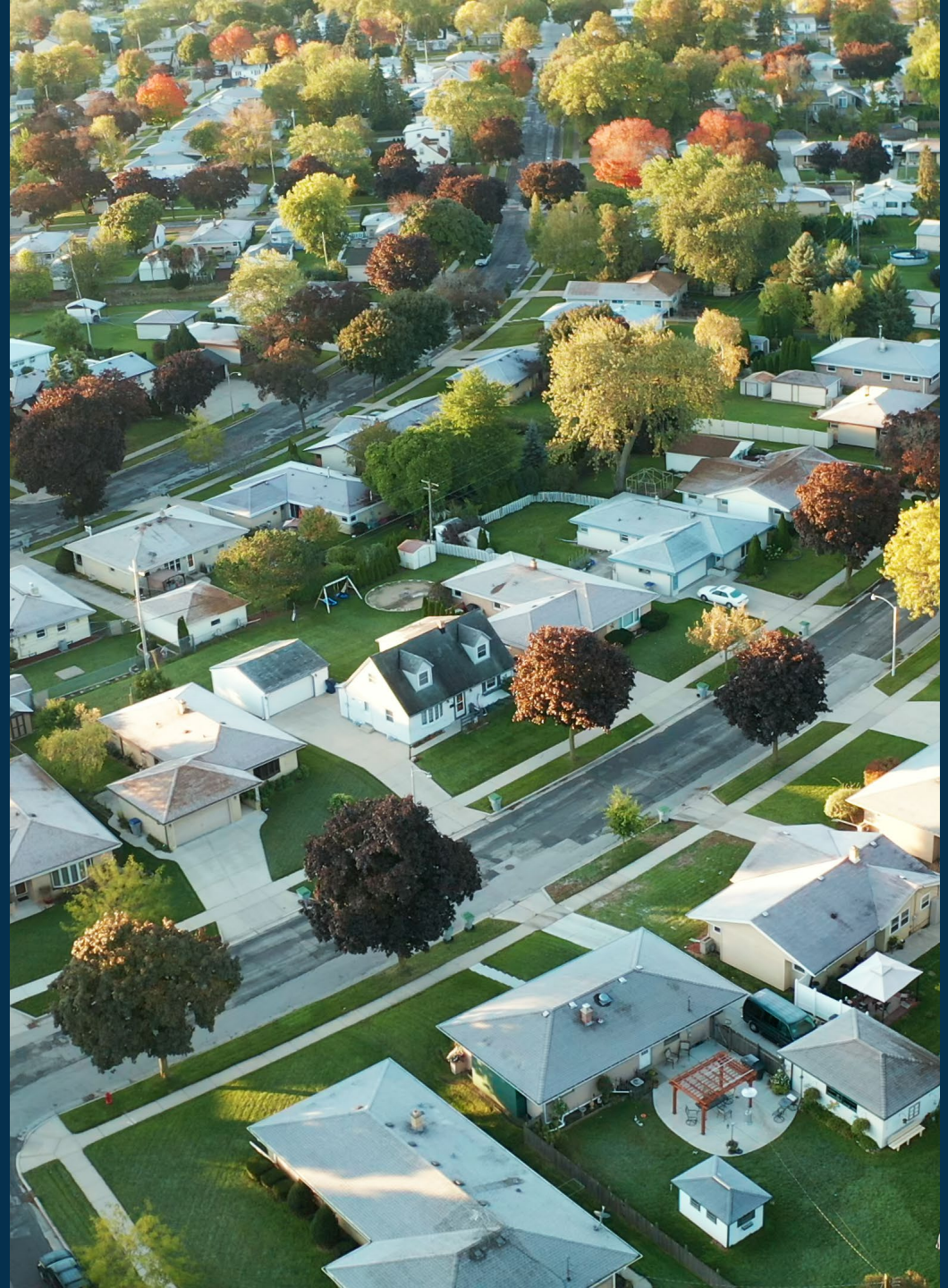


Single-Family MBS Disclosures Guide

A resource for disclosure publication timing, definitions, calculations and file formats

February 2022

Fannie Mae®

© 2022 Fannie Mae

Introduction

This guide provides definitions and calculations for the data elements disclosed on Fannie Mae's Single-Family Mortgage-Backed Securities which are published in our issuance and monthly disclosure files, as well as displayed on our PoolTalk® web-based application. This document also provides the disclosure file naming convention, publication timing, and file formats.

File	Page #
Single-Class Securities	
Disclosure Files and Publication Timing	4
Data Attributes Implementation and Effective Dates	6
Definitions, Calculations and File Formats	
Loan Level File	8
Security Level File	23
Security Supplemental File	36
Megas Backed by Ginnie Mae Collateral Factor File	73
Appendices	
Appendix A – Index	75
Appendix B – Property State	76
Multiclass Securities	
Disclosure Files and Publication Timing	77
Definitions, Calculations and File Formats	
Final Data Statement	79
REMIC Factor File	81
SMBS Factor File	82
REMIC Component Factor File	83
REMIC Shortfall File	84
Excess Servicing Fee Security Level File	85
Excess Servicing Fee Security Supplemental File	92
Reset Indices (Delay and No Delay)	109
Tax	
Disclosure Files and Publication Timing	110
Definitions, Calculations and File Formats	
Single-Class/Multiclass Tax Type – Master Record File	111
Single-Class/Multiclass Tax Factor File – Detail Record	112
Other	
Revision Log	114
Contact Us	115

Business Name	File Name	Publication Timing	Process Cycle	Product	Archive	Location
CRA Report	FNM_CRA_Prefix_Pool#_CUSIP	Every Business Day 6:30 AM, 11:30 AM, 3:30 PM, 4:30 PM Eastern Time as applicable	Issuance	MBS & UMBS	Indefinitely	• PoolTalk - Security Documents
MBS Intraday Issuance Loan Level File	FNM_ILLD_YYYYMMDD_1	Every Business Day - 6:30 AM Eastern Time	Issuance	MBS & UMBS	15 Calendar Days	• SFTP • PoolTalk - Files & Reports Section
MBS Intraday Issuance Loan Level File	FNM_ILLD_YYYYMMDD_2	Every Business Day - 11:30 AM Eastern Time	Issuance	MBS & UMBS	15 Calendar Days	• SFTP • PoolTalk - Files & Reports Section
MBS Intraday Issuance Loan Level File	FNM_ILLD_YYYYMMDD_3	Every Business Day - 3:30 PM Eastern Time	Issuance	MBS & UMBS	15 Calendar Days	• SFTP • PoolTalk - Files & Reports Section
MBS Intraday Security Issuance File	FNM_IS_YYYYMMDD_1	Every Business Day - 6:30 AM Eastern Time	Issuance	MBS & UMBS Megas & Supers	15 Calendar Days	• SFTP • PoolTalk - Files & Reports Section
MBS Intraday Security Issuance File	FNM_IS_YYYYMMDD_2	Every Business Day - 11:30 AM Eastern Time	Issuance	MBS & UMBS Megas & Supers	15 Calendar Days	• SFTP • PoolTalk - Files & Reports Section
MBS Intraday Security Issuance File	FNM_IS_YYYYMMDD_3	Every Business Day - 3:30 PM Eastern Time	Issuance	MBS & UMBS Megas & Supers	15 Calendar Days	• SFTP • PoolTalk - Files & Reports Section
MBS Intraday Security Supplemental Issuance File	FNM_ISS_YYYYMMDD_1	Every Business Day - 6:30 AM Eastern Time	Issuance	MBS & UMBS Megas & Supers	15 Calendar Days	• SFTP • PoolTalk - Files & Reports Section
MBS Intraday Security Supplemental Issuance File	FNM_ISS_YYYYMMDD_2	Every Business Day -11:30 AM Eastern Time		MBS & UMBS Megas & Supers	15 Calendar Days	• SFTP • PoolTalk - Files & Reports Section
MBS Intraday Security Supplemental Issuance File	FNM_ISS_YYYYMMDD_3	Every Business Day - 3:30 PM Eastern Time	Issuance	MBS & UMBS Megas & Supers	15 Calendar Days	• SFTP • PoolTalk - Files & Reports Section
MBS Month-End Issuance Loan Level	FNM_ILLD_YYYYMM	Business Day 1 of Following Month - 6:30 AM Eastern Time	Month-End	MBS & UMBS	Current Month + 5 Historical Months	• SFTP • PoolTalk - Files & Reports Section
MBS Month-End Issuance Security File	FNM_IS_YYYYMM	Business Day 1 of Following Month - 6:30 AM Eastern Time	Month-End	MBS & UMBS Megas & Supers	Current Month + 5 Historical Months	• SFTP • PoolTalk - Files & Reports Section
MBS Month-End Issuance Security Supplemental File	FNM_ISS_YYYYMM	Business Day 1 of Following Month - 6:30 AM Eastern Time	Month-End	MBS & UMBS Megas & Supers	Current Month + 5 Historical Months	• SFTP • PoolTalk - Files & Reports Section
MBS Monthly Loan Level File	FNM_MLLD_YYYYMM	Business Day 4- 4:30 PM Eastern Time	Monthly	MBS & UMBS Megas & Supers	Current Month + 5 Historical Months	• SFTP • PoolTalk - Files & Reports Section

Business Name	File Name	Publication Timing	Process Cycle	Product	Archive	Location
MBS Monthly Security Factor File	FNM_MF_YYYYMM	Business Day 4- 4:30 PM Eastern Time	Monthly	MBS & UMBS Megas & Supers	Current Month + 5 Historical Months	• SFTP • PoolTalk - Files & Reports Section
MBS Monthly Security Supplemental File	FNM_MS_YYYYMM	Business Day 4- 4:30 PM Eastern Time	Monthly	MBS & UMBS Megas & Supers	Current Month + 5 Historical Months	• SFTP • PoolTalk - Files & Reports Section
MBS Security Issuance Correction File	FNM_RIS_YYYYMM	Business Days 1-4 - 6:30 AM Eastern Time (Only if corrections were applied)	Month-End	MBS & UMBS Megas & Supers	Current Month + 5 Historical Months	• SFTP • PoolTalk - Files & Reports Section
MBS Security Supplemental Issuance Correction File	FNM_RISS_YYYYMM	Business Days 1-4 - 6:30 AM Eastern Time (Only if corrections were applied)	Month-End	MBS & UMBS Megas & Supers	Current Month + 5 Historical Months	• SFTP • PoolTalk - Files & Reports Section
Megas Backed by Ginnie Mae Collateral Factor File	FNM_GN_MEGA_YYYYMM FNM_GN_MEGA_YYYYMM_REV	Business Day 8 at 4:30 PM Eastern Time (Ginnie Mae backed collateral)	Monthly	Megas	Indefinitely	• SFTP • PoolTalk - Files & Reports Section

MM and DD in file name represents the posting date in the issuance and monthly files. For the Month-end and the Correction Files, the MM represents the issuance month

All applicable data attributes are disclosed for each security except the following attributes which are disclosed for securities issued on or after the below referenced effective dates

Implementation Date	Effective Date	Loan Level File	Security Level File	Security Supplemental Level File
April 2003	May 1996 Issuances		WA Loan-to-Value (LTV)	Quartiles - Loan-to-Value (LTV)
			WA Borrower Credit Score	Quartiles - Borrower Credit Score
				Quartiles - Updated Credit Score
				Borrower Credit Score Not Available Stratification
				Loan Purpose Stratification
				Loan-to-Value (LTV) Not Available Stratification
				Number of Units Stratification
				Occupancy Status Stratification
September 2007	September 2007 Issuances		Third Party Origination UPB Percent	Channel Stratification
January 2013	January 2013 Issuances	All loan level attributes	WA Combined Loan-to-Value (CLTV)	Quartiles - Combined Loan-to-Value (CLTV)
			WA Debt-to-Income (DTI)	Quartiles - Debt-to-Income
				Combined Loan-to-Value (CLTV) Not Available Stratification
				Debt-to-Income (DTI) Not Available Stratification
				First-Time Homebuyer Indicator Stratification
				Property State Stratification
				Government Insured/Guarantee Stratification
				Mortgage Insurance Cancellation Indicator Stratification
				Mortgage Insurance Coverage Stratification
				Number of Borrowers Stratification
				Property Type Stratification
				Days Delinquent Stratification (for reperforming, step-rate and modified securities only)
June 2019	November 2018		Involuntary Loan Removal (Loan Count)	Days Delinquent Stratification (excluding reperforming, step-rate and modified securities)
			Involuntary Loan Removal (Prior Month UPB)	
March 2020	January 2017 Issuances	Property Valuation Method		Property Valuation Method Stratification
June 2020	All Active Securities (Previously November 2018)		Involuntary Loan Removal (Loan Count)	Days Delinquent Stratification
			Involuntary Loan Removal (Prior Month UPB)	
June 2020	All Active Securities	Borrower Assistance Plan		Borrower Assistance Plan Stratification

Implementation Date	Effective Date	Loan Level File	Security Level File	Security Supplemental Level File
December 2020	All Active Securities	Alternative Delinquency Resolution Type		Alternative Delinquency Resolution Type Stratification
		Number of Alternative Delinquency Resolutions Type		Number of Alternative Delinquency Resolutions Stratification
		Total Deferral Amount		
March 2021	All Active Securities	Days Delinquent (change to apply to all loans)		
June 2021	All Active Securities	Seller City & State		Seller City & State in Seller Stratification
		Servicer City & State		Servicer City & State in Servicer Stratification
September 2021	Varies by enumeration Home Ready - 1/1/2016 issuances HFA Preferred - 1/1/2015 issuances All other enumerations - all Active Securities	Special Eligibility Program		Special Eligibility Program Stratification

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
L-001	Loan Identifier	The unique designation assigned to the loan by the issuer.		String		12		
L-002	Loan Correction Indicator	The indicator denoting whether any attributes for the loan have changed from previous disclosures.	Y = Yes N = No A = Added D = Deleted	String		1		
L-003	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
L-004	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
L-005	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
L-006	Mortgage Loan Amount	The dollar amount of the loan as stated on the note at the time the loan was originated or modified. For reperforming, modified fixed-rate and modified step-rate loans, this value represents both the interest bearing and non-interest bearing amount.		Numeric	9.2	12	Privacy Masking: Amount rounded to nearest thousand if > $500.	
L-007	Issuance Investor Loan UPB	The unpaid principal balance of the loan as it contributes to the balance of the security at the time the security was issued.		Numeric	9.2	12	Privacy Masking: If loan age ≤ 6 months, UPB rounded to nearest thousand if > $500.	
L-008	Current Investor Loan UPB	The unpaid principal balance of the loan as it contributes to the current balance of the security. The Current Investor loan UPB is derived from the mortgage balance as reported by the servicer. The Current Investor UPB reflects any scheduled and unscheduled principal reductions applied to the mortgage.		Numeric	9.2	12	•Privacy Masking: If loan age ≤ 6 months, UPB rounded to nearest thousand if > $500. •File will include the loan when the balance equals zero for one month.	
L-009	Amortization Type	The classification of the loan as having either a fixed- or an adjustable-interest rate at the time the loan was originated or modified.	FRM = Fixed-Rate ARM = Adjustable-Rate	String		3		
L-010	Original Interest Rate	The interest rate of the loan as stated on the note at the time the loan was originated or modified.		Numeric	2.3	6		
L-011	Issuance Interest Rate	The interest rate of the loan in effect at the time the security was issued.		Numeric	2.3	6		
L-012	Current Interest Rate	The interest rate of the loan in effect during the current reporting period.		Numeric	2.3	6		
L-013	Issuance Net Interest Rate	The interest rate of the loan at the time the security was issued less servicing fees and guarantor fees.		Numeric	2.3	6		
L-014	Current Net Interest Rate	The interest rate of the loan in effect during the current reporting period less servicing fees and guarantor fees.		Numeric	2.3	6		
L-015	First Payment Date	The month and year that the first scheduled payment on the loan is due at the time the loan was originated or modified.		Date	MMCCYY	6		
L-016	Maturity Date	The month and year that the final scheduled payment on the loan is due at the time the loan was originated or modified.		Date	MMCCYY	6		
L-017	Loan Term	For fixed-rate, adjustable-rate and Interest-only mortgages, the number of months in which regularly scheduled borrower payments are due at the time the loan was originated or modified.		Numeric		3		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
L-018	Remaining Months to Maturity	The number of remaining months that will reduce the Current Investor Loan UPB to zero. For fixed-rate loans, this value takes into account the impact of any curtailments.		Numeric		3		• For fixed-rate mortgages and interest-only mortgages that are amortizing: Calculation 1: - (FUNCTION LOG10 (1- (Issuance Investor Loan UPB*((Issuance Interest Rate/1200) / Loan Principal and Interest)))) / FUNCTION LOG10 (1 + (Issuance Interest Rate/1200)) Calculation 2: Difference between the Current Factor Date and the Loan Maturity Date. Round up to the nearest integer and use the lower value of the two calculations • For adjustable-rate mortgages and interest-only mortgages in their interest-only period, use the following calculation: Difference between the Current Factor Date and the Loan Maturity Date.
L-019	Loan Age	The number of scheduled payments from the time the loan was originated or modified, up to and including the current reporting period.		Numeric		3		((Security Factor Date (MM/YY) – First Payment Date (MM/YY)) + 1)
L-020	Loan-to-Value (LTV)	The ratio, expressed as a percentage, obtained by dividing the amount of the loan at origination by the value of the property. Value of the property reflects either the lesser of the sales price or the property value for a purchase or the property value for a refinance. For modified fixed-rate, modified step-rate loans, and reinstated loans, this value will be blank.		Numeric		3	• If LTV ratios is < 1% or > 998%, it will be disclosed as “Not Available”, indicated by 999. • If any of the following criteria is met, the LTV ratio will be disclosed as “Not Available”, indicated by 999. - The LTV ratio is <1% or >998% - The CLTV ratio is < the LTV ratio - The LTV ratio is “Not Available”	Purchase: LTV = Mortgage Loan Amount / (Min (Sales Price, Property Value)) * 100 Refinance: LTV = Mortgage Loan Amount /Property Value * 100 • Truncate (shortened) to two decimal places, then rounded up to the nearest whole percent.
L-021	Combined Loan-to-Value (CLTV)	The ratio, expressed as a percentage, obtained by dividing the amount of all known outstanding loans at origination by the value of the property. Value of the property reflects either the lesser of the sales price or the property value for a purchase or the property value for a refinance. For modified fixed-rate, modified step-rate loans, and reinstated loans, this value will be blank.		Numeric		3	•If CLTV ratios is < 1% or > 998%, it will be disclosed as “Not Available”, indicated by 999. •The CLTV ratio will be disclosed as “Not Available”, indicated by 999: - The CLTV ratio is <1% or >998% - The CLTV ratio is < the LTV ratio - The CLTV ratio is “Not Available”	Sum of All Outstanding Loan Amounts / (Min (Sales Price, Property Value)) * 100 • Loan Amounts may include: - Original loan amount of the first mortgage, - Drawn portion (outstanding principal balance) of a HELOC, and - Unpaid principal balance of all closed-end subordinate financing

