

# \$3,110,105,849 Government National Mortgage Association GINNIE MAE®

# Guaranteed REMIC Pass-Through Securities and MX Securities Ginnie Mae REMIC Trust 2019-110

#### **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 Ginnie Mae Certificates.

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-12 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 September 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.

	Original					Final
Class of REMIC Securities	Principal Balance(2)	Interest Rate	Principal Type(3)	Interest Type(3)	CUSIP Number	Distribution Date(4)
Security Group 1						
AT	\$ 50,000,000	2.50%	PT	FIX	38381Y VX9	September 2049
FA(1)	16,666,666	(5) (5)	PT NTL(PT)	FLT INV/IO	38381Y VY7 38381Y VZ4	September 2049
SA	16,666,666	(5)	NIL(PI)	INV/IO	383811 VZ4	September 2049
Security Group 2	600 000 007	0.50	DAC/AD	FIX	000047/7/40	Contombox 0040
AP(1)	603,838,027 896,161,973	2.50 2.50	PAC/AD PAC/AD	FIX	38381Y WA8 38381Y WB6	September 2049 September 2049
CZ(1)	92,593,025	3.50	SUP	FIX/Z	38381Y WC4	September 2049
IT	50,000,000	(5)	NTL(PAC/AD)	INV/IO	38381Y WD2	September 2049
PF	151,279,342	(5)	PAC/AD	FLT	38381Y WE0	September 2049
PI PS	256,046,278 201,279,342	3.50 (5)	NTL(PAC/AD) NTL(PAC/AD)	FIX/IO INV/IO	38381Y WF7 38381Y WG5	September 2049 September 2049
QF	50,000,000	(5)	PAC/AD	FLT	38381Y WH3	September 2049
ZC(1)	102,724,139	3.50	SUP	FIX/Z	38381Y WJ9	September 2049
Security Group 3						
BT	40,000,000	2.50	PT	FIX	38381Y WK6	September 2049
FB(1)	13,333,333	(5)	PT	FLT	38381Y WL4	September 2049
SB(1)	13,333,333	(5)	NTL(PT)	INV/IO	38381Y WM2	September 2049
Security Group 4	0.45 550 055		D.T.		000041/14#:-	
ET	245,570,692	2.50	PT PT	FIX FLT	38381Y WN0 38381Y WP5	September 2049 September 2049
FM(1)	30,010,571 20,607,448	(5) (5)	PT	FLT	38381Y WQ3	September 2049
FQ(1)	96,724,395	(5)	PT	FLT	38381Y WR1	September 2049
SM	30,010,571	(5)	NTL(PT)	INV/IO	38381Y WS9	September 2049
SN	20,607,448	(5)	NTL(PT)	INV/IO	38381Y WT7	September 2049
SQ	96,724,395	(5)	NTL(PT)	INV/IO	38381Y WU4	September 2049
Security Group 5	40,000,040	0.50	DT	FIV	000041/140/0	0
A	49,286,343 49,286,343	2.50	PT PT	FIX FLT	38381Y WV2 38381Y WW0	September 2049 September 2049
ST(1)	49,286,343	(5) (5)	NTL(PT)	INV/IO	38381Y WX8	September 2049
Security Group 6	-,,-	(-)	. ,			
FG	130,000,000	(5)	PT	FLT	38381Y WY6	September 2049
SG	130,000,000	(5)	NTL(PT)	INV/IO	38381Y WZ3	September 2049
Security Group 7						
В	154,735,615	2.50	PAC/AD	FIX	38381Y XA7	September 2049
F	51,578,538	(5) (5)	PAC/AD	FLT	38381Y XB5	September 2049
SZ	51,578,538 23,609,246	3.50	NTL(PAC/AD) SUP	INV/IO FIX/Z	38381Y XC3 38381Y XD1	September 2049 September 2049
	23,009,240	3.30	301	11//2	303011 AD1	September 2049
Security Group 8 CA	40,000,000	2.50	SEQ	FIX	38381Y XE9	July 2049
CL	525,956	2.50	SEQ	FIX	38381Y XF6	September 2049
FC(1)	13,508,651	(5)	PT	FLT	38381Y XG4	September 2049
SC(1)	13,508,651	(5)	NTL(PT)	INV/IO	38381Y XH2	September 2049
Security Group 9						
FD	49,495,556	(5)	PT	FLT	38381Y XJ8	September 2049
JA	4,612,167 25,085,166	2.50 2.50	SUP PAC	FIX FIX	38381Y XK5 38381Y XL3	September 2049 September 2049
SD	49,495,556	(5)	NTL(PT)	INV/IO	38381Y XM1	September 2049
Security Group 10	,,	(-/	(,			
FE	54,436,329	(5)	PT	FLT	38381Y XN9	September 2049
HA	6,971,000	2.50	SUP/AD	FIX	38381Y XP4	September 2049
Щ	1,379,000	2.50	PAC II	FIX	38381Y XQ2	September 2049
HZ PE	2,582 46,083,746	2.50 2.50	SUP PAC I	FIX/Z FIX	38381Y XR0 38381Y XS8	September 2049 September 2049
SE	54,436,329	(5)	NTL(PT)	INV/IO	38381Y XT6	September 2049
Residual	0.1,100,020	(0)	()		2300117110	2 - pto20 - 10 - 10
RR	0	0.00	NPR	NPR	38381Y XU3	September 2049
		0.00			-300117100	

- (1) These Securities may be exchanged for MX Securities described in Schedule I to this Supplement.
- (2) 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.
- (3) 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 this Supplement.
- (4) See "Yield, Maturity and Prepayment Considerations Final Distribution Date" in this Supplement.
- (5) See "Terms Sheet Interest Rates" in this Supplement.

#### J.P. Morgan

### Mischler Financial Group, Inc.

#### **AVAILABLE INFORMATION**

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

- this Offering Circular Supplement (this "Supplement") and
- the Base Offering Circular.

The Base Offering Circular is 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.

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.

#### **TABLE OF CONTENTS**

	Page		Page
Terms Sheet	S-3	ERISA Matters	S-40
Risk Factors	S-12	Legal Investment Considerations	S-41
The Trust Assets	S-15	Plan of Distribution	S-41
Ginnie Mae Guaranty	S-16	Increase in Size	S-41
Description of the Securities	S-16	Legal Matters	S-42
Yield, Maturity and Prepayment		Schedule I: Available Combinations	
Considerations	S-20	Schedule II: Scheduled Principal	
Certain United States Federal Income Tax		Balances	S-II-1
Consequences	S-38		

#### **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:** J.P. Morgan Securities LLC

**Co-Sponsor:** Mischler Financial Group, Inc.

Trustee: U.S. Bank National Association

**Tax Administrator:** The Trustee **Closing Date:** September 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 October 2019.

#### **Trust Assets:**

Trust Asset Group or Subgroup <sup>(1)</sup>	Trust Asset Type	Certificate Rate	Original Term To Maturity (in years)
1	Ginnie Mae II	3.5%	30
2A	Ginnie Mae II	3.5%	30
2B	Ginnie Mae II	3.5%	30
3	Ginnie Mae II	3.5%	30
4A	Ginnie Mae II	4.0%	30
4B	Ginnie Mae II	4.0%	30
4C	Ginnie Mae II	4.0%	30
5	Ginnie Mae II	4.5%	30
6	Ginnie Mae II	3.5%	30
7	Ginnie Mae II	3.5%	30
8	Ginnie Mae II	3.5%	30
9	Ginnie Mae II	5.0%	30
10	Ginnie Mae II	4.5%	30

<sup>&</sup>lt;sup>(1)</sup> The Group 2 and 4 Trust Assets consist of subgroups, Subgroup 2A, Subgroup 2B, Subgroup 4A, Subgroup 4B and Subgroup 4C, respectively (each, a "Subgroup").

**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 1, 3 and 8, 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 through 8 Trust Assets<sup>(1)</sup>:

Principal Balance	Weighted Average Remaining Term to Maturity (in months)	Weighted Average Loan Age (in months)	Weighted Average Mortgage Rate <sup>(2)</sup>
<b>Group 1 Trust Assets</b> \$ 66,666,666	359	1	4.000%
<b>Subgroup 2A Trust Assets</b> \$897,710,394	355	3	4.008%
<b>Subgroup 2B Trust Assets</b> \$998,886,112	357	2	4.018%
<b>Group 3 Trust Assets</b> \$ 53,333,333	356	1	4.017%
Subgroup 4A Trust Assets \$ 80,028,189	358	2	4.431%
<b>Subgroup 4B Trust Assets</b> \$ 54,953,196	357	2	4.570%
<b>Subgroup 4C Trust Assets</b> \$257,931,721	355	3	4.472%
<b>Group 5 Trust Assets</b> \$ 98,572,686	245	106	4.840%
<b>Group 6 Trust Assets</b> \$130,000,000	359	1	3.988%
<b>Group 7 Trust Assets</b> \$229,923,399	355	2	4.019%
<b>Group 8 Trust Assets</b> \$ 54,034,607	335	22	3.894%

<sup>(1)</sup> As of September 1, 2019.

The actual remaining terms to maturity, loan ages and Mortgage Rates of many of the Mortgage Loans underlying the Group 1 through 8 Trust Assets will differ from the weighted averages shown above, perhaps significantly. See "The Trust Assets — The Mortgage Loans" in this Supplement.

#### Characteristics of the Mortgage Loans Underlying the Group 9 and 10 Trust Assets:(1)(2)

ımber	Remain Principal to M	ning Term Maturity months)  Weighted Average Loan Age (in months)	Weighted Average Mortgage Rate <sup>(3)</sup>
ity Group 9 Trust Assets			
3	157,557.69	349 10	5.366%
9	2,402,907.62	351 7	5.503
3	1,127,946.34	352 7	5.486
	1,127,946.34	352 7	5

<sup>&</sup>lt;sup>(2)</sup> The Mortgage Loans underlying the Group 1 through 8 Trust Assets may bear interest at rates ranging from 0.25% to 1.50% per annum above the related Certificate Rate.

Pool Number	Principal Balance	Weighted Average Remaining Term to Maturity (in months)	Weighted Average Loan Age (in months)	Weighted Average Mortgage Rate <sup>(3)</sup>
BL1051\$	2,123,337.02	351	7	5.581%
BL2429	1,048,833.33	339	7	5.560
BL2884	1,792,250.03	354	5	5.494
BL2897	1,003,160.53	351	7	5.515
BL2916	1,742,685.93	352	7	5.529
BL2943	1,917,497.44	349	7	5.487
BL3036	978,732.26	345	7	5.750
BL3777	1,356,126.32	355	4	5.661
BL6719	1,770,764.68	356	3	5.631
BL7021	1,341,301.95	352	7	5.503
BM0885	1,501,662.74	344	9	5.497
BM7682	1,088,500.65	358	2	5.250
BN4388	1,181,515.95	357	3	5.300
BN7882	2,031,355.38	357	3	5.475
BN8451	1,213,997.78	356	4	5.525
BN8500	1,411,513.44	357	3	5.583
BN8598	1,170,981.04	356	4	5.675
BN8691	2,092,276.26	359	1	5.594
BN9740	1,335,594.62	357	3	5.651
BN9741	2,347,127.93	358	2	5.699
BN9742	2,990,374.66	356	3	5.678
BO1166	1,409,193.00	359	1	5.428
BO2211	1,065,808.69	351	2	5.559
BO3086	1,151,985.02	355	2	5.626
BO3299	4,598,411.49	356	4	5.549
BO4155	1,736,576.75	358	2	5.681
BO4661	1,612,789.35	358	2	5.617
BO5191	1,821,317.00	359	1	5.250
BO5194	1,278,484.00	359 359	1	5.250
BO5199	1,480,187.00	359 359	1	5.250
BO5207	1,287,955.00	360	0	5.250
BO5292	1,310,450.43	358	2	5.453
BO5548	1,410,086.76	358	1	5.544
BO7473	2,114,070.98	357	2	5.545
BO7476	4,041,594.17	356	3	5.548
BO7539	1,672,484.00	358	2	5.54 <del>0</del> 5.529
BP0745	1,367,570.00	360	0	5.649
BP1476	2,055,996.29			5.401
BP14/6		358 358	2 2	
BP2077	1,136,584.22	358 359	2	5.750 5.701
BP3641	3,269,503.96	358 359	2	5.701 5.709
BP3642	1,074,350.06	358 359	2	5.708 5.674
-	1,065,018.22	358 3.45		
BP3643	1,905,575.56	345	1	5.652
BP4817	1,064,462.00	360 350	0	5.250 5.636
BP6623	1,134,434.00	359	1	5.636
<u>\$</u>	79,192,889.54			

Pool Number	Principal Balance	Weighted Average Remaining Term to Maturity (in months)	Weighted Average Loan Age (in months)	Weighted Average Mortgage Rate <sup>(3)</sup>
Security Group 10 Trust Assets				
	15,879,854.35	341	15	4.932%
BI3162	5,317,083.86	344	15	5.059
BJ6691	3,967,197.84	349	11	4.985
BJ6692	5,714,330.99	346	11	4.979
BJ9921	3,177,905.44	337	5	5.000
BK0026	1,133,301.82	341	2	5.039
BL5323	3,009,642.19	356	4	4.959
BL6530	3,923,161.00	360	0	4.981
BM1730	346,078.60	353	6	5.181
BM1813	1,895,895.06	354	5	4.858
BM8994	1,932,857.08	353	7	4.944
BM8995	1,016,038.65	353	7	4.938
BN0824	2,104,803.60	358	2	5.192
BN3466	1,284,749.00	360	0	5.218
BN5575	1,545,645.33	355	3	5.028
BN8368	2,746,971.05	356	1	5.046
BN8497	184,774.01	356	3	4.943
BN8527	2,375,700.05	357	3	4.912
BN8529	1,840,096.22	357	2	5.002
BN8596	2,118,259.83	355	4	4.978
BN8690	1,471,847.84	359	1	5.090
BN9137	9,981,159.66	356	4	4.909
BO2373	2,368,758.13	357	2	5.051
BO2733	2,699,903.86	357 357	3	5.049
BO3315	2,147,516.76	357 357	3	5.067
BO4656	1,364,621.20	349	3	4.882
BO5019	1,465,159.71	358	2	4.782
BO5064	2,766,708.06	358	2	4.788
BO7507	3,228,700.52	358	2	4.983
BO7533	1,306,471.00	357	1	5.029
BO9177	1,023,712.74	358	2	5.029
BO9252	1,946,964.32	342	1	5.091
BP1852	2,265,426.96	359	1	4.765
BP2091	3,591,500.49	358	2	5.168
BP2124	4,600,561.15	358 358	2	5.125
BP2659	1,185,603.00	360	0	4.881
BP2660	1,200,203.00	360 360	0	5.067
BP3299	1,200,203.00	358	2	4.873
BP3700	1,664,075.28	358	1	5.076
DE 1/UU	1,004,0/3.28	330	1	J.U/U

<sup>(1)</sup> As of September 1, 2019.

<sup>(2)</sup> More than 10% of the Mortgage Loans underlying the Group 9 and 10 Trust Assets may be higher balance Mortgage Loans. *See "Risk Factors" in this Supplement.* 

<sup>(3)</sup> The Mortgage Loans underlying the Group 9 and 10 Trust Assets may bear interest at rates ranging from 0.25% to 1.50% per annum above the related Certificate Rate.

The actual remaining terms to maturity, loan ages and Mortgage Rates of many of the Mortgage Loans underlying the Group 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.

**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 "LIBOR") as follows:

Class	Interest Rate Formula(1)	Initial Interest Rate(2)	Minimum Rate	Maximum Rate	Delay (in days)	LIBOR for Minimum Interest Rate
Security Group 1						
FA	LIBOR + 0.45%	2.59500%	0.45%	6.50%	0	0.00%
SA	6.05% - LIBOR	3.90500%	0.00%	6.05%	0	6.05%
Security Group 2						
IT	6.09% - LIBOR	0.04000%	0.00%	0.04%	0	6.09%
PF	LIBOR + 0.45%	2.51688%	0.45%	6.50%	0	0.00%
PS	6.05% - LIBOR	3.98312%	0.00%	6.05%	0	6.05%
QF	LIBOR + 0.41%	2.47688%	0.41%	6.50%	0	0.00%
Security Group 3						
FB	LIBOR + 0.45%	2.59500%	0.45%	6.50%	0	0.00%
SB	6.05% - LIBOR	3.90500%	0.00%	6.05%	0	6.05%
Security Group 4						
EF	LIBOR + 0.45%	2.56600%	0.45%	6.50%	0	0.00%
FM	LIBOR + 0.45%	2.56600%	0.45%	6.50%	0	0.00%
FN	LIBOR + 0.45%	2.56600%	0.45%	6.50%	0	0.00%
FQ	LIBOR + 0.45%	2.56600%	0.45%	6.50%	0	0.00%
SM	6.05% - LIBOR	3.93400%	0.00%	6.05%	0	6.05%
SN	6.05% - LIBOR	3.93400%	0.00%	6.05%	0	6.05%
SQ	6.05% – LIBOR	3.93400%	0.00%	6.05%	0	6.05%
Security Group 5						
FT	LIBOR + 0.40%	2.46700%	0.40%	6.50%	0	0.00%
ST	6.10% - LIBOR	4.03300%	0.00%	6.10%	0	6.10%
Security Group 6						
FG	LIBOR + 0.65%	2.70725%	0.65%	3.50%	0	0.00%
SG	2.85% — LIBOR	0.79275%	0.00%	2.85%	0	2.85%

Interest Rate Formula(1)	Initial Interest Rate(2)	Minimum Rate	Maximum Rate	Delay (in days)	LIBOR for Minimum Interest Rate
LIBOR + 0.45%	2.48900%	0.45%	6.50%	0	0.00%
6.05% - LIBOR	4.01100%	0.00%	6.05%	0	6.05%
LIBOR + 0.45%	2.59500%	0.45%	6.50%	0	0.00%
6.05% - LIBOR	3.90500%	0.00%	6.05%	0	6.05%
LIBOR + 0.45%	2.59500%	0.45%	6.50%	0	0.00%
6.05% – LIBOR	3.90500%	0.00%	6.05%	0	6.05%
LIBOR + 0.40%	2.44900%	0.40%	6.50%	0	0.00%
6.10% - LIBOR	4.05100%	0.00%	6.10%	0	6.10%
LIBOR + 0.40%	2.44900%	0.40%	6.50%	0	0.00%
6.10% - LIBOR	4.05100%	0.00%	6.10%	0	6.10%
	LIBOR + 0.45% 6.05% - LIBOR LIBOR + 0.45% 6.05% - LIBOR LIBOR + 0.45% 6.05% - LIBOR LIBOR + 0.40% 6.10% - LIBOR LIBOR + 0.40%	Interest Rate Formula(1)         Interest Rate(2)           LIBOR + 0.45%         2.48900%           6.05% - LIBOR         4.01100%           LIBOR + 0.45%         2.59500%           6.05% - LIBOR         3.90500%           LIBOR + 0.45%         2.59500%           6.05% - LIBOR         3.90500%           LIBOR + 0.40%         2.44900%           6.10% - LIBOR         4.05100%           LIBOR + 0.40%         2.44900%	Interest Rate Formula(1)         Interest Rate(2)         Minimum Rate           LIBOR + 0.45%         2.48900%         0.45%           6.05% - LIBOR         4.01100%         0.00%           LIBOR + 0.45%         2.59500%         0.45%           6.05% - LIBOR         3.90500%         0.00%           LIBOR + 0.45%         2.59500%         0.45%           6.05% - LIBOR         3.90500%         0.00%           LIBOR + 0.40%         2.44900%         0.40%           6.10% - LIBOR         4.05100%         0.00%           LIBOR + 0.40%         2.44900%         0.40%           LIBOR + 0.40%         2.44900%         0.40%	Interest Rate Formula(1)         Interest Rate(2)         Minimum Rate         Maximum Rate           LIBOR + 0.45%         2.48900%         0.45%         6.50%           6.05% - LIBOR         4.01100%         0.00%         6.05%           LIBOR + 0.45%         2.59500%         0.45%         6.50%           6.05% - LIBOR         3.90500%         0.00%         6.05%           LIBOR + 0.45%         2.59500%         0.45%         6.50%           6.05% - LIBOR         3.90500%         0.00%         6.05%           LIBOR + 0.40%         2.44900%         0.40%         6.50%           6.10% - LIBOR         4.05100%         0.00%         6.50%           LIBOR + 0.40%         2.44900%         0.40%         6.50%           LIBOR + 0.40%         2.44900%         0.40%         6.50%	Interest Rate Formula(1)         Interest Rate(2)         Minimum Rate         Maximum Rate         Delay (in days)           LIBOR + 0.45%         2.48900%         0.45%         6.50%         0           6.05% - LIBOR         4.01100%         0.00%         6.50%         0           LIBOR + 0.45%         2.59500%         0.45%         6.50%         0           6.05% - LIBOR         3.90500%         0.00%         6.50%         0           LIBOR + 0.45%         2.59500%         0.45%         6.50%         0           6.05% - LIBOR         3.90500%         0.00%         6.05%         0           LIBOR + 0.40%         2.44900%         0.40%         6.50%         0           LIBOR + 0.40%         2.44900%         0.00%         6.10%         0           LIBOR + 0.40%         2.44900%         0.40%         6.50%         0           LIBOR + 0.40%         2.44900%         0.40%         6.50%         0

<sup>(1)</sup> 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.

