular environmental testing may not have covered all potential adverse conditions. For example, testing for lead-based paint, asbestos-containing materials, lead in water and radon was done only if the use, age, location and condition of the applicable property warranted that testing. In general, testing was done for lead based paint only in the case of a multifamily property built prior to 1978, for asbestos containing materials only in the case of a property built prior to 1981 and for radon gas only in the case of a multifamily property located in an area determined by the Environmental Protection Agency to have a high concentration of radon gas or within a state or local jurisdiction requiring radon gas testing.

We cannot assure you that—

- the environmental testing or assessments referred to above identified all material adverse environmental conditions and circumstances at the properties securing the underlying mortgage loans;
- the recommendation of the environmental consultant was, in the case of all identified problems, the appropriate action to take; or

- any of the environmental escrows established or letters of credit obtained with respect to any of the underlying mortgage loans will be sufficient to cover the recommended remediation or other action.

Appraisals and Market Studies May Inaccurately Reflect the Current or Prospective Value of the Mortgaged Real Properties. In connection with the origination of each of the underlying mortgage loans, the related mortgaged real property was appraised by an independent appraiser. The appraisal valuations provide “as-is” values as of the dates set forth on Exhibit A-1, except as described on Exhibit A-1 and/or the related footnotes as to any underlying mortgage loan with an “as-stabilized” appraised value, which value is estimated assuming satisfaction of projected re-tenanting or increased tenant occupancy conditions. The appraisals reflect market conditions as of the date of the appraisal valuations and may not reflect current or prospective values of the related mortgaged real properties. Additionally, with respect to any appraisals setting forth stabilization assumptions as to prospective values, we cannot assure you that such assumptions are or will be accurate or that the prospective values upon stabilization will be attained. We have not confirmed the values of the respective mortgaged real properties in the appraisals.

Appraisals are not guarantees, and may not be fully indicative of present or future value because—

- they represent the analysis and opinion of the appraiser at the time the appraisal is conducted and the value of the mortgaged real property may have fluctuated since the appraisal was performed;
- we cannot assure you that another appraiser would not have arrived at a different valuation, even if the appraiser used the same general approach to, and the same method of, appraising the mortgaged real property;
- appraisals seek to establish the amount a typically motivated buyer would pay a typically motivated seller and therefore, could be significantly higher than the amount obtained from the sale of a mortgaged real property under a distress or liquidation sale; and
- appraisal valuations may be based on certain adjustments, assumptions and/or estimates, as further described under “Description of the Underlying Mortgage Loans—Underwriting Matters—Appraisals and Market Studies” in this information circular.

Property Managers and Borrowers May Each Experience Conflicts of Interest in Managing Multiple Properties. In the case of many of the underlying mortgage loans, the related property managers and borrowers may experience conflicts of interest in the management and/or ownership of the related mortgaged real properties because—

- a number of those mortgaged real properties are managed by property managers affiliated with the respective borrowers;
- the property managers also may manage additional properties, including properties that may compete with those mortgaged real properties; and
- affiliates of the property managers and/or the borrowers, or the property managers and/or the borrowers themselves, also may own other properties, including properties that may compete with those mortgaged real properties.

The Master Servicer, the Special Servicer and any Sub-Servicers May Experience Conflicts of Interest. In the ordinary course of their businesses the master servicer, the special servicer and any sub-servicers will service loans other than those included in the issuing entity. In addition, they may own other mortgage loans. These other loans may be similar to the underlying mortgage loans. The mortgaged real properties securing these other loans may—

- be in the same markets as mortgaged real properties securing the underlying mortgage loans;
- have owners and/or property managers in common with mortgaged real properties securing the underlying mortgage loans; and/or
- be sponsored by parties that also sponsor mortgaged real properties securing the underlying mortgage loans.

In these cases, the interests of the master servicer, the special servicer or a sub-servicer, as applicable, and its other clients may differ from and compete with the interests of the issuing entity and these activities may adversely

affect the amount and timing of collections on the underlying mortgage loans. Under the Pooling and Servicing Agreement, the master servicer, the special servicer and any sub-servicers are each required to service the underlying mortgage loans for which it is responsible in accordance with the Servicing Standard.

The Pooling and Servicing Agreement provides that in certain circumstances the Approved Directing Certificateholder (if any) may, at its own expense, request that the Directing Certificateholder Servicing Consultant (which may be the special servicer) prepare and deliver a recommendation relating to a requested waiver of a “due-on-sale” or “due-on-encumbrance” clause or, with respect to non-Specially Serviced Mortgage Loans, a requested consent to certain major decisions affecting the underlying mortgage loans or related mortgaged real properties. In making a recommendation in response to such a request, the Directing Certificateholder Servicing Consultant will not be subject to the Servicing Standard and will have no duty or liability to any certificateholder other than such Approved Directing Certificateholder. In addition, because the Directing Certificateholder Servicing Consultant may have arranged to be compensated by such Approved Directing Certificateholder in connection with such matters as to which it is making a recommendation, its interests may conflict with the interests of other certificateholders.

In addition, the master servicer, the special servicer and any sub-servicer, or one or more of their respective affiliates, may have originated some of the underlying mortgage loans. As a result, the master servicer, the special servicer or any sub-servicer may have interests with respect to such underlying mortgage loans, such as relationships with the borrowers or the sponsors of the borrowers, that differ from, and may conflict with, your interests.

In addition, the Pooling and Servicing Agreement provides that the master servicer, the Directing Certificateholder Servicing Consultant and any sub-servicer may consult with Freddie Mac (in its capacity as servicing consultant) with respect to the application of Freddie Mac Servicing Practices to any matters related to non-Specially Serviced Mortgage Loans, but the Directing Certificateholder Servicing Consultant will not be bound by any such consultation. See “The Pooling and Servicing Agreement—Servicing Under the Pooling and Servicing Agreement” in this information circular. Any advice provided by Freddie Mac (in its capacity as servicing consultant) in connection with any such consultation may conflict with the interests of one or more classes of certificateholders.

Under certain circumstances, the Pooling and Servicing Agreement will require that the special servicer promptly resign as special servicer of any related Affiliated Borrower Special Servicer Loan and provides for the appointment of a successor Affiliated Borrower Special Servicer to act as the special servicer with respect to any such Affiliated Borrower Special Servicer Loan. See “The Pooling and Servicing Agreement—Resignation, Removal and Replacement of Servicers; Transfer of Servicing Duties—Resignation of the Master Servicer or the Special Servicer” and “—Removal of the Master Servicer, the Special Servicer and any Sub-Servicer” in this information circular.

If the Master Servicer, any Sub-Servicer or the Special Servicer Purchases Certificates or SPCs, a Conflict of Interest Could Arise Between Their Duties and Their Interests in the Certificates or SPCs. The master servicer, any sub-servicer and/or the special servicer or an affiliate of any of them may purchase or retain any of the class X2-A, X2-B, B, C and D certificates or any class of SPCs. The ownership of any certificates or SPCs by the master servicer, any sub-servicer and/or the special servicer could cause a conflict between its duties under the Pooling and Servicing Agreement or the applicable Sub-Servicing Agreement and its interest as a holder of a certificate or an SPC, especially to the extent that certain actions or events have a disproportionate effect on one or more classes of certificates. However, under the Pooling and Servicing Agreement and any applicable Sub-Servicing Agreement, the master servicer, any sub-servicer and the special servicer are each required to service the underlying mortgage loans in accordance with the Servicing Standard.

Potential Conflicts of Interest in the Selection and Servicing of the Underlying Mortgage Loans. The anticipated initial investor in the class X2-A, X2-B and D certificates (the “B-Piece Buyer”) was given the opportunity by the mortgage loan seller and the depositor to perform due diligence on the mortgage loans originally identified by the mortgage loan seller for inclusion in the issuing entity, and to request the removal, re-sizing or change other features of some or all of the underlying mortgage loans, or request the addition of other loans for inclusion in the issuing entity. The mortgage pool as originally proposed by the mortgage loan seller was adjusted based on some of these requests. The B-Piece Buyer was and is acting solely for its own benefit with regard to its due diligence and any adjustment of the underlying mortgage loans included in the issuing entity and has no

obligation or liability to any other party. You are not entitled to, and should not, rely in any way on the B-Piece Buyer's acceptance of any underlying mortgage loans. The inclusion of any underlying mortgage loan in the issuing entity is not an indication of the B-Piece Buyer's analysis of that underlying mortgage loan nor can it be taken as any endorsement of the underlying mortgage loan by the B-Piece Buyer. In addition, a special servicer (whether the initial special servicer or a successor special servicer) may enter into one or more arrangements with the B-Piece Buyer, the directing certificateholder or any other person (or any affiliate or a third-party representative of any of them) to provide for a discount and/or revenue sharing with respect to certain of the special servicer compensation (other than the special servicing fee and special servicer surveillance fee) in consideration of, among other things, the appointment or continued service of the special servicer under the Pooling and Servicing Agreement and the establishment of limitations on the right of such person to replace the special servicer. Each of these relationships should be considered carefully by you before you invest in any certificates.

We cannot assure you that you or another investor would have made the same requests to modify the mortgage pool as the B-Piece Buyer or that the final mortgage pool as influenced by the B-Piece Buyer's feedback will not adversely affect the performance of the certificates generally or benefit the performance of the B-Piece Buyer's certificates. Because of the differing subordination levels and pass-through rates, and because only the offered certificates are guaranteed by Freddie Mac, the B-Piece Buyer's interests may, in some circumstances, differ from those of purchasers of other classes of certificates, including the offered certificates, and the B-Piece Buyer may desire a portfolio composition that benefits the B-Piece Buyer but that does not benefit other investors. In addition, the B-Piece Buyer may enter into hedging or other transactions or otherwise have business objectives that could cause its interests with respect to the mortgage pool to diverge from those of other purchasers of the certificates.

Upon the occurrence and during the continuance of any Affiliated Borrower Loan Event with respect to the B-Piece Buyer (if the B-Piece Buyer or an affiliate of the B-Piece Buyer is the directing certificateholder) and any underlying mortgage loan, any right of the B-Piece Buyer to (i) approve and consent to certain actions with respect to such underlying mortgage loan, (ii) exercise an option to purchase such underlying mortgage loan (if it is a Defaulted Loan) from the issuing entity at a specified price and (iii) access certain information and reports regarding such underlying mortgage loan will be restricted as described in "The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Directing Certificateholder" and "—Asset Status Report" in this information circular.

Because the incentives and actions of the B-Piece Buyer may, in some circumstances, differ from or be adverse to those of purchasers of other classes of certificates, you are strongly encouraged to make your own investment decision based on a careful review of the information set forth in this information circular and your own view of the underlying mortgage loans.

The Master Servicer and the Special Servicer Will Be Required to Service Certain Underlying Mortgage Loans in Accordance with Freddie Mac Servicing Practices, Which May Limit the Ability of the Master Servicer and the Special Servicer to Make Certain Servicing Decisions. The master servicer and the special servicer will be required to service the underlying mortgage loans in accordance with (i) any and all applicable laws, (ii) the express terms of the Pooling and Servicing Agreement, (iii) the express terms of the respective underlying mortgage loans and any applicable intercreditor, co-lender or similar agreements and (iv) to the extent consistent with clauses (i), (ii) and (iii), the Servicing Standard, as further described in "The Pooling and Servicing Agreement—Servicing Under the Pooling and Servicing Agreement." In the case of underlying mortgage loans other than REO Loans, REO Properties and Specially Serviced Mortgage Loans, the Servicing Standard requires the master servicer to follow Freddie Mac Servicing Practices. Freddie Mac Servicing Practices require servicing and administering the underlying mortgage loans and/or REO Properties in the same manner in which, and with the same care, skill, prudence and diligence with which, Freddie Mac services and administers multifamily mortgage loans owned by Freddie Mac. This includes servicing and administering in accordance with the Freddie Mac Multifamily Seller/Servicer Guide (or any successor to the Guide). The Guide comprises Freddie Mac's servicing guidelines for its multifamily commercial mortgage loans and Freddie Mac may modify the Guide and any policies or procedures at any time. Freddie Mac Servicing Practices also includes servicing and administering in accordance with any written Freddie Mac policies, procedures or other written communications made available by Freddie Mac to the master servicer, any sub-servicer or the Directing Certificateholder Servicing Consultant, as applicable, including written communications from Freddie Mac as servicing consultant pursuant to the Pooling and Servicing Agreement. The master servicer, the Directing Certificateholder Servicing Consultant and any sub-servicer are permitted to consult with Freddie Mac regarding the application of Freddie Mac Servicing Practices to any matters

related to non-Specially Serviced Mortgage Loans. The servicing consultant may contact the related borrower to request any necessary documentation from such borrower in order to provide consultation to the master servicer, any sub-servicer or the Directing Certificateholder Servicing Consultant with respect to the proper application of Freddie Mac Servicing Practices. We cannot assure you that the requirement to follow Freddie Mac Servicing Practices in certain circumstances, or consultations between the master servicer, the Directing Certificateholder Servicing Consultant or any sub-servicer and Freddie Mac regarding the application of Freddie Mac Servicing Practices will not limit the master servicer's or any sub-servicer's ability to make certain servicing decisions.

Some of the Mortgaged Real Properties Are Legal Nonconforming Uses or Legal Nonconforming Structures. Some of the underlying mortgage loans may be secured by a mortgaged real property that is a legal nonconforming use or a legal nonconforming structure. This may impair the ability of the related borrower to restore the improvements on a mortgaged real property to its current form or use following a major casualty. See "Description of the Underlying Mortgage Loans—Underwriting Matters—Zoning and Building Code Compliance" in this information circular.

Changes in Zoning Laws May Affect Ability to Repair or Restore a Mortgaged Real Property. Due to changes in applicable building and zoning ordinances and codes that may affect some of the mortgaged real properties that secure the underlying mortgage loans, which changes may have occurred after the construction of the improvements on these properties, the mortgaged real properties may not comply fully with current zoning laws because of:

- density;
- use;
- parking;
- set-back requirements; or
- other building related conditions.

These ordinance and/or code changes are not expected to materially interfere with the current use of the mortgaged real properties, and the mortgage loan seller will represent that any instances of non-compliance will not materially and adversely affect the value of the related mortgaged real property. However, these changes may limit the ability of the related borrower to rebuild the premises "as-is" in the event of a substantial casualty loss, which in turn may adversely affect the ability of the borrower to meet its mortgage loan obligations from cash flow. With some exceptions, the underlying mortgage loans secured by mortgaged real properties which no longer conform to current zoning ordinances and codes will require, or contain provisions under which the lender in its reasonable discretion may require, the borrower to maintain "ordinance and law" coverage which, subject to the terms and conditions of such coverage, will insure the increased cost of construction to comply with current zoning ordinances and codes. Insurance proceeds may not be sufficient to pay off the related underlying mortgage loan in full. In addition, if the mortgaged real property were to be repaired or restored in conformity with then current law, its value could be less than the remaining balance on the underlying mortgage loan and it may produce less revenue than before repair or restoration.

In addition, except as may be identified on Exhibit C-2, the improvements located on or forming part of the mortgaged real properties either (i) materially comply with applicable zoning laws and ordinances, or (ii) are legal non-conforming uses or structures (a) that do not materially and adversely affect the values of such mortgaged real properties or (b) for which ordinance and law coverage was provided in amounts customarily required by prudent multifamily mortgage lenders for similar properties. See "Description of the Underlying Mortgage Loans—Underwriting Matters—Zoning and Building Code Compliance" in this information circular.

Lending on Income-Producing Properties Entails Risks Related to Property Condition. With respect to all of the mortgaged real properties securing the underlying mortgage loans, a third-party engineering firm inspected the property to assess exterior walls, roofing, interior construction, mechanical and electrical systems and general condition of the site, buildings and other improvements located at each of the mortgaged real properties in connection with the origination of the related underlying mortgage loan.

We cannot assure you that all conditions at the mortgaged real properties requiring repair or replacement have been identified in these inspections, or that all building code and other legal compliance issues have been identified through inspection or otherwise, or, if identified, have been adequately addressed by escrows or otherwise. Furthermore, the condition of the mortgaged real properties may have changed since the origination of the related underlying mortgage loans. Finally, with respect to certain mortgaged real properties, the loan documents may require the related borrower to make certain repairs or replacements on the improvements on the mortgaged real property within certain time periods. Some of these required repairs or replacements may be in progress as of the date of this information circular, and we cannot assure you that the related borrowers will complete any such required repairs or replacements in a timely manner or in accordance with the requirements set forth in the loan documents. We cannot assure you that these circumstances will not adversely impact operations at or the value of the related mortgaged real properties. See “Description of the Underlying Mortgage Loans—Underwriting Matters—Property Condition Assessments and Physical Risk Reports” in this information circular.

World Events and Natural Disasters Could Have an Adverse Impact on the Mortgaged Real Properties Securing the Underlying Mortgage Loans and Consequently Could Reduce the Cash Flow Available to Make Payments on the Offered Certificates. The economic impact of the United States’ military operations in various parts of the world, as well as the possibility of any terrorist attacks domestically or abroad, is uncertain, but could have a material adverse effect on general economic conditions, consumer confidence, and market liquidity. We cannot assure you as to the effect of these events or other world events on consumer confidence and the performance of the underlying mortgage loans. Any adverse impact resulting from these events could ultimately be borne by the holders of one or more classes of certificates.

In addition, natural disasters, including earthquakes, floods, droughts and hurricanes, also may adversely affect the mortgaged real properties securing the underlying mortgage loans that back the offered certificates. For example, real properties located in California may be more susceptible to certain hazards (such as earthquakes or widespread fires) than properties in other parts of the country and mortgaged real properties located in coastal states generally may be more susceptible to hurricanes than properties in other parts of the country. Hurricanes and related windstorms, floods, tornadoes and oil spills have caused extensive and catastrophic physical damage in and to coastal and inland areas located in the eastern, mid-Atlantic and Gulf Coast regions of the United States and certain other parts of the eastern and southeastern United States. The underlying mortgage loans do not all require the maintenance of flood insurance for the related mortgaged real properties. We cannot assure you that any damage caused by hurricanes, windstorms, floods, tornadoes or oil spills would be covered by insurance. In addition, the National Flood Insurance Program (“NFIP”) is scheduled to expire on December 20, 2019. We cannot assure you if or when NFIP will be reauthorized by Congress. If NFIP is not reauthorized, it could have an adverse effect on the value of properties in flood zones or the ability of the borrowers to repair or rebuild their properties after flood damage.

In connection with the occurrence of a natural disaster, Freddie Mac may from time to time issue guidance to the master servicer to provide temporary relief in the form of limited forbearance to borrowers whose mortgaged real properties are located in the geographical areas affected by the natural disaster. The terms of any such relief will be set forth in written announcements by Freddie Mac that are incorporated into the Freddie Mac Servicing Practices and will specify the relief applicable to such borrowers and the affected mortgaged real properties. The terms of such a limited forbearance program may be further delineated in disaster relief agreements between Freddie Mac and the related master servicers. If such a limited forbearance program is initiated by Freddie Mac, the related borrowers may, if the borrower requests and receives such forbearance, be permitted to defer payments for a forbearance period of typically up to 3 months and will then be permitted to repay the total amount for which forbearance is given, without additional interest or prepayment premiums, over a period of time generally not in excess of 12 months following the end of the applicable forbearance period. Any P&I Advance or Servicing Advance made by the master servicer with respect to the affected mortgage loans during any forbearance period will not accrue interest under the Pooling and Servicing Agreement for such forbearance period and the related repayment period. However, such interest may be paid by Freddie Mac rather than the issuing entity if the terms of the related limited forbearance program so provide. We cannot assure you that, following a grant of any such forbearance, the applicable borrowers will be able to resume the timely payment of the scheduled payments of principal and/or interest and other amounts due on their underlying mortgage loans. If a borrower is unable to resume timely payment, the losses on such underlying mortgage loan could ultimately be borne by the holders of

one or more classes of certificates. See “Description of the Certificates—Advances of Delinquent Monthly Debt Service Payments” in this information circular.

Special Hazard Losses May Cause You to Suffer Losses on the Offered Certificates. In general, the standard form of fire and extended coverage policy covers physical damage to or destruction of the improvements of a property by fire, lightning, explosion, smoke, windstorm and hail, and riot, strike and civil commotion, subject to the conditions and exclusions specified in the related policy. Most insurance policies typically do not cover any physical damage resulting from, among other things—

- war;
- nuclear, biological or chemical materials;
- revolution;
- governmental actions;
- floods and other water-related causes;
- earth movement, including earthquakes, landslides and mudflows;
- wet or dry rot;
- vermin; and
- domestic animals.

Unless the related loan documents specifically require (and such provisions were not waived) the borrower to insure against physical damage arising from these causes, then any losses resulting from these causes may be borne by you as a holder of offered certificates.

If the related loan documents do not expressly require a particular type of insurance but permit the mortgagee to require such other insurance as is reasonable, the related borrower may challenge whether maintaining that type of insurance is reasonable in light of all the circumstances, including the cost. The master servicer’s efforts to require such insurance may be further impeded if the applicable Originator did not require such borrower to maintain such insurance regardless of the terms of the related loan documents.

There is also a possibility of casualty losses on a mortgaged real property for which insurance proceeds, together with land value, may not be adequate to pay the underlying mortgage loan in full or rebuild the improvements. Consequently, we cannot assure you that each casualty loss incurred with respect to a mortgaged real property securing one of the underlying mortgage loans will be fully covered by insurance or that the underlying mortgage loan will be fully repaid in the event of a casualty.

Furthermore, various forms of insurance maintained with respect to any of the mortgaged real properties for the underlying mortgage loans, including casualty insurance, may be provided under a blanket insurance policy. That blanket insurance policy will also cover other real properties, some of which may not secure underlying mortgage loans. As a result of total limits under any of those blanket policies, losses at other properties covered by the blanket insurance policy may reduce the amount of insurance coverage with respect to a property securing one of the underlying mortgage loans.

We cannot assure you regarding the extent to which the mortgaged real properties securing the underlying mortgage loans will be insured against earthquake risks. With respect to the underlying mortgage loans secured by the mortgaged real properties identified on Exhibit A-1 as “Park Regency Club Apartments,” “Villas At Wood Ranch,” “Parkway Terraces,” “Vineyard Park At Bothell Landing,” “Tanager Springs II Apartments” and “Tanager Springs I Apartments,” collectively representing 17.4% of the initial mortgage pool balance, each such mortgaged real property is partially or fully located in seismic zones 3 or 4 or a geographic location with a horizontal peak ground acceleration equal to or greater than 0.15g and a seismic assessment was performed to assess the scenario expected loss or probable maximum loss. Earthquake insurance was not required with respect to the mortgaged real properties located in seismic zones 3 or 4 or a geographic location with a horizontal peak ground acceleration equal to or greater than 0.15g for which a scenario expected loss assessment or a probable maximum loss assessment was

performed because the scenario expected loss or probable maximum loss for each of those mortgaged real properties is less than or equal to 20% of the amount of the replacement cost of the improvements. See “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Property Damage, Liability and Other Insurance” in this information circular for additional information relating to mortgaged real properties that are located in seismic zones 3 or 4 or a geographic location with a horizontal peak ground acceleration equal to or greater than 0.15g but for which earthquake insurance was not required.

The Absence or Inadequacy of Terrorism Insurance Coverage on the Mortgaged Real Properties May Adversely Affect Payments on the Certificates. Following the September 11, 2001 terrorist attacks in the New York City area and Washington, D.C. area, many insurance companies eliminated coverage for acts of terrorism from their policies. Without assurance that they could secure financial backup for this potentially uninsurable risk, availability in the insurance market for this type of coverage, especially in major metropolitan areas, became either unavailable, or was offered with very restrictive limits and terms, with prohibitive premiums being requested. In order to provide a market for such insurance, the Terrorism Risk Insurance Act of 2002 was enacted on November 26, 2002, establishing the “Terrorism Risk Insurance Program.” The Terrorism Risk Insurance Program was extended through December 31, 2014 by the Terrorism Risk Insurance Program Reauthorization Act of 2007 and was subsequently reauthorized on January 12, 2015 for a period of six years through December 31, 2020 pursuant to the Terrorism Risk Insurance Program Reauthorization Act of 2015.

Under the Terrorism Risk Insurance Program, the federal government shares in the risk of losses occurring within the United States resulting from acts committed in an effort to influence or coerce United States civilians or the United States government. The federal share of compensation for insured losses of an insurer will be equal to 81% in 2019 (subject to an additional annual decrease of 1% in 2020 to equal 80%) of the portion of such insured losses that exceed a deductible equal to 20% of the value of the insurer’s direct earned premiums over the calendar year immediately preceding that program year. Federal compensation in any program year is capped at \$100 billion (with insurers being liable for any amount that exceeds such cap), and no compensation is payable with respect to a terrorist act unless the aggregate industry losses relating to such act exceed \$180 million in 2019 (subject to an additional annual increase of \$20 million in 2020 to equal \$200 million).

The Terrorism Risk Insurance Program does not cover nuclear, biological, chemical or radiological attacks. Unless borrowers obtain separate coverage for events that do not meet the thresholds or other requirements above, such events would not be covered.

If the Terrorism Risk Insurance Program is not reenacted after its expiration in 2020, premiums for terrorism insurance coverage will likely increase and the terms of such insurance policies may be materially amended to increase stated exclusions or to otherwise effectively decrease the scope of coverage available. We cannot assure you that the Terrorism Risk Insurance Program will create any long term changes in the availability and cost of insuring terrorism risks. In addition, we cannot assure you that terrorism insurance or the Terrorism Risk Insurance Program will be available or provide sufficient protection against risks of loss on the mortgaged real properties resulting from acts of terrorism.

With respect to each of the underlying mortgage loans, the applicable Originator required the related borrower to obtain terrorism insurance with respect to the mortgaged real property, the cost of which, in some cases, may be subject to a maximum amount as set forth in the related loan documents. With respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “Vineyard Park At Bothell Landing,” representing 1.0% of the initial mortgage pool balance, the related borrower reported that it did not obtain insurance coverage but that it intends to do so in February 2020. The master servicer will not be obligated to require any borrower to obtain or maintain terrorism insurance in excess of the amounts of coverage and deductibles required by the loan documents. The master servicer will not be required to declare a default under an underlying mortgage loan if the related borrower fails to maintain insurance with respect to acts of terrorism, and the master servicer need not maintain (or require the borrower to obtain) such insurance, if certain conditions are met, as described under “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Property Damage, Liability and Other Insurance” in this information circular.

The loan documents may permit the lender to temporarily suspend, cap or otherwise limit the requirement that the borrower maintain insurance against acts of terrorism for a period not longer than one year, which suspension, waiver or cap may be renewed by the lender in one year increments, if insurance against acts of terrorism is not

available at commercially reasonable rates and such hazards are not at the time commonly insured against for properties similar to the related mortgaged real property and located in and around the region where the mortgaged real property is located.

We cannot assure you regarding the extent to which the mortgaged real properties securing the underlying mortgage loans will be insured against acts of terrorism.

If any mortgaged real property securing an underlying mortgage loan sustains damage as a result of an uninsured terrorist or similar act, a default on such underlying mortgage loan may result, and such damaged mortgaged real property may not provide adequate collateral to satisfy all amounts owing under such underlying mortgage loan. This could result in losses on some classes of certificates, subject to the Freddie Mac Guarantee.

If a borrower is required, under the circumstances described above, to maintain insurance coverage with respect to terrorist or similar acts, the borrower may incur higher costs for insurance premiums in obtaining that coverage which would have an adverse effect on the net cash flow of the related mortgaged real property.

The Absence or Inadequacy of Earthquake, Flood and Other Insurance May Adversely Affect Payments on the Certificates. The mortgaged real properties may suffer casualty losses due to risks that are not covered by insurance or for which insurance coverage is inadequate. In addition, certain of the mortgaged real properties are located in regions that have historically been at greater risk regarding acts of nature (such as hurricanes, floods, droughts and earthquakes) than other regions, as applicable. There is no assurance that borrowers under the underlying mortgage loans will be able to maintain adequate insurance. Moreover, if reconstruction or any major repairs are required, changes in laws may materially affect the borrower's ability to effect such reconstruction or major repairs or may materially increase the costs of reconstruction and repair. As a result of any of these factors, the amount available to make distributions on the offered certificates could be reduced.

Compliance with Americans with Disabilities Act May Result in Additional Costs to Borrowers. Under the Americans with Disabilities Act of 1990, as amended (the "ADA"), all existing facilities considered to be "public accommodations" are required to meet certain federal requirements related to access and use by disabled persons such that the related borrower is required to take steps to remove architectural and communication barriers that are deemed "readily achievable" under the ADA. Factors to be considered in determining whether or not an action is "readily achievable" include the nature and cost of the action, the number of persons employed at the related mortgaged real property and the financial resources of the borrower. To the extent a mortgaged real property securing an underlying mortgage loan does not comply with the ADA, the borrower may be required to incur costs to comply with this law. We cannot assure you that the borrower will have the resources to comply with the requirements imposed by the ADA, which could result in the imposition of fines by the federal government or an award of damages to private litigants.

Limited Information Causes Uncertainty. Certain of the underlying mortgage loans are loans that were made to enable the related borrower to acquire the related mortgaged real property. Accordingly, for certain of these underlying mortgage loans limited or no historical operating information is available with respect to the related mortgaged real property. As a result, you may find it difficult to analyze the historical performance of those properties.

Litigation May Adversely Affect Property Performance. There may be pending or, from time to time, threatened legal proceedings against the borrowers under the underlying mortgage loans, the property managers of the related mortgaged real properties and their respective affiliates, arising out of the ordinary business of those borrowers, property managers and affiliates. See "Description of the Underlying Mortgage Loans—Additional Loan and Property Information—Litigation" in this information circular for additional information relating to such pending or threatened litigation. We cannot assure you that litigation will not adversely impact operations at, or the value of, the applicable mortgaged real properties or will not have a material adverse effect on your investment. See "—Borrower Bankruptcy Proceedings Can Delay and Impair Recovery on an Underlying Mortgage Loan" and "—Sponsor Defaults on Other Mortgage Loans May Adversely Impact and Impair Recovery on an Underlying Mortgage Loan" above.

Master Servicer and Special Servicer May Be Directed to Take Actions. In connection with the servicing of Specially Serviced Mortgage Loans by the special servicer and the servicing of non-Specially Serviced Mortgage Loans by the master servicer, the master servicer or the special servicer may, at the direction of the Approved Directing Certificateholder (if any), take actions with respect to such loans that could adversely affect the holders of some or all of the classes of certificates. The Approved Directing Certificateholder (if any) may have interests that conflict with those of certain certificateholders. As a result, it is possible that the Approved Directing Certificateholder (if any) may direct the master servicer or the special servicer to take actions that conflict with the interests of certain classes of certificates. However, the master servicer and the special servicer are not permitted to take actions that are prohibited by law or violate the Servicing Standard or the terms of the loan documents. See “—The Master Servicer, the Special Servicer and any Sub-Servicers May Experience Conflicts of Interest” above and “The Pooling and Servicing Agreement—Enforcement of “Due-on-Sale” and “Due-on-Encumbrance” Clauses” and “—Modifications, Waivers, Amendments and Consents” in this information circular.

The Mortgage Loan Seller May Not Be Able to Make a Required Cure, Repurchase or Substitution of a Defective Mortgage Loan. The mortgage loan seller is the sole warranting party in respect of the underlying mortgage loans sold by it to us. Neither we nor any of our affiliates are obligated to cure, repurchase or substitute any underlying mortgage loan in connection with a material breach of the mortgage loan seller’s representations and warranties or any material document defects, if the mortgage loan seller defaults on its obligations to do so. We cannot assure you that the mortgage loan seller will effect any such cure, repurchase or substitution. If the mortgage loan seller fails to fulfill such obligation, you could experience cash flow disruptions or losses on your certificates, subject to the Freddie Mac Guarantee. In addition, the mortgage loan seller may have various legal defenses available to it in connection with a cure, repurchase or substitution obligation. Any underlying mortgage loan that is not cured, repurchased or substituted and that is not a “qualified mortgage” for a REMIC may cause designated portions of the issuing entity to fail to qualify as one or more REMICs or cause the issuing entity to incur a tax. See “—Risks Relating to the Mortgage Loan Seller and Guarantor” below and “Description of the Mortgage Loan Seller and Guarantor” and “Description of the Underlying Mortgage Loans—Cures, Repurchases and Substitutions” in this information circular.

The Mortgage Loan Seller May Become Subject to Receivership Laws That May Affect the Issuing Entity’s Ownership of the Underlying Mortgage Loans. In the event of the receivership of the mortgage loan seller, it is possible the issuing entity’s right to payment resulting from ownership of the underlying mortgage loans could be challenged, and if such challenge were successful, delays or reductions in payments on the certificates could occur. See “—Risks Relating to the Mortgage Loan Seller and Guarantor” below and “Description of the Mortgage Loan Seller and Guarantor” in this information circular.

One Action Rules May Limit Remedies. Several states, including California and New York, have laws that prohibit more than one “judicial action” to enforce a mortgage obligation, and some courts have construed the term “judicial action” broadly. Accordingly, the special servicer is required to obtain advice of counsel prior to enforcing any of the issuing entity’s legal rights under any of the underlying mortgage loans that are secured by mortgaged real properties located where the “one action” rules could be applicable. In the case of an underlying mortgage loan that is secured by mortgaged real properties located in multiple states, the special servicer may be required to foreclose first on properties located in states where the “one action” rules apply, and where non-judicial foreclosure is permitted, before foreclosing on properties located in states where judicial foreclosure is the only permitted method of foreclosure.

Tax Considerations Related to Foreclosure. Under the Pooling and Servicing Agreement, the special servicer, on behalf of the issuing entity, among others, may acquire one or more mortgaged real properties pursuant to a foreclosure or deed-in-lieu of foreclosure. The special servicer will be permitted to perform or complete construction work on a foreclosed property only if such construction was more than 10% complete when default on the related underlying mortgage loan became imminent. In addition, any net income from the operation and management of any such property that is not qualifying “rents from real property,” within the meaning of Code Section 856(d), and any rental income based on the net profits of a tenant or sub-tenant or allocable to a service that is non-customary in the area and for the type of property involved, will subject the issuing entity to U.S. federal (and possibly state or local) tax on such income at the corporate tax rate (which currently is 21%), thereby reducing net proceeds available for distribution to the certificateholders.

In addition, if the special servicer, on behalf of the issuing entity, among others, were to acquire one or more mortgaged real properties pursuant to a foreclosure or deed-in-lieu of foreclosure, upon acquisition of those mortgaged real properties, it may be required in certain jurisdictions, particularly in California and New York, to pay state or local transfer or excise taxes upon liquidation of such properties. Such state or local taxes may reduce net proceeds available for distribution to the certificateholders.

Changes to REMIC Restrictions on Loan Modifications May Impact an Investment in the Certificates. The IRS has issued guidance easing the tax requirements for a servicer to modify a commercial or multifamily mortgage loan held in a REMIC by interpreting the circumstances when default is “reasonably foreseeable” to include those where the servicer reasonably believes that there is a “significant risk of default” with respect to the underlying mortgage loan upon maturity of the loan or at an earlier date, and that by making such modification the risk of default is substantially reduced. Accordingly, if the master servicer or the special servicer determined that an underlying mortgage loan was at significant risk of default and permitted one or more modifications otherwise consistent with the terms of the Pooling and Servicing Agreement, any such modification may impact the timing and ultimate recovery on the underlying mortgage loan, and likewise on one or more classes of certificates.

In addition, the IRS has issued final regulations under the REMIC Provisions that modify the tax restrictions imposed on a servicer’s ability to modify the terms of the underlying mortgage loans held by a REMIC relating to changes in the collateral, credit enhancement and recourse features. The IRS has also issued Revenue Procedure 2010-30, describing circumstances in which it will not challenge the treatment of mortgage loans as “qualified mortgages” on the grounds that the underlying mortgage loan is not “principally secured by real property,” that is, has a real property loan-to-value ratio greater than 125% following a release of liens on some or all of the real property securing such underlying mortgage loan. The general rule is that a mortgage loan must continue to be “principally secured by real property” following any such lien release, unless the lien release is pursuant to a defeasance permitted under the original loan documents and occurs more than two years after the startup day of the REMIC, all in accordance with the REMIC Provisions. Revenue Procedure 2010-30 also allows lien releases in certain “grandfathered transactions” and transactions in which the release is part of a “qualified pay-down transaction” even if the underlying mortgage loan after the transaction might not otherwise be treated as principally secured by a lien on real property. If the value of the real property securing an underlying mortgage loan were to decline, the need to comply with the rules of Revenue Procedure 2010-30 could restrict the servicers’ actions in negotiating the terms of a workout or in allowing minor lien releases in circumstances in which, after giving effect to the release, the underlying mortgage loan would not have a real property loan-to-value ratio of 125% or less (calculated as described above). This could impact the timing and ultimate recovery on an underlying mortgage loan, and likewise on one or more classes of certificates.

You should consider the possible impact on your investment of any existing REMIC restrictions as well as any potential changes to the REMIC rules.

Risks Related to the Offered Certificates

The Issuing Entity’s Assets May Be Insufficient to Allow for Repayment in Full on the Offered Certificates. The offered certificates do not represent obligations of any person or entity and do not represent a claim against any assets other than those of the issuing entity. Other than as described under “Description of the Certificates—Distributions—Freddie Mac Guarantee” in this information circular, no governmental agency or instrumentality will guarantee or insure payment on the offered certificates. In addition, neither we nor our affiliates are responsible for making payments on the offered certificates if collections on the underlying mortgage loans are insufficient. If the underlying mortgage loans are insufficient to make payments on the offered certificates, other than as described under “Description of the Certificates—Distributions—Freddie Mac Guarantee” in this information circular, no other assets will be available to you for payment of the deficiency, and you will bear the resulting loss. Any advances made by the master servicer or other party with respect to the underlying mortgage loans are intended solely to provide liquidity and not credit support. The party making those advances will have a right to reimbursement, with interest, which is senior to your right to receive payment on the offered certificates.

Credit Support Is Limited and May Not Be Sufficient to Prevent Loss on the Offered Certificates. Any use of credit support will be subject to the conditions and limitations described in this information circular and may not cover all potential losses or risks.

Although subordination is intended to reduce the risk to holders of senior certificates of delinquent distributions or ultimate losses, the amount of subordination will be limited and may decline under certain circumstances described in this information circular. In addition, if principal payments on one or more classes of certificates are made in a specified order or priority, any limits with respect to the aggregate amount of claims under any related credit support may be exhausted before the principal of the later paid classes of certificates has been repaid in full. As a result, the impact of losses and shortfalls experienced with respect to the underlying mortgage loans may fall primarily on those subordinate classes of certificates.

The Freddie Mac Guarantee is intended to provide credit enhancement to the offered certificates as described in this information circular by increasing the likelihood that holders of the offered certificates will receive (i) timely payments of interest, (ii) payment of principal to holders of the Offered Principal Balance Certificates, on the distribution date immediately following the maturity date of each underlying mortgage loan, (iii) reimbursement of Realized Losses (including as a result of Additional Issuing Entity Expenses) allocated to the Offered Principal Balance Certificates and (iv) ultimate payment of principal by the Assumed Final Distribution Date to the holders of the Offered Principal Balance Certificates. If, however, Freddie Mac were to experience significant financial difficulties, or if the Conservator placed Freddie Mac in receivership and Freddie Mac's guarantee was repudiated as described in “—Risks Relating to the Mortgage Loan Seller and Guarantor” below, the credit enhancement provided by the Freddie Mac Guarantee may be insufficient and the holders of offered certificates may suffer losses as a result of the various contingencies described in this “Risk Factors” section and elsewhere in this information circular. See “Description of the Certificates—Distributions—Freddie Mac Guarantee” in this information circular for a detailed description of the Freddie Mac Guarantee. The offered certificates are not guaranteed by the United States and do not constitute debts or obligations of the United States or any agency or instrumentality of the United States other than Freddie Mac.

When making an investment decision, you should consider, among other things—

- the distribution priorities of the respective classes of certificates;
- the order in which the outstanding principal balances of the respective classes of certificates with outstanding principal balances will be reduced in connection with losses and default-related shortfalls (although such shortfalls with respect to the offered certificates will be covered under the Freddie Mac Guarantee); and
- the characteristics and quality of the underlying mortgage loans.

The Offered Certificates Have Uncertain Yields to Maturity. If you purchase Offered Principal Balance Certificates at a premium, and if payments and other collections of principal on the underlying mortgage loans occur at a rate faster than you anticipated at the time of your purchase, then your actual yield to maturity may be lower than you had assumed at the time of your purchase. Conversely, if you purchase Offered Principal Balance Certificates at a discount, and if payments and other collections of principal on the underlying mortgage loans occur at a rate slower than you anticipated at the time of your purchase, then your actual yield to maturity may be lower than you had assumed at the time of your purchase.

If you purchase class X1, XAM or X3 certificates, your yield to maturity will be particularly sensitive to the rate and timing of principal payments on the underlying mortgage loans and the extent to which those amounts are applied to reduce the notional amounts of those certificates. Each distribution of principal in reduction of the outstanding principal balance of the class A-1 or A-2 certificates will result in a reduction in the notional amount of the class X1 certificates. Each distribution of principal in reduction of the outstanding principal balance of the class A-M certificates will result in a reduction in the notional amount of the class XAM certificates. Each distribution of principal in reduction of the outstanding principal balance of the class B, C or D certificates will result in a reduction in the notional amount of the class X3 certificates. Your yield to maturity may also be adversely affected by—

- the repurchase of any underlying mortgage loans by the mortgage loan seller in connection with a material breach of a representation and warranty or a material document defect, as described under “Description of the Underlying Mortgage Loans—Cures, Repurchases and Substitutions” in this information circular;
- the purchase of a Defaulted Loan by the directing certificateholder pursuant to its purchase option under the Pooling and Servicing Agreement;

- the purchase of the Defaulted Loan by the holder of any subordinate debt or mezzanine debt pursuant to its purchase option under the related intercreditor agreement;
- the timing of defaults and liquidations of underlying mortgage loans; and
- the termination of the issuing entity, as described under “The Pooling and Servicing Agreement—Termination” in this information circular.

Prior to investing in the class X1, XAM or X3 certificates, you should fully consider the associated risks, including the risk that an extremely rapid rate of amortization, prepayments and/or liquidations on or with respect to the underlying mortgage loans could result in your failure to recoup fully your initial investment. See “Yield and Maturity Considerations—Yield Sensitivity of the Class X1, XAM and X3 Certificates” in this information circular.

In addition, the amounts payable to the class X1 certificates will vary with changes in the total outstanding principal balance of the class A-1 and A-2 certificates, the amounts payable to the class XAM certificates will vary with changes in the outstanding principal balance of the class A-M certificates, and the amounts payable to the class X3 certificates will vary with changes in the total outstanding principal balance of the class B, C and D certificates. The class X1, XAM and X3 certificates will be adversely affected if underlying mortgage loans with relatively high mortgage interest rates experience a faster rate of principal payments than underlying mortgage loans with relatively low mortgage interest rates.

The yields on the offered certificates with variable or capped pass-through rates could also be adversely affected if underlying mortgage loans with relatively high mortgage interest rates pay principal faster than the underlying mortgage loans with relatively low mortgage interest rates.

Generally, a borrower is less likely to prepay if prevailing interest rates are at or above the interest rate borne by its mortgage loan. On the other hand, a borrower is more likely to prepay if prevailing rates fall significantly below the interest rate borne by its mortgage loan. Borrowers are less likely to prepay mortgage loans with lockout periods, Yield Maintenance Charge provisions or Static Prepayment Premium provisions, to the extent enforceable, than otherwise identical mortgage loans without these provisions or with shorter lockout periods or with lower or no Yield Maintenance Charges or Static Prepayment Premiums. None of the master servicer, the special servicer or any sub-servicers will be required to advance and the Freddie Mac Guarantee does not cover any Yield Maintenance Charges, Static Prepayment Premiums or other prepayment premiums for the offered certificates.

Delinquencies on the underlying mortgage loans, if the delinquent amounts are not advanced, may result in shortfalls in distributions of interest and/or principal to the holders of the offered certificates for the current month (although such shortfalls with respect to the offered certificates may be covered under the Freddie Mac Guarantee). Furthermore, no interest will accrue on this shortfall during the period of time that the payment is delinquent. Even if losses on the underlying mortgage loans are not allocated to a particular class of Offered Principal Balance Certificates, the losses may affect the weighted average life and yield to maturity of that class of Offered Principal Balance Certificates. Losses on the underlying mortgage loans, even if not allocated to a class of Offered Principal Balance Certificates, may result in a higher percentage ownership interest evidenced by those Offered Principal Balance Certificates in the remaining underlying mortgage loans than would otherwise have resulted absent the loss. The consequent effect on the weighted average lives and yields to maturity of the offered certificates will depend on the characteristics of the remaining underlying mortgage loans. If defaults are material and non-monetary, the special servicer may still accelerate the maturity of the underlying mortgage loan which could result in an acceleration of payments to the certificateholders.

Shortfalls in the Available Distribution Amount resulting from Net Aggregate Prepayment Interest Shortfalls will generally be allocated to all classes of interest-bearing certificates on a *pro rata* basis based on interest accrued. However, such shortfalls with respect to the offered certificates will be covered under the Freddie Mac Guarantee. See “Description of the Certificates—Distributions—Interest Distributions” in this information circular.

Provisions requiring prepayment premiums or charges may not be enforceable in some states and under federal bankruptcy law, and may constitute interest for usury purposes. Accordingly, we cannot assure you that the obligation to pay a Yield Maintenance Charge or Static Prepayment Premium will be enforceable or, if enforceable, that the foreclosure proceeds will be sufficient to pay the Yield Maintenance Charge or Static Prepayment Premium in connection with an involuntary prepayment. In general, Yield Maintenance Charges and Static Prepayment

Premiums will be among the last items payable out of foreclosure proceeds. Additionally, although the collateral substitution provisions related to defeasance are not intended to be, and do not have the same effect on the certificateholders as a prepayment, we cannot assure you that a court would not interpret these provisions as requiring a Yield Maintenance Charge or Static Prepayment Premium, which may be unenforceable or usurious under applicable law.

See “Yield and Maturity Considerations” in this information circular.

Optional Early Termination of the Issuing Entity May Result in an Adverse Impact on Your Yield or May Result in a Loss. The certificates will be subject to optional early termination by means of the purchase of the underlying mortgage loans and/or REO Properties in the issuing entity at the time and for the price described in “The Pooling and Servicing Agreement—Termination” in this information circular. We cannot assure you that the proceeds from a sale of the underlying mortgage loans and/or REO Properties will be sufficient to distribute the outstanding certificate balance plus accrued interest and any undistributed shortfalls in interest accrued on the certificates that are subject to the termination. Accordingly, the holders of certificates affected by such a termination may suffer an adverse impact on the overall yield on their certificates, may experience repayment of their investment at an unpredictable and inopportune time or may even incur a loss on their investment, subject to the Freddie Mac Guarantee in the case of the offered certificates. See “The Pooling and Servicing Agreement—Termination” in this information circular.

Commencing Legal Proceedings Against Parties to the Pooling and Servicing Agreement May Be Difficult. The trustee may not be required to commence legal proceedings against third parties at the direction of any certificateholders unless, among other conditions, at least 25% of the voting rights (determined without notionally reducing the outstanding principal balances of the Principal Balance Certificates by any Appraisal Reduction Amounts) associated with the certificates join in the demand and offer indemnification satisfactory to the trustee. Those certificateholders may not commence legal proceedings themselves with respect to the Pooling and Servicing Agreement or the certificates unless the trustee has refused to institute proceedings after the conditions described in the preceding sentence have been satisfied. These provisions may limit your personal ability to enforce the provisions of the Pooling and Servicing Agreement.

The Limited Nature of Ongoing Information May Make It Difficult for You to Resell the Certificates. The primary source of ongoing information regarding your certificates, including information regarding the status of the related underlying mortgage loans, will be the periodic reports delivered by the certificate administrator described under the heading “Description of the Certificates—Reports to Certificateholders and Freddie Mac; Available Information” in this information circular. We cannot assure you that any additional ongoing information regarding your certificates will be available through any other source. In addition, the depositor is not aware of any source through which price information about the certificates will be generally available on an ongoing basis. The limited nature of the information regarding the certificates may adversely affect the liquidity of the offered certificates, even if a secondary market for the certificates is available. There will have been no secondary market for the certificates prior to this offering. We cannot assure you that a secondary market will develop or, if it does develop, that it will provide you with liquidity of investment or continue for the lives of the offered certificates. The market value of the certificates will fluctuate with changes in prevailing rates of interest, a change in the ratings of any certificates or other credit related market changes. Consequently, the sale of the certificates in any market that may develop may be at a discount from the related par value or purchase price.

The Right of the Master Servicer and the Trustee to Receive Interest on Advances May Result in Additional Losses to the Issuing Entity. The master servicer and the trustee will each be entitled to receive interest on unreimbursed advances made by it. This interest will generally accrue from the date on which the related advance is made through the date of reimbursement. In addition, under certain circumstances, including a default by the borrower in the payment of principal and interest on an underlying mortgage loan, that underlying mortgage loan will become specially serviced and the special servicer will be entitled to compensation for performing special servicing functions pursuant to the Pooling and Servicing Agreement. The right to receive these distributions of interest and compensation is senior to the rights of holders to receive distributions on the offered certificates and, consequently, may result in losses being allocated to the offered certificates that would not have resulted absent the accrual of this interest.

Insolvency Proceedings with Respect to the Master Servicer, the Special Servicer, the Trustee or the Certificate Administrator May Adversely Affect Collections on the Underlying Mortgage Loans and the Ability to Replace the Master Servicer, the Special Servicer, the Trustee or the Certificate Administrator. The master servicer, the special servicer, the trustee or the certificate administrator for the certificates may be eligible to become a debtor under the United States Bankruptcy Code or enter into receivership under the Federal Deposit Insurance Act. Should this occur, although the issuing entity may be entitled to the termination of any such party, such provision may not be enforceable. An assumption under the Bankruptcy Code of its responsibilities under the Pooling and Servicing Agreement would require the master servicer, the special servicer, the trustee or the certificate administrator to cure any of its pre-bankruptcy defaults and demonstrate that it is able to perform following assumption. The impact of insolvency by an entity governed by state insolvency law would vary depending on the laws of the particular state. We cannot assure you that a bankruptcy or receivership of the master servicer, the special servicer, the trustee or the certificate administrator would not adversely impact the servicing or administration of the underlying mortgage loans or that the issuing entity would be entitled to terminate any such party in a timely manner or at all.

If the master servicer, the special servicer, the trustee or the certificate administrator becomes the subject of bankruptcy, receivership or similar proceedings, claims by the issuing entity to funds in the possession of the master servicer, the special servicer, the trustee or the certificate administrator at the time of the bankruptcy filing or other similar filing may not be perfected due to the circumstances of any bankruptcy or similar proceedings. In this event, funds available to pay principal and interest on the certificates may be delayed or reduced.

Inability to Replace the Master Servicer Could Affect Collections and Recoveries on the Mortgage Loans. The structure of the master servicing fee and master servicer surveillance fee payable to the master servicer might affect the ability of the trustee to find a replacement master servicer. Although the trustee is required to replace the master servicer if the master servicer is terminated or resigns, if the trustee is unwilling (including for example because the master servicing fee and master servicer surveillance fee are insufficient) or unable (including for example, because the trustee does not have the computer systems required to service mortgage loans), it may be necessary to appoint a replacement master servicer. Because the master servicing fee and master servicer surveillance fee are structured as a percentage of the Stated Principal Balance of each underlying mortgage loan, it may be difficult to replace the master servicer at a time when the balance of the underlying mortgage loans has been significantly reduced because the fees may be insufficient to cover the costs associated with servicing the underlying mortgage loans and/or related REO Properties remaining in the mortgage pool. The performance of the underlying mortgage loans may be negatively impacted, beyond the expected transition period during a servicing transfer, if a replacement master servicer is not retained within a reasonable amount of time.

The Terms of the Underlying Mortgage Loans Will Affect Payments on the Offered Certificates. Each of the underlying mortgage loans will specify the terms on which the related borrower must repay the outstanding principal amount of the underlying mortgage loan. The rate, timing and amount of scheduled payments of principal may vary, and may vary significantly, from underlying mortgage loan to underlying mortgage loan. The rate at which the underlying mortgage loans amortize will directly affect the rate at which the principal balance or notional amount of the offered certificates is paid down or otherwise reduced.

In addition, the underlying mortgage loans may permit the related borrower during some of the loan term to prepay the loan. In general, a borrower will be more likely to prepay its mortgage loan when it has an economic incentive to do so, such as obtaining a larger loan on the same mortgaged real property or a lower or otherwise more advantageous interest rate through refinancing. If an underlying mortgage loan includes some form of prepayment restriction, the likelihood of prepayment should decline. These restrictions may include an absolute or partial prohibition against voluntary prepayments during some of the loan term, during which voluntary principal prepayments are prohibited or a requirement that voluntary prepayments made during a specified period of time be accompanied by a Static Prepayment Premium or Yield Maintenance Charge.

In certain instances, however, there will be no restriction associated with the application of insurance proceeds or condemnation proceeds as a prepayment of principal. See “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Release of Property Through Defeasance or Prepayment” in this information circular.

The Terms of the Underlying Mortgage Loans Do Not Provide Absolute Certainty as Regards the Rate, Timing and Amount of Payments on the Offered Certificates. The amount, rate and timing of payments and other collections on the underlying mortgage loans will be unpredictable because of possible borrower defaults and prepayments on the underlying mortgage loans and possible casualties or condemnations with respect to the mortgaged real properties.

The investment performance of the offered certificates may vary materially and adversely from your expectations due to—

- the rate of prepayments and other unscheduled collections of principal on the underlying mortgage loans being faster or slower than you anticipated;
- the rate of defaults on the underlying mortgage loans being faster, or the severity of losses on the underlying mortgage loans being greater, than you anticipated;
- the actual net cash flow for the underlying mortgage loans being different than the underwritten net cash flow for the underlying mortgage loans as presented in this information circular; or
- the debt service coverage ratios for the underlying mortgage loans as set forth in the related loan documents being different than the debt service coverage ratios for the underlying mortgage loans as presented in this information circular.

The actual yield to you, as a holder of an offered certificate, may not equal the yield you anticipated at the time of your purchase, and the total return on investment that you expected may not be realized. In deciding whether to purchase any offered certificates, you should make an independent decision as to the appropriate prepayment, default and loss assumptions to be used.

See “Yield and Maturity Considerations” in this information circular.

Prepayments on the Underlying Mortgage Loans Will Affect the Average Lives of the Offered Certificates; and the Rate and Timing of Those Prepayments May Be Highly Unpredictable. Payments of principal and/or interest on the offered certificates will depend on, among other things, the rate and timing of payments on the underlying mortgage loans. Prepayments on the underlying mortgage loans may result in a faster rate of principal payments on the Offered Principal Balance Certificates, thereby resulting in shorter average lives for the offered certificates than if those prepayments had not occurred. The rate and timing of principal prepayments on pools of mortgage loans is influenced by a variety of economic, demographic, geographic, social, tax and legal factors. Although many of the underlying mortgage loans provide for prepayment lockout periods which cover a substantial portion of the loan terms, prepayments may still occur during such periods as a result of a casualty or condemnation event. In addition, prepayments may occur in connection with a permitted partial release of a mortgaged real property. See “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Release of Property Through Defeasance or Prepayment” in this information circular.

In addition, any repurchase of an underlying mortgage loan by the mortgage loan seller due to a material document defect or material breach of a representation or warranty will have the same effect as a prepayment of such underlying mortgage loan. See “Description of the Underlying Mortgage Loans—Cures, Repurchases and Substitutions” in this information circular.

Accordingly, we cannot predict the rate and timing of principal prepayments on the underlying mortgage loans. As a result, repayment of the offered certificates could occur significantly earlier or later, and the average lives of the offered certificates could be significantly shorter or longer, than you expected.

The extent to which prepayments on the underlying mortgage loans ultimately affect the average lives of the offered certificates depends on the terms and provisions of the offered certificates. A class of offered certificates may entitle the holders to a *pro rata* share of any prepayments on the underlying mortgage loans, to all or a disproportionately large share of those prepayments, or to none or a disproportionately small share of those prepayments. If you are entitled to a disproportionately large share of any prepayments on the underlying mortgage loans, the offered certificates may be retired at an earlier date. If, however, you are only entitled to a small share of the prepayments on the underlying mortgage loans, the average lives of the offered certificates may be extended. Your entitlement to receive payments, including prepayments, of principal of the underlying mortgage loans may—

- vary based on the occurrence of specified events, such as the retirement of one or more other classes of certificates; or
- be subject to various contingencies, such as prepayment and default rates with respect to the underlying mortgage loans.

Potential Conflicts of Interest of the Mortgage Loan Seller, the Depositor and the Depositor's Affiliates. The mortgage loan seller and certain of the depositor's affiliates own, lease or manage a number of properties other than the mortgaged real properties and may acquire additional properties in the future. Such other properties, similar to other third-party owned real estate, may compete with the mortgaged real properties for existing and potential tenants. We cannot assure you that the activities of the mortgage loan seller or the depositor's affiliates with respect to such other properties will not adversely impact the performance of the mortgaged real properties.

The mortgage loan seller may also have ongoing relationships with the borrowers under the underlying mortgage loans. If any of the underlying mortgage loans are refinanced, the mortgage loan seller may purchase the refinanced loan. The mortgage loan seller may be influenced by its desire to maintain good ongoing relationships with the borrowers.

The mortgage loan seller, the depositor and the depositor's affiliates (including one of the placement agents of the SPCs and one of the Initial Purchasers) may benefit from this offering in a number of ways, some of which may be inconsistent with the interests of purchasers of the certificates. The mortgage loan seller, the depositor and their affiliates may benefit from a completed offering of the certificates because the offering would establish a market precedent and a valuation data point for securities similar to the certificates, thus enhancing the ability of the mortgage loan seller, the depositor and their affiliates to conduct similar offerings in the future and permitting them to write up, avoid writing down or otherwise adjust the fair value of the underlying mortgage loans or other similar loans or securities held on their balance sheet.

Each of these relationships should be considered carefully by you before you invest in any of the certificates.

Potential Conflicts of Interest of the Placement Agents and Their Affiliates. We expect that Freddie Mac will include the offered certificates in pass-through pools that it will form in connection with the issuance of its SPCs, which we expect Freddie Mac will offer to investors through placement agents. The activities of those placement agents and their respective affiliates (collectively, the "Placement Agent Entities") may result in certain conflicts of interest. The Placement Agent Entities may retain, or own in the future, classes of SPCs or certificates and any voting rights of those classes could be exercised by any such Placement Agent Entity in a manner that could adversely impact one or more classes of SPCs or one or more classes of certificates. If that were to occur, that Placement Agent Entity's interests may not be aligned with the interests of the holders of the SPCs or the certificates.

The Placement Agent Entities include broker-dealers whose businesses include executing securities and derivative transactions on their own behalf as principals and on behalf of clients. As such, they actively make markets in and trade financial instruments for their own accounts and for the accounts of customers. These financial instruments include debt and equity securities, currencies, commodities, bank loans, indices, baskets and other products. The Placement Agent Entities' activities include, among other things, executing large block trades and taking long and short positions directly and indirectly, through derivative instruments or otherwise. The securities and instruments in which the Placement Agent Entities take positions, or expect to take positions, include loans similar to the underlying mortgage loans, securities and instruments similar to the SPCs and the certificates, and other securities and instruments. Market making is an activity where the Placement Agent Entities buy and sell on behalf of customers, or for their own accounts, to satisfy the expected demand of customers. By its nature, market making involves facilitating transactions among market participants that have differing views of securities and instruments. As a result, you should expect that the Placement Agent Entities will take positions that are inconsistent with, or adverse to, the investment objectives of investors in one or more classes of SPCs or one or more classes of certificates.

As a result of the Placement Agent Entities' various financial market activities, including acting as a research provider, investment advisor, market maker or principal investor, you should expect that personnel in various businesses throughout the Placement Agent Entities will have and express research or investment views and make

recommendations that are inconsistent with, or adverse to, the objectives of investors in one or more classes of SPCs or one or more classes of certificates.

To the extent a Placement Agent Entity makes a market in the SPCs or certificates (which it is under no obligation to do), it would expect to receive income from the spreads between its bid and offer prices for the SPCs or certificates. The price at which a Placement Agent Entity may be willing to purchase SPCs or certificates, if it makes a market, will depend on market conditions and other relevant factors and may be significantly lower than the issue price for the SPCs or certificates and significantly lower than the price at which it may be willing to sell the SPCs or certificates.

In addition, the Placement Agent Entities will have no obligation to monitor the performance of the SPCs, the certificates or the actions of the master servicer, the special servicer, the certificate administrator, the trustee, Freddie Mac or the directing certificateholder, and will have no authority to advise such parties or to direct their actions. Furthermore, the Placement Agent Entities may have ongoing relationships with, render services to, and engage in transactions with the borrowers, the sponsors of the borrowers and their respective affiliates, which relationships and transactions may create conflicts of interest between the Placement Agent Entities, on the one hand, and the issuing entity, on the other hand.

Furthermore, the Placement Agent Entities expect that a completed offering will enhance their ability to assist clients and counterparties in the transaction or in related transactions (including assisting clients in additional purchases and sales of the certificates and hedging transactions). The Placement Agent Entities expect to derive fees and other revenues from these transactions. In addition, participating in a successful offering and providing related services to clients may enhance the Placement Agent Entities' relationships with various parties, facilitate additional business development, and enable them to obtain additional business and generate additional revenue.

BofA Securities, Inc., one of the placement agents for the SPCs, will also be one of the Initial Purchasers and is an affiliate of the depositor. Barclays Capital Inc., one of the placement agents for the SPCs, will also be one of the Initial Purchasers. Each of these relationships should be considered carefully before making an investment in any class of SPCs or any class of certificates.

Your Lack of Control Over the Issuing Entity Can Adversely Impact Your Investment. Except as described below, investors in the certificates do not have the right to make decisions with respect to the administration of the issuing entity. These decisions are generally made, subject to the express terms of the Pooling and Servicing Agreement, by the master servicer, the special servicer, the certificate administrator and the trustee. Any decision made by any of those parties in respect of the issuing entity in accordance with the terms of the Pooling and Servicing Agreement, even if it determines that decision to be in your best interest, may be contrary to the decision that you would have made and may negatively affect your interests.

However, the directing certificateholder and Freddie Mac or its designee have the right to exercise various rights and powers in respect of the issuing entity as described under "The Pooling and Servicing Agreement—Realization Upon Mortgage Loans" and "—Resignation, Removal and Replacement of Servicers; Transfer of Servicing Duties" in this information circular.

In addition, in certain limited circumstances, certificateholders have the right to vote on matters affecting the issuing entity. In some cases, these votes are by certificateholders taken as a whole and in others the vote is by class. Your interests as a certificateholder of a particular class may not be aligned with the interests of certificateholders of one or more other classes of certificates in connection with any such vote. In all cases, voting is based on the outstanding certificate balance, which is reduced by Realized Losses. These limitations on voting could adversely affect your ability to protect your interests with respect to matters voted on by certificateholders. See "Description of the Certificates—Voting Rights" in this information circular.

A certificate registered in the name of the trustee, the certificate administrator, the master servicer, the special servicer, Freddie Mac, or any affiliate of any of them, as applicable, will be deemed not to be outstanding and the voting rights to which it is entitled will not be taken into account for the purposes of giving any consent, approval or waiver pursuant to the Pooling and Servicing Agreement with respect to the rights, obligations or liabilities of such party, subject to certain exclusions, as further described under "Description of the Certificates—Voting Rights" in this information circular.

The Interests of the Directing Certificateholder or Freddie Mac May Be in Conflict with the Interests of the Offered Certificateholders. Any advice provided by Freddie Mac (in its capacity as servicing consultant or otherwise) may conflict with the interests of one or more classes of certificateholders. In addition, the directing certificateholder and Freddie Mac or their respective designees (or any Junior Loan Holder that is a transferee of Freddie Mac) have the right to exercise the various rights and powers in respect of the mortgage pool described under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans” in this information circular. Any such junior lien mortgages and related securities may be purchased by certificateholders in this transaction, including the directing certificateholder, in which case the directing certificateholder could experience conflicts of interest when exercising consent rights with respect to the underlying mortgage loans and any related junior lien mortgages or related securities. You should expect that the directing certificateholder and Freddie Mac or their respective designees will each exercise those rights and powers on behalf of itself, and they will not be liable to any certificateholders for doing so. However, certain matters relating to Affiliated Borrower Loans will require the special servicer to act in place of the directing certificateholder. See “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Asset Status Report” in this information circular.

In certain instances, the Approved Directing Certificateholder (if any) will be entitled under the Pooling and Servicing Agreement to receive a portion of certain borrower-paid Transfer Fees. Such Approved Directing Certificateholder may have an incentive to maximize the amount of fees it collects by approving borrower actions that will result in the payment of such fees. As a result, such Approved Directing Certificateholder may have interests that conflict with those of other holders of certificates. See “Description of the Certificates—Fees and Expenses” in this information circular.

In addition, subject to the conditions described under “The Pooling and Servicing Agreement—Resignation, Removal and Replacement of Servicers; Transfer of Servicing Duties” in this information circular, the directing certificateholder may remove the special servicer, with or without cause, and appoint a successor special servicer chosen by it without the consent of the holders of any other certificates, the trustee, the certificate administrator or the master servicer, but with the approval of Freddie Mac, which approval may not be unreasonably withheld. Also, if at any time an Affiliated Borrower Special Servicer Loan Event occurs (other than with respect to any Affiliated Borrower Special Servicer Loan Event that exists on the Closing Date and is described in the definition of Affiliated Borrower Special Servicer Loan Event), the Pooling and Servicing Agreement will require that the special servicer promptly resign as special servicer of the related Affiliated Borrower Special Servicer Loan and, in the case where such Affiliated Borrower Special Servicer Loan is not an Affiliated Borrower Loan, the directing certificateholder will have the right to select the successor Affiliated Borrower Special Servicer to act as the special servicer with respect to such Affiliated Borrower Special Servicer Loan, in accordance with the requirements of the Pooling and Servicing Agreement. See “The Pooling and Servicing Agreement—Resignation, Removal and Replacement of Servicers; Transfer of Servicing Duties—Resignation of the Master Servicer or the Special Servicer” and “—Removal of the Master Servicer, the Special Servicer and any Sub-Servicer.” In the absence of significant losses on the underlying mortgage loans, the directing certificateholder will be a holder of a non-offered class of certificates. The directing certificateholder is therefore likely to have interests that conflict with those of the holders of the offered certificates. See “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Directing Certificateholder” in this information circular.

You May Be Bound by the Actions of Other Certificateholders. In some circumstances, the consent or approval of the holders of a specified percentage of the certificates will be required in order to direct, consent to or approve certain actions, including amending the Pooling and Servicing Agreement. In these cases, this consent or approval will be sufficient to bind all holders of certificates.

The Volatile Economy and Credit Disruptions May Adversely Affect the Value and Liquidity of Your Investment. In recent years, the real estate and securitization markets, including the market for commercial and multifamily mortgage-backed securities (“CMBS”), as well as global financial markets and the economy generally, experienced significant dislocations, illiquidity and volatility and thus affected the values of such CMBS. We cannot assure you that another dislocation in CMBS will not occur.

Any economic downturn may adversely affect the financial resources of borrowers and may result in the inability of borrowers to make principal and interest payments on, or to refinance, their underlying mortgage loans when due or to sell their mortgaged real properties for an amount sufficient to pay off such underlying mortgage loans when due. In the event of default by any borrower, the issuing entity may suffer a partial or total loss with

respect to the related underlying mortgage loan. Any delinquency or loss on any underlying mortgage loan would have an adverse effect on the distributions of principal and interest received by certificateholders.

Other Events or Circumstances May Affect the Value and Liquidity of Your Investment. The value and liquidity of your investment in the certificates may be affected by general economic conditions and financial markets, as well as the following events or circumstances:

- wars, revolts, terrorist attacks, armed conflicts, energy supply or price disruptions, political crises, natural disasters, civil unrest and/or protests and man-made disasters may have an adverse effect on the mortgaged real properties and/or the certificates;
- defaults on the underlying mortgage loans may occur in large concentrations over a period of time, which might result in rapid declines in the value of the certificates;
- although all of the underlying mortgage loans were recently underwritten and originated, the values of the mortgaged real properties may have declined since the related underlying mortgage loans were originated and may decline following the issuance of the certificates and such declines may be substantial and occur in a relatively short period following the issuance of the certificates; and such declines may occur for reasons largely unrelated to the circumstances of the particular mortgaged real property;
- if the underlying mortgage loans default, then the yield on your investment may be substantially reduced notwithstanding that Liquidation Proceeds may be sufficient to result in the repayment of the principal of and accrued interest on the offered certificates; an earlier than anticipated repayment of principal (even in the absence of losses) in the event of a default in advance of the maturity date would tend to shorten the weighted average period during which you earn interest on your investment; and a later than anticipated repayment of principal (even in the absence of losses) in the event of a default upon the maturity date would tend to delay your receipt of principal and the interest on your investment may be insufficient to compensate you for that delay;
- even if Liquidation Proceeds received on Defaulted Loans are sufficient to cover the principal and accrued interest on those underlying mortgage loans, the issuing entity may experience losses in the form of special servicing fees and other expenses, and you may bear losses as a result, or your yield may be adversely affected by such losses;
- the time periods to resolve Defaulted Loans may be long, and those periods may be further extended because of borrower bankruptcies and related litigation; this may be especially true in the case of loans made to borrowers that have, or whose affiliates have, substantial debts other than the underlying mortgage loan, including subordinate or mezzanine financing;
- trading activity associated with indices of CMBS may drive spreads on those indices wider than spreads on CMBS, thereby resulting in a decrease in the value of such CMBS, including the offered certificates, and spreads on those indices may be affected by a variety of factors, and may or may not be affected for reasons involving the commercial and multifamily real estate markets and may be affected for reasons that are unknown and cannot be discerned;
- if you determine to sell the certificates, you may be unable to do so or you may be able to do so only at a substantial discount from the price you paid; this may be the case for reasons unrelated to the then-current performance of the certificates or the underlying mortgage loans; and this may be the case within a relatively short period following the issuance of the certificates; and
- even if CMBS are performing as anticipated, the value of such CMBS in the secondary market may nevertheless decline as a result of a deterioration in general market conditions for other asset-backed securities or structured products, and you may be required to report declines in the value of the certificates, and/or record losses, on your financial statements or regulatory or supervisory reports, and/or repay or post additional collateral for any secured financing, hedging arrangements or other financial transactions that you are entering into that are backed by or make reference to the certificates, in each case as if the certificates were to be sold immediately.

Legal and Regulatory Provisions Affecting Investors Could Adversely Affect the Liquidity of Your Investment. We make no representation as to the proper characterization of the certificates for legal investment, financial institution regulatory, financial reporting or other purposes, as to the ability of particular investors to purchase the certificates under applicable legal investment or other restrictions or as to the consequences of an investment in the certificates for such purposes or under such restrictions. Changes in federal banking and securities laws and other laws and regulations may have an adverse effect on issuers, investors, or other participants in the asset-backed securities markets, including the CMBS market. While the general effects of such changes are uncertain, regulatory or legislative provisions applicable to certain investors may have the effect of limiting or restricting their ability to hold or acquire CMBS, which in turn may adversely affect the ability of investors in the certificates who are not subject to those provisions to resell their certificates in the secondary market. For example:

- Investors should be aware and in some cases are required to be aware of the due diligence requirements (the “EU Due Diligence Requirements”) which under Article 5 of Regulation (EU) 2017/2402 (the “EU Securitization Regulation”) apply to certain types of EU-regulated investors including institutions for occupational retirement, credit institutions, alternative investment fund managers who manage and/or market alternative investment funds in the EU, certain investment firms, insurance and reinsurance undertakings and management companies of UCITS funds (or internally managed UCITS) (“EU Institutional Investors”). Among other things, the EU Due Diligence Requirements restrict an EU Institutional Investor from investing in a securitization unless the EU Institutional Investor has verified that:
 - (a) the originator or original lender of the underlying exposures of the securitization grants all the credits giving rise to the underlying exposures on the basis of sound and well-defined criteria and clearly established processes for approving, amending, renewing and financing those credits and has effective systems in place to apply those criteria and processes to ensure that credit-granting is based on a thorough assessment of the obligor’s creditworthiness;
 - (b) the originator, sponsor or original lender of the securitization (i) retains on an ongoing basis a material net economic interest which, in any event, shall not be less than 5%, determined in accordance with Article 6 of the EU Securitization Regulation (the “EU Retention Requirement”), and (ii) discloses the risk retention to EU Institutional Investors; and
 - (c) the originator, sponsor or securitization special purpose entity has, where applicable, made available the information required by Article 7 of the EU Securitization Regulation in accordance with the frequency and modalities provided for in Article 7 of the EU Securitization Regulation.

Failure on the part of an EU Institutional Investor to comply with the EU Due Diligence Requirements may result in various penalties including, in the case of those investors subject to regulatory capital requirements, the imposition of a punitive capital charge in respect of the investment in the securitization acquired by the relevant investor. Aspects of the requirements and what is or will be required to demonstrate compliance to national regulators remain unclear.

None of the depositor, the Initial Purchasers, Freddie Mac, their respective affiliates or any other person intends to retain a material net economic interest in the securitization constituted by the issuance of the certificates in a manner that would satisfy the EU Retention Requirement or to take any other action that may be required by EU Institutional Investors for the purposes of their compliance with the EU Due Diligence Requirements, and no such person assumes (i) any obligation to so retain or take any such other action or (ii) any liability whatsoever in connection with any certificateholder’s non-compliance with the EU Due Diligence Requirements. Consequently, the certificates are not a suitable investment for EU Institutional Investors. As a result, the price and liquidity of the certificates in the secondary market may be adversely affected.

- No party to this transaction will retain credit risk in this transaction in a form or an amount pursuant to the terms of the U.S. credit risk retention rule (12 C.F.R. Part 1234). See “Description of the Mortgage Loan Seller and Guarantor—Credit Risk Retention” in this information circular.
- Changes in federal banking and securities laws, including those resulting from the Dodd-Frank Act enacted in the United States, may have an adverse effect on issuers, investors, or other participants in the asset-

backed securities markets. In particular, capital regulations issued by the U.S. banking regulators in 2013 implement the increased capital requirements established under the Basel Accord and are being phased in over time. These capital regulations eliminate reliance on credit ratings and otherwise alter, and in most cases increase, the capital requirements imposed on depository institutions and their holding companies, including with respect to ownership of asset-backed securities such as CMBS. Further changes in capital requirements have been announced by the Basel Committee on Banking Supervision and it is uncertain when such changes will be implemented in the United States. When fully implemented in the United States, these changes may have an adverse effect with respect to investments in asset-backed securities, including CMBS. As a result of these regulations, investments in CMBS, such as the certificates, by financial institutions subject to bank capital regulations may result in greater capital charges to these financial institutions and these new regulations may otherwise adversely affect the treatment of CMBS for their regulatory capital purposes.

- The Financial Accounting Standards Board has adopted changes to the accounting standards for structured products. These changes, or any future changes, may affect the accounting for entities such as the issuing entity, could under certain circumstances require an investor or its owner generally to consolidate the assets of the issuing entity in its financial statements and record third parties' investments in the issuing entity as liabilities of that investor or owner or could otherwise adversely affect the manner in which the investor or its owner must report an investment in CMBS for financial reporting purposes.

Accordingly, all investors whose investment activities are subject to legal investment laws and regulations, regulatory capital requirements or review by regulatory authorities should consult with their own legal, accounting and other advisors in determining whether, and to what extent, the certificates will constitute legal investments for them or are subject to investment or other restrictions, unfavorable accounting treatment, capital charges or reserve requirements.

The Prospective Performance of the Underlying Mortgage Loans Included in the Issuing Entity Should Be Evaluated Separately from the Performance of the Mortgage Loans in Any of Our Other Trusts. While there may be certain common factors affecting the performance and value of income-producing real properties in general, those factors do not apply equally to all income-producing real properties and, in many cases, there are unique factors that will affect the performance and/or value of a particular income-producing real property. Moreover, the effect of a given factor on a particular mortgaged real property will depend on a number of variables, including but not limited to property type, geographic location, competition, sponsorship and other characteristics of the property and the related underlying mortgage loan. Each income-producing mortgaged real property represents a separate and distinct business venture and, as a result each underlying mortgage loan requires a unique underwriting analysis. Furthermore, economic and other conditions affecting mortgaged real properties, whether worldwide, national, regional or local, vary over time. The performance of a pool of mortgage loans originated and outstanding under a given set of economic conditions may vary significantly from the performance of an otherwise comparable mortgage pool originated and outstanding under a different set of economic conditions. Accordingly, investors should evaluate the underlying mortgage loans independently from the performance of mortgage loans underlying any other series of certificates.

The Market Value of the Certificates Will Be Sensitive to Factors Unrelated to the Performance of the Certificates and the Underlying Mortgage Loans. The market value of the certificates can decline even if the certificates and the underlying mortgage loans are performing at or above your expectations. The market value of the certificates will be sensitive to fluctuations in current interest rates. However, a change in the market value of the certificates as a result of an upward or downward movement in current interest rates may not equal the change in the market value of the certificates as a result of an equal but opposite movement in interest rates.

The market value of the certificates will also be influenced by the supply of and demand for CMBS generally. The supply of CMBS will depend on, among other things, the amount of commercial and multifamily mortgage loans, whether newly originated or held in portfolio, that are available for securitization. A number of factors will affect investors' demand for CMBS, including—

- the availability of alternative investments that offer high yields or are perceived as being a better credit risk, having a less volatile market value or being more liquid;

- legal and other restrictions that prohibit a particular entity from investing in CMBS or limit the amount or types of CMBS that it may acquire;
- investors' perceptions regarding the commercial and multifamily real estate markets which may be adversely affected by, among other things, a decline in real estate values or an increase in defaults and foreclosures on mortgage loans secured by income-producing properties; and
- investors' perceptions regarding the capital markets in general, which may be adversely affected by political, social and economic events completely unrelated to the commercial and multifamily real estate markets.

If you decide to sell the certificates, you may have to sell at a discount from the price you paid for reasons unrelated to the performance of the certificates or the underlying mortgage loans. Pricing information regarding the certificates may not be generally available on an ongoing basis.

Future Events Could Have an Adverse Impact on the Ratings Assigned to the Rated Certificates. The ratings assigned to the rated certificates are based, among other things, on the economic characteristics of the underlying mortgage loans, the mortgaged real properties and other relevant features of the transaction. The ratings assigned to the rated certificates will be subject to ongoing monitoring, upgrades, downgrades, withdrawals and surveillance by the Rating Agency that assigned each such rating after the date of issuance of such certificates. We are not obligated to maintain any particular rating with respect to the rated certificates, and the ratings initially assigned by the Rating Agencies to the rated certificates could change adversely as a result of changes affecting, among other things, the underlying mortgage loans, the mortgaged real properties, Freddie Mac, the trustee, the certificate administrator, the master servicer or the special servicer, or as a result of changes to ratings criteria employed by the Rating Agencies. Although these changes would not necessarily be or result from an event of default on any underlying mortgage loan, any adverse change to the ratings of any class of rated certificates would likely have an adverse effect on the liquidity, market value and regulatory characteristics of that class of certificates.

A credit rating of your rated certificates does not represent an assessment of the yield to maturity that you may experience. See "Ratings" in this information circular.

Rating Agency Feedback. Other NRSROs that we have not engaged to rate the certificates may nevertheless issue unsolicited credit ratings on one or more classes of such certificates, relying on information obtained pursuant to Rule 17g-5 or otherwise. If any such unsolicited ratings are issued, we cannot assure you that they will not be different from the ratings assigned by the Rating Agencies. The issuance of unsolicited ratings on a class of certificates that are lower than the ratings assigned by the Rating Agencies may adversely impact the liquidity, market value and regulatory characteristics of that class of certificates.

As part of the process of obtaining ratings for the certificates, the depositor and Freddie Mac had initial discussions with and submitted certain materials to DBRS, Inc. ("DBRS"), Fitch, KBRA, Moody's Investors Service, Inc. ("Moody's"), Morningstar Credit Ratings, LLC ("Morningstar") and S&P Global Ratings ("S&P"). Based on preliminary feedback from those NRSROs at that time, the depositor and Freddie Mac selected Fitch and KBRA to rate the applicable classes of rated certificates and not DBRS, Moody's, Morningstar or S&P, due in part to such NRSROs' initial subordination levels for certain classes of certificates and Freddie Mac's desire to have diversity among the NRSROs rating its multifamily securitization transactions. Had the depositor and Freddie Mac selected DBRS, Moody's, Morningstar or S&P to rate the rated certificates, we cannot assure you as to the ratings that they would ultimately have assigned to the rated certificates.

Although unsolicited ratings may be issued by any NRSRO, and NRSROs have the ability to access information required to make a ratings determination, an NRSRO might be more likely to issue an unsolicited rating if it was not selected after having provided preliminary feedback to the depositor and Freddie Mac.

Further, a rating of any class of the rated certificates below an investment grade by either of the Rating Agencies or another NRSRO, whether initially or as a result of a ratings downgrade, could affect the ability of a benefit plan or other investor to purchase or retain that Class. Further, a determination by the SEC that either or both of the Rating Agencies no longer qualifies as an NRSRO or is no longer qualified to rate the rated certificates, could adversely impact the liquidity, market value and regulatory characteristics of the rated certificates.

The class X3 and D certificates will not be rated by the Rating Agencies or another NRSRO (unless an NRSRO issues an unsolicited rating), which may adversely affect the ability of an investor to purchase or retain, or otherwise impact the liquidity, market value and regulatory characteristics of, such classes.

Risks Relating to the Mortgage Loan Seller and Guarantor

The Conservator May Repudiate Freddie Mac's Contracts, Including Its Guarantee and Other Obligations Related to the Offered Certificates. On September 6, 2008, the Federal Housing Finance Agency ("FHFA") was appointed Freddie Mac's conservator by the FHFA director. See "Description of the Mortgage Loan Seller and Guarantor—Freddie Mac Conservatorship" in this information circular. The conservator has the right to transfer or sell any asset or liability of Freddie Mac, including its guarantee obligation, without any approval, assignment or consent. If the conservator were to transfer Freddie Mac's guarantee obligation to another party, holders of the offered certificates would have to rely on that party for the satisfaction of the guarantee obligation and would be exposed to the credit risk of that party. Freddie Mac is also the mortgage loan seller and as such has certain obligations to repurchase underlying mortgage loans in the event of material breaches of certain representations or warranties. If the conservator were to transfer Freddie Mac's obligations as mortgage loan seller to another party, holders of the certificates would have to rely on that party for satisfaction of the repurchase obligation and would be exposed to credit risk of that party.

Future Legislation and Regulatory Actions Will Likely Affect the Role of Freddie Mac. Future legislation will likely materially affect the role of Freddie Mac, its business model, its structure and future results of operations. Some or all of Freddie Mac's functions could be transferred to other institutions, and it could cease to exist as a stockholder-owned company or at all.

In addition to legislative actions, FHFA has expansive regulatory authority over Freddie Mac, and the manner in which FHFA will use its authority in the future is unclear. FHFA could take a number of regulatory actions that could materially adversely affect Freddie Mac, such as changing or reinstating current capital requirements, which are not binding during conservatorship.

In January 2019, the Trump Administration indicated that it expects to announce a framework for the development of a policy for comprehensive housing finance reform, and that it will work with Congress to formulate a reform plan.

On March 27, 2019, President Trump issued a memorandum on federal housing finance reform. The President directed the Secretary of the U.S. Department of the Treasury ("Treasury") to develop a plan for administrative and legislative reforms as soon as practicable to achieve housing reform goals that include the following: ending the conservatorships of Fannie Mae and Freddie Mac (the "GSEs"); facilitating competition in the housing finance market; establishing regulation of the GSEs that safeguards their safety and soundness and minimizes the risks they pose to the financial stability of the United States; and providing that the federal government is properly compensated for any explicit or implicit support it provides to the GSEs.

The President further directed that Treasury's plan include reform proposals to: preserve access for qualified homebuyers to 30-year fixed-rate mortgages and other mortgage options that best serve the financial needs of potential homebuyers; maintain equal access to the federal housing finance system for all lenders; establish appropriate capital and liquidity requirements for the GSEs; increase competition and participation of the private sector in the mortgage market; mitigate the risks undertaken by the GSEs; recommend appropriate size and risk profiles for the GSEs' retained mortgage and investment portfolios; define the role of the GSEs in multifamily mortgage finance; evaluate the GSEs' exemption from certain requirements of the "qualified mortgage" determination; define the GSEs' role in promoting affordable housing; and set the conditions necessary for the termination of the conservatorships, including that the federal government is fully compensated for the explicit and implicit guarantees provided to the GSEs or any successor entities, the GSEs' activities are restricted to their core statutory mission and the size of their investment and retained portfolios is appropriately limited, and the GSEs are subjected to heightened prudential requirements and safety and soundness standards, including increased capital requirements.

On September 5, 2019, pursuant to the presidential memorandum on federal housing finance reform issued on March 27, 2019, Treasury released its housing reform plan.

We have no ability to predict what regulatory and legislative policies or actions the Trump Administration will pursue with respect to Freddie Mac.

FHFA Could Terminate the Conservatorship by Placing Freddie Mac into Receivership, Which Could Adversely Affect the Freddie Mac Guarantee. Under the Federal Housing Finance Regulatory Reform Act (the “Reform Act”), FHFA must place Freddie Mac into receivership if FHFA determines in writing that Freddie Mac’s assets are less than its obligations for a period of 60 days. FHFA has notified Freddie Mac that the measurement period for any mandatory receivership determination with respect to Freddie Mac’s assets and obligations would commence no earlier than the SEC public filing deadline for its quarterly or annual financial statements and would continue for 60 calendar days after that date. FHFA has also advised Freddie Mac that, if, during that 60-day period, Freddie Mac receives funds from Treasury in an amount at least equal to the deficiency amount under the senior preferred stock purchase agreement between FHFA, as conservator of Freddie Mac, and Treasury (as amended, the “Purchase Agreement”), the Director of FHFA will not make a mandatory receivership determination.

In addition, Freddie Mac could be put into receivership at the discretion of the Director of FHFA at any time for other reasons, including conditions that FHFA has already asserted existed at the time Freddie Mac was placed into conservatorship. These include: a substantial dissipation of assets or earnings due to unsafe or unsound practices; the existence of an unsafe or unsound condition to transact business; an inability to meet its obligations in the ordinary course of business; a weakening of its condition due to unsafe or unsound practices or conditions; critical undercapitalization; the likelihood of losses that will deplete substantially all of its capital; or by consent. A receivership would terminate the conservatorship. The appointment of FHFA (or any other entity) as Freddie Mac’s receiver would terminate all rights and claims that its creditors may have against Freddie Mac’s assets or under its charter arising as a result of their status as creditors, other than the potential ability to be paid upon Freddie Mac’s liquidation. Unlike a conservatorship, the purpose of which is to conserve Freddie Mac’s assets and return it to a sound and solvent condition, the purpose of a receivership is to liquidate Freddie Mac’s assets and resolve claims against Freddie Mac.

In the event of a liquidation of Freddie Mac’s assets, there can be no assurance that there would be sufficient proceeds to pay the secured and unsecured claims of the company, repay the liquidation preference of any series of its preferred stock or make any distribution to the holders of its common stock. To the extent that Freddie Mac is placed in receivership and does not or cannot fulfill its guarantee or other contractual obligations to the holders of its mortgage-related securities, including the certificates, such holders could become unsecured creditors of Freddie Mac with respect to claims made under Freddie Mac’s guarantee or its other contractual obligations.

As receiver, FHFA could repudiate any contract entered into by Freddie Mac prior to its appointment as receiver if FHFA determines, in its sole discretion, that performance of the contract is burdensome and that repudiation of the contract promotes the orderly administration of Freddie Mac’s affairs. The Reform Act requires that any exercise by FHFA of its right to repudiate any contract occur within a reasonable period following its appointment as receiver.

If FHFA, as receiver, were to repudiate Freddie Mac’s guarantee obligations, the receivership estate would be liable for actual direct compensatory damages as of the date of receivership under the Reform Act. Any such liability could be satisfied only to the extent that Freddie Mac’s assets were available for that purpose.

Moreover, if Freddie Mac’s guarantee obligations were repudiated, payments of principal and/or interest to the holders of the offered certificates would be reduced in the event of any borrower’s late payment or failure to pay or a servicer’s failure to remit borrower payments into the issuing entity or advance borrower payments. Any actual direct compensatory damages owed as a result of the repudiation of Freddie Mac’s guarantee obligations may not be sufficient to offset any shortfalls experienced by the holders of the offered certificates.

During a receivership, certain rights of the holders of the offered certificates under the Pooling and Servicing Agreement and mortgage loan purchase agreement may not be enforceable against FHFA, or enforcement of such rights may be delayed.

The Reform Act also provides that no person may exercise any right or power to terminate, accelerate or declare an event of default under certain contracts to which Freddie Mac is a party, or obtain possession of or exercise

control over any property of Freddie Mac, or affect any contractual rights of Freddie Mac, without the approval of FHFA as receiver, for a period of 90 days following the appointment of FHFA as receiver.

If Freddie Mac is placed into receivership and does not or cannot fulfill its guarantee obligations or other contractual obligations under the Pooling and Servicing Agreement, holders of the certificates could become unsecured creditors of Freddie Mac with respect to claims made under its guarantee or other contractual obligations.

CAPITALIZED TERMS USED IN THIS INFORMATION CIRCULAR

From time to time we use capitalized terms in this information circular. A capitalized term used throughout this information circular will have the meaning assigned to it in the “Glossary” to this information circular.

FORWARD-LOOKING STATEMENTS

This information circular includes the words “expects,” “intends,” “anticipates,” “likely,” “estimates,” and similar words and expressions. These words and expressions are intended to identify forward-looking statements. Any forward-looking statements are made subject to risks and uncertainties that could cause actual results to differ materially from those stated. These risks and uncertainties include, among other things, declines in general economic and business conditions, increased competition, changes in demographics, changes in political and social conditions, regulatory initiatives and changes in customer preferences, many of which are beyond our control and the control of any other person or entity related to this offering. The forward-looking statements made in this information circular are accurate as of the date stated on the cover of this information circular. We have no obligation to update or revise any forward-looking statement.

DESCRIPTION OF THE ISSUING ENTITY

The entity issuing the certificates will be FREMF 2019-K103 Mortgage Trust, which we refer to in this information circular as the “issuing entity.” The issuing entity is a New York common law trust that will be formed on the Closing Date pursuant to the Pooling and Servicing Agreement. The only activities that the issuing entity may perform are those set forth in the Pooling and Servicing Agreement, which are generally limited to owning and administering the underlying mortgage loans and any REO Property, disposing of Defaulted Loans and REO Property, issuing the certificates and making distributions and providing reports to certificateholders. Accordingly, the issuing entity may not issue securities other than the certificates, or invest in securities, other than investment of funds in certain accounts maintained under the Pooling and Servicing Agreement in certain short-term, high-quality investments. The issuing entity may not lend or borrow money, except that the master servicer or the trustee may make advances to the issuing entity only to the extent it deems such advances to be recoverable from the related underlying mortgage loan. Such advances are intended to be in the nature of a liquidity, rather than a credit facility. The Pooling and Servicing Agreement may be amended as set forth under “The Pooling and Servicing Agreement—Amendment” in this information circular. The issuing entity administers the underlying mortgage loans through the master servicer and the special servicer. A discussion of the duties of the servicers, including any discretionary activities performed by each of them, is set forth under “The Pooling and Servicing Agreement” in this information circular.

The only assets of the issuing entity other than the underlying mortgage loans and any REO Properties are certain accounts maintained pursuant to the Pooling and Servicing Agreement, the obligations of Freddie Mac pursuant to the Freddie Mac Guarantee and the short-term investments in which funds in the collection accounts and other accounts are invested. The issuing entity has no present liabilities, but has potential liability relating to ownership of the underlying mortgage loans and any REO Properties, and indemnity obligations to the trustee, the custodian, the certificate administrator, the master servicer, the special servicer and Freddie Mac (in its capacity as servicing consultant). The fiscal year of the issuing entity is the calendar year. The issuing entity has no executive officers or board of directors. It acts through the trustee, the custodian, the certificate administrator, the master servicer and the special servicer.

The depositor is contributing the underlying mortgage loans to the issuing entity. The depositor is purchasing the underlying mortgage loans from the mortgage loan seller pursuant to a mortgage loan purchase agreement, as described in “Summary of Information Circular—The Underlying Mortgage Loans—Source of the Underlying Mortgage Loans” and “Description of the Underlying Mortgage Loans—Representations and Warranties” in this information circular.

As a common-law trust, it is anticipated that the issuing entity would not be subject to the Bankruptcy Code. In connection with the sale of the underlying mortgage loans from the depositor to the issuing entity, a legal opinion is required to be rendered to the effect that if the depositor were to become a debtor in a case under the Bankruptcy Code, a federal bankruptcy court, which acted reasonably and correctly applied the law to the facts as set forth in such legal opinion after full consideration of all relevant factors, would hold that the transfer of the underlying mortgage loans from the depositor to the issuing entity was a true sale rather than a pledge such that (i) the underlying mortgage loans, and payments under the underlying mortgage loans and identifiable proceeds from the underlying mortgage loans would not be property of the estate of the depositor under Section 541(a)(1) of the Bankruptcy Code and (ii) the automatic stay arising pursuant to Section 362(a) of the Bankruptcy Code upon the commencement of a bankruptcy case of the depositor is not applicable to payments on the certificates. This legal opinion is based on numerous assumptions, and we cannot assure you that all of such assumed facts are true, or will continue to be true. Moreover, we cannot assure you that a court would rule as anticipated in this legal opinion.

The issuing entity will be relying on an exclusion or exemption under the Investment Company Act contained in Section 3(c)(5) of the Investment Company Act or Rule 3a-7 under the Investment Company Act, although there may be additional exclusions or exemptions available to the issuing entity. Accordingly, the issuing entity is being structured so as not to constitute a “covered fund” for purposes of Section 619 of the Dodd-Frank Act (such statutory provision, together with the implementing regulations, the “Volcker Rule”). The Volcker Rule generally prohibits “banking entities” (which is broadly defined to include U.S. banks and bank holding companies and many non-U.S. banking entities, together with their respective subsidiaries and other affiliates) from (i) engaging in proprietary trading, (ii) acquiring or retaining an ownership interest in or sponsoring a “covered fund” and (iii) entering into certain relationships with such funds. Under the Volcker Rule, unless otherwise jointly determined otherwise by specified federal regulators, a “covered fund” does not include an issuer that may rely on an exclusion or exemption from the definition of “investment company” under the Investment Company Act other than the exclusions contained in Section 3(c)(1) and Section 3(c)(7) of the Investment Company Act. The general effects of the Volcker Rule remain uncertain. Any prospective investor in the certificates, including a U.S. or foreign bank or a subsidiary or other bank affiliate, should consult its own legal advisors regarding such matters and other effects of the Volcker Rule.

There are no legal proceedings pending against the issuing entity that are material to the certificateholders.

DESCRIPTION OF THE DEPOSITOR

The depositor is Banc of America Merrill Lynch Commercial Mortgage Inc., a Delaware corporation. The depositor is an affiliate of BofA Securities, Inc., which will be one of the Initial Purchasers and is one of the placement agents for the SPCs. The depositor maintains its principal office at One Bryant Park, New York, New York 10036. Its telephone number is (704) 386-5478. The depositor does not have, nor is it expected in the future to have, any significant assets or liabilities.

The depositor will have minimal ongoing duties with respect to the offered certificates and the underlying mortgage loans. The depositor's duties pursuant to the Pooling and Servicing Agreement include, without limitation, the duty to appoint a successor trustee or certificate administrator in the event of the resignation or removal of the trustee or the certificate administrator, to provide information in its possession to the certificate administrator to the extent necessary to perform REMIC tax administration and to indemnify the trustee, the certificate administrator, the master servicer, the special servicer, the custodian, Freddie Mac and the issuing entity for any liability, assessment or costs arising from its willful misconduct, bad faith, fraud or negligence in providing such information. The depositor is required under the certificate purchase agreement relating to the offered certificates to indemnify Freddie Mac for certain liabilities.

Under the Pooling and Servicing Agreement, the depositor and various related persons and entities will be entitled to be indemnified by the issuing entity for certain losses and liabilities incurred by the depositor as described in "The Pooling and Servicing Agreement—Certain Indemnities" in this information circular.

There are no legal proceedings pending against the depositor that are material to the certificateholders.

Neither we nor any of our affiliates will guarantee any of the underlying mortgage loans. Furthermore, no governmental agency or instrumentality will guarantee or insure any of the underlying mortgage loans.

DESCRIPTION OF THE MORTGAGE LOAN SELLER AND GUARANTOR

The Mortgage Loan Seller and Guarantor

All of the underlying mortgage loans were sold to us by Freddie Mac, the mortgage loan seller. Each underlying mortgage loan was originated by one of Berkadia Commercial Mortgage LLC, Berkeley Point Capital LLC, d/b/a Newmark Knight Frank, Capital One, National Association, CBRE Capital Markets, Inc., Citibank, N.A., Grandbridge Real Estate Capital LLC, Greystone Servicing Company LLC, Holliday Fenoglio Fowler, L.P., Hunt Mortgage Partners, LLC, KeyBank National Association, M&T Realty Capital Corporation, NorthMarq Capital, LLC, PNC Bank, National Association, Prudential Affordable Mortgage Company, LLC, Walker & Dunlop, LLC and Wells Fargo Bank, National Association (collectively, the "Originators"), and was acquired and re-underwritten by the mortgage loan seller.

Freddie Mac is one of the largest participants in the U.S. mortgage market. Freddie Mac is a stockholder-owned government-sponsored enterprise chartered by Congress on July 24, 1970 under the Freddie Mac Act to stabilize residential mortgage markets in the United States and expand opportunities for homeownership and affordable rental housing.

Freddie Mac's statutory purposes are:

- to provide stability in the secondary market for residential mortgages;
- to respond appropriately to the private capital markets;
- to provide ongoing assistance to the secondary market for residential mortgages (including mortgages on housing for low- and moderate-income families involving a reasonable economic return that may be less than the return earned on other activities) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing; and

- to promote access to mortgage credit throughout the United States (including central cities, rural areas and other underserved areas) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing.

Freddie Mac fulfills the requirements of its charter by purchasing residential mortgages and mortgage-related securities in the secondary mortgage market and securitizing such mortgages into mortgage-related securities for its mortgage-related investment portfolio. It also purchases multifamily residential mortgages in the secondary mortgage market and holds these loans either for investment or sale. Freddie Mac finances the purchases of its mortgage-related securities and mortgage loans, and manages its interest-rate and other market risks, primarily by issuing a variety of debt instruments and entering into derivative contracts in the capital markets. Although it is chartered by Congress, Freddie Mac is solely responsible for making payments on its obligations. Neither the U.S. government nor any agency or instrumentality of the U.S. government other than Freddie Mac guarantees its obligations.

Freddie Mac Conservatorship

Freddie Mac continues to operate under the conservatorship that commenced on September 6, 2008, conducting its business under the direction of the FHFA, Freddie Mac’s conservator (the “Conservator”). FHFA was established under the Reform Act. Prior to the enactment of the Reform Act, HUD had general regulatory authority over Freddie Mac, including authority over Freddie Mac’s affordable housing goals and new programs. Under the Reform Act, FHFA now has general regulatory authority over Freddie Mac, though HUD still has authority over Freddie Mac with respect to fair lending.

Upon its appointment, FHFA, as Conservator, immediately succeeded to all rights, titles, powers and privileges of Freddie Mac and of any stockholder, officer or director of Freddie Mac with respect to Freddie Mac and its assets, and succeeded to the title to all books, records and assets of Freddie Mac held by any other legal custodian or third party. During the conservatorship, the Conservator has delegated certain authority to Freddie Mac’s Board of Directors to oversee, and to Freddie Mac’s management to conduct, day-to-day operations so that Freddie Mac can continue to operate in the ordinary course of business. There is significant uncertainty as to whether or when Freddie Mac will emerge from conservatorship, as it has no specified termination date, and as to what changes may occur to Freddie Mac’s business structure during or following conservatorship, including whether Freddie Mac will continue to exist. While Freddie Mac is not aware of any current plans of its Conservator to significantly change its business structure in the near term, there are likely to be significant changes beyond the near-term that will be decided by Congress and the Trump Administration. In January 2019, the Trump Administration indicated that it expects to announce a framework for the development of a policy for comprehensive housing finance reform, and that it will work with Congress to formulate a reform plan. We have no ability to predict what regulatory and legislative policies or actions the new presidential administration will pursue with respect to Freddie Mac.

To address deficits in Freddie Mac’s net worth, FHFA, as Conservator, entered into the Purchase Agreement with Treasury, and (in exchange for an initial commitment fee of senior preferred stock and warrants to purchase common stock) Treasury made a commitment to provide funding, under certain conditions. Freddie Mac is dependent upon the continued support of Treasury and FHFA in order to continue operating its business. Freddie Mac’s ability to access funds from Treasury under the Purchase Agreement is critical to keeping it solvent and avoiding appointment of a receiver by FHFA under statutory mandatory receivership provisions.

Additional information regarding the conservatorship, the Purchase Agreement and other matters concerning Freddie Mac is available in the annual reports on Form 10-K, quarterly reports on Form 10-Q and other reports filed with the SEC by Freddie Mac.

Proposed Operation of Multifamily Mortgage Business on a Stand-Alone Basis

Legislation has been proposed in Congress that, if passed into law, would require Freddie Mac to transition its multifamily operations to a stand-alone entity. Because proposed legislation ultimately may not be passed into law or may be changed before it is passed into law, it is uncertain whether Freddie Mac will be required to transition its multifamily operations to a stand-alone entity by such proposed legislation or any other method.

If Freddie Mac were to transition its multifamily operations to one or more stand-alone entities, such entities may be entitled to exercise the rights and perform the obligations of Freddie Mac under the Pooling and Servicing Agreement, the mortgage loan purchase agreement and other transaction documents. However, Freddie Mac's obligations under the Freddie Mac Guarantee and as mortgage loan seller would continue to be the obligations of Freddie Mac in its capacity as Guarantor of the Guaranteed Certificates and mortgage loan seller, respectively.

Litigation Involving the Mortgage Loan Seller and Guarantor

For more information on Freddie Mac's involvement as a party to various legal proceedings, see the annual reports on Form 10-K, quarterly reports on Form 10-Q and other reports filed with the SEC by Freddie Mac.