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
L-022	Debt-to-Income (DTI)	The ratio obtained by dividing the total monthly debt expense by the total monthly income of the borrower at the time the loan was originated or modified.		Numeric		3	If value is < 1 or > 65, it will be disclosed as "Not Available", indicated by 999.	(Borrower Total Monthly Liabilities Amount / Borrower Total Monthly Income Amount) * 100 • Round to nearest integer
L-023	Borrower Credit Score	The standardized credit score used to evaluate borrowers during the loan origination process. The standardized or representative credit score of an individual borrower is either i) the lower of two scores if a score is received from two Credit Score Repositories for the borrower, or ii) the middle of three scores if a score is received from three Credit Score Repositories for the borrower. This evaluation is done for each borrower on the loan. • The lowest representative credit score of all borrowers will be disclosed • For all newly delivered loans, Fannie Mae uses the "Classic" FICO score developed by Fair Isaac Corporation with the range of 300 - 850.		Numeric		4	• If the credit score is < 300 or > 850, the Borrower Credit Score will be disclosed as "Not Available", which will be indicated by 9999. • For modified fixed-rate, modified step-rate loans and reinstated loans, this value will be blank.	
L-024	Filler							
L-025	Filler							
L-026	Filler							
L-027	Number of Borrowers	The number of borrowers who, at the time the loan was originated, are obligated to repay the loan.	1 = 1 2 = 2 3 = 3 4 = 4 5 = 5 6 = 6 7 = 7 8 = 8 9 = 9 10 = 10 99 = Not Available	Numeric		2		
L-028	First-Time Homebuyer Indicator	The indicator denoting whether a borrower on the loan qualifies as a first-time homebuyer. An individual is to be considered a first-time homebuyer who (1) is purchasing the property; (2) will reside in the property; and (3) had no ownership interest (sole or joint) in a residential property during the three-year period preceding the date of the purchase of the property. In addition, an individual who is a displaced homemaker or single parent also will be considered a first-time homebuyer if he or she had no ownership interest in a principal residence (other than a joint ownership interest with a spouse) during the preceding three-year time period.	Y = Yes N = No 9 = Not Available	String		1		
L-029	Loan Purpose	The classification describing the purpose of the loan.	C = Refinance - Cash Out N = Refinance - No Cash Out R = Refinance - Not Specified P = Purchase M = Modified - Loss Mitigation 9 = Not Available	String		1		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
L-030	Occupancy Status	The classification describing the property occupancy status at the time the loan was originated. For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.	P = Primary Residence S = Second Home I= Investment Property 9 = Not Available	String		1		
L-031	Number of Units	The number of dwelling units in the mortgaged property at the time the loan was originated.	1 = 1 2 = 2 3 = 3 4 = 4 99 = Not Available	Numeric		2		
L-032	Property Type	The classification describing the type of property that secures the loan.	CP = Cooperative CO = Condominium PU = Planned Unit Development SF = Single-Family MH = Manufactured Housing 99 = Not Available	String		2		
L-033	Channel	The origination channel used by the party that delivered the loan to the issuer. For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank. • Broker: A mortgage loan that is originated under circumstances where a person or firm other than a mortgage loan seller or lender correspondent is acting as a "broker" and receives a commission for bringing together a borrower and a lender. The broker performs some (or most) of the loan processing functions (such as taking loan applications; ordering credit reports, appraisals, and title reports; verifying a borrower's income and employment, etc.), but it typically does not actually underwrite the loan, fund the loan at settlement, or service the loan. The mortgage loan is closed in the name of and funded by the mortgage loan seller (or, in some cases, the lender correspondent) that commissioned the broker's services. • Correspondent: A mortgage loan that is originated by a party other than a mortgage loan seller and is then sold to a mortgage loan seller. A lender correspondent generally performs some (or all) of the loan processing functions (such as taking loan applications; ordering credit reports, appraisals, and title reports; verifying a borrower's income and employment; etc.) as well as underwriting and funding the mortgage loan at settlement. The mortgage loan is closed in the name of the lender correspondent, which may or may not service the loan. • Retail: A mortgage loan, for which the mortgage loan seller takes the mortgage loan application and then processes, underwrites, funds, and delivers the C34mortgage loan to us. The loan is closed in the name of the mortgage loan seller, which may or may not service the loan. This definition may include joint ventures between the mortgage loan seller and another entity, provided that the mortgage loan seller retains control of the joint ventures (either through majority ownership or voting rights). For mortgage loans acquired prior to March 2013, the term "retail" may also, from time to time, include certain mortgage loans originated pursuant to a contractual arrangement, specifically approved by Fannie Mae, between a third party and the mortgage loan seller by which the third party may perform one or more of the functions (but not all) related to the origination of the mortgage loan, including taking the mortgage loan application, processing, underwriting, funding or delivering the mortgage loan to Fannie Mae.	R = Retail B = Broker C = Correspondent T = Third Party Origination - Not Specified 9 = Not Available	String		1		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
L-034	Property State	The abbreviation denoting the location of the property securing the loan.		String		2	See Appendix B	
L-035	Seller Name	The name of the entity that sold the loan to the issuer.		String		100	A pool with multiple sellers will display "Multiple"	
L-036	Servicer Name	The name of the entity that services the loan during the current reporting period.		String		100		
L-037	Mortgage Insurance Percent	The percentage of mortgage insurance coverage obtained at origination in effect at the time the security was issued.	000= No MI 999= Not Available	String		3	When the Mortgage Insurance is cancelled or expired, the Mortgage Insurance Percent is displayed as "000“.	
L-038	Mortgage Insurance Cancellation Indicator	The indicator denoting whether the mortgage insurance has been cancelled after the security was issued.	Y = Yes N = No 7 = Not Applicable	String		1		
L-039	Government Insured Guarantee	The classification describing the Government Insured/Guarantee Program, if any, covering the loan.	FH = FHA VA = Veterans Affair RH = Rural Housing IH = Section 184 Indian Home 99 = Not Available	String		2	Applicable only to Government Insured/Guarantee loans.	
L-040	Assumability Indicator	The indicator denoting whether the loan is assumable by another borrower.	Y = Yes N = No	String		1		
L-041	Interest Only Loan Indicator	The indicator denoting whether the loan only requires interest payments for a specified period of time beginning with the first payment date.	Y = Yes N = No	String		1		
L-042	Interest Only First Principal and Interest Payment Date	For interest-only loans, the month and year that the first monthly scheduled fully amortizing principal and interest payment is due.		Date	MMCCYY	6		
L-043	Months to Amortization	For interest-only loans, the number of months from the current month to the first scheduled principal and interest payment date.		Numeric		3	After the first P&I payment date, this value will be set to zero.	Interest Only First P&I Payment Date (MM/YY) - Security Factor Date (MM/YY)
L-044	Prepayment Penalty Indicator	The indicator denoting whether the borrower is subject to a penalty for early payment of principal.	Y = Yes N = No	String		1		
L-045	Prepayment Penalty Total Term	The total number of months that the prepayment penalty may be in effect.	06 = 6 Months 12 = 1 Year 24 = 2 Years 36 = 3 Years 99 = Not Available	String		2		
L-046	Index	For adjustable-rate loans, the description of the index on which adjustments to the interest rate are based.	See Appendix A	String		3	Index description is no longer provided. See Appendix A to translate the index codes to their respective descriptions.	
L-047	Mortgage Margin	For adjustable-rate loans, the number of percentage points to be added to the index to arrive at the new interest rate.		Numeric	2.3	6	77.777 = Not Applicable	
L-048	MBS Margin	For adjustable-rate loans, the mortgage margin less applicable fees (servicing fees and guarantor fees).		Numeric	2.3	6	77.777 = Not Applicable	Mortgage Margin minus Applicable Fees (Servicing and Guarantor Fees) • Round to third decimal place
L-049	Interest Rate Adjustment Frequency	For adjustable-rate loans, the number of months, excluding any fixed-rate period, between scheduled rate changes.		Numeric		3		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
L-050	Interest Rate Lookback	For adjustable-rate loans, the number of calendar days prior to the rate change date used to determine the effective index value required to calculate the next interest rate.		Numeric		3		
L-051	Interest Rate Rounding Method	For adjustable-rate loans, the designation of how the interest rate is rounded when a new interest rate is calculated.	DN = Down NE = Nearest UP = Up NO = No Rounding	String		2		
L-052	Interest Rate Rounding Method Percent	For adjustable-rate loans, the percentage to which the interest rate is rounded when a new interest rate is calculated.	01 = 0.25 02 = 0.125 03 = .01	String		2		
L-053	Convertibility Indicator	The indicator denoting whether the loan has a feature that allows the borrower to convert from an adjustable rate to a fixed rate.	Y = Yes N = No	String		1		
L-054	Initial Fixed Rate Period	For adjustable-rate loans, the number of calendar months between the first full month the loan accrues interest and the first interest rate adjustment date.	00 = <=6 Months 01 = 7-18 Months 02 = 19-30 Months 03 = 31-42 Months 04 = 43-54 Months 05 = 55-66 Months 06 = 67-78 Months 07 = 79-90 Months 08 = 91-102 Months 09 = 103-114 Months 10 = 115-126 Months 11 = 127-138 Months 12 = 139-150 Months 13 = 151-162 Months 14 = 163-174 Months 15 = 175-186 Months 16 = >186 Months	String		2		
L-055	Next Interest Rate Adjustment Date	For adjustable-rate loans, the month and year that the interest rate is next subject to change.		Date	MMCCYY	6		
L-056	Months to Next Interest Rate Adjustment Date	For adjustable-rate loans, the number of months from the current month to the next interest rate change date.		Numeric		3	If the Next Interest Rate Adjustment is in the past, the field will be null.	Next Adjustment Date (MMCCYY) – Security Factor Date (MM/YY)
L-057	Life Ceiling Interest Rate	For adjustable-rate loans, the lifetime maximum interest rate.		Numeric	2.3	6	77.777 = Not Applicable	
L-058	Life Ceiling Net Interest Rate	For adjustable-rate loans, the maximum interest rate less applicable fees (servicing fees and guarantor fees).		Numeric	2.3	6	77.777 = Not Applicable	Life Ceiling Interest Rate – Applicable Fees (Servicing and Guarantor Fees)
L-059	Life Floor Interest Rate	For adjustable-rate loans, the lifetime minimum interest rate.		Numeric	2.3	6	If the mortgage loans in the MBS pool have no floor other than the mortgage margin, Fannie Mae will populate this field as the margin. 77.777 = Not Applicable	
L-060	Life Floor Net Interest Rate	For adjustable-rate loans, the minimum interest rate less applicable fees (servicing fees and guarantor fees).		Numeric	2.3	6	If the mortgage loans in the MBS pool have no floor other than the mortgage margin, Fannie Mae will populate this field as the net margin. 77.777 = Not Applicable	Life Floor Interest Rate – Applicable Fees (Servicing and Guarantor Fees)

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
L-061	Initial Interest Rate Cap Up Percent	For adjustable-rate loans, the maximum percentage points the interest rate can adjust upward at the first interest rate adjustment date.		Numeric	2.3	6	77.777 = Not Applicable	
L-062	Initial Interest Rate Cap Down Percent	For adjustable-rate loans, the maximum number of percentage points the interest rate can adjust downward at the first interest rate change date.		Numeric	2.3	6	77.777 = Not Applicable	
L-063	Periodic Interest Rate Cap Up Percent	For adjustable-rate loans, the maximum percentage points the interest rate can adjust upward at each interest rate adjustment date after the first interest rate adjustment date.		Numeric	2.3	6	77.777 = Not Applicable	
L-064	Periodic Interest Rate Cap Down Percent	For adjustable-rate loans, the maximum percentage points the interest rate can adjust downward at each interest rate adjustment date after the first interest rate adjustment date.		Numeric	2.3	6	77.777 = Not Applicable	
L-065	Modification Program	For reperforming, modified fixed-rate and modified step-rate loans, the program under which the loan was modified. • Standard Modification: Standard modifications contain features previously included in the Fannie Mae Home Affordable Modification Program (HAMP), Fannie Mae Regular Modification and Fannie Mae Streamlined Modification programs. This program started October 1, 2017 (with early adoption permitted). Legacy disclosures previously disclosed as Flex. • Regular Modification: Regular modifications allowed for a variety of modification types including capitalization of interest and non-interest arrearages, extension of the mortgage term, change in interest rate, and forbearance, but no reduction of principal. Program expired October 1, 2017. • Streamlined Modification: Streamlined modifications include several programs that generally allow capitalization of interest and non-interest arrearages, extension of the mortgage term, change in interest rate, and forbearance. These programs, existed from July 2013 – October 2017 (with earlier adoption permitted) and include Fannie Mae Standard Modifications and Fannie Mae Streamlined Modifications as referenced in Fannie Mae's Servicing Guide. • Home Affordable Modification Program: HAMP modifications include capitalization of interest and non-interest arrearages, extension of the mortgage term, reduction of interest rates (to a floor of 2%), and in some instances forbearance, but no reduction of principal. The HAMP program applies to mortgage loans originated on or before January 1, 2009 and expired on December 31, 2016. • Other: This category currently comprises of modifications outside of Fannie Mae sponsored programs. Currently, only Bankruptcy Cramdowns are identified in this category. A bankruptcy cramdown is a modification to any terms of the security deed, mortgage or note by a bankruptcy court order.	A = Alternative C = Classic B = HAMP Backup H = HAMP O = Other R = Regular S = Standard T = Streamlined U = Underwater 9 = Not Available D = Deferred Payment F = Flex	String		1		
L-066	Modification Type	For reperforming, modified fixed-rate and modified step-rate loans, the classification describing the type of modification.	R = Rate T = Term B = Rate & Term C = Capitalization F = Rate, Term & Forbearance O = Other	String		1		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
L-067	Number of Modifications	For reperforming, modified fixed-rate and modified step-rate loans, the number of times the loan has been modified, at the time security was issued.		Numeric		3		
L-068	Total Capitalized Amount	For reperforming, modified fixed-rate and modified step-rate loans, the amount of interest and non-interest arrearages added to the principal balance as of the most recent modification.		Numeric	9.2	12		
L-069	Interest Bearing Mortgage Loan Amount	For reperforming, modified fixed-rate and modified step-rate loans, the interest bearing unpaid principal balance at the time of modification.		Numeric	9.2	12	Privacy Masking: Rounded to nearest thousand if > $500.	
L-070	Original Deferred Amount	For reperforming, modified fixed-rate and modified step-rate loans, the non-interest bearing unpaid principal balance at the time of modification. The deferred amount is not included in the unpaid principal balance of the security and is not payable to the certificate holder.		Numeric	9.2	12	Privacy Masking: Rounded to nearest thousand if > $500.	Original deferred amount is populated as 0. Deferred amount is populated in current deferred amount.
L-071	Current Deferred UPB	For reperforming, modified fixed-rate and modified step-rate loans, the current non-interest bearing unpaid principal balance. The deferred amount is not included in the unpaid principal balance of the security and is not payable to the certificate holder.		Numeric	9.2	12	Privacy Masking: Rounded to nearest thousand if > $500.	Original deferred amount is populated as 0. Deferred amount is populated in current deferred amount.
L-072	Loan Age As Of Modification	For reperforming, modified fixed-rate and modified step-rate loans, the number of scheduled payments from the time the loan was originated up to the date of modification.		Numeric		3		Modification Date (MM/YY) – Origination First Payment Date (MM/YY) +1
L-073	Estimated o-Value (ELTV)	For reinstated, reperforming, modified fixed-rate and modified step-rate loans, the ratio obtained by dividing the outstanding balance of the mortgage loan by the estimated current value of the property obtained by the issuer at the time of issuance.		Numeric		3	If Estimated LTV ratios is < 1% or > 998%, it will be disclosed as “Not Available”, indicated by 999.	(Mortgage Modification Amount / property Value) * 100 • Truncate (shorten) to two decimal places, then round up to the nearest whole percent
L-074	Updated Credit Score	For reinstated, reperforming, modified fixed-rate and modified step-rate loans, the most recently available standardized credit score provided at the time of issuance. This represents the most recently available credit score provided by Equifax to Fannie Mae generally in the month of the MBS issuance or within the three months prior to the MBS issuance.		Numeric		4	If credit score is < 300 or > 850, the updated credit Score will be disclosed as “Not Available”, which will be indicated by 9999.	
L-075	Filler							
L-076	Interest Rate Step Indicator	The indicator denoting whether the modification includes a step rate.	Y = Yes N = No	String		1		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
L-077	Initial Step Fixed-Rate Period	For reperforming, modified step-rate loans, the number of months between the first payment date of the modified loan and the first step rate adjustment date.	00 = <=6 Months 01 = 7-18 Months 02 = 19-30 Months 03 = 31-42 Months 04 = 43-54 Months 05 = 55-66 Months 06 = 67-78 Months 07 = 79-90 Months 08 = 91-102 Months 09 = 103-114 Months 10 = 115-126 Months 11 = 127-138 Months 12 = 139-150 Months 13 = 151-162 Months 14 = 163-174 Months 15 = 175-186 Months 16 = >186 Months	String		2		
L-078	Total Number of Steps	For reperforming, modified step-rate loans, the number of upward interest rate adjustments per the modification agreement.		Numeric		2		
L-079	Number of Remaining Steps	For reperforming, modified step-rate loans, the number of upward interest rate adjustments remaining.		Numeric		2		
L-080	Next Step Rate	For reperforming, modified step-rate loans, the scheduled interest rate in effect at the next step-rate date.		Numeric	2.3	6		
L-081	Terminal Step Rate	For reperforming, modified step-rate loans, the maximum interest rate in effect following the final scheduled interest rate adjustment date. Once the interest rate reaches the Terminal Step Rate, it is fixed for the remaining term of the mortgage.		Numeric	2.3	6		
L-082	Terminal Step Date	For reperforming, modified step-rate loans, the final scheduled date on which the mortgage interest rate is scheduled to increase to its terminal step rate.		Date	MMCCYY	6		
L-083	Step Rate Adjustment Frequency	For reperforming, modified step-rate loans, the number of months between each interest rate adjustment.		Numeric		3		
L-084	Next Step Rate Adjustment Date	For reperforming, modified step-rate loans, the month and year that the interest rate is scheduled to increase.		Date	MMCCYY	6		
L-085	Months to Next Step Rate Adjustment Date	For reperforming, modified step-rate loans, the number of months from the current month to the next date on which the mortgage interest rate increases.		Numeric		3	If no more steps, then the field will be “Null”	Next Step Rate Adjustment Date (MM/YY) – Security Factor Date (MM/YY)
L-086	Periodic Step Cap Up Percent	For reperforming, modified step-rate loans, the maximum percentage points the interest rate may increase at each step rate adjustment date.		Numeric	2.3	6		
L-087	Origination Mortgage Loan Amount	For reperforming, modified fixed-rate and modified step-rate loans, the dollar amount of the loan in the security as stated on the note at the time the loans were originated or modified.		Numeric	9.2	12	Privacy Masking: Rounded to nearest thousand if > $500.	Round to the nearest thousand
L-088	Origination Interest Rate	For reperforming, modified fixed-rate and modified step-rate loans, the interest rate of the loan as stated on the note at the time the loan was originated.		Numeric	2.3	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
L-089	Origination Amortization Type	For reperforming, modified fixed-rate and modified step-rate loans, the classification of the loan as having either a fixed- or an adjustable-interest rate as stated on the note at the time the loan was originated.	FRM = Fixed-Rate ARM = Adjustable-Rate	String		3		
L-090	Origination Interest Only Loan Indicator	For reperforming, modified fixed-rate and modified step-rate loans, the indicator denoting whether the loan only required interest payments for a specified period of time beginning with the first payment date as stated on the note at the time the loan was originated.	Y = Yes N = No	String		1		
L-091	Origination First Payment Date	For reperforming, modified fixed-rate and modified step-rate loans, the month and year that the first scheduled payment on the loan was due as stated on the note at the time the loan was originated.		Date	MMCCYY	6		
L-092	Origination Maturity Date	For reperforming, modified fixed-rate and modified step-rate loans, the month and year in which the final payment on the loan was scheduled to be made at the time the loan was originated.		Date	MMCCYY	6		
L-093	Origination Loan Term	For reperforming, modified fixed-rate and modified step-rate loans, the number of months in which regularly scheduled borrower payments are due as stated on the note at the time the loan was originated.		Numeric		3		
L-094	Origination Loan-to-Value (LTV)	For reperforming, modified fixed-rate and modified step-rate loans, the ratio, expressed as a percentage, obtained by dividing the amount of the loan at origination by the value of the property. Property value reflects either the lesser of the sales price or the appraised property value for a purchase, or the appraised property value for a refinance.		Numeric		3	• If Origination LTV ratio is < 1% or >998%, it will be disclosed as "Not Available", indicated by 999. • If any of the following criteria is met, the LTV ratio will be disclosed as "Not Available", indicated by 999. - The LTV ratio is <1% or >998% - The CLTV ratio is < the LTV ratio - The LTV ratio is "Not Available"	Purchase: (Mortgage Loan Amount / (Min (Sales Price, Appraised Value))) * 100 Refinance: (Mortgage Loan Amount /Appraised Value) * 100 • Truncate at the 2nd decimal and round up to the higher integer.
L-095	Origination Combined Loan-to-Value (CLTV)	For reperforming, modified fixed-rate and modified step-rate loans, the ratio, expressed as a percentage, obtained by dividing the amount of all known outstanding loans at origination by the value of the property.		Numeric		3	• If CLTV ratios is < 1% or > 998%, it will be disclosed as "Not Available", indicated by 999. • The CLTV ratio will be disclosed as "Not Available", indicated by 999: - The CLTV ratio is <1% or >998% - The CLTV ratio is < the LTV ratio - The CLTV ratio is "Not Available"	Sum of All Outstanding Loan Amounts / (Min (Sales Price, Property Value)) * 100 • Loan Amounts may include: - Original loan amount of the first mortgage, - Drawn portion (outstanding principal balance) of a HELOC, and - Unpaid principal balance of all closed-end subordinate financing
L-096	Origination Debt-to-Income Ratio	For reperforming, modified fixed-rate and modified step-rate loans, the ratio obtained by dividing the total monthly debt expense by the total monthly income of the borrower at the time the loan was originated.		Numeric		3	If value is < 1 or > 65, it will be disclosed as "Not Available", indicated by 999.	
L-097	Origination Credit Score	For reperforming, modified fixed-rate and modified step-rate loans, the standardized credit score used to evaluate the borrower during the loan origination process.		Numeric		4	If credit score is < 300 or > 850, the Origination Credit Score will be disclosed as "Not Available", which will be indicated by 9999.	
L-098	Filler							
L-099	Filler							
L-100	Filler							

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
L-101	Origination Loan Purpose	For reperforming, modified fixed-rate and modified step-rate loans, the classification of the loan as either a purchase money mortgage or a refinance mortgage at the time the loan was originated.	C = Refinance - Cash Out N = Refinance - No Cash Out R = Refinance - Not Specified P = Purchase M = Modified - Loss Mitigation 9 = Not Available	String		1		
L-102	Origination Occupancy Status	For reperforming, modified fixed-rate and modified step-rate loans, the classification describing the property occupancy status at the time the loan was originated.	P = Primary Residence S = Second Home I= Investment Property 9 = Not Available	String		1		
L-103	Origination Channel	For reperforming, modified fixed-rate and modified step-rate loans, the origination channel used by the party that delivered the loan to the issuer. • Broker: A mortgage loan that is originated under circumstances where a person or firm other than a mortgage loan seller or lender correspondent is acting as a "broker" and receives a commission for bringing together a borrower and a lender. The broker performs some (or most) of the loan processing functions (such as taking loan applications; ordering credit reports, appraisals, and title reports; verifying a borrower's income and employment, etc.), but it typically does not actually underwrite the loan, fund the loan at settlement, or service the loan. The mortgage loan is closed in the name of and funded by the mortgage loan seller (or, in some cases, the lender correspondent) that commissioned the broker's services. • Correspondent: A mortgage loan that is originated by a party other than a mortgage loan seller and is then sold to a mortgage loan seller. A lender correspondent generally performs some (or all) of the loan processing functions (such as taking loan applications, ordering credit reports, appraisals, and title reports, verifying a borrower's income and employment, etc.) as well as underwriting and funding the mortgage loan at settlement. The mortgage loan is closed in the name of the lender correspondent, which may or may not service the loan. • Retail: A mortgage loan, for which the mortgage loan seller takes the mortgage loan application and then processes, underwrites, funds, and delivers the mortgage loan to us. The loan is closed in the name of the mortgage loan seller, which may or may not service the loan. This definition may include joint ventures between the mortgage loan seller and another entity, provided that the mortgage loan seller retains control of the joint ventures (either through majority ownership or voting rights). For mortgage loans acquired prior to March 2013, the term "retail" may also, from time to time, include certain mortgage loans originated pursuant to a contractual arrangement, specifically approved by Fannie Mae, between a third party and the mortgage loan seller by which the third party may perform one or more of the functions (but not all) related to the origination of the mortgage loan, including taking the mortgage loan application, processing, underwriting, funding or delivering the mortgage loan to Fannie Mae.	R = Retail B = Broker C = Correspondent T = Third Party Origination - Not Specified 9 = Not Available	String		1		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
L-104	Days Delinquent	The number of days for which a mortgage loan has been reported delinquent.	0 = Current 1 = 30-59 2 = 60-89 3 = 90-119 4 = 120-149 5 = 150-179 6 = 180-209 7 = 210-239 8 = 240-269 9 = 270-299 10 = 300-329 11 = 330-359 12 = 360-389 13 = 390-419 14 = 420-449 15 = 450-479 16 = 480-509 17 = 510-539 18 = 540-569 19 = 570-599 20 = 600-629 21 = 630-659 22 = 660-689 23 = 690-719 24 = 720+	Numeric		1		Applicable only for monthly disclosure
L-105	Loan Performance History	For reperforming, modified and modified step-rate loans, the coded string of values that describes the previous payment performance of the loan at the time of issuance. This string will contain 36 months of history for reperforming modified and modified step rate loans and 12 months for reinstated loans.	00 = Current 01 = 1 Month 02 = 2 Months 03 = 3 Months 04 = 4 Months 05 = 5 Months 06 = 6 Months 07 = 7 Months 08 = 8 Months 09 = 9 Months 10 = 10 Months 11 = 11 Months 12 = 12 Months 13 = 13 Months 14 = 14 Months 15 = 15 Months 16 = 16 Months 17 = 17 Months 18 - 18 Months 19 = 19 Months 20 = 20 Months 21 = 21 Months 22 = 22 Months 23 = 23 Months 24 = 24 Months 25>= 25 Months & above XX = Unknown YY = Not Expected	String		150	• Applicable only for Issuance Disclosure. • The most recently reported activity is located in the last two spaces in the string. • Unknown represents when a loan payment is not available or activity is not reported by servicer. • Not expected represents when a payment is not due (e.g. month prior to first payment date)	

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
L-106	Loan Participation Percent	The percentage of the loan that is backing the security.		Numeric	3.2	6		
L-107	Property Valuation Method	The method by which the value of the subject property was obtained. • Appraisal: The property value obtained through an appraisal that was completed by a licensed or certified appraiser. • Onsite Property Data Collection: The property data collected onsite by a licensed or certified appraiser or other third-party, and validated through a proprietary automated valuation model. • GSE Targeted Refinance Programs: The programs implemented by the GSEs for targeted refinance products. • Appraisal Waiver: The appraisal waived per applicable Selling Guide or negotiated terms. • Other: Any property valuation method not provided for within the other enumerations. • Not Available: Property valuation method not available for disclosure. • Not Applicable: Property valuation method not applicable to the related loan product.	A = Appraisal P = Onsite Property Data Collection R = GSE Targeted Refinance Program W = Appraisal Waiver O= Other 7 = Not Applicable 9 = Not Available	String		1	• Onsite Property Data Collection: An automated valuation model, using the property data collected onsite, evaluates the validity (within tolerances) of the lender-provided property value that is generally used in the LTV calculation. For purchase transactions, the Sales Price is the value generally provided by the lender. • GSE Targeted Refinance Programs: Loans in these programs may have received an appraisal, an appraisal waiver, or utilized an automated valuation model to determine the property value. Includes Fannie Mae HARP, Refi Plus or High LTV Refinance loans, and, in the case of commingled Supers, can contain Freddie Mac's Relief Refinance and Enhanced Relief Refinance program loans. RefiNow or Freddie Mac Refi Possible are not included in the program. • Appraisal Waiver: Generally, Fannie Mae employs a valuation methodology that walks forward a prior Uniform Appraisal Dataset (UAD) compliant appraisal, which is then used to evaluate the validity (within tolerances) of the lender provided property value, which is generally used in the LTV calculation. For purchase transactions, the Sales Price is the value generally provided by the lender. In some instances, an automated valuation model may be used. A commingled Supers may contain loans with appraisal waivers granted under Fannie Mae's program and/or under Freddie Mac's program. • Other: May include methods such as broker price opinion or tax valuation. • Not Applicable: For Modified Reperforming loans in fixed-rate and step-rate pools, the value will default to Not Applicable. • Not Available: For loans backing pools issued prior to January 1, 2017, the value will default to Not Available.	