**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, concurrently, to AT and FA, pro rata, until retired

#### **SECURITY GROUP 2**

The Subgroup 2A Principal Distribution Amount, the Subgroup 2B Principal Distribution Amount, the CZ Accrual Amount and the ZC Accrual Amount will be allocated as follows:

- The Subgroup 2A Principal Distribution Amount and the CZ Accrual Amount in the following order of priority:
- 1. Concurrently, to AP, PF and QF, pro rata, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
  - 2. To CZ, until retired
- 3. Concurrently, to AP, PF and QF, pro rata, without regard to their Aggregate Scheduled Principal Balance, until retired
- The Subgroup 2B Principal Distribution Amount and the ZC Accrual Amount in the following order of priority:
  - 1. To BP, until reduced to its Scheduled Principal Balance for that Distribution Date

<sup>(2)</sup> The initial Interest Rate will be in effect during the first Accrual Period; the Interest Rate will adjust monthly thereafter.

- 2. To ZC, until retired
- 3. To BP, without regard to its Scheduled Principal Balance, until retired

The Group 3 Principal Distribution Amount will be allocated, concurrently, to BT and FB, pro rata, until retired

#### **SECURITY GROUP 4**

The Subgroup 4A Principal Distribution Amount, the Subgroup 4B Principal Distribution Amount and the Subgroup 4C Principal Distribution Amount will be allocated as follows:

- 37.5000001562% of the Subgroup 4A Principal Distribution Amount to FM, until retired
- 37.499990901% of the Subgroup 4B Principal Distribution Amount to FN, until retired
- 37.4999998546% of the Subgroup 4C Principal Distribution Amount to FQ, until retired
- The remainder of the Subgroup 4A Principal Distribution Amount, the remainder of the Subgroup 4B Principal Distribution Amount and the remainder of the Subgroup 4C Principal Distribution Amount to ET, until retired

#### **SECURITY GROUP 5**

The Group 5 Principal Distribution Amount will be allocated, concurrently, to A and FT, pro rata, until retired

#### **SECURITY GROUP 6**

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

#### **SECURITY GROUP 7**

The Group 7 Principal Distribution Amount and the Z Accrual Amount will be allocated in the following order of priority:

- 1. Concurrently, to B and F, pro rata, until reduced to their Aggregate Scheduled Principal Balance for that Distribution Date
  - 2. To Z, until retired
- 3. Concurrently, to B and F, pro rata, without regard to their Aggregate Scheduled Principal Balance, until retired

#### **SECURITY GROUP 8**

The Group 8 Principal Distribution Amount will be allocated as follows:

- 24.9999986120% to FC, until retired
- 75.0000013880% sequentially, to CA and CL, in that order, until retired

The Group 9 Principal Distribution Amount will be allocated, concurrently, as follows:

- 62.5000004735% to FD, until retired
- 37.4999995265% in the following order of priority:
  - 1. To PD, until reduced to its Scheduled Principal Balance for that Distribution Date
  - 2. To JA, until retired
  - 3. To PD, without regard to its Scheduled Principal Balance, until retired

#### **SECURITY GROUP 10**

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

- The HZ Accrual Amount, sequentially, to HA and HZ, in that order, until retired
- The Group 10 Principal Distribution Amount, concurrently, as follows:
  - 1. 50.0000004593% to FE, until retired
  - 2. 49.999995407% in the following order of priority:
    - a. To PE, until reduced to its Scheduled Principal Balance for that Distribution Date
    - b. To HD, until reduced to its Scheduled Principal Balance for that Distribution Date
    - c. Sequentially, to HA and HZ, in that order, until retired
    - d. To HD, without regard to its Scheduled Principal Balance, until retired
    - e. To PE, without regard to its 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	
AP, PF and QF (in the aggregate)	140% PSA through 215% PSA
B and F (in the aggregate)	140% PSA through 215% PSA
BP	140% PSA through 215% PSA
PD*	150% PSA through 240% PSA
PAC I Class	
PE	150% PSA through 240% PSA
PAC II Class	
HD	165% PSA through 250% PSA

<sup>\*</sup> The initial Effective Range is 151% PSA through 237% 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 indicated:

Class	Original Class Notional Balance	Represents Approximately
Security Group 1		
SA	\$ 16,666,666	100% of FA (PT Class)
Security Group 2		
IT	\$ 50,000,000	100% of QF (PAC/AD Class)
PI	256,046,278	28.5714285714% of BP (PAC/AD Class)
PS	201,279,342	100% of PF and QF (in the aggregate) (PAC/AD Classes)
Security Group 3		
SB	\$ 13,333,333	100% of FB (PT Class)
Security Group 4		
SM	/	100% of FM (PT Class)
SN	20,607,448	100% of FN (PT Class)
SQ	96,724,395	100% of FQ (PT Class)
Security Group 5		
ST	\$ 49,286,343	100% of FT (PT Class)
TI	49,286,343	100% of FT (PT Class)
Security Group 6		
SG	\$130,000,000	100% of FG (PT Class)
Security Group 7		
S	\$ 51,578,538	100% of F (PAC/AD Class)
Security Group 8		
SC	\$ 13,508,651	100% of FC (PT Class)
Security Groups 3 and 8		
AS	\$ 26,841,984	100% of FB and FC (in the aggregate) (PT Classes)
Security Group 9		
SD	\$ 49,495,556	100% of FD (PT Class)
Security Group 10		
SE	\$ 54,436,329	100% of FE (PT 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 payments, loss mitigation 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.

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 LIBOR will affect the yields on floating rate and inverse floating rate securities. If LIBOR performs differently from what you expect, the yield on your securities may be lower than you expect. Lower levels of LIBOR will generally reduce the yield on floating rate securities; higher levels of LIBOR will generally reduce the yield on inverse floating rate securities. You should bear in mind that the timing of changes in the level of LIBOR may affect your yield: generally, the earlier a change,

the greater the effect on your yield. It is doubtful that 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 classes will not receive any principal distribution on that date (other than from any applicable accrual amount). 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 classes.

Up to 10% of the mortgage loans underlying the group 1 through 8 trust assets and up to 100% of the mortgage loans underlying the group 9 and 10 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 Conduct Authority Financial (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 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, 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 will evidence, directly or indirectly, Ginnie Mae Certificates.

#### The Trust MBS

The Trust MBS 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.

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 Mortgage Loans

The Mortgage Loans underlying the Group 1 through 8 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 through 8 Trust Assets" and the general characteristics described in the Base Offering Circular. The Mortgage Loans underlying the Group 9 and 10 Trust Assets are expected to have, on a weighted average basis, the characteristics set forth in the Terms Sheet under "Characteristics of the Mortgage Loans Underlying the Group 9 and 10 Trust Assets" and the general characteristics described in the Base Offering Circular. The Mortgage Loans will consist of first lien, single-family, fixed 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.

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 Mortgage Rates of the Mortgage Loans underlying the Trust MBS. However, the actual remaining terms to maturity, loan ages and Mortgage Rates 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 Certifi-

cated 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 Classes	The calendar month preceding the related Distribution Date
Floating Rate and	From the 20th day of the month preceding the month of the related Distribution
Inverse Floating	Date through the 19th day of the month of that Distribution Date
Rate Classes	

#### 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 LIBOR. The Trustee or its agent will determine 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 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 LIBOR on the basis of the ICE LIBOR method for one-month U.S. dollar deposits will not change. Any change in LIBOR values resulting from any change in reporting or in the determination of LIBOR may cause LIBOR to fluctuate disproportionately to changes in other market lending rates.

The Trustee's determination of LIBOR and its calculation of the Interest Rates will be final except in the case of clear error. Investors can obtain 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 CZ, HZ, Z and ZC 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 or Subgroup, as applicable, 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 Combination 4, 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 Combination 4, 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 or 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 2019-110. 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  $V_{32}$  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 mortgage loans, generally:

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

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.

#### **Accretion Directed Classes**

Classes AP, B, BP, F, HA, PF and QF are Accretion Directed Classes. The related Accrual Amounts will be applied to making principal distributions on those Classes. Each of Classes IT, PI, PS and S is a Notional Class whose Class Notional Balance is determined by reference to the Class Principal Balance of the related Accretion Directed Class or Classes 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 constant prepayment rate significantly higher than 0% PSA, except within any applicable Effective Range.

#### 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	
AP, PF and QF (in the aggregate)	140% PSA through 215% PSA
B and F (in the aggregate)	140% PSA through 215% PSA
BP	140% PSA through 215% PSA
PD	151% PSA through 237% PSA
PAC I Class	
PE	150% PSA through 240% PSA
PAC II Class	
HD	165% PSA through 250% PSA

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

- The principal payment stability of the PAC I Class will be supported by the related PAC II and Support Classes.
- The principal payment stability of the PAC II Class will be supported by the related Support Classes.

If all of the Classes supporting a given Class are 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 or Classes 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 following assumptions (the "Modeling Assumptions"), among others:

1. The Mortgage Loans underlying the Group 1 through 8 Trust Assets have the assumed characteristics shown under "Assumed Characteristics of the Mortgage Loans Underlying the Trust Assets" in the

Terms Sheet and the Mortgage Loans underlying the Group 9 and 10 Trust Assets have the characteristics shown under "Characteristics of the Mortgage Loans Underlying the Group 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 underlying a Group 1 through 8 Trust Asset 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.

- 2. The Mortgage Loans prepay at the constant percentages of PSA (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 October 2019.
  - 4. A termination of the Trust does not occur.
  - 5. The Closing Date for the Securities is September 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. Each Class is held from the Closing Date and is not exchanged in whole or in part.

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 model used in this Supplement, Prepayment Speed Assumption ("PSA"), is the standard prepayment assumption model 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. 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"). As used in the tables, each of the PSA Prepayment Assumption Rates reflects a percentage of the 100% PSA assumed prepayment rate. The Mortgage Loans will not prepay at any of the PSA 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 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. 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. 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.

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

Security Group 1 PSA Prepayment Assumption Rates

	Classes AT, FA and SA									
Distribution Date	0%	100%	322%	500%	700%					
Initial Percent	100	100	100	100	100					
September 2020	99	97	93	91	88					
September 2021	97	91	80	72	62					
September 2022	95	84	64	50	36					
September 2023	94	77	50	34	21					
September 2024	92	71	40	23	12					
September 2025	90	65	31	16	7					
September 2026	88	60	25	11	4					
September 2027	86	55	19	7	2					
September 2028	84	50	15	5	1					
September 2029	81	45	12	5 3 2 2	1					
September 2030	79	41	9	2	0					
September 2031	76	37	7	2	0					
September 2032	74	34	6	1	0					
September 2033	71	30	4	1	0					
September 2034	68	27	3 3	0	0					
September 2035	65	24	3	0	0					
September 2036	61	22	2	0	0					
September 2037	58	19	1	0	0					
September 2038	54	17	1	0	0					
September 2039	51	15	1	0	0					
September 2040	47	13	1	0	0					
September 2041	42	11	0	0	0					
September 2042	38	9	0	0	0					
September 2043	33	7	0	0	0					
September 2044	28	6	0	0	0					
September 2045	23	4	0	0	0					
September 2046	18	3	0	0	0					
September 2047	12	2	0	0	0					
September 2048	6	1	0	0	0					
September 2049	0	0	0	0	0					
Weighted Average										
Life (years)	18.6	10.7	5.2	3.7	2.8					

Security Group 2
PSA Prepayment Assumption Rates
Classes BP and PI

	PSA Prepayment Assumption Rates									Rates							
	C	lasses AF	, IT, PF,	PS and (	QF		Class	ses BP ar	nd PI		Class CZ						
Distribution Date	0%	140%	175%	215%	400%	0%	140%	175%	215%	400%	0%	140%	175%	215%	400%		
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
September 2020	98	95	95	95	95	98	95	95	95	95	104	104	97	90	56		
September 2021	96	86	86	86	82	96	87	87	87	84	107	107	88	66	0		
September 2022	94	75	75	75	61	94	76	76	76	63	111	111	77	38	0		
September 2023	91	66	66	66	46	91	66	66	66	47	115	115	69	19	0		
September 2024	89	57	57	57	34	89	58	58	58	35	119	119	65	7	0		
September 2025	86	49	49	49	25	86	50	50	50	26	123	123	63	1	0		
September 2026	83	42	42	42	19	83	42	42	42	19	128	128	64	0	0		
September 2027	81	35	35	35	14	81	36	36	36	14	132	130	64	0	0		
September 2028	78	30	30	30	10	78	30	30	30	10	137	129	63	0	0		
September 2029	74	25	25	25	7	74	26	26	26	8	142	125	61	0	0		
September 2030	71	21	21	21	5	71	21	21	21	6	147	120	57	0	0		
September 2031	68	18	18	18	4	68	18	18	18	4	152	114	54	0	0		
September 2032	64	15	15	15	3	64	15	15	15	3	158	107	50	0	0		
September 2033	60	12	12	12	2	60	13	13	13	2	163	99	46	0	0		
September 2034	56	10	10	10	2	56	10	10	10	2	169	91	41	0	0		
September 2035	52	8	8	8	1	52	9	9	9	1	175	83	37	0	0		
September 2036	48	7	7	7	1	48	7	7	7	1	181	75	33	0	0		
September 2037	43	6	6	6	1	43	6	6	6	1	188	67	29	0	0		
September 2038	38	5	5	5	0	38	5	5	5	0	194	59	25	0	0		
September 2039	33	4	4	4	0	33	4	4	4	0	201	52	22	0	0		
September 2040	28	3	3	3	0	28	3	3	3	0	208	45	19	0	0		
September 2041	22	2	2	2	0	23	2	2	2	0	216	38	15	0	0		
September 2042	17	2	2	2	0	17	2	2	2	0	223	31	13	0	0		
September 2043	11	1	1	1	0	11	1	1	1	0	231	25	10	0	0		
September 2044	4	1	1	1	0	4	1	1	1	0	240	20	8	0	0		
September 2045	1	1	1	1	0	1	1	1	1	0	220	15	6	0	0		
September 2046	0	0	0	0	0	0	0	0	0	0	170	10	4	0	0		
September 2047	0	0	0	0	0	0	0	0	0	0	117	6	2	0	0		
September 2048	0	0	0	0	0	0	0	0	0	0	60	2	1	0	0		
September 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Weighted Average																	
Life (years)	15.4	7.3	7.3	7.3	4.6	15.4	7.4	7.4	7.4	4.7	27.9	18.7	12.3	2.7	1.0		

Security Group 2 PSA Prepayment Assumption Rates

			Class P				Class ZC					Class ZD					
Distribution Date	0%	140%	175%	215%	400%	0%	140%	175%	215%	400%	0%	140%	175%	215%	400%		
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
September 2020	98	95	95	95	95	104	104	98	91	61	104	104	98	91	59		
September 2021	96	86	86	86	83	107	107	89	68	0	107	107	88	67	0		
September 2022	94	76	76	76	62	111	111	77	40	0	111	111	77	39	0		
September 2023	91	66	66	66	46	115	115	70	20	0	115	115	69	20	0		
September 2024	89	57	57	57	34	119	119	65	8	0	119	119	65	8	0		
September 2025	86	49	49	49	25	123	123	63	2	0	123	123	63	1	0		
September 2026	83	42	42	42	19	128	128	64	0	0	128	128	64	0	0		
September 2027	81	36	36	36	14	132	130	64	0	0	132	130	64	0	0		
September 2028	78	30	30	30	10	137	129	63	0	0	137	129	63	0	0		
September 2029	74	25	25	25	8	142	126	61	0	0	142	126	61	0	0		
September 2030	71	21	21	21	6	147	121	58	0	0	147	121	58	0	0		
September 2031	68	18	18	18	4	152	115	54	0	0	152	115	54	0	0		
September 2032	64	15	15	15	3	158	108	50	0	0	158	108	50	0	0		
September 2033	60	12	12	12	2	163	100	46	0	0	163	100	46	0	0		
September 2034	56	10	10	10	2	169	92	42	0	0	169	92	42	0	0		
September 2035	52	9	9	9	1	175	84	38	0	0	175	84	37	0	0		
September 2036	48	7	7	7	1	181	76	34	0	0	181	76	33	0	0		
September 2037	43	6	6	6	1	188	68	30	0	0	188	68	29	0	0		
September 2038	38	5	5	5	0	194	60	26	0	0	194	60	26	0	0		
September 2039	33	4	4	4	0	201	53	22	0	0	201	52	22	0	0		
September 2040	28	3	3	3	0	208	45	19	0	0	208	45	19	0	0		
September 2041	23	2	2	2	0	216	39	16	0	0	216	38	16	0	0		
September 2042	17	2	2	2	0	223	32	13	0	0	223	32	13	0	0		
September 2043	11	1	1	1	0	231	26	10	0	0	231	26	10	0	0		
September 2044	4	1	1	1	0	240	21	8	0	0	240	20	8	0	0		
September 2045	1	1	1	1	0	220	16	6	0	0	220	15	6	0	0		
September 2046	0	0	0	0	0	170	11	4	0	0	170	11	4	0	0		
September 2047	0	0	0	0	0	117	7	2	0	0	117	6	2	0	0		
September 2048	0	0	0	0	0	60	3	1	0	0	60	2	1	0	0		
September 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Weighted Average																	
Life (years)	15.4	7.3	7.3	7.3	4.7	27.9	18.8	12.4	2.8	1.1	27.9	18.7	12.3	2.8	1.1		

Security Group 3
PSA Prepayment Assumption Rates

	Classes BT, FB and SB									
Distribution Date	0%	100%	384%	600%	800%					
Initial Percent	100	100	100	100	100					
September 2020	99	97	93	89	86					
September 2021	97	91	77	67	58					
September 2022	95	84	59	43	30					
September 2023	94	77	44	27	15					
September 2024	92	71	33	17	8					
September 2025	90	65	25	10	4					
September 2026	88	60	19	7	2					
September 2027	86	55	14	4	1					
September 2028	84	50	10	3	1					
September 2029	81	45	8	2	0					
September 2030	79	41	6	1	0					
September 2031	76	37	4	1	0					
September 2032	74	34	3 2	0	0					
September 2033	71	30		0	0					
September 2034	68	27	2	0	0					
September 2035	65	24	1	0	0					
September 2036	61	21	1	0	0					
September 2037	58	19	1	0	0					
September 2038	54	17	0	0	0					
September 2039	51	14	0	0	0					
September 2040	47	12	0	0	0					
September 2041	42	10	0	0	0					
September 2042	38	9	0	0	0					
September 2043	33	7	0	0	0					
September 2044	28	6	0	0	0					
September 2045	23	4	0	0	0					
September 2046	18	3	0	0	0					
September 2047	12	2	0	0	0					
September 2048	6	1	0	0	0					
September 2049	0	0	0	0	0					
Weighted Average Life (years)	18.6	10.7	4.5	3.2	2.6					
() Caro)	10.0	10.7		J. <b>-</b>	0					

Security Group 4
PSA Prepayment Assumption Rates

		C	lasses	EF and	ET			Cl	asses 1	FM and	SM			С	lasses 1	FN and	SN			C	lasses 1	FQ and	SQ	
Distribution Date	0%	100%	300%	545%	800%	1,100%	0%	100%	300%	545%	800%	1,100%	0%	100%	300%	545%	800%	1,100%	0%	100%	300%	545%	800%	1,100%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2020	99	97	93	88	84	78	99	97	93	89	85	80	99	97	93	89	85	80	99	96	93	88	83	77
September 2021	97	91	80	67	54	41	97	91	80	68	56	43	97	91	80	68	56	43	97	91	79	66	53	40
September 2022	96	84	64	44	28	14	96	84	65	45	29	15	96	84	65	45	29	15	96	84	64	44	27	13
September 2023	94	77	52	29	14	5	94	77	52	30	15	5	94	78	52	30	15	5	94	77	51	29	14	4
September 2024	92	71	41	19	7	2	92	71	42	20	7	2	92	71	42	20	8	2	92	71	41	19	7	1
September 2025	91	65	33	13	4	1	91	66	34	13	4	1	91	66	34	13	4	1	91	65	33	13	4	0
September 2026	89	60	27	8	2	0	89	60	27	8	2	0	89	60	27	9	2	0	89	60	26	8	2	0
September 2027	87	55	21	5	1	0	87	55	21	6	1	0	87	55	22	6	1	0	87	55	21	5	1	0
September 2028	85	50	17	4	0	0	85	50	17	4	0	0	85	50	17	4	0	0	85	50	17	4	0	0
September 2029	83	46	13	2	0	0	83	46	14	2	0	0	83	46	14	2	0	0	83	46	13	2	0	0
September 2030	80	42	11	2	0	0	80	42	11	2	0	0	80	42	11	2	0	0	80	41	11	1	0	0
September 2031	78	38	8	1	0	0	78	38	9	1	0	0	78	38	9	1	0	0	78	38	8	1	0	0
September 2032	75	34	7	1	0	0	75	34	7	1	0	0	75	34	7	1	0	0	75	34	7	1	0	0
September 2033	72	31	5	0	0	0	72	31	5	0	0	0	72	31	5	0	0	0	72	31	5	0	0	0
September 2034	69	28	4	0	0	0	69	28	4	0	0	0	69	28	4	0	0	0	69	27	4	0	0	0
September 2035	66	25	3	0	0	0	66	25	3	0	0	0	66	25	3	0	0	0	66	24	3	0	0	0
September 2036	63	22	2	0	0	0	63	22	3	0	0	0	63	22	3	0	0	0	63	22	2	0	0	0
September 2037	60	19	2	0	0	0	60	19	2	0	0	0	60	20	2	0	0	0	60	19	2	0	0	0
September 2038	56	17	1	0	0	0	56	17	1	0	0	0	56	17	1	0	0	0	56	17	1	0	0	0
September 2039	52	15	1	0	0	0	52	15	1	0	0	0	52	15	1	0	0	0	52	15	1	0	0	0
September 2040	48	13	1	0	0	0	48	13	1	0	0	0	48	13	1	0	0	0	48	13	1	0	0	0
September 2041	44	11	1	0	0	0	44	11	1	0	0	0	44	11	1	0	0	0	44	11	1	0	0	0
September 2042	40	9	0	0	0	0	40	9	0	0	0	0	40	9	0	0	0	0	40	9	0	0	0	0
September 2043	35	/	0	0	0	0	35	8	0	0	0	0	35	8	0	0	0	0	35	/	0	0	0	0
September 2044 September 2045	30	6	0	0	0	0	30 24	6 5	0	0	0	0	30 24	6	0	0	0	0	30 24	6	0	0	0	0
September 2046	24 19	3	0	0	0	0	19	2	0	0	0	0	19	3	0	0	0	0	19	4	0	0	0	0
September 2047	13	2	0	0	0	0	13	2	0	0	0	0	13	2	0	0	0	0	13	2	0	0	0	0
September 2048	15	1	0	0	0	0	15	1	0	0	0	0	15	1	0	0	0	0	7	1	0	0	0	0
September 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average	U	0	U	U	U	U	U	U	U	U	U	0	U	U	U	U	U	U	U	U	U	U	U	U
Life (years)	19.0	10.7	5.4	3.4	2.5	1.9	19.0	10.8	5.4	3.4	2.5	1.9	19.0	10.8	5.5	3.4	2.5	1.9	19.0	10.7	5.4	3.3	2.4	1.9
V	,				-													-				0.0		

