Appendix C: Data Attributes, Definitions, and Enumerations for Single-Class Single Security Disclosures

This appendix provides information on the data that Fannie Mae and Freddie Mac will disclose on single-class Single Securities. Single-class securities are those where each investor receives a proportional share of all the principal and interest payments on the underlying collateral.

The body of the appendix consists of five tables. Each table lists data attributes to be disclosed for single-class First- and/or Second-Level Securities. Separate sections of each table provide a definition and the allowable values ("enumerations") of each data attribute. Where a data attribute requires an actual value, the enumeration section is blank.

Table 1 provides the loan-level data attributes that will be disclosed for single-class First-Level Single Securities. Note that the geographical indicator of the location of the property and any masking of other numeric data attributes are yet to be determined.

Table 2 provides the core security-level data attributes that will be disclosed for single-class First- and Second-Level Single Securities. The core data attributes provide security-specific information, e.g., Issue Date and Pool Factor, or data derived by aggregating loan-level data, e.g., Weighted Average Borrower Credit Score.

Table 3 provides the security-level data attributes for which quartile values will be disclosed for single-class First- and Second-Level Single Securities.

Table 4 provides the security-level data attributes for which stratified data will be disclosed by their corresponding enumerations for single-class First- and Second-Level Single Securities. Note that the data type, code, and length values are not provided in this table, as the values will reflect those of the corresponding loan-level data attributes.

Table 5 provides the data attributes that will be disclosed for single-class Second-Level Single Securities and for the securities directly underlying Second-Level Single Securities.

Fannie Mae and Freddie Mac may refine the information on the data they will disclose for single-class Single Securities presented in this appendix. Such refinements will be made public.

Table 1: Loan-Level Data for First-Level Single Securities

Reference #	Single Security Attribute Name	Single Security Attribute Definition	Enumerations	Data Type	Code	Length
LL - 01	Loan Identifier	The unique alpha and/or numeric designation assigned to each loan.		Alpha-Numeric		12
LL - 02	Mortgage Loan Amount	The dollar amount of the loan as stated on the note at the time the loan was originated.		Numeric		9 digits before the decimal, 2 digits after
LL - 03	Investor Loan UPB - Issuance	The unpaid principal balance (UPB) of the loan as it contributes to the balance of the security at the time the security was issued.		Numeric		9 digits before the decimal, 2 digits after
LL - 04	Investor Loan UPB - Current	The unpaid principal balance (UPB) of the loan as it contributes to the current balance of the security.		Numeric		9 digits before the decimal, 2 digits after
LL - 05	Amortization Type	The indicator showing whether the interest rate on the loan is fixed-rate or adjustable-rate.	Fixed-Rate Adjustable-Rate	Alpha	FRM = Fixed-Rate ARM = Adjustable-Rate	3
LL - 06	Interest Rate - Origination	The interest rate of the loan as stated on the note at the time the loan was originated.		Numeric		2.3
LL - 07	Interest Rate - Issuance	The interest rate of the loan in effect at the time the security was issued.		Numeric		2.3
LL - 08	Interest Rate - Current	The interest rate of the loan in effect during the current reporting period.		Numeric		2.3
LL - 09	Net Interest Rate - Issuance	The interest rate of the loan at the time the security was issued, less applicable servicing and guarantee fees.		Numeric		2.3

Appendix C: Data Attributes, Definitions, and Enumerations for Single-Class Single Security Disclosures