Credit Risk Retention

Freddie Mac, as sponsor of this securitization transaction, will not retain risk pursuant to provisions of FHFA's Credit Risk Retention Rule (12 C.F.R. Part 1234) (the "Rule") because FHFA, as Conservator and in furtherance of the goals of the conservatorship, has determined to exercise authority under Section 1234.12(f)(3) of the Rule to sell or otherwise hedge the credit risk that Freddie Mac would be required to retain and has instructed Freddie Mac to take such action necessary to effect this outcome. Freddie Mac also will not rely on a third party purchaser to retain risk pursuant to the Rule, as may otherwise be permitted under Section 1234.7 (Commercial mortgage-backed securities). As a result, no party will retain risk with respect to this transaction in a form or an amount pursuant to the terms of the Rule. Although Freddie Mac will not be retaining risk pursuant to the Rule as a result of FHFA instructions, it may elect to retain, to the extent permitted by FHFA, some portion of the certificates.

Mortgage Loan Purchase and Servicing Standards of the Mortgage Loan Seller

General. Any mortgage loans that Freddie Mac purchases must satisfy the mortgage loan purchase standards that are contained in the Freddie Mac Act. These standards require Freddie Mac to purchase mortgage loans of a quality, type and class that meet generally the purchase standards imposed by private institutional mortgage loan investors. This means the mortgage loans must be readily marketable to institutional mortgage loan investors.

The Guide. In addition to the standards in the Freddie Mac Act, which Freddie Mac cannot change, Freddie Mac has established its own multifamily mortgage loan purchase standards, appraisal guidelines and servicing policies and procedures. These are in Freddie Mac's Multifamily Seller/Servicer Guide which can be accessed by subscribers at www.allregs.com (the "Guide"). Forms of Freddie Mac's current loan documents can be found on Freddie Mac's website, <https://mf.freddiemac.com>. The master servicer, special servicer and any sub-servicer will be required to service the underlying mortgage loans other than REO Loans, REO Properties and Specially Serviced Mortgage Loans pursuant to, among other things, Freddie Mac Servicing Practices, including the Guide, as described in "The Pooling and Servicing Agreement—Servicing Under the Pooling and Servicing Agreement" in this information circular.

Freddie Mac may waive or modify its mortgage loan purchase standards and guidelines and servicing policies and procedures when it purchases any particular mortgage loan or afterward. We have described those changes in this information circular if we believe they will materially change the prepayment behavior of the underlying mortgage loans. Freddie Mac also reserves the right to change its mortgage loan purchase standards, credit, appraisal, underwriting guidelines and servicing policies and procedures at any time. This means that the underlying mortgage loans may not conform at any particular time to all of the provisions of the Guide or Freddie Mac's mortgage loan purchase documents.

Certain aspects of Freddie Mac's mortgage loan purchase and servicing guidelines are summarized below. However, this summary is qualified in its entirety by the Guide, any applicable mortgage loan purchase documents, any applicable servicing agreement and any applicable supplemental disclosure.

Mortgage Loan Purchase Standards. Freddie Mac uses mortgage loan information available to it to determine which mortgage loans it will purchase, the prices it will pay for mortgage loans, how to pool the mortgage loans it purchases and which mortgage loans it will retain in its portfolio. The information Freddie Mac uses varies over time, and may include:

- the loan-to-value and debt service coverage ratios of the mortgage loan;
- the strength of the market in which the mortgaged real property is located;
- the strength of the mortgaged real property's operations;
- the physical condition of the mortgaged real property;
- the financial strength of the borrower and its principals;
- the management experience and ability of the borrower and its principals or the property manager, as applicable; and
- Freddie Mac's evaluation of and experience with the seller of the mortgage loan.

To the extent allowed by the Freddie Mac Act, Freddie Mac has discretion to determine its mortgage loan purchase standards and whether the mortgage loans it purchases will be securitized or held in its portfolio.

Eligible Sellers, Servicers and Warranties. Freddie Mac approves sellers and servicers of mortgage loans based on a number of factors, including their financial condition, operational capability and mortgage loan origination and servicing experience. The seller or servicer of a mortgage loan need not be the originator of that mortgage loan.

In connection with its purchase of a mortgage loan, Freddie Mac relies on the representations and warranties of the seller with respect to certain matters, as is customary in the secondary market. These warranties cover such matters as:

- the accuracy of the information provided by the borrower;
- the accuracy and completeness of any third party reports prepared by a qualified professional;
- the validity of each mortgage as a first or junior lien, as applicable;
- the timely payments on each mortgage loan at the time of delivery to Freddie Mac;
- the physical condition of the mortgaged real property;
- the accuracy of rent schedules; and
- the originator's compliance with applicable state and federal laws.

Mortgage Loan Servicing Policies and Procedures. Freddie Mac generally supervises servicing of the mortgage loans according to its written policies, procedures and the Guide. Each servicer must diligently perform all services and duties customary to the servicing of multifamily mortgages and as required by Freddie Mac Servicing Practices, which includes the Guide. These include:

- collecting and posting payments on the mortgage loans;
- investigating delinquencies and defaults;
- analyzing and recommending any special borrower requests, such as requests for assumptions, subordinate financing and partial release;
- submitting monthly electronic remittance reports and annual financial statements obtained from borrowers;

- administering escrow accounts;
- inspecting properties;
- responding to inquiries of borrowers or government authorities; and
- collecting and administering insurance claims.

Servicers service the mortgage loans, either directly or through approved sub-servicers, and receive fees for their services. Freddie Mac monitors the servicer’s performance through periodic and special reports and inspections to ensure it complies with its obligations. A servicer may remit payments to Freddie Mac under various arrangements but these arrangements do not affect the timing of payments to investors. Freddie Mac invests those payments at its own risk and for its own benefit until it passes through the payments to investors. The master servicer and the special servicer will be required to service the underlying mortgage loans other than REO Loans, REO Properties and Specially Serviced Mortgage Loans pursuant to, among other things, the Guide, as described in “The Pooling and Servicing Agreement—Servicing Under the Pooling and Servicing Agreement” in this information circular.

DESCRIPTION OF THE UNDERLYING MORTGAGE LOANS

General

The assets of the issuing entity will consist primarily of 46 fixed rate mortgage loans, secured by 46 multifamily properties, including 6 underlying mortgage loans secured by manufactured housing community properties that collectively represent 6.9% of the initial mortgage pool balance and 1 underlying mortgage loan secured by an assisted living, memory care and/or independent living facility property that represents 1.0% of the initial mortgage pool balance. Each underlying mortgage loan is secured by a mortgaged real property that consists of a single parcel or two or more contiguous or non-contiguous parcels, and we refer to such parcel or parcels collectively as the “mortgaged real property” securing such underlying mortgage loan. We refer to these loans that we intend to include in the issuing entity collectively in this information circular as the “underlying mortgage loans.” The underlying mortgage loans will have an initial total principal balance of approximately \$1,276,314,807 as of the Cut-off Date, subject to a variance of up to 5%, plus or minus. The Cut-off Date Principal Balance of any underlying mortgage loan is equal to its outstanding principal balance as of the Cut-off Date, after application of all monthly debt service payments due with respect to the underlying mortgage loan on or before that date, whether or not those payments were received. Exhibit A-1 shows the Cut-off Date Principal Balance of each underlying mortgage loan. See Exhibits A-1, A-2 and A-3 for additional statistical information on the underlying mortgage loans and the mortgage pool.

Each of the underlying mortgage loans is an obligation of the related borrower to repay a specified sum with interest. Each of the underlying mortgage loans is evidenced by one or more promissory notes and secured by a mortgage, deed of trust or other similar security instrument that creates a mortgage lien on the fee and/or leasehold interest of the related borrower or another party in one or more multifamily real properties. In all cases, that mortgage lien is a first priority lien subject to certain standard permitted encumbrances and/or any subordinate liens described in this information circular.

Except for certain limited nonrecourse carveouts, each of the underlying mortgage loans is a nonrecourse obligation of the related borrower. In the event of a payment default by the borrower, recourse will be limited to the corresponding mortgaged real property or properties for satisfaction of that borrower’s obligations. None of the underlying mortgage loans will be insured or guaranteed by any governmental entity or by any other person.

We provide in this information circular a variety of information regarding the underlying mortgage loans. When reviewing this information, please note that—

- All numerical information provided with respect to the underlying mortgage loans is provided on an approximate basis.

- All weighted average information provided with respect to the underlying mortgage loans reflects a weighting by their respective Cut-off Date Principal Balances.
- In calculating the Cut-off Date Principal Balances of the underlying mortgage loans, we have assumed that—
 1. all scheduled payments of principal and/or interest due on the underlying mortgage loans on or before the Cut-off Date are timely made; and
 2. there are no prepayments or other unscheduled collections of principal with respect to any underlying mortgage loan during the period from its due date in November 2019 up to and including the Cut-off Date.
- When information with respect to mortgaged real properties is expressed as a percentage of the initial mortgage pool balance, the percentages are based on the Cut-off Date Principal Balances of the related underlying mortgage loans.
- Whenever we refer to a particular mortgaged real property by name, we mean the mortgaged real property identified by that name on Exhibit A-1. Whenever we refer to a particular underlying mortgage loan by name, we mean the underlying mortgage loan secured by the mortgaged real property identified by that name on Exhibit A-1.
- Statistical information regarding the underlying mortgage loans may change prior to the Closing Date due to changes in the composition of the mortgage pool prior to that date.

Underlying Mortgage Loans Made to the Same Borrower or Borrowers Under Common Ownership

The mortgage pool will include 4 groups of underlying mortgage loans that were made to the same borrower or borrowers under common ownership. The table below shows each group of underlying mortgage loans that has the same borrower or borrowers under common ownership:

Loan Name	Cut-off Date Principal Balance	% of Initial Mortgage Pool Balance ⁽¹⁾
Park Valley Apartments	\$49,100,000	3.8%
Tapestry Park At Montclair	48,750,000	3.8
Lakeside At Coppell	48,251,000	3.8
Peakview By Horseshoe Lake	38,421,000	3.0
The Meadows At North Richland Hills	26,888,000	2.1
Total	\$211,410,000	16.6%
Tierra West	\$27,675,000	2.2%
Aztec Village	8,500,000	0.7
Homestead Village.....	7,200,000	0.6
Cottage Cove	6,400,000	0.5
Total	\$49,775,000	3.9%
Berwick Grove Apartments	\$10,890,000	0.9%
Ashton Square.....	8,200,000	0.6
Total	\$19,090,000	1.5%
Tanager Springs II Apartments	\$5,400,000	0.4%
Tanager Springs I Apartments	5,100,000	0.4
Total	\$10,500,000	0.8%

(1) Amounts may not add up to the totals shown due to rounding.

Certain Terms and Conditions of the Underlying Mortgage Loans

Due Dates. Subject, in some cases, to a next business day convention, monthly installments of principal and/or interest will be due on the first of the month with respect to each of the underlying mortgage loans.

Mortgage Interest Rates; Calculations of Interest. Each of the underlying mortgage loans bears interest at a mortgage interest rate that, in the absence of default or modification, is fixed until maturity.

Exhibit A-1 shows the current mortgage interest rate for each of the underlying mortgage loans. All of the underlying mortgage loans accrue interest on an Actual/360 Basis. None of the underlying mortgage loans provides for negative amortization or for the deferral of interest.

Term to Maturity. 45 of the underlying mortgage loans, collectively representing 98.7% of the initial mortgage pool balance, had initial terms to maturity of 120 months. 1 underlying mortgage loan, representing 1.3% of the initial mortgage pool balance, had an initial term to maturity of 132 months.

Balloon Loans. All of the underlying mortgage loans are Balloon Loans and of those underlying mortgage loans that have amortization schedules, each such schedule is significantly longer than the actual term of the underlying mortgage loan, resulting in a substantial balloon payment of principal due at maturity.

Additional Amortization Considerations. 2 of the underlying mortgage loans, collectively representing 0.9% of the initial mortgage pool balance, provide for an initial interest-only period of 24 months, followed by an amortization period for the balance of the loan term.

5 of the underlying mortgage loans, collectively representing 6.0% of the initial mortgage pool balance, provide for an initial interest-only period of 36 months, followed by an amortization period for the balance of the loan term.

4 of the underlying mortgage loans, collectively representing 6.1% of the initial mortgage pool balance, provide for an initial interest-only period of 48 months, followed by an amortization period for the balance of the loan term.

28 of the underlying mortgage loans, collectively representing 69.8% of the initial mortgage pool balance, provide for an initial interest-only period of 60 months, followed by an amortization period for the balance of the loan term.

6 of the underlying mortgage loans, collectively representing 14.1% of the initial mortgage pool balance, provide for an interest-only period that extends to maturity.

1 underlying mortgage loan, representing 3.2% of the initial mortgage pool balance, provides for amortization through the term of the related mortgage loan.

None of the underlying mortgage loans is scheduled to fully amortize over its term.

Prepayment Provisions. As of origination, all of the underlying mortgage loans provided for certain restrictions and/or requirements with respect to prepayments during some portion of their respective loan terms. The relevant restrictions and requirements will generally consist of the following:

- 45 of the underlying mortgage loans, collectively representing 95.3% of the initial mortgage pool balance, provide for—
 1. a prepayment lockout and defeasance period during which voluntary principal prepayments are prohibited (although, for a portion of that period, beginning no sooner than the second anniversary of the Closing Date, the related underlying mortgage loan may be defeased), followed by;
 2. an open prepayment period prior to maturity during which voluntary principal prepayments may be made without payment of any prepayment consideration.

- 1 underlying mortgage loan, representing 4.7% of the initial mortgage pool balance, provides for—
 1. a prepayment consideration period during which voluntary principal prepayments must be accompanied by the greater of a Static Prepayment Premium and a Yield Maintenance Charge, followed by;
 2. a prepayment consideration period during which voluntary principal prepayments must be accompanied by a Static Prepayment Premium, followed by;
 3. an open prepayment period prior to maturity during which voluntary principal prepayments may be made without payment of any prepayment consideration.

The Yield Maintenance Charge will be an amount generally equal to the greater of the following: (1) a specified percentage of the principal balance of the underlying mortgage loan being prepaid; and (2) the product obtained by multiplying (a) the amount of principal being prepaid or accelerated, by (b) the excess, if any, of one-twelfth of the mortgage note rate over an assumed reinvestment rate, by (c) a factor that discounts to present value the costs resulting to the lender from the difference in interest rates during the months remaining in the Yield Maintenance Period (which will be required to be calculated in accordance with the last paragraph of the definition of Accepted Servicing Practices in this information circular). Generally, the assumed reinvestment rate is equal to one-twelfth of the yield rate of the U.S. Treasury security specified in the related loan documents as reported on the Treasury website five business days before the prepayment date, expressed as a decimal calculated to two decimal places.

The open prepayment period for any underlying mortgage loan will generally begin 3 months prior to the month in which such underlying mortgage loan matures.

In addition, with respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “Hillcrest Apartments,” representing 1.1% of the initial mortgage pool balance, the related borrower deposited \$439,094 into a student housing pre-leasing debt service reserve on the origination date. Pursuant to the related loan documents, the lender may apply the amounts in such reserve at any time to a partial prepayment of the underlying mortgage loan, and the borrower will be required to pay a prepayment premium computed in accordance with the loan documents. In addition, the loan documents provide that the lender will deduct funds from such reserve in such amounts as the lender determines are necessary to cover any difference between the monthly payment due on the underlying mortgage loan and the net operating income for the mortgaged real property. The reserve funds will be released upon payment in full of the underlying mortgage loan, or upon the occurrence of both of the following after the start of the fall semester or the term applicable to the mortgaged real property for any preceding month: (i) monthly rent derived from the mortgaged real property is at least \$136,461; and (ii) at least 89.24% of the residential units at the mortgaged real property have been leased on arms’ length terms and conditions to tenants that are not affiliated with the borrower or guarantor.

In addition, with respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “Abigail Vare Apartments,” representing 0.7% of the initial mortgage pool balance, the related borrower reported that it has applied to the City of Philadelphia, Office of Property Assessments for a tax abatement for the mortgaged real property. Pursuant to the related loan documents, if, by February 1, 2020, the tax abatement has not been obtained by the borrower, an updated tax bill consistent with the abatement is not delivered to the lender and the abatement has not actually commenced, the borrower will be required to prepay in part the underlying mortgage loan by \$183,000, together with a prepayment premium calculated in accordance with the loan documents.

In addition, with respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “Tanager Springs II Apartments,” representing 0.4% of the initial mortgage pool balance, the related borrower reported that it intends to apply to the California Board of Equalization for a tax abatement for the mortgaged real property. In the event that such tax abatement is not obtained by October 1, 2020 (subject to a 6-month extension in the event that the borrower demonstrates to the lender’s satisfaction that it has made significant progress in obtaining such tax abatement), the borrower will be required to prepay in part the underlying mortgage loan by \$1,062,000, together with a prepayment premium calculated in accordance with the related loan documents.

In addition, with respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “Tanager Springs I Apartments,” representing 0.4% of the initial mortgage pool balance, the related borrower reported that it intends to apply to the California Board of Equalization for a tax abatement for the

mortgaged real property. In the event that such tax abatement is not obtained by October 1, 2020 (subject to a 6-month extension in the event that the borrower demonstrates to the lender's satisfaction that it has made significant progress in obtaining such tax abatement), the borrower will be required to prepay in part the underlying mortgage loan by \$1,030,000, together with a prepayment premium calculated in accordance with the related loan documents.

Exhibit A-1 more particularly describes the prepayment terms of the underlying mortgage loans.

Unless an underlying mortgage loan is relatively near its stated maturity date or unless the sale price or the amount of the refinancing of the related mortgaged real property is considerably higher than the current outstanding principal balance of that underlying mortgage loan due to an increase in the value of the mortgaged real property or otherwise, the prepayment consideration may, even in a relatively low interest rate environment, offset entirely or render insignificant any economic benefit to be received by the borrower upon a refinancing or sale of the mortgaged real property. The prepayment consideration provision is intended to create an economic disincentive for the borrower to prepay an underlying mortgage loan voluntarily.

However, we cannot assure you that the imposition of a Static Prepayment Premium or a Yield Maintenance Charge will provide a sufficient disincentive to prevent a voluntary principal prepayment. Furthermore, certain state laws limit the amounts that a lender may collect from a borrower as an additional charge in connection with the prepayment of an underlying mortgage loan.

We do not make any representation as to the enforceability of the provision of any underlying mortgage loan requiring the payment of a Static Prepayment Premium or a Yield Maintenance Charge, or of the collectability of any Static Prepayment Premium or Yield Maintenance Charge and the Freddie Mac Guarantee excludes the payment of Static Prepayment Premiums or Yield Maintenance Charges.

Casualty and Condemnation. In the event of a condemnation or casualty at the mortgaged real property securing any of the underlying mortgage loans, the borrower will generally be required to restore that mortgaged real property. However, the lender may under certain circumstances apply the condemnation award or insurance proceeds to the repayment of debt, which will not require payment of any prepayment premium.

Lockboxes. None of the underlying mortgage loans provide for any lockbox with springing cash management.

Escrow and Reserve Accounts. Most of the underlying mortgage loans provide for the establishment of escrow and/or reserve accounts for the purpose of holding amounts required to be on deposit as reserves for—

- taxes and insurance;
- capital improvements; and/or
- various other purposes.

As of the Closing Date, these accounts will be under the sole control of the master servicer or an approved sub-servicer. Most of the underlying mortgage loans that provide for such accounts require that the accounts be funded out of monthly escrow and/or reserve payments by the related borrower. Any escrow or reserve accounts may be used to prepay the underlying mortgage loans in accordance with the loan documents upon the occurrence of certain events, including, among other things, the failure to satisfy certain conditions related to such escrow or reserve accounts or an event of default.

Tax Escrows. In the case of 45 of the underlying mortgage loans, collectively representing 93.7% of the initial mortgage pool balance, escrows were funded or will be funded for taxes. The related borrower is generally required to deposit on a monthly basis an amount equal to one-twelfth of the annual real estate taxes and assessments. If an escrow was funded, the funds will be applied by the master servicer to pay for taxes and assessments at the related mortgaged real property.

In the case of 1 underlying mortgage loan, representing 6.3% of the initial mortgage pool balance, initial or monthly escrows for annual real estate taxes and assessments were not required at origination but may be required in the future subject to certain conditions set forth in the related loan documents.

Insurance Escrows. In the case of 35 of the underlying mortgage loans, collectively representing 75.0% of the initial mortgage pool balance, escrows were funded or will be funded for insurance premiums. The related borrower is generally required to deposit on a monthly basis an amount equal to one-twelfth of the annual premiums payable on insurance policies that the borrower is required to maintain. If an escrow was funded, the funds will be applied by the master servicer to pay for insurance premiums at the related mortgaged real property.

In the case of 11 of the underlying mortgage loans, collectively representing 25.0% of the initial mortgage pool balance, initial or monthly escrows for insurance premiums were not required at origination but may be required in the future subject to certain conditions set forth in the related loan documents.

Under some of the other underlying mortgage loans, the insurance carried by the related borrower may be in the form of a blanket policy. In these cases, the amount of the escrow is an estimate of the proportional share of the premium allocable to the mortgaged real property, or the borrower pays the premium directly. See “—Property Damage, Liability and Other Insurance” below.

Recurring Replacement Reserves. The column titled “Replacement Reserve (Monthly)” on Exhibit A-1 shows for each applicable underlying mortgage loan the reserve deposits that the related borrower has been or is required to make into a separate account for capital replacements and repairs.

In the case of some of the mortgaged real properties, those reserve deposits are initial amounts and may vary over time. In these cases, the related mortgage instrument and/or other related loan documents may provide for applicable reserve deposits to cease upon achieving predetermined maximum amounts in the related reserve account. Under some of the underlying mortgage loans, the related borrowers may be permitted to deliver letters of credit from third parties in lieu of establishing and funding the reserve accounts or may substitute letters of credit and obtain release of established reserve accounts.

Engineering/Deferred Maintenance Reserves. The column titled “Engineering Escrow/Deferred Maintenance” on Exhibit A-1 shows the engineering reserves established at the origination of the corresponding underlying mortgage loans for repairs and/or deferred maintenance items that are generally required to be corrected within 12 months from origination. In certain cases, the engineering reserve for a mortgaged real property may be less than the cost estimate in the related inspection report because—

- the mortgage loan seller may not have considered various items identified in the related inspection report significant enough to require a reserve; and/or
- various items identified in the related inspection report may have been corrected.

In the case of some of the mortgaged real properties securing the underlying mortgage loans, the engineering reserve was a significant amount and substantially in excess of the cost estimate set forth in the related inspection report because the mortgage loan seller required the borrower to establish reserves for the completion of major work that had been commenced. In the case of some mortgaged real properties acquired with the proceeds of the related underlying mortgage loan, the related borrower escrowed an amount substantially in excess of the cost estimate set forth in the related inspection report because it contemplated completing repairs in addition to those shown in the related inspection report. Not all engineering reserves are required to be replenished.

We cannot provide any assurance that the work for which reserves were required will be completed in a timely manner or that the reserved amounts will be sufficient to cover the entire cost of the required work.

Release of Property Through Defeasance or Prepayment.

Defeasance. 45 of the underlying mortgage loans, collectively representing 95.3% of the initial mortgage pool balance, permit the borrower (no earlier than the second anniversary of the Closing Date) to obtain the release of the related mortgaged real property through defeasance of the related underlying mortgage loan.

The borrower is permitted to deliver, during specified periods and subject to specified conditions, (i) direct, non-callable and non-redeemable U.S. treasury obligations, (ii) non-callable bonds, debentures, notes and other similar debt obligations issued by Freddie Mac or Fannie Mae and/or (iii) direct, non-callable and non-redeemable securities issued or fully insured as to payment by any Federal Home Loan Bank, as substitute collateral and obtain

a full release of the mortgaged real property. In general, the securities that are to be delivered in connection with the defeasance of any underlying mortgage loan must provide for a series of payments that—

- will be made prior, but as closely as possible, to all successive due dates through and including the maturity date, and
- will, in the case of each due date, be in the total amount equal to or greater than the monthly debt service payment, including any applicable balloon payment, scheduled to be due on that date.

In connection with any delivery of defeasance collateral, the related borrower will be required to deliver a security agreement granting the issuing entity a first priority security interest in the collateral, together with an opinion of counsel confirming the first priority status of the security interest.

None of the underlying mortgage loans may be defeased prior to the second anniversary of the Closing Date.

Prepayment. 1 underlying mortgage loan, representing 4.7% of the initial mortgage pool balance, permits the related borrower to obtain the release of all of the real property securing the related underlying mortgage loan upon the prepayment of such underlying mortgage loan in full, together with the payment of Static Prepayment Premium and/or a Yield Maintenance Charge as described in “—Prepayment Provisions” above, without any lockout period.

Due-on-Sale and Due-on-Encumbrance Provisions. All of the underlying mortgage loans contain both a due-on-sale clause and a due-on-encumbrance clause. In general, these clauses either—

- permit the holder of the mortgage to accelerate the maturity of the underlying mortgage loan if the related borrower sells or otherwise transfers an interest in the corresponding mortgaged real property, borrower or controlling entity or encumbers the corresponding mortgaged real property without the consent of the holder of the mortgage, unless such sale, transfer or encumbrance is permitted by the loan documents; or
- unless permitted by the loan documents, prohibit the borrower from otherwise selling, transferring or encumbering the corresponding mortgaged real property without the consent of the holder of the mortgage.

The loan agreements may in many or all cases freely permit transfers in the following circumstances:

1. A transfer of any non-controlling or controlling interest in any entity that is not a borrower or a Designated Entity for Transfers, excluding interests held by a guarantor or a Required Equity Owner.
2. A transfer of a non-controlling interest in a borrower or a Designated Entity for Transfers, excluding interests held by a guarantor or a Required Equity Owner.

In addition, the loan agreements may in many or all cases permit some or all of the following transfers if certain conditions are satisfied, including payment of a Transfer Processing Fee of either \$15,000 or \$25,000, as the case may be:

1. A transfer of a controlling interest in a borrower or a Designated Entity for Transfers to an affiliate of the transferor.
2. A transfer of a controlling interest in a borrower or a Designated Entity for Transfers to an entity or revocable trust that is controlled by the transferor for the benefit of immediate family members.
3. A transfer of a controlling interest in the borrower or a Designated Entity for Transfers due to death, legal incapacity or retirement of a previously underwritten person named in the loan agreement. If the prior borrower principal was the guarantor or an affiliate of the guarantor, then the lender must determine at the time of the transfer that the remaining guarantor(s) meet the requirements of the loan agreement for replacement guarantors, including as to net worth and liquidity, or the previously underwritten person becomes a replacement guarantor and executes a replacement guaranty within 60 days of the event that caused the transfer. Such previously underwritten person will be required to certify that its net worth and liquidity are substantially the same as or better than they were as of the origination date.
4. A transfer of a co-owner’s interest in a mortgaged real property to another co-owner.
5. A termination of an existing tenancy-in-common agreement and the transfer of all the interests of each co-owner borrower in a mortgaged real property to a single consolidated borrower entity.

6. A transfer of a controlling interest in a borrower or a Designated Entity for Transfers to an immediate family member (not previously underwritten) due to a death and, if applicable, a subsequent transfer by such immediate family member to another immediate family member of the deceased natural person. If the transfer results from the death of a guarantor, then a replacement guaranty must be provided unless the lender determines that the surviving guarantor(s) meet the requirements of the loan agreement for replacement guarantors, including as to net worth and liquidity.
7. A Preferred Equity Control Take-Over Transfer. If this occurs, the preferred equity investor or its affiliate must execute a replacement guaranty and the preferred equity investor must certify that its net worth and liquidity are substantially the same as or better than they were as of the origination date.
8. A Buy-Sell Transfer, including a release of a guarantor in connection with a manager take-over of equity. The transferee will be required to execute a replacement guaranty and certify that its net worth and liquidity are substantially the same as or better than they were as of the origination date.
9. A replacement guarantor due to guarantor bankruptcy, Loan Guarantor Status Event or death of guarantor not in borrower's ownership structure.

In addition, many or all of the following types of transfers may be permitted if certain conditions are satisfied, including payment of a \$40,000 fee (comprised of a \$15,000 Transfer Processing Fee and a \$25,000 Transfer Fee):

1. A transfer of a managing interest in a borrower to another person that existed in the borrower's organizational chart at the time of origination (*e.g.* origination equity taking over control of a borrower). The loan agreements may permit a transfer of this type if the lender in its discretion has determined that the eligibility, organization, credit, and experience in the management of similar properties of the transferee are appropriate to the overall structure and documentation of the loan. If the transferor or its affiliate is a guarantor, the transferee or its affiliate must execute a replacement guaranty.
2. A transfer by a Required Equity Owner of part or all of the ownership interest it is required to maintain under the loan agreement. A transfer of this type will require that the lender in its discretion has determined that it is not necessary for the departing Required Equity Owner to maintain the required ownership interest.
3. A release of guarantor. The loan agreements may permit, in the lender's discretion, a portion of the guarantor's obligations under the guaranty to be released, if after the release of guarantor, the remaining guarantor(s) meet the requirements of the loan agreement for replacement guarantors, including as to net worth and liquidity, and otherwise be acceptable to the lender.

In addition, the following may be permitted under some or all of the loan documents if a 1% Transfer Fee (subject to a \$250,000 cap) plus a \$15,000 Transfer Processing Fee is paid, and among other conditions, the lender in its discretion has determined that (i) the transferee's organization, credit and experience in the management of similar properties meet the lender's standards and are appropriate to the overall structure and documentation of the loan, and (ii) any proposed guarantor's credit meets the lender's standards:

1. A transfer of a controlling interest in the borrower or Designated Entity for Transfers to an unrelated third party.
2. A transfer of title to the mortgaged real property and an assumption of the loan.

The above-described fees will, with respect to non-Specially Serviced Mortgage Loans, be payable to the master servicer and/or the Approved Directing Certificateholder as shown under "Description of the Certificates—Fees and Expenses" in this information circular.

We make no representation as to the enforceability of any due-on-sale or due-on-encumbrance provision in any underlying mortgage loan.

Permitted Additional Debt.

General. Other than as described below, the underlying mortgage loans generally prohibit the borrowers from incurring, without lender consent, any additional debt secured or unsecured, direct or contingent other than (i) permitted subordinate supplemental mortgages, as described under “—Permitted Subordinate Mortgage Debt” below, and (ii) customary unsecured trade payables incurred in the ordinary course of owning and operating the corresponding mortgaged real property that do not exceed, in the aggregate, at any time a maximum amount of up to 2.0% of the original principal amount of the corresponding underlying mortgage loan and are paid within 60 days of the date incurred.

Each unsecured creditor could cause the related borrower to seek protection under the applicable bankruptcy laws.

Permitted Subordinate Mortgage Debt. The borrowers under all of the underlying mortgage loans are permitted to incur an additional limited amount of subordinate indebtedness secured by the related mortgaged real properties generally beginning 12 months after the origination date of each related underlying mortgage loan, unless otherwise provided in the related loan documents, which may be incurred at any time, including on or before the Closing Date. It is a condition to the incurrence of any such future secured subordinate loan that, among other things: (i) the total loan-to-value ratio of these loans be below, and the debt service coverage ratio be above, certain thresholds set out in the related loan documents and (ii) subordination agreements and intercreditor agreements be put in place between the issuing entity and the related lenders. In the event a borrower satisfies these conditions, the borrower will be permitted to obtain secured subordinate debt from certain Freddie Mac-approved lenders who will make such subordinate financing exclusively for initial purchase by Freddie Mac. A default under the subordinate loan documents will constitute a default under the related senior underlying mortgage loan. The related intercreditor agreement will provide that the subordinate debt may be transferred to certain “qualified transferees” meeting certain minimum net worth requirements or other criteria set forth in such intercreditor agreement. Freddie Mac may at any time transfer any junior lien loans it holds in secondary market transactions, including securitizations.

The loan documents require that any such subordinate debt be governed by an intercreditor agreement which will, in general, govern the respective rights of the holder of the subordinate loan and the issuing entity as the holder of the related underlying mortgage loan. The following paragraphs describe certain provisions that will be included in the intercreditor agreements, but they do not purport to be complete and are subject, and qualified in their entirety by reference to the actual provisions of each intercreditor agreement. The issuing entity as the holder of the Senior Loan is referred to in these paragraphs as the “Senior Loan Holder” and the related underlying mortgage loan included in the issuing entity is referred to as the “Senior Loan.” Any related subordinate loan is referred to as the “Junior Loan” and any “Junior Loan Holder” means the holder of the most subordinate Junior Loan related to such Senior Loan.

Allocations of Payments. The right of any holder of a Junior Loan to receive payments of interest, principal and other amounts will be subordinated to the rights of the Senior Loan Holder. Generally, as long as no event of default has occurred under the Senior Loan or a Junior Loan, the related borrower will make separate payments of principal and interest to any holder of a Junior Loan and the Senior Loan Holder, respectively. If an event of default occurs with respect to the Senior Loan or a Junior Loan or the related borrower becomes a subject of any bankruptcy, insolvency or reorganization proceeding, then, prior to any application of payments to a Junior Loan all amounts tendered by the related borrower or otherwise available for payment will be applied, net of certain amounts, to satisfy the interest (other than Default Interest), principal and other amounts owed with respect to the related Senior Loan until these amounts are paid in full. Any payments received by any holder of a Junior Loan during this time are required to be forwarded to the Senior Loan Holder.

Modifications. The Senior Loan Holder will be permitted to enter into any amendment, deferral, extension, modification, increase, renewal, replacement, consolidation, supplement or waiver of any term or provision of any Senior Loan without the consent of any holder of a Junior Loan unless such modification will (i) increase the interest rate or principal amount of the Senior Loan, (ii) increase in any other material respect any monetary obligations of related borrower under the Senior Loan, (iii) extend or shorten the scheduled maturity date of the Senior Loan (other than pursuant to extension options exercised in accordance with the terms and provisions of the related loan documents), (iv) convert or exchange the Senior Loan into or for any other indebtedness or subordinate any of the Senior Loan to any indebtedness of related borrower, (v) amend or modify the provisions limiting transfers of

interests in the related borrower or the related mortgaged real property, (vi) modify or amend the terms and provisions of the Senior Loan cash management agreement with respect to the manner, timing and method of the application of payments under the related loan documents, (vii) cross-default the Senior Loan with any other indebtedness, (viii) consent to a higher strike price with respect to any new or extended interest rate cap agreement entered into in connection with the extended term of the Senior Loan, (ix) obtain any contingent interest, additional interest or so-called “kicker” measured on the basis of the cash flow or appreciation of the mortgaged real property (or other similar equity participation) or (x) extend the period during which voluntary prepayments are prohibited or during which prepayments require the payment of a Static Prepayment Premium or Yield Maintenance Charge or increase the amount of any such Static Prepayment Premium or Yield Maintenance Charge. However, in no event will the Senior Loan Holder be obligated to obtain the consent of the holder of a Junior Loan in the case of a workout or other surrender, compromise, release, renewal, or modification of the Senior Loan during the existence of a continuing Senior Loan event of default, except that under all conditions Senior Loan Holder will be required to obtain the consent of any holder of a Junior Loan to a modification with respect to clause (i) (with respect to increasing the principal amount of the Senior Loan only) and clause (x) of this paragraph.

Any holder of a Junior Loan will be permitted to enter into any amendment, deferral, extension, modification, increase, renewal, replacement, consolidation, supplement or waiver of any term or provision of any Junior Loan without the consent of the Senior Loan Holder unless such modification will (i) increase the interest rate or principal amount of such Junior Loan, (ii) increase in any other material respect any monetary obligations of related borrower under the related loan documents with respect to such Junior Loan, (iii) extend or shorten the scheduled maturity date of such Junior Loan (other than pursuant to extension options exercised in accordance with the terms and provisions of the related loan documents), (iv) convert or exchange such Junior Loan into or for any other indebtedness or subordinate any Junior Loan to any indebtedness of the related borrower, (v) amend or modify the provisions limiting transfers of interests in the related borrower or the related mortgaged real property, (vi) consent to a higher strike price with respect to any new or extended interest rate cap agreement entered into in connection with the extended term of such Junior Loan, (vii) cross-default such Junior Loan with any other indebtedness, (viii) obtain any contingent interest, additional interest or so-called “kicker” measured on the basis of the cash flow or appreciation of the related mortgaged real property (or other similar equity participation) or (ix) extend the period during which voluntary prepayments are prohibited or during which prepayments require the payment of a Static Prepayment Premium or Yield Maintenance Charge or increase the amount of any such Static Prepayment Premium or Yield Maintenance Charge. However, in no event will any holder of a Junior Loan be obligated to obtain the Senior Loan Holder’s consent to a modification or amendment in the case of a workout or other surrender, compromise, release, renewal, or modification of such Junior Loan if an event of default has occurred and is continuing with respect to such Junior Loan, except that under all conditions any holder of a Junior Loan will be required to obtain the Senior Loan Holder’s consent to a modification with respect to clause (i) (with respect to increasing the principal amount of such Junior Loan only), clause (ii), clause (iii) (with respect to shortening the scheduled maturity date of such Junior Loan only), clause (iv), clause (viii) and clause (ix) of this paragraph.

Cure. Upon the occurrence of any default that would permit the Senior Loan Holder under the related loan documents to commence an enforcement action, a holder of a Junior Loan will have the right to receive notice from the Senior Loan Holder of the default and the right to cure that default after or prior to the expiration of the related borrower’s cure period or in some cases for a period extending beyond the related borrower’s cure period. A holder of a Junior Loan generally will have a specified period of time, set forth in the related intercreditor agreement, to cure any default, depending on whether the default is monetary or non-monetary. A holder of a Junior Loan is prohibited from curing monetary defaults for longer than four consecutive months. Before the lapse of such cure period, neither the master servicer nor the special servicer may foreclose on the related mortgaged real property or exercise any other remedies with respect to the mortgaged real property.

Purchase Option. If the Senior Loan becomes a Defaulted Loan (in accordance with the Pooling and Servicing Agreement), pursuant to the intercreditor agreement and the Pooling and Servicing Agreement, (i) each of the Junior Loan Holder and, if the Defaulted Loan is not an Affiliated Borrower Loan, the directing certificateholder will have an option to purchase the Senior Loan at a purchase price equal to at least the Fair Value of such Senior Loan, in accordance with the bidding procedures described in “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Purchase Option” in this information circular and (ii) the Junior Loan Holder will have the first option to purchase such Defaulted Loan at the Purchase Price; *provided* that if any such Junior Loan Holder elects not to exercise such option, then the holder of the next most subordinate Junior Loan (if any) will be entitled to

exercise such right. If the Defaulted Loan is an Affiliated Borrower Loan, the directing certificateholder will only be able to purchase such Senior Loan at a cash price equal to the Purchase Price. See “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Purchase Option” in this information circular.

Property Damage, Liability and Other Insurance. The loan documents for each of the underlying mortgage loans generally require that with respect to the related mortgaged real property the related borrower maintain property damage, flood (if any portion of the improvements of such mortgaged real property is in a flood zone), commercial general liability and business income/rental value insurance in the amounts required by the loan documents, subject to exceptions in some cases for tenant insurance.

We cannot assure you regarding the extent to which the mortgaged real properties securing the underlying mortgage loans will be insured against earthquake risks. With respect to the underlying mortgage loans secured by the mortgaged real properties identified on Exhibit A-1 as “Park Regency Club Apartments,” “Villas At Wood Ranch,” “Parkway Terraces,” “Vineyard Park At Bothell Landing,” “Tanager Springs II Apartments” and “Tanager Springs I Apartments,” collectively representing 17.4% of the initial mortgage pool balance, each such mortgaged real property is partially or fully located in seismic zones 3 or 4 or a geographic location with a horizontal peak ground acceleration equal to or greater than 0.15g and a seismic assessment was performed to assess the scenario expected loss or probable maximum loss. Earthquake insurance was not required with respect to the mortgaged real properties located in seismic zones 3 or 4 or a geographic location with a horizontal peak ground acceleration equal to or greater than 0.15g for which a scenario expected loss assessment or a probable maximum loss assessment was performed because the scenario expected loss or probable maximum loss for each of those mortgaged real properties is less than or equal to 20% of the amount of the replacement cost of the improvements.

Subject to the discussion below regarding insurance for acts of terrorism, the master servicer will be required to use reasonable efforts in accordance with the Servicing Standard to cause each borrower to maintain, and, if such borrower does not so maintain, the master servicer will itself cause to be maintained, for each mortgaged real property (including each mortgaged real property relating to any Specially Serviced Mortgage Loan) all insurance coverage as is required under the related loan documents or the Servicing Standard. The master servicer will not be required to require the related borrower to obtain or maintain earthquake or flood insurance coverage that is not available at commercially reasonable rates, as determined by the master servicer in accordance with the Servicing Standard. If such borrower fails to do so, the master servicer must maintain that insurance coverage, to the extent—

- the trustee has an insurable interest;
- the insurance coverage is available at commercially reasonable rates, as determined by the master servicer in accordance with the Servicing Standard; and
- any related Servicing Advance is deemed by the master servicer to be recoverable from collections on the related underlying mortgage loan.

However, the master servicer will not be required to declare a default under an underlying mortgage loan if the related borrower fails to maintain insurance providing for coverage for property damage resulting from a terrorist or similar act, and the master servicer need not maintain (or require the borrower to obtain) such insurance, if the special servicer has determined (after due inquiry in accordance with the Servicing Standard and with the consent of the Approved Directing Certificateholder (if any), which consent is subject to certain limitations and a specified time period as set forth in the Pooling and Servicing Agreement; *provided* that the special servicer will not follow any such direction, or refrain from acting based on the lack of any such direction, of such Approved Directing Certificateholder, if following any such direction of such Approved Directing Certificateholder or refraining from taking such action based on the lack of any such direction of such Approved Directing Certificateholder would violate the Servicing Standard), in accordance with the Servicing Standard, that either:

- such insurance is not available at commercially reasonable rates and such hazards are not at the time commonly insured against for properties similar to the related mortgaged real property and located in and around the region in which the mortgaged real property is located; or
- such insurance is not available at any rate.

The insurance coverage required to be maintained by the borrowers may not cover any physical damage resulting from, among other things, war, revolution, or nuclear, biological, chemical or radiological materials. In

addition, even if a type of loss is covered by the insurance policies required to be in place at the mortgaged real property, the mortgaged real property may suffer losses for which the insurance coverage is inadequate. For example, in the case where terrorism coverage is included under a policy, if the terrorist attack is, for example, nuclear, biological or chemical in nature, the policy may include an exclusion that precludes coverage for such terrorist attack.

Various forms of insurance maintained with respect to one or more of the mortgaged real properties securing the underlying mortgage loans, including casualty insurance, may be provided under a blanket insurance policy. That blanket insurance policy will also cover other real properties, some of which may not secure underlying mortgage loans. As a result of total limits under any of those blanket policies, losses at other properties covered by the blanket insurance policy may reduce the amount of insurance coverage with respect to a property securing one of the underlying mortgage loans.

The underlying mortgage loans generally provide that insurance and condemnation proceeds are to be applied either—

- to restore the related mortgaged real property (with any balance to be paid to the borrower); or
- towards payment of the underlying mortgage loan.

With respect to any REO Property, the special servicer will be required to maintain one or more insurance policies sufficient to provide no less coverage than was previously required of the borrower under the related loan documents or any such lesser amount of coverage previously required by the master servicer when such REO Loan was a non-Specially Serviced Mortgage Loan or, at the special servicer's election and with the consent of the Approved Directing Certificateholder (if any) (which consent is subject to certain limitations and a specified time period as set forth in the Pooling and Servicing Agreement), coverage satisfying insurance requirements consistent with the Servicing Standard, *provided* that such coverage is available at commercially reasonable rates and to the extent the trustee as mortgagee of record on behalf of the issuing entity has an insurable interest. The special servicer, to the extent consistent with the Servicing Standard, may maintain earthquake insurance on REO Properties, provided that coverage is available at commercially reasonable rates and to the extent the trustee as mortgagee of record on behalf of the issuing entity has an insurable interest.

The master servicer and the special servicer may each satisfy its obligations regarding maintenance of the property damage insurance policies by maintaining a lender placed insurance policy that provides protection equivalent to the individual policies otherwise required by the loan documents or the Servicing Standard (including containing a deductible clause consistent with the Servicing Standard) insuring against hazard losses with respect to all of the mortgaged real properties and/or REO Properties in the issuing entity for which it is responsible. Solely in the event that Accepted Servicing Practices is the applicable Servicing Standard, the deductible clause (if any) in the lender placed insurance policy referred to in the preceding sentence is required to be in an amount not in excess of customary amounts, in which case if (i) an insurance policy complying with the loan documents or the Servicing Standard or, in the case of REO Properties, as permitted by the Pooling and Servicing Agreement or consistent with the Servicing Standard, if applicable, is not maintained on the related mortgaged real property or REO Property and (ii) there are losses which would have been covered by such insurance policy had it been maintained, the master servicer or the special servicer, as applicable, must deposit into the collection account from the master servicer's or the special servicer's, as applicable, own funds the portion of such loss or losses that would have been covered under such insurance policy but is not covered under the lender placed insurance policy because such deductible exceeds the deductible limitation required by the related loan documents or the Servicing Standard or, in the case of REO Properties, as permitted by the Pooling and Servicing Agreement or, in the absence of any such deductible limitation, the deductible limitation which is consistent with the Servicing Standard. Any incremental costs (excluding any minimum or standby premium payable for a lender placed insurance policy, whether or not any mortgaged real property or REO Property is covered thereby) incurred by the master servicer or the special servicer, as applicable, if the master servicer or special servicer causes any mortgaged real property or REO Property to be covered by a lender placed insurance policy will be paid by the master servicer as a Servicing Advance (subject to a nonrecoverability determination).

Condominium Ownership. Certain mortgaged real properties are part of a condominium regime. For example, with respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “Brookview At Templeton Crossing,” representing 1.4% of the initial mortgage pool balance, the mortgaged real property constitutes, in whole or in part, a condominium. The related borrower owns 100% of the related condominium units. In the related loan agreement, the borrower generally agreed, among other things, that (i) all condominium documents are subordinated or subject to the related loan documents, (ii) so long as the underlying mortgage loan is outstanding, it will not modify or amend the condominium documents without the prior written consent of the lender, (iii) none of the condominium units owned by such borrower and no portion of the common elements comprising the condominium have been sold or encumbered, (iv) it will operate the condominium units solely as a rental apartment project and (v) it will indemnify the lender from and against any and all losses or damages arising out of the failure of the borrower to comply with any laws or regulations related to the condominium.

We cannot assure you that the related borrower will abide by this agreement or that these considerations will not adversely impact your investment.

Mortgage Pool Characteristics

Exhibits A-1, A-2 and A-3 present in detail various characteristics of the underlying mortgage loans and of the corresponding mortgaged real properties, on an individual basis and in tabular format. The statistics in the tables and schedules on Exhibits A-1, A-2 and A-3 were derived, in many cases, from information and operating statements furnished by or on behalf of the respective borrowers. The information and the operating statements were generally unaudited and have not been independently verified by us or Freddie Mac.

Additional Loan and Property Information

Ground Leases. With respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “Broadstone Northpoint,” representing 2.5% of the initial mortgage pool balance, such underlying mortgage loan is secured by the related borrower’s leasehold interest in the related mortgaged real property. The mortgaged real property is subject to a ground lease between the City of Albuquerque, New Mexico, as ground lessor, and the borrower, as ground lessee, in connection with the related PILOT tax abatement and the issuance by the related municipality of certain redevelopment bonds to the developer for reimbursement of the acquisition and construction of the mortgaged real property. The ground lease requires the ground lessor to assign and pledge its rights, title and interest in and to the ground lease to Broadstone Northpoint MR Bond Investors, LLC (“Broadstone Affiliate”), which is a wholly-owned affiliate of the borrower. Broadstone Affiliate is entitled to all revenues from the related mortgaged real property towards payment of the bonds. The ground lease is scheduled to expire on December 1, 2025. The ground lease provides that upon termination or expiration the ground lessor is required to convey fee title to the related mortgaged real property to the borrower or its successors upon the payment of \$1.00.

In addition, with respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “The Verge Apartments,” representing 1.7% of the initial mortgage pool balance, such underlying mortgage loan is secured by the related borrower’s leasehold interest in the related mortgaged real property. The mortgaged real property is subject to a ground lease between Brookside at Chestnut L.L.C., as ground lessor, and the related borrower, as ground lessee. Rent is currently due under the ground lease in a total amount of \$239,400 *per annum*, payable monthly. The ground lease is scheduled to expire on May 31, 2117, subject to the borrower’s option to extend the term of the ground lease for 15, 10-year periods. The borrower has a right of first refusal in connection with any offer to purchase the mortgaged real property from the ground lessor.

In addition, with respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “6210 Roosevelt,” representing 0.7% of the initial mortgage pool balance, such underlying mortgage loan is secured by the related ground lessor’s fee interest in the related mortgaged real property and the related borrower’s leasehold interest in the mortgaged real property. The mortgaged real property is subject to a ground lease between MMT Philly, LLC, as ground lessor, and the related borrower, as lessee. The current fixed rent is \$12 *per annum*. The ground lease is scheduled to expire on August 31, 2048.

Other Indebtedness. With respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “Hillcroft Village,” representing 2.1% of the initial mortgage pool balance, the sponsor of the related borrower reported that a portion of the sponsor’s indirect ownership interests in the borrower was pledged to secure a convertible loan in the amount of \$952,446, held by TREV RIDC Danbury LP (the “Hillcroft Convertible Lender”), a borrower-affiliate, in December 2016. The sponsor reported that it is required to make quarterly payments until the maturity date in December 2026. In addition, the sponsor reported that, at any time after December 14, 2019 or during an event of default, the Hillcroft Convertible Lender has the option to convert the pledged portion of the sponsor’s indirect ownership interests into a 10.0% equity interest in the related borrower. The sponsor reported that the conversion option is expected to be exercised in December 2019.

Borrower Structures. With respect to all of the underlying mortgage loans, the related borrowers are single purpose entities whose organizational documents or the terms of the underlying mortgage loans limit their activities to the ownership of only the related mortgaged real property or properties and, subject to exceptions, including relating to subordinate debt secured by the related mortgaged real properties, generally limit the borrowers’ ability to incur additional indebtedness other than trade payables and equipment financing relating to the mortgaged real properties in the ordinary course of business.

With respect to some of the underlying mortgage loans, the related nonrecourse carveout provisions of the related loan documents may be guaranteed, in whole or in part, by non-U.S. individuals or entities, which may decrease the likelihood of recovery under such guarantee. In addition, some of the underlying mortgage loans may be guaranteed, in whole or in part, by sponsors of the related borrowers or other parties that are funds or other entities, the terms of which may be subject to expiration or other structural contingencies. In such cases, the related loan documents may require such entities to extend their terms or to otherwise take action or provide additional security to the lender regarding the continued existence of such entities during the terms of the underlying mortgage loans.

We cannot assure you that circumstances that may arise if the related borrowers do not observe such covenants will not adversely impact such borrowers or the operations at or the value of the related mortgaged real properties.

Delinquencies. None of the underlying mortgage loans was, as of the Cut-off Date, 30 days or more delinquent with respect to any monthly debt service payment.

Title, Survey and Similar Issues. The permanent improvements on certain of the mortgaged real properties may encroach over an easement or a setback line or onto another property. In other instances, certain oil, gas or water estates may affect a property. Generally, in those cases, either (i) the related lender’s title policy insures against loss if a court orders the removal of the improvements causing the encroachment or (ii) the respective title and/or survey issue was analyzed by the originating lender and determined not to materially affect the respective mortgaged real property for its intended use. There is no assurance, however, that any such analysis in this regard is correct, or that such determination was made in each and every case.

Reverse 1031 Exchange. With respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “Hillcrest Apartments,” representing 1.1% of the initial mortgage pool balance, the underlying mortgage loan was closed pursuant to a reverse Code Section 1031 exchange with respect to the ownership of the borrower. Following a holding period of no more than 180 days from origination of the underlying mortgage loan (the “Holding Period”), the parent of the borrower (the “Exchange Borrower”) is required to transfer 100% of its ownership interest to Beetdigger, LLC or BlueLine Equity Partners, LLC (each, an “Exchange Owner”). The Exchange Owner is required to acquire 100% of the ownership interests in the Exchange Borrower in the event the exchange does not occur. The current sole member of the Exchange Borrower is National Safe Harbors Exchange, Inc. (the “Qualified Intermediary”). During the Holding Period, the Exchange Borrower holds title to the mortgaged real property and master leases the Exchange Borrower’s interest in the mortgaged real property to the Exchange Owner. We cannot assure you that the exchange will take place, that any anticipated tax benefits will be received or that the Code Section 1031 structure will not result in complications or delays in terms of property management or any borrower bankruptcy, workout or foreclosure actions related to the mortgaged real property.

Restrictive Covenants and Contractual Covenants. Some of the multifamily rental properties that secure the underlying mortgage loans may be subject to land use restrictive covenants or contractual covenants.

For example, with respect to the underlying mortgage loans secured by the mortgaged real properties identified on Exhibit A-1 as “Grand Reserve Orange Apartments,” “Berwick Grove Apartments,” “Ashton Square,” “Tanager Springs II Apartments” and “Tanager Springs I Apartments,” collectively representing 4.6% of the initial mortgage pool balance, each such mortgaged real property is subject to a rent restriction in favor of a local, state or federal agency. The agreements generally require that all or a portion of the units at each such mortgaged real property be reserved for tenants earning no more than a specified income threshold. Such income thresholds range from 30.0% to 80.0% of the related area median income, subject to certain rental restrictions.

In addition, with respect to the underlying mortgage loans secured by the mortgaged real properties identified on Exhibit A-1 as “Contempo Tempe MHC” and “Morgan Estates,” collectively representing 3.2% of the initial mortgage pool balance, the sponsor of the related borrower reported that the mortgaged real property is subject to an age-restriction or is marketed as being an age-restricted property reserved for tenants age 55 and over.

Low Income Housing Tax Credits. Some of the mortgaged real properties that secure the underlying mortgage loans may entitle or may have entitled their owners to receive low income housing tax credits pursuant to Code Section 42.

For example, with respect to the underlying mortgage loans secured by the mortgaged real properties identified on Exhibit A-1 as “Berwick Grove Apartments,” “Ashton Square,” “Tanager Springs II Apartments” and “Tanager Springs I Apartments,” collectively representing 2.3% of the initial mortgage pool balance, each such mortgaged real property is subject to a land use restriction agreement in favor of a local, state or federal agency made in connection with the allocation of federal low-income housing tax credits under Code Section 42. The agreements generally require that all or a portion of the units at each such mortgaged real property be reserved for tenants earning no more than a specified income threshold. Such income thresholds range from 30.0% to 60.0% of the related area median income, subject to certain rental restrictions.

Rental Subsidy Programs. Some of the mortgaged real properties have tenants that rely on rent subsidies under various government funded programs, including Section 8. For example, with respect to the underlying mortgage loans secured by the mortgaged real properties identified on Exhibit A-1 as “Grand Reserve Orange Apartments” and “Tanager Springs II Apartments,” collectively representing 2.7% of the initial mortgage pool balance, the sponsor of the related borrower reported that certain tenants at the mortgaged real property utilize Section 8 vouchers. In addition, with respect to certain of the underlying mortgage loans, the borrower may receive subsidies or other assistance from government programs. Generally, a mortgaged real property receiving such subsidy or assistance must satisfy certain requirements, the borrower must observe certain leasing practices and/or the tenant(s) must regularly meet certain income requirements. For example, with respect to the underlying mortgage loans secured by the mortgaged real properties identified on Exhibit A-1 as “Berwick Grove Apartments” and “Ashton Square,” collectively representing 1.5% of the initial mortgage pool balance, each such mortgaged real property is subject to a project-based Section 8 Housing Assistance Payments (“HAP”) contract. The HAP contract cannot be assigned by the lender without the consent of HUD or a state or local housing agency and will not be assigned to the issuing entity. We cannot assure you that such programs will continue in their present form or that the borrower will continue to comply with the requirements of the programs to enable the borrower to receive the subsidies in the future or that the level of assistance provided will be sufficient to generate enough revenues for the borrower to meet their obligations under the underlying mortgage loans, nor can we assure you that any transferee of the mortgaged real property, whether through foreclosure or otherwise, will obtain the consent of HUD or any state or local housing agency.

Tax Abatements and Exemptions. Some of the mortgaged real properties that secure the underlying mortgage loans may entitle or may have entitled their owners to receive tax abatements or exemptions or may be subject to reduced taxes in connection with a “payment in lieu of taxes” (“PILOT”) agreement.

For example, with respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “Broadstone Northpoint,” representing 2.5% of the initial mortgage pool balance, the mortgaged real property benefits from a tax abatement granted by the City of Albuquerque, New Mexico in connection with a prior financing of the mortgaged real property. The tax abatement is scheduled to terminate on December 31, 2025.

In addition, with respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “Abigail Vare Apartments,” representing 0.7% of the initial mortgage pool balance, the mortgaged real property benefits from a tax abatement granted by the City of Philadelphia, Office of Property Assessments. The tax abatement is scheduled to terminate on December 31, 2029.

In addition, with respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “Tanager Springs II Apartments,” representing 0.4% of the initial mortgage pool balance, the related borrower reported that it intends to apply to the California Board of Equalization for a tax abatement for the mortgaged real property. In the event that such tax abatement is not obtained by October 1, 2020 (subject to a 6-month extension in the event that the borrower demonstrates to the lender’s satisfaction that it has made significant progress in obtaining such tax abatement), the borrower will be required to prepay in part the underlying mortgage loan in an amount equal to \$1,062,000, together with a prepayment premium calculated in accordance with the related loan documents.

In addition, with respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “Tanager Springs I Apartments,” representing 0.4% of the initial mortgage pool balance, the related borrower reported that it intends to apply to the California Board of Equalization for a tax abatement for the mortgaged real property. In the event that such tax abatement is not obtained by October 1, 2020 (subject to a 6-month extension in the event that the borrower demonstrates to the lender’s satisfaction that it has made significant progress in obtaining such tax abatement), the borrower will be required to prepay in part the underlying mortgage loan in an amount equal to \$1,030,000, together with a prepayment premium calculated in accordance with the related loan documents.

With respect to such mortgaged real properties that entitle their owners to receive tax exemptions, the related Cut-off Date LTVs are often calculated using Appraised Values that assume that the owners of such mortgaged real properties receive such property tax exemptions.

Litigation. There may be pending or, from time to time, threatened legal proceedings against the borrowers under the underlying mortgage loans, the property managers of the related mortgaged real properties and their respective affiliates, arising out of the ordinary business of those borrowers, property managers and affiliates.

For example, with respect to the underlying mortgage loans secured by the mortgaged real properties identified on Exhibit A-1 as “Park Valley Apartments,” “Tapestry Park At Montclair,” “Lakeside At Coppell,” “Peakview By Horseshoe Lake” and “The Meadows At North Richland Hills,” collectively representing 16.6% of the initial mortgage pool balance, the sponsor of the related borrowers reported that it is has been involved in two lawsuits brought by HUD alleging discrimination at properties other than the mortgaged real properties between 2015 and 2017.

In addition, with respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “The Park At Hurstbourne Apartments,” representing 4.1% of the initial mortgage pool balance, the sponsor of the related borrower reported that it is subject to pending litigation in connection with a contract dispute with an investor unrelated to the mortgaged real property. The sponsor reports that a preliminary injunction was issued in 2018 to enjoin the sponsor from selling, mortgaging, pledging and leasing (other than in the ordinary course of business) the property that is the subject of the dispute without providing the plaintiff with 45 days prior notice.

In addition, with respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “Palisade Park,” representing 3.2% of the initial mortgage pool balance, the sponsor of the related borrower reported that it is involved in a pending arbitration with respect to an alleged breach of an asset purchase agreement and alleged violations of the California Business and Professions Code and the Uniform Fraudulent Transfer Act in connection with the operation of a nursery that produced grapevines, which the plaintiffs allege were infected with a virus that prevented ripening of fruit. The related sponsor reported that three of the plaintiffs settled their claims, and certain of their arbitration claims were dismissed with prejudice. The sponsor reported that a separate arbitration hearing is scheduled for early 2020 and that potential liability is upwards of approximately \$2.5 million, which amount is not covered by insurance.

In addition, with respect to the underlying mortgage loan secured by the mortgaged real property identified on Exhibit A-1 as “Vista Buena Apartments,” representing 1.8% of the initial mortgage pool balance, the sponsor of the related borrower reported that it is subject to pending litigation in connection with the sponsor’s maturity default on a loan unrelated to the underlying mortgage loan with respect to which the sponsor executed a partial guarantee. The sponsor reported that it is currently engaged in settlement discussions.

Manufactured Housing Community Properties. 6 of the mortgaged real properties, identified on Exhibit A-1 as “Contempo Tempe MHC,” “Tierra West,” “Aztec Village,” “Homestead Village,” “Cottage Cove” and “Picnic Grove MHC,” securing underlying mortgage loans collectively representing 6.9% of the initial mortgage pool balance, are manufactured housing community properties.

Healthcare-Related Property. 1 mortgaged real property identified on Exhibit A-1 as “Vineyard Park At Bothell Landing,” securing an underlying mortgage loan representing 1.0% of the initial mortgage pool balance, is a healthcare-related property that provides assisted living, memory care and/or independent living services. 38 units at such mortgaged real property are dedicated to independent living and 49 units at such mortgaged real property are dedicated to assisted living.

Redevelopment or Renovation. Certain mortgaged real properties are subject to current or future redevelopment, renovation or construction.

Underwriting Matters

General. Each underlying mortgage loan was originated by the applicable Originator substantially in accordance with the standards in the Freddie Mac Act and the Guide, each as described in “Description of the Mortgage Loan Seller and Guarantor—Mortgage Loan Purchase and Servicing Standards of the Mortgage Loan Seller” in this information circular. In connection with the origination or acquisition of each of the underlying mortgage loans, the applicable Originator or acquiror of the underlying mortgage loan evaluated the corresponding mortgaged real property or properties in a manner generally consistent with the standards described in this “—Underwriting Matters” section.

With respect to certain of the underlying mortgage loans with original principal balances of \$15,000,000 or less, certain underwriting requirements set forth in the Guide may have been revised by streamlined underwriting requirements, including but not limited to: (i) no separate zoning report was required with reliance on zoning information contained in the appraisal; (ii) no updated survey was required if the borrower satisfied certain requirements, including delivery of an existing survey; (iii) simplified special purpose entity requirements; (iv) the requirement to deliver a wood destroying organism report might have been waived in certain circumstances; and (v) if there were no recognized environmental conditions at the mortgaged real property or an adjacent property, physical risk reports may have been obtained in lieu of environmental assessments or property condition assessments.

The information provided in this information circular regarding the condition of the mortgaged real properties, any environmental conditions at the mortgaged real properties, valuations of or market information relating to the mortgaged real properties or legal compliance of the mortgaged real properties is based on reports described below under “—Environmental Assessments and Physical Risk Reports,” “—Property Condition Assessments and Physical Risk Reports,” “—Appraisals and Market Studies” and “—Zoning and Building Code Compliance,” provided by certain third-party independent contractors. Such reports have not been independently verified by any of the parties to the Pooling and Servicing Agreement, the mortgage loan seller or the affiliates of any of these parties.

Subject to certain exceptions, the property condition assessments, physical risk reports and appraisals described in this section were generally performed in connection with the origination of the underlying mortgage loans, which were originated between May 9, 2019 and November 1, 2019. Neither we nor the mortgage loan seller obtained updated property condition assessments, physical risk reports or appraisals in connection with this securitization. We cannot assure you that the information in such property condition assessments, physical risk reports and appraisals reflects the current condition of, or an estimate of, the current or prospective value of the mortgaged real properties.

Environmental Assessments and Physical Risk Reports. With respect to 43 of the mortgaged real properties securing underlying mortgage loans collectively representing 97.9% of the initial mortgage pool balance, Phase I ESAs were prepared in connection with the origination of the underlying mortgage loans. The ESAs, meeting criteria consistent with the Servicing Standard, were prepared pursuant to ASTM International standards for Phase I ESAs. In addition to the Phase I standards, many of the environmental reports included additional research, such as limited sampling for asbestos-containing material, lead-based paint and radon, depending on the property use and/or age. Additionally, as needed pursuant to ASTM International standards, supplemental Phase II site sampling investigations were completed for some mortgaged real properties to evaluate further certain environmental issues. With respect to 3 of the mortgaged real properties identified on Exhibit A-1 as “Tides On Broadway,” “Dupont Villa Apartments” and “Morgan Estates,” securing underlying mortgage loans collectively representing 2.1% of the initial mortgage pool balance, a physical risk report was prepared in connection with the origination of each such underlying mortgage loan. The physical risk reports, meeting criteria consistent with the Servicing Standard, were prepared pursuant to the requirements, duties, and responsibilities of the physical risk consultant set forth in the Guide. We cannot assure you that the environmental assessments or investigations or physical risk reports, as applicable, identified all environmental conditions and risks at, or that any environmental conditions will not have a material adverse effect on the value of or cash flow from, one or more of the mortgaged real properties.

With respect to all of the mortgaged real properties, searches of environmental databases or ESAs were conducted. We cannot assure you that the environmental database searches identified all environmental conditions and risks at, or that any environmental conditions will not have a material adverse effect on the value of or cash flow from, one or more of the mortgaged real properties.

If the environmental investigations described above identified material adverse or potentially material adverse environmental conditions at or with respect to any of the respective mortgaged real properties securing an underlying mortgage loan or at a nearby property with potential to affect a mortgaged real property, then the applicable Originator may have taken or caused to be taken one or more of the following actions:

- an environmental consultant investigated those conditions and recommended no further investigations or remediation;
- an operation and maintenance plan or other remediation was required and/or an escrow reserve was established to cover the estimated costs of obtaining that plan and/or effecting that remediation;
- those conditions were remediated or abated prior to the Closing Date;
- a letter was obtained from the applicable regulatory authority stating that no further action was required;
- another responsible party has agreed to indemnify the holder of the underlying mortgage loan from any losses that such party suffers as a result of such environmental conditions;
- an environmental insurance policy was obtained with respect to the mortgaged real property;
- in those cases in which it was known that an offsite property is the location of a leaking underground storage tank (“UST”) or groundwater contamination, a responsible party other than the related borrower has been identified under applicable law, and generally one or more of the following are true—
 1. that condition is not known to have affected the mortgaged real property; or
 2. the responsible party has either received a letter from the applicable regulatory agency stating no further action is required, established a remediation fund, engaged in responsive remediation, or provided an indemnity or guaranty to the borrower or the mortgagee/lender; and/or
- in those cases involving underlying mortgage loans with an original principal balance of less than \$1,000,000, the borrower expressly agreed to comply with all federal, state and local statutes or regulations respecting the identified adverse environmental conditions.

For some of the mortgaged real properties, the related ESAs may have noted that onsite USTs or leaking USTs previously had been removed or closed in place or other types of potential or actual spills or releases may have occurred, and based on criteria such as experience with past investigations, cleanups or other response actions, the quantities or types of hazardous materials involved, the absence of significant risk, tank test results or other records, and/or other circumstances including regulatory closure, the ESAs did not recommend any further investigation or

other action. In some such cases, even where regulatory closure was documented for past incidents, the ESAs may have nevertheless reported that requests to governmental agencies for any related files are pending. However, those ESAs concluded that such incidents were not likely to be significant at the time they were prepared.

Some borrowers under the underlying mortgage loans may not have satisfied all post-closing obligations required by the related loan documents with respect to environmental matters. We cannot assure you that such post-closing obligations have been satisfied or will be satisfied or that any of the recommended operations and maintenance plans have been or will continue to be implemented.

In addition, with respect to 6 of the underlying mortgage loans, collectively representing 8.1% of the initial mortgage pool balance, each related borrower is currently conducting short or long term radon testing at the related mortgaged real property or has conducted radon testing and further remediation is required. Pursuant to the related repair agreement entered into at origination, if the lender is or was advised and determines or has determined that the radon testing indicates further remediation is necessary, the related borrower is required to (i) provide the lender with a signed, binding, fixed price radon remediation contract with a qualified service provider, (ii) complete such remediation work within a specified time frame and (iii) enter into an operations and maintenance agreement with respect to such remediation work.

The Pooling and Servicing Agreement will require that the special servicer obtain an ESA of a mortgaged real property within 12 months prior to acquiring title to the property or assuming its operation. This requirement precludes enforcement of the security for the related underlying mortgage loan until a satisfactory ESA is obtained or until any required remedial action is taken. We cannot assure you that the requirements of the Pooling and Servicing Agreement will effectively insulate the issuing entity from potential liability for a materially adverse environmental condition at any mortgaged real property.

Property Condition Assessments and Physical Risk Reports. With respect to all of the mortgaged real properties, a third-party engineering firm inspected the property to assess exterior walls, roofing, interior construction, mechanical and electrical systems and general condition of the site, buildings and other improvements located at each of the mortgaged real properties in connection with the origination of the underlying mortgage loans. With respect to 3 of the mortgaged real properties identified on Exhibit A-1 as “Tides On Broadway,” “Dupont Villa Apartments” and “Morgan Estates,” securing underlying mortgage loans collectively representing 2.1% of the initial mortgage pool balance, such third-party engineering firm prepared a physical risk report.

The inspections identified various deferred maintenance items and necessary capital improvements at some of the mortgaged real properties. The resulting inspection reports generally included an estimate of cost for any recommended repairs or replacements at a mortgaged real property. When repairs or replacements were recommended and deemed material by the applicable Originator, the related borrower was required to carry out necessary repairs or replacements and, in some instances, to establish reserves, generally in the amount of 100% to 125% of the cost estimated in the inspection report, to fund deferred maintenance or replacement items that the reports characterized as in need of prompt attention. See the columns titled “Engineering Escrow/Deferred Maintenance,” “Replacement Reserve (Initial)” and “Replacement Reserve (Monthly)” on Exhibit A-1. We cannot assure you that another inspector would not have discovered additional maintenance problems or risks, or arrived at different, and perhaps significantly different, judgments regarding the problems and risks disclosed by the respective inspection reports and the cost of corrective action. In addition, some of the required repairs or replacements may be in progress as of the date of this information circular, and we cannot assure you that the related borrowers will complete any such required repairs or replacements in a timely manner or in accordance with the requirements set forth in the loan documents.

Appraisals and Market Studies. An independent appraiser that is state-certified and/or a member of the American Appraisal Institute conducted an appraisal reflecting a valuation as of a date occurring within the 9-month period ending on the Cut-off Date, in order to establish an appraised value with respect to all of the mortgaged real properties. Those appraisal valuations are the basis for the Appraised Values for the respective mortgaged real properties set forth on Exhibit A-1 and provide “as-is” values as of the dates set forth on Exhibit A-1, except as described on Exhibit A-1 and/or the related footnotes as to any underlying mortgage loan with an “as-stabilized” appraised value, which value is estimated assuming satisfaction of projected re-tenanting or increased tenant occupancy conditions.

In general, appraisals seek to establish the amount a typically motivated buyer would pay a typically motivated seller. However, this amount could be significantly higher than the amount obtained from the sale of a particular mortgaged real property under a distress or liquidation sale. Implied in the Appraised Values shown on Exhibit A-1, is the contemplation of a sale at a specific date and the passing of ownership from seller to buyer under the following conditions:

- buyer and seller are motivated;
- both parties are well informed or well advised, and each is acting in what he considers his own best interest;
- a reasonable time is allowed to show the property in the open market;
- payment is made in terms of cash in U.S. dollars or in comparable financial arrangements; and
- the price paid for the property is not adjusted by special or creative financing or sales concessions granted by anyone associated with the sale.

In certain cases, appraisals may reflect “as-is,” “as-stabilized” or other values which may contain certain assumptions, such as future construction completion, projected re-tenancing or increased tenant occupancies. We cannot assure you that any assumption is or will be accurate or that the “as-is,” “as-stabilized” or other value will be the value of such mortgaged real property at the indicated stabilization date. Each appraisal referred to above involved a physical inspection of the property and reflects a correlation of the values established through the Sales Comparison Approach, the Income Approach and/or the Cost Approach.

Either the appraisal itself, or a separate letter, contains a statement to the effect that the appraisal guidelines set forth in Title XI of the Financial Institutions Reform, Recovery and Enforcement Act of 1989 were followed in preparing that appraisal. However, we have not independently verified the accuracy of this statement.

In the case of any underlying mortgage loan, the related borrower may have acquired the mortgaged real property at a price less than the Appraised Value on which the underlying mortgage loan was underwritten.

We cannot assure you that information regarding Appraised Values accurately reflects past, present or future market values of the mortgaged real properties.

Zoning and Building Code Compliance. In connection with the origination of each underlying mortgage loan, the applicable Originator examined whether the use and operation of the related mortgaged real property were in material compliance with zoning, land-use, building, fire and health ordinances, rules, regulations and orders then-applicable to the mortgaged real property. Evidence of this compliance may have been in the form of certifications and other correspondence from government officials or agencies, title insurance endorsements, engineering, consulting or zoning reports, appraisals, legal opinions, surveys, recorded documents, temporary or permanent certificates of occupancy and/or representations by the related borrower. Where a material noncompliance was found or the property as currently operated is a legal non-conforming use and/or structure, an analysis was generally conducted as to—

- whether, in the case of material noncompliance, such noncompliance constitutes a legal non-conforming use and/or structure, and if not, whether an escrow or other requirement was appropriate to secure the taking of necessary steps to remediate any material noncompliance or constitute the condition as a legal non-conforming use or structure;
- the likelihood that a material casualty would occur that would prevent the property from being rebuilt in its current form; and
- whether existing replacement cost property damage insurance or, if necessary, supplemental law or ordinance coverage would, in the event of a material casualty, be sufficient—
 1. to satisfy the entire underlying mortgage loan; or
 2. taking into account the cost of repair, to pay down the underlying mortgage loan to a level that the remaining collateral would be adequate security for the remaining loan amount.

We cannot assure you that any such analysis in this regard is correct, or that the above determinations were made in each and every case.

Significant Underlying Mortgage Loans

For summary information on the ten largest underlying mortgage loans , see Exhibits A-1, A-2 and A-3.

Assignment of the Underlying Mortgage Loans

On or before the Closing Date, the mortgage loan seller will transfer the underlying mortgage loans to us, and we will transfer the underlying mortgage loans to the trustee. The trustee will hold the underlying mortgage loans for the benefit of the certificateholders and Freddie Mac within the meaning of Section 1367(b)(19)(B) of the Federal Housing Enterprises Financial Safety and Soundness Act of 1992, as amended. In each case, the transferor will assign the underlying mortgage loans, without recourse, to the transferee.

In connection with these transfers, on the Closing Date or at such later date as is permitted under the Pooling and Servicing Agreement, the mortgage loan seller will generally be required to deliver or cause the delivery of the mortgage file to the custodian with respect to each of the underlying mortgage loans, which mortgage file will consist of the following documents, among others:

- either—
 1. the original promissory note, endorsed without recourse, representation or warranty (other than as set forth in the mortgage loan purchase agreement) to the order of the trustee or in blank, or
 2. if the original promissory note has been lost, a copy of that note (or an original or a copy of the consolidated debt instrument, as applicable), together with a lost note affidavit and indemnity;
- an original or a copy of the mortgage instrument, and if the particular document has been returned from the applicable recording office, an original or copy of that document from the applicable recording office, and originals or copies or a counterpart of any intervening assignments of that document, in each case, with evidence of recording on the document or certified by the applicable recording office;
- an original of any related loan agreement (if separate from the related mortgage);
- an original or copy of the assignment of the related mortgage instrument in favor of the trustee or in blank, in recordable form except for any missing recording information relating to that mortgage instrument;
- originals or copies of all assumption agreements, modification agreements, written assurance agreements and substitution agreements, if any, in those instances where the terms or provisions of the related mortgage instrument, loan agreement or promissory note have been modified or the underlying mortgage loan has been assumed;
- with respect to any other debt of a borrower or mezzanine borrower permitted under the related underlying mortgage loan, an original or copy of a subordination agreement, standstill agreement or other intercreditor, co-lender or similar agreement relating to such other debt, if any, including any mezzanine loan documents, and a copy of the promissory note relating to such other debt (if such other debt is also secured by the related mortgage);
- original letters of credit, if any, relating to the underlying mortgage loan and all appropriate assignment or amendment documentation related to the assignment to the issuing entity of any letter of credit securing the underlying mortgage loan which entitle the issuing entity to draw on such letter of credit; *provided* that in connection with the delivery of the mortgage file to the issuing entity, any such originals will be delivered to the master servicer and copies of such originals will be delivered to the custodian on behalf of the trustee;
- the original or a copy of any environmental indemnity agreements and copies of any environmental insurance policies pertaining to the mortgaged real properties required in connection with the origination of the underlying mortgage loan, if any;

- the original or copy of any (i) intercreditor agreements and any associated certificates, assignments, assumption agreements or other related documents, (ii) subordination agreement, standstill agreement or other intercreditor, co-lender or similar agreement related to any affiliate debt and (iii) indemnification agreement;
- an original or copy of the lender's title insurance policy or, if a title insurance policy has not yet been issued, a *pro forma* title policy or a "marked up" commitment for title insurance, which in either case is binding on the title insurance company;
- the original or a counterpart of any guaranty of the obligations of the borrower under the underlying mortgage loan, if any;
- an original or copy or a counterpart of the UCC financing statement and an original or copy or a counterpart of any intervening assignments from the applicable Originator to the mortgage loan seller, in the form submitted for recording, or if recorded, with evidence of recording indicated on such UCC financing statement or intervening assignment;
- an original or copy of the UCC financing statement assignments, sufficient to assign each UCC financing statement filed in connection with the related underlying mortgage loan to the trustee;
- the original or a copy of each related collateral assignment of management agreement and each cash management agreement, if any;
- the original or a copy of any ground lease and any related estoppel certificates, if available; and
- the original or a copy of each related insurance agreement, if any.

The custodian is required to hold all of the documents delivered to it with respect to the underlying mortgage loans in trust for the benefit of the certificateholders under the terms of the Pooling and Servicing Agreement. Within a specified period of time following that delivery, the custodian will be further required to conduct a review of those documents. The scope of the custodian's review of those documents will, in general, be limited solely to confirming that they have been received, that they appear regular on their face (handwritten additions, changes or corrections will not be considered irregularities if initialed by the borrower), that (if applicable) they appear to have been executed and that they purport to relate to an underlying mortgage loan. The trustee, the certificate administrator and the custodian are under no duty or obligation to inspect, review or examine any of the documents in the mortgage file to determine whether the document is valid, effective, enforceable, in recordable form or otherwise appropriate for the represented purpose.

If—

- any of the above-described documents required to be delivered by the mortgage loan seller to the custodian is not delivered or is otherwise defective, and
- that omission or defect materially and adversely affects the value of the underlying mortgage loan, or the interests of any class of certificateholders,

then the omission or defect will constitute a material document defect as to which the issuing entity will have the rights against the mortgage loan seller as described under "—Cures, Repurchases and Substitutions" below.

Within a specified period of time as set forth in the Pooling and Servicing Agreement, the mortgage loan seller or a third-party independent contractor will be required to submit for recording in the real property records of the applicable jurisdiction each of the assignments of recorded loan documents in the trustee's favor described above. Because some of the underlying mortgage loans are newly originated, many of those assignments may not be completed and recorded until the related mortgage instrument, reflecting the necessary recording information, is returned from the applicable recording office.

Representations and Warranties

As of the Closing Date (or as of the date otherwise indicated on Exhibit C-1 or in the mortgage loan purchase agreement), the mortgage loan seller will make, with respect to each underlying mortgage loan that it is selling to us for inclusion in the issuing entity, representations and warranties that are expected to be generally in the form set

forth on Exhibit C-1, subject to exceptions that are expected to be generally in the form set forth on Exhibit C-2. The final forms of those representations and warranties and those exceptions will be made in the mortgage loan purchase agreement between Freddie Mac and us, and will be assigned by us to the trustee under the Pooling and Servicing Agreement. You should carefully consider both those representations and warranties and those exceptions.

If—

- there exists a breach of any of those representations and warranties made by the mortgage loan seller, and
- that breach materially and adversely affects the value of the underlying mortgage loan, or the interests of any class of certificateholders,

then that breach will be a material breach of the representation and warranty. The rights of the certificateholders against the mortgage loan seller with respect to any material breach are described under “—Cures, Repurchases and Substitutions” below.

Cures, Repurchases and Substitutions

If the mortgage loan seller has been notified of, or itself has discovered, a defect in any mortgage file or a breach of any of its representations and warranties that, in either case, materially and adversely affects the value of any underlying mortgage loan (including any REO Property acquired in respect of any foreclosed mortgage loan) or any interests of the holders of any class of certificates, then the mortgage loan seller will be required to take one of the following courses of action:

- cure such breach or defect in all material respects;
- repurchase the affected mortgage loan at the Purchase Price;
- replace the affected mortgage loan with one or more Qualified Substitute Mortgage Loans; *provided* no substitution may occur after the second anniversary of the Closing Date; or
- for certain breaches, reimburse the issuing entity for certain costs.

If the mortgage loan seller replaces an affected mortgage loan with one or more Qualified Substitute Mortgage Loans, then it will be required to pay to the issuing entity the amount, if any, by which—

- the price at which it would have had to purchase the removed mortgage loan, as described in the second bullet point of the preceding paragraph, exceeds
- the Stated Principal Balance of such Qualified Substitute Mortgage Loans as of the due date during the month that it is added to the issuing entity.

The mortgage loan seller must generally complete the cure, repurchase or substitution described above within 90 days following its receipt of notice of the material breach or material document defect. However, unless the material breach or material document defect relates to any mortgage note (or lost note affidavit or indemnity with respect to such mortgage note), if the material breach or material document defect is capable of being cured, if the mortgage loan seller is diligently attempting to correct the material breach or material document defect and with respect to a material document defect, such underlying mortgage loan is not then a Specially Serviced Mortgage Loan and the missing or defective document is not needed to adequately pursue the lender’s rights prior to such time, then the mortgage loan seller will generally be entitled to as much as an additional 90 days to complete that cure, repurchase or substitution (unless such material breach or material document defect causes any mortgage loan to not be a “qualified mortgage” within the meaning of the REMIC Provisions) if any underlying mortgage loan is required to be cured, repurchased or substituted as contemplated above.

Any of the following document defects with respect to an underlying mortgage loan will be conclusively presumed to materially and adversely affect the interests of a class of certificateholders:

- the absence from the mortgage file of the original signed mortgage note, unless the mortgage file contains a signed lost note affidavit, indemnity and endorsement;

- the absence from the mortgage file of an original or a copy of the signed mortgage;
- the absence from the mortgage file of the original or copy of the lender's title insurance policy (together with all endorsements or riders that were issued with or subsequent to the issuance of such policy), or, if the policy has not yet been issued, a binding written commitment (including a *pro forma* or specimen title insurance policy, which has been accepted or approved in writing by the related title insurance company) relating to the underlying mortgage loan;
- the absence from the mortgage file of the originals or copies of any intervening assignments or endorsements required to create an effective assignment to the trustee on behalf of the issuing entity; or
- the absence from the mortgage file of any required original letter of credit (unless such original has been delivered to the master servicer and a copy of such letter of credit is part of the mortgage file); *provided* that such defect may be cured by providing a substitute letter of credit or a cash reserve.

Any defect or any breach that, in either case, causes any underlying mortgage loan not to be a "qualified mortgage" within the meaning of the REMIC Provisions will be deemed a material breach or material document defect, requiring the mortgage loan seller to purchase or substitute the affected mortgage loan from the issuing entity within 90 days from the discovery of the defect or breach at the applicable purchase price described above and in conformity with the mortgage loan purchase agreement.

This obligation to cure, repurchase, substitute one or more Qualified Substitute Mortgage Loans or reimburse the issuing entity will constitute the sole remedies available to the certificateholders and the trustee for any defect in a mortgage file or any breach on the part of the mortgage loan seller of its representations or warranties regarding the underlying mortgage loans.

We cannot assure you that the mortgage loan seller has or will have sufficient assets with which to fulfill any cure, repurchase or substitution obligations on its part that may arise.

Changes in Mortgage Pool Characteristics

The description in this information circular of the mortgage pool is based on the mortgage pool as it is expected to be constituted at the time the offered certificates are issued, with adjustments for the monthly debt service payments due on the underlying mortgage loans on or before the Cut-off Date. Prior to the issuance of the offered certificates, one or more mortgage loans may be removed from the mortgage pool if we consider the removal necessary or appropriate. A limited number of other mortgage loans may be included in the mortgage pool prior to the issuance of the offered certificates, unless including those mortgage loans would materially alter the characteristics of the mortgage pool as described in this information circular. We believe that the information in this information circular will be generally representative of the characteristics of the mortgage pool as it will be constituted at the time the offered certificates are issued. However, the range of mortgage interest rates and maturities, as well as the other characteristics of the underlying mortgage loans described in this information circular, may vary, and the actual initial mortgage pool balance may be as much as 5% larger or smaller than the initial mortgage pool balance specified in this information circular.

Certain Legal Aspects of the Underlying Mortgage Loans

The following discussion contains a summary of certain legal aspects related to underlying mortgage loans secured by mortgaged real properties located in California, where mortgaged real properties securing underlying mortgage loans collectively representing approximately 13.9% of the initial mortgage pool balance are located. The summary is general in nature, does not purport to be complete and is qualified in its entirety by reference to the applicable federal and state laws governing the underlying mortgage loans.

Various states have imposed statutory prohibitions or limitations that limit the remedies of a mortgagee under a mortgage or a beneficiary under a deed of trust. The underlying mortgage loans are limited recourse loans and are, therefore, generally not recourse to the borrowers but limited to the mortgaged real properties. Even if recourse is available pursuant to the terms of an underlying mortgage loan, certain states have adopted statutes which impose prohibitions against or limitations on such recourse. The limitations described below and similar or other restrictions in other jurisdictions where mortgaged real properties are located may restrict the ability of the master servicer or

the special servicer, as applicable, to realize on the underlying mortgage loans and may adversely affect the amount and timing of receipts on the underlying mortgage loans.

Certain Legal Aspects of Mortgaged Real Properties Located in California. Mortgage loans in California are generally secured by deeds of trust on the related real estate. Foreclosure of a deed of trust in California may be accomplished by a non-judicial trustee's sale (so long as it is permitted under a specific provision in the deed of trust) or by judicial foreclosure, in each case subject to and in accordance with the applicable procedures and requirements of California law. Public notice of either the trustee's sale or the judgment of foreclosure is given for a statutory period of time after which the mortgaged real estate may be sold by the trustee, if foreclosed pursuant to the trustee's power of sale, or by court appointed sheriff under a judicial foreclosure. Following a judicial foreclosure sale, the borrower or its successor-in-interest may, for a period of up to one year, redeem the property; however, there is no redemption following a sale pursuant to a trustee's power of sale. California's "security first" and "one action" rules require the lender to complete foreclosure of all real estate provided as security under the deed of trust in a single action in an attempt to satisfy the full debt before bringing a personal action (if otherwise permitted) against the borrower for recovery of the debt, except in certain cases involving environmentally impaired real property where foreclosure of the real property is not required before making a claim under the indemnity. This restriction may apply to property which is not located in California if a single promissory note is secured by property located in California and other jurisdictions. California case law has held that acts such as (but not limited to) an offset of an unpledged account constitute violations of such statutes. Violations of such statutes may result in the loss of some or all of the security under the mortgage loan and a loss of the ability to sue for the debt. A sale by the trustee under the deed of trust does not constitute an "action" for purposes of the "one action rule". Other statutory provisions in California limit any deficiency judgment (if otherwise permitted) against the borrower following a judicial foreclosure to the amount by which the indebtedness exceeds the fair value at the time of the public sale and in no event greater than the difference between the foreclosure sale price and the amount of the indebtedness. Further, under California law, once a property has been sold pursuant to a power of sale clause contained in a deed of trust (and in the case of certain types of purchase money acquisition financings, under all circumstances), the lender is precluded from seeking a deficiency judgment from the borrower or, under certain circumstances, guarantors.

On the other hand, under certain circumstances, California law permits separate and even contemporaneous actions against both the borrower (as to the enforcement of the interests in the collateral securing the loan) and any guarantors. California statutory provisions regarding assignments of rents and leases require that a lender whose loan is secured by such an assignment must exercise a remedy with respect to rents as authorized by statute in order to establish its right to receive the rents after an event of default. Among the remedies authorized by statute is the lender's right to have a receiver appointed under certain circumstances.

DESCRIPTION OF THE CERTIFICATES

General

The certificates will be issued on the Closing Date pursuant to the Pooling and Servicing Agreement. They will represent the entire beneficial ownership interest of the issuing entity. The assets of the issuing entity will include:

- the underlying mortgage loans;
- any and all payments under and proceeds of the underlying mortgage loans received after the Cut-off Date, in each case exclusive of payments of principal, interest and other amounts due on or before that date and exclusive of any fees paid or payable to Freddie Mac in connection with (i) any pre-approved servicing request with respect to an underlying mortgage loan set forth in the Pooling and Servicing Agreement and (ii) the designation of an entity that has the right to form a successor borrower in connection with the defeasance of an underlying mortgage loan;
- the loan documents for the underlying mortgage loans;
- our rights under the mortgage loan purchase agreement;
- any REO Properties acquired by the issuing entity with respect to Defaulted Loans; and

- those funds or assets as from time to time are deposited in the collection account described under “The Pooling and Servicing Agreement—Collection Account” in this information circular, the special servicer’s REO accounts described under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—REO Properties” in this information circular, the distribution account described under “—Distribution Account” below, the interest reserve account described under “—Interest Reserve Account” below or any servicing account (in the case of a servicing account, to the extent of the issuing entity’s interest in that account).

The certificates will include the following classes:

- the class A-1, A-2, A-M, X1, XAM and X3 certificates, which are the classes of certificates that are offered by this information circular and have the benefit of the Freddie Mac Guarantee; and
- the class X2-A, X2-B, B, C, D and R certificates, which are the classes of certificates that—
 1. will be retained or privately placed by us;
 2. are not offered by this information circular; and
 3. do not have the benefit of the Freddie Mac Guarantee.

The class A-1, A-2, A-M, B, C and D certificates are the certificates that will have principal balances (collectively, the “Principal Balance Certificates”). The outstanding principal balance of any of these certificates will represent the total distributions of principal to which the holder of the certificate is entitled over time out of payments, or advances in lieu of payments, and other collections on the assets of the issuing entity or, with respect to the Offered Principal Balance Certificates, the Freddie Mac Guarantee. Accordingly, on each distribution date, the outstanding principal balance of each of these certificates will be permanently reduced by any principal distributions actually made with respect to the certificates on that distribution date, including any Balloon Guarantor Payment. See “—Distributions” below. On any particular distribution date, the outstanding principal balance of each of these certificates may also be permanently reduced, without any corresponding distribution, in connection with losses on the underlying mortgage loans and default-related and otherwise unanticipated issuing entity expenses. See “—Reductions of Certificate Principal Balances in Connection with Realized Losses and Additional Issuing Entity Expenses” below.

The class X1, X2-A, XAM, X2-B, X3 and R certificates will not have principal balances, and the holders of those certificates will not be entitled to receive distributions of principal. However, each of the class X1, X2-A, XAM, X2-B and X3 certificates will have a notional amount for purposes of calculating the accrual of interest with respect to that certificate. The class X1, X2-A, XAM, X2-B and X3 certificates are sometimes referred to in this information circular as the “interest-only certificates.”

In general, outstanding principal balances and notional amounts will be reported on a class-by-class basis. In order to determine the outstanding principal balance or notional amount of any of the offered certificates from time to time, you may multiply the original principal balance or notional amount of that certificate as of the Closing Date, as specified on the face of that certificate, by the then-applicable certificate factor for the relevant class. The certificate factor for any class of certificates, as of any date of determination, will equal a fraction, expressed as a percentage, the numerator of which will be the then-outstanding principal balance or notional amount of that class, and the denominator of which will be the original principal balance or notional amount of that class. Certificate factors will be reported monthly in the certificate administrator’s report.

Registration and Denominations

The class A-1, A-2 and A-M certificates will be issued to Freddie Mac in physical form in original denominations of \$10,000 initial principal balance and in any whole dollar denomination in excess of \$10,000. The class X1, XAM and X3 certificates will be issued to Freddie Mac in physical form in original denominations of \$100,000 initial notional amount and in any whole dollar denomination in excess of \$100,000.

Distribution Account

General. The certificate administrator must establish and maintain an account in which it will hold funds pending their distribution on the certificates and from which it will make those distributions. That distribution account must be maintained in a manner and with a depository institution that meets the requirements of the Pooling and Servicing Agreement. Funds held in the distribution account may be held in cash or, at the certificate administrator's risk, invested in Permitted Investments. Subject to the limitations in the Pooling and Servicing Agreement, any interest or other income earned on funds in the distribution account will be paid to the certificate administrator as additional compensation.

Deposits. On the Business Day prior to each distribution date (the "Remittance Date"), the master servicer will be required to remit to the certificate administrator for deposit in the distribution account the following funds:

- All payments and other collections on the underlying mortgage loans and any REO Properties on deposit in the collection account as of close of business on the second Business Day prior to the Remittance Date, exclusive of any portion of those payments and other collections that represents one or more of the following:
 1. monthly debt service payments due on a due date subsequent to the end of the related Collection Period;
 2. payments and other collections received after the end of the related Collection Period;
 3. amounts that are payable or reimbursable from the collection account to any person other than the certificateholders, in accordance with the terms of the Pooling and Servicing Agreement, including—
 - (i) amounts payable to the master servicer (or a sub-servicer), the special servicer, the Approved Directing Certificateholder (if any) or any Affiliated Borrower Loan Directing Certificateholder as compensation, including master servicing fees, sub-servicing fees, special servicing fees, master servicer surveillance fees, special servicer surveillance fees, workout fees, liquidation fees, assumption fees, assumption application fees, modification fees, extension fees, consent fees, waiver fees, earnout fees, Transfer Fees, Transfer Processing Fees, defeasance fees and similar charges and, to the extent not otherwise applied to cover interest on advances and/or other Additional Issuing Entity Expenses with respect to the related underlying mortgage loan, Default Interest and late payment charges, or as indemnification;
 - (ii) amounts payable to the master servicer (for itself or on behalf of certain indemnified sub-servicers) and the special servicer;
 - (iii) amounts payable in reimbursement of outstanding advances, together with interest on those advances; and
 - (iv) amounts payable with respect to other issuing entity expenses including, without limitation, fees, expenses and indemnities of the trustee and the certificate administrator/custodian (including interest on such amounts, if applicable, and subject to the Trustee Aggregate Annual Cap, the Certificate Administrator/Custodian Aggregate Annual Cap and the Trustee/Certificate Administrator/Custodian Aggregate Annual Cap, as applicable);
 4. net investment income on the funds in the collection account; and
 5. amounts deposited in the collection account in error.
- Any advances of delinquent monthly debt service payments made by the master servicer with respect to that distribution date.
- Any payments made by the master servicer to cover Prepayment Interest Shortfalls incurred during the related Collection Period.

See “—Advances of Delinquent Monthly Debt Service Payments” below and “The Pooling and Servicing Agreement—Collection Account” and “—Servicing and Other Compensation and Payment of Expenses” in this information circular.

With respect to each distribution date that occurs during March (or February, if the related distribution date is the final distribution date), the certificate administrator will be required to transfer from the interest reserve account, which we describe under “—Interest Reserve Account” below, to the distribution account the interest reserve amounts that are then being held in that interest reserve account with respect to the underlying mortgage loans that accrue interest on an Actual/360 Basis.

The certificate administrator will be authorized, but will not be obligated, to invest or direct the investment of funds held in the distribution account and interest reserve account in Permitted Investments. It will be—

- entitled to retain any interest or other income earned on those funds; and
- required to cover any losses of principal of those investments from its own funds, but the certificate administrator is not required to cover any losses caused by the insolvency of the depository institution or trust company holding such account so long as (i) such depository institution or trust company (a) satisfied the requirements set forth in the Pooling and Servicing Agreement at the time such investment was made and (b) is neither the certificate administrator nor an affiliate of the certificate administrator and (ii) such insolvency occurs within 30 days of the date on which such depository institution or trust company no longer satisfies the requirements set forth in the Pooling and Servicing Agreement.

Withdrawals. The certificate administrator may from time to time make withdrawals from the distribution account for any of the following purposes without regard to the order below:

- to pay itself monthly certificate administrator fees, and to the trustee, monthly trustee fees, each as described under “The Pooling and Servicing Agreement—Matters Regarding the Trustee, the Certificate Administrator and the Custodian” in this information circular;
- to reimburse and pay to the trustee and the master servicer, in that order, for outstanding and unreimbursed nonrecoverable advances and accrued and unpaid interest on such amounts, to the extent it or the master servicer is not reimbursed from the collection account;
- (i) to reimburse the Guarantor for any unreimbursed Balloon Guarantor Payment, together with any related Timing Guarantor Interest, from collections on any Balloon Loan as to which any such Balloon Guarantor Payment was made (net of any such amount used to reimburse the master servicer or the trustee for advances, together with interest on such amounts) and (ii) to reimburse the Guarantor for any unreimbursed Guarantor Reimbursement Amounts from any liquidation fees, workout fees, servicing fees, special servicing fees or other fees or amounts collected in connection with the liquidation or other disposition of an underlying mortgage loan solely to the extent that the party entitled to any such amount has already been paid such amount from other collections on such underlying mortgage loan and the original payment of such amount resulted in a Deficiency Amount (net of any such amount used to reimburse the master servicer or the trustee for advances, together with interest on such amounts);
- to pay the Guarantor the Guarantee Fee;
- without duplication, to pay indemnity amounts to itself, the custodian, the trustee, the depositor, the master servicer (including on behalf of certain indemnified sub-servicers), the special servicer, Freddie Mac (in its capacity as servicing consultant) and various related persons, subject to the relevant Aggregate Annual Caps, as described under “The Pooling and Servicing Agreement—Certain Indemnities” in this information circular;
- to pay for any opinions of counsel required to be obtained in connection with any amendments to the Pooling and Servicing Agreement, to the extent that the issuing entity is responsible for the cost of such opinions of counsel under the Pooling and Servicing Agreement and, if applicable, to pay for the fees of the trustee for confirming the special servicer’s determination of Fair Value of a Defaulted Loan;
- to pay any federal, state and local taxes imposed on the issuing entity, its assets and/or transactions, together with all incidental costs and expenses, including such taxes, that are required to be borne by the issuing entity as described under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—REO Properties” in this information circular;
- with respect to each distribution date during February of any year and each distribution date during January of any year that is not a leap year (unless, in either case, the related distribution date is the final distribution

date), to transfer to the interest reserve account the interest reserve amounts required to be so transferred in that month with respect to the underlying mortgage loans that accrue interest on an Actual/360 Basis, as described under “—Interest Reserve Account” below; and

- to pay any amounts deposited in the distribution account in error to the person entitled to them.

On each distribution date, all amounts on deposit in the distribution account, exclusive of any portion of those amounts that are to be withdrawn for the purposes contemplated in the prior paragraph, will be applied by the certificate administrator on each distribution date to make distributions on the certificates and to the Guarantor (with respect to the Guarantor Reimbursement Amounts). Generally, for any distribution date, such amounts will be distributed to holders of the certificates in two separate components:

- those funds, referred to in this information circular as the Available Distribution Amount, which will be paid to the holders of all the certificates and the Guarantor, who is entitled to the Guarantee Fee, as described under “—Distributions—Priority of Distributions” below; and
- the portion of those funds that represent Static Prepayment Premiums and Yield Maintenance Charges collected on the underlying mortgage loans during the related Collection Period, which will be paid to the holders of the class A-1, A-2, A-M, B and/or C certificates while any of those certificates are outstanding, and thereafter to the holders of the class X1, X2-A, XAM, X2-B and X3 certificates, as described under “—Distributions—Distributions of Static Prepayment Premiums and Yield Maintenance Charges” below.

Interest Reserve Account

The certificate administrator must maintain one or more accounts or subaccounts in which it will hold the interest reserve amounts described below with respect to the underlying mortgage loans that accrue interest on an Actual/360 Basis. That interest reserve account must be maintained in a manner and with a depository institution that satisfies NRSRO standards for securitizations similar to the one involving the certificates.

During January, except in a leap year, and February of each calendar year (unless, in either case, the related distribution date is the final distribution date), the certificate administrator will, on or before the distribution date in that month, withdraw from the distribution account and deposit in the interest reserve account the interest reserve amount with respect to each of the underlying mortgage loans that accrue interest on an Actual/360 Basis and for which the monthly debt service payment due in that month was either received or advanced. In general, the “interest reserve amount” for each of those underlying mortgage loans will equal one day’s interest accrued at the related Net Mortgage Pass-Through Rate on the Stated Principal Balance of that underlying mortgage loan as of the end of the related Collection Period.

During March of each calendar year (or February, if the related distribution date is the final distribution date), the certificate administrator will, on or before the distribution date in that month, withdraw from the interest reserve account and deposit in the distribution account any and all interest reserve amounts then on deposit in the interest reserve account with respect to the underlying mortgage loans that accrue interest on an Actual/360 Basis. All interest reserve amounts that are so transferred from the interest reserve account to the distribution account will be included in the Available Distribution Amount for the distribution date during the month of transfer.

The funds held in the interest reserve account may be held in cash or, at the risk of the certificate administrator, invested in Permitted Investments. Subject to the limitations in the Pooling and Servicing Agreement, any interest or other income earned on funds in the interest reserve account may be withdrawn from the interest reserve account and paid to the certificate administrator as additional compensation.

The certificate administrator will be required to deposit in the interest reserve account the amount of any losses of principal arising from investments of funds held in the interest reserve account, but the certificate administrator is not required to cover any losses caused by the insolvency of the depository institution or trust company holding the interest reserve account so long as (i) such depository institution or trust company (a) satisfied the requirements set forth in the Pooling and Servicing Agreement at the time such investment was made and (b) is neither the certificate administrator nor an affiliate of the certificate administrator and (ii) such insolvency occurs within 30 days of the date on which such depository institution or trust company no longer satisfies the requirements set forth in the Pooling and Servicing Agreement. However, this exculpation will not be deemed to relieve the certificate administrator from any obligations that arise from it or an affiliate acting as the depository institution or trust company holding such accounts, including, without limitation, any obligation of the certificate administrator to cover losses on such accounts held by it or by an affiliate.