Security Group 5
PSA Prepayment Assumption Rates
es A, FT, ST, TA, TB, TC, TD, TE, TG, TH, TI, TI,

	Classes A, FT, ST, TA, TB, TC, TD, TE, TG, TH, TI, TJ, TK and TN									
Distribution Date	0%	100%	259%	450%	600%					
Initial Percent	100	100	100	100	100					
September 2020	99	91	82	71	62					
September 2021	97	83	67	50	38					
September 2022	96	75	55	35	24					
September 2023	95	68	44	25	15					
September 2024	93	61	36	17	9					
September 2025	91	55	29	12	5					
September 2026	90	49	23	8	3					
September 2027	88	44	19	6	9 5 3 2 1					
September 2028	86	39	15	4						
September 2029	84	34	12	3 2	1					
September 2030	81	30	9		0					
September 2031	79	25	7	1	0					
September 2032	77	21	5 4	1	0					
September 2033	74	18		1	0					
September 2034	71	15	3	0	0					
September 2035	68	11	2	0	0					
September 2036	65	8	1	0	0					
September 2037	61	6	1	0	0					
September 2038	58	3	0	0	0					
September 2039	54	1	0	0	0					
September 2040	50	0	0	0	0					
September 2041	46	0	0	0	0					
September 2042	41	0	0	0	0					
September 2043	36	0	0	0	0					
September 2044	31	0	0	0	0					
September 2045	26	0	0	0	0					
September 2046	20	0	0	0	0					
September 2047	14	0	0	0	0					
September 2048	7	0	0	0	0					
September 2049	0	0	0	0	0					
Weighted Average										
Life (years)	19.3	7.9	4.6	2.9	2.1					

Security Group 6 PSA Prepayment Assumption Rates

		Cla	asses FG and	SG	
Distribution Date	0%	100%	396%	600%	800%
Initial Percent	100	100	100	100	100
September 2020	99	97	92	89	86
September 2021	97	91	77	67	58
September 2022	95	84	58	43	30
September 2023	94	77	43	27	15
September 2024	92	71	32	17	8
September 2025	90	65	24	10	4
September 2026	88	60	18	7	2
September 2027	86	55	13	4	1
September 2028	84	50	10	3	1
September 2029	81	45	7	2	0
September 2030	79	41	5	1	0
September 2031	76	37	4	1	0
September 2032	74	34	3	0	0
September 2033	71	30	3 2	0	0
September 2034	68	27	2	0	0
September 2035	65	24	1	0	0
September 2036	61	22	1	0	0
September 2037	58	19	1	0	0
September 2038	54	17	0	0	0
September 2039	51	15	0	0	0
September 2040	47	13	0	0	0
September 2041	42	11	0	0	0
September 2042	38	9	0	0	0
September 2043	33	7	0	0	0
September 2044	28	6	0	0	0
September 2045	23	4	0	0	0
September 2046	18	3	0	0	0
September 2047	12	2	0	0	0
September 2048	6	1	0	0	0
September 2049	0	0	0	0	0
Weighted Average					
Life (years)	18.6	10.7	4.4	3.2	2.6

Security Group 7 PSA Prepayment Assumption Rates

		Clas	ses B, F a	nd S				Class Z		
Distribution Date	0%	140%	175%	215%	400%	0%	140%	175%	215%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100
September 2020	98	95	95	95	95	104	104	98	91	61
September 2021	96	87	87	87	84	107	107	89	68	0
September 2022	94	76	76	76	63	111	111	77	40	0
September 2023	91	66	66	66	47	115	115	70	20	0
September 2024	89	58	58	58	35	119	119	65	8	0
September 2025	86	50	50	50	26	123	123	63	2	0
September 2026	83	42	42	42	19	128	128	64	0	0
September 2027	81	36	36	36	14	132	130	64	0	0
September 2028	78	30	30	30	10	137	129	63	0	0
September 2029	74	25	25	25	8	142	126	61	0	0
September 2030	71	21	21	21	6	147	121	58	0	0
September 2031	68	18	18	18	4	152	115	54	0	0
September 2032	64	15	15	15	3	158	108	50	0	0
September 2033	60	13	13	13	2	163	100	46	0	0
September 2034	56	10	10	10	2	169	92	42	0	0
September 2035	52	9	9	9	1	175	84	37	0	0
September 2036	48	Ź	Ź	Ź	1	181	76	33	0	0
September 2037	43	6	6	6	1	188	68	29	0	0
September 2038	38	5	5	5	0	194	60	26	0	0
September 2039	33	4	4	4	0	201	52	22	0	0
September 2040	28	3	3	3	0	208	45	19	0	0
September 2041	23	2	2	2	0	216	38	16	0	0
September 2042	17	2	2	2	0	223	32	13	0	0
September 2043	11	1	1	1	0	231	26	10	0	0
September 2044	4	1	1	1	0	240	20	8	0	0
September 2045	1	1	1	1	0	221	15	6	0	0
September 2046	0	0	0	0	0	171	10	4	0	0
September 2047	0	0	0	0	0	117	6	2	0	0
September 2048	Ŏ	Õ	Ŏ	Õ	Ŏ	60	2	1	Ŏ	Õ
September 2049	0	Ö	0	0	0	0	0	0	0	0
Weighted Average Life (years)	15.4	7.3	7.3	7.3	4.7	27.9	18.7	12.3	2.8	1.1
		7.5	7.5	7.5	117	=7.0	20.7			1.1

Security Group 8 PSA Prepayment Assumption Rates

			Class CA				Class CL					Classes FC and SC					
Distribution Date	0%	100%	399%	600%	800%	0%	100%	399%	600%	800%	0%	100%	399%	600%	800%		
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
September 2020	99	92	76	65	54	100	100	100	100	100	99	93	76	65	54		
September 2021	97	85	56	40	27	100	100	100	100	100	97	85	57	41	28		
September 2022	95	78	41	25	13	100	100	100	100	100	95	78	42	26	14		
September 2023	94	71	30	15	6	100	100	100	100	100	94	72	31	16	7		
September 2024	92	65	22	9	2	100	100	100	100	100	92	66	23	10	4		
September 2025	90	60	16	5	1	100	100	100	100	100	90	60	17	6	2		
September 2026	88	54	12	3	0	100	100	100	100	71	88	55	13	4	1		
September 2027	86	49	8	1	0	100	100	100	100	36	86	50	9	2	0		
September 2028	83	45	6	0	0	100	100	100	100	18	84	45	7	1	0		
September 2029	81	40	4	0	0	100	100	100	70	9	81	41	5	1	0		
September 2030	79	36	2	0	0	100	100	100	43	5	79	37	4	1	0		
September 2031	76	32	1	0	0	100	100	100	26	2	76	33	3	0	0		
September 2032	73	29	1	0	0	100	100	100	16	1	74	30	2	0	0		
September 2033	70	26	0	0	0	100	100	100	10	1	71	27	1	0	0		
September 2034	67	23	0	0	0	100	100	78	6	0	68	24	1	0	0		
September 2035	64	20	0	0	0	100	100	55	4	0	65	21	1	0	0		
September 2036	61	17	0	0	0	100	100	39	2	0	61	18	1	0	0		
September 2037	57	15	0	0	0	100	100	28	1	0	58	16	0	0	0		
September 2038	54	13	0	0	0	100	100	19	1	0	54	14	0	0	0		
September 2039	50	11	0	0	0	100	100	13	0	0	51	12	0	0	0		
September 2040	46	9	0	0	0	100	100	9	0	0	47	10	0	0	0		
September 2041	42	7	0	0	0	100	100	6	0	0	42	8	0	0	0		
September 2042	37	5	0	0	0	100	100	4	0	0	38	6	0	0	0		
September 2043	32	4	0	0	0	100	100	2	0	0	33	5	0	0	0		
September 2044	28	2	0	0	0	100	100	1	0	0	28	3	0	0	0		
September 2045	22	1	0	0	0	100	100	1	0	0	23	2	0	0	0		
September 2046	17	0	0	0	0	100	77	0	0	0	18	1	0	0	0		
September 2047	11	0	0	0	0	100	0	0	0	0	12	0	0	0	0		
September 2048	5	0	0	0	0	100	0	0	0	0	6	0	0	0	0		
September 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Weighted Average																	
Life (years)	18.5	9.4	3.3	2.1	1.5	29.9	27.3	17.1	11.3	8.0	18.6	9.6	3.4	2.2	1.6		

Security Groups 1, 3 and 8 PSA Prepayment Assumption Rates

					Class AF				
Distribution Date	0%	100%	322%	384%	399%	500%	600%	700%	800%
Initial Percent	100	100	100	100	100	100	100	100	100
September 2020	99	95	89	88	87	85	82	79	76
September 2021	97	89	75	71	70	64	59	54	49
September 2022	95	82	60	54	53	45	37	31	25
September 2023	94	76	47	41	39	31	23	18	13
September 2024	92	69	37	31	29	21	15	10	7
September 2025	90	64	29	23	22	14	9	6	3
September 2026	88	58	23	17	16	10	6	3	2
September 2027	86	53	18	13	12	7	4	2	1
September 2028	84	48	14	10	9	4	2	1	0
September 2029	81	44	11	7	6	3	1	1	0
September 2030	79	40	9	5	5	2	1	0	0
September 2031	76	36	7	4	3	1	1	0	0
September 2032	74	33	5	3	3	1	0	0	0
September 2033	71	29	4	2	2	1	0	0	0
September 2034	68	26	3	2	1	0	0	0	0
September 2035	65	23	2	1	1	0	0	0	0
September 2036	61	21	2	1	1	0	0	0	0
September 2037	58	18	1	1	0	0	0	0	0
September 2038	54	16	1	0	0	0	0	0	0
September 2039	51	14	1	0	0	0	0	0	0
September 2040	47	12	1	0	0	0	0	0	0
September 2041	42	10	0	0	0	0	0	0	0
September 2042	38	8	0	0	0	0	0	0	0
September 2043	33	6	0	0	0	0	0	0	0
September 2044	28	5	0	0	0	0	0	0	0
September 2045	23	4	0	0	0	0	0	0	0
September 2046	18	2	0	0	0	0	0	0	0
September 2047	12	1	0	0	0	0	0	0	0
September 2048	6	1	0	0	0	0	0	0	0
September 2049	0	0	0	0	0	0	0	0	0
Weighted Average									
Life (years)	18.6	10.4	4.9	4.2	4.1	3.4	2.9	2.5	2.3

Security Groups 3 and 8 PSA Prepayment Assumption Rates

			Clas	is AS		
Distribution Date	0%	100%	384%	399%	600%	800%
Initial Percent	100	100	100	100	100	100
September 2020	99	95	85	84	77	70
September 2021	97	88	68	67	54	43
September 2022	95	81	51	50	34	22
September 2023	94	75	38	37	21	11
September 2024	92	68	29	27	13	6
September 2025	90	63	22	20	8	3
September 2026	88	57	16	15	5	1
September 2027	86	52	12	11	3	1
September 2028	84	48	9	8	2	0
September 2029	81	43	7	6	1	0
September 2030	79	39	5	4	1	0
September 2031	76	35	4	3	0	0
September 2032	74	32	3	2	0	0
September 2033	71	28	2	2	0	0
September 2034	68	25	1	1	0	0
September 2035	65	23	1	1	0	0
September 2036	61	20	1	1	0	0
September 2037	58	17	1	0	0	0
September 2038	54	15	0	0	0	0
September 2039	51	13	0	0	0	0
September 2040	47	11	0	0	0	0
September 2041	42	9	0	0	0	0
September 2042	38	8	0	0	0	0
September 2043	33	6	0	0	0	0
September 2044	28	5	0	0	0	0
September 2045	23	3	0	0	0	0
September 2046	18	2	0	0	0	0
September 2047	12	1	0	0	0	0
September 2048	6	0	0	0	0	0
September 2049	0	0	0	0	0	0
Weighted Average						
Life (years)	18.6	10.1	4.1	3.9	2.7	2.1

Security Group 9 PSA Prepayment Assumption Rates

		Class	es FD ar	nd SD			Class JA					Class PD			
Distribution Date	0%	150%	200%	240%	400%	0%	150%	200%	240%	400%	0%	150%	200%	240%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2020	99	96	95	94	91	100	100	94	89	69	98	95	95	95	95
September 2021	97	88	85	83	74	100	100	81	66	9	97	86	86	86	86
September 2022	96	79	74	70	56	100	100	67	42	0	95	75	75	75	66
September 2023	94	71	64	59	42	100	100	57	24	0	93	65	65	65	49
September 2024	92	63	55	50	31	100	100	49	12	0	91	56	56	56	37
September 2025	90	56	48	42	23	100	100	44	5	0	89	48	48	48	27
September 2026	89	50	41	35	17	100	100	41	1	0	86	41	41	41	20
September 2027	87	45	35	29	13	100	100	40	0	0	84	35	34	34	15
September 2028	84	40	30	24	9	100	99	39	0	0	82	29	29	29	11
September 2029	82	35	26	20	7	100	96	37	0	0	79	24	24	24	8
September 2030	80	31	22	17	5	100	91	34	0	0	76	20	20	20	6
September 2031	77	27	19	14	4	100	86	32	0	0	73	17	17	17	4
September 2032	75	24	16	12	3	100	80	29	0	0	70	14	14	14	3
September 2033	72	21	14	10	2	100	74	26	0	0	67	11	11	11	2
September 2034	69	18	11	8	1	100	68	24	0	0	63	9	9	9	2
September 2035	66	16	10	6	1	100	62	21	0	0	59	8	8	8	1
September 2036	62	14	8	5	1	100	55	19	0	0	55	6	6	6	1
September 2037	59	12	7	4	1	100	49	16	0	0	51	5	5	5	1
September 2038	55	10	6	3	0	100	43	14	0	0	47	4	4	4	0
September 2039	51	9	5	3	Ö	100	38	12	Ŏ	Õ	42	3	3	3	Õ
September 2040	47	7	4	2	0	100	32	10	0	0	37	2	2	2	0
September 2041	43	6	3	2	0	100	27	8	0	0	32	2	2	2	0
September 2042	38	5	2	1	0	100	23	7	0	0	27	1	1	1	0
September 2043	33	4	2	1	0	100	18	5	0	0	21	1	1	1	0
September 2044	28	3	1	1	0	100	14	4	0	0	15	1	1	1	0
September 2045	22	2	1	0	0	100	11	3	0	0	8	1	1	1	0
September 2046	17	1	1	0	0	100	7	2	0	0	1	0	0	0	0
September 2047	11	1	0	0	0	67	4	1	0	0	0	0	0	0	0
September 2048	4	0	Õ	Õ	Ö	27	2	0	Ŏ	Õ	Ŏ	Ŏ	Ŏ	Õ	Õ
September 2049	0	0	0	0	Ö	0	0	Õ	Ö	Õ	0	Ö	Ö	Õ	Õ
Weighted Average						· ·									
Life (years)	18.7	8.9	7.4	6.5	4.3	28.5	18.3	8.7	2.9	1.3	16.9	7.1	7.1	7.1	4.9

Security Group 10 PSA Prepayment Assumption Rates

		Class	ses FE ar	d SE			Class HA					Class HD			
Distribution Date	0%	150%	200%	250%	400%	0%	150%	200%	250%	400%	0%	150%	200%	250%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
September 2020	98	95	94	92	89	100	100	93	84	55	100	100	86	86	86
September 2021	97	87	83	80	71	100	100	82	57	0	100	100	61	61	0
September 2022	95	78	72	67	53	100	100	71	31	0	100	100	36	36	0
September 2023	93	69	62	56	40	100	100	63	13	0	100	100	16	16	0
September 2024	91	62	54	47	30	100	100	57	1	0	100	100	2	2	0
September 2025	89	55	46	39	22	100	100	52	0	0	100	100	0	0	0
September 2026	87	49	40	32	16	100	100	49	0	0	100	100	0	0	0
September 2027	85	43	34	27	12	100	100	48	0	0	100	99	0	0	0
September 2028	83	38	29	22	9	100	100	46	0	0	100	88	0	0	0
September 2029	80	34	25	18	7	100	100	43	0	0	100	67	0	0	0
September 2030	78	30	21	15	5	100	100	41	0	0	100	39	0	0	0
September 2031	75	26	18	12	4	100	100	37	0	0	100	6	0	0	0
September 2032	72	23	15	10	3	100	94	34	0	0	100	0	0	0	0
September 2033	70	20	13	8	2	100	87	31	0	0	100	0	0	0	0
September 2034	66	17	11	7	1	100	79	27	0	0	100	0	0	0	0
September 2035	63	15	9	5	1	100	71	24	0	0	100	0	0	0	0
September 2036	60	13	8	4	1	100	64	21	0	0	100	0	0	0	0
September 2037	56	11	6	3	1	100	56	18	0	0	100	0	0	0	0
September 2038	52	9	5	3	0	100	49	16	0	0	100	0	0	0	0
September 2039	48	8	4	2	0	100	43	13	0	0	100	0	0	0	0
September 2040	44	7	3	2	0	100	36	11	0	0	100	0	0	0	0
September 2041	40	5	3	1	0	100	31	9	0	0	100	0	0	0	0
September 2042	35	4	2	1	0	100	25	7	0	0	100	0	0	0	0
September 2043	30	3	2	1	0	100	20	6	0	0	100	0	0	0	0
September 2044	25	3	1	1	0	100	16	4	0	0	100	0	0	0	0
September 2045	20	2	1	0	0	100	11	3	0	0	100	0	0	0	0
September 2046	14	1	1	0	0	100	8	2	0	0	48	0	0	0	0
September 2047	8	1	0	0	0	64	4	1	0	0	0	0	0	0	0
September 2048	3	0	0	0	0	24	1	0	0	0	0	0	0	0	0
September 2049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average															
Life (years)	18.1	8.6	7.1	6.1	4.2	28.4	19.5	9.6	2.4	1.1	27.0	10.5	2.5	2.5	1.6

#### PSA Prepayment Assumption Rates

			Class HZ					Class PE		
Distribution Date	0%	150%	200%	250%	400%	0%	150%	200%	250%	400%
Initial Percent	100	100	100	100	100	100	100	100	100	100
September 2020	103	103	103	103	103	98		94	94	94
September 2021	105	105	105	105	0	90		84	84	84
September 2022	108	108	108	108	0	94	í 74	74	74	63
September 2023	111	111	111	111	0	92		64	64	47
September 2024	113	113	113	113	0	90		55	55	35
September 2025	116	116	116	0	0	88	3 47	47	46	26
September 2026	119	119	119	0	0	85		40	38	19
September 2027	122	122	122	0	0	83	3 33	33	32	14
September 2028	125	125	125	0	0	80	) 28	28	26	11
September 2029	128	128	128	0	0	7	7 23	23	22	8
September 2030	132	132	132	0	0	74	á 19	19	18	6
September 2031	135	135	135	0	0	7:	1 16	16	15	4
September 2032	138	138	138	0	0	6	7 13	13	12	3
September 2033	142	142	142	0	0	6	á 11	11	10	2
September 2034	145	145	145	0	0	60	) 9	9	8	2
September 2035	149	149	149	0	0	50	5 7	7	6	1
September 2036	153	153	153	0	0	5:	2 6	6	5	1
September 2037	157	157	157	0	0	48	3 5	5	4	1
September 2038	161	161	161	0	0	4	4 4	4	3	0
September 2039	165	165	165	0	0	39	9 3	3	3	0
September 2040	169	169	169	0	0	3.	4 2	2	2	0
September 2041	173	173	173	0	0	29	9 2	2	2	0
September 2042	178	178	178	0	0	2	3 1	1	1	0
September 2043	182	182	182	0	0	13	3 1	1	1	0
September 2044	187	187	187	0	0	1:	2 1	1	1	0
September 2045	191	191	191	0	0		5 0	0	0	0
September 2046	196	196	196	0	0	(	0 0	0	0	0
September 2047	201	201	201	0	0		0 0	0	0	0
September 2048	206	206	206	0	0	(	0 0	0	0	0
September 2049	0	0	0	0	0		0 0	0	0	0
Weighted Average										
Life (years)	30.0	29.9	29.7	5.1	1.8	16.	6.9	6.9	6.7	4.7

#### **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 and, in the case of a Floating Rate or an Inverse Floating Rate Class, the investor's own projection of levels of LIBOR under a variety of scenarios. No representation is made regarding Mortgage Loan prepayment rates, 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.

