

\$1,278,923,507 Government National Mortgage Association GINNIE MAE®

Guaranteed REMIC Pass-Through Securities and MX Securities Ginnie Mae REMIC Trust 2019-083

The Securities

The Trust will issue the Classes of Securities listed on the front cover of this offering circular supplement.

The Ginnie Mae Guaranty

Ginnie Mae will guarantee the timely payment of principal and interest on the securities. The Ginnie Mae Guaranty is backed by the full faith and credit of the United States of America.

The Trust and its Assets

The Trust will own (1) Ginnie Mae Certificates and (2) certain previously issued certificates.

| Class of REMIC Securities | Original Principal Balance(2) | Interest Rate | Principal Type(3) | Interest Type(3) | CUSIP Number | Final Distribution Date(4) |
|--|---|--|---|--|--|--|
| Security Group 1 | | | | | | |
| $F \dots S \dots $ | \$ 50,000,000 50,000,000 | (5) (5) | PT $\mathcal{N}TL(PT)$ | $FLT = I\mathcal{N}V/IO$ | 38381XAA4 38381XAB2 | July 2049 July 2049 |
| Security Group 2 | | | | | | |
| FASA | 109,642,858 43,857,142 43,857,142 | 3.0% (5) (5) | PT PT NTL(PT) | FIX FLT INV/IO | 38381XAC0 38381XAD8 38381XAE6 | July 2049 July 2049 July 2049 |
| Security Group 3 | 7.7,_7 | 1-7 | | | | |
| Section (1984) JB(1) JF(1) JS(1) SJ(1) ZJ | 58,000,000 124,451,875 74,671,125 74,671,125 58,000,000 32,877,000 | (5) 2.5 (5) (5) (5) 4.0 | PT PAC/AD PAC/AD PAC/AD NTL(PAC/AD) NTL(PT) SUP | FLT FIX FLT INV/IO INV/IO FIX/Z | 38381XAF3 38381XAG1 38381XAH9 38381XAJ5 38381XAK2 38381XAL0 | July 2049 July 2049 July 2049 July 2049 July 2049 July 2049 |
| Security Group 4 | | | | | | - |
| FL | 120,989,881 167,738,000 120,989,881 13,746,823 | (5) 4.0 (5) 4.0 | PT PAC/AD NTL(PT) SUP | $FLT \ FIX \ INV/IO \ FIX/Z$ | 38381XAM8 38381XAN6 38381XAP1 38381XAQ9 | July 2049 July 2049 July 2049 July 2049 |
| Security Group 5 NF | 78,080,820 78,080,820 | (5) (5) | $PT \\ \mathcal{N}TL(PT)$ | FLT/WAC/DLY WAC/IO/DLY | 38381XAR7 38381XAS5 | June 2046 June 2046 |
| Security Group 6 YA | 8,776,952 | (5) | PT | WAC/DLY | 38381XAT3 | June 2040 |
| Security Group 7 FM(1) MF MS SM(1) | 12,500,000 50,000,000 50,000,000 12,500,000 | (5) (5) (5) (5) | PT PT NTL(PT) NTL(PT) | FLT FLT INV/IO INV/IO | 38381XAU0 38381XAV8 38381XAW6 38381XAX4 | July 2049 July 2049 July 2049 July 2049 |
| Security Group 8 10 | 43,913,988 | 4.5 | NTL(SC/PT) | FIX/IO | 38381XAY2 | June 2049 |
| Security Group 9 WA | 6,317,173 | (5) | PT | WAC/DLY | 38381XAZ9 | June 2034 |
| Security Group 10 FW | 93,506,816 93,506,816 192,674,000 3,080,000 38,013,042 | (5) (5) 3.0 3.0 3.0 | PT NTL(PT) PAC/AD PAC/AD SUP | FLT INV/IO FIX FIX FIX/Z | 38381XBA3 38381XBB1 38381XBC9 38381XBD7 38381XBE5 | July 2049 July 2049 May 2049 July 2049 July 2049 |
| Residual RR | 0 | 0.0 | $\mathcal{N}PR$ | $\mathcal{N}PR$ | 38381XBF2 | July 2049 |

- These Securities may be exchanged for MX Securities described in Schedule I to this Supplement.
 Subject to increase as described under "Increase in Size" in this Supplement. The amount shown for each Notional Class (indicated by "NTL" under Principal Type) is its original Class Notional Balance and does not represent principal that will be paid.
- As defined under "Class Types" in Appendix I to the Base Offering Circular. The Class Notional Balance of each Notional Class will be reduced as shown under "Terms Sheet Notional Classes" in
- See "Yield, Maturity and Prepayment Considerations Final Distribution Date" in this Supplement.
- See "Terms Sheet Interest Rates" in this Supplement.

The securities may not be suitable investments for you. You should consider carefully the risks of investing in them.

See "Risk Factors" beginning on page S-11 which highlights some of these risks.

The Sponsor and the Co-Sponsor will offer the securities from time to time in negotiated transactions at varying prices. We expect the closing date to be July 30, 2019.

You should read the Base Offering Circular as well as this Supplement.

The securities are exempt from registration under the Securities Act of 1933 and are "exempted securities" under the Securities Exchange Act of 1934.

Morgan Stanley

Roberts & Ryan Investments

The date of this Offering Circular Supplement is July 23, 2019.

AVAILABLE INFORMATION

You should purchase the securities only if you have read and understood the following documents:

- this Offering Circular Supplement (this "Supplement"),
- the Base Offering Circular and
- in the case of the Group 8 securities, the disclosure document relating to the Underlying Certificates (the "Underlying Certificate Disclosure Documents").

The Base Offering Circular and the Underlying Certificate Disclosure Documents are available on Ginnie Mae's website located at http://www.ginniemae.gov.

If you do not have access to the internet, call BNY Mellon, which will act as information agent for the Trust, at (800) 234-GNMA, to order copies of the Base Offering Circular. In addition, you can obtain copies of any other document listed above by contacting BNY Mellon at the telephone number listed above.

Please consult the standard abbreviations of Class Types included in the Base Offering Circular as Appendix I and the glossary included in the Base Offering Circular as Appendix II for definitions of capitalized terms.

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TERMS SHEET

This terms sheet contains selected information for quick reference only. You should read this Supplement, particularly "Risk Factors," and each of the other documents listed under "Available Information."

Sponsor: Morgan Stanley & Co. LLC

Co-Sponsor: Roberts & Ryan Investments, Inc.

Trustee: U.S. Bank National Association

Tax Administrator: The Trustee

Closing Date: July 30, 2019

Distribution Date: The 20th day of each month or, if the 20th day is not a Business Day, the first Business Day thereafter, commencing in August 2019.

Trust Assets:

| Trust Asset Type | Certificate Rate | Original Term To Maturity (in years) |
|--------------------------------|---|---|
| Ginnie Mae II | 4.000% | 30 |
| Ginnie Mae II | 4.000% | 30 |
| Ginnie Mae II | 4.500% | 30 |
| Ginnie Mae II | 5.000% | 30 |
| Ginnie Mae II ⁽³⁾ | (4) | 30 |
| Ginnie Mae II | 4.751% ⁽⁵⁾ | 30 |
| Ginnie Mae II | 4.500% | 30 |
| Underlying Certificates | (1) | (1) |
| Ginnie Mae I | 4.000% | 15 |
| Ginnie Mae I | 4.361%(6) | 15 |
| Ginnie Mae I | 5.500% | 20 |
| Ginnie Mae II | 4.097% ⁽⁷⁾ | 15 |
| Ginnie Mae II | 4.000% | 20 |
| Ginnie Mae II | 7.741%(8) | 30 |
| Ginnie Mae II | 4.000% | 30 |
| | Ginnie Mae II Underlying Certificates Ginnie Mae I Ginnie Mae II Ginnie Mae II | Ginnie Mae II 4.000% Ginnie Mae II 4.000% Ginnie Mae II 4.500% Ginnie Mae II 5.000% Ginnie Mae II 5.000% Ginnie Mae II 4.751%(5) Ginnie Mae II 4.500% Underlying Certificates Ginnie Mae I 4.000% Ginnie Mae I 5.500% Ginnie Mae I 4.361%(6) Ginnie Mae I 5.500% Ginnie Mae II 4.097%(7) Ginnie Mae II 4.000% Ginnie Mae II 4.000% Ginnie Mae II 4.000% Ginnie Mae II 4.000% Ginnie Mae II 7.741%(8) |

⁽¹⁾ Certain information regarding the Underlying Certificates is set forth in Exhibit A to this Supplement.

⁽²⁾ The Group 9 Trust Assets consist of subgroups, Subgroups 9A, 9B, 9C, 9D, 9E and 9F (each, a "Subgroup").

⁽³⁾ The Group 5 Trust Assets consist of adjustable rate Ginnie Mae II MBS Certificates.

⁽⁴⁾ Each Ginnie Mae Certificate included in Trust Asset Group 5 has an initial fixed rate period, after which it bears interest at a Certificate Rate, adjusted annually, equal to One Year Treasury Index ("CMT") or one-year LIBOR ("One-Year LIBOR"), as applicable (the "Index") plus a margin indicated on Exhibit B (each,

- a "Certificate Margin"), subject to annual and lifetime adjustment caps and floors, which may limit whether the Certificate Rate for each Trust Asset remains at the Index plus the applicable Certificate Margin. The annual and lifetime adjustment caps and floors for the Group 5 Trust Assets are set forth in Exhibit B to this Supplement. The Group 5 Trust Assets have Certificate Rates ranging from 1.500% to 4.625% as of July 1, 2019, as identified in Exhibit B. For the Group 5 Trust Assets, most of the initial fixed rate periods have expired. *See "The Trust Assets-The Trust MBS" in this Supplement.*
- (5) The Ginnie Mae II MBS Certificates that constitute the Group 6 Trust Assets have Certificate Rates ranging from 4.050% to 5.900%. The Weighted Average Certificate Rate shown for the Group 6 Trust Assets represents the weighted average of the Certificate Rates of those Trust Assets, weighted on the basis of the respective principal balances of such Trust MBS as of the Closing Date.
- (6) The Ginnie Mae I MBS Certificates that constitute the Subgroup 9B Trust Assets have Certificate Rates ranging from 4.000% to 6.000%. The Weighted Average Certificate Rate shown for the Subgroup 9B Trust Assets represents the weighted average of the Certificate Rates of those Trust Assets, weighted on the basis of the respective principal balances of such Trust MBS as of the Closing Date.
- The Ginnie Mae II MBS Certificates that constitute the Subgroup 9D Trust Assets have Certificate Rates ranging from 3.500% to 6.000%. The Weighted Average Certificate Rate shown for the Subgroup 9D Trust Assets represents the weighted average of the Certificate Rates of those Trust Assets, weighted on the basis of the respective principal balances of such Trust MBS as of the Closing Date.
- (8) The Ginnie Mae II MBS Certificates that constitute the Subgroup 9F Trust Assets have Certificate Rates ranging from 6.500% to 8.500%. The Weighted Average Certificate Rate shown for the Subgroup 9F Trust Assets represents the weighted average of the Certificate Rates of those Trust Assets, weighted on the basis of the respective principal balances of such Trust MBS as of the Closing Date.

Security Groups: This series of Securities consists of multiple Security Groups (each, a "Group"), as shown on the front cover of this Supplement and on Schedule I to this Supplement. Except in the case of certain MX Classes in Groups 3 and 7, payments on each Group will be based solely on payments on the Trust Asset Group with the same numerical designation.

Assumed Characteristics of the Mortgage Loans Underlying the Group 1, 2, 3, 4, 6, 7, 9 and 10 Trust Assets⁽¹⁾:

| Principal Balance | Weighted Average Remaining Term to Maturity (in months) | Weighted Average Loan Age (in months) | Weighted Average Mortgage Rate ⁽²⁾ |
|--|--|---|---|
| Group 1 Trust Assets \$50,000,000 | 358 | 1 | 4.520% |
| Group 2 Trust Assets \$153,500,000 | 356 | 2 | 4.498% |
| Group 3 Trust Assets \$290,000,000 | 358 | 1 | 4.950% |
| Group 4 Trust Assets \$302,474,704 | 355 | 4 | 5.490% |
| Group 6 Trust Assets \$8,776,952 | 244 | 112 | 5.251% |
| Group 7 Trust Assets \$62,500,000 | 359 | 0 | 4.970% |
| Subgroup 9A Trust Assets \$3,428 | 11 | 109 | 4.500% |
| Subgroup 9B Trust Assets \$2,088,099 | 59 | 116 | 4.861% |
| Subgroup 9C Trust Assets \$51,085 | 46 | 188 | 6.000% |
| Subgroup 9D Trust Assets \$2,856,592 ⁽³⁾ | 91 | 85 | 4.522% |
| Subgroup 9E Trust Assets \$175,792 | 131 | 104 | 4.357% |
| Subgroup 9F Trust Assets \$1,142,177 | 93 | 250 | 8.173% |
| Group 10 Trust Assets \$327,273,858 | 358 | 1 | 4.510% |

⁽¹⁾ As of July 1, 2019.

The actual remaining terms to maturity, loan ages and, in the case of the Group 1, 2, 3, 4, 6, 7 and 10 and Subgroup 9B, 9D, 9E and 9F Trust Assets, Mortgage Rates of many of the Mortgage Loans underlying the Group 1, 2, 3, 4, 6, 7, 9 and 10 Trust Assets will differ from the weighted averages shown above, perhaps significantly. See "The Trust Assets — The Mortgage Loans" in this Supplement.

 $^{^{(2)}}$ The Mortgage Loans underlying the Group 1, 2, 3, 4, 6, 7 and 10 and Subgroup 9D, 9E and 9F Trust Assets may bear interest at rates ranging from 0.25% to 1.50% per annum above the related Certificate Rate.

⁽³⁾ More than 10% of the Mortgage Loans underlying the Subgroup 9D Trust Assets may be higher balance Mortgage Loans. *See "Risk Factors" in this Supplement.*

Assumed Characteristics of the Mortgage Loans Underlying the Group 5 Trust Assets: The assumed characteristics of the Mortgage Loans underlying the Group 5 Trust Assets are identified in Exhibit B to this Supplement. There can be no assurance that the actual characteristics of the Mortgage Loans underlying the Group 5 Trust Assets will be the same as the assumed characteristics identified in Exhibit B to this Supplement. More than 10% of the Mortgage Loans underlying the Group 5 Trust Assets may be higher balance Mortgage Loans. See "Risk Factors" in this Supplement.

Characteristics of the Mortgage Loans Underlying the Group 8 Trust Assets: See Exhibit A to this Supplement for certain information regarding the characteristics of the Mortgage Loans included in the related Underlying Trusts.

Issuance of Securities: The Securities, other than the Residual Securities, will initially be issued in book-entry form through the book-entry system of the U.S. Federal Reserve Banks (the "Fedwire Book-Entry System"). The Residual Securities will be issued in fully registered, certificated form. *See "Description of the Securities— Form of Securities" in this Supplement.*

Modification and Exchange: If you own exchangeable Securities you will be able, upon notice and payment of an exchange fee, to exchange them for a proportionate interest in the related Securities shown on Schedule I to this Supplement. See "Description of the Securities — Modification and Exchange" in this Supplement.

Increased Minimum Denomination Classes: Each Class that constitutes an Interest Only Class. *See "Description of the Securities — Form of Securities" in this Supplement.*

Interest Rates: The Interest Rates for the Fixed Rate Classes are shown on the front cover of this Supplement or on Schedule I to this Supplement.

The Floating Rate and Inverse Floating Rate Classes will bear interest at per annum rates based on one-month LIBOR (hereinafter referred to as "One-Month LIBOR") as follows:

| Class | Interest Rate Formula(1) | Initial Interest Rate(2) | Minimum Rate | Maximum Rate | Delay (in days) | One-Month LIBOR for Minimum Interest Rate |
|-------|-----------------------------|--------------------------------|-----------------|-----------------|--------------------|--|
| F | One-Month LIBOR + 0.73% | 3.055% | 0.73% | 4.00% | 0 | 0.0000% |
| FA | One-Month LIBOR + 0.40% | 2.725% | 0.40% | 6.50% | 0 | 0.0000% |
| FJ | One-Month LIBOR + 0.40% | 2.725% | 0.40% | 6.50% | 0 | 0.0000% |
| FL | One-Month LIBOR + 0.40% | 2.725% | 0.40% | 6.50% | 0 | 0.0000% |
| FM | One-Month LIBOR + 0.40% | 2.725% | 0.40% | 6.50% | 0 | 0.0000% |
| FW | One-Month LIBOR + 0.40% | 2.725% | 0.40% | 6.50% | 0 | 0.0000% |
| FY | One-Month LIBOR + 0.40% | 2.725% | 0.40% | 6.50% | 0 | 0.0000% |
| JF | One-Month LIBOR + 0.40% | 2.725% | 0.40% | 6.50% | 0 | 0.0000% |
| JS | 6.10% - One-Month LIBOR | 3.775% | 0.00% | 6.10% | 0 | 6.1000% |
| MF | One-Month LIBOR + 0.60% | 2.925% | 0.60% | 4.00% | 0 | 0.0000% |
| MS | 3.40% - One-Month LIBOR | 1.075% | 0.00% | 3.40% | 0 | 3.4000% |
| NF | One-Month LIBOR + 0.40% | 2.725% | 0.40% | (3) | 19 | 0.0000% |
| S | 3.27% - One-Month LIBOR | 0.945% | 0.00% | 3.27% | 0 | 3.2700% |
| SA | 6.10% - One-Month LIBOR | 3.775% | 0.00% | 6.10% | 0 | 6.1000% |
| SJ | 6.10% - One-Month LIBOR | 3.775% | 0.00% | 6.10% | 0 | 6.1000% |
| SL | 6.10% - One-Month LIBOR | 3.775% | 0.00% | 6.10% | 0 | 6.1000% |
| SM | 6.10% - One-Month LIBOR | 3.775% | 0.00% | 6.10% | 0 | 6.1000% |
| SW | 6.10% - One-Month LIBOR | 3.775% | 0.00% | 6.10% | 0 | 6.1000% |
| SY | 6.10% - One-Month LIBOR | 3.775% | 0.00% | 6.10% | 0 | 6.1000% |

⁽¹⁾ One-Month LIBOR will be established on the basis of the ICE LIBOR method, as described under "Description of the Securities — Interest Distributions — Floating Rate and Inverse Floating Rate Classes" in this Supplement.

- (2) The initial Interest Rate will be in effect during the first Accrual Period; the Interest Rate will adjust monthly thereafter.
- (3) The maximum rate for Class NF for any Accrual Period is the Weighted Average Certificate Rate ("WACR") of the Group 5 Trust Assets.

Class NI is a Weighted Average Coupon Class that will accrue interest during each Accrual Period at a per annum Interest Rate equal to the WACR of the Group 5 Trust Assets less the Interest Rate for Class NF for that Accrual Period. The approximate initial Interest Rate for Class NI, which will be in effect for the first Accrual Period, is 0.71514%.

Class YA is a Weighted Average Coupon Class that will accrue interest during each Accrual Period at a per annum Interest Rate equal to the WACR of the Group 6 Trust Assets for that Accrual Period. The approximate initial Interest Rate for Class YA, which will be in effect for the first Accrual Period, is 4.75100%.

Class WA is a Weighted Average Coupon Class that will accrue interest during each Accrual Period at a per annum Interest Rate equal to the WACR of the Group 9 Trust Assets for that Accrual Period. The approximate initial Interest Rate for Class WA, which will be in effect for the first Accrual Period, is 4.85171%.

Allocation of Principal: On each Distribution Date for a Security Group, the following distributions will be made to the related Securities:

SECURITY GROUP 1

The Group 1 Principal Distribution Amount will be allocated to F, until retired

SECURITY GROUP 2

The Group 2 Principal Distribution Amount will be allocated, concurrently, to A and FA, pro rata, until retired

SECURITY GROUP 3

The Group 3 Principal Distribution Amount and the ZJ Accrual Amount will be allocated as follows:

- The ZJ Accrual Amount in the following order of priority:
- 1. Concurrently, to JB and JF, pro rata, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
 - 2. To ZJ, until retired
- The Group 3 Principal Distribution Amount, concurrently, as follows:
 - 1. 20% to FJ, until retired
 - 2. 80% in the following order of priority:
 - a. Concurrently, to JB and JF, pro rata, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
 - b. To ZJ, until retired
 - c. Concurrently, to JB and JF, pro rata, without regard to their Aggregate Scheduled Principal Balance, until retired

SECURITY GROUP 4

The Group 4 Principal Distribution Amount and the ZL Accrual Amount will be allocated as follows:

- The ZL Accrual Amount in the following order of priority:
 - 1. To LY, until reduced to its Scheduled Principal Balance for that Distribution Date
 - 2. To ZL, until retired
- The Group 4 Principal Distribution Amount, concurrently, as follows:
 - 1. 39.999998016% to FL, until retired
 - 2. 60.000001984% in the following order of priority:
 - a. To LY, until reduced to its Scheduled Principal Balance for that Distribution Date
 - b. To ZL, until retired
 - c. To LY, without regard to its Scheduled Principal Balance, until retired

SECURITY GROUP 5

The Group 5 Principal Distribution Amount will be allocated to NF, until retired

SECURITY GROUP 6

The Group 6 Principal Distribution Amount will be allocated to YA, until retired

SECURITY GROUP 7

The Group 7 Principal Distribution Amount will be allocated, concurrently, to FM and MF, pro rata, until retired

SECURITY GROUP 9

The Group 9 Principal Distribution Amount will be allocated to WA, until retired

SECURITY GROUP 10

The Group 10 Principal Distribution Amount and the ZW Accrual Amount will be allocated as follows:

- The ZW Accrual Amount in the following order of priority:
- 1. Sequentially, to UA and UB, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
 - 2. To ZW, until retired
- The Group 10 Principal Distribution Amount, concurrently, as follows:
 - 1. 28.5714283968% to FW, until retired
 - 2. 71.4285716032% in the following order of priority:
 - a. Sequentially, to UA and UB, in that order, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
 - b. To ZW, until retired
 - c. Sequentially, to UA and UB, in that order, without regard to their Aggregate Scheduled Principal Balance, until retired

Scheduled Principal Balances: The Scheduled Principal Balances or Aggregate Scheduled Principal Balances for the Classes listed below are included in Schedule II to this Supplement. They were calculated using among other things the following Structuring Ranges:

| | Structuring Ranges |
|------------------------------|---------------------------|
| PAC Classes | |
| JB and JF (in the aggregate) | 175% PSA through 300% PSA |
| LY | 400% PSA through 500% PSA |
| UA and UB (in the aggregate) | 200% PSA through 350% PSA |

Accrual Classes: Interest will accrue on each Accrual Class identified on the front cover of this Supplement at the per annum rate set forth on that page. However, no interest will be distributed to the Accrual Classes as interest. Interest so accrued on each Accrual Class on each Distribution Date will constitute an Accrual Amount, which will be added to the Class Principal Balance of that Class on each Distribution Date and will be distributable as principal as set forth in this Terms Sheet under "Allocation of Principal."

Notional Classes: The Notional Classes will not receive distributions of principal but have Class Notional Balances for convenience in describing their entitlements to interest. The Class Notional Balance of each Notional Class represents the percentage indicated below of, and reduces to that extent with, the Class Principal Balances or the outstanding notional balance of the related Trust Asset Group indicated:

| Class | Original Class Notional Balance | Represents |
|-------|------------------------------------|--|
| IO | \$ 43,913,988 | 100% of the Group 8 Trust Assets |
| JS | 74,671,125 | 100% of JF (PAC/AD Class) |
| MS | 50,000,000 | 100% of MF (PT Class) |
| NI | 78,080,820 | 100% of NF (PT Class) |
| PI | 48,938,500 | 25% of UA and UB (in the aggregate) (PAC/AD Classes) |
| S | 50,000,000 | 100% of F (PT Class) |
| SA | 43,857,142 | 100% of FA (PT Class) |
| SJ | 58,000,000 | 100% of FJ (PT Class) |
| SL | 120,989,881 | 100% of FL (PT Class) |
| SM | 12,500,000 | 100% of FM (PT Class) |
| SW | 93,506,816 | 100% of FW (PT Class) |
| SY | 70,500,000 | 100% of FJ and FM (in the aggregate) (PT Classes) |
| UI | 48,168,500 | 25% of UA (PAC/AD Class) |

Tax Status: Double REMIC Series. See "Certain United States Federal Income Tax Consequences" in this Supplement and in the Base Offering Circular.

Regular and Residual Classes: Class RR is a Residual Class and represents the Residual Interest of the Issuing REMIC and the Pooling REMIC. All other Classes of REMIC Securities are Regular Classes.

RISK FACTORS

You should purchase securities only if you understand and are able to bear the associated risks. The risks applicable to your investment depend on the principal and interest type of your securities. This section highlights certain of these risks.

The rate of principal payments on the underlying mortgage loans will affect the rate of principal payments on your securities. The rate at which you will receive principal payments will depend largely on the rate of principal payments, including prepayments, on the mortgage loans underlying the related trust assets. Any historical data regarding mortgage loan prepayment rates may not be indicative of the rate of future prepayments on the underlying mortgage loans, and no assurances can be given about the rates at which the underlying mortgage loans will prepay. We expect the rate of principal payments on the underlying mortgage loans to vary. Borrowers generally may prepay their mortgage loans at any time without penalty.

The terms of the mortgage loans may be modified to permit, among other things, a partial release of security, which releases a portion of the mortgaged property from the lien securing the related mortgage loan. Partial releases of security may reduce the value of the remaining security and also allow the related borrower to sell the released property and generate proceeds that may be used to prepay the related mortgage loan in whole or in part.

In addition to voluntary prepayments, mortgage loans can be prepaid as a result of governmental mortgage insurance claim payments, loss mitigation arrangements, repurchases or liquidations of defaulted mortgage loans. Although under certain circumstances Ginnie Mae issuers have the option to repurchase defaulted mortgage loans from the related pool underlying a Ginnie Mae MBS certificate, they are not obligated to do so. Defaulted mortgage loans that remain in pools backing Ginnie Mae MBS certificates may be subject to governmental mortgage insurance claim payments, loss mitigation arrangements or foreclosure, which could have the same effect as voluntary prepayments on the cash flow available to pay the securities.

A catastrophic weather event or other natural disaster may affect the rate of principal payments, including prepayments, on the underlying mortgage loans. Any such event may damage the related mortgaged properties that secure the mortgage loans and may lead to a general economic downturn in the affected regions, including job losses and declines in real estate values. A general economic downturn may increase the rate of defaults on the mortgage loans in such areas resulting in prepayments on the related securities due to governmental mortgage insurance claim mitigation payments, loss arrangements, repurchases or liquidations of defaulted mortgage loans. Insurance payments on damaged or destroyed homes may also lead to prepayments on the underlying mortgage loans. Further, in connection with presidentially declared major disasters, Ginnie Mae may authorize optional special assistance to issuers, including expanded buyout authority which allows issuers, upon receiving written approval from Ginnie Mae, to repurchase eligible loans from the related pool underlying a Ginnie Mae MBS certificate, even if such loans are not delinquent or do not otherwise meet the standard conditions for removal or repurchase.