Table 1: Loan-Level Data for First-Level Single Securities

Reference #	Single Security Attribute Name	Single Security Attribute Definition	Enumerations	Data Type	Code	Length
LL - 10	Net Interest Rate - Current	The interest rate of the loan in effect during the current reporting period, less applicable servicing and guarantee fees.		Numeric		2.3
LL - 11	First Payment Date	The due date of the first scheduled payment on the loan.		Date		MMCCYY
LL - 12	Maturity Date	The month and year in which the final payment on the loan is scheduled to be made at the time the loan was originated.		Date		MMCCYY
LL - 13	Loan Term	The number of months between loan origination and the loan maturity date.		Numeric		3
LL - 14	Remaining Months to Maturity	The number of scheduled monthly payments that, after giving effect to curtailments, will reduce the Investor Loan UPB - Current to zero.		Numeric		3
LL - 15	Loan Age	The number of scheduled payments from the time the loan was originated up to and including the current reporting period.		Numeric		3 Value can be Negative
LL - 16	Loan-To-Value (LTV)	The ratio obtained by dividing the amount of the mortgage loan at origination by either the lesser of the sales price or the appraised property value for a purchase or the appraised property value for a refinance.		Numeric	999 = Not Available	3

Appendix C: Data Attributes, Definitions, and Enumerations for Single-Class Single Security Disclosures

Table 1: Loan-Level Data for First-Level Single Securities

Reference #	Single Security Attribute Name	Single Security Attribute Definition	Enumerations	Data Type	Code	Length
LL - 17	Combined Loan-To-Value (CLTV)	The ratio obtained by dividing the amount of all known outstanding mortgage loans at origination by either the lesser of the sales price or the appraised property value for a purchase or the appraised property value for a refinance.		Numeric	999 = Not Available	3
LL - 18	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.		Numeric	999 = Not Available	3
LL - 19	Borrower Credit Score	The standardized credit score used to evaluate the borrower during the loan origination process.		Numeric	999 = Not Available	3
LL - 20	Number of Borrowers	The number of borrowers who are obligated to repay the loan at the time the loan was originated.	1 2 3 4 5 6 7 8 9 10 Not Available	Numeric	01 02 03 04 05 06 07 08 09 10 99 = Not Available	2
LL - 21	First Time Home Buyer Indicator	The indicator showing whether the borrower is a first time home buyer.	Yes No Not Available	Alpha-Numeric	Y = Yes N = No 9 = Not Available	1

Appendix C: Data Attributes, Definitions, and Enumerations for Single-Class Single Security Disclosures

Table 1: Loan-Level Data for First-Level Single Securities

Reference #	Single Security Attribute Name	Single Security Attribute Definition	Enumerations	Data Type	Code	Length
LL - 22	Loan Purpose	The indicator that describes the purpose of the loan.	Purchase Refinance - Not Specified Refinance - Cash Out Refinance - No Cash Out Not Available	Alpha-Numeric	C = Refinance - Cash Out N = Refinance - No Cash Out R = Refinance - Not Specified P =Purchase 9 - Not Available	1
LL - 23	Occupancy Status	The indicator that describes the property occupancy status at the time the loan was originated.	Primary Residence Second Home Investment Property Not Available	Alpha-Numeric	P = Primary Residence S = Second Home I= Investment Property 9 = Not Available	1
LL - 24	Number of Units	The number of dwelling units in the mortgaged property at the time the loan was originated.	1 2 3 4 Not Available	Numeric	01 02 03 04 99 = Not Available	2
LL - 25	Property Type	The indicator that describes the type of property that secures the loan.	Cooperative Condominium Planned Unit Development Single-Family Manufactured Housing Not Available	Alpha-Numeric	CP = Cooperative CO = Condominium PU = Planned Unit Development SF = Single-Family MH = Manufactured Housing 99 = Not Available	2

Appendix C: Data Attributes, Definitions, and Enumerations for Single-Class Single Security Disclosures