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
L - 108	Alternative Delinquency Resolutions Type	The loss mitigation solution that resolves delinquencies and help homeowners remain in their homes in accordance with the servicer's contractual obligation, while allowing the loan to remain in the security. • Payment deferral - For borrowers who have resolved a temporary hardship and can resume making their monthly mortgage payment but cannot afford either a full reinstatement or repayment plan to bring the loan current. The borrower can defer up to two months of missed principal and interest (P&I) payments. The amount is deferred into a non-interest-bearing balance due at mortgage loan maturity, or earlier upon the sale or transfer of the property, refinance of the mortgage loan, or payoff of the interest-bearing UPB. • COVID-19 Payment Deferral - For borrowers who experienced a COVID-19 related hardship and can resume making their monthly mortgage payment. The borrower can defer up to 18 months of missed P&I payments, out-of-pocket escrow advances paid to third parties; servicing advances paid to third parties in the ordinary course of business and not retained by the servicer, if allowed by state law. The amount is deferred into a non-interest-bearing balance due at mortgage loan maturity or earlier upon the sale or transfer of the property, refinance of the mortgage loan, or payoff of the interest-bearing UPB. • Disaster Payment Deferral - For borrowers who experienced a disaster related hardship and can resume making their monthly mortgage payment. The borrower can defer up to 12 months of missed P&I payments, out-of-pocket escrow advances paid to third parties; servicing advances paid to third parties in the ordinary course of business and not retained by the servicer, if allowed by state law. The amount is deferred into a non-interest-bearing balance due at mortgage loan maturity or earlier upon the sale or transfer of the property, refinance of the mortgage loan, or payoff of the interest-bearing UPB. • Other - The borrower has executed an Alternative Delinquency Resolution program other than the other provided enumerations. • Not Applicable - An Alternative Delinquency Resolution is not applicable for the related mortgage loan. • Not Available - The Alternative Delinquency Resolution is not available for disclosure.	P = Payment Deferral C = COVID-19 Payment Deferral D = Disaster Payment Deferral O = Other 7 = Not Applicable 9 = Not Available	String		1	This represents the last reported alternative delinquency resolutions type. Other - Not currently used Not applicable - Loan never had a payment deferral.	
L-109	Number of Alternative Delinquency Resolutions	The total number of Alternative Delinquency Resolutions as reported by the servicer for a specific loan.		Numeric		2	Exact number to be disclosed	
L-110	Total Deferral Amount	The total non-interest-bearing deferral amount related to one or more Alternative Delinquency Resolutions.		Numeric	9.2	12	Privacy Masking: Rounded to nearest thousand if > $500.	

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
L -111	Borrower Assistance Plan	The type of assistance plan that the borrower is enrolled in that provides temporary mortgage payment relief or an opportunity to cure a mortgage delinquency over a defined period. • Forbearance Plan - An agreement between the servicer and the borrower that reflects the terms of the forbearance, including whether the borrower may make either reduced or no monthly payments for a specific period. • Repayment Plan -An agreement between the servicer and a borrower that gives the borrower a defined period to reinstate the mortgage by paying normal regular payments plus an additional agreed upon amount in repayment of the delinquency. • Trial Period Plan - An agreement, generally lasting three months, that allows the servicer to test the borrower's ability to make a modified loan payment before finalizing the modification. • Other Workout Plan - The borrower is enrolled in a plan other than a forbearance plan, a repayment plan or a trial period plan. • No Workout Plan -The borrower is not enrolled in an alternate plan. • Not Applicable - A borrower assistance plan is not applicable for the related mortgage loan. • Not Available - A borrower assistance plan is not available for disclosure.	F = Forbearance Plan R = Repayment Plan T = Trial Period Plan O = Other Workout Plan N = No Workout Plan 7 = Not Applicable 9 = Not Available	String		1	The data will be published on a one-month delay due to the timing of our servicing reporting cycle. For example, the values published in July 2020 correspond to the delinquency status in the Days Delinquent published in June 2020. For non-delinquent loans, for which a Borrower Assistance Plan is not reported by the Servicer, this attribute will be defaulted to Not Applicable. The field may be populated if the loan is reported current in days delinquent.	Applicable only for monthly disclosure
L -112	Seller City	The city of the address of the entity that sold the loans to the issuer.		String		50		
L -113	Seller State	The state or territory of the address of the entity that sold the loans to the issuer.		String		2	XX will populate for non US states and territories	
L -114	Servicer City	The city of the address of the entity that services the loans.		String		50		
L -115	Servicer State	The state or territory of the address of the entity that services the loans.		String		2	XX will populate for non US states and territories	
L -116	Special Eligibility Program	A mortgage program with expanded eligibility criteria designed to increase and maintain home ownership. • Home Ready - An affordable mortgage program designed for eligible, creditworthy borrowers. • HFA Preferred - An affordable, conventional mortgage program available exclusively to housing financing agencies (HFAs) to maximize financing to low-to moderate-income borrowers. • RefiNow - An affordable refinance program designed for eligible, creditworthy borrowers with an existing Fannie Mae-owned mortgage. • Other - A special eligibility program not provided within the other enumerations. • Not Applicable - The special eligibility program disclosure is not applicable to the related loan. • Not Available - The special eligibility program disclosure is not available for the related loan.	H - Home Ready F - HFA Preferred R - RefiNow O - Other 7 - Not Applicable 9 - Not Available	String		4	Initially enumerations are mutually exclusive, in the future additional enumerations maybe added which are not mutually exclusive.	Modified Loans will default to 7 - Not Applicable.

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
S-01	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
S-02	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
S-03	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
S-04	Security Factor Date	The month and year on which the corresponding factor is effective.		Date	MMCCYY	6		
S-05	Security Factor	The decimal value that, when multiplied by the Issuance Investor Security UPB amount, equals the Current Investor Security UPB amount.		Numeric	1.8	10	•Issuance factor would equal to 1.00000000. •The field will be zero in the months when the security factor goes to zero including collapses and dissolves	(Current Investor Security UPB)/ (Issuance Investor Security UPB) •Round to eighth decimal
S-06	Payment Delay Days	The indicator denoting whether the loans in the security participate in a 45 day, 55 day or a 75 day payment delay period at the time the security was issued.	45 = 45 Days 55= 55 Days 75 = 75 Days	Numeric		2	• Fannie Mae is 55 only • Supers/Megas populated when collateral is delivered	
S-07	Security Data Correction Indicator	The indicator denoting the data correction status of the security based on the current reporting period.	Y = Yes N = No	String		1		
S-08	Security Status Indicator	The indicator denoting the status of the security based on the current reporting period.	A = Active P = Paid off C = Collapsed D = Dissolved	String		1		
S-09	Security Notification Indicator	The indicator denoting whether the disclosure is preliminary and subject to change or final.	P = Preliminary F = Final 7 = Not Applicable	String		1	Monthly File will display 7	
S-10	Security Description	The unique designation of the security including abbreviated FED code, WA Net Interest Rate, Prefix and Security Identifier.		String		22		
S-11	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae FRE = Freddie Mac	String		3		
S-12	Issue Date	The date on which the security was issued.		Date	MMDDCCYY	8		
S-13	Maturity Date	The month and year in which the final payment on the security is scheduled to be made at the time the security was issued.		Date	MMCCYY	6		
S-14	Updated Longest Maturity Date	The updated month and year in which the final payment on the security is scheduled to be made based on the longest maturity date of the remaining loans in the security.		Date	MMCCYY	6	Applicable only for Monthly Disclosure.	
S-15	Issuance Investor Security UPB	The aggregate unpaid principal balance of the loans as they contribute to the balance of the security at the time the security was issued.		Numeric	14.2	17		
S-16	Current Investor Security UPB	The aggregate unpaid principal balance of the loans as they contribute to the current balance of the security.		Numeric	14.2	17	The field will be zero in the months when the security factor goes to zero, including collapses and dissolves.	
S-17	WA Net Interest Rate	The weighted average interest rate of the loans less applicable fees (servicing fees and guarantor fees).		Numeric	2.3	6		(Sum ((Net Interest Rate) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB
S-18	WA Issuance Interest Rate	The weighted average interest rate of the loans in effect at the time the security was issued.		Numeric	2.3	6		(Sum ((Interest Rate) * (Issuance Investor Loan UPB))) / (Sum (Issuance Investor Loan UPB))

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
S-19	WA Current Interest Rate	The weighted average interest rate of the loans in effect during the current reporting period.		Numeric	2.3	6	During the month of issuance, the WA Issuance Interest Rate value would be the same as the Current WA Interest Rate value.	(Sum ((Interest Rate) * (Current Investor Loan UPB))) / (Sum (Current Investor Loan UPB))
S-20	WA Net Accrual Interest Rate	For adjustable-rate loans, the weighted average Interest Rate less applicable fees (servicing fees and guarantor fees).		Numeric	2.3	6	The net interest rate schedule to pay in the following month.	(Sum ((Net Accrual Interest Rate) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB
S-21	WA Loan Term	The weighted average number of months in which regularly scheduled borrower payments are due.		Numeric		3		(Sum ((Loan Term) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB
S-22	WA Issuance Remaining Months to Maturity	The weighted average of number of remaining months that will reduce the Current Investor Loan UPB to zero, at the time the security was issued. For fixed-rate loans, this value takes into account the impact of any curtailments.		Numeric		3		(Sum ((Loan Remaining Months to Maturity) * (Issuance Investor Loan UPB))) / (Sum (Issuance Investor Loan UPB)) • Round to the nearest integer
S-23	WA Current Remaining Months to Maturity	The weighted average of number of remaining months that will reduce the Current Investor Loan UPB to zero. For fixed-rate loans, this value takes into account the impact of any curtailments.		Numeric		3	During the month of issuance, the WA Issuance Remaining Months to Maturity value would be the same as the WA Current Remaining Months to Maturity value	(Sum ((Loan Remaining Months to Maturity) * (Current Investor Loan UPB))) / (Sum (Current Investor Loan UPB)) • Round to the nearest integer
S-24	WA Loan Age	The weighted average number of months from the time the loans were originated or modified up to and including the current reporting period.		Numeric		3	Value can be negative	(Sum ((Loan Age) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
S-25	WA Mortgage Loan Amount	The weighted average dollar amount of the loans, as stated on the notes, at the time the loans were originated or modified. For reperforming, modified fixed-rate and modified step-rate loans, this value represents both the interest bearing and non-interest bearing amount.		Numeric	9.2	12	The input values are masked in the calculation. • Mortgage Loan Amount is rounded to the nearest thousand • If Mortgage Loan Amount < $500, set to actual value	(Sum ((Mortgage Loan Amount) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB • Round to the second decimal
S-26	Average Mortgage Loan Amount	The simple average dollar amount of the loans as stated on the notes, at the time the loans were originated or modified. For reperforming, modified fixed-rate and modified step-rate loans, this value represents both the interest bearing and non-interest bearing amount.		Numeric	9.2	12	The input values are masked in the calculation. • Mortgage Loan Amount is rounded to the nearest thousand • If Mortgage Loan Amount < $500, set to actual value	(Sum (Mortgage Loan Amount)) / (Count (Loans in Pool)) • For Loan Count in Pool, the issuance file calculation is based upon the issuance date loan count and the monthly file calculation is based upon the current loan count • Round to the second decimal
S-27	WA Loan-to-Value (LTV)	The weighted average ratio, expressed as a percentage, obtained by dividing the amount of the loans at origination by the value of the properties. Value of the property reflects either the lesser of the sales price or the property value at purchase or refinance. For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.		Numeric		3	999 = Not Available	(Sum ((LTV Ratio) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer • The LTV ratio will be disclosed as “Not Available”, indicated by 999, if the ratio is <1% or >998% • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Loan UPB and the monthly file calculation is based upon the Current Loan UPB
S-28	WA Combined Loan-to-Value (CLTV)	The weighted average ratio, expressed as a percentage, obtained by dividing the amount of all known outstanding loans at origination by the value of the properties. Value of the property reflects either the lesser of the sales price or the property value at purchase or refinance. For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.		Numeric		3	999 = Not Available	(Sum ((CLTV Ratio) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer • The CLTV ratio will be disclosed as “Not Available”, indicated by 999, if the ratio is <1% or >998% • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Loan UPB and the monthly file calculation is based upon the Current Loan UPB

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
S-29	WA Debt-to-Income (DTI)	The weighted average ratio obtained by dividing the total monthly debt expenses by the total monthly incomes of the borrowers at the time the loans were originated or modified.		Numeric		3	999 = Not Available	(Sum ((DTI) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer • If loan value is < 1 or > 65, it will be excluded from the WA DTI Ratio calculation • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Loan UPB and the monthly file calculation is based upon the Current Loan UPB
S-30	WA Borrower Credit Score	The weighted average standardized credit score used to evaluate the borrower during the loan origination process.		Numeric		4	9999 = Not Available	(Sum ((Borrower Credit Score) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer • If credit score is < 300 or > 850, the loan is excluded from the WA Borrower Credit Score calculation • The issuance file calculation is based upon the Issuance Investor Loan UPB. The monthly file calculation is based upon the Scheduled Investor Loan UPB
S-31	Filler							
S-32	Filler							
S-33	Loan Count	The total number of loans in the security.		Numeric		9		Sum the number of loans where Investor Loan UPB > zero
S-34	Third Party Origination UPB Percent	The percentage of the aggregate Investor Loan UPB that were originated by a third party, to include Broker and Correspondent originations. For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.		Numeric	3.2	6		(Sum (Investor Loan UPB for Channel = Broker) + (Investor Loan UPB for Channel = Correspondent)) / (Sum (Investor Loan UPB)) •For Investor Loan UPB, the issuance file calculation is based upon the Issuance Loan UPB and the monthly file calculation is based upon the Current Loan UPB
S-35	Seller Name	The name of the entity that sold the loans to the issuer.		String		100	•For securities with more than one Seller, this field will reflect MULTIPLE. •For Megas/Supers, this field will reflect the value of SCR (Single-Class Resecuritization).	

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
S-36	Seller City	The city of the address of the entity that sold the loans to the issuer.		String		50	For securities/Megas/Supers with more than one Seller, the field will be blank.	
S-37	Seller State	The state or territory of the address of the entity that sold the loans to the issuer.		String		2	For securities/Megas/Supers with more than one Seller, the field will be blank. XX will populate for non US states and territories	
S-38	Servicer Name	The name of the entity that sold the loans to the issuer during the current reporting period.		String		100	•For securities with more than one Servicer, this field will reflect MULTIPLE. •For Megas/Supers, this field will reflect the value of SCR (Single-Class Resecuritization).	
S-39	Servicer City	The city of the address of the entity that services the loans.		String		50	For securities/Megas/Supers with more than one Servicer, the field will be blank.	
S-40	Servicer State	The state or territory of the address of the entity that services the loans.		String		2	For securities/Megas/Supers with more than one Servicer, the field will be blank. XX will populate for non US states and territories	
S-41	Involuntary Loan Removal (Prior Month UPB)	For the current reporting period, the aggregate prior period Investor UPB of loans removed from the security for involuntary reasons including delinquencies, loss mitigation efforts and lender repurchases.		Numeric	14.2	17	Applicable only for Monthly Disclosure. File header label - Delinquent Loans Purchased (Prior Month UPB)	
S-42	Involuntary Loan Removal (Loan Count)	For the current reporting period, the number of loans removed from the security for involuntary reasons including loan delinquencies, loss-mitigation efforts and lender repurchases.		Numeric		9	Applicable only for Monthly Disclosure. File header label - Delinquent Loans Purchased (Loan Count))	
S-43	Eligible for Resecuritization	The indicator denoting whether the security is eligible for resecuritization.	Y = Yes N = No	String		1		
S-44	Notes	Additional information about the loans in the security.		String		2048		
S-45	Notes Ongoing	Additional information about the loans in the security.		String		2048	Applicable only for Monthly Disclosure.	
S-46	Interest Only Security Indicator	The indicator denoting whether the loans only require interest payments for a specified period of time beginning with the first payment date.	Y = Yes N = No 5 = Mixed	String		1		
S-47	WA Months to Amortization	For interest-only loans, the weighted average number of months from the current month to the first scheduled principal and interest payment date.		Numeric		3		(Sum ((Months to Amortization) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to nearest integer • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB
S-48	Prepayment Penalty Indicator	The indicator denoting whether the security is subject to a penalty for early payment of principal.	Y = Yes N = No 9 = Not Available	String		1		
S-49	Reduced Minimum Servicing Indicator	The indicator denoting whether the loans in the security may have a reduced servicing fee.	Y = Yes N = No 9 = Not Available	String		1		
S-50	Subtype	For an adjustable-rate mortgage, the code that identifies ARM product characteristics and features.		String		20		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
S-51	Index	For adjustable-rate loans, the description of the index on which adjustments to the interest rate are based.	See Appendix A	String		3		
S-52	WA Mortgage Margin	For adjustable-rate loans, the weighted average number of percentage points to be added to the index to arrive at the new interest rate.		Numeric	2.3	6	77.777 = Not Applicable	(Sum ((Mortgage Margin) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the third decimal place • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB • If all loan level values = 77.777, then set to 77.777; else exclude from weighted average calculation
S-53	WA MBS Margin	For adjustable-rate loans, the weighted average mortgage margin less applicable fees (servicing fees and guarantor fees).		Numeric	2.3	6	77.777 = Not Applicable	(Sum ((MBS Margin) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the third decimal place • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB • If all loan level values = 77.777, then set to 77.777; else exclude from weighted average calculation
S-54	Interest Rate Adjustment Frequency	For adjustable-rate loans, the number of months, excluding any fixed-rate period, between scheduled rate changes.		Numeric		3	555 = Mixed	
S-55	Interest Rate Lookback	For adjustable-rate loans, the number of calendar days prior to the interest rate adjustment date used to determine the effective index value required to calculate the next interest rate.		Numeric		3	555 = Mixed	
S-56	Payment Adjustment Frequency	For negative amortizing adjustable-rate loans, the number of months between scheduled payment changes. For a security with an initial fixed-rate period, the payment adjustment frequency is the number of months between subsequent payment changes.		Numeric		3	555 = Mixed	
S-57	Payment Lookback	For negative amortizing adjustable-rate loans, the number of days prior to a payment effective date used to determine value when calculating a principal and interest payment.		Numeric		3	999 = Not Available	
S-58	Convertibility Indicator	For adjustable-rate loans, the indicator denoting whether the loans in the security have a feature that allows the borrower to convert from an adjustable rate to a fixed rate.	Y = Yes N = No 9 = Not Available	String		1		
S-59	Negative Amortization Indicator	For adjustable-rate loans, the indicator denoting whether the loans in the security allow negative amortization.	Y = Yes N = No 9 = Not Available	String		1		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
S-60	Negative Amortization Factor	For negative amortizing adjustable-rate loans, the decimal value that, when multiplied by the Issuance Investor Security UPB amount, equals the negative amortization amount.		Numeric	1.8	10		(Negative Amortization UPB) / (Issuance UPB) • Round to 8th decimal
S-61	WA Negative Amortization Limit	For negative amortizing adjustable-rate loans, the weighted average Negative Amortization Limit of the loans in the security.		Numeric	3.3	7	777.777 = Not Applicable 999.999 = Not Available	
S-62	Initial Fixed Rate Period	For adjustable-rate loans, the number of calendar months between the first full month the loans accrue interest and the first interest rate adjustment date.	00 = <=6 Months 01 = 7-18 Months 02 = 19-30 Months 03 = 31-42 Months 04 = 43-54 Months 05 = 55-66 Months 06 = 67-78 Months 07 = 79-90 Months 08 = 91-102 Months 09 = 103-114 Months 10 = 115-126 Months 11 = 127-138 Months 12 = 139-150 Months 13 = 151-162 Months 14 = 163-174 Months 15 = 175-186 Months 16 = >186 Months 55 = Mixed	String		2		(Sum ((Negative Amortization Limit) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the third decimal place • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB
S-63	First Rate Adjustment Date	For adjustable-rate loans, the earliest first rate adjustment date of the loans in the security.		Date	MMCCYY	6		
S-64	First Payment Adjustment Date	For adjustable-rate loans, the earliest first payment adjustment date of the loans in the security.		Date	MMCCYY	6	Applicable only for Fannie Mae issued securities	
S-65	WA Months to Next Rate Adjustment Date	For adjustable-rate loans, the weighted average number of months from the current month to the next interest rate adjustment date.		Numeric		3		(Sum ((Months to Next Adjustment Date) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to nearest integer • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
S-66	WA Life Interest Rate Ceiling	For adjustable-rate loans, the weighted average lifetime maximum interest rate.		Numeric	2.3	6	77.777 = Not Applicable	(Sum ((Life Ceiling Interest Rate) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the third decimal place • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB • If all loan level values = 77.777, set WA Life Interest Rate to 77.777; else exclude from weighted average calculation
S-67	WA Net Life Interest Rate Ceiling	For adjustable-rate loans, the weighted average maximum interest rate less applicable fees (servicing fees and guarantor fees).		Numeric	2.3	6	77.777 = Not Applicable	(Sum ((Life Ceiling Net Interest Rate) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the third decimal place • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Loan UPB and the monthly file calculation is based upon the Current Loan UPB • If all loan level values = 77.777, set WA Net Life Interest Rate Ceiling to 77.777; else exclude from weighted average calculation
S-68	WA Life Interest Rate Floor	For adjustable-rate loans, the weighted average lifetime minimum interest rate.		Numeric	2.3	6	If the mortgage loans in the MBS pool have no floor other than the mortgage margin, Fannie Mae will populate this field with the margin. 77.777 = Not Applicable	(Sum ((Life Floor Interest Rate) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the third decimal place • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB • If all loan level values = 77.777, set WA Life Interest Rate Floor to 77.777; else exclude from weighted average calculation