No assurances can be given as to the timing or frequency of any governmental mortgage insurance claim payments, issuer repurchases, loss mitigation arrangements or foreclosure proceedings with respect to defaulted mortgage loans and the resulting effect on the timing or rate of principal payments on your securities.

Rates of principal payments can reduce your yield. The yield on your securities probably will be lower than you expect if:

- you bought your securities at a premium (interest only securities, for example) and principal payments are faster than you expected, or
- you bought your securities at a discount and principal payments are slower than you expected.

In addition, if your securities are interest only securities or securities purchased at a significant premium, you could lose money on your investment if prepayments occur at a rapid rate.

The adjustable rate mortgage loans have features of fixed rate mortgage loans. The adjustable rate mortgage loans. The adjustable rate mortgage loans underlying the group 5 trust assets have initial fixed rate periods, most of which have expired. During this period, these mortgage loans may exhibit general payment characteristics associated with fixed rate mortgages. After the initial fixed rate period expires, these mortgage loans will adjust annually, subject to annual and lifetime adjustment caps and floors. During this period, these mortgage loans may exhibit general payment characteristics associated with adjustable rate mortgage loans.

Adjustable rate mortgage loans may exhibit general prepayment characteristics that are different than those of fixed rate mortgage loans. In general, as prevailing mortgage interest rates decline, borrowers with fixed rate mortgage loans are more likely to refinance their current, higher rate mortgages, which may result in faster prepayment rates. Additionally, as prevailing mortgage interest rates rise, borrowers with fixed rate mortgage loans are less likely to refinance their current, lower rate mortgages, which may result in slower prepayment rates. In contrast, as prevailing mortgage interest rates decline, borrowers with adjustable rate mortgage loans are less likely to refinance their current mortgages, which may result in slower prepayment rates. Additionally, as prevailing mortgage interest rates rise, borrowers with adjustable rate mortgage loans are more likely to refinance their current mortgages, which may result in faster prepayment rates. Finally, increases in prevailing mortgage interest rates may result in increases in the required monthly payments on adjustable rate mortgage loans. This may result in higher default rates on adjustable rate mortgage loans which could lead to faster prepayment rates and reduce the yield on the related securities.

Adjustable rate mortgages with initial fixed rate periods may be more likely to be

refinanced or become delinquent than other mortgage loans. The adjustable rate mortgage loans underlying the group 5 trust assets have initial fixed rate periods, most of have expired. After the fixed rate period, the mortgage rates may increase at the first interest rate change date and on each annual reset date thereafter, subject to annual and lifetime adjustment caps and floors. Borrowers may be more likely to refinance these mortgage loans before a rate increase becomes effective. If a borrower is unable to refinance such a mortgage loan and interest rates rise, particularly after the initial fixed rate period, the borrower may find it increasingly difficult to remain current in its scheduled monthly payments following the increase in the monthly payment amount. This may result in higher default rates on adjustable rate mortgage loans which could lead to faster prepayment rates and reduce the yield on the related securities.

After the initial fixed rate period of the mortgage loans underlying the group 5 trust assets, the mortgage rates on such mortgage loans adjust annually based on CMT or one-year LIBOR, as applicable, the level of which will affect the yield on the related securities. After any applicable initial fixed rate period of the mortgage loans underlying the group 5 trust assets, the yield on the related securities depends, in part, on the levels of CMT and one-year LIBOR, as applicable. The index applicable to each mortgage loan underlying a group 5 trust asset will be determined annually and the rate of such index used with respect to the mortgage loans underlying the group 5 trust assets will not necessarily reflect current levels of such index. If the indices perform differently from what you expect, the yield on your securities may be lower than you expect. Lower levels of the indices will generally reduce the weighted average certificate rate on the group 5 trust assets, which will reduce or cap the interest rate on the related securities. You should bear in mind that the timing of changes in the level of the indices may affect your yield: generally, the earlier a change, the greater the effect on your yield. It is doubtful that the indices will remain constant.

Adjustable rate mortgage loans are subject to certain caps, which may limit the amount of interest payable on such mortgage loans and may limit the WACR on the group 5 trust assets and the interest rates on the related securities after any applicable initial fixed rate period of the related mortgage loans. After any applicable initial fixed rate period of the mortgage loans underlying the group 5 trust assets, if the applicable index increases to a sufficiently high level, the mortgage rates on such mortgage loans may be limited by annual and lifetime adjustment caps. As a result, the WACR on the group 5 trust assets, as well as the interest rates on the related securities, may be limited. The application of any caps on the mortgage loans may significantly impact the interest rate on class NI because the interest entitlement of such class of securities is entirely dependent on the excess of the WACR of the group 5 trust assets over the interest rate applicable to class NF.

The mortgage rate index for the mortgage loans underlying the group 5 trust assets is different than the interest rate index for the related securities, which may impact, perbaps significantly, the amount of interest distributable to the related securities after any applicable initial fixed rate period of the related mortgage loans. CMT or one-year LIBOR is the mortgage rate index for the mortgage loans underlying the group 5 trust assets and one-month LIBOR is the interest rate index for the related securities. Because these indices are determined in a different manner and at different times, and because the certificate rates on the group 5 trust assets adjust annually after any applicable initial fixed rate period of the related mortgage loans and the interest rates on the related securities adjust monthly, there may be a mismatch between the certificate rates on the group 5 trust assets and the interest rates on the related securities. If the indices for the group 5 trust assets are lower than one-month LIBOR for the related securities for any accrual period, interest accruals with respect to the related notional class will be reduced because such class is entitled to receive the excess of interest accrued in respect of the group 5 trust assets

over the interest distributable to the related floating rate class. In addition, if the indices for the group 5 trust assets are significantly lower than one-month LIBOR for the related securities for any accrual period, interest accruing on the related floating rate class will be reduced because the interest rate on such class is capped at a rate equal to the WACR of the group 5 trust assets. In the event that the indices for the group 5 trust assets are higher than one-month LIBOR for the related securities, interest accruing on the related floating rate class will not be affected but interest accruals with respect to the related notional class will be increased. Because the indices on the group 5 trust assets adjust annually after the initial fixed rate period of the related mortgage loans but the index on the related securities will adjust monthly, this effect could be magnified during periods of significant volatility of short-term interest rates.

Under certain circumstances, a Ginnie Mae issuer has the right to repurchase a defaulted mortgage loan from the related pool of mortgage loans underlying a particular Ginnie Mae MBS certificate, the effect of which would be comparable to a prepayment of such mortgage loan. At its option and without Ginnie Mae's prior consent, a Ginnie Mae issuer may repurchase any mortgage loan at an amount equal to par less any amounts previously advanced by such issuer in connection with its responsibilities as servicer of such mortgage loan to the extent that (i) in the case of a mortgage loan included in a pool of mortgage loans underlying a Ginnie Mae MBS certificate issued on or before December 1, 2002, such mortgage loan has been delinquent for four consecutive months, and at least one delinquent payment remains uncured or (ii) in the case of a mortgage loan included in a pool of mortgage loans underlying a Ginnie Mae MBS certificate issued on or after January 1, 2003, no payment has been made on such mortgage loan for three consecutive months. Any such repurchase will result in prepayment of the principal balance or reduction in the notional balance of the securities ultimately backed by such mortgage loan. No assurances can be given as to the timing or frequency of any such repurchases.

The level of one-month LIBOR will affect the yields on the floating rate and inverse floating rate securities and the class NI securities. If one-month LIBOR performs differently from what you expect, the yield on your securities may be lower than you expect. Lower levels of one-month LIBOR will generally reduce the yield on floating rate securities; higher levels of one-month LIBOR will generally reduce the vield on the inverse floating rate securities and the class NI securities. You should bear in mind that the timing of changes in the level of onemonth LIBOR may affect your yield: generally, the earlier a change, the greater the effect on your yield. It is doubtful that one-month LIBOR will remain constant.

An investment in the securities is subject to significant reinvestment risk. The rate of principal payments on your securities is uncertain. You may be unable to reinvest the payments on your securities at the same returns provided by the securities. Lower prevailing interest rates may result in an unexpected return of principal. In that interest rate climate, higher yielding reinvestment opportunities may be limited. Conversely, higher prevailing interest rates may result in slower returns of principal, and you may not be able to take advantage of higher yielding investment opportunities. The final payment on your security may occur much earlier than the final distribution date.

Support securities will be more sensitive to rates of principal payments than other securities. If principal prepayments result in principal distributions on any distribution date equal to or less than the amount needed to produce scheduled payments on the PAC classes, the related support class will not receive any principal distribution on that date. If prepayments result in principal distributions on any distribution date greater than the amount needed to produce scheduled payments on the related PAC classes for that distribution date, this excess will be distributed to the related support class.

The rate of payments on the underlying certificates will directly affect the rate of payments on the group 8 securities. The

underlying certificates will be sensitive in varying degrees to:

- the rate of payments of principal (including prepayments) of the related mortgage loans, and
- the priorities for the distribution of principal among the classes of the related underlying series.

As described in the related underlying certificate disclosure documents, the reductions in notional balance of the underlying certificates included in trust asset group 8 on any payment date are calculated, directly or indirectly, on the basis of schedules; no assurance can be given that the underlying certificates will adhere to their schedules. Further, prepayments on the related mortgage loans may have occurred at rates faster or slower than those initially assumed.

This supplement contains no information as to whether the related classes with which the notional underlying certificates reduce have adhered to any applicable principal balance schedules, whether any related supporting classes remain outstanding or whether the underlying certificates otherwise have performed as originally anticipated. Additional information as to the underlying certificates may be obtained by performing an analysis of current principal factors of the underlying certificates in light of applicable information contained in the related underlying certificate disclosure documents.

Up to 10% of the mortgage loans underlying the group 1, 2, 3, 4, 6, 7 and 10 and subgroup 9A, 9B, 9C, 9E and 9F trust assets and up to 100% of the mortgage loans underlying the group 5 and 8 and subgroup 9D trust assets may be higher balance mortgage loans. Subject to special pooling parameters set forth in the Ginnie Mae Mortgage-Backed Securities Guide, qualifying federally-insured or guaranteed mortgage loans that exceed certain balance thresholds established by Ginnie Mae ("higher balance mortgage loans") may be included in Ginnie Mae guaranteed pools. There are no historical performance data regarding the prepayment rates for higher

balance mortgage loans. If the higher balance mortgage loans prepay faster or slower than expected, the weighted average lives and yields of the related securities are likely to be affected, perhaps significantly. Furthermore, higher balance mortgage loans tend to be concentrated in certain geographic areas, which may experience relatively higher rates of defaults in the event of adverse economic conditions. No assurances can be given about the prepayment experience or performance of the higher balance mortgage loans.

Changes to, or elimination of, LIBOR could adversely affect your investment in the securities. On July 27, 2017, the U.K.-based Financial Conduct Authority (the "FCA") announced its intention to cease sustaining LIBOR after 2021. The FCA indicated that it does not intend to sustain LIBOR through using its influence or legal powers beyond that date. It is possible that the ICE Benchmark Administration ("IBA") and the reference banks could continue to produce LIBOR on the current basis after 2021, if they are willing and able to do so, but it cannot be assured that LIBOR will survive in its current form, or at all. In the event IBA ceases to set or publish a rate for LIBOR, the Trustee shall propose a new index for approval by Ginnie Mae based upon comparable information and methodology. The Trustee shall propose an alternative index only if it receives an opinion of counsel that the selection of such alternative index will not cause the related Trust REMIC or REMICs to lose their classification as REMICs for United States federal income tax purposes. The effect of the FCA's decision not to sustain LIBOR, or, if changes are ultimately made to LIBOR, the effect of those changes, cannot be predicted. In addition, it cannot be predicted what alternative index would be chosen should this occur. If LIBOR in its current form does not survive or if an alternative index is chosen, the market value and/or liquidity of securities with distributions or interest rates based on LIBOR could be adversely affected.

The securities may not be a suitable investment for you. The securities, especially the

group 8 securities and, in particular, the support, interest only, accrual and residual classes, are not suitable investments for all investors.

In addition, although the sponsor intends to make a market for the purchase and sale of the securities after their initial issuance, it has no obligation to do so. There is no assurance that a secondary market will develop, that any secondary market will continue, or that the price at which you can sell an investment in any class will enable you to realize a desired yield on that investment.

You will bear the market risks of your investment. The market values of the classes are likely to fluctuate. These fluctuations may be significant and could result in significant losses to you.

The secondary markets for mortgage-related securities have experienced periods of illiquidity and can be expected to do so in the future. Illiquidity can have a severely adverse effect on the prices of classes that are especially sensitive to prepayment or interest rate risk or that have been structured to meet the investment requirements of limited categories of investors.

The residual securities may experience significant adverse tax timing consequences. Accordingly, you are urged to consult tax advisors and to consider the after-tax effect of ownership of a residual security and the suitability of the residual securities to your investment objectives. See "Certain United States Federal Income Tax Consequences" in this supplement and in the base offering circular.

You are encouraged to consult advisors regarding the financial, legal, tax and other aspects of an investment in the securities. You should not purchase the securities of any class unless you understand and are able to bear the prepayment, yield, liquidity and market risks associated with that class.

The actual characteristics of the underlying mortgage loans will affect the weighted average lives and yields of your securities. The yield and decrement tables in this supplement are based on assumed characteristics which are likely to be different from the actual

characteristics. As a result, the yields on your securities could be lower than you expected, even if the mortgage loans prepay at the constant prepayment rates set forth in the applicable table.

It is highly unlikely that the underlying mortgage loans will prepay at any of the prepayment rates assumed in this supplement, or at any constant prepayment rate.

THE TRUST ASSETS

General

The Sponsor intends to acquire the Trust Assets in privately negotiated transactions prior to the Closing Date and to sell them to the Trust according to the terms of a Trust Agreement between the Sponsor and the Trustee. The Sponsor will make certain representations and warranties with respect to the Trust Assets. All Trust Assets, regardless of whether the assets consist of Trust MBS or the Underlying Certificates, will evidence, directly or indirectly, Ginnie Mae Certificates.

The Trust MBS (Groups 1, 2, 3, 4, 5, 6, 7, 9 and 10)

The Subgroup 9A, 9B and 9C Trust Assets are either:

- 1. Ginnie Mae I MBS Certificates guaranteed by Ginnie Mae, or
- 2. Ginnie Mae Platinum Certificates backed by Ginnie Mae I MBS Certificates and guaranteed by Ginnie Mae.

Each Mortgage Loan underlying a Ginnie Mae I MBS Certificate bears interest at a Mortgage Rate 0.50% per annum greater than the related Certificate Rate. The difference between the Mortgage Rate and the Certificate Rate is used to pay the related servicers of the Mortgage Loans a monthly servicing fee and Ginnie Mae a fee for its guaranty of the Ginnie Mae I MBS Certificate of 0.44% per annum and 0.06% per annum, respectively, of the outstanding principal balance of the Mortgage Loan.

The Group 1, 2, 3, 4, 6, 7 and 10 and Subgroup 9D, 9E and 9F Trust Assets are either:

- 1. Ginnie Mae II MBS Certificates guaranteed by Ginnie Mae, or
- 2. Ginnie Mae Platinum Certificates backed by Ginnie Mae II MBS Certificates and guaranteed by Ginnie Mae.

The Group 5 Trust Assets consist of adjustable rate Ginnie Mae II MBS Certificates guaranteed by Ginnie Mae. Each adjustable rate Ginnie Mae Certificate has an initial fixed rate period. After the initial fixed rate period, the Certificate Rate for each such adjustable rate Ginnie Mae Certificate will adjust annually to a rate equal to the sum, rounded to the nearest 1/8 of one percent, of (i) the Index and (ii) the Certificate Margin, subject to annual and lifetime adjustment caps and floors. The Index, the Certificate Margin and the annual and lifetime adjustment caps and floors for each such Ginnie Mae Certificate are set forth in Exhibit B to this Supplement. Adjustments to the Mortgage Rates will be made in the same manner as adjustments to the Certificate Rate. See "The Trust Assets — The Mortgage Loans" in this Supplement.

Each Mortgage Loan underlying a Ginnie Mae II MBS Certificate issued prior to July 1, 2003 bears interest at a Mortgage Rate 0.50% to 1.50% per annum greater than the related Certificate Rate. Each Mortgage Loan underlying a Ginnie Mae II MBS Certificate issued on or after July 1, 2003 bears interest at a Mortgage Rate 0.25% to 0.75% per annum greater than the related Certificate Rate. Ginnie Mae receives a fee (the "Ginnie Mae Certificate Guaranty Fee") for its guaranty of each Ginnie Mae II MBS Certificate of 0.06% per

annum of the outstanding principal balance of each related Mortgage Loan. The difference between (a) the Mortgage Rate and (b) the sum of the Certificate Rate and the rate of the Ginnie Mae Certificate Guaranty Fee is used to pay the related servicers of the Mortgage Loans a monthly servicing fee.

The Underlying Certificates (Group 8)

The Group 8 Trust Assets are Underlying Certificates that represent beneficial ownership interests in one or more separate trusts, the assets of which evidence direct or indirect beneficial ownership interests in certain Ginnie Mae Certificates. Each Underlying Certificate constitutes all or a portion of a class of a separate Series of certificates described in the related Underlying Certificate Disclosure Document. Each Underlying Certificate Disclosure Document may be obtained from the Information Agent as described under "Available Information" in this Supplement. Investors are cautioned that material changes in facts and circumstances may have occurred since the date of each Underlying Certificate Disclosure Document, including changes in prepayment rates, prevailing interest rates and other economic factors, which may limit the usefulness of, and be directly contrary to the assumptions used in preparing the information included in, the offering document. See "Underlying Certificates" in the Base Offering Circular.

Each Underlying Certificate provides for monthly distributions and is further described in the table contained in Exhibit A to this Supplement. The table also sets forth information regarding approximate weighted average remaining terms to maturity, loan ages and mortgage rates of the Mortgage Loans underlying the related Ginnie Mae Certificates.

The Mortgage Loans

The Mortgage Loans underlying the Group 1, 2, 3, 4, 6, 7, 9 and 10 Trust Assets are expected to have, on a weighted average basis, the characteristics set forth in the Terms Sheet under "Assumed Characteristics of the Mortgage Loans Underlying the Group 1, 2, 3, 4, 6, 7, 9 and 10 Trust Assets" and the general characteristics described in the Base Offering Circular. The Mortgage Loans underlying the Group 5 Trust Assets are expected to have, on a weighted average basis, the characteristics set forth in Exhibit B to this Supplement. The Mortgage Loans underlying the Underlying Certificates are expected to have, on a weighted average basis, the characteristics set forth in Exhibit A to this Supplement. The Mortgage Loans will consist of first lien, single-family, fixed rate or adjustable rate, residential mortgage loans that are insured or guaranteed by the Federal Housing Administration, the United States Department of Veterans Affairs, Rural Development (formerly the Rural Housing Service) or the United States Department of Housing and Urban Development ("HUD"). See "The Ginnie Mae Certificates — General" in the Base Offering Circular.

The Mortgage Loans underlying the Group 5 Trust Assets are adjustable rate mortgage loans with initial fixed rate periods. After the initial fixed rate period, the Mortgage Rate on each of these Mortgage Loans adjusts annually, rounded to the nearest 1/8 of one percent, based on the Index plus a specified margin (the "Mortgage Margin"), subject to annual and lifetime adjustment caps and floors. Ginnie Mae pooling specifications require that all adjustable rate Mortgage Loans backing a particular Ginnie Mae Certificate have the same index, first Mortgage Rate adjustment date, annual Mortgage Rate adjustment date, mortgage payment adjustment date and index reference date. One month after each Mortgage Rate adjustment date, the payment amount of the related Mortgage Loan will be reset so that the remaining principal balance of that Mortgage Loan will fully amortize in equal monthly payments over its remaining term to maturity, assuming its Mortgage Rate remains constant at the new rate. See "Risk Factors — Adjustable rate mortgage loans are subject to certain caps, which may limit the amount of interest payable on such mortgage loans and may limit the WACR on the group 5 trust assets and the interest rates on the related securities after the initial fixed rate period of the related mortgage loans" in this Supplement.

Specific information regarding the characteristics of the Mortgage Loans underlying the Trust MBS is not available. For purposes of this Supplement, certain assumptions have been made regarding the remaining terms to maturity, loan ages and, in the case of the Group 1, 2, 3, 4, 5, 6, 7 and 10 and Subgroup 9B, 9D, 9E and 9F Trust Assets, Mortgage Rates and, in the case of the Group 5 Trust Assets, Mortgage Margins and next Mortgage Rate adjustment dates of the Mortgage Loans underlying the Trust MBS. However, the actual remaining terms to maturity, loan ages and, in the case of the Group 1, 2, 3, 4, 5, 6, 7 and 10 and Subgroup 9B, 9D, 9E and 9F Trust Assets, Mortgage Rates and, in the case of the Group 5 Trust Assets, Mortgage Margins and next Mortgage Rate adjustment dates of many of the Mortgage Loans will differ from the characteristics assumed, perhaps significantly. This will be the case even if the weighted average characteristics of the Mortgage Loans are the same as the assumed characteristics. Small differences in the characteristics of the Mortgage Loans can have a significant effect on the Weighted Average Lives and yields of the Securities. See "Risk Factors" and "Yield, Maturity and Prepayment Considerations" in this Supplement.

The Trustee Fee

The Sponsor will contribute certain Ginnie Mae Certificates in respect of the Trustee Fee. On each Distribution Date, the Trustee will retain all principal and interest distributions received on such Ginnie Mae Certificates in payment of the Trustee Fee.

GINNIE MAE GUARANTY

The Government National Mortgage Association ("Ginnie Mae"), a wholly-owned corporate instrumentality of the United States of America within HUD, guarantees the timely payment of principal and interest on the Securities. The General Counsel of HUD has provided an opinion to the effect that Ginnie Mae has the authority to guarantee multiclass securities and that Ginnie Mae guaranties will constitute general obligations of the United States, for which the full faith and credit of the United States is pledged. See "Ginnie Mae Guaranty" in the Base Offering Circular.

DESCRIPTION OF THE SECURITIES

General

The description of the Securities contained in this Supplement is not complete and is subject to, and is qualified in its entirety by reference to, all of the provisions of the Trust Agreement. See "Description of the Securities" in the Base Offering Circular.

Form of Securities

Each Class of Securities other than the Residual Securities initially will be issued and maintained, and may be transferred only on the Fedwire Book-Entry System. Beneficial Owners of Book-Entry Securities will ordinarily hold these Securities through one or more financial intermediaries, such as banks, brokerage firms and securities clearing organizations that are eligible to maintain book-entry accounts on the Fedwire Book-Entry System. By request accompanied by the payment of a transfer fee of \$25,000 per Certificated Security to be issued, a Beneficial Owner may receive a Regular Security in certificated form.

The Residual Securities will not be issued in book-entry form but will be issued in fully registered, certificated form and may be transferred or exchanged, subject to the transfer restrictions applicable to Residual Securities set forth in the Trust Agreement, at the Corporate Trust Office of the Trustee. See "Description of the Securities — Forms of Securities; Book-Entry Procedures" in the Base Offering Circular.

Each Regular and MX Class (other than the Increased Minimum Denomination Classes) will be issued in minimum dollar denominations of initial principal balance of \$1,000 and integral multiples of \$1 in excess of \$1,000. The Increased Minimum Denomination Classes will be issued in minimum denominations that equal \$100,000 in initial notional balance.

Distributions

Distributions on the Securities will be made on each Distribution Date as specified under "Terms Sheet — Distribution Date" in this Supplement. On each Distribution Date for a Security, or in the case of the Certificated Securities, on the first Business Day after the related Distribution Date, the Distribution Amount will be distributed to the Holders of record as of the related Record Date. Beneficial Owners of Book-Entry Securities will receive distributions through credits to accounts maintained for their benefit on the books and records of the appropriate financial intermediaries. Holders of Certificated Securities will receive distributions by check or, subject to the restrictions set forth in the Base Offering Circular, by wire transfer. See "Description of the Securities — Distributions" and "— Method of Distributions" in the Base Offering Circular.

Interest Distributions

The Interest Distribution Amount will be distributed on each Distribution Date to the Holders of all Classes of Securities entitled to distributions of interest.

- Interest will be calculated on the basis of a 360-day year consisting of twelve 30-day months.
- Interest distributable (or accrued in the case of an Accrual Class) on any Class for any Distribution Date will consist of 30 days' interest on its Class Principal Balance (or Class Notional Balance) as of the related Record Date.
- Investors can calculate the amount of interest to be distributed (or accrued in the case of an Accrual Class) on each Class of Securities for any Distribution Date by using the Class Factors published in the preceding month. See "— Class Factors" below.

Categories of Classes

For purposes of interest distributions, the Classes will be categorized as shown under "Interest Type" on the front cover of this Supplement and on Schedule I to this Supplement. The abbreviations used in this Supplement to describe the interest entitlements of the Classes are explained under "Class Types" in Appendix I to the Base Offering Circular.

Accrual Periods

The Accrual Period for each Regular and MX Class is set forth in the table below:

| Class | Accrual Period |
|------------------------------------|---|
| Fixed Rate and Delay Classes | The calendar month preceding the related Distribution Date |
| Floating Rate and Inverse Floating | From the 20th day of the month preceding the month of the related |
| Rate Classes other than Delay | Distribution Date through the 19th day of the month of that |
| Classes | Distribution Date |

Fixed Rate Classes

Each Fixed Rate Class will bear interest at the per annum Interest Rate shown on the front cover of this Supplement or on Schedule I to this Supplement.

Floating Rate and Inverse Floating Rate Classes

The Floating Rate and Inverse Floating Rate Classes will bear interest as shown under "Terms Sheet — Interest Rates" in this Supplement. The Interest Rates for the Floating Rate and Inverse Floating Rate Classes will be based on One-Month LIBOR. The Trustee or its agent will determine One-Month LIBOR on the basis of the ICE LIBOR method, as described under "Description of the Securities — Interest Rate Indices — Determination of LIBOR — ICE LIBOR" in the Base Offering Circular.

We can provide no assurance that One-Month LIBOR for a Distribution Date accurately represents the offered rate at which one-month U.S. dollar deposits are being quoted to prime banks in the London interbank market, nor that the procedures for calculating One-Month LIBOR on the basis of the ICE LIBOR method for one-month U.S. dollar deposits will not change. Any change in One-Month LIBOR values resulting from any change in reporting or in the determination of One-Month LIBOR may cause One-Month LIBOR to fluctuate disproportionately to changes in other market lending rates.

Weighted Average Coupon Classes

The Weighted Average Coupon Classes will bear interest as shown under "Terms Sheet — Interest Rates" in this Supplement.

The Trustee's determination of One-Month LIBOR and its calculation of the Interest Rates will be final except in the case of clear error. Investors can obtain One-Month LIBOR levels and Interest Rates for the current and preceding Accrual Periods on Ginnie Mae's website or by calling the Information Agent at (800) 234-GNMA.

Accrual Classes

Each of Classes ZJ, ZL and ZW is an Accrual Class. Interest will accrue on the Accrual Classes and be distributed as described under "Terms Sheet — Accrual Classes" in this Supplement.

Principal Distributions

The Principal Distribution Amount for each Group and each Accrual Amount will be distributed to the Holders entitled thereto as described under "Terms Sheet — Allocation of Principal" in this Supplement. Investors can calculate the amount of principal to be distributed with respect to any Distribution Date by using the Class Factors published in the preceding and current months. See "— Class Factors" below.