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

Rapid rates of prepayments on the 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 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.

#### LIBOR: Effect on Yields of the Floating Rate and Inverse Floating Rate Classes

Low levels of LIBOR can reduce the yield of the Floating Rate Classes. High levels of LIBOR can reduce the yield of the Inverse Floating Rate Classes. In addition, the Floating Rate Classes will not necessarily benefit from a higher yield at high levels of LIBOR and Class IT may not benefit from

particularly low levels of LIBOR because the rate on such Classes is capped at a maximum rate described under "Terms Sheet — Interest Rates."

Payment Delay: Effect on Yields of the Fixed Rate Classes

The effective yield on any Fixed Rate 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 and, in the case of the Inverse Floating Rate Classes, at various constant levels of LIBOR.

The Mortgage Loans will not prepay at any constant rate until maturity, and it is unlikely that 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

- 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 for each Accrual Period following the first Accrual Period will be based on the indicated level of LIBOR and (2) 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.** 

#### Sensitivity of Class SA to Prepayments Assumed Price 20.625%\*

	PSA Prepayment Assumption Rates							
LIBOR	100%	322%	500%	700%				
1.0000%	18.0%	6.4%	(3.3)%	(14.6)%				
2.1450%	11.7%	(0.4)%	(10.4)%	(22.2)%				
4.0975%	0.2%	(12.3)%	(23.0)%	(35.8)%				
6.0500% and above	**	**	**	**				

#### **SECURITY GROUP 2**

#### Sensitivity of Class IT to Prepayments Assumed Price 0.125%\*

	<b>PSA Prepayment Assumption Rates</b>							
LIBOR	140%	175%	215%	400%				
6.05% and below	22.0%	22.0%	22.0%	13.5%				
6.07%	3.0%	3.0%	3.0%	(7.1)%				
6.09% and above	**	**	**	**				

#### Sensitivity of Class PI to Prepayments Assumed Price 10.625%\*

#### **PSA Prepayment Assumption Rates**

140%	175%	215%	400%	679%
22.7%	22.7%	22.7%	14.5%	0.0%

#### Sensitivity of Class PS to Prepayments Assumed Price 20.875%\*

	PSA Prepayment Assumption Rates							
LIBOR	140%	175%	215%	400%				
1.00000%	12.6%	12.6%	12.6%	3.3%				
2.06688%	6.6%	6.6%	6.6%	(3.3)%				
4.05844%	(5.4)%	(5.4)%	(5.4)%	(16.1)%				
6.05000% and above	**	**	**	**				

<sup>\*</sup> The price does not include accrued interest. Accrued interest has been added to the price in calculating the yields set forth in the table.

<sup>\*\*</sup> Indicates that investors will suffer a loss of virtually all of their investment.

#### Sensitivity of Class SB to Prepayments Assumed Price 18.25%\*

	PSA Prepayment Assumption Rates							
LIBOR	100%	384%	600%	800%				
1.0000%	21.6%	6.9%	(4.7)%	(15.9)%				
2.1450%	14.5%	(0.8)%	(13.0)%	(24.7)%				
4.0975%	1.8%	(14.3)%	(27.5)%	(40.5)%				
6.0500% and above	**	**	***	神神				

#### **SECURITY GROUP 4**

#### Sensitivity of Class SM to Prepayments Assumed Price 19.3125%\*

	PSA Prepayment Assumption Rates								
LIBOR	100%	300%	545%	800%	1,100%				
1.000%	20.0%	9.3%	(4.3)%	(19.2)%	(37.6)%				
2.116%	13.4%	2.4%	(11.6)%	(27.1)%	(46.5)%				
4.083%	1.2%	(10.1)%	(25.1)%	(41.9)%	(63.7)%				
6.050% and above	**	**	**	**	**				

#### Sensitivity of Class SN to Prepayments Assumed Price 13.8125%\*

LIBOR	PSA Prepayment Assumption Rates								
	100%	300%	545%	800%	1,100%				
1.000%	32.1%	21.9%	9.1%	(4.9)%	(21.9)%				
2.116%	22.8%	12.3%	(1.2)%	(15.8)%	(33.8)%				
4.083%	6.4%	(4.9)%	(19.5)%	(35.7)%	(56.4)%				
6.050% and above	**	**	**	**	**				

#### Sensitivity of Class SQ to Prepayments Assumed Price 14.87%\*

	PSA Prepayment Assumption Rates								
LIBOR	100%	300%	545%	800%	1,100%				
1.000%	28.8%	18.3%	4.8%	(9.9)%	(28.1)%				
2.116%	20.3%	9.4%	(4.5)%	(19.8)%	(39.0)%				
4.083%	5.0%	(6.4)%	(21.3)%	(38.1)%	(59.6)%				
6.050% and above	**	**	**	**	**				

<sup>\*</sup> The price does not include accrued interest. Accrued interest has been added to the price in calculating the yields set forth in the table.

<sup>\*\*</sup> Indicates that investors will suffer a loss of virtually all of their investment.

#### Sensitivity of Class ST to Prepayments Assumed Price 17.75%\*

	PSA Prepayment Assumption Rates							
LIBOR	100%	259%	450%	600%				
1.0000%	19.0%	7.8%	(6.6)%	(18.7)%				
2.0670%	12.2%	1.3%	(12.6)%	(24.4)%				
4.0835%	(1.7)%	(11.9)%	(25.0)%	(36.1)%				
6.1000% and above	**	**	***	神神				

#### Sensitivity of Class TI to Prepayments Assumed Price 12.0%\*

#### **PSA Prepayment Assumption Rates**

100%	259%	450%	471%	600%
28.3%	16.7%	1.7%	0.0%	(10.8)%

#### **SECURITY GROUP 6**

#### Sensitivity of Class SG to Prepayments Assumed Price 6.0625%\*

	<b>PSA Prepayment Assumption Rates</b>				
LIBOR	100%	396%	600%	800%	
1.00000%	24.8%	9.6%	(1.2)%	(12.2)%	
2.05725%	4.7%	(12.0)%	(24.2)%	(36.9)%	
2.45363%	(3.9)%	(21.0)%	(33.8)%	(47.4)%	
2.85000% and above	**	**	**	**	

#### **SECURITY GROUP 7**

#### Sensitivity of Class S to Prepayments Assumed Price 20.8125%\*

	PSA Prepayment Assumption Rates			
LIBOR	140%	175%	215%	400%
1.0000%	12.9%	12.9%	12.9%	3.8%
2.0390%	7.0%	7.0%	7.0%	(2.6)%
4.0445%	(5.2)%	(5.2)%	(5.2)%	(15.7)%
6.0500% and above	**	**	**	**

<sup>\*</sup> The price does not include accrued interest. Accrued interest has been added to the price in calculating the yields set forth in the table.

<sup>\*\*</sup> Indicates that investors will suffer a loss of virtually all of their investment.

#### **SECURITY GROUP 8**

#### Sensitivity of Class SC to Prepayments Assumed Price 18.25%\*

	PS	SA Prepayment	Assumption F	Rates
LIBOR	100%	399%	600%	800%
1.0000%	19.7%	(1.6)%	(17.3)%	(34.4)%
2.1450%	12.8%	(8.0)%	(23.3)%	(40.0)%
4.0975%	0.5%	(19.3)%	(33.9)%	(49.9)%
6.0500% and above	**	**	**	**

#### **SECURITY GROUPS 3 AND 8**

#### Sensitivity of Class AS to Prepayments Assumed Price 18.25%\*

		PSA Prepa	ayment Assun	iption Rates	
LIBOR	100%	384%	399%	600%	800%
1.0000%	20.7%	3.3%	2.4%	(10.8)%	(24.6)%
2.1450%	13.6%	(3.7)%	(4.7)%	(17.9)%	(31.9)%
4.0975%	1.1%	(16.2)%	(17.2)%	(30.5)%	(44.9)%
6.0500% and above	**	**	**	**	**

#### **SECURITY GROUP 9**

#### Sensitivity of Class SD to Prepayments Assumed Price 14.8125%\*

	PSA	Prepaymen	t Assumption	Rates
LIBOR	150%	200%	240%	400%
1.0000%	27.1%	24.5%	22.4%	13.7%
2.0490%	19.0%	16.3%	14.1%	5.2%
4.0745%	3.1%	0.2%	(2.1)%	(11.5)%
6.1000% and above	**	**	**	**

#### **SECURITY GROUP 10**

#### Sensitivity of Class SE to Prepayments Assumed Price 14.5%\*

	PSA	Prepaymen	t Assumption	Rates
LIBOR	150%	200%	250%	400%
1.0000%	27.4%	24.6%	21.8%	13.2%
2.0490%	19.1%	16.3%	13.4%	4.7%
4.0745%	3.0%	0.1%	(2.8)%	(11.9)%
6.1000% and above	**	**	**	**

<sup>\*</sup> The price does not include accrued interest. Accrued interest has been added to the price in calculating the yields set forth in the table.

<sup>\*\*</sup> 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)	<u>PSA</u>
1	322%
2 and 7	175%
3	384%
4	545%
5	259%
6	396%
8	399%
9 and 10	200%

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 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.

Under Code Section 451(b), taxpayers using 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. Under proposed Treasury regulations on which taxpayers generally may rely, the timing of inclusion of market discount and original issue discount (including de minimis market discount and original issue discount) generally would not be affected by Code Section 451(b). 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 Code Section 451(b) and the proposed Treasury regulations 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.

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 Secu-

rities 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) September 1, 2019 on the Fixed Rate Classes and (2) September 20, 2019 on the Floating Rate and Inverse Floating Rate 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)

ss noce and all brincipal brincipal rype(3)         Interest rype(3)         Interest rype(3)         CUSIP rype(3)           900         PAC/AD         2.50%         FIX         38381Y XV1           164         SUP         3.50%         FIX         38381Y XV2           443         PT         (5)         FLT         38381Y XX5           443         PT         2.25         FIX         38381Y YA6           443         PT         2.50         FIX         38381Y YB4           443         PT         2.50         FIX         38381Y YB6           443         PT         2.50         FIX         38381Y YB6           443         PT         3.00         FIX         38381Y YB6           443         PT         3.50         FIX         38381Y YB6           443         PT         3.50         FIX         38381Y YB6           443         PT         3.50         FIX         38381Y YB6           443         PT         3.55         FIX         38381Y YB7           443         PT         4.00         FIX         38381Y YB1           440         FIX         38381Y YB1         38381Y YB1           440         <	REMIC Securities			Mostimum		MX Securities	ties		
\$603,838,027 P \$1,500,000,000 PAC/AD 2.50% FIX 38381Y XV1 896,161,973  \$92,593,025 ZD \$195,317,164 SUP 3.50% FIX/Z 38381Y XW9 102,724,139  \$30,010,571 EF \$147,342,414 PT (5) FLT 38381Y XX7 20,607,448  96,724,395  TO 49,286,343 PT 2.25 FIX 38381Y XY5 49,286,343 TB 49,286,343 PT 2.50 FIX 38381Y YC2 TC 49,286,343 PT 2.50 FIX 38381Y YC2 TC 49,286,343 PT 2.55 FIX 38381Y YC2 TC 49,286,343 PT 3.50 FIX 38381Y YC3 TG 49,286,343 PT 3.50 FIX 38381Y YC3 TG 49,286,343 PT 3.50 FIX 38381Y YC3 TG 49,286,343 PT 3.55 FIX 38381Y YC3 TG 49,286,343 PT 4.50 FIX/10 38381Y YC3 TG 48,343 PT 4.50 FIX/10 38381Y YC3 TG 48,344 PT 4.50 FIX/10 38,344 PT 4.50 FIX/10 38,344 PT 4.50 FIX/10 38,344 PT 4.50 FIX/10 38,344 PT 4.50 FIX/10 FIX/10 ST 48,344 PT 4.50 FIX/10 ST 48,344 PT 4.50 FIX/10 ST 48,344 PT 4.50 FIX/10 ST 48		Original Class Principal Balance or Class Notional Balance	Related MX Class	Original Class Principal Balance or Class Notional Balance(2)	Principal Type(3)	Interest Rate	Interest Type(3)	CUSIP	Final Distribution Date(4)
\$603,838,027         P         \$1,500,000,000         PAC/AD         2.50%         FIX         38381Y XVJ           896,161,973         ZD         \$ 195,317,164         SUP         3.50%         FIX/Z         38381Y XVJ           102,724,139         EF         \$ 147,342,414         PT         (5)         FLT         38381Y XVJ           20,607,448         TA         \$ 49,286,343         PT         2.25         FIX         38381Y XVJ           \$ 49,286,343         TA         \$ 49,286,343         PT         2.50         FIX         38381Y XVJ           \$ 49,286,343         TG         49,286,343         PT         2.57         FIX         38381Y XVJ           \$ 49,286,343         PT         2.57         FIX         38381Y YG         TR           \$ 49,286,343         PT         2.57         FIX         38381Y YG           TG         49,286,343         PT         3.55         FIX         38381Y YG           TG         49,286,343         PT         3.50         FIX         38381Y YG           TG         49,286,343         PT         3.55         FIX         38381Y YG           TG         49,286,343         PT         4.00         FIX <t< td=""><td>urity Group 2 ombination 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	urity Group 2 ombination 1								
\$ 92,593,025 ZD \$ 195,317,164 SUP 3.50% FIX/Z 38381Y XW9 102,724,139  \$ 30,010,571 EF \$ 147,342,414 PT (5) FLT 38381Y XX7 20,607,448  96,724,395  TC 49,286,343 PT 2.25 FIX 38381Y XX2 49,286,343 TC 49,286,343 PT 2.25 FIX 38381Y YR6 TE 49,286,343 PT 2.50 FIX 38381Y YR6 TE 49,286,343 PT 2.55 FIX 38381Y YR6 TE 49,286,343 PT 2.55 FIX 38381Y YR6 TE 49,286,343 PT 2.55 FIX 38381Y YR9 TE 49,286,343 PT 3.55 FIX 38381Y YR9 TG	AP BP	\$603,838,027 896,161,973	Ь	\$1,500,000,000	PAC/AD	2.50%	FIX	38381Y XV1	September 2049
\$ 30,010,571 EF \$ 147,342,414 PT (5) FLIT 38381Y XX7 20,607,448 96,724,395	omburanon 2 CZ 7 <i>C</i>	_	ZD	\$ 195,317,164	SUP	3.50%		38381Y XW9	September 2049
\$ 30,010,571 EF \$ 147,342,414 PT (5) FLT 38381Y XX7 20,607,448  \$ 66,724,395 TA \$ 49,286,343 PT 2.00% FIX 38381Y XX5 49,286,343 TB 49,286,343 PT 2.25 FIX 38381Y XX2 TC 49,286,343 PT 2.50 FIX 38381Y YB4 TC 49,286,343 PT 2.57 FIX 38381Y YB4 TC 49,286,343 PT 3.00 FIX 38381Y YB4 TC 49,286,343 PT 3.05 FIX 38381Y YB7 TC 49,286,343 PT 3.25 FIX 38381Y YB7 TC 49,286,343 PT 3.25 FIX 38381Y YB7 TC 49,286,343 PT 3.50 FIX 38381Y YB7 TC 49,286,343 PT 4.00 FIX 38381Y YB7 TC 48,086,343 PT 48,086,343 PT 48,086,343 PT 48,086,344 PT 48,086,3	rrity Group 4 mbination 3	1							
20,607,448 96,724,395  \$ 49,286,343	FM		EF	\$ 147,342,414	PT	(5)	FLT	38381Y XX7	September 2049
\$ 49,286,343 TA \$ 49,286,343 PT 2.00% FIX 38381Y XXZ 49,286,343 PT 2.25 FIX 38381Y XXZ TC 49,286,343 PT 2.75 FIX 38381Y YB4 TE 49,286,343 PT 2.75 FIX 38381Y YB4 TG 49,286,343 PT 3.00 FIX 38381Y YCZ TG 49,286,343 PT 3.25 FIX 38381Y YCZ TH 49,286,343 PT 3.50 FIX 38381Y YFS TI 49,286,343 PT 3.50 FIX 38381Y YFS TI 49,286,343 PT 3.75 FIX 38381Y YFS TI 49,286,343 PT 4.00 FIX 38381Y YFI TX 49,286,343 PT 4.00 FIX 38381Y YFI TX 49,286,343 PT 4.00 FIX 38381Y YFI	FN FQ <b>rrity Group 5</b>	20,607,448 96,724,395							
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TC 49,286,343 PT 2.50 FIX 38381Y YA6 TD 49,286,343 PT 2.75 FIX 38381Y YB4 TE 49,286,343 PT 3.00 FIX 38381Y YC2 TG 49,286,343 PT 3.25 FIX 38381Y YC2 TH 49,286,343 PT 3.50 FIX 38381Y YE8 TI 49,286,343 PT 3.50 FIX 38381Y YE8 TI 49,286,343 PT 3.75 FIX 38381Y YG3 TJ 49,286,343 PT 3.75 FIX 38381Y YG3 TJ 49,286,343 PT 4.00 FIX 38381Y YH1 TX 49,286,343 PT 6.50 FIX 38381Y YH1 TX 49,286,343 PT 6.50 FIX 38381Y YH1	FT		TA E		PT Ta	2.00%	FIX	38381Y XY5	September 2049 September 2040
49,286,343       PT       2.75       FIX       38381Y YB4         49,286,343       PT       3.00       FIX       38381Y YC2         49,286,343       PT       3.25       FIX       38381Y YD0         49,286,343       NTL(PT)       4.50       FIX/O       38381Y YF5         49,286,343       PT       3.75       FIX       38381Y YF5         49,286,343       PT       4.00       FIX       38381Y YF1         49,286,343       PT       4.00       FIX       38381Y YH1         49,286,344       PT       6.50       FIX       38381Y YH1		7,700,71	TC TC	49,286,343	PT	2.50	FIX	38381Y YA6	September 2049
49,286,343PT3.00FIX38381Y YCZ49,286,343PT3.25FIX38381Y YEB49,286,343NTL(PT)4.50FIX/IO38381Y YEB49,286,343PT3.75FIX38381Y YFG49,286,343PT4.00FIX38381Y YH149,286,344PT4.00FIX38381Y YH149,286,345PT6.50FIX38381Y YH1			TD	49,286,343	PT	2.75	FIX	38381Y YB4	September 2049
49,286,343       PT       3.25       FIX       38381Y YD0         49,286,343       PT       3.50       FIX       38381Y YE8         49,286,343       PT       3.75       FIX       38381Y YF5         49,286,343       PT       4.00       FIX       38381Y YG3         49,286,343       PT       4.00       FIX       38381Y YH1         49,286,343       PT       6.50       FIX       38381Y YH1			TE	49,286,343	PT	3.00	FIX	38381Y YC2	September 2049
49,286,343PT3.50FIX38381Y YE849,286,343NTL(PT)4.50FIX/IO38381Y YF549,286,343PT3.75FIX38381Y YG349,286,343PT4.00FIX38381Y YH149,286,344PT6.50FIX38381Y YH1			JL	49,286,343	$_{\mathrm{PT}}$	3.25	FIX	38381Y YD0	September 2049
49,286,343       NTL(PT)       4.50       FIX/IO       38381Y YF5         49,286,343       PT       3.75       FIX       38381Y YG3         49,286,343       PT       4.00       FIX       38381Y YH1         49,286,343       PT       6.50       FIX       38381Y YH1			TH	49,286,343	PT	3.50	FIX	38381Y YE8	September 2049
49,286,343       PT       3.75       FIX       38381Y YG3         49,286,343       PT       4.00       FIX       38381Y YH1         49,286,343       PT       6.50       FIX       38381Y YH1			II	49,286,343	NTL(PT)	4.50	FIX/IO	38381Y YF5	September 2049
49,286,343 PT 4.00 FIX 3 49,286,343 PT 6.50 FIX			Ţ	49,286,343	$_{ m LL}$	3.75	FIX	38381Y YG3	September 2049
49,286,343 PT 6.50 FIX			TK	49,286,343	$_{ m PT}$	4.00	FIX	38381Y YH1	September 2049
			ZI	49,286,343	$_{ m LL}$	6.50	FIX	38381Y YJ7	September 2049

REMIC Securities						MX Securities	ities		
Class	Original Class Principal Balance or Class Notional Balance	Related MX Class	Ori Princ or Cl	Maximum Original Class Principal Balance or Class Notional Balance(2)	Principal Type(3)	Interest Rate	Interest Type(3)	CUSIP	Final Distribution Date(4)
<b>Security Groups 1, 3 and 8</b> Combination 5(7)									
FA	\$ 16,666,666	AF	<b>⋄</b>	43,508,650	PT	(5)	FLT	38381Y YK4	38381Y YK4 September 2049
FB	13,333,333								
FC	13,508,651								
Security Groups 3 and 8									
Combination 6(7)									
SB	\$ 13,333,333	AS	<b>↔</b>	26,841,984 NTL(PT)	NTL(PT)	(5)	OI//NI	38381Y YL2	INV/IO 38381Y YL2 September 2049
SC	13,508,651								

- (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. 9
- ) 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.
- The Interest Rate will be calculated as described under "Terms Sheet Interest Rates" in this Supplement.
- In the case of Combination 4, various subcombinations are permitted. See "Description of the Securities Modification and Exchange" in the Base Offering Circular for a discussion of subcombinations.
- (7) Derived from REMIC Classes relating to separate Groups.