Fees and Expenses

The amounts available for distribution on the certificates on any distribution date will generally be net of the following amounts which accrue at the fee rates shown and are payable to the master servicer, the special servicer, the trustee, the certificate administrator, the custodian, the Guarantor or the Approved Directing Certificateholder (if any), as applicable:

Type/Recipient	Amount/Fee Rate	Frequency	Source of Funds
<u>Fees</u>			
Master Servicing Fee and Sub-Servicing Fee / Master Servicer	the Stated Principal Balance of each underlying mortgage loan multiplied by 0.02000% <i>per annum</i> (calculated using the same interest accrual basis of such underlying mortgage loan) and the Stated Principal Balance of each underlying mortgage loan multiplied by the applicable sub-servicing fee rate ranging from 0.06000% <i>per annum</i> to 0.16000% <i>per annum</i> (calculated using the same interest accrual basis of such underlying mortgage loan)	monthly	interest payments on the related underlying mortgage loan or, with respect to liquidated underlying mortgage loans, general collections if Liquidation Proceeds are not sufficient
Master Servicer Surveillance Fee / Master Servicer and Sub-Servicers	the Stated Principal Balance of each Surveillance Fee Mortgage Loan multiplied by 0.01750% <i>per annum</i> (calculated using the same interest accrual basis of such Surveillance Fee Mortgage Loan) (subject to any applicable sub-servicer's entitlement to a portion of the master servicer surveillance fee equal to 0.01000% <i>per annum</i> multiplied by the Stated Principal Balance of each such Surveillance Fee Mortgage Loan pursuant to the applicable Sub-Servicing Agreement as described in "The Pooling and Servicing Agreement—Servicing and Other Compensation and Payment of Expenses" in this information circular)	monthly	interest payments on the related underlying mortgage loan or, with respect to liquidated underlying mortgage loans, general collections if Liquidation Proceeds are not sufficient
Additional Servicing Compensation / Master Servicer	<ul style="list-style-type: none"> all late payment fees and Default Interest (other than on Specially Serviced Mortgage Loans) not used to pay interest on advances with respect to the related underlying mortgage loans 	from time to time	the related fee
	<ul style="list-style-type: none"> 60% of any Transfer Fees collected on or with respect to any non-Specially Serviced Mortgage Loans for Transfers or substitutions that require the consent or review of the Approved Directing Certificateholder or Affiliated Borrower Loan Directing Certificateholder or 100% of such fees if the directing certificateholder is not an Approved Directing Certificateholder 	from time to time	the related fee

Type/Recipient	Amount/Fee Rate	Frequency	Source of Funds
	<ul style="list-style-type: none"> 100% of any Transfer Fees collected on or with respect to any non-Specially Serviced Mortgage Loans for Transfers or substitutions that do not require the consent or review of the Approved Directing Certificateholder or Affiliated Borrower Loan Directing Certificateholder (a portion of which may be payable to a sub-servicer under a related Sub-Servicing Agreement) 	from time to time	the related fee
	<ul style="list-style-type: none"> all Transfer Processing Fees collected on or with respect to any underlying mortgage loans that are not Specially Serviced Mortgage Loans (a portion of which may be payable to a sub-servicer under a related Sub-Servicing Agreement) 	from time to time	the related fee
	<ul style="list-style-type: none"> 100% of all defeasance fees required by the loan documents 	from time to time	the related fee
	<ul style="list-style-type: none"> all investment income earned on amounts on deposit in the collection account and certain escrow and reserve accounts 	monthly	investment income
Special Servicing Fee / Special Servicer	the Stated Principal Balance of each Specially Serviced Mortgage Loan or REO Loan multiplied by 0.25000% <i>per annum</i> (calculated using the same interest accrual basis of such underlying mortgage loan)	monthly	general collections
Special Servicer Surveillance Fee / Special Servicer	the Stated Principal Balance of each Surveillance Fee Mortgage Loan multiplied by 0.00980% <i>per annum</i> (calculated using the same interest accrual basis of such Surveillance Fee Mortgage Loan)	monthly	interest payments on the related underlying mortgage loan or, with respect to liquidated underlying mortgage loans, general collections if Liquidation Proceeds are not sufficient
Workout Fee / Special Servicer	1.0% of each collection of principal and interest on each Corrected Mortgage Loan	monthly	the related collections of principal and interest
Liquidation Fee / Special Servicer	1.0% of each recovery of net Liquidation Proceeds or proceeds from a full, partial or discounted payoff, except as specified under “The Pooling and Servicing Agreement—Servicing and Other Compensation and Payment of Expenses” in this information circular	upon receipt of Liquidation Proceeds	the related Liquidation Proceeds

Type/Recipient	Amount/Fee Rate	Frequency	Source of Funds
Additional Special Servicing Compensation / Special Servicer	<ul style="list-style-type: none"> all late payment fees and net Default Interest on Specially Serviced Mortgage Loans not used to pay interest on advances and certain Additional Issuing Entity Expenses with respect to the related underlying mortgage loans 	from time to time	the related fee
	<ul style="list-style-type: none"> 100% of commercially reasonable fees actually paid by the related borrower on modifications, extensions, earnouts, consents and other actions for Specially Serviced Mortgage Loans 	from time to time	the related fee
	<ul style="list-style-type: none"> 100% of assumption application fees, assumption fees, substitution of collateral consent application fees and related fees on Specially Serviced Mortgage Loans when received from the borrower for such purpose 	from time to time	the related fee
	<ul style="list-style-type: none"> all investment income received on funds in any REO account 	from time to time	investment income
Fees / the Approved Directing Certificateholder or any Affiliated Borrower Loan Directing Certificateholder	40% of any Transfer Fees collected on or with respect to any non-Specially Serviced Mortgage Loans for Transfers or substitutions that require the consent or review of the Approved Directing Certificateholder or the Affiliated Borrower Loan Directing Certificateholder	from time to time	the related fee
Trustee Fee / Trustee	0.00091% <i>per annum</i> multiplied by the Stated Principal Balance of the underlying mortgage loans (calculated using the same interest accrual basis as each underlying mortgage loan)	monthly	general collections
Certificate Administrator Fee / Certificate Administrator	0.00209% <i>per annum</i> multiplied by the Stated Principal Balance of the underlying mortgage loans (calculated using the same interest accrual basis as each underlying mortgage loan)	monthly	general collections
Guarantee Fee / Guarantor	0.20000% <i>per annum</i> multiplied by the outstanding principal balance of the Offered Principal Balance Certificates (calculated on a 30/360 Basis)	monthly	general collections
MHC Tenant Protections Fee / Guarantor	all MHC Tenant Protections Fees collected on or with respect to any underlying mortgage loan	from time to time	the related fee
CREFC® Intellectual Property Royalty License Fee / CREFC®	0.00035% <i>per annum</i> multiplied by the Stated Principal Balance of the underlying mortgage loans (calculated using the same interest accrual basis as each underlying mortgage loan)	monthly	general collections

<u>Type/Recipient</u>	<u>Amount/Fee Rate</u>	<u>Frequency</u>	<u>Source of Funds</u>
<u>Expenses</u>			
Servicing Advances / Master Servicer, Special Servicer and Trustee	to the extent of funds available, the amount of any Servicing Advances	from time to time	collections on the related underlying mortgage loan, or if not recoverable, from general collections
Interest on Servicing Advances / Master Servicer, Special Servicer and Trustee	at Prime Rate	when advance is reimbursed	first from Default Interest/late payment fees, then from general collections
P&I Advances / Master Servicer and Trustee	to the extent of funds available, the amount of any P&I Advances	from time to time	collections on the related underlying mortgage loan, or if not recoverable, from general collections
Interest on P&I Advances / Master Servicer and Trustee	at Prime Rate	when advance is reimbursed	first from Default Interest/late payment fees, then from general collections
Indemnification Expenses / Depositor, Trustee, Certificate Administrator/Custodian, Master Servicer, Special Servicer and Freddie Mac	amounts for which the depositor, the trustee, the certificate administrator/custodian, the master servicer (for itself or on behalf of certain indemnified sub-servicers), Freddie Mac (in its capacity as the servicing consultant) and the special servicer are entitled to indemnification, in each case, up to any related Aggregate Annual Cap in each calendar year until paid in full	from time to time	general collections
Interest on Unreimbursed Indemnification Expenses / Depositor, Trustee, Custodian, Certificate Administrator, Master Servicer, Special Servicer and Freddie Mac	at Prime Rate	when Unreimbursed Indemnification Expenses are reimbursed	general collections

Distributions

General. On each distribution date, the certificate administrator will, subject to the applicable available funds and the exception described in the next sentence, make all distributions required to be made on the certificates on that date to the holders of record as of the record date, which will be the close of business on the last Business Day of the calendar month preceding the month in which those distributions are to be made. The final distribution on any offered certificate, however, will be made only upon presentation and surrender of that certificate at the location to be specified in a notice of the pendency of that final distribution.

Distributions made to a class of certificateholders will be allocated among those certificateholders in proportion to their respective percentage interests in that class.

Interest Distributions. All of the classes of certificates will bear interest, except for the class D and R certificates.

With respect to each interest-bearing class of certificates, that interest will accrue on a 30/360 Basis during each Interest Accrual Period based on:

- the pass-through rate with respect to that class for that Interest Accrual Period; and

- the outstanding principal balance or notional amount, as the case may be, of that class outstanding immediately prior to the related distribution date.

On each distribution date, subject to the Available Distribution Amount for that date and the distribution priorities described under “—Priority of Distributions” below and, in the case of the offered certificates, subject to the Freddie Mac Guarantee, the holders of each interest-bearing class of certificates will be entitled to receive—

- the total amount of interest accrued during the related Interest Accrual Period with respect to that class of certificates, reduced (to not less than zero) by
- the total portion of any Net Aggregate Prepayment Interest Shortfall for that distribution date that is allocable to that class of certificates.

If the holders of any interest-bearing class of certificates do not receive all of the interest to which they are entitled on any distribution date, as described in the prior two paragraphs (including by means of a Guarantor Payment), then they will continue to be entitled to receive the unpaid portion of that interest on future distribution dates (such unpaid amount being referred to as an “Unpaid Interest Shortfall”), subject to the Available Distribution Amount for those future distribution dates and the distribution priorities described below.

The portion of any Net Aggregate Prepayment Interest Shortfall for any distribution date that is allocable to reduce the current accrued interest then payable with respect to any particular interest-bearing class of certificates will be allocated to the class A-1, A-2, A-M, X1, X2-A, XAM, X2-B, X3, B and C certificates based on the amount of interest to which such classes are entitled for such distribution date based on their respective pass-through rates. However, such Net Aggregate Prepayment Interest Shortfalls with respect to the offered certificates will be covered under the Freddie Mac Guarantee.

Calculation of Pass-Through Rates. The pass-through rate for each interest-bearing class of certificates for the initial Interest Accrual Period is identified in the table on page 5. However, the initial pass-through rates identified in the table on page 5 with respect to the class B, C, X1, XAM and X3 certificates are approximate.

The pass-through rates for the class A-1, A-2 and A-M certificates for each Interest Accrual Period will remain fixed at the initial pass-through rates for those classes shown on page 5.

The pass-through rates for the class B and C certificates for each Interest Accrual Period will equal the excess, if any, of (i) the Weighted Average Net Mortgage Pass-Through Rate for the related distribution date over (ii) the Class X2-B Strip Rate (*provided*, that in no event may such pass-through rate be less than zero).

For purposes of calculating the accrual of interest as of any date of determination, (i) the class X1 certificates will have a notional amount that is equal to the total outstanding principal balance of the class A-1 and A-2 certificates, (ii) the class X2-A certificates will have a notional amount that is equal to the total outstanding principal balance of the class A-1 and A-2 certificates, (iii) the class XAM certificates will have a notional amount that is equal to the outstanding principal balance of the class A-M certificates, (iv) the class X2-B certificates will have a notional amount that is equal to the total outstanding principal balance of the class A-M, B, C and D certificates and (v) the class X3 certificates will have a notional amount that is equal to the total outstanding principal balance of the class B, C and D certificates.

The pass-through rate for the class X1 certificates for each Interest Accrual Period will equal the weighted average of the Class X1 Strip Rates (weighted based on the relative sizes of their respective components). The “Class X1 Strip Rates” means, for the purposes of calculating the pass-through rate for the class X1 certificates, the *per annum* rates at which interest accrues from time to time on the two components of the notional amount of the class X1 certificates outstanding immediately prior to the related distribution date. One component will be comprised of the outstanding principal balance of the class A-1 certificates and one component will be comprised of the outstanding principal balance of the class A-2 certificates. For purposes of calculating the pass-through rate for the class X1 certificates for each Interest Accrual Period, the applicable Class X1 Strip Rate with respect to each such component for each such Interest Accrual Period will be a *per annum* rate equal to the excess, if any, of (i) the Weighted Average Net Mortgage Pass-Through Rate for the related distribution date minus the sum of (a) the Class X2-A Strip Rate and (b) the Guarantee Fee Rate, over (ii) the pass-through rate in effect during such Interest

Accrual Period for the class A-1 or A-2 certificates, as applicable. In no event may any Class X1 Strip Rate be less than zero.

The pass-through rate for the class XAM certificates for any Interest Accrual Period will equal the Class XAM Strip Rate. The “Class XAM Strip Rate” means, for the purposes of calculating the pass-through rate for the class XAM certificates, the *per annum* rate at which interest accrues from time to time on the notional amount of the class XAM certificates outstanding immediately prior to the related distribution date. For purposes of calculating the pass-through rate for the class XAM certificates for each Interest Accrual Period, the Class XAM Strip Rate for each such Interest Accrual Period will be a *per annum* rate equal to the excess, if any, of (i) the Weighted Average Net Mortgage Pass-Through Rate for the related distribution date minus the sum of (a) the Class X2-B Strip Rate and (b) the Guarantee Fee Rate, over (ii) the pass-through rate in effect during such Interest Accrual Period for the class A-M certificates. In no event may the Class XAM Strip Rate be less than zero.

The pass-through rate for the class X2-A certificates for each Interest Accrual Period will equal the Class X2-A Strip Rate. The “Class X2-A Strip Rate” will equal a *per annum* rate equal to 0.10000%.

The pass-through rate for the class X2-B certificates for each Interest Accrual Period will equal the Class X2-B Strip Rate. The “Class X2-B Strip Rate” will equal a *per annum* rate equal to 0.10000%.

The pass-through rate for the class X3 certificates for each Interest Accrual Period will equal the weighted average of the Class X3 Strip Rates (weighted based on the relative sizes of their respective components). The “Class X3 Strip Rates” means, for the purposes of calculating the pass-through rate for the class X3 certificates, the *per annum* rates at which interest accrues from time to time on the three components of the notional amount of the class X3 certificates outstanding immediately prior to the related distribution date. One component will be comprised of the outstanding principal balance of the class B certificates, one component will be comprised of the outstanding principal balance of the class C certificates and one component will be comprised of the outstanding principal balance of the class D certificates. For purposes of calculating the pass-through rate for the class X3 certificates for each Interest Accrual Period, the applicable Class X3 Strip Rate with respect to each such component for each such Interest Accrual Period will be a *per annum* rate equal to the excess, if any, of (i) the Weighted Average Net Mortgage Pass-Through Rate for the related distribution date minus the Class X2-B Strip Rate over (ii)(a) with respect to the components related to the class B and C certificates, the pass-through rate in effect during such Interest Accrual Period for the class B or C certificates, as applicable, and (b) with respect to the component related to the class D certificates, 0.00000%. In no event may any Class X3 Strip Rate be less than zero.

The class D and R certificates will not be interest-bearing and, therefore, will not have pass-through rates.

Principal Distributions. Subject to the Available Distribution Amount and the distribution priorities described under “—Priority of Distributions” below, the total amount of principal payable with respect to the Principal Balance Certificates on each distribution date will equal the Principal Distribution Amount for that distribution date.

In general, subject to the Available Distribution Amount and the distribution priorities described under “—Priority of Distributions” below, the total amount of principal to which the holders of the Offered Principal Balance Certificates will be entitled on each distribution date will, in the case of each of those classes, generally equal:

- in the case of the class A-1 certificates, an amount (not to exceed the outstanding principal balance of the class A-1 certificates immediately prior to such distribution date) equal to the Principal Distribution Amount for such distribution date, until the outstanding principal balance of such class of certificates is reduced to zero;
- in the case of the class A-2 certificates, an amount (not to exceed the outstanding principal balance of the class A-2 certificates immediately prior to such distribution date) equal to the Principal Distribution Amount for such distribution date (exclusive of any distributions of principal to which the holders of the class A-1 certificates are entitled on such distribution date as described in the preceding bullet point), until the outstanding principal balance of such class of certificates is reduced to zero; and
- in the case of the class A-M certificates, an amount (not to exceed the outstanding principal balance of the class A-M certificates immediately prior to such distribution date) equal to the Principal Distribution Amount for such distribution date (exclusive of any distributions of principal to which the holders of the

class A-1 and A-2 certificates are entitled on such distribution date as described in the two preceding bullet points), until the outstanding principal balance of such class of certificates is reduced to zero.

While any Offered Principal Balance Certificates are outstanding, no portion of the Principal Distribution Amount for any distribution date will be allocated to any other class of Principal Balance Certificates.

Because of losses on the underlying mortgage loans and/or default-related or other unanticipated issuing entity expenses, the total outstanding principal balance of the class A-M, B, C and D certificates could be reduced to zero at a time when both of the class A-1 and A-2 certificates remain outstanding. Under those circumstances, any principal distributions on the class A-1 and A-2 certificates will be made on a *pro rata* basis based on the outstanding principal balances of those classes.

Following the payment in full of the total outstanding principal balance of the class A-1 and A-2 certificates, the Principal Distribution Amount for each distribution date will be allocated *first*, to the class A-M certificates, *second*, to the class B certificates (following reimbursement to Freddie Mac of guarantee payments with respect to the class A-1, A-2, A-M, X1 and XAM certificates, other than (i) Guarantor Reimbursement Interest Amounts with respect to such guarantee payments and (ii) Guarantor Timing Reimbursement Amounts in excess of the Maximum Guarantor Timing Reimbursement), *third*, to the class C certificates, and *fourth*, to the class D certificates (following reimbursement to Freddie Mac of any Guarantor Reimbursement Amounts relating to the class X3 certificates and any Guarantor Reimbursement Interest Amounts with respect to the class A-1, A-2, A-M, X1, XAM and X3 certificates), in each case, in an amount up to the lesser of the portion of the Principal Distribution Amount that remains unallocated and the outstanding principal balance of the applicable class of certificates immediately prior to that distribution date.

In no event will the holders of class A-M certificates be entitled to receive any distributions of principal until the total outstanding principal balance of the class A-1 and A-2 certificates is reduced to zero. In no event will the holders of class B certificates be entitled to receive any distributions of principal until the total outstanding principal balance of the Offered Principal Balance Certificates is reduced to zero. In no event will the holders of class C certificates be entitled to receive any distributions of principal until the total outstanding principal balance of the Offered Principal Balance Certificates and the class B certificates is reduced to zero. In no event will the holders of class D certificates be entitled to receive any distributions of principal until the total outstanding principal balance of the Offered Principal Balance Certificates and the class B and C certificates is reduced to zero.

If the master servicer or the trustee is reimbursed for any Nonrecoverable Advance or Workout-Delayed Reimbursement Amount (together with accrued interest on such amounts), such amount will be deemed to be reimbursed first out of payments and other collections of principal on all the underlying mortgage loans (thereby reducing the Principal Distribution Amount on the related distribution date), prior to being deemed reimbursed out of payments and other collections of interest on all the underlying mortgage loans. See “—Advances of Delinquent Monthly Debt Service Payments” below and “The Pooling and Servicing Agreement—Servicing and Other Compensation and Payment of Expenses—Servicing Advances” in this information circular.

Loss Reimbursement Amounts. As discussed under “—Reductions of Certificate Principal Balances in Connection with Realized Losses and Additional Issuing Entity Expenses” below, the outstanding principal balance of any class of Principal Balance Certificates may be reduced without a corresponding distribution of principal. If that occurs, then, subject to the Freddie Mac Guarantee in the case of the Offered Principal Balance Certificates and the Available Distribution Amount for each subsequent distribution date and the priority of distributions described below, the holders of that class will be entitled to be reimbursed for the amount of that reduction, without interest. References to “loss reimbursement amount” in this information circular mean, in the case of any class of Principal Balance Certificates, for any distribution date, the total amount to which the holders of that class are entitled as reimbursement for all previously unreimbursed reductions, if any, made in the outstanding principal balance of that class on all prior distribution dates as discussed under “—Reductions of Certificate Principal Balances in Connection with Realized Losses and Additional Issuing Entity Expenses” below.

Freddie Mac Guarantee. On each distribution date following the receipt from the certificate administrator of a statement to certificateholders that indicates a Deficiency Amount for any class of guaranteed certificates for such distribution date, the Guarantor will distribute the related Guarantor Payment in an aggregate amount equal to the Deficiency Amount for such class of guaranteed certificates for such distribution date directly to the holders of such

class of certificates, without first depositing such amount in the collection account or distribution account. Any Guarantor Payment made to any class of Offered Principal Balance Certificates in respect of a Deficiency Amount relating to principal (but not in respect of reimbursement of Realized Losses, including those resulting from Additional Issuing Entity Expenses) will reduce the outstanding principal balance of such class by a corresponding amount and will also result in a corresponding reduction in the notional amount of the corresponding component of the class X1 certificates (with respect to a Guarantor Payment made to the class A-1 or A-2 certificates) or class XAM certificates (with respect to a Guarantor Payment made to the class A-M certificates). On each distribution date on which a Guarantor Payment is due with respect to any class of offered certificates, the Guarantor is required to notify the certificate administrator, the trustee, the master servicer and the special servicer that such Guarantor Payment has been made in full (or if such Guarantor Payment was not paid in full, the amount that was unpaid), and specifying the amount of such Guarantor Payment made to each class of guaranteed certificates. The Freddie Mac Guarantee does not cover any Yield Maintenance Charges, Static Prepayment Premiums or any other prepayment fees or charges related to the underlying mortgage loans. In addition, the Freddie Mac Guarantee does not cover any loss of yield on the class X1, XAM or X3 certificates following a reduction in their notional amounts resulting from a reduction of the outstanding principal balance of any class of Principal Balance Certificates. In addition, Freddie Mac will be entitled to the Guarantee Fee. The Freddie Mac Guarantee is not backed by the full faith and credit of the United States. If the Guarantor were unable to pay under the Freddie Mac Guarantee, the offered certificates could be subject to losses.

Priority of Distributions. On each distribution date, the certificate administrator will apply the Available Distribution Amount for that date to make the following distributions in the following order of priority, in each case to the extent of the remaining portion of the Available Distribution Amount:

Order of Distribution	Recipient	Type and Amount of Distribution
1 st	A-1, A-2, X1, X2-A, XAM and X2-B	Interest up to the total interest distributable on those classes (including Unpaid Interest Shortfalls from prior Interest Accrual Periods), <i>pro rata</i> based on the respective entitlements of those classes to interest at their respective pass-through rates
2 nd	A-1 and A-2	Principal up to the total principal distributable on the class A-1 and A-2 certificates, in that order, until the outstanding principal balance of each such class has been reduced to zero*
3 rd	A-1 and A-2	In the case of a default under the Freddie Mac Guarantee, reimbursement up to the loss reimbursement amounts, if any, for those classes, <i>pro rata</i> , based on the loss reimbursement amounts for those classes
4 th	A-M	Interest up to the total interest distributable on that class (including Unpaid Interest Shortfalls from prior Interest Accrual Periods)
5 th	A-M	Principal up to the total principal distributable on that class until the outstanding principal balance of such class has been reduced to zero
6 th	A-M	In the case of a default under the Freddie Mac Guarantee, reimbursement up to the loss reimbursement amounts, if any, for that class based on the loss reimbursement amounts for that class
7 th	Guarantor	Any Guarantor Reimbursement Amounts relating to the class A-1, A-2, A-M, X1 and XAM certificates, other than Guarantor Timing Reimbursement Amounts relating to the class A-1, A-2 and A-M certificates
8 th	Guarantor	Any Guarantor Timing Reimbursement Amounts relating to the class A-1, A-2 and A-M certificates (<i>provided</i> that on any distribution date, the amount distributable pursuant to this priority 8 th may not exceed the excess of (x) the remaining Available Distribution Amount over (y) the total interest distributable on the class B and C certificates on such distribution date pursuant to priorities 9 th and 12 th below (any such excess on any such distribution date, the “ <u>Maximum Guarantor Timing Reimbursement</u> ”))
9 th	B	Interest up to the total interest distributable on that class (including Unpaid Interest Shortfalls from prior Interest Accrual Periods)

Order of Distribution	Recipient	Type and Amount of Distribution
10 th	B	Principal up to the total principal distributable on that class, until the outstanding principal balance of such class has been reduced to zero (<i>provided</i> that on any distribution date on which the amount distributable pursuant to priority 8 th above was limited by the Maximum Guarantor Timing Reimbursement, the amount distributable pursuant to this priority 10 th may not exceed the excess of (x) the remaining Available Distribution Amount over (y) the total interest distributable on the class C certificates on such distribution date pursuant to priority 12 th below)
11 th	B	Reimbursement up to the loss reimbursement amount for that class (<i>provided</i> that on any distribution date on which the amount distributable pursuant to priority 8 th above was limited by the Maximum Guarantor Timing Reimbursement, the amount distributable pursuant to this priority 11 th may not exceed the excess of (x) the remaining Available Distribution Amount over (y) the total interest distributable on the class C certificates on such distribution date pursuant to priority 12 th below)
12 th	C	Interest up to the total interest distributable on that class (including Unpaid Interest Shortfalls from prior Interest Accrual Periods)
13 th	C	Principal up to the total principal distributable on that class, until the outstanding principal balance of such class has been reduced to zero
14 th	C	Reimbursement up to the loss reimbursement amount for that class
15 th	X3	Interest up to the total interest distributable on that class (including Unpaid Interest Shortfalls from prior Interest Accrual Periods)
16 th	Guarantor	Any Guarantor Reimbursement Amounts relating to the class X3 certificates
17 th	Guarantor	Any Guarantor Reimbursement Interest Amounts relating to the class A-1, A-2, A-M, X1, XAM and X3 certificates
18 th	D	Principal up to the total principal distributable on that class, until the outstanding principal balance of such class has been reduced to zero
19 th	D	Reimbursement up to the loss reimbursement amount for that class
20 th	R	Any remaining portion of the funds in the Lower-Tier REMIC or Upper-Tier REMIC

* The priority of principal distributions between the class A-1 and A-2 certificates is described above under “—Distributions—Principal Distributions.” Because of losses on the underlying mortgage loans and/or default-related or other unanticipated issuing entity expenses, the total principal balance of the class A-M, B, C and D certificates could be reduced to zero at a time when both of the class A-1 and A-2 certificates remain outstanding. Under those circumstances, any principal distributions on the class A-1 and A-2 certificates will be made on a *pro rata* basis based on the outstanding principal balances of those classes.

However, payments on the class A-1, A-2, A-M, X1, XAM and X3 certificates will be covered by the Freddie Mac Guarantee, to the extent described in this information circular.

Subordination. As and to the extent described in this information circular, the rights of holders of the class D and X3 certificates to receive distributions of amounts collected or advanced on the underlying mortgage loans will be subordinated to the rights of holders of the class A-1, A-2, A-M, X1, X2-A, XAM, X2-B, B and C certificates. In addition, as and to the extent described in this information circular, the rights of holders of the class C certificates to receive distributions of amounts collected or advanced on the underlying mortgage loans will be subordinated to the rights of holders of the class A-1, A-2, A-M, X1, X2-A, XAM, X2-B and B certificates. In addition, as and to the extent described in this information circular, the rights of holders of the class B certificates to receive distributions of amounts collected or advanced on the underlying mortgage loans will be subordinated to the rights of holders of the class A-1, A-2, A-M, X1, X2-A, XAM and X2-B certificates. In addition, as and to the extent described in this information circular, the rights of holders of the class A-M certificates to receive distributions of amounts collected or advanced on the underlying mortgage loans will be subordinated to the rights of holders of the class A-1, A-2, X1, X2-A, XAM and X2-B certificates. This subordination is intended to enhance the likelihood of timely receipt by holders of the class A-1, A-2, A-M, X1, X2-A, XAM, X2-B, B and C certificates of the full amount of all interest payable in respect of such certificates on each distribution date, and the ultimate receipt by holders of each class of Principal Balance Certificates of principal in an amount equal to the outstanding principal balance of such certificates, which subordination will be accomplished by the application of the Available Distribution Amount on

each distribution date in accordance with the order of priority described above under “—Priority of Distributions” and except for the class X3 certificates, by the allocation of Realized Losses (including as a result of Additional Issuing Entity Expenses) as described below under “—Reductions of Certificate Principal Balances in Connection with Realized Losses and Additional Issuing Entity Expenses.”

Allocation to the Offered Principal Balance Certificates for so long as they are outstanding, of the entire Principal Distribution Amount for each distribution date will generally have the effect of reducing the total outstanding principal balance of those classes at a faster rate than would be the case if principal payments were allocated *pro rata* to all classes of certificates with outstanding principal balances. Thus, as principal is distributed to the holders of the Offered Principal Balance Certificates, the percentage interest in the issuing entity evidenced by such classes will be decreased, with a corresponding increase in the percentage interest in the issuing entity evidenced by the class B, C and D certificates, as applicable, thereby increasing, relative to their respective outstanding principal balances, the subordination afforded to the Offered Principal Balance Certificates by the class B, C and D certificates, as applicable.

Distributions of Static Prepayment Premiums and Yield Maintenance Charges. If any Static Prepayment Premium or Yield Maintenance Charge is collected during any particular Collection Period in connection with the prepayment of any of the underlying mortgage loans, the certificate administrator will be required to distribute that Static Prepayment Premium or Yield Maintenance Charge on the distribution date corresponding to that Collection Period, as follows:

- to the holders of any class A-1, A-2, A-M, B and/or C certificates that are then entitled to distributions of principal on that distribution date out of that portion of the total Principal Distribution Amount for that date that includes the prepaid underlying mortgage loan, an amount equal to, in the case of each such class, the product of—
 1. the amount of the applicable Static Prepayment Premium or Yield Maintenance Charge, multiplied by;
 2. a fraction, not greater than one or less than zero, the numerator of which is equal to the excess, if any, of the pass-through rate for that class of Principal Balance Certificates for the related Interest Accrual Period, over the relevant discount rate, and the denominator of which is equal to the excess, if any, of the mortgage interest rate for the prepaid underlying mortgage loan, over the relevant discount rate (*provided* that if the relevant discount rate is greater than or equal to the mortgage interest rate for the prepaid underlying mortgage loan, then the fraction will equal zero; *provided, further* that if such discount rate is greater than the mortgage interest rate for the prepaid underlying mortgage loan, but is less than the pass-through rate on such class, then the fraction will be one), multiplied by;
 3. a fraction, not greater than one or less than zero, the numerator of which is equal to the total distributions of principal to be made with respect to that class of Principal Balance Certificates entitled to Static Prepayment Premiums or Yield Maintenance Charges on such distribution date from that portion of the total Principal Distribution Amount for that date, and the denominator of which is equal to the total amount distributed as principal to the class A-1, A-2, A-M, B and C certificates for such distribution date; and
- any portion of such Static Prepayment Premium or Yield Maintenance Charge that may remain after any distribution(s) contemplated by the prior bullet point will be distributed *pro rata* to the holders of the class X1, X2-A, XAM, X2-B and X3 certificates (such *pro rata* distribution to be calculated based on (i) in the case of the class X1 certificates, the sum of (a) amounts distributed to the Guarantor in respect of the Guarantee Fee on such distribution date and (b) amounts distributed as interest to the class X1 certificates on such distribution date and (ii) in the case of the class X2-A, XAM, X2-B or X3 certificates, amounts distributed as interest to the class X2-A, XAM, X2-B and X3 certificates, as applicable, on such distribution date).

For purposes of the foregoing, the relevant discount rate will, in general, be the same discount rate that would have been used to calculate the Yield Maintenance Charge for such underlying mortgage loan during the Yield Maintenance Period (adjusted, with respect to Static Prepayment Premiums, to reflect the remaining Static Prepayment Premium Period instead of the remaining Yield Maintenance Period).

As described under “The Pooling and Servicing Agreement—Servicing and Other Compensation and Payment of Expenses” in this information circular, if any Yield Maintenance Charge or Static Prepayment Premium is collected in connection with a liquidation of an underlying mortgage loan or REO Property, a liquidation fee may be payable on the amount collected. In such cases, the formulas described above for allocating any Yield Maintenance Charges and Static Prepayment Premiums to any particular class of certificates will be applied to the prepayment consideration in question, net of any liquidation fee payable therefrom.

We do not make any representation as to—

- the enforceability of any provision of the underlying mortgage loans requiring the payment of any prepayment consideration; or
- the collectability of that prepayment consideration.

See “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Prepayment Provisions” in this information circular.

In no event will the holders of any offered certificates receive any Static Prepayment Premium, Yield Maintenance Charge or other prepayment consideration in connection with any repurchase of an underlying mortgage loan as described under “Description of the Underlying Mortgage Loans—Cures, Repurchases and Substitutions” in this information circular. In addition, the Freddie Mac Guarantee excludes the payment of any Static Prepayment Premium, Yield Maintenance Charge or other prepayment consideration.

Treatment of REO Properties

Although any mortgaged real property may be acquired by the issuing entity through foreclosure, deed-in-lieu of foreclosure or otherwise, the related underlying mortgage loan will be treated as having remained outstanding until the REO Property is liquidated for purposes of determining—

- distributions on the certificates;
- allocations of Realized Losses (including those resulting from Additional Issuing Entity Expenses) to the certificates; and
- the amount of all fees payable to the master servicer, the special servicer, the certificate administrator and the trustee under the Pooling and Servicing Agreement.

In connection with these determinations, the related underlying mortgage loan will be taken into account when determining the Weighted Average Net Mortgage Pass-Through Rate and the Principal Distribution Amount for each distribution date.

Operating revenues and other proceeds from an REO Property will be applied—

- *first*, to pay, or to reimburse the master servicer, the special servicer, the certificate administrator and/or the trustee for the payment of, any costs and expenses incurred in connection with the operation and disposition of the REO Property, and
- *thereafter*, as collections of principal, interest and other amounts due on the related underlying mortgage loan.

To the extent described under “—Advances of Delinquent Monthly Debt Service Payments” below, the master servicer and the trustee will be required to advance (subject to a nonrecoverability determination) delinquent monthly debt service payments with respect to each underlying mortgage loan as to which the corresponding mortgaged real property has become an REO Property, in all cases as if that underlying mortgage loan had remained outstanding.

Reductions of Certificate Principal Balances in Connection with Realized Losses and Additional Issuing Entity Expenses

As a result of Realized Losses (including those resulting from the application of principal collections on the underlying mortgage loans to pay Additional Issuing Entity Expenses), the total outstanding principal balance of the Principal Balance Certificates could exceed the total Stated Principal Balance of the mortgage pool. If this occurs following the distributions made to the certificateholders on any distribution date, then the respective outstanding principal balances of the following classes of certificates are to be sequentially reduced in the following order, until the total outstanding principal balance of those classes of certificates equals the total Stated Principal Balance of the mortgage pool that will be outstanding immediately following such distribution date; *provided* that the total Stated Principal Balance of the mortgage pool will be decreased, for this purpose only, by the amount of any unreimbursed Timing Guarantor Payments and increased, for this purpose only, by amounts of principal attributable to the mortgage pool previously used to reimburse nonrecoverable advances and certain advances related to rehabilitated underlying mortgage loans, as described under “—Advances of Delinquent Monthly Debt Service Payments” below and “The Pooling and Servicing Agreement—Servicing and Other Compensation and Payment of Expenses” in this information circular, other than any such amounts previously used to reimburse advances with respect to mortgage loans that have since become liquidated loans, that will be outstanding immediately following that distribution date.

Order of Allocation	Class
1 st	D
2 nd	C
3 rd	B
4 th	A-M
5 th	A-1 and A-2*

**Pro rata* based on the respective outstanding principal balances of such classes.

The above-described reductions in the outstanding principal balance of the respective classes of the Principal Balance Certificates will represent an allocation of the Realized Losses (including those resulting from Additional Issuing Entity Expenses) that caused the particular mismatch in balances between the underlying mortgage loans and those classes of Principal Balance Certificates. However, Freddie Mac will be required under its guarantee to pay any holder of the Offered Principal Balance Certificates an amount equal to any such loss allocated to its Offered Principal Balance Certificates as described under “—Distributions—Freddie Mac Guarantee” above.

The loss, if any, in connection with the liquidation of a Defaulted Loan or related REO Property will generally be an amount equal to the excess, if any, of:

- the outstanding principal balance of the underlying mortgage loan as of the date of liquidation, together with all accrued and unpaid interest on the underlying mortgage loan through and including the end of the related mortgage interest accrual period in which such liquidation occurred, exclusive, however, of any portion of that interest that represents Default Interest, and
- all related unreimbursed Servicing Advances (with interest) and unpaid liquidation expenses, over
- the total amount of Liquidation Proceeds, if any, recovered in connection with the liquidation that are available to pay interest (other than Default Interest) on and principal of the underlying mortgage loan.

If any portion of the debt due under any of the underlying mortgage loans is forgiven, whether in connection with a modification, waiver or amendment granted or agreed to by the master servicer or the special servicer or in connection with the bankruptcy, insolvency or similar proceeding involving the related borrower, the amount forgiven, other than Default Interest, also will be treated as a Realized Loss.

The following items, to the extent that they are paid out of collections on the mortgage pool (other than late payment charges and/or Default Interest collected on the underlying mortgage loans) in accordance with the terms of the Pooling and Servicing Agreement, are some examples of Additional Issuing Entity Expenses:

- any special servicing fees, workout fees and liquidation fees paid to the special servicer;
- any interest paid to the master servicer, the special servicer and/or the trustee with respect to advances;

- the cost of various opinions of counsel required or permitted to be obtained in connection with the servicing of the underlying mortgage loans and the administration of the other assets of the issuing entity;
- any unanticipated expenses of the issuing entity, including—
 1. any reimbursements and indemnifications to the trustee, the custodian, the certificate administrator and various related persons and entities, as described under “The Pooling and Servicing Agreement—Certain Indemnities” in this information circular,
 2. any reimbursements and indemnification to the master servicer, the special servicer, the depositor, Freddie Mac (in its capacity as servicing consultant) and various related persons and entities, as described under “The Pooling and Servicing Agreement—Certain Indemnities” in this information circular, and
 3. any U.S. federal, state and local taxes, and tax-related expenses, payable out of assets of the issuing entity, as described under “Certain Federal Income Tax Consequences—Taxes That May Be Imposed on a REMIC” in this information circular;
- Rating Agency fees, other than ongoing surveillance fees, that cannot be recovered from the borrower and that are not paid by any party to the Pooling and Servicing Agreement or the mortgage loan seller; and
- any amounts expended on behalf of the issuing entity to remediate an adverse environmental condition at any mortgaged real property securing a Defaulted Loan, as described under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans” in this information circular.

Late payment charges and Default Interest collected with respect to any underlying mortgage loan are to be applied to pay interest on any advances that have been or are being reimbursed with respect to that underlying mortgage loan. In addition, late payment charges and Default Interest collected with respect to any Specially Serviced Mortgage Loan are also to be applied to reimburse the issuing entity for any Additional Issuing Entity Expenses previously incurred by the issuing entity with respect to that Specially Serviced Mortgage Loan. Late payment charges and Default Interest collected with respect to any underlying mortgage loan that are not so applied to pay interest on advances or, solely with respect to Specially Serviced Mortgage Loans, to reimburse the issuing entity for previously incurred Additional Issuing Entity Expenses, as applicable, will be paid to the master servicer and/or the special servicer as additional servicing compensation.

Advances of Delinquent Monthly Debt Service Payments

The master servicer will be required to make, for each distribution date, a total amount of advances of principal and/or interest (“P&I Advances”) generally equal to all scheduled monthly debt service payments, other than balloon payments, Default Interest, late payment charges, Yield Maintenance Charges or Static Prepayment Premiums, and assumed monthly debt service payments, in each case net of related master servicer surveillance fees (if any), special servicer surveillance fees (if any), master servicing fees and sub-servicing fees, that—

- were due or deemed due, as the case may be, during the related Collection Period with respect to the underlying mortgage loans, and
- were not paid by or on behalf of the related borrowers thereunder or otherwise collected as of the close of business on the last day of the related Collection Period.

However, if it is determined that an Appraisal Reduction Amount exists with respect to any underlying mortgage loan, then the master servicer will reduce the interest portion, but not the principal portion, of each P&I Advance that it must make with respect to that underlying mortgage loan during the period that the Appraisal Reduction Amount exists. The interest portion of any P&I Advance required to be made with respect to any underlying mortgage loan as to which there exists an Appraisal Reduction Amount, will equal the product of—

- the amount of the interest portion of that P&I Advance that would otherwise be required to be made for the applicable distribution date without giving effect to the Appraisal Reduction Amount, multiplied by
- a fraction—

1. the numerator of which is equal to the Stated Principal Balance of the underlying mortgage loan, net of the Appraisal Reduction Amount, and
2. the denominator of which is equal to the Stated Principal Balance of the underlying mortgage loan.

However, there will be no such reduction in any P&I Advance due to an Appraisal Reduction Event at any time after the total outstanding principal balance of the class B, C and D certificates has been reduced to zero.

With respect to any distribution date, the master servicer will be required to make P&I Advances either out of its own funds or, subject to replacement as and to the extent provided in the Pooling and Servicing Agreement, out of funds held in the collection account that are not required to be paid on the certificates on the related distribution date. Further, if a Ratings Trigger Event occurs with respect to the master servicer, the Guarantor will have the right to require the master servicer to remit out of its own funds to the collection account, an amount equal to all P&I Advances previously made out of the collection account and not previously repaid from collections on the underlying mortgage loans, and thereafter, the master servicer will be required to make P&I Advances solely out of its own funds.

To the extent that the master servicer fails to make a required P&I Advance and the trustee has actual knowledge of that failure, the trustee will be obligated to make that advance in accordance with the Pooling and Servicing Agreement.

The master servicer and the trustee will each be entitled to recover any P&I Advance made by it out of its own funds (together with interest accrued on such amount) from collections on the underlying mortgage loan as to which the advance was made. Neither the master servicer nor the trustee will be obligated to make any P&I Advance that, in its judgment or in the special servicer's judgment (in accordance with the Servicing Standard in the case of the judgment of the master servicer or the special servicer, as applicable, or in accordance with good faith business judgment in the case of the trustee), would not ultimately be recoverable out of collections on the related underlying mortgage loan. If the master servicer or the trustee makes any P&I Advance with respect to any of the underlying mortgage loans (including any such advance that is a Workout-Delayed Reimbursement Amount), that the master servicer, the trustee or the special servicer subsequently determines (in accordance with the Servicing Standard in the case of the determination of the master servicer or the special servicer, as applicable, or in accordance with good faith business judgment in the case of the trustee) will not be recoverable out of collections on that underlying mortgage loan (or, if such advance is a Workout-Delayed Reimbursement Amount, out of collections of principal on all the underlying mortgage loans after the application of those principal payments and collections to reimburse any party for a Nonrecoverable Advance) (any such advance, a "Nonrecoverable P&I Advance"), the master servicer or the trustee, as applicable, may obtain reimbursement for that advance, together with interest accrued on the advance as described below, out of general collections on the mortgage pool. See "Description of the Certificates—Advances of Delinquent Monthly Debt Service Payments" and "The Pooling and Servicing Agreement—Collection Account" in this information circular. In making such determination, the master servicer, the trustee or the special servicer, as applicable, may take into account a range of relevant factors, including, among other things, (i) the existence of any outstanding Nonrecoverable Advance or Workout-Delayed Reimbursement Amount on any underlying mortgage loan or REO Loan, (ii) the obligations of the borrower under the related underlying mortgage loan, (iii) the related mortgaged real property in its "as-is" condition, (iv) future expenses and (v) the timing of recoveries. Any reimbursement of a Nonrecoverable P&I Advance (including interest accrued on such amount) will be deemed to be reimbursed first from payments and other collections of principal on the mortgage pool (thereby reducing the amount of principal otherwise distributable on the Principal Balance Certificates on the related distribution date) prior to the application of any other general collections on the mortgage pool against such reimbursement. The special servicer's determination that a previously made or proposed P&I Advance is a Nonrecoverable P&I Advance will be conclusive and binding on the master servicer and the trustee. Prior to or absent such a determination by the special servicer, each of the master servicer and the trustee will be entitled to make its own determination that a P&I Advance is a Nonrecoverable P&I Advance. Neither the special servicer nor any other party may require the master servicer or the trustee to make any P&I Advance that the master servicer or the trustee has determined to be a Nonrecoverable P&I Advance. In addition, the trustee will be entitled to conclusively rely on the master servicer's determination that a P&I Advance is a Nonrecoverable P&I Advance. The special servicer will have no obligation to make any P&I Advances.

However, instead of obtaining reimbursement out of general collections on the mortgage pool immediately for a Nonrecoverable P&I Advance, the master servicer or the trustee, as applicable, may, in its sole discretion, elect to obtain reimbursement for such Nonrecoverable P&I Advance over a period of time (not to exceed six months without the consent of the Approved Directing Certificateholder (if any) or 12 months in any event), with interest continuing to accrue on such amount at the Prime Rate. At any time after such a determination to obtain reimbursement over time in accordance with the preceding sentence, the master servicer or the trustee, as applicable, may, in its sole discretion, decide to obtain reimbursement for such Nonrecoverable P&I Advance from general collections on the mortgage pool (including, without limitation, interest collections) immediately. In general, such a reimbursement deferral will only be permitted under the Pooling and Servicing Agreement if and to the extent that such Nonrecoverable P&I Advance, after taking into account other outstanding Nonrecoverable Advances, could not be reimbursed with interest out of payments and other collections of principal on the mortgage pool during the current Collection Period. The fact that a decision to recover a Nonrecoverable P&I Advance over time, or not to do so, benefits some classes of certificateholders to the detriment of other classes of certificateholders will not constitute a violation of the Servicing Standard or a breach of the terms of the Pooling and Servicing Agreement by any party to the Pooling and Servicing Agreement or a violation of any duty owed to the certificateholders by any party to the Pooling and Servicing Agreement.

In addition, in the event that any P&I Advance with respect to a Defaulted Loan remains unreimbursed following the time that such underlying mortgage loan is modified and returned to performing status and the amount of such advance becomes an obligation of the related borrower under the terms of the modified loan documents (a “Workout-Delayed Reimbursement Amount”), the master servicer or the trustee will be entitled to reimbursement for that advance and interest accrued on such advance (even though that advance is not deemed a Nonrecoverable P&I Advance), on a monthly basis, out of – but solely out of – payments and other collections of principal on all the underlying mortgage loans after the application of those principal payments and collections to reimburse any party for any Nonrecoverable Advance, prior to any distributions of principal on the certificates. If any such advance is not reimbursed in whole due to insufficient principal collections during the related Collection Period, then the portion of that advance which remains unreimbursed will be carried over (with interest on such amount continuing to accrue) for reimbursement in the following Collection Period (to the extent of principal collections available for that purpose). If any such advance, or any portion of any such advance, is determined, at any time during this reimbursement process, to be a Nonrecoverable Advance, then the master servicer or the trustee, as applicable, will be entitled to immediate reimbursement out of general collections on the mortgage pool as a Nonrecoverable Advance in an amount equal to the portion of that advance that remains outstanding, plus accrued interest.

The master servicer and the trustee will each be entitled to receive interest on P&I Advances made by that party out of its own funds. That interest will accrue on the amount of each P&I Advance for so long as that advance is outstanding from the date made (or, if made prior to the end of the applicable grace period, from the end of that grace period), at an annual rate equal to the Prime Rate. Subject to the discussion in the two preceding paragraphs, interest accrued with respect to any P&I Advance on an underlying mortgage loan will be payable out of general collections on the mortgage pool.

Notwithstanding the foregoing, if a natural disaster occurs and Freddie Mac issues guidance to the master servicer to provide temporary relief pursuant to the terms of written announcements by Freddie Mac that are incorporated into Freddie Mac Servicing Practices, a related disaster relief agreement between Freddie Mac and the related master servicer may provide that any P&I Advance or Servicing Advance made by the master servicer with respect to the affected underlying mortgage loans (other than any Specially Serviced Mortgage Loan or REO Loan) during any forbearance period will not accrue interest under the Pooling and Servicing Agreement for the duration of such forbearance period and the related repayment period. The master servicer will not be precluded from receiving interest on such advances from Freddie Mac pursuant to the terms of any such related disaster relief agreement, but in no event will such interest be payable to the master servicer (or reimbursable to Freddie Mac or any other party) from collections on the mortgage pool.

A monthly debt service payment will be assumed to be due with respect to:

- each underlying mortgage loan that is delinquent with respect to its balloon payment beyond the end of the Collection Period in which its maturity date occurs and as to which no arrangements have been agreed to for the collection of the delinquent amounts, including an extension of maturity; and

- each underlying mortgage loan as to which the corresponding mortgaged real property has become an REO Property.

The assumed monthly debt service payment deemed due on any underlying mortgage loan described in the prior sentence will equal, for its maturity date (if applicable) and for each successive due date following the relevant event that it or any related REO Property remains part of the issuing entity, the sum of (i) the principal portion, if any, of the monthly debt service payment that would have been due on the underlying mortgage loan on the relevant date if the related balloon payment had not come due or the related mortgaged real property had not become an REO Property, as the case may be, and the underlying mortgage loan had, instead, continued to amortize and accrue interest according to its terms in effect prior to that event, plus (ii) one month's interest on the Stated Principal Balance of the underlying mortgage loan at the related mortgage interest rate (but not including Default Interest).

Reports to Certificateholders and Freddie Mac; Available Information

Certificate Administrator Reports. Based on information provided on a one-time basis by the mortgage loan seller, and in monthly reports prepared by the master servicer and the special servicer in accordance with the Pooling and Servicing Agreement, and in any event delivered to the certificate administrator, the certificate administrator will be required to prepare and make available electronically or, upon written request, provide by first class mail, (i) by 12:00 p.m. New York City time on the third Business Day prior to each distribution date to Freddie Mac and (ii) on each distribution date to each registered holder of a certificate, a statement to certificateholders substantially in the form of and containing the information substantially as set forth on Exhibit B. The certificate administrator's statement to certificateholders will detail the distributions on the certificates on that distribution date and the performance, both in total and individually to the extent available, of the underlying mortgage loans and the related mortgaged real properties. Recipients will be deemed to have agreed to keep such information confidential.

The master servicer will be required to provide the standard CREFC Investor Reporting Package[®] to the certificate administrator on a monthly basis for the underlying mortgage loans. The certificate administrator will not be obligated to deliver any such report until the reporting package is provided by the master servicer.

To the extent that any related permitted subordinate mortgage debt is being serviced by the master servicer or the master servicer receives the necessary information from the applicable servicer of such permitted subordinate mortgage debt, and if not prohibited by the terms of the related permitted subordinate mortgage debt loan documents or any servicing agreement with respect to the related permitted subordinate mortgage debt (i) the master servicer will include information on such permitted subordinate mortgage debt in each CREFC[®] operating statement analysis report and (ii) if applicable CREFC[®] guidelines are revised to require information on subordinate mortgage debt to be included in other report or files in the CREFC Investor Reporting Package[®] that the master servicer is required to prepare and if Freddie Mac so requests, the master servicer will include information on such permitted subordinate mortgage debt in such additional report or files in the CREFC Investor Reporting Package[®] in accordance with such CREFC[®] guidelines as reasonably clarified by Freddie Mac. For the purposes of including information on permitted subordinate mortgage debt in reports or files as contemplated under the terms of the Pooling and Servicing Agreement, the master servicer may conclusively rely (without investigation, inquiry, independent verification or any duty or obligation to recompute, verify or recalculate any of the amounts and other information contained in), absent manifest error, on information provided to it by any other servicer of such permitted subordinate mortgage debt or by Freddie Mac.

Information Available Electronically. To the extent the "deal documents," "periodic reports," "additional documents" and "special notices" listed in the following bullet points are in the certificate administrator's possession and prepared by it or delivered to it in an electronic format, the certificate administrator will be required to make available to any Privileged Person via the certificate administrator's website in accordance with the terms and provisions of the Pooling and Servicing Agreement:

- the following "deal documents":
 1. this information circular;
 2. Freddie Mac's Giant and Other Pass-Through Certificates (Multifamily) Offering Circular dated February 23, 2017;

3. the Freddie Mac offering circular supplement related to the SPCs;
 4. the Pooling and Servicing Agreement;
 5. the mortgage loan purchase agreement; and
 6. the CREFC[®] loan setup file received by the certificate administrator from the master servicer;
- the following “periodic reports”:
1. certain underlying mortgage loan information as presented in the standard CREFC Investor Reporting Package[®] (other than the CREFC[®] loan setup file); and
 2. statements to certificateholders;
- the following “additional documents”:
1. inspection reports; and
 2. appraisals;
- the following “special notices”:
1. notice of any failure by the mortgage loan seller to repurchase an underlying mortgage loan that has an uncured material breach of a representation or warranty or a material document defect;
 2. notice of final payment on the certificates;
 3. notice of the resignation, termination, merger or consolidation of the master servicer, the special servicer, the certificate administrator or the trustee and any notice of the acceptance of appointment by any successor thereto;
 4. notice of the occurrence of any event of default that has not been cured;
 5. notice of any request by the directing certificateholder to terminate the special servicer;
 6. any request by certificateholders to communicate with other certificateholders;
 7. any amendment of the Pooling and Servicing Agreement;
 8. any notice of the occurrence of or termination of any Affiliated Borrower Loan Event;
 9. any officer’s certificates supporting the determination that any advance was (or, if made, would be) a nonrecoverable advance; and
 10. such other reports or information at the reasonable direction of the depositor or the Guarantor;

provided, however, that the certificate administrator may not provide to (i) any person that is a borrower under an underlying mortgage loan or an affiliate of a borrower under an underlying mortgage loan that is not the directing certificateholder, any asset status report, inspection report, appraisal, internal valuation or the CREFC[®] special servicer loan file or (ii) the directing certificateholder, any asset status report, inspection report, appraisal or internal valuation relating to any Affiliated Borrower Loan. The certificate administrator’s website will initially be located at <https://sf.citidirect.com>. Access will be provided by the certificate administrator to Privileged Persons upon receipt by the certificate administrator from such person of an investor certification in the form(s) described in the Pooling and Servicing Agreement, which form(s) may also be located on and submitted electronically via the certificate administrator’s website, or upon receipt by the 17g-5 information provider from such person of an NRSRO certification, as applicable. The parties to the Pooling and Servicing Agreement will be given access to the website without providing that certification. For assistance with the certificate administrator’s website, certificateholders may call (888) 855-9695.

The certificate administrator will make no representations or warranties as to the accuracy or completeness of, and may disclaim responsibility for, any report, document or other information made available by it for which it is not the original source. The certificate administrator will not be deemed to have obtained actual knowledge of any information posted on the certificate administrator’s website to the extent such information was not produced by the certificate administrator.

The certificate administrator may require registration and the acceptance of a disclaimer, as well as an agreement to keep the applicable information confidential, in connection with providing access to its website. The certificate administrator will not be liable for the dissemination of information made by it in accordance with the Pooling and Servicing Agreement.

Other Information. The Pooling and Servicing Agreement will obligate the certificate administrator (or in the case of the items listed in the sixth and eighth bullet points below, the custodian) to make available at its offices, during normal business hours, upon reasonable advance notice, or electronically via its website, for review by, among others, any holder or beneficial owner of an offered certificate or any person identified to the certificate administrator as a prospective transferee of an offered certificate or any interest in that offered certificate, originals or copies, in paper or electronic form, of, among other things, the following items, to the extent such documents have been delivered to the certificate administrator or the custodian, as applicable:

- any private placement memorandum or other disclosure document relating to the applicable class of certificates, in the form most recently provided to the certificate administrator;
- the Pooling and Servicing Agreement, including exhibits, and any amendments to the Pooling and Servicing Agreement;
- all monthly reports of the certificate administrator delivered, or otherwise electronically made available, to certificateholders since the Closing Date;
- all officer's certificates delivered to the certificate administrator by the master servicer and/or the special servicer since the Closing Date, as described under "The Pooling and Servicing Agreement—Evidence as to Compliance" in this information circular;
- all accountant's reports delivered to the certificate administrator with respect to the master servicer and/or the special servicer since the Closing Date, as described under "The Pooling and Servicing Agreement—Evidence as to Compliance" in this information circular;
- any and all modifications, waivers and amendments of the terms of an underlying mortgage loan entered into by the master servicer or the special servicer and delivered to the custodian pursuant to the Pooling and Servicing Agreement (but only for so long as the affected underlying mortgage loan is part of the issuing entity);
- any and all officer's certificates delivered to the certificate administrator to support the master servicer's determination that any P&I Advance or Servicing Advance was or, if made, would be a Nonrecoverable P&I Advance or Nonrecoverable Servicing Advance, as the case may be;
- any and all of the loan documents contained in the mortgage file, and with respect to the directing certificateholder and Freddie Mac only, any and all documents contained in the mortgage file;
- information provided to the certificate administrator regarding the occurrence of Servicing Transfer Events as to the underlying mortgage loans; and
- any and all Sub-Servicing Agreements provided to the certificate administrator and any amendments to such Sub-Servicing Agreements and modifications of such Sub-Servicing Agreements.

Copies of any and all of these items will be required to be made available by the certificate administrator or the custodian, as applicable, upon written request. However, the certificate administrator and the custodian, as applicable, will be permitted to require payment of a sum sufficient to cover the reasonable costs and expenses of providing the copies.

In connection with providing access to or copies of information pursuant to the Pooling and Servicing Agreement, including the items described above, the certificate administrator, the master servicer or the special servicer will require, in the case of a registered holder, beneficial owner or prospective purchaser of an offered certificate, a written confirmation executed by the requesting person or entity, in the form required by the Pooling and Servicing Agreement, generally to the effect that, among other things, the person or entity (i) is a registered holder, beneficial owner or prospective purchaser of offered certificates, or an investment advisor representing such person, (ii) is requesting the information for use in evaluating such person's investment in, or possible investment in,

the offered certificates, (iii) is or is not a borrower or an affiliate of a borrower under the underlying mortgage loan, (iv) will keep the information confidential, and (v) will indemnify the certificate administrator, the trustee, the custodian, the master servicer, the special servicer, the issuing entity, the depositor and Freddie Mac from any damage, loss, cost or liability (including legal fees and expenses and the cost of enforcing this indemnity) arising out of or resulting from any unauthorized use or disclosure of the information. However, the trustee, the certificate administrator, the custodian, the master servicer, the special servicer and any sub-servicer may not provide to (i) any person that is a borrower under an underlying mortgage loan or an affiliate of a borrower under an underlying mortgage loan unless such person is the directing certificateholder, any asset status report, inspection report, appraisal, internal valuation or the CREFC[®] special servicer loan file or (ii) the directing certificateholder, any asset status report, inspection report, appraisal or internal valuation relating to any Affiliated Borrower Loan. However, such restrictions on providing information will not apply to the master servicer, the special servicer and any sub-servicer if the applicable loan documents expressly require such disclosure to such person as a borrower under an underlying mortgage loan.

Reports to Freddie Mac. On or before the third Business Day prior to each distribution date, the certificate administrator will be required, in accordance with the terms of the Pooling and Servicing Agreement, to prepare and distribute to Freddie Mac certain supplemental reports related to the offered certificates.

Deal Information/Analytics. Certain information concerning the underlying mortgage loans and the certificates may be available through the following services:

- BlackRock Financial Management, Inc., Bloomberg, L.P., Moody's Analytics, Trepp, LLC, Intex Solutions, Inc., CMBS.com and Thomson Reuters Corporation;
- the certificate administrator's website initially located at <https://sf.citidirect.com>; and
- the master servicer's website initially located at www.pnc.com/midland.

Voting Rights

The voting rights for the certificates will be allocated as follows:

- 99% of the voting rights will be allocated to the class A-1, A-2, A-M, B, C and D certificates, in proportion to the respective outstanding principal balances of those classes;
- 1% of the voting rights will be allocated to the interest-only certificates (based on the respective notional amount of each such class relative to the aggregate of the notional amounts of such classes of interest-only certificates); and
- 0% of the voting rights will be allocated to the class R certificates.

Voting rights allocated to a class of certificateholders will be allocated among those certificateholders in proportion to their respective percentage interests in that class. However, solely for the purposes of giving any consent, approval or waiver pursuant to the Pooling and Servicing Agreement with respect to the rights, obligations or liabilities of the trustee, the certificate administrator, the master servicer, the special servicer or Freddie Mac, any certificate registered in the name of such trustee, certificate administrator, master servicer, special servicer, Freddie Mac or any affiliate of any of them, as applicable, will be deemed not to be outstanding, and the voting rights to which it is entitled will not be taken into account in determining whether the requisite percentage of voting rights necessary to effect any such consent, approval or waiver has been obtained. Such restriction will not apply to (i) the selection of the Controlling Class Majority Holder or the directing certificateholder or the exercise of the special servicer's or its affiliates' rights as a holder of certificates in the Controlling Class and (ii) except with respect to increases in compensation or material reductions in obligations, if the trustee, the certificate administrator, the master servicer, the special servicer or Freddie Mac, as the case may be, and/or their affiliates, own the entire class of each certificates affected by the action, vote, consent or waiver. A directing certificateholder that is not an Approved Directing Certificateholder will retain any voting rights it has by virtue of being a certificateholder.

YIELD AND MATURITY CONSIDERATIONS

Yield Considerations

General. The yield on the offered certificates will depend on, among other things—

- the price you pay for your offered certificates; and
- the rate, timing and amount of distributions on your offered certificates.

The rate, timing and amount of distributions on the offered certificates will in turn depend on, among other things—

- the pass-through rate for, and the other payment terms of, the offered certificates;
- the rate and timing of payments and other collections on the underlying mortgage loans;
- the rate and timing of defaults, and the severity of losses, if any, on the underlying mortgage loans;
- the rate, timing, severity and allocation of other shortfalls and expenses that reduce amounts available for distribution on the certificates (although such shortfalls with respect to the offered certificates may be covered under the Freddie Mac Guarantee, as further described in this information circular);
- the collection and payment, or waiver, of Yield Maintenance Charges or Static Prepayment Premiums with respect to the underlying mortgage loans; and
- servicing decisions with respect to the underlying mortgage loans.

These factors cannot be predicted with any certainty. Accordingly, you may find it difficult to analyze the effect that these factors might have on the yield to maturity of the offered certificates.

Freddie Mac Guarantee. Although the Freddie Mac Guarantee will mitigate the yield and maturity considerations with respect to the offered certificates discussed in this information circular, the Freddie Mac Guarantee is not backed by the full faith and credit of the United States. If the Guarantor were unable to pay under the Freddie Mac Guarantee, such mitigation would not apply.

Pass-Through Rates. The pass-through rates on the class X1, XAM and X3 certificates will be variable and will be calculated based on the Weighted Average Net Mortgage Pass-Through Rate. The Weighted Average Net Mortgage Pass-Through Rate would decline if the rate of principal payments on the underlying mortgage loans with higher Net Mortgage Pass-Through Rates was faster than the rate of principal payments on the underlying mortgage loans with lower Net Mortgage Pass-Through Rates. Accordingly, the yields on the class X1, XAM and X3 certificates will be sensitive to changes in the relative composition of the mortgage pool as a result of scheduled amortization, voluntary and involuntary prepayments and liquidations of underlying mortgage loans following default. The Weighted Average Net Mortgage Pass-Through Rate will not be affected by modifications, waivers or amendments with respect to the underlying mortgage loans except for any modifications, waivers or amendments that increase the mortgage interest rate.

Rate and Timing of Principal Payments. The yield to maturity of the interest-only certificates will be extremely sensitive to, and the yield to maturity on any Offered Principal Balance Certificates purchased at a discount or a premium will be affected by, the rate and timing of principal distributions made in reduction of the total outstanding principal balance of those certificates. In turn, the rate and timing of principal distributions that are paid or otherwise result in reduction of the outstanding principal balance of any Offered Principal Balance Certificates will be directly related to the rate and timing of principal payments on or with respect to the underlying mortgage loans. Finally, the rate and timing of principal payments on or with respect to the underlying mortgage loans will be affected by their amortization schedules, the dates on which balloon payments are due and the rate and timing of principal prepayments and other unscheduled collections on them, including for this purpose, collections made in connection with liquidations of underlying mortgage loans due to defaults, casualties or condemnations affecting the mortgaged real properties, pay downs of loans due to failure of the related property to meet certain performance criteria or purchases or other removals of underlying mortgage loans from the issuing entity.

If you are contemplating an investment in the interest-only certificates, you should further consider the risk that an extremely rapid rate of amortization, prepayments and/or liquidations on or with respect to the underlying mortgage loans could result in your failure to fully recoup your initial investment.

Prepayments and other early liquidations of the underlying mortgage loans will result in distributions on the Offered Principal Balance Certificates of amounts that would otherwise be paid over the remaining terms of the underlying mortgage loans. This will tend to shorten the weighted average lives of the Offered Principal Balance Certificates and accelerate the rate at which the notional amounts of the corresponding component of the interest-only certificates are reduced. Defaults on the underlying mortgage loans, particularly at or near their maturity dates, may result in significant delays in distributions of principal on the underlying mortgage loans and, accordingly, on the Offered Principal Balance Certificates, while workouts are negotiated or foreclosures are completed, subject to the Freddie Mac Guarantee. These delays will tend to lengthen the weighted average lives of the Offered Principal Balance Certificates. See “The Pooling and Servicing Agreement—Modifications, Waivers, Amendments and Consents” in this information circular.

The extent to which the yield to maturity on any Offered Principal Balance Certificate may vary from the anticipated yield will depend on the degree to which the Offered Principal Balance Certificate is purchased at a discount or premium and when, and to what degree payments of principal on the underlying mortgage loans are in turn paid in a reduction of the outstanding principal balance of the Offered Principal Balance Certificate. If you purchase Offered Principal Balance Certificates at a discount, you should consider the risk that a slower than anticipated rate of principal payments on the underlying mortgage loans could result in an actual yield to you that is lower than your anticipated yield. If you purchase interest-only certificates or Offered Principal Balance Certificates at a premium, you should consider the risk that a faster than anticipated rate of principal payments on the underlying mortgage loans could result in an actual yield to you that is lower than your anticipated yield.

Because the rate of principal payments on or with respect to the underlying mortgage loans will depend on future events and a variety of factors, no particular assurance can be given as to that rate or the rate of principal prepayments.

Delinquencies and Defaults on the Underlying Mortgage Loans. The rate and timing of delinquencies and defaults on the underlying mortgage loans will affect—

- the amount of distributions on the offered certificates;
- the yield to maturity of the offered certificates;
- the notional amount of the interest-only certificates;
- the rate of principal distributions on the Offered Principal Balance Certificates; and
- the weighted average lives of the offered certificates.

Delinquencies on the underlying mortgage loans may result in shortfalls in distributions of interest and/or principal on the offered certificates for the current month, although Freddie Mac will be required under its guarantee to pay the holder of any offered certificate an amount equal to any such shortfall allocated to its certificates as set forth in “Description of the Certificates—Distributions—Freddie Mac Guarantee” in this information circular. Although any shortfalls in distributions of interest may be made up on future distribution dates, no interest would accrue on those shortfalls. Thus, any shortfalls in distributions of interest would adversely affect the yield to maturity of the offered certificates.

If—

- you calculate the anticipated yield to maturity for the offered certificates based on an assumed rate of default and amount of losses on the underlying mortgage loans that is lower than the default rate and amount of losses actually experienced, and
- the additional losses result in a reduction of the total distributions on or the total outstanding principal balance of the offered certificates,

then your actual yield to maturity will be lower than you calculated and could, under some scenarios, be negative.

The timing of any loss on a liquidated underlying mortgage loan that results in a reduction of the total distributions on or the total outstanding principal balance of the offered certificates will also affect your actual yield to maturity, even if the rate of defaults and severity of losses are consistent with your expectations. In general, the earlier your loss occurs, the greater the effect on your yield to maturity.

Even if losses on the underlying mortgage loans do not result in a reduction of the total distributions on or the total outstanding principal balance of the offered certificates, the losses may still affect the timing of distributions on, and the weighted average lives and yields to maturity of, the offered certificates.

In addition, if the master servicer or the trustee is reimbursed for any Nonrecoverable Advance or Workout-Delayed Reimbursement Amount (together with accrued interest on such amounts), such amount will be deemed to be reimbursed first out of payments and other collections of principal on all the underlying mortgage loans (thereby reducing the Principal Distribution Amount on the related distribution date), prior to being deemed reimbursed out of payments and other collections of interest on all the underlying mortgage loans. See “Description of the Certificates—Advances of Delinquent Monthly Debt Service Payments” and “The Pooling and Servicing Agreement—Servicing and Other Compensation and Payment of Expenses—Servicing Advances” in this information circular.

Relevant Factors. The following factors, among others, will affect the rate and timing of principal payments and defaults and the severity of losses on or with respect to the underlying mortgage loans:

- prevailing interest rates;
- the terms of the underlying mortgage loans, including—
 1. provisions that impose prepayment lockout periods or require Yield Maintenance Charges or Static Prepayment Premiums;
 2. amortization terms that require balloon payments;
 3. due-on-sale/encumbrance provisions; and
 4. any provisions requiring draws on letters of credit or escrowed funds to be applied to principal;
- the demographics and relative economic vitality of the areas in which the mortgaged real properties are located;
- the general supply and demand for multifamily rental space, manufactured housing community properties or assisted living, memory care and/or independent living facility properties of the type available at the mortgaged real properties in the areas in which those properties are located;
- the quality of management of the mortgaged real properties;
- the servicing of the underlying mortgage loans;
- changes in tax laws; and
- other opportunities for investment.

See “Description of the Underlying Mortgage Loans” and “The Pooling and Servicing Agreement” in this information circular.

The rate of prepayments on the underlying mortgage loans is likely to be affected by prevailing market interest rates for mortgage loans of a comparable type, term and risk level. When the prevailing market interest rate is below the annual rate at which an underlying mortgage loan accrues interest, the related borrower may have an increased incentive to refinance that underlying mortgage loan. Conversely, to the extent prevailing market interest rates exceed the annual rate at which an underlying mortgage loan accrues interest, the borrower may be less likely to voluntarily prepay that underlying mortgage loan.

Depending on prevailing market interest rates, the outlook for market interest rates and economic conditions generally, some borrowers may sell their mortgaged real properties in order to realize their equity in those

mortgaged real properties, to meet cash flow needs or to make other investments. In addition, some borrowers may be motivated by U.S. federal and state tax laws, which are subject to change, to sell their mortgaged real properties.

In addition, certain of the underlying mortgage loans may have performance escrows or letters of credit pursuant to which the funds held in escrow or the proceeds of such letters of credit may be applied to reduce the outstanding principal balance of such underlying mortgage loans if certain performance triggers are not satisfied. This circumstance would have the same effect on the offered certificate as a partial prepayment on such underlying mortgage loans without payment of a Static Prepayment Premium or a Yield Maintenance Charge. For more information regarding these escrows and letters of credit, see the footnotes to Exhibit A-1.

A number of the borrowers are partnerships. The bankruptcy of the general partner in a partnership may result in the dissolution of the partnership. The dissolution of a borrower partnership, the winding up of its affairs and the distribution of its assets could result in an acceleration of its payment obligations under the related underlying mortgage loan, which may adversely affect the yield to maturity on the certificates.

We make no representation or warranty regarding:

- the particular factors that will affect the rate and timing of prepayments and defaults on the underlying mortgage loans;
- the relative importance of those factors;
- the percentage of the total principal balance of the underlying mortgage loans that will be prepaid or as to which a default will have occurred as of any particular date;
- whether the underlying mortgage loans that are in a prepayment lockout period, including any part of that period when defeasance or prepayment with a Yield Maintenance Charge or Static Prepayment Premium is allowed, will be prepaid as a result of involuntary liquidations upon default or otherwise during that period; or
- the overall rate of prepayment or default on the underlying mortgage loans.

Delay in Distributions. Because monthly distributions will not be made on the offered certificates until the distribution date following the due dates for the underlying mortgage loans during the related Collection Period, your effective yield will be lower than the yield that would otherwise be produced by your pass-through rate and purchase price, assuming that your purchase price did not account for a delay.

Weighted Average Lives of the Offered Principal Balance Certificates

For purposes of this information circular, the weighted average life of any Principal Balance Certificate refers to the average amount of time (in years) that will elapse from the assumed settlement date of December 19, 2019 until each dollar to be applied in reduction of the total outstanding principal balance of those certificates is paid to the investor. For purposes of this “Yield and Maturity Considerations” section, the weighted average life of such class of Principal Balance Certificates is determined by:

- multiplying the amount of each principal distribution on such class of Principal Balance Certificates by the number of years from the assumed settlement date to the related distribution date;
- summing the results; and
- dividing the sum by the total amount of the reductions in the outstanding principal balance of such class of Principal Balance Certificates.

Accordingly, the weighted average life of any class of Offered Principal Balance Certificates will be influenced by, among other things, the rate at which principal of the underlying mortgage loans is paid or otherwise collected or advanced and the extent to which those payments, collections and/or advances of principal are in turn applied in reduction of the outstanding principal balance of that certificate (including any reductions in outstanding principal balance as a result of Balloon Guarantor Payments).

As described in this information circular, the Principal Distribution Amount for each distribution date will be payable, subject to the Available Distribution Amount and the distribution priorities described under “Description of the Certificates—Distributions—Priority of Distributions” in this information circular, *first* to make distributions of principal to holders of the class A-1 and/or A-2 certificates (allocated among those classes as described under “Description of the Certificates—Distributions—Principal Distributions” in this information circular) until the total outstanding principal balance of those classes is reduced to zero, *second* to make distributions of principal to holders of the class A-M certificates until the outstanding principal balance of that class is reduced to zero, *third* to make distributions of principal to holders of the class B certificates until the outstanding principal balance of that class is reduced to zero, *fourth* to make distributions of principal to holders of the class C certificates until the outstanding principal balance of that class is reduced to zero, and *thereafter* to make distributions of principal to holders of the class D certificates until the outstanding principal balance of that class is reduced to zero. As a result, the weighted average life of the class A-1 certificates may be shorter, and the weighted average lives of the class A-2, A-M, B, C and D certificates may be longer, than would otherwise be the case if the Principal Distribution Amount for each distribution date was being paid on a *pro rata* basis among the respective classes of Principal Balance Certificates.

The tables set forth on Exhibit D show with respect to each class of Offered Principal Balance Certificates—

- the weighted average life of the relevant class, and
- the percentage of the initial principal balance of the relevant class that would be outstanding after each of the specified dates,

based on each of the indicated levels of CPR and the Modeling Assumptions.

The actual characteristics and performance of the underlying mortgage loans will differ from the Modeling Assumptions used in calculating the tables on Exhibit D. Those tables are hypothetical in nature and are provided only to give a general sense of how the principal cash flows might behave under the assumed prepayment scenarios. Any difference between the Modeling Assumptions used in calculating the tables on Exhibit D and the actual characteristics and performance of the underlying mortgage loans, or their actual prepayment or loss experience, will affect the percentages of initial principal balances outstanding over time and the weighted average lives of the respective classes of Offered Principal Balance Certificates.

We cannot assure you that—

- the underlying mortgage loans will prepay in accordance with the Modeling Assumptions or any other assumptions set forth in this information circular;
- the underlying mortgage loans will prepay at any of the indicated levels of CPR or at any other particular prepayment rate;
- the underlying mortgage loans will not experience losses; or
- the underlying mortgage loans that are in a prepayment lockout period or defeasance period or that are prepayable during any period with a Static Prepayment Premium or a Yield Maintenance Charge will not prepay, whether voluntarily or involuntarily, during any such period.

You must make your own decisions as to the appropriate loss, prepayment and liquidation assumptions to be used in deciding to purchase any offered certificates.

Yield Sensitivity of the Class X1, XAM and X3 Certificates

The yields to investors on the class X1, XAM and X3 certificates will be highly sensitive to the rate and timing of principal payments, including prepayments, on the underlying mortgage loans. If you are contemplating an investment in the certificates, you should fully consider the associated risks, including the risk that an extremely rapid rate of amortization, prepayments and/or liquidations on or with respect to the underlying mortgage loans could result in your failure to recoup fully your initial investment.

The tables set forth on Exhibit E show pre-tax corporate bond equivalent yields for the class X1, XAM and X3 certificates based on the Modeling Assumptions, except that the optional termination is exercised, and further

assuming the specified purchase prices and the indicated levels of CPR. Those assumed purchase prices are exclusive of accrued interest.

The yields set forth in the tables on Exhibit E were calculated by:

- determining the monthly discount rate that, when applied to the assumed stream of cash flows to be paid on the class X1, XAM or X3 certificates, as applicable, would cause the discounted present value of that assumed stream of cash flows to equal—
 1. the assumed purchase price for the class X1, XAM or X3 certificates, as applicable, plus
 2. accrued interest at the initial pass-through rate for the class X1, XAM or X3 certificates, as applicable, from and including the Cut-off Date to but excluding the assumed settlement date of December 19, 2019, which is a part of the Modeling Assumptions; and
- converting those monthly discount rates to corporate bond equivalent rates.

Those calculations do not take into account variations that may occur in the interest rates at which investors in the class X1, XAM or X3 certificates may be able to reinvest funds received by them as payments on those certificates. Consequently, they do not purport to reflect the return on any investment on the class X1, XAM or X3 certificates when reinvestment rates are considered.

In addition, the actual characteristics and performance of the underlying mortgage loans will differ from the Modeling Assumptions used in calculating the tables on Exhibit E. Those tables are hypothetical in nature and are provided only to give a general sense of how the cash flows might behave under the assumed prepayment scenarios. Any difference between the Modeling Assumptions used in calculating the tables on Exhibit E and the actual characteristics and performance of the underlying mortgage loans, or their actual prepayment or loss experience, will affect the yield on the class X1, XAM and X3 certificates.

We cannot assure you that—

- the underlying mortgage loans will prepay in accordance with the Modeling Assumptions or any other assumptions set forth in this information circular;
- the underlying mortgage loans will prepay at any of the indicated levels of CPR or at any other particular prepayment rate;
- the underlying mortgage loans will not experience losses;
- the underlying mortgage loans that are in a prepayment lockout period or defeasance period, or that are prepayable during any period with a Static Prepayment Premium or a Yield Maintenance Charge, will not prepay, whether voluntarily or involuntarily, during any such period; or
- the purchase prices of the class X1, XAM and X3 certificates will be as assumed.

It is unlikely that the underlying mortgage loans will prepay as assumed at any of the specified CPR levels until maturity or that all of the underlying mortgage loans will prepay at the same rate. Actual yields to maturity for investors in the class X1, XAM and X3 certificates may be materially different than those indicated in the tables on Exhibit E. Timing of changes in rate of prepayments and other liquidations may significantly affect the actual yield to maturity to investors, even if the average rate of principal prepayments and other liquidations is consistent with the expectations of investors. You must make your own decisions as to the appropriate prepayment, liquidation and loss assumptions to be used in deciding whether to purchase class X1, XAM or X3 certificates.

THE POOLING AND SERVICING AGREEMENT

General

The certificates will be issued, the issuing entity will be created and the underlying mortgage loans will be serviced and administered under the Pooling and Servicing Agreement, by and among the depositor, the master servicer, the special servicer, the trustee, the certificate administrator, the custodian and Freddie Mac. Subject to meeting certain requirements, each Originator has the right and is expected to appoint itself or its affiliate as the sub-servicer of the underlying mortgage loans it originated.

The certificate administrator will provide a copy of the Pooling and Servicing Agreement to a prospective or actual holder or beneficial owner of an offered certificate, upon written request from such party or a placement agent and the completion of an appropriate confidentiality agreement in the form attached to the Pooling and Servicing Agreement and, at the certificate administrator's discretion, payment of a reasonable fee for any expenses. The Pooling and Servicing Agreement will also be made available by the certificate administrator on its website, at the address set forth under "Description of the Certificates—Reports to Certificateholders and Freddie Mac; Available Information" in this information circular.

The Master Servicer

Midland Loan Services, a Division of PNC Bank, National Association, a national banking association ("Midland" or "PNC Bank"), is expected to be appointed to act as the master servicer, and in this capacity will be responsible for the master servicing and administration of the underlying mortgage loans and related mortgaged real properties pursuant to the Pooling and Servicing Agreement. PNC Bank also originated 4 of the underlying mortgage loans, collectively representing 12.7% of the initial mortgage pool balance. Midland often acts as an interim servicer in connection with mortgage loans contributed to CMBS securitization transactions. Midland also acts as the interim servicer of, and is expected to primary service, the underlying mortgage loans originated by PNC Bank. Midland has also assisted with the interim servicing of the underlying mortgage loans originated by Berkeley Point Capital LLC, d/b/a Newmark Knight Frank or Walker & Dunlop, LLC. Certain servicing and administrative functions will also be provided by one or more primary servicers that previously serviced the underlying mortgage loans. Midland is not affiliated with the issuing entity, the depositor, the special servicer, the trustee, the custodian, the certificate administrator, the mortgage loan seller, any other Originator or any other sub-servicer. The principal servicing offices of Midland are located at 10851 Mastin Street, Building 82, Suite 300, Overland Park, Kansas 66210.

Midland is a commercial financial services company that provides loan servicing, asset management and technology solutions for large pools of commercial and multifamily real estate assets. Midland is approved as a master servicer, special servicer and primary servicer for investment-grade CMBS by S&P, Moody's, Fitch, Morningstar, DBRS and KBRA. Midland has received rankings as a master, primary and special servicer of real estate assets under U.S. CMBS transactions from S&P, Fitch and Morningstar. For each category, S&P ranks Midland as "Strong" and Morningstar ranks Midland as "CS1". Fitch ranks Midland as "CMS2" for master servicer, "CPS2" for primary servicer, and "CSS2+" for special servicer. Midland is also a HUD/FHA-approved mortgagee and a Fannie Mae-approved multifamily loan servicer.

Midland has detailed operating procedures across the various servicing functions to maintain compliance with its servicing obligations and the servicing standards under Midland's servicing agreements, including procedures for managing delinquent and specially serviced loans. The policies and procedures are reviewed annually and centrally managed. Furthermore Midland's disaster recovery plan is reviewed annually.

Midland will not have primary responsibility for custody services of original documents evidencing the underlying mortgage loans. Midland may from time to time have custody of certain of such documents as necessary for enforcement actions involving particular underlying mortgage loans or otherwise. To the extent that Midland has custody of any such documents for any such servicing purposes, such documents will be maintained in a manner consistent with the Servicing Standard.

No securitization transaction involving commercial or multifamily mortgage loans in which Midland was acting as master servicer, primary servicer or special servicer has experienced a servicer event of default as a result of any

action or inaction of Midland as master servicer, primary servicer or special servicer, as applicable, including as a result of Midland’s failure to comply with the applicable servicing criteria in connection with any securitization transaction. Midland has made all advances required to be made by it under the servicing agreements on the commercial and multifamily mortgage loans serviced by Midland in securitization transactions.

From time-to-time Midland is a party to lawsuits and other legal proceedings as part of its duties as a loan servicer (e.g., enforcement of loan obligations) and/or arising in the ordinary course of business. Midland does not believe that any such lawsuits or legal proceedings would, individually or in the aggregate, have a material adverse effect on its business or its ability to service the underlying mortgage loans pursuant to the Pooling and Servicing Agreement.

Midland currently maintains an Internet-based investor reporting system, CMBS Investor Insight[®], that contains performance information at the portfolio, loan and property levels on the various CMBS transactions that it services. Certificateholders, prospective transferees of the certificates and other appropriate parties may obtain access to CMBS Investor Insight[®] through Midland’s website at www.pnc.com/midland. Midland may require registration and execution of an access agreement in connection with providing access to CMBS Investor Insight[®].

As of September 30, 2019, Midland was master and/or primary servicing approximately 34,130 commercial and multifamily mortgage loans with a principal balance of approximately \$524 billion. The collateral for such loans is located in all 50 states, the District of Columbia, Puerto Rico, Guam and Canada. Approximately 10,643 of such loans, with a total principal balance of approximately \$203 billion, pertain to CMBS. The related loan pools include multifamily, office, retail, hospitality and other income-producing properties. As of September 30, 2019, Midland was named the special servicer in approximately 352 CMBS transactions with an aggregate outstanding principal balance of approximately \$163 billion. With respect to such CMBS transactions as of such date, Midland was administering approximately 107 assets with an outstanding principal balance of approximately \$1.1 billion.

Midland has been servicing mortgage loans in CMBS transactions since 1992. The table below contains information on the size of the portfolio of commercial and multifamily loans and leases in CMBS and other servicing transactions for which Midland has acted as master and/or primary servicer from 2016 to 2018.

	Calendar Year End (Approximate amounts in billions)		
Portfolio Size – Master/Primary Servicing	2016	2017	2018
CMBS	\$149	\$162	\$181
Other	294	323	352
Total	\$444	\$486	\$533

Midland has acted as a special servicer for commercial and multifamily mortgage loans in CMBS transactions since 1992. The table below contains information on the size of the portfolio of specially serviced commercial and multifamily loans, leases and REO properties that have been referred to Midland as special servicer in CMBS and other servicing transactions from 2016 to 2018.

	Calendar Year End (Approximate amounts in billions)		
Portfolio Size –Special Servicing	2016	2017	2018
Total.....	\$121	\$145	\$158

Midland will acquire the right to act as the master servicer and/or primary servicer (and the related right to receive and retain the excess servicing strip) with respect to the underlying mortgage loans transferred to the issuing entity pursuant to a servicing rights appointment agreement entered into on the Closing Date. The “excess servicing strip” means a portion of the master servicing fee payable to Midland that accrues at a *per annum* rate initially equal to the master servicing fee rate minus 0.00500%, but which may be reduced under certain circumstances as provided in the Pooling and Servicing Agreement.

Pursuant to certain interim servicing agreements between Berkeley Point Capital LLC, d/b/a Newmark Knight Frank or Walker & Dunlop, LLC and certain of its affiliates, on the one hand, and Midland, on the other hand, Midland acts as interim servicer with respect to certain mortgage loans, including, prior to their inclusion in the

issuing entity, certain of the underlying mortgage loans originated by Berkeley Point Capital LLC, d/b/a Newmark Knight Frank or Walker & Dunlop, LLC.

PNC Bank and its affiliates may use some of the same service providers (*e.g.*, legal counsel, accountants and appraisal firms) as are retained on behalf of the issuing entity. In some cases, fee rates, amounts or discounts may be offered to PNC Bank and its affiliates by a third party vendor which differ from those offered to the issuing entity as a result of scheduled or ad hoc rate changes, differences in the scope, type or nature of the service or transaction, alternative fee arrangements, and negotiation by PNC Bank or its affiliates other than the Midland division.

The report on assessment of compliance with applicable servicing criteria for the twelve months ending on December 31, 2018, furnished pursuant to Item 1122 of Regulation AB for Midland, identified a material instance of noncompliance relating to the servicing criterion described in Item 1122(d)(3)(i)(A) of Regulation AB, which requires that:

“Reports to investors, including those to be filed with the Commission, are maintained in accordance with the transaction agreements and applicable Commission requirements. Specifically, such reports: (A) Are prepared in accordance with timeframes and other terms set forth in the transaction agreements....”

For CMBS transactions subject to the reporting requirements of Regulation AB on and after November 23, 2016 (the effective date of the most recent amendment to Regulation AB), Midland as master servicer became responsible for Schedule AL reporting. Midland is currently remediating the Schedule AL reporting for the CMBS transactions found to be incorrect, and will be making improvements to its systems, processes and procedures to support its Schedule AL reporting obligations.

The information set forth above in this section “—The Master Servicer” has been provided by Midland. Neither the depositor nor any other person other than Midland makes any representation or warranty as to the accuracy or completeness of such information.

Certain duties and obligations of the master servicer and certain related provisions of the Pooling and Servicing Agreement are described under “—Servicing Under the Pooling and Servicing Agreement,” “—Enforcement of “Due-on-Sale” and “Due-on-Encumbrance” Clauses,” “—Required Appraisals,” and “—Inspections; Collection of Operating Information” below. The master servicer’s ability to waive or modify any terms, fees, penalties or payments on the underlying mortgage loans and the effect of that ability on the potential cash flows from the underlying mortgage loans are described under “—Modifications, Waivers, Amendments and Consents” below.

Certain terms of the Pooling and Servicing Agreement regarding the master servicer’s removal, replacement, resignation or transfer as master servicer are described under “—Resignation, Removal and Replacement of Servicers; Transfer of Servicing Duties” and “—Rights Upon Event of Default” below. The master servicer’s rights and obligations as master servicer with respect to indemnification, and certain limitations on the master servicer’s liability as master servicer under the Pooling and Servicing Agreement, are described under “—Liability of the Servicers” and “—Certain Indemnities” below.

The Special Servicer

Wells Fargo Bank, National Association, a national banking association (“Wells Fargo Bank”), will act as the initial special servicer with respect to the underlying mortgage loans. Wells Fargo Bank is a wholly-owned indirect subsidiary of Wells Fargo & Company. Wells Fargo Bank will also act as the Affiliated Borrower Loan Directing Certificateholder with respect to Affiliated Borrower Loans that are not Affiliated Borrower Special Servicer Loans and may, if requested, act as the Directing Certificateholder Servicing Consultant. Wells Fargo Bank also originated 4 of the underlying mortgage loans, collectively representing 15.0% of the initial mortgage pool balance, and is expected to sub-service such underlying mortgage loans. The principal west coast commercial mortgage servicing offices of Wells Fargo Bank are located at MAC A0293-080, 2001 Clayton Road, Concord, California 94520. The principal east coast commercial mortgage servicing offices of Wells Fargo Bank are located at Three Wells Fargo, MAC D1050-084, 401 South Tryon Street, Charlotte, North Carolina 28202.

Wells Fargo Bank has acted as a special servicer of securitized commercial and multifamily mortgage loans in excess of five years. Wells Fargo Bank's special servicing system includes McCracken Financial Solutions Corp.'s Strategy CS software.

The following table sets forth information about Wells Fargo Bank's portfolio of specially serviced commercial and multifamily mortgage loans as of the dates indicated:

CMBS Pools	As of 12/31/2016	As of 12/31/2017	As of 12/31/2018	As of 9/30/2019
By Approximate Number	151	181	213	210
Named Specially Serviced Portfolio By Approximate Aggregate Unpaid Principal Balance (in billions) ⁽¹⁾	\$107.3	\$125.0	\$135.3	\$135.7
Actively Specially Serviced Portfolio By Approximate Aggregate Unpaid Principal Balance ⁽²⁾	\$106,851,483	\$1,818,177,720	\$386,307,056	\$14,527,873

(1) Includes all loans in Wells Fargo Bank's portfolio for which Wells Fargo Bank is the named special servicer, regardless of whether such loans are, as of the specified date, specially-serviced loans.

(2) Includes only those loans in the portfolio that, as of the specified date, are specially-serviced loans.

The properties securing loans in Wells Fargo Bank's special servicing portfolio may include retail, office, multifamily, industrial, hospitality and other types of income-producing property. As a result, such properties, depending on their location and/or other specific circumstances, may compete with the mortgaged real properties for tenants, purchasers, financing and so forth.

Wells Fargo Bank has developed strategies and procedures as special servicer for working with borrowers on problem loans (caused by delinquencies, bankruptcies or other breaches of the loan documents) to maximize the value from the assets for the benefit of certificateholders. Wells Fargo Bank's strategies and procedures vary on a case by case basis, and include, but are not limited to, liquidation of the underlying collateral, note sales, discounted payoffs, and borrower negotiation or workout in accordance with the applicable servicing standard, the loan documents and applicable law, rule and regulation.

Wells Fargo Bank has been master servicing securitized commercial and multifamily mortgage loans in excess of ten years. Wells Fargo Bank's primary servicing system runs on McCracken Financial Solutions software, Strategy CS. Wells Fargo Bank reports to trustees and certificate administrators in the CREFC format. The following table sets forth information about Wells Fargo Bank's portfolio of master or primary serviced commercial and multifamily mortgage loans (including loans in securitization transactions and loans owned by other investors) as of the dates indicated:

Commercial and Multifamily Mortgage Loans	As of 12/31/2016	As of 12/31/2017	As of 12/31/2018	As of 9/30/2019
By Approximate Number	31,128	30,017	30,491	30,384
By Approximate Aggregate Unpaid Principal Balance (in billions).....	\$506.83	\$527.63	\$569.88	\$579.93

Within this portfolio, as of September 30, 2019, are approximately 22,473 commercial and multifamily mortgage loans with an unpaid principal balance of approximately \$454.4 billion related to CMBS or commercial real estate collateralized debt obligation securities. In addition to servicing loans related to CMBS and commercial real estate collateralized debt obligation securities, Wells Fargo Bank also services whole loans for itself and a variety of investors. The properties securing loans in Wells Fargo Bank's servicing portfolio, as of September 30, 2019, were located in all 50 states, the District of Columbia, Guam, Mexico, the Bahamas, the Virgin Islands and Puerto Rico and include retail, office, multifamily, industrial, hospitality and other types of income-producing properties.

In its master servicing and primary servicing activities, Wells Fargo Bank utilizes a mortgage-servicing technology platform with multiple capabilities and reporting functions. This platform allows Wells Fargo Bank to process mortgage servicing activities including, but not limited to: (i) performing account maintenance; (ii) tracking borrower communications; (iii) tracking real estate tax escrows and payments, insurance escrows and payments, replacement reserve escrows and operating statement data and rent rolls; (iv) entering and updating transaction data; and (v) generating various reports.

The following table sets forth information regarding principal and interest advances and servicing advances made by Wells Fargo Bank, as master servicer, on commercial and multifamily mortgage loans included in commercial mortgage-backed securitizations. The information set forth is the average amount of such advances outstanding over the periods indicated (expressed as a dollar amount and as a percentage of Wells Fargo Bank's portfolio, as of the end of each such period, of master serviced commercial and multifamily mortgage loans included in commercial mortgage-backed securitizations).

Period*	Approximate Securitized Master-Serviced Portfolio (UPB)*	Approximate Outstanding Advances (P&I and PPA)*	Approximate Outstanding Advances as % of UPB
Calendar Year 2016.....	\$385,516,905,565	\$838,259,754	0.22%
Calendar Year 2017.....	\$395,462,169,170	\$647,840,559	0.16%
Calendar Year 2018.....	\$426,656,784,434	\$509,889,962	0.12%
YTD September 30, 2019.....	\$434,602,819,972	\$395,304,724	0.09%

* "UPB" means unpaid principal balance, "P&I" means principal and interest advances, "PPA" means property protection advances and "YTD" means year-to-date.

It is anticipated that Wells Fargo Bank and the Initial Directing Certificateholder or its designee will enter into a separate agreement pursuant to which Wells Fargo Bank, as special servicer, will agree to pay to the Initial Directing Certificateholder or its designee a portion of the special servicing compensation (other than the special servicing fee or the special servicer surveillance fee) received by Wells Fargo Bank, as special servicer, from time to time.

Wells Fargo Bank is rated or ranked by Fitch, S&P and Morningstar as a primary servicer, a master servicer and a special servicer of commercial mortgage loans in the United States. Wells Fargo Bank's servicer ratings by each of these agencies are outlined below:

	Fitch	S&P	Morningstar
Primary Servicer:	CPS1-	Strong	MOR CS1
Master Servicer:	CMS1-	Strong	MOR CS1
Special Servicer:	CSS2	Above Average	MOR CS2

The long-term issuer ratings of Wells Fargo Bank are "A+" by S&P, "Aa2" by Moody's and "AA-" by Fitch. The short-term issuer ratings of Wells Fargo Bank are "A-1" by S&P, "P-1" by Moody's and "F1+" by Fitch.

Wells Fargo Bank has developed policies, procedures and controls relating to its servicing functions to maintain compliance with applicable servicing agreements and servicing standards, including procedures for handling delinquent loans during the period prior to the occurrence of a special servicing transfer event. Wells Fargo Bank's special servicing policies and procedures are updated periodically to keep pace with the changes in the CMBS industry and have been generally consistent for the last three years in all material respects. The only significant changes in Wells Fargo Bank's policies and procedures have come in response to changes in federal or state law or investor requirements, such as updates issued by the Federal National Mortgage Association or Freddie Mac.

Subject to certain restrictions in the Pooling and Servicing Agreement or the Sub-Servicing Agreement with the master servicer, as applicable, Wells Fargo Bank may perform any of its obligations under the Pooling and Servicing Agreement or the Sub-Servicing Agreement with the master servicer, as applicable, through one or more third-party vendors, affiliates or subsidiaries. However, Wells Fargo Bank, in its capacity as the special servicer or sub-servicer, as applicable, will remain responsible for its duties under the Pooling and Servicing Agreement or the Sub-Servicing Agreement, as applicable. Wells Fargo Bank may engage third-party vendors to provide technology or process efficiencies. Wells Fargo Bank monitors its third-party vendors in compliance with its internal procedures and applicable law. Wells Fargo Bank has entered into contracts with third-party vendors for the following functions:

- provision of Strategy and Strategy CS software;
- audit services;
- tracking and reporting of flood zone changes;
- abstracting of leasing consent requirements contained in loan documents;

- legal representation;
- assembly of data regarding buyer and seller (borrower) with respect to proposed loan assumptions and preparation and underwriting of loan assumption package for review by Wells Fargo Bank;
- performance of property inspections;
- performance of tax parcel searches based on property legal description, monitoring and reporting of delinquent taxes, and collection and payment of taxes;
- Uniform Commercial Code searches and filings;
- insurance tracking and compliance;
- onboarding-new loan setup;
- lien release filing and tracking;
- credit investigation and background checks; and
- defeasance calculations.

Wells Fargo Bank’s responsibilities as special servicer under pooling and servicing agreements typically do not include collection on the pool assets. However, Wells Fargo Bank maintains certain operating accounts with respect to REO Properties in accordance with the terms of the pooling and servicing agreement and the servicing standard. In connection with its role as sub-servicer, generally, all amounts received by Wells Fargo Bank on the underlying mortgage loans it is sub-servicing will initially be deposited into a common clearing account with collections on other mortgage loans serviced by Wells Fargo Bank and will then be allocated and transferred to the appropriate account as required under its Sub-Servicing Agreement. On the date any amount is to be disbursed by Wells Fargo Bank, that amount is transferred to a common disbursement account prior to disbursement.

Wells Fargo Bank (in its capacity as the special servicer or as sub-servicer) will not have primary responsibility for custody services of original documents (other than, in its capacity as sub-servicer, holding any original letters of credit) evidencing the underlying mortgage loans. On occasion, Wells Fargo Bank, as special servicer or as sub-servicer, may have custody of certain of such documents as are necessary for enforcement actions involving the underlying mortgage loans or otherwise. To the extent Wells Fargo Bank performs custodial functions as a special servicer or as a sub-servicer, documents will be maintained in a manner consistent with the Servicing Standard.

Wells Fargo & Company files reports with the SEC as required under the Exchange Act. Such reports include information regarding Wells Fargo Bank and may be obtained at the website maintained by the SEC at www.sec.gov.

There are no legal proceedings pending against Wells Fargo Bank, or to which any property of Wells Fargo Bank is subject, that are material to the certificateholders, nor does Wells Fargo Bank have actual knowledge of any proceedings of this type contemplated by governmental authorities.

The information set forth above in this section “—The Special Servicer” has been provided by Wells Fargo Bank. Neither the depositor nor any other person other than Wells Fargo Bank makes any representation or warranty as to the accuracy or completeness of such information.

The special servicer may be requested by the Approved Directing Certificateholder (if any) to act as Directing Certificateholder Servicing Consultant and to prepare and deliver a recommendation relating to a requested waiver of any “due-on-sale” or “due-on-encumbrance” clause or a requested consent to a modification, waiver or amendment for certain non-Specially Serviced Mortgage Loans. In providing a recommendation in response to any such request, the Directing Certificateholder Servicing Consultant will be acting as a consultant to such Approved Directing Certificateholder and any such recommendation provided will not be subject to the Servicing Standard. When acting as the Directing Certificateholder Servicing Consultant, the special servicer will have no duty or

liability to any certificateholder other than such Approved Directing Certificateholder in connection with any recommendation it provides to such Approved Directing Certificateholder or actions taken by any party as a result of such consultation services provided to such Approved Directing Certificateholder as contemplated by the preceding sentence.

Certain duties and obligations of the special servicer and certain related provisions of the Pooling and Servicing Agreement are described under “—Servicing Under the Pooling and Servicing Agreement,” “—Enforcement of “Due-on-Sale” and “Due-on-Encumbrance” Clauses,” “—Required Appraisals” and “—Inspections; Collection of Operating Information” below. The special servicer’s ability to waive or modify any terms, fees, penalties or payments on the underlying mortgage loans and the effect of that ability on the potential cash flows from the underlying mortgage loans are described under “—Modifications, Waivers, Amendments and Consents” below.

The special servicer will, among other things, oversee the resolution of an underlying mortgage loan during a special servicing period and the disposition of REO Properties. Certain of the special servicer’s duties as the special servicer under the Pooling and Servicing Agreement, including information regarding the processes for handling delinquencies, losses, bankruptcies and recoveries (such as through a liquidation or sale of an underlying mortgage loan or negotiations or workouts with the borrower under an underlying mortgage loan) are set forth under “—Realization Upon Mortgage Loans” below.

Certain terms of the Pooling and Servicing Agreement regarding the special servicer’s removal, replacement, resignation or transfer as special servicer are described under “—Resignation, Removal and Replacement of Servicers; Transfer of Servicing Duties” and “—Rights Upon Event of Default” below. The special servicer’s rights and obligations as special servicer with respect to indemnification, and certain limitations on the special servicer’s liability as special servicer under the Pooling and Servicing Agreement, are described under “—Liability of the Servicers” and “—Certain Indemnities” below.

Liability of the Servicers

The master servicer (either in its own right or on behalf of an indemnified sub-servicer), the special servicer and various related persons and entities will be entitled to be indemnified by the issuing entity for certain losses and liabilities incurred by the master servicer or the special servicer, as applicable, as described under “—Certain Indemnities” below.