Table 1: Loan-Level Data for First-Level Single Securities

Reference #	Single Security Attribute Name	Single Security Attribute Definition	Enumerations	Data Type	Code	Length
LL - 26	Channel	The indicator that describes the source from which the issuer obtained the loan.	Broker Correspondent Retail Third Party Origination - Not Specified Not Available	Alpha-Numeric	R = Retail B = Broker C = Correspondent T = Third Party Origination - Not Specified 9 = Not Available	1
LL - 27	Geographical Indicator	The indicator used to determine the location of the property.		TBD	TBD	TBD
LL - 28	Seller Name	The name of the entity that sold the loan to the Issuer.		Alpha		50
LL - 29	Servicer Name	The name of the entity that services the loan during the current reporting period.		Alpha		50
LL - 30	Mortgage Insurance Percentage	The percentage of mortgage insurance coverage obtained at origination in effect at the time the security was issued.	"Value" No MI Not Available	Numeric	000= No MI 999=Not Available	3
LL - 31	Mortgage Insurance Cancellation Indicator	An indicator that denotes if the mortgage insurance has been cancelled after the time the security was issued.	Yes No Not Applicable	Alpha-Numeric	Y = Yes N = No 7 = Not Applicable	2
LL - 32	Loan Correction Indicator	The indicator that denotes if any of the attributes for the loan have changed from previous disclosures.	Yes No Added Deleted	Alpha	Y = Yes N = No A = Added D = Deleted	1
LL - 33	File Creation Date	The date that the file was generated		Date		MMDDCCYY

Table 2: Core Security-Level Data for First-and Second-Level Single Securities

Reference #	Single Security Attribute Name	Single Security Attribute Definition	Enumerations	Data Type	Code	Length
Core - 01	Prefix	The designation assigned by the Issuer which denotes the terms of the loans and security.		Alpha-Numeric		3
Core - 02	Security Identifier	The unique designation assigned by the Issuer to the security.		Alpha-Numeric		6
Core - 03	CUSIP	The unique designation assigned by the CUSIP Service Bureau to the security.		Alpha-Numeric		9
Core - 04	Security Description	The unique designation of the security including abbreviated FED CODE , WA Net Interest Rate, Prefix and Security Identifier.		Alpha-Numeric		20
Core - 05	Issuer	The name of the entity that issued the security.	Fannie Mae Freddie Mac	Alpha	FNM = Fannie Mae FRE = Freddie Mac	3
Core - 06	Issue Date	The date on which the security was issued.		Date		MMDDCCYY
Core - 07	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
Core - 08	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 active loans in the security.		Date		MMCCYY
Core - 09	Investor Security UPB - Issuance	The aggregate Investor Loan UPB - Issuance of the loans as they contribute to the balance of the security at the time the security was issued.		Numeric		14.2

Table 2: Core Security-Level Data for First-and Second-Level Single Securities

Reference #	Single Security Attribute Name	Single Security Attribute Definition	Enumerations	Data Type	Code	Length
Core - 10	Investor Security UPB - Current	The aggregate Investor Loan UPB - Current of the loans as they contribute to the balance of the security.		Numeric		14.2
Core - 11	Security Factor	The decimal value that, when multiplied by Investor Security UPB - Issuance amount, equals the Investor Security UPB - Current amount.		Numeric		1.8
Core - 12	WA Net Interest Rate	The weighted average Net Interest Rate of the active loans in the security.		Numeric		2.3
Core - 13	WA Interest Rate - Issuance	The weighted average Interest Rate - Issuance of the loans at the time the security was issued.		Numeric		2.3
Core - 14	WA Interest Rate - Current	The weighted average Interest Rate - Current of the active loans in the security.		Numeric		2.3
Core - 15	WA Remaining Months to Maturity - Current	The weighted average Remaining Months to Maturity of the active loans in the security during the current reporting period.		Numeric		3
Core - 16	WA Remaining Months to Maturity - Issuance	The weighted average Remaining Months to Maturity of the loans at the time the security was issued.		Numeric		3
Core - 17	WA Loan Age	The weighted average Loan Age of the active loans in the security.		Numeric		3
Core - 18	WA Loan Term	The weighted average Loan Term of the active loans in the security.		Numeric		3
Core - 19	WA Mortgage Loan Amount	The weighted average Mortgage Loan Amount of the active loans in the security.		Numeric		9.2