#### Schedule II

#### SCHEDULED PRINCIPAL BALANCES

Distribution Date	Classes AP, PF and QF (in the aggregate)	Class BP	Classes B and F (in the aggregate)
Initial Balance	\$805,117,369.00	\$896,161,973.00	\$206,314,153.00
October 2019	802,683,461.98	893,706,103.44	205,745,793.07
November 2019	800,036,536.10	891,012,695.12	205,122,751.87
December 2019	797,177,668.76	888,082,766.97	204,445,266.19
January 2020	794,108,090.34	884,917,508.40	203,713,612.05
February 2020	790,829,183.50	881,518,278.68	202,928,104.60
March 2020	787,342,482.28	877,886,606.11	202,089,097.89
April 2020	783,649,670.93	874,024,187.07	201,196,984.66
May 2020	779,752,582.74	869,932,884.76	200,252,196.08
June 2020	775,653,198.49	865,614,727.85	199,255,201.37
July 2020	771,353,644.84	861,071,908.80	198,206,507.47
August 2020	766,856,192.52	856,306,782.07	197,106,658.61
September 2020	762,163,254.31	851,321,862.14	195,956,235.82
October 2020	757,277,382.87	846,119,821.22	194,755,856.47
November 2020	752,201,268.39	840,703,486.93	193,506,173.63
December 2020	746,937,736.07	835,075,839.63	192,207,875.56
January 2021	741,489,743.42	829,240,009.65	190,861,685.01
February 2021	735,860,377.43	823,199,274.34	189,468,358.53
March 2021	730,052,851.54	816,957,054.86	188,028,685.76
April 2021	724,070,502.47	810,516,912.87	186,543,488.66
May 2021	717,916,786.88	803,882,547.04	185,013,620.70
June 2021	711,595,277.93	797,057,789.31	183,439,965.98
July 2021	705,109,661.67	790,046,601.10	181,823,438.37
August 2021	698,463,733.23	782,853,069.25	180,164,980.58
September 2021	691,661,393.00	775,481,401.91	178,465,563.21
October 2021	684,706,642.56	767,935,924.19	176,726,183.71
November 2021	677,603,580.58	760,221,073.75	174,947,865.44
December 2021	670,356,398.56	752,341,396.15	173,131,656.50
January 2022	663,164,168.09	744,301,540.22	171,278,628.74
February 2022	656,026,459.82	736,322,593.46	169,439,651.86
March 2022	648,942,847.61	728,404,080.15	167,614,616.09
April 2022	641,912,908.45	720,545,528.09	165,803,412.48
May 2022	634,936,222.48	712,746,468.58	164,005,932.88
June 2022	628,012,372.96	705,006,436.40	162,222,069.93
July 2022	621,140,946.22	697,324,969.75	160,451,717.09
August 2022	614,321,531.68	689,701,610.30	158,694,768.59
September 2022	607,553,721.79	682,135,903.08	156,951,119.46
October 2022	600,837,112.02	674,627,396.51	155,220,665.51
November 2022	594,171,300.85	667,175,642.35	153,503,303.29
December 2022	587,555,889.72	659,780,195.67	151,798,930.16
January 2023	580,990,483.05	652,440,614.88	150,107,444.21
February 2023	574,474,688.17	645,156,461.61	148,428,744.30
March 2023	568,008,115.34	637,927,300.78	146,762,730.04
April 2023	561,590,377.69	630,752,700.51	145,109,301.78

Distribution Date	Classes AP, PF and QF (in the aggregate)	Class BP	Classes B and F (in the aggregate)
May 2023	\$555,221,091.23	\$623,632,232.13	\$143,468,360.61
June 2023	548,899,874.83	616,565,470.16	141,839,808.34
July 2023	542,626,350.15	609,551,992.24	140,223,547.54
August 2023	536,400,141.70	602,591,379.19	138,619,481.47
September 2023	530,220,876.73	595,683,214.88	137,027,514.12
October 2023	524,088,185.28	588,827,086.31	135,447,550.20
November 2023	518,001,700.13	582,022,583.52	133,879,495.12
December 2023	511,961,056.79	575,269,299.60	132,323,254.98
January 2024	505,965,893.44	568,566,830.63	130,778,736.59
February 2024	500,015,850.99	561,914,775.72	129,245,847.45
March 2024	494,110,572.96	555,312,736.93	127,724,495.73
April 2024	488,249,705.57	548,760,319.26	126,214,590.31
May 2024	482,432,897.60	542,257,130.67	124,716,040.72
June 2024	476,659,800.50	535,802,781.99	123,228,757.17
July 2024	470,930,068.24	529,396,886.96	121,752,650.53
August 2024	465,243,357.41	523,039,062.17	120,287,632.34
September 2024	459,599,327.11	516,728,927.05	118,833,614.80
October 2024	453,997,638.97	510,466,103.86	117,390,510.74
November 2024	448,437,957.16	504,250,217.65	115,958,233.64
December 2024	442,919,948.30	498,080,896.26	114,536,697.65
January 2025	437,443,281.51	491,957,770.27	113,125,817.53
February 2025	432,007,628.34	485,880,473.01	111,725,508.67
March 2025	426,612,662.79	479,848,640.53	110,335,687.10
April 2025	421,258,061.27	473,861,911.57	108,956,269.46
May 2025	415,943,502.59	467,919,927.55	107,587,173.03
June 2025	410,668,667.94	462,022,332.54	106,228,315.68
July 2025	405,433,240.89	456,168,773.25	104,879,615.89
August 2025	400,236,907.32	450,358,899.03	103,540,992.75
September 2025	395,079,355.46	444,592,361.79	102,212,365.97
October 2025	389,960,275.86	438,868,816.05	100,893,655.81
November 2025	384,879,361.35	433,187,918.87	99,584,783.17
December 2025	379,836,307.02	427,549,329.85	98,285,669.50
January 2026	374,830,810.26	421,952,711.14	96,996,236.84
February 2026	369,862,570.67	416,397,727.36	95,716,407.82
March 2026	364,931,290.09	410,884,045.63	94,446,105.64
April 2026	360,036,672.56	405,411,335.53	93,185,254.05
May 2026	355,178,424.33	399,979,269.10	91,933,777.39
June 2026	350,356,253.80	394,587,520.79	90,691,600.55
July 2026	345,572,342.21	389,235,767.47	89,458,648.98
August 2026	340,849,481.87	383,926,871.69	88,236,321.61
September 2026	336,186,922.78	378,685,679.64	87,029,597.12
October 2026		373,511,360.01	85,838,283.83
November 2026	331,583,923.97		
December 2026	327,039,753.34	368,403,091.47	84,662,192.34
	322,553,687.60	363,360,062.54	83,501,135.55
January 2027	318,125,012.13	358,381,471.49	82,354,928.59
February 2027	313,753,020.89	353,466,526.20	81,223,388.81
March 2027	309,437,016.33	348,614,444.06	80,106,335.76

Distribution Date	Classes AP, PF and QF (in the aggregate)	Class BP	Classes B and F (in the aggregate)
April 2027	\$305,176,309.27	\$343,824,451.87	\$ 79,003,591.15
May 2027	300,970,218.83	339,095,785.70	77,914,978.83
June 2027	296,818,072.30	334,427,690.80	76,840,324.78
July 2027	292,719,205.05	329,819,421.50	75,779,457.07
August 2027	288,672,960.45	325,270,241.08	74,732,205.82
September 2027	284,678,689.78	320,779,421.67	73,698,403.20
October 2027	280,735,752.09	316,346,244.17	72,677,883.41
November 2027	276,843,514.16	311,969,998.09	71,670,482.64
December 2027	273,001,350.40	307,649,981.53	70,676,039.03
January 2028	269,208,642.73	303,385,500.99	69,694,392.70
February 2028	265,464,780.51	299,175,871.34	68,725,385.67
March 2028	261,769,160.46	295,020,415.68	67,768,861.86
April 2028	258,121,186.57	290,918,465.26	66,824,667.10
May 2028	254,520,270.00	286,869,359.38	65,892,649.04
June 2028	250,965,828.99	282,872,445.31	64,972,657.18
July 2028	247,457,288.82	278,927,078.15	64,064,542.83
August 2028	243,994,081.67	275,032,620.79	63,168,159.11
September 2028	240,575,646.57	271,188,443.78	62,283,360.87
October 2028	237,201,429.33	267,393,925.28	61,410,004.76
November 2028	233,870,882.41	263,648,450.90	60,547,949.11
December 2028	230,583,464.91	259,951,413.70	59,697,054.00
January 2029	227,338,642.44	256,302,214.03	58,857,181.16
February 2029	224,135,887.04	252,700,259.49	58,028,194.01
March 2029	220,974,677.14	249,144,964.81	57,209,957.63
April 2029	217,854,497.48	245,635,751.78	56,402,338.69
May 2029	214,774,838.98	242,172,049.17	55,605,205.50
June 2029	211,735,198.75	238,753,292.66	54,818,427.96
July 2029	208,735,079.95	235,378,924.72	54,041,877.52
August 2029	205,773,991.74	232,048,394.56	53,275,427.20
September 2029	202,851,449.23	228,761,158.04	52,518,951.55
October 2029	199,966,973.37	225,516,677.59	51,772,326.63
November 2029	197,120,090.91	222,314,422.14	51,035,430.01
December 2029	194,310,334.33	219,153,867.03	50,308,140.74
January 2030	191,537,241.74	216,034,493.95	49,590,339.30
February 2030	188,800,356.87	212,955,790.86	48,881,907.67
March 2030	186,099,228.95	209,917,251.88	48,182,729.20
April 2030	183,433,412.66	206,918,377.29	47,492,688.70
May 2030	180,802,468.07	203,958,673.39	46,811,672.35
June 2030	178,205,960.61	201,037,652.45	46,139,567.71
July 2030	175,643,460.93	198,154,832.67	45,476,263.70
August 2030	173,114,544.89	195,309,738.04	44,821,650.59
September 2030	170,618,793.51	192,501,898.35	44,175,619.98
October 2030	168,155,792.87	189,730,849.07	43,538,064.77
November 2030	165,725,134.06	186,996,131.29	42,908,879.18
December 2030	163,326,413.14	184,297,291.67	42,287,958.69
January 2031	160,959,231.06	181,633,882.37	41,675,200.07
February 2031	158,623,193.63	179,005,460.95	41,070,501.31

Distribution Date	Classes AP, PF and QF (in the aggregate)	Class BP	Classes B and F (in the aggregate)
March 2031	\$156,317,911.41	\$176,411,590.36	\$ 40,473,761.67
April 2031	154,042,999.70	173,851,838.84	39,884,881.61
May 2031	151,798,078.48	171,325,779.86	39,303,762.82
June 2031	149,582,772.33	168,832,992.09	38,730,308.15
July 2031	147,396,710.39	166,373,059.29	38,164,421.67
August 2031	145,239,526.30	163,945,570.27	37,606,008.57
September 2031	143,110,858.17	161,550,118.84	37,054,975.23
October 2031	141,010,348.48	159,186,303.75	36,511,229.15
November 2031	138,937,644.08	156,853,728.60	35,974,678.95
December 2031	136,892,396.10	154,552,001.83	35,445,234.37
January 2032	134,874,259.90	152,280,736.63	34,922,806.25
February 2032	132,882,895.06	150,039,550.88	34,407,306.50
March 2032	130,917,965.29	147,828,067.12	33,898,648.12
April 2032	128,979,138.38	145,645,912.48	33,396,745.14
May 2032	127,066,086.17	143,492,718.61	32,901,512.67
June 2032	125,178,484.50	141,368,121.66	32,412,866.84
July 2032	123,316,013.16	139,271,762.19	31,930,724.78
August 2032	121,478,355.84	137,203,285.15	31,455,004.66
September 2032	119,665,200.06	135,162,339.81	30,985,625.64
October 2032	117,876,237.18	133,148,579.69	30,522,507.85
November 2032	116,111,162.30	131,161,662.57	30,065,572.40
December 2032	114,369,674.26	129,201,250.37	29,614,741.37
January 2033	112,651,475.54	127,267,009.13	29,169,937.78
February 2033	110,956,272.28	125,358,608.98	28,731,085.60
March 2033	109,283,774.20	123,475,724.05	28,298,109.71
April 2033	107,633,694.54	121,618,032.46	27,870,935.93
May 2033	106,005,750.07	119,785,216.25	27,449,490.97
June 2033	104,399,660.99	117,976,961.34	27,033,702.42
July 2033	102,815,150.95	116,192,957.49	26,623,498.80
August 2033	101,251,946.95	114,432,898.23	26,218,809.45
September 2033	99,709,779.34	112,696,480.86	25,819,564.61
October 2033	98,188,381.76	110,983,406.36	25,425,695.35
November 2033	96,687,491.11	109,293,379.35	25,037,133.61
December 2033	95,206,847.49	107,626,108.10	24,653,812.13
January 2034	93,746,194.22	105,981,304.40	24,275,664.50
February 2034	92,305,277.72	104,358,683.59	23,902,625.10
March 2034	90,883,847.54	102,757,964.50	23,534,629.13
April 2034	89,481,656.28	101,178,869.37	23,171,612.57
May 2034	88,098,459.58	99,621,123.86	22,813,512.19
June 2034	86,734,016.06	98,084,457.00	22,460,265.55
July 2034	85,388,087.32	96,568,601.11	22,111,810.94
August 2034	84,060,437.87	95,073,291.79	21,768,087.44
September 2034	82,750,835.09	93,598,267.91	21,429,034.85
October 2034	81,459,049.25	92,143,271.51	21,094,593.73
November 2034	80,184,853.40	90,708,047.80	20,764,705.35
December 2034	78,928,023.40	89,292,345.12	20,439,311.73
January 2035	77,688,337.85	87,895,914.88	20,118,355.56

Distribution Date	Classes AP, PF and QF (in the aggregate)	Class BP	Classes B and F (in the aggregate)
February 2035	\$ 76,465,578.07	\$ 86,518,511.57	\$ 19,801,780.26
March 2035	75,259,528.07	85,159,892.66	19,489,529.95
April 2035	74,069,974.52	83,819,818.61	19,181,549.41
May 2035	72,896,706.68	82,498,052.84	18,877,784.13
June 2035	71,739,516.43	81,194,361.63	18,578,180.24
July 2035	70,598,198.21	79,908,514.19	18,282,684.56
August 2035	69,472,548.97	78,640,282.51	17,991,244.54
September 2035	68,362,368.16	77,389,441.41	17,703,808.29
October 2035	67,267,457.72	76,155,768.49	17,420,324.56
November 2035	66,187,622.00	74,939,044.07	17,140,742.71
December 2035	65,122,667.77	73,739,051.17	16,865,012.76
January 2036	64,072,404.19	72,555,575.48	16,593,085.30
February 2036	63,036,642.75	71,388,405.34	16,324,911.58
March 2036	62,015,197.29	70,237,331.68	16,060,443.40
April 2036	61,007,883.93	69,102,148.03	15,799,633.19
May 2036	60,014,521.04	67,982,650.44	15,542,433.95
June 2036	59,034,929.26	66,878,637.48	15,288,799.27
July 2036	58,068,931.44	65,789,910.22	15,038,683.30
August 2036	57,116,352.60	64,716,272.15	14,792,040.76
September 2036	56,177,019.92	63,657,529.21	14,548,826.94
October 2036	55,250,762.73	62,613,489.73	14,308,997.66
November 2036	54,337,412.47	61,583,964.41	14,072,509.31
December 2036	53,436,802.64	60,568,766.27	13,839,318.81
January 2037	52,548,768.82	59,567,710.65	13,609,383.59
February 2037	51,673,148.62	58,580,615.19	13,382,661.65
March 2037	50,809,781.64	57,607,299.75	13,159,111.48
April 2037	49,958,509.50	56,647,586.44	12,938,692.07
May 2037	49,119,175.74	55,701,299.56	12,721,362.96
June 2037	48,291,625.88	54,768,265.58	12,507,084.16
July 2037	47,475,707.31	53,848,313.15	12,295,816.18
August 2037	46,671,269.33	52,941,272.99	12,087,520.03
September 2037	45,878,163.13	52,046,977.95	11,882,157.18
October 2037	45,096,241.71	51,165,262.95	11,679,689.60
November 2037	44,325,359.91	50,295,964.94	11,480,079.73
December 2037	43,565,374.36	49,438,922.90	11,283,290.46
January 2038	42,816,143.49	48,593,977.80	11,089,285.16
February 2038	42,077,527.48	47,760,972.60	10,898,027.64
March 2038	41,349,388.22	46,939,752.20	10,709,482.16
April 2038	40,631,589.36	46,130,163.40	10,523,613.44
May 2038	39,923,996.20	45,332,054.95	10,340,386.61
June 2038	39,226,475.76	44,545,277.43	10,159,767.27
July 2038	38,538,896.67	43,769,683.32	9,981,721.41
August 2038	37,861,129.23	43,005,126.89	9,806,215.47
September 2038	37,193,045.32	42,251,464.27	9,633,216.30
October 2038	36,534,518.45	41,508,553.33	9,462,691.16
November 2038	35,885,423.69	40,776,253.75	9,294,607.71
December 2038	35,245,637.65	40,054,426.92	9,128,934.03