Categories of Classes

For purposes of principal distributions, the Classes will be categorized as shown under "Principal Type" on the front cover of this Supplement and on Schedule I to this Supplement. The abbreviations used in this Supplement to describe the principal entitlements of the Classes are explained under "Class Types" in Appendix I to the Base Offering Circular.

Notional Classes

The Notional Classes will not receive principal distributions. For convenience in describing interest distributions, the Notional Classes will have the original Class Notional Balances shown on the front cover of this Supplement and on Schedule I to this Supplement. The Class Notional Balances will be reduced as shown under "Terms Sheet — Notional Classes" in this Supplement.

Residual Securities

The Class RR Securities will represent the beneficial ownership of the Residual Interest in the Issuing REMIC and the beneficial ownership of the Residual Interest in the Pooling REMIC, as described in

"Certain United States Federal Income Tax Consequences" in the Base Offering Circular. The Class RR Securities have no Class Principal Balance and do not accrue interest. The Class RR Securities will be entitled to receive the proceeds of the disposition of any assets remaining in the Trust REMICs after the Class Principal Balance or Class Notional Balance of each Class of Regular Securities has been reduced to zero. However, any remaining proceeds are not likely to be significant. The Residual Securities may not be transferred to a Plan Investor, a Non-U.S. Person or a Disqualified Organization.

Class Factors

The Trustee will calculate and make available for each Class of Securities, no later than the day preceding the Distribution Date, the factor (carried out to eight decimal places) that when multiplied by the Original Class Principal Balance (or original Class Notional Balance) of that Class, determines the Class Principal Balance (or Class Notional Balance) after giving effect to the distribution of principal to be made on the Securities (and any addition to the Class Principal Balance of an Accrual Class) or any reduction of Class Notional Balance on that Distribution Date (each, a "Class Factor").

- The Class Factor for any Class of Securities for each month following the issuance of the Securities will reflect its remaining Class Principal Balance (or Class Notional Balance) after giving effect to any principal distribution (or addition to principal) to be made or any reduction of Class Notional Balance on the Distribution Date occurring in that month.
- The Class Factor for each Class for the month of issuance is 1.00000000.
- The Class Factors for the MX Classes and the Classes of REMIC Securities that are exchangeable for the MX Classes will be calculated assuming that the maximum possible amount of each Class is outstanding at all times, regardless of any exchanges that may occur.
- Based on the Class Factors published in the preceding and current months (and Interest Rates), investors in any Class (other than an Accrual Class) can calculate the amount of principal and interest to be distributed to that Class and investors in an Accrual Class can calculate the total amount of principal to be distributed to (or interest to be added to the Class Principal Balance of) that Class on the Distribution Date in the current month.
- Investors may obtain current Class Factors on Ginnie Mae's website.

See "Description of the Securities — Distributions" in the Base Offering Circular.

Termination

The Trustee, at its option, may purchase or cause the sale of the Trust Assets and thereby terminate the Trust on any Distribution Date on which the aggregate of the Class Principal Balances of the Securities is less than 1% of the aggregate Original Class Principal Balances of the Securities. On any Distribution Date upon the Trustee's determination that the REMIC status of any Trust REMIC has been lost or that a substantial risk exists that this status will be lost for the then current taxable year, the Trustee will terminate the Trust and retire the Securities.

Upon any termination of the Trust, the Holder of any outstanding Security (other than a Residual or Notional Class Security) will be entitled to receive that Holder's allocable share of the Class Principal Balance of that Class plus any accrued and unpaid interest thereon at the applicable Interest Rate, and any Holder of any outstanding Notional Class Security will be entitled to receive that Holder's allocable share of any accrued and unpaid interest thereon at the applicable Interest Rate. The Residual Holders will be entitled to their pro rata share of any assets remaining in the Trust REMICs after payment in full of the amounts described in the foregoing sentence. However, any remaining assets are not likely to be significant.

Modification and Exchange

All or a portion of the Classes of REMIC Securities specified on the front cover may be exchanged for a proportionate interest in the related MX Class or Classes shown on Schedule I to this Supplement. Similarly, all or a portion of the related MX Class or Classes may be exchanged for proportionate interests in the related Class or Classes of REMIC Securities and, in the case of Combinations 8 and 9, other related MX Classes. This process may occur repeatedly.

Each exchange may be effected only in proportions that result in the principal and interest entitlements of the Securities received being equal to the entitlements of the Securities surrendered.

In the case of Combinations 8 and 9, the related REMIC Securities may be exchanged for proportionate interests in various subcombinations of MX Classes. Similarly, all or a portion of these MX Classes may be exchanged for proportionate interests in the related REMIC Securities or in other subcombinations of the related MX Classes. Each subcombination may be effected only in proportions that result in the principal and interest entitlements of the Securities received being equal to the entitlements of the Securities surrendered. See the example under "Description of the Securities — Modification and Exchange" in the Base Offering Circular.

A Beneficial Owner proposing to effect an exchange must notify the Trustee through the Beneficial Owner's Book-Entry Depository participant. This notice must be received by the Trustee not later than two Business Days before the proposed exchange date. The exchange date can be any Business Day other than the last Business Day of the month. The notice must contain the outstanding principal and notional balances of the Securities to be included in the exchange and the proposed exchange date. The notice is required to be delivered to the Trustee by email to USBGNMATeam@USBank.com or in writing at its Corporate Trust Office at U.S. Bank National Association, One Federal Street, 3rd Floor, Boston, MA 02110, Attention: Ginnie Mae REMIC Program Agency Group 2019-083. The Trustee may be contacted by telephone at (617) 603-6451 and by fax at (617) 603-6644.

A fee will be payable to the Trustee in connection with each exchange equal to 1/32 of 1% of the outstanding principal balance (or notional balance) of the Securities surrendered for exchange (but not less than \$2,000 or more than \$25,000); provided, however, that no fee will be payable in respect of an interest only security unless all securities involved in the exchange are interest only securities. The fee must be paid concurrently with the exchange.

The first distribution on a REMIC Security or an MX Security received in an exchange will be made on the Distribution Date in the month following the month of the exchange. The distribution will be made to the Holder of record as of the Record Date in the month of exchange.

See "Description of the Securities — Modification and Exchange" in the Base Offering Circular.

YIELD, MATURITY AND PREPAYMENT CONSIDERATIONS

General

The prepayment experience of the Mortgage Loans will affect the Weighted Average Lives of and the yields realized by investors in the related Securities.

- The Mortgage Loans do not contain "due-on-sale" provisions, and any Mortgage Loan may be prepaid in full or in part at any time without penalty.
- The rate of payments (including prepayments and payments in respect of liquidations) on the Mortgage Loans is dependent on a variety of economic, geographic, social and other factors, including prevailing market interest rates and general economic factors.

The rate of prepayments with respect to single-family mortgage loans has fluctuated significantly in recent years. Although there is no assurance that prepayment patterns for the Mortgage Loans will conform to patterns for more traditional types of conventional fixed rate or adjustable rate mortgage loans, generally:

- if mortgage interest rates fall materially below the Mortgage Rates on any of the fixed rate Mortgage Loans (giving consideration to the cost of refinancing), the rate of prepayment of those Mortgage Loans would be expected to increase;
- if mortgage interest rates rise materially above the Mortgage Rates on any of the fixed rate Mortgage Loans, the rate of prepayment of those Mortgage Loans would be expected to decrease;
- declines in prevailing mortgage interest rates would be expected to decrease the rate of prepayment of the adjustable rate Mortgage Loans; and
- increases in prevailing mortgage interest rates would be expected to increase the rate of prepayment of the adjustable rate Mortgage Loans (giving consideration to the cost of refinancing).

In addition, following any Mortgage Loan default and the subsequent liquidation of the underlying Mortgaged Property, the principal balance of the Mortgage Loan will be distributed through a combination of liquidation proceeds, advances from the related Ginnie Mae Issuer and, to the extent necessary, proceeds of Ginnie Mae's guaranty of the Ginnie Mae Certificates. As a result, defaults experienced on the Mortgage Loans will accelerate the distribution of principal of the Securities.

The terms of the Mortgage Loans may be modified to permit, among other things, a partial release of security, which releases a portion of the mortgaged property from the lien securing the related Mortgage Loan. Partial releases of security may allow the related borrower to sell the released property and generate proceeds that may be used to prepay the related Mortgage Loan in whole or in part.

Under certain circumstances, the Trustee has the option to purchase the Trust Assets, thereby effecting early retirement of the Securities. See "Description of the Securities — Termination" in this Supplement.

Investors in the Group 8 Securities are urged to review the discussion under "Risk Factors — *The rate of payments on the underlying certificates will directly affect the rate of payments on the group* 8 *securities*" in this Supplement.

Accretion Directed Classes

Classes JB, JF, LY, UA and UB are Accretion Directed Classes. The related Accrual Amounts will be applied to making principal distributions on those Classes as described in this Supplement. Class JS is a Notional Class whose Class Notional Balance is determined by reference to the Class Principal Balance of the related Accretion Directed Class shown under "Terms Sheet — Notional Classes" in this Supplement.

Each of the Accretion Directed Classes has the AD designation in the suffix position, rather than the prefix position, in its class principal type because it does not have principal payment stability through the applicable pricing prepayment assumption. Although the Accretion Directed Classes are entitled to receive payments from the related Accrual Amounts, they do not have principal payment stability through any prepayment rate significantly higher than 0% PSA, except within their Effective Ranges.

Securities that Receive Principal on the Basis of Schedules

As described in this Supplement, each PAC Class will receive principal payments in accordance with a schedule calculated on the basis of, among other things, a Structuring Range. See "Terms Sheet —

Scheduled Principal Balances." However, whether any such Class will adhere to its schedule and receive "Scheduled Payments" on a Distribution Date will largely depend on the level of prepayments experienced by the related Mortgage Loans.

Each PAC Class exhibits an Effective Range of constant prepayment rates at which such Class will receive Scheduled Payments. That range may differ from the Structuring Range used to create the related principal balance schedule. Based on the Modeling Assumptions, the *initial* Effective Ranges for the PAC Classes are as follows:

| | Initial Effective Ranges |
|------------------------------|---------------------------|
| PAC Classes | |
| JB and JF (in the aggregate) | 175% PSA through 300% PSA |
| LY | 400% PSA through 500% PSA |
| UA and UB (in the aggregate) | 200% PSA through 350% PSA |

• The principal payment stability of the PAC Classes will be supported by the related Support Class.

If the Class supporting a given Class is retired before the Class being supported is retired, the outstanding Class will no longer have an Effective Range and will become more sensitive to prepayments on the related Mortgage Loans.

There is no assurance that the related Mortgage Loans will have the characteristics assumed in the Modeling Assumptions, which were used to determine the initial Effective Ranges. If the initial Effective Ranges were calculated using the actual characteristics of the related Mortgage Loans, the initial Effective Ranges could differ from those shown in the above table. Therefore, even if the Mortgage Loans were to prepay at a constant rate within the initial Effective Range shown for any Class in the above table, that Class could fail to receive Scheduled Payments.

Moreover, the related Mortgage Loans will not prepay at any *constant* rate. Non-constant prepayment rates can cause any PAC Class not to receive Scheduled Payments, even if prepayment rates remain within the initial Effective Range for that Class. Further, the Effective Range for any PAC Class can narrow, shift over time or cease to exist depending on the actual characteristics of the related Mortgage Loans.

If the related Mortgage Loans prepay at rates that are generally below the Effective Range for any PAC Class, the amount available to pay principal on the Securities may be insufficient to produce Scheduled Payments on such related PAC Class and its Weighted Average Life may be extended, perhaps significantly.

If the related Mortgage Loans prepay at rates that are generally above the Effective Range for any PAC Class, its supporting Class may be retired earlier than that PAC Class, and its Weighted Average Life may be shortened, perhaps significantly.

Assumability

Each Mortgage Loan may be assumed, subject to HUD review and approval, upon the sale of the related Mortgaged Property. See "Yield, Maturity and Prepayment Considerations — Assumability of Government Loans" in the Base Offering Circular.

Final Distribution Date

The Final Distribution Date for each Class, which is set forth on the front cover of this Supplement or on Schedule I to this Supplement, is the latest date on which the related Class Principal Balance or Class Notional Balance will be reduced to zero.

- The actual retirement of any Class may occur earlier than its Final Distribution Date.
- According to the terms of the Ginnie Mae Guaranty, Ginnie Mae will guarantee payment in full of the Class Principal Balance of each Class of Securities no later than its Final Distribution Date.

Modeling Assumptions

Unless otherwise indicated, the tables that follow have been prepared on the basis of the characteristics of the Underlying Certificates, the priorities of distributions on the Underlying Certificates and the following assumptions (the "Modeling Assumptions"), among others:

- 1. The Mortgage Loans underlying the Group 1, 2, 3, 4, 6, 7, 9 and 10 Trust Assets have the assumed characteristics shown under "Assumed Characteristics of the Mortgage Loans Underlying the Group 1, 2, 3, 4, 6, 7, 9 and 10 Trust Assets" in the Terms Sheet, except in the case of information set forth under the 0% PSA Prepayment Assumption Rate, for which each Mortgage Loan Group 1, 2, 3, 4, 7 and 10 is assumed to have an original and a remaining term to maturity of 360 months and a Mortgage Rate of 1.50% per annum higher than the related Certificate Rate. The Group 5 Trust Assets and the Mortgage Loans underlying the Group 5 Trust Assets have the assumed characteristics shown in Exhibit B.
- 2. The Mortgage Loans prepay at the constant percentages of PSA or CPR, as applicable, (described below) shown in the related table.
- 3. Distributions on the Securities are always received on the 20th day of the month, whether or not a Business Day, commencing in August 2019.
 - 4. A termination of the Trust or the Underlying Trusts does not occur.
 - 5. The Closing Date for the Securities is July 30, 2019.
- 6. No expenses or fees are paid by the Trust other than the Trustee Fee, which is paid as described under "The Trust Assets The Trustee Fee" in this Supplement.
- 7. Distributions on the Underlying Certificates are made as described in the related Underlying Certificate Disclosure Documents.
 - 8. Each Class is held from the Closing Date and is not exchanged in whole or in part.
- 9. The Certificate Rate on each Group 5 Trust Asset for the first Distribution Date is based on the information set forth in Exhibit B. The Mortgage Margin, lifetime Mortgage Loan interest rate cap and lifetime Mortgage Loan interest rate floor will equal the related Certificate Margin, Lifetime Certificate Interest Rate Cap and Lifetime Certificate Interest Rate Floor, as applicable, plus the Servicing and Guaranty Fee Rate, each as shown in Exhibit B.
- 10. For purposes of the decrement tables for Security Group 5, on all Distribution Dates occurring after the next Mortgage Rate adjustment date for the related Mortgage Loans, the constant value of CMT and One-Year LIBOR shown with respect to any decrement table is used to calculate the Mortgage Rate with respect to the Mortgage Loans, subject to any applicable caps and floors.
- 11. With respect to the Group 5 Trust Assets, one month after each Mortgage Rate adjustment date the payment amount of the related Mortgage Loan will be reset so that the remaining principal balance of that Mortgage Loan will fully amortize in equal monthly payments over its remaining term to maturity, assuming its Mortgage Rate remains constant.

12. When calculating the Mortgage Rate or Certificate Rate with respect to the Group 5 Trust Assets, the rate is not rounded to the nearest 1/8 of one percent.

When reading the tables and the related text, investors should bear in mind that the Modeling Assumptions, like any other stated assumptions, are unlikely to be entirely consistent with actual experience.

- For example, most of the Mortgage Loans will not have the characteristics assumed, many Distribution Dates will occur on a Business Day after the 20th day of the month, and the Trustee may cause a termination of the Trust as described under "Description of the Securities Termination" in this Supplement.
- In addition, distributions on the Securities are based on Certificate Factors and Calculated Certificate Factors, as applicable, which may not reflect actual receipts on the Trust Assets.

See "Description of the Securities — Distributions" in the Base Offering Circular.

Decrement Tables

Prepayments of mortgage loans are commonly measured by a prepayment standard or model. The models used in this Supplement, Prepayment Speed Assumption ("PSA") and Constant Prepayment Rate ("CPR"), are the standard prepayment assumption models of The Securities Industry and Financial Markets Association. PSA represents an assumed rate of prepayment each month relative to the then outstanding principal balance of the Mortgage Loans to which the model is applied. CPR represents a constant rate of prepayment on the Mortgage Loans each month relative to the then outstanding aggregate principal balance of the Mortgage Loans for the life of those Mortgage Loans. See "Yield, Maturity and Prepayment Considerations — Standard Prepayment Assumption Models" in the Base Offering Circular.

The decrement tables set forth below are based on the assumption that the Mortgage Loans prepay at the indicated percentages of PSA (the "PSA Prepayment Assumption Rates") or CPR (the "CPR Prepayment Assumption Rates"), as applicable. As used in the tables, each of the PSA Prepayment Assumption Rates or CPR Prepayment Assumption Rates reflects a percentage of the 100% PSA or CPR assumed prepayment rate. The Mortgage Loans will not prepay at any of the PSA Prepayment Assumption Rates or CPR Prepayment Assumption Rates, and the timing of changes in the rate of prepayments actually experienced on the Mortgage Loans will not follow the pattern described for the PSA or CPR assumption.

The decrement tables set forth below illustrate the percentage of the Original Class Principal Balance (or, in the case of a Notional Class, the original Class Notional Balance) that would remain outstanding following the distribution made each specified month for each Regular or MX Class, based on the assumption that the related Mortgage Loans prepay at the PSA Prepayment Assumption Rates or CPR Prepayment Assumption Rates, as applicable, and, in the case of the Group 5 Securities, that CMT and One-Year LIBOR is at the specified level. The percentages set forth in the following decrement tables have been rounded to the nearest whole percentage (including rounding down to zero).

The decrement tables also indicate the Weighted Average Life of each Class under each PSA Prepayment Assumption Rate or CPR Prepayment Assumption Rate, as applicable. The Weighted Average Life of each Class is calculated by:

(a) multiplying the net reduction, if any, of the Class Principal Balance (or the net reduction of the Class Notional Balance, in the case of a Notional Class) from one Distribution Date to the next Distribution Date by the number of years from the date of issuance thereof to the related Distribution Date,

- (b) summing the results, and
- (c) dividing the sum by the aggregate amount of the assumed net reductions in principal balance or notional balance, as applicable, referred to in clause (a).

The information shown for each Notional Class is for illustrative purposes only, as a Notional Class is not entitled to distributions of principal and has no Weighted Average Life. The Weighted Average Life shown for each Notional Class has been calculated on the assumption that a reduction in the Class Notional Balance thereof is a distribution of principal.

The Weighted Average Lives are likely to vary, perhaps significantly, from those set forth in the tables below due to the differences between the actual characteristics of the Mortgage Loans underlying the related Trust Assets and the Modeling Assumptions. In addition, the Weighted Average Lives of the Group 5 Securities are likely to vary due to differences between actual CMT and One-Year LIBOR, as applicable, and the assumed constant levels of CMT and One-Year LIBOR, as applicable.

Percentages of Original Class Principal (or Class Notional) Balances and Weighted Average Lives

Security Group 1 PSA Prepayment Assumption Rates

| | | (| lasses F and | s | |
|-------------------|------|------|--------------|------|------|
| Distribution Date | 0% | 200% | 361% | 600% | 800% |
| Initial Percent | 100 | 100 | 100 | 100 | 100 |
| July 2020 | 99 | 95 | 93 | 89 | 86 |
| July 2021 | 97 | 86 | 79 | 67 | 58 |
| July 2022 | 96 | 75 | 61 | 43 | 30 |
| July 2023 | 94 | 65 | 47 | 27 | 16 |
| July 2024 | 92 | 56 | 36 | 17 | 8 |
| July 2025 | 91 | 48 | 27 | 11 | 4 |
| July 2026 | 89 | 41 | 21 | 7 | 2 |
| July 2027 | 87 | 35 | 16 | 4 | 1 |
| July 2028 | 85 | 30 | 12 | 3 | 1 |
| July 2029 | 83 | 26 | 9 | 2 | 0 |
| July 2030 | 80 | 22 | 7 | 1 | 0 |
| July 2031 | 78 | 19 | 5 | 1 | 0 |
| July 2032 | 75 | 16 | 4 | 0 | 0 |
| July 2033 | 72 | 13 | 3 | 0 | 0 |
| July 2034 | 69 | 11 | 2 | 0 | 0 |
| July 2035 | 66 | 9 | 2 | 0 | 0 |
| July 2036 | 63 | 8 | 1 | 0 | 0 |
| July 2037 | 60 | 6 | 1 | 0 | 0 |
| July 2038 | 56 | 5 | 1 | 0 | 0 |
| July 2039 | 52 | 4 | 0 | 0 | 0 |
| July 2040 | 48 | 4 | 0 | 0 | 0 |
| July 2041 | 44 | 3 | 0 | 0 | 0 |
| July 2042 | 40 | 2 | 0 | 0 | 0 |
| July 2043 | 35 | 2 | 0 | 0 | 0 |
| July 2044 | 30 | 1 | 0 | 0 | 0 |
| July 2045 | 24 | 1 | 0 | 0 | 0 |
| July 2046 | 19 | 1 | 0 | 0 | 0 |
| July 2047 | 13 | 0 | 0 | 0 | 0 |
| July 2048 | 7 | 0 | 0 | 0 | 0 |
| July 2049 | 0 | 0 | 0 | 0 | 0 |
| Weighted Average | | | | | |
| Life (years) | 19.0 | 7.4 | 4.8 | 3.2 | 2.6 |

Security Group 2 PSA Prepayment Assumption Rates

| | Classes A, FA and SA | | | | | | | | | |
|-------------------|---|------|------|------|------|--|--|--|--|--|
| Distribution Date | 0% | 200% | 394% | 600% | 800% | | | | | |
| Initial Percent | 0% 200% 394% 600% 86 100 | 100 | | | | | | | | |
| July 2020 | | | | | 85 | | | | | |
| July 2021 | 97 | 86 | 76 | 65 | 56 | | | | | |
| July 2022 | 96 | 74 | 57 | 41 | 29 | | | | | |
| July 2023 | 94 | 64 | 43 | 26 | 15 | | | | | |
| July 2024 | 92 | 55 | 32 | 16 | 7 | | | | | |
| July 2025 | 91 | 47 | 24 | 10 | 4 | | | | | |
| July 2026 | 89 | 41 | 18 | 6 | 2 | | | | | |
| July 2027 | 87 | 35 | 13 | 4 | 1 | | | | | |
| July 2028 | 85 | 30 | 10 | 2 | 0 | | | | | |
| July 2029 | 83 | 25 | 7 | 2 | 0 | | | | | |
| July 2030 | 80 | 22 | 5 | 1 | 0 | | | | | |
| July 2031 | 78 | 18 | 4 | 1 | 0 | | | | | |
| July 2032 | 75 | 16 | 3 | 0 | 0 | | | | | |
| July 2033 | | 13 | 2 | 0 | 0 | | | | | |
| July 2034 | 69 | 11 | 2 | 0 | 0 | | | | | |
| July 2035 | 66 | 9 | 1 | 0 | 0 | | | | | |
| July 2036 | 63 | 8 | 1 | 0 | 0 | | | | | |
| July 2037 | 60 | 6 | 1 | 0 | 0 | | | | | |
| July 2038 | 56 | 5 | 0 | 0 | 0 | | | | | |
| July 2039 | 52 | 4 | 0 | 0 | 0 | | | | | |
| July 2040 | | 3 | 0 | 0 | 0 | | | | | |
| July 2041 | | 3 | 0 | 0 | 0 | | | | | |
| July 2042 | 40 | 2 | 0 | 0 | 0 | | | | | |
| July 2043 | 35 | | 0 | 0 | 0 | | | | | |
| July 2044 | | | 0 | 0 | 0 | | | | | |
| July 2045 | | 1 | 0 | 0 | 0 | | | | | |
| July 2046 | 19 | 1 | 0 | 0 | 0 | | | | | |
| July 2047 | | 0 | 0 | 0 | 0 | | | | | |
| July 2048 | | Ö | Ö | Õ | Ö | | | | | |
| July 2049 | | Ö | Õ | Õ | 0 | | | | | |
| Weighted Average | ~ | ~ | ~ | ~ | | | | | | |
| Life (years) | 19.0 | 7.3 | 4.4 | 3.1 | 2.5 | | | | | |

Security Group 3 PSA Prepayment Assumption Rates

| | | Clas | ses FJ an | ıd SJ | | Classe | Classes JA, JB, JC, JD, JE, JF, JG and JS | | | | Class ZJ | | | | |
|-------------------|------|------|-----------|-------|------|--------|---|------|------|------|----------|------|------|------|------|
| Distribution Date | 0% | 175% | 205% | 300% | 500% | 0% | 175% | 205% | 300% | 500% | 0% | 175% | 205% | 300% | 500% |
| Initial Percent | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| July 2020 | 99 | 96 | 95 | 94 | 91 | 98 | 95 | 95 | 95 | 95 | 104 | 104 | 101 | 91 | 70 |
| July 2021 | 97 | 88 | 86 | 82 | 72 | 96 | 85 | 85 | 85 | 84 | 108 | 108 | 98 | 64 | 0 |
| July 2022 | 96 | 78 | 75 | 66 | 50 | 93 | 72 | 72 | 72 | 58 | 113 | 113 | 93 | 33 | 0 |
| July 2023 | 95 | 68 | 64 | 53 | 34 | 91 | 60 | 60 | 60 | 40 | 117 | 117 | 91 | 12 | 0 |
| July 2024 | 93 | 60 | 55 | 43 | 24 | 88 | 50 | 50 | 50 | 28 | 122 | 122 | 91 | 2 | 0 |
| July 2025 | 91 | 52 | 48 | 34 | 16 | 86 | 40 | 40 | 40 | 19 | 127 | 127 | 93 | 0 | 0 |
| July 2026 | 90 | 46 | 41 | 28 | 11 | 83 | 32 | 32 | 32 | 13 | 132 | 129 | 93 | 0 | 0 |
| July 2027 | 88 | 40 | 35 | 22 | 8 | 80 | 26 | 26 | 26 | 9 | 138 | 127 | 90 | 0 | 0 |
| July 2028 | 86 | 35 | 30 | 18 | 5 | 76 | 21 | 21 | 21 | 6 | 143 | 122 | 86 | 0 | 0 |
| July 2029 | 84 | 30 | 25 | 14 | 4 | 73 | 16 | 16 | 16 | 4 | 149 | 115 | 80 | 0 | 0 |
| July 2030 | 81 | 26 | 22 | 11 | 2 | 69 | 13 | 13 | 13 | 3 | 155 | 107 | 73 | 0 | 0 |
| July 2031 | 79 | 23 | 18 | 9 | 2 | 65 | 10 | 10 | 10 | 2 | 161 | 98 | 67 | 0 | 0 |
| July 2032 | 77 | 20 | 15 | 7 | 1 | 61 | 8 | 8 | 8 | 1 | 168 | 89 | 60 | 0 | 0 |
| July 2033 | 74 | 17 | 13 | 6 | 1 | 57 | 6 | 6 | 6 | 1 | 175 | 80 | 53 | 0 | 0 |
| July 2034 | 71 | 14 | 11 | 4 | 0 | 53 | 5 | 5 | 5 | 1 | 182 | 72 | 47 | 0 | 0 |
| July 2035 | 68 | 12 | 9 | 3 | 0 | 48 | 4 | 4 | 4 | 0 | 189 | 63 | 41 | 0 | 0 |
| July 2036 | 65 | 10 | 8 | 3 | 0 | 43 | 3 | 3 | 3 | 0 | 197 | 56 | 35 | 0 | 0 |
| July 2037 | 61 | 9 | 6 | 2 | 0 | 38 | 2 | 2 | 2 | 0 | 205 | 48 | 30 | 0 | 0 |
| July 2038 | 58 | 7 | 5 | 2 | 0 | 32 | 2 | 2 | 2 | 0 | 214 | 41 | 25 | 0 | 0 |
| July 2039 | 54 | 6 | 4 | 1 | 0 | 26 | 1 | 1 | 1 | 0 | 222 | 35 | 21 | 0 | 0 |
| July 2040 | 50 | 5 | 3 | 1 | 0 | 20 | 1 | 1 | 1 | 0 | 231 | 29 | 18 | 0 | 0 |
| July 2041 | 46 | 4 | 3 | 1 | 0 | 13 | 1 | 1 | 1 | 0 | 241 | 24 | 14 | 0 | 0 |
| July 2042 | 41 | 3 | 2 | 0 | 0 | 6 | 1 | 1 | 1 | 0 | 251 | 20 | 11 | 0 | 0 |
| July 2043 | 36 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 253 | 16 | 9 | 0 | 0 |
| July 2044 | 31 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 217 | 12 | Ź | 0 | 0 |
| July 2045 | 26 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 179 | 9 | 5 | 0 | 0 |
| July 2046 | 20 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 138 | 6 | 3 | 0 | 0 |
| July 2047 | 14 | 1 | 0 | 0 | Ö | Õ | 0 | Õ | Õ | Õ | 95 | 4 | 2 | 0 | Õ |
| July 2048 | 7 | 0 | Õ | Õ | Õ | Õ | Õ | Õ | Õ | Õ | 49 | 2 | 1 | Õ | Ŏ |
| July 2049 | Ó | Õ | Õ | Õ | Õ | Õ | Ö | Õ | Õ | Ö | 0 | 0 | 0 | 0 | 0 |
| Weighted Average | - | ~ | ~ | - | ~ | ~ | , | ~ | ~ | - | 0 | ~ | - | , | - |
| Life (years) | 19.3 | 8.1 | 7.3 | 5.6 | 3.7 | 14.5 | 6.1 | 6.1 | 6.1 | 4.1 | 27.1 | 16.6 | 14.5 | 2.5 | 1.3 |