The underlying mortgage loans will not be an obligation of, or be insured or guaranteed by the master servicer or the special servicer. In addition, the master servicer and the special servicer (including in its capacity as the Affiliated Borrower Loan Directing Certificateholder) will be under no liability to the issuing entity, the other parties to the Pooling and Servicing Agreement or the certificateholders for any action taken, or not taken, in good faith pursuant to the Pooling and Servicing Agreement or for errors in judgment. However, the master servicer and the special servicer will not be protected against any breach of warranties or representations made in the Pooling and Servicing Agreement or from any liability which would otherwise be imposed by reason of willful misconduct, bad faith, fraud or negligence in the performance of its duties or negligent disregard of obligations and duties under the Pooling and Servicing Agreement.

The master servicer and the special servicer each will be required to maintain at its own expense, fidelity insurance, in the form of a financial institution bond, fidelity bond or its equivalent (“Fidelity Insurance”) consistent with the Servicing Standard and errors and omissions insurance (“E&O Insurance”) with an insurer that meets the qualifications set forth in the Pooling and Servicing Agreement with coverage amounts consistent with the Servicing Standard.

In the event that the applicable Servicing Standard is Accepted Servicing Practices, each of the master servicer and the special servicer will be required to maintain Fidelity Insurance and E&O Insurance with an insurer that meets the qualifications set forth in the Pooling and Servicing Agreement and such policy must meet certain requirements as to coverage set forth in the Pooling and Servicing Agreement. In the event that the applicable Servicing Standard is Freddie Mac Servicing Practices, the master servicer will be required to maintain Fidelity Insurance and E&O Insurance with an insurer that meets the qualifications set forth in the Guide and such policy must meet certain requirements as to coverage set forth in the Guide. Coverage of the master servicer or the special servicer under a policy or bond obtained by an affiliate of the master servicer or the special servicer, as applicable,

that meets the same requirements as a policy obtained directly by the master servicer or the special servicer will be permitted under the Pooling and Servicing Agreement. In the event that the applicable Servicing Standard is Accepted Servicing Practices, in lieu of obtaining such a policy or bond, the master servicer or the special servicer will be permitted to provide self-insurance with respect to Fidelity Insurance or E&O Insurance, subject to satisfaction of certain credit ratings requirements set forth in the Pooling and Servicing Agreement by the master servicer, the special servicer, or their respective immediate or remote parent companies. In the event that the applicable Servicing Standard is Freddie Mac Servicing Practices, in lieu of obtaining such a policy or bond, the master servicer will be permitted to provide self-insurance with respect to Fidelity Insurance or E&O Insurance, subject to satisfaction by the master servicer of certain credit ratings requirements set forth in the Guide.

Resignation, Removal and Replacement of Servicers; Transfer of Servicing Duties

Resignation of the Master Servicer or the Special Servicer. The master servicer, the special servicer and any Affiliated Borrower Special Servicer will only be permitted to resign from their respective obligations and duties under the Pooling and Servicing Agreement (i) upon a determination that such party's duties are no longer permissible under applicable law, (ii) upon the appointment of, and the acceptance of such appointment by, a successor to the resigning master servicer or special servicer, as applicable, or (iii) as to the servicing of any Affiliated Borrower Special Servicer Loans, in the case of the special servicer and any Affiliated Borrower Special Servicer, in the manner described in “—Removal of the Master Servicer, the Special Servicer and any Sub-Servicer” below, and upon the appointment of, and the acceptance of such appointment by, the successor to the resigning special servicer. Any such successor must satisfy the following conditions applicable to it (the “Successor Servicer Requirements”): (i) Freddie Mac has approved such successor, which approval will not be unreasonably withheld or delayed, (ii) the successor to the master servicer, the special servicer or the Affiliated Borrower Special Servicer, as the case may be, agrees in writing to assume all of the responsibilities, duties and liabilities of the master servicer or the special servicer, as the case may be, under the Pooling and Servicing Agreement and certain Sub-Servicing Agreements that arise thereafter, (iii) such successor (a) (1) is then listed on S&P's Select Servicer List as a U.S. Commercial Mortgage Master Servicer (in the case of a successor master servicer) or a U.S. Commercial Mortgage Special Servicer (in the case of a successor special servicer) and (2) is rated at least “CMS3” (in the case of a successor master servicer) or “CSS3” (in the case of a successor special servicer) by Fitch or (b) subject to clause (i) above, is otherwise acceptable to each Rating Agency as evidenced by receipt of Rating Agency Confirmation and (iv) with respect to a successor special servicer or Affiliated Borrower Special Servicer, the trustee receives an opinion of counsel generally to the effect that, among other things, the agreement pursuant to which such special servicer is replaced is binding. Any determination permitting the resignation of the master servicer or the special servicer because such party's duties are no longer permissible under applicable law must be evidenced by an opinion of counsel to such effect delivered to the certificate administrator and the trustee, the cost of which, together with any other expenses of such resignation, are required to be borne by the resigning party. No resignation by the master servicer, the special servicer or any Affiliated Borrower Special Servicer will become effective until the trustee or the successor to the master servicer, the special servicer or such Affiliated Borrower Special Servicer, as applicable, has assumed the resigning master servicer's, special servicer's or such Affiliated Borrower Special Servicer's, as applicable, responsibilities and obligations under the Pooling and Servicing Agreement in accordance with this paragraph.

Removal of the Master Servicer, the Special Servicer and any Sub-Servicer. If an event of default described under “—Events of Default” below occurs with respect to the master servicer or the special servicer and remains unremedied, the trustee will be authorized, and at the direction of the directing certificateholder (but with respect to the master servicer, only if the directing certificateholder is an Approved Directing Certificateholder; *provided* that with respect to the event described in clause 9 under “—Events of Default” below, a directing certificateholder that is not an Approved Directing Certificateholder may inform the trustee of any such event of default) or Freddie Mac, the trustee will be required, to terminate the defaulting party and appoint a successor, as described under “—Rights Upon Event of Default” below. The defaulting party is entitled to the payment of all compensation, indemnities and reimbursements, accrued and unpaid to the date of termination, and other similar amounts.

In addition, the directing certificateholder will be entitled to remove, with or without cause, the special servicer or any Affiliated Borrower Special Servicer (if the applicable Affiliated Borrower Special Servicer Loan is not an Affiliated Borrower Loan) and appoint a successor special servicer or Affiliated Borrower Special Servicer, as applicable, rather than have the trustee act as that successor, upon 30 Business Days' prior written notice to the

parties to the Pooling and Servicing Agreement. Any successor special servicer or any Affiliated Borrower Special Servicer must satisfy the Successor Servicer Requirements (including Freddie Mac's approval, which may not be unreasonably withheld or delayed). In addition, the trustee must receive an opinion of counsel to the effect that the removal of the special servicer and/or the appointment of a successor special servicer is in compliance with the terms of the Pooling and Servicing Agreement. If such removal is without cause, all costs of the issuing entity and the special servicer incurred in connection with transferring special servicing responsibilities to a successor special servicer will be the responsibility of the directing certificateholder that effected the termination. Moreover, the terminated special servicer will be entitled to—

- payment out of the collection account for all accrued and unpaid special servicing fees, special servicer surveillance fees and additional special servicing compensation;
- continued rights to indemnification; and
- continued rights to some or all liquidation and workout fees earned by it as described below under “—Servicing and Other Compensation and Payment of Expenses.”

If at any time an Affiliated Borrower Special Servicer Loan Event occurs (other than with respect to any Affiliated Borrower Special Servicer Loan Event that exists on the Closing Date and is described in the definition of Affiliated Borrower Special Servicer Loan Event), the Pooling and Servicing Agreement will require that the special servicer promptly resign as special servicer of the related Affiliated Borrower Special Servicer Loan and provides for the appointment of a successor Affiliated Borrower Special Servicer to act as the special servicer with respect to such Affiliated Borrower Special Servicer Loan. If the Affiliated Borrower Special Servicer Loan is not an Affiliated Borrower Loan, the directing certificateholder will have the right to select a successor Affiliated Borrower Special Servicer in accordance with the requirements of the Pooling and Servicing Agreement, including (i) the satisfaction of the Successor Servicer Requirements, and (ii) that the chosen successor is then actively acting as special servicer on a Freddie Mac multifamily mortgage loan securitization or is otherwise approved by Freddie Mac. If (a) the Affiliated Borrower Special Servicer Loan is an Affiliated Borrower Loan or (b) the directing certificateholder does not select a successor to the resigning special servicer within 15 days after receipt of written notice of the applicable Affiliated Borrower Special Servicer Loan Event (in the case of this clause (b) with the option of the directing certificateholder to extend the time period by an additional 15 days if the directing certificateholder is using reasonable efforts to appoint a successor) as described in the prior sentence, the resigning special servicer for the related Affiliated Borrower Special Servicer Loan will be required to use reasonable efforts to select the Affiliated Borrower Special Servicer within 15 days following receipt of written notice of the applicable Affiliated Borrower Special Servicer Loan Event in the case of clause (a) and within 15 days following a failure of the directing certificateholder to select a successor within the time period permitted in the case of clause (b) (in each case with the option of the special servicer to extend the time period by 15 additional days if the special servicer is using reasonable efforts to appoint a successor), each, in accordance with the requirements set forth in the Pooling and Servicing Agreement, including (i) the satisfaction of the Successor Servicer Requirements, and (ii) that the chosen successor is then actively acting as special servicer on a Freddie Mac multifamily mortgage loan securitization or is otherwise approved by Freddie Mac.

The special servicer will be required to provide written notice to the parties to the Pooling and Servicing Agreement and the directing certificateholder of both the occurrence (other than with respect to any Affiliated Borrower Special Servicer Loan Event that exists on the Closing Date and that is described in the definition of Affiliated Borrower Special Servicer Loan Event) and the termination of any Affiliated Borrower Special Servicer Loan Event within five Business Days after the special servicer obtains knowledge of such occurrence or termination of such Affiliated Borrower Special Servicer Loan Event. Except with respect to any Affiliated Borrower Special Servicer Loan Event that exists on the Closing Date and that is described in the definition of Affiliated Borrower Special Servicer Loan Event, (i) following the Closing Date and prior to its receipt of notice from the special servicer of the occurrence of an Affiliated Borrower Special Servicer Loan Event and (ii) following its receipt of notice, if any, from the special servicer of the termination of any Affiliated Borrower Special Servicer Loan Event and prior to its receipt of notice from the special servicer of the occurrence of another Affiliated Borrower Special Servicer Loan Event, unless, in each case, the trustee, the certificate administrator or the master servicer has actual knowledge that an Affiliated Borrower Special Servicer Loan Event exists, the trustee, the certificate administrator, the master servicer and Freddie Mac will be entitled to conclusively assume that no Affiliated Borrower Special Servicer Loan Event exists. The master servicer, the trustee, the certificate administrator

and Freddie Mac may rely on any such notice of the occurrence or termination of an Affiliated Borrower Special Servicer Loan Event without making any independent investigation.

The special servicer will not have any liability with respect to the actions or inactions of the applicable Affiliated Borrower Special Servicer or with respect to the identity of any Affiliated Borrower Special Servicer selected in accordance with the requirements set forth in the Pooling and Servicing Agreement.

Each Affiliated Borrower Special Servicer will perform all of the obligations of the special servicer for the related Affiliated Borrower Special Servicer Loan and will be entitled to all amounts of compensation payable to the special servicer under the Pooling and Servicing Agreement with respect to such Affiliated Borrower Special Servicer Loan that are earned during such time as the related underlying mortgage loan is an Affiliated Borrower Special Servicer Loan. The special servicer that resigns as a result of an Affiliated Borrower Special Servicer Loan Event will be entitled to any special servicer surveillance fees, special servicing fees and liquidation fees that accrued before the effective date of the resignation of the special servicer with respect to an underlying mortgage loan that became an Affiliated Borrower Special Servicer Loan and, for any such underlying mortgage loan that (i) becomes a Corrected Mortgage Loan before the effective date of the special servicer's resignation for such Affiliated Borrower Special Servicer Loan or (ii) would have become a Corrected Mortgage Loan before the effective date of the special servicer's resignation for such Affiliated Borrower Special Servicer Loan but for the requirement to receive three consecutive monthly debt service payments (provided that such payments occur within three months after the effective date of the special servicer's resignation), the related workout fees.

If the master servicer or the related Affiliated Borrower Special Servicer, as applicable, has actual knowledge of the termination of any Affiliated Borrower Special Servicer Loan Event, the master servicer or Affiliated Borrower Special Servicer, as applicable, will be required to provide prompt notice of such circumstance to each of the other parties to the Pooling and Servicing Agreement and the directing certificateholder.

If at any time an Affiliated Borrower Special Servicer Loan Event no longer exists with respect to an Affiliated Borrower Special Servicer Loan, (i) the related Affiliated Borrower Special Servicer will be required to promptly resign unless the directing certificateholder, with the consent of Freddie Mac, which consent may not be unreasonably withheld, instructs such Affiliated Borrower Special Servicer not to resign within five Business Days of receipt of notice that such Affiliated Borrower Special Servicer Loan Event no longer exists, (ii) the related underlying mortgage loan will no longer be an Affiliated Borrower Special Servicer Loan upon such resignation of the Affiliated Borrower Special Servicer, (iii) the special servicer for the underlying mortgage loans that are not Affiliated Borrower Special Servicer Loans will automatically succeed to the resigning Affiliated Borrower Special Servicer and will become the special servicer again for such underlying mortgage loan upon any such resignation of the Affiliated Borrower Special Servicer and (iv) such special servicer will be entitled to all compensation payable under the Pooling and Servicing Agreement to the special servicer with respect to such underlying mortgage loan earned after such underlying mortgage loan is no longer an Affiliated Borrower Special Servicer Loan, and the resigning Affiliated Borrower Special Servicer will be entitled to any special servicer surveillance fee, special servicing fees and liquidation fees that accrued while it was the Affiliated Borrower Special Servicer and, for any such underlying mortgage loan that (A) becomes a Corrected Mortgage Loan while such resigning Affiliated Borrower Special Servicer is acting in such capacity, or (B) would have become a Corrected Mortgage Loan while such resigning Affiliated Borrower Special Servicer is acting in such capacity but for the requirement to receive three consecutive monthly debt service payments (provided that such payments occur within three months after the effective date of the resignation of such Affiliated Borrower Special Servicer), the related workout fees.

In the event of resignation of the special servicer or the Affiliated Borrower Special Servicer as to the servicing of any Affiliated Borrower Special Servicer Loans, the successor will be required to immediately succeed to its predecessor's duties under the Pooling and Servicing Agreement.

"Affiliated Borrower Special Servicer" means the successor to the resigning special servicer for the related Affiliated Borrower Special Servicer Loan, which successor is appointed in accordance with the requirements set forth above.

"Affiliated Borrower Special Servicer Loan" means any underlying mortgage loan with respect to which an Affiliated Borrower Special Servicer Loan Event has occurred and is continuing. As of the Closing Date, no Affiliated Borrower Special Servicer Loan is expected to exist.

“Affiliated Borrower Special Servicer Loan Event” means an event that will exist with respect to any underlying mortgage loan if at any time the special servicer obtains knowledge that the special servicer, any of its managing members or any of its affiliates (i) becomes, intends to become or is the related borrower (or a proposed replacement borrower) or a Restricted Mezzanine Holder, (ii) becomes aware that the special servicer, any of its managing members or any of its affiliates is or intends to become an affiliate of the related borrower (or affiliate of the proposed replacement borrower) or a Restricted Mezzanine Holder or (iii) becomes or intends to become the owner of a direct or indirect interest in the related borrower (including a security interest (but not including a mezzanine loan unless the special servicer is a Restricted Mezzanine Holder) or preferred equity or participation interest) or in the related mortgaged real property (including any lien on such mortgaged real property). As of the Closing Date, no Affiliated Borrower Special Servicer Loan Event is expected to exist.

In addition, Freddie Mac will be entitled to direct the master servicer to remove any sub-servicer with respect to any underlying mortgage loan if (i) Freddie Mac determines, in accordance with the provisions of the Guide that any sub-servicer should not sub-serve the underlying mortgage loan, (ii) such sub-servicer becomes an affiliate of the trustee or (iii) Freddie Mac determines, in its reasonable discretion, that a conflict of interest exists between such sub-servicer and the related borrower such that the sub-servicer should not sub-serve the related underlying mortgage loan; *provided, however*, that any termination in connection with clauses (i), (ii) or (iii) above will be at the expense of Freddie Mac. Any sub-servicer that is terminated pursuant to clauses (i), (ii) or (iii) above will have the right to sell its sub-servicing to either the master servicer or another sub-servicer acceptable to Freddie Mac, which acceptance may not be unreasonably withheld or delayed. Except as provided in this paragraph with respect to Freddie Mac, in no event will Freddie Mac, the depositor, the master servicer, the special servicer, the trustee, the certificate administrator or the issuing entity be liable to a sub-servicer for any termination or other fees, costs and expenses associated with the removal of such sub-servicer.

Transfer of Servicing Duties. In connection with such appointment and assumption of a successor to the master servicer or the special servicer as described in this information circular, subject to the right of the predecessor master servicer or special servicer to retain certain fees earned by it prior to the applicable event of default, the trustee may make such arrangements for the compensation of such successor out of payments on the underlying mortgage loans as it and such successor agree. However, no such compensation with respect to a successor master servicer or successor special servicer, as the case may be, will be in excess of that paid to the terminated master servicer or special servicer, as the case may be, under the Pooling and Servicing Agreement. The trustee, the master servicer, the special servicer and such successor are required to take such action, consistent with the Pooling and Servicing Agreement, as will be necessary to effectuate any such succession. Any reasonable costs and expenses associated with the transfer of the servicing function (other than with respect to a termination without cause of the special servicer by the directing certificateholder as described above under “—Removal of the Master Servicer, the Special Servicer and any Sub-Servicer”) under the Pooling and Servicing Agreement will be required to be borne by the predecessor master servicer or special servicer. However, if such predecessor master servicer or special servicer, as applicable, fails to pay such costs and expenses after reasonable efforts to obtain payment, then such costs and expenses will be an expense of the issuing entity.

If the trustee or an affiliate of the trustee acts as successor to the master servicer, the trustee may reduce the related Excess Servicing Strip to the extent that its or such affiliate’s compensation as successor master servicer would otherwise be below the market rate servicing compensation (in the sole but reasonable discretion of the trustee) and the trustee, as the successor master servicer will be entitled to retain such reduced Excess Servicing Strip portion and to pay the remaining portion, if any, of the Excess Servicing Strip to the holder of the Excess Servicing Fee Right. If the trustee elects to appoint a successor to the master servicer other than itself or an affiliate, it may reduce the related Excess Servicing Strip (and such reduction may reduce the Excess Servicing Strip to zero) to the extent reasonably necessary (in the sole but reasonable discretion of the trustee) for the trustee to appoint a qualified successor master servicer that meets the requirements of the Pooling and Servicing Agreement and the successor master servicer will be entitled to retain such reduced Excess Servicing Strip portion and to pay the remaining portion, if any, of the Excess Servicing Strip to the holder of the Excess Servicing Fee Right. Any reduction of the Excess Servicing Strip by the trustee will be conclusive and binding on the parties under the Pooling and Servicing Agreement and any holder of the Excess Servicing Fee Right, and the trustee will have no liability for any reduction of the Excess Servicing Strip.

If the master servicer or the special servicer, as the case may be, is terminated pursuant to the terms of the Pooling and Servicing Agreement, it is required to promptly (and in any event no later than 20 Business Days after its receipt of the notice of termination) provide the trustee with all documents and records requested by the trustee or its designee and in the possession of the master servicer or the special servicer, as the case may be, to enable the trustee or another successor to assume the master servicer's or the special servicer's, as the case may be, functions under the Pooling and Servicing Agreement, and is required to reasonably cooperate with the trustee in effecting the termination of the master servicer's or the special servicer's, as the case may be, responsibilities and rights under the Pooling and Servicing Agreement, including, without limitation, the prompt transfer (and in any event no later than five Business Days after its receipt of the notice of termination) to the trustee or another successor for administration by it of all cash amounts which are at the time, or should have been, credited by the master servicer to the collection account or any other account held by it on account of the underlying mortgage loans or credited by the special servicer to an REO account, as the case may be, or which thereafter are received with respect to any underlying mortgage loan or any REO Property.

The Trustee

U.S. Bank National Association, a national banking association ("U.S. Bank"), will act as trustee under the Pooling and Servicing Agreement. U.S. Bancorp, with total assets exceeding \$488 billion as of September 30, 2019, is the parent company of U.S. Bank, the fifth largest commercial bank in the United States. As of September 30, 2019, U.S. Bancorp served approximately 18 million customers and operated over 2,900 branch offices in 25 states. A network of specialized U.S. Bancorp offices across the nation provides a comprehensive line of banking, brokerage, insurance, investment, mortgage, trust and payment services products to consumers, businesses, and institutions.

U.S. Bank has one of the largest corporate trust businesses in the country with office locations in 53 domestic and two international cities. The Pooling and Servicing Agreement will be administered from U.S. Bank's corporate trust office located at One Federal Street, 3rd Floor, Mail Code EX-MA-FED, Boston, Massachusetts 02110 (and for certificate transfer services, 111 Fillmore Avenue, St. Paul, Minnesota 55107, Attention: Bondholder Services – FREMF 2019-K103).

U.S. Bank has provided corporate trust services since 1924. As of September 30, 2019, U.S. Bank was acting as trustee with respect to over 100,000 issuances of securities with an aggregate outstanding principal balance of over \$4.1 trillion. This portfolio includes corporate and municipal bonds, mortgage-backed and asset-backed securities and collateralized debt obligations.

As of September 30, 2019, U.S. Bank (and its affiliate U.S. Bank Trust National Association) was acting as trustee, paying agent and certificate registrar on 342 issuances of CMBS with an outstanding aggregate principal balance of approximately \$241,953,900,000.

In the last several years, U.S. Bank and other large financial institutions have been sued in their capacity as trustee or successor trustee for certain residential mortgage backed securities ("RMBS") trusts. The complaints, primarily filed by investors or investor groups against U.S. Bank and similar institutions, allege the trustees caused losses to investors as a result of alleged failures by the sponsors, mortgage loan sellers and servicers to comply with the governing agreements for these RMBS trusts. The plaintiffs generally assert causes of action based upon the trustees' purported failures to enforce repurchase obligations of mortgage loan sellers for alleged breaches of representations and warranties, notify securityholders of purported events of default allegedly caused by breaches of servicing standards by mortgage loan servicers and abide by a heightened standard of care following alleged events of default. Currently, U.S. Bank is a defendant in multiple actions alleging individual or class action claims against it.

U.S. Bank denies liability and believes that it has performed its obligations under the RMBS trusts in good faith, that its actions were not the cause of losses to investors, that it has meritorious defenses, and it has contested and intends to continue contesting the plaintiffs' claims vigorously. However, U.S. Bank cannot assure you as to the outcome of any of the litigation, or the possible impact of these litigations on the trustee or the RMBS trusts.

On March 9, 2018, a law firm purporting to represent fifteen Delaware statutory trusts (the "DSTs") that issued securities backed by student loans (the "Student Loans") filed a lawsuit in the Delaware Court of Chancery against

U.S. Bank National Association (“U.S. Bank”) in its capacities as indenture trustee and successor special servicer, and three other institutions in their respective transaction capacities, with respect to the DSTs and the Student Loans. This lawsuit is captioned *The National Collegiate Student Loan Master Trust I, et al. v. U.S. Bank National Association, et al.*, C.A. No. 2018-0167-JRS (Del. Ch.). The complaint, which was later amended on June 15, 2018, alleged that the DSTs have been harmed as a result of purported misconduct or omissions by the defendants concerning administration of the trusts and servicing of the student loans.

U.S. Bank believes that it has performed its obligations as indenture trustee and special servicer in good faith and in compliance in all material respects with the terms of the agreements governing the DSTs (the “Governing Agreements”), and accordingly that the claims against it in the lawsuit are without merit.

U.S. Bank has filed a motion seeking dismissal of the operative complaint in its entirety with prejudice pursuant to Chancery Court Rules 12(b)(1) and 12(b)(6) or, in the alternative, U.S. Bank requested a stay of the case while other prior filed disputes involving the DSTs and the Student Loans are being litigated. On November 7, 2018, the Court ruled that the case should be stayed in its entirety pending resolution of the first-filed cases.

U.S. Bank intends to continue to defend this lawsuit vigorously.

In its capacity as trustee on commercial mortgage securitizations, U.S. Bank is generally required to make an advance if the related master servicer fails to make a required advance. In the past three years, U.S. Bank, in its capacity as trustee, has not been required to make an advance on a U.S. domestic CMBS transaction.

The information set forth above in this section “—The Trustee” has been provided by U.S. Bank. Neither the depositor nor any other person other than U.S. Bank makes any representation or warranty as to the accuracy or completeness of such information.

See also “—Rights Upon Event of Default,” “—Matters Regarding the Trustee, the Certificate Administrator and the Custodian” and “—Certain Indemnities” below.

The Certificate Administrator and Custodian

Citibank, N.A., a national banking association (“Citibank”), will be appointed to act as the certificate administrator, the custodian and the certificate registrar under the Pooling and Servicing Agreement. Citibank also originated 2 underlying mortgage loans, collectively representing 1.5% of the initial mortgage pool balance. The corporate trust office of Citibank responsible for administration of the issuing entity is located at 388 Greenwich Street New York, New York 10013, Attention: Citibank Agency & Trust-FREMF 2019-K103 and the office for certificate transfer services is located at 480 Washington Boulevard, 30th Floor, Jersey City, New Jersey 07310, Attention: Securities Window.

Citibank is a wholly owned subsidiary of Citigroup Inc., a Delaware corporation. Citibank performs as certificate administrator, custodian and certificate registrar through the Agency and Trust line of business, which is part of the Global Transaction Services division. Citibank has primary corporate trust offices located in both New York and London. Citibank is a leading provider of corporate trust services offering a full range of agency, fiduciary, tender and exchange, depository and escrow services. As of the end of the third quarter of 2019, Citibank’s Agency and Trust group managed in excess of \$6 trillion in fixed income and equity investments on behalf of approximately 3,000 corporations worldwide. Since 1987, Citibank’s Agency and Trust group has provided trustee services for asset-backed securities containing pool assets consisting of airplane leases, auto loans and leases, boat loans, commercial loans, commodities, credit cards, durable goods, equipment leases, foreign securities, funding agreement backed note programs, truck loans, utilities, student loans and commercial and residential mortgages. As of the end of the third quarter of 2019, Citibank acted as trustee, certificate administrator and/or paying agent for approximately 155 transactions backed by commercial mortgages with an aggregate principal balance of approximately \$170.0 billion. The depositor, the Initial Purchasers, the placement agents, Freddie Mac, the master servicer and the special servicer may maintain banking and other commercial relationships with Citibank and its affiliates.

Under the terms of the Pooling and Servicing Agreement, Citibank is responsible for securities administration, which includes pool performance calculations, distribution calculations and the preparation of monthly distribution

reports. An analyst will also be responsible for the timely delivery of reports to the administration unit for processing all cashflow items. As certificate administrator, Citibank is also responsible for the preparation and filing of all REMIC and, if applicable, grantor trust tax returns on behalf of the issuing entity. In the past three years, Citibank has not made material changes to the policies and procedures of its securities administration services for CMBS.

There have been no material changes to Citibank's policies or procedures with respect to its commercial mortgage-backed trustee or securities administration function other than changes required by applicable laws. In the past three years, Citibank has not materially defaulted in its securities administration obligations under any pooling and servicing agreement or caused an early amortization or other performance triggering event because of the performance by Citibank as trustee or securities administrator with respect to CMBS.

Citibank is acting as certificate administrator and custodian of this CMBS transaction. In the ordinary course of business, Citibank is involved in a number of legal proceedings, including in connection with its role as trustee of certain residential mortgage-backed securities ("RMBS") transactions. On June 18, 2014, a civil action was filed against Citibank in the Supreme Court of the State of New York by a group of investors in 48 private-label RMBS trusts for which Citibank allegedly serves or did serve as trustee, asserting claims for purported violations of the Trust Indenture Act of 1939 (the "Trust Indenture Act"), breach of contract, breach of fiduciary duty and negligence based on Citibank's alleged failure to perform its duties as trustee for the 48 RMBS trusts. On November 24, 2014, plaintiffs sought leave to withdraw this action. On the same day, a smaller subset of similar plaintiff investors in 27 private-label RMBS trusts for which Citibank allegedly serves or did serve as trustee, filed a new civil action against Citibank in the United States District Court for the Southern District of New York asserting similar claims as the prior action filed in state court. In January 2015, the court closed plaintiffs' original state court action. On September 8, 2015, the federal court dismissed all claims as to 24 of the 27 trusts and allowed certain of the claims to proceed as to the other three trusts. Subsequently, plaintiffs voluntarily dismissed all claims with respect to two of the three trusts. On April 7, 2017, Citibank filed a motion for summary judgment. The plaintiffs filed their consolidated opposition brief and cross motion for partial summary judgment on May 22, 2017. Briefing on those motions was completed on August 4, 2017. On March 22, 2018, the court granted Citibank's motion for summary judgment in its entirety, denied the plaintiffs' motion for summary judgment and ordered the clerk to close the case. On April 20, 2018, the plaintiffs filed a notice of appeal. The plaintiffs' opening brief was filed on August 3, 2018. Citibank filed its opposition on November 2, 2018. The plaintiffs filed their reply on November 16, 2018. On June 7, 2019, the Second Circuit dismissed the plaintiffs' appeal following the parties' filing of a stipulation withdrawing the case with prejudice pursuant to Federal Rule of Appellate Procedure 42.

On November 24, 2015, the same investors that brought the federal case brought a new civil action in the Supreme Court of the State of New York related to 25 private-label RMBS trusts for which Citibank allegedly serves or did serve as trustee. This case includes the 24 trusts previously dismissed in the federal action, and one additional trust. The investors assert claims for breach of contract, breach of fiduciary duty, breach of duty to avoid conflicts of interest, and violation of New York's Streit Act (the "Streit Act"). Following oral argument on Citibank's motion to dismiss, plaintiffs filed an amended complaint on August 5, 2016. On June 27, 2017, the state court issued a decision, dismissing the event of default claims, mortgage-file-related claims, the fiduciary duty claims, and the conflict of interest claims. The decision sustained certain breach of contract claims including the claim alleging discovery of breaches of representations and warranties, a claim related to robo-signing, and the implied covenant of good faith claim. Citibank appealed the lower court's decision, and on January 16, 2018, the Appellate Division, First Department, dismissed the claims related to robo signing and the implied covenant of good faith, but allowed plaintiffs' claim alleging discovery of breaches of representations and warranties to proceed. On June 7, 2019, plaintiffs filed a motion for discontinuance of the action and dismissal of plaintiffs' claims with prejudice.

On August 19, 2015, the Federal Deposit Insurance Corporation ("FDIC") as receiver for a failed financial institution filed a civil action against Citibank in the Southern District of New York. This action relates to one private-label RMBS trust for which Citibank formerly served as trustee. FDIC asserts claims for breach of contract, violation of the Streit Act, and violation of the Trust Indenture Act. Citibank jointly briefed a motion to dismiss with the Bank of New York Mellon and U.S. Bank, N.A., entities that have also been sued by FDIC in their capacity as trustee, and these cases have all been consolidated in front of Judge Carter. On September 30, 2016, the court granted Citibank's motion to dismiss the complaint without prejudice for lack of subject matter jurisdiction. On

October 14, 2016, FDIC filed a motion for reargument or relief from judgment from the Court's dismissal order. On July 11, 2017, Judge Carter ruled on the motion for reconsideration regarding his dismissal of the action. He denied reconsideration of his decision on standing, but granted leave to amend the complaint by October 9, 2017. The FDIC subsequently requested an extension of time to file its amended complaint, which was granted. The FDIC filed its amended complaint on December 8, 2017. The defendants jointly filed a motion to dismiss the amended complaint and that joint motion was fully briefed as of May 3, 2018. On March 20, 2019, the court granted the defendants' joint motion to dismiss the amended complaint. The FDIC's deadline to file a notice of appeal was April 22, 2019. The FDIC has not appealed.

There can be no assurances as to the outcome of litigation or the possible impact of litigation on the trustee, certificate administrator, custodian or the RMBS trusts. However, Citibank denies liability and continues to vigorously defend against these litigations. Furthermore, neither the above-disclosed litigations nor any other pending legal proceeding involving Citibank will materially affect Citibank's ability to perform its duties as certificate administrator and custodian under the Pooling and Servicing Agreement for this CMBS transaction.

Citibank is acting as custodian of the mortgage files pursuant to the Pooling and Servicing Agreement. The custodian is responsible to hold and safeguard the mortgage note(s) and other contents of the mortgage file with respect to each underlying mortgage loan on behalf of the trustee and the certificateholders. Each mortgage file will be maintained in a separate file folder marked with a unique bar code to assure loan level file integrity and to assist in inventory management. Files are segregated by transaction and/or issuer. Citibank, through its affiliates and third-party vendors, has been engaged in the mortgage document custody business for more than ten years. Citibank, through its affiliates and third-party vendors, maintains its commercial document custody facilities in Chicago, Illinois and St. Paul, Minnesota. One such third-party vendor separately engaged by Citibank in its capacity as custodian under the Pooling and Servicing Agreement is U.S. Bank National Association which will hold and safeguard the mortgage notes and other contents of the mortgage files with respect to the underlying mortgage loans.

The information set forth above in this section "—The Certificate Administrator and Custodian" has been provided by Citibank. Neither the depositor nor any other person other than Citibank makes any representation or warranty as to the accuracy or completeness of such information.

See also "—Rights Upon Event of Default," "—Matters Regarding the Trustee, the Certificate Administrator and the Custodian" and "—Certain Indemnities" below.

Resignation and Removal of the Trustee and the Certificate Administrator

Each of the trustee and the certificate administrator will be permitted at any time to resign from its obligations and duties under the Pooling and Servicing Agreement by giving not less than 30 days' prior written notice to the depositor, the master servicer, the special servicer, Freddie Mac, the trustee or the certificate administrator, as the case may be, and all certificateholders. In addition, compliance with the Investment Company Act may require the trustee to resign if (i) borrowers have defeased more than 20% of the underlying mortgage loans (by principal balance) and (ii) an affiliate of the trustee is servicing or sub-servicing the underlying mortgage loans. Upon receiving a notice of resignation, the depositor will be required to use its reasonable best efforts to promptly appoint a qualified successor trustee or certificate administrator acceptable to the master servicer and Freddie Mac. If no successor trustee or certificate administrator has been so appointed and has accepted an appointment within 30 days after the giving of the notice of resignation, the resigning trustee or certificate administrator may petition any court of competent jurisdiction to appoint a successor trustee or certificate administrator, as applicable.

Each of the trustee and the certificate administrator must at all times be, and will be required to resign if it fails to be, (i) a corporation, national bank, trust company or national banking association, organized and doing business under the laws of any state or the United States or the District of Columbia, authorized under such laws to exercise corporate trust powers and to accept the trust conferred under the Pooling and Servicing Agreement, having a combined capital and surplus of at least \$50,000,000 and subject to supervision or examination by federal or state authority and, only in the case of the trustee, may not be an affiliate of the depositor, the master servicer or the special servicer (except during any period when the trustee is acting as, or has become successor to, a master servicer or special servicer, as the case may be), (ii) an institution insured by the Federal Deposit Insurance Corporation and (iii) an institution whose long term senior unsecured debt (a) is rated "A" or higher by Fitch and

“Aa3” or higher by Moody’s (or “A2” or higher by Moody’s if such institution’s short-term unsecured debt obligations are rated “P-1” or higher by Moody’s) or (b) is otherwise acceptable to the Approved Directing Certificateholder (if any), Freddie Mac and each Rating Agency as evidenced by the receipt of Rating Agency Confirmation with respect to such trustee or certificate administrator.

If at any time the trustee or the certificate administrator ceases to be eligible to continue as the trustee or the certificate administrator under the Pooling and Servicing Agreement, or if the depositor has received notice from a Rating Agency that failure to remove the trustee or the certificate administrator will result in a downgrade, withdrawal or qualification of the then current rating assigned to any class of rated certificates or any class of rated SPCs (if then rated by such Rating Agency), and fails to resign after request by Freddie Mac, the depositor or the master servicer, or if at any time the trustee or the certificate administrator, as applicable, becomes incapable of acting, or if some events of, or proceedings in respect of, bankruptcy or insolvency occur with respect to the trustee or the certificate administrator, the depositor will be authorized to remove the trustee or the certificate administrator and appoint a successor trustee or certificate administrator, as applicable. In addition, holders of the certificates entitled to at least 51% of the voting rights may with cause (at any time) or without cause (at any time upon at least 30 days’ prior written notice) remove the trustee or certificate administrator under the Pooling and Servicing Agreement and appoint a successor trustee or certificate administrator acceptable to Freddie Mac. Any successor trustee or certificate administrator must be an institution that meets the requirements of the immediately preceding paragraph. Further, if the ratings of the trustee or the certificate administrator fall below the ratings required by the immediately preceding paragraph, Freddie Mac will have the right to remove the trustee or certificate administrator, as applicable, and appoint a successor trustee or certificate administrator that meets the standards set forth in the Pooling and Servicing Agreement and who is otherwise acceptable to Freddie Mac in its sole discretion.

Any resignation or removal of a trustee or a certificate administrator and appointment of a successor trustee or certificate administrator will not become effective until acceptance of appointment by the successor trustee or certificate administrator, as applicable.

In the event of any resignation or removal of a trustee or a certificate administrator (other than a resignation of a trustee that is required solely due to a change in law or a conflict of interest arising after the Closing Date that is not waived by all of the parties in conflict or is unwaivable), such resignation or removal will be effective with respect to each of such party’s other capacities under the Pooling and Servicing Agreement, including, without limitation, such party’s capacities as trustee, custodian, certificate administrator, certificate registrar and 17g-5 information provider, as the case may be.

See “—Rights Upon Event of Default,” “—Matters Regarding the Trustee, the Certificate Administrator and the Custodian” and “—Certain Indemnities” below.

Assignment of the Mortgage Loans

On the Closing Date, we will sell, assign, transfer or otherwise convey all of our right, title and interest in and to the underlying mortgage loans acquired from the mortgage loan seller, without recourse, to the trustee for the benefit of the holders of the certificates. We will also assign to the trustee our rights under the mortgage loan purchase agreement pursuant to which we acquired the underlying mortgage loans from the mortgage loan seller, except for certain rights to receive notices regarding demands for the mortgage loan seller to repurchase or replace any of the underlying mortgage loans.

Servicing Under the Pooling and Servicing Agreement

General. The master servicer and the special servicer must diligently service and administer the underlying mortgage loans and any REO Properties owned by the issuing entity for which it is responsible under the Pooling and Servicing Agreement directly, through sub-servicers or through an affiliate as provided in the Pooling and Servicing Agreement on behalf of the issuing entity and in the best interest of and for the benefit of the certificateholders (as a collective whole), as determined by the master servicer or the special servicer, as the case may be, in its reasonable judgment, in accordance with—

- any and all applicable laws,

- the express terms of the Pooling and Servicing Agreement,
- the express terms of the respective underlying mortgage loans and any applicable intercreditor, co-lender or similar agreements, and
- to the extent consistent with the items above, the Servicing Standard.

In general, the master servicer will be responsible for the servicing and administration of—

- all underlying mortgage loans as to which no Servicing Transfer Event has occurred, and
- all worked-out underlying mortgage loans as to which no new Servicing Transfer Event has occurred.

If a Servicing Transfer Event occurs with respect to any underlying mortgage loan, that underlying mortgage loan will not be considered to be “worked-out” until all applicable Servicing Transfer Events have ceased to exist.

In general, subject to specified requirements and certain consultations, consents and approvals of the Approved Directing Certificateholder (if any) contained in the Pooling and Servicing Agreement, the special servicer will be responsible for the servicing and administration of each underlying mortgage loan as to which a Servicing Transfer Event has occurred and is continuing. The special servicer will also be responsible for the administration of each REO Property in the issuing entity.

Despite the foregoing, the Pooling and Servicing Agreement will require the master servicer:

- to continue to make all calculations and, subject to the master servicer’s timely receipt of information from the special servicer, prepare and deliver all reports to the certificate administrator required with respect to any specially serviced assets; and
- otherwise, to render other incidental services with respect to any specially serviced assets.

The master servicer will transfer servicing of an underlying mortgage loan to the special servicer upon the occurrence of a Servicing Transfer Event with respect to that underlying mortgage loan. The special servicer will return the servicing of that underlying mortgage loan to the master servicer, and that underlying mortgage loan will be considered to have been worked-out, if and when all Servicing Transfer Events with respect to that underlying mortgage loan cease to exist and that underlying mortgage loan has become a Corrected Mortgage Loan.

The master servicer, the Directing Certificateholder Servicing Consultant and any sub-servicer may consult with Freddie Mac with respect to the application of Freddie Mac Servicing Practices to any matters related to non-Specially Serviced Mortgage Loans, but the Directing Certificateholder Servicing Consultant will not be bound by any such consultation. Freddie Mac will be acting as a “servicing consultant” in connection with such consultations. Any sub-servicer will be required to inform the master servicer of any such consultation with Freddie Mac. Freddie Mac (in its capacity as the servicing consultant) may contact the related borrower to request any necessary documentation from such borrower in order to provide consultation to the master servicer, the Directing Certificateholder Servicing Consultant or any sub-servicer with respect to the proper application of Freddie Mac Servicing Practices (a copy of such documentation will also be provided by Freddie Mac to (i) the master servicer and (ii) if applicable, the Directing Certificateholder Servicing Consultant and/or any sub-servicer that is consulting with the servicing consultant with respect to such matter, in each such case, to the extent not already provided by such borrower).

The Guide

In addition to the specific requirements of the Pooling and Servicing Agreement as described above, and to the extent not inconsistent therewith, the master servicer and the special servicer will be required to service the underlying mortgage loans other than REO Loans, REO Properties and Specially Serviced Mortgage Loans in accordance with Freddie Mac Servicing Practices, an important component of which is the Guide. Freddie Mac may waive or modify its servicing policies and procedures, as reflected in the Guide at any time. The Guide can be accessed by subscribers at www.allregs.com.

Generally, under the Guide, servicers are required to perform all services and duties customary to the servicing of multifamily mortgage loans including those factors enumerated in “Description of the Mortgage Loan Seller and Guarantor—Mortgage Loan Purchase and Servicing Standards of the Mortgage Loan Seller—Mortgage Loan Servicing Policies and Procedures” in this information circular.

Servicing and Other Compensation and Payment of Expenses

The Servicing Fee. The principal compensation to be paid to the master servicer with respect to its master servicing activities will be a servicing fee consisting of a master servicing fee, all or a portion of the master servicer surveillance fee and a sub-servicing fee. The principal compensation to be paid to any sub-servicer with respect to its sub-servicing activities will be a servicing fee consisting of a sub-servicing fee and a portion of the master servicer surveillance fee (subject to certain conditions described below).

A master servicing fee:

- will be earned with respect to each underlying mortgage loan including (without duplication)—
 1. any Specially Serviced Mortgage Loan,
 2. any REO Loan, and
 3. each defeased underlying mortgage loan, if any, and
- in the case of each underlying mortgage loan will—
 1. be calculated on the same interest accrual basis as that underlying mortgage loan,
 2. accrue at the master servicing fee rate set forth in “Description of the Certificates—Fees and Expenses” in this information circular,
 3. accrue on the same principal amount as interest accrues or is deemed to accrue from time to time with respect to that underlying mortgage loan, and
 4. be payable monthly from amounts received with respect to interest on that underlying mortgage loan (or if not so paid, will accrue and remain outstanding).

A master servicer surveillance fee:

- will be earned with respect to each Surveillance Fee Mortgage Loan,
- will be calculated on the same interest accrual basis as that Surveillance Fee Mortgage Loan,
- will accrue at the master servicer surveillance fee rate set forth in “Description of the Certificates—Fees and Expenses” in this information circular,
- will accrue on the same principal amount as interest accrues or is deemed to accrue from time to time with respect to that Surveillance Fee Mortgage Loan, and
- will be payable monthly from amounts received with respect to interest on that Surveillance Fee Mortgage Loan (or if not so paid, will accrue and remain outstanding).

Pursuant to the terms of the related Sub-Servicing Agreement, a sub-servicer will be entitled to retain on a monthly basis a portion of the master servicer surveillance fees received by such sub-servicer as determined in accordance with the *per annum* rate set forth in “Description of the Certificates—Fees and Expenses” in this information circular in respect of each Surveillance Fee Mortgage Loan that it services (with the obligation to remit the remaining portion of such fee to the master servicer), if such sub-servicer is identified in the Pooling and Servicing Agreement as being entitled to receive such portion. A sub-servicer’s entitlement to such portion may not be transferred (in whole or in part) to any other party. If at any time an eligible sub-servicer enters, without Freddie Mac’s prior approval, into an agreement providing for the further sub-servicing by a third party of any Surveillance Fee Mortgage Loan (other than mandatory servicing transfers due to conflicts of interest), or if Freddie Mac notifies the master servicer and the sub-servicer that such sub-servicer is no longer entitled to receive such portion, then the entire master servicer surveillance fee as to the Surveillance Fee Mortgage Loans serviced by that sub-servicer will be remitted to the master servicer.

A sub-servicing fee:

- will be earned with respect to each underlying mortgage loan, including (without duplication) Specially Serviced Mortgage Loans, each defeased underlying mortgage loan and each REO Loan, and
- in the case of each underlying mortgage loan will—
 1. be calculated on the same interest accrual basis as that underlying mortgage loan,
 2. accrue at the sub-servicing fee rate set forth in “Description of the Certificates—Fees and Expenses” in this information circular,
 3. accrue on the same principal amount as interest accrues or is deemed to accrue from time to time with respect to that underlying mortgage loan, and
 4. be payable monthly from amounts received with respect to interest on that underlying mortgage loan (or if not so paid, will accrue and remain outstanding).

In the event that Midland resigns or is terminated as master servicer, Midland (or its assignee), as the holder of the Excess Servicing Fee Right, will continue to be entitled to receive the Excess Servicing Strip and will be paid that Excess Servicing Strip (except to the extent that any portion of that Excess Servicing Strip is needed to compensate any successor master servicer for assuming its duties as a master servicer under the Pooling and Servicing Agreement). See “—Resignation, Removal and Replacement of Servicers; Transfer of Servicing Duties” above. Subject to certain conditions, Midland is entitled, under the Pooling and Servicing Agreement, to assign or pledge to any qualified institutional buyer or institutional accredited investor, the Excess Servicing Fee Right. We make no representation or warranty as to following any resignation or termination of Midland as master servicer, (a) whether any holder of the Excess Servicing Fee Right would dispute the trustee’s determination that any portion of the Excess Servicing Strip was necessary to compensate a successor master servicer or (b) the ability of the trustee to successfully recapture the Excess Servicing Strip or any portion of that strip from any holder of the Excess Servicing Fee Right, in particular if that holder were the subject of a bankruptcy or insolvency proceeding. In addition, in the event that Midland resigns or is terminated as master servicer, Midland will also be entitled to retain any sub-servicing fee payable to it in its capacity as primary servicer so long as it continues to act in that capacity for any underlying mortgage loan.

Except with respect to the Excess Servicing Fee Right, the right of the master servicer to receive the master servicing fee or the master servicer surveillance fee may not be transferred in whole or in part except in connection with the transfer of all of the master servicer’s responsibilities and obligations under the Pooling and Servicing Agreement.

Prepayment Interest Shortfalls. The Pooling and Servicing Agreement provides that, although the loan documents require the payment of a full month’s interest on any voluntary prepayment not made on a due date, if any Prepayment Interest Shortfall is incurred by reason of the master servicer’s acceptance, other than at the request of the Approved Directing Certificateholder, of any principal prepayment relating to one or more underlying mortgage loans during any Collection Period, then the master servicer must make a payment prior to the related distribution date in an amount equal to the aggregate of such Prepayment Interest Shortfalls for such Collection Period up to an amount not to exceed the master servicing fee for such Collection Period, with no right to reimbursement. This obligation to cover Prepayment Interest Shortfalls will not apply with respect to a principal prepayment accepted by the master servicer (i) with respect to any Specially Serviced Mortgage Loan, (ii) subsequent to a default under the related loan documents (*provided* that the master servicer or the special servicer reasonably believes that acceptance of such prepayment is consistent with the Servicing Standard), (iii) pursuant to applicable law or a court order, (iv) in respect of a payment of insurance and condemnation proceeds or (v) pursuant to any term of the related loan documents that allows such prepayment to be made without the payment of a full month’s interest.

In addition, if Prepayment Interest Shortfalls are incurred during any Collection Period with respect to any underlying mortgage loan serviced by the master servicer and the master servicer’s payment in respect of such Prepayment Interest Shortfalls as contemplated by the prior paragraph is less than the entire amount of Prepayment Interest Shortfalls, then the master servicer (i) must apply any Prepayment Interest Excesses received during that Collection Period with respect to other underlying mortgage loans to offset such Prepayment Interest Shortfalls and

(ii) in any event, may retain, as additional compensation, any such Prepayment Interest Excesses that are not needed to accomplish such offset.

No other master servicing compensation will be available to cover Prepayment Interest Shortfalls, and the master servicer's obligation to make payments to cover Prepayment Interest Shortfalls in respect of a particular Collection Period will not carry over to any subsequent Collection Period.

Any payments made by the master servicer with respect to any distribution date to cover Prepayment Interest Shortfalls, and any Prepayment Interest Excesses applied to offset Prepayment Interest Shortfalls, will be included in the Available Distribution Amount for that distribution date, as described under "Description of the Certificates—Distributions" in this information circular. If the amount of Prepayment Interest Shortfalls incurred with respect to the mortgage pool during any Collection Period exceeds the sum of—

- any payments made by the master servicer with respect to the related distribution date to cover those Prepayment Interest Shortfalls, and
- any Prepayment Interest Excesses applied to offset those Prepayment Interest Shortfalls,

then the resulting Net Aggregate Prepayment Interest Shortfall will be allocated among the respective interest-bearing classes of certificates, in reduction of the interest distributable on those certificates, as and to the extent described under "Description of the Certificates—Distributions—Interest Distributions" in this information circular.

Principal Special Servicing Compensation. The principal compensation to be paid to the special servicer with respect to its special servicing activities will be—

- the corresponding special servicing fees;
- the corresponding workout fees;
- the corresponding liquidation fees; and
- the special servicer surveillance fee.

Special Servicing Fee. A special servicing fee:

- will be earned with respect to—
 1. each Specially Serviced Mortgage Loan, and
 2. each REO Loan;
- in the case of each underlying mortgage loan described in the preceding bullet point, will—
 1. be calculated on the same interest accrual basis as that underlying mortgage loan,
 2. accrue at the special servicing fee rate set forth in "Description of the Certificates—Fees and Expenses" in this information circular, and
 3. accrue on the Stated Principal Balance of that underlying mortgage loan outstanding from time to time; and
- will generally be payable to the special servicer monthly from general collections on the mortgage pool.

Special Servicer Surveillance Fee. A special servicer surveillance fee:

- will be earned with respect to each Surveillance Fee Mortgage Loan—
- will be calculated on the same interest accrual basis as that Surveillance Fee Mortgage Loan,
- will accrue at the special servicer surveillance fee rate set forth in "Description of the Certificates—Fees and Expenses" in this information circular,
- will accrue on the same principal amount as interest accrues or is deemed to accrue from time to time with respect to that Surveillance Fee Mortgage Loan, and

- will be payable monthly from amounts received with respect to interest on that Surveillance Fee Mortgage Loan (or if not so paid, will accrue and remain outstanding).

Workout Fee. The special servicer will, in general, be entitled to receive a workout fee with respect to each Specially Serviced Mortgage Loan that has been worked out by it. The workout fee will be payable out of, and will generally be calculated by application of the workout fee rate set forth in “Description of the Certificates—Fees and Expenses” in this information circular to each payment of interest (other than Default Interest) and principal (including scheduled payments, prepayments, balloon payments, payments at maturity and payments resulting from a partial condemnation) received on the underlying mortgage loan for so long as it remains a worked-out underlying mortgage loan. The workout fee with respect to any worked-out underlying mortgage loan will cease to be payable if a new Servicing Transfer Event occurs with respect to that underlying mortgage loan. However, a new workout fee would become payable if the underlying mortgage loan again became a worked-out underlying mortgage loan with respect to that new Servicing Transfer Event.

If the special servicer is terminated (other than for cause) or resigns, it will retain the right to receive any and all workout fees payable with respect to underlying mortgage loans that were (or were close to being) worked out by it during the period that it acted as the special servicer and as to which no new Servicing Transfer Event had occurred as of the time of that termination. The successor special servicer will not be entitled to any portion of those workout fees.

Although workout fees are intended to provide the special servicer with an incentive to better perform its duties, the payment of any workout fee will reduce amounts payable to the certificateholders.

Liquidation Fee. The special servicer will be entitled to receive a liquidation fee with respect to each Specially Serviced Mortgage Loan for which it obtains a full, partial or discounted payoff from the related borrower. The special servicer will also be entitled to receive a liquidation fee with respect to any Specially Serviced Mortgage Loan or REO Property as to which it receives any Liquidation Proceeds, except as described in the next paragraph. A liquidation fee will also be payable in connection with the repurchase or replacement of any underlying mortgage loan for a material breach of a representation or warranty or a material document defect, as described under “Description of the Underlying Mortgage Loans—Cures, Repurchases and Substitutions” in this information circular, if the repurchase or substitution occurs after the end of the applicable cure period (and any applicable extension of the applicable cure period). As to each Specially Serviced Mortgage Loan and REO Property, the liquidation fee will generally be payable from, and will be calculated by application of the liquidation fee rate set forth in “Description of the Certificates—Fees and Expenses” in this information circular to, the related payment or proceeds, exclusive of liquidation expenses.

However, no liquidation fee will be payable based on, or out of, proceeds received in connection with—

- the purchase of a Defaulted Loan if the purchaser is the directing certificateholder and it purchases such underlying mortgage loan within 90 days after the special servicer provides the initial Fair Value Notice described in “—Realization Upon Mortgage Loans—Purchase Option” below, or at any time if the purchaser is Freddie Mac or the related Junior Loan Holder (or another holder of a related Junior Loan) as described under “—Realization Upon Mortgage Loans—Purchase Option” below;
- the repurchase or replacement of any underlying mortgage loan for a material breach of a representation or warranty or a material document defect as described under “Description of the Underlying Mortgage Loans—Cures, Repurchases and Substitutions” in this information circular, within the applicable cure period (and any applicable extension of the applicable cure period); or
- the purchase of all of the underlying mortgage loans and REO Properties in the issuing entity by the Controlling Class Majority Holder, the master servicer or the special servicer in connection with the termination of the issuing entity, as described under “—Termination” below.

Although liquidation fees are intended to provide the special servicer with an incentive to better perform its duties, the payment of any liquidation fee will reduce amounts payable to the certificateholders.

The right of the special servicer to receive the related special servicing fee and special servicer surveillance fee may not be transferred in whole or in part except in connection with the transfer of all of the special servicer's responsibilities and obligations under the Pooling and Servicing Agreement.

However, the special servicer may, subject to the above-described prohibition on transfers of the right to receive the special servicing fee and the special servicer surveillance fee, enter into one or more arrangements to assign to another person (including, without limitation, any certificateholder or an affiliate of any certificateholder), or to provide for the payment by the special servicer to such person, of all or a portion of the special servicer's compensation (excluding the special servicing fee or the special servicer surveillance fee, as described above) under the Pooling and Servicing Agreement, *provided*, that any such assignment or provision will not be binding on any successor special servicer or any other party to the Pooling and Servicing Agreement.

Additional Servicing Compensation. The master servicer may retain, as additional compensation, any Prepayment Interest Excesses received with respect to the underlying mortgage loans, but only to the extent that such Prepayment Interest Excesses are not needed to offset Prepayment Interest Shortfalls, as described under "—Prepayment Interest Shortfalls" above. The master servicer may also retain (i) any Transfer Processing Fees collected on or with respect to any underlying mortgage loans that are not Specially Serviced Mortgage Loans (a portion of which may be payable to a sub-servicer under a related Sub-Servicing Agreement) and (ii) any defeasance fees.

Any late payment charges and Default Interest actually collected on an underlying mortgage loan and that are not otherwise applied as described in the last paragraph under "Description of the Certificates—Reductions of Certificate Principal Balances in Connection with Realized Losses and Additional Issuing Entity Expenses" in this information circular, will be allocated between the master servicer and the special servicer as additional compensation in accordance with the Pooling and Servicing Agreement.

Transfer Fees collected on the underlying mortgage loans (other than Specially Serviced Mortgage Loans) will be allocated (i) solely to the master servicer (a portion of which may be payable to a sub-servicer under a related Sub-Servicing Agreement) or (ii) between the master servicer (a portion of which may be payable to a sub-servicer under a related Sub-Servicing Agreement) and the Approved Directing Certificateholder or Affiliated Borrower Loan Directing Certificateholder as shown under "Description of the Certificates—Fees and Expenses" in this information circular.

Any extension fees, modification fees, assumption fees, assumption application fees, earnout fees, consent/waiver fees and other comparable transaction fees and charges collected on the Specially Serviced Mortgage Loans will be allocated to the special servicer, as shown under "Description of the Certificates—Fees and Expenses" in this information circular.

The master servicer will be authorized to invest or direct the investment of funds held in its collection account, or in any escrow and/or reserve account maintained by it, in Permitted Investments. See "—Collection Account" below. The master servicer—

- will generally be entitled to retain any interest or other income earned on those funds; and
- will be required to cover any losses of principal from its own funds, to the extent those losses are incurred with respect to investments made for the master servicer's benefit, but the master servicer is not required to cover any losses caused by the insolvency of the depository institution or trust company holding such account so long as (i) such depository institution or trust company (a) satisfied the requirements set forth in the Pooling and Servicing Agreement at the time such investment was made and (b) is neither the master servicer nor an affiliate of the master servicer and (ii) such insolvency occurs within 30 days of the date on which such depository institution or trust company no longer satisfies the requirements set forth in the Pooling and Servicing Agreement.

The special servicer will be authorized to invest or direct the investment of funds held in its REO account in Permitted Investments. See "—Realization Upon Mortgage Loans—REO Account" below. The special servicer—

- will generally be entitled to retain any interest or other income earned on those funds; and

- will be required to cover any losses of principal from its own funds, to the extent those losses are incurred with respect to investments made for the special servicer's benefit, but the special servicer is not required to cover any losses caused by the insolvency of the depository institution or trust company holding the REO accounts so long as (i) such depository institution or trust company (a) satisfied the requirements set forth in the Pooling and Servicing Agreement at the time such investment was made and (b) is neither the special servicer nor an affiliate of the special servicer and (ii) such insolvency occurs within 30 days of the date on which such depository institution or trust company no longer satisfies the requirements set forth in the Pooling and Servicing Agreement.

Servicing Advances. With respect to each underlying mortgage loan, in accordance with the Servicing Standard, the master servicer will be obligated, if and to the extent necessary, to advance all such amounts as are necessary to pay, among other things, (i) premiums on insurance policies with respect to the related mortgaged real property, (ii) operating, leasing, managing and liquidation expenses for the mortgaged real property after it has become an REO Property, (iii) the cost of environmental inspections with respect to the mortgaged real property, (iv) real estate taxes, assessments and other items that are or may become a lien on the mortgaged real property, (v) the costs and expenses of any enforcement or judicial proceedings with respect to that underlying mortgage loan, including foreclosure and similar proceedings, (vi) the cost of appraisals with respect to such mortgaged real property and (vii) any other amount required to be paid as a servicing advance or deemed to be a servicing advance under the Pooling and Servicing Agreement (each, a "Servicing Advance"). The special servicer will have no obligation to make any Servicing Advances.

With respect to any underlying mortgage loan that has a related subordinate loan and is subject to an intercreditor agreement that allows the lender for the underlying mortgage loan to cure defaults on the related subordinate loan, any advance made by the master servicer or the special servicer to exercise the issuing entity's rights under such intercreditor agreement to cure any such default on the subordinate loan will be limited to the monthly debt service payments on the subordinate loan and will be deemed to be a Servicing Advance. This monthly debt service payment limitation does not apply to defaults under the related subordinate loan which are also defaults under the senior underlying mortgage loan and as to which the Servicing Advance is being made pursuant to the related loan documents and not solely to cure the default on the subordinate loan. In addition, with respect to any underlying mortgage loan that has a related subordinate loan, any Servicing Advance that is made or proposed to be made in order to cure a default on such subordinate loan will be subject to the same application, reimbursements and nonrecoverability determinations as any other Servicing Advance under the Pooling and Servicing Agreement. None of the master servicer, the special servicer or, if applicable, the trustee will be required to make any Servicing Advance that would, if made, constitute a Nonrecoverable Servicing Advance.

Any and all customary, reasonable and necessary out-of-pocket costs and expenses (including for the remediation of any adverse environmental circumstance or condition at any of the mortgaged real properties) incurred by the master servicer or the special servicer in connection with the servicing of an underlying mortgage loan if a default, delinquency or other unanticipated event has occurred or is reasonably foreseeable, or in connection with the administration of any REO Property in the issuing entity, will be Servicing Advances. Servicing Advances will be reimbursable from future payments and other collections, including insurance proceeds, condemnation proceeds and Liquidation Proceeds, received in connection with the related underlying mortgage loan or REO Property, except as described below with respect to Nonrecoverable Servicing Advances.

The special servicer will request the master servicer to make required Servicing Advances with respect to a Specially Serviced Mortgage Loan or REO Property on a monthly basis (except for Servicing Advances required on an emergency basis). The special servicer must make the request not less than five Business Days prior to the date the Servicing Advance is required to be made (except for Servicing Advances required on an emergency basis). The master servicer must make the requested Servicing Advance within a specified number of days following the master servicer's receipt of the request. The special servicer will be required to provide the master servicer any information in its possession as the master servicer may reasonably request to enable the master servicer to determine whether a requested Servicing Advance would be recoverable from expected collections on the Specially Serviced Mortgage Loan or REO Property.

To the extent that the master servicer fails to make a Servicing Advance that it is required to make under the Pooling and Servicing Agreement and a responsible officer of the trustee has received notice or has actual

knowledge of such failure, the trustee will be required to make such Servicing Advance pursuant to the Pooling and Servicing Agreement no later than one Business Day following the master servicer's failure to make such Servicing Advances by expiration of the applicable cure period as described under "—Events of Default" below.

Despite the foregoing discussion, neither the trustee nor the master servicer will be obligated to make Servicing Advances that, in the judgment of the master servicer, the special servicer or the trustee (in accordance with the Servicing Standard in the case of the judgment of the master servicer or the special servicer, or in accordance with good faith business judgment in the case of the judgment of the trustee), would not be ultimately recoverable from expected collections on the related underlying mortgage loan or REO Property. If the master servicer or the trustee makes a Servicing Advance with respect to any underlying mortgage loan or related REO Property (including any such Servicing Advance that is a Workout-Delayed Reimbursement Amount), that the master servicer, the trustee or the special servicer subsequently determines (in accordance with the Servicing Standard in the case of the determination of the master servicer or the special servicer, as applicable, or in accordance with good faith business judgment in the case of the trustee) is not recoverable from expected collections on that underlying mortgage loan or REO Property (or, if such advance becomes a Workout-Delayed Reimbursement Amount, out of collections of principal on all the underlying mortgage loans after the application of those principal payments and collections to reimburse any party for a Nonrecoverable Advance) (any such Servicing Advance, a "Nonrecoverable Servicing Advance"), the master servicer or the trustee, as applicable, may obtain reimbursement for that advance, together with interest on that advance, out of general collections on the mortgage pool. In making such determination, the master servicer, the trustee or the special servicer, as applicable, may take into account a range of relevant factors, including, among other things, (i) the existence of any outstanding Nonrecoverable Advance or Workout-Delayed Reimbursement Amount on any underlying mortgage loan or REO Loan, (ii) the obligations of the borrower under the related underlying mortgage loan, (iii) the related mortgaged real property in its "as-is" condition, (iv) future expenses and (v) the timing of recoveries. Any reimbursement of a Nonrecoverable Servicing Advance (including interest accrued on such amount) will be deemed to be reimbursed first from payments and other collections of principal on the underlying mortgage loans (thereby reducing the amount of principal otherwise distributable on the certificates on the related distribution date) prior to the application of any other general collections on the mortgage pool against such reimbursement. The special servicer's determination that a previously made or proposed Servicing Advance is a Nonrecoverable Servicing Advance will be conclusive and binding on the master servicer and the trustee. Prior to or absent such a determination by the special servicer, each of the master servicer and the trustee will be entitled to make its own determination that a Servicing Advance is a Nonrecoverable Servicing Advance, and neither the special servicer nor any other party may require the master servicer or the trustee to make any Servicing Advance that the master servicer or the trustee has determined to be a Nonrecoverable Servicing Advance. In addition, the trustee will be entitled to conclusively rely on the master servicer's determination that a Servicing Advance is a Nonrecoverable Servicing Advance.

However, instead of obtaining reimbursement out of general collections on the mortgage pool immediately, the master servicer or the trustee, as applicable, may, in its sole discretion, elect to obtain reimbursement for a Nonrecoverable Servicing Advance over a period of time (not to exceed six months without the consent of the Approved Directing Certificateholder (if any) or 12 months in any event), with interest on such amount at the Prime Rate. At any time after such a determination to obtain reimbursement over time in accordance with the preceding sentence, the master servicer or the trustee, as applicable, may, in its sole discretion, decide to obtain reimbursement from general collections on the mortgage pool immediately. In general, such a reimbursement deferral will only be permitted under the Pooling and Servicing Agreement if and to the extent that such Nonrecoverable Servicing Advance, after taking into account other outstanding Nonrecoverable Advances, could not be reimbursed with interest out of payments and other collections of principal on the mortgage pool during the current Collection Period. The fact that a decision to recover a Nonrecoverable Servicing Advance over time, or not to do so, benefits some classes of certificateholders to the detriment of other classes of certificateholders will not constitute a violation of the Servicing Standard or a breach of the terms of the Pooling and Servicing Agreement by any party to the Pooling and Servicing Agreement or a violation of any duty owed to the certificateholders by any party to the Pooling and Servicing Agreement.

In addition, in the event that any Servicing Advance becomes a Workout-Delayed Reimbursement Amount, the master servicer or the trustee, as applicable, will be entitled to reimbursement for such advance and interest accrued on such advance (even though that advance is not deemed a Nonrecoverable Servicing Advance), on a monthly basis, out of – but solely out of – payments and other collections of principal on all the underlying mortgage loans

after the application of those principal payments and collections to reimburse any party for any Nonrecoverable Advance, prior to any distributions of principal on the certificates. If any such advance is not reimbursed in whole due to insufficient principal collections during the related Collection Period, the portion of that advance which remains unreimbursed will be carried over (with interest on such amount continuing to accrue) for reimbursement in the following Collection Period (to the extent of principal collections available for that purpose). If any such advance, or any portion of any such advance, is determined, at any time during this reimbursement process, to be a Nonrecoverable Advance, then the master servicer or the trustee, as applicable, will be entitled to immediate reimbursement as a Nonrecoverable Advance from general collections on the mortgage pool in an amount equal to the portion of that advance that remains outstanding, plus accrued interest.

The master servicer is permitted (or is required to, at the direction of the special servicer with respect to any Specially Serviced Mortgage Loan or REO Property) to pay directly out of its collection account any servicing expense that, if advanced by the master servicer, would not be recoverable from expected collections on the related underlying mortgage loan or REO Property. This is only to be done, however, when the master servicer, or the special servicer with respect to any Specially Serviced Mortgage Loan or REO Property, has determined in accordance with the Servicing Standard that making the payment is in the best interest of the certificateholders as a collective whole.

The master servicer, the special servicer and the trustee will be entitled to receive interest on Servicing Advances made by them. The interest will accrue on the amount of each Servicing Advance for so long as the Servicing Advance is outstanding, at a *per annum* rate equal to the Prime Rate. Interest accrued with respect to any Servicing Advance made with respect to any underlying mortgage loan or the related mortgaged real property will be payable in connection with the reimbursement of that Servicing Advance—

- *first*, out of any Default Interest and late payment charges collected on that underlying mortgage loan subsequent to the accrual of that advance interest, and
- *then*, at the time or after the advance has been reimbursed, if and to the extent that the Default Interest and late payment charges referred to in the prior bullet point are insufficient to cover the advance interest, out of any amounts on deposit in the collection account.

Enforcement of “Due-on-Sale” and “Due-on-Encumbrance” Clauses

The special servicer, with respect to the Specially Serviced Mortgage Loans, and the master servicer, with respect to the other underlying mortgage loans, each will be required to determine, in a manner consistent with the Servicing Standard, whether to exercise or waive any right the lender may have under either a due-on-sale or due-on-encumbrance clause to accelerate payment of that underlying mortgage loan. Generally, the master servicer or the special servicer (in the case of any Specially Serviced Mortgage Loan), will be required to enforce such due-on-sale or due-on-encumbrance clause, unless the master servicer or the special servicer, as applicable, determines, in accordance with the Servicing Standard, and subject to the applicable provisions of the Pooling and Servicing Agreement, that (i) not declaring an event of default (as defined in the related loan documents) or (ii) granting its consent, in its reasonable judgment, would be consistent with the Servicing Standard. In addition, the master servicer or the special servicer, as applicable, may not waive its rights under a due-on-sale or due-on-encumbrance clause unless the related borrower or a third party, but in no event the issuing entity, pays all related expenses with respect to such waiver. Furthermore, neither the master servicer nor the special servicer may waive its rights or grant its consent under any due-on-sale or due-on-encumbrance clause, other than as expressly permitted pursuant to the Pooling and Servicing Agreement, without the consent of the Approved Directing Certificateholder (if any) (subject to the last two paragraphs of “—Realization Upon Mortgage Loans—Asset Status Report” below with respect to any Affiliated Borrower Loan), *provided* that the Approved Directing Certificateholder (if any) provides such consent within the time period specified in the Pooling and Servicing Agreement.

Before the master servicer or the special servicer may waive any rights under a “due-on-sale” or “due-on-encumbrance” clause, the master servicer or the special servicer, as applicable, must have provided notice to the Approved Directing Certificateholder (if any) and Freddie Mac in accordance with the Pooling and Servicing Agreement, and provided such Approved Directing Certificateholder with its recommendation and analysis and any other information and documents reasonably requested by such Approved Directing Certificateholder. In addition,

with respect to a Requested Transfer discussed under “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Due-on-Sale and Due-on-Encumbrance Provisions,” the master servicer or the special servicer must have included along with its recommendation and analysis (i) all material documents reviewed to reach such recommendation and analysis that such Requested Transfer is satisfactory from a credit perspective (taking into consideration, among other things, with respect to the existing borrower, any proposed replacement borrower, any proposed replacement Designated Entity for Transfers or change to a Required Equity Owner’s interest, if any, in the borrower under the loan documents, any proposed replacement guarantor or any proposed replacement property manager, past performance and management experience, balance sheet, equity at risk, net worth, ownership structure and any credit enhancers) and (ii) any additional information or documents that are reasonably requested by the Approved Directing Certificateholder. The approval of the Approved Directing Certificateholder (if any) must be obtained prior to any such waiver. However, the approval of the Approved Directing Certificateholder (if any) will be deemed to have been obtained if it does not approve or disapprove the request within five Business Days of its receipt of the recommendation and analysis from the master servicer or the special servicer, as applicable, and any other information and documents reasonably requested by the Approved Directing Certificateholder, and with respect to a Requested Transfer, the documents described in clauses (i) and (ii) above. Such approval is not permitted to be unreasonably withheld in connection with a Requested Transfer or a waiver of a “due-on-sale” clause.

Subject to the five Business Day period described above, the Pooling and Servicing Agreement provides that the Approved Directing Certificateholder (if any) may, at its own expense, request that the Directing Certificateholder Servicing Consultant prepare and deliver to it a recommendation relating to such waiver request. In providing a recommendation in response to any such request, the Directing Certificateholder Servicing Consultant will be acting as a consultant to such Approved Directing Certificateholder and any such recommendation provided will not be subject to the Servicing Standard. The Directing Certificateholder Servicing Consultant will have no duty or liability to any certificateholder other than such Approved Directing Certificateholder in connection with any recommendation it gives such Approved Directing Certificateholder or actions taken by any party as a result of such consultation services provided to such Approved Directing Certificateholder as contemplated above. In no event will any expenses incurred by the Directing Certificateholder Servicing Consultant be an expense of the issuing entity.

With respect to any non-Specially Serviced Mortgage Loan and in connection with the master servicer’s review, consent and/or approval of any Transfer Processing Fee Transaction, the master servicer may as a condition to reviewing any such request by a borrower require that such borrower pay to it as additional servicing compensation, or otherwise, the Transfer Processing Fee. In addition, if the related loan documents require lender consent to a borrower’s request for an assumption or waiver of a “due-on-sale” clause with respect to any loan, the master servicer may require that such borrower pay to it as additional servicing compensation, or otherwise, the Transfer Fee; provided that notwithstanding anything to the contrary in the related loan documents, the master servicer may not require a borrower to pay a Transfer Fee in excess of \$250,000 in connection with any single transaction. The master servicer is not permitted to waive any Transfer Fee set forth in the related loan documents without the consent of the Approved Directing Certificateholder (if any) or the Affiliated Borrower Loan Directing Certificateholder, as applicable, if the consent or review of the Approved Directing Certificateholder or Affiliated Borrower Loan Directing Certificateholder, as applicable, is required with respect to the related Transfer.

If the loan documents do not expressly permit an assumption of the related underlying mortgage loan or the incurrence of subordinate debt, the master servicer or the special servicer, as applicable, will be required to receive confirmation from the Approved Directing Certificateholder (if any) (which confirmation must be provided within the time periods specified in the Pooling and Servicing Agreement and, with respect to a requested assumption, which confirmation may not be unreasonably withheld) that the conditions to such assumption or additional subordinate financing of the underlying mortgage loan have been met prior to (i) agreeing to a requested assumption of an underlying mortgage loan or (ii) agreeing to the incurrence of additional subordinate financing (subject to the last two paragraphs of “—Realization Upon Mortgage Loans—Asset Status Report” below with respect to any Affiliated Borrower Loan).

Modifications, Waivers, Amendments and Consents

The Pooling and Servicing Agreement will permit the master servicer or the special servicer, as applicable, to modify, waive or amend any term of any underlying mortgage loan if it determines in accordance with the Servicing Standard that it is appropriate to do so. However, no such modification, waiver or amendment of a non-Specially Serviced Mortgage Loan may—

- affect the amount or timing of any scheduled payments of principal, interest or other amounts (including Yield Maintenance Charges and Static Prepayment Premiums) payable under the underlying mortgage loan, with limited exceptions generally involving the waiver of Default Interest and late payment charges;
- affect the obligation of the related borrower to pay a Yield Maintenance Charge or Static Prepayment Premium or permit a principal prepayment during the applicable lockout period;
- result in a release of the lien of the related mortgage on any material portion of such mortgaged real property without a corresponding principal prepayment, except as expressly provided by the related loan documents, in connection with a defeasance, a pending or threatened condemnation or in connection with a material adverse environmental condition at the related mortgaged real property;
- in the judgment of the master servicer or the special servicer, as applicable, materially impair the security for the underlying mortgage loan or reduce the likelihood of timely payment of amounts due on such underlying mortgage loan; or
- violate the terms of any intercreditor agreement;

unless in the reasonable judgment of the master servicer or the special servicer, as applicable, such modification, waiver or amendment is reasonably likely to produce a greater (or equal) recovery to the certificateholders; and either (i) the underlying mortgage loan is in default, default is reasonably foreseeable or the master servicer or the special servicer, as applicable, reasonably determines that a significant risk of default exists within the meaning of the REMIC Provisions, and after such modification, waiver or amendment the underlying mortgage loan does not fail to qualify as a “qualified mortgage” within the meaning of the REMIC Provisions subject to and in accordance with the requirements of applicable REMIC Provisions (and such servicer may rely on an opinion of counsel in making such determination); *provided* that a release of the lien on any portion of a mortgaged real property (whether prior to or following a default) must satisfy the requirements of the following clause (as determined by the master servicer or the special servicer, as applicable) or (ii) the master servicer or the special servicer, as the case may be, has determined (and may rely on an opinion of counsel in making such determination) that such modification, waiver or amendment will not be a “significant modification” of such underlying mortgage loan within the meaning of Section 1.860G-2(b) of the regulations promulgated by Treasury (“Treasury Regulations”) and will not cause the applicable Trust REMIC to fail to qualify as a REMIC or subject such Trust REMIC to any tax. In order to meet these requirements, in the case of a release of real property collateral securing an underlying mortgage loan, the master servicer or the special servicer, as applicable, will be required to observe the REMIC requirements pertaining to a required payment of principal if the related loan-to-value ratio (as determined pursuant to the following paragraph) immediately after such release exceeds 125%.

In connection with (i) the release of any portion of the mortgaged real property securing any underlying mortgage loan from the lien of such underlying mortgage loan or (ii) the taking of any portion of the mortgaged real property securing any underlying mortgage loan by exercise of the power of eminent domain or condemnation, if the loan documents require the master servicer or the special servicer, as applicable, to calculate (or to approve the calculation of the related borrower of) the loan-to-value ratio of the remaining mortgaged real property securing such underlying mortgage loan or the fair market value of the real property constituting the remaining mortgaged real property securing such underlying mortgage loan, for purposes of REMIC qualification of the related underlying mortgage loan, then such calculation will be required to include only the value of the real property constituting the remaining mortgaged real property securing such underlying mortgage loan.

Despite the limitations on modifications, waivers and amendments described above, but subject to the limitations described below and the terms of any related intercreditor agreement, the special servicer may (or, in some cases, may consent to a request by the master servicer to), in accordance with the Servicing Standard—

- reduce the amounts owing under any Specially Serviced Mortgage Loan by forgiving principal and/or, accrued interest and/or any Yield Maintenance Charge or Static Prepayment Premiums;
- reduce the amount of the monthly payment on any Specially Serviced Mortgage Loan, including by way of a reduction in the related mortgage interest rate;
- forbear in the enforcement of any right granted under any mortgage note or mortgage relating to a Specially Serviced Mortgage Loan;
- extend the maturity of a Specially Serviced Mortgage Loan;
- permit the release or substitution of collateral for a Specially Serviced Mortgage Loan; and/or
- accept a principal prepayment during any lockout period;

provided that the related borrower is in default with respect to the Specially Serviced Mortgage Loan or such default is reasonably foreseeable (including, for this purpose, if the special servicer reasonably determines that a significant risk of default exists within the meaning of the REMIC Provisions), and in the case of a release pursuant to the fifth bullet point above, the underlying mortgage loan continues to be a “qualified mortgage” within the meaning of the REMIC Provisions, and in any case, the special servicer has determined (and may rely on an opinion of counsel in making such determination) that the modification, waiver or amendment will not be a “significant modification” of the underlying mortgage loan within the meaning of Treasury Regulations Section 1.860G-2(b) and will not cause the applicable Trust REMIC to fail to qualify as a REMIC or subject such Trust REMIC to any tax.

However, in no event will—

- the master servicer or the special servicer be permitted to extend the scheduled maturity date of any underlying mortgage loan if the interest rate on such underlying mortgage loan is less than the lower of (i) the interest rate in effect prior to such extension or (ii) the then prevailing interest rate for comparable mortgage loans;
- the master servicer be permitted to defer interest due on any underlying mortgage loan in excess of 5% of the Stated Principal Balance of such underlying mortgage loan; or
- the master servicer or the special servicer extend the scheduled maturity date of any underlying mortgage loan beyond the earlier of (i) the date that is five years prior to the Rated Final Distribution Date or (ii) in the case of an underlying mortgage loan secured by a leasehold estate (if any), the date that is 20 years prior to the expiration of the ground lease (after giving effect to the exercise of any extension options).

Neither the master servicer nor the special servicer may permit or modify an underlying mortgage loan that is not a Specially Serviced Mortgage Loan to permit a voluntary prepayment of an underlying mortgage loan on any day other than its due date, unless: (i) the master servicer or the special servicer also collects interest on such underlying mortgage loan through the due date following the date of such prepayment; (ii) that prepayment is otherwise permitted under the related loan documents; (iii) that principal prepayment would not result in a Prepayment Interest Shortfall; (iv) that principal prepayment is accepted by the master servicer or the special servicer at the request of or with the consent of the Approved Directing Certificateholder (if any) (subject to the last two paragraphs of “—Realization Upon Mortgage Loans—Asset Status Report” below with respect to any Affiliated Borrower Loan), or if accepted by the master servicer, with the consent of the special servicer; or (v) it is consistent with the Servicing Standard to do so.

To the extent not inconsistent with the limitations to modifications and consents contained in the Pooling and Servicing Agreement, the master servicer or the special servicer, as applicable, may, consistent with the Servicing Standard, without the consent of any other party, including the Approved Directing Certificateholder (if any) (i) modify, waive or amend the terms of any underlying mortgage loan, in accordance with the Servicing Standard, in order to (a) cure any non-material ambiguity or mistake in the related loan documents, (b) correct or supplement any non-material provisions in any related loan documents which may be inconsistent with any other provisions in

the related loan documents or correct any non-material error or (c) waive minor covenant defaults or (ii) effect other non-material waivers, consents, modifications or amendments in the ordinary course of servicing an underlying mortgage loan.

The special servicer or the master servicer, as applicable, will be required to notify the trustee and the certificate administrator among others, of any modification, waiver or amendment of any term of an underlying mortgage loan and must deliver to the custodian (with a copy to the master servicer) for deposit in the related mortgage file an original counterpart of the agreement related to such modification, waiver or amendment, promptly following the execution of any such modification, waiver or amendment (and, in any event, within 30 Business Days). In accordance with the Pooling and Servicing Agreement, the master servicer or the special servicer, as applicable, is required to promptly notify the Rating Agencies of any modification, waiver or amendment of any term of any Significant Loan. Copies of each agreement whereby any such modification, waiver or amendment of any term of any underlying mortgage loan is effected are required to be available for review during normal business hours, upon prior request, at the offices of the master servicer or the special servicer, as applicable. However, no such notice will be required with respect to any waiver of Default Interest or late payment charges and any such waiver need not be in writing. Neither the master servicer nor the special servicer will have any liability with regard to the 17g-5 information provider's failure to post information provided by the master servicer or the special servicer in accordance with the terms of the Pooling and Servicing Agreement or for any malfunction or disabling of the 17g-5 information provider's website.

In connection with a borrower's request received by the master servicer for the master servicer to take a Consent Action with respect to non-Specially Serviced Mortgage Loans that are (i) on the most recent CREFC[®] servicer watchlist and have a debt service coverage ratio less than 1.10x (calculated in accordance with the terms of the Pooling and Servicing Agreement) or (ii) with respect to which an event of default has occurred in the last 12 months, the master servicer will be required to obtain the consent of the Approved Directing Certificateholder (if any) prior to taking such Consent Action and will be required to promptly forward its recommendation and analysis (together with any additional documents and information that such Approved Directing Certificateholder may reasonably request) to such Approved Directing Certificateholder with a copy to the special servicer. Such Approved Directing Certificateholder will be deemed to have approved such recommendation, and the master servicer will be deemed to have obtained such Approved Directing Certificateholder's consent, if not denied by notice within five Business Days after the later of its receipt of the recommendation and analysis or receipt of all additional documents and information that it may reasonably request. Subject to the five Business Day period, the Pooling and Servicing Agreement provides that the Approved Directing Certificateholder (if any) may, at its own expense, request that the Directing Certificateholder Servicing Consultant prepare and deliver a recommendation relating to such Consent Action. In providing a recommendation in response to any such request, the Directing Certificateholder Servicing Consultant will be acting as a consultant to such Approved Directing Certificateholder and any such recommendation provided will not be subject to the Servicing Standard. The Directing Certificateholder Servicing Consultant will have no duty or liability to any certificateholder other than such Approved Directing Certificateholder in connection with any recommendation it gives such Approved Directing Certificateholder or actions taken by any party as a result of such consultation services provided to such Approved Directing Certificateholder as contemplated by the preceding sentence. In no event will any expenses incurred by the Directing Certificateholder Servicing Consultant be an expense of the issuing entity.

To the extent confirmation from any NRSRO is required with respect to any matter other than defeasance pursuant to the terms of any loan document, the master servicer or the special servicer, as applicable, will be required to waive such requirement unless Rating Agency Confirmation is also required with respect to such matter pursuant to the terms of the Pooling and Servicing Agreement. If confirmation from any NRSRO is required with respect to defeasance pursuant to the terms of any loan document, the master servicer will be required to obtain a Rating Agency Confirmation, which requirement may be deemed to be satisfied under certain circumstances as described in the definition of Rating Agency Confirmation in this information circular. However, at any time during which none of the classes of rated certificates and none of the classes of rated SPCs is rated by any Rating Agency, no confirmation from that Rating Agency pursuant to the loan documents will be required under the Pooling and Servicing Agreement.

The ability of the master servicer or the special servicer to agree to modify, waive or amend any of the terms of any underlying mortgage loan will be subject to the discussions under “—Realization Upon Mortgage Loans—Directing Certificateholder” and “—Asset Status Report” below.

Notwithstanding anything to the contrary in the loan documents or the Servicing Standard and except with respect to Transfer Fees, Transfer Processing Fees, defeasance fees, late payment charges, Default Interest, charges for beneficiary statements or demands and amounts collected for checks returned for insufficient funds, the master servicer may not as a condition to granting any request by a borrower for consent, modification, waiver or indulgence or any other matter or thing pursuant to the terms of the related loan documents (including but not limited to any transaction, matter or request involving the full or partial condemnation of the related mortgaged real property or any borrower request for consent to subject the related mortgaged real property to an easement, right of way or similar agreement for utilities, access, parking, public improvements or another purpose, Permitted Transfers and/or permitted subordinate mortgage debt), require that such borrower pay to it, or otherwise accept, as additional servicing compensation or otherwise (i) any transfer, processing, transaction, review or similar fee, (ii) any fee for additional services performed in connection with such request, including expediting or similar fees or (iii) any related costs and expenses incurred by the master servicer, other than attorneys’ fees and costs and the fees and expenses of any third-party service and/or title insurance providers and, if applicable, any NRSRO, including, without limitation, any Rating Agency.

The special servicer may, as a condition to granting any request by a borrower for consent, modification, waiver or indulgence or any other matter or thing the granting of which is within its discretion pursuant to the terms of the related loan documents and is permitted by the terms of the Pooling and Servicing Agreement, require that such borrower pay to it (i) as additional servicing compensation, a reasonable or customary fee for the additional services performed in connection with such request (provided that such fee does not constitute a “significant modification” of such underlying mortgage loan under Treasury Regulations Section 1.860G-2(b)) and (ii) any related costs and expenses incurred by it. In no event will the special servicer be entitled to payment of such fees or expenses unless such payment is collected from the related borrower.

The Pooling and Servicing Agreement provides that the Approved Directing Certificateholder (if any) may, at its own expense, request that the Directing Certificateholder Servicing Consultant prepare and deliver recommendations relating to certain requests for consent to Requested Transfers or, with respect to non-Specially Serviced Mortgage Loans, in connection with Consent Actions. The Approved Directing Certificateholder will be entitled to certain borrower-paid fees in connection with such assumptions, modifications, waivers, amendments or consents. See “Description of the Certificates—Fees and Expenses” in this information circular.

Required Appraisals

Within 60 days following the occurrence of an Appraisal Reduction Event with respect to any of the underlying mortgage loans, the special servicer must use reasonable efforts to perform an internal valuation pursuant to the following paragraph or use reasonable efforts to obtain an MAI appraisal of the related mortgaged real property from an independent appraiser meeting the qualifications set forth in the Pooling and Servicing Agreement. In any event, such appraisal(s) or internal valuation(s) are required to be obtained within 120 days or such other reasonable longer time period as agreed to in writing by the Approved Directing Certificateholder (if any) and Freddie Mac from the occurrence of the event that, with the passage of time, would become an Appraisal Reduction Event, unless—

- an appraisal had previously been obtained within the prior 12 months; and
- there has been no material change in the circumstances surrounding the related mortgaged real property subsequent to that appraisal that would, in the judgment of the special servicer, materially affect the value set forth in that earlier appraisal.

However, if the outstanding principal balance of such underlying mortgage loan is less than \$2,000,000, then the special servicer may perform an internal valuation of the related mortgaged real property in lieu of an appraisal.

As a result of any appraisal or internal valuation, the master servicer may determine that an Appraisal Reduction Amount exists with respect to such underlying mortgage loan. If such appraisal is not received or an internal valuation is not completed, as applicable, within the time period specified above, the Appraisal Reduction Amount

for the related underlying mortgage loan will be 25% of the Stated Principal Balance of such underlying mortgage loan as of the date of the related Appraisal Reduction Event. An Appraisal Reduction Amount is relevant to the determination of the amount of any advances of delinquent interest required to be made with respect to the affected underlying mortgage loan. See “Description of the Certificates—Advances of Delinquent Monthly Debt Service Payments” in this information circular.

If an Appraisal Reduction Event occurs with respect to any underlying mortgage loan, then the special servicer will have an ongoing obligation to obtain or perform, as the case may be, within 30 days of each anniversary of the occurrence of that Appraisal Reduction Event, an update of the prior required appraisal or internal valuation. Based on that update, the master servicer is to redetermine and report to the trustee, the certificate administrator, the Guarantor and the special servicer the new Appraisal Reduction Amount, if any, with respect to such underlying mortgage loan. This ongoing obligation will cease if and when—

- the underlying mortgage loan has become a Corrected Mortgage Loan as contemplated under “—Servicing Under the Pooling and Servicing Agreement” above and has remained current for 12 consecutive monthly payments under the terms of the workout; and
- no other Servicing Transfer Event or Appraisal Reduction Event has occurred with respect to the underlying mortgage loan during the preceding three months.

The cost of each required appraisal, and any update of that appraisal, will be advanced by the master servicer, at the direction of the special servicer, and will be reimbursable to the master servicer as a Servicing Advance.

Collection Account

General. The master servicer will be required to establish and maintain a collection account for purposes of holding payments and other collections that it receives with respect to the underlying mortgage loans. The collection account must be maintained in a manner and with a depository institution that meets the requirements of the Pooling and Servicing Agreement.

The funds held in the collection account may be held as cash or invested in Permitted Investments. Subject to the limitations in the Pooling and Servicing Agreement, any interest or other income earned on funds in the collection account will be paid to the master servicer as additional compensation. See “—Servicing and Other Compensation and Payment of Expenses—Additional Servicing Compensation” above.

Deposits. The master servicer must deposit or cause to be deposited in its collection account on a daily basis in the case of payments from the borrowers and other collections on the underlying mortgage loans, or as otherwise required under the Pooling and Servicing Agreement, the following payments and collections received or made by or on behalf of the master servicer with respect to the underlying mortgage loans for which it is responsible, subsequent to the Closing Date —

- all principal payments collected, including principal prepayments;
- all interest payments collected, including late payment charges and Default Interest (net of master servicing fees, sub-servicing fees, master servicer surveillance fees, special servicing fees, special servicer surveillance fees, and in respect of late payment charges and Default Interest, net of amounts used to offset interest on any advances);
- any Static Prepayment Premiums and Yield Maintenance Charges;
- any MHC Tenant Protections Fees collected;
- any proceeds received under any property damage, flood, title or other insurance policy that provides coverage with respect to a mortgaged real property or the related underlying mortgage loan, and all proceeds received in connection with the condemnation or the taking by right of eminent domain of a mortgaged real property, in each case to the extent not required to be applied to the restoration of the related mortgaged real property or released to the related borrower;

- any amounts received and retained in connection with the liquidation of Defaulted Loans by foreclosure, deed-in-lieu of foreclosure or as otherwise contemplated under “—Realization Upon Mortgage Loans” below, in each case to the extent not required to be returned to the related borrower;
- any amounts paid by the mortgage loan seller in connection with the repurchase or replacement of, or the curing of any breach of a representation and warranty with respect to, an underlying mortgage loan by that party as described under “Description of the Underlying Mortgage Loans—Cures, Repurchases and Substitutions” in this information circular;
- any amounts paid to purchase or otherwise acquire all the underlying mortgage loans and any REO Properties in connection with the termination of the issuing entity pursuant to the clean-up call as contemplated under “—Termination” below;
- any amounts required to be deposited by the master servicer in connection with losses incurred with respect to Permitted Investments of funds held in its collection account;
- all payments required to be paid by the master servicer or received from the special servicer with respect to any deductible clause in any blanket property damage insurance policy or master lender placed property damage insurance policy, as described under “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Property Damage, Liability and Other Insurance” in this information circular; and
- any amount transferred by the special servicer from its REO account with respect to the REO Properties.

Upon its receipt of any of the amounts described in the prior paragraph (other than in connection with a clean-up call) with respect to any Specially Serviced Mortgage Loan, the special servicer is required to remit those amounts within one Business Day to the master servicer for deposit in the collection account.

Withdrawals. The master servicer may make withdrawals from its collection account for any of the following purposes (to the extent that each of the following is to be paid from the collection account in accordance with the terms of the Pooling and Servicing Agreement), which are not listed in any order of priority:

1. to remit to the certificate administrator for deposit in the distribution account, as described under “Description of the Certificates—Distribution Account” in this information circular, on the Remittance Date, all payments and other collections on the underlying mortgage loans and any REO Properties that are then on deposit in the collection accounts, exclusive of any portion of those payments and other collections that represents one or more of the following—
 - (i) monthly debt service payments due on a due date subsequent to the end of the related Collection Period;
 - (ii) payments and other collections received by or on behalf of the issuing entity after the end of the related Collection Period; and
 - (iii) amounts that are payable or reimbursable from the collection account to any person other than the certificateholders in accordance with any of clauses 2 through 21 below;
2. to reimburse itself or the trustee, as applicable, for any unreimbursed advances made by that party with respect to the mortgage pool, as described under “—Servicing and Other Compensation and Payment of Expenses” above and “Description of the Certificates—Advances of Delinquent Monthly Debt Service Payments” in this information circular, with that reimbursement to be made out of collections on the underlying mortgage loan or REO Property as to which the advance was made;
3. to pay (i) itself, any sub-servicer and/or the holder of the Excess Servicing Fee Right, as applicable, any accrued and unpaid master servicing fees, sub-servicing fees or master servicer surveillance fees with respect to each underlying mortgage loan and (ii) the special servicer accrued and unpaid special servicer surveillance fees, with the payments under clause (i) or clause (ii) to be made out of collections on that underlying mortgage loan or REO Loan, as applicable, that represent payments of interest;
4. to pay itself, any sub-servicer and/or the special servicer, as applicable, any master servicing fees, sub-servicing fees, master servicer surveillance fees or special servicer surveillance fees with respect to each

underlying mortgage loan or REO Loan that remains unpaid in accordance with clause 3 above following a final recovery determination made with respect to such underlying mortgage loan or the related REO Property and the deposit into the collection account of all amounts received in connection with such final recovery determination;

5. to pay the special servicer, out of general collections on the mortgage pool, accrued and unpaid special servicing fees with respect to each underlying mortgage loan that is either a Specially Serviced Mortgage Loan or an REO Loan;
6. to pay the special servicer accrued and unpaid workout fees and liquidation fees to which it is entitled, with that payment to be made from the sources described under “—Servicing and Other Compensation and Payment of Expenses” above;
7. to reimburse itself or the trustee, as applicable, out of general collections on the mortgage pool, for any unreimbursed advance made by that party with respect to the mortgage pool as described under “—Servicing and Other Compensation and Payment of Expenses” above and “Description of the Certificates—Advances of Delinquent Monthly Debt Service Payments” in this information circular, which advance has been determined not to be ultimately recoverable under clause 2 above (or, if the applicable underlying mortgage loan has been worked out and returned to performing status, is not recoverable under clause 2 above by the time it is returned to performing status) out of collections on the related underlying mortgage loan or REO Property; *provided* that any such reimbursement is required to be made as and to the extent described under “—Servicing and Other Compensation and Payment of Expenses” above, in the case of a Servicing Advance, or “Description of the Certificates—Advances of Delinquent Monthly Debt Service Payments” in this information circular, in the case of a P&I Advance;
8. to pay itself or the trustee, as applicable, out of general collections on the mortgage pool, unpaid interest accrued on any advance made by that party with respect to the mortgage pool (generally at or about the time of reimbursement of that advance); *provided* that, in the case of any advance reimbursed as described in clause 7 above, the payment of any interest on such advance is to be made as and to the extent described under “—Servicing and Other Compensation and Payment of Expenses” above, in the case of interest on any such advance that is a Servicing Advance, or “Description of the Certificates—Advances of Delinquent Monthly Debt Service Payments” in this information circular, in the case of interest on any such advance that is a P&I Advance;
9. to pay itself, the special servicer, the Approved Directing Certificateholder or any Affiliated Borrower Loan Directing Certificateholder, as applicable, any items of additional servicing compensation on deposit in the collection account as discussed under “—Servicing and Other Compensation and Payment of Expenses—Additional Servicing Compensation” above and to pay the Guarantor any MHC Tenant Protections Fees on deposit in the collection account;
10. to pay any unpaid liquidation expenses incurred with respect to any liquidated underlying mortgage loan or REO Property in the issuing entity;
11. to pay, out of general collections on the mortgage pool, any servicing expenses that would, if advanced, be nonrecoverable under clause 2 above;
12. to pay, out of general collections on the mortgage pool, for costs and expenses incurred by the issuing entity due to actions taken pursuant to any environmental assessment, in accordance with the Pooling and Servicing Agreement;
13. to pay Freddie Mac (in its capacity as servicing consultant), itself (and certain indemnified sub-servicers), the special servicer, the trustee, the certificate administrator, the depositor or any of their or our respective affiliates, directors, general or limited partners, members, managers, shareholders, officers, employees, controlling persons and agents, as the case may be, out of general collections on the mortgage pool, any of the reimbursements or indemnities to which we or any of those other persons or entities are entitled, subject to the relevant Aggregate Annual Cap, as described under “—Certain Indemnities” below;
14. to pay, out of general collections on the mortgage pool, for (i) the costs of various opinions of counsel related to the servicing and administration of the underlying mortgage loans not paid by the related borrower; (ii) expenses properly incurred by the trustee or the certificate administrator in connection with

providing tax-related advice to the special servicer and (iii) the fees of the trustee for confirming a Fair Value determination by the special servicer of a Defaulted Loan;

15. to reimburse itself, the special servicer, the depositor, the trustee, the custodian or the certificate administrator, as the case may be, for any unreimbursed expenses reasonably incurred in respect of any material breach of a representation or warranty or a material document defect in respect of an underlying mortgage loan giving rise to a repurchase obligation of the mortgage loan seller or other party, or the enforcement of such obligation, under the mortgage loan purchase agreement;
16. to pay for—
 - (i) the cost of the opinions of counsel for purposes of REMIC administration or amending the Pooling and Servicing Agreement; and
 - (ii) the cost of obtaining an extension from the IRS for the sale of any REO Property;
17. to pay, out of general collections on the mortgage pool, for any and all U.S. federal, state and local taxes imposed on either of the Trust REMICs or their assets or transactions together with incidental expenses;
18. to pay to the mortgage loan seller any amounts that represent monthly debt service payments due on the underlying mortgage loans on or prior to the Cut-off Date or, in the case of a replacement mortgage loan, during or before the month in which that loan was added to the issuing entity;
19. to pay CREFC[®] any accrued and unpaid CREFC[®] Intellectual Property Royalty License Fee;
20. to withdraw amounts deposited in the collection account in error, including amounts received on any underlying mortgage loan or REO Property that has been purchased or otherwise removed from the issuing entity;
21. to pay any other items described in this information circular as being payable from a collection account; and
22. to clear and terminate the collection account upon the termination of the Pooling and Servicing Agreement.

The master servicer will be required to keep and maintain separate accounting records, on a loan by loan and property by property basis, for the purpose of justifying any withdrawal from the collection account. The master servicer will be required to pay CREFC[®] the CREFC[®] Intellectual Property Royalty License Fee on a monthly basis, solely from funds on deposit in the collection account, to the extent sufficient funds are on deposit in the collection account. Upon receipt of a request from CREFC[®], the master servicer will provide CREFC[®] with a report that shows the calculation of the CREFC[®] Intellectual Property Royalty License Fee for the period requested by CREFC[®]. The CREFC[®] Intellectual Property Royalty License Fee Rate is a component of the “Administration Fee Rate” set forth on Exhibit A-1. Such fee will be calculated on the same basis as interest on each underlying mortgage loan and will generally be payable to CREFC[®] monthly from collections on the underlying mortgage loans.

Realization Upon Mortgage Loans

Purchase Option. The Pooling and Servicing Agreement grants the directing certificateholder (subject to the last paragraph of this section “—Purchase Option”), Freddie Mac and, with respect to Defaulted Loans for which the related Junior Loan Holder holds a lower priority lien, the related Junior Loan Holder, an assignable option (a “Purchase Option”) to purchase Defaulted Loans from the issuing entity in the manner and at the price described below; *provided* that, as described in this section “—Realization Upon Mortgage Loans—Purchase Option,” if such Junior Loan Holder elects not to exercise such Purchase Option, then the holder of the next most subordinate Junior Loan (if any) will be entitled to exercise such Purchase Option.

Each of the directing certificateholder, Freddie Mac and the related Junior Loan Holder may assign its Purchase Option to any person.

Promptly after the determination that an underlying mortgage loan has become a Defaulted Loan, the master servicer (if the underlying mortgage loan is not a Specially Serviced Mortgage Loan) or the special servicer (if the underlying mortgage loan is a Specially Serviced Mortgage Loan) will be required to notify the trustee, the certificate administrator, the master servicer or the special servicer, as applicable, Freddie Mac, the related Junior Loan Holder (if any) and the directing certificateholder of such determination. Subject to (i) the right of the Junior Loan Holder with respect to a Defaulted First Lien Loan, (ii) Freddie Mac's right to offer an increased purchase price, as described below and (iii) the last paragraph of this section "Purchase Option" in the case of any Affiliated Borrower Loan, the directing certificateholder will then have the right to exercise its Purchase Option at a cash price equal to the Option Price until such right automatically terminates (a) upon the Defaulted Loan becoming a Corrected Mortgage Loan or an REO Loan, (b) upon the modification, waiver or payoff (full, partial or discounted) of the Defaulted Loan in connection with a workout, (c) upon purchase of the Defaulted Loan by Freddie Mac pursuant to the Pooling and Servicing Agreement or (d) with respect to a Defaulted First Lien Loan, upon purchase of such Defaulted First Lien Loan by the Junior Loan Holder pursuant to the Pooling and Servicing Agreement and the related intercreditor agreement.