January 2039   \$34,615,038.51   \$39,342,936.00   \$8,056,638.58   February 2039   33,993,505.94   36,641,645.81   8,804,609.23   34,009.23   36,009.23   36,009.23   36,009.23   37,77,166.73   37,269,125.39   8,489,712.21   30,009.23   31,009.23   32,777,166.73   37,269,135.39   8,489,712.21   30,009.23   31,009.23	Distribution Date	Classes AP, PF and QF (in the aggregate)	Class BP	Classes B and F (in the aggregate)
March 2039         33,380,921.12         37,950,422.87         8,646,058,23           April 2039         32,777,166,73         37,269,135,39         8,489,712.21           May 2039         32,182,126,88         36,597,653,17         8,335,622.19           June 2039         31,595,687.16         35,935,847.69         8,183,758,55           July 2039         31,017,734.56         35,285,591.99         8,034,092.04           August 2039         30,448,157.52         34,640,760.72         7,886,593.79           September 2039         29,383,690.68         33,382,877.83         7,597,988.37           November 2039         28,251,421.56         32,161,227.14         7,317,718.38           January 2040         27,220,967.11         31,563,691.77         7,180,640.74           February 2040         27,220,967.11         31,563,691.77         7,180,640.74           April 2040         26,686,549.07         30,394,619.72         6,912,466.63           April 2040         26,686,549.07         30,394,619.72         6,912,466.65           April 2040         25,681,129.45         29,259,454.48         6,652,091.57           June 2040         25,812,294         29,259,454.48         6,652,091.57           June 2040         24,227,762.90         27,618,341.32<	January 2039	\$ 34,615,038.51	\$ 39,342,936.00	\$ 8,965,638.58
March 2039         33,380,921.12         37,950,422.87         8,646,058.23           April 2039         32,777,166.73         37,269,135.39         8,489,712.21           May 2039         32,182,126.88         36,597,653.17         8,335,622.19           June 2039         31,595,687.16         35,935,847.69         8,183,758.21           July 2039         31,507,743.65         35,283,591.99         80,34,092.04           August 2039         30,448,157.52         34,640,760.72         7,886,593.79           September 2039         29,856,845.82         34,007,230.08         7,741,235.29           October 2039         29,333,690.68         33,382,877.83         7,7988,37           November 2039         28,781,421.56         32,161,227.14         7,317,718,36           January 2040         27,722,096.60         30,974,860.89         7,045,685.22           December 2039         28,251,421.56         32,161,227.14         7,317,718,36           March 2040         27,000,506.60         30,974,860.89         7,045,665.2           April 2040         27,000,506.60         30,974,860.89         7,045,665.2           April 2040         26,180,123.23         29,822,854.89         6,782,071.1           June 2040         25,881,129.45         29,259,454.48<	February 2039	33,993,505.94	38,641,645.81	8,804,690.23
April 2039         32,777,166,73         37,269,135,39         8,489,712,21           May 2039         32,182,126,88         36,597,653,17         8,335,622,19           June 2039         31,595,687,16         35,935,847,69         8,183,788,55           July 2039         31,017,734,56         35,283,591,99         8,034,092,04           August 2039         30,448,157,52         34,607,230,08         7,741,235,29           October 2039         29,385,691,68         33,382,877,83         7,597,988,37           November 2039         28,788,584,62         32,767,583,26         7,456,825,22           December 2039         28,251,421,56         32,161,227,14         7,317,718,38           January 2040         27,722,096,71         31,563,691,77         7,180,640,74           February 2040         27,200,566         30,974,860,89         7,045,565,51           March 2040         26,686,549,07         30,394,619,72         6,912,466,26           April 2040         26,180,123,23         29,822,854,89         6,781,316,88           May 2040         25,581,129,45         29,259,454,48         6,781,316,88           May 2040         25,781,272,29         27,618,341,25         6,524,764,88           July 2040         24,227,762,90         27,618,341,25 <td>•</td> <td>33,380,921.12</td> <td>37,950,422.87</td> <td>8,646,058.23</td>	•	33,380,921.12	37,950,422.87	8,646,058.23
May 2039         32,182,126.88         36,597,653.17         8,335,622.19           June 2039         31,595,687.16         35,935,847.69         8,183,758.57           July 2039         31,191,734.56         35,283,591.99         8,034,092.04           August 2039         30,448.157.52         34,640,760.72         7,886,593.79           September 2039         29,833,690.68         33,382,878.83         7,741,235.29           October 2039         28,785,884.62         32,767,583.26         7,456,825.22           December 2039         28,251,421.56         32,161,227.14         7,317,718.38           January 2040         27,722,096.71         31,563,691.77         7,180,640.74           February 2040         27,220,506.60         30,974,860.89         7,045,565.51           March 2040         26,686,549.07         30,394,619.72         6,912,466.26           April 2040         26,686,549.07         30,394,619.72         6,912,466.26           April 2040         25,681,129.45         29,259,454.48         6,652,091.57           June 2040         25,189,123.23         29,822,854.88         6,781,3168.88           May 2040         24,275,62.90         27,618,341.32         6,275,707.12           September 2040         22,375,558.2         28,157,	April 2039			
June 2039         31,595,687.16         35,235,247.69         8,183,758.55           July 2039         31,017,734.56         35,283,591.99         8,034,092.04           August 2039         30,448,157.52         34,640,760.72         7,886,593.79           September 2039         29,886,845.82         34,007,230.08         7,741,235.29           October 2039         28,388,584.62         23,767,583.26         7,597,588.37           November 2039         28,251,421.56         32,161,227.14         7,317,718.38           January 2040         27,722,096.71         31,563,691.77         7,180,640.74           February 2040         27,200,506.60         30,974,860.89         6,912,466.26           April 2040         26,686,549.07         30,394,619.72         6,912,466.26           April 2040         26,180,123.23         29,822,854.89         6,781,316.88           May 2040         25,189,469.36         28,704,307.95         6,524,764.88           August 2040         24,227,762.90         27,618,341.32         6,275,707.12           September 2040         23,375,7525.89         27,087,307.02         6,153,926.71           October 2040         23,234,241.27         26,564,098.15         6,033,946.22           November 2040         22,287,816.68	•			
July 2039         31,017,734.56         35,283,591.99         8,034,092.04           August 2039         30,448,157.52         34,640,760.72         7,886,593.79           September 2039         29,886,845.82         23,007,230.08         7,741,235.29           October 2039         28,788,584.62         32,767,583.26         7,456,285.22           December 2039         28,251,421.63         23,161,227.14         7,416,865.22           December 2040         27,200,606         30,974,860.89         7,045,655.51           March 2040         26,686,540,07         30,394,619.72         7,180,640.74           April 2040         26,686,540,07         30,394,619.72         6,721,656.51           Mary 2040         25,681,129.45         29,259,454.48         6,652,091.57           June 2040         25,681,129.45         29,259,454.48         6,652,091.57           June 2040         25,681,129.45         29,259,454.48         6,652,091.57           June 2040         25,189,469.36         28,704,307.95         6,744,764.88           July 2040         24,277,629.0         27,618,341.32         6,275,707.12           September 2040         23,275,258.9         27,087,307.02         6,039,311.68           August 2041         21,508,796.89         24,547,461.	•			
August 2039         30,448,157.52         34,640,760.72         7,886,593.79           September 2039         29,886,845.82         34,007,230.08         7,412,352.92           October 2039         28,383,690.68         33,382,877.83         7,597,988.37           November 2039         28,788,584.62         32,767,583.26         7,456,825.22           December 2039         28,251,421.56         32,161,227.14         7,317,718.38           January 2040         27,722,096.71         31,563,691.77         7,180,646.07           February 2040         27,200,506.60         30,974,860.89         7,045,565.51           March 2040         26,686,549.07         30,394,619.72         6,912,466.26           April 2040         25,681,129.45         29,259,454.48         6,652,091.57           July 2040         25,681,129.45         29,259,454.48         6,652,091.57           July 2040         25,189,469.36         28,704,307.95         6,524,764.88           July 2040         24,227,762.90         27,618,341.32         6,275,707.12           September 2040         23,3757,525.89         27,087,307.02         6,153,926.71           October 2040         23,294,241.27         26,554,098.15         6,339,346.22           November 2040         22,387,873,878.68				
September 2039         29,886,845.82         34,007,230.08         7,741,235.29           October 2039         29,333,690.68         33,382,877.83         7,597,988.37           November 2039         28,788,88462         32,767,583.26         7,456.825.22           December 2039         28,251,421.56         32,161,227.14         7,317,718.38           January 2040         27,720,966.10         30,974,860.89         7,045,565.51           March 2040         26,686,549.07         30,394,619.72         6,912,466.26           April 2040         26,180,123.23         29,822,854.89         6,781,316.88           May 2040         25,189,469.36         28,704,307.95         6,524,764.88           July 2040         24,705,045.82         28,157,306.16         6,399,311.68           August 2040         24,277,62.90         27,618,341.32         6,275,707.12           September 2040         23,757,525.89         27,087,307.02         6,153,926.71           October 2040         23,294,241.27         26,564,098.15         6,033,946.22           November 2040         22,287,816.68         26,048,610.94         5,915,741.77           December 2040         22,288,781.668         26,048,610.94         5,915,741.77           December 2040         22,388,160.92	•			
October 2039         29,333,690.68         33,382,877.83         7,597,988.37           November 2039         28,788,846.22         32,767,583.26         7,317,718.38           January 2040         27,722,096.71         31,563,691.77         7,180,640.74           February 2040         27,200,506.60         30,974,860.89         7,045,565.51           March 2040         26,686,549.07         30,394,619.72         6,912,466.26           April 2040         25,681,129.45         29,259,454.48         6,781,316.88           May 2040         25,681,129.45         29,259,454.48         6,652,091.57           June 2040         24,705,045.82         28,157,306.16         6,399,311.68           August 2040         24,705,045.82         28,157,306.16         6,399,311.68           August 2040         24,227,762.90         27,618,341.32         6,275,707.12           September 2040         23,375,752.89         27,087,307.02         6,153,926.71           October 2040         23,3294,241.27         26,640,981.51         6,033,946.22           November 2040         22,388,160.92         25,540,742.94         5,799,289,74           January 2041         21,958,796.89         24,547,461.06         5,571,550.05           March 2041         21,958,746.20         <	e			
November 2039         28,788,584.62         32,767,583.26         7,456,825.22           December 2039         28,251,421.56         32,161,227.14         7,317,718.36           January 2040         27,722,096.71         31,563,691.77         7,180,640.74           February 2040         27,200,506.60         30,974,860.89         7,045,565.51           March 2040         26,686,549.07         30,394,619.72         6,912,466.26           April 2040         26,180,123.23         29,822,854.89         6,781,316.88           May 2040         25,681,129.45         29,259,44.48         6,652,091.57           June 2040         24,705,045.82         28,157,306.16         6,399,311.68           August 2040         24,277,62.90         27,618,341.32         6,275,707.12           September 2040         23,2757,525.89         27,887,307.02         6,153,926.71           October 2040         23,3757,525.89         27,887,307.02         6,153,926.71           October 2040         22,387,816.68         26,048,610.94         5,915,741.77           December 2040         22,387,816.68         26,048,610.94         5,799,289.74           January 2041         21,508,796.89         24,547,461.06         5,571,550.05           March 2041         21,908,796.89	*			
December 2039   28,251,421.56   32,161,227.14   7,317,718.38   January 2040   27,722,096.71   31,563,691.77   7,180,640.74   7,20,506.60   30,974,860.89   7,045,565.51   March 2040   26,686,549.07   30,394,619.72   6,912,466.26   April 2040   26,180,123.23   29,822,854.89   6,781,316.88   May 2040   25,189,469.36   28,704,307.95   6,524,764.88   July 2040   24,705,045.82   28,157,306.16   6,399,311.68   August 2040   24,227,762.90   27,618,341.32   6,275,707.12   6,275,707.12   7,000,000,000,000,000,000,000,000,000,0				
January 2040   27,722,096.71   31,563,691.77   7,180,640.74   February 2040   27,200,506.60   30,974,860.89   7,045,565.51   March 2040   26,686,549.07   30,394,619.72   6,912,466.26   April 2040   26,180,123.23   29,822,854.89   6,781,316.88   May 2040   25,681,129.45   29,259,454.48   6,652,091.57   June 2040   24,705,045.82   28,157,306.16   6,399,311.68   August 2040   24,705,045.82   28,157,306.16   6,399,311.68   August 2040   24,227,762.90   27,618,341.32   6,275,707.12   September 2040   23,757,525.89   27,087,307.02   6,153,926.71   October 2040   22,387,816.68   26,048,610.94   5,915,741.77   December 2040   22,388,160.92   25,540,742.94   5,799,289.74   January 2041   21,945,183.96   25,040,392.95   5,684,566.84   February 2041   21,945,183.96   24,547,461.06   5,571,550.05   March 2041   21,078,911.90   24,061,848.63   5,460,216.66   April 2041   20,238,302.56   23,112,193.70   5,242,510.57   June 2041   19,827,408.09   22,647,960.04   5,336,038.63   July 2041   19,827,408.09   22,647,960.04   5,360,938.55   July 2041   19,827,688.09   22,647,960.04   5,360,938.55   July 2041   19,827,688.06   22,170,663.48   5,031,272.45   August 2041   17,863,730.96   20,429,013.64   4,627,517.63   December 2041   17,863,730.96   20,429,013.64   4,627,517.63   December 2041   17,863,730.96   20,429,013.64   4,627,517.63   December 2041   17,488,502.19   20,005,036.72   4,530,358.30   January 2042   16,696,627.81   17,797,433.12   4,066,240.24   June 2042   16,696,627.81   17,979,433.12   4,066,240.24   June 2042   15,696,627.81   17,979,433.12   4,066,240.24   June 2042   15,696,627.81   17,979,433.12   4,0				
February 2040         27,200,506.60         30,974,860.89         7,045,565.51           March 2040         26,686,549.07         30,394,619.72         6,912,466.26           April 2040         26,180,123.23         29,822,854.89         6,781,316.88           May 2040         25,681,129.45         29,259,454.48         6,652,091.57           June 2040         25,189,469.36         28,704,307.95         6,524,764.88           July 2040         24,705,045.82         28,157,306.16         6,399,311.68           August 2040         24,227,762.90         27,618,341.32         6,275,707.12           September 2040         23,757,525.89         27,087,307.02         6,153,926.71           October 2040         22,837,816.68         26,048,610.94         5,915,741.77           December 2040         22,837,816.68         26,048,610.94         5,915,741.77           December 2040         22,388,160.92         25,540,742.94         5,799,289.74           January 2041         21,945,183.96         25,040,392.95         5,684,566.84           February 2041         21,508,796.89         24,547,461.06         5,571,550.05           March 2041         21,078,911.90         24,061,848.63         5,460,216.66           April 2041         19,827,408.09         2				
March 2040         26,686,549.07         30,394,619.72         6,912,466.26           April 2040         26,180,123,23         29,822,854.89         6,781,316.88           May 2040         25,681,129.45         29,259,454.48         6,652,091.57           June 2040         25,189,469.36         28,704,307.95         6,524,764.88           July 2040         24,705,045.82         28,157,306.16         6,399,311.68           August 2040         24,227,762.90         27,618,341.32         6,275,707.12           September 2040         23,757,525.89         27,087,307.02         6,153,926.71           October 2040         23,294,241.27         26,564,098.15         6,033,946.22           November 2040         22,388,160.92         25,540,742.94         5,799,289,74           January 2041         21,945,183.96         25,040,329.25         5,684,566.84           February 2041         21,508,796.89         24,547,461.06         5,571,550.05           March 2041         21,078,911.90         24,061,848.63         5,460,216.66           April 2041         20,655,442.33         23,583,458.24         5,350,544.21           May 2041         20,238,302.56         23,112,193.70         5,242,510.57           June 2041         19,827,408.09         22,647,960	•			
April 2040         26,180,123.23         29,822,854.89         6,781,316.88           May 2040         25,681,129.45         29,259,454.48         6,652,091.57           June 2040         25,189,469.36         28,704,307.95         6,524,764.88           July 2040         24,705,045.82         28,157,306.16         6,399,311.68           August 2040         24,227,762.90         27,618,341.32         6,275,707.12           September 2040         23,757,525.89         27,087,307.02         6,153,926.71           October 2040         23,294,241.27         26,564,098.15         6,033,946.22           November 2040         22,388,160.92         25,540,742.94         5,799,289.74           January 2041         21,945,183.96         25,040,392.95         5,684,566.84           February 2041         21,508,796.89         24,547,461.06         5,771,550.05           March 2041         21,078,911.90         24,061,484.63         5,460,216.66           April 2041         20,655,442.33         23,583,458.24         5,350,544.21           May 2041         19,827,408.09         22,647,960.04         5,136,093.85           July 2041         19,224,022.8         21,740,211.41         4,928,025.06           September 2041         18,631,367.19         21,296,	•			
May 2040         25,681,129.45         29,259,454.48         6,652,091.57           June 2040         25,189,469.36         28,704,307.95         6,524,764.88           July 2040         24,705,045.82         28,157,306.16         6,399,311.68           August 2040         24,227,762.90         27,618,341.32         6,275,707.12           September 2040         23,757,525.89         27,087,307.02         6,153,926.71           October 2040         23,294,241.27         26,564,098.15         6,033,946.22           November 2040         22,388,160.92         25,540,742.94         5,919,741.77           December 2040         22,388,160.92         25,540,742.94         5,799,289.74           January 2041         21,508,796.89         24,547,461.06         5,571,550.05           March 2041         21,508,796.89         24,547,461.06         5,571,550.05           March 2041         21,078,911.90         24,061,848.63         5,460,216.66           April 2041         20,388,302.56         23,112,193.70         5,242,510.57           June 2041         19,827,408.09         22,647,960.04         5,136,093.85           July 2041         19,827,408.09         22,647,960.04         5,136,093.85           July 2041         19,827,408.09         22,647,960		, , , ,		
June 2040         25,189,469.36         28,704,307.95         6,524,764.88           July 2040         24,705,045.82         28,157,306.16         6,399,311.68           August 2040         24,227,762.90         27,618,341.32         6,275,707.12           September 2040         23,757,525.89         27,087,307.02         6,153,926.71           October 2040         23,294,241.27         26,564,098.15         6,033,946.22           November 2040         22,837,816.68         26,048,610.94         5,915,741.77           December 2040         22,388,160.92         25,540,742.94         5,799,289.74           January 2041         21,945,183.96         25,040,392.95         5,684,566.84           February 2041         21,508,796.89         24,547,461.06         5,571,550.05           March 2041         21,078,911.90         24,061,848.63         5,460,216.66           April 2041         20,238,302.56         23,112,193.70         5,242,510.57           June 2041         19,827,408.09         22,647,960.04         5,136,093.85           July 2041         19,827,408.09         22,647,960.04         5,136,093.85           July 2041         19,827,408.09         22,647,960.04         5,136,093.85           July 2041         19,827,675.46         22,190	1			
July 2040         24,705,045.82         28,157,306.16         6,399,311.68           August 2040         24,227,762.90         27,618,341.32         6,275,707.12           September 2040         23,757,525.89         27,087,307.02         6,153,926.71           October 2040         23,294,241.27         26,564,098.15         6,033,946.22           November 2040         22,887,816.68         26,048,610.94         5,915,741.77           December 2040         22,388,160.92         25,540,742.94         5,799,289.74           January 2041         21,945,183.96         25,040,392.95         5,684,566.84           February 2041         21,078,911.90         24,061,846.63         5,460,216.66           April 2041         21,078,911.90         24,061,846.63         5,460,216.66           April 2041         20,253,402.33         23,583,458.24         5,350,544.21           May 2041         20,238,302.56         23,112,193.70         5,242,510.57           June 2041         19,827,408.09         22,647,960.04         5,136,093.85           July 2041         19,827,408.09         22,647,960.04         5,136,093.85           July 2041         19,827,408.09         22,647,960.04         5,136,093.85           July 2041         19,827,408.09         22,647,	•			
August 2040         24,227,762.90         27,618,341.32         6,275,707.12           September 2040         23,757,525.89         27,087,307.02         6,153,926.71           October 2040         23,294,241.27         26,564,098.15         6,033,946.22           November 2040         22,887,816.68         26,048,610.94         5,915,741.77           December 2040         22,388,160.92         25,540,742.94         5,799,289.74           January 2041         21,945,183.96         25,040,392.95         5,684,566.84           February 2041         21,508,796.89         24,547,461.06         5,571,550.05           March 2041         21,078,911.90         24,061,848.63         5,460,216.66           April 2041         20,655,442.33         23,583,458.24         5,350,544.21           May 2041         20,238,302.56         23,112,193.70         5,242,510.57           June 2041         19,827,408.09         22,647,960.04         5,136,093.85           July 2041         19,822,675.46         22,190,663.48         5,031,272.45           August 2041         19,024,022.28         21,740,211.41         4,928,025.06           September 2041         18,631,367.19         21,296,512.41         4,826,330.61           October 2041         17,863,730.96         <	· ·			
September 2040         23,757,525.89         27,087,307.02         6,153,926.71           October 2040         23,294,241.27         26,564,098.15         6,033,946.22           November 2040         22,837,816.68         26,048,610.94         5,915,741.77           December 2040         22,388,160.92         25,540,742.94         5,799,289.74           January 2041         21,945,183.96         25,040,392.95         5,684,566.84           February 2041         21,508,796.89         24,547,461.06         5,71,550.05           March 2041         21,078,911.90         24,061,848.63         5,460,216.66           April 2041         20,655,442.33         23,583,458.24         5,350,544.21           May 2041         20,238,802.56         23,112,193.70         5,242,510.57           June 2041         19,827,408.09         22,647,960.04         5,136,093.85           July 2041         19,422,675.46         22,190,663.48         5,031,272.45           August 2041         19,024,022.28         21,740,211.41         4,928,025.06           September 2041         18,631,367.19         21,296,512.41         4,826,330.61           October 2041         18,631,367.19         21,296,512.41         4,826,330.61           October 2042         17,119,136.22         <	• •			
October 2040         23,294,241.27         26,564,098.15         6,033,946.22           November 2040         22,837,816.68         26,048,610.94         5,915,741.77           December 2040         22,388,160.92         25,540,742.94         5,799,289.74           January 2041         21,945,183.96         25,040,392.95         5,684,566.84           February 2041         21,508,796.89         24,547,461.06         5,771,550.05           March 2041         21,078,911.90         24,061,848.63         5,460,216.66           April 2041         20,655,442.33         23,583,458.24         5,350,544.21           May 2041         20,238,302.56         23,112,193.70         5,242,510.57           June 2041         19,827,408.09         22,647,960.04         5,136,093.85           July 2041         19,224,022.28         21,740,211.41         4,928,025.06           September 2041         18,631,367.19         21,296,512.41         4,826,330.61           October 2041         18,244,629.85         20,859,476.20         4,726,168.31           November 2041         17,488,592.19         20,005,036.72         4,530,358.30           January 2042         17,119,136.22         19,587,458.52         4,434,670.31           February 2042         16,396,968.25	C			
November 2040         22,837,816.68         26,048,610.94         5,915,741.77           December 2040         22,388,160.92         25,540,742.94         5,799,289.74           January 2041         21,945,183.96         25,040,392.95         5,684,566.84           February 2041         21,508,796.89         24,547,461.06         5,571,550.05           March 2041         21,078,911.90         24,061,848.63         5,460,216.66           April 2041         20,655,442.33         23,583,458.24         5,350,544.21           May 2041         20,238,302.56         23,112,193.70         5,242,510.57           June 2041         19,827,408.09         22,647,960.04         5,136,093.85           July 2041         19,827,408.09         22,647,960.04         5,136,093.85           July 2041         19,024,022.28         21,740,211.41         4,928,025.06           September 2041         18,631,367.19         21,296,512.41         4,826,330.61           October 2041         18,244,629.85         20,859,476.20         4,726,168.31           November 2041         17,488,592.19         20,005,036.72         4,530,358.30           January 2042         17,119,136.22         19,587,458.52         4,434,670.31           February 2042         16,755,286.70 <t< td=""><td>•</td><td>, , , , , , , , , , , , , , , , , , ,</td><td></td><td></td></t<>	•	, , , , , , , , , , , , , , , , , , ,		
December 2040         22,388,160.92         25,540,742.94         5,799,289.74           January 2041         21,945,183.96         25,040,392.95         5,684,566.84           February 2041         21,508,796.89         24,547,461.06         5,571,550.05           March 2041         21,078,911.90         24,061,848.63         5,460,216.66           April 2041         20,655,442.33         23,583,458.24         5,350,544.21           May 2041         20,238,302.56         23,112,193.70         5,242,510.57           June 2041         19,827,408.09         22,647,960.04         5,136,093.85           July 2041         19,024,022.28         21,740,211.41         4,928,025.06           September 2041         18,631,367.19         21,296,512.41         4,826,330.61           October 2041         18,631,367.19         21,296,512.41         4,826,330.61           October 2041         17,863,730.96         20,429,013.64         4,627,517.63           December 2041         17,488,592.19         20,005,036.72         4,530,358.30           January 2042         17,119,136.22         19,587,458.52         4,434,670.31           February 2042         16,755,286.70         19,176,193.25         4,340,433.90           March 2042         16,396,968.25 <t< td=""><td></td><td></td><td></td><td></td></t<>				
January 2041         21,945,183.96         25,040,392.95         5,684,566.84           February 2041         21,508,796.89         24,547,461.06         5,571,550.05           March 2041         21,078,911.90         24,061,848.63         5,460,216.66           April 2041         20,655,442.33         23,583,458.24         5,350,544.21           May 2041         20,238,302.56         23,112,193.70         5,242,510.57           June 2041         19,827,408.09         22,647,960.04         5,136,093.85           July 2041         19,422,675.46         22,190,663.48         5,031,272.45           August 2041         19,024,022.28         21,740,211.41         4,928,025.06           September 2041         18,631,367.19         21,296,512.41         4,826,330.61           October 2041         18,244,629.85         20,859,476.20         4,726,168.31           November 2041         17,863,730.96         20,429,013.64         4,627,517.63           December 2041         17,488,592.19         20,005,036.72         4,530,358.30           January 2042         17,119,136.22         19,587,458.52         4,434,670.31           February 2042         16,396,968.25         18,771,156.19         4,247,629.55           April 2042         16,696,627.81 <td< td=""><td></td><td></td><td></td><td></td></td<>				
February 2041         21,508,796.89         24,547,461.06         5,571,550.05           March 2041         21,078,911.90         24,061,848.63         5,460,216.66           April 2041         20,655,442.33         23,583,458.24         5,350,544.21           May 2041         20,238,302.56         23,112,193.70         5,242,510.57           June 2041         19,827,408.09         22,647,960.04         5,136,093.85           July 2041         19,422,675.46         22,190,663.48         5,031,272.45           August 2041         19,024,022.28         21,740,211.41         4,928,025.06           September 2041         18,631,367.19         21,296,512.41         4,826,330.61           October 2041         18,244,629.85         20,859,476.20         4,726,168.31           November 2041         17,488,592.19         20,005,036.72         4,530,358.30           January 2042         17,119,136.22         19,587,458.52         4,434,670.31           February 2042         16,755,286.70         19,176,193.25         4,340,433.90           March 2042         16,396,968.25         18,771,156.19         4,247,629.55           April 2042         16,644,106.45         18,372,263.67         4,156,238.00           May 2042         15,596,627.81         17,979				
March 2041         21,078,911.90         24,061,848.63         5,460,216.66           April 2041         20,655,442.33         23,583,458.24         5,350,544.21           May 2041         20,238,302.56         23,112,193.70         5,242,510.57           June 2041         19,827,408.09         22,647,960.04         5,136,093.85           July 2041         19,422,675.46         22,190,663.48         5,031,272.45           August 2041         19,024,022.28         21,740,211.41         4,928,025.06           September 2041         18,631,367.19         21,296,512.41         4,826,330.61           October 2041         18,244,629.85         20,859,476.20         4,726,168.31           November 2041         17,863,730.96         20,429,013.64         4,627,517.63           December 2041         17,488,592.19         20,005,036.72         4,530,358.30           January 2042         17,119,136.22         19,587,458.52         4,434,670.31           February 2042         16,755,286.70         19,176,193.25         4,340,433.90           March 2042         16,396,968.25         18,771,156.19         4,247,629.55           April 2042         15,696,627.81         17,979,433.12         4,066,240.24           June 2042         15,354,459.78         17,59	,			
April 204120,655,442.3323,583,458.245,350,544.21May 204120,238,302.5623,112,193.705,242,510.57June 204119,827,408.0922,647,960.045,136,093.85July 204119,422,675.4622,190,663.485,031,272.45August 204119,024,022.2821,740,211.414,928,025.06September 204118,631,367.1921,296,512.414,826,330.61October 204118,244,629.8520,859,476.204,726,168.31November 204117,863,730.9620,429,013.644,627,517.63December 204117,488,592.1920,005,036.724,530,358.30January 204217,119,136.2219,587,458.524,434,670.31February 204216,755,286.7019,176,193.254,340,433.90March 204216,396,968.2518,771,156.194,247,629.55April 204216,044,106.4518,372,263.674,156,238.00May 204215,696,627.8117,979,433.124,066,240.24June 204215,017,530.7117,211,632.743,890,351.17August 204215,017,530.7117,211,632.743,890,351.17August 204214,685,769.8916,836,502.893,804,423.02September 204214,359,107.4916,467,114.973,719,814.95October 204214,037,474.5516,103,391.463,636,509.12	•			
May 2041       20,238,302.56       23,112,193.70       5,242,510.57         June 2041       19,827,408.09       22,647,960.04       5,136,093.85         July 2041       19,422,675.46       22,190,663.48       5,031,272.45         August 2041       19,024,022.28       21,740,211.41       4,928,025.06         September 2041       18,631,367.19       21,296,512.41       4,826,330.61         October 2041       18,244,629.85       20,859,476.20       4,726,168.31         November 2041       17,863,730.96       20,429,013.64       4,627,517.63         December 2041       17,488,592.19       20,005,036.72       4,530,358.30         January 2042       17,119,136.22       19,587,458.52       4,434,670.31         February 2042       16,755,286.70       19,176,193.25       4,340,433.90         March 2042       16,396,968.25       18,771,156.19       4,247,629.55         April 2042       16,044,106.45       18,372,263.67       4,156,238.00         May 2042       15,696,627.81       17,979,433.12       4,066,240.24         June 2042       15,354,459.78       17,592,582.98       3,977,617.47         July 2042       15,017,530.71       17,211,632.74       3,890,351.17         August 2042       14,685,769.89				
June 2041         19,827,408.09         22,647,960.04         5,136,093.85           July 2041         19,422,675.46         22,190,663.48         5,031,272.45           August 2041         19,024,022.28         21,740,211.41         4,928,025.06           September 2041         18,631,367.19         21,296,512.41         4,826,330.61           October 2041         18,244,629.85         20,859,476.20         4,726,168.31           November 2041         17,863,730.96         20,429,013.64         4,627,517.63           December 2041         17,488,592.19         20,005,036.72         4,530,358.30           January 2042         17,119,136.22         19,587,458.52         4,434,670.31           February 2042         16,755,286.70         19,176,193.25         4,340,433.90           March 2042         16,396,968.25         18,771,156.19         4,247,629.55           April 2042         16,044,106.45         18,372,263.67         4,156,238.00           May 2042         15,696,627.81         17,979,433.12         4,066,240.24           June 2042         15,354,459.78         17,592,582.98         3,977,617.47           July 2042         15,017,530.71         17,211,632.74         3,890,351.17           August 2042         14,685,769.89         16,83	1			
July 2041         19,422,675.46         22,190,663.48         5,031,272.45           August 2041         19,024,022.28         21,740,211.41         4,928,025.06           September 2041         18,631,367.19         21,296,512.41         4,826,330.61           October 2041         18,244,629.85         20,859,476.20         4,726,168.31           November 2041         17,863,730.96         20,429,013.64         4,627,517.63           December 2041         17,488,592.19         20,005,036.72         4,530,358.30           January 2042         17,119,136.22         19,587,458.52         4,434,670.31           February 2042         16,755,286.70         19,176,193.25         4,340,433.90           March 2042         16,396,968.25         18,771,156.19         4,247,629.55           April 2042         16,044,106.45         18,372,263.67         4,156,238.00           May 2042         15,696,627.81         17,979,433.12         4,066,240.24           June 2042         15,354,459.78         17,592,582.98         3,977,617.47           July 2042         15,017,530.71         17,211,632.74         3,890,351.17           August 2042         14,685,769.89         16,836,502.89         3,804,423.02           September 2042         14,359,107.49	•			
August 204119,024,022.2821,740,211.414,928,025.06September 204118,631,367.1921,296,512.414,826,330.61October 204118,244,629.8520,859,476.204,726,168.31November 204117,863,730.9620,429,013.644,627,517.63December 204117,488,592.1920,005,036.724,530,358.30January 204217,119,136.2219,587,458.524,434,670.31February 204216,755,286.7019,176,193.254,340,433.90March 204216,396,968.2518,771,156.194,247,629.55April 204216,044,106.4518,372,263.674,156,238.00May 204215,696,627.8117,979,433.124,066,240.24June 204215,354,459.7817,592,582.983,977,617.47July 204215,017,530.7117,211,632.743,890,351.17August 204214,685,769.8916,836,502.893,804,423.02September 204214,359,107.4916,467,114.973,719,814.95October 204214,037,474.5516,103,391.463,636,509.12		, , , , , , , , , , , , , , , , , , ,		
September 2041       18,631,367.19       21,296,512.41       4,826,330.61         October 2041       18,244,629.85       20,859,476.20       4,726,168.31         November 2041       17,863,730.96       20,429,013.64       4,627,517.63         December 2041       17,488,592.19       20,005,036.72       4,530,358.30         January 2042       17,119,136.22       19,587,458.52       4,434,670.31         February 2042       16,755,286.70       19,176,193.25       4,340,433.90         March 2042       16,396,968.25       18,771,156.19       4,247,629.55         April 2042       16,044,106.45       18,372,263.67       4,156,238.00         May 2042       15,696,627.81       17,979,433.12       4,066,240.24         June 2042       15,354,459.78       17,592,582.98       3,977,617.47         July 2042       15,017,530.71       17,211,632.74       3,890,351.17         August 2042       14,685,769.89       16,836,502.89       3,804,423.02         September 2042       14,359,107.49       16,467,114.97       3,719,814.95         October 2042       14,037,474.55       16,103,391.46       3,636,509.12				
October 2041       18,244,629.85       20,859,476.20       4,726,168.31         November 2041       17,863,730.96       20,429,013.64       4,627,517.63         December 2041       17,488,592.19       20,005,036.72       4,530,358.30         January 2042       17,119,136.22       19,587,458.52       4,434,670.31         February 2042       16,755,286.70       19,176,193.25       4,340,433.90         March 2042       16,396,968.25       18,771,156.19       4,247,629.55         April 2042       16,044,106.45       18,372,263.67       4,156,238.00         May 2042       15,696,627.81       17,979,433.12       4,066,240.24         June 2042       15,354,459.78       17,592,582.98       3,977,617.47         July 2042       15,017,530.71       17,211,632.74       3,890,351.17         August 2042       14,685,769.89       16,836,502.89       3,804,423.02         September 2042       14,359,107.49       16,467,114.97       3,719,814.95         October 2042       14,037,474.55       16,103,391.46       3,636,509.12				
November 204117,863,730.9620,429,013.644,627,517.63December 204117,488,592.1920,005,036.724,530,358.30January 204217,119,136.2219,587,458.524,434,670.31February 204216,755,286.7019,176,193.254,340,433.90March 204216,396,968.2518,771,156.194,247,629.55April 204216,044,106.4518,372,263.674,156,238.00May 204215,696,627.8117,979,433.124,066,240.24June 204215,354,459.7817,592,582.983,977,617.47July 204215,017,530.7117,211,632.743,890,351.17August 204214,685,769.8916,836,502.893,804,423.02September 204214,359,107.4916,467,114.973,719,814.95October 204214,037,474.5516,103,391.463,636,509.12				
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January 204217,119,136.2219,587,458.524,434,670.31February 204216,755,286.7019,176,193.254,340,433.90March 204216,396,968.2518,771,156.194,247,629.55April 204216,044,106.4518,372,263.674,156,238.00May 204215,696,627.8117,979,433.124,066,240.24June 204215,354,459.7817,592,582.983,977,617.47July 204215,017,530.7117,211,632.743,890,351.17August 204214,685,769.8916,836,502.893,804,423.02September 204214,359,107.4916,467,114.973,719,814.95October 204214,037,474.5516,103,391.463,636,509.12				
February 2042       16,755,286.70       19,176,193.25       4,340,433.90         March 2042       16,396,968.25       18,771,156.19       4,247,629.55         April 2042       16,044,106.45       18,372,263.67       4,156,238.00         May 2042       15,696,627.81       17,979,433.12       4,066,240.24         June 2042       15,354,459.78       17,592,582.98       3,977,617.47         July 2042       15,017,530.71       17,211,632.74       3,890,351.17         August 2042       14,685,769.89       16,836,502.89       3,804,423.02         September 2042       14,359,107.49       16,467,114.97       3,719,814.95         October 2042       14,037,474.55       16,103,391.46       3,636,509.12				
March 2042       16,396,968.25       18,771,156.19       4,247,629.55         April 2042       16,044,106.45       18,372,263.67       4,156,238.00         May 2042       15,696,627.81       17,979,433.12       4,066,240.24         June 2042       15,354,459.78       17,592,582.98       3,977,617.47         July 2042       15,017,530.71       17,211,632.74       3,890,351.17         August 2042       14,685,769.89       16,836,502.89       3,804,423.02         September 2042       14,359,107.49       16,467,114.97       3,719,814.95         October 2042       14,037,474.55       16,103,391.46       3,636,509.12	•			
April 2042       16,044,106.45       18,372,263.67       4,156,238.00         May 2042       15,696,627.81       17,979,433.12       4,066,240.24         June 2042       15,354,459.78       17,592,582.98       3,977,617.47         July 2042       15,017,530.71       17,211,632.74       3,890,351.17         August 2042       14,685,769.89       16,836,502.89       3,804,423.02         September 2042       14,359,107.49       16,467,114.97       3,719,814.95         October 2042       14,037,474.55       16,103,391.46       3,636,509.12	•			
May 2042       15,696,627.81       17,979,433.12       4,066,240.24         June 2042       15,354,459.78       17,592,582.98       3,977,617.47         July 2042       15,017,530.71       17,211,632.74       3,890,351.17         August 2042       14,685,769.89       16,836,502.89       3,804,423.02         September 2042       14,359,107.49       16,467,114.97       3,719,814.95         October 2042       14,037,474.55       16,103,391.46       3,636,509.12			, , , , , , , , , , , , , , , , , , ,	
June 204215,354,459.7817,592,582.983,977,617.47July 204215,017,530.7117,211,632.743,890,351.17August 204214,685,769.8916,836,502.893,804,423.02September 204214,359,107.4916,467,114.973,719,814.95October 204214,037,474.5516,103,391.463,636,509.12	1			
July 2042       15,017,530.71       17,211,632.74       3,890,351.17         August 2042       14,685,769.89       16,836,502.89       3,804,423.02         September 2042       14,359,107.49       16,467,114.97       3,719,814.95         October 2042       14,037,474.55       16,103,391.46       3,636,509.12	•	, ,		
August 2042       14,685,769.89       16,836,502.89       3,804,423.02         September 2042       14,359,107.49       16,467,114.97       3,719,814.95         October 2042       14,037,474.55       16,103,391.46       3,636,509.12	·			
September 2042       14,359,107.49       16,467,114.97       3,719,814.95         October 2042       14,037,474.55       16,103,391.46       3,636,509.12	• •			
October 2042	e			
		13,720,803.02	15,745,255.86	3,554,487.90