Security Group 4
PSA Prepayment Assumption Rates

| | | Class | ses FL an | id SL | | | | Class LY | | | | | Class ZL | | |
|-------------------|------|-------|-----------|-------|------|------|------|----------|------|------|------|------|----------|------|------|
| Distribution Date | 0% | 400% | 430% | 500% | 900% | 0% | 400% | 430% | 500% | 900% | 0% | 400% | 430% | 500% | 900% |
| Initial Percent | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| July 2020 | 99 | 90 | 90 | 88 | 80 | 98 | 89 | 89 | 89 | 86 | 104 | 104 | 96 | 76 | 0 |
| July 2021 | 98 | 73 | 71 | 67 | 46 | 97 | 70 | 70 | 70 | 50 | 108 | 108 | 86 | 34 | 0 |
| July 2022 | 96 | 55 | 52 | 46 | 21 | 95 | 50 | 50 | 50 | 23 | 113 | 113 | 79 | 5 | 0 |
| July 2023 | 95 | 41 | 38 | 32 | 10 | 93 | 35 | 35 | 35 | 10 | 117 | 117 | 80 | 0 | 0 |
| July 2024 | 94 | 30 | 28 | 22 | 4 | 91 | 24 | 24 | 24 | 5 | 122 | 112 | 75 | 0 | 0 |
| July 2025 | 92 | 23 | 20 | 15 | 2 | 89 | 16 | 16 | 16 | 2 | 127 | 100 | 67 | 0 | 0 |
| July 2026 | 90 | 17 | 15 | 10 | 1 | 87 | 11 | 11 | 11 | 1 | 132 | 86 | 57 | 0 | 0 |
| July 2027 | 89 | 13 | 11 | 7 | 0 | 85 | 8 | 8 | 8 | 0 | 138 | 72 | 47 | 0 | 0 |
| July 2028 | 87 | 9 | 8 | 5 | 0 | 82 | 5 | 5 | 5 | 0 | 143 | 59 | 38 | 0 | 0 |
| July 2029 | 85 | 7 | 6 | 3 | 0 | 80 | 4 | 4 | 4 | 0 | 149 | 47 | 30 | 0 | 0 |
| July 2030 | 83 | 5 | 4 | 2 | 0 | 77 | 2 | 2 | 2 | 0 | 155 | 37 | 23 | 0 | 0 |
| July 2031 | 80 | 4 | 3 | 2 | 0 | 74 | 2 | 2 | 2 | 0 | 161 | 29 | 18 | 0 | 0 |
| July 2032 | 78 | 3 | 2 | 1 | 0 | 71 | 1 | 1 | 1 | 0 | 168 | 23 | 14 | 0 | 0 |
| July 2033 | 75 | 2 | 1 | 1 | 0 | 67 | 1 | 1 | 1 | 0 | 175 | 17 | 10 | 0 | 0 |
| July 2034 | 73 | 1 | 1 | 0 | 0 | 64 | 0 | 0 | 0 | 0 | 182 | 13 | 8 | 0 | 0 |
| July 2035 | 70 | 1 | 1 | 0 | 0 | 60 | 0 | 0 | 0 | 0 | 189 | 10 | 6 | 0 | 0 |
| July 2036 | 66 | 1 | 1 | 0 | 0 | 56 | 0 | 0 | 0 | 0 | 197 | 7 | 4 | 0 | 0 |
| July 2037 | 63 | 1 | 0 | 0 | 0 | 51 | 0 | 0 | 0 | 0 | 205 | 5 | 3 | 0 | 0 |
| July 2038 | 59 | 0 | 0 | 0 | 0 | 47 | 0 | 0 | 0 | 0 | 214 | 4 | 2 | 0 | 0 |
| July 2039 | 56 | 0 | 0 | 0 | 0 | 42 | 0 | 0 | 0 | 0 | 222 | 3 | 2 | 0 | 0 |
| July 2040 | 52 | 0 | 0 | 0 | 0 | 37 | 0 | 0 | 0 | 0 | 231 | 2 | 1 | 0 | 0 |
| July 2041 | 47 | 0 | 0 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 241 | 1 | 1 | 0 | 0 |
| July 2042 | 43 | 0 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 251 | 1 | 1 | 0 | 0 |
| July 2043 | 38 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 261 | 1 | 0 | 0 | 0 |
| July 2044 | 32 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 271 | 0 | 0 | 0 | 0 |
| July 2045 | 27 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 282 | 0 | 0 | 0 | 0 |
| July 2046 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 272 | 0 | 0 | 0 | 0 |
| July 2047 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 187 | 0 | 0 | 0 | 0 |
| July 2048 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 97 | 0 | 0 | 0 | 0 |
| July 2049 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Weighted Average | | | | | | | | | | | | | | | |
| Life (years) | 19.6 | 4.3 | 4.0 | 3.5 | 2.2 | 16.9 | 3.7 | 3.7 | 3.7 | 2.3 | 28.5 | 9.9 | 7.9 | 1.7 | 0.5 |

Security Group 5 CPR Prepayment Assumption Rates

| | 2.1 | 1.97 | es NF a 000% C One-Ye | |)R | 4.0 | 5.00 | es NF a 000% (One-Y | |)R | 6.0 | 7.00 | es NF ar 0000% C One-Ye | CMT |)R | 8.0 | 11.50 | es NF ar 0000% (One-Ye | CMT | OR . |
|-------------------|------|------|-----------------------------|-----|-----|------|------|----------------------------|-----|-----|------|------|-------------------------------|-----|-----|------|-------|-------------------------------|-----|------|
| Distribution Date | 0% | 10% | 20% | 30% | 40% | 0% | 10% | 20% | 30% | 40% | 0% | 10% | 20% | 30% | 40% | 0% | 10% | 20% | 30% | 40% |
| Initial Percent | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| July 2020 | 97 | 87 | 78 | 68 | 58 | 97 | 88 | 78 | 68 | 58 | 97 | 88 | 78 | 68 | 58 | 97 | 88 | 78 | 68 | 58 |
| July 2021 | 94 | 76 | 60 | 46 | 34 | 95 | 77 | 61 | 46 | 34 | 95 | 77 | 61 | 46 | 34 | 95 | 77 | 61 | 46 | 34 |
| July 2022 | 91 | 66 | 47 | 31 | 20 | 93 | 67 | 47 | 32 | 20 | 93 | 68 | 47 | 32 | 20 | 93 | 68 | 47 | 32 | 20 |
| July 2023 | 88 | 58 | 36 | 21 | 11 | 90 | 59 | 37 | 22 | 12 | 90 | 59 | 37 | 22 | 12 | 90 | 59 | 37 | 22 | 12 |
| July 2024 | 85 | 50 | 28 | 14 | 7 | 88 | 52 | 29 | 15 | 7 | 88 | 52 | 29 | 15 | 7 | 88 | 52 | 29 | 15 | 7 |
| July 2025 | 81 | 43 | 21 | 10 | 4 | 85 | 45 | 22 | 10 | 4 | 86 | 46 | 23 | 10 | 4 | 86 | 46 | 23 | 10 | 4 |
| July 2026 | 78 | 37 | 16 | 6 | 2 | 82 | 39 | 17 | 7 | 2 | 84 | 40 | 18 | 7 | 2 | 84 | 40 | 18 | 7 | 2 |
| July 2027 | 74 | 32 | 12 | 4 | 1 | 79 | 34 | 13 | 5 | 1 | 81 | 35 | 14 | 5 | 1 | 81 | 35 | 14 | 5 | 1 |
| July 2028 | 71 | 27 | 9 | 3 | 1 | 76 | 30 | 10 | 3 | 1 | 78 | 30 | 11 | 3 | 1 | 79 | 30 | 11 | 3 | 1 |
| July 2029 | 67 | 23 | 7 | 2 | 0 | 73 | 25 | 8 | 2 | 0 | 75 | 26 | 8 | 2 | 0 | 76 | 26 | 8 | 2 | 0 |
| July 2030 | 63 | 20 | 5 | 1 | 0 | 70 | 22 | 6 | 1 | 0 | 72 | 23 | 6 | 1 | 0 | 72 | 23 | 6 | 1 | 0 |
| July 2031 | 59 | 17 | 4 | 1 | 0 | 66 | 19 | 5 | 1 | 0 | 68 | 19 | 5 | 1 | 0 | 69 | 19 | 5 | 1 | 0 |
| July 2032 | 55 | 14 | 3 | 1 | 0 | 62 | 16 | 3 | 1 | 0 | 65 | 16 | 4 | 1 | 0 | 65 | 17 | 4 | 1 | 0 |
| July 2033 | 50 | 11 | 2 | 0 | 0 | 57 | 13 | 3 | 0 | 0 | 60 | 14 | 3 | 0 | 0 | 61 | 14 | 3 | 0 | 0 |
| July 2034 | 46 | 9 | 2 | 0 | 0 | 53 | 11 | 2 | 0 | 0 | 56 | 12 | 2 | 0 | 0 | 56 | 12 | 2 | 0 | 0 |
| July 2035 | 41 | 8 | 1 | 0 | 0 | 48 | 9 | 1 | 0 | 0 | 51 | 9 | 1 | 0 | 0 | 51 | 10 | 1 | 0 | 0 |
| July 2036 | 36 | 6 | 1 | 0 | 0 | 43 | 7 | 1 | 0 | 0 | 46 | 8 | 1 | 0 | 0 | 46 | 8 | 1 | 0 | 0 |
| July 2037 | 31 | 5 | 1 | 0 | 0 | 37 | 6 | 1 | 0 | 0 | 40 | 6 | 1 | 0 | 0 | 40 | 6 | 1 | 0 | 0 |
| July 2038 | 26 | 3 | 0 | 0 | 0 | 31 | 4 | 0 | 0 | 0 | 34 | 5 | 0 | 0 | 0 | 34 | 5 | 0 | 0 | 0 |
| July 2039 | 20 | 2 | 0 | 0 | 0 | 25 | 3 | 0 | 0 | 0 | 27 | 3 | 0 | 0 | 0 | 27 | 3 | 0 | 0 | 0 |
| July 2040 | 15 | 2 | 0 | 0 | 0 | 19 | 2 | 0 | 0 | 0 | 21 | 2 | 0 | 0 | 0 | 21 | 2 | 0 | 0 | 0 |
| July 2041 | 11 | 1 | 0 | 0 | 0 | 14 | 1 | 0 | 0 | 0 | 16 | 2 | 0 | 0 | 0 | 16 | 2 | 0 | 0 | 0 |
| July 2042 | 8 | 1 | 0 | 0 | 0 | 10 | 1 | 0 | 0 | 0 | 11 | 1 | 0 | 0 | 0 | 11 | 1 | 0 | 0 | 0 |
| July 2043 | 4 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 0 | 0 | 6 | 1 | 0 | 0 | 0 |
| July 2044 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| July 2045 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| July 2046 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Weighted Average | | | | | | | | | | | | | | | | | | | | |
| Life (years) | 13.4 | 6.5 | 3.8 | 2.6 | 1.9 | 14.5 | 6.8 | 3.9 | 2.6 | 1.9 | 14.9 | 6.9 | 4.0 | 2.6 | 1.9 | 15.0 | 6.9 | 4.0 | 2.6 | 1.9 |

Security Group 6 PSA Prepayment Assumption Rates

| | | | Class YA | | |
|-------------------|------|------|----------|------|--------|
| Distribution Date | 0% | 300% | 593% | 900% | 1,200% |
| Initial Percent | 100 | 100 | 100 | 100 | 100 |
| July 2020 | 97 | 80 | 63 | 45 | 27 |
| July 2021 | 94 | 63 | 39 | 20 | 7 |
| July 2022 | 91 | 50 | 24 | 9 | 2 |
| July 2023 | 88 | 40 | 15 | 4 | 1 |
| July 2024 | 84 | 31 | 9 | 2 | 0 |
| July 2025 | 81 | 24 | 6 | 1 | 0 |
| July 2026 | 77 | 19 | 4 | 0 | 0 |
| July 2027 | 73 | 15 | 2 | 0 | 0 |
| July 2028 | 68 | 11 | 1 | 0 | 0 |
| July 2029 | 64 | 9 | 1 | 0 | 0 |
| July 2030 | 59 | 7 | 0 | 0 | 0 |
| July 2031 | 54 | 5 | 0 | 0 | 0 |
| July 2032 | 49 | 4 | 0 | 0 | 0 |
| July 2033 | 43 | 3 | 0 | 0 | 0 |
| July 2034 | 37 | 2 | 0 | 0 | 0 |
| July 2035 | 31 | 1 | 0 | 0 | 0 |
| July 2036 | 24 | 1 | 0 | 0 | 0 |
| July 2037 | 18 | 0 | 0 | 0 | 0 |
| July 2038 | 10 | 0 | 0 | 0 | 0 |
| July 2039 | 3 | 0 | 0 | 0 | 0 |
| July 2040 | 0 | 0 | 0 | 0 | 0 |
| Weighted Average | | | | | |
| Life (years) | 12.0 | 4.2 | 2.1 | 1.3 | 0.8 |

Security Group 7
PSA Prepayment Assumption Rates

| | | Classes | FM, MF, MS | , MF, MS and SM | | | |
|-------------------|------|---------|------------|-----------------|------|--|--|
| Distribution Date | 0% | 100% | 205% | 350% | 500% | | |
| Initial Percent | 100 | 100 | 100 | 100 | 100 | | |
| July 2020 | 99 | 97 | 96 | 94 | 92 | | |
| July 2021 | 97 | 92 | 87 | 80 | 74 | | |
| July 2022 | 96 | 85 | 76 | 63 | 52 | | |
| July 2023 | 95 | 79 | 65 | 49 | 35 | | |
| July 2024 | 93 | 73 | 56 | 38 | 24 | | |
| July 2025 | 91 | 67 | 48 | 29 | 17 | | |
| July 2026 | 90 | 61 | 41 | 23 | 11 | | |
| July 2027 | 88 | 56 | 35 | 17 | 8 | | |
| July 2028 | 86 | 52 | 30 | 13 | 5 | | |
| July 2029 | 84 | 47 | 26 | 10 | 4 | | |
| July 2030 | 81 | 43 | 22 | 8 | 2 | | |
| July 2031 | 79 | 39 | 19 | 6 | 2 | | |
| July 2032 | 77 | 35 | 16 | 5 | 1 | | |
| July 2033 | 74 | 32 | 13 | 4 | 1 | | |
| July 2034 | 71 | 29 | 11 | 3 | 1 | | |
| July 2035 | 68 | 26 | 9 | 2 | 0 | | |
| July 2036 | 65 | 23 | 8 | 1 | 0 | | |
| July 2037 | 61 | 20 | 6 | 1 | 0 | | |
| July 2038 | 58 | 18 | 5 | 1 | 0 | | |
| July 2039 | 54 | 16 | 4 | 1 | 0 | | |
| July 2040 | 50 | 14 | 3 | 0 | 0 | | |
| July 2041 | 46 | 12 | 3 | 0 | 0 | | |
| July 2042 | 41 | 10 | 2 | 0 | 0 | | |
| July 2043 | 36 | 8 | 2 | 0 | 0 | | |
| July 2044 | 31 | 6 | 1 | 0 | 0 | | |
| July 2045 | 26 | 5 | 1 | 0 | 0 | | |
| July 2046 | 20 | 4 | 1 | 0 | 0 | | |
| July 2047 | 14 | 2 | 0 | 0 | 0 | | |
| July 2048 | 7 | 1 | 0 | 0 | 0 | | |
| July 2049 | 0 | 0 | 0 | 0 | 0 | | |
| Weighted Average | | | | | | | |
| Life (years) | 19.3 | 11.0 | 7.4 | 5.0 | 3.8 | | |

Security Groups 3 and 7 PSA Prepayment Assumption Rates

| | Classes FY and SY | | | | | | |
|-------------------|-------------------|------|------|------|------|--------|------|
| Distribution Date | 0% | 100% | 175% | 205% | 300% | 350% | 500% |
| Initial Percent | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| July 2020 | 99 | 97 | 96 | 96 | 94 | 93 | 91 |
| July 2021 | 97 | 92 | 88 | 87 | 82 | 79 | 72 |
| July 2022 | 96 | 85 | 78 | 75 | 66 | 62 | 50 |
| July 2023 | 95 | 78 | 68 | 64 | 53 | 48 | 35 |
| July 2024 | 93 | 72 | 60 | 55 | 43 | 37 | 24 |
| July 2025 | 91 | 67 | 53 | 48 | 35 | 29 | 16 |
| July 2026 | 90 | 61 | 46 | 41 | 28 | 22 | 11 |
| July 2027 | 88 | 56 | 40 | 35 | 22 | 17 | 8 |
| July 2028 | 86 | 51 | 35 | 30 | 18 | 13 | 5 |
| July 2029 | 84 | 47 | 30 | 25 | 14 | 10 | 4 |
| July 2030 | 81 | 43 | 26 | 22 | 11 | 8 | 2 |
| July 2031 | 79 | 39 | 23 | 18 | 9 | 6 | 2 |
| July 2032 | 77 | 35 | 20 | 16 | 7 | 5 3 | 1 |
| July 2033 | 74 | 32 | 17 | 13 | 6 | 3 | 1 |
| July 2034 | 71 | 29 | 15 | 11 | 4 | 3 | 0 |
| July 2035 | 68 | 26 | 12 | 9 | 3 | 2 | 0 |
| July 2036 | 65 | 23 | 11 | 8 | 3 | 1 | 0 |
| July 2037 | 61 | 20 | 9 | 6 | 2 | 1 | 0 |
| July 2038 | 58 | 18 | 7 | 5 | 2 | 1 | 0 |
| July 2039 | 54 | 16 | 6 | 4 | 1 | 1 | 0 |
| July 2040 | 50 | 13 | 5 | 3 | 1 | 0 | 0 |
| July 2041 | 46 | 11 | 4 | 3 2 | 1 | 0 | 0 |
| July 2042 | 41 | 10 | 3 | 2 | 0 | 0 | 0 |
| July 2043 | 36 | 8 | 3 | 2 | 0 | 0 | 0 |
| July 2044 | 31 | 6 | 2 | 1 | 0 | 0 | 0 |
| July 2045 | 26 | 5 | 1 | 1 | 0 | 0 | 0 |
| July 2046 | 20 | 3 | 1 | 1 | 0 | 0 | 0 |
| July 2047 | 14 | 2 | 1 | 0 | 0 | 0 | 0 |
| July 2048 | 7 | 1 | 0 | 0 | 0 | 0 | 0 |
| July 2049 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Weighted Average | | | | | | | |
| Life (years) | 19.3 | 11.0 | 8.1 | 7.3 | 5.6 | 5.0 | 3.7 |

Security Group 8 PSA Prepayment Assumption Rates

| | | | Class IO | | |
|-------------------|------|------|----------|------|--------|
| Distribution Date | 0% | 300% | 594% | 900% | 1,200% |
| Initial Percent | 100 | 100 | 100 | 100 | 100 |
| July 2020 | 98 | 93 | 93 | 92 | 86 |
| July 2021 | 95 | 81 | 73 | 55 | 39 |
| July 2022 | 92 | 67 | 46 | 25 | 11 |
| July 2023 | 90 | 55 | 29 | 11 | 3 |
| July 2024 | 87 | 44 | 18 | 5 | 1 |
| July 2025 | 84 | 35 | 11 | 2 | 0 |
| July 2026 | 81 | 28 | 7 | 1 | 0 |
| July 2027 | 77 | 22 | 4 | 0 | 0 |
| July 2028 | 74 | 17 | 3 | 0 | 0 |
| July 2029 | 70 | 13 | 2 | 0 | 0 |
| July 2030 | 66 | 10 | 1 | 0 | 0 |
| July 2031 | 62 | 8 | 1 | 0 | 0 |
| July 2032 | 58 | 6 | 0 | 0 | 0 |
| July 2033 | 54 | 5 | 0 | 0 | 0 |
| July 2034 | 49 | 4 | 0 | 0 | 0 |
| July 2035 | 44 | 3 | 0 | 0 | 0 |
| July 2036 | 39 | 2 | 0 | 0 | 0 |
| July 2037 | 34 | 2 | 0 | 0 | 0 |
| July 2038 | 28 | 1 | 0 | 0 | 0 |
| July 2039 | 23 | 1 | 0 | 0 | 0 |
| July 2040 | 16 | 1 | 0 | 0 | 0 |
| July 2041 | 10 | 0 | 0 | 0 | 0 |
| July 2042 | 3 | Õ | Ö | Õ | Ö |
| July 2043 | 0 | 0 | 0 | 0 | 0 |
| July 2044 | 0 | 0 | 0 | 0 | 0 |
| July 2045 | Ö | Õ | Ö | Õ | Ö |
| July 2046 | 0 | 0 | 0 | 0 | 0 |
| July 2047 | Õ | Õ | 0 | Õ | Õ |
| July 2048 | ŏ | ŏ | ŏ | ŏ | ŏ |
| July 2049 | Õ | Õ | 0 | Õ | Ŏ |
| Weighted Average | V | ~ | ~ | ~ | V |
| Life (years) | 13.9 | 5.5 | 3.4 | 2.4 | 1.9 |

Security Group 9 PSA Prepayment Assumption Rates

| | | | Class WA | | |
|-------------------|-----|------|----------|------|--------|
| Distribution Date | 0% | 300% | 593% | 900% | 1,200% |
| Initial Percent | 100 | 100 | 100 | 100 | 100 |
| July 2020 | 87 | 71 | 56 | 40 | 24 |
| July 2021 | 73 | 49 | 30 | 15 | 6 |
| July 2022 | 58 | 32 | 15 | 6 | 1 |
| July 2023 | 42 | 19 | 7 | 2 | 0 |
| July 2024 | 27 | 10 | 3 | 1 | 0 |
| July 2025 | 17 | 5 | 1 | 0 | 0 |
| July 2026 | 7 | 2 | 0 | 0 | 0 |
| July 2027 | 1 | 0 | 0 | 0 | 0 |
| July 2028 | 1 | 0 | 0 | 0 | 0 |
| July 2029 | 0 | 0 | 0 | 0 | 0 |
| July 2030 | 0 | 0 | 0 | 0 | 0 |
| July 2031 | 0 | 0 | 0 | 0 | 0 |
| July 2032 | 0 | 0 | 0 | 0 | 0 |
| July 2033 | 0 | 0 | 0 | 0 | 0 |
| July 2034 | 0 | 0 | 0 | 0 | 0 |
| Weighted Average | | | | | |
| Life (years) | 3.6 | 2.4 | 1.6 | 1.1 | 0.7 |