Subject to the next paragraph in the case of a Defaulted Loan that is a Defaulted First Lien Loan and subject to the last paragraph of this section "Purchase Option" in the case of any Affiliated Borrower Loan, within ten Business Days (the "Freddie Mac Increased Offer Notice Period") after receipt from the directing certificateholder of its notice (the "Fair Value Purchase Notice") that it will exercise its option to purchase a Defaulted Loan and which specifies a purchase price that equals at least the Fair Value of the Defaulted Loan (the "Defaulted Loan Fair Value Purchase Price") but is less than 99% of the Purchase Price of such Defaulted Loan, Freddie Mac will have the right to purchase such Defaulted Loan by giving notice (the "Freddie Mac Increased Offer Notice") to the directing certificateholder, the master servicer, the special servicer, the certificate administrator and the trustee, specifying a purchase price at least 2.5% more than the Defaulted Loan Fair Value Purchase Price offered by the directing certificateholder in the Fair Value Purchase Notice. If the directing certificateholder is willing to purchase the Defaulted Loan after receipt of the Freddie Mac Increased Offer Notice, it will only be permitted to do so at a purchase price equal to the lesser of (i) at least 2.5% more than the purchase price specified by Freddie Mac in the Freddie Mac Increased Offer Notice or (ii) 99% of the Purchase Price, by giving notice of the same to Freddie Mac, the master servicer, the special servicer, the certificate administrator and the trustee within ten Business Days of receiving the Freddie Mac Increased Offer Notice (the "Directing Certificateholder Increased Offer Notice Period"). Any person exercising the Purchase Option described in this paragraph will be required to consummate such purchase within 15 Business Days after the expiration of the Freddie Mac Increased Offer Notice Period or the Directing Certificateholder Increased Offer Notice Period, as applicable.

However, for any Defaulted Loan for which the related Junior Loan Holder is the holder of a subordinate priority lien on the related mortgaged real property (a "Defaulted First Lien Loan"), such Junior Loan Holder will have the first option to purchase that Defaulted Loan for the Purchase Price; *provided* that if any such Junior Loan Holder elects not to exercise its purchase option, then the holder of the next most subordinate Junior Loan (if any) will be entitled to exercise such option. However, upon the determination of Fair Value and receipt of the Fair Value Notice relating to any Defaulted First Lien Loan, each of the related Junior Loan Holder and the directing certificateholder (other than with respect to any Affiliated Borrower Loan) will have the right to purchase such Defaulted First Lien Loan at the Defaulted Loan Fair Value Purchase Price by giving notice to the directing certificateholder (in the case of the Junior Loan Holder), the Junior Loan Holder (in the case of the directing certificateholder), the trustee, the certificate administrator, the master servicer and the special servicer (the first party to give such notice, the "First Offeror"). Within ten Business Days after receipt from the First Offeror of notice of its intent to exercise the Purchase Option (the "Initial Offer Notice Period"), the related Junior Loan Holder or the directing certificateholder, as the case may be, will have the right to purchase such Defaulted First Lien Loan by giving notice (the "Increased Offer Notice") to the First Offeror, the trustee, the certificate administrator, the master servicer and the special servicer, specifying a purchase price of at least 2.5% more than the purchase price specified by the First Offeror in the initial purchase option notice. If the First Offeror is willing to purchase the Defaulted First Lien Loan after receipt of the Increased Offer Notice, it will only be permitted to do so at the Purchase Price by giving notice of the same to the directing certificateholder (in the case of the Junior Loan Holder), the Junior Loan Holder (in the case of the directing certificateholder), the trustee, the certificate administrator, the master servicer and the special servicer within five Business Days after receiving the Increased Offer Notice ("Par Purchase Notice Period"). Any purchase will be required to be consummated no later than 15 Business Days after the expiration of the Initial Offer Notice Period or Par Purchase Notice Period, as applicable. In addition, if there are multiple holders

of Junior Loans, the Junior Loan Holder entitled to exercise an option to purchase any Defaulted First Lien Loan pursuant to any related intercreditor agreement or any related pooling and servicing agreement will have the first option to purchase such Defaulted First Lien Loan; *provided* that if any such Junior Loan Holder elects not to exercise its purchase option, then the holder of the next most subordinate Junior Loan (if any) will be entitled to exercise such option.

Within 60 days after an underlying mortgage loan becomes a Defaulted Loan (which 60-day period may be extended for an additional 15 days by the special servicer if the special servicer has given notice prior to the end of such 60-day period that it has not received the information it reasonably requires to make its Fair Value determination), the special servicer will be required to determine the Fair Value of such underlying mortgage loan in accordance with the Servicing Standard and consistent with the guidelines contained in the Pooling and Servicing Agreement. The special servicer will be required to change from time to time thereafter (but before the entry into a binding agreement on behalf of the issuing entity for the consummation of any related purchase) its determination of the Fair Value of a Defaulted Loan if the special servicer obtains knowledge of changed circumstances, new information or otherwise, in accordance with the Servicing Standard. All reasonable costs and expenses of the special servicer in connection with the determination of the Fair Value of a Defaulted Loan will be paid by the master servicer and be reimbursable as Servicing Advances. The special servicer must give prompt notice (the "Fair Value Notice") of its Fair Value determination and any subsequent change to such determination of Fair Value to the trustee, the certificate administrator, the master servicer, Freddie Mac, the related Junior Loan Holder (if any) and the directing certificateholder. If, after receiving the Fair Value Notice, and subject to the last paragraph of this section "—Purchase Option," the directing certificateholder or its assignee elects to purchase such Defaulted Loan from the issuing entity at the Defaulted Loan Fair Value Purchase Price, such party must notify the special servicer, the trustee, the certificate administrator, the master servicer and Freddie Mac of such election and specify the Defaulted Loan Fair Value Purchase Price.

However, if an underlying mortgage loan becomes a Defaulted Loan due to a delinquency in respect of its balloon payment (without giving effect to any permitted grace period), but a Servicing Transfer Event has not occurred with respect to such underlying mortgage loan due to the exception set forth in clause (i) of the definition of Servicing Transfer Event, the special servicer will have no duty to obtain an appraisal or calculate a Fair Value for such underlying mortgage loan unless and until a Servicing Transfer Event has occurred under clause (i) of the definition of Servicing Transfer Event with respect to such underlying mortgage loan. Further, no Purchase Option will exist with respect to an underlying mortgage loan that became a Defaulted Loan due to a delinquency in respect of its balloon payment (without giving effect to any permitted grace period), unless and until a Servicing Transfer Event has occurred under clause (i) of the definition of Servicing Transfer Event with respect to such underlying mortgage loan.

If the related Junior Loan Holder or the directing certificateholder, or an assignee thereof (as identified to the certificate administrator) that proposes to purchase a Defaulted Loan or Defaulted First Lien Loan, as applicable, is an affiliate of the special servicer, the trustee will be required to determine, prior to the consummation of the related purchase, whether the special servicer's determination of Fair Value for such Defaulted Loan constitutes a fair price in its reasonable judgment. In doing so, the trustee may conclusively rely on an opinion of an appraiser or other independent expert in real estate matters, in each case, appointed with due care and obtained at the expense of such affiliate of the special servicer proposing to purchase such Defaulted Loan or Defaulted First Lien Loan, as applicable. The trustee, in making a Fair Value determination in accordance with the second preceding sentence, will be entitled to receive from the special servicer all information in the special servicer's possession relevant to making such determination and will be further entitled to a \$1,500 fee payable by the issuing entity in connection with each such Fair Value determination. All reasonable costs and expenses of the trustee in connection with the determination of the Fair Value of a Defaulted Loan will be paid by the master servicer and be reimbursable as Servicing Advances.

Subject to the discussion above and the last paragraph of this section “—Purchase Option,” each holder of a Purchase Option may, at its option, purchase a Defaulted Loan from the issuing entity at a price (the “Option Price”) equal to—

- if the special servicer has not yet determined the Fair Value of that Defaulted Loan, the Purchase Price; or
- if the special servicer has made such Fair Value determination, at least the Defaulted Loan Fair Value Purchase Price.

If the most recent Fair Value calculation was made more than 90 days prior to the exercise date of a Purchase Option, then the special servicer must confirm or revise the Fair Value determination, and the Option Price at which the Defaulted Loan may be purchased will be modified accordingly.

Unless and until the Purchase Option with respect to a Defaulted Loan is exercised, the special servicer will be required to pursue such other resolution strategies available under the Pooling and Servicing Agreement, including workout and foreclosure, consistent with the Servicing Standard, but it will not be permitted to sell the Defaulted Loan other than pursuant to the exercise of the Purchase Option or in accordance with any applicable intercreditor or co-lender agreement.

If not exercised sooner, the Purchase Option with respect to any Defaulted Loan will automatically terminate upon—

- the cure by the related borrower or a party with cure rights of all defaults that caused the underlying mortgage loan to be a Defaulted Loan;
- the acquisition on behalf of the issuing entity of title to the related mortgaged real property by foreclosure or deed-in-lieu of foreclosure; or
- the modification, waiver or payoff (full, partial or discounted) of the Defaulted Loan in connection with a workout.

However, the directing certificateholder (or its assignee) will only be able to purchase an Affiliated Borrower Loan from the issuing entity at a cash price equal to the Purchase Price.

Foreclosure and Similar Proceedings. Pursuant to the Pooling and Servicing Agreement, if an event of default on an underlying mortgage loan has occurred and is continuing, the special servicer, on behalf of the issuing entity, may at any time institute foreclosure proceedings, exercise any power of sale contained in the related mortgage or otherwise acquire title to the related mortgaged real property. The special servicer may not, however, acquire title to any mortgaged real property or take any other action with respect to any mortgaged real property that would cause the trustee, for the benefit of the certificateholders or any other specified person to be considered to hold title to, to be a “mortgagee-in-possession” of or to be an “owner” or an “operator” of such mortgaged real property within the meaning of certain federal environmental laws, unless the special servicer has previously received a report prepared by a person who regularly conducts environmental audits (the cost of which report will be a Servicing Advance) and either—

- such report indicates that (i) the mortgaged real property is in compliance with applicable environmental laws and regulations and (ii) there are no circumstances or conditions present at the mortgaged real property for which investigation, testing, monitoring, containment, clean-up or remediation could be required under any applicable environmental laws and regulations; or
- the special servicer, based solely (as to environmental matters and related costs) on the information set forth in such report, determines that taking such actions as are necessary to bring the mortgaged real property into compliance with applicable environmental laws and regulations and/or taking the actions contemplated by clause (ii) of the preceding bullet point, is reasonably likely to increase the net proceeds of the liquidation of such mortgaged real property, than not taking such actions.

A borrower’s failure to make required mortgage loan payments may mean that operating income from the mortgaged real property is insufficient to service the mortgage debt, or may reflect the diversion of that income from the servicing of the mortgage debt. In addition, a borrower that is unable to make mortgage loan payments may also be unable to make timely payments of taxes or otherwise to maintain and insure the mortgaged real property. In

general, the special servicer will be required to monitor any Specially Serviced Mortgage Loan serviced by it, evaluate whether the causes of the default can be corrected over a reasonable period without significant impairment of the value of the mortgaged real property, initiate corrective action in cooperation with the borrower if cure is likely, inspect the mortgaged real property and take such other actions as it deems necessary and appropriate. A significant period of time may elapse before the special servicer is able to assess the success of any such corrective action or the need for additional initiatives. The time within which the special servicer can make the initial determination of appropriate action, evaluate the success of corrective action, develop additional initiatives, institute foreclosure proceedings and actually foreclose, or accept a deed to a mortgaged real property in lieu of foreclosure, on behalf of the certificateholders may vary considerably depending on the particular circumstances with respect to the related underlying mortgage loan, the mortgaged real property, the borrower, the presence of an acceptable party to assume the underlying mortgage loan and the laws of the jurisdiction in which the mortgaged real property is located. If a borrower files a bankruptcy petition, the special servicer may not be permitted to accelerate the maturity of the Defaulted Loan or to foreclose on the related mortgaged real property for a considerable period of time and may be required by the court to materially extend the term of the underlying mortgage loan paid to the final maturity date, lower significantly the related interest rate and/or reduce the principal balance of the underlying mortgage loan.

REO Properties. If title to any mortgaged real property is acquired by the special servicer on behalf of the issuing entity, the special servicer will be required to sell that mortgaged real property as soon as practicable, but not later than the end of the third calendar year following the year of acquisition, unless—

- the IRS grants an extension of time to sell the property;
- an extension of time to sell the property has been timely requested from the IRS and (i) the IRS has not denied such request (in which event the property is required to be sold by the end of the extended time period requested, but not more than three additional years), or (ii) if the IRS denies such request (in which event, the property is required to be sold within 30 days after the date of such denial); or
- the special servicer obtains an opinion of independent counsel generally to the effect that the holding of the property subsequent to the end of the third calendar year following the year in which the acquisition occurred will not result in the imposition of a tax on the assets of the issuing entity or cause either Trust REMIC created under the Pooling and Servicing Agreement to fail to qualify as a REMIC under the Code.

The special servicer will be required to use reasonable efforts to solicit cash offers for any REO Property held in the issuing entity in a manner that will be reasonably likely to realize a fair price for the property within the time periods contemplated by the prior paragraph. Such solicitation will be required to be made in a commercially reasonable manner. The special servicer will be required to accept the highest cash offer received from any entity for such REO Property in an amount at least equal to the Purchase Price for such REO Property. In the absence of any such offer, the special servicer will be required to accept the highest cash offer received from any entity that is determined by the special servicer to be a fair price for such REO Property and whose offer the special servicer reasonably determines is likely to lead to an actual sale and is in compliance with applicable law. If the special servicer reasonably believes that it will be unable to realize a fair price for such REO Property within the time constraints imposed by the prior paragraph, then the special servicer will be required to dispose of such REO Property upon such terms and conditions as the special servicer deems necessary and desirable to maximize the recovery on such REO Property under the circumstances, and will be required to accept the highest outstanding cash offer from any entity that is determined by the special servicer to be a fair price for such REO Property and whose offer the special servicer reasonably determines is likely to lead to an actual sale and is in compliance with applicable law. If the special servicer determines that the offers being made with respect to such REO Property are not in the best interest of the certificateholders as a collective whole and that the end of the period referred to in the prior paragraph with respect to such REO Property is approaching, the special servicer will be required to seek an extension of such period in the manner described in the prior paragraph.

Whether any cash offer constitutes a fair price for any REO Property will be determined by the special servicer, if the highest offeror is a person other than the special servicer or an affiliate of the special servicer, and by the trustee, if the highest offeror is the special servicer or an affiliate of the special servicer. In determining whether any offer received from the special servicer or an affiliate of the special servicer represents a fair price for any REO Property, the trustee will be required to obtain, and may conclusively rely on, the opinion of an appraiser (the fees and costs of which will be required to be covered by a servicing advance by the master servicer) retained by the

trustee. In determining whether any offer constitutes a fair price for any REO Property, the trustee will be required to request that such appraiser take into account, as applicable, among other factors, the occupancy level and physical condition of the REO Property, the state of the local economy and the obligation to dispose of any REO Property within the time period specified in the second preceding paragraph. The Purchase Price for any REO Property will in all cases be deemed a fair price.

The special servicer, at the expense of the issuing entity, will be required to retain an independent contractor to operate and manage any REO Property within 90 days of its acquisition. The retention of an independent contractor will not relieve the special servicer of its obligations with respect to any REO Property.

In general, the special servicer or an independent contractor employed by the special servicer will be obligated to operate and manage any REO Property held by the issuing entity solely for the purpose of its prompt disposition and sale, in a manner that maintains its status as “foreclosure property” within the meaning of Code Section 860G(a)(8).

Subject to the Servicing Standard and any other limitations imposed by the Pooling and Servicing Agreement, the special servicer will be permitted, with respect to any REO Property, to incur a tax on net income from foreclosure property, within the meaning of Code Section 857(b)(4)(B).

To the extent that income the issuing entity receives from an REO Property is subject to a tax on net income from foreclosure property, that income would be subject to U.S. federal tax at the corporate tax rate, which currently is 21%.

The determination as to whether income from an REO Property held by the issuing entity would be subject to a tax will depend on the specific facts and circumstances relating to the management and operation of each REO Property. Any tax imposed on the issuing entity’s income from an REO Property would reduce the amount available for payment to the certificateholders. See “Certain Federal Income Tax Consequences” in this information circular. The reasonable out-of-pocket costs and expenses of obtaining professional tax advice in connection with the foregoing will be payable out of the collection account.

REO Account. The special servicer will be required to segregate and hold all funds collected and received in connection with any REO Property held by the issuing entity separate and apart from its own funds and general assets. If an REO Property is acquired by the issuing entity, the special servicer will be required to establish and maintain an account for the retention of revenues and other proceeds derived from that REO Property. That REO account must be maintained in a manner and with a depository institution that meets the requirements of the Pooling and Servicing Agreement. The special servicer will be required to deposit, or cause to be deposited, in its REO account, within one Business Day following receipt, all net income, insurance proceeds, condemnation proceeds and Liquidation Proceeds with respect to each REO Property held by the issuing entity. The funds held in this REO account may be held as cash or invested in Permitted Investments. Any interest or other income earned on funds in the special servicer’s REO account will be payable to the special servicer, subject to the limitations described in the Pooling and Servicing Agreement. See “—Servicing and Other Compensation and Payment of Expenses—Additional Servicing Compensation” above.

The special servicer will be permitted to withdraw from its REO account funds necessary for the proper operation, management, leasing, maintenance and disposition of any REO Property, but only to the extent of amounts on deposit in the account relating to that particular REO Property. Promptly following the end of each Collection Period, the special servicer will be required to withdraw from its REO account and deposit, or deliver to the master servicer for deposit, into the collection account the total of all amounts received in respect of each REO Property during that Collection Period, net of:

- any withdrawals made out of those amounts, as described in the preceding sentence; and
- any portion of those amounts that may be retained as reserves, as described in the next paragraph.

The special servicer may, subject to the limitations described in the Pooling and Servicing Agreement, retain in its REO account in accordance with the Servicing Standard such portion of the proceeds and collections on any REO Property as may be necessary to maintain a reserve of sufficient funds for the proper operation, management,

leasing, maintenance and disposition of that property, including the creation of a reasonable reserve for repairs, replacements, necessary capital improvements and other related expenses.

The special servicer will be required to keep and maintain separate records, on a loan-by-loan and a property-by-property basis, for the purpose of accounting for all deposits to, and withdrawals from, its REO account.

Liquidation Proceeds. To the extent that Liquidation Proceeds collected with respect to any underlying mortgage loan are less than the sum of—

- the outstanding principal balance of that underlying mortgage loan,
- interest (other than Default Interest) accrued on that underlying mortgage loan,
- interest accrued on any P&I Advance made with respect to that underlying mortgage loan,
- the aggregate amount of outstanding reimbursable expenses (including any unreimbursed Servicing Advances and unpaid and accrued interest on such advances) incurred with respect to that underlying mortgage loan, and
- any and all servicing compensation, trustee fees, certificate administrator fees and CREFC® Intellectual Property Royalty License Fees due and payable with respect to that underlying mortgage loan,

then the issuing entity will realize a loss in the amount of such shortfall (although such shortfalls with respect to the offered certificates will be covered under the Freddie Mac Guarantee).

The trustee, the certificate administrator, the master servicer, the special servicer and/or CREFC® will be entitled to reimbursement out of the Liquidation Proceeds recovered on an underlying mortgage loan, prior to the distribution of such Liquidation Proceeds to certificateholders, of any and all amounts that represent unpaid servicing compensation, certificate administrator fees, trustee fees or CREFC® Intellectual Property Royalty License Fees in respect of that underlying mortgage loan, certain unreimbursed expenses incurred with respect to that underlying mortgage loan and any unreimbursed advances made with respect to that underlying mortgage loan. In addition, amounts otherwise distributable on the certificates will be further reduced by interest payable to the master servicer or the trustee, as applicable, on any such advances.

If any mortgaged real property suffers damage such that the proceeds, if any, of the related property damage insurance policies or flood insurance are insufficient to restore fully the damaged property, the master servicer will not be required to make Servicing Advances to effect such restoration unless—

- the special servicer determines that such restoration will increase the proceeds to the certificateholders (as a collective whole) on liquidation of the underlying mortgage loan after reimbursement of the master servicer for its expenses and the special servicer receives the consent of the Approved Directing Certificateholder (if any); and
- the master servicer determines that such expenses will be recoverable by it from related Liquidation Proceeds.

Specially Serviced Mortgage Loans. With respect to any underlying mortgage loan as to which a Servicing Transfer Event has occurred, the master servicer will transfer its servicing responsibilities to the special servicer, but will continue to receive payments on such underlying mortgage loan (including amounts collected by the special servicer), to make certain calculations with respect to such underlying mortgage loan and to make remittances and prepare and deliver certain reports to the certificate administrator with respect to such underlying mortgage loan.

The special servicer will continue to be responsible for the operation and management of an REO Property. The master servicer will have no responsibility for the performance by the special servicer of its duties under the Pooling and Servicing Agreement.

The special servicer will return the full servicing of a Specially Serviced Mortgage Loan to the master servicer when all Servicing Transfer Events with respect to that underlying mortgage loan have ceased to exist and that underlying mortgage loan has become a Corrected Mortgage Loan.

Directing Certificateholder. The “directing certificateholder” will be the Controlling Class Majority Holder (or its designee), as further discussed below; *provided*, that if the class A-1, A-2 and A-M certificates are the Controlling Class, Freddie Mac, as the holder of the class A-1, A-2 and A-M certificates, or its designee will act as the directing certificateholder and be deemed the Approved Directing Certificateholder. For the avoidance of doubt, all references to the “directing certificateholder” in this information circular will be deemed to include the Approved Directing Certificateholder (if any).

A directing certificateholder that is not an Approved Directing Certificateholder will retain the Controlling Class Majority Holder Rights discussed below but will not have any other rights of an Approved Directing Certificateholder or be entitled to any fees otherwise payable to the Approved Directing Certificateholder under the Pooling and Servicing Agreement.

The “Controlling Class Majority Holder” will be either (i) the holder (or a designee acting on its behalf) of the majority of the percentage interests in the Controlling Class or (ii) if no single holder owns the majority of the percentage interests in the Controlling Class, the designee appointed by the holders of a majority of the percentage interests in the Controlling Class acting on behalf of such holders, in each case solely to the extent that such person is identified in writing to the trustee, the certificate administrator, the master servicer and the special servicer along with contact information.

“Controlling Class” means, as of the Closing Date, the class D certificates, until the outstanding principal balance of such class is less than 25% of the initial principal balance of such class; thereafter, the class C certificates, until the outstanding principal balance of such class is less than 25% of the initial principal balance of such class; thereafter, the class B certificates, until the outstanding principal balance of such class is less than 25% of the initial principal balance of such class; and thereafter the class A-1, A-2 and A-M certificates, collectively. However, if the class D certificates are the only class with an outstanding principal balance, the class D certificates will be the Controlling Class.

Any directing certificateholder that is not an Approved Directing Certificateholder will have only the following limited rights, in each case to the extent described in this information circular (the “Controlling Class Majority Holder Rights”):

- the right to remove and replace the special servicer;
- the right to exercise the directing certificateholder’s option to purchase any Defaulted Loans from the issuing entity; and
- the right to access certain information and receive certain notices under the Pooling and Servicing Agreement.

A directing certificateholder that is an Approved Directing Certificateholder may exercise all rights of a directing certificateholder and will be entitled to receive fees payable to the Approved Directing Certificateholder under the Pooling and Servicing Agreement.

The “Approved Directing Certificateholder” will be the Initial Directing Certificateholder (or any of its affiliates) for so long as either (i) the Initial Directing Certificateholder (or any of its affiliates) or (ii) the holder or holders that designated such Initial Directing Certificateholder as the directing certificateholder on the Closing Date, is the holder or are the holders, as applicable, of the majority of the percentage interests in the Controlling Class, and thereafter, either (a) a directing certificateholder that either (1) has not been rejected by Freddie Mac as an Approved Directing Certificateholder during the Directing Certificateholder Approval Period as described in this information circular or (2) satisfies the Approved Directing Certificateholder Criteria and, in each case, delivers a notice with evidence of approval or pre-approval by Freddie Mac as described in this information circular, or (b) if the class A-1, A-2 and A-M certificates are the Controlling Class, Freddie Mac or its designee.

“Approved Directing Certificateholder Criteria” means, with respect to any person or entity, the criteria used by Freddie Mac to determine (in Freddie Mac’s reasonable discretion) if such person or entity has significant multifamily real estate experience, including, without limitation, whether such person or entity:

- (i) owns and/or has invested in at least \$250 million (in original principal amount) of multifamily real estate related mezzanine level or subordinate securities and/or multifamily real estate properties;
- (ii) has significant multifamily management expertise and experience; and/or
- (iii) has comparable multifamily real estate ownership, investment or management expertise and experience, each as determined in Freddie Mac's reasonable discretion.

A finding that such person or entity meets the dollar value requirements of clause (i) above does not in itself bind Freddie Mac to a determination that such person or entity has significant multifamily real estate experience.

In order to exercise the rights of the Approved Directing Certificateholder, the directing certificateholder must be an Approved Directing Certificateholder. To initiate the process of becoming or designating an Approved Directing Certificateholder, the Controlling Class Majority Holder will be required to provide notice to Freddie Mac, the master servicer, the special servicer, the trustee and the certificate administrator indicating which certificates that such Controlling Class Majority Holder or the certificateholder(s) designating such Controlling Class Majority Holder, as applicable, has or have purchased. In addition, such Controlling Class Majority Holder will also be required to provide a notice in writing to Freddie Mac, the master servicer, the special servicer, the trustee and the certificate administrator that includes the name and contact information of the proposed directing certificateholder (delivery of which may be satisfied by delivery of a notice substantially in the form attached to the Pooling and Servicing Agreement (such notice, the "Directing Certificateholder Notice"). Within 5 Business Days of the date of receipt of such notice (such 5 Business Day period, the "Directing Certificateholder Approval Period"), Freddie Mac may elect not to respond to such notice or may countersign and return the notice to the Controlling Class Majority Holder, indicating on such notice whether Freddie Mac has approved or rejected the proposed directing certificateholder as an Approved Directing Certificateholder, and may (in Freddie Mac's sole discretion) also provide such notice to the master servicer, the special servicer, the trustee and the certificate administrator; *provided* that Freddie Mac may, within any Directing Certificateholder Approval Period, request additional information that Freddie Mac deems necessary to complete its review and render its final approval or rejection. Any request from Freddie Mac to the submitting Controlling Class Majority Holder for additional information will be deemed a rejection by Freddie Mac of the directing certificateholder as an Approved Directing Certificateholder and the Controlling Class Majority Holder will be required to resubmit any additional information solely to Freddie Mac and the Directing Certificateholder Notice to Freddie Mac, the master servicer, the special servicer, the trustee and the certificate administrator to reinitiate the Directing Certificateholder Approval Period.

The proposed directing certificateholder will be deemed to be an Approved Directing Certificateholder during the Directing Certificateholder Approval Period, and the master servicer, the special servicer, the certificate administrator and the trustee will be entitled to conclusively treat such directing certificateholder as an Approved Directing Certificateholder until the earlier of (i) the time such parties receive notice from Freddie Mac or the Controlling Class Majority Holder that Freddie Mac has (a) rejected the proposed directing certificateholder as an Approved Directing Certificateholder or (b) requested any additional information necessary to render its final determination or (ii) the end of the Directing Certificateholder Approval Period.

If Freddie Mac (i) countersigns the Directing Certificateholder Notice approving the directing certificateholder as an Approved Directing Certificateholder or (ii) fails to respond to the Controlling Class Majority Holder, in each case, within the Directing Certificateholder Approval Period, the Controlling Class Majority Holder, in each case, will be required to provide written notice to the master servicer, the special servicer, the certificate administrator, the trustee and Freddie Mac including either (a) a copy of the approved Directing Certificateholder Notice countersigned by Freddie Mac or (b) a certification stating that Freddie Mac failed to respond and did not request any additional information within the Directing Certificateholder Approval Period (attaching the original Directing Certificateholder Notice), as applicable, and such directing certificateholder will be deemed to be an Approved Directing Certificateholder. Upon receipt of such notice, the master servicer, the special servicer, the certificate administrator and the trustee may conclusively rely thereon and treat the directing certificateholder as an Approved Directing Certificateholder. For the avoidance of doubt, following the Directing Certificateholder Approval Period, if the Controlling Class Majority Holder fails to provide the notice required by the second preceding sentence, the directing certificateholder will be deemed not to be an Approved Directing Certificateholder and will retain only the Controlling Class Majority Holder Rights; and the master servicer, the special servicer, the certificate administrator

and the trustee will be entitled to conclusively treat such directing certificateholder as retaining only the Controlling Class Majority Holder Rights.

If Freddie Mac provides in the Directing Certificateholder Notice within the Directing Certificateholder Approval Period that the proposed directing certificateholder is not an Approved Directing Certificateholder, such directing certificateholder (including any Affiliated Borrower Loan Directing Certificateholder) will not be an Approved Directing Certificateholder, and the Controlling Class Majority Holder will be required to provide written notice to the master servicer, the special servicer, the certificate administrator and the trustee and each such party will be entitled to conclusively rely on such notice and treat such directing certificateholder as retaining only the Controlling Class Majority Holder Rights.

The rights of an Approved Directing Certificateholder (other than the Controlling Class Majority Holder Rights) will not be exercisable by any directing certificateholder (including any Affiliated Borrower Loan Directing Certificateholder) that is not an Approved Directing Certificateholder, and any provision of the Pooling and Servicing Agreement requiring the Approved Directing Certificateholder's consent or approval, or requiring notice or information to be sent to the Approved Directing Certificateholder, will not require consent or approval of, or require notice or information to be sent to, any directing certificateholder that is not an Approved Directing Certificateholder, unless such notice or information is required to be sent to the directing certificateholder. If there is no Approved Directing Certificateholder, the portion of any Transfer Fees payable to the Approved Directing Certificateholder will instead be payable to the master servicer.

If no person is appointed as the directing certificateholder pursuant to the Pooling and Servicing Agreement, the master servicer, the special servicer, the certificate administrator and the trustee will not be required to and will not recognize the Controlling Class Majority Holder or any other person as a directing certificateholder, and any provision of the Pooling and Servicing Agreement requiring notice or information to be sent to, or requiring the consent or approval of, the directing certificateholder will not be applicable.

The Controlling Class Majority Holder may obtain a pre-approval from Freddie Mac indicating that a proposed directing certificateholder qualifies as an Approved Directing Certificateholder (a "DCH Pre-Approval") in accordance with the approval provisions set forth above in this section "The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Directing Certificateholder."

Notwithstanding the foregoing, (i) for each Controlling Class Majority Holder, there can be no more than three requests for a DCH Pre-Approval made per calendar year and (ii) any Freddie Mac confirmed DCH Pre-Approval will expire and can no longer be presented with the notice delivered pursuant to the terms of the Pooling and Servicing Agreement upon the later of (a) six months after the date that Freddie Mac countersigns and delivers notice of such confirmed DCH Pre-Approval and (b) if Freddie Mac failed to respond or request additional information within the Directing Certificateholder Approval Period, six months after the date that the Controlling Class Majority Holder dated and delivered the original Directing Certificateholder Notice to Freddie Mac.

For the purpose of determining whether the directing certificateholder is an affiliate of any borrower (or any proposed replacement borrower) with respect to any underlying mortgage loan, the term "directing certificateholder" will include the directing certificateholder (and any affiliate of the directing certificateholder), any of its managing members or general partners and any party directing or controlling the directing certificateholder (or any such affiliate), including, for example, in connection with any re-securitization of the Controlling Class.

By its acceptance of a certificate, each certificateholder confirms its understanding that (i) the directing certificateholder may take actions, and the Directing Certificateholder Servicing Consultant may provide recommendations, that favor the interests of one or more classes of certificates over other classes of certificates, (ii) the directing certificateholder and the Directing Certificateholder Servicing Consultant may have special relationships and interests that conflict with those of holders of some classes of certificates, (iii) the directing certificateholder and the Directing Certificateholder Servicing Consultant will have no liability to any certificateholder for any action taken or not taken, or any recommendation provided, as applicable, and (iv) each certificateholder agrees to take no action against the directing certificateholder or the Directing Certificateholder Servicing Consultant as a result of any such action or omission, recommendation or special relationship or conflict.

As and to the extent described under “—Asset Status Report” below, during the Directing Certificateholder Approval Period or if Freddie Mac has approved a directing certificateholder as an Approved Directing Certificateholder, such Approved Directing Certificateholder may direct the master servicer or the special servicer with respect to various servicing matters involving each of the underlying mortgage loans. A directing certificateholder that is not an Approved Directing Certificateholder will not have such rights with respect to such servicing matters, but will be entitled to exercise the Controlling Class Majority Holder Rights described in this information circular.

It is anticipated that New York Mortgage Trust, Inc., a Maryland corporation, will be designated to serve as the initial directing certificateholder (the “Initial Directing Certificateholder”). As of the Closing Date, no Affiliated Borrower Loan Event is expected to exist with respect to the Initial Directing Certificateholder.

Upon the occurrence and during the continuance of any Affiliated Borrower Loan Event with respect to any underlying mortgage loan, any right of the directing certificateholder to (i) approve and consent to certain actions with respect to such underlying mortgage loan, (ii) exercise an option to purchase such underlying mortgage loan (if it is a Defaulted Loan) from the issuing entity and (iii) access certain information and reports regarding such underlying mortgage loan will be restricted as described in “—Asset Status Report” below and “—Purchase Option” above, as applicable. Upon the occurrence and during the continuance of an Affiliated Borrower Loan Event, the special servicer, as the Affiliated Borrower Loan Directing Certificateholder, will be required to exercise any approval, consent, consultation or other rights with respect to any matters related to an Affiliated Borrower Loan as described in “—Asset Status Report” below.

Asset Status Report. The special servicer is required to prepare and deliver a report to the master servicer, the directing certificateholder and Freddie Mac (the “Asset Status Report”) with respect to any underlying mortgage loan that becomes a Specially Serviced Mortgage Loan within 60 days of the special servicer’s receipt of the information it reasonably requires after a Servicing Transfer Event. The directing certificateholder will be entitled to receive, in addition to other information it is permitted to receive under the Pooling and Servicing Agreement, Asset Status Reports, although only the Approved Directing Certificateholder will have consent or approval rights in respect of such reports.

Any Asset Status Report prepared by the special servicer will set forth the following information, to the extent reasonably determinable:

- a summary of the status of the Specially Serviced Mortgage Loan;
- a discussion of the legal and environmental considerations reasonably known to the special servicer, consistent with the Servicing Standard, that are applicable to the exercise of remedies and whether outside legal counsel has been retained;
- a current rent roll and income or operating statement available for the related mortgaged real property;
- the appraised value of the mortgaged real property, together with the assumptions used in the calculation if the appraisal is less than 12 months old;
- a recommendation by the special servicer as to how the Specially Serviced Mortgage Loan might be returned to performing status, returned to the master servicer for regular servicing or otherwise realized upon;
- a summary of any proposed actions and a discussion of whether or not taking such action is reasonably likely to produce a greater recovery on a present value basis than not taking such action;
- a status report on any foreclosure actions or other proceedings undertaken with respect to the related mortgaged real property, any proposed workouts with respect to the Specially Serviced Mortgage Loan and the status of any negotiations with respect to those workouts and an assessment of the likelihood of additional events of default on such underlying mortgage loan; and
- such other information as the special servicer deems relevant in light of the Servicing Standard.

If, within ten Business Days following delivery of the Asset Status Report, the Approved Directing Certificateholder (if any) does not disapprove in writing of any action proposed to be taken in that Asset Status Report or, upon delivery of a finalized Asset Status Report as described below, the special servicer will be required to implement the recommended action as outlined in such Asset Status Report; *provided* that the special servicer may not take any action that is contrary to applicable law or the terms of the applicable loan documents. If the Approved Directing Certificateholder (if any) disapproves in writing such Asset Status Report within such ten Business Days, the special servicer is required to revise and deliver a new Asset Status Report within 30 days after such disapproval.

The special servicer must continue to revise that Asset Status Report until either (i) the Approved Directing Certificateholder (if any) fails to disapprove the revised Asset Status Report within ten Business Days of receipt, (ii) the special servicer determines that an extraordinary event has occurred with respect to the mortgaged real property as described below or (iii) the passage of 60 days from the date of preparation of the first Asset Status Report. The special servicer will be required to deliver the finalized Asset Status Report to the directing certificateholder, Freddie Mac, the master servicer, the certificate administrator and the trustee. However, the special servicer (a) may, following the occurrence of an extraordinary event with respect to the related mortgaged real property, take any action set forth in such Asset Status Report before the expiration of a ten Business Day approval period if the special servicer has reasonably determined that failure to take such action would materially and adversely affect the interests of the certificateholders and it has made a reasonable effort to contact the Approved Directing Certificateholder (if any) and (b) in any case, must determine whether any affirmative disapproval by the Approved Directing Certificateholder (if any) described in this paragraph is not in the best interest of the certificateholders as a collective whole pursuant to the Servicing Standard. The special servicer will be required to notify the Approved Directing Certificateholder (if any) upon taking any such action.

The special servicer in its capacity as special servicer (and not in its capacity as Directing Certificateholder Servicing Consultant, if selected to serve in such capacity) may not take any action inconsistent with an Asset Status Report, unless that action would be required in order to act in accordance with the Servicing Standard. The special servicer may, from time to time, modify any Asset Status Report it has previously delivered and implement that report, *provided* that the revised report has been prepared, reviewed and not rejected pursuant to the terms described above. The directing certificateholder will be entitled to be delivered a copy by the special servicer of any such revised Asset Status Report (other than for an Affiliated Borrower Loan), though only an Approved Directing Certificateholder will have consent or approval rights in respect of such report.

In addition, with respect to a Specially Serviced Mortgage Loan, the special servicer is required to, subject to the Servicing Standard and the terms of the Pooling and Servicing Agreement, obtain the consent of the Approved Directing Certificateholder (if any) and respond to any reasonable request for information from Freddie Mac prior to the taking by the special servicer of the following actions (“Consent Actions”)—

- any proposed or actual foreclosure upon or comparable conversion of (which may include acquisitions of an REO Property) the ownership of the property or properties securing any Specially Serviced Mortgage Loans as come into and continue in default;
- any modification, amendment or waiver of a monetary term (including any change in the timing of payments but excluding the waiver of Default Interest and late payment charges), any material non-monetary term or any waiver of a due-on-sale or due-on-encumbrance clause of an underlying mortgage loan (other than any easement, right of way or similar agreement);
- any acceptance of a discounted payoff with respect to a Specially Serviced Mortgage Loan;
- any proposed or actual sale of an REO Property out of the issuing entity for less than the outstanding principal balance of, and accrued interest (other than Default Interest) on, the related underlying mortgage loan, except in connection with a termination of the issuing entity as described under “—Termination” below;
- any determination to bring an REO Property held by the issuing entity into compliance with applicable environmental laws or to otherwise address hazardous material located at the REO Property;
- any release of real property collateral for an underlying mortgage loan, other than in accordance with the specific terms of, or upon satisfaction of, that underlying mortgage loan; *provided, however*, that the

consent of the Approved Directing Certificateholder (if any) to any release of non-material parcels of the mortgaged real property may not be unreasonably withheld;

- any acceptance of substitute or additional real property collateral for an underlying mortgage loan, other than in accordance with the specific terms of that underlying mortgage loan;
- any approval of releases of earn-out reserves or related letters of credit with respect to a mortgaged real property securing an underlying mortgage loan other than in accordance with the specific terms of that underlying mortgage loan;
- the release of any reserves in excess of the threshold set forth in the Pooling and Servicing Agreement; and
- any approval of a borrower request for consent to a replacement property manager for Specially Serviced Mortgage Loans (which approval may not be unreasonably withheld), other than in connection with any pre-approved servicing request with respect to an underlying mortgage loan set forth in the Pooling and Servicing Agreement.

However, no direction of the Approved Directing Certificateholder (if any), and no failure to consent to any action requiring the consent of the Approved Directing Certificateholder (if any) under the Pooling and Servicing Agreement, may (i) require or cause the master servicer or the special servicer to violate the terms of the Specially Serviced Mortgage Loan, applicable law or any provision of the Pooling and Servicing Agreement or any related intercreditor agreement; (ii) result in the imposition of a “prohibited transaction” or “prohibited contribution” tax under the REMIC Provisions; (iii) expose the master servicer, the special servicer, the trustee, the certificate administrator, the custodian, the depositor, Freddie Mac, the issuing entity or any of various other parties to any claim, suit or liability or (iv) materially expand the scope of the special servicer’s or the master servicer’s responsibilities under the Pooling and Servicing Agreement. The master servicer or the special servicer, as the case may be, will not (i) follow any such direction of the Approved Directing Certificateholder, (ii) initiate any such actions having any of the effects set out above, or (iii) take or refrain from taking any action, if following such directions, taking such action or refraining from taking such action would violate the Servicing Standard. The master servicer or the special servicer, as the case may be, will be required to notify the Approved Directing Certificateholder (if any) if it does not follow any such direction of the Approved Directing Certificateholder.

Upon the occurrence of an Affiliated Borrower Loan Event (except with respect to any Affiliated Borrower Loan Event that exists on the Closing Date and is described in the definition of Affiliated Borrower Loan Event), the directing certificateholder will be required to provide written notice of the same to the trustee, the certificate administrator, the master servicer, the special servicer and Freddie Mac within two Business Days after the occurrence of such Affiliated Borrower Loan Event. In addition, the directing certificateholder will be required to provide written notice to the trustee, the certificate administrator, the master servicer, the special servicer and Freddie Mac of the termination of any Affiliated Borrower Loan Event within two Business Days after the termination of such Affiliated Borrower Loan Event. Except with respect to any Affiliated Borrower Loan Event that exists on the Closing Date and is described in the definition of Affiliated Borrower Loan Event prior to its receipt of any notice from the directing certificateholder of the occurrence of an Affiliated Borrower Loan Event (or, following its receipt of notice, if any, of the termination of any Affiliated Borrower Loan Event, prior to its receipt of any notice of the occurrence of another Affiliated Borrower Loan Event), the master servicer, the special servicer, the trustee, the certificate administrator and Freddie Mac may conclusively assume that no Affiliated Borrower Loan Event exists, unless a responsible officer of the trustee or certificate administrator, as applicable, or a servicing officer of the master servicer or the special servicer, as applicable, has actual knowledge of any Affiliated Borrower Loan Event. The master servicer, the special servicer, the trustee, the certificate administrator and Freddie Mac may rely on any such notice of the occurrence or the termination of an Affiliated Borrower Loan Event without making any independent investigation.

Upon the occurrence and during the continuance of an Affiliated Borrower Loan Event, the directing certificateholder will not have any approval, consent, consultation or other rights under the Pooling and Servicing Agreement with respect to any matters related to any Affiliated Borrower Loan, and the Affiliated Borrower Loan Directing Certificateholder, upon receipt of written notice from the directing certificateholder, or any party on its behalf, of the occurrence of any Affiliated Borrower Loan Event, and prior to receipt of written notice from the directing certificateholder, or any party on its behalf, of the termination of such Affiliated Borrower Loan Event (i) will be required to exercise any such rights in its sole discretion and in accordance with the Servicing Standard

and on behalf of the certificateholders as a collective whole, without seeking the consent or consultation of any other party, except that the Affiliated Borrower Loan Directing Certificateholder may consult with Freddie Mac with respect to any matters related to the Affiliated Borrower Loan, but will not be bound by any such consultation with Freddie Mac and (ii) will be entitled to any fees that would otherwise be payable to the Approved Directing Certificateholder under “Description of the Certificates—Fees and Expenses” in this information circular but for the occurrence of such Affiliated Borrower Loan Event.

Upon receipt of written notice from the directing certificateholder, or any party on its behalf, of the occurrence of any Affiliated Borrower Loan Event and prior to receipt of written notice from the directing certificateholder, or any party on its behalf, of the termination of such Affiliated Borrower Loan Event, none of the trustee, the certificate administrator, the master servicer or the special servicer will be permitted under the Pooling and Servicing Agreement to seek, accept or take any action based on the approval, consent or consultation of the directing certificateholder with respect to any matters related to any Affiliated Borrower Loan. In addition, for so long as an Affiliated Borrower Loan Event exists with respect to any Affiliated Borrower Loan, and to the extent the certificate administrator has actual knowledge of such Affiliated Borrower Loan Event, the certificate administrator may not provide to the directing certificateholder any asset status report, inspection report, appraisal or internal valuation related to such Affiliated Borrower Loan. In addition, for so long as an Affiliated Borrower Loan Event exists with respect to any underlying mortgage loan, the trustee, the certificate administrator, the master servicer and the special servicer may withhold from the directing certificateholder any information with respect to such underlying mortgage loan that the trustee, the certificate administrator, the master servicer or the special servicer, as applicable, determines, in its sole discretion, is related to the workout of such underlying mortgage loan.

Inspections; Collection of Operating Information

The special servicer will be required, at the expense of the issuing entity, to physically inspect or cause a physical inspection of the related mortgaged real property as soon as practicable after any underlying mortgage loan becomes a Specially Serviced Mortgage Loan and annually thereafter for so long as that underlying mortgage loan remains a Specially Serviced Mortgage Loan. The master servicer will be required, at its own expense, to physically inspect or cause a physical inspection of each mortgaged real property securing an underlying mortgage loan initially not later than the end of the calendar quarter in which (i) the first anniversary of the origination of any related underlying mortgage loan with an outstanding principal balance (or an allocated loan amount) greater than or equal to \$2,000,000 occurs or (ii) the second anniversary of the origination of any related underlying mortgage loan with an outstanding principal balance (or an allocated loan amount) less than \$2,000,000 occurs. Each subsequent inspection of each mortgaged real property by the master servicer will be conducted, in the case of each underlying mortgage loan with an outstanding principal balance (or allocated loan amount) greater than or equal to \$2,000,000, at least once every 12 months thereafter or, in the case of each underlying mortgage loan with an outstanding principal balance (or allocated loan amount) less than \$2,000,000, at least once every 24 months thereafter. The master servicer will be required to prepare or cause the preparation of a written report of each inspection performed by it that generally describes the condition of the particular mortgaged real property and deliver or make available on the master servicer’s website such written report to, among others, the directing certificateholder, Freddie Mac and the trustee. The special servicer will be required to prepare or cause the preparation of a written report of each inspection performed by it that generally describes the condition of the particular mortgaged real property and deliver such written report in electronic format to the certificate administrator and the master servicer, and the master servicer will send or make available on the master servicer’s website such written report to, among others, the directing certificateholder, Freddie Mac and the trustee.

The loan documents for most of the underlying mortgage loans obligate the related borrower to deliver quarterly, and the loan documents for substantially all of the underlying mortgage loans require annual, property operating statements. However, we cannot assure you that any operating statements required to be delivered will in fact be delivered, nor is the special servicer or the master servicer likely to have any practical means of compelling such delivery in the case of an otherwise performing underlying mortgage loan.

Servicer Reports

As set forth in the Pooling and Servicing Agreement, on a date preceding the applicable distribution date, the master servicer is required to deliver to the certificate administrator, the directing certificateholder and Freddie Mac a servicer remittance report setting forth the information necessary for the certificate administrator to make the distributions set forth under “Description of the Certificates—Distributions” in this information circular and containing the information to be included in the distribution report for that distribution date delivered by the certificate administrator as described under “Description of the Certificates—Reports to Certificateholders and Freddie Mac; Available Information” in this information circular.

Evidence as to Compliance

No later than the date specified below of each year, commencing in 2020, each of the master servicer and the special servicer must deliver or cause to be delivered, as applicable, to the depositor, the trustee, the certificate administrator and Freddie Mac, among others:

- by March 15th of each year, a statement of compliance signed by an officer of the master servicer or the special servicer, as the case may be, to the effect that, among other things, (i) a review of the activities of the master servicer or the special servicer, as the case may be, during the preceding calendar year—or, in the case of the first such certification, during the period from the Closing Date through December 31, 2019 inclusive—and of its performance under the Pooling and Servicing Agreement, has been made under such officer’s supervision; (ii) to the best of such officer’s knowledge, based on such review, the master servicer or the special servicer, as the case may be, has fulfilled its obligations under the Pooling and Servicing Agreement in all material respects throughout the preceding calendar year or the portion of that year during which the certificates were outstanding (or, if there has been a failure to fulfill any such obligation in any material respect, specifying each such failure known to such officer and the nature and status of each such failure); (iii) that the master servicer or the special servicer, as the case may be, has maintained an effective internal control system over the servicing of mortgage loans, including the underlying mortgage loans; (iv) whether the master servicer or the special servicer has received any notice regarding qualification of or challenge to the status of, either Trust REMIC as a REMIC from the IRS or any other governmental agency or body; and (v) in the case of the master servicer only, to the best of such officer’s knowledge, each sub-servicer, if any, has fulfilled its obligations under its Sub-Servicing Agreement in all material respects (or, if there has been a failure to fulfill any such obligation in any material respect, specifying each such failure known to such officer and the nature and status of each such failure and proposed actions with respect to the default); *provided, however*, that the master servicer will be entitled to conclusively rely on a review of the activities of such sub-servicer conducted by Freddie Mac, so long as the master servicer does not have any actual knowledge of such sub-servicer’s material non-fulfillment or material default (Freddie Mac will provide the master servicer access to such sub-servicer reviews by March 1 of each year beginning with March 1, 2020), and
- as to each annual statement of compliance delivered by the master servicer or the special servicer, as the case may be, as described in the preceding bullet point, by April 15th of each year, an accountant’s statement from a registered public accounting firm to the effect that the asserting party complied with the minimum servicing standards identified in (i) Item 1122 of Regulation AB or (ii) the Uniform Single Attestation Program for Mortgage Bankers. For purposes of determining compliance with the minimum standards identified in clauses (i) or (ii) above, the master servicer and its accountants will be entitled to rely on the sub-servicer reviews delivered by Freddie Mac pursuant to the preceding bullet point, subject to the limitations set forth in the preceding bullet point.

As long as one party is performing the duties of both the master servicer and the special servicer, that party will be required to deliver only one report, certificate or statement satisfying the requirements listed immediately above. Copies of such statement will be provided to any certificateholder, upon written request of any certificateholder, by the certificate administrator.

Events of Default

Each of the following events, circumstances and conditions will be considered events of default with respect to the master servicer or the special servicer under the Pooling and Servicing Agreement:

1. any failure by the master servicer to make (i) any required deposit into its collection account or any other account created under the Pooling and Servicing Agreement, which failure continues unremedied for two Business Days, or any required remittance to the certificate administrator for deposit in the distribution account by the time required under the Pooling and Servicing Agreement on the Business Day prior to the related distribution date, which failure continues unremedied until 11:00 a.m. (New York City time) on the related distribution date; or (ii) any required Servicing Advance within the time specified in the Pooling and Servicing Agreement, which failure remains uncured for 15 days (or such shorter time as is necessary to avoid the lapse of any required insurance policy for any mortgaged real property or the foreclosure of any tax lien on the related mortgaged real property);
2. any failure by the special servicer to deposit into the REO account, or to remit to the master servicer for deposit in the collection account, any such deposit or remittance required to be made by the special servicer, when so required under the Pooling and Servicing Agreement, which failure continues unremedied for two Business Days;
3. any failure by the master servicer or the special servicer duly to observe or perform in any material respect any of its other covenants or obligations under the Pooling and Servicing Agreement, which failure continues unremedied for 30 days (15 days in the case of a failure to pay the premium for any required insurance policy for any mortgaged real property) after notice of such failure has been given to the master servicer or the special servicer, as the case may be, by any other party to the Pooling and Servicing Agreement, or to the master servicer or the special servicer, as applicable, the depositor and the trustee (with a copy to the certificate administrator) by the holders of 25% of the percentage interests of any class of certificates; *provided, however*, if such failure (other than a failure to pay insurance policy premiums for any mortgaged real property) is not capable of being cured within such 30-day period and the master servicer or the special servicer, as applicable, is diligently pursuing such cure, then such 30-day period will be extended for an additional 30 days;
4. any breach by the master servicer or the special servicer of a representation or warranty contained in the Pooling and Servicing Agreement that materially and adversely affects the interests of the certificateholders and continues unremedied for 30 days after the date on which notice of such breach is given to the master servicer or the special servicer, as the case may be, by any other party to the Pooling and Servicing Agreement, or to the master servicer or the special servicer, as applicable, the depositor and the trustee (with a copy to the certificate administrator) by the holders of 25% of the percentage interests of any class of certificates; *provided, however*, if such breach is not capable of being cured within such 30-day period and the master servicer or the special servicer, as applicable, is diligently pursuing such cure, then such 30-day period will be extended for an additional 30 days;
5. certain events of insolvency, readjustment of debt, marshaling of assets and liabilities or similar proceedings in respect of or relating to the master servicer or the special servicer, as applicable, and certain actions by or on behalf of the master servicer or the special servicer, as applicable, indicating its insolvency or inability to pay its obligations and such decree or order remains in force for 60 days;
6. a consent by the master servicer or the special servicer, as applicable, to the appointment of a conservator, receiver, liquidator, trustee or similar official in any bankruptcy, insolvency, readjustment of debt, marshaling of assets and liabilities or similar proceedings of or relating to such master servicer or special servicer or relating to all or substantially all of its property;
7. an admission by the master servicer or the special servicer, as applicable, in writing of its inability to pay its debts generally as they become due, the filing of a petition to take advantage of any applicable bankruptcy, insolvency or reorganization statute, the making of an assignment for the benefit of its creditors, the voluntary suspension of payment of its obligations or the taking of any corporate action in furtherance of the foregoing;
8. a Ratings Trigger Event occurs with respect to the master servicer or the special servicer, as applicable;

9. failure of the master servicer to provide the certificate administrator with certain periodic information pertaining to the underlying mortgage loans as required under the Pooling and Servicing Agreement more than three times in a rolling 12-month period within one Business Day of the date on which the relevant report is due, unless such failure is due to force majeure or an act of God or such failure is waived by Freddie Mac; *provided* that Freddie Mac is not permitted to grant more than one waiver in such rolling 12-month period without the consent of the directing certificateholder, which consent may not be unreasonably withheld or delayed; *provided further*, that a report will not be considered late unless Freddie Mac provides the master servicer with notice, with a copy to the certificate administrator, that the report was late within five days after the related distribution date; or
10. a Rating Agency places the rating of any class of rated certificates or any class of rated SPCs on “Watchlist” status in contemplation of a ratings downgrade or withdrawal (or a Rating Agency has downgraded or withdrawn its rating for any class of rated certificates or any class of rated SPCs) citing servicing concerns with respect to the master servicer or the special servicer, as applicable, as the sole or material factor in such rating action and such “Watchlist” status, downgrade or withdrawal is not withdrawn, reversed or revoked, as applicable, by such Rating Agency within 60 days of such rating action.

If the master servicer is terminated solely due to an event described in clauses 8 or 10 above, the master servicer will have 45 days to solicit bids and complete the sale of the servicing rights with respect to the underlying mortgage loans to a servicer acceptable under the Pooling and Servicing Agreement, during which time period the master servicer will continue to service the underlying mortgage loans.

Rights Upon Event of Default

If an event of default described under “—Events of Default” above occurs with respect to the master servicer or the special servicer and remains unremedied, the trustee will be authorized, and at the direction of the directing certificateholder (but with respect to the master servicer, only if the directing certificateholder is an Approved Directing Certificateholder; *provided* that with respect to the event described in clause 9 under “—Events of Default” above, a directing certificateholder that is not an Approved Directing Certificateholder may inform the trustee of any such event of default) or Freddie Mac, the trustee will be required, to terminate all of the obligations and all of the rights of the defaulting party pursuant to the Pooling and Servicing Agreement in and to the underlying mortgage loans and proceeds of the underlying mortgage loans, other than any rights the defaulting party may have (i) as a certificateholder, (ii) as the holder of the Excess Servicing Fee Right or (iii) in respect of compensation, indemnities and reimbursements accrued by or owing to such defaulting party on or prior to the date of termination or due to such defaulting party thereafter for services rendered and expenses incurred. Upon any such termination, the trustee must either:

- succeed to all of the responsibilities, duties and liabilities of the defaulting party under the Pooling and Servicing Agreement; or
- appoint an established mortgage loan servicing institution to act as successor to the defaulting party under the Pooling and Servicing Agreement that meets the Successor Servicer Requirements;

subject, in both cases, to (i) the right of the master servicer to sell its servicing rights with respect to the underlying mortgage loans as described in “—Events of Default” above, (ii) the right of the directing certificateholder to appoint a successor special servicer as described under “—Resignation, Removal and Replacement of Servicers; Transfer of Servicing Duties” above and (iii) the right of certificateholders entitled to at least 66²/₃% of the voting rights allocated to each class of certificates affected by any event of default to waive such event of default as described below.

If the trustee is unwilling or unable to act as the permanent successor master servicer or special servicer or does not satisfy the Successor Servicer Requirements, it may (or, at the written request of certificateholders entitled to not less than 25% of the voting rights will be required to), promptly appoint, or petition a court of competent jurisdiction to appoint as successor to the master servicer or the special servicer, as applicable, an established mortgage loan servicing institution that satisfies the Successor Servicer Requirements.

In general, certificateholders entitled to at least 66²/₃% of the voting rights allocated to each class of certificates affected by any event of default may waive the event of default. However, the events of default described in clauses

1 and 2 under “—Events of Default” above may only be waived by all of the holders of the affected classes of certificates, the trustee and Freddie Mac. Furthermore, if the certificate administrator or the trustee is required to spend any monies in connection with any event of default or any waiver of that event of default, then that event of default may not be waived unless and until the certificate administrator or the trustee has been reimbursed for such amounts by the party requesting the waiver. Upon any waiver of an event of default, the event of default will cease to exist and will be deemed to have been remedied for every purpose under the Pooling and Servicing Agreement.

No certificateholder will have the right under the Pooling and Servicing Agreement to institute any proceeding with respect to the Pooling and Servicing Agreement or the certificates unless:

- that holder previously has given to the trustee written notice of default;
- except in the case of a default by the trustee, certificateholders representing at least 25% of a class have made written request to the trustee to institute that proceeding in its own name as trustee under the Pooling and Servicing Agreement and have offered to the trustee reasonable security or indemnity; and
- the trustee for 60 days has neglected or refused to institute any such proceeding.

Each certificateholder will be deemed under the Pooling and Servicing Agreement to have expressly covenanted with every other certificateholder and the trustee, that no one or more certificateholders will have any right in any manner whatsoever by virtue of any provision of the Pooling and Servicing Agreement or the certificates to affect, disturb or prejudice the rights of the holders of any other certificates, or to obtain or seek to obtain priority over or preference to any other certificateholder, or to enforce any right under the Pooling and Servicing Agreement or the certificates, except in the manner provided in the Pooling and Servicing Agreement or the certificates and for the equal, ratable and common benefit of all certificateholders.

Neither the trustee nor the certificate administrator, however, will be under any obligation to exercise any of the trusts or powers vested in it by the Pooling and Servicing Agreement or the certificates or to make any investigation of matters arising thereunder or under the certificates or to institute, conduct or defend any litigation under or in relation to the Pooling and Servicing Agreement or the certificates at the request, order or direction of any of the certificateholders, unless in the certificate administrator’s or the trustee’s opinion, as applicable, those certificateholders have offered to the certificate administrator or the trustee, as applicable, reasonable security or indemnity against the costs, expenses and liabilities which may be incurred by the certificate administrator or the trustee as a result.

Matters Regarding the Trustee, the Certificate Administrator and the Custodian

Each of the trustee and the certificate administrator is at all times required to be a corporation, national bank, trust company or national banking association organized and doing business under the laws of the U.S. or any State of the U.S. or the District of Columbia. Furthermore, the trustee and the certificate administrator must at all times, among other things—

- be authorized under those laws to exercise corporate trust powers;
- have a combined capital and surplus of at least \$50,000,000; and
- be subject to supervision or examination by federal or state authority.

If the corporation, national bank, trust company or national banking association publishes reports of condition at least annually, in accordance with law or the requirements of the supervising or examining authority, then the combined capital and surplus of that corporation, national bank, trust company or national banking association will be deemed to be its combined capital and surplus as described in its most recent published report of condition.

The depositor, the master servicer, the special servicer, Freddie Mac and their respective affiliates, may from time to time enter into normal banking and trustee relationships with the trustee, the certificate administrator and their affiliates. The trustee, the certificate administrator and any of their respective affiliates may hold certificates in its own name. In addition, for purposes of meeting the legal requirements of some local jurisdictions, the trustee will have the power to appoint a co-trustee or separate trustee of all or any part of the assets of the issuing entity. All rights, powers, duties and obligations conferred or imposed upon the trustee will be conferred or imposed upon the

trustee and the separate trustee or co-trustee jointly or, in any jurisdiction in which the trustee is incompetent or unqualified to perform some acts, singly upon the separate trustee or co-trustee, who may exercise and perform its rights, powers, duties and obligations solely at the direction of the trustee.

The trustee and the certificate administrator will be entitled to a monthly fee for their services as trustee, certificate administrator and custodian, as applicable. This fee will accrue with respect to each and every underlying mortgage loan. The trustee fee will accrue at the trustee fee rate set forth in “Description of the Certificates—Fees and Expenses” in this information circular on the Stated Principal Balance of each underlying mortgage loan outstanding from time to time and will be calculated on the same basis as interest on each underlying mortgage loan. The certificate administrator fee will accrue at the certificate administrator fee rate set forth in “Description of the Certificates—Fees and Expenses” in this information circular on the Stated Principal Balance of each underlying mortgage loan outstanding from time to time and will be calculated on the same basis as interest on each underlying mortgage loan. The trustee fee and the certificate administrator fee are payable out of general collections on the mortgage pool in the issuing entity.

The certificate administrator will initially be the custodian of the mortgage files. The certificate administrator may appoint, at the certificate administrator’s own expense, one or more custodians to hold all or a portion of the mortgage files on behalf of the trustee; however the certificate administrator will be required to inform the master servicer, the trustee and Freddie Mac of such appointment and the appointment of any custodian will require the approval of Freddie Mac. Each custodian will be required to (i) be a depository institution supervised and regulated by a federal or state banking authority, (ii) have combined capital and surplus of at least \$10,000,000, (iii) be qualified to do business in the jurisdiction in which it holds any mortgage file, (iv) not be the depositor, the mortgage loan seller or any affiliate of the depositor or the mortgage loan seller, and (v) have in place Fidelity Insurance and E&O Insurance, each in such form and amount as is customarily required of custodians acting on behalf of Freddie Mac or Fannie Mae. Each custodian will be subject to the same obligations, standard of care, protections and indemnities as would be imposed on, or would protect, the certificate administrator under the Pooling and Servicing Agreement in connection with the retention of mortgage files directly by the certificate administrator. The appointment of one or more custodians will not relieve the certificate administrator from any of its obligations under the Pooling and Servicing Agreement, and the certificate administrator will remain responsible for all acts and omissions of any custodian.

Certain Indemnities

The depositor, the master servicer (either in its own right or on behalf of an indemnified sub-servicer), the servicing consultant and the special servicer (including in its capacity as the Affiliated Borrower Loan Directing Certificateholder) and any officer, director, general or limited partner, shareholder, member, manager, employee, agent, affiliate or controlling person of the depositor, the master servicer, the special servicer or the servicing consultant will be entitled to be indemnified and held harmless by the issuing entity against any and all losses, liabilities, damages, claims, judgments, costs, fees, penalties, fines, forfeitures or other expenses (including reasonable legal fees and expenses, including in connection with the enforcement of such indemnified party’s rights under the Pooling and Servicing Agreement) that may be imposed on, incurred by or asserted against them in connection with, related to, or arising out of, the Pooling and Servicing Agreement, the transactions contemplated by the Pooling and Servicing Agreement or the certificates, other than any loss, liability, damage, claim, judgment, cost, fee, penalty, fine, forfeiture or other expense (including reasonable legal fees and expenses) (i) that is specifically required to be borne by the party seeking indemnification, without right of reimbursement pursuant to the terms of the Pooling and Servicing Agreement or (ii) incurred by reason of a breach of any representation or warranty by the depositor, the master servicer or the special servicer, as applicable, under the Pooling and Servicing Agreement, or by reason of the willful misconduct, bad faith, fraud or negligence of the depositor, the servicing consultant, the master servicer or the special servicer, as applicable, in the performance of its respective duties under the Pooling and Servicing Agreement or negligent disregard of its respective obligations or duties under the Pooling and Servicing Agreement. Any party that seeks enforcement of indemnified rights in accordance with the preceding sentence must notify Freddie Mac and the directing certificateholder within 2 business days of seeking such enforcement; *provided, however*, that failure to provide such notice will not affect or limit the indemnity afforded to such party. For the avoidance of doubt, the indemnification provided by the issuing entity pursuant to the second preceding sentence will not entitle the servicing consultant, the master servicer or the special servicer, as applicable, to reimbursement for ordinary costs or expenses incurred by the servicing consultant, the master servicer or the

special servicer, as applicable, in connection with its usual and customary performance of its duties and obligations under the Pooling and Servicing Agreement that are not expressly payable or reimbursable to the servicing consultant, the master servicer or the special servicer, as applicable, under the Pooling and Servicing Agreement. The master servicer, on behalf of an indemnified sub-servicer, will be entitled to pursue the issuing entity under the Pooling and Servicing Agreement for any indemnification due to an indemnified sub-servicer under the terms of the related Sub-Servicing Agreement. The master servicer will be required to promptly upon receipt remit such indemnification amounts to the affected indemnified sub-servicer upon reimbursement of such amounts from the collection account or (upon receipt from the trustee) the distribution account, as applicable. If the master servicer determines that a claim for indemnification submitted by a sub-servicer should not be pursued under the terms of the related Sub-Servicing Agreement or the Pooling and Servicing Agreement, the master servicer will be required to promptly notify Freddie Mac of the nature of such claim and a summary explanation of the master servicer's reason for denying such claim.

The trustee (in each of its capacities under the Pooling and Servicing Agreement), the certificate administrator (in each of its capacities under the Pooling and Servicing Agreement), the custodian and their respective officers, directors, general or limited partners, shareholders, members, managers, employees, agents, affiliates and controlling persons will be entitled to be indemnified and held harmless by the issuing entity against any and all losses, liabilities, damages, claims, judgments, costs, fees, penalties, fines, forfeitures or other expenses (including reasonable legal fees and expenses, including in connection with the enforcement of such indemnified party's rights under the Pooling and Servicing Agreement) that may be imposed on, incurred by or asserted against the trustee, the certificate administrator or the custodian, as applicable, in connection with, related to, or arising out of the Pooling and Servicing Agreement, the transactions contemplated by the Pooling and Servicing Agreement or the certificates other than any loss, liability, damage, claim, judgment, cost, fee, penalty, fine, forfeiture or other expense (including reasonable legal fees and expenses) (i) that constitutes a specific liability of the trustee, the certificate administrator or the custodian, as applicable, under the Pooling and Servicing Agreement, (ii) incurred by reason of any breach of any representation or warranty by the trustee, the certificate administrator or the custodian, as applicable, under the Pooling and Servicing Agreement or by reason of the willful misconduct, bad faith, fraud or negligence of the trustee, the certificate administrator or the custodian, as applicable, in the performance of its duties under the Pooling and Servicing Agreement or negligent disregard of its obligations or duties under the Pooling and Servicing Agreement or (iii) that would not constitute "unanticipated expenses incurred by the REMIC" within the meaning of Treasury Regulations Section 1.860G-1(b)(3)(iii). Any party that seeks enforcement of indemnified rights in accordance with the preceding sentence must notify Freddie Mac and the directing certificateholder within 2 business days of seeking such enforcement; *provided, however*, that failure to provide such notice will not affect or limit the indemnity afforded to such party.

However, subject to the last two sentences of this paragraph, in any calendar year, indemnification to us, the trustee, the certificate administrator, the custodian, the master servicer (for itself or certain indemnified sub-servicers, as applicable), the special servicer and their respective general or limited partners, members, managers, shareholders, affiliates, directors, officers, employees, agents and controlling persons will not exceed an amount equal to the Depositor Aggregate Annual Cap, the Trustee Aggregate Annual Cap or the Certificate Administrator/Custodian Aggregate Annual Cap (if different persons or entities are the trustee and the certificate administrator/custodian), the Trustee/Certificate Administrator/Custodian Aggregate Annual Cap (if the same person or entity is the trustee and the certificate administrator/custodian), the Master Servicer Aggregate Annual Cap or the Special Servicer Aggregate Annual Cap, as applicable. Any amounts payable in excess of the relevant Aggregate Annual Cap will be required to be paid, to the extent the funds are available, in the subsequent calendar year or years (subject to the applicable Aggregate Annual Cap for each such calendar year) until paid in full. Any indemnification amounts unpaid as a result of the relevant Aggregate Annual Cap will accrue interest at a rate equal to the Prime Rate from the date on which such amounts would have otherwise been paid had such Aggregate Annual Cap not applied to the date on which such amount is paid. The Aggregate Annual Caps will not apply after the Aggregate Annual Cap Termination Date. Freddie Mac and the Approved Directing Certificateholder (if any) will have the right, in their sole and absolute discretion, to waive (as evidenced by a waiver signed by both Freddie Mac and the Approved Directing Certificateholder (if any)) the Depositor Aggregate Annual Cap, the Master Servicer Aggregate Annual Cap, the Trustee Aggregate Annual Cap, the Certificate Administrator/Custodian Aggregate Annual Cap, the Trustee/Certificate Administrator/Custodian Aggregate Annual Cap or the Special Servicer Aggregate Annual Cap upon the written request (which request, in the case of certain indemnified sub-servicers, is required to be

accompanied by notice to the master servicer) of the depositor, the trustee, the certificate administrator, the master servicer, certain indemnified sub-servicers or the special servicer, as applicable.

Termination

The obligations created by the Pooling and Servicing Agreement will terminate following the earliest of—

- the final payment or advance on, or other liquidation of, the last underlying mortgage loan or related REO Property remaining in the issuing entity;
- the purchase of all of the underlying mortgage loans and REO Properties remaining in the issuing entity by (i) the Controlling Class Majority Holder, but excluding Freddie Mac, (ii) the special servicer or (iii) the master servicer, in that order; and
- with the satisfaction of the conditions set forth in the proviso to the definition of Sole Certificateholder and with the consent of the master servicer, the exchange by the Sole Certificateholder (excluding Freddie Mac) of all its certificates (other than the class R certificates) for all of the underlying mortgage loans and REO Properties remaining in the issuing entity.

Written notice of termination of the Pooling and Servicing Agreement will be given to each certificateholder and Freddie Mac. The final distribution with respect to each certificate will be made only upon surrender and cancellation of that certificate at the office of the certificate registrar or at any other location specified in the notice of termination.

The following parties will each in turn, according to the order listed below, have the option to purchase all of the underlying mortgage loans and all other property remaining in the issuing entity on any distribution date on which the total Stated Principal Balance of the mortgage pool is less than 1.0% of the initial mortgage pool balance, upon written notice to the trustee and the other parties to the Pooling and Servicing Agreement:

- the Controlling Class Majority Holder, but excluding Freddie Mac;
- the special servicer; and
- the master servicer.

Any purchase by the Controlling Class Majority Holder (excluding Freddie Mac), a master servicer or a special servicer of all the underlying mortgage loans and REO Properties remaining in the issuing entity is required to be made at a price equal to:

- the sum of—
 1. the Purchase Price of all the underlying mortgage loans then included in the issuing entity, exclusive of REO Loans;
 2. the appraised value of all REO Properties owned by the issuing entity, as determined by an appraiser mutually agreed upon by the master servicer and the special servicer;
 3. without duplication, any unreimbursed Additional Issuing Entity Expenses; and
 4. any Unreimbursed Indemnification Expenses; minus
- solely in the case of a purchase by the master servicer or the special servicer, the total of all amounts payable or reimbursable to the purchaser under the Pooling and Servicing Agreement.

The purchase will result in early retirement of the then outstanding certificates. However, the right of the Controlling Class Majority Holder, but excluding Freddie Mac, the special servicer or the master servicer to make the purchase is subject to the requirement that the total Stated Principal Balance of the mortgage pool be less than 1.0% of the initial mortgage pool balance. The termination price, exclusive of any portion of the termination price payable or reimbursable to any person other than the certificateholders, will constitute part of the Available Distribution Amount for the final distribution date. Any person or entity making the purchase will be responsible for reimbursing the parties to the Pooling and Servicing Agreement for all reasonable out-of-pocket costs and expenses incurred by those parties in connection with the purchase.

If, with the consent of the master servicer and satisfaction of the conditions set forth in the proviso to the definition of Sole Certificateholder, the Sole Certificateholder elects to exchange all of its certificates (other than the class R certificates) for all of the underlying mortgage loans and REO Properties remaining in the issuing entity, the Sole Certificateholder will be required to remit to the master servicer for deposit in the collection account all amounts due and owing to the depositor, the master servicer, the special servicer, the certificate administrator, the custodian and the trustee under the Pooling and Servicing Agreement through the date of the liquidation of the issuing entity, but only to the extent that such amounts are not already on deposit in the collection account. In addition, the master servicer will be required to remit to the certificate administrator for deposit into the distribution account all amounts required to be transferred to the distribution account on such Remittance Date from the collection account. Upon confirmation that such final deposits have been made and following the surrender by the Sole Certificateholder of all its certificates (other than the class R certificates) on the first distribution date thereafter, the trustee will be required to release or cause to be released to the Sole Certificateholder or its designee the mortgage files for the underlying mortgage loans and execute all assignments, endorsements and other instruments furnished to it by the Sole Certificateholder necessary to effectuate transfer of the underlying mortgage loans and REO Properties remaining in the issuing entity to the Sole Certificateholder, and the issuing entity will be liquidated. In connection with any such exchange and liquidation of the issuing entity, the holders of the class R certificates will be required to surrender their class R certificates.

Amendment

In general, the Pooling and Servicing Agreement may be amended by mutual agreement of the parties to the Pooling and Servicing Agreement without the consent of any of the holders of the certificates (except as set forth in clause 9 below with respect to the consent of the Approved Directing Certificateholder (if any)) for the following reasons—

1. to cure any ambiguity;
2. to correct, modify or supplement any provision in the Pooling and Servicing Agreement which may be inconsistent with this information circular;
3. to correct, modify or supplement any provision in the Pooling and Servicing Agreement which may be inconsistent with any other provision in that document or to correct any error;
4. to make any other provisions with respect to matters or questions arising under the Pooling and Servicing Agreement that are not inconsistent with the existing provisions of that document;
5. to modify, supplement or make any other provision with regard to the resignation of the trustee in connection with defeasance of 20% or more of the outstanding principal balance of the mortgage pool when the trustee is an affiliate of any of the sub-servicers;
6. with an opinion of counsel delivered to the trustee, the certificate administrator, the master servicer and the special servicer, to relax or eliminate (i) any requirement under the Pooling and Servicing Agreement imposed by the REMIC Provisions or (ii) any transfer restriction imposed on the certificates, in each case, if such laws are amended or clarified such that any such restriction may be relaxed or eliminated;
7. with an opinion of counsel delivered to the trustee, the certificate administrator, the master servicer and the special servicer, to comply with the Code, avoid the occurrence of a prohibited transaction or reduce any tax that would arise from any actions taken with respect to the operation of either Trust REMIC;
8. if necessary to maintain a rating assigned by any Rating Agency to any class of rated certificates;
9. with the consent of the Approved Directing Certificateholder (if any), to allow the mortgage loan seller and its affiliates to obtain accounting “sale” treatment for the underlying mortgage loans sold by the mortgage loan seller to the depositor under applicable accounting standards;
10. to modify the procedures in the Pooling and Servicing Agreement relating to Rule 17g-5 or Rule 15Ga-1 under the Exchange Act; or

11. with prior notice to the Rating Agencies of any material amendment, to modify, alter, amend, add to or rescind any of the provisions contained in the Pooling and Servicing Agreement to comply with any rules or regulations promulgated by the SEC from time to time.

No amendment described in clauses 3, 4, 8 or 9 may adversely affect in any material respect the interests of any certificateholder or any third party beneficiary to the Pooling and Servicing Agreement or any provision of the Pooling and Servicing Agreement, as evidenced by the receipt by the trustee and the certificate administrator of an opinion of counsel to that effect or, alternatively, in the case of any particular certificateholder or third party beneficiary, an acknowledgment to that effect from such person or, alternatively, in the case of any class of rated certificates, receipt of Rating Agency Confirmation.

In addition, the Pooling and Servicing Agreement may be amended by the parties to the Pooling and Servicing Agreement with the consent of the holders of not less than 51% of the voting rights that are materially affected by the amendment, to (i) add to, change or eliminate any of the provisions of the Pooling and Servicing Agreement or (ii) modify the rights of the holders of the certificates. However, no such amendment may:

1. reduce the amount of, or delay the timing of, payments received or advanced on the underlying mortgage loans and/or REO Properties which are required to be distributed on any certificate, without the consent of the holder of such certificate;
2. adversely affect in any material respect the interests of the holders of any class of certificates in a manner other than as described in clause 1 above, without the consent of the holders of all certificates of such class;
3. modify the amendment provisions of the Pooling and Servicing Agreement or the definitions of Accepted Servicing Practices, Freddie Mac Servicing Practices or Servicing Standard without the consent of the holders of all certificates then outstanding;
4. modify the obligation of the Guarantor to guarantee the Guaranteed Certificates;
5. significantly change the activities of the issuing entity, without the consent of holders of certificates entitled to not less than 66²/₃% of the voting rights (not taking into account certificates held by the depositor or any of its affiliates or agents or Freddie Mac); or
6. adversely affect in any material respect the interests of any third party beneficiary to the Pooling and Servicing Agreement without the consent of such third party beneficiary.

The Pooling and Servicing Agreement provides that any amendments made to it must be accompanied by an opinion of counsel stating that the amendment will not adversely affect the REMIC status of either Trust REMIC created under the Pooling and Servicing Agreement.

CERTAIN FEDERAL INCOME TAX CONSEQUENCES

General

The following is a general discussion of the anticipated material federal income tax consequences of the purchase, ownership and disposition of the offered certificates. The discussion below does not purport to address all federal income tax consequences that may be applicable to particular categories of investors, some of which (such as banks, insurance companies and foreign investors) may be subject to special rules. The authorities on which this discussion is based are subject to change or differing interpretations, and any such change or interpretation could apply retroactively. This discussion reflects the applicable provisions of the Code and Treasury Regulations. Investors should consult their own tax advisors in determining the federal, state, local or any other tax consequences to them of the purchase, ownership and disposition of certificates.

Elections will be made to treat applicable portions of the issuing entity as two separate REMICs within the meaning of Code Section 860D (the "Lower-Tier REMIC" and the "Upper-Tier REMIC", and collectively, the "Trust REMICs"). The Lower-Tier REMIC will hold the underlying mortgage loans, the proceeds of the related underlying mortgage loans, the related portion of the collection account, the related portion of the distribution account, other related accounts and the issuing entity's interest in the portion of any property that secured a related

underlying mortgage loan that was acquired by foreclosure or deed-in-lieu of foreclosure, and will issue certain uncertificated classes of “regular interests” (the “Lower-Tier REMIC Regular Interests”) as classes of “regular interests” in the Lower-Tier REMIC and the sole class of “residual interests” in the Lower-Tier REMIC, represented by the class R certificates. The Upper-Tier REMIC will hold the Lower-Tier REMIC Regular Interests and the related portion of the distribution account and will issue the offered certificates and the non-offered certificates other than the class R certificates (the “Regular Certificates”) as “regular interests” in the Upper-Tier REMIC and the sole class of “residual interests” in the Upper-Tier REMIC, represented by the class R certificates. Qualification as a REMIC requires ongoing compliance with certain conditions. Assuming (i) the making of appropriate elections, (ii) compliance with the Pooling and Servicing Agreement, and (iii) compliance with any changes in the law, including any amendments to the Code or applicable Treasury Regulations thereunder, in the opinion of Cadwalader, Wickersham & Taft LLP, counsel to the depositor, each of the Trust REMICs will qualify as a REMIC on the Closing Date and thereafter. References in this information circular to “REMIC” refer to either the Lower-Tier REMIC or the Upper-Tier REMIC, as appropriate. References to “Holder” or “Certificateholder” in this discussion are to the beneficial owner of a certificate as specified in this information circular.

Qualification as a REMIC

In order for each of the Trust REMICs to qualify as a REMIC, there must be ongoing compliance on the part of each REMIC with the requirements set forth in the Code. Each of the Trust REMICs must fulfill an asset test, which requires that no more than a *de minimis* portion of the assets of each REMIC, as of the close of the third calendar month beginning after the “Startup Day” (which for purposes of this discussion is the Closing Date) and at all times thereafter, may consist of assets other than “qualified mortgages” and “permitted investments.” The Treasury Regulations applicable to REMICs (the “REMIC Regulations”) provide a safe harbor pursuant to which the *de minimis* requirements will be met if at all times the aggregate adjusted basis of the nonqualified assets is less than 1% of the aggregate adjusted basis of all the REMIC’s assets. Each REMIC also must provide “reasonable arrangements” to prevent its residual interests from being held by “disqualified organizations” or their agents and must furnish applicable tax information to transferors or agents that violate this requirement. The Pooling and Servicing Agreement will provide that no legal or beneficial interest in the class R certificates may be transferred or registered unless certain conditions, designed to prevent violation of this requirement, are met.

A qualified mortgage is any obligation that is principally secured by interest in real property and that is either transferred to the REMIC on the Startup Day or is either purchased by the REMIC within a three-month period thereafter or represents an increase in the loan advanced to the obligor under its original terms, in either case, pursuant to a fixed price contract in effect on the Startup Day. Qualified mortgages include whole mortgage loans or participation interests in whole mortgage loans, such as the underlying mortgage loans, and regular interests in another REMIC, such as the Lower-Tier REMIC Regular Interests that are held by the Upper-Tier REMIC, *provided*, in general, (i) the fair market value of the real property security (including buildings and structural components of the buildings) is at least 80% of the outstanding principal balance of the related underlying mortgage loan either at origination or as of the Startup Day (a loan-to-value ratio of not more than 125% with respect to the real property security) or (ii) substantially all the proceeds of an underlying mortgage loan were used to acquire, improve or protect an interest in real property that, at the origination date, was the only security for the underlying mortgage loans. If an underlying mortgage loan was not in fact principally secured by real property or is otherwise not a qualified mortgage, it must be disposed of within 90 days of discovery of such defect, or otherwise ceases to be a qualified mortgage after such 90-day period.

Permitted investments include cash flow investments, qualified reserve assets and foreclosure property. A cash flow investment is an investment, earning a return in the nature of interest, of amounts received on or with respect to qualified mortgages for a temporary period, not exceeding 13 months, until the next scheduled distribution to Holders of interests in the REMIC. A qualified reserve asset includes any intangible property held for investment that is part of any reasonably required reserve maintained by the REMIC to provide for payments of expenses of the REMIC or amounts due on the regular or residual interests in the event of defaults (including delinquencies) on the qualified mortgages, lower than expected reinvestment returns, prepayment interest shortfalls and certain other contingencies. The Trust REMICs will not hold any reserve funds. Foreclosure property is real property acquired by a REMIC in connection with the default or imminent default of a qualified mortgage and maintained by the REMIC in compliance with applicable rules, *provided* the depositor had no knowledge or reason to know as of the Startup Day that such a default had occurred or would occur. Foreclosure property may generally not be held after the close

of the third calendar year beginning after the date the REMIC acquires such property, with one extension that may be granted by the IRS.

In addition to these requirements, the various interests in a REMIC also must meet certain requirements. All of the interests in a REMIC must be either of the following: (i) one or more classes of regular interests or (ii) a single class of residual interests on which distributions, if any, are made *pro rata*. A regular interest is an interest in a REMIC that is issued on the Startup Day with fixed terms, is designated as a regular interest, unconditionally entitles the Holder to receive a specified principal amount, and provides that interest payments, if any, at or before maturity either are payable based on a fixed rate or a qualified variable rate, or consist of a specified, nonvarying portion of the interest payments on the qualified mortgages. The rate on the specified portion may be a fixed rate, a variable rate, or the difference between one fixed or qualified variable rate and another fixed or qualified variable rate. The specified principal amount of a regular interest that provides for interest payments consisting of a specified, nonvarying portion of interest payments on qualified mortgages may be zero. An interest in a REMIC may be treated as a regular interest even if payments of principal with respect to such interest are subordinated to payments on other regular interests or the residual interest in the REMIC, and are dependent on the absence of defaults or delinquencies on qualified mortgages or permitted investments, lower than reasonably expected returns on permitted investments, expenses incurred by REMIC or Prepayment Interest Shortfalls. A residual interest is an interest in a REMIC other than a regular interest that is issued on the Startup Day and that is designated as a residual interest. Accordingly, the Regular Certificates will constitute classes of regular interests in the Upper-Tier REMIC; the Lower-Tier REMIC Regular Interests will constitute classes of regular interests in the Lower-Tier REMIC; and the class R certificates will represent the sole class of residual interests in the Lower-Tier REMIC and the Upper-Tier REMIC, respectively.

If an entity fails to comply with one or more of the ongoing requirements of the Code for status as one or more REMICs during any taxable year, the Code provides that the entity or applicable portion of that entity will not be treated as a REMIC for such year and thereafter. In this event, any entity with debt obligations with two or more maturities, such as the issuing entity, may be treated as a separate association taxable as a corporation under Treasury Regulations, and the certificates may be treated as equity interests in the issuing entity. The Code, however, authorizes Treasury to provide relief where failure to meet one or more of the requirements for REMIC status occurs inadvertently and in good faith. Investors should be aware, however, that the Conference Committee Report to the Tax Reform Act of 1986 (the “1986 Act”) indicates that the relief may be accompanied by sanctions, such as the imposition of a corporate tax on all or a portion of the REMIC’s income for the period of time in which the requirements for REMIC status are not satisfied.

Status of Regular Certificates

Regular Certificates held by a real estate investment trust will constitute “real estate assets” within the meaning of Code Section 856(c)(5)(B) and interest and original issue discount (“OID”) on the Regular Certificates will be considered “interest on obligations secured by mortgages on real property or on interests in real property” within the meaning of Code Section 856(c)(3)(B) in the same proportion that, for both purposes, the assets of the issuing entity would be so treated. For purposes of Code Section 856(c)(5)(B), payments of principal and interest on the underlying mortgage loans that are reinvested pending distribution to Holders of Regular Certificates qualify for such treatment. Regular Certificates held by a domestic building and loan association will be treated as “loans...secured by an interest in real property which is...residential real property” within the meaning of Code Section 7701(a)(19)(C)(v). For purposes of these tests, the Trust REMICs are treated as a single REMIC. If at all times 95% or more of the assets of the issuing entity qualify for each of these treatments, the Regular Certificates will qualify for the corresponding status in their entirety. Regular Certificates held by certain financial institutions will constitute an “evidence of indebtedness” within the meaning of Code Section 582(c)(1).

Taxation of Regular Certificates

General. In general, interest, OID and market discount on a Regular Certificate will be treated as ordinary income to a Certificateholder, and principal payments on a Regular Certificate will be treated as a return of capital to the extent of the Certificateholder’s basis allocable to its Regular Certificate (other than accrued market discount, if any, not yet reported as income). Certificateholders must use the accrual method of accounting with respect to the Regular Certificates, regardless of the method of accounting otherwise used by such Certificateholders.

Notwithstanding the following, under legislation enacted on December 22, 2017 (the “Tax Cuts and Jobs Act”), Holders of Regular Certificates may be required to accrue additional amounts of OID, Static Prepayment Premiums, Yield Maintenance Charges and other amounts no later than the tax year they included such amounts as revenue on applicable financial statements. However, recent proposed Treasury regulations exclude from the application of this rule any item of income for which a taxpayer uses a special method of accounting, including, among other things, income subject to OID timing rules. Prospective investors are urged to consult their tax counsel regarding the potential application of the Tax Cuts and Jobs Act to their particular situation.

Original Issue Discount. Holders of Regular Certificates issued with OID generally must include OID in ordinary income for federal income tax purposes as it accrues in accordance with the constant yield method, which takes into account the compounding of interest, in advance of receipt of the cash attributable to such income. The following discussion is based in part on temporary and final Treasury Regulations (the “OID Regulations”) under Code Sections 1271 through 1273 and 1275 and in part on the provisions of the 1986 Act. Certificateholders should be aware, however, that the OID Regulations do not adequately address certain issues relevant to prepayable securities, such as the Regular Certificates. To the extent such issues are not addressed in the OID Regulations, it is anticipated that the certificate administrator will apply the methodology described in the Conference Committee Report to the 1986 Act. No assurance can be provided that the IRS will not take a different position as to those matters not currently addressed by the OID Regulations. Moreover, the OID Regulations include an anti-abuse rule allowing the IRS to apply or depart from the OID Regulations where necessary or appropriate to ensure a reasonable tax result in light of the applicable statutory provisions. A tax result will not be considered unreasonable under the anti-abuse rule in the absence of a substantial effect on the present value of a taxpayer’s tax liability. Investors are advised to consult their own tax advisors as to the discussion in this information circular and the appropriate method for reporting interest and OID with respect to the Regular Certificates.

Each Regular Certificate will be treated as a single installment obligation for purposes of determining the OID includible in a Certificateholder’s income. The total amount of OID on a Regular Certificate is the excess of the “stated redemption price at maturity” of the Regular Certificate over its “issue price.” The issue price of a class of Regular Certificates is the first price at which a substantial amount of Regular Certificates of such class are sold to investors (excluding bond houses, brokers and underwriters). Although unclear under the OID Regulations, it is anticipated that the certificate administrator will treat the issue price of a class of Regular Certificates as to which there is no substantial sale as of the Closing Date as the fair market value of such class as of the Closing Date. The issue price of a class of Regular Certificates also includes the amount paid by an initial Certificateholder of such class for accrued interest that relates to a period prior to the Closing Date of such class of Regular Certificates. The stated redemption price at maturity of a Regular Certificate is the sum of all payments of the Regular Certificate other than any qualified stated interest payments. Under the OID Regulations, qualified stated interest generally means interest payable at a single fixed rate or a qualified variable rate, *provided* that such interest payments are unconditionally payable at intervals of one year or less during the entire term of the obligation. Because there is no penalty or default remedy in the case of nonpayment of interest with respect to a Regular Certificate, it is possible that no interest on any class of Regular Certificates will be treated as qualified stated interest. However, because the underlying mortgage loans provide for remedies in the event of default, it is anticipated, unless required otherwise by applicable Treasury Regulations, that the certificate administrator will treat all payments of stated interest on the class A-1, A-2 and A-M certificates as qualified stated interest. Based on the foregoing, it is anticipated that the class A-1, A-2 and A-M certificates will not be issued with OID.

It is anticipated that the certificate administrator will treat the class X1, XAM and X3 certificates as having no qualified stated interest. Accordingly, the class X1, XAM and X3 certificates will be considered to be issued with OID in amounts equal to the excess of all distributions of interest expected to be received on such certificates over their issue price (including accrued interest). Any “negative” amounts of OID on such classes attributable to rapid prepayments with respect to the underlying mortgage loans will not be deductible currently. A Holder of the class X1, XAM or X3 certificates may be entitled to a loss deduction, which may be a capital loss, to the extent it becomes certain that such Holder will not recover a portion of its basis in such certificate, assuming no further prepayments. In the alternative, it is possible that rules similar to the “noncontingent bond method” of the contingent interest rules of the OID Regulations may be promulgated with respect to the class X1, XAM or X3 certificates. Unless and until required otherwise by applicable authority, it is not anticipated that the contingent interest rules will apply.

Under a *de minimis* rule, OID on a Regular Certificate will be considered to be zero if such OID is less than 0.2500% of the stated redemption price at maturity of the Regular Certificate multiplied by the weighted average maturity of the Regular Certificate. For this purpose, the weighted average maturity is computed as the sum of the amounts determined by multiplying the number of full years (*i.e.*, rounding down partial years) from the Closing Date until each distribution scheduled to be made by a fraction, the numerator of which is the amount of each distribution included in the stated redemption price at maturity of the Regular Certificate and the denominator of which is the stated redemption price at maturity of the Regular Certificate. The Conference Committee Report to the 1986 Act provides that the schedule of such distributions should be determined in accordance with the assumed rate of prepayment of the underlying mortgage loans, *i.e.*, no prepayments and no extensions (the “Prepayment Assumption”). Holders generally must report *de minimis* OID *pro rata* as principal payments are received, and such income will be capital gain if the Regular Certificate is held as a capital asset. However, under the OID Regulations, Certificateholders may elect to accrue all *de minimis* OID as well as market discount and premium under the constant yield method. See “—Election to Treat All Interest Under the Constant Yield Method” below.

The Holder of a Regular Certificate issued with OID generally must include in gross income for any taxable year the sum of the “daily portions,” as defined below, of the OID on the Regular Certificate accrued during an accrual period for each day on which it holds the Regular Certificate, including the date of purchase but excluding the date of disposition. With respect to each such Regular Certificate, a calculation will be made of the OID that accrues during each successive full accrual period that ends on the day prior to each distribution date with respect to the Regular Certificate. The OID accruing in a full accrual period will be the excess, if any, of (i) the sum of (a) the present value of all of the remaining distributions to be made on the Regular Certificate as of the end of that accrual period based on the Prepayment Assumption and (b) the distributions made on the Regular Certificate during the accrual period that are included in the Regular Certificate’s stated redemption price at maturity, over (ii) the adjusted issue price of the Regular Certificate at the beginning of the accrual period. The present value of the remaining distributions referred to in the preceding sentence is calculated based on (i) the yield to maturity of the Regular Certificate as of the Startup Day, (ii) events (including actual prepayments) that have occurred prior to the end of the accrual period and (iii) the assumption that the remaining payments will be made in accordance with the original Prepayment Assumption. For these purposes, the adjusted issue price of a Regular Certificate at the beginning of any accrual period equals the issue price of the Regular Certificate, increased by the aggregate amount of OID with respect to the Regular Certificate that accrued in all prior accrual periods and reduced by the amount of distributions included in the Regular Certificate’s stated redemption price at maturity that were made on the Regular Certificate that were attributable to such prior periods. The OID accruing during any accrual period (as determined in this paragraph) will then be divided by the number of days in the period to determine the daily portion of OID for each day in the period. The OID allocable to the short first accrual period will be computed based on the exact method.

Under the method described above, the daily portions of OID required to be included as ordinary income by a Certificateholder generally will increase to take into account prepayments on the related Regular Certificate as a result of prepayments on the underlying mortgage loans. Due to the unique nature of interest-only Regular Certificates, the preceding sentence may not apply in the case of the class X1, XAM or X3 certificates.

Acquisition Premium. A purchaser of a Regular Certificate at a price greater than its adjusted issue price and less than its remaining stated redemption price at maturity will be required to include in gross income the daily portions of the OID on the Regular Certificate reduced *pro rata* by a fraction, the numerator of which is the excess of its purchase price over such adjusted issue price and the denominator of which is the excess of the remaining stated redemption price at maturity over the adjusted issue price. Alternatively, such a purchaser may elect to treat all such acquisition premium under the constant yield method, as described below under the heading “—Election to Treat All Interest Under the Constant Yield Method” below.

Market Discount. A purchaser of a Regular Certificate also may be subject to the market discount rules of Code Sections 1276 through 1278. Under these Code sections and the principles applied by the OID Regulations in the context of OID, “market discount” is the amount by which the purchaser’s original basis in the Regular Certificate (i) is exceeded by the remaining outstanding principal payments and non-qualified stated interest payments due on a Regular Certificate, or (ii) in the case of a Regular Certificate having OID, is exceeded by the adjusted issue price of such Regular Certificate at the time of purchase. Such purchaser generally will be required to recognize ordinary income to the extent of accrued market discount on such Regular Certificate as distributions includible in the stated redemption price at maturity of such Regular Certificate are received, in an amount not exceeding any such

distribution. Such market discount would accrue in a manner to be provided in Treasury Regulations and should take into account the Prepayment Assumption. The Conference Committee Report to the 1986 Act provides that until such regulations are issued, such market discount would accrue, at the election of the Certificateholder, either (i) on the basis of a constant interest rate or (ii) in the ratio of interest accrued for the relevant period to the sum of the interest accrued for such period plus the remaining interest after the end of such period, or, in the case of classes issued with OID, in the ratio of OID accrued for the relevant period to the sum of the OID accrued for such period plus the remaining OID after the end of such period. Such purchaser also generally will be required to treat a portion of any gain on a sale or exchange of the Regular Certificate as ordinary income to the extent of the market discount accrued to the date of disposition under one of these methods, less any accrued market discount previously reported as ordinary income as partial distributions in reduction of the stated redemption price at maturity were received. Such purchaser will be required to defer deduction of a portion of the excess of the interest paid or accrued on indebtedness incurred to purchase or carry the Regular Certificate over the interest (including OID) distributable on such Regular Certificate. The deferred portion of such interest expense in any taxable year generally will not exceed the accrued market discount on the Regular Certificate for such year. Any such deferred interest expense is, in general, allowed as a deduction not later than the year in which the related market discount income is recognized or the Regular Certificate is disposed of. As an alternative to the inclusion of market discount in income on this basis, the Certificateholder may elect to include market discount in income currently as it accrues on all market discount instruments acquired by such Certificateholder in that taxable year or thereafter, in which case the interest deferral rule will not apply. See “—Election to Treat All Interest Under the Constant Yield Method” below regarding an alternative manner in which such election may be deemed to be made.

Market discount with respect to a Regular Certificate will be considered to be zero if such market discount is less than 0.2500% of the remaining stated redemption price at maturity of such Regular Certificate multiplied by the weighted average maturity of the Regular Certificate remaining after the date of purchase. For this purpose, the weighted average maturity is determined by multiplying the number of full years (*i.e.*, rounding down partial years) from the Closing Date until each distribution in reduction of stated redemption price at maturity is scheduled to be made by a fraction, the numerator of which is the amount of each such distribution included in the stated redemption price at maturity of the Regular Certificate and the denominator of which is the total stated redemption price at maturity of the Regular Certificate. It appears that *de minimis* market discount would be reported *pro rata* as principal payments are received. Treasury Regulations implementing the market discount rules have not yet been issued, and investors should therefore consult their own tax advisors regarding the application of these rules as well as the advisability of making any of the elections with respect to any market discount. Investors should also consult Revenue Procedure 92-67 concerning the elections to include market discount in income currently and to accrue market discount on the basis of the constant yield method.

Premium. A Regular Certificate purchased upon initial issuance or in the secondary market at a cost greater than its remaining stated redemption price at maturity generally is considered to be purchased at a premium. If the Certificateholder holds such Regular Certificate as a “capital asset” within the meaning of Code Section 1221, the Certificateholder may elect under Code Section 171 to amortize such premium under the constant yield method. Final Treasury Regulations under Code Section 171 do not, by their terms, apply to prepayable obligations such as the Regular Certificates. However, the Conference Committee Report to the 1986 Act indicates a Congressional intent that the same rules that will apply to the accrual of market discount on installment obligations will also apply to amortizing bond premium under Code Section 171 on installment obligations such as the Regular Certificates, although it is unclear whether the alternatives to the constant interest method described above under “—Market Discount” are available. Amortizable bond premium will be treated as an offset to interest income on a Regular Certificate rather than as a separate deduction item. See “—Election to Treat All Interest Under the Constant Yield Method” below regarding an alternative manner in which the Code Section 171 election may be deemed to be made. Based on the foregoing, it is anticipated that the class A-1, A-2 and A-M certificates will be issued at a premium. Because the stated redemption price at maturity of the class X1, XAM and X3 certificates will include all anticipated distributions of interest on such class, it is unlikely that such classes could be purchased at a premium.

Election to Treat All Interest Under the Constant Yield Method. A Holder of a debt instrument such as a Regular Certificate may elect to treat all interest that accrues on the instrument using the constant yield method, with none of the interest being treated as qualified stated interest. For purposes of applying the constant yield method to a debt instrument subject to such an election, (i) “interest” includes stated interest, OID, *de minimis* OID, market discount and *de minimis* market discount, as adjusted by any amortizable bond premium or acquisition premium and

(ii) the debt instrument is treated as if the instrument were issued on the Holder's acquisition date in the amount of the Holder's adjusted basis immediately after acquisition. A Holder generally may make such an election on an instrument-by-instrument basis or for a class or group of debt instruments. However, if the Holder makes such an election with respect to a debt instrument with amortizable bond premium or with market discount, the Holder is deemed to have made elections to amortize bond premium or to report market discount income currently as it accrues under the constant yield method, respectively, for all premium bonds held or acquired or market discount bonds acquired by the Holder on the first day of the taxable year of the election or thereafter. The election is made on the Holder's federal income tax return for the year in which the debt instrument is acquired and is irrevocable except with the approval of the IRS. Investors should consult their own tax advisors regarding the advisability of making such an election.

Treatment of Losses. Holders of the Regular Certificates will be required to report income with respect to them on the accrual method of accounting, without giving effect to delays or reductions in distributions attributable to a default or delinquency on the underlying mortgage loan, except to the extent it can be established that such losses are uncollectible. Accordingly, the Holder of a Regular Certificate may have income, or may incur a diminution in cash flow as a result of a default or delinquency, but may not be able to take a deduction (subject to the discussion below) for the corresponding loss until a subsequent taxable year. In this regard, investors are cautioned that while they generally may cease to accrue interest income if it reasonably appears that the interest will be uncollectible, the IRS may take the position that OID must continue to be accrued in spite of its uncollectibility until the debt instrument is disposed of in a taxable transaction or becomes worthless in accordance with the rules of Code Section 166. Under Code Section 166, Certificateholders that are corporations or that otherwise hold the Regular Certificates in connection with a trade or business should in general be allowed to deduct as an ordinary loss any such loss sustained during the taxable year on account of any such Regular Certificates becoming wholly or partially worthless, and, in general, Certificateholders that are not corporations and do not hold the Regular Certificates in connection with a trade or business will be allowed to deduct as a short-term capital loss any loss with respect to principal sustained during the taxable year on account of any class of such Regular Certificates becoming wholly worthless. Although the matter is not free from doubt, such non-corporate Certificateholders should be allowed a bad debt deduction at such time as the outstanding principal balance of any class of such Regular Certificates is reduced to reflect losses resulting from liquidation of the related underlying mortgage loan to the extent the outstanding principal balance of such Regular Certificate is reduced below the Certificateholder's basis in such Regular Certificate. Notwithstanding the foregoing, Holders of class X1, XAM or X3 certificates may not be entitled to a bad debt loss under Code Section 166. The IRS could also assert that losses on a class of Regular Certificates are deductible based on some other method, such as reducing future cash flow for purposes of computing OID. This may have the effect of creating "negative" OID which, with the possible exception of the method discussed in the following sentence, would be deductible only against future positive OID or otherwise upon termination of the applicable class. Although not free from doubt, a Certificateholder with negative OID may be entitled to deduct a loss to the extent that its remaining basis would exceed the maximum amount of future payments to which such Holder was entitled, assuming no further prepayments. Certificateholders are urged to consult their own tax advisors regarding the appropriate timing, amount and character of any loss sustained with respect to such Regular Certificates. Special loss rules are applicable to banks and thrift institutions, including rules regarding reserves for bad debts. Such taxpayers are advised to consult their tax advisors regarding the treatment of losses on the Regular Certificates.