Appendix C: Data Attributes, Definitions, and Enumerations for Single-Class Single Security Disclosures

Table 2: Core Security-Level Data for First-and Second-Level Single Securities

Reference #	Single Security Attribute Name	Single Security Attribute Definition	Enumerations	Data Type	Code	Length
Core - 20	Average Mortgage Loan Amount	The simple average Mortgage Loan Amount of the active loans in the security.		Numeric		9.2
Core - 21	WA Loan-To-Value (LTV)	The weighted average Loan-To-Value (LTV) ratio of the active loans in the security.		Numeric		3
Core - 22	WA Combined Loan-To-Value (CLTV)	The weighted average Combined Loan-To-Value (CLTV) ratio of the active loans in the security.		Numeric		3
Core - 23	WA Debt-To-Income (DTI)	The weighted average Debt-To-Income (DTI) ratio of the active loans in the security.		Numeric		3
Core - 24	WA Borrower Credit Score	The weighted average Borrower Credit Score of the active loans in the security.		Numeric		3
Core - 25	Loan Count	The total number of active loans in the security.		Numeric		9
Core - 26	Third Party Origination UPB Percent	The percentage of the aggregate Investor Loan UPB of the active loans in the security that were originated by a third party, to include Broker and Correspondent originations.		Numeric		3.2
Core - 27	Seller Name	The name of the entity that sold the loans to the Issuer.		Alpha		100
Core - 28	Seller City	The city of the address of the entity that sold the loans to the Issuer.		Alpha		50
Core - 29	Seller State	The state or territory of the address of the entity that sold the loans to the Issuer.		Alpha		2
Core - 30	Servicer Name	The name of the entity that services the loans in the security.		Alpha		100

Appendix C: Data Attributes, Definitions, and Enumerations for Single-Class Single Security Disclosures

Table 2: Core Security-Level Data for First-and Second-Level Single Securities

Reference #	Single Security Attribute Name	Single Security Attribute Definition	Enumerations	Data Type	Code	Length
Core - 31	Delinquent Loans Purchased (Loan Count)	The number of loans that were purchased from the security due to delinquency status during the current reporting period.		Numeric		9
Core - 32	Delinquent Loans Purchased (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
Core - 33	Security Data Correction Indicator	The indicator used to denote the data correction status of the security based on the current reporting period.		Alpha	Y = Yes N = No	1
Core - 34	Security Status Indicator	The indicator used to denote the status of the security based on the current reporting period.	Active Paid Off Collapsed Dissolved	Alpha	A = Active P = Paid Off C = Collapsed D = Dissolved	1
Core - 35	Security Notification Indicator	The indicator used to denote that the disclosure is preliminary and subject to change.	Preliminary Final Not Applicable	Alpha-Numeric	P = Preliminary F = Final 7 = Not Applicable	1
Core - 36	Eligible for Resecuritization	The indicator used to denote that the security is eligible for resecuritization.	Y = Yes N = No	Alpha	Y = Yes N = No	1
Core - 37	Security Factor Date	The date on which the corresponding factor is effective.		Date		MMDDCCYY

Table 3: Quartile Data for First-and Second-Level Single Securities

Ref #	Attribute Name	Attribute Definition	Data Type	Code	Length
Quar - 01	Mortgage Loan Amount	Quartile of Mortgage Loan Amount for the active loans in the security.	Numeric		14.2
Quar - 02	Interest Rate	Quartile of Interest Rate for the active loans in the security.	Numeric		2.3
Quar - 03	Loan Term	Quartile of Loan Term for the active loans in the security.	Numeric		3
Quar - 04	Loan Age	Quartile of Loan Age for the active loans in the security.	Numeric		4
Quar - 05	Remaining Months to Maturity	Quartile of Remaining Months to Maturity for the active loans in the security.	Numeric		3
Quar - 06	Loan-To-Value (LTV)	Quartile of Loan-To-Value (LTV) ratio for the active loans in the security.	Numeric		3
Quar - 07	Combined Loan-To-Value (CLTV)	Quartile of Combined Loan-To-Value (CLTV) ratio for the active loans in the security.	Numeric		3
Quar - 08	Borrower Credit Score	Quartile of Borrower Credit Score for the active loans in the security.	Numeric		3
Quar - 09	Debt-To-Income (DTI)	Quartile of Debt-To-Income (DTI) ratio for the active loans in the security.	Numeric		3