Security Group 10 PSA Prepayment Assumption Rates

| | | Class | es FW ar | nd SW | | Cla | Classes PA, PB, PC, PD, PE, PG, PH and PI | | | PG, | Classes UA, UC, UD, UE, UG, UH, UI and UJ | | | | |
|-------------------|------|-------|----------|-------|------|------|--|------|----------------------|------|--|------|------|------|------|
| Distribution Date | 0% | 200% | 230% | 350% | 500% | 0% | 200% | 230% | 350% | 500% | 0% | 200% | 230% | 350% | 500% |
| Initial Percent | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| July 2020 | 99 | 95 | 95 | 93 | 91 | 98 | 94 | 94 | 94 | 94 | 98 | 94 | 94 | 94 | 94 |
| July 2021 | 97 | 86 | 85 | 79 | 72 | 95 | 83 | 83 | 83 | 83 | 95 | 82 | 82 | 82 | 82 |
| July 2022 | 96 | 75 | 72 | 62 | 50 | 93 | 68 | 68 | 68 | 60 | 93 | 68 | 68 | 68 | 59 |
| July 2023 | 94 | 65 | 61 | 48 | 34 | 91 | 55 | 55 | 55 | 41 | 90 | 55 | 55 | 55 | 40 |
| July 2024 | 92 | 56 | 51 | 37 | 23 | 88 | 44 | 44 | 44 | 28 | 88 | 43 | 43 | 43 | 27 |
| July 2025 | 91 | 48 | 43 | 29 | 16 | 85 | 34 | 34 | 34 | 19 | 85 | 33 | 33 | 33 | 18 |
| July 2026 | 89 | 41 | 37 | 22 | 11 | 82 | 26 | 26 | 26 | 13 | 82 | 25 | 25 | 25 | 12 |
| July 2027 | 87 | 35 | 31 | 17 | 7 | 79 | 20 | 20 | 20 | 9 | 79 | 19 | 19 | 19 | 7 |
| July 2028 | 85 | 30 | 26 | 13 | 5 | 76 | 16 | 16 | 16 | 6 | 75 | 14 | 14 | 14 | 5 |
| July 2029 | 83 | 26 | 21 | 10 | 3 | 72 | 12 | 12 | 12 | 4 | 72 | 11 | 11 | 11 | 3 |
| July 2030 | 80 | 22 | 18 | 8 | 2 | 69 | 9 | 9 | 9 | 3 | 68 | 8 | 8 | 8 | 1 |
| July 2031 | 78 | 19 | 15 | 6 | 2 | 65 | 7 | 7 | 7 | 2 | 64 | 5 | 5 | 5 | 0 |
| July 2032 | 75 | 16 | 12 | 4 | 1 | 61 | 5 | 5 | 5 | 1 | 60 | 4 | 4 | 4 | 0 |
| July 2033 | 72 | 13 | 10 | 3 | 1 | 57 | $\stackrel{\sim}{4}$ | 4 | $\stackrel{\sim}{4}$ | 1 | 56 | 2 | 2 | 2 | Ŏ |
| July 2034 | 69 | 11 | 8 | 3 | 0 | 53 | 3 | 3 | 3 | 1 | 52 | 1 | 1 | 1 | 0 |
| July 2035 | 66 | 9 | 7 | 2 | 0 | 48 | 2 | 2 | 2 | 0 | 47 | 1 | 1 | 1 | 0 |
| July 2036 | 63 | 8 | 6 | 1 | 0 | 43 | 2 | 2 | 2 | 0 | 42 | 0 | 0 | 0 | 0 |
| July 2037 | 60 | 6 | 5 | 1 | 0 | 38 | 1 | 1 | 1 | 0 | 37 | 0 | 0 | 0 | 0 |
| July 2038 | 56 | 5 | 4 | 1 | 0 | 33 | 1 | 1 | 1 | 0 | 32 | 0 | 0 | 0 | 0 |
| July 2039 | 52 | 4 | 3 | 1 | 0 | 27 | 1 | 1 | 1 | 0 | 26 | 0 | 0 | 0 | 0 |
| July 2040 | 48 | 4 | 2 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 0 |
| July 2041 | 44 | 3 | 2 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 0 |
| July 2042 | 40 | 2 | 1 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 |
| July 2043 | 35 | 2 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| July 2044 | 30 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| July 2045 | 24 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| July 2046 | 19 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| July 2047 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| July 2048 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| July 2049 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Weighted Average | | | | | | | | | | | | | | | |
| Life (years) | 19.0 | 7.4 | 6.7 | 4.9 | 3.7 | 14.5 | 5.4 | 5.4 | 5.4 | 4.2 | 14.3 | 5.2 | 5.2 | 5.2 | 4.0 |

| PSA Prepayment Assumption Rates | PSA | Prepayment | Assumption | Rates |
|---------------------------------|-----|------------|------------|-------|
|---------------------------------|-----|------------|------------|-------|

| | | | Class UB | | | | | Class ZW | | |
|-------------------|------|------|----------|------|------|------|------|----------|------|------|
| Distribution Date | 0% | 200% | 230% | 350% | 500% | 0% | 200% | 230% | 350% | 500% |
| Initial Percent | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| July 2020 | 100 | 100 | 100 | 100 | 100 | 103 | 103 | 100 | 89 | 75 |
| July 2021 | 100 | 100 | 100 | 100 | 100 | 106 | 106 | 97 | 61 | 17 |
| July 2022 | 100 | 100 | 100 | 100 | 100 | 109 | 109 | 92 | 28 | 0 |
| July 2023 | 100 | 100 | 100 | 100 | 100 | 113 | 113 | 90 | 9 | 0 |
| July 2024 | 100 | 100 | 100 | 100 | 100 | 116 | 116 | 90 | 1 | 0 |
| July 2025 | 100 | 100 | 100 | 100 | 100 | 120 | 119 | 91 | 0 | 0 |
| July 2026 | 100 | 100 | 100 | 100 | 100 | 123 | 118 | 89 | 0 | 0 |
| July 2027 | 100 | 100 | 100 | 100 | 100 | 127 | 113 | 84 | 0 | 0 |
| July 2028 | 100 | 100 | 100 | 100 | 100 | 131 | 106 | 78 | 0 | 0 |
| July 2029 | 100 | 100 | 100 | 100 | 100 | 135 | 97 | 71 | 0 | 0 |
| July 2030 | 100 | 100 | 100 | 100 | 100 | 139 | 88 | 63 | 0 | 0 |
| July 2031 | 100 | 100 | 100 | 100 | 100 | 143 | 79 | 56 | 0 | 0 |
| July 2032 | 100 | 100 | 100 | 100 | 81 | 148 | 70 | 49 | 0 | 0 |
| July 2033 | 100 | 100 | 100 | 100 | 55 | 152 | 61 | 42 | 0 | 0 |
| July 2034 | 100 | 100 | 100 | 100 | 36 | 157 | 53 | 36 | 0 | 0 |
| July 2035 | 100 | 100 | 100 | 100 | 24 | 162 | 46 | 31 | 0 | 0 |
| July 2036 | 100 | 100 | 100 | 100 | 16 | 166 | 39 | 26 | 0 | 0 |
| July 2037 | 100 | 80 | 80 | 80 | 11 | 171 | 33 | 22 | 0 | 0 |
| July 2038 | 100 | 59 | 59 | 59 | 7 | 177 | 28 | 18 | 0 | 0 |
| July 2039 | 100 | 43 | 43 | 43 | 4 | 182 | 23 | 15 | 0 | 0 |
| July 2040 | 100 | 31 | 31 | 31 | 3 | 188 | 19 | 12 | 0 | 0 |
| July 2041 | 100 | 23 | 23 | 23 | 2 | 193 | 15 | 9 | 0 | 0 |
| July 2042 | 100 | 16 | 16 | 16 | 1 | 199 | 12 | 7 | 0 | 0 |
| July 2043 | 100 | 11 | 11 | 11 | 1 | 205 | 9 | 6 | 0 | 0 |
| July 2044 | 7 | 7 | 7 | 7 | 0 | 182 | 7 | 4 | 0 | 0 |
| July 2045 | 5 | 5 | 5 | 5 | 0 | 150 | 5 | 3 | 0 | 0 |
| July 2046 | 3 | 3 | 3 | 3 | 0 | 115 | 3 | 2 | 0 | 0 |
| July 2047 | 1 | 1 | 1 | 1 | 0 | 79 | 2 | 1 | 0 | 0 |
| July 2048 | 1 | 1 | 1 | 1 | 0 | 41 | 1 | 0 | 0 | 0 |
| July 2049 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Weighted Average | | | | | | | | | | |
| Life (years) | 24.3 | 20.3 | 20.3 | 20.3 | 14.9 | 27.3 | 15.2 | 13.2 | 2.4 | 1.4 |

Yield Considerations

An investor seeking to maximize yield should make a decision whether to invest in any Regular or MX Class based on the anticipated yield of that Class resulting from its purchase price, the investor's own projection of Mortgage Loan prepayment rates under a variety of scenarios, in the case of the Group 8 Securities, the investor's own projection of payment rates on the Underlying Certificates under a variety of scenarios, in the case of a Floating Rate or an Inverse Floating Rate Class or the Class NI Securities, the investor's own projection of levels of One-Month LIBOR under a variety of scenarios and, in the case of the Group 5 Securities, the investor's own projection of levels of CMT and One-Year LIBOR under a variety of scenarios. No representation is made regarding Mortgage Loan prepayment rates, Underlying Certificate payment rates, CMT levels, One-Year LIBOR levels, One-Month LIBOR levels or the yield of any Class.

Prepayments: Effect on Yields

The yields to investors will be sensitive in varying degrees to the rate of prepayments on the related Mortgage Loans.

- In the case of Regular Securities or MX Securities purchased at a premium (especially the Interest Only Classes), faster than anticipated rates of principal payments could result in actual yields to investors that are lower than the anticipated yields.
- Investors in the Interest Only Classes should also consider the risk that rapid rates of principal payments could result in the failure of investors to recover fully their investments.
- In the case of Regular Securities or MX Securities purchased at a discount, slower than anticipated rates of principal payments could result in actual yields to investors that are lower than the anticipated yields.
- The rates of principal amortization on the Mortgage Loans underlying the Group 5 Trust Assets will depend upon the level of and annual adjustments in the applicable Mortgage Rates, with higher Mortgage Rates and earlier increases in Mortgage Rates affecting the rates of prepayments, which could result in actual yields to investors that are lower than the anticipated yields.

See "Risk Factors — Rates of principal payments can reduce your yield" in this Supplement.

Rapid rates of prepayments on the fixed rate Mortgage Loans are likely to coincide with periods of low prevailing interest rates.

During periods of low prevailing interest rates, the yields at which an investor may be able to reinvest amounts received as principal payments on the investor's Class of Securities may be lower than the yield on that Class.

Slow rates of prepayments on the fixed rate Mortgage Loans are likely to coincide with periods of high prevailing interest rates.

During periods of high prevailing interest rates, the amount of principal payments available to an investor for reinvestment at those high rates may be relatively low.

The Mortgage Loans will not prepay at any constant rate until maturity, nor will all of the Mortgage Loans underlying any Trust Asset Group prepay at the same rate at any one time. The timing of changes in the rate of prepayments may affect the actual yield to an investor, even if the average rate of principal prepayments is consistent with the investor's expectation. In general, the earlier a prepayment of principal on the Mortgage Loans, the greater the effect on an investor's yield. As a result, the effect on

an investor's yield of principal prepayments occurring at a rate higher (or lower) than the rate anticipated by the investor during the period immediately following the Closing Date is not likely to be offset by a later equivalent reduction (or increase) in the rate of principal prepayments.

One-Month LIBOR: Effect on Yields of the Floating Rate and Inverse Floating Rate Classes and the Class NI Securities

Low levels of One-Month LIBOR can reduce the yield of the Floating Rate Classes. High levels of One-Month LIBOR can reduce the yield of the Inverse Floating Rate Classes and the Class NI Securities. In addition, the Floating Rate Classes will not necessarily benefit from a higher yield at high levels of One-Month LIBOR because the rate on such Classes is capped at a maximum rate described under "Terms Sheet — Interest Rates."

CMT and One-Year LIBOR: Effect on Yields of the Group 5 Securities

Low levels of CMT or One-Year LIBOR can reduce the yield of the Group 5 Securities. See "Risk Factors — After the initial fixed rate period of the mortgage loans underlying the group 5 trust assets, the mortgage rates on such mortgage loans adjust annually based on CMT or one-year LIBOR, as applicable, the level of which will affect the yield on the related securities" in this Supplement.

Payment Delay: Effect on Yields of the Fixed Rate and Delay Classes

The effective yield on any Fixed Rate or Delay Class will be less than the yield otherwise produced by its Interest Rate and purchase price because, on each Distribution Date, 30 days' interest will be payable on (or added to the principal amount of) that Class even though interest began to accrue approximately 50 days earlier.

Yield Tables

The following tables show the pre-tax yields to maturity on a corporate bond equivalent basis of specified Classes at various constant percentages of PSA or CPR, as applicable, and, in the case of the Inverse Floating Rate Classes, at various constant levels of One-Month LIBOR and, in the case of the Class NI Securities, at various constant levels of One-Month LIBOR, CMT and One-Year LIBOR, as applicable.

The Mortgage Loans will not prepay at any constant rate until maturity, and it is unlikely that One-Month LIBOR, CMT or One-Year LIBOR will remain constant. Moreover, it is likely that the Mortgage Loans will experience actual prepayment rates that differ from those of the Modeling Assumptions. Therefore, the actual pre-tax yield of any Class may differ from those shown in the applicable table below for that Class even if the Class is purchased at the assumed price shown.

The yields were calculated by

- 1. determining the monthly discount rates that, when applied to the applicable assumed streams of cash flows to be paid on the applicable Class, would cause the discounted present value of the assumed streams of cash flows to equal the assumed purchase price of that Class plus accrued interest, and
- 2. converting the monthly rates to corporate bond equivalent rates.

These calculations do not take into account variations that may occur in the interest rates at which investors may be able to reinvest funds received by them as distributions on their Securities and consequently do not purport to reflect the return on any investment in any Class when those reinvestment rates are considered.

The information set forth in the following tables was prepared on the basis of the Modeling Assumptions and the assumptions that (1) the Interest Rate applicable to each Inverse Floating Rate Class and the Class NI Securities for each Accrual Period following the first Accrual Period will be based on the indicated level of One-Month LIBOR, (2) the Mortgage Rates applicable to the Mortgage Loans underlying the Group 5 Trust Assets for each Accrual Period after the next Mortgage Rate adjustment date will be based on the indicated level of CMT and One-Year LIBOR, as applicable and (3) the purchase price of each Class (expressed as a percentage of its original Class Notional Balance) plus accrued interest is as indicated in the related table. **The assumed purchase price is not necessarily that at which actual sales will occur.**

SECURITY GROUP 1 Sensitivity of Class S to Prepayments Assumed Price 5.75%*

| | PS | A Prepayment | lates | |
|-------------------|--------|--------------|---------|---------|
| One-Month LIBOR | 200% | 361% | 600% | 800% |
| 1.0000% | 30.5% | 22.6% | 10.6% | 0.2% |
| 2.3250% | 3.5% | (5.5)% | (19.5)% | (31.8)% |
| 2.7975% | (6.9)% | (16.3)% | (31.1)% | (44.4)% |
| 3.2700% and above | ** | ** | ** | ** |

SECURITY GROUP 2 Sensitivity of Class SA to Prepayments Assumed Price 14.8125%*

| | PSA Prepayment Assumption Rates | | | | | | | | | | |
|-------------------|---------------------------------|---------|---------|---------|--|--|--|--|--|--|--|
| One-Month LIBOR | 200% | 394% | 600% | 800% | | | | | | | |
| 1.0000% | 24.4% | 14.3% | 3.3% | (7.8)% | | | | | | | |
| 2.3250% | 14.0% | 3.5% | (8.2)% | (20.0)% | | | | | | | |
| 4.2125% | (1.1)% | (12.3)% | (25.0)% | (38.0)% | | | | | | | |
| 6.1000% and above | ** | ** | ** | ** | | | | | | | |

SECURITY GROUP 3

Sensitivity of Class JS to Prepayments Assumed Price 17.0%*

| One-Month LIBOR | PSA Prepayment Assumption Rates | | | |
|-------------------|---------------------------------|--------|--------|---------|
| | 175% | 205% | 300% | 500% |
| 1.0000% | 16.7% | 16.7% | 16.7% | 7.8% |
| 2.3250% | 7.2% | 7.2% | 7.2% | (2.7)% |
| 4.2125% | (7.0)% | (7.0)% | (7.0)% | (18.4)% |
| 6.1000% and above | ** | ** | ** | ** |

^{*} The price does not include accrued interest. Accrued interest has been added to the price in calculating the yields set forth in the table.

^{**} Indicates that investors will suffer a loss of virtually all of their investment.

Sensitivity of Class SJ to Prepayments Assumed Price 15.10938%*

| | PSA Prepayment Assumption Rates | | | | |
|-------------------|---------------------------------|--------|--------|---------|--|
| One-Month LIBOR | 175% | 205% | 300% | 500% | |
| 1.0000% | 25.3% | 23.8% | 19.0% | 8.8% | |
| 2.3250% | 15.1% | 13.5% | 8.5% | (2.3)% | |
| 4.2125% | 0.3% | (1.4)% | (6.8)% | (18.5)% | |
| 6.1000% and above | ** | ** | ** | ** | |

SECURITY GROUP 4

Sensitivity of Class SL to Prepayments Assumed Price 11.625%*

| | PSA Prepayment Assumption Rates | | | | |
|-------------------|---------------------------------|---------|---------|---------|--|
| One-Month LIBOR | 400% | 430% | 500% | 900% | |
| 1.0000% | 24.7% | 23.1% | 19.2% | (3.9)% | |
| 2.3250% | 11.0% | 9.3% | 5.2% | (19.0)% | |
| 4.2125% | (8.6)% | (10.4)% | (14.7)% | (41.3)% | |
| 6.1000% and above | ** | ** | ** | ** | |

SECURITY GROUP 5

Sensitivity of Class NI to Prepayments Assumed Price 3.04688%* 1.97000% CMT 2.19325% One-Year LIBOR

| | CPR Prepayment Assumption Rates | | | | |
|--------------------|---------------------------------|--------|---------|---------|--|
| One-Month LIBOR | 10% | 20% | 30% | 40% | |
| 1.0000% | 57.5% | 43.3% | 28.1% | 11.7% | |
| 2.3250% | 9.9% | (2.0)% | (14.6)% | (28.1)% | |
| 7.4625% | ** | ** | 3[43]4 | ** | |
| 12.6000% and above | ** | ** | ** | ** | |

Sensitivity of Class NI to Prepayments Assumed Price 3.04688%* 5.00000% CMT 4.00000% One-Year LIBOR

| | CPR Prepayment Assumption Rates | | | | |
|--------------------|---------------------------------|-------|-------|-------|--|
| One-Month LIBOR | 10% | 20% | 30% | 40% | |
| 1.0000% | 100.2% | 83.7% | 66.1% | 47.1% | |
| 2.3250% | 60.0% | 45.5% | 30.0% | 13.4% | |
| 7.4625% | ** | ** | ** | ** | |
| 12.6000% and above | ** | ** | ** | ** | |

^{*} The price does not include accrued interest. Accrued interest has been added to the price in calculating the yields set forth in the table.

^{**} Indicates that investors will suffer a loss of virtually all of their investment.

Sensitivity of Class NI to Prepayments Assumed Price 3.04688%* 7.00000% CMT

6.00000% One-Year LIBOR

| | CPR Prepayment Assumption Rates | | | |
|--------------------|--|---------|---------|---------|
| One-Month LIBOR | 10% | 20% | 30% | 40% |
| 1.0000% | 103.2% | 86.5% | 68.7% | 49.5% |
| 2.3250% | 64.9% | 50.1% | 34.4% | 17.4% |
| 7.4625% | (12.2)% | (22.9)% | (34.2)% | (46.5)% |
| 12.6000% and above | ** | ** | 3(c3)c | ** |

Sensitivity of Class NI to Prepayments Assumed Price 3.04688%* 11.50000% CMT 8.00000% One-Year LIBOR

| | CPR Prepayment Assumption Rates | | | | |
|--------------------|--|---------|---------|---------|--|
| One-Month LIBOR | 10% | 20% | 30% | 40% | |
| 1.0000% | 103.6% | 86.8% | 69.0% | 49.8% | |
| 2.3250% | 65.5% | 50.7% | 34.9% | 17.9% | |
| 7.4625% | (8.0)% | (18.9)% | (30.5)% | (43.0)% | |
| 12.6000% and above | ** | ** | ** | ** | |

SECURITY GROUP 7

Sensitivity of Class MS to Prepayments Assumed Price 5.0%*

| | PSA Prepayment Assumption Rates | | | | |
|-------------------|---------------------------------|--------|---------|---------|--|
| One-Month LIBOR | 100% | 205% | 350% | 500% | |
| 1.0000% | 45.7% | 41.1% | 34.5% | 27.7% | |
| 2.3250% | 15.1% | 9.6% | 1.9% | (6.2)% | |
| 2.8625% | 2.3% | (3.5)% | (11.7)% | (20.6)% | |
| 3.4000% and above | 3(c3)c | और और | *** | ** | |

Sensitivity of Class SM to Prepayments Assumed Price 15.21875%*

| | PSA Prepayment Assumption Rates | | | | |
|-------------------|--|--------|--------|---------|--|
| One-Month LIBOR | 100% | 205% | 350% | 500% | |
| 1.0000% | 28.9% | 23.8% | 16.7% | 9.3% | |
| 2.3250% | 18.9% | 13.6% | 6.1% | (1.9)% | |
| 4.2125% | 4.4% | (1.3)% | (9.5)% | (18.2)% | |
| 6.1000% and above | ** | 3/43/4 | 3/43/4 | ** | |

^{*} The price does not include accrued interest. Accrued interest has been added to the price in calculating the yields set forth in the table.

^{**} Indicates that investors will suffer a loss of virtually all of their investment.

SECURITY GROUPS 3 AND 7

Sensitivity of Class SY to Prepayments Assumed Price 15.5%*

| One-Month LIBOR | 100% | 175% | 205% | 300% | 350% | 500% |
|-------------------|-------|--------|--------|--------|---------|---------|
| 1.0000% | 28.1% | 24.4% | 22.9% | 18.1% | 15.5% | 7.8% |
| 2.3250% | 18.3% | 14.4% | 12.8% | 7.8% | 5.1% | (3.0)% |
| 4.2125% | 4.0% | (0.1)% | (1.8)% | (7.1)% | (10.0)% | (18.9)% |
| 6.1000% and above | ** | ** | ** | ** | ** | ** |

SECURITY GROUP 8

Sensitivity of Class IO to Prepayments Assumed Price 17.970833%*

PSA Prepayment Assumption Rates

| 300% | 479% | 594% | 900% | 1,200% |
|------|------|--------|---------|---------|
| 8.1% | 0.0% | (6.6)% | (25.4)% | (45.1)% |

SECURITY GROUP 10

Sensitivity of Class PI to Prepayments Assumed Price 18.25%*

PSA Prepayment Assumption Rates

| 200% | 230% | 350% | 436% | 500% |
|------|------|------|------|--------|
| 4.0% | 4.0% | 4.0% | 0.0% | (3.2)% |

Sensitivity of Class SW to Prepayments Assumed Price 18.0%*

PSA Prepayment Assumption Rates

| One-Month LIBOR | 200% | 230% | 350% | 500% |
|-------------------|--------|--------|---------|---------|
| 1.0000% | 17.5% | 16.0% | 9.7% | 1.7% |
| 2.3250% | 8.9% | 7.3% | 0.8% | (7.6)% |
| 4.2125% | (3.8)% | (5.5)% | (12.4)% | (21.4)% |
| 6.1000% and above | ** | ** | ** | ** |

Sensitivity of Class UI to Prepayments Assumed Price 17.53125%*

PSA Prepayment Assumption Rates

| 200% | 230% | 350% | 434% | 500% |
|------|------|------|------|--------|
| 4.3% | 4.3% | 4.3% | 0.0% | (3.7)% |

^{*} The price does not include accrued interest. Accrued interest has been added to the price in calculating the yields set forth in the table.

^{**} Indicates that investors will suffer a loss of virtually all of their investment.

CERTAIN UNITED STATES FEDERAL INCOME TAX CONSEQUENCES

The following tax discussion, when read in conjunction with the discussion of "Certain United States Federal Income Tax Consequences" in the Base Offering Circular, describes the material United States federal income tax considerations for investors in the Securities. However, these two tax discussions do not purport to deal with all United States federal tax consequences applicable to all categories of investors, some of which may be subject to special rules.

REMIC Elections

In the opinion of Cleary Gottlieb Steen & Hamilton LLP, the Trust will constitute a Double REMIC Series for United States federal income tax purposes. Separate REMIC elections will be made for the Pooling REMIC and the Issuing REMIC.

Regular Securities

The Regular Securities will be treated as debt instruments issued by the Issuing REMIC for United States federal income tax purposes. Income on the Regular Securities must be reported under an accrual method of accounting.

The Notional and Accrual Classes of Regular Securities will be issued with original issue discount ("OID"), and certain other Classes of Regular Securities may be issued with OID. See "Certain United States Federal Income Tax Consequences — Tax Treatment of Regular Securities — Original Issue Discount," "— Variable Rate Securities" and "— Interest Weighted Securities and Non-VRDI Securities" in the Base Offering Circular.

The prepayment assumption that should be used in determining the rates of accrual of OID, if any, on the Regular Securities (as described in "Yield, Maturity and Prepayment Considerations" in this Supplement) is as follows:

| Group(s) | PSA or CPR |
|----------|------------|
| 1 | 361% PSA |
| 2 | 394% PSA |
| 3 and 7 | 205% PSA |
| 4 | 430% PSA |
| 5 | 20% CPR |
| 6 and 9 | 593% PSA |
| 8 | 594% PSA |
| 10 | 230% PSA |

In the case of the Floating Rate Classes, the interest rate values to be used for these determinations are the initial Interest Rates as set forth in the Terms Sheet under "Interest Rates." No representation is made, however, about the rate at which prepayments on the Mortgage Loans underlying any Group of Trust Assets actually will occur or the level of One-Month LIBOR, CMT or One-Year LIBOR at any time after the date of this Supplement. See "Certain United States Federal Income Tax Consequences" in the Base Offering Circular.

The Regular Securities generally will be treated as "regular interests" in a REMIC for domestic building and loan associations and "real estate assets" for real estate investment trusts ("REITs") as described in "Certain United States Federal Income Tax Consequences" in the Base Offering Circular. Similarly,

interest on the Regular Securities will be considered "interest on obligations secured by mortgages on real property" for REITs as described in "Certain United States Federal Income Tax Consequences" in the Base Offering Circular.

A Holder of Regular Securities that uses an accrual method of accounting for tax purposes generally will be required to include certain amounts in income no later than the time such amounts are reflected on certain financial statements. The application of this rule thus may require the accrual of income earlier than would be the case under the general tax rules described under "Certain United States Federal Income Tax Consequences—Tax Treatment of Regular Securities" in the Base Offering Circular, although the precise application of this rule is unclear at this time. This rule generally will be effective for Regular Securities issued with original issue discount, for tax years beginning after December 31, 2018. The Service issued Notice 2018-80 stating its intention to issue regulations that would exclude market discount from this rule. Prospective investors in Regular Securities that use an accrual method of accounting for tax purposes are urged to consult with their tax advisors regarding the potential applicability of this legislation to their particular situation.

In the case of any Trust REMIC that is considered to be a "single-class REMIC" under temporary Treasury regulations, certain fees and expenses of the single-class REMIC would be allocated proportionately among the Regular Securities and Residual Securities of such Trust REMIC. An individual, trust or estate that holds Regular Securities in a single-class REMIC (directly or indirectly through a grantor trust, a partnership, an S corporation, a common trust fund, or a nonpublicly offered RIC) generally will not be eligible to deduct its allocable share of fees or expenses of a single-class REMIC under Section 212 of the Code for any taxable year beginning before January 1, 2026. For a discussion of single-class REMICs, see "Certain United States Federal Income Tax Consequences — Tax Treatment of Regular Securities — Single Class REMICs" in the Base Offering Circular, as modified by the previous sentence. Prospective investors in the Regular Securities are urged to consult with their tax advisors regarding the potential applicability of these rules to their particular situation.

Residual Securities

The Class RR Securities will represent the beneficial ownership of the Residual Interest in the Pooling REMIC and the beneficial ownership of the Residual Interest in the Issuing REMIC. The Residual Securities, i.e., the Class RR Securities, generally will be treated as "residual interests" in a REMIC for domestic building and loan associations and as "real estate assets" for REITs, as described in "Certain United States Federal Income Tax Consequences" in the Base Offering Circular, but will not be treated as debt for United States federal income tax purposes. Instead, the Holders of the Residual Securities will be required to report, and will be taxed on, their pro rata shares of the taxable income or loss of the Trust REMICs, and these requirements will continue until there are no outstanding regular interests in the respective Trust REMICs. Thus, Residual Holders will have taxable income attributable to the Residual Securities even though they will not receive principal or interest distributions with respect to the Residual Securities, which could result in a negative after-tax return for the Residual Holders. Even though the Holders of the Residual Securities are not entitled to any stated principal or interest payments on the Residual Securities, the Trust REMICs may have substantial taxable income in certain periods, and offsetting tax losses may not occur until much later periods. Accordingly, the Holders of the Residual Securities may experience substantial adverse tax timing consequences. Prospective investors are urged to consult their own tax advisors and consider the after-tax effect of ownership of the Residual Securities and the suitability of the Residual Securities to their investment objectives.