Sale or Exchange of Regular Certificates. If a Certificateholder sells or exchanges a Regular Certificate, the Certificateholder will recognize gain or loss equal to the difference, if any, between the amount received and its adjusted basis in the Regular Certificate. The adjusted basis of a Regular Certificate generally will equal the cost of the Regular Certificate to the seller, increased by any OID, market discount or other amounts previously included in the seller's gross income with respect to the Regular Certificate and reduced by amounts included in the stated redemption price at maturity of the Regular Certificate that were previously received by the seller, by any amortized premium, and by any deductible losses on such Regular Certificate.

Except as described above with respect to market discount, and except as provided in this paragraph, any gain or loss on the sale or exchange of a Regular Certificate realized by an investor who holds the Regular Certificate as a capital asset will be capital gain or loss and will be long-term or short-term depending on whether the Regular Certificate has been held for the long-term capital gain holding period (currently more than one year). Such gain will be treated as ordinary income (i) if the Regular Certificate is held as part of a "conversion transaction" as defined in

Code Section 1258(c), up to the amount of interest that would have accrued on the Certificateholder's net investment in the conversion transaction at 120% of the appropriate applicable Federal rate under Code Section 1274(d) in effect at the time the taxpayer entered into the transaction minus any amount previously treated as ordinary income with respect to any prior disposition of property that was held as part of such transaction, (ii) in the case of a noncorporate taxpayer, to the extent such taxpayer has made an election under Code Section 163(d)(4) to have net capital gains taxed as investment income at ordinary income rates, or (iii) to the extent that such gain does not exceed the excess, if any, of (a) the amount that would have been includible in the gross income of the Holder if his yield on such Regular Certificate were 110% of the applicable federal rate as of the date of purchase, over (b) the amount of income actually includible in the gross income of such Holder with respect to the Regular Certificate. In addition, gain or loss recognized from the sale of a Regular Certificate by certain banks or thrift institutions will be treated as ordinary income or loss pursuant to Code Section 582(c). Long-term capital gains of individuals are taxed at a lower rate than ordinary income and short-term capital gains. Tax rates of corporations are the same for capital gains and ordinary income, but their capital losses may be offset only against capital gains.

Taxation of Static Prepayment Premiums and Yield Maintenance Charges

A portion of certain Static Prepayment Premiums and Yield Maintenance Charges actually collected on the underlying mortgage loans will be distributed to the offered certificates as and to the extent described in this information circular. It is not entirely clear under the Code when the amount of Static Prepayment Premiums or Yield Maintenance Charges should be taxed to the Holder entitled to that amount. For federal income tax reporting purposes, the certificate administrator will report the applicable Static Prepayment Premiums or Yield Maintenance Charges as income to the Holders of the offered certificates entitled to such amounts only after the master servicer's actual receipt of those amounts. The IRS may nevertheless seek to require that an assumed amount of such Static Prepayment Premiums or Yield Maintenance Charges be included in payments projected to be made on the offered certificates and that the taxable income be reported based on a projected constant yield to maturity. Therefore, the projected Static Prepayment Premiums or Yield Maintenance Charges would be included prior to their actual receipt by Holders of the offered certificates. If the projected Static Prepayment Premiums or Yield Maintenance Charges were not actually received, presumably the Holder of an offered certificate would be allowed to claim a deduction or reduction in gross income at the time the unpaid Static Prepayment Premiums or Yield Maintenance Charges had been projected to be received. Moreover, it appears that Static Prepayment Premiums and Yield Maintenance Charges are to be treated as ordinary income rather than capital gain. However, the correct characterization of the income is not entirely clear. We recommend that Holders of offered certificates consult their own tax advisors concerning the treatment of Static Prepayment Premiums and Yield Maintenance Charges.

Taxes That May Be Imposed on a REMIC

Prohibited Transactions. Income from certain transactions by a REMIC, called "prohibited transactions," will not be part of the calculation of income or loss includible in the federal income tax, but rather will be taxed directly to the REMIC at a 100% rate. Prohibited transactions generally include (i) the disposition of a qualified mortgage other than for (a) substitution within two years of the Startup Day for a defective (including a defaulted) obligation or repurchase in lieu of substitution of a defective (including a defaulted) obligation at any time or for any qualified mortgage within three months of the Startup Day, (b) foreclosure, default, or imminent default of a qualified mortgage, (c) bankruptcy or insolvency of the REMIC, or (d) a qualified (complete) liquidation, (ii) the receipt of income from assets that are not the type of mortgages or investments that the REMIC is permitted to hold, (iii) the receipt of compensation for services, or (iv) the receipt of gain from disposition of cash flow investments other than pursuant to a qualified liquidation. Notwithstanding clauses (i) and (iv) above, it is not a prohibited transaction to sell REMIC property to prevent a default on regular interests as a result of a default on qualified mortgages or to facilitate a qualified liquidation or a clean-up call. The REMIC Regulations indicate that the modification of a mortgage loan generally will not be treated as a disposition if it is occasioned by a default or reasonably foreseeable default, an assumption of a mortgage loan, or the waiver of a due-on-sale or due-on-encumbrance clause. It is not anticipated that either of the Trust REMICs will engage in any prohibited transactions.

Contributions to a REMIC After the Startup Day. In general, a REMIC will be subject to a tax at a 100% rate on the value of any property contributed to the REMIC after the Startup Day. Exceptions are provided for cash contributions to the REMIC (i) during the three months following the Startup Day, (ii) made to a qualified reserve fund by a holder of a residual interest, (iii) in the nature of a guarantee, (iv) made to facilitate a qualified liquidation

or clean-up call, and (v) as otherwise permitted in Treasury Regulations yet to be issued. It is not anticipated that there will be any taxable contributions to either of the Trust REMICs.

Net Income from Foreclosure Property. The Lower-Tier REMIC will be subject to federal income tax at the corporate rate on “net income from foreclosure property,” determined by reference to the rules applicable to real estate investment trusts. Generally, property acquired by foreclosure or deed-in-lieu of foreclosure would be treated as “foreclosure property” until the close of the third calendar year beginning after the Lower-Tier REMIC’s acquisition of a mortgaged real property, with a possible extension. Net income from foreclosure property generally means gain from the sale of a foreclosure property that is inventory property and gross income from foreclosure property other than qualifying rents and other qualifying income for a real estate investment trust.

In order for a mortgaged real property to qualify as foreclosure property, any operation of the mortgaged real property by the Lower-Tier REMIC generally must be conducted through an independent contractor. Further, such operation, even if conducted through an independent contractor, may give rise to “net income from foreclosure property,” taxable at the corporate rate. Payment of such tax by the Lower-Tier REMIC would reduce amounts available for distribution to Certificateholders.

The special servicer is required to determine generally that the operation of foreclosure property in a manner that would subject the Lower-Tier REMIC to such tax would be expected to result in higher after-tax proceeds than an alternative method of operating such property that would not subject the Lower-Tier REMIC to such tax.

Bipartisan Budget Act of 2015. The Bipartisan Budget Act of 2015 (the “2015 Budget Act”), which was enacted on November 2, 2015, includes new audit rules affecting entities treated as partnerships, their partners and the persons that are authorized to represent entities treated as partnerships in IRS audits and related procedures. Under the 2015 Budget Act, these rules will also apply to REMICs, the holders of their residual interests and the trustees or administrators authorized to represent REMICs in IRS audits and related procedures.

In addition to other changes, under the 2015 Budget Act, unless a REMIC elects otherwise, taxes arising from IRS audit adjustments are required to be paid by the REMIC rather than by its residual interest holders. The certificate administrator will have the authority to utilize, and will be directed to utilize, any exceptions available under the new provisions (including any changes) and Treasury Regulations so that Holders of the class R certificates, to the fullest extent possible, rather than any Trust REMIC itself, will be liable for any taxes arising from audit adjustments to the Trust REMIC’s taxable income. It is unclear how any such exceptions may affect the procedural rules available to challenge any audit adjustment that would otherwise be available in the absence of any such exceptions. Investors should consult their own tax advisors regarding the application of the 2015 Budget Act.

Taxation of Certain Foreign Investors

General. Interest, including OID, distributable to beneficial owners of Regular Certificates who are nonresident aliens, foreign corporations, or other non-U.S. Persons (*i.e.*, any person who is not a “U.S. Person,” as defined in the next paragraph), will be considered “portfolio interest” and, therefore, generally will not be subject to 30% United States withholding tax, *provided* that such non-U.S. Person (i) is not a “10-percent shareholder” within the meaning of Code Section 871(h)(3)(B), or a controlled foreign corporation described in Code Section 881(c)(3)(C) related to, a REMIC (or possibly one or more borrowers) and (ii) provides the certificate administrator, or the person who would otherwise be required to withhold tax from such distributions under Code Section 1441 or 1442, with an appropriate statement, signed under penalties of perjury, identifying the beneficial owner and stating, among other things, that the beneficial owner of the Regular Certificate is a non-U.S. Person. The appropriate documentation includes IRS Form W-8BEN-E or IRS Form W-8BEN, if the non-U.S. Person is an entity (such as a corporation) or individual, respectively, eligible for the benefits of the portfolio interest exemption or an exemption based on a treaty; IRS Form W-8ECI if the non-U.S. Person is eligible for an exemption on the basis of its income from the Regular Certificate being effectively connected to a United States trade or business; IRS Form W-8BEN-E or IRS Form W-8IMY if the non-U.S. Person is a trust, depending on whether such trust is classified as the beneficial owner of the Regular Certificate; and IRS Form W-8IMY, with supporting documentation as is specified in the Treasury Regulations, required to substantiate exemptions from withholding on behalf of its partners, if the non-U.S. Person is a partnership. An intermediary (other than a partnership) must provide IRS Form W-8IMY, revealing all required information, including its name, address, taxpayer identification number, the country under the laws of which it is created, and certification that it is not acting for its own account. A “qualified intermediary” must certify

that it has provided, or will provide, a withholding statement as required under Treasury Regulations Section 1.1441-1(e)(5)(v), but need not disclose the identity of its account holders on its IRS Form W-8IMY, and may certify its account holders' status without including each beneficial owner's certification. A "non-qualified intermediary" must additionally certify that it has provided, or will provide, a withholding statement that is associated with the appropriate IRS Forms W-8 and W-9 required to substantiate exemptions from withholding on behalf of its beneficial owners. The term "intermediary" means a person acting as a custodian, a broker, nominee or otherwise as an agent for the beneficial owner of a Regular Certificate. A "qualified intermediary" is generally a foreign financial institution or clearing organization or a non-U.S. branch or office of a U.S. financial institution or clearing organization that is a party to a withholding agreement with the IRS.

If such statement, or any other required statement, is not provided, 30% withholding will apply unless interest on the Regular Certificate is effectively connected with the conduct of a trade or business within the United States by such non-U.S. Person. In that case, such non-U.S. Person will be subject to U.S. federal income tax at regular rates. The term "U.S. Person" means a citizen or resident of the United States, a corporation or partnership created or organized in or under the laws of the United States, any State in the United States or the District of Columbia, including an entity treated as a corporation or partnership for U.S. federal income tax purposes, an estate whose income is subject to U.S. federal income tax regardless of its source, or a trust if a court within the United States is able to exercise primary supervision over the administration of such trust, and one more such U.S. Persons have the authority to control all substantial decisions of such trust (or, to the extent provided in applicable Treasury Regulations, certain trusts in existence on August 20, 1996 that have elected to be treated as U.S. Persons).

FATCA

Under the "Foreign Account Tax Compliance Act" ("FATCA") provisions of the Hiring Incentives to Restore Employment Act, a 30% withholding tax is generally imposed on certain payments, including U.S.-source interest, to "foreign financial institutions" and certain other foreign financial entities if those foreign entities fail to comply with the requirements of FATCA. The certificate administrator will be required to withhold amounts under FATCA on payments made to Certificateholders who are subject to the FATCA requirements and who fail to provide the certificate administrator with proof that they have complied with such requirements. Prospective investors should consult their tax advisors regarding the applicability of FATCA to their Regular Certificates.

Backup Withholding

Distributions made on the Regular Certificates, and proceeds from the sale of the Regular Certificates to or through certain brokers may be subject to a "backup" withholding tax under Code Section 3406 on "reportable payments" (including interest distributions, OID, and, under certain circumstances, principal distributions) unless the Certificateholder is a U.S. Person and provides IRS Form W-9 with the correct taxpayer identification number; is a non-U.S. Person and provides IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable, identifying the non-U.S. Person and stating that the beneficial owner is not a U.S. Person; or can be treated as an exempt recipient within the meaning of Treasury Regulations Section 1.6049-4(c)(1)(ii). Any amounts withheld from distribution on the Regular Certificates would be refunded by the IRS or allowed as a credit against the Certificateholder's federal income tax liability. Information reporting requirements may also apply regardless of whether withholding is required. Investors are urged to contact their own tax advisors regarding the application to them of backup withholding and information reporting.

3.8% Medicare Tax on "Net Investment Income"

Certain non-corporate U.S. Persons will be subject to an additional 3.8% tax on all or a portion of their "net investment income," which may include the interest payments and any gain realized with respect to the Regular Certificates, to the extent of their net investment income that, when added to their other modified adjusted gross income, exceeds \$200,000 for an unmarried individual, \$250,000 for a married taxpayer filing a joint return (or a surviving spouse), or \$125,000 for a married individual filing a separate return. The 3.8% Medicare tax is determined in a different manner than the regular income tax. U.S. Persons should consult their tax advisors with respect to their consequences with respect to the 3.8% Medicare tax.

Reporting and Administrative Requirements

Reports of accrued interest, OID, if any, and information necessary to compute the accrual of any market discount on the Regular Certificates will be made annually to the IRS and to individuals, estates, non-exempt and non-charitable trusts, and partnerships who are either Holders of record of Regular Certificates or beneficial owners who own Regular Certificates through a broker or middleman as nominee. All brokers, nominees and all other non-exempt Holders of record of Regular Certificates (including corporations, non-calendar year taxpayers, securities or commodities dealers, real estate investment trusts, investment companies, common trust funds, thrift institutions and charitable trusts) may request such information for any calendar quarter by telephone or in writing by contacting the person designated in IRS Publication 938 with respect to the related REMIC. Holders through nominees must request such information from the nominee.

Treasury Regulations require that information be furnished annually to Holders of Regular Certificates and filed annually with the IRS concerning the percentage of each Trust REMIC's assets meeting the qualified asset tests described above under "—Status of Regular Certificates."

DUE TO THE COMPLEXITY OF THESE RULES AND THE CURRENT UNCERTAINTY AS TO THE MANNER OF THEIR APPLICATION TO THE ISSUING ENTITY AND CERTIFICATEHOLDERS, IT IS PARTICULARLY IMPORTANT THAT POTENTIAL INVESTORS CONSULT THEIR OWN TAX ADVISORS REGARDING THE TAX TREATMENT OF THEIR ACQUISITION, OWNERSHIP AND DISPOSITION OF THE CERTIFICATES.

STATE AND OTHER TAX CONSIDERATIONS

In addition to the federal income tax consequences described in "Certain Federal Income Tax Consequences," potential investors should consider the state, local and other income tax consequences of the acquisition, ownership, and disposition of the certificates. State and local income tax law may differ substantially from the corresponding federal law, and this discussion does not purport to describe any aspect of the income tax laws of any state, local or other jurisdiction. Therefore, potential investors should consult their own tax advisors with respect to the various tax consequences of investments in the certificates.

USE OF PROCEEDS

We will use the net proceeds from the sale of the offered certificates to pay part of the purchase price of the underlying mortgage loans.

PLAN OF DISTRIBUTION

Subject to the terms and conditions of a certificate purchase agreement, we have agreed to sell to Freddie Mac the offered certificates and Freddie Mac has agreed to purchase the offered certificates from us. Freddie Mac intends to include the offered certificates in pass-through pools that it will form for its SPCs.

LEGAL MATTERS

The validity of the offered certificates and certain federal income tax matters will be passed upon for us by Cadwalader, Wickersham & Taft LLP. Cadwalader, Wickersham & Taft LLP also regularly provides legal representation to Freddie Mac.

RATINGS

It is a condition to the issuance of the certificates that the class A-1, A-2, A-M, X1, X2-A, XAM, X2-B, B and C certificates (referred to in this information circular as the “rated certificates”) receive the following credit ratings from the Rating Agencies:

Class of Certificates	Ratings ⁽¹⁾ (Fitch / KBRA) ⁽²⁾	Unenhanced Ratings Excluding Freddie Mac Guarantee ⁽³⁾ (Fitch / KBRA) ⁽²⁾
Class A-1	AAAsf / AAA(sf)	AAAsf / AAA(sf)
Class A-2	AAAsf / AAA(sf)	AAAsf / AAA(sf)
Class A-M	AAAsf / A+(sf)	A+sf / A+(sf)
Class X1	AAAsf / AAA(sf)	AAAsf / AAA(sf)
Class X2-A	AAAsf / AAA(sf)	AAAsf / AAA(sf)
Class XAM	AAAsf / AAA(sf)	A+sf / AAA(sf)
Class X2-B	NR ⁽⁴⁾ / AAA(sf)	NR ⁽⁴⁾ / AAA(sf)
Class B	BBB+sf / BBB+(sf)	BBB+sf / BBB+(sf)
Class C	BBB-sf / BBB-(sf)	BBB-sf / BBB-(sf)

- (1) The Ratings column, in the case of the Fitch ratings, sets forth the ratings that are expected to be issued, which take into account the Freddie Mac Guarantee in the case of the offered certificates. The Ratings column, in the case of the KBRA ratings, sets forth the ratings that are expected to be issued, which do not take into account the Freddie Mac Guarantee in the case of the offered certificates.
- (2) Fitch and KBRA have informed us that the “sf” designation in the ratings represents an identifier of structured finance product ratings. For additional information about this identifier, prospective investors can go to www.fitchratings.com and www.krollbondratings.com. Neither the depositor nor Freddie Mac has verified, adopts or accepts responsibility for any statements made by the Rating Agencies on their websites.
- (3) The Unenhanced Ratings Excluding Freddie Mac Guarantee column sets forth the ratings that are expected to be issued by Fitch and KBRA, based on the underlying creditworthiness of the certificates, without taking into account the Freddie Mac Guarantee in the case of the offered certificates.
- (4) The class X2-B certificates will not be rated by Fitch.

The assigned ratings will be subject to ongoing monitoring, upgrades, downgrades, withdrawals and surveillance by the assigning Rating Agency after the date of issuance of such certificates. Although the depositor will prepay fees for ongoing ratings surveillance by the Rating Agencies, the depositor has no obligation or ability to ensure that any Rating Agency performs rating surveillance. In addition, a Rating Agency may cease rating surveillance if the information furnished to that Rating Agency is insufficient to allow it to perform rating surveillance.

The ratings address the likelihood of the timely receipt of distributions of interest to which the holders of the rated certificates are entitled and, with respect to the classes of rated certificates entitled to principal distributions, the ultimate distribution of principal by the Rated Final Distribution Date, and in the case of the Fitch ratings of the offered certificates set forth in the table above in the Ratings (Fitch / KBRA) column, take into account the Freddie Mac Guarantee. The ratings of the rated certificates should be evaluated independently from similar ratings on other types of securities. The ratings are not a recommendation to buy, sell or hold securities, a measure of asset value or an indication of the suitability of an investment and may be subject to revision or withdrawal at any time by the Rating Agencies.

Without taking into account the Freddie Mac Guarantee in the case of the offered certificates, the ratings address the likelihood of the timely receipt of distributions of interest to which the holders of the rated certificates are entitled and, with respect to the classes of rated certificates entitled to principal distributions, the ultimate distribution of principal by the Rated Final Distribution Date. The ratings of the rated certificates should be evaluated independently from similar ratings on other types of securities. The ratings are not a recommendation to buy, sell or hold securities, a measure of asset value or an indication of the suitability of an investment and may be subject to revision or withdrawal at any time by the Rating Agencies.

In addition, these ratings do not address: (i) the likelihood, timing, or frequency of prepayments (both voluntary and involuntary) and their impact on interest payments or the degree to which such prepayments might differ from those originally anticipated, (ii) the possibility that a certificateholder might suffer a lower than anticipated yield,

(iii) the likelihood of receipt of prepayment charges, assumption fees, prepayment premiums, yield maintenance charges, prepayment fees or penalties, Default Interest or post-anticipated repayment date additional interest, (iv) the likelihood of experiencing prepayment interest shortfalls, an assessment of whether or to what extent the interest payable on any class of rated certificates may be reduced in connection with any prepayment interest shortfalls, or of receiving compensating interest payments, (v) the tax treatment of the rated certificates or the effect of taxes on the payments received, (vi) the likelihood or willingness of the parties to the respective documents to meet their contractual obligations or the likelihood or willingness of any party or court to enforce, or hold enforceable, the documents in whole or in part, (vii) an assessment of the yield to maturity that investors may experience, (viii) the likelihood, timing or receipt of any payments of interest to the holders of the rated certificates resulting from an increase in the interest rate on any underlying mortgage loan in connection with a mortgage loan modification, waiver or amendment or (ix) other non-credit risks, including, without limitation, market risks or liquidity.

The ratings take into consideration the credit quality of the mortgaged real properties and the underlying mortgage loans, structural and legal aspects associated with the rated certificates, certain credit risks and the extent to which payments on the underlying mortgage loans are adequate to make payments required with respect to the rated certificates. However as noted above, the ratings do not represent an assessment of the likelihood, timing or frequency of principal prepayments (both voluntary and involuntary) by mortgagors, or the degree to which such prepayments might differ from those originally anticipated. In general, the ratings address credit risk and not prepayment risk. In addition, the ratings do not represent an assessment of the yield to maturity that investors may experience or the possibility that the certificateholders of the class X1, X2-A, XAM and X2-B certificates might not fully recover their initial investment in the event of delinquencies or defaults or rapid prepayments on the underlying mortgage loans (including both voluntary and involuntary prepayments) or the application of any Realized Losses.

The class X1, X2-A, XAM and X2-B certificates are only entitled to distributions of interest and, to the extent specified in this information circular, Static Prepayment Premiums and Yield Maintenance Charges. In the event that holders of class X1, X2-A, XAM and X2-B certificates do not fully recover their investment as a result of rapid principal prepayments on the underlying mortgage loans, all amounts “due” to such holders will nevertheless have been paid, and such result is consistent with the ratings received on the class X1, X2-A, XAM and X2-B certificates. For example, if the underlying mortgage loans were to prepay in the initial month following the Closing Date, holders of the class X1, X2-A, XAM and X2-B certificates would receive only a single month’s interest, and therefore would suffer a nearly complete loss of their investment. The notional amounts of the class X1, X2-A, XAM and X2-B certificates on which interest is calculated will be reduced by the allocation of Realized Losses and prepayments, whether voluntary or involuntary, to the classes of Principal Balance Certificates from which their respective notional amounts are derived. The ratings do not address the timing or magnitude of reductions of such notional amounts, but only the obligation to pay interest timely on the notional amounts as so reduced from time to time. Therefore, the ratings of the class X1, X2-A, XAM and X2-B certificates should be evaluated independently from similar ratings on other types of securities.

Other NRSROs that we have not engaged to rate the rated certificates may issue unsolicited credit ratings on one or more classes of certificates, relying on information they receive pursuant to Rule 17g-5 or otherwise. If any such unsolicited ratings are issued, we cannot assure you that they will not be different from the ratings assigned by the Rating Agencies, and if lower than the Rating Agencies’ ratings, whether such unsolicited ratings will have an adverse impact on the liquidity, market value and regulatory characteristics of such certificates. In addition, a rating of any class of the rated certificates below an investment grade by either Rating Agency or another NRSRO, whether initially or as a result of a ratings downgrade, could affect the ability of a benefit plan or other investor to purchase or retain that class. Further, a determination by the SEC that either or both of the Rating Agencies no longer qualifies as an NRSRO or is no longer qualified to rate the rated certificates, could adversely impact the liquidity, market value and regulatory characteristics of the rated certificates.

The class X3 and D certificates will not be rated by either Rating Agency or another NRSRO (unless an NRSRO issues an unsolicited rating), which may adversely affect the ability of an investor to purchase or retain, or otherwise impact the liquidity, market value and regulatory characteristics of such classes.

GLOSSARY

The following capitalized terms will have the respective meanings assigned to them in this “Glossary” section whenever they are used in this information circular, including in any of the exhibits to this information circular.

“30/360 Basis” means the accrual of interest based on a 360-day year consisting of 12 months each consisting of 30 days.

“Accepted Servicing Practices” means servicing and administering the underlying mortgage loans and/or REO Properties:

- (i) (a) in the same manner in which, and with the same care, skill, prudence and diligence with which the master servicer or the special servicer, as the case may be, services and administers similar mortgage loans for other third party portfolios, giving due consideration to the customary and usual standards of practice of prudent institutional commercial and multifamily mortgage loan servicers servicing mortgage loans for third parties, which includes for purposes of this clause (a), Freddie Mac Servicing Practices and (b) with the same care, skill, prudence and diligence with which the master servicer or the special servicer, as the case may be, services and administers similar commercial and multifamily mortgage loans owned by it, whichever is higher;
- (ii) with a view to the timely collection of all scheduled payments of principal and interest under the underlying mortgage loans and, in the case of the special servicer, if an underlying mortgage loan comes into and continues in default and if, in the judgment of the special servicer, no satisfactory arrangements can be made for the collection of the delinquent payments, the maximization of the recovery on that underlying mortgage loan to the certificateholders (as a collective whole), on a net present value basis; but
- (iii) without regard to—
 - (a) any relationship that the master servicer or the special servicer, as the case may be, or any of their affiliates may have with the related borrower, the mortgage loan seller or any other party to the Pooling and Servicing Agreement,
 - (b) the ownership of any certificate or any subordinate debt by the master servicer or the special servicer, as the case may be, or by any of their affiliates,
 - (c) the master servicer’s obligation to make advances,
 - (d) the special servicer’s obligation to request that the master servicer make Servicing Advances,
 - (e) the right of the master servicer or the special servicer, as the case may be, or any of their affiliates, to receive reimbursement of costs, or the sufficiency of any compensation payable to it, or with respect to any particular transaction,
 - (f) any potential conflict of interest arising from the ownership, servicing or management for others of any other mortgage loans or mortgaged real properties by the master servicer or the special servicer, as the case may be, or any affiliate of the master servicer or the special servicer, as applicable,
 - (g) any obligation of the master servicer (in its capacity as an Originator, if applicable) to cure a breach of a representation or warranty or repurchase the underlying mortgage loan,
 - (h) any debt extended to the borrower or any of its affiliates by the master servicer or the special servicer, as the case may be, or any of their affiliates, or
 - (i) the right of the master servicer or the special servicer, as the case may be, to exercise any purchase option as described in “The Pooling and Servicing Agreement—Termination” in this information circular.

Unless otherwise specified in the Pooling and Servicing Agreement, all net present value calculations and determinations made pursuant to the Pooling and Servicing Agreement with respect to the underlying mortgage loans or a mortgaged real property or REO Property (including for purposes of the definition of Accepted Servicing Practices) will be made in accordance with the loan documents or, in the event the loan documents are silent, using a

discount rate appropriate for the type of cash flows being discounted, namely (i) for principal and interest payments on an underlying mortgage loan or the sale of a Defaulted Loan, the applicable mortgage interest rate and (ii) for all other cash flows, including property cash flow, the “discount rate” set forth in the most recent related appraisal (or update of such appraisal).

“Actual/360 Basis” means the accrual of interest based on the actual number of days elapsed during each one-month accrual period in a year assumed to consist of 360 days.

“Additional Issuing Entity Expense” means an expense (other than master servicer surveillance fees, special servicer surveillance fees, master servicing fees, sub-servicing fees, certificate administrator fees, trustee fees, the Guarantee Fee and CREFC® Intellectual Property Royalty License Fees) of the issuing entity that—

- (i) arises out of a default on an underlying mortgage loan or an otherwise unanticipated event affecting the issuing entity, whether or not related to a particular underlying mortgage loan;
- (ii) is not covered by a Servicing Advance, a corresponding collection from the related borrower or indemnification from another person; and
- (iii) to the extent that it is allocable to a particular underlying mortgage loan, is not covered by late payment charges or Default Interest collected on that underlying mortgage loan.

We provide some examples of Additional Issuing Entity Expenses under “Description of the Certificates—Reductions of Certificate Principal Balances in Connection with Realized Losses and Additional Issuing Entity Expenses” in this information circular.

“Affiliated Borrower Loan” means any underlying mortgage loan with respect to which the directing certificateholder, any of its managing members or any of its affiliates becomes or is the related borrower (or any proposed replacement borrower) or any Restricted Mezzanine Holder or any such party becomes aware that the directing certificateholder, any of its managing members or any of its affiliates is an affiliate of any borrower (or any proposed replacement borrower) or any Restricted Mezzanine Holder.

“Affiliated Borrower Loan Directing Certificateholder” means the special servicer or, if the related Affiliated Borrower Loan is also an Affiliated Borrower Special Servicer Loan, the Affiliated Borrower Special Servicer.

“Affiliated Borrower Loan Event” means an event that will exist with respect to any underlying mortgage loan if at any time the directing certificateholder, any of its managing members or any of its affiliates becomes or is the related borrower (or any proposed replacement borrower) or any Restricted Mezzanine Holder or becomes aware that the directing certificateholder, any of its managing members or any of its affiliates is an affiliate of the related borrower (or any proposed replacement borrower) or any Restricted Mezzanine Holder. As of the Closing Date, no Affiliated Borrower Loan Event is expected to exist with respect to the Initial Directing Certificateholder.

“Affiliated Borrower Special Servicer” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Resignation, Removal and Replacement of Servicers; Transfer of Servicing Duties” in this information circular.

“Affiliated Borrower Special Servicer Loan” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Resignation, Removal and Replacement of Servicers; Transfer of Servicing Duties” in this information circular. As of the Closing Date, no Affiliated Borrower Special Servicer Loan is expected to exist.

“Affiliated Borrower Special Servicer Loan Event” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Resignation, Removal and Replacement of Servicers; Transfer of Servicing Duties” in this information circular. As of the Closing Date, no Affiliated Borrower Special Servicer Loan Event is expected to exist.

“Aggregate Annual Cap” means, with respect to the master servicer and certain indemnified sub-servicers, the Master Servicer Aggregate Annual Cap; with respect to the special servicer, the Special Servicer Aggregate Annual Cap; with respect to the trustee, the Trustee Aggregate Annual Cap; with respect to the certificate administrator and the custodian, the Certificate Administrator/Custodian Aggregate Annual Cap; and with respect to the depositor, the Depositor Aggregate Annual Cap; *provided*, that if the same person or entity is the trustee and the certificate

administrator/custodian, Aggregate Annual Cap will refer to the Trustee/Certificate Administrator/Custodian Aggregate Annual Cap, and not the Trustee Aggregate Annual Cap or the Certificate Administrator/Custodian Aggregate Annual Cap.

“Aggregate Annual Cap Termination Date” means the earlier to occur of (i) the determination date in November 2028 and (ii) any determination date on which the master servicer determines that the aggregate amount of Unreimbursed Indemnification Expenses (with interest on such amounts) and other outstanding Servicing Advances (with interest on such amounts), debt service advances (with interest on such amounts), nonrecoverable advances (with interest on such amounts), Workout-Delayed Reimbursement Amounts (with interest on such amounts) and Additional Issuing Entity Expenses (excluding special servicing fees, liquidation fees and workout fees) equals or exceeds an amount equal to 50% of the outstanding principal balance of the mortgage pool on such determination date (after the application of all payments of principal and/or interest collected during the related Collection Period).

“Appraisal Reduction Amount” means, for any distribution date and for any underlying mortgage loan as to which an Appraisal Reduction Event has occurred, subject to the discussion under “The Pooling and Servicing Agreement—Required Appraisals” in this information circular, an amount equal to the excess, if any, of (i) the Stated Principal Balance of the underlying mortgage loan over (ii) the excess, if any, of (a) the sum of (1) 90% of the appraised value of the related mortgaged real property as determined (A) by one or more independent MAI appraisals with respect to any underlying mortgage loan with an outstanding principal balance greater than or equal to \$2,000,000 (the costs of which will be required to be paid by the master servicer as a Servicing Advance) or (B) by an independent MAI appraisal (or an update of a prior appraisal) or an internal valuation performed by the special servicer with respect to any underlying mortgage loan with an outstanding principal balance less than \$2,000,000, in the case of either (A) or (B), as such appraisal or internal valuation may be adjusted downward by the special servicer in accordance with the Servicing Standard, without implying any duty to do so, based on the special servicer’s review of such appraisal, internal valuation or such other information as the special servicer deems relevant, plus (2) any letter of credit, reserve, escrow or similar amount held by the master servicer which may be applied to payments on the underlying mortgage loan over (b) the sum of (1) to the extent not previously advanced by the master servicer or the trustee, all accrued and unpaid interest on the underlying mortgage loan at a *per annum* rate equal to its mortgage interest rate, (2) all unreimbursed advances in respect of the underlying mortgage loan and interest on such amounts at the Prime Rate and (3) all currently due and unpaid real estate taxes and assessments, insurance policy premiums, ground rents and all other amounts due and unpaid with respect to the underlying mortgage loan (which taxes, assessments, premiums, ground rents and other amounts have not been subject to an advance by the master servicer or the trustee and/or for which funds have not been escrowed); *provided*, that if neither a required appraisal has been obtained nor an internal valuation is completed within the period required under “The Pooling and Servicing Agreement—Required Appraisals” in this information circular with respect to the related mortgaged real property, then until such appraisal is obtained or such internal valuation is completed, as the case may be, the Appraisal Reduction Amount will be equal to 25% of the Stated Principal Balance of such underlying mortgage loan as of the date of the related Appraisal Reduction Event.

“Appraisal Reduction Event” means, with respect to any underlying mortgage loan, the earliest of any of the following events—

- (i) 120 days after an uncured delinquency (without regard to the application of any grace period) occurs in respect of an underlying mortgage loan (except that with respect to a balloon payment delinquency, an Appraisal Reduction Event will not be deemed to occur until the underlying mortgage loan becomes a Specially Serviced Mortgage Loan);
- (ii) the date on which a reduction in the amount of monthly payments on an underlying mortgage loan, or a change in any other material economic term of the underlying mortgage loan (other than an extension of its scheduled maturity date for a period of six months or less), becomes effective as a result of a modification of such underlying mortgage loan by the special servicer;
- (iii) 60 days after a receiver or liquidator has been appointed for the related borrower or immediately after a receiver has been appointed for the related mortgaged real property;
- (iv) 30 days after a borrower declares bankruptcy;

- (v) 60 days after the borrower becomes the subject of an undischarged and unstayed decree or order for a bankruptcy proceeding; and
- (vi) immediately after a mortgaged real property becomes an REO Property;

provided, however, that there will be no reduction in any advance for delinquent monthly debt service payments if an Appraisal Reduction Event occurs at any time after the outstanding certificate balances of the class B, C and D certificates have been reduced to zero.

“Appraised Value” means, for any mortgaged real property securing an underlying mortgage loan, the “as-is” value estimate reflected in the most recent appraisal obtained by or otherwise in the possession of the mortgage loan seller, except as described on Exhibit A-1 and/or the related footnotes as to any underlying mortgage loan with a “prospective value upon stabilization,” which value is estimated assuming satisfaction of projected re-tenancing or increased tenant occupancy conditions.

In general, the amount of costs assumed by the appraiser for these purposes is based on—

- (i) an estimate by the individual appraiser;
- (ii) an estimate by the related borrower;
- (iii) the estimate set forth in the property condition assessment or physical risk report conducted in connection with the origination of the related underlying mortgage loan; or
- (iv) a combination of these estimates.

“Approved Directing Certificateholder” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Directing Certificateholder” in this information circular.

“Approved Directing Certificateholder Criteria” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Directing Certificateholder” in this information circular.

“Asset Status Report” means the report designated as such and described under, “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Asset Status Report” in this information circular.

“Assumed Final Distribution Date” means, with respect to any class of certificates, the date set forth for such class in the table on page 5.

“Available Distribution Amount” means, with respect to any distribution date, amounts on deposit in the distribution account available to make distributions on the certificates on that date, generally equal to (i) the sum of (a) the aggregate amount received on or with respect to the underlying mortgage loans and any related REO Properties on or prior to the related determination date, (b) the aggregate amount of revenues and other proceeds derived from REO Properties (net of amounts necessary for the proper operation, management, leasing, maintenance and disposition of such REO Properties) for such distribution date, (c) the aggregate amount of any P&I Advances, which P&I Advances will not include any master servicing fees, sub-servicing fees, master servicer surveillance fees and special servicer surveillance fees, made by the master servicer and/or the trustee, as applicable, for such distribution date, (d) all funds released from the interest reserve account for distribution on such distribution date, (e) any payments made by the master servicer to cover Prepayment Interest Shortfalls incurred during the related Collection Period, and (f) excess liquidation proceeds (but only to the extent that the Available Distribution Amount for such distribution date would be less than the amount distributable to the certificateholders on such distribution date), minus (ii)(a) all collected monthly payments due after the end of the related Collection Period, (b) all amounts payable or reimbursable from the collection account and the distribution account pursuant to the terms of the Pooling and Servicing Agreement for the payment of certain expenses, fees and indemnities, (c) all Yield Maintenance Charges and Static Prepayment Premiums, (d) all amounts deposited in the collection account in error, (e) any net interest or net investment income on funds in the collection account, any REO account or Permitted Investments, (f) any withheld amounts deposited in the interest reserve account held for future distribution, and (g) excess liquidation proceeds.

The certificate administrator will apply the Available Distribution Amount as described under “Description of the Certificates—Distributions” in this information circular to pay principal and accrued interest on the certificates on that date.

“B-Piece Buyer” means any anticipated initial investor in the class X2-A, X2-B and D certificates.

“Balloon Guarantor Payment” means, with respect to any distribution date and any class of Offered Principal Balance Certificates, the amount of additional principal that would have been distributed to such class of Offered Principal Balance Certificates if the Principal Distribution Amount had been increased by an amount equal to the aggregate amount of the Stated Principal Balance of each Balloon Loan that reached its scheduled maturity date (without giving effect to any acceleration of principal of such Balloon Loan by reason of a default and without regard to any grace period permitted by the related note or any modifications, waivers or amendments granted by the master servicer or the special servicer after the Closing Date) during the related Collection Period but as to which the related borrower failed to pay the entire outstanding principal balance of the Balloon Loan, including the balloon payment by the end of such Collection Period (and as to which no final recovery determination has been made prior to its scheduled maturity date); such aggregate amount not to exceed the total outstanding principal balance of the Offered Principal Balance Certificates, as reduced by the Principal Distribution Amount to be applied in reduction of the outstanding principal balance of each class of Offered Principal Balance Certificates on such distribution date.

“Balloon Loan” means any underlying mortgage loan whose principal balance is not scheduled to be fully amortized by the underlying mortgage loan’s scheduled maturity date and thus requires a payment at such scheduled maturity date larger than the regular monthly debt service payment due on such underlying mortgage loan.

“Bankruptcy Code” means Title 11 of the United States Code, as amended.

“Business Day” means any day other than a Saturday, a Sunday or any day on which banking institutions in the City and State of New York, the State of Kansas, the State of North Carolina, the State of Ohio, the Commonwealth of Pennsylvania or in the cities in which the principal offices of Freddie Mac, the certificate administrator, the custodian, the master servicer or the special servicer are located or the city in which the corporate trust office of the trustee is located, are authorized or obligated by law, executive order or governmental decree to remain closed.

“Buy-Sell Transfer” means a transfer of a limited liability company manager’s or general partner’s right to control the borrower and/or such person’s ownership interest in the borrower to a person named in the loan agreement at origination as a buy-sell equity investor.

“CERCLA” means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended.

“Certificate Administrator/Custodian Aggregate Annual Cap” means \$300,000 per calendar year in the aggregate with respect to the certificate administrator and the custodian.

“Certificateholder” or “Holder” has the meaning assigned to such term under “Certain Federal Income Tax Consequences—General” in this information circular.

“Citibank” means Citibank, N.A., a national banking association, and its successors-in-interest.

“Class Final Guarantor Payment” means any payment made by the Guarantor in respect of clause (iv) of the definition of Deficiency Amount.

“Class X1 Strip Rates” has the meaning assigned to such term under “Description of the Certificates—Distributions—Calculation of Pass-Through Rates” in this information circular.

“Class X2-A Strip Rate” has the meaning assigned to such term under “Description of the Certificates—Distributions—Calculation of Pass-Through Rates” in this information circular.

“Class X2-B Strip Rate” has the meaning assigned to such term under “Description of the Certificates—Distributions—Calculation of Pass-Through Rates” in this information circular.

“Class X3 Strip Rates” has the meaning assigned to such term under “Description of the Certificates—Distributions—Calculation of Pass-Through Rates” in this information circular.

“Class XAM Strip Rate” has the meaning assigned to such term under “Description of the Certificates—Distributions—Calculation of Pass-Through Rates” in this information circular.

“Closing Date” means the date of initial issuance for the certificates, which will be on or about December 19, 2019.

“CMBS” means commercial and multifamily mortgage-backed securities.

“Code” means the Internal Revenue Code of 1986, as amended.

“Collection Period” means, with respect to any distribution date for the certificates, the related period commencing immediately following the determination date in the calendar month preceding the month in which such distribution date occurs and ending on and including the determination date in the calendar month in which such distribution date occurs, or, with respect to the first distribution date for the certificates, the period commencing on the Cut-off Date and ending on and including the determination date in January 2020.

“Consent Actions” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Asset Status Report” in this information circular.

“Conservator” means FHFA, in its capacity as Freddie Mac’s conservator.

“Controlling Class” means, as of the Closing Date, the class D certificates, until the outstanding principal balance of such class is less than 25% of the initial principal balance of such class; thereafter, the class C certificates, until the outstanding principal balance of such class is less than 25% of the initial principal balance of such class; thereafter, the class B certificates, until the outstanding principal balance of such class is less than 25% of the initial principal balance of such class; and thereafter the class A-1, A-2 and A-M certificates, collectively. However, if the class D certificates are the only class with an outstanding principal balance, the class D certificates will be the Controlling Class.

“Controlling Class Majority Holder” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Directing Certificateholder” in this information circular.

“Controlling Class Majority Holder Rights” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Directing Certificateholder” in this information circular.

“Corrected Mortgage Loan” means any Specially Serviced Mortgage Loan that has become a performing mortgage loan, in accordance with its original term or as modified in accordance with the Pooling and Servicing Agreement, for three consecutive monthly payments and that no other Servicing Transfer Event is continuing with respect to such Specially Serviced Mortgage Loan and the servicing of which has been returned to the master servicer; *provided* that no additional Servicing Transfer Event is foreseeable in the reasonable judgment of the special servicer.

“Cost Approach” means the determination of the value of a mortgaged real property arrived at by adding the estimated value of the land to an estimate of the current replacement cost of the improvements, and then subtracting depreciation from all sources.

“CPR” means an assumed constant rate of prepayment each month, which is expressed on a *per annum* basis, relative to the then-outstanding principal balance of a pool of mortgage loans for the life of those loans. The CPR model is the prepayment model that we use in this information circular.

“CREFC®” means the Commercial Real Estate Finance Council, an international trade organization for the commercial real estate capital markets.

“CREFC® Intellectual Property Royalty License Fee” means, with respect to each underlying mortgage loan, the monthly fee to be paid to CREFC® pursuant to the Pooling and Servicing Agreement in an amount equal to the product of (i) the CREFC® Intellectual Property Royalty License Fee Rate multiplied by (ii) the Stated Principal Balance of such underlying mortgage loan (calculated using the same interest accrual basis as such underlying mortgage loan).

“CREFC® Intellectual Property Royalty License Fee Rate” means the CREFC® Intellectual Property Royalty License Fee rate set forth in “Description of the Certificates—Fees and Expenses” in this information circular.

“CREFC Investor Reporting Package®” means:

- (i) the following seven electronic files: (a) CREFC® Loan Setup File, (b) CREFC® Loan Periodic Update File, (c) CREFC® Property File, (d) CREFC® Bond Level File, (e) CREFC® Financial File, (f) CREFC® Collateral Summary File and (g) CREFC® Special Servicer Loan File;
- (ii) the following 11 supplemental reports: (a) CREFC® Delinquent Loan Status Report, (b) CREFC® Historical Loan Modification/Forbearance and Corrected Mortgage Loan Report, (c) CREFC® Historical Liquidation Loss Report, (d) CREFC® REO Status Report, (e) CREFC® Loan Level Reserve/LOC Report, (f) CREFC® Comparative Financial Status Report, (g) CREFC® Servicer Watchlist, (h) CREFC® Operating Statement Analysis Report, (i) CREFC® NOI Adjustment Worksheet, (j) CREFC® Reconciliation of Funds Report and (k) the CREFC® Advance Recovery Report; and
- (iii) such other reports as CREFC® may designate as part of the “CREFC Investor Reporting Package®” from time to time generally; or
- (iv) in lieu of (i), (ii) and (iii), such new CREFC Investor Reporting Package® as published by the CREFC® and consented to by the Approved Directing Certificateholder (if any), Freddie Mac and the master servicer.

“CREFC® Website” means the website located at “www.crefc.org” or such other primary website as the CREFC® may establish for dissemination of its report forms.

“Cut-off Date” has the meaning assigned to such term under “Summary of Information Circular—Transaction Overview” in this information circular.

“Cut-off Date Balance/Unit” means, with respect to any underlying mortgage loan, the ratio of—

- (i) the Cut-off Date Principal Balance of the underlying mortgage loan, to
- (ii) the Total Units at the related mortgaged real property (or, in the case of an underlying mortgage loan secured by multiple mortgaged real properties, the sum of the Total Units at the related mortgaged real properties).

“Cut-off Date Loan-to-Value Ratio” or “Cut-off Date LTV” means, with respect to any underlying mortgage loan, the ratio of (i) the Cut-off Date Principal Balance of the underlying mortgage loan, to (ii) the most recent Appraised Value of the related mortgaged real property (or, in the case of an underlying mortgage loan secured by multiple mortgaged real properties, the sum of the Appraised Values of the related mortgaged real properties).

“Cut-off Date Principal Balance” or “Cut-off Date Loan Amount” means, with respect to any underlying mortgage loan, the outstanding principal balance of such underlying mortgage loan as of the Cut-off Date.

“DBRS” means DBRS, Inc., and its successors-in-interest.

“DCH Pre-Approval” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Directing Certificateholder” in this information circular.

“Default Interest” means any interest that (i) accrues on a Defaulted Loan solely by reason of the underlying mortgage loan default and (ii) is in excess of all interest at the regular mortgage interest rate for the underlying mortgage loan.

“Defaulted First Lien Loan” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Purchase Option” in this information circular.

“Defaulted Loan” means any underlying mortgage loan (i) that is at least 60 days delinquent in respect of its monthly payments, without giving effect to any grace period permitted by the related mortgage, loan agreement or mortgage note, (ii) that is delinquent in respect of its balloon payment, if any, without giving effect to any grace period permitted by the related mortgage, loan agreement or mortgage note or (iii) as to which any non-monetary event of default occurs that results in the underlying mortgage loan becoming a Specially Serviced Mortgage Loan, *provided, however*, that no monthly payment (other than a balloon payment) will be deemed delinquent if less than \$10 of all amounts due and payable on such underlying mortgage loan has not been received.

“Defaulted Loan Fair Value Purchase Price” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Purchase Option” in this information circular.

“Deficiency Amount” means, with respect to any distribution date and any class of Guaranteed Certificates, the sum of (i) the amount, if any, by which the interest payable on such class of Guaranteed Certificates exceeds the amount of interest actually distributed to the holders of such Guaranteed Certificates on such distribution date, (ii) any Balloon Guarantor Payment for such class of Guaranteed Certificates, (iii) the amount, if any, of Realized Losses (including those resulting from Additional Issuing Entity Expenses) allocated to such class of Offered Principal Balance Certificates, and (iv) on the Assumed Final Distribution Date for any class of Offered Principal Balance Certificates, the outstanding principal balance of such class on such Assumed Final Distribution Date (after giving effect to all amounts distributable and allocable to principal on such class but prior to giving effect to any Guarantor Payment including any Balloon Guarantor Payment for such class on such final distribution date).

“Depositor Aggregate Annual Cap” means \$300,000 per calendar year.

“Designated Entity for Transfers” means any person identified as such in a loan agreement at origination.

“Directing Certificateholder Approval Period” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Directing Certificateholder” in this information circular.

“Directing Certificateholder Increased Offer Notice Period” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Purchase Option” in this information circular.

“Directing Certificateholder Notice” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Directing Certificateholder” in this information circular.

“Directing Certificateholder Servicing Consultant” has the meaning assigned to such term under “Summary of Information Circular—Relevant Parties/Entities—Special Servicer” in this information circular.

“Dodd-Frank Act” means The Dodd-Frank Wall Street Reform and Consumer Protection Act.

“E&O Insurance” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Liability of the Servicers” in this information circular.

“ESA” means an environmental site assessment.

“Estimated Annual Operating Expenses” means, for each of the mortgaged real properties securing an underlying mortgage loan, the historical annual operating expenses for the property, adjusted upward or downward, as appropriate, to reflect, among other things, any expense modifications made as discussed below.

For purposes of calculating the Estimated Annual Operating Expenses for any mortgaged real property securing an underlying mortgage loan:

- (i) the “historical annual operating expenses” for that mortgaged real property normally consist of historical expenses that were generally obtained/estimated—

- (a) from operating statements relating to a complete fiscal year of the borrower for the prior three calendar years or a trailing 12-month period ended in one such year,
 - (b) by annualizing the most recent partial calendar year amount of operating expenses for which operating statements were available, with adjustments for some items deemed inappropriate for annualization,
 - (c) by calculating a stabilized estimate of operating expenses which takes into consideration historical financial statements and material changes in the operating position of the property, such as newly signed leases and market data, or
 - (d) if the property was recently constructed, by calculating an estimate of operating expenses based on the appraisal of the property or market data; and
- (ii) the “expense modifications” made to the historical annual operating expenses for that mortgaged real property often include—
- (a) assuming, in most cases, that a management fee, equal to approximately 2.5% to 5.0% of total revenues, was payable to the property manager,
 - (b) adjusting historical expense items upwards or downwards to reflect inflation and/or industry norms for the particular type of property,
 - (c) the underwritten recurring replacement reserve amounts, and
 - (d) adjusting historical expenses downwards by eliminating various items which are considered non-recurring in nature or which are considered capital improvements, including recurring capital improvements.

The amount of any underwritten recurring replacement reserve amounts and/or underwritten leasing commissions and tenant improvements for each of the mortgaged real properties securing an underlying mortgage loan are shown in the columns titled “Engineering Escrow/Deferred Maintenance” and “Replacement Reserve (Monthly)” on Exhibit A-1.

By way of example, Estimated Annual Operating Expenses generally include—

- (i) salaries and wages;
- (ii) the costs or fees of—
 - (a) utilities,
 - (b) repairs and maintenance,
 - (c) replacement reserves,
 - (d) marketing,
 - (e) insurance,
 - (f) management,
 - (g) landscaping, and/or
 - (h) security, if provided at the property; and
- (iii) the amount of taxes, general and administrative expenses and other costs.

Estimated Annual Operating Expenses generally do not reflect, however, any deductions for debt service, depreciation and amortization or capital expenditures or reserves for any of those items, except as described above.

Estimated Annual Operating Expenses for each mortgaged real property are calculated on the basis of numerous assumptions and subjective judgments, which, if ultimately proven erroneous, could cause the actual operating expenses for such mortgaged real property to differ materially from the Estimated Annual Operating Expenses set forth in this information circular. Some assumptions and subjective judgments relate to future events, conditions and

circumstances, including future expense levels, which will be affected by a variety of complex factors over which none of the depositor, the mortgage loan seller, the master servicer, the special servicer, the certificate administrator or the trustee have control. In some cases, the Estimated Annual Operating Expenses for any mortgaged real property are lower, and may be materially lower, than the annual operating expenses for that mortgaged real property based on historical operating statements. In determining the Estimated Annual Operating Expenses for a mortgaged real property, the mortgage loan seller in most cases relied on generally unaudited financial information provided by the related borrowers. No assurance can be given with respect to the accuracy of the information provided by any borrower, or the adequacy of any procedures used by the mortgage loan seller in determining the Estimated Annual Operating Expenses.

“Estimated Annual Revenues” generally means, for each of the mortgaged real properties securing an underlying mortgage loan, the base estimated annual revenues for the property, adjusted upward or downward, as appropriate, to reflect any revenue modifications made as discussed below.

For purposes of calculating the Estimated Annual Revenues for any mortgaged real property securing an underlying mortgage loan:

- (i) the “base estimated annual revenues” for that mortgaged real property were generally assumed to equal the annualized amounts of gross potential rents; and
- (ii) the “revenue modifications” made to the base estimated annual revenues for that mortgaged real property often include—
 - (a) adjusting the revenues downwards by applying a combined vacancy and rent loss, including concessions, adjustment that reflected then current occupancy or, in some cases, a stabilized occupancy or, in some cases, an occupancy that was itself adjusted for historical trends or market rates of occupancy with consideration to competitive properties,
 - (b) adjusting the revenues upwards to reflect, in the case of some tenants, increases in base rents scheduled to occur during the following 12 months,
 - (c) adjusting the revenues upwards for estimated income consisting of, among other items, late fees, laundry income, application fees, cable television fees, storage charges, electrical pass throughs, pet charges, janitorial services, furniture rental and parking fees, and
 - (d) adjusting the revenues downwards in some instances where rental rates were determined to be significantly above market rates and the subject space was then currently leased to tenants that did not have long-term leases or were believed to be unlikely to renew their leases.

Estimated Annual Revenues for each mortgaged real property are calculated on the basis of numerous assumptions and subjective judgments, which, if ultimately proven erroneous, could cause the actual revenues for such mortgaged real property to differ materially from the Estimated Annual Revenues set forth in this information circular. Some assumptions and subjective judgments relate to future events, conditions and circumstances, including the re-leasing of vacant space and the continued leasing of occupied spaces, which will be affected by a variety of complex factors over which none of the depositor, the mortgage loan seller, the master servicer, the special servicer, the certificate administrator or the trustee have control. In some cases, the Estimated Annual Revenues for any mortgaged real property are higher, and may be materially higher, than the annual revenues for that mortgaged real property based on historical operating statements. In determining the Estimated Annual Revenues for a mortgaged real property, the mortgage loan seller in most cases relied on rent rolls and/or generally unaudited financial information provided by the related borrowers. No assurance can be given with respect to the accuracy of the information provided by any borrower, or the adequacy of any procedures used by the mortgage loan seller in determining the Estimated Annual Revenues.

“EU Securitization Regulation” has the meaning assigned to such term under “Risk Factors—Risks Related to the Offered Certificates—Legal and Regulatory Provisions Affecting Investors Could Adversely Affect the Liquidity of Your Investment” in this information circular.

“Excess Servicing Fee Right” means, with respect to each underlying mortgage loan (including any successor REO Loan), the right to receive the Excess Servicing Strip.

“Excess Servicing Strip” means a portion of the master servicing fee payable to Midland, as the initial holder of the Excess Servicing Fee Right, or its assignee, that accrues at a per annum rate initially equal to the master servicing fee rate minus 0.00500%, but which may be reduced following any resignation of the master servicer (if no successor master servicer is appointed) or any termination of the master servicer due to an event of default of the master servicer described in “The Pooling and Servicing Agreement—Events of Default” in this information circular, to the extent reasonably necessary (in the sole but reasonable discretion of the trustee) for the trustee to act as or appoint a qualified successor master servicer (which successor may include the trustee) that meets the requirements described in “The Pooling and Servicing Agreement—Rights Upon Event of Default” in this information circular and who requires market rate master servicing compensation (exclusive of any related primary servicing fee payable to Midland in its capacity as primary servicer) that accrues at a *per annum* rate in excess of 0.00500% for the master servicer.

“Exchange Act” means the Securities Exchange Act of 1934, as amended.

“Fair Value” means the amount that, in the special servicer’s judgment, exercised in accordance with the Servicing Standard, and taking into account the factors specified in the Pooling and Servicing Agreement, is the fair value of a Defaulted Loan.

“Fair Value Notice” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Purchase Option” in this information circular.

“Fair Value Purchase Notice” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Purchase Option” in this information circular.

“Fannie Mae” means the Federal National Mortgage Association.

“FHFA” means the Federal Housing Finance Agency.

“Fidelity Insurance” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Liability of the Servicers” in this information circular.

“First Offeror” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Purchase Option” in this information circular.

“Fitch” means Fitch Ratings, Inc., and its successors-in-interest.

“Freddie Mac” means Federal Home Loan Mortgage Corporation, a corporate instrumentality of the United States created and existing under Title III of the Emergency Home Finance Act of 1970, as amended, or any successor to it (“FHLMC”), or certain of its affiliates, if any, who assume certain obligations or are assigned certain rights under the Pooling and Servicing Agreement, as described under “Description of the Mortgage Loan Seller and Guarantor—Proposed Operation of Multifamily Mortgage Business on a Stand-Alone Basis” in this information circular; *provided, however*, that “Freddie Mac” means FHLMC with respect to its obligations as (i) mortgage loan seller pursuant to the mortgage loan purchase agreement and the Pooling and Servicing Agreement and (ii) Guarantor pursuant to the Freddie Mac Guarantee.

“Freddie Mac Act” means Title III of the Emergency Home Finance Act of 1970, as amended.

“Freddie Mac Guarantee” means obligations of the Guarantor as described under “Description of the Certificates—Distributions—Freddie Mac Guarantee” in this information circular.

“Freddie Mac Increased Offer Notice” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Purchase Option” in this information circular.

“Freddie Mac Increased Offer Notice Period” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Purchase Option” in this information circular.

“Freddie Mac Servicing Practices” means, with regard to the servicing of the underlying mortgage loans and/or REO Properties by the master servicer, any sub-servicer or the special servicer, and only to the extent such practices

have been made available or communicated in writing by Freddie Mac to the master servicer, such sub-servicer or the special servicer, as applicable, servicing and administering the underlying mortgage loans and/or REO Properties in the same manner in which, and with the same care, skill, prudence and diligence with which, Freddie Mac services and administers multifamily mortgage loans owned by it, which will include, without limitation, servicing and administering the underlying mortgage loans and/or REO Properties in accordance with the Guide and any Freddie Mac written policies, procedures or other communications made available in writing by Freddie Mac to the master servicer, such sub-servicer or special servicer, as applicable, including written communications from Freddie Mac as servicing consultant, pursuant to the Pooling and Servicing Agreement.

“GAAP” means generally accepted accounting principles.

“Guarantee Fee” means, for any distribution date and with respect to the Guaranteed Certificates, the fee payable to the Guarantor in respect of its services as Guarantor, which fee accrues at the Guarantee Fee Rate on a balance equal to the total outstanding principal balance of the Offered Principal Balance Certificates immediately prior to such distribution date. The Guarantee Fee with respect to the Guaranteed Certificates will accrue on a 30/360 Basis.

“Guarantee Fee Rate” means the guarantee fee rate set forth in “Description of the Certificates—Fees and Expenses” in this information circular.

“Guaranteed Certificates” means the class A-1, A-2, A-M, X1, XAM and X3 certificates.

“Guarantor” means Freddie Mac, in its capacity as the guarantor of the Guaranteed Certificates.

“Guarantor Payment” means any payment made by the Guarantor in respect of a Deficiency Amount.

“Guarantor Reimbursement Amount” means, with respect to any distribution date and any class of Guaranteed Certificates, the sum of all amounts paid by the Guarantor in respect of Deficiency Amounts for such class of Guaranteed Certificates on such distribution date and on all prior distribution dates, to the extent not previously reimbursed (including from collections in respect of any mortgage loan on which a Balloon Guarantor Payment was made).

“Guarantor Reimbursement Interest Amount” means, with respect to any distribution date and any class of Guaranteed Certificates, interest on any Guarantor Reimbursement Amount (other than a Timing Guarantor Payment) for such class of Guaranteed Certificates at a *per annum* rate for each day (calculated on a daily basis) equal to the Prime Rate for such day plus 2.00%.

“Guarantor Timing Reimbursement Amount” means, with respect to any distribution date and the Offered Principal Balance Certificates, the portion of any Guarantor Reimbursement Amount related to any Timing Guarantor Payment for the Offered Principal Balance Certificates, together with any related Timing Guarantor Interest.

“Guide” means the Freddie Mac Multifamily Seller/Servicer Guide, as amended or supplemented from time to time. To the extent the Freddie Mac Multifamily Seller/Servicer Guide is no longer published by Freddie Mac, either directly or indirectly, “Guide” will refer to any successor guide as prescribed by Freddie Mac, which will be provided by Freddie Mac upon request if not otherwise reasonably accessible to the parties to the Pooling and Servicing Agreement; *provided, however*, that in the event that no successor guide is prescribed by Freddie Mac within 90 days of the date on which the Freddie Mac Multifamily Seller/Servicer Guide is no longer published by Freddie Mac, all references to the “Guide” in the Pooling and Servicing Agreement will be disregarded and the Guide will no longer be applicable. For purposes of the Pooling and Servicing Agreement, the term “Guide” will not include any forms referenced in the Freddie Mac Multifamily Seller/Servicer Guide. Such forms will be applicable at the option of the master servicer, the special servicer or any sub-servicer.

“Home Sharing” has the meaning assigned to such term under “Risk Factors—All of the Underlying Mortgage Loans Are Secured by Multifamily Rental Properties, Thereby Materially Exposing Offered Certificateholders to Risks Associated with the Performance of Multifamily Rental Properties” in this information circular.

“Home Sharing Master Lease” has the meaning assigned to such term under “Risk Factors—All of the Underlying Mortgage Loans Are Secured by Multifamily Rental Properties, Thereby Materially Exposing Offered Certificateholders to Risks Associated with the Performance of Multifamily Rental Properties” in this information circular.

“HUD” means the United States Department of Housing and Urban Development.

“Income Approach” means the determination of the value of a mortgaged real property by using the discounted cash flow method of valuation or by the direct capitalization method. The discounted cash flow analysis is used in order to measure the return on a real estate investment and to determine the present value of the future income stream expected to be generated by the mortgaged real property. The future income of the mortgaged real property, as projected over an anticipated holding period, and the resulting net operating incomes or cash flows are then discounted to present value using an appropriate discount rate. The direct capitalization method generally converts an estimate of a single year’s income expectancy, or, in some cases, a hypothetical stabilized single year’s income expectancy, into an indication of value by dividing the income estimate by an appropriate capitalization rate. An applicable capitalization method and appropriate capitalization rates are developed for use in computations that lead to an indication of value. In utilizing the Income Approach, the appraiser’s method of determination of gross income, gross expense and net operating income for the mortgage real property may vary from the method of determining Underwritten Net Operating Income for that mortgaged real property, resulting in variances in the related net operating income values.

“Increased Offer Notice” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Purchase Option” in this information circular.

“Initial Directing Certificateholder” means New York Mortgage Trust, Inc., a Maryland corporation, and its successors-in-interest.

“Initial Offer Notice Period” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Purchase Option” in this information circular.

“Initial Purchaser” has the meaning assigned to such term under “Summary of Information Circular—Relevant Parties/Entities—Depositor” in this information circular.

“Interest Accrual Period” means, for any distribution date, the calendar month immediately preceding the month in which that distribution date occurs, and will be deemed to consist of 30 days.

“Investment Company Act” means the Investment Company Act of 1940, as amended.

“IRS” means the Internal Revenue Service.

“Junior Loan” has the meaning assigned to such term under “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Permitted Additional Debt—Permitted Subordinate Mortgage Debt” in this information circular.

“Junior Loan Holder” means the holder of the most subordinate Junior Loan as described under “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Permitted Additional Debt—Permitted Subordinate Mortgage Debt” in this information circular.

“KBRA” means Kroll Bond Rating Agency, Inc. and its successors-in-interest.

“Liquidation Proceeds” means cash amounts (other than income, rents and profits derived from the ownership, operation or leasing of an REO Property) actually received, net of expenses, in connection with (i) the liquidation of a mortgaged real property or other collateral constituting security for a Defaulted Loan, through trustee’s sale, foreclosure sale, REO disposition or otherwise, exclusive of any portion of cash amounts required to be released to the related borrower; (ii) the realization upon any deficiency judgment obtained against a borrower; (iii) the purchase of a Defaulted Loan by the directing certificateholder (or any assignee or affiliate), Freddie Mac (or any assignee) or the Junior Loan Holder in accordance with the Pooling and Servicing Agreement; (iv) the repurchase or replacement of an underlying mortgage loan by or on behalf of the mortgage loan seller in connection with a defect

in any mortgage file or a breach of any of its representations and warranties; or (v) the purchase of all of the underlying mortgage loans and REO Properties remaining in the issuing entity by the Controlling Class Majority Holder (excluding Freddie Mac), the master servicer or the special servicer pursuant to the terms of the Pooling and Servicing Agreement.

“Loan Guarantor Status Event” means with respect to any guarantor under an underlying mortgage loan, the occurrence of certain events enumerated in the related loan agreement, including but not limited to, termination of its existence, a merger or consolidation (whether or not the guarantor is the surviving entity), dissolution, or liquidation of its assets.

“Lower-Tier REMIC” means the REMIC identified as such and described under “Certain Federal Income Tax Consequences—General” in this information circular.

“Master Servicer Aggregate Annual Cap” means \$300,000 per calendar year with respect to the master servicer and certain indemnified sub-servicers under the Pooling and Servicing Agreement, collectively.

“Maturity Balance” means, with respect to any underlying mortgage loan, the outstanding principal balance of the underlying mortgage loan immediately prior to its maturity, according to the payment schedule for the underlying mortgage loan and otherwise assuming no prepayments, defaults or extensions.

“Maturity Loan-to-Value Ratio” or “Maturity LTV” means, with respect to any underlying mortgage loan, the ratio of (i) the Maturity Balance of the underlying mortgage loan, to (ii) the most recent Appraised Value of the related mortgaged real property (or, in the case of an underlying mortgage loan secured by multiple mortgaged real properties, the sum of the Appraised Values of the related mortgaged real properties).

“Maximum Guarantor Timing Reimbursement” has the meaning assigned to such term in priority 8th of the chart in “Description of the Certificates—Distributions—Priority of Distributions” in this information circular.

“MHC Homeowner Leases” has the meaning assigned to such term under “Risk Factors—Manufactured Housing Community Properties Tenant Protections” in this information circular.

“MHC Tenant Protections” has the meaning assigned to such term under “Risk Factors—Manufactured Housing Community Properties Tenant Protections” in this information circular.

“MHC Tenant Protections Fee” means, with respect to any underlying mortgage loan, any amounts actually collected from the related borrower or otherwise recovered (after such mortgage loan is paid in full) on such underlying mortgage loan that represent the “MHC Tenant Protections Default Payment,” as such term is defined in the related loan documents.

“MHC Tenant Protections Loan” has the meaning assigned to such term under “Risk Factors—Manufactured Housing Community Properties Tenant Protections” in this information circular.

“Midland” means Midland Loan Services, a Division of PNC Bank, National Association, a national banking association, and its successors-in-interest.

“Modeling Assumptions” means, collectively, the following assumptions regarding the certificates and the underlying mortgage loans:

- (i) the underlying mortgage loans have the characteristics set forth on Exhibit A-1 and the initial mortgage pool balance is approximately \$1,276,314,807;
- (ii) the initial principal balance or notional amount, as the case may be, of each class of certificates is as described in this information circular;
- (iii) the pass-through rate for each interest-bearing class of certificates is as described in this information circular;
- (iv) there are no delinquencies, modifications or losses with respect to the underlying mortgage loans;
- (v) no underlying mortgage loan is a Specially Serviced Mortgage Loan;

- (vi) there are no modifications, extensions, waivers or amendments affecting the monthly debt service or balloon payments by the borrowers on the underlying mortgage loans;
- (vii) there are no Appraisal Reduction Amounts with respect to the underlying mortgage loans;
- (viii) there are no casualties or condemnations affecting the corresponding mortgaged real properties;
- (ix) each of the underlying mortgage loans provides monthly debt service payments to be due on the first day of each month, regardless of whether such day is a business day or not;
- (x) monthly debt service payments on the underlying mortgage loans are timely received on their respective due dates in each month, regardless of whether such day is a business day or not;
- (xi) no voluntary or involuntary prepayments are received as to any underlying mortgage loan during that underlying mortgage loan's prepayment lockout period, including any contemporaneous defeasance period, Yield Maintenance Period or Static Prepayment Premium Period;
- (xii) except as otherwise assumed in clause (xi) above, prepayments are made on each of the underlying mortgage loans at the indicated CPRs set forth in the applicable tables or other relevant part of this information circular, without regard to any limitations in the underlying mortgage loans on partial voluntary principal prepayments;
- (xiii) all prepayments on the underlying mortgage loans are assumed to be—
 - (a) accompanied by a full month's interest, and
 - (b) received on the applicable due date of the relevant month;
- (xiv) no person or entity entitled under the Pooling and Servicing Agreement exercises its right of optional termination as described under "The Pooling and Servicing Agreement—Termination" in this information circular;
- (xv) none of the underlying mortgage loans is required to be repurchased or replaced by the mortgage loan seller or any other person, as described under "Description of the Underlying Mortgage Loans—Cures, Repurchases and Substitutions" in this information circular;
- (xvi) the Administration Fee Rate is as set forth on Exhibit A-1 and the only other issuing entity expense is the Guarantee Fee;
- (xvii) there are no Additional Issuing Entity Expenses;
- (xviii) funds released from the interest reserve account for any underlying mortgage loan that has paid in full will be included in the calculation of net weighted average coupon of the remaining underlying mortgage loans;
- (xix) payments on the offered certificates are made on the 25th day of each month, commencing in January 2020; and
- (xx) the offered certificates are settled on an assumed settlement date of December 19, 2019.

"Moody's" means Moody's Investors Service, Inc., and its successors-in-interest.

"Morningstar" means Morningstar Credit Ratings, LLC, and its successors-in-interest.

"Most Recent EGI" generally means, for any mortgaged real property that secures an underlying mortgage loan, the revenues received (effective gross income), or annualized or estimated in some cases, in respect of the property for the 12-month period ended as of the Most Recent Financial End Date, based on the latest available annual or, in some cases, partial-year operating statement and other information furnished by the related borrower. For purposes of this definition, revenues generally consist of all revenues received in respect of the mortgaged real property, including rental and other revenues.

In determining the Most Recent EGI for any mortgaged real property, the mortgage loan seller may have made adjustments to the financial information provided by the related borrower similar to those used in calculating the Estimated Annual Revenues for that mortgaged real property.

Most Recent EGI for each mortgaged real property are calculated on the basis of numerous assumptions and subjective judgments, which, if ultimately proven erroneous, could cause the actual revenues for such mortgaged real property to differ materially from the Most Recent EGI set forth in this information circular. Some assumptions and subjective judgments relate to future events, conditions and circumstances, including the re-leasing of vacant space and the continued leasing of occupied spaces, which will be affected by a variety of complex factors over which none of the depositor, the mortgage loan seller, the master servicer, the special servicer, the certificate administrator or the trustee have control. In some cases, the Most Recent EGI for any mortgaged real property are higher, and may be materially higher, than the annual revenues for that mortgaged real property based on historical operating statements. In determining the Most Recent EGI for a mortgaged real property, the mortgage loan seller in most cases relied on rent rolls and/or generally unaudited financial information provided by the related borrowers. No assurance can be given with respect to the accuracy of the information provided by any borrower, or the adequacy of any procedures used by the mortgage loan seller in determining the Most Recent EGI.

“Most Recent Expenses” means, for any mortgaged real property that secures an underlying mortgage loan, the expenses incurred, or annualized or estimated in some cases, for the property for the 12-month period ended as of the most recent operating statement date, based on the latest available annual or, in some cases, partial-year operating statement and other information furnished by the related borrower.

Expenses generally consist of all expenses incurred for the property, including—

- (i) salaries and wages;
- (ii) the costs or fees of—
 - (a) utilities,
 - (b) repairs and maintenance,
 - (c) marketing,
 - (d) insurance,
 - (e) management,
 - (f) landscaping, and/or
 - (g) security, if provided at the property; and
- (iii) the amount of—
 - (a) real estate taxes,
 - (b) general and administrative expenses, and
 - (c) other costs.

For purposes of this definition, expenses do not reflect, however, any deductions for debt service, depreciation, amortization or capital expenditures.

In determining the Most Recent Expenses for any mortgaged real property, the mortgage loan seller may have made adjustments to the financial information provided by the related borrower similar to those used in calculating the Estimated Annual Operating Expenses for that mortgaged real property. Most Recent Expenses for each mortgaged real property are calculated on the basis of numerous assumptions and subjective judgments, which, if ultimately proven erroneous, could cause the actual operating expenses for such mortgaged real property to differ materially from the Most Recent Expenses set forth in this information circular. Some assumptions and subjective judgments relate to future events, conditions and circumstances, including future expense levels, which will be affected by a variety of complex factors over which none of the depositor, the mortgage loan seller, the master servicer, the special servicer, the certificate administrator or the trustee have control. In some cases, the Most Recent Expenses for any mortgaged real property are lower, and may be materially lower, than the annual operating expenses for that mortgaged real property based on historical operating statements. In determining the Most Recent Expenses for a mortgaged real property, the mortgage loan seller in most cases relied on generally unaudited financial information provided by the related borrowers. No assurance can be given with respect to the accuracy of

the information provided by any borrower, or the adequacy of any procedures used by the mortgage loan seller in determining the Most Recent Expenses.

“Most Recent Financial End Date” means, with respect to each of the underlying mortgage loans, the date indicated on Exhibit A-1 as the Most Recent Financial End Date with respect to that mortgage loan. In general, this date is the end date of the period covered by the latest available annual or, in some cases, partial-year operating statement for the related mortgaged real property.

“Most Recent NCF” or “Most Recent Net Cash Flow” means, with respect to each mortgaged real property that secures an underlying mortgage loan, the Most Recent Net Operating Income, less the most recent replacement reserve amounts.

“Most Recent NOI” or “Most Recent Net Operating Income” means, with respect to each of the mortgaged real properties that secures an underlying mortgage loan, the total cash flow derived from the property that was available for annual debt service on the related underlying mortgage loan, calculated as the Most Recent EGI less Most Recent Expenses for that mortgaged real property.

“Net Aggregate Prepayment Interest Shortfall” means, with respect to any distribution date, the excess, if any, of—

- (i) the total Prepayment Interest Shortfalls incurred with respect to the mortgage pool during the related Collection Period, over
- (ii) the sum of (a) the total payments made by the master servicer to cover any Prepayment Interest Shortfalls incurred during the related Collection Period; and (b) the total Prepayment Interest Excesses collected during the related Collection Period that are applied to offset Prepayment Interest Shortfalls incurred during the related Collection Period.

“Net Mortgage Interest Rate” has the meaning assigned to such term under “Summary of Information Circular—Transaction Overview” in this information circular.

“Net Mortgage Pass-Through Rate” has the meaning assigned to such term under “Summary of Information Circular—Transaction Overview” in this information circular.

“Nonrecoverable Advance” means any Nonrecoverable P&I Advance or Nonrecoverable Servicing Advance or any portion of such Nonrecoverable P&I Advance or Nonrecoverable Servicing Advance.

“Nonrecoverable P&I Advance” has the meaning assigned to such term under “Description of the Certificates—Advances of Delinquent Monthly Debt Service Payments” in this information circular.

“Nonrecoverable Servicing Advance” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Servicing and Other Compensation and Payment of Expenses—Servicing Advances” in this information circular.

“NRSRO” means a nationally recognized statistical rating organization, as defined in Section 3(a)(62) of the Exchange Act.

“offered certificates” means the class A-1, A-2, A-M, X1, XAM and X3 certificates.

“Offered Principal Balance Certificates” means the class A-1, A-2 and A-M certificates.

“Option Price” means the cash price at which any Defaulted Loan may be purchased under the related Purchase Option, as described under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Purchase Option” in this information circular.

“Original Net Mortgage Interest Rate” has the meaning assigned to such term under “Summary of Information Circular—Transaction Overview” in this information circular.

“Originators” has the meaning assigned to such term under “Description of the Mortgage Loan Seller and Guarantor—The Mortgage Loan Seller and Guarantor” in this information circular.

“P&I Advance” has the meaning assigned to such term under “Description of the Certificates—Advances of Delinquent Monthly Debt Service Payments” in this information circular.

“Par Purchase Notice Period” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Purchase Option” in this information circular.

“Permitted Investments” means the U.S. government securities and other obligations specified in the Pooling and Servicing Agreement.

“Permitted Transfer” means any Requested Transfer as to which the related borrower satisfies (without modification or waiver) all the applicable requirements in the related loan documents, provided that such satisfaction is determined without requiring the exercise of discretion by the master servicer or the special servicer.

“PILOT” has the meaning assigned to such term under “Risk Factors—Risks Related to the Underlying Mortgage Loans—All of the Underlying Mortgage Loans Are Secured by Multifamily Rental Properties, Thereby Materially Exposing Offered Certificateholders to Risks Associated with the Performance of Multifamily Rental Properties” in this information circular.

“Placement Agent Entities” means the placement agents for the SPCs and their respective affiliates.

“Pooling and Servicing Agreement” means the pooling and servicing agreement, to be dated as of December 1, 2019, among Banc of America Merrill Lynch Commercial Mortgage Inc., as depositor, Midland, as master servicer, Wells Fargo Bank, as special servicer, U.S. Bank, as trustee, Citibank, as certificate administrator and custodian, and Freddie Mac.

“Preferred Equity Control Take-Over Transfer” means a transfer of a limited liability company manager’s or general partner’s right to control the borrower to a preferred equity investor named in the loan agreement or such investor’s affiliate pursuant to an agreement governing a preferred equity contribution. A Preferred Equity Control Take-Over Transfer cannot include a transfer of the limited liability company manager’s or general partner’s ownership interests in the borrower to a preferred equity investor.

“Prepayment Assumption” means an assumption that there are no prepayments and no extensions of the underlying mortgage loans.

“Prepayment Interest Excess” means, with respect to any full or partial prepayment of an underlying mortgage loan made by the related borrower or otherwise in connection with a casualty or condemnation during any Collection Period after the due date for that underlying mortgage loan, the amount of any interest collected on that prepayment for the period from and after that due date, less the amount of master servicer surveillance fees (if any), special servicer surveillance fees (if any), master servicing fees and sub-servicing fees payable from that interest collection, and exclusive of any Default Interest included in that interest collection.

“Prepayment Interest Shortfall” means, with respect to any full or partial prepayment of an underlying mortgage loan made by the related borrower that is not accompanied by an amount of interest representing scheduled interest due on any date or dates in any month or months subsequent to the month of prepayment or otherwise in connection with a casualty or condemnation during any Collection Period prior to the due date for that underlying mortgage loan, the amount of any uncollected interest that would have accrued on that prepayment to, but not including, such due date, less the amount of master servicer surveillance fees (if any), special servicer surveillance fees (if any), master servicing fees and sub-servicing fees that would have been payable from that uncollected interest, and exclusive of any portion of that uncollected interest that would have been Default Interest.

“Prime Rate” means an annual rate equal to the “prime rate” as published in the “Money Rates” section of The Wall Street Journal (or, if such section or publication is no longer available, such other comparable publication as is determined by the certificate administrator in its sole discretion, in consultation with the master servicer) as may be in effect from time to time (or if the “prime rate” is not published on any calculation date, then the “prime rate” for

such day will be the most recently published “prime rate” prior to such calculation date), or if the “prime rate” no longer exists, such other comparable rate (as determined by the certificate administrator, in its reasonable discretion, in consultation with the master servicer) as may be in effect from time to time. If the certificate administrator and the master servicer cannot agree on a comparable publication or comparable rate, the certificate administrator will have the sole right to determine such publication or rate.

“Principal Balance Certificates” means the class A-1, A-2, A-M, B, C and D certificates.

“Principal Distribution Adjustment Amount” means, with respect to any distribution date, the sum of (i) the amount of any Nonrecoverable Advance that was reimbursed to the master servicer or the trustee since the preceding distribution date (or since the Closing Date, in the case of the first distribution date), and that was deemed to have been so reimbursed out of any collections of principal that would otherwise constitute part of the Principal Distribution Amount for such distribution date (as described in this information circular under “The Pooling and Servicing Agreement—Servicing and Other Compensation and Payment of Expenses” or “Description of the Certificates—Advances of Delinquent Monthly Debt Service Payments,” as applicable), (ii) any Workout-Delayed Reimbursement Amount that was reimbursed to the master servicer or the trustee since the preceding distribution date (or since the Closing Date, in the case of the first distribution date) and that was deemed to have been so reimbursed out of any collections of principal that would otherwise constitute part of the Principal Distribution Amount for such distribution date (as described in this information circular under “The Pooling and Servicing Agreement—Servicing and Other Compensation and Payment of Expenses” or “Description of the Certificates—Advances of Delinquent Monthly Debt Service Payments,” as applicable) and (iii) any principal collections for the related Collection Period used to reimburse Balloon Guarantor Payments or other unreimbursed Guarantor Reimbursement Amounts since the preceding distribution date pursuant to the terms of the Pooling and Servicing Agreement.

“Principal Distribution Amount” means:

- (i) for any distribution date prior to the final distribution date, an amount equal to the total, without duplication, of the following—
 - (a) all payments of principal, including voluntary principal prepayments, received by or on behalf of the issuing entity with respect to the underlying mortgage loans during the related Collection Period, exclusive of any of those payments that represents a late collection of principal for which an advance was previously made for a prior distribution date or that represents a monthly payment of principal due on or before the Cut-off Date or on a due date for the related underlying mortgage loan subsequent to the end of the related Collection Period,
 - (b) all monthly payments of principal received by or on behalf of the issuing entity with respect to the underlying mortgage loans prior to, but that are due during, the related Collection Period,
 - (c) all other collections, including Liquidation Proceeds, condemnation proceeds and insurance proceeds that were received by or on behalf of the issuing entity with respect to any of the underlying mortgage loans or any related REO Properties during the related Collection Period and that were identified and applied as recoveries of principal of such underlying mortgage loan or, in the case of an REO Property, of the related underlying mortgage loan, in each case net of any portion of the particular collection that represents a late collection of principal for which an advance of principal was previously made for a prior distribution date or that represents a monthly payment of principal due on or before the Cut-off Date, and
 - (d) all advances of principal made with respect to the underlying mortgage loans for that distribution date; and
- (ii) for the final distribution date, an amount equal to the total Stated Principal Balance of the mortgage pool outstanding immediately prior to that final distribution date.

However, the Principal Distribution Amount will be reduced on any distribution date by an amount equal to the Principal Distribution Adjustment Amount calculated with respect to such distribution date. The Principal Distribution Amount will be increased on any distribution date by the amount of any recovery occurring during the related Collection Period of an amount that was previously advanced with respect to any underlying mortgage loan, but only if and to the extent such advance was previously reimbursed from principal collections

that would otherwise have constituted part of the Principal Distribution Amount for a prior distribution date in a manner that resulted in a Principal Distribution Adjustment Amount for such prior distribution date. In addition, if any insurance proceeds, condemnation proceeds or Liquidation Proceeds were received and/or a final recovery determination were made with respect to any underlying mortgage loan during any particular Collection Period, then the portion of the Principal Distribution Amount for the related distribution date that is otherwise allocable to that underlying mortgage loan will be reduced (to not less than zero) by any special servicing fees or liquidation fees payable in connection therewith.

“Privileged Person” means each party to the Pooling and Servicing Agreement, each Initial Purchaser, the Rating Agencies, any NRSRO that delivers an NRSRO certification to the 17g-5 information provider in the form required by the Pooling and Servicing Agreement and, upon receipt by the certificate administrator of an investor certification in the form required by the Pooling and Servicing Agreement, each holder, beneficial owner or prospective purchaser of a certificate or an SPC. Any Privileged Person that is a borrower or an affiliate of a borrower, as evidenced by the information set forth in the investor certification, will only be entitled to limited information as described in “Description of the Certificates—Reports to Certificateholders and Freddie Mac; Available Information” in this information circular.

“Purchase Agreement” means the senior preferred stock purchase agreement between FHFA, as Conservator of Freddie Mac, and Treasury.

“Purchase Option” means, with respect to any Defaulted Loan, the purchase option described under “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Purchase Option” in this information circular.

“Purchase Price” means, with respect to any underlying mortgage loan if it is to be purchased as contemplated under the Pooling and Servicing Agreement, a price equal to the outstanding principal balance of such underlying mortgage loan, plus (i) accrued and unpaid interest on such underlying mortgage loan through and including the end of the related mortgage interest accrual period in which such purchase is made (which would include accrued and unpaid master servicer surveillance fees, special servicer surveillance fees, master servicing fees and sub-servicing fees), (ii) related special servicing fees and, if applicable, liquidation fees payable to the special servicer (to the extent accrued and unpaid or previously paid by the issuing entity), (iii) all related unreimbursed Servicing Advances or Additional Issuing Entity Expenses, (iv) all related Servicing Advances that were previously reimbursed from general collections on the mortgage pool, (v) all accrued and unpaid interest on related Servicing Advances and P&I Advances, (vi) all interest on related Servicing Advances and P&I Advances that was previously reimbursed from general collections on the mortgage pool, (vii) solely if such underlying mortgage loan is being purchased by the related borrower or an affiliate of such borrower, all Default Interest, late payment fees, extension fees and similar fees or charges incurred with respect to such underlying mortgage loan and all out-of-pocket expenses reasonably incurred (whether paid or then owing) by the master servicer, the special servicer, the depositor, the custodian, the certificate administrator and the trustee in respect of such purchase, including, without duplication of any amounts described above in this definition, any expenses incurred prior to such purchase date with respect to such underlying mortgage loan, and (viii) solely if such underlying mortgage loan is being purchased by or on behalf of the mortgage loan seller pursuant to or as contemplated by Section 7 of the mortgage loan purchase agreement, all out-of-pocket expenses reasonably incurred (whether paid or then owing) by the master servicer, the special servicer, the depositor, the certificate administrator, the custodian and the trustee in respect of the breach or defect giving rise to the repurchase obligation, including any expenses arising out of the enforcement of the repurchase obligation and, without duplication of any amounts described above in this definition, any expenses incurred prior to such purchase date with respect to such underlying mortgage loan; provided that if a Fair Value determination has been made, the Purchase Price must at least equal the Fair Value.

“Qualified Substitute Mortgage Loan” means a mortgage loan in the same lien position as the deleted underlying mortgage loan that must, on the date of substitution: (i) have an outstanding principal balance, after application of all scheduled payments of principal and/or interest due during or prior to the month of substitution not in excess of the Stated Principal Balance of the deleted underlying mortgage loan as of the due date in the calendar month during which the substitution occurs; (ii) have a mortgage interest rate not less than the mortgage interest rate of the deleted underlying mortgage loan; (iii) have the same due date as the deleted underlying mortgage loan; (iv) accrue interest on the same basis as the deleted underlying mortgage loan (for example, on the basis of a 360-day year and the actual number of days elapsed); (v) have a remaining term to stated maturity not greater than,

and not more than two years less than, the remaining term to stated maturity of the deleted underlying mortgage loan; (vi) have an original loan-to-value ratio not higher than that of the deleted underlying mortgage loan and a current loan-to-value ratio not higher than the then current loan-to-value ratio of the deleted underlying mortgage loan; (vii) materially comply (without waiver or exception) as of the date of substitution with all of the representations and warranties set forth in the mortgage loan purchase agreement; (viii) have an environmental report with respect to the related mortgaged real property that indicates no material adverse environmental conditions with respect to the related mortgaged real property and which will be delivered as a part of the related mortgage file; (ix) have an original debt service coverage ratio not less than the original debt service coverage ratio of the deleted underlying mortgage loan and a current debt service coverage ratio not less than the current debt service coverage ratio of the deleted underlying mortgage loan; (x) be determined by an opinion of counsel to be a “qualified replacement mortgage” within the meaning of Code Section 860G(a)(4); (xi) have been approved by the Approved Directing Certificateholder (if any) and Freddie Mac, each in its sole discretion; (xii) prohibit defeasance within two years of the Closing Date; (xiii) not be substituted for a deleted underlying mortgage loan if it would result in the termination of the REMIC status of either Trust REMIC created under the Pooling and Servicing Agreement or the imposition of tax on either Trust REMIC created under the Pooling and Servicing Agreement other than a tax on income expressly permitted or contemplated to be received by the terms of the Pooling and Servicing Agreement; and (xiv) not be substituted for a deleted underlying mortgage loan unless the trustee and the certificate administrator have received prior Rating Agency Confirmation. In the event that one or more mortgage loans are substituted for one or more deleted underlying mortgage loans simultaneously, then the amounts described in clause (i) are required to be determined on the basis of aggregate outstanding principal balances and the rates described in clause (ii) above (*provided that* no Net Mortgage Interest Rate may be less than the pass-through rate of any class of Principal Balance Certificates then outstanding) and the remaining term to stated maturity referred to in clause (v) above will be determined on a weighted average basis. When a Qualified Substitute Mortgage Loan is substituted for a deleted underlying mortgage loan, the mortgage loan seller will be required to certify that the mortgage loan meets all of the requirements of the above definition and send the certification to the trustee and the certificate administrator, which may conclusively rely on such certification.

“Rated Final Distribution Date” has the meaning assigned to such term under “Summary of Information Circular—Transaction Overview” in this information circular.

“Rating Agency” means each of Fitch and KBRA, or their successors-in-interest.

“Rating Agency Confirmation” means, with respect to any matter and only for so long as any class of rated certificates or any class of rated SPCs is then rated by any Rating Agency (i) confirmation in writing by each applicable Rating Agency that a proposed action, failure to act or other event specified in the Pooling and Servicing Agreement will not in and of itself result in the downgrade, withdrawal or qualification of the then-current rating assigned to each such class of rated certificates and each such class of rated SPCs (if then rated by such Rating Agency) or (ii) a written waiver or other acknowledgment from each applicable Rating Agency indicating its decision not to review the matter for which such confirmation is sought. For the purposes of this definition, any confirmation, waiver, request, acknowledgment or approval which is required to be in writing may be in the form of e-mail, facsimile, press release, posting to its website or other such means then considered industry standard. If a request for a Rating Agency Confirmation has been made to any Rating Agency in accordance with the provisions of the Pooling and Servicing Agreement and, within ten Business Days of such request being sent to such Rating Agency, such Rating Agency has not replied to such request, then the person requesting such Rating Agency Confirmation will be required to (a) confirm that such Rating Agency has received the request for Rating Agency Confirmation, and, if such Rating Agency has received such request, will be required to promptly request the Rating Agency Confirmation again and (b) if there is no response to either such Rating Agency Confirmation request within 5 Business Days of the request made in clause (a) above, or if such Rating Agency has responded in a manner that indicates such Rating Agency is neither reviewing such request nor waiving the requirement for Rating Agency Confirmation, the requirement to obtain a Rating Agency Confirmation with respect to such Rating Agency will be deemed to have been satisfied for purposes of the provisions of the Pooling and Servicing Agreement. If a request for a Rating Agency Confirmation has been made to a Rating Agency in accordance with the provisions of the Pooling and Servicing Agreement and such Rating Agency has responded in a manner that indicates that such Rating Agency is not waiving the requirement for Rating Agency Confirmation, but is also not reviewing such request, then the requirement to obtain Rating Agency Confirmation with respect to such Rating Agency will be deemed to have been satisfied for purposes of the provisions of the Pooling and Servicing Agreement. However, at

any time during which none of the classes of rated certificates and none of the classes of rated SPCs is rated by a Rating Agency, no Rating Agency Confirmation will be required from that Rating Agency under the Pooling and Servicing Agreement.

“Ratings Trigger Event” means, with respect to the master servicer or the special servicer, as applicable, (a) if on the Closing Date (or in the case of any successor master servicer or special servicer, the date of appointment), such party is listed on S&P’s Select Servicer List as a U.S. Commercial Mortgage Master Servicer (in the case of the master servicer) or a U.S. Commercial Mortgage Special Servicer (in the case of the special servicer), and at any time after the Closing Date (or in the case of any successor master servicer or special servicer, the date of appointment) such party loses its status on such list and such status is not restored within 60 days or (b) if on the Closing Date (or in the case of any successor master servicer or special servicer, the date of appointment) such party has a rating by Fitch higher than or equal to “CMS3” or “CSS3,” as applicable, and at any time after the Closing Date (or in the case of any successor master servicer or special servicer, the date of appointment) such rating drops to a level lower than “CMS3” or “CSS3,” as applicable, and such party is not reinstated to at least “CMS3” or “CSS3,” as applicable, within 60 days.

“Realized Losses” means the amount by which (i) the aggregate Stated Principal Balance (for purposes of this calculation only, (a) giving effect to the amount of any unreimbursed Timing Guarantor Payments and (b) not giving effect to any reductions of the Stated Principal Balance for payments and other collections of principal on the mortgage pool that were used to reimburse any Nonrecoverable Advances and Workout-Delayed Reimbursement Amounts (including any accrued advance interest), other than payments or other collections of principal used to reimburse Nonrecoverable Advances or Workout-Delayed Reimbursement Amounts (including any accrued advance interest) with respect to underlying mortgage loans as to which a final recovery determination has been made) of the mortgage pool expected to be outstanding immediately following such distribution date is less than (ii) the aggregate outstanding principal balance of the Principal Balance Certificates after giving effect to distributions of principal on such distribution date. We discuss the calculation of Realized Losses under “Description of the Certificates—Reductions of Certificate Principal Balances in Connection with Realized Losses and Additional Issuing Entity Expenses” in this information circular.

“Reform Act” means the Federal Housing Finance Regulatory Reform Act.

“Regular Certificates” has the meaning assigned to such term under “Certain Federal Income Tax Consequences—General” in this information circular.

“Regulation AB” means Subpart 229.1100 – Asset Backed Securities (Regulation AB), 17 C.F.R. §§ 229.1100-229.1125, as such rules may be amended from time to time, and subject to such clarification and interpretation as have been provided by the SEC or by the staff of the SEC, or as may be provided by the SEC or its staff from time to time, in each case, effective as of the compliance dates specified therein.

“REMIC” means a “real estate mortgage investment conduit” as defined in Code Section 860D.

“REMIC Provisions” means the provisions of the federal income tax law relating to real estate mortgage investment conduits, which appear at Sections 860A through 860G of subchapter M of chapter 1 of subtitle A of the Code, and related provisions, and temporary and final regulations and, to the extent not inconsistent with such temporary and final regulations, proposed regulations, and published rulings, notices and announcements promulgated thereunder, as may be in effect from time to time.

“Remittance Date” means, with respect to each distribution date, the Business Day prior to such distribution date.

“REO Loan” means an underlying mortgage loan deemed to be outstanding with respect to an REO Property.

“REO Property” means any mortgaged real property that is acquired on behalf of and in the name of the trustee for the benefit of the certificateholders through foreclosure, acceptance of a deed-in-lieu of foreclosure or otherwise in accordance with applicable law in connection with the default or imminent default of the related underlying mortgage loan.

“Requested Transfer” means, with respect to any underlying mortgage loan, a request for the transfer (a) of an interest in the related mortgaged real property, the related borrower or any Designated Entity for Transfers, or (b) by a Required Equity Owner of part or all of the interest required to be maintained by such Required Equity Owner, in each case, as permitted under the loan documents under certain conditions, but not including the creation of any additional lien or other encumbrance on the mortgaged real property or interests in the borrower or any Designated Entity for Transfers.

“Required Equity Owner” means a person named in a loan agreement at origination that is required to maintain a minimum percentage ownership interest in a borrower.

“Restricted Mezzanine Holder” means, with respect to an underlying mortgage loan, a holder of a related mezzanine loan that has accelerated, or otherwise begun to exercise its remedies with respect to, such mezzanine loan (unless such mezzanine holder is stayed pursuant to a written agreement or court order or as a matter of law from exercising any remedies associated with foreclosure of the related equity collateral under such mezzanine loan).

“Rule” has the meaning assigned to such term under “Description of the Mortgage Loan Seller and Guarantor—Credit Risk Retention” in this information circular.

“Rule 17g-5” means Rule 17g-5 under the Exchange Act.

“S&P” means S&P Global Ratings, and its successors-in-interest.

“Sales Comparison Approach” means a determination of the value of a mortgaged real property based on a comparison of that mortgaged real property to similar properties that have been sold recently or for which listing prices or offering figures are known. In connection with that determination, data for generally comparable properties are used and comparisons are made to demonstrate a probable price at which the mortgaged real property would sell if offered on the market.

“SEC” means the U.S. Securities and Exchange Commission.

“Section 8” means the Section 8 Tenant-Based Assistance Rental Certificate Program of the United States Department of Housing and Urban Development.

“Senior Loan” has the meaning assigned to such term under “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Permitted Additional Debt—Permitted Subordinate Mortgage Debt” in this information circular.

“Senior Loan Holder” has the meaning assigned to such term under “Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Permitted Additional Debt—Permitted Subordinate Mortgage Debt” in this information circular.

“Servicing Advance” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Servicing and Other Compensation and Payment of Expenses—Servicing Advances” in this information circular.

“Servicing Standard” means:

- (i) with respect to the underlying mortgage loans other than REO Loans, REO Properties and Specially Serviced Mortgage Loans, to the extent not inconsistent with applicable law, the terms of the Pooling and Servicing Agreement or the terms of the respective underlying mortgage loans or any applicable intercreditor or co-lender and/or similar agreement(s), servicing and administering such underlying mortgage loans in accordance with (a) Freddie Mac Servicing Practices or (b) to the extent Freddie Mac Servicing Practices do not provide sufficient guidance or Freddie Mac Servicing Practices have not been made available or communicated in writing by Freddie Mac to the master servicer, the special servicer or the related sub-servicer, as applicable, Accepted Servicing Practices; and
- (ii) with respect to REO Loans, REO Properties and Specially Serviced Mortgage Loans, to the extent not inconsistent with applicable law, the terms of the Pooling and Servicing Agreement or the terms of the

respective underlying mortgage loans or any applicable intercreditor or co-lender and/or similar agreement(s), servicing and administering such underlying mortgage loans in accordance with Accepted Servicing Practices; *provided, however*, that for Specially Serviced Mortgage Loans, to the extent consistent with applicable law, the terms of the Pooling and Servicing Agreement and the terms of the respective underlying mortgage loans and any applicable intercreditor or co-lender and/or similar agreement(s), the special servicer or the master servicer may, in its sole discretion, require the applicable borrower to maintain insurance consistent with either (a) Accepted Servicing Practices or (b) Freddie Mac Servicing Practices.

To the extent of any conflict under clause (i) of this definition (a) between Freddie Mac Servicing Practices and Accepted Servicing Practices, the terms of Freddie Mac Servicing Practices will govern and be applicable and (b) between Freddie Mac Servicing Practices or Accepted Servicing Practices and the express written terms of the Pooling and Servicing Agreement, the terms of the Pooling and Servicing Agreement will govern and be applicable.

“Servicing Transfer Event” means, with respect to any underlying mortgage loan, any of the following events, among others:

- (i) a payment default occurs at its scheduled maturity date and the related borrower has not delivered to the master servicer, at least 10 Business Days prior to the scheduled maturity date, documentation reasonably satisfactory in form and substance to the master servicer which demonstrates to the master servicer’s satisfaction (determined in accordance with the Servicing Standard) that a refinancing of such underlying mortgage loan or sale of the related mortgaged real property to a party that is not an affiliate of the borrower will occur within 60 days after the scheduled maturity date (which 60-day period may be extended to 120 days at the discretion of the special servicer with the consent of the Approved Directing Certificateholder (if any), subject to the last two paragraphs of “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Asset Status Report” in this information circular with respect to any Affiliated Borrower Loan); provided that if either (a) such refinancing or sale does not occur before the expiration date of the refinancing commitment or purchase agreement approved by the master servicer or (b) the borrower does not make any assumed scheduled payment in respect of the related underlying mortgage loan at any time prior to such a refinancing or sale, a Servicing Transfer Event will occur immediately;
- (ii) any monthly principal and/or interest payment (other than a balloon payment) is 60 days or more delinquent;
- (iii) the related borrower has—
 - (a) filed for, or consented to, bankruptcy, appointment of a receiver or conservator or a similar insolvency proceeding;
 - (b) become the subject of a decree or order for such a proceeding which is not stayed or discharged within 60 days; or
 - (c) has admitted in writing its inability to pay its debts generally as they become due;
- (iv) the master servicer or the special servicer has received notice of the foreclosure or proposed foreclosure of any lien on the mortgaged real property;
- (v) in the judgment of (a) the master servicer (with the approval of Freddie Mac) or (b) the special servicer (with the approval of Freddie Mac and the Approved Directing Certificateholder (if any), subject to the last two paragraphs of “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Asset Status Report” in this information circular with respect to any Affiliated Borrower Loan), (1) a default under any underlying mortgage loan is reasonably foreseeable, (2) such default will materially impair the value of the related mortgaged real property as security for such underlying mortgage loan or otherwise materially adversely affect the interests of certificateholders, and (3) the default either would give rise to the immediate right to accelerate the underlying mortgage loan or such default is likely to continue unremedied for the applicable cure period under the terms of such underlying mortgage loan or, if no cure period is specified and the default is capable of being cured, for 30 days, *provided* that if Freddie Mac’s approval is sought by the master servicer and not provided (and/or during the period that the master servicer is waiting for Freddie Mac’s approval), the master servicer’s servicing obligations with respect to

such underlying mortgage loan will be to service such underlying mortgage loan as a non-Specially Serviced Mortgage Loan; or

- (vi) any other default has occurred under the loan documents that, in the reasonable judgment of (a) the master servicer, or (b) with the approval of the Approved Directing Certificateholder (if any) (subject to the last two paragraphs of “The Pooling and Servicing Agreement—Realization Upon Mortgage Loans—Asset Status Report” in this information circular with respect to any Affiliated Borrower Loan), the special servicer, has materially and adversely affected the value of the related underlying mortgage loan or otherwise materially and adversely affected the interests of the certificateholders and has continued unremedied for 30 days (irrespective of any grace period specified in the related mortgage note) and, *provided* that failure of the related borrower to obtain all-risk casualty insurance which does not contain any carveout for terrorist or similar acts (other than such amounts as are specifically required under the related underlying mortgage loan) will not apply with respect to this clause if the special servicer has determined in accordance with the Servicing Standard that either (a) such insurance is not available at commercially reasonable rates and that such hazards are not commonly insured against for properties similar to the mortgaged real property and located in or around the region in which such mortgaged real property is located, or (b) such insurance is not available at any rate.