Quartiles are based on the Investor UPB of all the active loans in the security across the following quartile data points: Minimum, 25%, Median, 75%, Maximum

Minimum	25%	Median	75%	Maximum
The minimum value associated to the distribution of the [attribute] when distributed into groups having equal frequencies.	The single value associated to the 25th percentile of the distribution of the [attribute] when distributed into groups having equal frequencies.	The single value associated to the 50th percentile of the distribution of the [attribute] when distributed into groups having equal frequencies.	The single value associated to the 75th percentile of the distribution of the [attribute] when distributed into groups having equal frequencies.	The maximum value associated to the distribution of the [attribute] when distributed into groups having equal frequencies.

Table 4: Security Stratified Data for First-and Second-Level Single Securities

Reference #	Single Security Attribute Name	Single Security Attribute Definition	Enumerations
Strat - 01	Borrower Credit Score Not Available	The stratification by Borrower Credit Scores that are not available for the active loans in the security.	
Strat - 02	Channel	The stratification by Channel of the active loans in the security.	Broker Correspondent Retail Third Party Origination - Not Specified Not Available
Strat - 03	Combined Loan-To-Value (CLTV) Not Available	The stratification by Combined Loan-To-Value (CLTV) ratios that are not available for the active loans in the security.	
Strat - 04	Days Delinquent	The stratification by the number of days the loans are delinquent of the active loans in the security.	30-59 60-89 90-119 120+
Strat - 05	Debt-To-Income (DTI) Not Available	The stratification by Debt-To-Income (DTI) ratios that are not available for the active loans in the security.	
Strat - 06	First Time Home Buyer Indicator	The stratification by First Time Home Buyer Indicator of the active loans in the security.	Yes No Not Available
Strat - 07	Geographical Indicator	The stratification by Geographical Indicator of the active loans in the security.	To be determined

Table 4: Security Stratified Data for First-and Second-Level Single Securities

Reference #	Single Security Attribute Name	Single Security Attribute Definition	Enumerations
Strat - 08	Loan Purpose	The stratification by Loan Purpose of the active loans in the security.	Purchase Refinance - Not Specified Refinance - Cash Out Refinance - No Cash Out Not Available
Strat - 09	Loan-To-Value (LTV) Not Available	The stratification by Loan-To-Value (LTV) ratios that are not available for the active loans in the security.	
Strat - 10	Mortgage Insurance Cancellation Indicator	The stratification by Mortgage Insurance Cancellation Indicator of the active loans in the security.	Yes No Not Applicable
Strat - 11	Mortgage Insurance Coverage	The stratification by the presence of mortgage insurance at the time the security was issued, of the active loans in the security.	Loans With Mortgage Insurance Loans Without Mortgage Insurance
Strat - 12	Non-Standard Loan Type	The stratification by the non-standard loan products of the loans in the security at the time the security was issued. Not Applicable for Single Class Resecuritizations This stratification will only be provided at the time the security was issued.	Cooperative FHFA High Cost Area Interest-rate buydown Relocation

Table 4: Security Stratified Data for First-and Second-Level Single Securities

Reference #	Single Security Attribute Name	Single Security Attribute Definition	Enumerations
Strat - 13	Not Paying Principal in First Distribution	The stratification by the loans that will not receive a principal distribution in the first investor payment, at the time the security was issued. This stratification will only be provided at the time the security was issued.	
Strat - 14	Number of Borrowers	The stratification by Number of Borrowers of the active loans in the security.	1 2 >2 Not Available
Strat - 15	Number of Units	The stratification by Number of Units of the active loans in the security.	1 2 3 4 Not Available
Strat - 16	Occupancy Status	The stratification by Occupancy Status of the active loans in the security.	Primary Residence Second Home Investment Property Not Available
Strat - 17	Origination Year	The stratification by the year of origination of the active loans in the security.	