Prospective Holders of Residual Securities should be aware that, at issuance, based on the expected prices of the Regular and Residual Securities and the prepayment assumption described above, the

residual interests represented by the Residual Securities will be treated as "noneconomic residual interests" as that term is defined in Treasury regulations.

OID accruals on the Underlying Certificates will be computed using the same prepayment assumption as set forth under "Certain United States Federal Income Tax Consequences — Regular Securities" in this Supplement.

An individual, trust or estate that holds Residual Securities (directly or indirectly through a grantor trust, a partnership, an S corporation, a common trust fund, or a nonpublicly offered RIC) generally will not be eligible to deduct its allocable share of the Trust REMICs' fees or expenses under Section 212 of the Code for any taxable year beginning before January 1, 2026. Prospective investors in Residual Securities are urged to consult with their tax advisors regarding the potential applicability of this legislation to their particular situation.

MX Securities

For a discussion of certain United States federal income tax consequences applicable to the MX Classes, see "Certain United States Federal Income Tax Consequences — Tax Treatment of MX Securities", "— Exchanges of MX Classes and Regular Classes" and "— Taxation of Foreign Holders of REMIC Securities and MX Securities" in the Base Offering Circular.

In the case of certain Holders of MX Securities that use an accrual method of accounting, these tax consequences are modified by newly enacted legislation as described above for a Holder of Regular Securities. Prospective investors in MX Securities that use an accrual method of accounting for tax purposes are urged to consult with their tax advisors regarding the potential applicability of this legislation to their particular situation.

Foreign Account Tax Compliance Act

The Service has issued proposed regulations, on which taxpayers may rely, that exclude gross proceeds from the sale or other disposition of Regular or MX Securities from the application of the withholding tax imposed under FATCA and related administrative guidance. For a discussion of FATCA, see "Certain United States Federal Income Tax Consequences — Taxation of Foreign Holders of REMIC Securities and MX Securities" in the Base Offering Circular.

Investors should consult their own tax advisors in determining the United States federal, state, local, foreign and any other tax consequences to them of the purchase, ownership and disposition of the Securities.

ERISA MATTERS

Ginnie Mae guarantees distributions of principal and interest with respect to the Securities. The Ginnie Mae Guaranty is supported by the full faith and credit of the United States of America. The Regular and MX Securities will qualify as "guaranteed governmental mortgage pool certificates" within the meaning of a Department of Labor regulation, the effect of which is to provide that mortgage loans and participations therein underlying a "guaranteed governmental mortgage pool certificate" will not be considered assets of an employee benefit plan subject to the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), or subject to section 4975 of the Code (each, a "Plan"), solely by reason of the Plan's purchase and holding of that certificate.

Governmental plans and certain church plans, while not subject to the fiduciary responsibility provisions of ERISA or the prohibited transaction provisions of ERISA and the Code, may nevertheless be

subject to local, state or other federal laws that are substantially similar to the foregoing provisions of ERISA and the Code.

Fiduciaries of any such plans should consult with their counsel before purchasing any of the Securities. In addition, because the Sponsor or the Co-Sponsor or any of their respective affiliates may receive certain benefits in connection with the sale or holding of the Regular or MX Securities, the purchase of the Regular or MX Securities using Plan assets over which any of these parties or their affiliates has discretionary authority or control, or renders "investment advice" (within the meaning of a Department of Labor regulation) for a fee with respect to the assets of a Plan, or is the employer or other sponsor of the Plan, might be deemed to be a violation of a provision of Title I of ERISA or Section 4975 of the Code. Accordingly, the Regular or MX Securities may not be purchased using the assets of any Plan if the Sponsor or the Co-Sponsor 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 to cover the purchase or holding of the Regular or MX Securities or the transaction is not otherwise prohibited.

Prospective Plan Investors should consult with their advisors, however, to determine whether the purchase, holding or resale of a Security could give rise to a transaction that is prohibited or is not otherwise permissible under either ERISA or the Code.

See "ERISA Considerations" in the Base Offering Circular.

The Residual Securities are not offered to, and may not be transferred to, a Plan Investor.

LEGAL INVESTMENT CONSIDERATIONS

Institutions whose investment activities are subject to legal investment laws and regulations or to review by certain regulatory authorities may be subject to restrictions on investment in the Securities. No representation is made about the proper characterization of any Class for legal investment or other purposes, or about the permissibility of the purchase by particular investors of any Class under applicable legal investment restrictions.

Investors should consult their own legal advisors regarding applicable investment restrictions and the effect of any restrictions on the liquidity of the Securities prior to investing in the Securities.

See "Legal Investment Considerations" in the Base Offering Circular.

PLAN OF DISTRIBUTION

Subject to the terms and conditions of the Sponsor Agreement, the Sponsor has agreed to purchase all of the Securities if any are sold and purchased. The Sponsor proposes to offer the Regular and MX Classes to the public from time to time for sale in negotiated transactions at varying prices to be determined at the time of sale, plus accrued interest from (1) July 1, 2019 on the Fixed Rate and Delay Classes and (2) July 20, 2019 on the Floating Rate and Inverse Floating Rate Classes other than the Delay Classes. The Sponsor may effect these transactions by sales to or through certain securities dealers. These dealers may receive compensation in the form of discounts, concessions or commissions from the Sponsor and/or commissions from any purchasers for which they act as agents. Some of the Securities may be sold through dealers in relatively small sales. In the usual case, the commission charged on a relatively small sale of securities will be a higher percentage of the sales price than that charged on a large sale of securities.

INCREASE IN SIZE

Before the Closing Date, Ginnie Mae, the Trustee and the Sponsor may agree to increase the size of this offering. In that event, the Securities will have the same characteristics as described in this Supplement, except that (1) the Original Class Principal Balance (or original Class Notional Balance) and (2) the Scheduled Principal Balances or Aggregate Scheduled Principal Balances of each Class receiving principal distributions or interest distributions based upon a notional balance from the same Trust Asset Group will increase by the same proportion. The Trust Agreement, the Final Data Statement, the Final Schedules and the Supplemental Statement, if any, will reflect any increase in the size of the transaction.

LEGAL MATTERS

Certain legal matters will be passed upon for Ginnie Mae by Hunton Andrews Kurth LLP, for the Trust by Cleary Gottlieb Steen & Hamilton LLP and Marcell Solomon & Associates, P.C., and for the Trustee by Nixon Peabody LLP.

Available Combinations(1)

| REMIC Securities | S | | | MX 8 | MX Securities | | | |
|--------------------------------------|---|---------------------|---|----------------------|------------------|---------------------|-----------------|----------------------------------|
| Class | Original Class Principal Balance or Class Notional Balance | Related MX Class | Maximum Original Class Principal Balance or Class Notional Balance(2) | Principal Type(3) | Interest Rate | Interest Type(3) | CUSIP Number | Final Distribution Date(4) |
| Security Group 3 | | | | | | | | |
| JB JF JS | \$124,451,875 8,296,792 8,296,792 | JA | \$132,748,667 | PAC/AD | 2.75% | FIX | 38381XBG0 | July 2049 |
| Combination 2 JB JF JS | \$124,451,875 17,778,840 17,778,840 | JC | \$142,230,715 | PAC/AD | 3.00% | FIX | 38381XBH8 | July 2049 |
| Combination 5 JB JF JS | \$124,451,875 28,719,664 28,719,664 | EG. | \$153,171,539 | PAC/AD | 3.25% | FIX | 38381XBJ4 | July 2049 |
| Combination 4 JB JF JS | \$124,451,875 41,483,959 41,483,959 | Œ | \$165,935,834 | PAC/AD | 3.50% | FIX | 38381XBK1 | July 2049 |
| Security Groups 3 and 7 | \$124,451,875 74,671,125 74,671,125 | JG | \$199,123,000 | PAC/AD | 4.00% | FIX | 38381XBL9 | July 2049 |
| Combination 0(2) FM Combination 7(5) | \$ 58,000,000 12,500,000 | FY | \$ 70,500,000 | PT | (5) | FLT | 38381XBM7 | July 2049 |
| SJ SM | \$ 58,000,000 12,500,000 | SX | \$ 70,500,000 | NTL(PT) | (5) | OI/ANI | 38381XBN5 | July 2049 |

| REMIC Securities | | | | MX Se | MX Securities | | | |
|---------------------------------------|--|---------------------|---|----------------------|------------------|---------------------|-----------|----------------------------------|
| Class | Original Class Principal Balance or Class Notional Balance | Related MX Class | Maximum Original Class Principal Balance or Class Notional Balance(2) | Principal Type(3) | Interest Rate | Interest Type(3) | CUSIP | Final Distribution Date(4) |
| Security Group 10 Combination 8(6) | | | | | | | | |
| UA | \$192,674,000 | CC | \$192,674,000 | PAC/AD | 2.75% | FIX | 38381XBP0 | May 2049 |
| | | CD | 192,674,000 | PAC/AD | 2.50 | FIX | 38381XBQ8 | May 2049 |
| | | UE | 192,674,000 | PAC/AD | 2.25 | FIX | 38381XBR6 | May 2049 |
| | | DO | 192,674,000 | PAC/AD | 2.00 | FIX | 38381XBS4 | May 2049 |
| | | HI | 128,449,333 | PAC/AD | 3.50 | FIX | 38381XBT2 | May 2049 |
| | | II | 48,168,500 | NTL(PAC/AD) | 4.00 | FIX/IO | 38381XBU9 | May 2049 |
| | | Ú | 96,337,000 | PAC/AD | 4.00 | FIX | 38381XBV7 | May 2049 |
| Combination 9(6) | | | | | | | | |
| UA | \$192,674,000 | PA | \$195,754,000 | PAC/AD | 3.00% | FIX | 38381XBW5 | July 2049 |
| UB | 3,080,000 | PB | 195,754,000 | PAC/AD | 2.75 | FIX | 38381XBX3 | July 2049 |
| | | PC | 195,754,000 | PAC/AD | 2.50 | FIX | 38381XBY1 | July 2049 |
| | | PD | 195,754,000 | PAC/AD | 2.25 | FIX | 38381XBZ8 | July 2049 |
| | | PE | 195,754,000 | PAC/AD | 2.00 | FIX | 38381XCA2 | July 2049 |
| | | PG | 130,502,666 | PAC/AD | 3.50 | FIX | 38381XCB0 | July 2049 |
| | | PH | 97,877,000 | PAC/AD | 4.00 | FIX | 38381XCC8 | July 2049 |
| | | PI | 48,938,500 | NTL(PAC/AD) | 4.00 | FIX/IO | 38381XSW7 | July 2049 |

(1) All exchanges must comply with minimum denomination restrictions.

The amount shown for each MX Class represents the maximum Original Class Principal Balance (or original Class Notional Balance) of that Class, assuming it were to be issued on the Closing Date.

As defined under "Class Types" in Appendix I to the Base Offering Circular.

See "Yield, Maturity and Prepayment Considerations— Final Distribution Date" in this Supplement. (4)

(5) Derived from REMIC Classes relating to seperate groups.

In the case of Combinations 8 and 9, various subcombinations are permitted. See "Description of the Securities — Modification and Exchange" in the Base Offering Circular for a discussion of subcombinations.

Schedule II

SCHEDULED PRINCIPAL BALANCES

| Distribution Date | Classes JB and JF (in the aggregate) | Class LY | Classes UA and UB (in the aggregate) |
|-------------------|---|------------------|--------------------------------------|
| Initial Balance | \$199,123,000.00 | \$167,738,000.00 | \$195,754,000.00 |
| August 2019 | 198,593,445.36 | 166,871,796.08 | 195,192,348.48 |
| September 2019 | 197,994,759.22 | 165,882,615.03 | 194,551,432.21 |
| October 2019 | 197,327,128.78 | 164,771,362.05 | 193,831,482.53 |
| November 2019 | 196,590,802.79 | 163,539,195.98 | 193,032,811.45 |
| December 2019 | 195,786,091.49 | 162,187,528.87 | 192,155,811.62 |
| January 2020 | 194,913,366.52 | 160,718,024.68 | 191,200,956.19 |
| February 2020 | 193,973,060.77 | 159,132,597.08 | 190,168,798.62 |
| March 2020 | 192,965,668.07 | 157,433,406.44 | 189,059,972.24 |
| April 2020 | 191,891,742.82 | 155,622,855.89 | 187,875,189.75 |
| May 2020 | 190,751,899.56 | 153,703,586.51 | 186,615,242.53 |
| June 2020 | 189,546,812.37 | 151,678,471.73 | 185,280,999.83 |
| July 2020 | 188,277,214.27 | 149,550,610.75 | 183,873,407.89 |
| August 2020 | 186,943,896.47 | 147,323,321.24 | 182,393,488.78 |
| September 2020 | 185,547,707.53 | 145,000,131.14 | 180,842,339.24 |
| October 2020 | 184,089,552.45 | 142,584,769.68 | 179,221,129.34 |
| November 2020 | 182,570,391.70 | 140,081,157.64 | 177,531,100.98 |
| December 2020 | 180,991,240.09 | 137,493,396.84 | 175,773,566.30 |
| January 2021 | 179,353,165.61 | 134,825,758.98 | 173,949,905.95 |
| February 2021 | 177,657,288.18 | 132,082,673.72 | 172,061,567.23 |
| March 2021 | 175,904,778.33 | 129,268,716.25 | 170,110,062.14 |
| April 2021 | 174,096,855.73 | 126,388,594.16 | 168,096,965.25 |
| May 2021 | 172,234,787.74 | 123,447,133.89 | 166,023,911.54 |
| June 2021 | 170,319,887.83 | 120,449,266.64 | 163,892,594.06 |
| July 2021 | 168,353,513.92 | 117,400,013.90 | 161,704,761.54 |
| August 2021 | 166,337,066.71 | 114,304,472.57 | 159,462,215.84 |
| September 2021 | 164,271,987.86 | 111,167,799.85 | 157,166,809.37 |
| October 2021 | 162,159,758.17 | 108,103,742.57 | 154,820,442.38 |
| November 2021 | 160,001,895.70 | 105,110,600.40 | 152,425,060.18 |
| December 2021 | 157,799,953.77 | 102,186,712.44 | 149,982,650.28 |
| January 2022 | 155,618,183.88 | 99,330,456.26 | 147,566,804.03 |
| February 2022 | 153,456,388.12 | 96,540,247.07 | 145,177,222.73 |
| March 2022 | 151,314,370.44 | 93,814,536.83 | 142,813,610.94 |
| April 2022 | 149,191,936.61 | 91,151,813.40 | 140,475,676.45 |
| May 2022 | 147,088,894.21 | 88,550,599.69 | 138,163,130.22 |
| June 2022 | 145,005,052.59 | 86,009,452.89 | 135,875,686.35 |
| July 2022 | 142,940,222.91 | 83,526,963.67 | 133,613,062.07 |
| August 2022 | 140,894,218.06 | 81,101,755.39 | 131,374,977.67 |
| September 2022 | 138,866,852.66 | 78,732,483.35 | 129,161,156.52 |
| October 2022 | 136,857,943.09 | 76,417,834.07 | 126,971,324.97 |
| November 2022 | 134,867,307.42 | 74,156,524.53 | 124,805,212.36 |
| December 2022 | 132,894,765.40 | 71,947,301.53 | 122,662,551.00 |
| January 2023 | 130,940,138.47 | 69,788,940.94 | 120,543,076.09 |
| February 2023 | 129,003,249.74 | 67,680,247.06 | 118,446,525.73 |

| Distribution Date | Classes JB and JF (in the aggregate) | Class LY | Classes UA and UB (in the aggregate) |
|-------------------|---|------------------|--------------------------------------|
| March 2023 | \$127,083,923.94 | \$ 65,620,051.96 | \$116,372,640.87 |
| April 2023 | 125,181,987.44 | 63,607,214.82 | 114,321,165.29 |
| May 2023 | 123,297,268.25 | 61,653,782.69 | 112,291,845.55 |
| June 2023 | 121,429,595.95 | 59,759,809.77 | 110,284,430.98 |
| July 2023 | 119,578,801.70 | 57,923,498.81 | 108,298,673.66 |
| August 2023 | 117,744,718.25 | 56,143,106.58 | 106,334,328.34 |
| September 2023 | 115,927,179.91 | 54,416,942.29 | 104,391,152.46 |
| October 2023 | 114,126,022.49 | 52,743,365.95 | 102,468,906.12 |
| November 2023 | 112,341,083.38 | 51,120,786.91 | 100,567,352.01 |
| December 2023 | 110,572,201.45 | 49,547,662.35 | 98,686,255.44 |
| January 2024 | 108,819,217.07 | 48,022,495.85 | 96,825,384.24 |
| February 2024 | 107,081,972.09 | 46,543,836.04 | 94,984,508.80 |
| March 2024 | 105,360,309.85 | 45,110,275.19 | 93,163,402.01 |
| April 2024 | 103,654,075.13 | 43,720,447.94 | 91,361,839.25 |
| May 2024 | 101,963,114.16 | 42,373,030.03 | 89,579,598.32 |
| June 2024 | 100,287,274.58 | 41,066,737.05 | 87,816,459.47 |
| July 2024 | 98,626,405.48 | 39,800,323.27 | 86,072,205.34 |
| August 2024 | 96,980,357.31 | 38,572,580.46 | 84,346,620.95 |
| September 2024 | 95,348,981.96 | 37,382,336.80 | 82,639,493.65 |
| October 2024 | 93,732,132.64 | 36,228,455.73 | 80,950,613.12 |
| November 2024 | 92,129,663.97 | 35,109,834.94 | 79,279,771.35 |
| December 2024 | 90,541,431.90 | 34,025,405.36 | 77,626,762.58 |
| January 2025 | 88,967,293.71 | 32,974,130.09 | 75,991,383.31 |
| February 2025 | 87,407,108.02 | 31,955,003.50 | 74,373,432.25 |
| March 2025 | 85,860,734.77 | 30,967,050.28 | 72,788,224.11 |
| April 2025 | 84,328,035.17 | 30,009,324.51 | 71,236,034.71 |
| May 2025 | 82,808,871.75 | 29,080,908.80 | 69,716,187.36 |
| June 2025 | 81,303,108.29 | 28,180,913.42 | 68,228,019.05 |
| July 2025 | 79,823,575.85 | 27,308,475.48 | 66,770,880.23 |
| August 2025 | 78,370,112.63 | 26,462,758.12 | 65,344,134.48 |
| September 2025 | 76,942,268.81 | 25,642,949.72 | 63,947,158.30 |
| October 2025 | 75,539,602.22 | 24,848,263.15 | 62,579,340.82 |
| November 2025 | 74,161,678.19 | 24,077,935.07 | 61,240,083.56 |
| December 2025 | 72,808,069.48 | 23,331,225.13 | 59,928,800.15 |
| January 2026 | 71,478,356.11 | 22,607,415.37 | 58,644,916.14 |
| February 2026 | 70,172,125.24 | 21,905,809.49 | 57,387,868.73 |
| March 2026 | 68,888,971.07 | 21,225,732.24 | 56,157,106.53 |
| April 2026 | 67,628,494.71 | 20,566,528.74 | 54,952,089.32 |
| May 2026 | 66,390,304.05 | 19,927,563.91 | 53,772,287.89 |
| June 2026 | 65,174,013.68 | 19,308,221.85 | 52,617,183.72 |
| July 2026 | 63,979,244.75 | 18,707,905.29 | 51,486,268.86 |
| August 2026 | 62,805,624.87 | 18,126,035.00 | 50,379,045.65 |
| September 2026 | 61,652,787.98 | 17,562,049.26 | 49,295,026.56 |
| October 2026 | 60,520,374.27 | 17,015,403.34 | 48,233,733.93 |
| November 2026 | 59,408,030.09 | 16,485,568.99 | 47,194,699.84 |
| December 2026 | 58,315,407.78 | 15,972,033.92 | 46,177,465.87 |
| January 2027 | 57,242,165.63 | 15,474,301.35 | 45,181,582.90 |
| February 2027 | 56,187,967.77 | 14,991,889.53 | 44,206,610.97 |
| | | | |

| Distribution Date | Classes JB and JF (in the aggregate) | Class LY | Classes UA and UB (in the aggregate) |
|-------------------|---|------------------|--------------------------------------|
| March 2027 | \$ 55,152,484.04 | \$ 14,524,331.29 | \$ 43,252,119.04 |
| April 2027 | 54,135,389.93 | 14,071,173.61 | 42,317,684.86 |
| May 2027 | 53,136,366.46 | 13,631,977.16 | 41,402,894.75 |
| June 2027 | 52,155,100.11 | 13,206,315.94 | 40,507,343.47 |
| July 2027 | 51,191,282.70 | 12,793,776.84 | 39,630,634.00 |
| August 2027 | 50,244,611.31 | 12,393,959.26 | 38,772,377.43 |
| September 2027 | 49,314,788.22 | 12,006,474.74 | 37,932,192.75 |
| October 2027 | 48,401,520.76 | 11,630,946.59 | 37,109,706.71 |
| November 2027 | 47,504,521.29 | 11,267,009.54 | 36,304,553.68 |
| December 2027 | 46,623,507.09 | 10,914,309.40 | 35,516,375.45 |
| January 2028 | 45,758,200.24 | 10,572,502.70 | 34,744,821.13 |
| February 2028 | 44,908,327.61 | 10,241,256.40 | 33,989,546.98 |
| March 2028 | 44,073,620.71 | 9,920,247.56 | 33,250,216.27 |
| April 2028 | 43,253,815.68 | 9,609,163.04 | 32,526,499.13 |
| May 2028 | 42,448,653.13 | 9,307,699.19 | 31,818,072.42 |
| June 2028 | 41,657,878.14 | 9,015,561.58 | 31,124,619.58 |
| July 2028 | 40,881,240.15 | 8,732,464.73 | 30,445,830.53 |
| August 2028 | 40,118,492.89 | 8,458,131.82 | 29,781,401.51 |
| September 2028 | 39,369,394.28 | 8,192,294.42 | 29,131,034.95 |
| October 2028 | 38,633,706.43 | 7,934,692.29 | 28,494,439.38 |
| November 2028 | 37,911,195.49 | 7,685,073.05 | 27,871,329.25 |
| December 2028 | 37,201,631.63 | 7,443,192.02 | 27,261,424.88 |
| January 2029 | 36,504,788.97 | 7,208,811.96 | 26,664,452.27 |
| February 2029 | 35,820,445.48 | 6,981,702.83 | 26,080,143.04 |
| March 2029 | 35,148,382.94 | 6,761,641.57 | 25,508,234.29 |
| April 2029 | 34,488,386.90 | 6,548,411.94 | 24,948,468.50 |
| May 2029 | 33,840,246.56 | 6,341,804.24 | 24,400,593.40 |
| June 2029 | 33,203,754.74 | 6,141,615.17 | 23,864,361.91 |
| July 2029 | 32,578,707.82 | 5,947,647.63 | 23,339,531.98 |
| August 2029 | 31,964,905.68 | 5,759,710.48 | 22,825,866.52 |
| September 2029 | 31,362,151.62 | 5,577,618.44 | 22,323,133.29 |
| October 2029 | 30,770,252.33 | 5,401,191.84 | 21,831,104.81 |
| November 2029 | 30,189,017.83 | 5,230,256.51 | 21,349,558.27 |
| December 2029 | 29,618,261.37 | 5,064,643.56 | 20,878,275.41 |
| January 2030 | 29,057,799.45 | 4,904,189.27 | 20,417,042.43 |
| February 2030 | 28,507,451.69 | 4,748,734.90 | 19,965,649.94 |
| March 2030 | 27,967,040.83 | 4,598,126.54 | 19,523,892.82 |
| April 2030 | 27,436,392.65 | 4,452,214.98 | 19,091,570.17 |
| May 2030 | 26,915,335.93 | 4,310,855.57 | 18,668,485.20 |
| June 2030 | 26,403,702.38 | 4,173,908.06 | 18,254,445.17 |
| July 2030 | 25,901,326.64 | 4,041,236.49 | 17,849,261.29 |
| August 2030 | 25,408,046.17 | 3,912,709.04 | 17,452,748.62 |
| September 2030 | 24,923,701.22 | 3,788,197.92 | 17,064,726.06 |
| October 2030 | 24,448,134.81 | 3,667,579.24 | 16,685,016.20 |
| November 2030 | 23,981,192.66 | 3,550,732.89 | 16,313,445.29 |
| December 2030 | 23,522,723.14 | 3,437,542.44 | 15,949,843.12 |
| January 2031 | 23,072,577.24 | 3,327,895.01 | 15,594,043.03 |
| February 2031 | 22,630,608.51 | 3,221,681.17 | 15,245,881.73 |
| | | | |

| Distribution Date | Classes JB and JF (in the aggregate) | _ | Class LY | Classes UA and UB (in the aggregate) |
|-------------------|---|----|--------------|--------------------------------------|
| March 2031 | \$ 22,196,673.03 | \$ | 3,118,794.84 | \$ 14,905,199.33 |
| April 2031 | 21,770,629.37 | | 3,019,133.18 | 14,571,839.21 |
| May 2031 | 21,352,338.52 | | 2,922,596.50 | 14,245,647.97 |
| June 2031 | 20,941,663.88 | | 2,829,088.15 | 13,926,475.37 |
| July 2031 | 20,538,471.21 | | 2,738,514.45 | 13,614,174.26 |
| August 2031 | 20,142,628.57 | | 2,650,784.59 | 13,308,600.54 |
| September 2031 | 19,754,006.32 | | 2,565,810.51 | 13,009,613.05 |
| October 2031 | 19,372,477.05 | | 2,483,506.90 | 12,717,073.54 |
| November 2031 | 18,997,915.54 | | 2,403,791.01 | 12,430,846.64 |
| December 2031 | 18,630,198.75 | | 2,326,582.65 | 12,150,799.73 |
| January 2032 | 18,269,205.76 | | 2,251,804.11 | 11,876,802.96 |
| February 2032 | 17,914,817.73 | | 2,179,380.01 | 11,608,729.13 |
| March 2032 | 17,566,917.89 | | 2,109,237.34 | 11,346,453.67 |
| April 2032 | 17,225,391.48 | | 2,041,305.28 | 11,089,854.59 |
| May 2032 | 16,890,125.73 | | 1,975,515.21 | 10,838,812.43 |
| June 2032 | 16,561,009.81 | | 1,911,800.61 | 10,593,210.15 |
| July 2032 | 16,237,934.84 | | 1,850,097.01 | 10,352,933.19 |
| August 2032 | 15,920,793.78 | | 1,790,341.90 | 10,117,869.30 |
| September 2032 | 15,609,481.47 | | 1,732,474.71 | 9,887,908.58 |
| October 2032 | 15,303,894.58 | | 1,676,436.73 | 9,662,943.40 |
| November 2032 | 15,003,931.55 | | 1,622,171.03 | 9,442,868.35 |
| December 2032 | 14,709,492.58 | | 1,569,622.47 | 9,227,580.20 |
| January 2033 | 14,420,479.62 | | 1,518,737.56 | 9,016,977.87 |
| February 2033 | 14,136,796.31 | | 1,469,464.51 | 8,810,962.34 |
| March 2033 | 13,858,347.95 | | 1,421,753.07 | 8,609,436.66 |
| April 2033 | 13,585,041.51 | | 1,375,554.56 | 8,412,305.91 |
| May 2033 | 13,316,785.53 | | 1,330,821.81 | 8,219,477.09 |
| June 2033 | 13,053,490.19 | | 1,287,509.09 | 8,030,859.16 |
| July 2033 | 12,795,067.19 | | 1,245,572.08 | 7,846,362.95 |
| August 2033 | 12,541,429.79 | | 1,204,967.83 | 7,665,901.16 |
| September 2033 | 12,292,492.74 | | 1,165,654.70 | 7,489,388.28 |
| October 2033 | 12,048,172.27 | | 1,127,592.34 | 7,316,740.58 |
| November 2033 | 11,808,386.09 | | 1,090,741.67 | 7,147,876.07 |
| December 2033 | 11,573,053.31 | | 1,055,064.79 | 6,982,714.46 |
| January 2034 | 11,342,094.47 | | 1,020,524.96 | 6,821,177.13 |
| February 2034 | 11,115,431.48 | | 987,086.60 | 6,663,187.09 |
| March 2034 | 10,892,987.61 | | 954,715.21 | 6,508,668.96 |
| April 2034 | 10,674,687.48 | | 923,377.38 | 6,357,548.91 |
| May 2034 | 10,460,457.00 | | 893,040.70 | 6,209,754.65 |
| June 2034 | 10,250,223.40 | | 863,673.79 | 6,065,215.41 |
| July 2034 | 10,043,915.14 | | 835,246.22 | 5,923,861.87 |
| August 2034 | 9,841,461.95 | | 807,728.51 | 5,785,626.17 |
| September 2034 | 9,642,794.80 | | 781,092.11 | 5,650,441.85 |
| October 2034 | 9,447,845.84 | | 755,309.31 | 5,518,243.85 |
| November 2034 | 9,256,548.40 | | 730,353.31 | 5,388,968.44 |
| December 2034 | 9,068,836.99 | | 706,198.10 | 5,262,553.25 |
| January 2035 | 8,884,647.27 | | 682,818.49 | 5,138,937.19 |
| February 2035 | 8,703,915.99 | | 660,190.07 | 5,018,060.45 |