A Servicing Transfer Event will cease to exist, if and when a Specially Serviced Mortgage Loan becomes a Corrected Mortgage Loan.

“Significant Loan” means, at any time, any underlying mortgage loan (i) whose outstanding principal balance is \$25,000,000 or more at such time or (ii) that is (a) an underlying mortgage loan or (b) part of a group of underlying mortgage loans made to borrowers under common ownership that, in each case, in the aggregate, represents 5% or more of the aggregate outstanding principal balance of the mortgage pool at such time and in any event has an outstanding principal balance or aggregate outstanding principal balance of at least \$10,000,000.

“Sole Certificateholder” means the holder (or holders provided they act in unanimity) of, collectively, 100% of the class X2-B, X3 and D certificates having an outstanding principal balance or notional amount, as applicable, greater than zero or an assignment of the voting rights in respect of such classes of certificates; *provided*, that at the time of determination the outstanding principal balances of the class A-1, A-2, A-M, B and C certificates and the notional amounts of the class X1, X2-A and XAM certificates have been reduced to zero.

“SPCs” means Freddie Mac’s series K-103 structured pass-through certificates.

“Special Servicer Aggregate Annual Cap” means \$300,000 per calendar year.

“Specially Serviced Mortgage Loan” means any underlying mortgage loan as to which a Servicing Transfer Event has occurred and is continuing, including any REO Loan or Defaulted Loan.

“Stated Principal Balance” means, with respect to any underlying mortgage loan (except with respect to any REO Loan), as of any date of determination, an amount equal to (i) the Cut-off Date Principal Balance of such underlying mortgage loan or with respect to a Qualified Substitute Mortgage Loan, the outstanding principal balance of such Qualified Substitute Mortgage Loan after application of all scheduled payments of principal and interest due during or prior to the month of substitution, whether or not received, minus (ii) the sum of:

- (a) the principal portion of each monthly payment due on such underlying mortgage loan after the Cut-off Date (or, with respect to a Qualified Substitute Mortgage Loan, the applicable due date during the month of substitution), to the extent received from the related borrower or advanced by the master servicer or the trustee, as applicable, and distributed to the certificateholders, on or before such date of determination;
- (b) all principal prepayments received with respect to such underlying mortgage loan after the Cut-off Date (or, with respect to a Qualified Substitute Mortgage Loan, the applicable due date during the month of substitution), to the extent distributed to the certificateholders, on or before such date of determination;
- (c) the principal portion of all insurance and condemnation proceeds and Liquidation Proceeds received with respect to such underlying mortgage loan after the Cut-off Date (or, with respect to a Qualified Substitute Mortgage Loan, the applicable due date during the month of substitution), to the extent distributed to the certificateholders, on or before such date of determination;

- (d) any reduction in the outstanding principal balance of such underlying mortgage loan resulting from a valuation of the related mortgaged real property in an amount less than the outstanding principal balance of such underlying mortgage loan by a court of competent jurisdiction, initiated by a bankruptcy proceeding and that occurred prior to the determination date for the most recent distribution date; and
- (e) any reduction in the outstanding principal balance of such underlying mortgage loan due to a modification by the special servicer pursuant to the Pooling and Servicing Agreement, which reduction occurred prior to the determination date for the most recent distribution date.

However, the “Stated Principal Balance” of any underlying mortgage loan will, in all cases, be zero as of the distribution date following the Collection Period in which it is determined that all amounts ultimately collectible with respect to that underlying mortgage loan or any related REO Property have been received.

With respect to any REO Loan, as of any date of determination, “Stated Principal Balance” means an amount equal to (i) the Stated Principal Balance of the predecessor underlying mortgage loan (determined as set forth above), as of the date the related REO Property is acquired by the issuing entity, minus (ii) the sum of:

- (a) the principal portion of any P&I Advance made with respect to such REO Loan on or after the date the related REO Property is acquired by the issuing entity, to the extent distributed to certificateholders on or before such date of determination; and
- (b) the principal portion of all insurance and condemnation proceeds, Liquidation Proceeds and all income, rents and profits derived from the ownership, operation or leasing of the related REO Property received with respect to such REO Loan, to the extent distributed to certificateholders, on or before such date of determination.

Any payment or other collection of principal on or with respect to any underlying mortgage loan (including any successor REO Loan) that constitutes part of the Principal Distribution Amount for any distribution date, without regard to the last sentence of the definition of Principal Distribution Amount, and further without regard to any Principal Distribution Adjustment Amount for such distribution date, will be deemed to be distributed to certificateholders on such distribution date for purposes of this definition.

“Static Prepayment Premium” means a form of prepayment consideration payable in connection with any voluntary or involuntary principal prepayment that is calculated solely as a specified percentage of the amount prepaid, which percentage may change over time.

“Static Prepayment Premium Period” means, with respect to any underlying mortgage loan that at any time permits voluntary prepayments of principal if accompanied by a Static Prepayment Premium, the period during the loan term when such voluntary principal prepayments may be made if accompanied by such Static Prepayment Premium.

“Sub-Servicing Agreement” means each sub-servicing agreement between the master servicer and the related sub-servicer relating to servicing and administration of underlying mortgage loans by such sub-servicer as provided in the Pooling and Servicing Agreement.

“Successor Servicer Requirements” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Resignation, Removal and Replacement of Servicers; Transfer of Servicing Duties—Resignation of the Master Servicer or the Special Servicer” in this information circular.

“Surveillance Fee Mortgage Loan” means any underlying mortgage loan other than (i) an underlying mortgage loan, or portion of an underlying mortgage loan, that has been defeased, (ii) a Specially Serviced Mortgage Loan or (iii) any successor REO Loan.

“Timing Guarantor Interest” means, with respect to any distribution date and any class of Offered Principal Balance Certificates, the sum of (i) (a) with respect to Balloon Guarantor Payments made as a result of a forbearance of a payment default on an underlying mortgage loan permitted under clause (i) of the definition of Servicing Transfer Event during the time of such forbearance, an amount equal to interest at the lesser of (1) the Weighted Average Net Mortgage Pass-Through Rate for the related Interest Accrual Period or (2) the Net Mortgage Pass-

Through Rate for the underlying mortgage loan requiring the Balloon Guarantor Payment for the related Interest Accrual Period, or (b) otherwise an amount equal to interest at the Weighted Average Net Mortgage Pass-Through Rate for the related Interest Accrual Period, in each case on any unreimbursed Timing Guarantor Payment for such class and (ii) any such amount set forth in clause (i) for prior distribution dates that remains unreimbursed.

“Timing Guarantor Payment” means, with respect to any distribution date and any class of Offered Principal Balance Certificates, any Balloon Guarantor Payment or Class Final Guarantor Payment.

“Total Units” means, except as described in the next two sentences, the estimated number of apartments at the particular mortgaged real property, regardless of the number or size of rooms in the apartments as reflected in information provided by the borrower or in the appraisal on which the most recent Appraised Value is based. In the case of the mortgaged real property identified on Exhibit A-1 as “The Verge Apartments,” Total Units refers to the number of beds at the particular mortgaged real property instead of the number of apartments. In the case of the mortgaged real properties identified on Exhibit A-1 as “Contempo Tempe MHC,” “Tierra West,” “Aztec Village,” “Homestead Village,” “Cottage Cove” and “Picnic Grove MHC,” Total Units includes manufactured home pads and recreational vehicle pads and may also include manager apartments, rental apartments, stick-built homes or other rentable space that are ancillary to the operation of the mortgaged real property.

“Transfer” generally means, with respect to any underlying mortgage loan, the sale, assignment, transfer or other disposition or divestment of any interest in, change of ownership of, or encumbrance of, the related borrower or the related mortgaged real property, including any collateral substitution, as set forth in the related loan documents.

“Transfer Fee” means, with respect to any underlying mortgage loan, a fee payable under the related loan documents when a Transfer is completed. A Transfer Fee may be referred to as one or more of the following fees, as applicable, (a) “Transfer Fee,” (b) “Conditional Transfer Fee,” and/or (c) “Substitution Fee” (or any similar fee related to a collateral substitution) as such terms are defined in the related loan documents.

“Transfer Processing Fee” means, with respect to any underlying mortgage loan and any Transfer Processing Fee Transaction, the fee required to be paid by the related borrower under the terms of the related loan documents for the review and/or processing of the Transfer Processing Fee Transaction, which may also be referred to in the loan documents as (a) a “Transfer Processing Fee,” (b) a “Special Transfer Processing Fee,” (c) a “Release Processing Fee” (or any similar fee related to a cross-collateralized loan property release), (d) a “Substitution Processing Fee” (or any similar fee related to a collateral substitution), and/or (e) for loan agreements having a revision date prior to July 1, 2014, a “Transfer Review Fee.”

“Transfer Processing Fee Transaction” means, with respect to any underlying mortgage loan, any transaction or matter involving (i) the transfer (x) of an interest in the related mortgaged real property, the related borrower, any person that controls the borrower or any person that executes a guaranty pursuant to the terms of the related loan documents or (y) by any related Required Equity Owner of part or all of the interest required to be maintained by such Required Equity Owner, which transfer requires the master servicer’s review, consent and/or approval, including, without limitation, a borrower’s request for an assumption or waiver of a “due-on-sale” clause with respect to any loan pursuant to the Pooling and Servicing Agreement (ii) a borrower’s request for a waiver of a “due-on-encumbrance” clause with respect to any underlying mortgage loan pursuant to the Pooling and Servicing Agreement and/or (iii) any material modification or replacement of an existing Home Sharing Master Lease or approval of a Home Sharing Master Lease during the term of any related underlying mortgage loan, *provided, however,* that any transaction or matter involving (a) defeasance of such underlying mortgage loan, (b) the full or partial condemnation of the mortgaged real property or any borrower request for consent to subject the related mortgaged real property to an easement, right of way or similar agreement for utilities, access, parking, public improvements or another purpose, (c) Permitted Transfers, unless the related loan documents specifically provide for payment of a Transfer Processing Fee, and/or (d) permitted subordinate mortgage debt, will not be a Transfer Processing Fee Transaction.

“Treasury” means the U.S. Department of the Treasury.

“Treasury Regulations” has the meaning assigned to such term under “The Pooling and Servicing Agreement—Modifications, Waivers, Amendments and Consents” in this information circular.

“Trust REMIC” means either one of two separate REMICs referred to in this information circular as the “Lower-Tier REMIC” and the “Upper-Tier REMIC.”

“Trustee Aggregate Annual Cap” means \$150,000 per calendar year.

“Trustee/Certificate Administrator/Custodian Aggregate Annual Cap” means if the same person or entity is acting as the trustee, the certificate administrator and the custodian, \$300,000 per calendar year with respect to such person or entity.

“Underwritten Debt Service Coverage Ratio” means, with respect to any underlying mortgage loan, the ratio of:

- (i) the Underwritten Net Cash Flow for the related mortgaged real property (or, in the case of an underlying mortgage loan secured by multiple mortgaged real properties, the sum of the Underwritten Net Cash Flow for the related mortgaged real properties), to
- (ii) 12 times the monthly debt service payment for that underlying mortgage loan on the Cut-off Date;

provided that, if the underlying mortgage loan is currently in an interest-only period, then the amount in clause (ii) of this definition with respect to such underlying mortgage loan will be either (a) if that interest-only period extends to maturity, 12 times the first monthly debt service payment for such underlying mortgage loan or (b) if that interest-only period ends prior to maturity, 12 times the monthly debt service payment for such underlying mortgage loan on the first due date after amortization begins.

“Underwritten Debt Service Coverage Ratio (IO)” means, with respect to any underlying mortgage loan that is currently in an interest-only period, the ratio of (i) the Underwritten Net Cash Flow for the related mortgaged real property (or, in the case of an underlying mortgage loan secured by multiple mortgaged real properties, the sum of the Underwritten Net Cash Flow for all of the related mortgaged real properties), to (ii) an amount equal to 12 times the first monthly debt service payment due on such underlying mortgage loan.

“Underwritten Net Cash Flow” means, with respect to each of the mortgaged real properties securing an underlying mortgage loan, the estimated total cash flow from that mortgaged real property expected to be available for annual debt service on the related underlying mortgage loan. In general, that estimate (i) was made at the time of origination of the related underlying mortgage loan or in connection with the transactions described in this information circular and (ii) is equal to the excess of (a) the Estimated Annual Revenues for the mortgaged real property, over (b) the Estimated Annual Operating Expenses for the mortgaged real property.

The management fees and reserves assumed in calculating Underwritten Net Cash Flow differ in many cases from actual management fees and reserves actually required under the loan documents for the related underlying mortgage loans. In addition, actual conditions at the mortgaged real properties will differ, and may differ substantially, from the conditions assumed in calculating Underwritten Net Cash Flow. Furthermore, the Underwritten Net Cash Flow for each of the mortgaged real properties does not reflect the effects of future competition or economic cycles. Accordingly, we cannot assure you that the Underwritten Net Cash Flow for any of the mortgaged real properties shown on Exhibit A-1 will be representative of the actual future net cash flow for the particular mortgaged real property.

Underwritten Net Cash Flow and the revenues and expenditures used to determine Underwritten Net Cash Flow for each of the mortgaged real properties are derived from generally unaudited information furnished by the related borrower. However, in some cases, an accounting firm performed agreed upon procedures, or employees of the applicable Originator performed cash flow verification procedures, that were intended to identify any errors in the information provided by the related borrower. Audits of information furnished by borrowers could result in changes to the information. These changes could, in turn, result in the Underwritten Net Cash Flow shown on Exhibit A-1 being overstated. Net income for any of the mortgaged real properties as determined under GAAP would not be the same as the Underwritten Net Cash Flow for the mortgaged real property shown on Exhibit A-1. In addition, Underwritten Net Cash Flow is not a substitute for or comparable to operating income as determined in accordance with GAAP as a measure of the results of the mortgaged real property’s operations nor a substitute for cash flows from operating activities determined in accordance with GAAP as a measure of liquidity.

“Underwritten Net Operating Income” means, with respect to each of the mortgaged real properties securing an underlying mortgage loan, the Underwritten Net Cash Flow for the mortgaged real property, increased by any and all of the following items that were included in the Estimated Annual Operating Expenses for the mortgaged real property for purposes of calculating that Underwritten Net Cash Flow (i) underwritten recurring replacement reserve amounts, and (ii) capital improvements, including recurring capital improvements.

“United States” or “U.S.” means the United States of America.

“Unpaid Interest Shortfall” has the meaning assigned to such term under “Description of the Certificates—Distributions—Interest Distributions” in this information circular.

“Unreimbursed Indemnification Expenses” means indemnification amounts payable by the issuing entity to the depositor, the master servicer, the special servicer, the custodian, the certificate administrator or the trustee in excess of the Depositor Aggregate Annual Cap, the Trustee Aggregate Annual Cap or the Certificate Administrator/Custodian Aggregate Annual Cap (if different persons or entities are the trustee and certificate administrator/custodian), the Trustee/Certificate Administrator/Custodian Aggregate Annual Cap (if the same person or entity is the trustee and certificate administrator/custodian), the Master Servicer Aggregate Annual Cap and the Special Servicer Aggregate Annual Cap, together with any accrued and unpaid interest on such amounts, which have not been previously reimbursed.

“U.S. Bank” means U.S. Bank National Association, a national banking association, and its successors-in-interest.

“Upper-Tier REMIC” means the REMIC identified as such and described under “Certain Federal Income Tax Consequences—General” in this information circular.

“U.S. Person” means a citizen or resident of the United States, a corporation or partnership created or organized in or under the laws of the United States, any State in the United States or the District of Columbia, including an entity treated as a corporation or partnership for federal income tax purposes, an estate whose income is subject to U.S. federal income tax regardless of its source, or a trust if a court within the United States is able to exercise primary supervision over the administration of such trust, and one more such U.S. Persons have the authority to control all substantial decisions of such trust (or, to the extent provided in applicable Treasury Regulations, certain trusts in existence on August 20, 1996 that have elected to be treated as U.S. Persons).

“UST” means an underground storage tank.

“Volcker Rule” has the meaning assigned to such term under “Description of the Issuing Entity” in this information circular.

“WAC” has the meaning assigned to such term under “Summary of Information Circular—Transaction Overview” in this information circular.

“Weighted Average Net Mortgage Pass-Through Rate” has the meaning assigned to such term under “Summary of Information Circular—Transaction Overview” in this information circular.

“Wells Fargo Bank” means Wells Fargo Bank, National Association, a national banking association, and its successors-in-interest.

“Workout-Delayed Reimbursement Amount” has the meaning assigned to such term under “Description of the Certificates—Advances of Delinquent Monthly Debt Service Payments” in this information circular.

“Year Built” means, with respect to any mortgaged real property securing an underlying mortgage loan, the year when construction of the property was principally completed, as reflected in information provided by the borrower or in the appraisal on which the most recent Appraised Value of the property is based or the engineering report.

“Year Renovated” means, with respect to any mortgaged real property securing an underlying mortgage loan, the year when the most recent substantial renovation of the property, if any, was principally completed, as reflected

in information provided by the borrower or in the appraisal on which the most recent Appraised Value of the property is based or the engineering report.

“Yield Maintenance Charge” means a form of prepayment consideration payable in connection with any voluntary or involuntary principal prepayment that is calculated pursuant to a yield maintenance formula, including any minimum amount equal to a specified percentage of the amount prepaid.

“Yield Maintenance Period” means, with respect to any applicable underlying mortgage loan that at any time permits voluntary prepayments of principal if accompanied by a Yield Maintenance Charge, the period during the loan term when such voluntary principal prepayments may be made if accompanied by such Yield Maintenance Charge.

EXHIBIT A-1

**CERTAIN CHARACTERISTICS OF THE UNDERLYING
MORTGAGE LOANS AND THE RELATED MORTGAGED REAL PROPERTIES**

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Exhibit A-1

Loan No. / Property No.	Footnotes	Number of Properties	Property Name	Optigo Lender	Street Address	Property City	Property State	Zip Code	County	Property Type	Property Subtype	Year Built
1		1	Park Regency Club Apartments	Wells Fargo Bank, National Association	10000 Imperial Highway	Downey	CA	90242	Los Angeles	Multifamily	Garden	1971
2		1	Villas At Wood Ranch	Wells Fargo Bank, National Association	241 Country Club Drive	Simi Valley	CA	93065	Ventura	Multifamily	Garden	1986
3		1	York Brook Apartments	Berkadia Commercial Mortgage LLC	100 East George Street	Bensenville	IL	60106	DuPage	Multifamily	Mid Rise	1974
4		1	Madison Ellis Preserve	Prudential Affordable Mortgage Company, LLC	400 Charles Ellis Drive	Newtown Square	PA	19073	Delaware	Multifamily	Garden	2017
5		1	The Park At Hurstbourne Apartments	Greystone Servicing Company LLC	6000 Big Ben Drive	Louisville	KY	40291	Jefferson	Multifamily	Garden	1972
6		1	Park Valley Apartments	PNC Bank, National Association	4570 South Cobb Drive	Smyrna	GA	30082	Cobb	Multifamily	Garden	1986
7		1	Tapestry Park At Montclair	Berkeley Point Capital LLC, d/b/a Newmark Knight Frank	801 Montclair Road	Birmingham	AL	35213	Jefferson	Multifamily	Garden	2012
8		1	Lakeside At Coppell	PNC Bank, National Association	620 North Coppell Road	Coppell	TX	75019	Dallas	Multifamily	Garden	1998
9		1	The Hanover Apartments	KeyBank National Association	7232 Hanover Parkway	Greenbelt	MD	20770	Prince George's	Multifamily	Garden	1966
10		1	Savannah At Park Central	Grandbridge Real Estate Capital LLC	2691 Charleston Town Place	Orlando	FL	32839	Orange	Multifamily	Garden	2007
11		1	Palisade Park	Holiday Fenoglio Fowler, L.P.	16815 Huron Street	Broomfield	CO	80023	Broomfield	Multifamily	Garden	2016
12		1	Peakview By Horseshoe Lake	PNC Bank, National Association	341 Knobcone Drive	Loveland	CO	80538	Larimer	Multifamily	Garden	2002
13		1	Amber Lakes	Berkadia Commercial Mortgage LLC	4755 North Goldenrod Road	Winter Park	FL	32792	Orange	Multifamily	Garden	1973
14		1	Carib Villas	Berkadia Commercial Mortgage LLC	11105 Southwest 200th Street	Miami	FL	33157	Miami-Dade	Multifamily	Garden	1966
15		1	Contempo Tempe MHC	Hunt Mortgage Partners, LLC	2609 West Southern Avenue	Tempe	AZ	85282	Maricopa	Multifamily	MHC Age Restricted	1974
16		1	ARIUM Lakeshore	Capital One, National Association	2850 Venice Road	Birmingham	AL	35211	Jefferson	Multifamily	Garden	2014
17		1	Parkway Terraces	CBRE Capital Markets, Inc.	603 East College Parkway	Carson City	NV	89706	Carson City	Multifamily	Garden	2000
18	(12)	1	Broadstone Northpoint	CBRE Capital Markets, Inc.	9100 San Mateo Boulevard Northeast	Albuquerque	NM	87113	Bernalillo	Multifamily	Garden	2018
19		1	Fairways Of Naperville	Berkadia Commercial Mortgage LLC	970 Fairway Drive	Naperville	IL	60563	DuPage	Multifamily	Garden	1985
20		1	Grand Reserve Orange Apartments	Greystone Servicing Company LLC	45 Prindle Hill Road	Orange	CT	06477	New Haven	Multifamily	Garden	2004
21		1	Tierra West	Capital One, National Association	224 Atrisco Vista Boulevard Southwest	Albuquerque	NM	87121	Bernalillo	Multifamily	Manufactured Housing Community	1988
22		1	Hillcroft Village	Walker & Dunlop, LLC	10 Clapboard Ridge Road	Danbury	CT	06811	Fairfield	Multifamily	Garden	1971
23		1	The Meadows At North Richland Hills	PNC Bank, National Association	8515 Boulevard 26	North Richland Hills	TX	76180	Tarrant	Multifamily	Garden	1998
24		1	Ivy Park	Walker & Dunlop, LLC	6444 Jones Creek Road	Baton Rouge	LA	70817	East Baton Rouge	Multifamily	Garden	2007
25		1	The Reserve At Quail North	CBRE Capital Markets, Inc.	2600 Watermark Boulevard	Oklahoma City	OK	73134	Oklahoma	Multifamily	Garden	2016
26		1	Vista Buena Apartments	Capital One, National Association	13350 Esperanza Road	Dallas	TX	75240	Dallas	Multifamily	Garden	1976
27	(13)	1	The Verge Apartments	Wells Fargo Bank, National Association	945 Arrowhead Drive	Oxford	OH	45056	Butler	Multifamily	Student	2018
28		1	Brookview At Templeton Crossing	Berkeley Point Capital LLC, d/b/a Newmark Knight Frank	5418 Arbrook	Columbus	OH	43228	Franklin	Multifamily	Garden	2001
29	(14)	1	Sandstone Vistas 1	Capital One, National Association	2315 Zlaten Drive	Longmont	CO	80504	Weld County	Multifamily	Garden	2019
30	(15)	1	Hillcrest Apartments	CBRE Capital Markets, Inc.	1000 Goeglein Gulch Road	Durango	CO	81301	La Plata	Multifamily	Student	2002
31		1	Park On Clairmont	Berkadia Commercial Mortgage LLC	3180 Clairmont Road	Atlanta	GA	30329	DeKalb	Multifamily	Garden	1984
32		1	Tides On Broadway	Berkadia Commercial Mortgage LLC	2107 West Broadway Road	Mesa	AZ	85202	Maricopa	Multifamily	Garden	1983
33		1	Vineyard Park At Bothell Landing	M&T Realty Capital Corporation	10519 East Riverside Drive	Bothell	WA	98011	King	Multifamily	Assisted Living	2004
34		1	Berwick Grove Apartments	Citibank, N.A.	3240 Tradan Drive	Columbus	OH	43232	Franklin	Multifamily	Garden	1972
35		1	The Mansion	Holiday Fenoglio Fowler, L.P.	1101 University Avenue	Boulder	CO	80302	Boulder	Multifamily	Student	1924
36	(16)	1	6210 Roosevelt	Capital One, National Association	6210 Roosevelt Boulevard	Philadelphia	PA	19149	Philadelphia	Multifamily	Garden	1950
37	(17)	1	Abigail Vare Apartments	Walker & Dunlop, LLC	1619 East Moyamensing Avenue	Philadelphia	PA	19148	Philadelphia	Multifamily	Garden	1902
38		1	Dupont Villa Apartments	NorthMarq Capital, LLC	3431 Dupont Avenue South	Minneapolis	MN	55408	Hennepin	Multifamily	Garden	1950
39		1	Aztec Village	Capital One, National Association	3000 Aztec Road Northeast	Albuquerque	NM	87107	Bernalillo	Multifamily	Manufactured Housing Community	1970
40		1	Ashton Square	Citibank, N.A.	800 Brookside Court	Columbus	OH	43228	Franklin	Multifamily	Garden	1974
41		1	Homestead Village	Capital One, National Association	2800 Homestead Drive	Raleigh	NC	27616	Wake	Multifamily	Manufactured Housing Community	1972
42		1	Cottage Cove	Capital One, National Association	412 Village Park Road	Kannapolis	NC	28081	Rowan	Multifamily	Manufactured Housing Community	1998
43		1	Morgan Estates	M&T Realty Capital Corporation	4339 Clear View Drive	Geneseo	NY	14454	Livingston	Multifamily	Age Restricted	2000
44	(18)	1	Tanager Springs II Apartments	Berkadia Commercial Mortgage LLC	2107 South Maple Avenue	Fresno	CA	93725	Fresno	Multifamily	Garden	2009
45	(18)	1	Tanager Springs I Apartments	Berkadia Commercial Mortgage LLC	2151 South Maple Avenue	Fresno	CA	93725	Fresno	Multifamily	Garden	2009
46		1	Picnic Grove MHC	Wells Fargo Bank, National Association	215 Harding Highway	Pitts Grove	NJ	08318	Salem	Multifamily	Manufactured Housing Community	1966

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Exhibit A-1

Loan No. / Property No.	Footnotes	Number of Properties	Property Name	Year Renovated	Total Units	Cut-Off Date Balance/Unit	Unit of Measure	Low Income Units ⁽¹⁾	Very Low Income Units ⁽¹⁾	Non- Compliance Provisions (Y/N)	Occupancy %	Occupancy As of Date	Loan Purpose (Acquisition, Refinance)	Single Purpose Borrowing Entity / Single Asset Borrowing Entity	Crossed Loans	Related Borrower Loans ⁽²⁾	Payment Date
1		1	Park Regency Club Apartments	2019	460	188,641	Units	N/A	N/A	No	94.8%	9/30/2019	Refinance	SPE	N/A	N/A	1
2		1	Villas At Wood Ranch	2019	372	216,358	Units	N/A	N/A	No	96.8%	9/30/2019	Refinance	SPE	N/A	N/A	1
3		1	York Brook Apartments	N/A	571	106,590	Units	556	1	No	96.5%	7/31/2019	Acquisition	SPE	N/A	N/A	1
4		1	Madison Ellis Preserve	N/A	252	236,389	Units	N/A	N/A	No	94.4%	8/28/2019	Refinance	SPE	N/A	N/A	1
5		1	The Park At Hurstbourne Apartments	2019	689	76,197	Units	685	82	No	92.9%	10/23/2019	Refinance	SPE	N/A	N/A	1
6		1	Park Valley Apartments	2019	496	98,992	Units	434	N/A	No	94.2%	11/13/2019	Refinance	SPE	N/A	Group 1	1
7		1	Tapestry Park At Montclair	N/A	354	137,712	Units	14	N/A	No	95.5%	11/13/2019	Refinance	SPE	N/A	Group 1	1
8		1	Lakeside At Coppel	N/A	315	153,178	Units	1	N/A	No	97.1%	9/30/2019	Refinance	SPE	N/A	Group 1	1
9		1	The Hanover Apartments	2019	320	142,813	Units	320	1	No	94.1%	11/13/2019	Refinance	SPE	N/A	N/A	1
10		1	Savannah At Park Central	N/A	288	141,274	Units	N/A	N/A	No	95.1%	8/13/2019	Refinance	SPE	N/A	N/A	1
11		1	Palisade Park	N/A	216	186,161	Units	3	N/A	No	94.4%	12/2/2019	Refinance	SPE	N/A	N/A	1
12		1	Peakview By Horseshoe Lake	2016	222	173,068	Units	127	N/A	No	95.5%	9/30/2019	Refinance	SPE	N/A	Group 1	1
13		1	Amber Lakes	2017	278	132,194	Units	N/A	N/A	No	96.8%	9/6/2019	Acquisition	SPE	N/A	N/A	1
14		1	Carib Villas	2019	365	96,603	Units	66	2	No	95.9%	8/7/2019	Refinance	SPE	N/A	N/A	1
15		1	Contempo Tempe MHC	N/A	454	76,419	Pads	454	433	No	89.6%	11/6/2019	Refinance	SPE	N/A	N/A	1
16		1	ARIUM Lakeshore	N/A	288	119,156	Units	115	N/A	No	95.8%	9/4/2019	Acquisition	SPE	N/A	N/A	1
17		1	Parkway Terraces	2019	176	184,330	Units	9	N/A	No	94.3%	8/15/2019	Acquisition	SPE	N/A	N/A	1
18	(12)	1	Broadstone Northpoint	N/A	226	140,929	Units	N/A	N/A	No	98.2%	8/26/2019	Acquisition	SPE	N/A	N/A	1
19		1	Fairways Of Naperville	2019	210	145,119	Units	98	14	No	95.7%	11/20/2019	Acquisition	SPE	N/A	N/A	1
20		1	Grand Reserve Orange Apartments	N/A	168	171,667	Units	42	42	No	94.6%	11/26/2019	Acquisition	SPE	N/A	N/A	1
21		1	Tierra West	N/A	574	48,214	Pads	574	574	No	88.9%	11/25/2019	Refinance	SPE	N/A	Group 2	1
22		1	Hillcroft Village	2018	192	141,146	Units	187	12	No	95.8%	8/21/2019	Refinance	SPE	N/A	N/A	1
23		1	The Meadows At North Richland Hills	2017	252	106,698	Units	144	N/A	No	97.2%	9/30/2019	Refinance	SPE	N/A	Group 1	1
24		1	Ivy Park	N/A	252	102,825	Units	241	N/A	No	93.3%	9/11/2019	Refinance	SPE	N/A	N/A	1
25		1	The Reserve At Quail North	N/A	280	89,282	Units	191	N/A	No	94.3%	9/12/2019	Acquisition	SPE	N/A	N/A	1
26		1	Vista Buena Apartments	N/A	239	95,188	Units	239	3	No	95.8%	9/5/2019	Refinance	SPE	N/A	N/A	1
27	(13)	1	The Verge Apartments	N/A	404	52,847	Beds	N/A	N/A	No	95.3%	9/5/2019	Acquisition	SPE	N/A	N/A	1
28		1	Brookview At Templeton Crossing	N/A	272	63,956	Units	272	67	No	95.6%	8/13/2019	Refinance	SPE	N/A	N/A	1
29	(14)	1	Sandstone Vistas 1	N/A	120	138,042	Units	N/A	N/A	No	98.3%	9/30/2019	Refinance	SPE	N/A	N/A	1
30	(15)	1	Hillcrest Apartments	N/A	112	126,250	Units	65	N/A	No	98.2%	10/25/2019	Acquisition	SPE (\$15M or less)	N/A	N/A	1
31		1	Park On Clairmont	N/A	111	114,838	Units	80	N/A	No	96.4%	8/30/2019	Acquisition	SPE (\$15M or less)	N/A	N/A	1
32		1	Tides On Broadway	2019	155	80,645	Units	155	1	No	94.8%	8/19/2019	Acquisition	SPE (\$15M or less)	N/A	N/A	1
33		1	Vineyard Park At Bothell Landing	N/A	87	141,379	Units	55	40	No	94.3%	9/1/2019	Refinance	SPE (\$15M or less)	N/A	N/A	1
34		1	Berwick Grove Apartments	2004	206	52,864	Units	206	202	No	98.5%	9/17/2019	Refinance	SPE (\$15M or less)	N/A	Group 3	1
35		1	The Mansion	2014	13	749,077	Units	N/A	N/A	No	100.0%	8/15/2019	Refinance	SPE (\$15M or less)	N/A	N/A	1
36	(16)	1	6210 Roosevelt	N/A	108	88,370	Units	108	7	No	98.1%	9/4/2019	Refinance	SPE (\$15M or less)	N/A	N/A	1
37	(17)	1	Abigail Vare Apartments	2018	42	219,048	Units	1	N/A	No	97.6%	9/1/2019	Refinance	SPE (\$15M or less)	N/A	N/A	1
38		1	Dupont Villa Apartments	N/A	159	57,547	Units	159	37	No	98.1%	8/31/2019	Refinance	SPE (\$15M or less)	N/A	N/A	1
39		1	Aztec Village	N/A	163	52,147	Pads	163	163	No	98.2%	8/27/2019	Refinance	SPE (\$15M or less)	N/A	Group 2	1
40		1	Ashton Square	2004	200	41,000	Units	200	200	No	98.0%	7/31/2019	Refinance	SPE (\$15M or less)	N/A	Group 3	1
41		1	Homestead Village	N/A	184	39,130	Pads	184	184	No	95.7%	9/3/2019	Refinance	SPE (\$15M or less)	N/A	Group 2	1
42		1	Cottage Cove	N/A	197	32,487	Pads	196	196	No	92.4%	9/3/2019	Refinance	SPE (\$15M or less)	N/A	Group 2	1
43		1	Morgan Estates	N/A	86	65,698	Units	76	30	No	100.0%	7/31/2019	Refinance	SPE (\$15M or less)	N/A	N/A	1
44	(18)	1	Tanager Springs II Apartments	N/A	80	67,500	Units	80	34	No	97.5%	8/15/2019	Refinance	SPE (\$15M or less)	N/A	Group 4	1
45	(18)	1	Tanager Springs I Apartments	N/A	74	68,919	Units	74	36	No	96.0%	8/15/2019	Refinance	SPE (\$15M or less)	N/A	Group 4	1
46		1	Picnic Grove MHC	N/A	102	30,196	Pads	102	102	No	97.1%	9/6/2019	Refinance	SPE (\$15M or less)	N/A	N/A	1

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Loan No. / Property No.	Footnotes	Number of Properties	Property Name	Late Charge Grace Period	Note Date	First Payment Date	Maturity Date	Original Loan Amount	Cut-Off Date Loan Amount	% of Cut-Off Date Pool Balance	Maturity Balance	Gross Interest Rate	Administration Fee Rate ¹⁾	Net Mortgage Interest Rate	Accrual Basis	Loan Amortization Type	Monthly Debt Service Amount (Amortizing) ⁴⁾	Monthly Debt Service Amount (IO)
1		1	Park Regency Club Apartments	10	9/30/2019	11/1/2019	10/1/2029	86,775,000	86,775,000	6.8%	78,090,468	3.52000%	0.12065%	3.39935%	Actual/360	Partial IO	390,627.95	258,075.28
2		1	Villas At Wood Ranch	10	9/24/2019	11/1/2019	10/1/2029	80,485,000	80,485,000	6.3%	80,485,000	3.83000%	0.12065%	3.70935%	Actual/360	Interest Only	260,449.09	260,449.09
3		1	York Brook Apartments	10	10/28/2019	12/1/2019	11/1/2029	60,863,000	60,863,000	4.8%	54,829,798	3.58000%	0.12065%	3.45935%	Actual/360	Partial IO	276,027.25	184,096.49
4		1	Madison Ellis Preserve	10	10/3/2019	12/1/2019	11/1/2029	59,570,000	59,570,000	4.7%	53,693,731	3.61000%	0.12065%	3.48935%	Actual/360	Partial IO	271,167.08	181,695.39
5		1	The Park At Hurstbourne Apartments	10	8/29/2019	10/1/2019	9/1/2029	52,500,000	52,500,000	4.1%	47,636,094	3.99000%	0.11065%	3.87935%	Actual/360	Partial IO	250,340.46	176,986.98
6		1	Park Valley Apartments	10	10/1/2019	11/1/2019	10/1/2029	49,100,000	49,100,000	3.8%	44,217,812	3.56000%	0.12065%	3.43935%	Actual/360	Partial IO	222,128.71	147,686.44
7		1	Tapestry Park At Montclair	10	9/26/2019	11/1/2019	10/1/2029	48,750,000	48,750,000	3.8%	43,980,991	3.66000%	0.13065%	3.52935%	Actual/360	Partial IO	223,286.46	150,752.60
8		1	Lakeside At Coppell	10	9/27/2019	11/1/2019	10/1/2029	48,251,000	48,251,000	3.8%	43,453,231	3.56000%	0.12065%	3.43935%	Actual/360	Partial IO	218,287.83	145,132.75
9		1	The Hanover Apartments	10	9/27/2019	11/1/2019	10/1/2029	45,700,000	45,700,000	3.6%	41,170,638	3.58000%	0.13065%	3.44935%	Actual/360	Partial IO	207,259.67	138,231.92
10		1	Savannah At Park Central	10	9/30/2019	11/1/2019	10/1/2029	40,687,000	40,687,000	3.2%	36,758,636	3.74000%	0.13065%	3.60935%	Actual/360	Partial IO	188,197.04	128,569.04
11		1	Palisade Park	10	11/1/2019	12/1/2019	11/1/2029	40,272,000	40,210,807	3.2%	31,641,628	3.70000%	0.13065%	3.56935%	Actual/360	Balloon	185,365.16	N/A
12		1	Peakview By Horseshoe Lake	10	10/1/2019	11/1/2019	10/1/2029	38,421,000	38,421,000	3.0%	34,600,663	3.56000%	0.12065%	3.43935%	Actual/360	Partial IO	173,816.85	115,565.39
13		1	Amber Lakes	10	10/25/2019	12/1/2019	11/1/2029	36,750,000	36,750,000	2.9%	33,259,122	3.84000%	0.13065%	3.70935%	Actual/360	Partial IO	172,077.22	119,233.33
14		1	Carib Villas	10	10/1/2019	11/1/2019	10/1/2029	35,260,000	35,260,000	2.8%	31,793,713	3.63000%	0.13065%	3.49935%	Actual/360	Partial IO	160,902.93	108,142.91
15		1	Contempo Tempe MHC	10	9/30/2019	11/1/2019	10/1/2029	34,694,000	34,694,000	2.7%	29,637,235	3.50000%	0.11065%	3.38935%	Actual/360	Partial IO	155,791.56	102,596.26
16		1	ARIUM Lakeshore	10	10/7/2019	12/1/2019	11/1/2029	34,317,000	34,317,000	2.7%	31,024,786	3.78000%	0.13065%	3.64935%	Actual/360	Partial IO	159,512.13	109,599.92
17		1	Parkway Terraces	10	9/30/2019	11/1/2019	10/1/2029	32,442,000	32,442,000	2.5%	29,314,845	3.75000%	0.13065%	3.61935%	Actual/360	Partial IO	150,243.96	102,789.32
18	(12)	1	Broadstone Northpoint	10	7/2/2019	9/1/2019	8/1/2029	31,850,000	31,850,000	2.5%	31,850,000	3.97000%	0.13065%	3.83935%	Actual/360	Interest Only	106,833.89	106,833.89
19		1	Fairways Of Naperville	10	10/11/2019	12/1/2019	11/1/2029	30,475,000	30,475,000	2.4%	26,807,584	3.62000%	0.13065%	3.48935%	Actual/360	Partial IO	138,895.89	93,209.76
20		1	Grand Reserve Orange Apartments	10	10/16/2019	12/1/2019	11/1/2029	28,840,000	28,840,000	2.3%	25,934,454	3.48000%	0.13065%	3.49935%	Actual/360	Partial IO	129,822.73	84,797.61
21		1	Tierra West	10	10/7/2019	12/1/2019	11/1/2029	27,675,000	27,675,000	2.2%	24,895,823	3.50000%	0.12065%	3.37935%	Actual/360	Partial IO	124,273.12	81,839.84
22		1	Hillcroft Village	10	9/26/2019	11/1/2019	10/1/2029	27,100,000	27,100,000	2.1%	24,026,908	3.99000%	0.14065%	3.84935%	Actual/360	Partial IO	129,223.36	91,358.99
23		1	The Meadows At North Richland Hills	10	10/1/2019	11/1/2019	10/1/2029	26,888,000	26,888,000	2.1%	24,214,430	3.56000%	0.12065%	3.43935%	Actual/360	Partial IO	121,641.48	80,875.62
24		1	Ivy Park	10	9/30/2019	11/1/2019	10/1/2029	25,912,000	25,912,000	2.0%	23,410,175	3.74000%	0.11065%	3.62935%	Actual/360	Partial IO	119,855.53	81,880.72
25		1	The Reserve At Quail North	10	10/10/2019	12/1/2019	11/1/2029	24,999,000	24,999,000	2.0%	24,999,000	3.81000%	0.14065%	3.66935%	Actual/360	Interest Only	80,474.21	80,474.21
26		1	Vista Buena Apartments	10	9/27/2019	11/1/2019	10/1/2029	22,750,000	22,750,000	1.8%	20,535,366	3.69000%	0.15065%	3.53935%	Actual/360	Partial IO	104,585.75	70,927.86
27	(13)	1	The Verge Apartments	10	9/13/2019	11/1/2019	10/1/2029	21,350,000	21,350,000	1.7%	21,350,000	3.86000%	0.16065%	3.69935%	Actual/360	Interest Only	69,629.66	69,629.66
28		1	Brookview At Templeton Crossing	10	9/26/2019	11/1/2019	10/1/2029	17,396,000	17,396,000	1.4%	14,966,624	3.78000%	0.16065%	3.61935%	Actual/360	Partial IO	80,860.01	55,558.48
29	(14)	1	Sandstone Vistas 1	10	5/31/2019	7/1/2019	6/1/2030	16,565,000	16,565,000	1.3%	14,312,338	3.95000%	0.16065%	3.78935%	Actual/360	Partial IO	78,607.09	55,283.77
30	(15)	1	Hillcrest Apartments	10	5/9/2019	7/1/2019	6/1/2029	14,140,000	14,140,000	1.1%	12,947,498	4.54000%	0.17065%	4.36935%	Actual/360	Partial IO	71,981.76	54,239.34
31		1	Park On Clairmont	10	10/9/2019	12/1/2019	11/1/2029	12,747,000	12,747,000	1.0%	11,534,160	3.83000%	0.17065%	3.65935%	Actual/360	Partial IO	59,613.49	41,249.23
32		1	Tides On Broadway	10	10/1/2019	11/1/2019	10/1/2029	12,500,000	12,500,000	1.0%	11,316,787	3.86000%	0.17065%	3.68935%	Actual/360	Partial IO	58,672.44	40,766.78
33		1	Vineyard Park At Bothell Landing	10	10/16/2019	12/1/2019	11/1/2029	12,300,000	12,300,000	1.0%	12,300,000	3.54000%	0.17065%	3.36935%	Actual/360	Interest Only	36,788.96	36,788.96
34		1	Berwick Grove Apartments	10	10/4/2019	12/1/2019	11/1/2029	10,890,000	10,890,000	0.9%	9,209,900	3.12000%	0.17065%	2.94935%	Actual/360	Partial IO	46,620.47	28,707.25
35		1	The Mansion	10	9/26/2019	11/1/2019	10/1/2029	9,738,000	9,738,000	0.8%	8,799,333	3.75000%	0.19065%	3.55935%	Actual/360	Partial IO	45,098.20	30,853.91
36	(16)	1	6210 Roosevelt	10	9/27/2019	11/1/2019	10/1/2029	9,544,000	9,544,000	0.7%	8,625,546	3.76000%	0.19065%	3.56935%	Actual/360	Partial IO	44,253.93	30,319.87
37	(17)	1	Abigail Vare Apartments	10	9/30/2019	11/1/2019	10/1/2029	9,200,000	9,200,000	0.7%	8,326,266	3.84000%	0.19065%	3.64935%	Actual/360	Partial IO	43,077.83	29,848.89
38		1	Dupont Villa Apartments	10	9/30/2019	11/1/2019	10/1/2029	9,150,000	9,150,000	0.7%	9,150,000	3.50000%	0.19065%	3.30935%	Actual/360	Interest Only	27,058.16	27,058.16
39		1	Aztec Village	10	10/7/2019	12/1/2019	11/1/2029	8,500,000	8,500,000	0.7%	7,646,414	3.50000%	0.12065%	3.37935%	Actual/360	Partial IO	38,168.80	25,136.00
40		1	Ashton Square	10	10/11/2019	12/1/2019	11/1/2029	8,200,000	8,200,000	0.6%	6,957,157	3.24000%	0.19065%	3.04935%	Actual/360	Partial IO	35,641.93	22,447.50
41		1	Homestead Village	15	10/7/2019	12/1/2019	11/1/2029	7,200,000	7,200,000	0.6%	6,476,962	3.50000%	0.12065%	3.37935%	Actual/360	Partial IO	32,331.22	21,291.67
42		1	Cottage Cove	15	10/7/2019	12/1/2019	11/1/2029	6,400,000	6,400,000	0.5%	5,757,300	3.50000%	0.12065%	3.37935%	Actual/360	Partial IO	28,738.86	18,925.93
43		1	Morgan Estates	10	9/30/2019	11/1/2019	10/1/2029	5,650,000	5,650,000	0.4%	4,721,529	3.72000%	0.19065%	3.52935%	Actual/360	Partial IO	26,069.94	17,758.26
44	(18)	1	Tanager Springs II Apartments	10	10/1/2019	11/1/2019	10/1/2029	5,400,000	5,400,000	0.4%	4,490,150	3.55000%	0.19065%	3.35935%	Actual/360	Partial IO	24,399.38	16,196.88
45	(18)	1	Tanager Springs I Apartments	10	10/1/2019	11/1/2019	10/1/2029	5,100,000	5,100,000	0.4%	4,362,268	3.55000%	0.21065%	3.33935%	Actual/360	Partial IO	23,043.86	15,297.05
46		1	Picnic Grove MHC	10	10/4/2019	12/1/2019	11/1/2029	3,080,000	3,080,000	0.2%	2,712,269	3.67000%	0.21065%	3.45935%	Actual/360	Partial IO	14,124.51	9,550.50

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Loan No. / Property No.	Footnotes	Number of Properties	Property Name	Amortization Term (Original)	Amortization Term (Remaining)	Loan Term (Original)	Loan Term (Remaining)	IO Period	Seasoning	Prepayment Provision ⁽⁵⁾	Defease To Maturity (Y/N)	Appraisal Valuation Date	Appraised Value	Appraised Value Type	Cut-Off Date LTV	Maturity LTV	UW NCF DSCR
1		1	Park Regency Club Apartments	360	360	120	118	60	2	L(26) D(90) O(4)	Yes	7/16/2019	133,500,000	As-Is	65.0%	58.5%	1.30x
2		1	Villas At Wood Ranch	0	0	120	118	120	2	L(26) D(90) O(4)	Yes	6/20/2019	123,900,000	As-Is	65.0%	65.0%	1.81x
3		1	York Brook Apartments	360	360	120	119	60	1	L(25) D(91) O(4)	Yes	8/14/2019	77,500,000	As-Is	78.5%	70.7%	1.25x
4		1	Madison Ellis Preserve	360	360	120	119	60	1	YM1%(113) 1%(3) O(4)	N/A	8/6/2019	85,100,000	As-Is	70.0%	63.1%	1.26x
5		1	The Park At Hurstbourne Apartments	360	360	120	117	60	3	L(27) D(89) O(4)	Yes	6/28/2019	70,000,000	As-Is	75.0%	68.1%	1.30x
6		1	Park Valley Apartments	360	360	120	118	60	2	L(26) D(90) O(4)	Yes	8/14/2019	66,900,000	As-Is	73.4%	66.1%	1.25x
7		1	Tapestry Park At Montclair	360	360	120	118	60	2	L(26) D(90) O(4)	Yes	8/8/2019	65,000,000	As-Is	75.0%	67.7%	1.29x
8		1	Lakeside At Coppell	360	360	120	118	60	2	L(26) D(90) O(4)	Yes	8/9/2019	68,300,000	As-Is	70.6%	63.6%	1.25x
9		1	The Hanover Apartments	360	360	120	118	60	2	L(26) D(90) O(4)	Yes	7/31/2019	65,400,000	As-Is	69.9%	63.0%	1.33x
10		1	Savannah At Park Central	360	360	120	118	60	2	L(26) D(90) O(4)	Yes	8/27/2019	57,000,000	As-Is	71.4%	64.5%	1.25x
11		1	Palisade Park	360	359	120	119	0	1	L(25) D(91) O(4)	Yes	8/21/2019	61,700,000	As-Is	65.2%	51.3%	1.25x
12		1	Peakview By Horseshoe Lake	360	360	120	118	60	2	L(26) D(90) O(4)	Yes	8/16/2019	52,200,000	As-Is	73.6%	66.3%	1.25x
13		1	Amber Lakes	360	360	120	119	60	1	L(25) D(91) O(4)	Yes	6/25/2019	50,200,000	As-Is	73.2%	66.3%	1.25x
14		1	Carib Villas	360	360	120	118	60	2	L(26) D(90) O(4)	Yes	8/8/2019	48,000,000	As-Is	73.5%	66.2%	1.30x
15		1	Contempo Tempe MHC	360	360	120	118	36	2	L(26) D(90) O(4)	Yes	8/13/2019	60,975,000	As-Is	56.9%	48.6%	1.25x
16		1	ARIUM Lakeshore	360	360	120	119	60	1	L(25) D(91) O(4)	Yes	8/16/2019	44,900,000	As-Is	76.4%	69.1%	1.25x
17		1	Parkway Terraces	360	360	120	118	60	2	L(26) D(90) O(4)	Yes	7/31/2019	41,500,000	As-Is	78.2%	70.6%	1.25x
18	(12)	1	Broadstone Northpoint	0	0	120	116	120	4	L(28) D(88) O(4)	Yes	5/22/2019	49,000,000	As-Is	65.0%	65.0%	2.19x
19		1	Fairways Of Naperville	360	360	120	119	48	1	L(25) D(91) O(4)	Yes	7/29/2019	38,600,000	As-Is	79.0%	69.4%	1.25x
20		1	Grand Reserve Orange Apartments	360	360	120	119	60	1	L(25) D(91) O(4)	Yes	7/18/2019	37,500,000	As-Is	76.9%	69.2%	1.33x
21		1	Tierra West	360	360	120	119	60	1	L(25) D(91) O(4)	Yes	8/10/2019	36,900,000	As-Is	75.0%	67.5%	1.29x
22		1	Hillcroft Village	360	360	120	118	48	2	L(26) D(90) O(4)	Yes	8/1/2019	36,400,000	As-Is	74.5%	66.0%	1.26x
23		1	The Meadows At North Richland Hills	360	360	120	118	60	2	L(26) D(90) O(4)	Yes	8/9/2019	39,200,000	As-Is	68.6%	61.8%	1.25x
24		1	Ivy Park	360	360	120	118	60	2	L(26) D(90) O(4)	Yes	8/8/2019	34,550,000	As-Is	75.0%	67.8%	1.30x
25		1	The Reserve At Quail North	0	0	120	119	120	1	L(25) D(91) O(4)	Yes	8/29/2019	38,700,000	As-Is	64.6%	64.6%	2.12x
26		1	Vista Buena Apartments	360	360	120	118	60	2	L(26) D(90) O(4)	Yes	8/14/2019	29,600,000	As-Is	76.9%	69.4%	1.33x
27	(13)	1	The Verge Apartments	0	0	120	118	120	2	L(26) D(90) O(4)	Yes	8/7/2019	31,100,000	As-Is	68.6%	68.6%	2.25x
28		1	Brookview At Templeton Crossing	360	360	120	118	36	2	L(26) D(90) O(4)	Yes	8/13/2019	24,200,000	As-Is	71.9%	61.8%	1.25x
29	(14)	1	Sandstone Vistas 1	360	360	132	126	48	6	L(30) D(98) O(4)	Yes	8/31/2019	32,000,000	As-Stabilized	51.8%	44.7%	1.57x
30	(15)	1	Hillcrest Apartments	360	360	120	114	60	6	L(30) D(86) O(4)	Yes	3/28/2019	20,200,000	As-Is	70.0%	64.1%	1.42x
31		1	Park On Clairmont	360	360	120	119	60	1	L(25) D(91) O(4)	Yes	8/8/2019	18,000,000	As-Is	70.8%	64.1%	1.25x
32		1	Tides On Broadway	360	360	120	118	60	2	L(26) D(90) O(4)	Yes	7/25/2019	21,380,000	As-Is	58.5%	52.9%	1.40x
33		1	Vineyard Park At Bothell Landing	0	0	120	119	120	1	L(25) D(91) O(4)	Yes	7/25/2019	25,200,000	As-Is	48.8%	48.8%	3.18x
34		1	Berwick Grove Apartments	360	360	120	119	36	1	L(25) D(91) O(4)	Yes	8/15/2019	15,650,000	As-Is	69.6%	58.8%	1.76x
35		1	The Mansion	360	360	120	118	60	2	L(26) D(90) O(4)	Yes	8/7/2019	15,700,000	As-Is	62.0%	56.0%	1.30x
36	(16)	1	6210 Roosevelt	360	360	120	118	60	2	L(26) D(90) O(4)	Yes	8/12/2019	14,200,000	As-Is	67.2%	60.7%	1.25x
37	(17)	1	Abigail Vare Apartments	360	360	120	118	60	2	L(26) D(90) O(4)	Yes	8/9/2019	12,700,000	As-Is	72.4%	65.6%	1.33x
38		1	Dupont Villa Apartments	0	0	120	118	120	2	L(26) D(90) O(4)	Yes	8/14/2019	14,200,000	As-Is	64.4%	64.4%	2.14x
39		1	Aztec Village	360	360	120	119	60	1	L(25) D(91) O(4)	Yes	8/10/2019	11,400,000	As-Is	74.6%	67.1%	1.34x
40		1	Ashton Square	360	360	120	119	36	1	L(25) D(91) O(4)	Yes	10/1/2019	11,150,000	As-Is	73.5%	62.4%	1.60x
41		1	Homestead Village	360	360	120	119	60	1	L(25) D(91) O(4)	Yes	8/8/2019	9,600,000	As-Is	75.0%	67.5%	1.48x
42		1	Cottage Cove	360	360	120	119	60	1	L(25) D(91) O(4)	Yes	8/8/2019	9,820,000	As-Is	65.2%	58.6%	1.45x
43		1	Morgan Estates	360	360	120	118	24	2	L(26) D(90) O(4)	Yes	8/13/2019	7,600,000	As-Is	74.3%	62.1%	1.45x
44	(18)	1	Tanager Springs II Apartments	360	360	120	118	24	2	L(26) D(90) O(4)	Yes	7/30/2019	6,750,000	As-Is	80.0%	66.5%	1.21x
45	(18)	1	Tanager Springs I Apartments	360	360	120	118	36	2	L(26) D(90) O(4)	Yes	7/30/2019	6,575,000	As-Is	77.6%	66.3%	1.20x
46		1	Picnic Grove MHC	360	360	120	119	48	1	L(25) D(91) O(4)	Yes	7/31/2019	4,400,000	As-Is	70.0%	61.6%	1.32x

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Loan No. / Property No.	Footnotes	Number of Properties	Property Name	UW NCF DSCR (i0)	UW EGI	UW Expenses	UW NOI	UW NCF	Most Recent	Most Recent	Most Recent	Most Recent NOI	Most Recent NCF	2nd Most Recent	2nd Most Recent	2nd Most	2nd Most	2nd Most
									Financial End Date	EGI	Expenses			Financial End Date	EGI	Expenses	Recent NOI	Recent NCF
1		1	Park Regency Club Apartments	1.97x	10,010,117	3,785,908	6,224,209	6,112,429	9/30/2019	9,847,899	3,728,705	6,119,194	6,007,414	12/31/2018	9,499,757	3,843,475	5,656,283	5,544,503
2		1	Villas At Wood Ranch	1.81x	8,719,256	3,012,706	5,706,550	5,650,750	9/30/2019	8,448,330	3,202,897	5,245,433	5,245,433	12/31/2018	8,118,549	3,387,803	4,730,746	4,730,746
3		1	York Brook Apartments	1.87x	8,198,827	3,944,224	4,254,603	4,140,403	7/31/2019	8,174,849	4,638,568	3,536,281	3,265,661	12/31/2018	8,085,708	4,530,311	3,555,398	3,344,238
4		1	Madison Ellis Preserve	1.88x	6,541,446	2,391,290	4,150,157	4,106,309	8/31/2019	5,976,383	2,519,803	3,456,580	3,456,580	12/31/2018	3,757,776	1,902,954	1,854,822	1,854,822
5		1	The Park At Hurstbourne Apartments	1.84x	7,309,796	3,184,519	4,125,277	3,915,132	9/30/2019	7,198,082	2,998,613	4,199,469	4,199,469	12/31/2018	7,053,948	2,973,398	4,080,550	4,080,550
6		1	Park Valley Apartments	1.88x	6,372,733	2,889,500	3,483,233	3,331,953	9/30/2019	6,312,112	2,860,059	3,452,053	3,452,053	12/31/2018	6,018,265	2,696,726	3,321,539	3,321,539
7		1	Tapestry Park At Montclair	1.91x	5,946,132	2,404,016	3,542,116	3,453,262	9/30/2019	5,944,252	2,399,780	3,544,472	3,544,472	12/31/2018	5,813,544	2,417,168	3,396,376	3,396,376
8		1	Lakeside At Coppell	1.88x	6,685,969	3,320,918	3,365,051	3,274,331	9/30/2019	6,714,544	3,333,541	3,381,003	3,381,003	12/31/2018	6,585,071	3,189,735	3,395,336	3,395,336
9		1	The Hanover Apartments	1.99x	6,117,420	2,701,385	3,416,035	3,304,035	9/30/2019	5,999,698	2,714,955	3,284,743	3,284,743	12/31/2018	5,670,479	2,477,903	3,192,575	3,192,575
10		1	Savannah At Park Central	1.83x	5,239,738	2,347,553	2,892,185	2,823,353	7/31/2019	4,929,007	2,350,730	2,578,277	2,578,277	12/31/2018	4,789,331	2,211,762	2,577,569	2,577,569
11		1	Palisade Park	N/A	4,336,957	1,513,484	2,823,474	2,780,490	8/31/2019	4,389,993	1,583,904	2,806,089	2,806,089	12/31/2018	4,225,009	1,519,218	2,705,791	2,705,791
12		1	Peakview By Horseshoe Lake	1.88x	3,982,563	1,314,876	2,667,687	2,607,303	9/30/2019	3,965,234	1,296,534	2,668,700	2,668,700	12/31/2018	3,941,171	1,238,172	2,702,999	2,702,999
13		1	Amber Lakes	1.81x	4,371,787	1,718,872	2,652,916	2,583,416	7/31/2019	4,364,670	1,955,360	2,409,310	3,134,704	12/31/2018	4,261,663	2,258,421	2,003,242	2,935,761
14		1	Carib Villas	1.93x	4,763,248	2,179,057	2,584,191	2,510,461	7/31/2019	4,728,814	2,213,411	2,515,403	2,515,403	12/31/2018	4,604,690	2,173,862	2,430,828	2,430,828
15		1	Contempo Tempe MHC	1.90x	3,233,947	884,353	2,349,593	2,336,881	9/30/2019	3,212,591	961,523	2,251,068	2,251,068	12/31/2018	3,094,540	945,613	2,148,927	2,148,927
16		1	ARIUM Lakeshore	1.82x	4,225,226	1,774,914	2,450,312	2,392,712	7/31/2019	4,107,952	1,830,049	2,277,903	2,277,903	12/31/2018	3,971,404	1,814,432	2,156,972	2,147,482
17		1	Parkway Terraces	1.83x	3,179,786	899,689	2,280,097	2,253,697	8/31/2019	3,177,497	1,184,984	1,992,512	1,992,512	12/31/2018	3,029,527	1,139,729	1,889,798	1,889,798
18	(12)	1	Broadstone Northpoint	2.19x	3,792,467	953,700	2,838,766	2,804,159	9/30/2019	3,547,321	1,172,155	2,375,166	2,375,166	4/30/2018	3,456,984	978,658	2,478,326	2,478,326
19		1	Fairways Of Naperville	1.86x	3,562,802	1,427,902	2,134,900	2,082,610	7/31/2019	3,538,102	1,430,298	2,107,803	2,107,803	12/31/2018	3,432,223	1,407,693	2,024,530	2,024,530
20		1	Grand Reserve Orange Apartments	2.02x	3,670,875	1,569,196	2,101,680	2,059,680	7/31/2019	3,725,348	1,839,478	1,885,870	1,885,870	12/31/2018	3,656,004	1,811,331	1,844,672	1,844,672
21		1	Tierra West	1.97x	2,925,094	965,768	1,959,326	1,930,626	7/31/2019	2,903,531	1,004,293	1,899,238	1,899,238	12/31/2018	2,758,293	982,953	1,775,340	1,775,340
22		1	Hillcroft Village	1.78x	3,599,576	1,602,760	1,996,816	1,947,581	7/31/2019	3,491,005	1,589,594	1,901,411	1,901,411	12/31/2018	3,371,601	1,490,823	1,880,778	1,880,778
23		1	The Meadows At North Richland Hills	1.88x	4,281,822	2,387,898	1,893,924	1,824,624	9/30/2019	4,300,108	2,353,629	1,946,479	1,946,479	12/31/2018	4,235,831	2,295,242	1,940,589	1,940,589
24		1	Ivy Park	1.90x	2,952,423	998,994	1,953,429	1,871,529	8/31/2019	2,944,952	992,071	1,952,881	1,952,881	12/31/2018	2,945,608	981,409	1,964,199	1,964,199
25		1	The Reserve At Quail North	2.12x	3,808,084	1,702,751	2,105,333	2,046,572	8/31/2019	3,775,792	1,737,448	2,038,343	1,979,583	12/31/2018	3,681,516	1,754,420	1,927,096	1,868,335
26		1	Vista Buena Apartments	1.96x	2,934,654	1,208,321	1,726,333	1,665,866	8/31/2019	2,732,683	1,004,810	1,727,873	1,727,873	12/31/2018	2,535,312	944,829	1,590,483	1,590,483
27	(13)	1	The Verge Apartments	2.25x	3,446,491	1,270,460	1,936,631	1,876,031	7/31/2019	2,708,890	758,928	1,710,562	1,710,562	N/A	N/A	N/A	N/A	N/A
28		1	Brookview At Templeton Crossing	1.82x	2,555,953	1,240,175	1,315,778	1,212,962	7/31/2019	2,482,392	722,232	1,760,160	1,760,160	12/31/2018	2,436,180	926,644	1,509,537	1,509,537
29	(14)	1	Sandstone Vistas I	2.23x	2,042,959	547,009	1,495,950	1,477,950	9/30/2019	1,956,582	469,902	1,486,680	1,486,680	N/A	N/A	N/A	N/A	N/A
30	(15)	1	Hillcrest Apartments	1.89x	1,870,665	613,203	1,257,462	1,229,462	6/30/2019	1,850,738	738,342	1,112,396	414,449	12/31/2018	1,914,456	622,860	1,291,596	1,291,596
31		1	Park On Clairmont	1.81x	1,709,332	784,176	925,156	897,295	7/31/2019	1,677,345	760,019	917,326	917,326	12/31/2018	1,595,086	793,757	801,329	801,329
32		1	Tides On Broadway	2.01x	1,668,087	654,063	1,014,024	983,024	7/31/2019	1,466,002	555,549	910,453	910,453	12/31/2018	1,257,322	526,746	730,575	730,575
33		1	Vineyard Park At Bothell Landing	3.18x	4,262,790	2,830,742	1,432,048	1,405,948	7/31/2019	4,471,585	2,789,963	1,681,622	1,681,622	12/31/2018	4,173,181	2,736,996	1,436,185	1,436,185
34		1	Berwick Grove Apartments	2.86x	2,036,533	982,072	1,054,461	986,069	6/30/2019	2,070,134	1,019,542	1,050,592	1,050,592	12/31/2018	2,044,550	993,354	1,051,196	1,051,196
35		1	The Mansion	1.90x	952,876	243,156	709,720	703,622	8/31/2019	949,228	251,872	697,356	697,356	12/31/2018	875,489	217,021	658,468	658,468
36	(16)	1	6210 Roosevelt	1.82x	1,098,239	401,880	696,347	663,839	8/31/2019	1,103,543	349,919	753,624	753,624	12/31/2018	1,058,258	357,894	700,364	700,364
37	(17)	1	Abigail Vane Apartments	1.92x	889,060	192,154	696,906	688,506	7/31/2019	569,479	140,160	429,319	429,319	N/A	N/A	N/A	N/A	N/A
38		1	Dupont Villa Apartments	2.14x	1,668,093	919,811	748,282	694,222	7/31/2019	1,653,947	1,237,255	416,692	416,692	12/31/2018	1,606,957	893,215	713,742	701,102
39		1	Aztec Village	2.03x	1,046,653	424,752	621,901	613,751	7/31/2019	1,061,332	436,739	624,593	624,593	12/31/2018	1,069,887	465,453	604,434	604,434
40		1	Ashton Square	2.54x	1,885,605	1,139,708	745,897	684,897	6/30/2019	1,873,104	1,243,478	629,626	569,626	12/31/2018	1,837,436	1,130,843	706,593	646,593
41		1	Homesstead Village	2.24x	1,015,653	433,165	582,488	573,288	7/31/2019	1,012,655	449,001	563,654	563,654	12/31/2018	981,918	422,617	559,301	559,301
42		1	Cottage Cove	2.20x	987,309	478,425	508,884	499,034	7/31/2019	979,768	507,897	471,871	471,871	12/31/2018	940,295	508,901	431,394	431,394
43		1	Morgan Estates	2.13x	924,043	447,213	476,830	453,696	6/30/2019	927,578	398,007	529,571	529,571	12/31/2018	914,260	433,491	480,769	480,769
44	(18)	1	Tanager Springs II Apartments	1.83x	674,015	300,617	373,398	355,398	7/31/2019	664,920	390,302	274,618	274,618	12/31/2018	658,207	387,810	270,397	219,410
45	(18)	1	Tanager Springs I Apartments	1.81x	635,788	287,280	348,507	331,857	7/31/2019	637,009	392,401	244,608	137,225	12/31/2018	638,303	375,142	263,161	209,967
46		1	Picnic Grove MHC	1.95x	484,877	255,855	229,022	223,672	7/31/2019	499,436	345,921	153,515	148,415	12/31/2018	490,042	338,819	151,223	146,123

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Loan No. / Property No.	Footnotes	Number of Properties	Property Name	3rd Most Recent Financial End Date	3rd Most Recent EGI	3rd Most Recent Expenses	3rd Most Recent NOI	3rd Most Recent NCF	Lien Position	Title Vesting (Fee/Leasehold)	Ground Lease Maturity Date	Cash Management (Description or N/A)	Engineering Escrow/Deferred Maintenance ⁽⁶⁾	Tax Reserve (Initial) ⁽⁸⁾	Tax Reserve (Monthly) ⁽⁷⁾	Insurance Reserve (Initial) ⁽⁵⁾
1		1	Park Regency Club Apartments	12/31/2017	9,080,327	4,159,469	4,920,859	4,920,859	First Mortgage	Fee Simple	N/A	N/A	N/A	794,203	99,275	125,442
2		1	Villas At Wood Ranch	12/31/2017	4,715,248	1,535,259	3,179,989	3,179,989	First Mortgage	Fee Simple	N/A	N/A	N/A	N/A	Springing	N/A
3		1	York Brook Apartments	12/31/2017	7,837,700	4,290,690	3,547,011	3,308,068	First Mortgage	Fee Simple	N/A	N/A	N/A	314,366	104,789	79,790
4		1	Madison Ellis Preserve	12/31/2017	319,090	353,414	-34,324	-34,324	First Mortgage	Fee Simple	N/A	N/A	N/A	275,248	68,812	N/A
5		1	The Park At Hurstbourne Apartments	12/31/2017	5,112,437	2,003,660	3,108,777	3,108,777	First Mortgage	Fee Simple	N/A	N/A	N/A	462,037	46,204	71,748
6		1	Park Valley Apartments	12/31/2017	5,686,127	2,265,125	3,421,002	3,421,002	First Mortgage	Fee Simple	N/A	N/A	N/A	273,956	58,155	53,192
7		1	Tapestry Park At Montclair	12/31/2017	5,686,131	2,210,184	3,475,947	3,475,947	First Mortgage	Fee Simple	N/A	N/A	N/A	811,272	73,752	38,356
8		1	Lakeside At Coppell	12/31/2017	6,504,533	2,863,794	3,640,739	3,640,739	First Mortgage	Fee Simple	N/A	N/A	45,005	1,173,105	117,311	33,770
9		1	The Hanover Apartments	12/31/2017	5,340,571	2,221,988	3,118,583	3,118,583	First Mortgage	Fee Simple	N/A	N/A	N/A	118,717	59,359	59,969
10		1	Savannah At Park Central	3/31/2017	4,843,952	2,152,783	2,691,169	2,691,169	First Mortgage	Fee Simple	N/A	N/A	N/A	866,075	72,173	70,846
11		1	Palisade Park	12/31/2017	2,549,085	1,337,895	1,211,189	1,211,189	First Mortgage	Fee Simple	N/A	N/A	N/A	86,191	48,275	N/A
12		1	Peakview By Horseshoe Lake	12/31/2017	3,741,968	1,166,619	2,575,349	2,575,349	First Mortgage	Fee Simple	N/A	N/A	N/A	135,993	22,665	23,880
13		1	Amber Lakes	12/31/2017	3,811,093	2,100,298	1,710,795	2,527,745	First Mortgage	Fee Simple	N/A	N/A	N/A	243,784	27,087	20,148
14		1	Carib Villas	12/31/2017	4,384,779	1,848,805	2,535,973	2,527,391	First Mortgage	Fee Simple	N/A	N/A	N/A	377,529	31,461	95,784
15		1	Contempo Tempe MHC	12/31/2017	2,775,047	1,004,180	1,770,867	1,770,867	First Mortgage	Fee Simple	N/A	N/A	N/A	12,251	12,251	10,394
16		1	ARIUM Lakeshore	12/31/2017	3,866,552	1,635,355	2,231,197	2,227,766	First Mortgage	Fee Simple	N/A	N/A	N/A	51,479	51,479	18,741
17		1	Parkway Terraces	12/31/2017	2,704,569	1,028,497	1,676,072	1,676,072	First Mortgage	Fee Simple	N/A	N/A	N/A	21,076	12,834	7,942
18	(12)	1	Broadstone Northpoint	N/A	N/A	N/A	N/A	N/A	First Mortgage	Leasehold	12/11/2025	N/A	N/A	10,736	2,684	N/A
19		1	Fairways Of Naperville	12/31/2017	3,163,088	1,301,061	1,862,028	1,862,028	First Mortgage	Fee Simple	N/A	N/A	N/A	135,392	45,131	10,286
20		1	Grand Reserve Orange Apartments	12/31/2017	3,487,918	1,563,815	1,924,103	1,924,103	First Mortgage	Fee Simple	N/A	N/A	N/A	249,104	62,276	8,678
21		1	Tierra West	12/31/2017	2,595,920	889,657	1,706,263	1,706,263	First Mortgage	Fee Simple	N/A	N/A	N/A	68,683	8,585	N/A
22		1	Hillcroft Village	12/31/2017	3,318,291	1,425,293	1,892,998	1,892,998	First Mortgage	Fee Simple	N/A	N/A	49,750	101,500	50,750	3,482
23		1	The Meadows At North Richland Hills	12/31/2017	4,106,239	2,179,312	1,926,927	1,926,927	First Mortgage	Fee Simple	N/A	N/A	N/A	808,059	80,806	27,095
24		1	Ivy Park	12/31/2017	3,046,127	969,554	2,076,573	2,076,573	First Mortgage	Fee Simple	N/A	N/A	N/A	156,211	14,201	N/A
25		1	The Reserve At Quail North	12/31/2017	3,357,442	1,375,439	1,982,004	1,923,243	First Mortgage	Fee Simple	N/A	N/A	N/A	329,768	35,243	93,150
26		1	Vista Buena Apartments	12/31/2017	2,277,202	840,586	1,436,616	1,436,616	First Mortgage	Fee Simple	N/A	N/A	N/A	353,901	32,173	40,079
27	(13)	1	The Verge Apartments	N/A	N/A	N/A	N/A	N/A	First Mortgage	Leasehold	5/31/2117	N/A	N/A	7,785	1,946	N/A
28		1	Brookview At Templeton Crossing	12/31/2017	2,318,216	1,304,613	1,013,603	1,013,603	First Mortgage	Fee Simple	N/A	N/A	42,063	102,355	20,471	11,374
29	(14)	1	Sandstone Vistas 1	N/A	N/A	N/A	N/A	N/A	First Mortgage	Fee Simple	N/A	N/A	N/A	12,360	6,180	24,634
30	(15)	1	Hillcrest Apartments	12/31/2017	1,868,563	594,857	1,273,707	1,273,707	First Mortgage	Fee Simple	N/A	N/A	N/A	3,326	3,326	2,965
31		1	Park On Clairmont	12/31/2017	1,511,602	767,627	743,975	743,975	First Mortgage	Fee Simple	N/A	N/A	N/A	13,387	N/A	16,373
32		1	Tides On Broadway	N/A	N/A	N/A	N/A	N/A	First Mortgage	Fee Simple	N/A	N/A	N/A	N/A	5,346	2,937
33		1	Vineyard Park At Bothell Landing	12/31/2017	4,158,733	2,724,615	1,434,118	1,434,118	First Mortgage	Fee Simple	N/A	N/A	N/A	22,560	11,282	13,376
34		1	Berwick Grove Apartments	12/31/2017	1,973,384	1,058,456	914,928	914,928	First Mortgage	Fee Simple	N/A	N/A	N/A	49,955	9,991	56,869
35		1	The Mansion	12/31/2017	895,085	187,035	708,050	708,050	First Mortgage	Fee Simple	N/A	N/A	N/A	41,130	5,876	N/A
36	(16)	1	6210 Roosevelt	12/31/2017	1,010,740	332,726	678,014	678,014	First Mortgage	Fee Simple and Leasehold	8/31/2048	N/A	45,745	58,464	5,846	32,574
37	(17)	1	Abigail Vare Apartments	N/A	N/A	N/A	N/A	N/A	First Mortgage	Fee Simple	N/A	N/A	N/A	23,039	2,304	3,050
38		1	Dupont Villa Apartments	12/31/2017	1,532,590	1,084,776	447,813	349,951	First Mortgage	Fee Simple	N/A	N/A	N/A	25,173	25,173	16,105
39		1	Aztec Village	12/31/2017	1,027,828	465,734	562,094	562,094	First Mortgage	Fee Simple	N/A	N/A	33,348	33,457	4,182	N/A
40		1	Ashton Square	12/31/2017	1,828,067	1,107,692	720,375	660,375	First Mortgage	Fee Simple	N/A	N/A	N/A	30,678	17,910	52,656
41		1	Homesstead Village	12/31/2017	922,102	448,785	473,317	473,317	First Mortgage	Fee Simple	N/A	N/A	170,998	62,739	4,696	N/A
42		1	Cottage Cove	12/31/2017	878,301	497,809	380,492	380,492	First Mortgage	Fee Simple	N/A	N/A	N/A	54,441	4,075	N/A
43		1	Morgan Estates	12/31/2017	921,399	450,946	470,453	470,453	First Mortgage	Fee Simple	N/A	N/A	35,625	20,366	7,855	22,822
44	(18)	1	Tanager Springs II Apartments	12/31/2017	666,543	366,004	300,539	291,217	First Mortgage	Fee Simple	N/A	N/A	N/A	308	154	4,590
45	(18)	1	Tanager Springs I Apartments	12/31/2017	626,062	374,095	251,967	226,629	First Mortgage	Fee Simple	N/A	N/A	N/A	285	143	4,165
46		1	Picnic Grove MHC	12/31/2017	464,118	279,130	184,988	179,888	First Mortgage	Fee Simple	N/A	N/A	108,540	11,778	5,889	7,385

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Exhibit A-1

Loan No. / Property No.	Footnotes	Number of Properties	Property Name	Replacement Reserve -							
				Insurance Reserve (Monthly) ⁽⁷⁾	Replacement Reserve (Initial) ⁽⁸⁾	Replacement Reserve (Monthly) ⁽⁹⁾	Contractual - Cap (\$ or N/A)	Other Escrow (Initial) ⁽⁶⁾	Other Escrow (Monthly) ⁽⁹⁾	Other Escrow Reserve Description ⁽⁹⁾⁽¹⁰⁾	
1		1	Park Regency Club Apartments	11,404	N/A	9,315	N/A	N/A	N/A	N/A	N/A
2		1	Villas At Wood Ranch	Springing	438,976	Springing	N/A	N/A	N/A	N/A	N/A
3		1	York Brook Apartments	11,399	388,280	9,517	N/A	N/A	N/A	N/A	N/A
4		1	Madison Ellis Preserve	Springing	N/A	Springing	N/A	N/A	N/A	N/A	N/A
5		1	The Park At Hurstbourne Apartments	16,679	N/A	17,512	N/A	N/A	N/A	N/A	N/A
6		1	Park Valley Apartments	13,298	68,005	12,607	N/A	N/A	N/A	N/A	N/A
7		1	Tapestry Park At Montclair	9,589	N/A	7,404	N/A	N/A	N/A	N/A	N/A
8		1	Lakeside At Coppell	8,443	59,198	7,560	N/A	N/A	N/A	N/A	N/A
9		1	The Hanover Apartments	9,995	N/A	9,333	N/A	N/A	N/A	N/A	N/A
10		1	Savannah At Park Central	8,856	N/A	5,736	N/A	N/A	N/A	N/A	N/A
11		1	Palisade Park	Springing	N/A	3,582	N/A	N/A	N/A	N/A	N/A
12		1	Peakview By Horseshoe Lake	5,970	32,823	5,032	N/A	N/A	N/A	N/A	N/A
13		1	Amber Lakes	10,074	N/A	5,792	N/A	N/A	N/A	N/A	N/A
14		1	Carib Villas	15,349	N/A	6,144	N/A	150,000	N/A	N/A	Litigation Reserve
15		1	Contempo Tempe MHC	2,079	99,880	1,059	N/A	N/A	N/A	N/A	N/A
16		1	ARIUM Lakeshore	6,247	N/A	4,800	N/A	N/A	N/A	N/A	N/A
17		1	Parkway Terraces	4,836	328,013	2,200	N/A	N/A	Springing	N/A	Radon Remediation Reserve
18	(12)	1	Broadstone Northpoint	Springing	N/A	2,884	N/A	N/A	N/A	N/A	N/A
19		1	Fairways Of Naperville	5,143	N/A	4,358	N/A	N/A	Springing	N/A	Radon Remediation Reserve
20		1	Grand Reserve Orange Apartments	3,500	238,045	3,500	N/A	N/A	N/A	N/A	N/A
21		1	Tierra West	Springing	N/A	2,392	N/A	N/A	N/A	N/A	N/A
22		1	Hillcroft Village	1,741	N/A	4,103	N/A	N/A	N/A	N/A	N/A
23		1	The Meadows At North Richland Hills	6,774	17,658	5,775	N/A	N/A	N/A	N/A	N/A
24		1	Ivy Park	Springing	N/A	6,825	N/A	N/A	N/A	N/A	N/A
25		1	The Reserve At Quail North	9,955	N/A	4,897	N/A	N/A	N/A	N/A	N/A
26		1	Vista Buena Apartments	5,726	N/A	5,039	N/A	N/A	N/A	N/A	N/A
27	(13)	1	The Verge Apartments	Springing	N/A	5,050	N/A	N/A	N/A	N/A	N/A
28		1	Brookview At Templeton Crossing	5,687	N/A	8,568	N/A	N/A	Springing	N/A	Radon Remediation Reserve
29	(14)	1	Sandstone Vistas 1	3,519	N/A	Springing	N/A	N/A	N/A	N/A	N/A
30	(15)	1	Hillcrest Apartments	2,965	113,120	2,333	N/A	439,094	N/A	N/A	Pre-Leasing Debt Service Reserve
31		1	Park On Clairmont	N/A	N/A	2,322	N/A	N/A	N/A	N/A	N/A
32		1	Tides On Broadway	1,468	N/A	2,583	N/A	N/A	N/A	N/A	N/A
33		1	Vineyard Park At Bothell Landing	4,048	N/A	2,175	N/A	N/A	N/A	N/A	N/A
34		1	Berwick Grove Apartments	8,124	N/A	5,699	N/A	N/A	N/A	N/A	N/A
35		1	The Mansion	Springing	N/A	508	N/A	N/A	Springing	N/A	Radon Remediation Reserve
36	(16)	1	6210 Roosevelt	2,961	N/A	2,709	N/A	N/A	N/A	N/A	N/A
37	(17)	1	Abigail Vare Apartments	1,525	N/A	700	N/A	N/A	N/A	N/A	N/A
38		1	Dupont Villa Apartments	2,684	77,910	4,505	N/A	N/A	N/A	N/A	N/A
39		1	Aztec Village	Springing	N/A	679	N/A	N/A	N/A	N/A	N/A
40		1	Ashton Square	7,522	N/A	5,083	N/A	N/A	Springing	N/A	Radon Remediation Reserve
41		1	Homestead Village	Springing	N/A	767	N/A	N/A	N/A	N/A	N/A
42		1	Cottage Cove	Springing	N/A	821	N/A	N/A	N/A	N/A	N/A
43		1	Morgan Estates	2,853	N/A	1,928	N/A	N/A	Springing	N/A	Radon Remediation Reserve
44	(18)	1	Tanager Springs II Apartments	1,148	71,354	1,500	N/A	25,974	N/A	N/A	Replacement Reserve Additional Deposit
45	(18)	1	Tanager Springs I Apartments	1,041	62,684	1,388	N/A	27,396	N/A	N/A	Replacement Reserve Additional Deposit
46		1	Picnic Grove MHC	923	N/A	425	N/A	N/A	N/A	N/A	N/A

Loan No. / Property No.	Footnotes	Number of Properties	Property Name	Springing Reserve Type ⁽⁷⁾⁽⁸⁾⁽⁹⁾	Springing Reserve Amount	Seismic Insurance if PML >= 20% (Y/N)	Green Advantage ⁽¹⁰⁾	Monthly Rent Per Unit	Additional Financing In Place (Existing) (Y/N)	Additional Financing Amount (Existing)	Additional Financing Description (Existing)
1		1	Park Regency Club Apartments	N/A	N/A	No	N/A	1,755	No	N/A	N/A
2		1	Villas At Wood Ranch	Tax Reserve; Insurance Reserve; Replacement Reserve	Replacement Reserve (4,650)	No	N/A	1,951	No	N/A	N/A
3		1	York Brook Apartments	N/A	N/A	No	N/A	1,125	No	N/A	N/A
4		1	Madison Ellis Preserve	Insurance Reserve; Replacement Reserve	Replacement Reserve (3,654)	No	N/A	2,135	No	N/A	N/A
5		1	The Park At Hurstbourne Apartments	N/A	N/A	No	N/A	841	No	N/A	N/A
6		1	Park Valley Apartments	N/A	N/A	No	N/A	1,090	No	N/A	N/A
7		1	Tapestry Park At Montclair	N/A	N/A	No	N/A	1,367	No	N/A	N/A
8		1	Lakeside At Coppell	N/A	N/A	No	N/A	1,704	No	N/A	N/A
9		1	The Hanover Apartments	N/A	N/A	No	N/A	1,545	No	N/A	N/A
10		1	Savannah At Park Central	N/A	N/A	No	N/A	1,550	No	N/A	N/A
11		1	Palisade Park	Insurance Reserve	N/A	No	N/A	1,618	No	N/A	N/A
12		1	Peakview By Horseshoe Lake	N/A	N/A	No	N/A	1,421	No	N/A	N/A
13		1	Amber Lakes	N/A	N/A	No	N/A	1,309	No	N/A	N/A
14		1	Carib Villas	N/A	N/A	No	N/A	1,050	No	N/A	N/A
15		1	Contempo Tempe MHC	N/A	N/A	No	N/A	582	No	N/A	N/A
16		1	ARIUM Lakeshore	N/A	N/A	No	N/A	1,197	No	N/A	N/A
17		1	Parkway Terraces	Radon Remediation Reserve	N/A	No	N/A	1,549	No	N/A	N/A
18	(12)	1	Broadstone Northpoint	Insurance Reserve	N/A	No	N/A	1,416	No	N/A	N/A
19		1	Fairways Of Naperville	Radon Remediation Reserve	N/A	No	N/A	1,400	No	N/A	N/A
20		1	Grand Reserve Orange Apartments	N/A	N/A	No	N/A	1,774	No	N/A	N/A
21		1	Tierra West	Insurance Reserve	N/A	No	N/A	463	No	N/A	N/A
22		1	Hillcroft Village	N/A	N/A	No	N/A	1,579	No	N/A	N/A
23		1	The Meadows At North Richland Hills	N/A	N/A	No	N/A	1,398	No	N/A	N/A
24		1	Ivy Park	Insurance Reserve	N/A	No	N/A	1,030	No	N/A	N/A
25		1	The Reserve At Quail North	N/A	N/A	No	N/A	1,094	No	N/A	N/A
26		1	Vista Buena Apartments	N/A	N/A	No	N/A	987	No	N/A	N/A
27	(13)	1	The Verge Apartments	Insurance Reserve	N/A	No	N/A	715	No	N/A	N/A
28		1	Brookview At Templeton Crossing	Radon Remediation Reserve	N/A	No	N/A	763	No	N/A	N/A
29	(14)	1	Sandstone Vistas 1	Replacement Reserve	Replacement Reserve (1,500)	No	N/A	1,400	No	N/A	N/A
30	(15)	1	Hillcrest Apartments	N/A	N/A	No	N/A	1,348	No	N/A	N/A
31		1	Park On Clairmont	N/A	N/A	No	N/A	1,197	No	N/A	N/A
32		1	Tides On Broadway	N/A	N/A	No	N/A	942	No	N/A	N/A
33		1	Vineyard Park At Bothell Landing	N/A	N/A	No	N/A	3,729	No	N/A	N/A
34		1	Berwick Grove Apartments	N/A	N/A	No	N/A	889	No	N/A	N/A
35		1	The Mansion	Insurance Reserve; Radon Remediation Reserve	N/A	No	N/A	5,827	No	N/A	N/A
36	(16)	1	6210 Roosevelt	N/A	N/A	No	N/A	821	No	N/A	N/A
37	(17)	1	Abigail Vare Apartments	N/A	N/A	No	N/A	1,797	No	N/A	N/A
38		1	Dupont Villa Apartments	N/A	N/A	No	N/A	878	No	N/A	N/A
39		1	Aztec Village	Insurance Reserve	N/A	No	N/A	468	No	N/A	N/A
40		1	Ashton Square	Radon Remediation Reserve	N/A	No	N/A	794	No	N/A	N/A
41		1	Homestead Village	Insurance Reserve	N/A	No	N/A	427	No	N/A	N/A
42		1	Cottage Cove	Insurance Reserve	N/A	No	N/A	415	No	N/A	N/A
43		1	Morgan Estates	Radon Remediation Reserve	N/A	No	N/A	850	No	N/A	N/A
44	(18)	1	Tanager Springs II Apartments	N/A	N/A	No	N/A	747	No	N/A	N/A
45	(18)	1	Tanager Springs I Apartments	N/A	N/A	No	N/A	759	No	N/A	N/A
46		1	Picnic Grove MHC	N/A	N/A	No	N/A	403	No	N/A	N/A

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Loan No. / Property No.	Footnotes	Number of Properties	Property Name	Future Supplemental Financing (Y/N)	Future Supplemental Financing Description ⁽¹⁾
1		1	Park Regency Club Apartments	Yes	(i) Max combined LTV of 65.0% (ii) Min combined DSCR of 1.25x
2		1	Villas At Wood Ranch	Yes	(i) Max combined LTV of 65.0% (ii) Min combined DSCR of 1.25x
3		1	York Brook Apartments	Yes	(i) Max combined LTV of 80.0% (ii) Min combined DSCR of 1.25x
4		1	Madison Ellis Preserve	Yes	(i) Max combined LTV of 70.0% (ii) Min combined DSCR of 1.25x
5		1	The Park At Hurstbourne Apartments	Yes	(i) Max combined LTV of 75.0% (ii) Min combined DSCR of 1.25x
6		1	Park Valley Apartments	Yes	(i) Max combined LTV of 75.0% (ii) Min combined DSCR of 1.25x
7		1	Tapestry Park At Montclair	Yes	(i) Max combined LTV of 75.0% (ii) Min combined DSCR of 1.25x
8		1	Lakeside At Coppell	Yes	(i) Max combined LTV of 75.0% (ii) Min combined DSCR of 1.25x
9		1	The Hanover Apartments	Yes	(i) Max combined LTV of 75.0% (ii) Min combined DSCR of 1.25x
10		1	Savannah At Park Central	Yes	(i) Max combined LTV of 75.0% (ii) Min combined DSCR of 1.25x
11		1	Palisade Park	Yes	(i) Max combined LTV of 70.0% (ii) Min combined DSCR of 1.25x
12		1	Peakview By Horseshoe Lake	Yes	(i) Max combined LTV of 75.0% (ii) Min combined DSCR of 1.25x
13		1	Amber Lakes	Yes	(i) Max combined LTV of 75.0% (ii) Min combined DSCR of 1.25x
14		1	Carib Villas	Yes	(i) Max combined LTV of 75.0% (ii) Min combined DSCR of 1.25x
15		1	Contempo Tempe MHC	Yes	(i) Max combined LTV of 60.0% (ii) Min combined DSCR of 1.25x
16		1	ARIUM Lakeshore	Yes	(i) Max combined LTV of 80.0% (ii) Min combined DSCR of 1.25x
17		1	Parkway Terraces	Yes	(i) Max combined LTV of 80.0% (ii) Min combined DSCR of 1.25x
18	(12)	1	Broadstone Northpoint	Yes	(i) Max combined LTV of 65.0% (ii) Min combined DSCR of 1.25x
19		1	Fairways Of Naperville	Yes	(i) Max combined LTV of 80.0% (ii) Min combined DSCR of 1.25x
20		1	Grand Reserve Orange Apartments	Yes	(i) Max combined LTV of 80.0% (ii) Min combined DSCR of 1.25x
21		1	Tierra West	Yes	(i) Max combined LTV of 75.0% (ii) Min combined DSCR of 1.25x
22		1	Hillcroft Village	Yes	(i) Max combined LTV of 75.0% (ii) Min combined DSCR of 1.25x
23		1	The Meadows At North Richland Hills	Yes	(i) Max combined LTV of 70.0% (ii) Min combined DSCR of 1.25x
24		1	Ivy Park	Yes	(i) Max combined LTV of 75.0% (ii) Min combined DSCR of 1.25x
25		1	The Reserve At Quail North	Yes	(i) Max combined LTV of 65.0% (ii) Min combined DSCR of 1.25x
26		1	Vista Buena Apartments	Yes	(i) Max combined LTV of 80.0% (ii) Min combined DSCR of 1.25x
27	(13)	1	The Verge Apartments	Yes	(i) Max combined LTV of 70.0% (ii) Min combined DSCR of 1.25x
28		1	Brookview At Templeton Crossing	Yes	(i) Max combined LTV of 75.0% (ii) Min combined DSCR of 1.25x
29	(14)	1	Sandstone Vistas 1	Yes	(i) Max combined LTV of 60.0% (ii) Min combined DSCR of 1.25x
30	(15)	1	Hillcrest Apartments	Yes	(i) Max combined LTV of 70.0% (ii) Min combined DSCR of 1.25x
31		1	Park On Clairmont	Yes	(i) Max combined LTV of 75.0% (ii) Min combined DSCR of 1.25x
32		1	Tides On Broadway	Yes	(i) Max combined LTV of 60.0% (ii) Min combined DSCR of 1.25x
33		1	Vineyard Park At Bothell Landing	Yes	(i) Max combined LTV of 50.0% (ii) Min combined DSCR (a) 1.30x for property classified by Lender as Independent Living or (b) 1.40x for property classified by Lender as Assisted Living
34		1	Berwick Grove Apartments	Yes	(i) Max combined LTV of 70.0% (ii) Min combined DSCR of 1.25x
35		1	The Mansion	Yes	(i) Max combined LTV of 65.0% (ii) Min combined DSCR of 1.25x
36	(16)	1	6210 Roosevelt	Yes	(i) Max combined LTV of 70.0% (ii) Min combined DSCR of 1.25x
37	(17)	1	Abigail Vare Apartments	Yes	(i) Max combined LTV of 75.0% (ii) Min combined DSCR of 1.25x
38		1	Dupont Villa Apartments	Yes	(i) Max combined LTV of 65.0% (ii) Min combined DSCR of 1.25x
39		1	Aztec Village	Yes	(i) Max combined LTV of 75.0% (ii) Min combined DSCR of 1.25x
40		1	Ashton Square	Yes	(i) Max combined LTV of 75.0% (ii) Min combined DSCR of 1.25x
41		1	Homesstead Village	Yes	(i) Max combined LTV of 75.0% (ii) Min combined DSCR of 1.25x
42		1	Cottage Cove	Yes	(i) Max combined LTV of 70.0% (ii) Min combined DSCR of 1.25x
43		1	Morgan Estates	Yes	(i) Max combined LTV of 75.0% (ii) Min combined DSCR of 1.25x
44	(18)	1	Tanager Springs II Apartments	Yes	(i) Max combined LTV of 80.0% (ii) Min combined DSCR of 1.25x
45	(18)	1	Tanager Springs I Apartments	Yes	(i) Max combined LTV of 80.0% (ii) Min combined DSCR of 1.25x
46		1	Picnic Grove MHC	Yes	(i) Max combined LTV of 70.0% (ii) Min combined DSCR of 1.25x

Footnotes to Exhibit A-1

- (1) Low Income Units are affordable to families with incomes no greater than 80.0% of area median income in multifamily rental properties.

Very Low Income Units are affordable to families with incomes no greater than 50.0% of area median income in multifamily rental properties.
- (2) The related groups of underlying mortgage loans were made to the same borrower or separate borrowers under common ownership.

For discussion of the risks associated with related borrower loans, see "*Risk Factors—Risks Related to the Underlying Mortgage Loans*" in this information circular.
- (3) The Administration Fee Rate includes the master servicing fee rate, sub-servicing fee rate, master servicer surveillance fee rate, special servicer surveillance fee rate, trustee fee rate, certificate administrator fee rate and CREFC[®] Intellectual Property Royalty License Fee Rate applicable to each underlying mortgage loan.
- (4) Monthly Debt Service Amount (Amortizing) shown for underlying mortgage loans with partial interest only periods reflects such amounts payable after the expiration of the applicable interest only period. Monthly Debt Service Amount (Amortizing) shown for full term interest only underlying mortgage loans is based on the monthly interest only payment amount.
- (5) Prepayment Provision is shown from the respective underlying mortgage loan origination date.
- (6) Initial Escrow Balances are as of the related underlying mortgage loan origination date, not as of the Cut-off Date.
- (7) With respect to Tax and Insurance Reserve (Monthly), springing Tax and Insurance Reserve (Monthly) commences upon (i) an event of default or (ii) origination of a supplemental mortgage (as applicable).
- (8) With respect to Replacement Reserve (Monthly), springing Replacement Reserve (Monthly) commences upon (i) an event of default, (ii) the origination of a supplemental mortgage (as applicable), (iii) 120 months after the First Payment Date (as applicable) or (iv) certain other conditions of the loan agreement, where applicable.
- (9) With respect to Other Escrow (Monthly), a springing Radon Remediation Reserve commences upon the related long term radon test concluding radon concentrations at or greater than 4 pCi/L for 150% of the total amount necessary for remediation if radon testing results indicate radon remediation is required.

With respect to the Green Improvements Reserve, generally the related borrower is required to make a deposit to be used for green improvements and repairs. The escrow deposit was deposited by the related borrower on loan origination date.
- (10) Certain underlying mortgage loans identified on Exhibit A-1 as having a Green Improvements Reserve were underwritten in accordance with Freddie Mac's Green Up[®] or Green Up Plus[®] programs. Such underlying mortgage loans were underwritten assuming that the related borrower will make certain energy and/or water/sewer improvements to a mortgaged real property generally within two years after the origination of the related underlying mortgage loan. The lender typically escrows 125% of the cost to complete such capital improvements.
- (11) With respect to Future Supplemental Financing Description, other than the required maximum combined LTV and minimum combined DSCR, the loan documents also require (i) Freddie Mac approval, (ii) the passage of at least 12 months after the origination of the first mortgage and (iii) certain other conditions of the security instrument or the loan agreement, where applicable.

- (12) With respect to Title Vesting (Fee/Leasehold), the underlying mortgage loan identified as “Broadstone Northpoint” is secured by the related borrower’s leasehold interest in the related mortgaged real property. The mortgaged real property is subject to a ground lease between the City of Albuquerque, New Mexico, as ground lessor, and the borrower, as ground lessee, in connection with the related PILOT tax abatement and the issuance by the related municipality of certain redevelopment bonds to the developer for reimbursement of the acquisition and construction of the mortgaged real property. The ground lease requires the ground lessor to assign and pledge its rights, title and interest in and to the ground lease to Broadstone Northpoint MR Bond Investors, LLC (“Broadstone Affiliate”), which is a wholly-owned affiliate of the borrower. Broadstone Affiliate is entitled to all revenues from the related mortgaged real property towards payment of the bonds. The ground lease is scheduled to expire on December 1, 2025. The ground lease provides that upon termination or expiration the ground lessor is required to convey fee title to the related mortgaged real property to the borrower or its successors upon the payment of \$1.00.
- (13) With respect to Title Vesting (Fee/Leasehold), the underlying mortgage loan identified as “The Verge Apartments” is secured by the related borrower’s leasehold interest in the related mortgaged real property. The mortgaged real property is subject to a ground lease between Brookside at Chestnut L.L.C., as ground lessor, and the related borrower, as ground lessee. Rent is currently due under the ground lease in a total amount of \$239,400 *per annum*, payable monthly. The ground lease is scheduled to expire on May 31, 2117, subject to the borrower’s option to extend the term of the ground lease for 15, 10-year periods. The borrower has a right of first refusal in connection with any offer to purchase the mortgaged real property from the ground lessor.
- (14) With respect to Appraised Value, for the mortgaged real property identified as “Sandstone Vistas 1,” the Appraised Value of \$32,000,000 represents an “As-Stabilized” value as of August 31, 2019. Such mortgaged real property has an “As-Is” value of \$29,000,000 as of March 29, 2019. See “*Description of the Underlying Mortgage Loans—Underwriting Matters—Appraisals and Market Studies*” in this information circular.
- (15) With respect to Other Escrow (Initial), for the underlying mortgage loan secured by the mortgaged real property identified as “Hillcrest Apartments,” the related borrower deposited \$439,094 into a student housing pre-leasing debt service reserve on the origination date. Pursuant to the related loan documents, the lender may apply the amounts in such reserve at any time to a partial prepayment of the underlying mortgage loan, and the borrower will be required to pay a prepayment premium computed in accordance with the loan documents. In addition, the loan documents provide that the lender will deduct funds from such reserve in such amounts as the lender determines are necessary to cover any difference between the monthly payment due on the underlying mortgage loan and the net operating income for the mortgaged real property. The reserve funds will be released upon payment in full of the underlying mortgage loan, or upon the occurrence of both of the following after the start of the fall semester or term applicable to the mortgaged property for any preceding month: (i) monthly rent derived from the mortgaged real property is at least \$136,461; and (ii) at least 89.24% of the residential units at the mortgaged real property have been leased on arms’ length terms and conditions to tenants that are not affiliated with the borrower or guarantor. See “*Description of the Underlying Mortgage Loans—Certain Terms and Conditions of the Underlying Mortgage Loans—Prepayment Provisions*” in this information circular.
- (16) With respect to Title Vesting (Fee/Leasehold), the underlying mortgage loan identified as “6210 Roosevelt” is secured by the related ground lessor’s fee interest in the related mortgaged real property and the related borrower’s leasehold interest in the mortgaged real property. The mortgaged real property is subject to a ground lease between MMT Philly, LLC, as ground lessor, and the related borrower, as lessee. The current fixed rent is \$12 *per annum*. The ground lease is scheduled to expire on August 31, 2048.
- (17) With respect to Prepayment Provision, for the underlying mortgage loan identified as “Abigail Vare Apartments,” the related borrower reported that it has applied to the City of Philadelphia, Office of Property Assessments for a tax abatement for the mortgaged real property. Pursuant to the related loan documents, if, by February 1, 2020, the tax abatement has not been obtained by the borrower, an updated tax bill consistent with the abatement is not delivered to the lender and the abatement has not actually commenced, the borrower will be required to prepay in part the underlying mortgage loan in an amount equal to \$183,000, together with a prepayment premium calculated in accordance with the loan documents.

- (18) With respect to Prepayment Provision, for the underlying mortgage loan identified as "Tanager Springs II Apartments," the related borrower reported that it intends to apply to the California Board of Equalization for a tax abatement for the mortgaged real property. In the event that such tax abatement is not obtained by October 1, 2020 (subject to a 6-month extension in the event that the borrower demonstrates to the lender's satisfaction that it has made significant progress in obtaining such tax abatement), the borrower will be required to prepay in part the underlying mortgage loan in an amount equal to \$1,062,000, together with a prepayment premium calculated in accordance with the related loan documents. In addition, for the underlying mortgage loan identified as "Tanager Springs I Apartments," the related borrower reported that it intends to apply to the California Board of Equalization for a tax abatement for the mortgaged real property. In the event that such tax abatement is not obtained by October 1, 2020 (subject to a 6-month extension in the event that the borrower demonstrates to the lender's satisfaction that it has made significant progress in obtaining such tax abatement), the borrower will be required to prepay in part the underlying mortgage loan in an amount equal to \$1,030,000, together with a prepayment premium calculated in accordance with the related loan documents.