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
S-69	WA Net Life Interest Rate Floor	For adjustable-rate loans, the weighted average minimum interest rate less applicable fees (servicing fees and guarantor fees).		Numeric	2.3	6	If the mortgage loans in the MBS pool have no floor other than the mortgage margin, Fannie Mae will populate this field with the MBS margin. 77.777 = Not Applicable	(Sum ((Life Floor Net Interest Rate) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the third decimal place • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB • If all loan level values = 77.777, set WA Net Life Interest Rate Ceiling to 77.777
S-70	Initial Interest Rate Cap Up %	For adjustable-rate loans, the maximum percentage points the interest rate can adjust upward at the first interest rate adjustment date.		Numeric	2.3	6	55.555 = Mixed 77.777 = Not Applicable	
S-71	Initial Interest Rate Cap Down %	For adjustable-rate loans, the maximum percentage points the interest rate can adjust downward at the first interest rate adjustment date.		Numeric	2.3	6	55.555 = Mixed 77.777 = Not Applicable	
S-72	Periodic Interest Rate Cap Up %	For adjustable-rate loans, the maximum percentage points the interest rate can adjust upward at each interest rate adjustment date after the first interest rate adjustment date.		Numeric	2.3	6	55.555 = Mixed 77.777 = Not Applicable	
S-73	Periodic Interest Rate Cap Down %	For adjustable-rate loans, the maximum percentage points the interest rate can adjust downward at each interest rate adjustment date after the first interest rate adjustment date.		Numeric	2.3	6	55.555 = Mixed 77.777 = Not Applicable	
S-74	Initial Step Fixed-Rate Period	For reperforming, modified step-rate loans, the number of months between the first payment date of the modified loan and the first step rate adjustment.	00 = <=6 Months 01 = 7-18 Months 02 = 19-30 Months 03 = 31-42 Months 04 = 43-54 Months 05 = 55-66 Months 06 = 67-78 Months 07 = 79-90 Months 08 = 91-102 Months 09 = 103-114 Months 10 = 115-126 Months 11 = 127-138 Months 12 = 139-150 Months 13 = 151-162 Months 14 = 163-174 Months 15 = 175-186 Months 16 = >186 Months 55 = Mixed	String		2		
S-75	Step Rate Adjustment Frequency	For reperforming, modified step-rate loans, the number of months between each interest rate adjustment.		Numeric		3	555 = Mixed	

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
S-76	Next Step Rate Adjustment Date	For reperforming, modified step-rate loans, the month and year that the interest rate is next scheduled to increase.		Date	MMCCYY	6		
S-77	WA Months to Next Step Rate Adjustment	For reperforming, modified step-rate loans, the weighted average number of months from the current month to the next date on which the mortgage interest rate increases.		Numeric		3		(Sum ((Loan Months to Next Step Rate Adjustment Date) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to nearest integer • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB.
S-78	Periodic Step Rate Cap Up %	For reperforming, modified step-rate loans, the maximum percentage points the interest rate may increase at each step rate adjustment date.		Numeric	2.3	6	55.555 = Mixed	
S-79	WA Origination Mortgage Loan Amount	For reperforming, modified fixed-rate and modified step-rate loans, the weighted average dollar amount of the loans in the security as stated on the notes at the time the loans were originated.		Numeric	9.2	12	The input values are masked in the calculation. • Origination Mortgage Loan Amount is rounded to the nearest thousand • If Origination Mortgage Loan Amount < $500, set to actual value	(Sum ((Origination Mortgage Loan Amount) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • If the Origination Mortgage Loan Amount is invalid, the loan is excluded from the WA Mortgage Origination Loan Amount calculation. • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB. • Round to the second decimal
S-80	Average Origination Mortgage Loan Amount	For reperforming, modified fixed-rate and modified step-rate loans, the simple average dollar amount of the loans in the security as stated on the notes at the time the loans were originated. This value represents both the interest bearing and non-interest bearing amount.		Numeric	9.2	12	The input values are masked in the calculation. • Origination Mortgage Loan Amount is rounded to the nearest thousand • If Origination Mortgage Loan Amount < $500, set to actual value	(Sum (Origination Mortgage Loan Amount)) / (Count (Loans in Pool)) • If the Origination Mortgage Loan Amount is invalid, the loan is excluded from the Origination Average Loan Amount calculation. • For loan count in pool, the issuance file calculation is based upon the issuance date loan count and the monthly file calculation is based upon the current loan count. • Round to the second decimal
S-81	WA Origination Interest Rate	For reperforming, modified fixed-rate and modified step-rate loans, the weighted average interest rate of the loans as stated on the note at the time the loans were originated.		Numeric	2.3	6		(Sum ((Origination Interest Rate) * (Current Investor Loan UPB))) / (Sum (Current Investor Loan UPB))

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
S-82	WA Origination Loan Term	For reperforming, modified fixed-rate and modified step-rate loans, the weighted average number of months in which regularly scheduled borrower payments are due as stated on the note at the time the loans were originated.		Numeric		3		(Sum ((Origination Loan Term) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer • The issuance file calculation is based upon the Issuance Investor Loan UPB. The monthly file calculation is based upon the Scheduled Investor Loan UPB.
S-83	WA Origination Loan-to-Value (LTV)	For reperforming, modified fixed-rate and modified step-rate loans, the weighted average ratio, expressed as a percentage, obtained by dividing the amount of the loans at origination by the values of the properties. Value of the property reflects either the lesser of the sales price or the property value at purchase or refinance.		Numeric		3	999 = Not Available	(Sum ((Loan LTV Ratio) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer • If the loan Origination LTV ratio is <1% or >998%, the loan is excluded from the WA Origination LTV calculation • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Loan UPB and the monthly file calculation is based upon the Current Loan UPB
S-84	WA Origination Combined Loan-to-Value (CLTV)	For reperforming, modified fixed-rate and modified step-rate loans, the weighted average ratio, expressed as a percentage, obtained by dividing the amount of all known outstanding loans at origination by the value of the property. Value of the property reflects either the lesser of the sales price or the property value at purchase or refinance.		Numeric		3	999 = Not Available	(Sum ((Origination CLTV Ratio) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer • The loan Origination CLTV Ratio is excluded from the WA Origination CLTV calculation if ratio is < 1% or >998% • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Loan UPB and the monthly file calculation is based upon the Current Loan UPB

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
S-85	WA Origination Debt-to-Income (DTI)	For reperforming, modified fixed-rate and modified step-rate loans, the weighted average ratio obtained by dividing the total monthly debt expense by the total monthly income of the borrower at the time the loan was originated.		Numeric		3	999 = Not Available	(Sum ((Origination DTI Ratio) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer • If value is < 1 or > 65, it will be disclosed as "Not Available", indicated by 999 and will be excluded from the WA Origination DTI ratio calculation. • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Loan UPB and the monthly file calculation is based upon the Current Loan UPB
S-86	WA Origination Credit Score	For reperforming, modified fixed-rate and modified step-rate loans, the weighted average standardized credit score used to evaluate the borrower during the loan origination process.		Numeric		4	9999 = Not Available	(Sum ((Origination Credit Score) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer • If credit score is < 300 or > 850, the loan is excluded from the WA Origination Credit Score calculation • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB
S-87	Filler							
S-88	Filler							
S-89	Origination Third Party Origination UPB Percent	For reperforming, modified fixed-rate and modified step rate loans, the percentage of the aggregate Investor Loan UPB that was originated by a third party, to include Broker and Correspondent originations.		Numeric	3.2	6		Sum (Investor Loan UPB for Origination Channel = Broker) + (Investor Loan UPB for Origination Channel = Correspondent)) / (Sum (Investor Loan UPB)

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
S-90	WA Estimated Loan-to-Value (ELTV)	For reinstated, reperforming, modified fixed-rate and modified step-rate loans, the weighted average ratio obtained by dividing the outstanding balance of the mortgage loan by the estimated current value of the property obtained by the issuer at the time of issuance.		Numeric		3	999 = Not Available	(Sum ((Estimated LTV Ratio) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer • If Estimated LTV ratio is < 1% or > 998%, the loan is excluded from the WA Estimated LTV calculation • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Loan UPB and the monthly file calculation is based upon the Current Loan UPB
S-91	WA Updated Credit Score	For reinstated, reperforming, modified fixed-rate and modified step-rate loans, the weighted average most recently available standardized credit score provided at the time of issuance.		Numeric		4	9999 = Not Available	(Sum ((Updated Credit Score) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer • If credit score is < 300 or > 850, the loan is excluded from the WA Updated Credit Score calculation • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB

Security Supplemental File Record Type Description			
Record Type No.	**Record Type Description**	**Record Type No.**	**Record Type Description**
1	Quartiles	25	Non-Standard Loan Type Stratification
2	Next Interest Rate Adjustment Date	26	Modification Program Stratification
3	Loan-Value (LTV) Not Available Stratification	27	Modification Type Stratification
4	Combined Loan-to-Value (CLTV) Not Available Stratification	28	Modification Information Stratification
5	Debt-to-Income (DTI) Not Available Stratification	29	Number of Modifications Stratification
6	Borrower Credit Score Not Available Stratification	30	Deferred Unpaid Principal Balance Stratification
7	Days Delinquent Stratification	31	Estimated Loan-to-Value (ELTV) Not Available Stratification
8	Number of Borrowers Stratification	32	Updated Credit Score Not Available Stratification
9	First Time Homebuyer Stratification	33	Number of Remaining Steps Stratification
10	Loan Purpose Stratification	34	Number of Steps - At Modification Stratification
11	Occupancy Status Stratification	35	Next Step Rate Adjustment Date Stratification
12	Number of Units Stratification	36	Origination Loan-to-Value (LTV) Not Available Stratification
13	Property Type Stratification	37	Origination Combined Loan-to-Value (CLTV) Not Available Stratification
14	Channel Stratification	38	Origination Debt-to-Income (DTI) Not Available Stratification
15	Property State Stratification	39	Origination Borrower Credit Score Not Available Stratification
16	Seller Name Stratification	40	Origination Loan Purpose Stratification
17	Servicer Name Stratification	41	Origination Occupancy Status Stratification
18	Mortgage Insurance Coverage Stratification	42	Borrower Payment History Stratification
19	Mortgage Insurance Cancellation Indicator Stratification	43	Collateral List
20	Government Insured/Guarantee Stratification	44	Property Valuation Method Stratification
21	Interest Only First Principal and Interest Payment Date Stratification	45	Borrower Assistance Plan Stratification
22	Not Paying Principal in First Distribution Stratification	46	Alternative Delinquency Resolutions Type
23	Origination Year Stratification	47	Number of Alternative Delinquency Resolutions
24	Origination Channel Stratification	48	Borrower Assistance Plan History Stratification
		49	Special Eligibility Program Stratification

Applicable Stratified Variable	
Quartile	For each mortgage loan characteristic where quartile levels appear, each loan in the pool is ranked from the highest to the lowest value. For example, in the case of Loan-to-Value (LTV) ratios, each loan in the pool is ranked from that with the highest LTV ratio to that with the lowest LTV ratio. The lowest LTV ratio would appear in the pool statistics under "MIN." The next figure in the quartile table for such mortgage loan characteristic is determined by counting the loans starting with the lowest value and continuing upward until the Investor Loan Unpaid Principal Balance (UPB) of the loans counted equals twenty-five percent of the Investor Loan UPB of all the loans in the pool. The value associated with the last loan counted appears in the quartile-level distribution table under "25%." Likewise, the next figures in the quartile-level distribution table are determined by again counting all of the loans starting with the lowest value and continuing upward until the Investor Loan UPB of the loans counted equal fifty percent of the Investor Loan UPB of all the loans in the pool. This process is repeated to determine the value in the quartile-level distribution table associated with seventy-five percent. The values of the last loan counted in each case appear in the quartile-level distribution table under "MED" and "75%," respectively. The highest such value for any mortgage loan in a pool appears in the quartile-level distribution table under "MAX."
Aggregate Loan Count	Count (Loans in Stratification)
Percentage Loan Count	(Count (Loans in Stratification)) / (Count (Loans in Pool)) * 100 • Round to the second decimal place • The sum of the percent of loans for the mortgages within a MBS may not add up to 100% due to rounding
Aggregate Investor Loan UPB	Sum (Loans in Stratification) • For Investor Loan UPB , the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB • The aggregate Investor Loan UPB may not equal the security balance due to loan corrections
Percentage Investor Loan UPB	(Sum (Stratification of Loan Investor Loan UPB)) / (Sum (Investor Loan UPB)) * 100 • Round to the second decimal place • The sum of the percent of UPB for the mortgages within a MBS may not add up to 100% due to rounding • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Loan UPB and the monthly file calculation is based upon the Current Loan UPB
Percentage Missing	(Sum ((Investor UPB for which Attribute's Values are Unavailable)) / (Sum (Investor Loan UPB)) * 100 • Round to the second decimal place • The sum of the percent of UPB for the mortgages within a MBS may not add up to 100% due to rounding • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Loan UPB and the monthly file calculation is based upon the Current Loan UPB

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-001	Record Type = 1	Quartiles		String		2		
SS-002	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-003	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-004	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-005	Quartile	Based on the Current Investor UPB for all of the active loans in a security, distributed across the following quartile data points: MIN, 25%, MED, 75%, MAX.	MAX 75% MED 25% MIN	String		3		
SS-006	Mortgage Loan Amount	The dollar amount of the loan as stated on the note at the time the loan was originated or modified. For reperforming, modified fixed-rate and modified step-rate loans, this value represents both the interest bearing and non-interest bearing amount.		Numeric	9.2	12	Privacy Masking: Rounded to nearest thousand if > $500	
SS-007	Interest Rate	The interest rate of the loan in effect during the current reporting period.		Numeric	2.3	6		
SS-008	Current Net Interest Rate	The interest rate of the loan in effect during the current reporting period less servicing fees and guarantor fees.		Numeric	2.3	6		
SS-009	Loan Term	For fixed-rate, adjustable-rate and interest-only mortgages, the number of scheduled monthly payments of the mortgage, between the first payment date and the maturity date of the mortgage.		Numeric		3		
SS-010	Remaining Months to Maturity	The number of remaining months that will reduce the Current Investor Loan UPB to zero. For fixed-rate loans, this value takes into account the impact of any curtailments.		Numeric		3		
SS-011	Loan Age	The number of months from the time the loan was originated or modified up to and including the current reporting period.		Numeric		4		
SS-012	Loan-to-Value (LTV)	The ratio, expressed as a percentage, obtained by dividing the amount of the loan at origination by the value of the property. Value of the property reflects either the lesser of the sales price or the property value at purchase or refinance. For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.		Numeric		3		
SS-013	Combined Loan-to-Value (CLTV)	The ratio, expressed as a percentage, obtained by dividing the amount of all known outstanding loans at origination by the value of the property. Value of the property reflects either the lesser of the sales price or the property value at purchase or refinance. For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.		Numeric		3		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-014	Debt-to-Income (DTI)	The ratio obtained by dividing the total monthly debt expense by the total monthly income of the borrower at the time the loan was originated or modified.		Numeric		3		
SS-015	Borrower Credit Score	The standardized credit score used to evaluate the borrower during the loan origination process. For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.		Numeric		4		
SS-016	Filler							
SS-017	Filler							
SS-018	Updated Credit Score	For reinstated, reperforming, modified fixed-rate and modified step-rate loans, the most recently available standardized credit score provided at the time of issuance.		Numeric		4		
SS-019	Estimated Loan-to-Value (ELTV)	For reinstated, reperforming, modified fixed-rate, and modified step-rate loans, the ratio obtained by dividing the outstanding balance of the mortgage loan by the estimated current value of the property obtained by the issuer at the time of issuance.		Numeric		3		
ID	**Attribute Name**	**Attribute Definition**	**Enumerations**	**Data Type**	**Format**	**Max Length**	**Notes**	**Calculations**
SS-020	Record Type = 2	Next Interest Rate Adjustment Date		String		2		
SS-021	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-022	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-023	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-024	Next Interest Rate Adjustment Date	For adjustable-rate loans, the month and year that the interest rate is next subject to change.		Date	MMCCYY	6		
SS-025	Months to Next Interest Rate Adjustment Date	For the stratified attribute of adjustable-rate loans, the number of months from the current month to the next interest rate adjustment date.		Numeric		3		
SS-026	Interest Only First Principal and Interest Payment Date	For the stratified attribute for interest only adjustable-rate loans, the month and year that the first monthly scheduled fully amortizing principal and interest payment is due.		Date	MMCCYY	6		
SS-027	Aggregate Investor Loan UPB	For the stratified attribute of adjustable-rate loans, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-028	Percentage Investor Security UPB	For the stratified attribute of adjustable-rate loans, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-029	Aggregate Loan Count	For the stratified attribute of adjustable-rate loans, the total number of loans in the security.		Numeric		9		
SS-030	Percentage Loan Count	For the stratified attribute of adjustable-rate loans, the percentage of loans in the security.		Numeric	3.2	6		
SS-031	WA Current Interest Rate	For the stratified attribute of adjustable-rate loans, the weighted average interest rate of the loans in effect during the current reporting period.		Numeric	2.3	6		
SS-032	Current High Interest Rate	For the stratified attribute of adjustable-rate loans, the highest interest rate of the loans in effect during the current reporting period.		Numeric	2.3	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-033	Current Low Interest Rate	For the stratified attribute of adjustable-rate loans, the lowest interest rate of the loans in effect during the current reporting period.		Numeric	2.3	6		
SS-034	WA Current Net Interest Rate	For the stratified attribute of adjustable-rate loans, the weighted average interest rate of the loans in effect during the current reporting period less servicing fees and guarantor fees.		Numeric	2.3	6		
SS-035	Current High Net Interest Rate	For the stratified attribute of adjustable-rate loans, the highest value interest rate of the loans in effect during the current reporting period less servicing fees and guarantor fees.		Numeric	2.3	6		
SS-036	Current Low Net Interest Rate	For the stratified attribute of adjustable-rate loans, the lowest value interest rate of the loans in effect during the current reporting period less servicing fees and guarantor fees.		Numeric	2.3	6		
SS-037	WA Mortgage Margin	For the stratified attribute of adjustable-rate loans, the weighted average number of percentage points to be added to the index to arrive at the new interest rate.		Numeric	2.3	6		
SS-038	High Mortgage Margin	For the stratified attribute of adjustable-rate loans, the highest number of percentage points to be added to the index to arrive at the new interest rate.		Numeric	2.3	6		
SS-039	Low Mortgage Margin	For the stratified attribute of adjustable-rate loans, the lowest number of percentage points to be added to the index to arrive at the new interest rate.		Numeric	2.3	6		
SS-040	WA MBS Margin	For the stratified attribute of adjustable-rate loans, the weighted average mortgage margin less servicing fees and guarantor fees.		Numeric	2.3	6		
SS-041	High MBS Margin	For the stratified attribute of adjustable-rate loans, the highest value mortgage margin less servicing fees and guarantor fees.		Numeric	2.3	6		
SS-042	Low MBS Margin	For the stratified attribute of adjustable-rate loans, the lowest value mortgage margin less servicing fees and guarantor fees.		Numeric	2.3	6		
SS-043	WA Life Ceiling Interest Rate	For the stratified attribute of adjustable-rate loans, the weighted average lifetime maximum interest rate.		Numeric	2.3	6		
SS-044	Life Ceiling High Interest Rate	For the stratified attribute of adjustable-rate loans, the highest value lifetime maximum interest rate.		Numeric	2.3	6		
SS-045	Life Ceiling Low Interest Rate	For the stratified attribute of adjustable-rate loans, the lowest value lifetime maximum interest rate.		Numeric	2.3	6		
SS-046	WA Life Ceiling Net Interest Rate	For the stratified attribute of adjustable-rate loans, the weighted average maximum interest rate less servicing fees and guarantor fees.		Numeric	2.3	6		
SS-047	Life Ceiling High Net Interest Rate	For the stratified attribute of adjustable-rate loans, the highest value maximum interest rate less servicing fees and guarantor fees.		Numeric	2.3	6		
SS-048	Life Ceiling Low Net Interest Rate	For the stratified attribute of adjustable-rate loans, the lowest value maximum interest rate less servicing fees and guarantor fees.		Numeric	2.3	6		
SS-049	WA Life Floor Interest Rate	For the stratified attribute of adjustable-rate loans, the weighted average lifetime minimum interest rate.		Numeric	2.3	6		
SS-050	Life Floor High Interest Rate	For the stratified attribute of adjustable-rate loans, the highest value lifetime minimum interest rate.		Numeric	2.3	6		
SS-051	Life Floor Low Interest Rate	For the stratified attribute of adjustable-rate loans, the lowest value lifetime minimum interest rate.		Numeric	2.3	6		
SS-052	WA Life Floor Net Interest Rate	For the stratified attribute of adjustable-rate loans, the weighted average minimum interest rate less servicing fees and guarantor fees.		Numeric	2.3	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-053	Life Floor High Net Interest Rate	For the stratified attribute of adjustable-rate loans, the highest value minimum interest rate less servicing fees and guarantor fees.		Numeric	2.3	6		
SS-054	Life Floor Low Net Interest Rate	For the stratified attribute of adjustable-rate loans, the lowest value minimum interest rate less servicing fees and guarantor fees.		Numeric	2.3	6		
ID	**Attribute Name**	**Attribute Definition**	**Enumerations**	**Data Type**	**Format**	**Max Length**	**Notes**	**Calculations**
SS-055	Record Type = 3	Loan-to-Value (LTV) Not Available Stratification For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.		String		2	Applicable only if security characteristics apply.	
SS-056	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-057	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-058	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-059	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-060	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-061	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-062	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	**Attribute Name**	**Attribute Definition**	**Enumerations**	**Data Type**	**Format**	**Max Length**	**Notes**	**Calculations**
SS-063	Record Type = 4	Combined Loan-to-Value (CLTV) Not Available Stratification For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.		String		2	Applicable only if security characteristics apply.	
SS-064	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-065	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-066	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-067	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-068	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-069	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-070	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	**Attribute Name**	**Attribute Definition**	**Enumerations**	**Data Type**	**Format**	**Max Length**	**Notes**	**Calculations**
SS-071	Record Type = 5	Debt-to-Income (DTI) Not Available Stratification		String		2	Applicable only if security characteristics apply.	