Table 4: Security Stratified Data for First-and Second-Level Single Securities

Reference #	Single Security Attribute Name	Single Security Attribute Definition	Enumerations
Strat - 18	Property Type	The stratification by Property Type of the active loans in the security.	Cooperative Condominium Planned Unit Development Manufactured Housing Single-Family Not Available
Strat - 19	Seller Name	The stratification by Seller Name of the active loans in the security.	
Strat - 20	Servicer Name	The stratification by Servicer Name of the active loans in the security.	

For the stratification of the attributes above, the following information will be provided:

- Aggregate Investor Loan UPB
- Percentage Investor Loan UPB
- Aggregate Loan Count
- Percentage Loan Count

In addition, the following information will be provided for both Seller Name and Servicer Name stratifications:

- Ranges of Interest Rate
- Ranges of Weighted Average Loan Age
- Ranges of Weighted Average Remaining Months to Maturity

Table 5: Data on Securities Underlying Second-Level Single Securities

Reference #	Single Security Attribute Name	Single Security Attribute Definition	Enumerations	Data Type	Code	Length
L2 Coll - 01	Collateral CUSIP	The CUSIP for each security that directly underlies the resecuritization.		Alpha-Numeric		9
L2 Coll - 02	Collateral Security Identifier	The Security Identifier for each security that directly underlies the resecuritization.		Alpha-Numeric		6
L2 Coll - 03	Trust Identifier	The legal entity that owns a pool of assets for the benefit of investors.		Alpha-Numeric		50
L2 Coll - 04	Class Identifier	The designation pertaining to a specific security issued from a REMIC or Stripped MBS trust.		Alpha-Numeric		4
L2 Coll - 05	Group Identifier	One or more certificates, all of which have the same underlying pool of assets.		Alpha-Numeric		5
L2 Coll - 06	Collateral Prefix	The Prefix for each security that directly underlies the resecuritization.		Alpha-Numeric		3
L2 Coll - 07	Collateral Issuer	The Issuer for each security that directly underlies the resecuritization.	Fannie Mae Freddie Mac	Alpha	FNM = Fannie Mae FRE = Freddie Mac	3

Table 5: Data on Securities Underlying Second-Level Single Securities

Reference #	Single Security Attribute Name	Single Security Attribute Definition	Enumerations	Data Type	Code	Length
L2 Coll- 08	Collateral WA Net Interest Rate - Current	The WA Net Interest Rate - Current for each security that directly underlies the resecuritization.		Numeric		2.3
L2 Coll - 09	Collateral Issue Date	The Issue Date for each security that directly underlies the resecuritization.		Date		MMDDCCYY
L2 Coll - 10	Collateral Maturity Date	The Maturity Date for each security that directly underlies the resecuritization.		Date		MMCCYY
L2 Coll - 11	Collateral Investor Security UPB - Issuance	The Investor Security UPB - Issuance for each security that directly underlies the resecuritization.		Numeric		12.2
L2 Coll - 12	Collateral Contributing Investor Security UPB - Issuance	The pro-rata share of the Investor Security UPB - Issuance amount for each security that directly underlies the resecuritization.		Numeric		12.2
L2 Coll - 13	Collateral Contributing Investor Security UPB - Current	The pro-rata share of the Investor Security UPB - Current amount for each security that directly underlies the resecuritization.		Numeric		12.2