| Distribution Date | lasses JB and JF n the aggregate) | Class LY | asses UA and UB n the aggregate) |
|-------------------|--------------------------------------|------------------|-------------------------------------|
| March 2035 | \$ 8,526,581.05 | \$ 638,289.20 | \$ 4,899,864.47 |
| April 2035 | 8,352,581.39 | 617,092.96 | 4,784,291.90 |
| May 2035 | 8,181,857.04 | 596,579.13 | 4,671,286.60 |
| June 2035 | 8,014,349.09 | 576,726.20 | 4,560,793.60 |
| July 2035 | 7,849,999.65 | 557,513.33 | 4,452,759.08 |
| August 2035 | 7,688,751.82 | 538,920.31 | 4,347,130.35 |
| September 2035 | 7,530,549.74 | 520,927.57 | 4,243,855.81 |
| October 2035 | 7,375,338.49 | 503,516.14 | 4,142,884.93 |
| November 2035 | 7,223,064.13 | 486,667.64 | 4,044,168.27 |
| December 2035 | 7,073,673.66 | 470,364.28 | 3,947,657.41 |
| January 2036 | 6,927,115.01 | 454,588.81 | 3,853,304.92 |
| February 2036 | 6,783,337.03 | 439,324.50 | 3,761,064.40 |
| March 2036 | 6,642,289.45 | 424,555.18 | 3,670,890.40 |
| April 2036 | 6,503,922.91 | 410,265.15 | 3,582,738.44 |
| May 2036 | 6,368,188.88 | 396,439.21 | 3,496,564.94 |
| June 2036 | 6,235,039.70 | 383,062.65 | 3,412,327.28 |
| July 2036 | 6,104,428.57 | 370,121.19 | 3,329,983.71 |
| August 2036 | 5,976,309.46 | 357,601.01 | 3,249,493.34 |
| September 2036 | 5,850,637.21 | 345,488.74 | 3,170,816.17 |
| October 2036 | 5,727,367.40 | 333,771.39 | 3,093,913.02 |
| November 2036 | 5,606,456.41 | 322,436.40 | 3,018,745.55 |
| December 2036 | 5,487,861.42 | 311,471.61 | 2,945,276.22 |
| January 2037 | 5,371,540.31 | 300,865.22 | 2,873,468.26 |
| February 2037 | 5,257,451.73 | 290,605.80 | 2,803,285.71 |
| March 2037 | 5,145,555.06 | 280,682.29 | 2,734,693.33 |
| April 2037 | 5,035,810.40 | 271,083.98 | 2,667,656.66 |
| May 2037 | 4,928,178.52 | 261,800.48 | 2,602,141.94 |
| June 2037 | 4,822,620.93 | 252,821.74 | 2,538,116.12 |
| July 2037 | 4,719,099.78 | 244,138.01 | 2,475,546.87 |
| August 2037 | 4,617,577.91 | 235,739.85 | 2,414,402.52 |
| September 2037 | 4,518,018.80 | 227,618.13 | 2,354,652.07 |
| October 2037 | 4,420,386.59 | 219,763.99 | 2,296,265.19 |
| November 2037 | 4,324,646.05 | 212,168.87 | 2,239,212.19 |
| December 2037 | 4,230,762.56 | 204,824.44 | 2,183,463.98 |
| January 2038 | 4,138,702.13 | 197,722.67 | 2,128,992.12 |
| February 2038 | 4,048,431.36 | 190,855.77 | 2,075,768.75 |
| March 2038 | 3,959,917.44 | 184,216.19 | 2,023,766.61 |
| April 2038 | 3,873,128.15 | 177,796.62 | 1,972,959.01 |
| May 2038 | 3,788,031.83 | 171,589.98 | 1,923,319.83 |
| June 2038 | 3,704,597.39 | 165,589.42 | 1,874,823.49 |
| July 2038 | 3,622,794.29 | 159,788.30 | 1,827,444.99 |
| August 2038 | 3,542,592.52 | 154,180.19 | 1,781,159.82 |
| September 2038 | 3,463,962.62 | 148,758.87 | 1,735,944.00 |
| October 2038 | 3,386,875.63 | 143,518.29 | 1,691,774.07 |
| November 2038 | 3,311,303.14 | 138,452.63 | 1,648,627.07 |
| December 2038 | 3,237,217.19 | 133,556.22 | 1,606,480.51 |
| January 2039 | 3,164,590.38 | 128,823.60 | 1,565,312.39 |
| February 2039 | 3,093,395.75 | 124,249.45 | 1,525,101.18 |

| Distribution Date | (ir | lasses JB and JF n the aggregate) | Class LY | asses UA and UB a the aggregate) |
|-------------------|-----|--------------------------------------|------------------|-------------------------------------|
| March 2039 | \$ | 3,023,606.83 | \$ 119,828.65 | \$ 1,485,825.80 |
| April 2039 | | 2,955,197.64 | 115,556.22 | 1,447,465.63 |
| May 2039 | | 2,888,142.65 | 111,427.35 | 1,410,000.49 |
| June 2039 | | 2,822,416.76 | 107,437.36 | 1,373,410.60 |
| July 2039 | | 2,757,995.36 | 103,581.76 | 1,337,676.65 |
| August 2039 | | 2,694,854.26 | 99,856.17 | 1,302,779.70 |
| September 2039 | | 2,632,969.69 | 96,256.35 | 1,268,701.24 |
| October 2039 | | 2,572,318.32 | 92,778.22 | 1,235,423.14 |
| November 2039 | | 2,512,877.22 | 89,417.79 | 1,202,927.67 |
| December 2039 | | 2,454,623.89 | 86,171.24 | 1,171,197.48 |
| January 2040 | | 2,397,536.22 | 83,034.83 | 1,140,215.56 |
| February 2040 | | 2,341,592.50 | 80,004.98 | 1,109,965.31 |
| March 2040 | | 2,286,771.39 | 77,078.20 | 1,080,430.46 |
| April 2040 | | 2,233,051.96 | 74,251.10 | 1,051,595.09 |
| May 2040 | | 2,180,413.64 | 71,520.43 | 1,023,443.62 |
| June 2040 | | 2,128,836.22 | 68,883.03 | 995,960.81 |
| July 2040 | | 2,078,299.87 | 66,335.82 | 969,131.74 |
| August 2040 | | 2,028,785.10 | 63,875.85 | 942,941.83 |
| September 2040 | | 1,980,272.78 | 61,500.25 | 917,376.78 |
| October 2040 | | 1,932,744.11 | 59,206.24 | 892,422.62 |
| November 2040 | | 1,886,180.65 | 56,991.13 | 868,065.69 |
| December 2040 | | 1,840,564.27 | 54,852.32 | 844,292.59 |
| January 2041 | | 1,795,877.17 | 52,787.30 | 821,090.24 |
| February 2041 | | 1,752,101.88 | 50,793.62 | 798,445.83 |
| March 2041 | | 1,709,221.23 | 48,868.92 | 776,346.82 |
| April 2041 | | 1,667,218.37 | 47,010.93 | 754,780.95 |
| May 2041 | | 1,626,076.74 | 45,217.43 | 733,736.23 |
| June 2041 | | 1,585,780.10 | 43,486.28 | 713,200.90 |
| July 2041 | | 1,546,312.49 | 41,815.41 | 693,163.49 |
| August 2041 | | 1,507,658.23 | 40,202.83 | 673,612.76 |
| September 2041 | | 1,469,801.93 | 38,646.58 | 654,537.71 |
| October 2041 | | 1,432,728.48 | 37,144.80 | 635,927.58 |
| November 2041 | | 1,396,423.04 | 35,695.66 | 617,771.86 |
| December 2041 | | 1,360,871.05 | 34,297.42 | 600,060.25 |
| January 2042 | | 1,326,058.19 | 32,948.36 | 582,782.67 |
| February 2042 | | 1,291,970.41 | 31,646.85 | 565,929.26 |
| March 2042 | | 1,258,593.92 | 30,391.29 | 549,490.40 |
| April 2042 | | 1,225,915.17 | 29,180.15 | 533,456.65 |
| May 2042 | | 1,193,920.87 | 28,011.92 | 517,818.78 |
| June 2042 | | 1,162,597.95 | 26,885.18 | 502,567.76 |
| July 2042 | | 1,131,933.60 | 25,798.52 | 487,694.78 |
| August 2042 | | 1,101,915.23 | 24,750.59 | 473,191.19 |
| September 2042 | | 1,072,530.47 | 23,740.10 | 459,048.55 |
| October 2042 | | 1,043,767.18 | 22,765.76 | 445,258.59 |
| November 2042 | | 1,015,613.46 | 21,826.38 | 431,813.22 |
| December 2042 | | 988,057.61 | 20,920.75 | 418,704.55 |
| January 2043 | | 961,088.13 | 20,047.73 | 405,924.83 |
| February 2043 | | 934,693.75 | 19,206.23 | 393,466.51 |

| Distribution Date | Cla (in | usses JB and JF the aggregate) | Class LY | ses UA and UB the aggregate) |
|-------------------|------------|-----------------------------------|-----------------|---------------------------------|
| March 2043 | \$ | 908,863.40 | \$ 18,395.16 | \$ 381,322.17 |
| April 2043 | | 883,586.21 | 17,613.50 | 369,484.59 |
| May 2043 | | 858,851.51 | 16,860.24 | 357,946.69 |
| June 2043 | | 834,648.83 | 16,134.41 | 346,701.54 |
| July 2043 | | 810,967.87 | 15,435.08 | 335,742.37 |
| August 2043 | | 787,798.54 | 14,761.34 | 325,062.56 |
| September 2043 | | 765,130.93 | 14,112.32 | 314,655.63 |
| October 2043 | | 742,955.30 | 13,487.16 | 304,515.24 |
| November 2043 | | 721,262.11 | 12,885.05 | 294,635.20 |
| December 2043 | | 700,041.97 | 12,305.19 | 285,009.45 |
| January 2044 | | 679,285.68 | 11,746.82 | 275,632.07 |
| February 2044 | | 658,984.20 | 11,209.19 | 266,497.26 |
| March 2044 | | 639,128.66 | 10,691.60 | 257,599.35 |
| April 2044 | | 619,710.35 | 10,193.34 | 248,932.80 |
| May 2044 | | 600,720.72 | 9,713.75 | 240,492.19 |
| June 2044 | | 582,151.39 | 9,252.17 | 232,272.22 |
| July 2044 | | 563,994.11 | 8,807.99 | 224,267.72 |
| August 2044 | | 546,240.80 | 8,380.59 | 216,473.60 |
| September 2044 | | 528,883.52 | 7,969.40 | 208,884.93 |
| October 2044 | | 511,914.48 | 7,573.84 | 201,496.85 |
| November 2044 | | 495,326.04 | 7,193.37 | 194,304.62 |
| December 2044 | | 479,110.69 | 6,827.46 | 187,303.62 |
| January 2045 | | 463,261.07 | 6,475.59 | 180,489.31 |
| February 2045 | | 447,769.95 | 6,137.28 | 173,857.28 |
| March 2045 | | 432,630.22 | 5,812.05 | 167,403.18 |
| April 2045 | | 417,834.93 | 5,499.43 | 161,122.78 |
| May 2045 | | 403,377.24 | 5,198.98 | 155,011.95 |
| June 2045 | | 389,250.43 | 4,910.26 | 149,066.65 |
| July 2045 | | 375,447.93 | 4,632.86 | 143,282.91 |
| August 2045 | | 361,963.28 | 4,366.39 | 137,656.87 |
| September 2045 | | 348,790.13 | 4,110.44 | 132,184.74 |
| October 2045 | | 335,922.25 | 3,864.64 | 126,862.85 |
| November 2045 | | 323,353.54 | 3,628.63 | 121,687.56 |
| December 2045 | | 311,078.00 | 3,402.06 | 116,655.35 |
| January 2046 | | 299,089.76 | 3,184.59 | 111,762.78 |
| February 2046 | | 287,383.03 | 2,975.89 | 107,006.45 |
| March 2046 | | 275,952.16 | 2,775.65 | 102,383.08 |
| April 2046 | | 264,791.58 | 2,583.55 | 97,889.45 |
| May 2046 | | 253,895.84 | 2,399.31 | 93,522.40 |
| June 2046 | | 243,259.58 | 2,222.63 | 89,278.84 |
| July 2046 | | 232,877.55 | 2,053.25 | 85,155.78 |
| August 2046 | | 222,744.60 | 1,890.89 | 81,150.27 |
| September 2046 | | 212,855.67 | 1,735.30 | 77,259.43 |
| October 2046 | | 203,205.79 | 1,586.24 | 73,480.45 |
| November 2046 | | 193,790.10 | 1,443.45 | 69,810.60 |
| December 2046 | | 184,603.82 | 1,306.72 | 66,247.17 |
| January 2047 | | 175,642.26 | 1,175.81 | 62,787.56 |
| February 2047 | | 166,900.82 | 1,050.51 | 59,429.19 |

| Distribution Date | Classes JB and JF (in the aggregate) | Class LY | Classes UA and UB (in the aggregate) | | | | | | |
|-------------------------|---|-----------|--------------------------------------|--|--|--|--|--|--|
| March 2047 | \$ 158,374.99 | \$ 930.61 | \$ 56,169.56 | | | | | | |
| April 2047 | 150,060.33 | 815.91 | 53,006.23 | | | | | | |
| May 2047 | 141,952.51 | 706.22 | 49,936.81 | | | | | | |
| June 2047 | 134,047.26 | 601.35 | 46,958.95 | | | | | | |
| July 2047 | 126,340.41 | 501.11 | 44,070.37 | | | | | | |
| August 2047 | 118,827.84 | 405.34 | 41,268.84 | | | | | | |
| September 2047 | 111,505.53 | 313.86 | 38,552.18 | | | | | | |
| October 2047 | 104,369.54 | 226.51 | 35,918.27 | | | | | | |
| November 2047 | 97,416.00 | 143.14 | 33,365.02 | | | | | | |
| December 2047 | 90,641.09 | 63.59 | 30,890.39 | | | | | | |
| January 2048 | 84,041.10 | 0.00 | 28,492.41 | | | | | | |
| February 2048 | 77,612.37 | 0.00 | 26,169.13 | | | | | | |
| March 2048 | 71,351.32 | 0.00 | 23,918.66 | | | | | | |
| April 2048 | 65,254.41 | 0.00 | 21,739.14 | | | | | | |
| May 2048 | 59,318.21 | 0.00 | 19,628.76 | | | | | | |
| June 2048 | 53,539.33 | 0.00 | 17,585.77 | | | | | | |
| July 2048 | 47,914.44 | 0.00 | 15,608.42 | | | | | | |
| August 2048 | 42,440.30 | 0.00 | 13,695.05 | | | | | | |
| September 2048 | 37,113.70 | 0.00 | 11,844.00 | | | | | | |
| October 2048 | 31,931.51 | 0.00 | 10,053.66 | | | | | | |
| November 2048 | 26,890.67 | 0.00 | 8,322.46 | | | | | | |
| December 2048 | 21,988.15 | 0.00 | 6,648.87 | | | | | | |
| January 2049 | 17,221.00 | 0.00 | 5,031.39 | | | | | | |
| February 2049 | 12,586.32 | 0.00 | 3,468.56 | | | | | | |
| March 2049 | 8,081.28 | 0.00 | 1,958.95 | | | | | | |
| April 2049 | 3,703.07 | 0.00 | 501.17 | | | | | | |
| May 2049 and thereafter | 0.00 | 0.00 | 0.00 | | | | | | |

Underlying Certificates

| Ginnie Mae I or II | |
|--|---|
| Approximate Weighted Average Loan Age of Mortgage Loans (in months)(3) | 4460 |
| Average Remaining Term to Maturity of Mortgage Loans (in months)(3) | 353 355 356 357 |
| Approximate Weighted Average Coupon of Mortgage Loans(3) | 4.960% 4.960 4.946 4.949 |
| Percentage of Class in Trust | 12.4448703178% 56.3326972783 7.5462519133 24.999994086 |
| Notional Balance in Trust | \$ 5,498,525 25,667,406 2,211,010 10,537,047 |
| Underlying Certificate Factor(2) | 0.99073451 0.99004252 0.99509695 0.99711158 |
| Original Notional Balance of Class | \$44,641,333 46,022,222 29,443,809 42,270,285 |
| Principal Type(1) | NTL(PAC/AD) NTL(PAC/AD) NTL(PAC/AD) NTL(PAC/AD) |
| Final Distribution Date | December 2048 April 2049 May 2049 June 2049 |
| Interest Type(1) | FIX/10 FIX/10 FIX/10 FIX/10 |
| Interest Rate | 4.5% 4.5 4.5 |
| CUSIP | 38381TK53 38381TL78 38381VF54 38381WSE9 |
| Issue Date | April 30, 2019 April 30, 2019 May 30, 2019 June 28, 2019 |
| Class | JI(4)(5) PI(4)(5) MI(4)(5) DI(4)(5) |
| Series | 2019-042 2019-042 2019-058 2019-069 |
| Issuer | Ginnie Mae Ginnie Mae Ginnie Mae Ginnie Mae |
| Trust Asset Group | & & & & |

More than 10% of the Mortgage Loans underlying this Underlying Certificate may be higher balance Mortgage Loans. See "Risk Factors" in As defined under "Class Types" in Appendix I to the Base Offering Circular.
 Underlying Certificate Factors are as of July 2019.
 Based on information as of July 2019.
 MX Class.
 More than 10% of the Mortgage Loans underlying this Underlying Certificate this Supplement.

Assumed Characteristics of the Mortgage Loans Underlying the Group 5 Trust Assets(1)

| Initial Certificate Rate at MBS Issuance(14) | 6.500% 7.000 6.000 | 6.500 | 6.500 | 6.000 5.500 | 2.000 | 0.500 | 5.000 | 4.000 | 4.500 | 3.750 | 3.750 4.500 | 2.500 | 2.000 | 4.000 | 3.500 | 3.000 4.000 | 3.500 | 0.000 | 5.500 | 5.000 | 6.500 | 5.500 7.000 | 7.000 | 5.500 | 6.000 | 5.000 | 6.500 | 9 | 5.500 5.000 | .0 | 5.000 0.000 0.000 | 6.500 | 0.000 | 3.500 | 5.000 4.500 | 3.500 3.500 |
|---|--|-------------------------------|---------------|--------------------------------|---------------|---------------------------------|----------------|----------------|-------------------------------|------------|-------------------------------|----------------|-------------------------------|------------------------------|--------------|--------------------------------|---------------------------------|-----------------|---------------------------------------|--------------------|-----------------|------------------------------------|--------------------------|-------------------|-------------------------------------|--------------------|-------------------------------------|---------------|------------------------------------|--------------------|-------------------------------------|--------------------|-----------------|----------------------------------|-------------------------------------|-------------------------------------|
| Final Maturity Date | June 20, 2022 June 20, 2024 June 20, 2024 | June 20, 2025 May 20, 2026 | June 20, 2026 | June 20, 2026 June 20, 2026 | June 20, 2026 | April 20, 202/ Tune 20, 2029 | April 20, 2032 | April 20, 2034 | June 20, 2034 May 20, 2034 | | June 20, 2034 May 20, 2038 | April 20, 2042 | May 20, 2042 June 20, 2042 | April 20, 2040 | May 20, 2040 | May 20, 2040 April 20, 2041 | April 20, 2041 | August 20, 2022 | September 20, 2022 August 20, 2023 | September 20, 2023 | August 20, 2024 | August 20, 2024 Iuly 20, 2025 | August 20, 2025 | July 20, 2025 | September 20, 2025 July 20, 2026 | September 20, 2026 | September 20, 2026 July 20, 2027 | July 20, 2027 | July 20, 2027 July 20, 2027 | September 20, 2027 | September 20, 2027 Tuly 20, 2029 | September 20, 2029 | August 20, 2029 | July 20, 2034 August 20, 2034 | July 20, 2054 September 20, 2038 | July 20, 2039 September 20, 2039 |
| Lifetime Certificate Interest Rate Floor(13) | 1.500% 2.000 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | | 1.500 | 1.500 | | 1.500 2.000 | 2.000 | | 1.500 | | 1.500 | | 1.500 | | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 |
| Lifetime Certificate Interest Rate Cap(12) | 11.500% 12.000 11.000 | 11.500 | 11.500 | 10.500 | 10.000 | 11.000 | 10:000 | 9:000 | 9.500 | 8.750 | 8.750 9.500 | 7.500 | 7.000 | 9:000 | 8.500 | 8:000 9:000 | 8.500 | 11.000 | 10.500 | 10.000 | 11.500 | 10.500 | 12.000 | 10.500 | 11.000 | 10.000 | 11.500 | 11.000 | 10.500 | 11.500 | 10:000 | 11.500 | 11.000 | 8.500 | 9.500 | 8.500 8.500 |
| Periodic Certificate Interest Rate Limit(11) | 1.000% 1.000 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Mortgage Rate Reset Frequency(10) | Annually Annually Annually | Annually | Annually | Annually Annually | Annually | Annually | Annually | Annually | Annually | Annually | Annually | Annually | Annually Annually | Annually | Annually | Annually Annually | Annually | Annually | Annually Annually | Annually | Annually | Annually Annually | Annually | Annually | Annually | Annually | Annually | Annually | Annually Annually | Annually | Annually Annually | Annually | Annually | Annually Annually | Annually Annually | Annually Annually |
| Next Mortgage Rate Adjustment Date(9) | July 1, 2020 July 1, 2020 July 1, 2020 July 1, 2020 | July 1, 2020 July 1, 2020 | í Lí | July 1, 2020 July 1, 2020 | , (i) | July 1, 2020 July 1, 2020 | îî | -îî | July 1, 2020 July 1, 2020 | í Lí | July 1, 2020 July 1, 2020 | July 1, 2020 | July 1, 2020 July 1, 2020 | July 1, 2020 July 1, 2020 | July 1, 2020 | July 1, 2020 July 1, 2020 | July 1, 2020 October 1, 2010 | r r | October 1, 2019 October 1, 2019 | `~~~ | October 1, 2019 | October 1, 2019 October 1, 2019 | `~ î - | -îî | October 1, 2019 October 1, 2019 | î —î | October 1, 2019 October 1, 2019 | î —î | October 1, 2019 October 1, 2019 | , , , | October 1, 2019 October 1, 2019 | October 1, 2019 | í, | -11- | -î -i | October 1, 2019 October 1, 2019 |
| Issue Date | June 1, 1992 June 1, 1994 June 1, 1994 | June 1, 1995 May 1, 1996 | î di | June 1, 1996 June 1, 1996 | - | April 1, 199/ Tune 1, 1999 | îî | - | June 1, 2004 May 1, 2004 | - | June 1, 2004 May 1, 2008 | ì. | May 1, 2012 June 1, 2012 | April 1, 2010 | 2 . | May 1, 2010 April 1, 2011 | April 1, 2011 | August 1, 1992 | September 1, 1992 August 1, 1993 | September 1, 1993 | August 1, 1994 | August 1, 1994 Iulv 1, 1995 | August 1, 1995 | July 1, 1995 | September 1, 1995 July 1, 1996 | September 1, 1996 | September 1, 1996 July 1, 1997 | July 1, 1997 | July 1, 1997 July 1, 1997 | September 1, 1997 | September 1, 1997 Tuly 1, 1999 | September 1, 1999 | August 1, 1999 | July 1, 2004 August 1, 2004 | July 1, 2004 September 1, 2008 | July 1, 2009 September 1, 2009 |
| Certificate Margin(8) | 1.500% 1.500 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 |
| Index | 1-Year CMT 1-Year CMT 1-Year CMT | 1-Year CMT 1-Year CMT | 1-Year CMT | 1-Year CMI 1-Year CMT | 1-Year CMT | 1-Year CMI 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT 1-Year CMT | 1-Year CMT | 1-Year CMI 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMI 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT 1-Year CMT | 1-Year CMT | 1-Year CMT 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMI 1-Year CMT | 1-Year CMT 1-Year CMT |
| Approximate Weighted Average Servicing and Guaranty Fee Rate(7) | 0.604% 0.653 0.632 | 1.120 | 1.199 | 1.266 | 1.251 | 1.250 | 1.233 | 0.753 | 0.790 | 0.578 | 0.585 | 0.539 | 0.54/ | 0.607 | 0.523 | 0.523 0.472 | 0.473 | 0.559 | 0.547 747.0 | 0.538 | 0.556 | 0.552 | 1.103 | 1.073 | 1.060 | 1.250 | 1.046 | 1.208 | 1.229 1.249 | 1.182 | 1.243 1.203 | 1.330 | 1.224 | 0.694 | 0.741 | 0.478 0.457 |
| Current Certificate Rate(6) | 3.625% 3.625 3.625 | 3.625 | 3.625 | 3.625 3.625 | 3.625 | 5.025 5.625 | 3.625 | 3.625 | 3.625 | 3.625 | 3.625 | 3.625 | 3.625 3.625 | 3.625 | 3.625 | 3.625 3.625 | 3.625 | 3.750 | 3.75 2.75 | 3.750 | 3.750 | 3.750 3.750 | 3.750 | 3.750 | 3.750 | 3.750 | 3.750 | 3.750 | 3.750 3.750 | 3.750 | 3.750 3.750 | 3.750 | 3.750 | 3.750 | 3.750 | 3.750 3.750 |
| Approximate Weighted Average Current Mortgage Rate(5) | 4.229% 4.278 4.257 | 4.745 | 4.824 | 4.891 | 4.876 | 4.808 | 4.858 | 4.378 | 4.415 | 4.203 | 4.210 | 4.164 | 4.174 | 4.232 | 4.148 | 4.148 4.097 | 4.098 | 4309 | 4.2/9 | 4.288 | 4.306 | 4.302 4.852 | 4.853 | 4.823 | 4.810 | 5.000 | 4.796 | 4.958 | 4.979 4.999 | 4.932 | 4.993 4.953 | 5.080 | 4.974 | 4.444 | 4.491 | 4.228 4.207 |
| Approximate Weighted Average Ioan Age (in months)(4) | 326 302 302 | 290 279 | 278 | 278 278 | 278 | 242 | 508 | 184 | 182 | 183 | 181 | 8 | & & % | 112 | 110 | 91 6 | 308 | 324 | 323 312 | 311 | 300 | 300 289 | 288 360 360 360 | 788 788 788 | 287 | 276 | 275 265 | 265 | 265 265 | 263 | 263 241 | 239 | 239 | 181 | 130 | 120 118 |
| Approximate Weighted Average Remaining Term to Maturity (in months)(3) | 28 58 82 82 82 | 8 3 | 888 | Z Z | 85 | 92 118 | 152 | 176 | 178 | 176 | 177 226 | 271 | 273 | 248 | 250 | 250 261 | 261 | 1,81 | , e 9 84 84 | 49 | 38 | 9 [| 2.5 | 727 | 27.3 | 38 | 88 8 | 25 | £ E | 97 | 97 119 | 121 | 121 | 179 | 180 229 | 239 238 |
| Ginnie Mae Certificate Principal Balance(2) | \$ 2,707.74 4,083.74 949.30 | 16,799.51 | 6,043.71 | 2,044.61 6,212.47 | 3,637.88 | 15.964.80 | 16,156.10 | 27,820.32 | 34,097.75 | 99,511.31 | 33,704,37 | 30,597.60 | 72,048.75 | 110,576.61 | 125,513.46 | 30,805.81 | 708,114.44 | 17,452.84 | 1,450.29 | 3,463.28 | 97,680.60 | 36,031.07 | 4,714.71 | 4,072.34 | 18,557.53 | 2,862.39 | 2,515.84 | 14,838.51 | 2,319.92 | 14,951.26 | 10,696.23 | 4,544.75 | 11,746.73 | 44,945.97 | 05,542.20 482,682.97 | 337,349.62 458,097.57 |
| Pool Number | 8998 8449 8445 | 8639 8865 | 8894 | 8897 8891 | 8880 | 80293 | 80594 | 80871 | 80939 | 98808 | 80947 | MA0046 | MA0111 MA0177 | 82520 | 82538 | 82536 82795 | 82794 8008 | 8038 | 804/ 8260 | 8280 | 8482 | 8479 8663 | 9898 | 8649 | 8699 | 9968 | 8971 | 80094 | 80093 80092 | 80115 | 80112 80298 | 80320 | 80312 | 81029 | 81000 82158 | 82350 82382 |