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-072	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-073	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-074	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-075	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-076	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-077	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-078	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-079	Record Type = 6	Borrower Credit Score Not Available Stratification For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.		String		2	Applicable only if security characteristics apply.	
SS-080	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-081	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-082	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-083	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-084	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-085	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-086	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-087	Record Type = 7	Days Delinquent Stratification		String		2	Applicable only for monthly disclosure	
SS-088	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-089	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-090	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-091	Days Delinquent	The number of days for which a mortgage loan has been reported delinquent.	0 = Current 1 = 30-59 2 = 60-89 3 = 90-119 4 = 120-149 5 = 150-179 6 = 180-209 7 = 210-239 8 = 240-269 9 = 270-299 10 = 300-329 11 = 330-359 12 = 360-389 13 = 390-419 14 = 420-449 15 = 450-479 16 = 480-509 17 = 510-539 18 = 540-569 19 = 570-599 20 = 600-629 21 = 630-659 22 = 660-689 23 = 690-719 24 = 720+	String		1		
SS-092	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-093	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-094	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-095	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-096	Record Type = 8	Number of Borrowers Stratification		String		2		
SS-097	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-098	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-099	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-100	Number of Borrowers	The number of borrowers who, at the time the loan is originated, are obligated to repay the loan.	1 2 >2 99 = Not Available	String		2		
SS-101	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-102	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-103	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-104	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	**Attribute Name**	**Attribute Definition**	**Enumerations**	**Data Type**	**Format**	**Max Length**	**Notes**	**Calculations**
SS-105	Record Type = 9	First Time Homebuyer Stratification		String		2		
SS-106	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-107	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-108	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-109	First Time Homebuyer	The indicator denoting whether a borrower on the loan qualifies as a first-time homebuyer.	Y = Yes N = No 9 = Not Available	String		1		
SS-110	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-111	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-112	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-113	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	**Attribute Name**	**Attribute Definition**	**Enumerations**	**Data Type**	**Format**	**Max Length**	**Notes**	**Calculations**
SS-114	Record Type = 10	Loan Purpose Stratification		String		2		
SS-115	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-116	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-117	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-118	Loan Purpose	The classification describing the purpose of the loan.	C = Refinance - Cash Out N = Refinance - No Cash Out R = Refinance - Not Specified P = Purchase M = Modified - Loss Mitigation 9 = Not Available	String		1		
SS-119	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-120	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-121	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-122	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-123	Record Type = 11	Occupancy Status Stratification		String		2		
SS-124	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-125	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-126	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-127	Occupancy Status	The classification describing the property occupancy status at the time the loan was originated. For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.	P = Primary Residence S - Second Home I = Investment Property 9 = Not Available	String		1		
SS-128	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-129	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-130	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-131	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-132	Record Type = 12	Number of Units Stratification		String		2		
SS-133	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-134	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-135	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-136	Number of Units	The number of dwelling units in the mortgaged property at the time the loan was originated.	1 = 1 2 = 2 3 = 3 4 = 4 99 = Not Available	Numeric		2		
SS-137	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-138	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-139	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-140	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	**Attribute Name**	**Attribute Definition**	**Enumerations**	**Data Type**	**Format**	**Max Length**	**Notes**	**Calculations**
SS-141	Record Type = 13	Property Type Stratification		String		2		
SS-142	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-143	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-144	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-145	Property Type	The classification describing the type of property that secures the loan.	CP = Cooperative CO = Condominium PU = Planned Unit Development SF = Single-Family MH = Manufactured Housing 99 = Not Available	String		2		
SS-146	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-147	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-148	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-149	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	**Attribute Name**	**Attribute Definition**	**Enumerations**	**Data Type**	**Format**	**Max Length**	**Notes**	**Calculations**
SS-150	Record Type = 14	Channel Stratification		String		2		
SS-151	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-152	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-153	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-154	Channel	The origination channel used by the party that delivered the loan to the issuer. For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.	R = Retail B = Broker C = Correspondent T = Third Party Origination - Not Specified 9 = Not Available	String		1		
SS-155	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-156	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-157	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-158	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-159	Record Type = 15	Property State Stratification		String		2	See Appendix B	
SS-160	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-161	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-162	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-163	Property State	The abbreviation denoting the location of the property securing the loan.		String		2		
SS-164	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-165	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-166	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-167	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-168	Record Type = 16	Seller Name Stratification		String		2		
SS-169	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-170	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-171	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-172	Seller Name	The name of the entity that sold the loan to the issuer.		String		100	Will not be updated after issuance, regardless of mergers/acquisitions.	
SS-173	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-174	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-175	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-176	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
SS-177	Minimum Loan Age	For the stratified attribute, the minimum number of scheduled payments from the time the loan was originated or modified up to and including the current reporting period.		Numeric		3		
SS-178	Maximum Loan Age	For the stratified attribute, the maximum number of scheduled payments from the time the loan was originated or modified to and including the current reporting period.		Numeric		3		
SS-179	Minimum Interest Rate	For the stratified attribute, the minimum interest rate of the loan in effect during the current reporting period.		Numeric	2.3	6		
SS-180	Maximum Interest Rate	For the stratified attribute, the maximum interest rate of the loan in effect during the current reporting period.		Numeric	2.3	6		
SS-181	Minimum Remaining Months to Maturity	For the stratified attribute, the minimum number of scheduled monthly payments that will reduce the Current Investor Loan UPB to zero.		Numeric		3		
SS-182	Maximum Remaining Months to Maturity	For the stratified attribute, the maximum number of scheduled monthly payments that will reduce the Current Investor Loan UPB to zero.		Numeric		3		
SS-183	WA Loan Age	For the stratified attribute, the weighted average number of scheduled payments from the time the loan was originated or modified up to and including the current reporting period.		Numeric		3		
SS-184	WA Interest Rate	For the stratified attribute, the weighted average interest rate of the loan in effect during the current reporting period.		Numeric	2.3	6		
SS-185	WA Remaining Months to Maturity	For the stratified attribute, the weighted average number of scheduled monthly payments that will reduce the Current Investor Loan UPB to zero.		Numeric		3		
SS-186	Seller City	The city of the address of the entity that sold the loans to the issuer.		String		50		
SS-187	Seller State	The state or territory of the address of the entity that sold the loans to the issuer.		String		2	XX will populate for non US states and territories	

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-188	Record Type = 17	Servicer Name Stratification		String		2		
SS-189	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-190	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-191	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-192	Servicer Name	The name of the entity that services the loan during the current reporting period. Will reflect servicer names contributing > 1% of the Current Investor Security UPB.	< 1%	String		100	Servicer names contributing < 1% of the Current Investor Security UPB will be aggregated and reflected in the < 1% enumeration	
SS-193	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-194	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-195	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-196	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
SS-197	Minimum Loan Age	For the stratified attribute, the minimum number of scheduled payments from the time the loan was originated or modified up to and including the current reporting period.		Numeric		3		
SS-198	Maximum Loan Age	For the stratified attribute, the maximum number of scheduled payments from the time the loan was originated or modified up to and including the current reporting period.		Numeric		3		
SS-199	Minimum Interest Rate	For the stratified attribute, the minimum interest rate of the loan in effect during the current reporting period.		Numeric	2.3	6		
SS-200	Maximum Interest Rate	For the stratified attribute, the maximum interest rate of the loan in effect during the current reporting period.		Numeric	2.3	6		
SS-201	Minimum Remaining Months to Maturity	For the stratified attribute, the minimum number of scheduled monthly payments that will reduce the Current Investor Loan UPB to zero.		Numeric		3		
SS-202	Maximum Remaining Months to Maturity	For the stratified attribute, the maximum number of scheduled monthly payments that will reduce the Current Investor Loan UPB to zero.		Numeric		3		
SS-203	WA Loan Age	For the stratified attribute, the weighted average number of scheduled payments from the time the loan was originated or modified to and including the current reporting period.		Numeric		3		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-204	WA Interest Rate	For the stratified attribute, the weighted average interest rate of the loan in effect during the current reporting period.		Numeric	2.3	6		
SS-205	WA Remaining Months to Maturity	For the stratified attribute, the weighted average number of scheduled monthly payments that will reduce the Current Investor Loan UPB to zero.		Numeric		3		
SS-206	Servicer City	The city of the address of the entity that services the loans.		String		50		
SS-207	Servicer State	The state or territory of the address of the entity that services the loans.		String		2	XX will populate for non US states and territories	
ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-208	Record Type = 18	Mortgage Insurance Coverage Stratification		String		2		
SS-209	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-210	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-211	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-212	Mortgage Insurance Coverage	The mortgage insurance coverage in effect at the time the security was issued.	WITHMI = Loans With Mortgage Insurance NOMI = Loans Without Mortgage Insurance 999 = Not Available	String		6		
SS-213	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-214	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-215	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-216	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-217	Record Type = 19	Mortgage Insurance Cancellation Indicator Stratification		String		2		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-218	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-219	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-220	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-221	Mortgage Insurance Cancellation Indicator	The indicator denoting whether the mortgage insurance has been cancelled after the security was issued.	Y = Yes N = No 7 = Not Applicable	String		1		
SS-222	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-223	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-224	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-225	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-226	Record Type = 20	Government Insured/Guarantee Stratification		String		2	Applicable only to Government Insured/Guarantee loans.	
SS-227	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-228	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-229	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-230	Government Insured/Guarantee	The classification describing the Government Insured/Guarantee Program, if any, covering the loan.	FH = FHA VA = Veterans Affairs RH = Rural Housing IH = Section 184 Indian Home 99 = Not Available	String		2		
SS-231	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-232	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-233	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-234	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-235	Record Type = 21	Interest Only First Principal and Interest Payment Date Stratification		String		2		
SS-236	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-237	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-238	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-239	Interest Only First Principal and Interest Payment Date	For interest-only loans, the month and year that the first monthly scheduled fully amortizing principal and interest payment is due.		Date	MMCCYY	6		
SS-240	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-241	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-242	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-243	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
SS-244	Minimum Loan Age	For the stratified attribute, the minimum number of scheduled payments from the time the loan was originated or modified up to and including the current reporting period.		Numeric		3		
SS-245	Maximum Loan Age	For the stratified attribute, the maximum number of scheduled payments from the time the loan was originated or modified up to and including the current reporting period.		Numeric		3		
SS-246	Minimum Interest Rate	For the stratified attribute, the minimum interest rate of the loan in effect during the current reporting period.		Numeric	2.3	6		
SS-247	Maximum Interest Rate	For the stratified attribute, the maximum interest rate of the loan in effect during the current reporting period.		Numeric	2.3	6		
SS-248	Minimum Remaining Months to Maturity	For the stratified attribute, the minimum number of scheduled monthly payments that will reduce the Current Investor Loan UPB to zero.		Numeric		3		
SS-249	Maximum Remaining Months to Maturity	For the stratified attribute, the maximum number of scheduled monthly payments that will reduce the Current Investor Loan UPB to zero.		Numeric		3		
SS-250	WA Loan Age	For the stratified attribute, the weighted average number of scheduled payments from the time the loan was originated or modified up to and including the current reporting period.		Numeric		3		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-251	WA Interest Rate	For the stratified attribute, the weighted average interest rate of the loan in effect during the current reporting period.		Numeric	2.3	6		
SS-252	WA Remaining Months to Maturity	For the stratified attribute, the weighted average number of scheduled monthly payments that will reduce the Current Investor Loan UPB to zero.		Numeric		3		
SS-253	WA Months to Amortization	For the stratified attribute, the weighted average number of months from the current month to the first scheduled principal and interest payment date.		Numeric		3		
ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-254	Record Type = 22	Not Paying Principal in First Distribution Stratification Loans that will not receive a principal distribution in the first investor payment.		String		2	Applicable only at issuance	
SS-255	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-256	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-257	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-258	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-259	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-260	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-261	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-262	Record Type = 23	Origination Year Stratification		String		2		
SS-263	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-264	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-265	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-266	Origination Year	The year of origination of the loans in the security.		Date	CCYY	4		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-267	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-268	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-269	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-270	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	**Attribute Name**	**Attribute Definition**	**Enumerations**	**Data Type**	**Format**	**Max Length**	**Notes**	**Calculations**
SS-271	Record Type = 24	Origination Channel Stratification		String		2	Applicable only if security characteristics apply.	
SS-272	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-273	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-274	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-275	Origination Channel	For reperforming, modified fixed-rate and modified step-rate loans, the origination channel used by the party that delivered the loan to the issuer.	R = Retail B = Broker C = Correspondent T = Third-Party Origination - Not Specified 9 = Not Available	String		1		
SS-276	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-277	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-278	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-279	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	**Attribute Name**	**Attribute Definition**	**Enumerations**	**Data Type**	**Format**	**Max Length**	**Notes**	**Calculations**
SS-280	Record Type = 25	Non-Standard Loan Type Stratification	COOP = Cooperative HIGH = FHFA High Cost Area BYDN = Interest-rate buydown RELO = Relocation	String		2	Applicable only at issuance for Single-Class (no- resecuritizations).	

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-281	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-282	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-283	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-284	Non-Standard Loan Type	The non-standard loan characteristics included in the security.	COOP = Cooperative HIGH = FHFA High Cost Area BYDN = Interest-rate buydown RELO = Relocation	String		4	Applicable only at issuance for Single-Class securities (no resecuritizations). One or more of the following non-standard mortgage loan types will be displayed if any constitutes greater than 10% of the scheduled unpaid principal balance of the MBS pool, or if a combination of two or more of these mortgage loan types constitute greater than 15% of the scheduled unpaid principal balance of the MBS pool: • Co-operative share loans (COOP) • Interest-rate loans (significant temporary interest rate buy down loans) • Relocation loans • FHFA High Cost Area The categories are not mutually exclusive. For example, one mortgage loan may be a co-op mortgage loan and an interest-rate mortgage loan, and if so, it will appear in this table in both categories. Totals may exceed 100%.	
SS-285	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-286	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-287	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-288	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	**Attribute Name**	**Attribute Definition**	**Enumerations**	**Data Type**	**Format**	**Max Length**	**Notes**	**Calculations**
SS-289	Record Type = 26	Modification Program Stratification		String		2	Applicable only if security characteristics apply.	

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-290	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-291	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-292	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-293	Modification Program	For reperforming, modified fixed-rate and modified step-rate loans, the program under which the loan was modified.	H = HAMP O = Other R = Regular S = Standard T = Streamlined 9 = Not Available	String		1		
SS-294	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-295	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-296	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-297	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-298	Record Type = 27	Modification Type Stratification		String		2	Applicable only if security characteristics apply.	
SS-299	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-300	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-301	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-302	Modification Type	For reperforming, modified fixed-rate and modified step-rate loans, the classification describing the type of modification.	R = Rate T = Term B = Rate & Term C = Capitalization F = Rate, Term & Forbearance O = Other	String		1		
SS-303	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-304	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-305	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-306	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	**Attribute Name**	**Attribute Definition**	**Enumerations**	**Data Type**	**Format**	**Max Length**	**Notes**	**Calculations**
SS-307	Record Type = 28	Modification Information Stratification		String		2	Not applicable for Fannie Mae.	
SS-308	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-309	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-310	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-311	Modification Information	For reperforming, modified fixed-rate and modified step-rate loans, the Total Capitalized Amounts and Deferred Unpaid Principal Balances of the loans in the security.	TOTAL CAPITALIZED AMOUNT DEFERRED UPB	String		25		
SS-312	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-313	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-314	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-315	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	**Attribute Name**	**Attribute Definition**	**Enumerations**	**Data Type**	**Format**	**Max Length**	**Notes**	**Calculations**
SS-316	Record Type = 29	Number of Modifications Stratification		String		2	Applicable only if security characteristics apply.	
SS-317	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-318	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-319	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-320	Number of Modifications	For reperforming, modified fixed-rate and modified step-rate loans, the number of times the loan has been modified.	1 2 >2	Numeric		2		
SS-321	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-322	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-323	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-324	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-325	Record Type = 30	Deferred Unpaid Principal Balance Stratification Applicable only for modified pools		String		2	Not applicable for Fannie Mae.	
SS-326	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-327	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-328	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-329	Deferred UPB Type	For reperforming, modified fixed-rate and modified step-rate loans, denotes if the reported unpaid principal balance includes any deferred amount.	WITHDEFUPB = With Deferred UPB NODEFUPB = Without Deferred UPB 99 = Not Available	String		10		
SS-330	Interest-Bearing UPB	For reperforming, modified fixed-rate and modified step-rate loans, the aggregate interest bearing unpaid principal balance at the time of modification.		Numeric	14.2	17		
SS-331	Deferred UPB	For reperforming, modified fixed-rate and modified step-rate loans, the aggregate non-interest bearing amount at the time of modification. This amount does not contribute to MBS. The deferred amount is not included in the unpaid principal balance of the security and is not payable to the certificate holder.		Numeric	14.2	17		
SS-332	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-333	WA Interest Rate	For the stratified attribute, the weighted average interest rate of the loans in effect during the current reporting period.		Numeric	2.3	6		
SS-334	WA Estimated LTV (ELTV)	For the stratified attribute in reinstated, reperforming, modified fixed-rate and modified step-rate loans, the weighted average ratio obtained by dividing the outstanding balance of the mortgage loan by the estimated current value of the property obtained by the issuer, at the time of issuance.		Numeric		3		
SS-335	WA Updated Credit Score	For the stratified attribute in reinstated, reperforming, modified fixed-rate and modified step-rate loans, the weighted average most recently available standardized credit score provided at the time of issuance.		Numeric		4		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-336	WA Debt-to-Income (DTI) Ratio	For the stratified attribute in reinstated, reperforming, modified fixed-rate and modified step-rate loans, the weighted average ratio obtained by dividing the total monthly debt expense by the total monthly income of the borrower at the time the loan was originated or modified.		Numeric		3		
SS-337	Average Mortgage Loan Amount	For the stratified attribute in reinstated, reperforming, modified fixed-rate and modified step-rate loans, the simple average dollar amount of the loan as stated on the note at the time the loan was originated or modified. For reperforming, modified fixed-rate and modified step-rate loans, this value represents both the interest bearing and non-interest bearing amount.		Numeric	9.2	12		
SS-338	Property State 1	The abbreviation denoting the location of the property securing the loan for the stratified attribute. ~Ranked #1 by Investor Loan UPB		String		2		
SS-339	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security that are associated with Property State #1 (ranked by Investor Loan UPB).		Numeric	14.2	17		
SS-340	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security that are associated with Property State #1 (ranked by Investor Loan UPB).		Numeric	3.2	6		
SS-341	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security that are associated with Property State #1 (ranked by Investor Loan UPB).		Numeric		9		
SS-342	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security with Property State #1 (ranked by Investor Loan UPB).		Numeric	3.2	6		
SS-343	Property State 2	The abbreviation denoting the location of the property securing the loan for the stratified attribute. ~Ranked #2 by Investor Loan UPB		String		2		
SS-344	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security that are associated with Property State #2 (ranked by Investor Loan UPB).		Numeric	14.2	17		
SS-345	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security that are associated with Property State #2 (ranked by Investor Loan UPB).		Numeric	3.2	6		
SS-346	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security that are associated with Property State #2 (ranked by Investor Loan UPB).		Numeric		9		
SS-347	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security with Property State #2 (ranked by Investor Loan UPB).		Numeric	3.2	6		
SS-348	Property State 3	The abbreviation denoting the location of the property securing the loan for the stratified attribute. ~Ranked #3 by Investor Loan UPB		String		2		
SS-349	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security that are associated with Property State #3 (ranked by Investor Loan UPB).		Numeric	14.2	17		
SS-350	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security that are associated with Property State #3 (ranked by Investor Loan UPB).		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-351	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security that are associated with Property State #3 (ranked by Investor Loan UPB).		Numeric		9		
SS-352	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security with Property State #3 (ranked by Investor Loan UPB).		Numeric	3.2	6		
ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-353	Record Type = 31	Estimated Loan-to-Value (ELTV) Not Available Stratification For non-reperforming, modified fixed-rate and modified step-rate loans, this value will be populated, if applicable.		String		2	Applicable only if security characteristics apply.	
SS-354	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-355	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-356	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-357	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		String	14.2	17		
SS-358	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-359	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-360	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-361	Record Type = 32	Updated Credit Score Not Available Stratification For non-reperforming, modified fixed-rate and modified step-rate loans, this value will be populated, if applicable.		String		2	Applicable only if security characteristics apply.	
SS-362	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-363	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-364	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-365	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-366	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-367	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-368	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	**Attribute Name**	**Attribute Definition**	**Enumerations**	**Data Type**	**Format**	**Max Length**	**Notes**	**Calculations**
SS-369	Record Type = 33	Number of Remaining Steps Stratification		String		2	Not applicable to Fannie Mae.	
SS-370	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-371	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-372	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-373	Number of Remaining Steps	For reperforming, modified step-rate loans, the number of upward interest rate adjustments remaining.		Numeric		2		
SS-374	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-375	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-376	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-377	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	**Attribute Name**	**Attribute Definition**	**Enumerations**	**Data Type**	**Format**	**Max Length**	**Notes**	**Calculations**
SS-378	Record Type = 34	Number of Steps - At Modification Stratification		String		2	Not applicable to Fannie Mae.	
SS-379	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-380	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-381	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-382	Number of Steps - at Modification	For reperforming, modified step-rate loans, the number of upward interest rate adjustments at the time of modification.		Numeric		2		
SS-383	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-384	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-385	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-386	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-387	Record Type = 35	Next Step Rate Adjustment Date Stratification		String		2	Not applicable to Fannie Mae.	
SS-388	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-389	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-390	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-391	Next Step Rate Adjustment Date	For reperforming, modified step-rate loans, the month and year that the interest rate is scheduled to increase.		Date	MMCCYY	6		
SS-392	Projected WA Interest Rate	For reperforming, modified fixed-rate and modified step-rate loans, the projected weighted average of the expected interest rates in effect on the associated adjustment date, not accounting for prepayments.		Numeric	2.3	6		
SS-393	Projected WA Net Interest Rate	For reperforming, modified fixed-rate and modified step-rate loans, the projected weighted average of the expected interest rates in effect on the associated adjustment date, not accounting for prepayments less servicing fees and guarantor fees.		Numeric	2.3	6		
SS-394	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-395	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-396	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-397	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-398	Record Type = 36	Origination Loan-to-Value (LTV) Not Available Stratification For non-reperforming, modified fixed-rate and modified step-rate loans, this value will be populated, if applicable.		String		2	Applicable only if security characteristics apply.	
SS-399	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-400	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-401	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-402	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-403	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-404	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-405	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-406	Record Type = 37	Origination Combined Loan-to-Value (CLTV) Not Available Stratification For non-reperforming, modified fixed-rate and modified step-rate loans, this value will be populated, if applicable.		String		2	Applicable only if security characteristics apply.	
SS-407	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-408	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-409	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-410	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-411	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-412	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-413	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-414	Record Type = 38	Origination Debt-to-Income (DTI) Not Available Stratification		String		2	Applicable only if security characteristics apply.	
SS-415	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-416	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-417	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-418	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-419	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-420	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-421	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-422	Record Type = 39	Origination Borrower Credit Score Not Available Stratification		String		2	Applicable only if security characteristics apply.	
SS-423	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-424	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-425	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-426	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-427	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-428	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-429	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-430	Record Type = 40	Origination Loan Purpose Stratification		String		2	Applicable only if security characteristics apply.	
SS-431	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-432	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-433	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-434	Origination Loan Purpose	For reperforming, modified fixed-rate and modified step-rate loans, the classification of the loan as either a purchase money mortgage or a refinance mortgage at the time the loan was originated.	C = Refinance - Cash Out N = Refinance - No Cash Out R = Refinance - Not Specified P = Purchase M = Modified - Loss Mitigation 9 = Not Available	String		1		
SS-435	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-436	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-437	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-438	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-439	Record Type = 41	Origination Occupancy Status Stratification		String		2	Applicable only if security characteristics apply.	
SS-440	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-441	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-442	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-443	Origination Occupancy Status	For reperforming, modified fixed-rate and modified step rate loans, the classification describing the property occupancy status at the time the loan was originated.	P = Primary Residence S = Second Home I = Investment Property 9 = Not Available	String		1		
SS-444	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-445	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-446	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-447	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-448	Record Type = 42	Borrower Payment History Stratification		String		2	Not applicable to Fannie Mae.	
SS-449	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-450	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-451	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-452	Days Delinquent	For reperforming, modified and modified step-rate loans, the number of days for which a mortgage loan was reported delinquent.	0 = Current 1 = 30-59 2 = 60-89 3 = 90-119 4 = 120-149 5 = 150-179 6 = 180-209 7 = 210-239 8 = 240-269 9 = 270-299 10 = 300-329 11 = 330-359 12 = 360-389 13 = 390-419 14 = 420-449 15 = 450-479 16 = 480-509 17 = 510-539 18 = 540-569 19 = 570-599 20 = 600-629 21 = 630-659 22 = 660-689 23 = 690-719 24 = 720+	String		1		
SS-453	Borrower Payment Date	The month and year that the borrower was scheduled to remit payment. Up to 36-months of payment history		Date	MMCCYY	6		
SS-454	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-455	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-456	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-457	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-458	Record Type = 43	Collateral List		String		2	Applicable only at issuance for Single-Class resecuritizations.	
SS-459	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-460	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-461	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-462	Collateral Prefix	For each security that directly underlies the resecuritization, the designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-463	Collateral Security Identifier	For each security that directly underlies the resecuritization, the unique designation assigned to the security by the issuer.		String		6		
SS-464	Collateral CUSIP	For each security that directly underlies the resecuritization, the unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-465	Collateral Current WA Net Interest Rate	For each security that directly underlies the resecuritization, the weighted average interest rate of the loans in effect during the current reporting period less servicing fees and guarantor fees.		Numeric	2.3	6		
SS-466	Collateral Issue Date	For each security that directly underlies the resecuritization, the date on which the security was issued.		Date	MMDDCCYY	8		
SS-467	Collateral Issuer	The issuer for each security that directly underlies the resecuritization.		String		3		
SS-468	Collateral Maturity Date	The month and year in which the final payment on the underlying security is scheduled to be made at the time the underlying security was issued.		Date	MMCCYY	6		
SS-469	Collateral Issuance Investor Security UPB	For each security that directly underlies the resecuritization, the unpaid principal balance of the loans as they contribute to the balance of the security.		Numeric	12.2	15		
SS-470	Collateral Issuance Contributing Investor Security UPB	For each security that directly underlies the resecuritization, the pro-rata share of the Investor Security UPB - Issuance amount .		Numeric	12.2	15		
SS-471	Collateral Current Contributing Investor Security UPB	For each security that directly underlies the resecuritization, the pro-rata share of the Investor Security UPB - Current amount.		Numeric	12.2	15		
SS-472	Collateral WA Interest Rate at Settlement	For each security that directly underlies the resecuritization, the weighted average interest rate at the time of resecuritization.		Numeric	2.3	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-473	Collateral WA Remaining Months to Maturity at Settlement	For each security that directly underlies the resecuritization, the weighted average number of scheduled monthly payments that will reduce the Current Investor Loan UPB to zero at the time of resecuritization. For fixed-rate loans, this value takes into account the impact of any curtailments.		Numeric		3		
SS-474	Collateral WA Loan Age at Settlement	For each security that directly underlies the resecuritization, the weighted average number of scheduled payments from the time the loan was originated or modified up to and including the current reporting period at the time of resecuritization.		Numeric		3		
SS-475	Collateral Trust Identifier	For each security that directly underlies the resecuritization, an identifier assigned to the trust when established into a multiclass resecuritization.		String		50	Applicable only when underlying collateral is a REMIC.	
SS-476	Collateral Class Identifier	For each security that directly underlies the resecuritization, an identifier assigned to the class when established into a multiclass resecuritization.		String		4	Applicable only when underlying collateral is a REMIC.	
SS-477	Group Identifier	An identifier assigned to the group when established into a multiclass resecuritization.		String		5	Applicable only when underlying collateral is a REMIC or SMBS.	
ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-478	Record Type = 44	Property Valuation Method Stratification		String		2		
SS-479	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-480	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-481	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-482	Property Valuation Method	The method by which the value of the subject property was obtained.	A = Appraisal P = Onsite Property Data Collection R = GSE Targeted Refinance Programs W = Appraisal Waiver O = Other 7 = Not Applicable 9 = Not Available	String		1		
SS-483	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-484	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-485	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-486	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-487	Record Type = 45	Borrower Assistance Plan Stratification		String		2	Applicable only for monthly disclosure	
SS-488	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-489	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-490	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-491	Borrower Assistance Plan	The type of assistance plan that the borrower is enrolled in that provides temporary mortgage payment relief or an opportunity to cure a mortgage delinquency over a defined period.	F = Forbearance Plan R = Repayment Plan T = Trial Period Plan O = Other Workout Plan N = No Workout Plan 7 = Not Applicable 9 = Not Available	String		1	The data in this stratification will be published on a one-month delay due to the timing of our servicing reporting cycle. For example, the values in this stratification published in July 2020 correspond to the delinquency status in the Days Delinquen+H552t Stratification published in June 2020. For non-delinquent loans, for which a Borrower Assistance Plan is not reported by the Servicer, this attribute will be defaulted to Not Applicable. The field may be populated if the loan is reported current in days delinquent stratification.	
SS-492	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-493	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-494	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-495	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-496	Record Type = 46	Alternative Delinquency Resolution Stratification		String		2	Applicable only for monthly disclosure	
SS-497	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-498	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-499	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-500	Alternative Delinquency Resolutions	The loss mitigation solution that resolves delinquencies and help homeowners remain in their homes in accordance with the servicer's contractual obligation, while allowing the loan to remain in the security.	P = Payment Deferral C = COVID-19 Payment Deferral D = Disaster Payment Deferral M = Multiple Payment Deferrals O = Other 7 = Not Applicable 9 = Not Available	String		1	Multiple enumeration is not present at the loan-level. If number of alternative delinquency resolution is greater than 1, the record will be represented as Multiple.	
SS-501	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	14.2		
SS-502	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-503	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-504	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
SS-505	Total Deferral Amount	The total non-interest-bearing deferral amount related to one or more Alternative Delinquency Resolutions.		Numeric	14.2	14.2		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-506	Record Type = 47	Number of Alternative Delinquency Resolutions Stratification		String		2	Applicable only for monthly disclosure	
SS-507	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-508	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-509	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-510	Number of Alternative Delinquency Resolutions	The total number of Alternative Delinquency Resolutions as reported by the servicer for a specific loan.	1 2 3 4 5 >5	String		1		
SS-511	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	14.2		
SS-512	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-513	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-514	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
SS-515	Total Deferral Amount	The total non-interest-bearing deferral amount related to one or more Alternative Delinquency Resolutions.		Numeric	14.2	14.2		
ID	**Attribute Name**	**Attribute Definition**	**Enumerations**	**Data Type**	**Format**	**Max Length**	**Notes**	**Calculations**
SS-516	Record Type = 48	Borrower Assistance Plan Stratification		String		2	Not applicable to Fannie Mae.	
SS-517	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
SS-518	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-519	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-520	Borrower Assistance Plan	For a reperforming or modified loan in a newly issued security, the type of borrower assistance plan that the borrower was enrolled in at any time during the 36 months prior to issuance of such security.	F = Forbearance Plan R = Repayment Plan T = Trial Period Plan O = Other Workout Plan N = No Workout Plan 7 = Not Applicable 9 = Not Available	String		1		
SS-521	Borrower Payment Date	The month and year that the borrower was scheduled to remit payment.		Date	MMCCYY	6		
SS-522	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-523	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-524	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-525	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	**Attribute Name**	**Attribute Definition**	**Enumerations**	**Data Type**	**Format**	**Max Length**	**Notes**	**Calculations**
SS-526	Record Type = 49	Special Eligibility Program Stratification		String		2		
SS-527	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
SS-528	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
SS-529	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SS-530	Special Eligibility Program	A mortgage program with expanded eligibility criteria designed to increase and maintain home ownership.	H - Home Ready F - HFA Preferred R - RefiNow O - Other 7 - Not Applicable 9 - Not Available	String		4		
SS-531	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
SS-532	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
SS-533	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
SS-534	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculation
GM-01	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
GM-02	Issue Date	The date on which the security was issued.		Date	MMDDCCYY	8		
GM-03	Issuance Investor Security UPB	The aggregate unpaid principal balance of the loans as they contribute to the balance of the security at the time the security was issued.		Numeric	14.2	17		Sum (Issuance Investor Loan UPB)
GM-04	WA Current Interest Rate	The weighted average interest rate of the loans in effect during the current reporting period.		Numeric	2.3	6		(Sum ((Interest Rate) * (Current Investor Loan UPB))) / (Sum (Current Investor Loan UPB))
GM-05	WA Current Remaining Months to Maturity	The weighted average number of scheduled monthly payments that will reduce the Current Investor Loan UPB to zero. For fixed-rate loans, this value takes into account the impact of any curtailments.		Numeric		3		(Sum ((Loan Remaining Months to Maturity) * (Current Investor Loan UPB))) / (Sum (Current Investor Loan UPB)) • Round up to the nearest integer
GM-06	Prefix	The designation assigned by the issuer denoting the type of the loans and the security.		String		3		
GM-07	Product	The indicator denoting the type of security.	Mega	String		4		
GM-08	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
GM-09	WA Net Interest Rate	The weighted average interest rate of the loans at the time the security was issued less servicing fees and guarantor fees.		Numeric	2.5	8		(Sum ((Net Interest Rate) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB.
GM-10	Maturity Date	The month and year in which the final payment on the security is scheduled to be made at the time the security was issued.		Date	MMCCYY	6		
GM-11	Security Factor	The decimal value that, when multiplied by the Issuance Investor Security UPB amount, equals the Current Investor Security UPB amount.		Numeric	1.8	10		(Current Investor Loan UPB) / (Issuance Investor Loan UPB) • Round to eighth decimal
GM-12	WA Loan Age	The weighted average number of scheduled payments from the time the loans were originated or modified up to and including the current reporting period.		Numeric		3		(Sum ((Loan Age) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB.
GM-13	Scheduled Distribution Date	The date of the scheduled investor payment.		Date	MMCCYY	6		