Distribution Date	Classes AP, PF and QF (in the aggregate)	PF and OF		
December 2042	\$ 13,409,025.69	\$ 15,392,632.62	\$ 3,473,733.90	
January 2043	13,102,076.20	15,045,447.18	3,394,229.95	
February 2043	12,799,889.07	14,703,625.88	3,315,959.09	
March 2043	12,502,399.60	14,367,096.04	3,238,904.58	
April 2043	12,209,543.95	14,035,785.87	3,163,049.90	
May 2043	11,921,259.09	13,709,624.52	3,088,378.73	
June 2043	11,637,482.78	13,388,542.02	3,014,874.95	
July 2043	11,358,153.57	13,072,469.30	2,942,522.67	
August 2043	11,083,210.81	12,761,338.17	2,871,306.18	
September 2043	10,812,594.62	12,455,081.31	2,801,209.99	
October 2043	10,546,245.88	12,153,632.26	2,732,218.78	
November 2043	10,284,106.21	11,856,925.39	2,664,317.46	
December 2043	10,026,118.00	11,564,895.92	2,597,491.10	
January 2044	9,772,224.37	11,277,479.91	2,531,724.99	
February 2044	9,522,369.16	10,994,614.22	2,467,004.58	
March 2044	9,276,496.93	10,716,236.51	2,403,315.53	
April 2044	9,034,552.96	10,442,285.25	2,340,643.67	
May 2044	8,796,483.21	10,172,699.70	2,278,975.01	
June 2044	8,562,234.34	9,907,419.89	2,218,295.76	
July 2044	8,331,753.72	9,646,386.62	2,158,592.26	
August 2044	8,104,989.36	9,389,541.44	2,099,851.09	
September 2044	7,881,889.95	9,136,826.66	2,042,058.94	
October 2044	7,662,404.84	8,888,185.32	1,985,202.72	
November 2044	7,446,484.03	8,643,561.20	1,929,269.47	
December 2044	7,234,078.16	8,402,898.80	1,874,246.42	
January 2045	7,025,138.50	8,166,143.33	1,820,120.96	
February 2045	6,819,616.97	7,933,240.70	1,766,880.64	
March 2045	6,617,466.08	7,704,137.52	1,714,513.17	
April 2045	6,418,638.97	7,478,781.09	1,663,006.40	
May 2045	6,223,089.38	7,257,119.37	1,612,348.38	
June 2045	6,030,771.63	7,039,101.03	1,562,527.28	
July 2045	5,841,640.65	6,824,675.35	1,513,531.42	
August 2045	5,655,651.96	6,613,792.30	1,465,349.29	
September 2045	5,472,761.61	6,406,402.49	1,417,969.53	
October 2045	5,292,926.27	6,202,457.15	1,371,380.90	
November 2045	5,116,103.14	6,001,908.15	1,325,572.32	
December 2045	4,942,249.97	5,804,707.99	1,280,532.88	
January 2046	4,771,325.09	5,610,809.77	1,236,251.76	
February 2046	4,603,287.32	5,420,167.21	1,192,718.32	
March 2046	4,438,096.07	5,232,734.61	1,149,922.05	
April 2046	4,275,711.22	5,048,466.89	1,107,852.55	
May 2046	4,116,093.21	4,867,319.52	1,066,499.60	
•	3,959,202.98	4,689,248.57	1,000,499.00	
June 2046		4,514,210.67	1,025,855.07 985,902.98	
July 2046	3,805,001.97		,	
August 2046	3,653,452.13	4,342,163.03	946,639.49	
September 2046	3,504,515.92	4,173,063.38	908,052.88	
October 2046	3,358,156.25	4,006,870.04	870,133.53	

Distribution Date	(iı	Classes AP, PF and QF (in the aggregate)		PF and QF		Class BP	lasses B and F the aggregate)
November 2046	\$	3,214,336.55	\$	3,843,541.84	\$ 832,872.00		
December 2046		3,073,020.69		3,683,038.17	796,258.91		
January 2047		2,934,173.06		3,525,318.92	760,285.06		
February 2047		2,797,758.46		3,370,344.53	724,941.33		
March 2047		2,663,742.19		3,218,075.94	690,218.73		
April 2047		2,532,089.98		3,068,474.61	656,108.40		
May 2047		2,402,768.02		2,921,502.48	622,601.59		
June 2047		2,275,742.94		2,777,122.02	589,689.64		
July 2047		2,150,981.80		2,635,296.16	557,364.04		
August 2047		2,028,452.10		2,495,988.33	525,616.36		
September 2047		1,908,121.75		2,359,162.44	494,438.31		
October 2047		1,789,959.10		2,224,782.86	463,821.69		
November 2047		1,673,932.91		2,092,814.44	433,758.40		
December 2047		1,560,012.33		1,963,222.49	404,240.47		
January 2048		1,448,166.95		1,835,972.75	375,260.02		
February 2048		1,338,366.73		1,711,031.45	346,809.27		
March 2048		1,230,582.04		1,588,365.22	318,880.56		
April 2048		1,124,783.64		1,467,941.17	291,466.30		
May 2048		1,020,942.66		1,349,726.81	264,559.03		
June 2048		919,030.62		1,233,690.09	238,151.37		
July 2048		819,019.43		1,119,799.39	212,236.04		
August 2048		720,881.34		1,008,023.49	186,805.88		
September 2048		624,589.00		898,331.59	161,853.79		
October 2048		530,115.39		790,693.30	137,372.77		
November 2048		437,433.87		685,078.62	113,355.94		
December 2048		346,518.14		581,457.96	89,796.47		
January 2049		257,342.25		479,802.10	66,687.66		
February 2049		169,880.60		380,082.24	44,022.87		
March 2049		84,107.92		282,269.92	21,795.56		
April 2049		0.00		186,337.09	0.00		
May 2049		0.00		92,256.05	0.00		
June 2049 and thereafter		0.00		0.00	0.00		