EXHIBIT A-2

CERTAIN MORTGAGE POOL INFORMATION

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Ten Largest Underlying Mortgage Loans

Loan Name	Number of Mortgaged Properties	Property Sub-Type	Location	Cut-off Date Principal Balance	% of Initial Mortgage Pool Balance	Underwritten DSCR	Cut-off Date LTV Ratio	Mortgage Rate
Park Regency Club Apartments	1	Garden	Downey, CA	\$86,775,000	6.8%	1.30x	65.0%	3.520%
Villas At Wood Ranch	1	Garden	Simi Valley, CA	80,485,000	6.3	1.81x	65.0%	3.830%
York Brook Apartments	1	Mid Rise	Bensenville, IL	60,863,000	4.8	1.25x	78.5%	3.580%
Madison Ellis Preserve	1	Garden	Newtown Square, PA	59,570,000	4.7	1.26x	70.0%	3.610%
The Park At Hurstbourne Apartments	1	Garden	Louisville, KY	52,500,000	4.1	1.30x	75.0%	3.990%
Park Valley Apartments	1	Garden	Smyrna, GA	49,100,000	3.8	1.25x	73.4%	3.560%
Tapestry Park At Montclair	1	Garden	Birmingham, AL	48,750,000	3.8	1.29x	75.0%	3.660%
Lakeside At Coppell	1	Garden	Coppell, TX	48,251,000	3.8	1.25x	70.6%	3.560%
The Hanover Apartments	1	Garden	Greenbelt, MD	45,700,000	3.6	1.33x	69.9%	3.580%
Savannah At Park Central	1	Garden	Orlando, FL	40,687,000	3.2	1.25x	71.4%	3.740%
Total / Wtd. Average	10			\$572,681,000	44.9%	1.35x	70.8%	3.662%

Mortgage Pool Cut-off Date Principal Balances

Range of Cut-off Date Balances	Number of Mortgage Loans	Cut-off Date Principal Balance	% of Initial Mortgage Pool Balance	Weighted Average Underwritten DSCR	Weighted Average Cut-off Date LTV Ratio	Weighted Average Mortgage Rate
\$3,080,000 - \$9,999,999	12	\$87,162,000	6.8%	1.44x	70.6%	3.594%
\$10,000,000 - \$19,999,999	7	96,538,000	7.6	1.65x	63.1%	3.832%
\$20,000,000 - \$24,999,999	3	69,099,000	5.4	1.90x	69.9%	3.786%
\$25,000,000 - \$29,999,999	5	136,415,000	10.7	1.29x	74.0%	3.651%
\$30,000,000 - \$34,999,999	5	163,778,000	12.8	1.43x	70.9%	3.722%
\$35,000,000 - \$39,999,999	3	110,431,000	8.7	1.27x	73.4%	3.676%
\$40,000,000 - \$44,999,999	2	80,897,807	6.3	1.25x	68.3%	3.720%
\$45,000,000 - \$49,999,999	4	191,801,000	15.0	1.28x	72.3%	3.590%
\$50,000,000 - \$74,999,999	3	172,933,000	13.5	1.27x	74.5%	3.715%
\$75,000,000 - \$86,775,000	2	167,260,000	13.1	1.55x	65.0%	3.669%
Total / Wtd. Average	46	\$1,276,314,807	100.0%	1.40x	70.5%	3.686%

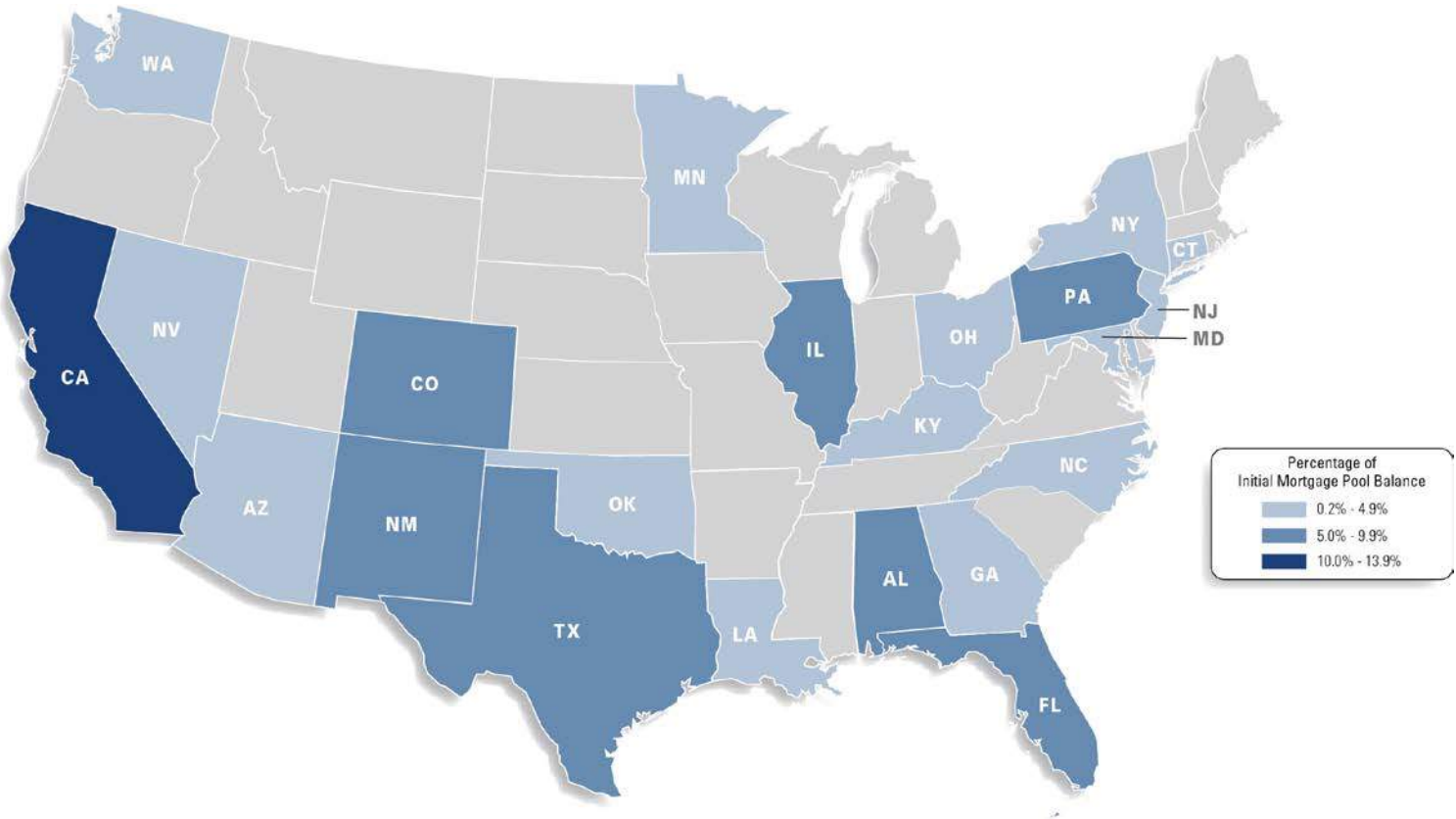
Mortgage Pool Underwritten Debt Service Coverage Ratios

Range of Underwritten DSCRs	Number of Mortgage Loans	Cut-off Date Principal Balance	% of Initial Mortgage Pool Balance	Weighted Average Underwritten DSCR	Weighted Average Cut-off Date LTV Ratio	Weighted Average Mortgage Rate
1.20x - 1.24x	2	\$10,500,000	0.8%	1.21x	78.8%	3.550%
1.25x - 1.29x	19	675,880,807	53.0	1.26x	72.4%	3.656%
1.30x - 1.39x	11	328,255,000	25.7	1.31x	71.3%	3.658%
1.40x - 1.49x	5	45,890,000	3.6	1.43x	67.5%	3.946%
1.50x - 1.74x	2	24,765,000	1.9	1.58x	59.0%	3.715%
1.75x - 1.99x	2	91,375,000	7.2	1.80x	65.5%	3.745%
2.00x - 2.24x	3	65,999,000	5.2	2.16x	64.8%	3.844%
2.25x - 3.18x	2	33,650,000	2.6	2.59x	61.4%	3.743%
Total / Wtd. Average	46	\$1,276,314,807	100.0%	1.40x	70.5%	3.686%

Mortgage Pool Geographic Distribution

Property Location	Number of Mortgaged Properties	Cut-off Date Principal Balance	% of Initial Mortgage Pool Balance	Weighted Average Underwritten DSCR	Weighted Average Cut-off Date LTV Ratio	Weighted Average Mortgage Rate
California	4	\$177,760,000	13.9%	1.53x	65.8%	3.662%
Southern California	2	167,260,000	13.1	1.55x	65.0%	3.669%
Northern California	2	10,500,000	0.8	1.21x	78.8%	3.550%
Colorado	5	119,074,807	9.3	1.32x	66.4%	3.793%
Florida	3	112,697,000	8.8	1.27x	72.6%	3.738%
Texas	3	97,889,000	7.7	1.27x	71.5%	3.590%
Illinois	2	91,338,000	7.2	1.25x	78.7%	3.593%
Alabama	2	83,067,000	6.5	1.27x	75.6%	3.710%
Pennsylvania	3	78,314,000	6.1	1.27x	69.9%	3.655%
New Mexico	3	68,025,000	5.3	1.72x	70.3%	3.720%
Georgia	2	61,847,000	4.8	1.25x	72.9%	3.616%
Ohio	4	57,836,000	4.5	1.76x	70.5%	3.609%
Connecticut	2	55,940,000	4.4	1.30x	75.7%	3.727%
Kentucky	1	52,500,000	4.1	1.30x	75.0%	3.990%
Arizona	2	47,194,000	3.7	1.29x	57.3%	3.595%
Maryland	1	45,700,000	3.6	1.33x	69.9%	3.580%
Nevada	1	32,442,000	2.5	1.25x	78.2%	3.750%
Louisiana	1	25,912,000	2.0	1.30x	75.0%	3.740%
Oklahoma	1	24,999,000	2.0	2.12x	64.6%	3.810%
North Carolina	2	13,600,000	1.1	1.47x	70.4%	3.500%
Washington	1	12,300,000	1.0	3.18x	48.8%	3.540%
Minnesota	1	9,150,000	0.7	2.14x	64.4%	3.500%
New York	1	5,650,000	0.4	1.45x	74.3%	3.720%
New Jersey	1	3,080,000	0.2	1.32x	70.0%	3.670%
Total / Wtd. Average	46	\$1,276,314,807	100.0%	1.40x	70.5%	3.686%

Collateral Locations



Mortgage Pool Cut-off Date Loan-to-Value Ratios

Range of Cut-off Date LTV Ratios	Number of Mortgage Loans	Cut-off Date Principal Balance	% of Initial Mortgage Pool Balance	Weighted Average Underwritten DSCR	Weighted Average Cut-off Date LTV Ratio	Weighted Average Mortgage Rate
48.8% - 49.9%	1	\$12,300,000	1.0%	3.18x	48.8%	3.540%
50.0% - 54.9%	1	16,565,000	1.3	1.57x	51.8%	3.950%
55.0% - 59.9%	2	47,194,000	3.7	1.29x	57.3%	3.595%
60.0% - 64.9%	3	43,887,000	3.4	1.94x	64.0%	3.732%
65.0% - 69.9%	10	360,092,807	28.2	1.56x	66.3%	3.674%
70.0% - 74.9%	16	414,052,000	32.4	1.28x	72.2%	3.697%
75.0% - 79.9%	12	376,824,000	29.5	1.28x	76.6%	3.686%
80.0%	1	5,400,000	0.4	1.21x	80.0%	3.550%
Total / Wtd. Average	46	\$1,276,314,807	100.0%	1.40x	70.5%	3.686%

Mortgage Pool Maturity Date Loan-to-Value Ratios

Range of Maturity Date LTV Ratios	Number of Mortgage Loans	Cut-off Date Principal Balance	% of Initial Mortgage Pool Balance	Weighted Average Underwritten DSCR	Weighted Average Maturity Date LTV Ratio	Weighted Average Mortgage Rate
44.7% - 49.9%	3	\$63,559,000	5.0%	1.71x	47.6%	3.625%
50.0% - 54.9%	2	52,710,807	4.1	1.29x	51.7%	3.738%
55.0% - 59.9%	4	113,803,000	8.9	1.35x	58.3%	3.500%
60.0% - 64.9%	14	326,002,000	25.5	1.38x	63.3%	3.678%
65.0% - 69.9%	21	626,935,000	49.1	1.43x	67.1%	3.732%
70.0% - 70.7%	2	93,305,000	7.3	1.25x	70.7%	3.639%
Total / Wtd. Average	46	\$1,276,314,807	100.0%	1.40x	64.0%	3.686%

Mortgage Pool Mortgage Rates

Range of Mortgage Rates	Number of Mortgage Loans	Cut-off Date Principal Balance	% of Initial Mortgage Pool Balance	Weighted Average Underwritten DSCR	Weighted Average Cut-off Date LTV Ratio	Weighted Average Mortgage Rate
3.120% - 3.249%	2	\$19,090,000	1.5%	1.69x	71.3%	3.172%
3.250% - 3.499%	1	28,840,000	2.3	1.33x	76.9%	3.480%
3.500% - 3.749%	26	784,761,807	61.5	1.32x	70.9%	3.594%
3.750% - 3.999%	16	429,483,000	33.7	1.55x	69.5%	3.862%
4.000% - 4.540%	1	14,140,000	1.1	1.42x	70.0%	4.540%
Total / Wtd. Average	46	\$1,276,314,807	100.0%	1.40x	70.5%	3.686%

Mortgage Pool Original Term to Maturity

Original Term to Maturity (months)	Number of Mortgage Loans	Cut-off Date Principal Balance	% of Initial Mortgage Pool Balance	Weighted Average Underwritten DSCR	Weighted Average Cut-off Date LTV Ratio	Weighted Average Mortgage Rate
120	45	\$1,259,749,807	98.7%	1.40x	70.8%	3.682%
132	1	16,565,000	1.3	1.57x	51.8%	3.950%
Total/Wtd. Average	46	\$1,276,314,807	100.0%	1.40x	70.5%	3.686%

Mortgage Pool Remaining Term to Maturity

Remaining Term to Maturity (months)	Number of Mortgage Loans	Cut-off Date Principal Balance	% of Initial Mortgage Pool Balance	Weighted Average Underwritten DSCR	Weighted Average Cut-off Date LTV Ratio	Weighted Average Mortgage Rate
114	1	\$14,140,000	1.1%	1.42x	70.0%	4.540%
116	1	31,850,000	2.5	2.19x	65.0%	3.970%
117	1	52,500,000	4.1	1.30x	75.0%	3.990%
118	25	748,243,000	58.6	1.37x	69.9%	3.664%
119	17	413,016,807	32.4	1.40x	72.3%	3.624%
126	1	16,565,000	1.3	1.57x	51.8%	3.950%
Total / Wtd. Average	46	\$1,276,314,807	100.0%	1.40x	70.5%	3.686%

Mortgage Pool Original Amortization Term

Original Amortization Term (months)	Number of Mortgage Loans	Cut-off Date Principal Balance	% of Initial Mortgage Pool Balance	Weighted Average Underwritten DSCR	Weighted Average Cut-off Date LTV Ratio	Weighted Average Mortgage Rate
Interest Only	6	\$180,134,000	14.1%	2.08x	64.2%	3.819%
360	40	1,096,180,807	85.9	1.29x	71.6%	3.664%
Total / Wtd. Average	46	\$1,276,314,807	100.0%	1.40x	70.5%	3.686%

Mortgage Pool Remaining Amortization Term

Remaining Amortization Term (months)	Number of Mortgage Loans	Cut-off Date Principal Balance	% of Initial Mortgage Pool Balance	Weighted Average Underwritten DSCR	Weighted Average Cut-off Date LTV Ratio	Weighted Average Mortgage Rate
Interest Only	6	\$180,134,000	14.1%	2.08x	64.2%	3.819%
359	1	40,210,807	3.2	1.25x	65.2%	3.700%
360	39	1,055,970,000	82.7	1.29x	71.8%	3.662%
Total / Wtd. Average	46	\$1,276,314,807	100.0%	1.40x	70.5%	3.686%

Mortgage Pool Seasoning

Seasoning (months)	Number of Mortgage Loans	Cut-off Date Principal Balance	% of Initial Mortgage Pool Balance	Weighted Average Underwritten DSCR	Weighted Average Cut-off Date LTV Ratio	Weighted Average Mortgage Rate
1	17	\$413,016,807	32.4%	1.40x	72.3%	3.624%
2	25	748,243,000	58.6	1.37x	69.9%	3.664%
3	1	52,500,000	4.1	1.30x	75.0%	3.990%
4	1	31,850,000	2.5	2.19x	65.0%	3.970%
6	2	30,705,000	2.4	1.50x	60.2%	4.222%
Total / Wtd. Average	46	\$1,276,314,807	100.0%	1.40x	70.5%	3.686%

Mortgage Pool Amortization Type

Amortization Type	Number of Mortgage Loans	Cut-off Date Principal Balance	% of Initial Mortgage Pool Balance	Weighted Average Underwritten DSCR	Weighted Average Cut-off Date LTV Ratio	Weighted Average Mortgage Rate
Partial IO	39	\$1,055,970,000	82.7%	1.29x	71.8%	3.662%
Interest Only	6	180,134,000	14.1	2.08x	64.2%	3.819%
Balloon	1	40,210,807	3.2	1.25x	65.2%	3.700%
Total / Wtd. Average	46	\$1,276,314,807	100.0%	1.40x	70.5%	3.686%

Mortgage Pool Loan Purpose

Loan Purpose	Number of Mortgage Loans	Cut-off Date Principal Balance	% of Initial Mortgage Pool Balance	Weighted Average Underwritten DSCR	Weighted Average Cut-off Date LTV Ratio	Weighted Average Mortgage Rate
Refinance	34	\$935,041,807	73.3%	1.37x	69.5%	3.655%
Acquisition	12	341,273,000	26.7	1.48x	73.3%	3.770%
Total / Wtd. Average	46	\$1,276,314,807	100.0%	1.40x	70.5%	3.686%

Mortgage Pool Prepayment Protection

Prepayment Protection	Number of Mortgage Loans	Cut-off Date Principal Balance	% of Initial Mortgage Pool Balance	Weighted Average Underwritten DSCR	Weighted Average Cut-off Date LTV Ratio	Weighted Average Mortgage Rate
Defeasance	45	\$1,216,744,807	95.3%	1.41x	70.6%	3.689%
Greater of YM or 1%, then 1% penalty	1	59,570,000	4.7	1.26x	70.0%	3.610%
Total / Wtd. Average	46	\$1,276,314,807	100.0%	1.40x	70.5%	3.686%

Mortgage Pool Property Sub-Type

Property Sub-Type	Number of Mortgaged Properties	Cut-off Date Principal Balance	% of Initial Mortgage Pool Balance	Weighted Average Underwritten DSCR	Weighted Average Cut-off Date LTV Ratio	Weighted Average Mortgage Rate
Garden	34	\$1,064,724,807	83.4%	1.38x	70.8%	3.692%
Mid Rise	1	60,863,000	4.8	1.25x	78.5%	3.580%
Manufactured Housing Community	5	52,855,000	4.1	1.35x	73.5%	3.510%
Student	3	45,228,000	3.5	1.79x	67.6%	4.049%
MHC Age Restricted	1	34,694,000	2.7	1.25x	56.9%	3.500%
Assisted Living	1	12,300,000	1.0	3.18x	48.8%	3.540%
Age Restricted	1	5,650,000	0.4	1.45x	74.3%	3.720%
Total / Wtd. Average	46	\$1,276,314,807	100.0%	1.40x	70.5%	3.686%

Mortgage Pool Year Built / Renovated

Most Recent Year Built / Renovated	Number of Mortgaged Properties	Cut-off Date Principal Balance	% of Initial Mortgage Pool Balance	Weighted Average Underwritten DSCR	Weighted Average Cut-off Date LTV Ratio	Weighted Average Mortgage Rate
1950 - 1980	8	\$155,781,000	12.2%	1.33x	71.4%	3.578%
1981 - 1990	2	40,422,000	3.2	1.28x	73.7%	3.604%
1991 - 2000	3	60,301,000	4.7	1.29x	70.4%	3.569%
2001 - 2010	10	168,865,000	13.2	1.47x	71.6%	3.676%
2011 - 2015	3	92,805,000	7.3	1.28x	74.2%	3.714%
2016 - 2017	6	226,838,807	17.8	1.35x	69.5%	3.671%
2018 - 2019	14	531,302,000	41.6	1.47x	69.6%	3.741%
Total / Wtd. Average	46	\$1,276,314,807	100.0%	1.40x	70.5%	3.686%

Mortgage Pool Current Occupancy

Range of Current Occupancy	Number of Mortgaged Properties	Cut-off Date Principal Balance	% of Initial Mortgage Pool Balance	Weighted Average Underwritten DSCR	Weighted Average Cut-off Date LTV Ratio	Weighted Average Mortgage Rate
88.9% - 89.9%	2	\$62,369,000	4.9%	1.27x	64.9%	3.500%
90.0% - 92.4%	1	6,400,000	0.5	1.45x	65.2%	3.500%
92.5% - 94.9%	12	470,848,807	36.9	1.38x	69.7%	3.660%
95.0% - 97.4%	19	597,870,000	46.8	1.37x	72.8%	3.703%
97.5% - 99.9%	10	123,439,000	9.7	1.70x	66.8%	3.798%
100.0%	2	15,388,000	1.2	1.36x	66.5%	3.739%
Total / Wtd. Average	46	\$1,276,314,807	100.0%	1.40x	70.5%	3.686%

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EXHIBIT A-3

DESCRIPTION OF THE TEN LARGEST UNDERLYING MORTGAGE LOANS

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Description of the Ten Largest Underlying Mortgage Loans

1. Park Regency Club Apartments



Original Principal Balance:	\$86,775,000
Cut-off Date Principal Balance:	\$86,775,000
Maturity Date Principal Balance:	\$78,090,468
% of Initial Mortgage Pool Balance:	6.8%
Loan Purpose:	Refinance
Interest Rate:	3.520%
First Payment Date:	November 1, 2019
Maturity Date:	October 1, 2029
Amortization:	IO (60), then amortizing 30-year schedule
Call Protection:	L(26) D(90) O(4)
Cash Management:	N/A
Cut-off Date Principal Balance / Unit:	\$188,641
Maturity Date Principal Balance / Unit:	\$169,762
Cut-off Date LTV:	65.0%
Maturity Date LTV:	58.5%
Underwritten DSCR:	1.30x
# of Units/Low Income/V. Low Income:	460 / N/A / N/A
Collateral:	Fee Simple
Location:	Downey, CA
Property Sub-type:	Garden
Year Built / Renovated:	1971 / 2019
Occupancy:	94.8% (9/30/2019)
Underwritten / Most Recent NCF:	\$6,112,429 / \$6,007,414

2. Villas At Wood Ranch



Original Principal Balance:	\$80,485,000
Cut-off Date Principal Balance:	\$80,485,000
Maturity Date Principal Balance:	\$80,485,000
% of Initial Mortgage Pool Balance:	6.3%
Loan Purpose:	Refinance
Interest Rate:	3.830%
First Payment Date:	November 1, 2019
Maturity Date:	October 1, 2029
Amortization:	Interest Only
Call Protection:	L(26) D(90) O(4)
Cash Management:	N/A
Cut-off Date Principal Balance / Unit:	\$216,358
Maturity Date Principal Balance / Unit:	\$216,358
Cut-off Date LTV:	65.0%
Maturity Date LTV:	65.0%
Underwritten DSCR:	1.81x
# of Units/Low Income/V. Low Income:	372 / N/A / N/A
Collateral:	Fee Simple
Location:	Simi Valley, CA
Property Sub-type:	Garden
Year Built / Renovated:	1986 / 2019
Occupancy:	96.8% (9/30/2019)
Underwritten / Most Recent NCF:	\$5,650,750 / \$5,245,433

3. York Brook Apartments



Original Principal Balance:	\$60,863,000
Cut-off Date Principal Balance:	\$60,863,000
Maturity Date Principal Balance:	\$54,829,798
% of Initial Mortgage Pool Balance:	4.8%
Loan Purpose:	Acquisition
Interest Rate:	3.580%
First Payment Date:	December 1, 2019
Maturity Date:	November 1, 2029
Amortization:	IO (60), then amortizing 30-year schedule
Call Protection:	L(25) D(91) O(4)
Cash Management:	N/A
Cut-off Date Principal Balance / Unit:	\$106,590
Maturity Date Principal Balance / Unit:	\$96,024
Cut-off Date LTV:	78.5%
Maturity Date LTV:	70.7%
Underwritten DSCR:	1.25x
# of Units/Low Income/V. Low Income:	571 / 556 / 1
Collateral:	Fee Simple
Location:	Bensenville, IL
Property Sub-type:	Mid Rise
Year Built / Renovated:	1974 / N/A
Occupancy:	96.5% (7/31/2019)
Underwritten / Most Recent NCF:	\$4,140,403 / \$3,265,661

4. Madison Ellis Preserve



Original Principal Balance:	\$59,570,000
Cut-off Date Principal Balance:	\$59,570,000
Maturity Date Principal Balance:	\$53,693,731
% of Initial Mortgage Pool Balance:	4.7%
Loan Purpose:	Refinance
Interest Rate:	3.610%
First Payment Date:	December 1, 2019
Maturity Date:	November 1, 2029
Amortization:	IO (60), then amortizing 30-year schedule
Call Protection:	YM1%(113) 1%(3) O(4)
Cash Management:	N/A
Cut-off Date Principal Balance / Unit:	\$236,389
Maturity Date Principal Balance / Unit:	\$213,070
Cut-off Date LTV:	70.0%
Maturity Date LTV:	63.1%
Underwritten DSCR:	1.26x
# of Units/Low Income/V. Low Income:	252 / N/A / N/A
Collateral:	Fee Simple
Location:	Newtown Square, PA
Property Sub-type:	Garden
Year Built / Renovated:	2017 / N/A
Occupancy:	94.4% (8/28/2019)
Underwritten / Most Recent NCF:	\$4,106,309 / \$3,456,580

5. The Park At Hurstbourne Apartments



Original Principal Balance:	\$52,500,000
Cut-off Date Principal Balance:	\$52,500,000
Maturity Date Principal Balance:	\$47,636,094
% of Initial Mortgage Pool Balance:	4.1%
Loan Purpose:	Refinance
Interest Rate:	3.990%
First Payment Date:	October 1, 2019
Maturity Date:	September 1, 2029
Amortization:	IO (60), then amortizing 30-year schedule
Call Protection:	L(27) D(89) O(4)
Cash Management:	N/A
Cut-off Date Principal Balance / Unit:	\$76,197
Maturity Date Principal Balance / Unit:	\$69,138
Cut-off Date LTV:	75.0%
Maturity Date LTV:	68.1%
Underwritten DSCR:	1.30x
# of Units/Low Income/V. Low Income:	689 / 685 / 82
Collateral:	Fee Simple
Location:	Louisville, KY
Property Sub-type:	Garden
Year Built / Renovated:	1972 / 2019
Occupancy:	92.9% (10/23/2019)
Underwritten / Most Recent NCF:	\$3,915,132 / \$4,199,469

6. Park Valley Apartments



Original Principal Balance:	\$49,100,000
Cut-off Date Principal Balance:	\$49,100,000
Maturity Date Principal Balance:	\$44,217,812
% of Initial Mortgage Pool Balance:	3.8%
Loan Purpose:	Refinance
Interest Rate:	3.560%
First Payment Date:	November 1, 2019
Maturity Date:	October 1, 2029
Amortization:	IO (60), then amortizing 30-year schedule
Call Protection:	L(26) D(90) O(4)
Cash Management:	N/A
Cut-off Date Principal Balance / Unit:	\$98,992
Maturity Date Principal Balance / Unit:	\$89,149
Cut-off Date LTV:	73.4%
Maturity Date LTV:	66.1%
Underwritten DSCR:	1.25x
# of Units/Low Income/V. Low Income:	496 / 434 / N/A
Collateral:	Fee Simple
Location:	Smyrna, GA
Property Sub-type:	Garden
Year Built / Renovated:	1986 / 2019
Occupancy:	94.2% (11/13/2019)
Underwritten / Most Recent NCF:	\$3,331,953 / \$3,452,053

7. Tapestry Park At Montclair



Original Principal Balance:	\$48,750,000
Cut-off Date Principal Balance:	\$48,750,000
Maturity Date Principal Balance:	\$43,980,991
% of Initial Mortgage Pool Balance:	3.8%
Loan Purpose:	Refinance
Interest Rate:	3.660%
First Payment Date:	November 1, 2019
Maturity Date:	October 1, 2029
Amortization:	IO (60), then amortizing 30-year schedule
Call Protection:	L(26) D(90) O(4)
Cash Management:	N/A
Cut-off Date Principal Balance / Unit:	\$137,712
Maturity Date Principal Balance / Unit:	\$124,240
Cut-off Date LTV:	75.0%
Maturity Date LTV:	67.7%
Underwritten DSCR:	1.29x
# of Units/Low Income/V. Low Income:	354 / 14 / N/A
Collateral:	Fee Simple
Location:	Birmingham, AL
Property Sub-type:	Garden
Year Built / Renovated:	2012 / N/A
Occupancy:	95.5% (11/13/2019)
Underwritten / Most Recent NCF:	\$3,453,262 / \$3,544,472

8. Lakeside At Coppell



Original Principal Balance:	\$48,251,000
Cut-off Date Principal Balance:	\$48,251,000
Maturity Date Principal Balance:	\$43,453,231
% of Initial Mortgage Pool Balance:	3.8%
Loan Purpose:	Refinance
Interest Rate:	3.560%
First Payment Date:	November 1, 2019
Maturity Date:	October 1, 2029
Amortization:	IO (60), then amortizing 30-year schedule
Call Protection:	L(26) D(90) O(4)
Cash Management:	N/A
Cut-off Date Principal Balance / Unit:	\$153,178
Maturity Date Principal Balance / Unit:	\$137,947
Cut-off Date LTV:	70.6%
Maturity Date LTV:	63.6%
Underwritten DSCR:	1.25x
# of Units/Low Income/V. Low Income:	315 / 1 / N/A
Collateral:	Fee Simple
Location:	Coppell, TX
Property Sub-type:	Garden
Year Built / Renovated:	1998 / N/A
Occupancy:	97.1% (9/30/2019)
Underwritten / Most Recent NCF:	\$3,274,331 / \$3,381,003

9. The Hanover Apartments



Original Principal Balance:	\$45,700,000
Cut-off Date Principal Balance:	\$45,700,000
Maturity Date Principal Balance:	\$41,170,638
% of Initial Mortgage Pool Balance:	3.6%
Loan Purpose:	Refinance
Interest Rate:	3.580%
First Payment Date:	November 1, 2019
Maturity Date:	October 1, 2029
Amortization:	IO (60), then amortizing 30-year schedule
Call Protection:	L(26) D(90) O(4)
Cash Management:	N/A
Cut-off Date Principal Balance / Unit:	\$142,813
Maturity Date Principal Balance / Unit:	\$128,658
Cut-off Date LTV:	69.9%
Maturity Date LTV:	63.0%
Underwritten DSCR:	1.33x
# of Units/Low Income/V. Low Income:	320 / 320 / 1
Collateral:	Fee Simple
Location:	Greenbelt, MD
Property Sub-type:	Garden
Year Built / Renovated:	1966 / 2019
Occupancy:	94.1% (11/13/2019)
Underwritten / Most Recent NCF:	\$3,304,035 / \$3,284,743

10. Savannah At Park Central



Original Principal Balance:	\$40,687,000
Cut-off Date Principal Balance:	\$40,687,000
Maturity Date Principal Balance:	\$36,758,636
% of Initial Mortgage Pool Balance:	3.2%
Loan Purpose:	Refinance
Interest Rate:	3.740%
First Payment Date:	November 1, 2019
Maturity Date:	October 1, 2029
Amortization:	IO (60), then amortizing 30-year schedule
Call Protection:	L(26) D(90) O(4)
Cash Management:	N/A
Cut-off Date Principal Balance / Unit:	\$141,274
Maturity Date Principal Balance / Unit:	\$127,634
Cut-off Date LTV:	71.4%
Maturity Date LTV:	64.5%
Underwritten DSCR:	1.25x
# of Units/Low Income/V. Low Income:	288 / N/A / N/A
Collateral:	Fee Simple
Location:	Orlando, FL
Property Sub-type:	Garden
Year Built / Renovated:	2007 / N/A
Occupancy:	95.1% (8/13/2019)
Underwritten / Most Recent NCF:	\$2,823,353 / \$2,578,277

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EXHIBIT B

FORM OF CERTIFICATE ADMINISTRATOR'S STATEMENT TO CERTIFICATEHOLDERS

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Distribution Date:
Determination Date:

FREMF 2019-K103 Mortgage Trust
Multifamily Mortgage Pass-Through Certificates
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Depositor	Banc of America Merrill Lynch Commercial Mortgage Inc.	Distribution Summary	2
Special Servicer	Wells Fargo Bank, National Association	Distribution Summary (Factors)	3
Trustee	U.S. Bank National Association	Interest Distribution Detail	4
Certificate Administrator / Custodian	Citibank, N.A.	Principal Distribution Detail	5
Mortgage Loan Seller	Federal Home Loan Mortgage Corporation	Reconciliation Detail	6
Guarantor	Federal Home Loan Mortgage Corporation	Other Information	7
Master Servicer	Midland Loan Services, a Division of PNC Bank, National Assoc.	Mortgage Loan Detail	8
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Deal Contact:	Karen Schuterl Karen.Schluter@citi.com Tel: (212) 816 - 5827 Fax: (212) 816 - 5527	Citibank, N.A. Agency and Trust 388 Greenwich Street, 14th Floor New York, NY 10013
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Distribution Date:
 Determination Date:

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Reconciliation Detail

SOURCE OF FUNDS	ALLOCATION OF FUNDS
Interest Funds Available Scheduled Interest Prepayment Interest Excess Prepayment Interest Shortfall Interest Adjustments Total Interest Funds Available: _____	Scheduled Fees Master Servicing Fee Sub-Servicing Fee Certificate Administrator Fee Guarantee Fee Trustee Fee CREFC® Intellectual Property Royalty License Fee Master Servicer Surveillance Fee Special Servicer Surveillance Fee Total Scheduled Fees: _____
Principal Funds Available Scheduled Principal Curtailments Principal Prepayments Net Liquidation Proceeds Repurchased Principal Nonrecoverable Principal Advance Substitution Principal Other Principal Total Principal Funds Available: _____	Additional Fees, Expenses, etc. Additional Servicing Fee Special Servicing Fee Workout Fee Liquidation Fee Trust Fund Expenses Reimbursement of Nonrecoverable Advance to the Servicer Guarantor reimbursements Other Expenses Total Additional Fees, Expenses, etc.: _____
Other Funds Available Static Prepayment Premiums / Yield Maintenance Charge Withdrawal of Withheld Amounts from the Interest Reserve Account Deposit of Withheld Amounts to the Interest Reserve Account Guarantor payments Guarantor Cap Payments Other Charges Total Other Funds Available: _____	Distribution to Certificateholders Interest Distribution Principal Distribution Yield Maintenance Charge / Static Prepayment Premiums Distribution Total Distribution to Certificateholders: _____
Total Funds Available _____	Total Funds Allocated _____

Distribution Date:
Determination Date:

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Other Information

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Distribution Date:
Determination Date:



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Mortgage Loan Detail

Loan	OMCR	Prop Type (1)	City	State	Interest Payment	Principal Payment	Gross Coupon	Maturity Date	Neg Am Flag	Beginning Scheduled Balance	Ending Scheduled Balance	Paid Through Date	Appraisal Reduction Date	Appraisal Reduction Amount	Payment Status (2)	Workout Strategy (3)	Mod Type (4)
Totals																	

Distribution Date:
Determination Date:

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NOI Detail

Loan Number	OMCR	Property Type (1)	City	State	Ending Scheduled Balance	Most Recent Fiscal NOI	Most Recent NOI	Most Recent NOI Start Date	Most Recent NOI End Date
Totals									

Distribution Date:
Determination Date:

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Delinquency Loan Detail

Loan Number	OMCR	# of Months Delinq	Actual Principal Balance	Paid Through Date	Current P&I Advances (Net of ASER)	Total P&I Advances Outstanding	Cumulative Accrued Unpaid Interest Advances	Other Expense Advances Outstanding	Payment Status (2)	Workout Strategy (3)	Most Recent Special Serv Transfer Date	Foreclosure Date	Bankruptcy Date	REO Date
<i>There is no delinquency loan activity for the current distribution period.</i>														

Distribution Date:
Determination Date:

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Historical Delinquency Information

Loan Number	OMCR	# of Months Delinq	Actual Principal Balance	Paid Through Date	Current P&I Advances (Net of ASER)	Total P&I Advances Outstanding	Cumulative Accrued Unpaid Interest Advances	Other Expense Advances Outstanding	Payment Status (2)	Workout Strategy (3)	Most Recent Special Serv Transfer Date	Foreclosure Date	Bankruptcy Date	REO Date
<i>There is no historical delinquency loan activity for the current distribution period.</i>														

Distribution Date:
Determination Date:

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Appraisal Reduction Detail

Loan Number	OMCR	Property Name	Appraisal Reduction Amount	Appraisal Reduction Date	Most Recent ASER Amount	Cumulative ASER Amount
<i>There is no appraisal reduction activity for the current distribution period.</i>						
Totals						

Distribution Date:
Determination Date:



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Historical Appraisal Reduction Detail

Distribution Date	Loan Number	OMCR	Property Name	Appraisal Reduction Amount	Appraisal Reduction Date	Most Recent ASER Amount	Cumulative ASER Amount
<i>There is no historical appraisal reduction activity.</i>							

Distribution Date:
Determination Date:

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Loan Modification Detail

Loan Number	OMCR	Property Name	Modification Date	Modification Type (4)	Modification Description
<i>There is no loan modification activity for the current distribution period.</i>					
Totals					

Distribution Date:
Determination Date:

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Historical Loan Modification Detail

Distribution Date	Loan Number	OMCR	Property Name	Modification Date	Modification Type (4)	Modification Description
<i>There is no historical loan modification activity.</i>						

Distribution Date:
Determination Date:

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Specially Serviced Loan Detail

Loan Number	OMCR	Workout Strategy (3)	Most Recent Inspection Date	Most Recent Specially Serviced Transfer Date	Most Recent Valuation Date	Most Recent Value	Other REO Property Value	Comment from Special Servicer
<i>There is no specially serviced loan activity for the current distribution period.</i>								
Totals								

Distribution Date:
Determination Date:

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Historical Specially Serviced Loan Detail

Distribution Date	Loan Number	OMCR	Special Serviced Trans Date	Workout Strategy (3)	Special Serviced Loan to MS	Scheduled Balance	Actual Balance	Property Type (1)	State	Interest Rate	Note Date	Net Operating Income (NOI)	DSCR	Maturity Date	WART
<i>There is no historical specially serviced loan activity.</i>															

Distribution Date:
Determination Date:

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Unscheduled Principal Detail

Loan Number	OMCR	Liquidation / Prepayment Date	Liquid / Prepay Type (5)	Unscheduled Principal Collections	Unscheduled Principal Adjustments	Other Interest Adjustments	Prepayment Interest Excess / (Shortfall)	Prepayment Penalties	Yield Maintenance Penalties
Totals									

Distribution Date:
Determination Date:

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Historical Unscheduled Principal Detail

Distribution Date	Loan Number	OMCR	Liquidation / Prepayment Date	Liquid / Prepay Type (5)	Unscheduled Principal Collections	Unscheduled Principal Adjustments	Other Interest Adjustments	Prepayment Interest Excess / (Shortfall)	Prepayment Penalties	Yield Maintenance Penalties

Distribution Date:
Determination Date:

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Liquidated Loan Detail

Loan Number	OMCR	Final Recovery Determ Date	Most Recent Appraisal Date	Most Recent Appraisal Value	Actual Balance	Gross Proceeds	Proceeds as % of Act Bal	Liquidation Expenses	Net Liquidation Proceeds	Net Proceeds as a % of Act Bal	Realized Losses	Repurchased by Seller (Y/N)
<i>There is no liquidated loan activity for the current distribution period.</i>												
Totals												

Distribution Date:
Determination Date:

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Historical Liquidated Loan Detail

Distribution Date	Loan Number	OMCR	Final Recovery Determ Date	Most Recent Appraisal Date	Most Recent Appraisal Value	Actual Balance	Gross Proceeds	Gross Proceeds as % of Act Bal	Liquidation Expenses	Net Liquidation Proceeds	Net Proceeds as a % of Act Bal	Realized Loss	Repurchased by Seller (Y/N)

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CREFC® Legends

(1) Property Type

MF = Multifamily
RT = Retail
HC = HealthCare
IN = Industrial
WH = Warehouse
MH = Mobile Home Park
OF = Office
MU = Mixed Use
LO = Lodging
SS = Self Storage
OT = Other
SE = Securities
CH = Cooperative Housing
N/A = Not Available

(2) Payment Status

A. In Grace Period
B. Late, but less than 30 Days
0. Current
1. 30-59 Days Delinquent
2. 60-89 Days Delinquent
3. 90+ Days Delinquent
4. Performing Matured Balloon
5. Non Performing Matured Balloon
98. Not Provided By Servicer

(3) Workout Strategy

1. Modification
2. Foreclosure
3. Bankruptcy
4. Extension
5. Note Sale
6. DPO
7. REO
8. Resolved
9. Pending Return to Master Servicer
10. Deed In Lieu of Foreclosure
11. Full Payoff
12. Reps and Warranties
13. Other or TBD
98. Not Provided By Servicer

(4) Modification Type

1. Maturity Date Extension
2. Amortization Change
3. Principal Write-Off
4. Blank (formerly Combination)
5. Temporary Rate Reduction
6. Capitalization of Interest
7. Capitalization of Taxes
8. Other
9. Combination

(5) Liquidation / Prepayment Type

1. Partial Liquidation (Curtailment)
2. Payoff Prior To Maturity
3. Disposition / Liquidation
4. Repurchase / Substitution
5. Full Payoff At Maturity
6. DPO
7. Not Used
8. Payoff With Penalty
9. Payoff With Yield Maintenance
10. Curtailment With Penalty
11. Curtailment With Yield Maintenance

EXHIBIT C-1

MORTGAGE LOAN SELLER'S REPRESENTATIONS AND WARRANTIES

As of the Closing Date, the mortgage loan seller will make, with respect to each underlying mortgage loan sold by it that we include in the issuing entity, representations and warranties that are expected to be generally in the form set forth below. The exceptions to those representations and warranties are expected to be generally in the form set forth on Exhibit C-2.

The mortgage loan purchase agreement, together with the representations and warranties, serves to contractually allocate risk between the mortgage loan seller, on the one hand, and the issuing entity, on the other. We present the representations and warranties set forth below for the sole purpose of describing some of the expected terms and conditions of that risk allocation. The presentation of representations and warranties below is not intended as statements regarding the actual characteristics of the underlying mortgage loans, the mortgaged real properties or other matters. We cannot assure you that the underlying mortgage loans actually conform to the statements made in the representations and warranties that we present below.

Capitalized terms used below but not otherwise defined in this Exhibit C-1 will have the meanings set forth in the mortgage loan purchase agreement.

For purposes of these representations and warranties, the phrase “to the knowledge of the Mortgage Loan Seller” or “to the Mortgage Loan Seller’s knowledge” will mean, except where otherwise expressly set forth below, the actual state of knowledge of the Mortgage Loan Seller or any servicer acting on its behalf regarding the matters referred to, (a) after the Mortgage Loan Seller’s having conducted such inquiry and due diligence into such matters as would be customarily required by the Mortgage Loan Seller’s underwriting standards represented in the Multifamily Seller/Servicer Guide (the “Guide”) and the Mortgage Loan Seller’s credit policies and procedures, at the time of the Mortgage Loan Seller’s acquisition of the particular Loan; and (b) subsequent to such acquisition, utilizing the monitoring practices customarily utilized by the Mortgage Loan Seller and its servicer pursuant to the Guide. All information contained in documents which are part of or required to be part of a Mortgage File will be deemed to be within the knowledge of the Mortgage Loan Seller. Wherever there is a reference to receipt by, or possession of, the Mortgage Loan Seller of any information or documents, or to any action taken by the Mortgage Loan Seller or not taken by the Mortgage Loan Seller, such reference will include the receipt or possession of such information or documents by, or the taking of such action or the not taking of such action by, either the Mortgage Loan Seller or any servicer acting on its behalf.

The Mortgage Loan Seller represents and warrants, subject to the exceptions set forth on Exhibit C-2, with respect to each Loan, that as of the date specified below or, if no date is specified, as of the Closing Date, the following representations and warranties are true and correct in all material respects:

(1) Fixed Rate.

Each Loan bears interest at a fixed rate.

(2) Cross-Collateralized and/or Cross-Defaulted Loans.

Except with respect to any subordinate mortgage identified in paragraph 3, no Loan is cross-collateralized or cross-defaulted with any other mortgage loan not being transferred to the Depositor.

(3) Subordinate Loans.

As of the Origination Date, there were no subordinate mortgages securing subordinate loans encumbering the related Mortgaged Property, and, as of the Closing Date, the Mortgage Loan Seller has not purchased or entered into any commitment to purchase any subordinate loans secured by subordinate mortgages encumbering the related Mortgaged Property (other than, if applicable, other Loans being transferred to the Depositor). The Mortgage Loan Seller has no knowledge of any mezzanine debt related to such Mortgaged Property.

(4) Single Purpose Entity.

- (a) The Loan Documents executed in connection with each Loan with an original principal balance of more than \$5,000,000 require the Borrower to be a Single Purpose Entity (defined below) for at least as long as the Loan is outstanding, except in cases where the related Mortgaged Property is a residential cooperative property.
- (b) To the Mortgage Loan Seller's knowledge, each such Borrower is a Single Purpose Entity.
For this purpose, a "Single Purpose Entity" means an entity (not an individual) which meets all of the following requirements:
 - (i) An entity whose organizational documents provide and which entity represented in the related Loan Documents, substantially to the effect that each of the following is true with respect to each Borrower:
 - (A) it was formed or organized solely for the purpose of owning and operating one or more of the Mortgaged Properties securing the Loans, and
 - (B) it is prohibited from engaging in any business unrelated to such Mortgaged Property or Properties.
 - (ii) An entity whose organizational documents provide or which entity represented in the related Loan Documents, substantially to the effect that all the following are true with respect to each Borrower:
 - (A) it does not have any assets other than those related to its interest in and operation of such Mortgaged Property or Properties,
 - (B) it does not have any indebtedness other than as permitted by the related Mortgage(s) or the other related Loan Documents,
 - (C) it has its own books and records and accounts separate and apart from any other Person (other than a Borrower for a Loan that is cross-collateralized and cross-defaulted with the related Loan); provided, however, that the Loan Documents may permit the use of a centralized bank account that separately accounts for items of income and expense applicable to Borrower and the Mortgaged Property and is maintained such that all payments, disbursements and remittances related to the Mortgaged Property are applied solely to the Mortgaged Property and can be easily tracked and ascertained, and
 - (D) it holds itself out as a legal entity, separate and apart from any other Person.
- (c) Each Loan with an original principal balance of \$40,000,000 or more has a counsel's opinion regarding non-consolidation of the Borrower in any insolvency proceeding involving any other party.
- (d) To the Mortgage Loan Seller's actual knowledge, each Borrower has fully complied with the requirements of the related Loan Documents and the Borrower's organizational documents regarding Single Purpose Entity status.
- (e) The Loan Documents executed in connection with each Loan with an original principal balance of \$5,000,000 or less prohibit the related Borrower from doing either of the following:
 - (i) having any assets other than those related to its interest in the related Mortgaged Property or its financing, or
 - (ii) engaging in any business unrelated to such property and the related Loan.

(5) Licenses, Permits and Authorization.

- (a) As of the Origination Date, to Mortgage Loan Seller's knowledge, based on the related Borrower's representations and warranties in the related Loan Documents, the Borrower, commercial lessee and/or operator of the Mortgaged Property was in possession of all material licenses, permits, and authorizations required for use of the related Mortgaged Property as it was then operated.
- (b) Each Borrower covenants in the related Loan Documents that it will remain in material compliance with all material licenses, permits and other legal requirements necessary and required to conduct its business.

(6) Condition of Mortgaged Property.

To the Mortgage Loan Seller's knowledge, based solely upon due diligence customarily performed in connection with the origination of comparable loans, one of the following is applicable:

- (a) each related Mortgaged Property is free of any material damage that would materially and adversely affect the use or value of such Mortgaged Property as security for the Loan (other than normal wear and tear), or
- (b) to the extent a prudent lender would so require, the Mortgage Loan Seller has required a reserve, letter of credit, guaranty, insurance coverage or other mitigant with respect to the condition of the Mortgaged Property.

(7) Access, Public Utilities and Separate Tax Parcels.

All of the following are true and correct with regard to each Mortgaged Property:

- (a) each Mortgaged Property is located on or adjacent to a dedicated road, or has access to an irrevocable easement permitting ingress and egress,
- (b) each Mortgaged Property is served by public utilities and services generally available in the surrounding community or otherwise appropriate for the use in which the Mortgaged Property is currently being utilized, and
- (c) each Mortgaged Property constitutes one or more separate tax parcels. In certain cases, if such Mortgaged Property is not currently a separate tax parcel, an application has been made to the applicable governing authority for creation of separate tax parcels, in which case the Loan Documents require the Borrower to escrow an amount sufficient to pay taxes for the existing tax parcel of which the Mortgaged Property is a part until the separate tax parcels are created.
- (d) Any requirement described in clauses (a), (b) or (c) will be satisfied if such matter is covered by an endorsement or affirmative insurance under the related Title Policy (defined in paragraph 11).

(8) Taxes and Assessments.

One of the following is applicable:

- (a) there are no delinquent or unpaid taxes, assessments (including assessments payable in future installments) or other outstanding governmental charges affecting any Mortgaged Property that are or may become a lien of priority equal to or higher than the lien of the related Mortgage, or
- (b) an escrow of funds has been established in an amount (including all ongoing escrow payments to be made prior to the date on which taxes and assessments become delinquent) sufficient to cover the payment of such unpaid taxes and assessments.

For purposes of this representation and warranty, real property taxes and assessments will not be considered unpaid until the date on which interest or penalties would be first payable.

(9) Ground Leases.

No Loan is secured in whole or in part by the related Borrower's interest as lessee under a ground lease of the related Mortgaged Property without also being secured by the related fee interest in such Mortgaged Property.

(10) Valid First Lien.

- (a) Each related Mortgage creates a valid and enforceable first priority lien on the related Mortgaged Property, subject to Permitted Encumbrances (defined below) and except as enforcement may be limited by bankruptcy, insolvency, reorganization, moratorium or other laws affecting the enforcement of creditors' rights or by general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law).
- (b) If the related Loan is cross-collateralized with any other Loan(s), the related Mortgage encumbering the related Mortgaged Property also secures such other Loan(s).
- (c) The related Mortgaged Property is free and clear of any mechanics' and materialmen's liens which are prior to or equal with the lien of the related Mortgage, except those which are bonded over, escrowed for or insured against by a Title Policy.
- (d) A UCC financing statement has been filed and/or recorded (or sent for filing or recording) (or, in the case of fixtures, the Mortgage constitutes a fixture filing) in all places (if any) necessary at the time of origination of the Loan to perfect a valid security interest in the personal property owned by Borrower and reasonably necessary to operate the related Mortgaged Property in its current use other than for any of the following:
 - (i) non-material personal property,
 - (ii) personal property subject to purchase money security interests, and
 - (iii) personal property that is leased equipment, to the extent a security interest may be created by filing or recording.

Notwithstanding the foregoing, no representation is made as to the perfection of any security interest in rents or other personal property to the extent that possession or control of such items or actions other than the filing of UCC financing statements are required in order to effect such perfection.

- (e) Any security agreement or equivalent document related to and delivered in connection with the Loan establishes and creates a valid and enforceable lien on the property described therein (other than (i) healthcare licenses, (ii) Medicare, Medicaid or similar federal, state or local third party payor programs, including housing assistance payments contracts, or (iii) any federal, state or local permits or approvals for the operation of a wastewater treatment plant, sewer system or sewage treatment plant, private water or utility system or similar facility, to the extent any of the foregoing are not assignable without governmental approval), subject to Permitted Encumbrances and except as enforcement may be limited by bankruptcy, insolvency, reorganization, moratorium or other laws affecting the enforcement of creditors' rights or by general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law).

(11) Title Insurance.

- (a) Each Mortgaged Property is covered by an ALTA lender's title insurance policy (or its equivalent as set forth in the applicable jurisdiction), a pro forma policy or a marked-up title insurance commitment (on which the required premium has been paid) that evidences such title insurance policy (collectively, a "Title Policy"), in the original principal amount of the related Loan (or the allocated loan amount of the portions of the Mortgaged Property that are covered by such Title Policy).

- (b) Each Title Policy insures that the related Mortgage is a valid first priority lien on the related Mortgaged Property, subject only to Permitted Encumbrances.
- (c) Each Title Policy (or, if it has yet to be issued, the coverage to be provided by such Title Policy) is in full force and effect and all premiums have been paid.
- (d) Each Title Policy contains no exclusion for or affirmatively insures (except for any Mortgaged Property located in a jurisdiction where such affirmative insurance is not available) each of the following:
 - (i) there is access to a public road,
 - (ii) the area shown on the survey is the same as the property legally described in the Mortgage,
 - (iii) unless the property is located in one of the Super Lien States (defined below), the lien of the Mortgage is superior to a lien created by any applicable statute relating to environmental remediation, and
 - (iv) to the extent that the Mortgaged Property consists of two or more adjoining parcels, such parcels are contiguous.
- (e) No material claims have been made or paid under the Title Policy.
- (f) The Mortgage Loan Seller has not done, by act or omission, anything that would materially impair or diminish the coverage under the Title Policy, and has no knowledge of any such action or omission.
- (g) Immediately following the transfer and assignment of the related Loan to the Trustee, the Title Policy (or, if it has yet to be issued, the coverage to be provided by such Title Policy) will inure to the benefit of the Trustee without the consent of or notice to the insurer of the Title Policy.
- (h) The applicable Mortgage Loan Originator, the Mortgage Loan Seller and its successors and assigns are the sole named insureds under the Title Policy.
- (i) To the Mortgage Loan Seller's knowledge, the insurer of the Title Policy is qualified to do business in the jurisdiction in which the related Mortgaged Property is located.

"Permitted Encumbrances" means:

- (i) the lien of current real property taxes, ground rents, water charges, sewer rents and assessments not yet delinquent,
- (ii) covenants, conditions and restrictions, rights of way, easements and other matters of public record specifically identified in the Title Policy, none of which, individually or in the aggregate, materially interferes with any of the following:
 - (A) the current use of the Mortgaged Property,
 - (B) the security in the collateral intended to be provided by the lien of such Mortgage,
 - (C) the related Borrower's ability to pay its obligations when they become due, or
 - (D) the value of the Mortgaged Property,
- (iii) exceptions (general and specific) and exclusions set forth in such Title Policy, none of which, individually or in the aggregate, materially interferes with any of the following:
 - (A) the current use of the Mortgaged Property,

- (B) the security in the collateral intended to be provided by the lien of such Mortgage,
- (C) the related Borrower's ability to pay its obligations when they become due, or
- (D) the value of the Mortgaged Property,
- (iv) the rights of tenants, as tenants only, under leases, including subleases, pertaining to the related Mortgaged Property,
- (v) other matters to which similar properties are commonly subject, none of which, individually or in the aggregate, materially interferes with any of the following:
 - (A) the current use of the Mortgaged Property,
 - (B) the security in the collateral intended to be provided by the lien of such Mortgage,
 - (C) the related Borrower's ability to pay its obligations when they become due, or
 - (D) the value of the Mortgaged Property, and
- (vi) if the related Loan is cross-collateralized with any other Loan(s), the lien of any such cross-collateralized Loan(s).

“Super Lien States” means Alaska, Arizona, Arkansas, Connecticut, Delaware, District of Columbia, Hawaii, Illinois, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, Texas, Washington and/or Wisconsin.

(12) Encroachments.

- (a) To the Mortgage Loan Seller's knowledge (based upon surveys and/or the Title Policy obtained in connection with the origination of the Loans), as of the related Origination Date of each Loan, all of the material improvements on the related Mortgaged Property that were considered in determining the appraised value of the Mortgaged Property lay wholly within the boundaries and building restriction lines of such property and there are no encroachments of any part of any building over any easement, except for one or more of the following:
 - (i) encroachments onto adjoining parcels that are insured against by the related Title Policy,
 - (ii) encroachments that do not materially and adversely affect the operation, use or value of such Mortgaged Property or the security intended to be provided by the Mortgage,
 - (iii) violations of the building restriction lines that are covered by ordinance and law coverage in amounts customarily required by prudent multifamily mortgage lenders for similar properties,
 - (iv) violations of the building restriction lines that are insured against by the related Title Policy, or
 - (v) violations of the building restriction lines that do not materially and adversely affect the operation, use or value of such Mortgaged Property or the security intended to be provided by the Mortgage.
- (b) To the Mortgage Loan Seller's knowledge (based on surveys and/or the Title Policy obtained in connection with the origination of the Loans), as of the related Origination Date of each Loan, no improvements on adjoining properties materially encroached upon such Mortgaged Property so as to materially and adversely affect the operation, use or value of such Mortgaged Property or the security intended to be provided by the Mortgage, except those encroachments that are insured against by the related Title Policy.

(13) Zoning.

Based upon the “Zoning Due Diligence” (defined below) one of the following is applicable to each Mortgaged Property:

- (a) the improvements located on or forming part of each Mortgaged Property materially comply with applicable zoning laws and ordinances, or
- (b) the improvements located on or forming part of each Mortgaged Property constitute a legal non-conforming use or structure and one of the following is true:
 - (i) the non-compliance does not materially and adversely affect the value of the related Mortgaged Property, or
 - (ii) ordinance and law coverage was provided in amounts customarily required by prudent multifamily mortgage lenders for similar properties.

The foregoing may be based upon one or more of the following (“Zoning Due Diligence”):

- (A) a statement of full restoration by a zoning authority,
- (B) copies of legislation or variance permitting full restoration of the Mortgaged Property,
- (C) a damage restoration statement along with an evaluation of the Mortgaged Property,
- (D) a zoning report prepared by a company acceptable to the Mortgage Loan Seller,
- (E) an opinion of counsel, and/or
- (F) other due diligence considered reasonable by prudent multifamily mortgage lenders in the lending area where the subject Mortgaged Property is located (such reasonable due diligence includes, but is not limited to, ordinance and law coverage as specified in clause (b)(ii) above).

(14) Environmental Conditions.

- (a) As of the Origination Date, each Borrower represented and warranted in all material respects that to its knowledge, such Borrower has not used, caused or permitted to exist (and will not use, cause or permit to exist) on the related Mortgaged Property any Hazardous Materials in any manner which violates federal, state or local laws, ordinances, regulations, orders, directives or policies governing the use, storage, treatment, transportation, manufacture, refinement, handling, production or disposal of Hazardous Materials or other environmental laws, subject to each of the following:
 - (i) exceptions set forth in certain Environmental Reports,
 - (ii) Hazardous Materials that are commonly used in the operation and maintenance of properties of similar kind and nature to the Mortgaged Property,
 - (iii) Hazardous Materials that are commonly used in accordance with prudent management practices and applicable law, and
 - (iv) Hazardous Materials that are commonly used in a manner that does not result in any contamination of the Mortgaged Property that is not permitted by law.

- (b) Each Mortgage requires the related Borrower to comply, and to cause the related Mortgaged Property to be in compliance, with all Hazardous Materials Laws applicable to the Mortgaged Property.
- (c) Each Borrower (or an Affiliate thereof) has agreed to indemnify, defend and hold the lender and its successors and assigns harmless from and against losses, liabilities, damages, injuries, penalties, fines, expenses, and claims of any kind whatsoever (including attorneys' fees and costs) paid, incurred or suffered by, or asserted against, any such party resulting from a breach of the foregoing representations or warranties given by the Borrower in connection with such Loan.
- (d) A Phase I Environmental Report, and, in the case of certain Loans, a Phase II Environmental Report (in either case meeting ASTM International standards), was conducted by a reputable environmental consulting firm, or in certain cases a Physical Risk Report was conducted in accordance with the requirements of the Guide, in each case with respect to the related Mortgaged Property within 12 months of the Closing Date.
- (e) If any material non-compliance or material existence of Hazardous Materials was indicated in any Environmental Report, then at least one of the following statements is true:
 - (i) funds reasonably estimated to be sufficient to cover the cost to cure any material non-compliance with applicable environmental laws or material existence of Hazardous Materials have been escrowed, or a letter of credit in such amount has been provided, by the related Borrower and held by the Mortgage Loan Seller or its servicer,
 - (ii) if the Environmental Report recommended an operations and maintenance plan, but not any material expenditure of funds, the related Borrower has been required to maintain an operations and maintenance plan,
 - (iii) the environmental condition identified in the related Environmental Report was remediated or abated in all material respects,
 - (iv) a no further action or closure letter was obtained from the applicable governmental regulatory authority (or the environmental issue affecting the related Mortgaged Property was otherwise listed by such governmental authority as "closed"),
 - (v) such conditions or circumstances identified in the related Environmental Report, were investigated further and, based upon such additional investigation, an environmental consultant recommended no further investigation or remediation,
 - (vi) a party with financial resources reasonably estimated to be adequate to cure the condition or circumstance provided a guaranty or indemnity to the related Borrower or lender to cover the costs of any required investigation, testing, monitoring or remediation, or
 - (vii) the reasonably estimated costs of such remediation do not exceed 2% of the outstanding principal balance of the related Loan.
- (f) To the best of the Mortgage Loan Seller's knowledge, in reliance on such Environmental Reports and except as set forth in such Environmental Reports, each Mortgaged Property is in material compliance with all Hazardous Materials Laws, and to the best of the Mortgage Loan Seller's knowledge, no notice of violation of such laws has been issued by any governmental agency or authority, except, in all cases, as indicated in such Environmental Reports or other documents previously provided to the Depositor.
- (g) The Mortgage Loan Seller has not taken any action which would cause the Mortgaged Property not to be in compliance with all Hazardous Materials Laws.
- (h) All such Environmental Reports or any other environmental assessments of which the Mortgage Loan Seller has possession have been disclosed to the Depositor.
- (i) With respect to the Mortgaged Properties securing the Loans that were not the subject of an Environmental Report within 12 months prior to the Cut-off Date:

- (i) no Hazardous Material is present on such Mortgaged Property such that (A) the value of such Mortgaged Property is materially and adversely affected or (B) under applicable federal, state or local law,
 - (1) such Hazardous Material could be required to be eliminated at a cost materially and adversely affecting the value of the Mortgaged Property before such Mortgaged Property could be altered, renovated, demolished or transferred, or
 - (2) the presence of such Hazardous Material could (upon action by the appropriate governmental authorities) subject the owner of such Mortgaged Property, or the holders of a security interest therein, to liability for the cost of eliminating such Hazardous Material or the hazard created thereby at a cost materially and adversely affecting the value of the Mortgaged Property, and
- (ii) such Mortgaged Property is in material compliance with all applicable federal, state and local laws pertaining to Hazardous Materials or environmental hazards, any noncompliance with such laws does not have a material adverse effect on the value of such Mortgaged Property, and neither Mortgage Loan Seller nor, to Mortgage Loan Seller's knowledge, the related Borrower or any current tenant thereon, has received any notice of violation or potential violation of any such law.

"Hazardous Materials" means

- (i) petroleum and petroleum products and compounds containing them, including gasoline, diesel fuel and oil; explosives; flammable materials; radioactive materials; polychlorinated biphenyls ("PCBs") and compounds containing them,
- (ii) lead and lead-based paint,
- (iii) asbestos or asbestos-containing materials in any form that is or could become friable,
- (iv) underground or above-ground storage tanks that are not subject to a "no further action" letter from the regulatory authority in the related property jurisdiction, whether empty or containing any substance,
- (v) any substance the presence of which on the Mortgaged Property is prohibited by any federal, state or local authority,
- (vi) any substance that requires special handling and any other "hazardous material," "hazardous waste," "toxic substance," "toxic pollutant," "contaminant," or "pollutant" by or within the meaning of any Hazardous Materials Law, or
- (vii) any substance that is regulated in any way by or within the meaning of any Hazardous Materials Law.

"Hazardous Materials Law" means

- (i) any federal, state, and local law, ordinance and regulation and standard, rule, policy and other governmental requirement, administrative ruling and court judgment and decree in effect now or in the future and including all amendments, that relate to Hazardous Materials or the protection of human health or the environment and apply to the Borrower or to the Mortgaged Property, and
- (ii) Hazardous Materials Laws include, but are not limited to, the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601, et seq., the Resource Conservation and Recovery Act of 1976, 42 U.S.C. Section 6901, et seq., the Toxic Substance Control Act, 15 U.S.C. Section 2601, et seq., the Clean Water Act, 33 U.S.C. Section 1251, et seq., and the Hazardous Materials Transportation Act, 49 U.S.C. Section 5101, et. seq., and their state analogs.

(15) Insurance.

- (a) Each related Mortgaged Property is insured by each of the following:
 - (i) a property damage insurance policy, issued by an insurer meeting the requirements of the Loan Documents and the Guide, in an amount not less than
 - (A) the lesser of (1) the outstanding principal amount of the related Loan and (2) the replacement cost (with no deduction for physical depreciation) of the Mortgaged Property, and
 - (B) the amount necessary to avoid the operation of any co-insurance provisions with respect to the related Mortgaged Property,
 - (ii) business income or rental value insurance covering no less than the effective gross income, as determined by the Mortgage Loan Seller, attributable to the Mortgaged Property for 12 months,
 - (iii) comprehensive general liability insurance in amounts generally required by prudent multifamily mortgage lenders for similar properties, and
 - (iv) if windstorm and related perils and/or “Named Storm” is excluded from the property damage insurance policy, the Mortgaged Property is insured by a separate windstorm insurance policy or endorsement covering damage from windstorm and related perils and/or “Named Storm” in an amount not less than:
 - (A) the lesser of (1) the outstanding principal amount of the related Loan and (2) the replacement cost (with no deduction for physical depreciation) of the Mortgaged Property, and
 - (B) the amount necessary to avoid the operation of any co-insurance provisions with respect to the related Mortgaged Property.
- (b) Pursuant to the Guide, a seismic risk assessment was completed for Mortgaged Properties with borrower-owned structures located in a geographic location with a horizontal Peak Ground Acceleration (PGA) equal to or greater than 0.15g for the sole purpose of assessing a scenario expected loss (“SEL”) for the Mortgaged Property in the event of an earthquake. If a seismic assessment concluded that the SEL on a Mortgaged Property would exceed 20% of the amount of the replacement costs of the improvements, earthquake insurance was required in an amount customarily required by prudent multifamily mortgage lenders for similar properties.
- (c) Each insurance policy (other than liability policies) requires at least ten days prior notice to the lender of termination or cancellation by the insurer arising because of non-payment of a premium and at least 30 days prior notice to the lender of termination or cancellation by the insurer arising for any reason other than non-payment of a premium, and no such notice has been received by the Mortgage Loan Seller.
- (d) All premiums on such insurance policies required to be paid have been paid.
- (e) Each insurance policy contains a standard mortgagee clause and loss payee clause in favor of lender and names the mortgagee as an additional insured in the case of liability insurance policies (other than with respect to professional liability policies).
- (f) Based solely on a flood zone determination, if any material portion of the improvements on the Mortgaged Property, exclusive of any parking lots, is located in an area identified by the Federal Emergency Management Agency as a special flood hazard area, then the Borrower is required to maintain flood insurance for such portion of the improvements located in a special flood hazard area in an amount equal to the maximum amount available under the National Flood Insurance

Program, plus such additional excess flood coverage in an amount generally required by prudent multifamily mortgage lenders for similar properties.

- (g) The related Loan Documents for each Loan obligate the related Borrower to maintain all such insurance and, if the Borrower fails to do so, authorize the lender to maintain such insurance at the Borrower's cost and expense and to seek reimbursement for such insurance from the Borrower.
- (h) None of the Loan Documents contains any provision that expressly excuses the related Borrower from obtaining and maintaining insurance coverage for acts of terrorism.
- (i) The related Loan Documents for each Loan contain customary provisions consistent with the practices of prudent multifamily mortgage lenders for similar properties requiring the related Borrower to obtain such other insurance as the lender may require from time-to-time.

(16) Grace Periods.

For any Loan that provides for a grace period with respect to delinquent Monthly Payments, such grace period is no longer than ten days from the applicable payment date.

(17) Due on Encumbrance.

Each Loan prohibits the related Borrower from doing either of the following:

- (a) from mortgaging or otherwise encumbering the Mortgaged Property without the prior written consent of the lender or the satisfaction of debt service coverage and other criteria specified in the related Loan Documents, and
- (b) from carrying any additional indebtedness, except as set forth in the Loan Documents or in connection with trade debt and equipment financings incurred in the ordinary course of Borrower's business.

(18) Carveouts to Non-Recourse.

- (a) The Loan Documents for each Loan provide that:
 - (i) the related Borrower will be liable to the lender for any losses incurred by the lender due to any of the following:
 - (A) the misapplication or misappropriation of rents (after a demand is made after an event of default), insurance proceeds or condemnation awards,
 - (B) any breach of the environmental covenants contained in the related Loan Documents,
 - (C) fraud by such Borrower in connection with the application for or creation of the Loan or in connection with any request for any action or consent by the lender, and
 - (ii) the Loan will become full recourse in the event of a voluntary bankruptcy filing by the Borrower.
- (b) A natural person is jointly and severally liable with the Borrower with respect to (a)(i) and (a)(ii).

(19) Financial Statements.

Each Loan requires the Borrower to provide the owner or holder of the Mortgage with quarterly and annual operating statements, rent rolls (or annual maintenance rolls in the case of cooperative associations), and related information and annual financial statements.

(20) Due on Sale.

- (a) Each Loan contains provisions for the acceleration of the payment of the unpaid principal balance of such Loan if, without the consent of the holder of the Mortgage and/or if not in compliance with the requirements of the related Loan Documents, the related Mortgaged Property or a controlling interest in the related Borrower is directly or indirectly transferred or sold, except with respect to any of the following transfers:
 - (i) transfers of certain interests in the related Borrower to Persons already holding direct or indirect interests in such Borrower, their family members, affiliated companies and other estate planning related transfers that satisfy certain criteria specified in the related Loan Documents (which criteria are consistent with the practices of prudent multifamily mortgage lenders),
 - (ii) transfers of less than a controlling interest in a Borrower,
 - (iii) transfers of common stock in publicly traded companies, or
 - (iv) if the related Mortgaged Property is a residential cooperative property, transfers of stock of the related Borrower in connection with the assignment of a proprietary lease for a unit in the related Mortgaged Property by a tenant-shareholder of the related Borrower to other Persons who by virtue of such transfers become tenant-shareholders in the related Borrower.
- (b) The Mortgage requires the Borrower to pay all fees and expenses associated with securing the consent or approval of the holder of the Mortgage for all actions requiring such consent or approval under the Mortgage including the cost of counsel opinions relating to REMIC or other securitization and tax issues.

(21) Assignment of Leases.

- (a) Each Mortgage File contains an Assignment of Leases that is part of the related Mortgage.
- (b) Each such Assignment of Leases creates a valid present assignment of, or a valid first priority lien or security interest in, certain rights under the related lease or leases, subject only to a license granted to the related Borrower to exercise certain rights and to perform certain obligations of the lessor under such lease or leases, including the right to operate the related leased property, except as enforcement may be limited by bankruptcy, insolvency, reorganization, moratorium or other laws affecting the enforcement of creditors' rights or by general principles of equity (regardless of whether enforceability is considered in a proceeding in equity or at law).
- (c) No Person other than the related Borrower owns any interest in any payments due under the related lease or leases that is superior to or of equal priority with the lender's interest.
- (d) The related Mortgage provides for the appointment of a receiver for rents or allows the holder thereof to enter into possession to collect rents or provides for rents to be paid directly to the mortgagee in the event of a default under the Loan or Mortgage.

(22) Insurance Proceeds and Condemnation Awards.

- (a) Each Loan provides that insurance proceeds and condemnation awards will be applied to one of the following:
 - (i) restoration or repair of the related Mortgaged Property,
 - (ii) restoration or repair of the related Mortgaged Property, with any excess insurance proceeds or condemnation awards after restoration or repair being paid to the Borrower, or

- (iii) reduction of the principal amount of the Loan.
- (b) In the case of all casualty losses or condemnations resulting in proceeds or awards in excess of a specified dollar amount or percentage of the Loan amount that a prudent multifamily lender would deem satisfactory and acceptable, the lender or a trustee appointed by it (if the lender does not exercise its right to apply the insurance proceeds or condemnation awards (including proceeds from settlement of condemnation actions) to the principal balance of the related Loan in accordance with the Loan Documents) has the right to hold and disburse such proceeds or awards as the repairs or restoration progresses.
- (c) To the Mortgage Loan Seller's knowledge, there is no proceeding pending for the total or partial condemnation of such Mortgaged Property that would have a material adverse effect on the use or value of the Mortgaged Property.

(23) Customary Provisions.

- (a) The Note or Mortgage for each Loan, together with applicable state law, contains customary and enforceable provisions so as to render the rights and remedies of the holder of such Note or Mortgage adequate for the practical realization against the related Mortgaged Property of the principal benefits of the security in the collateral intended to be provided by such Note or the lien of such Mortgage, including realization by judicial or if applicable, non-judicial foreclosure, except as the enforcement of the Mortgage may be limited by bankruptcy, insolvency, reorganization, moratorium, redemption or other laws affecting the enforcement of creditors' rights or by general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law).
- (b) No Borrower is a debtor in, and no Mortgaged Property is the subject of, any state or federal bankruptcy or insolvency proceeding, and, as of the Origination Date, no guarantor was a debtor in any state or federal bankruptcy or insolvency proceeding.

(24) Litigation.

To the knowledge of the Mortgage Loan Seller, there are no actions, suits or proceedings before any court, administrative agency or arbitrator concerning any Loan, Borrower or related Mortgaged Property, an adverse outcome of which would reasonably be expected to materially and adversely affect any of the following:

- (a) title to the Mortgaged Property or the validity or enforceability of the related Mortgage,
- (b) the value of the Mortgaged Property as security for the Loan,
- (c) the use for which the Mortgaged Property was intended, or
- (d) the Borrower's ability to perform under the related Loan.

(25) Escrow Deposits.

- (a) Except as previously disbursed pursuant to the Loan Documents, all escrow deposits and payments relating to each Loan that are required to be deposited or paid, have been deposited or paid.
- (b) All escrow deposits and payments required pursuant to each Loan are in the possession, or under the control, of the Mortgage Loan Seller or its servicer.
- (c) All such escrow deposits that have not been disbursed pursuant to the Loan Documents are being conveyed by the Mortgage Loan Seller to the Depositor and identified with appropriate detail.

(26) Valid Assignment.

- (a) Each related assignment of Mortgage and related assignment of Assignment of Leases, if any, from the Mortgage Loan Seller to the Depositor is in recordable form and constitutes the legal, valid and binding assignment from the Mortgage Loan Seller to the Depositor, except as enforcement may be limited by bankruptcy, insolvency, reorganization, liquidation, receivership, moratorium or other laws relating to or affecting the enforcement of creditors' rights or by general principles of equity (regardless of whether enforceability is considered in a proceeding in equity or at law).
- (b) Each related Mortgage and Assignment of Leases, if any, is freely assignable without the consent of the related Borrower.

(27) Appraisals.

Each Servicing File (or the Servicing File of a Loan that is secured by the same Mortgaged Property and that is concurrently being conveyed by the Mortgage Loan Seller to the Depositor) contains an appraisal for the related Mortgaged Property with a valuation date that is within 12 months of the Closing Date and that satisfies the guidelines set forth in Title XI of the Financial Institutions Reform, Recovery and Enforcement Act of 1989.

(28) Inspection of Mortgaged Property.

The Mortgage Loan Seller (or if the Mortgage Loan Seller is not the Mortgage Loan Originator, the Mortgage Loan Originator) inspected or caused to be inspected each Mortgaged Property in connection with the origination of the related Loan and within 12 months of the Closing Date.

(29) Qualification To Do Business.

To the extent required under applicable law, as of the Cut-off Date or as of the date that such entity held the Note, each holder of the Note was authorized to transact and do business in the jurisdiction in which the related Mortgaged Property is located, or the failure to be so authorized did not materially and adversely affect the enforceability of such Loan.

(30) Ownership.

- (a) Immediately prior to the transfer to the Depositor of the Loans, the Mortgage Loan Seller had good title to, and was the sole owner of, each Loan.
- (b) The Mortgage Loan Seller has full right, power and authority to transfer and assign each of the Loans to the Depositor and has validly and effectively conveyed (or caused to be conveyed) to the Depositor or its designee all of the Mortgage Loan Seller's legal and beneficial interest in and to the Loans free and clear of any and all liens, pledges, charges, security interests and/or other encumbrances of any kind.

(31) Deed of Trust.

If the Mortgage is a deed of trust, each of the following is true:

- (a) a trustee, duly qualified under applicable law to serve as trustee, currently serves as trustee and is named in the deed of trust (or has been or may be substituted in accordance with applicable law by the related lender), and
- (b) such deed of trust does not provide for the payment of fees or expenses to such trustee by the Mortgage Loan Seller, the Depositor or any transferee of the Mortgage Loan Seller or the Depositor.

(32) Validity of Loan Documents.

- (a) Each Note, Mortgage or other agreement that evidences or secures the related Loan and was executed by or for the benefit of the related Borrower or any guarantor is the legal, valid and binding obligation of the signatory, enforceable in accordance with its terms, except as enforcement may be limited by bankruptcy, insolvency, reorganization, moratorium or other laws affecting the enforcement of creditors' rights or by general principles of equity (regardless of whether enforceability is considered in a proceeding in equity or at law).
- (b) There is no valid offset, defense, counterclaim, or right of rescission, abatement or diminution available to the related Borrower or any guarantor with respect to such Note, Mortgage or other agreement, except as enforcement may be limited by bankruptcy, insolvency, reorganization, moratorium or other laws affecting the enforcement of creditors' rights or by general principles of equity (regardless of whether enforceability is considered in a proceeding in equity or at law).
- (c) To Mortgage Loan Seller's knowledge, no offset, defense, counterclaim or right of rescission, abatement or diminution has been asserted by Borrower or any guarantor.

(33) Compliance with Usury Laws.

As of the Origination Date, the Mortgage Rate (exclusive of any default interest, late charges, yield maintenance charge, or prepayment premiums) of each Loan was in compliance with, or was exempt from, applicable state or federal laws, regulations and other requirements pertaining to usury.

(34) No Shared Appreciation.

No Loan has shared appreciation rights with respect to such Loan (it being understood that equity holdings, including without limitation, preferred equity holdings, will not be considered shared appreciation rights with respect to a Loan), any other contingent interest feature or a negative amortization feature.

(35) Whole Loan.

Each Loan is a whole loan and is not a participation interest in such Loan.

(36) Loan Information.

The information set forth in the Mortgage Loan Schedule is true, complete and accurate in all material respects.

(37) Full Disbursement.

The proceeds of the Loan have been fully disbursed and there is no requirement for future advances.

(38) No Advances.

No advance of funds has been made by the Mortgage Loan Seller to the related Borrower, and no advance of funds have, to the Mortgage Loan Seller's knowledge, been received (directly or indirectly) from any Person (other than from mezzanine debt or any preferred equity interest holder) for or on account of payments due on the Loan.

(39) All Collateral Transferred.

All collateral that secures the Loans is being transferred to the Depositor as part of the Loans (other than (i) healthcare licenses, (ii) Medicare, Medicaid or similar federal, state or local third party payor programs, including housing assistance payments contracts, or (iii) any federal, state or local permits or approvals for the operation of a wastewater treatment plant, sewer system or sewage treatment plant, private water or utility system or similar facility, to the extent any of the foregoing are not transferable without governmental approval).

(40) Loan Status; Waivers and Modifications.

Since the Origination Date and except pursuant to written instruments set forth in the related Mortgage File or as described in the Pooling and Servicing Agreement as a Freddie Mac Pre-Approved Servicing Request, all of the following are true and correct:

- (a) the material terms of such Mortgage, Note and related Loan Documents have not been waived, impaired, modified, altered, satisfied, canceled, subordinated or rescinded in any respect,
- (b) no related Mortgaged Property or any portion thereof has been released from the lien of the related Mortgage in any manner which materially interferes with the security intended to be provided by such Mortgage or the use, value or operation of such Mortgaged Property, and
- (c) neither Borrower nor guarantor has been released from its obligations under the Loan.

(41) Defaults.

- (a) There exists no monetary default (other than payments due but not yet more than 30 days past due) or, to Mortgage Loan Seller's knowledge, material non-monetary default, breach, violation or event of acceleration under the related Loan.
- (b) To Mortgage Loan Seller's knowledge, there exists no event that, with the passage of time or with notice and the expiration of any grace or cure period, would constitute a material default, breach, violation or event of acceleration under such Loan; provided, however, that the representations and warranties set forth in this paragraph 41 do not address or otherwise cover any default, breach, violation or event of acceleration that specifically pertains to any matter otherwise covered by any other representation or warranty made by the Mortgage Loan Seller in this Exhibit C-1; and, provided, further, that a breach by the Borrower of any representation or warranty contained in any Loan Document (each, a "Borrower Representation") will not constitute a material non-monetary default, breach, violation or event of acceleration for purposes of this paragraph 41 if the subject matter of such Borrower Representation is covered by any exception to any representation or warranty made by the Mortgage Loan Seller in this Exhibit C-1.
- (c) Since the Origination Date, except as set forth in the related Mortgage File, neither the Mortgage Loan Seller nor any servicer of the Loan has waived any material default, breach, violation or event of acceleration under any of the Loan Documents.
- (d) Pursuant to the terms of the Loan Documents, no Person or party other than the holder of the Note and Mortgage may declare an event of default or accelerate the related indebtedness under such Loan Documents.

(42) Payments Current.

No scheduled payment of principal and interest under any Loan was more than 30 days past due as of the Cut-off Date, and no Loan was more than 30 days delinquent in the 12-month period immediately preceding the Cut-off Date.

(43) Qualified Loan.

Each Loan constitutes a "qualified mortgage" within the meaning of Code Section 860G(a)(3) (but without regard to the rule in Treasury Regulation Section 1.860G-2(f)(2) that treats a defective obligation as a "qualified mortgage" or any substantially similar successor provision). Any prepayment premiums and yield maintenance charges payable upon a voluntary prepayment under the terms of such Loan constitute "customary prepayment penalties" within the meaning of Treasury Regulation Section 1.860G-1(b)(2).

(44) Prepayment Upon Condemnation.

For all Loans originated after December 6, 2010, in the event of a taking of any portion of a Mortgaged Property by a State or any political subdivision or authority thereof, whether by legal proceeding or by agreement, if the fair market value of the real property constituting the remaining Mortgaged Property immediately after the release of such portion of the Mortgaged Property from the lien of the related Mortgage (but taking into account any planned restoration and reduced by (a) the outstanding principal balance of all senior indebtedness secured by the Mortgaged Property and (b) a proportionate amount of all indebtedness secured by the Mortgaged Property that is at the same level of priority as the Loan, as applicable), is not equal to at least 80% of the remaining principal amount of the Loan, the related Borrower can be required to apply the award with respect to such taking to prepay the Loan or to prepay the Loan in the amount required by the REMIC Provisions and such amount may not, to such extent, be used to restore the related Mortgaged Property or be released to the related Borrower.

(45) Defeasance. Only with respect to the Loans for which the related Loan Documents permit defeasance:

- (a) no Loan provides that it can be defeased prior to the date that is two years following the Closing Date,
- (b) no Loan provides that it can be defeased with any property other than government securities (as defined in Section 2(a)(16) of the Investment Company Act of 1940, as amended),
- (c) the related Loan Documents provide that the related Borrower is responsible for the payment of all reasonable costs and expenses of the lender, including any rating agency fees, incurred in connection with (i) the defeasance of such Loan and the release of the related Mortgaged Property and (ii) the approval of an assumption of such Loan, and
- (d) the related Loan Documents require delivery of all of the following:
 - (i) an opinion to the effect that the lender has a valid and perfected lien and security interest of first priority in the defeasance collateral,
 - (ii) an accountant's certificate as to the adequacy of the defeasance collateral to make all scheduled payments, and
 - (iii) an opinion to the effect that the defeasance complies with applicable REMIC Provisions.

(46) Releases of Mortgaged Property.

- (a) No Loan requires the lender to release all or any portion of the related Mortgaged Property from the lien of the related Mortgage, except as in compliance with the REMIC Provisions and one of the following:
 - (i) upon payment in full of all amounts due under the related Loan,
 - (ii) in connection with a full or partial defeasance pursuant to provisions in the related Loan Documents,
 - (iii) unless such portion of the Mortgaged Property was not considered material for purposes of underwriting the Loan, was not included in the appraisal for such Mortgaged Property or does not generate income,
 - (iv) upon the payment of a release price at least equal to the allocated loan amount or, if none, the appraised value of the released parcel and any related prepayment,
 - (v) with respect to any Loan that is cross-collateralized with any other Loan(s), or any Loan that is secured by multiple Mortgaged Properties, in connection with the release of any cross-collateralization pursuant to provisions in the related Loan Documents, or

- (vi) in connection with the substitution of a Mortgaged Property pursuant to provisions in the related Loan Documents.
 - (b) With respect to clauses (iii), (iv), (v) and (vi) above, for all Loans originated after December 6, 2010, if the fair market value of the real property constituting the remaining Mortgaged Property (reduced by (a) the outstanding principal balance of all senior indebtedness secured by the Mortgaged Property and (b) a proportionate amount of all indebtedness secured by the Mortgaged Property that is at the same level of priority as the related Loan) immediately after the release of such portion of the Mortgaged Property from the lien of the related Mortgage is not equal to at least 80% of the remaining principal amount of the Loan, the related Borrower is required to prepay the Loan in an amount equal to or greater than the amount required by the REMIC Provisions.
- (47) Origination and Servicing.

The origination, servicing and collection practices used by the Mortgage Loan Seller or, to the Mortgage Loan Seller's knowledge, any prior holder or servicer of each Loan have been in compliance with all applicable laws and regulations, and substantially in accordance with the practices of prudent multifamily mortgage lenders with respect to similar mortgage loans and in compliance with the Guide in all material respects.

EXHIBIT C-2

EXCEPTIONS TO MORTGAGE LOAN SELLER'S REPRESENTATIONS AND WARRANTIES

Capitalized terms used but not otherwise defined in this Exhibit C-2 will have the meanings set forth in the mortgage loan purchase agreement.

Representation and Warranty	Loan Number*	Mortgaged Property Name	Issue
4 (Single Purpose Entity)	15 21 39 41 42	Contempo Tempe MHC Tierra West Aztec Village Homestead Village Cottage Cove	Borrower's funds may be maintained in an account that also includes combined rental payments made for both the applicable home site owned by Borrower and the manufactured home owned by an affiliate of Borrower that is located on such home site; provided, however, that (i) the Loan Documents prohibit Borrower from maintaining its assets in a manner that is costly or difficult to segregate, ascertain or identify from the assets of any other person; and (ii) Borrower and/or the property manager must promptly and regularly remit to such Borrower affiliate the portion of the combined rental payment allocated to the manufactured home.
4 (Single Purpose Entity)	21 39 41 42	Tierra West Aztec Village Homestead Village Cottage Cove	In addition to the Mortgaged Property, Borrower previously owned certain manufactured homes that are or may have been located on the Mortgaged Property. Borrower transferred the manufactured homes prior to origination.
4 (Single Purpose Entity)	4 21	Madison Ellis Preserve Tierra West	In addition to the Mortgaged Property, Borrower previously owned certain real property and/or ownership interests in other entities (some of which may have owned real property). Borrower transferred the real property and/or transferred, sold or otherwise disposed of the ownership interests in other entities prior to origination.
4 (Single Purpose Entity)	2	Villas At Wood Ranch	The Loan amount is \$40,000,000 or more, but a non-consolidation opinion was not obtained.
7 (Access, Public Utilities and Separate Tax Parcels)	21 46	Tierra West Picnic Grove MHC	The Mortgaged Property is not connected to a public water supply system and instead utilizes one or more onsite private wells.
7 (Access, Public Utilities and Separate Tax Parcels)	46	Picnic Grove MHC	The Mortgaged Property is not connected to a public sewer and instead utilizes one or more onsite septic tanks and/or private waste treatment systems.

* As specified on Exhibit A-1.

Representation and Warranty	Loan Number*	Mortgaged Property Name	Issue
9 (Ground Leases)	18 27	Broadstone Northpoint The Verge Apartments	The Loan is secured only by Borrower's interest as lessee under a ground lease of the Mortgaged Property and is not secured by the fee interest in the Mortgaged Property.
10 (Valid First Lien)	20 26 34 40 44 45	Grand Reserve Orange Apartments Vista Buena Apartments Berwick Grove Apartments Ashton Square Tanager Springs II Apartments Tanager Springs I Apartments	The Mortgaged Property is subject to a regulatory agreement, declaration of restrictive covenants, land use restriction agreement, extended use agreement or other similar agreement (each, a " <u>Regulatory Agreement</u> ") that may impose certain tenant income and/or rent affordability restrictions and, in some cases, certain other operating restrictions, on all or a portion of the units in the Mortgaged Property and may include remedies beyond those of specific performance and/or injunctive relief. The covenants and restrictions contained in the Regulatory Agreement may run with the land and may be binding on Borrower and its successors and assigns and all others later acquiring right or title to the Mortgaged Property.
10 (Valid First Lien)	27	The Verge Apartments	The Mortgaged Property is held by Borrower as a leasehold interest under a ground lease. The ground lessor retained a right of first offer to purchase Borrower's leasehold interest (the " <u>ROFO</u> "). The ROFO is not subordinate to the lien of the Mortgage. The ROFO is not applicable to any transfer of the leasehold interest pursuant to a foreclosure of the Mortgage or deed in lieu thereof, however, subsequent transfers of the leasehold estate remain subject to the ROFO.
11 (Title Insurance)	20 26 34 40 44 45	Grand Reserve Orange Apartments Vista Buena Apartments Berwick Grove Apartments Ashton Square Tanager Springs II Apartments Tanager Springs I Apartments	The Mortgaged Property is subject to a Regulatory Agreement that may impose certain tenant income and/or rent affordability restrictions and, in some cases, certain other operating restrictions, on all or a portion of the units in the Mortgaged Property and may include remedies beyond those of specific performance and/or injunctive relief. The covenants and restrictions contained in the Regulatory Agreement may run with the land and may be binding on Borrower and its successors and assigns and all others later acquiring right or title to the Mortgaged Property.
11 (Title Insurance)	2 32 44 45	Villas At Wood Ranch Tides On Broadway Tanager Springs II Apartments Tanager Springs I Apartments	The Title Policy contains an exclusion for or fails to affirmatively insure that the area shown on the survey is the same as the property legally described in the Mortgage because Mortgage Loan Seller waived the requirement for a survey of the Mortgaged Property and, therefore, a Same As Survey endorsement to the Title Policy was not required.

Representation and Warranty	Loan Number*	Mortgaged Property Name	Issue
11 (Title Insurance)	27 28 34 40	The Verge Apartments Brookview At Templeton Crossing Berwick Grove Apartments Ashton Square	The Mortgaged Property is located in Ohio, which has a statute that establishes priority in foreclosure for oil and gas leases, pipeline agreements and other instruments related to the production or sale of natural gas, including such leases, agreements and instruments that arise subsequent to the date of the Title Policy.
11 (Title Insurance)	27	The Verge Apartments	The Mortgaged Property is held by Borrower as a leasehold interest under a ground lease. The ground lessor retained the ROFO. The ROFO is not subordinate to the lien of the Mortgage. The ROFO is not applicable to any transfer of the leasehold interest pursuant to a foreclosure of the Mortgage or deed in lieu thereof, however, subsequent transfers of the leasehold estate remain subject to the ROFO.
15 (Insurance)	33	Vineyard Park At Bothell Landing	Mortgage Loan Seller has approved a temporary waiver of terrorism insurance or has agreed to temporarily accept coverage in amounts less than that generally required by Mortgage Loan Seller.
18 (Carveouts to Non-Recourse)	1 4 6 7 8 12 17 23 27	Park Regency Club Apartments Madison Ellis Preserve Park Valley Apartments Tapestry Park At Montclair Lakeside At Coppell Peakview By Horseshoe Lake Parkway Terraces The Meadows At North Richland Hills The Verge Apartments	The guarantor is not a natural person.
21 (Assignment of Leases)	44 45	Tanager Springs II Apartments Tanager Springs I Apartments	The Mortgaged Property is subject to a regulatory agreement (the " <u>TCAC Regulatory Agreement</u> "), which grants an assignment of rents to the Tax Credit Allocation Committee as security for Borrower's performance under such TCAC Regulatory Agreement. The TCAC Regulatory Agreement is not subordinated to the lien of the Mortgage. The Assignment of Leases is subject to the assignment of rents contained in the TCAC Regulatory Agreement.

Representation and Warranty	Loan Number*	Mortgaged Property Name	Issue
30 (Ownership)	34 40	Berwick Grove Apartments Ashton Square	The Mortgaged Property has a Housing Assistance Payment Contract (the " <u>HAP Contract</u> ") in place between Borrower and the United States Department of Housing and Urban Development or a state or local housing agency (collectively, " <u>HUD</u> "). HUD has provided a consent (the " <u>HUD Consent</u> ") to Borrower and Mortgage Loan Seller that permits Borrower to assign a security interest in the HAP Contract to Mortgage Loan Seller. The HUD Consent by its terms states that neither the HAP Contract nor the HUD Consent can be assigned to any other parties, including the Depositor, without HUD's consent. Neither the HAP Contract nor the HUD Consent is being assigned or delivered to the Depositor or any other party as a result.

EXHIBIT D

DECREMENT TABLES FOR THE OFFERED PRINCIPAL BALANCE CERTIFICATES

Percentage of Initial Principal Balance Outstanding For:

Class A-1 Certificates

0% CPR During Lockout, Defeasance, Yield Maintenance and Static Prepayment Premium Periods
— Otherwise at Indicated CPR

Prepayments

<u>Following the Distribution Date in—</u>	<u>0% CPR</u>	<u>25% CPR</u>	<u>50% CPR</u>	<u>75% CPR</u>	<u>100% CPR</u>
Closing Date.....	100%	100%	100%	100%	100%
December 2020	99%	99%	99%	99%	99%
December 2021	99%	99%	99%	99%	99%
December 2022	98%	98%	98%	98%	98%
December 2023	95%	95%	95%	95%	95%
December 2024	89%	89%	89%	89%	89%
December 2025	71%	71%	71%	71%	71%
December 2026	51%	51%	51%	51%	51%
December 2027	31%	31%	31%	31%	31%
December 2028	11%	11%	11%	11%	11%
December 2029 and thereafter	0%	0%	0%	0%	0%
Weighted average life (in years).....	6.98	6.98	6.98	6.98	6.98

Class A-2 Certificates

0% CPR During Lockout, Defeasance, Yield Maintenance and Static Prepayment Premium Periods
— Otherwise at Indicated CPR

Prepayments

<u>Following the Distribution Date in—</u>	<u>0% CPR</u>	<u>25% CPR</u>	<u>50% CPR</u>	<u>75% CPR</u>	<u>100% CPR</u>
Closing Date.....	100%	100%	100%	100%	100%
December 2020	100%	100%	100%	100%	100%
December 2021	100%	100%	100%	100%	100%
December 2022	100%	100%	100%	100%	100%
December 2023	100%	100%	100%	100%	100%
December 2024	100%	100%	100%	100%	100%
December 2025	100%	100%	100%	100%	100%
December 2026	100%	100%	100%	100%	100%
December 2027	100%	100%	100%	100%	100%
December 2028	100%	100%	100%	100%	100%
December 2029 and thereafter	0%	0%	0%	0%	0%
Weighted average life (in years).....	9.85	9.83	9.81	9.79	9.60

Class A-M Certificates

0% CPR During Lockout, Defeasance, Yield Maintenance and Static Prepayment Premium Periods
— Otherwise at Indicated CPR

Prepayments

<u>Following the Distribution Date in—</u>	<u>0% CPR</u>	<u>25% CPR</u>	<u>50% CPR</u>	<u>75% CPR</u>	<u>100% CPR</u>
Closing Date.....	100%	100%	100%	100%	100%
December 2020	100%	100%	100%	100%	100%
December 2021	100%	100%	100%	100%	100%
December 2022	100%	100%	100%	100%	100%
December 2023	100%	100%	100%	100%	100%
December 2024	100%	100%	100%	100%	100%
December 2025	100%	100%	100%	100%	100%
December 2026	100%	100%	100%	100%	100%
December 2027	100%	100%	100%	100%	100%
December 2028	100%	100%	100%	100%	100%
December 2029 and thereafter	0%	0%	0%	0%	0%
Weighted average life (in years)	9.93	9.93	9.93	9.93	9.68

EXHIBIT E

PRICE/YIELD TABLES FOR THE CLASS X1, XAM and X3 CERTIFICATES

**Corporate Bond Equivalent (CBE) Yield of the Class X1 Certificates at Various CPRs*
0.75659%** Per Annum Initial Pass-Through Rate
\$1,038,601,000 Initial Notional Amount**

0% CPR During Lockout, Defeasance, Yield Maintenance and Static Prepayment Premium Periods
— Otherwise at Indicated CPR

Price (%)***	0% CPR CBE Yield (%)	25% CPR CBE Yield (%)	50% CPR CBE Yield (%)	75% CPR CBE Yield (%)	100% CPR CBE Yield (%)
4.9187	5.93	5.91	5.88	5.83	5.51
5.0187	5.47	5.44	5.41	5.36	5.04
5.1187	5.01	4.99	4.96	4.91	4.58
5.2187	4.57	4.55	4.52	4.47	4.13
5.3187	4.14	4.12	4.09	4.04	3.70
5.4187	3.73	3.70	3.67	3.62	3.28
5.5187	3.32	3.30	3.27	3.21	2.87
5.6187	2.93	2.90	2.87	2.82	2.47
5.7187	2.55	2.52	2.49	2.43	2.08
5.8187	2.17	2.14	2.11	2.06	1.70
5.9187	1.81	1.78	1.74	1.69	1.33
Weighted Average Life (in years)	9.55	9.53	9.52	9.49	9.32

* Assumes the exercise of the right to purchase the underlying mortgage loans in the event the total Stated Principal Balance of the mortgage pool is less than 1.0% of the initial mortgage pool balance, as described under “The Pooling and Servicing Agreement—Termination” in this information circular.

** Approximate.

*** Exclusive of accrued interest.

**Corporate Bond Equivalent (CBE) Yield of the Class XAM Certificates at Various CPRs*
1.01285%** Per Annum Initial Pass-Through Rate
\$59,029,000 Initial Notional Amount**

0% CPR During Lockout, Defeasance, Yield Maintenance and Static Prepayment Premium Periods
— Otherwise at Indicated CPR

Price (%)***	0% CPR CBE Yield (%)	25% CPR CBE Yield (%)	50% CPR CBE Yield (%)	75% CPR CBE Yield (%)	100% CPR CBE Yield (%)
7.4504	4.71	4.71	4.71	4.71	4.24
7.5504	4.42	4.42	4.42	4.42	3.95
7.6504	4.13	4.13	4.13	4.13	3.66
7.7504	3.85	3.85	3.85	3.85	3.37
7.8504	3.58	3.58	3.57	3.57	3.09
7.9504	3.31	3.31	3.30	3.30	2.82
8.0504	3.04	3.04	3.04	3.04	2.55
8.1504	2.78	2.78	2.78	2.78	2.29
8.2504	2.52	2.52	2.52	2.52	2.03
8.3504	2.27	2.27	2.27	2.27	1.77
8.4504	2.03	2.03	2.03	2.02	1.52
Weighted Average Life (in years)	9.93	9.93	9.93	9.93	9.68

* Assumes the exercise of the right to purchase the underlying mortgage loans in the event the total Stated Principal Balance of the mortgage pool is less than 1.0% of the initial mortgage pool balance, as described under “The Pooling and Servicing Agreement—Termination” in this information circular.

** Approximate.

*** Exclusive of accrued interest.

Corporate Bond Equivalent (CBE) Yield of the Class X3 Certificates at Various CPRs*
1.91349% Per Annum Initial Pass-Through Rate**
\$178,684,806 Initial Notional Amount

0% CPR During Lockout, Defeasance, Yield Maintenance and Static Prepayment Premium Periods
— Otherwise at Indicated CPR

Price (%)***	0% CPR CBE Yield (%)	25% CPR CBE Yield (%)	50% CPR CBE Yield (%)	75% CPR CBE Yield (%)	100% CPR CBE Yield (%)
14.1845	5.78	5.77	5.75	5.73	5.35
14.2845	5.62	5.62	5.60	5.58	5.19
14.3845	5.47	5.46	5.44	5.42	5.03
14.4845	5.31	5.31	5.29	5.27	4.88
14.5845	5.16	5.16	5.14	5.12	4.72
14.6845	5.01	5.01	4.99	4.97	4.57
14.7845	4.87	4.86	4.84	4.82	4.42
14.8845	4.72	4.72	4.69	4.67	4.27
14.9845	4.57	4.57	4.55	4.52	4.12
15.0845	4.43	4.43	4.40	4.38	3.98
15.1845	4.29	4.28	4.26	4.24	3.83
Weighted Average Life (in years)	9.98	9.98	9.97	9.97	9.73

* Assumes the exercise of the right to purchase the underlying mortgage loans in the event the total Stated Principal Balance of the mortgage pool is less than 1.0% of the initial mortgage pool balance, as described under “The Pooling and Servicing Agreement—Termination” in this information circular.

** Approximate.

*** Exclusive of accrued interest.

If you intend to purchase SPCs, you should rely only on the information in this Supplement, the Offering Circular and the Information Circular, including the information in the Incorporated Documents. We have not authorized anyone to provide you with different information.

This Supplement, the Offering Circular, the Information Circular and the Incorporated Documents may not be correct after their dates.

We are not offering the SPCs in any jurisdiction that prohibits their offer.

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\$1,097,630,000
(Approximate)

Freddie Mac

**Structured Pass-Through Certificates (SPCs)
Series K-103**



Co-Lead Managers and Joint Bookrunners

BofA Securities

Barclays

Co-Managers

Brean Capital

Goldman Sachs & Co. LLC

Morgan Stanley

Multi-Bank Securities Inc.

December 13, 2019