GM-14	WA Issuance Interest Rate	The weighted average interest rate of the loans in effect at the time the security was issued.		Numeric	2.3	6		(Sum ((Interest Rate) * (Issuance Investor Loan UPB))) / (Sum (Issuance Investor Loan UPB))
GM-15	WA Issuance Remaining Months to Maturity	The weighted average number of scheduled monthly payments that will reduce the Investor Loan UPB to zero, at the time the security was issued.		Numeric		3		(Sum ((Loan Remaining Months to Maturity) * (Issuance Investor Loan UPB))) / (Sum (Issuance Investor Loan UPB)) • Round up to the nearest integer

Index Code	Index Description	Index Code	Index Description
001	11thdist_Dly_Guar_Rate	033	FRM_Conv_60Day_Posted_Yld_SA
002	CD_6Mo_Sec_Mrkt_Mnth_Avg	034	LIBOR_1Mo_BBA_Dly
003	CD_6Mo_Wkly	035	LIBOR_1Mo_WSJ_Dly
004	CMT_10Yr_Mnth	036	LIBOR_1Mo_WSJ
005	CMT_10Yr_Wkly_Avg	037	LIBOR_1Yr_WSJ
006	CMT_1Yr_Cuml_Avg_Prior12_Mnth_Avg	038	LIBOR_1Yr_WSJ_Dly
007	CMT_1Yr_Cuml_Mnth_Avg_4Wks_Wkly_Avg	039	LIBOR_3Mo_BBA_Dly
008	CMT_1Yr_Cuml_Avg_Prev12_Mnth_Avg	040	LIBOR_6Mo_BBA
009	CMT_1Yr_Mnth_Avg	041	LIBOR_6Mo_BBA_Dly
010	CMT_1Yr_Wkly_Avg	042	LIBOR_6Mo_WSJ
011	CMT_2Yr_Wkly_Avg	043	LIBOR_6Mo_WSJ_Dly
012	CMT_3Yr_Mnth_Avg	044	LIBOR_6Mo_WSJ_Mnth_Avg
013	CMT_3Yr_Wkly_Avg	045	MM_6Mo_Combank_Wkly
014	CMT_5Yr _Wkly_Avg	046	PRIM_MORT_MRKT_SRVY_PLUS (aka MIRS Transition Index)
015	CMT_5Yr_Mnth_Cuml_Avg_4Wks_Wkly_Avg	047	Ntl_Avg_Effective_Rate
016	CMT_5Yr_Mnth_Avg	048	Prime_WSJ_Dly
017	CMT_6Mo_Wkly_Avg	049	RNY_Fre_30Yr_60Day_Dly
018	CMT_7Yr_Mnth_Avg	050	Tbill_1Yr_Disc_Mnth_Avg
019	CMT_Blend_1Yr_Wkly_Avg	051	Tbill_1Yr_Disc_Wkly_Avg
020	COFI_12Mo_11thdist_Cuml_Avg	052	Tbill_6Mo_Cuml_Avg_Prev26_Wkly_Avg
021	11th District COFI Replacement Index Formerly 11th District COFI - Transition Feb2022	053	Tbill_6Mo_Disc_Cuml_Avg_Prev4_Wkly_Avg
022	COFI_1Mo_7thdist	054	Tbill_6Mo_Disc_Mnth_Avg
023	COFI_1Mo_Ntl_Mnth_Avg	055	Tbill_6Mo_Disc
024	COFI_6Mo_11thdist	056	Tbill_6Mo_Inv_Cuml_Avg_Prev4_Wkly_Avg
025	COFI_6Mo_Ca	057	Tbill_6Mo_Inv
026	COFI_Fed_Qrty_Avg	058	Tbill_6Mo_Sec_Wkly_Avg
027	COFI_Fre	059	ICE_5yr_Int_Rate_SWAP
028	COS_1Mo_Wellsfargo	060	COFI_1Mo_4thDist
029	FRM_Conv_30Day_Posted_Yld_AA	061	30-Day Average SOFR
030	FRM_Conv_30Day_Posted_Yld_SA	062	Tbill_1yr_Auct_Mnth_Avg
031	FRM_Conv_60Day_30Yr_Aa_Dly	063	CMT-1Yr_Mnth_Avg_Of_Wkly_Avg
032	FRM_Conv_60Day_Posted_Yld_AA	555	Mixed indices

Property State Code	Property State Description	Property State Code	Property State Description
AK	Alaska	MT	Montana
AL	Alabama	NC	North Carolina
AR	Arkansas	ND	North Dakota
AZ	Arizona	NE	Nebraska
CA	California	NH	New Hampshire
CO	Colorado	NJ	New Jersey
CT	Connecticut	NM	New Mexico
DC	District of Columbia	NV	Nevada
DE	Delaware	NY	New York
FL	Florida	OH	Ohio
GA	Georgia	OK	Oklahoma
GU	Guam	OR	Oregon
HI	Hawaii	PA	Pennsylvania
IA	Iowa	PR	Puerto Rico
ID	Idaho	RI	Rhode Island
IL	Illinois	SC	South Carolina
IN	Indiana	SD	South Dakota
KS	Kansas	TN	Tennessee
KY	Kentucky	TX	Texas
LA	Louisiana	UT	Utah
MA	Massachusetts	VA	Virginia
MD	Maryland	VI	Virgin Islands
ME	Maine	VT	Vermont
MI	Michigan	WA	Washington
MN	Minnesota	WI	Wisconsin
MO	Missouri	WV	West Virginia
MS	Mississippi	WY	Wyoming

Business Name	File Name [1]	Publication Date	Publication Timing	Process Cycle	Products	Archive Availability	Location
Deal Summary	FNM_DEAL#_SUMMARY.JSON	Print date (no later than 2 Business Days before settlement)	6:30 AM, 11:30 AM, 3:30 PM, 4:30 PM Eastern Time	Issuance	REMIC SMBS	Indefinitely	• SFTP • PoolTalk – Deal Section
Delay Floater Reset File Indices	FNM_RESET_D_YYYYMM. TXT	Business Day 1 2 Business Days before EOM	6:30 PM Eastern Time	Monthly	REMIC	Indefinitely	• SFTP • PoolTalk - Files & Reports Section
Excess Servicing Fee Monthly Security Factor File	FNM_ESF_MS_YYYYMM. TXT	Business Day 4	4:30 PM Eastern Time	Monthly	Excess Servicing Fee	Indefinitely	• SFTP • PoolTalk - Files & Reports Section
Excess Servicing Fee Monthly Security Supplemental File	FNM_ESF_MSS_YYYYMM. TXT	Business Day 4	4:30 PM Eastern Time	Monthly	Excess Servicing Fee	Indefinitely	• SFTP • PoolTalk - Files & Reports Section
Excess Servicing Fee Security Issuance File	FNM_DEAL#_ESF_IS_YYYYMM.TXT	2 Business Days before settlement date	Every 2 hours between 6:30 AM - 6:30 PM Eastern Time	Issuance	Excess Servicing Fee	Indefinitely	• SFTP • PoolTalk – Deal Section
Excess Servicing Fee Security Supplemental Issuance Files	FNM_DEAL#_ESF_ISS_YYYYMM. TXT	2 Business Days before settlement date	Every 2 hours between 6:30 AM - 6:30 PM Eastern Time	Issuance	Excess Servicing Fee	Indefinitely	• SFTP • PoolTalk – Deal Section
Excess Servicing Summary Report	FNM_Deal#_XIO.TXT	2 Business Days before settlement date	6:30 AM, 11:30 AM, 3:30 PM, 4:30 PM Eastern Time	Issuance	Excess Servicing Fee	Current month + 11 historical months	•PoolTalk - Files & Reports Section
Final Data Statements	FNM_Deal#_FDS.TXT FNM_Deal#_FDS.REV.TXT	Multiple times per deal process: Preliminary – collateral is delivered or updated Final – settlement date	Every 2 hours between 6:30 AM - 6:30 PM Eastern Time	Issuance	REMIC SMBS	Indefinitely	• SFTP • PoolTalk – Deal Section
No Delay Floater Reset File	NODELAY_YYYYMM.TXT	2 Business Days before Calendar Day 25	6:30 AM, 11:30 AM, 3:30 PM, 4:30 PM Eastern Time	Monthly	REMIC	Current month + 12 historical months	• SFTP • PoolTalk - Files & Reports Section
No Delay Floater Reset File Indices	FNM_RESET_ND_YYYYMM. TXT	Business Day 1 2 Business Days before Calendar Days 15,17,18,20,25		Monthly	REMIC	Indefinitely	• SFTP • PoolTalk - Files & Reports Section
PAC Schedule	FNM_DEAL#_PAC. TXT	Print date (no later than 2 Business Days before settlement)	6:30 AM, 11:30 AM, 3:30 PM, 4:30 PM Eastern Time	Issuance	REMIC	Indefinitely	• SFTP • PoolTalk – Deal Section
Prospectus Supplement	FNM_DEAL#_SUPPLEMENT	Print date (no later than 2 Business Days before settlement)	6:30 AM, 11:30 AM, 3:30 PM, 6:30 PM Eastern Time upon receipt	Issuance	REMIC SMBS	Indefinitely	• SFTP • PoolTalk – Deal Section
Recently Priced Dealer Report	FNM_DealerReport _YYYYMM.XLS FNM_DealerReport _YYYYMM.PDF	Print date (no later than 2 Business Days before settlement)	6:30 AM, 11:30 AM, 3:30 PM, 4:30 PM Eastern Time	Issuance	REMIC SMBS	Current month + 11 historical months	• PoolTalk - Files & Reports Section
Relay File	FNM_DEAL#_RELAY. TXT	Print date (no later than 2 Business Days before settlement)	6:30 AM, 11:30 AM, 3:30 PM, 4:30 PM Eastern Time	Issuance	REMIC SMBS	Indefinitely	• SFTP • PoolTalk – Deal Section
REMIC Collateral (RC) Loan Level File	RC_ YYYYMM.ZIP	1 Business Day after Calendar Day 27	6:30 AM, 11:30 AM, 3:30 PM, 4:30 PM Eastern Time	Monthly	REMIC	Current month + 12 historical months	• SFTP • PoolTalk - Files & Reports Section
REMIC Component File	FNM_REMIC_COMPONENT_YYYYMM_DD.TXT	Business Day 4	4:30 PM Eastern Time	Monthly	REMIC	Indefinitely	• SFTP • PoolTalk - Files & Reports Section

Business Name	File Name [1]	Publication Date	Publication Timing	Process Cycle	Products	Archive Availability	Location
REMIC Factor File	FNM_REMIC_YYYYMM_DD.TXT	Business Day 4 Business Day 8 Non-standard deals: 2 Business Days before Calendar Days 2,4,17,18,20,25	4:30 PM	Monthly	REMIC	Indefinitely	• SFTP • PoolTalk - Files & Reports Section
REMIC Shortfall File	FNM_REMIC_SHORT_YYYYMM_DD.TXT	Business Day 4 Business Day 8	4:30 PM	Monthly	REMIC	Indefinitely	• SFTP • PoolTalk - Files & Reports Section
Remittance Report	DEAL_YYYYMM_SUMMARY.PDF	1 Business Day after Calendar Day 27	6:30 AM, 11:30 AM, 3:30 PM, 4:30 PM Eastern Time	Monthly	REMIC	Current month + 12 historical months	• PoolTalk - Deal Section
SIFMA	SIFMA_YYYYMM.TXT	1 Business Day before Calendar Days 2,4, 17,18,20,25 File cumulative when published	6:30 AM, 11:30 AM, 3:30 PM, 4:30 PM Eastern Time	Monthly	REMIC	Current month + 12 historical months	• SFTP • PoolTalk - Files & Reports Section
SMBS Factor File	FNM_SMBS_YYYYMM_DD.TXT	Business Day 4 Business Day 8	4:30 PM	Monthly	SMBS	Indefinitely	• SFTP • PoolTalk - Files & Reports Section
Supplemental Factor	REMICSUP_YYYYMM.TXT	1 Business Day before Calendar Days 2,4, 17,18,20,25 File cumulative when published	6:30 AM, 11:30 AM, 3:30 PM, 4:30 PM Eastern Time	Monthly	REMIC	Current month + 12 historical months	• SFTP • PoolTalk - Files & Reports Section
WAS REMIC - Deal Level File	DEAL #_YYYYMM_DLS.PDF	1 Business Day after Calendar Day 27	6:30 AM, 11:30 AM, 3:30 PM, 4:30 PM Eastern Time	Monthly	REMIC	Current month + 12 historical months	• PoolTalk - Deal Section
WAS REMIC - Loan Level File	DEAL#_YYYYMM_LL.ZIP	1 Business Day after Calendar Day 27	6:30 AM, 11:30 AM, 3:30 PM, 4:30 PM Eastern Time	Monthly	REMIC	Current month + 12 historical months	• PoolTalk - Deal Section
WAS REMIC - Summary Report	DEAL#_YYYYMM__LLS.PDF	1 Business Day after Calendar Day 27	6:30 AM, 11:30 AM, 3:30 PM, 4:30 PM Eastern Time	Monthly	REMIC	Current month + 12 historical months	• PoolTalk - Deal Section
WAS Whole Loan & SMBS Pseudo Pool Report	WLPsuedo_YYYYMM.TXT	1 Business Day before Calendar Days 2,4, 17,18,20,25 File cumulative when published	6:30 AM, 11:30 AM, 3:30 PM, 4:30 PM Eastern Time	Monthly	REMIC	Current month + 12 historical months	• PoolTalk - Files & Reports Section
Whole Loan REMIC - Loan Level Report	DEAL#_YYYYMM_LLD.TXT	1 Business Day after Calendar Day 27	6:30 AM, 11:30 AM, 3:30 PM, 4:30 PM Eastern Time	Monthly	REMIC	Current month + 12 historical months	• PoolTalk - Deal Section
Whole Loan REMIC – Delinquency Report	DEAL#_WL_Delinquency_Report_YYYYMM.xls	Business Day 8	6:30 AM, 11:30 AM, 3:30 PM, 4:30 PM Eastern Time	Monthly	REMIC	Current month + 12 historical months	• PoolTalk - Deal Section

MM and DD in file name represents the posting date in the issuance and monthly files.