Distribution Date	Class PD	Class HD	Class PE
Initial Balance	\$25,085,166.00	\$1,379,000.00	\$46,083,746.00
October 2019	25,020,442.08	1,369,527.24	45,922,133.58
November 2019	24,948,182.13	1,358,722.83	45,746,908.69
December 2019	24,868,417.96	1,346,600.40	45,558,162.43
January 2020	24,781,187.20	1,333,175.74	45,355,996.32
February 2020	24,686,533.28	1,318,466.75	45,140,522.27
March 2020	24,584,505.39	1,302,493.50	44,911,862.44
April 2020	24,475,158.46	1,285,278.06	44,670,149.22
May 2020	24,358,553.10	1,266,844.64	44,415,525.01
June 2020	24,234,755.58	1,247,219.43	44,148,142.17
July 2020	24,103,837.76	1,226,430.61	43,868,162.87
August 2020	23,965,877.01	1,204,508.30	43,575,758.89
September 2020	23,820,956.19	1,181,484.54	43,271,111.48
October 2020	23,669,163.52	1,157,393.16	42,954,411.22
November 2020	23,510,592.51	1,132,269.81	42,625,857.75
December 2020	23,345,341.91	1,106,151.86	42,285,659.63
January 2021	23,173,515.54	1,079,336.94	41,936,621.38
February 2021	22,995,222.25	1,051,852.89	41,578,903.05
March 2021	22,810,575.76	1,023,728.96	41,212,671.84
April 2021	22,619,694.60	994,995.70	40,838,101.88
May 2021	22,422,701.90	965,799.11	40,456,533.82
June 2021	22,219,739.47	936,166.57	40,068,125.75
July 2021	22,011,073.12	906,126.60	39,673,041.58
August 2021	21,796,835.41	875,708.74	39,271,450.91
September 2021	21,578,377.95	844,977.41	38,863,876.92
October 2021	21,355,810.87	813,966.33	38,450,531.94
November 2021	21,129,405.77	782,763.53	38,032,185.51
December 2021	20,900,010.18	751,568.55	37,610,771.28
January 2022	20,669,019.35	720,518.40	37,187,618.98
February 2022	20,438,493.25	689,912.19	36,765,765.05
March 2022	20,209,548.20	659,879.32	36,346,561.39
April 2022	19,982,502.08	630,500.19	35,930,884.10
May 2022	19,757,339.68	601,765.80	35,518,704.69
June 2022	19,534,045.91	573,667.30	35,109,994.85
July 2022	19,312,605.80	546,195.88	34,704,726.54
August 2022	19,093,004.49	519,342.91	34,302,871.90
September 2022	18,875,227.24	493,099.80	33,904,403.32
October 2022	18,659,259.44	467,458.09	33,509,293.40
November 2022	18,445,086.58	442,409.40	33,117,514.97
December 2022	18,232,694.27	417,945.46	32,729,041.05
January 2023	18,022,068.23	394,058.08	32,343,844.90
February 2023	17,813,194.29	370,739.20	31,961,899.98
March 2023	17,606,058.41	347,980.81	31,583,179.97
April 2023	17,400,646.65	325,775.02	31,207,658.74
May 2023	17,196,945.17	304,114.05	30,835,310.38
June 2023	16,994,940.25	282,990.16	30,466,109.20
July 2023	16,794,618.29	262,395.73	30,100,029.70
August 2023	16,595,965.77	242,323.25	29,737,046.57
September 2023	16,398,969.29	222,765.25	29,377,134.73

Distribution Date	Class PD	Class HD	Class PE
October 2023	\$16,203,615.57	\$ 203,714.39	\$29,020,269.28
November 2023	16,009,891.42	185,163.40	28,666,425.52
December 2023	15,817,783.75	167,105.09	28,315,578.95
January 2024	15,627,279.59	149,532.37	27,967,705.26
February 2024	15,438,366.06	132,438.20	27,622,780.35
March 2024	15,251,030.38	115,815.68	27,280,780.29
April 2024	15,065,259.87	99,657.94	26,941,681.35
May 2024	14,881,041.98	83,958.21	26,605,460.00
June 2024	14,698,364.22	68,709.82	26,272,092.86
July 2024	14,517,214.21	53,906.13	25,941,556.79
August 2024	14,337,579.68	39,540.63	25,613,828.80
September 2024	14,159,448.45	25,606.85	25,288,886.08
October 2024	13,982,808.44	12,098.44	24,966,706.01
November 2024	13,807,647.65	0.00	24,647,266.16
December 2024	13,633,954.19		24,330,544.27
		0.00	24,016,518.25
January 2025	13,461,716.27	0.00	, , , , , , , , , , , , , , , , , , ,
February 2025	13,290,922.17	0.00	23,705,166.20
March 2025	13,121,560.29	0.00	23,396,466.38
April 2025	12,953,619.10	0.00	23,090,397.24
May 2025	12,787,087.18	0.00	22,786,937.38
June 2025	12,621,953.17	0.00	22,486,065.59
July 2025	12,458,205.84	0.00	22,187,760.82
August 2025	12,295,834.02	0.00	21,892,002.19
September 2025	12,134,826.65	0.00	21,598,768.98
October 2025	11,975,172.72	0.00	21,308,040.65
November 2025	11,816,861.35	0.00	21,019,796.81
December 2025	11,659,881.73	0.00	20,734,017.24
January 2026	11,504,223.13	0.00	20,450,681.87
February 2026	11,349,874.91	0.00	20,169,770.81
March 2026	11,196,826.50	0.00	19,891,264.31
April 2026	11,045,067.45	0.00	19,615,142.78
May 2026	10,894,587.36	0.00	19,341,386.79
June 2026	10,745,375.91	0.00	19,069,977.08
July 2026	10,597,422.89	0.00	18,800,894.51
August 2026	10,450,718.15	0.00	18,534,120.12
September 2026	10,305,251.63	0.00	18,269,635.09
October 2026	10,161,013.33	0.00	18,007,420.76
November 2026	10,017,993.36	0.00	17,747,458.61
December 2026	9,876,181.88	0.00	17,489,730.26
January 2027	9,735,569.15	0.00	17,234,217.49
February 2027	9,596,145.50	0.00	16,980,902.22
March 2027	9,457,901.32	0.00	16,729,766.53
April 2027	9,320,827.11	0.00	16,480,792.61
May 2027	9,184,913.40	0.00	16,234,038.71
June 2027	9,050,150.85	0.00	15,990,764.82
July 2027	8,916,530.14	0.00	15,750,923.48
August 2027	8,784,316.94	0.00	15,514,467.86
September 2027	8,653,950.70	0.00	15,281,351.77
October 2027	8,525,406.44	0.00	15,051,529.61
000001 2027	0,525,100.11	0.00	10,001,001

Distribution Date	Class PD	Class HD	Class PE
November 2027	\$ 8,398,659.49	\$ 0.00	\$14,824,956.42
December 2027	8,273,685.55	0.00	14,601,587.81
January 2028	8,150,460.61	0.00	14,381,380.02
February 2028	8,028,960.99	0.00	14,164,289.84
March 2028	7,909,163.32	0.00	13,950,274.66
April 2028	7,791,044.55	0.00	13,739,292.44
May 2028	7,674,581.93	0.00	13,531,301.70
June 2028	7,559,753.00	0.00	13,326,261.50
July 2028	7,446,535.62	0.00	13,124,131.47
August 2028	7,334,907.94	0.00	12,924,871.78
September 2028	7,224,848.39	0.00	12,728,443.10
October 2028	7,116,335.69	0.00	12,534,806.68
November 2028	7,009,348.85	0.00	12,343,924.25
December 2028	6,903,867.15	0.00	12,155,758.06
January 2029	6,799,870.15	0.00	11,970,270.88
February 2029	6,697,337.69	0.00	11,787,425.97
March 2029	6,596,249.86	0.00	11,607,187.07
April 2029	6,496,587.03	0.00	11,429,518.44
May 2029	6,398,329.84	0.00	11,254,384.78
June 2029	6,301,459.15	0.00	11,081,751.29
July 2029	6,205,956.12	0.00	10,911,583.63
August 2029	6,111,802.13	0.00	10,743,847.92
September 2029	6,018,978.82	0.00	10,578,510.74
October 2029	5,927,468.08	0.00	10,415,539.10
November 2029	5,837,252.02	0.00	10,254,900.48
December 2029	5,748,313.02	0.00	10,096,562.79
January 2030	5,660,633.67	0.00	9,940,494.34
February 2030	5,574,196.80	0.00	9,786,663.92
March 2030	5,488,985.46	0.00	9,635,040.69
April 2030	5,404,982.95	0.00	9,485,594.26
May 2030	5,322,172.78	0.00	9,338,294.62
June 2030	5,240,538.66	0.00	9,193,112.19
July 2030	5,160,064.55	0.00	9,050,017.77
August 2030	5,080,734.60	0.00	8,908,982.56
September 2030	5,002,533.19	0.00	8,769,978.15
October 2030	4,925,444.89	0.00	8,632,976.50
November 2030	4,849,454.50	0.00	8,497,949.96
December 2030	4,774,546.99	0.00	8,364,871.25
January 2031	4,700,707.56	0.00	8,233,713.46
February 2031	4,627,921.60	0.00	8,104,450.03
March 2031	4,556,174.68	0.00	7,977,054.77
April 2031	4,485,452.59	0.00	7,851,501.84
May 2031	4,415,741.29	0.00	7,727,765.75
June 2031	4,347,026.93	0.00	7,605,821.35
July 2031	4,279,295.85	0.00	7,485,643.83
August 2031	4,212,534.57	0.00	7,367,208.72
September 2031	4,146,729.79	0.00	7,250,491.87
October 2031	4,081,868.40	0.00	7,135,469.46
November 2031	4,017,937.44	0.00	7,022,118.00

Distribution Date	Class PD	Class HD	Class PE
December 2031	\$ 3,954,924.15	\$ 0.00	\$ 6,910,414.31
January 2032	3,892,815.92	0.00	6,800,335.51
February 2032	3,831,600.32	0.00	6,691,859.06
March 2032	3,771,265.10	0.00	6,584,962.70
April 2032	3,711,798.13	0.00	6,479,624.48
May 2032	3,653,187.50	0.00	6,375,822.74
June 2032	3,595,421.41	0.00	6,273,536.12
July 2032	3,538,488.25	0.00	6,172,743.54
August 2032	3,482,376.55	0.00	6,073,424.22
September 2032	3,427,075.00	0.00	5,975,557.65
October 2032	3,372,572.45	0.00	5,879,123.60
November 2032	3,318,857.87	0.00	5,784,102.12
December 2032	3,265,920.42	0.00	5,690,473.51
January 2033	3,213,749.36	0.00	5,598,218.36
February 2033	3,162,334.14	0.00	5,507,317.52
March 2033	3,111,664.32	0.00	5,417,752.08
April 2033	3,061,729.60	0.00	5,329,503.40
May 2033	3,012,519.85	0.00	5,242,553.10
June 2033	2,964,025.03	0.00	5,156,883.05
July 2033	2,916,235.28	0.00	5,072,475.33
August 2033	2,869,140.83	0.00	4,989,312.32
September 2033	2,822,732.09	0.00	4,907,376.59
October 2033	2,776,999.55	0.00	4,826,650.97
November 2033	2,731,933.86	0.00	4,747,118.52
December 2033	2,687,525.78	0.00	4,668,762.53
January 2034	2,643,766.20	0.00	4,591,566.52
February 2034	2,600,646.14	0.00	4,515,514.22
March 2034	2,558,156.73	0.00	4,440,589.60
April 2034	2,516,289.22	0.00	4,366,776.84
May 2034	2,475,034.99	0.00	4,294,060.33
June 2034	2,434,385.51	0.00	4,222,424.67
July 2034	2,394,332.40	0.00	4,151,854.69
August 2034	2,354,867.37	0.00	4,082,335.41
September 2034	2,315,982.24	0.00	4,013,852.04
October 2034	2,277,668.95	0.00	3,946,390.02
November 2034	2,239,919.55	0.00	3,879,934.98
December 2034	2,202,726.19	0.00	3,814,472.73
January 2035	2,166,081.14	0.00	3,749,989.30
February 2035	2,129,976.74	0.00	3,686,470.88
March 2035	2,094,405.47	0.00	3,623,903.87
April 2035	2,059,359.91	0.00	3,562,274.85
May 2035	2,024,832.71	0.00	3,501,570.58
June 2035	1,990,816.64	0.00	3,441,778.01
July 2035	1,957,304.58	0.00	3,382,884.25
August 2035	1,924,289.48	0.00	3,324,876.60
September 2035	1,891,764.39	0.00	3,267,742.53
October 2035	1,859,722.49	0.00	3,211,469.69
November 2035	1,828,156.99	0.00	3,156,045.88
December 2035	1,797,061.25	0.00	3,101,459.08

Distribution Date	Class PD	Class HD	Class PE
January 2036	\$ 1,766,428.68	\$ 0.00	\$ 3,047,697.43
February 2036	1,736,252.80	0.00	2,994,749.24
March 2036	1,706,527.22	0.00	2,942,602.96
April 2036	1,677,245.62	0.00	2,891,247.23
May 2036	1,648,401.77	0.00	2,840,670.81
June 2036	1,619,989.54	0.00	2,790,862.64
July 2036	1,592,002.87	0.00	2,741,811.80
August 2036	1,564,435.78	0.00	2,693,507.52
September 2036	1,537,282.38	0.00	2,645,939.18
October 2036	1,510,536.85	0.00	2,599,096.30
November 2036	1,484,193.45	0.00	2,552,968.56
December 2036	1,458,246.54	0.00	2,507,545.76
January 2037	1,432,690.53	0.00	2,462,817.86
February 2037	1,407,519.91	0.00	2,418,774.94
March 2037	1,382,729.25	0.00	2,375,407.23
April 2037	1,358,313.20	0.00	2,332,705.08
May 2037	1,334,266.47	0.00	2,290,658.99
June 2037	1,310,583.85	0.00	2,249,259.57
July 2037	1,287,260.20	0.00	2,208,497.59
August 2037	1,264,290.45	0.00	2,168,363.90
September 2037	1,241,669.60	0.00	2,128,849.53
October 2037	1,219,392.71	0.00	2,089,945.59
November 2037	1,197,454.91	0.00	2,051,643.33
December 2037	1,175,851.42	0.00	2,013,934.13
January 2038	1,154,577.48	0.00	1,976,809.47
February 2038	1,133,628.43	0.00	1,940,260.96
March 2038	1,112,999.67	0.00	1,904,280.32
April 2038	1,092,686.65	0.00	1,868,859.38
May 2038	1,072,684.88	0.00	1,833,990.09
June 2038	1,052,989.96	0.00	1,799,664.51
July 2038	1,033,597.51	0.00	1,765,874.82
August 2038	1,014,503.23	0.00	1,732,613.28
September 2038	995,702.89	0.00	1,699,872.28
October 2038	977,192.30	0.00	1,667,644.31
November 2038	958,967.33	0.00	1,635,921.96
December 2038	941,023.92	0.00	1,604,697.93
January 2039	923,358.04	0.00	1,573,965.01
February 2039	905,965.74	0.00	1,543,716.10
March 2039	888,843.11	0.00	1,513,944.19
April 2039	871,986.30	0.00	1,484,642.38
May 2039	855,391.51	0.00	1,455,803.84
June 2039	839,055.00	0.00	1,427,421.86
July 2039	822,973.06	0.00	1,399,489.82
August 2039	807,142.05	0.00	1,372,001.18
September 2039	791,558.38	0.00	1,344,949.49
October 2039	776,218.49	0.00	1,318,328.41
November 2039	761,118.90	0.00	1,292,131.67
December 2039	746,256.16	0.00	1,266,353.08
January 2040	731,626.85	0.00	1,240,986.56
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Distribution Date	Class PD	_	Class HD	Class PE
February 2040	\$ 717,227.63	\$	0.00	\$ 1,216,026.10
March 2040	703,055.19		0.00	1,191,465.77
April 2040	689,106.25		0.00	1,167,299.73
May 2040	675,377.62		0.00	1,143,522.22
June 2040	661,866.10		0.00	1,120,127.55
July 2040	648,568.57		0.00	1,097,110.13
August 2040	635,481.94		0.00	1,074,464.44
September 2040	622,603.16		0.00	1,052,185.02
October 2040	609,929.24		0.00	1,030,266.50
November 2040	597,457.21		0.00	1,008,703.59
December 2040	585,184.14		0.00	987,491.07
January 2041	573,107.17		0.00	966,623.79
February 2041	561,223.44		0.00	946,096.66
March 2041	549,530.15		0.00	925,904.69
April 2041	538,024.55		0.00	906,042.93
May 2041	526,703.91		0.00	886,506.53
June 2041	515,565.53		0.00	867,290.67
July 2041	504,606.78		0.00	848,390.63
August 2041	493,825.03		0.00	829,801.74
September 2041	483,217.71		0.00	811,519.40
October 2041	472,782.27		0.00	793,539.08
November 2041	462,516.22		0.00	775,856.29
December 2041	452,417.07		0.00	758,466.64
January 2042	442,482.40		0.00	741,365.77
February 2042	432,709.79		0.00	724,549.40
March 2042	423,096.88		0.00	708,013.30
April 2042	413,641.32		0.00	691,753.30
May 2042	404,340.82		0.00	675,765.29
June 2042	395,193.10		0.00	660,045.22
July 2042	386,195.92		0.00	644,589.10
August 2042	377,347.06		0.00	629,392.99
September 2042	368,644.36		0.00	614,453.01
October 2042	360,085.65		0.00	599,765.32
November 2042	351,668.82		0.00	585,326.16
December 2042	343,391.79		0.00	571,131.80
January 2043	335,252.48		0.00	557,178.57
February 2043	327,248.86		0.00	543,462.87
March 2043	319,378.94		0.00	529,981.12
April 2043	311,640.73		0.00	516,729.81
May 2043	304,032.30		0.00	503,705.46
June 2043	296,551.71		0.00	490,904.68
July 2043	289,197.07		0.00	478,324.08
August 2043	281,966.51		0.00	465,960.35
September 2043	274,858.20		0.00	453,810.21
October 2043	267,870.31		0.00	441,870.44
November 2043	261,001.06		0.00	430,137.86
December 2043	254,248.67		0.00	418,609.32
January 2044	247,611.42		0.00	407,281.74
February 2044	241,087.58		0.00	396,152.07

Distribution Date		Class PD	Class HD		Class PE
March 2044	\$	234,675.46	\$ 0.00	\$	385,217.31
April 2044	7	228,373.38	0.00	'	374,474.48
May 2044		222,179.72	0.00		363,920.68
June 2044		216,092.83	0.00		353,553.02
July 2044		210,111.13	0.00		343,368.67
August 2044		204,233.04	0.00		333,364.83
September 2044		198,456.99	0.00		323,538.74
October 2044		192,781.47	0.00		313,887.69
November 2044		187,204.95	0.00		304,408.99
December 2044		181,725.95	0.00		295,100.01
January 2045		176,342.99	0.00		285,958.14
February 2045		171,054.64	0.00		276,980.81
March 2045		165,859.45	0.00		268,165.50
April 2045		160,756.03	0.00		259,509.72
May 2045		155,742.97	0.00		251,011.00
June 2045		150,818.93	0.00		242,666.92
July 2045		145,982.54	0.00		234,475.10
August 2045		141,232.48	0.00		226,433.18
September 2045		136,567.43	0.00		218,538.84
October 2045		131,986.10	0.00		210,789.80
November 2045		127,487.23	0.00		203,183.81
December 2045		123,069.54	0.00		195,718.63
January 2046		118,731.80	0.00		188,392.09
February 2046		114,472.79	0.00		181,202.02
March 2046		110,291.32	0.00		174,146.30
April 2046		106,186.18	0.00		167,222.83
May 2046		102,156.21	0.00		160,429.55
June 2046		98,200.26	0.00		153,764.42
July 2046		94,317.18	0.00		147,225.43
August 2046		90,505.87	0.00		140,810.60
September 2046		86,765.21	0.00		134,518.00
October 2046		83,094.12	0.00		128,345.68
November 2046		79,491.52	0.00		122,291.77
December 2046		75,956.35	0.00		116,354.40
January 2047		72,487.58	0.00		110,531.72
February 2047		69,084.16	0.00		104,821.93
March 2047		65,745.10	0.00		99,223.24
April 2047		62,469.38	0.00		93,733.89
May 2047		59,256.03	0.00		88,352.14
June 2047		56,104.07	0.00		83,076.28
July 2047		53,012.55	0.00		77,904.64
August 2047		49,980.52	0.00		72,835.55
September 2047		47,007.06	0.00		67,867.38
October 2047		44,091.24	0.00		62,998.50
November 2047		41,232.17	0.00		58,353.23
December 2047		38,428.95	0.00		53,801.39
January 2048		35,712.21	0.00		49,341.47
February 2048		33,048.92	0.00		44,972.01
March 2048		30,438.23	0.00		41,276.45
		5.,-505	0.00		- , ., >

Distribution Date	_	Class PD	_	Class HD	Class PE
April 2048	\$	27,879.32	\$	0.00	\$ 37,731.73
May 2048		25,371.36		0.00	34,259.04
June 2048		22,971.12		0.00	31,033.19
July 2048		20,659.40		0.00	27,873.27
August 2048		18,421.37		0.00	24,965.85
September 2048		16,228.55		0.00	22,118.20
October 2048		14,080.23		0.00	19,329.35
November 2048		12,029.21		0.00	16,769.20
December 2048		10,020.15		0.00	14,262.27
January 2049		8,131.61		0.00	11,807.69
February 2049		6,446.41		0.00	9,404.62
March 2049		4,823.78		0.00	7,153.72
April 2049		3,278.99		0.00	5,008.46
May 2049		1,842.16		0.00	3,022.88
June 2049		868.75		0.00	1,566.07
July 2049		353.46		0.00	531.75
August 2049		89.11		0.00	176.63
September 2049 and thereafter		0.00		0.00	0.00



\$3,110,105,849

## **Government National Mortgage Association**

### **GINNIE MAE®**

Guaranteed REMIC
Pass-Through Securities
and MX Securities
Ginnie Mae REMIC Trust 2019-110

OFFERING CIRCULAR SUPPLEMENT September 23, 2019

J.P. Morgan

Mischler Financial Group, Inc.