| Initial Certificate Rate at MBS Issuance(14) | 3.000% | 4.000 | 3.250 3.250 | 2.500 | 3.500 7.000 | 5.500 | 6.500 | 5.000 | 6.000 | 2.000 | 6.500 | 5.500 | 5.500 | 0.000 | 5.500 4.500 | 4.500 | 3.750 | 4.500 | 3.000 3.000 | 2.500 4.000 | 4.500 | 4.000 | 3.500 | 3.500 | 3.500 | 2.500 | 4.000 | 3.500 | 3.500 | 3.000 | 8.000 | 5.500 | 5.000 5.000 | 7.000 5.500 | 6.500 | 6.500 | 5.500 | 5.500 | 2,000 |
|--|------------------------------------|--|---|----------------------------------|----------------------------------|----------------------------------|----------------|-------------------------------------|--------------------------------|------------------|-------------------------------------|-------------------------------------|--------------------|------------------|---------------------------------------|-------------------|------------------|--------------------------------|---------------------------------------|-------------------------------------|--------------------|------------------|--|----------------------------------|-------------------------------------|-------------------|------------------------------------|-------------------------------------|-----------------|---|--|-------------------|--|--------------------------------------|-------------------|---------------------------------------|-------------------|---|--------------------|
| Final Maturity Date | August 20, 2040 July 20, 2042 | August 20, 2039 June 20, 2040 Tell: 20, 2040 | July 20, 2040 July 20, 2040 July 30, 2040 | July 20, 2040 August 20, 2040 | July 20, 2041 March 20, 2022 | March 20, 2022 March 20, 2023 | March 20, 2023 | March 20, 2023 February 20, 2024 | February 20, 2024 | January 20, 2026 | March 20, 2020 February 20, 2026 | March 20, 2026 February 20, 2027 | January 20, 2029 | January 20, 2030 | January 20, 2030 February 20, 2033 | February 20, 2033 | January 20, 2034 | February 20, 2039 | February 20, 2040 January 20, 2040 | January 20, 2042 August 20, 2039 | September 20, 2039 | January 20, 2040 | February 20, 2040 February 20, 2040 | March 20, 2040 March 20, 2040 | August 20, 2040 January 20, 2041 | February 20, 2041 | January 20, 2041 March 20, 2041 | February 20, 2041 March 20, 2041 | August 20, 2041 | September 20, 2041 December 20, 2043 | November 20, 2021 December 20, 2022 | December 20, 2022 | November 20, 2023 December 20, 2023 | October 20, 2024 October 20, 2025 | December 20, 2025 | October 20, 2026 November 20, 2026 | November 20, 2026 | December 20, 2026 December 20, 2026 | Determent any aven |
| Lifetime Certificate Interest Rate Floor(13) | 1.500% | 1.500 | 1.500 | 1.500 | 1.500 2.000 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | | | | | 1.500 | | | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | | | 3.000 | | 1.500 | 2.000 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 4. Jun |
| Lifetime Certificate Interest Rate Cap(12) | 8.000% | 10.000 | 8.250 | 7.500 | 8.500 12.000 | 10.500 | 11.500 | 11.000 | 9.500 | 10.000 | 11.500 | 10.500 | 10.500 | 11.000 | 10:500 9:500 | 9.500 | 8.750 | 9.500 | 8.500 | 7.500 | 10.500 | 10.000 | 9.500 | 9:000 | 9.500 | 7.500 | 9:000 | 9:000 | 9.500 | 8.500 | 13.000 | 10.500 | 10:000 | 12.000 | 11.500 | 11.500 | 10.500 | 10.500 | TOTOTO |
| Periodic Certificate Interest Rate Limit(11) | 1.000% | 2.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 000:1 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 2.000 | 2.000 | 2.000 | 2.000 | 1.000 2.000 | 2.000 | 1.000 | 1.000 | 2.000 | 2.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Mortgage Rate Reset Frequency(10) | Annually Annually | Annually | Annually | Annually | Annually Annually | Annually | Annually | Annually Annually | Annually | Annually | Annually Annually | Annually | Annually | Annually | Annually Annually | Annually | Annually | Annually | Annually Annually | Annually Annually | Annually | Annually | Annually Annually | Annually Annually | | | | Annually | | | Annually | | Annually Annually | Annually Annually | Annually | Annually | Annually | Annually | сиппанну |
| Next Mortgage Rate Adjustment Date(9) | October 1, 2019 October 1, 2019 | October 1, 2019 July 1, 2020 October 1, 2010 | October 1, 2019 October 1, 2019 | October 1, 2019 | October 1, 2019 April 1, 2020 | April 1, 2020 April 1, 2020 | April 1, 2020 | April 1, 2020 April 1, 2020 | April 1, 2020 April 1, 2020 | í Lí | April 1, 2020 April 1, 2020 | April 1, 2020 April 1, 2020 | , , , , | í, | April 1, 2020 April 1, 2020 | - î î | April 1, 2020 | April 1, 2020 April 1, 2020 | April 1, 2020 April 1, 2020 | April 1, 2020 October 1, 2019 | October 1, 2019 | April 1, 2020 | April 1, 2020 April 1, 2020 | April 1, 2020 April 1, 2020 | October 1, 2019 April 1, 2020 | April 1, 2020 | April 1, 2020 April 1, 2020 | April 1, 2020 April 1, 2020 | October 1, 2019 | October 1, 2019 January 1, 2020 | January 1, 2020 January 1, 2020 | January 1, 2020 | | January 1, 2020 January 1, 2020 | - - | î . | í – í | January 1, 2020 January 1, 2020 January 1, 2020 | Ť, |
| Issue Date | August 1, 2010 July 1, 2012 | August 1, 2009 June 1, 2010 July 1, 2010 | July 1, 2010 July 1, 2010 July 1, 2010 | August 1, 2010 | July 1, 2011 March 1, 1992 | March 1, 1992 March 1, 1993 | March 1, 1993 | | February 1, 1994 | January 1, 1996 | March 1, 1990 February 1, 1996 | March 1, 1996 February 1, 1997 | January 1, 1999 | | January 1, 2000 February 1, 2003 | February 1, 2003 | January 1, 2004 | | | January 1, 2012 August 1, 2009 | September 1, 2009 | | February 1, 2010 February 1, 2010 | March 1, 2010 March 1, 2010 | 2010 | , 2011 | | February 1, 2011 March 1, 2011 | 2011 | | 1991 | , 1992 | November 1, 1993 December 1, 1993 | October 1, 1994 October 1, 1995 | December 1, 1995 | October 1, 1996 November 1, 1996 | November 1, 1996 | | December 1, 1770 |
| Certificate Margin(8) | 1.500% | 1.500 | 1500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1500 | 1.500 | 1.500 | 1.500 | 1.500 | 1500 | 1500 | 1.500 | 1.500 | 1500 | 1.500 | 1.500 | 1500 | 1.500 | 1.500 | 1.500 | 1.500 | 1500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1500 | 1.500 | 1.500 | 1.500 | 1500 | 1500 | 1. Jun |
| Index | 1-Year CMT 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMI 1-Year CMI | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMI 1-Year CMT | 1-Year CMT 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMI 1-Year CMT | 1-Year CMT 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMI 1-Year CMT | 1-Year CMT 1-Year CMT | 1-Year CMT | 1-Year CMI 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT 1-Year CMT | 1-Year CMT 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | I-Iva oni |
| Approximate Weighted Average Servicing and Guaranty Fee Rate(7) | 0.492% | 0.725 | 0.293 | 0.298 | 0.423 | 0.527 | 0.500 | 0.587 | 0.542 | 1.273 | 1.156 | 1.14 | 1.250 | 1.258 | 1.259 | 0.892 | 0.485 | 0.351 | 0.629 | 0.480 | 0.703 | 0.644 | 0.729 | 0.665 | 0.691 | 0.344 | 0.500 | 0.479 | 0.478 | 0.370 | 0.500 | 0.515 | 0.544 | 0.553 | 1.159 | 1.181 | 1.174 | 1.120 | OE-9:1 |
| Current Certificate Rate(6) | 3.750% | 3.730 | 3.730 | 3.750 | 3.750 4.000 | 4.000 | 4.000 | 4.000 | 4.000 | 4.000 | 4.000 | 4.000 4.000 | 4.000 | 4.000 | 4.000 4.000 | 4.000 | 4.000 | 000.4 | 4.000 4.000 | 4.000 4.000 | 4.000 | 000.4 | 4.000 | 4.000 4.000 | 4.000 | 4.000 | 4.000 | 4.000 4.000 | 4.000 | 4.000 | 4.125 4.125 | 4.125 | 4.125 4.125 | 4.125 4.125 | 4.125 | 4.125 | 4.125 | 4.125 4.125 4.125 | 1.14 |
| Approximate Weighted Average Current Mortgage Rate(5) | 4.242% | 4.475 | 4.043 | 4.048 | 4.173 | 4.527 | 4.500 | 4.587 | 4.542 | 5.273 | 5.156 | 5.144 | 5.250 | 5.258 | 5.176 | 4.892 | 4.485 | 4.351 | 4.629 | 4.480 | 4.703 | 4.644 | 4.729 | 4.665 | 4.691 | 4344 | 4.500 | 4.479 | 4.478 | 4.370 | 4.625 | 4.640 | 4.669 | 4.678 5.243 | 5.284 | 5306 | 5.299 | 5.245 | לטני, ל |
| Approximate Weighted Average Ioan Age (in months)(4) | 107 | 110 | 106 | 107 | 97 330 | 329 | 317 | 317 | 306 283 | 583 | 787 787 787 | 282 270 | 246 | 235 | 235 198 | 781 | 186 | 126 | 114 114 | 90 119 | 118 | 115 | 114 | 113 112 | 107 | 102 | 101 101 | 101 | 88 | 8.3 | 333 320 | 320 | 308 308 | 298 286 | 284 | 274 | 273 | 272 272 273 | 4 |
| Approximate Weighted Average Remaining Term to Maturity (in months)(3) | 251 274 241 | | | | | | | | 7.R | 17 | φ <u>φ</u> | 8 % | | | 152 162 | | 173 | 23.4 | 240 243 | 269 241 | 242 | 242 | 240 246 | 247 248 | 253 | 258 | 259 | 259 260 260 | 264 | 292 292 | 72.9 | 40 | 5.2 | 74 | 22 | 288 | ; ‰ 8 | 8 & & | 8 |
| Ginnie Mae Certificate Principal Balance(2) | \$ 177,546.71 | 327,899.36 | 2,438,928.46 | 295,169.85 | 1,511,796.42 | 1,949.62 | 2,044.81 | 4,987.28 | 3,800.66 | 6,178.30 | 1,052.90 | 3,241.42 | 5,610.51 | 19,190.19 | 7,063.91 | 28,907.01 | 162,807.12 | 259,449.30 | 246,229.96 167,871.40 | 637,150.80 25.811.40 | 119,937.16 | 783,022.59 | 856,404.16 | 207,916.13 | 327,398.52 | 3,411,408.31 | 211,868.60 | 147,030.95 | 146,668.06 | 3,291,015.91 | 1,895.86 | 1,262.25 | 2,965.12 29,820.01 | 1,622.24 | 197.74 | 12,808.67 | 3,802.29 | 3,618.01 | 3,705.05 |
| Pool Number | 82594 MA0243 | 82567 82567 | 82578 82578 | 82598 | 82888 8938 | 8932 | 8163 | 8162 8373 | 8371 | 8781 | 884Z 8817 | 8832 80046 | 80250 | 80364 | 80363 80674 | 876279 | 80817 | 82297 | 824/4 82457 | 83020 82380 | 82398 | 82468 | 82484 | 82499 82504 | 82605 | 82736 | 82/14 82765 | 82738 | 82911 | 82952 MA1536 | 8875 8098 | 808 | 8324 8340 | 8530 8710 | 8770 8765 | 8991 80011 | 80010 | 80021 80021 80020 | 07000 |

| al cate MBS e(14) | %0 _% | 9 | 9 | 9 | 9 | 9 0 | 9 0 | 0 9 | 2 9 | 2 0 | 0 | 0 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 9 | 2 0 | 0 0 | 2 0 | 2 9 | 0.0 | 0 | 0 | 0 | 0 | 9 | 0 0 | 2 0 | 2 9 | 0.0 | 0 |
|--|------------------|------------------|-------------------|-------------------|-------------------|------------------|---------------|-------------------|------------------------------------|-------------------|------------------|-------------------|------------------|-------------------|------------------|------------------|------------------|-------------------|-------------------|------------------|--------------|-------------------|-------------------|-----------------|-------------------------------|-----------------|---------------|------------------|----------------|--------------------|------------------|-------------------|-------------------|-------------------------------|--------------------|----------------|
| Initial Certificate Rate at MBS Issuance(14) | 5.500% | 95.9 | 000.9 | 000.9 | 4.50 | 4.00 | 4.00 | 4.000 | 00 | 4 (7 | | 7 | 2 | | 4.500 | | | 4.00 | | | | | 3.000 | 1.5 | 2.00 | 1.50 | 2.00 | 2.00 | 3.00 | 3.00 | 3.00 | | 63.00 | 3.500 | , (4 | 3.50 |
| Final Maturity Date | October 20, 2028 | October 20, 2029 | November 20, 2029 | December 20, 2029 | November 20, 2032 | October 20, 2033 | June 20, 2034 | December 20, 2034 | November 20, 2040 | December 20, 2041 | October 20, 2042 | December 20, 2042 | October 20, 2043 | November 20, 2043 | October 20, 2039 | October 20, 2039 | October 20, 2039 | November 20, 2039 | November 20, 2039 | October 20, 2040 | May 20, 2041 | November 20, 2041 | December 20, 2041 | April 20, 2031 | Inne 20, 2046 | August 20, 2045 | June 20, 2045 | October 20, 2045 | April 20, 2044 | September 20, 2044 | October 20, 2044 | December 20, 2044 | November 20, 2044 | July 20, 204 July 20, 2044 | September 20, 2044 | March 20, 2042 |
| Lifetime Certificate Interest Rate Floor(13) | 1.500% | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 2.000 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 2.000 | 1.500 | 1.500 | 2.000 | 1500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1500 | 1.500 | 1.500 |
| Lifetime Certificate Interest Rate Cap(12) | 10.500% | 11.500 | 11.000 | 11.000 | 9.500 | 9.000 | 9.000 | 9:000 | 0.300 | 7500 | 7.000 | 7.000 | 7.000 | 7.500 | 9.500 | 9.250 | 10.000 | 10.000 | 8.500 | 9.500 | 0006 | 8.000 | 0000 | 000.6 | 2000 | 6.500 | 7.000 | 7.000 | 8:000 | 8.000 | 8.000 | 8:000 | 8.000 | 8 500 | 8.500 | 9.500 |
| Periodic Certificate Interest Rate Limit(11) | 1.000% | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 2.000 | 2.000 | 1.000 | 2.000 | 1.000 | 1.000 | 7.000 | 1.000 | 1,000 | 1,000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1,000 | 1.000 | 2.000 |
| Mortgage Rate Reset Frequency(10) | Annually | Annually | Annually | Annually | Annually | Annually | Annually | Annually | Annually | Annually | Annually | Annually | Annually | | Annually | | | | | | | | Annually | | Annually | | Annually | | ~ | | 7 | | Annually | Annually | Annually | Annually |
| Next Mortgage Rate Adjustment Date(9) | January 1, 2020 | January 1, 2020 | January 1, 2020 | | January 1, 2020 | January 1, 2020 | July 1, 2020 | January 1, 2020 | January 1, 2020 January 1, 2020 | -î - | Ť | <u>,</u> | ŕ | January 1, 2020 | January 1, 2020 | January 1, 2020 | January 1, 2020 | January 1, 2020 | January 1, 2020 | January 1, 2020 | July 1, 2020 | January 1, 2020 | January 1, 2020 | January 1, 2020 | July 1, 2020 July 1, 2020 | October 1, 2019 | July 1, 2020 | January 1, 2020 | July 1, 2020 | October 1, 2019 | January 1, 2020 | January 1, 2020 | January 1, 2020 | October 1, 2020 | October 1, 2019 | April 1, 2020 |
| Issue Date | October 1, 1998 | October 1, 1999 | November 1, 1999 | December 1, 1999 | November 1, 2002 | October 1, 2003 | June 1, 2004 | December 1, 2004 | November 1, 2010 | December 1, 2011 | October 1, 2012 | December 1, 2012 | October 1, 2013 | November 1, 2013 | October 1, 2009 | October 1, 2009 | October 1, 2009 | November 1, 2009 | November 1, 2009 | October 1, 2010 | May 1, 2011 | November 1, 2011 | December 1, 2011 | Aeril 1, 2007 | April 1, 2010 Time 1, 2016 | August 1, 2015 | June 1, 2015 | October 1, 2015 | April 1, 2014 | September 1, 2014 | October 1, 2014 | December 1, 2014 | November 1, 2014 | Tuly 1 2014 | September 1, 2014 | March 1, 2012 |
| Certificate Margin(8) | 1.500% | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 2000 | 1.500 | 1500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 2.000 | 1.500 | 1.500 | 1 500 | 1500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1.500 | 1500 | 1500 | 1.500 | 1.500 |
| Index | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1 Veer CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | I-Year CMI | 1-Year CMI | 1 Veer CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | 1-Year CMT | I-Year LIBOR |
| Approximate Weighted Average Servicing and Guaranty Fee Rate(7) | 1.250% | 1.161 | 1.256 | 1.141 | 1.122 | 0.688 | 0.295 | 0.54/ | 0.502 | 0.470 | 0.473 | 0.488 | 0.470 | 0.504 | 0.688 | 0.464 | 0.620 | 0.595 | 0.463 | 0.624 | 0.264 | 0.350 | 0.550 | 0.000 | 0.520 | 0.217 | 0.324 | 0.255 | 0.646 | 0.401 | 0.372 | 0.380 | 0.599 | 0.305 | 0.336 | 0.750 |
| Current Certificate Rate(6) | 4.125% | 4.125 | 4.125 | 4.125 | 4.125 | 4.125 | 4.125 | 4.125 | 4.125 | 4.125 | 4.125 | 4.125 | 4.125 | 4.125 | 4.125 | 4.125 | 4.125 | 4.125 | 4.125 | 4.125 | 4.125 | 4.125 | 4.125 | 1.02 | 2,000 | 2.500 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 25000 | 2500 | 3.500 | 4.375 |
| Approximate Weighted Average Current Mortgage Rate(5) | 5.375% | 5.286 | 5.381 | 5.266 | 5.247 | 4.813 | 4.420 | 4.6/2 | 4.00/ | 4.595 | 4.598 | 4.613 | 4.595 | 4.629 | 4.813 | 4.589 | 4.745 | 4.720 | 4.588 | 4.749 | 4.389 | 4.481 | 4.081 | 2000 | 2.020 | 2.717 | 3.324 | 3.255 | 3.646 | 3.401 | 3.372 | 3.386 | 965.5 | 3.805 | 3.836 | 5.125 |
| Approximate Weighted Average Loan Age (in months)(4) | 250 | 238 | 237 | 236 | 201 | 190 | 182 | T/5 | 100 | 91 | 81 | 62 | 69 | 89 | 118 | 118 | 117 | 116 | 116 | 106 | 8 8 | 93 | 14 | 20 | 75 | 47 | 46 | 45 | \$5 | 26 | 82 Y | 22 | 000% | 61 | 20 | 68 |
| Approximate Weighted Average Remaining Term to Maturity (in months)(3) | 110 | 122 | 123 | 124 | 159 | 170 | 178 | 184 | 255 | 3% | 277 | 279 | 290 | | | | | | | 254 | 262 | 707 | 269 183 | 210 | 322 | 313 | 311 | 314 | 596 | 301 | 302 | | | | | |
| Ginnie Mae Certificate Principal Balance(2) | \$ 6,817.70 | 9,265.13 | 8,526.44 | 4,686.83 | 5,209.18 | 46,131.39 | 30,657.31 | 72,145.88 | 63,119.9/ | 20.581.54 | 26,089.46 | 57,540.25 | 173,321.42 | 85,182.46 | 277,231.68 | 1,340,497.54 | 1,031,538.79 | 2,609,143.11 | 1,237,321.78 | 89,931.02 | 486,868.56 | 209,224.78 | 254,095.94 | 74,020.74 | 537 324 56 | 1.372,520.85 | 55,621.04 | 122,750.64 | 676,167.25 | 1,895,784.62 | 14,688,687.72 | 4,514,768.11 | 10,902,/0/.28 | 4 563 585 01 | 4,229,413,66 | 149,756.69 |
| Pool Number | 80231 | 80331 | 80344 | 80354 | 80652 | 80749 | 80950 | 811/4 | 0200/ | 82997 | MA0483 | MA0646 | MA1394 | MA1468 | 82412 | 82411 | 82414 | 82428 | 82421 | 82654 | 82843 | 82980 | 85015 | O1025 | MA3760 | MA3056 | MA2915 | MA3195 | MA1853 | MA2237 | MA2317 | MA2458 | MA2283 | MA2089 | MA2239 | 83063 |

(1) The information in this Exhibit B is provided by the Sponsor as of July 1, 2019. It is based on information regarding the Group 5 Trust Assets and the related Mortgage Loans. All weighted averages provided in this Exhibit B are weighted based on the outstanding principal amounts of the Mortgage Loans as of July 1, 2019.

The Ginnie Mae Certificate Principal Balance is the sum of the outstanding principal amounts of the Mortgage Loans underlying the The Approximate Weighted Average Remaining Term to Maturity (in months) is the approximate weighted average remaining term to related Trust MBS. 3

The Approximate Weighted Average Loan Age (in months) is the approximate weighted average loan age of the Mortgage Loans undermaturity of the Mortgage Loans underlying the related Trust MBS. lying the related Trust MBS. 4

The Approximate Weighted Average Current Mortgage Rate is the approximate weighted average of the interest rates of the Mortgage Loans underlying the related Trust MBS. $\widehat{\mathcal{O}}$

(6) The Current Certificate Rate is the current certificate rate of the related Trust MBS.

- The Approximate Weighted Average Servicing and Guaranty Fee Rate is the approximate weighted average monthly fee rate for servicing and for the Ginnie Mae Certificate Guaranty Fee. 0
- The Certificate Margin is the margin of the Mortgage Loans underlying the related Trust MBS net of the Servicing and Guaranty Fee Rate.
- The Next Mortgage Rate Adjustment Date is the next date on which the Mortgage Rate of each Mortgage Loan underlying the related Trust MBS resets under the Mortgage Rate formula and the related Mortgage Loan documents. 6
- (10) The Mortgage Rate Reset Frequency is the frequency that the Mortgage Rate of each Mortgage Loan resets under the Mortgage Rate formula and related Mortgage Loan documents applicable to each Mortgage Loan underlying the related Trust MBS after the first Mortgage Rate adjustment date.
 - (11) The Periodic Certificate Interest Rate Limit is the maximum periodic interest rate adjustment possible based on the MBS Guide.
- (12) The Lifetime Certificate Interest Rate Cap is the maximum certificate interest rate possible based on the MBS Guide.
 - (13) The Lifetime Certificate Interest Rate Floor is the minimum certificate interest rate possible based on the MBS Guide.
- (14) The Initial Certificate Rate at MBS Issuance is the initial certificate rate of the related Trust MBS.

The remaining terms to maturity, loan ages, Mortgage Rates, Mortgage Margins and next Mortgage Rate adjustment dates of many of the Mortgage Loans underlying the Group 5 Trust Assets will differ from the characteristics assumed, perhaps significantly. See "The Trust Assets — The Mortgage Loans" in this Supplement.



\$1,278,923,507

Government National Mortgage Association

GINNIE MAE®

Guaranteed REMIC
Pass-Through Securities
and MX Securities
Ginnie Mae REMIC Trust 2019-083

OFFERING CIRCULAR SUPPLEMENT July 23, 2019

Morgan Stanley Roberts & Ryan Investments