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculation
CL-01	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
CL-02	Issue Date	The date on which the security was issued.		Date	MMDDCCYY	8		
CL-03	Collateral Issuer	The issuer for each security that directly underlies the resecuritization.	FNM = Fannie Mae FRE = Freddie Mac GM = Ginnie Mae	String		3		
CL-04	Collateral Prefix	For each security that directly underlies the resecuritization, the designation assigned by the issuer denoting the type of the loans and the security at the time of resecuritization.		String		3		
CL-05	Collateral Security Identifier	For each security that directly underlies the resecuritization, the unique designation assigned to the security by the issuer.		String		6		
CL-06	Collateral CUSIP	For each security that directly underlies the resecuritization, the unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
CL-07	Collateral Current WA Net Interest Rate	For each security that directly underlies the resecuritization, the weighted average interest rate of the loans in effect during the current reporting period less servicing fees and guarantor fees.		Numeric	2.3	6		
CL-08	Collateral Issue Date	For each security that directly underlies the resecuritization, the date on which the security was issued.		Date	MMDDCCYY	8		
CL-09	Collateral Maturity Date	For each security that directly underlies the resecuritization, the month and year that the final scheduled payment on the loan is due at the time of resecuritization.		Date	MMCCYY	6		
CL-10	Collateral Issuance Investor Security UPB	For each security that directly underlies the resecuritization, the unpaid principal balance of the loans as they contribute to the balance of the security.		Numeric	12.2	15		
CL-11	Collateral Issuance Contributing Investor Security UPB	For each security that directly underlies the resecuritization, the pro-rata share of the Investor Issuance Security UPB amount.		Numeric	12.2	15		
CL-12	Collateral Current Contributing Investor Security UPB	For each security that directly underlies the resecuritization, the pro-rata share of the Current Investor Security UPB amount.		Numeric	12.2	15		
CL-13	Collateral WA Interest Rate at Settlement	For each security that directly underlies the resecuritization, the weighted average interest rate at the time of resecuritization.		Numeric	2.3	6		
CL-14	Collateral WA Remaining Months to Maturity at Settlement	For each security that directly underlies the resecuritization, the weighted average number of scheduled monthly payments that will reduce the Current Investor Loan UPB to zero at the time of resecuritization. *For fixed-rate loans, this value takes into account the impact of any curtailments.*		Numeric		3		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculation
CL-15	Collateral WA Loan Age at Settlement	For each security that directly underlies the resecuritization, the weighted average number of scheduled payments from the time the loan was originated or modified up to and including the current reporting period at the time of resecuritization.		Numeric		3		
CL-16	Collateral Trust Identifier	An identifier assigned to the trust when established into a multiclass resecuritization.		String		50	Applicable only for underlying REMIC collateral	
CL-17	Collateral Class Identifier	An identifier assigned to the class when established into a multiclass resecuritization.		String		5	Applicable only for underlying REMIC collateral	
CL-18	Group Identifier	An identifier assigned to the group when established into a multiclass resecuritization.		String		5	Applicable only for underlying REMIC and SMBS collateral	

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculation
RF-01	Trust Identifier	An identifier assigned to the trust when established into a multiclass resecuritization.		String		50		
RF-02	Class Identifier	An identifier assigned to the class when established into a multiclass resecuritization.		String		5		
RF-03	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
RF-04	Maturity Date	The month and year in which the final payment on the security is scheduled to be made at the time the security was issued.		Date	MMCCYY	6		
RF-05	Class Issuance Investor Security UPB	The unpaid principal balance of the security at the time the security was issued.		Numeric	14.2	17		
RF-06	Security Factor	The decimal value that, when multiplied by the Class Issuance Investor Security UPB amount, equals the Class Current Investor Security UPB amount.		Numeric	9.8	18		(Class Current Investor Security UPB)/(Class Issuance Investor Security UPB) • Round to eight decimal place
RF-07	Class Current Investor Security UPB	The unpaid principal balance of the security as of the current reporting period.		Numeric	14.2	17		Class Issuance Investor Security UPB * Security Factor
RF-08	Interest Rate	The rate at which interest is calculated to be paid on the security during the current period.		Numeric	12.6	19		
RF-09	Interest Factor	The decimal value that, when multiplied by Class Investor Security UPB amount (for prior reporting period), equals the amount of interest paid in the current period.		Numeric	9.8	18		(Interest Rate / 1.2) / 1000 • Round to eight decimal place
RF-10	Interest Paid	The amount of interest paid in the period to the certificateholder.		Numeric	14.2	17		Interest Factor * Class Issuance Investor Security UPB
RF-11	Principal Paydown Factor	The decimal value that, when multiplied by Class Investor Security UPB - Issuance amount, equals the amount of principal paid in the current period.		Numeric	9.8	18		(Class Current Investor Security UPB)/ (Class Issuance Investor Security UPB) • Round to eight decimal place
RF-12	Principal Paydown Amount	The amount of principal paid in the period to the certificateholder.		Numeric	14.2	17		Principal Paydown Factor * Class Issuance Investor Security UPB
RF-13	Accretion Factor	The decimal value that, when multiplied by Class Investor Security UPB - Issuance, equals the amount of accrued but unpaid interest that has been added in the current period to the unpaid principal balance of the security.		String	9.8	18		Security Accretion Amount / Class Issuance Investor Security UPB • Round to eight decimal place
RF-14	Accretion Amount	The amount of accrued but unpaid interest that has been added in the current period to the unpaid principal balance of the security.		String	14.2	17		
RF-15	Scheduled Distribution Date	The date of the scheduled investor payment.		Date	MMCCYY	6		
RF-16	Yield Maintenance Premium/ Penalty Amount	The prepayment premium allowing investors to attain the same yield as if the borrower made all scheduled mortgage payments until maturity.		Numeric	14.2	17	Not applicable for Fannie Mae issued securities	
RF-17	Notes	Additional information about the loans in the security.		String		2048		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculation
SF-01	Trust Identifier	An identifier assigned to the trust when established into a multiclass resecuritization.		String		50		
SF-02	Class Identifier	An identifier assigned to the class when established into a multiclass resecuritization.		String		5		
SF-03	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SF-04	Maturity Date	The month and year in which the final payment on the security is scheduled to be made at the time the security was issued.		Date	MMCCYY	6		
SF-05	Class Issuance Investor Security UPB	The unpaid principal balance of the security at the time the security was issued.		Numeric	14.2	17		
SF-06	Security Factor	The decimal value that, when multiplied by the Class Issuance Investor Security UPB amount, equals the Class Current Investor Security UPB amount.		Numeric	9.8	18		(Class Current Investor Security UPB)/(Class Issuance Investor Security UPB) • Round to eight decimal place
SF-07	Class Current Investor Security UPB	The unpaid principal balance of the security as of the current reporting period.		Numeric	14.2	17		Class Issuance Investor Security UPB * Security Factor
SF-08	Interest Rate	The rate at which interest is calculated to be paid on the security during the current period.		Numeric	12.6	19		
SF-09	Interest Factor	The decimal value that, when multiplied by Class Investor Security UPB amount (for prior reporting period), equals the amount of interest paid in the current period.		Numeric	9.8	18		(Interest Rate / 1.2) / 1000 • Round to eight decimal place
SF-10	Interest Paid	The amount of interest paid in the period to the certificateholder.		Numeric	14.2	17		Interest Factor * Class Issuance Investor Security UPB
SF-11	Principal Paydown Factor	The decimal value that, when multiplied by Class Investor Security UPB - Issuance amount, equals the amount of principal paid in the current period.		Numeric	9.8	18		(Class Current Investor Security UPB)/ (Class Issuance Investor Security UPB) • Round to eight decimal place
SF-12	Principal Paydown Amount	The amount of principal paid in the period to the certificateholder.		Numeric	14.2	17		Principal Paydown Factor * Class Issuance Investor Security UPB
SF-13	Accretion Factor	The decimal value that, when multiplied by Class Investor Security UPB - Issuance, equals the amount of accrued but unpaid interest that has been added in the current period to the unpaid principal balance of the security.		String	9.8	18		Security Accretion Amount / Class Issuance Investor Security UPB • Round to eight decimal place
SF-14	Accretion Amount	The amount of accrued but unpaid interest that has been added in the current period to the unpaid principal balance of the security.		String	14.2	17		
SF-15	Scheduled Distribution Date	The date of the scheduled investor payment.		Date	MMCCYY	6		
SF-16	Yield Maintenance Premium/ Penalty Amount	The prepayment premium allowing investors to attain the same yield as if the borrower made all scheduled mortgage payments until maturity.		Numeric	14.2	17	Not applicable for Fannie Mae issued securities	
SF-17	Notes	Additional information about the loans in the security.		String		2048		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculation
CF-01	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
CF-02	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
CF-03	Component Identifier	The unique alpha and/or numeric designation assigned to each group in the sub-deal.		String		3	Last Character in Class in current state	
CF-04	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
CF-05	Class Issuance Investor Security UPB	The unpaid principal balance of the security as of issuance at the component level.		Numeric	14.2	17		
CF-06	Security Factor	The decimal value that, when multiplied by the Class Issuance Investor Security UPB amount, equals the Class Current Investor Security UPB amount at the component level.		Numeric	9.8	18		(Class Component Current Investor Security UPB)/(Class Component Issuance Investor Security UPB) • Round to eight decimal place
CF-07	Interest Rate	The rate at which interest is calculated to be paid on the security during the current period at the component level.		Numeric	12.6	19		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculation
SFF-01	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
SFF-02	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
SFF-03	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
SFF-04	Current Shortfall Amount	The difference between the interest payments received from the underlying collateral and the interest distribution to be paid to investors in the security in the current reporting period.		Numeric	14.2	17		Collateral Interest Payments - Interest Paid to Investors
SFF-05	Cumulative Shortfall Amount	The cumulative difference between the interest payments received from the underlying collateral and the interest distributions paid to investors in the security.		Numeric	14.2	17		Prior Period Shortfall Amount + Current Period Shortfall Amount

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculation
X-01	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
X-02	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
X-03	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
X-04	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
X-05	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
X-06	Issue Date	The date on which the security was issued.		Date	MMDDCCYY	8		
X-07	WA Class Identifier	The indicator denoting the pseudo pool is a weighted average or a fixed strip percentage.	Y = Yes N = No	String		1		
X-08	WA Excess Strip Percent	The weighted average percentage of excess servicing stripped from the collateral.		Numeric	2.9	12		(Sum ((loan excess strip percent) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) for all active loans in pseudo pool *100 • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB.
X-09	Maturity Date	The month and year in which the final payment on the security is scheduled to be made at the time the security was issued.		Date	MMCCYY	6		
X-10	Updated Longest Maturity Date	The updated month and year in which the final payment on the security is scheduled to be made based on the longest maturity date of the remaining loans in the security.		Date	MMCCYY	6		
X-11	Issuance Investor Security UPB	The aggregate unpaid principal balance of the loans as they contribute to the balance of the security at the time the security was issued.		Numeric	14.2	17		Sum (Issuance Investor Loan UPB)
X-12	Current Investor Security UPB	The aggregate unpaid principal balance of the loans as they contribute to the current balance of the security.		Numeric	14.2	17		Sum (Current Investor Loan UPB) • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB.
X-13	WA Net Interest Rate	The weighted average interest rate of the loans at the time the security was issued less servicing fees and guarantor fees.		Numeric	2.5	8		(Sum ((Net Interest Rate) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB.

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculation
X-14	WA Net Interest Rate with Excess Contribution Percent	The weighted average interest rate of the loans at the time the security was issued less servicing fees and guarantor fees, which is additionally weighted by the applicable Excess Yield Rates of those loans.		Numeric	2.3	6		((Sum ((Net Interest Rate) * (Investor Loan UPB)*loan strip percent)) / (Sum (Investor Loan UPB) * (loan excess strip percent)) • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB.
X-15	WA Issuance Interest Rate	The weighted average interest rate of the loans in effect at the time the security was issued.		Numeric	2.3	6		(Sum ((Interest Rate) * (Issuance Investor Loan UPB))) / (Sum (Issuance Investor Loan UPB))
X-16	WA Issuance Interest Rate with Excess Contribution Percent	The weighted average interest rate of the loans in effect at the time the security was issued, which is additionally weighted by the applicable Excess Yield Rates of those loans.		Numeric	2.3	6		((Sum ((Interest Rate) * (Investor Loan UPB)*loan strip percent)) / (Sum (Investor Loan UPB) * (loan excess strip percent))
X-17	WA Current Interest Rate	The weighted average interest rate of the loans in effect during the current reporting period.		Numeric	2.3	6		(Sum ((Interest Rate) * (Current Investor Loan UPB))) / (Sum (Current Investor Loan UPB))
X-18	WA Current Interest Rate with Excess Contribution Percent	The weighted average interest rate of the loans in effect during the current reporting period, which is additionally weighted by the applicable Excess Yield Rates of those loans.		Numeric	2.3	6		((Sum ((Interest Rate) * (Investor Loan UPB)*loan strip percent)) / (Sum (Investor Loan UPB) * (loan excess strip percent))
X-19	WA Issuance Remaining Months to Maturity	The weighted average number of scheduled monthly payments that will reduce the Investor Loan UPB to zero, at the time the security was issued. *For fixed-rate loans, this value takes into account the impact of any curtailments.*		Numeric		3		(Sum ((Loan Remaining Months to Maturity) * (Issuance Investor Loan UPB))) / (Sum (Issuance Investor Loan UPB)) • Round up to the nearest integer
X-20	WA Issuance Remaining Months to Maturity with Excess Contribution Percent	The weighted average number of scheduled monthly payments that will reduce the Investor Loan UPB to zero, at the time the security was issued, which is additionally weighted by the applicable Excess Yield Rates of those loans. *For fixed-rate loans, this value takes into account the impact of any curtailments.*		Numeric		3		((Sum ((Loan Remaining Months to Maturity) * (Investor Loan UPB)*loan strip percent)) / (Sum (Investor Loan UPB) * (loan excess strip percent)) • Round up to the nearest integer
X-21	WA Current Remaining Months to Maturity	The weighted average number of scheduled monthly payments that will reduce the Current Investor Loan UPB to zero. *For fixed-rate loans, this value takes into account the impact of any curtailments.*		Numeric		3		(Sum ((Loan Remaining Months to Maturity) * (Current Investor Loan UPB))) / (Sum (Current Investor Loan UPB)) • Round up to the nearest integer. • During the month of issuance the WA Issuance Remaining Months to Maturity value would be the same as the WA Current Remaining Months to Maturity value.

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculation
X-22	WA Current Remaining Months to Maturity with Excess Contribution Percent	The weighted average number of scheduled monthly payments that will reduce the Investor Loan UPB to zero, at the time the security was issued, which is additionally weighted by the applicable Excess Yield Rates of those loans. *For fixed-rate loans, this value takes into account the impact of any curtailments.*		Numeric		3		((Sum ((Loan Remaining Months to Maturity) * (Investor Loan UPB)*loan strip percent)) / (Sum (Investor Loan UPB) * (loan excess strip percent)) • Round up to the nearest integer. • During the month of issuance, the WA Issuance Remaining Months to Maturity value would be the same as the WA Current Remaining Months to Maturity value.
X-23	WA Loan Age	The weighted average number of scheduled payments from the time the loans were originated or modified up to and including the current reporting period.		Numeric		3		(Sum ((Loan Age) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer. • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB.
X-24	WA Loan Age with Excess Contribution Percent	The weighted average number of scheduled payments from the time the loans were originated or modified up to and including the current reporting period, which is additionally weighted by the applicable Excess Yield Rates of those loans.		Numeric		3		((Sum ((Loan Age) * (Investor Loan UPB)*loan strip percent)) / (Sum (Investor Loan UPB) * (loan excess strip percent)) • Round to the nearest integer. • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB.
X-25	WA Loan Term	The weighted average number of months in which regularly scheduled borrower payments are due.		Numeric		3		(Sum ((Loan Term) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer. • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB.
X-26	WA Loan Term with Excess Contribution Percent	The weighted average number of months in which regularly scheduled borrower payments are due, which is additionally weighted by the applicable Excess Yield Rates of those loans.		Numeric	3	3		((Sum ((Loan Term) *(Investor Loan UPB)*loan strip percent)) / (Sum (Investor Loan UPB) * (loan excess strip percent)) • Round to the nearest integer. • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB.

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculation
X-27	WA Mortgage Loan Amount	The weighted average dollar amount of the loans as stated on the notes at the time the loans were originated or modified. *For reperforming, modified fixed-rate and modified step-rate loans, this value represents both the interest bearing and non-interest bearing amount.*		Numeric	9.2	12		(Sum ((Mortgage Loan Amount) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Mortgage Loan Amount is rounded to the nearest thousand. • If Mortgage Loan Amount < $500, set to actual value. • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB.
X-28	WA Mortgage Loan Amount with Excess Contribution Percent	The weighted average dollar amount of the loans as stated on the notes at the time the loans were originated or modified, which is additionally weighted by the applicable Excess Yield Rates of those loans. *For performing, modified fixed-rate and modified step-rate loans, this value represents both the interest bearing and non-interest bearing amount.*		Numeric	9.2	12		(Sum ((Mortgage Loan Amount) * (Investor Loan UPB)*loan strip percent)) / (Sum (Investor Loan UPB) * (loan excess strip percent)) • Mortgage Loan Amount is rounded to the nearest thousand. • If Mortgage Loan Amount < $500, set to actual value. • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB.
X-29	Average Mortgage Loan Amount	The simple average dollar amount of the loans as stated on the notes at the time the loans were originated or modified. *For reperforming, modified fixed-rate and modified step-rate loans, this value represents both the interest bearing and non-interest bearing amount.*		Numeric	9.2	12		(Sum (Mortgage Loan Amount)) / (Count (Loans in Pool)) • Mortgage Loan Amount is rounded to the nearest thousand. • If Mortgage Loan Amount < $500, set to actual value. • For Loan Count in Pool, the issuance file calculation is based upon the issuance date loan count and the monthly file calculation is based upon the current loan count.
X-30	WA Loan-To-Value (LTV)	The weighted average ratio, expressed as a percentage, obtained by dividing the amount of the loans at origination by the value of the properties. Property value reflects either the lesser of the sales price or the appraised property value for a purchase, or the appraised property value for a refinance. *For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.*		Numeric		3		(Sum ((LTV Ratio) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer. • LTV ratios < 1% or > 998% will be excluded from the WA LTV calculation. • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Loan UPB and the monthly file calculation is based upon the Current Loan UPB.

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculation
X-31	WA Loan-To-Value (LTV) with Excess Contribution Percent	The weighted average ratio, expressed as a percentage, obtained by dividing the amount of the loans at origination by the value of the properties, which is additionally weighted by the applicable Excess Yield Rates of those loans. Property value reflects either the lesser of the sales price or the appraised property value for a purchase, or the appraised property value for a refinance. *For performing, modified fixed-rate and modified step-rate loans, this value will be blank.*		Numeric		3		((Sum ((LTV Ratio) * (Investor Loan UPB)*loan strip percent)) / (Sum (Investor Loan UPB) * (loan excess strip percent)) • Round to the nearest integer. • LTV ratios < 1% or > 998% will be excluded from the WA LTV calculation. • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Loan UPB and the monthly file calculation is based upon the Current Loan UPB.
X-32	WA Combined Loan-To-Value (CLTV)	The weighted average ratio, expressed as a percentage, obtained by dividing the amount of all known outstanding loans at origination by the value of the properties. Property value reflects either the lesser of the sales price or the appraised property value for a purchase, or the appraised property value for a refinance. *For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.*		Numeric		3		(Sum ((CLTV) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer. •The CLTV ratio will be disclosed as "Not Available," indicated by 999, if the ratio is <1% or >998%. • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB.
X-33	WA Combined Loan-To-Value (CLTV) with Excess Contribution Percent	The weighted average ratio, expressed as a percentage, obtained by dividing the amount of all known outstanding loans at origination by the value of the properties, which is additionally weighted by the applicable Excess Yield Rates of those loans. Property value reflects either the lesser of the sales price or the appraised property value for a purchase, or the appraised property value for a refinance. *For performing, modified fixed-rate and modified step-rate loans, this value will be blank.*		Numeric		3		((Sum ((CLTV) * (Investor Loan UPB)*loan strip percent)) / (Sum (Investor Loan UPB) * (loan excess strip percent)) • Round to the nearest integer. • The CLTV ratio will be disclosed as "Not Available," indicated by 999, if the ratio is <1% or >998%. • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Investor Loan UPB and the monthly file calculation is based upon the Current Investor Loan UPB.
X-34	WA Debt-To-Income (DTI)	The weighted average ratio obtained by dividing the total monthly debt expenses by the total monthly incomes of the borrowers at the time the loans were originated or modified.		Numeric		3		(Sum ((DTI) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer. • If value is < 1 or > 65, it will be disclosed as "Not Available," indicated by 999 and will be excluded from the WA DTI Ratio calculation. • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Loan UPB and the monthly file calculation is based upon the Current Loan UPB.

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculation
X-35	WA Debt-To-Income (DTI) with Excess Contribution Percent	The weighted average ratio obtained by dividing the total monthly debt expenses by the total monthly incomes of the borrowers at the time the loans were originated or modified, which is additionally weighted by the applicable Excess Yield Rates of those loans.		Numeric		3		(Sum ((DTI) * (Investor Loan UPB))) / (Sum (Investor Loan UPB) * (loan excess strip percent)) • Round to the nearest integer. • If value is < 1 or > 65, it will be disclosed as "Not Available," indicated by 999 and will be excluded from the WA DTI Ratio calculation. • For Investor Loan UPB, the issuance file calculation is based upon the Issuance Loan UPB and the monthly file calculation is based upon the Current Loan UPB.
X-36	WA Borrower Credit Score	The weighted average standardized credit score used to evaluate the borrower during the loan origination process. *For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.*		Numeric		4		(Sum ((Borrower Credit Score) * (Investor Loan UPB))) / (Sum (Investor Loan UPB)) • Round to the nearest integer. • If credit score is < 300 or > 850, the loan is excluded from the WA Borrower Credit Score calculation. • The issuance file calculation is based upon the Issuance Investor Loan UPB. The monthly file calculation is based upon the Scheduled Investor Loan UPB.
X-37	WA Borrower Credit Score with Excess Contribution Percent	The weighted average standardized credit score used to evaluate the borrower during the loan origination process, which is additionally weighted by the applicable Excess Yield Rates of those loans. *For performing, modified fixed-rate and modified step-rate loans, this value will be blank.*		Numeric		4		((Sum ((Borrower Credit Score) * (Investor Loan UPB)*loan strip percent)) / (Sum (Investor Loan UPB) * (loan excess strip percent)) • Round to the nearest integer. • If credit score is < 300 or > 850, the loan is excluded from the WA Borrower Credit Score calculation. • The issuance file calculation is based upon the Issuance Investor Loan UPB. The monthly file calculation is based upon the Scheduled Investor Loan UPB.
X-38	Loan Count	The total number of loans in the security.		Numeric		9		
X-39	Third Party Origination UPB Percent	The percentage of the aggregate Investor Loan UPB that were originated by a third party, to include Broker and Correspondent originations. For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.		Numeric	3.2	6		Sum (Investor Loan UPB for Channel = Broker) + (Investor Loan UPB for Channel = Correspondent)) / (Sum (Investor Loan UPB)
X-40	Seller Name	The name of the entity that sold the loans to the issuer.		String		100		
X-41	Servicer Name	The name of the entity that services the loan during the current reporting period.		String		100		
X-42	Involuntary Loan Removal (Loan Count)	The number of loans that were purchased from the security due to delinquency status during the current reporting period.		Numeric		9	Applicable only for Monthly Disclosure	Sum (Prior Month Investor Loan UPB where Loan Liquidation Status Type = "Delinquency")

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculation
X-43	Involuntary Loan Removal (Prior Month UPB)	The aggregate prior period Investor Loan UPB of the loans that were purchased from the security due to delinquency status during the current reporting period.		Numeric	14.2	17	Applicable only for Monthly Disclosure	Count (Loans in Pool where Loan Liquidation Status Type = "Delinquency")
X-44	Security Factor Date	The month and year on which the corresponding factor is effective.		Date	MMCCYY	6		
X-45	Notes	Additional information about the loans in the security.		String		2048		

Security Supplemental File Record Type Description			
Record Type #	Record Type Description	Record Type #	Record Type Description
1	Deciles	11	Number of Units Stratification
2	Loan-To-Value (LTV) Not Available Stratification	12	Property Type Stratification
3	Combined Loan-To-Value (CLTV) Not Available Stratification	13	Channel Stratification
4	Debt-To-Income (DTI) Not Available Stratification	14	Property State Stratification
5	Borrower Credit Score Not Available Stratification	15	Seller Name Stratification
6	Days Delinquent Stratification	16	Servicer Name Stratification
7	Number of Borrowers Stratification	17	Mortgage Insurance Coverage Stratification
8	First Time Home Buyer Stratification	18	Mortgage Insurance Cancellation Indicator Stratification
9	Loan Purpose Stratification	19	Government Insured/Guarantee Stratification
10	Occupancy Status Stratification	20	Origination Year Stratification

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 01	Record Type = 1	Deciles		String		2		
XI - 02	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
XI - 03	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
XI - 04	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
XI - 05	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 06	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
XI - 07	Decile	Based on the Current Investor UPB for all of the active loans in a security, distributed across the following decile data points: MIN, 10%, 20%, 30%, 40%, MED, 60%, 70%, 80%, 90%. MAX	MAX 90 80 70 60 MED 40 30 20 10 MIN	String		3		
XI - 08	Mortgage Loan Amount	The dollar amount of the loan as stated on the note at the time the loan was originated or modified. For reperforming, modified fixed-rate and modified step-rate loans, this value represents both the interest bearing and non-interest bearing amount.		Numeric	9.2	12	Privacy Masking: Rounded to nearest thousand if > $500	
XI - 09	Interest Rate	The interest rate of the loan in effect during the current reporting period.		Numeric	2.3	6		
XI - 10	Current Net Interest Rate	The interest rate of the loan in effect during the current reporting period less servicing fees and guarantor fees.		Numeric	2.3	6		
XI - 11	Loan Term	For fixed-rate, adjustable-rate and interest-only mortgages, the number of scheduled monthly payments of the mortgage, between the first payment date and the maturity date of the mortgage.		Numeric		3		
XI - 12	Remaining Months to Maturity	The number of remaining months that will reduce the Current Investor Loan UPB to zero. For fixed-rate loans, this value takes into account the impact of any curtailments.		Numeric		3		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 13	Loan Age	The number of months from the time the loan was originated or modified up to and including the current reporting period.		Numeric		4		
XI - 14	Loan-to-Value (LTV)	The ratio, expressed as a percentage, obtained by dividing the amount of the loan at origination by the value of the property. Value of the property reflects either the lesser of the sales price or the property value at purchase or refinance. For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.		Numeric		3		
XI - 15	Combined Loan-to-Value (CLTV)	The ratio, expressed as a percentage, obtained by dividing the amount of all known outstanding loans at origination by the value of the property. Value of the property reflects either the lesser of the sales price or the property value at purchase or refinance. For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.		Numeric		3		
XI - 16	Debt-to-Income (DTI)	The ratio obtained by dividing the total monthly debt expense by the total monthly income of the borrower at the time the loan was originated or modified.		Numeric		3		
XI - 17	Borrower Credit Score	The standardized credit score used to evaluate the borrower during the loan origination process. For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.		Numeric		4		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 18	Record Type = 2	Loan-to-Value (LTV) Not Available Stratification For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.		String		2	Applicable only if security characteristics apply.	
XI - 19	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
XI - 20	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
XI - 21	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
XI - 22	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 23	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
XI - 24	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 25	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
XI - 26	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
XI - 27	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	Attribute Name	Attribute Definition		Data Type	Format	Max Length	Notes	Calculations
XI - 28	Record Type = 3	Combined Loan-to-Value (CLTV) Not Available Stratification For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.		String		2	Applicable only if security characteristics apply.	
XI - 29	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
XI - 30	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
XI - 31	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
XI - 32	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 33	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
XI - 34	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
XI - 35	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
XI - 36	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
XI - 37	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 38	Record Type = 4	Debt-to-Income (DTI) Not Available Stratification		String		2	Applicable only if security characteristics apply.	
XI - 39	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
XI - 40	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
XI - 41	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 42	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 43	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
XI - 44	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
XI - 45	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
XI - 46	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
XI - 47	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	**Attribute Name**	**Attribute Definition**	**Enumerations**	**Data Type**	**Format**	**Max Length**	**Notes**	**Calculations**
XI - 48	Record Type = 5	Borrower Credit Score Not Available Stratification For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.		String		2	Applicable only if security characteristics apply.	
XI - 49	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
XI - 50	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
XI - 51	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
XI - 52	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 53	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
XI - 54	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
XI - 55	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
XI - 56	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
XI - 57	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	**Attribute Name**	**Attribute Definition**	**Enumerations**	**Data Type**	**Format**	**Max Length**	**Notes**	**Calculations**
XI - 58	Record Type = 6	Days Delinquent Stratification		String		2	Applicable only for monthly disclosure	

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 59	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
XI - 60	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
XI - 61	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
XI - 62	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 63	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
XI - 64	Days Delinquent	The number of days for which a mortgage loan has been reported delinquent.	0 = Current 1 = 30-59 2 = 60-89 3 = 90-119 4 = 120-149 5 = 150-179 6 = 180-209 7 = 210-239 8 = 240-269 9 = 270-299 10 = 300-329 11 = 330-359 12 = 360-389 13 = 390-419 14 = 420-449 15 = 450-479 16 = 480-509 17 = 510-539 18 = 540-569 19 = 570-599 20 = 600-629 21 = 630-659 22 = 660-689 23 = 690-719 24 = 720+	String		1		
XI - 65	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
XI - 66	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
XI - 67	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
XI - 68	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 69	Record Type = 7	Number of Borrowers Stratification		String		2		
XI - 70	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
XI - 71	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
XI - 72	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
XI - 73	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 74	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
XI - 75	Number of Borrowers	The number of borrowers who, at the time the loan is originated, are obligated to repay the loan.	1 2 >2 99 = Not Available	String		2		
XI - 76	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
XI - 77	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
XI - 78	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
XI - 79	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 80	Record Type = 8	First Time Homebuyer Stratification		String		2		
XI - 81	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
XI - 82	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
XI - 83	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
XI - 84	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 85	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 86	First Time Homebuyer	The indicator denoting whether a borrower on the loan qualifies as a first-time homebuyer.	Y = Yes N = No 9 = Not Available	String		1		
XI - 87	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
XI - 88	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
XI - 89	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
XI - 90	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 91	Record Type = 9	Loan Purpose Stratification		String		2		
XI - 92	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
XI - 93	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
XI - 94	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
XI - 95	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 96	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
XI - 97	Loan Purpose	The classification describing the purpose of the loan.	C = Refinance - Cash Out N = Refinance - No Cash Out R = Refinance - Not Specified P = Purchase M = Modified - Loss Mitigation 9 = Not Available	String		1		
XI - 98	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
XI - 99	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
XI - 100	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
XI - 101	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 102	Record Type = 10	Occupancy Status Stratification		String		2		
XI - 103	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
XI - 104	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
XI - 105	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
XI - 106	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 107	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
XI - 108	Occupancy Status	The classification describing the property occupancy status at the time the loan was originated. For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.	P = Primary Residence S - Second Home I = Investment Property 9 = Not Available	String		1		
XI - 109	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
XI - 110	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
XI - 111	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
XI - 112	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 113	Record Type = 11	Number of Units Stratification		String		2		
XI - 114	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
XI - 115	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
XI - 116	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
XI - 117	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 118	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 119	Number of Units	The number of dwelling units in the mortgaged property at the time the loan was originated.	1 = 1 2 = 2 3 = 3 4 = 4 99 = Not Available	Numeric		2		
XI - 120	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
XI - 121	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
XI - 122	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
XI - 123	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 124	Record Type = 12	Property Type Stratification		String		2		
XI - 125	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
XI - 126	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
XI - 127	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
XI - 128	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 129	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
XI - 130	Property Type	The classification describing the type of property that secures the loan.	CP = Cooperative CO = Condominium PU = Planned Unit Development SF = Single-Family MH = Manufactured Housing 99 = Not Available	String		2		
XI - 131	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 132	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
XI - 133	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
XI - 134	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 135	Record Type = 13	Channel Stratification		String		2		
XI - 136	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
XI - 137	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
XI - 138	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
XI - 139	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 140	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
XI - 141	Channel	The origination channel used by the party that delivered the loan to the issuer. For reperforming, modified fixed-rate and modified step-rate loans, this value will be blank.	R = Retail B = Broker C = Correspondent T = Third Party Origination - Not Specified 9 = Not Available	String		1		
XI - 142	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
XI - 143	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
XI - 144	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
XI - 145	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 146	Record Type = 14	Property State Stratification		String		2	See Appendix B	
XI - 147	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
XI - 148	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 149	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
XI - 150	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 151	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
XI - 152	Property State	The abbreviation denoting the location of the property securing the loan.		String		2		
XI - 153	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
XI - 154	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
XI - 155	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
XI - 156	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 157	Record Type = 15	Seller Name Stratification		String		2		
XI - 158	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
XI - 159	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
XI - 160	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
XI - 161	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 162	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
XI - 163	Seller Name	The name of the entity that sold the loan to the issuer.		String		100	Will not be updated after issuance, regardless of mergers/acquisitions.	
XI - 164	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
XI - 165	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
XI - 166	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
XI - 167	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 168	Minimum Loan Age	For the stratified attribute, the minimum number of scheduled payments from the time the loan was originated or modified up to and including the current reporting period.		Numeric		3		
XI - 169	Maximum Loan Age	For the stratified attribute, the maximum number of scheduled payments from the time the loan was originated or modified to and including the current reporting period.		Numeric		3		
XI - 170	Minimum Interest Rate	For the stratified attribute, the minimum interest rate of the loan in effect during the current reporting period.		Numeric	2.3	6		
XI - 171	Maximum Interest Rate	For the stratified attribute, the maximum interest rate of the loan in effect during the current reporting period.		Numeric	2.3	6		
XI - 172	Minimum Remaining Months to Maturity	For the stratified attribute, the minimum number of scheduled monthly payments that will reduce the Current Investor Loan UPB to zero.		Numeric		3		
XI - 173	Maximum Remaining Months to Maturity	For the stratified attribute, the maximum number of scheduled monthly payments that will reduce the Current Investor Loan UPB to zero.		Numeric		3		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 174	Record Type = 16	Servicer Name Stratification		String		2		
XI - 175	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
XI - 176	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
XI - 177	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
XI - 178	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 179	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
XI - 180	Servicer Name	The name of the entity that services the loan during the current reporting period. Will reflect servicer names contributing > 1% of the Current Investor Security UPB.	< 1%	String		100	Servicer names contributing < 1% of the Current Investor Security UPB will be aggregated and reflected in the < 1% enumeration	
XI - 181	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
XI - 182	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 183	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
XI - 184	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		
XI - 185	Minimum Loan Age	For the stratified attribute, the minimum number of scheduled payments from the time the loan was originated or modified up to and including the current reporting period.		Numeric		3		
XI - 186	Maximum Loan Age	For the stratified attribute, the maximum number of scheduled payments from the time the loan was originated or modified up to and including the current reporting period.		Numeric		3		
XI - 187	Minimum Interest Rate	For the stratified attribute, the minimum interest rate of the loan in effect during the current reporting period.		Numeric	2.3	6		
XI - 188	Maximum Interest Rate	For the stratified attribute, the maximum interest rate of the loan in effect during the current reporting period.		Numeric	2.3	6		
XI - 189	Minimum Remaining Months to Maturity	For the stratified attribute, the minimum number of scheduled monthly payments that will reduce the Current Investor Loan UPB to zero.		Numeric		3		
XI - 190	Maximum Remaining Months to Maturity	For the stratified attribute, the maximum number of scheduled monthly payments that will reduce the Current Investor Loan UPB to zero.		Numeric		3		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 191	Record Type = 17	Mortgage Insurance Coverage Stratification		String		2		
XI - 192	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
XI - 193	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
XI - 194	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
XI - 195	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 196	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
XI - 197	Mortgage Insurance Coverage	The mortgage insurance coverage in effect at the time the security was issued.	WITHMI = Loans With Mortgage Insurance NOMI = Loans Without Mortgage Insurance 999 = Not Available	String		6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 198	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
XI - 199	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
XI - 200	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
XI - 201	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 202	Record Type = 18	Mortgage Insurance Cancellation Indicator Stratification		String		2		
XI - 203	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
XI - 204	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
XI - 205	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
XI - 206	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 207	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
XI - 208	Mortgage Insurance Cancellation Indicator	The indicator denoting whether the mortgage insurance has been cancelled after the security was issued.	Y = Yes N = No 7 = Not Applicable	String		1		
XI - 209	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
XI - 210	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
XI - 211	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
XI - 212	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 213	Record Type = 19	Government Insured/Guarantee Stratification		String		2	Applicable only to Government Insured/Guarantee loans.	
XI - 214	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 215	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
XI - 216	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
XI - 217	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 218	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
XI - 219	Government Insured/Guarantee	The classification describing the Government Insured/Guarantee Program, if any, covering the loan.	FH = FHA VA = Veterans Affairs RH = Rural Housing IH = Section 184 Indian Home 99 = Not Available	String		2		
XI - 220	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		
XI - 221	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
XI - 222	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
XI - 223	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 224	Record Type = 20	Origination Year Stratification		String		2		
XI - 225	Trust Identifier	The unique alpha and/or numeric designation assigned to each deal.		String		50		
XI - 226	Class Identifier	The unique alpha and/or numeric designation assigned to each sub-deal.		String		5		
XI - 227	Issuer	The name of the entity that issued the security.	FNM = Fannie Mae	String		3		
XI - 228	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9		
XI - 229	Security Identifier	The unique designation assigned to the security by the issuer.		String		6		
XI - 230	Origination Year	The year of origination of the loans in the security.		Date	CCYY	4		
XI - 231	Aggregate Investor Loan UPB	For the stratified attribute, the sum of the Investor Loan UPB for the loans in the security.		Numeric	14.2	17		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculations
XI - 232	Percentage Investor Loan UPB	For the stratified attribute, the percentage of the Investor Loan UPB for the loans in the security.		Numeric	3.2	6		
XI - 233	Aggregate Loan Count	For the stratified attribute, the total number of loans in the security.		Numeric		9		
XI - 234	Percentage Loan Count	For the stratified attribute, the percentage of loans in the security.		Numeric	3.2	6		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	Notes	Calculation
FI-01	Index	The index code on which adjustments to the interest rate are based.		String				
FI-02	Index Value	The value of the index on which adjustments to the interest rate are based.		Numeric	2.5			
FI-03	Index Description	The description of the index in which adjustments to the interest rate are based.		String				
FI-04	Current Month Payment	The index will be used to calculate the current month payment.	Y = Yes N = No	String				

Business Name	File Name [1]	Publication Date	Publication Timing	Process Cycle	Products	Archive Availability	Location
Single-Class Tax Type File	FNM_SCTAX_Q#YYYY.TYP within a zip file FNM_SCTAX_Q#YYYY_*.ZIP	Jan 30th, April 30th, July 30th and Oct 30th by 5:00 PM eastern time	Quarterly	Fixed length TXT format with ZIP extension Quarterly Files are Cumulative Year to Date	MBS UMBS MEGA SUPERS	Indefinitely	• SFTP • PoolTalk - Files & Reports Section
Single-Class Tax Factor File	FNM_SCTAX_Q#YYYY.FAC within a zip file FNM_SCTAX_Q#YYYY_*.ZIP	Jan 30th, April 30th, July 30th and Oct 30th by 5:00 PM eastern time	Quarterly	Fixed length TXT format with ZIP extension Quarterly Files are Cumulative Year to Date	MBS UMBS MEGA SUPERS	Indefinitely	• SFTP • PoolTalk - Files & Reports Section
Multiclass Tax Type File	FNM_MCTAX_Q#YYYY.TYP within a zip file FNM_MCTAX_Q#YYYY_*.ZIP	Jan 30th, April 30th, July 30th and Oct 30th by 5:00 PM eastern time	Quarterly	Fixed length TXT format with ZIP extension Quarterly Files are Cumulative Year to Date	REMIC SMBS Grantor Trust	Indefinitely	• SFTP • PoolTalk - Files & Reports Section
Multiclass Tax Factor File	FNM_MCTAX_Q#YYYY.FAC within a zip file FNM_MCTAX_Q#YYYY_*.ZIP	Jan 30th, April 30th, July 30th and Oct 30th by 5:00 PM eastern time	Quarterly	Fixed length TXT format with ZIP extension Quarterly Files are Cumulative Year to Date	REMIC SMBS Grantor Trust	Indefinitely	• SFTP • PoolTalk - Files & Reports Section

[1] If the date falls on a weekend or holiday, the file will be published on the next business day.

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	End Position	Notes	Calculation
1	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9	9		
2	Filler	Not applicable		Space		1	10		
3	Security / Trust Identifier	The unique designation assigned to the security by the issuer.		String		8	18		
4	Filler	Not applicable		Space		1	19		
5	Class	An identifier assigned to the class when established into a multiclass re-securitization.		String		8	27	Applicable to Multiclass securities only	
6	Filler	Not applicable		Space		1	28		
7	Security Classification	The type of trust established for the security for tax reporting purposes.	WHMT REMIC	String		5	33	WHMT= Widely Held Fixed Investment Trust REMIC - Real Estate Mortgage Investment Conduit	
8	Filler	Not applicable		Space		1	34		
9	Class Issued With	The type of discount in which the class was issued.	DEMINIMUS PAR PREMIUM	String		13	47		
10	Filler	Not applicable		Space		1	48		
11	Interest Class	The tax status of interest earned on security.	Non Qualified Qualified	String		13	61		
12	Filler	Not applicable		Space		1	62		
13	Interest accrual method	The method for accruing interest. It is assumed month has 30 days and year consists of 360 days.	30/360	String		7	69		
14	Filler	Not applicable		Space		1	70		
15	Original Amount	The aggregate unpaid principal balance of the loans as they contribute to the balance of the security at the time the security was issued.		String		12	82		
16	Filler	Not applicable		Space		1	83		
17	Issuer's Tax Identification (TIN)	The unique identifier received from the Internal Revenue Service and used to identify each security for tax purposes.		String	xx-xxxxxxx	10	93		
18	Filler	Not applicable		Space		1	94		
19	Issuer Name	An alphanumeric designation used to identify the issuing entity.	Federal National Mortgage Association	String		50	144		
20	Filler	Not applicable		Space		1	145		
21	Filler	Not applicable		String		50	195		
22	Filler	Not applicable		Space		1	1		
23	Issuer Address	The physical address for the issuing entity.	Midtown Center, 1100 15th St, NW, Washington, DC 20005	String		50	246		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	End Position	Notes	Calculation
1	CUSIP	The unique designation assigned to the security by the Committee on Uniform Securities Identification Procedures (CUSIP).		String		9	9		
2	Filler	Not applicable		Space		1	10		
3	Days in Period	The number of days from the beginning of the accrual period to the end of the accrual period within the current tax year.		String		3	13		
4	Filler	Not applicable		Space		1	14		
5	Beginning of Accrual Period	The date of which the accrual period begins.		Date	YYYYMMDD	10	24	• Single-Class securities are left justified • Multiclass securities are right justified	
6	Filler	Not applicable		Space		1	25		
7	End of Accrual Period	The date of which the accrual period ends.		Date	YYYYMMDD	10	35	• Single-Class securities are left justified • Multiclass securities are right justified	
8	Filler	Not applicable		Space		1	36		
9	Payment Date	The date principal and interest is paid to the investor.		Date	YYYYMMDD	10	46	• Single-Class securities are left justified • Multiclass securities are right justified	
10	Filler	Not applicable		Space		1	47		
11	Ending UPB Factor	The decimal value that, when multiplied by the Issuance Investor Security UPB amount, equals the Current Investor Security UPB amount.		Numeric	5.8	14	61		•(Current Investor Security UPB)/ (Issuance Investor Security UPB) •Round to eighth decimal
12	Filler	Not applicable		Space		1	62		
13	QSI Factor	The qualified stated interest per $1000 of Par.		Numeric	5.8	14	76		
14	Filler	Not applicable		Space		1	77		
15	OID Factor	The original issue discount per $1000 of Par.		Numeric	5.8	14	91		
16	Filler	Not applicable		Space		1	92		
17	Other Income / Expense Factor			Numeric	5.8	14	106	• Not applicable for Fannie Mae • Populated with zeroes	
18	Filler	Not applicable		Space		1	107		
19	Section 212 Expense Factor	The Section 212 servicing expenses per $1000 of par.		Numeric	5.8	14	121		

ID	Attribute Name	Attribute Definition	Enumerations	Data Type	Format	Max Length	End Position	Notes	Calculation
20	Filler	Not applicable		Space		1	122		
21	AIP at Beginning of Period Factor	The adjusted issue price at beginning of accrual period per $1000 of par.		Numeric	5.8	14	136		
22	Filler	Not applicable		Space		1	137		
23	Market Discount Accrual Ratio	The fraction of unamortized market discount that should be accrued for the period per $1000 of Par.		Numeric	5.8	14	151		
Tax	Filler	Not applicable		Space		1	152		
25	Real Estate Percentage	The real estate percentage of qualifying assets.		Numeric	4.2	7	159		

Item #	File/Attribute	Change	Publish Date	Version
Version 1.0 published – June 2019				
Version 1.1 published – August 2019				
Version 1.2 published – September 2019				
Version 1.3 published – November 2019				
Version 1.4 published – March 2020				
Version 1.5 published – May 2020				
Version 1.6 published – May 2020				
Version 1.7 published – September 2020				
Version 1.8 published – October 2020				
Version 1.9 published – January 2021				
Version 1.10 published – May 2021				
Version 1.11 published – Aug 2021				
Version 1.12 published – Sept. 2021				
1	Updated Appendex for Index 46	Appendix A - Indices		1.13
2	Updated Appendex for Index 21 - COFI	Appendix A - Indices		1.13



Contact Us

Please contact Investor Relations & Marketing with questions:

Web: www.Fanniemae.com/AskCM

Phone: 1-800-232-6643, option 3

Sign up for Fannie Mae's Capital Markets news and updates:

www.Fanniemae.com/CMSignup

© 2022 Fannie Mae