Resources for European Institutional Investors
Multifamily Connecticut Avenue Securities® (MCAS) to ESMA Mapping Files

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MCAS to ESMA Annex 3 Mapping

Explanatory Notes:

- The table below maps MCAS data fields to ESMA data fields where relevant MCAS data fields exist
- MCAS data fields are based on the CREFC IRP Loan Periodic Update ("LPU") and Loan Setup ("LSU") files. Se
- The MCAS files for each transaction can be accessed via the CTS link (www.ctslink.com)
- In some cases the relevant ESMA field can be populated by a transformation of one or more MCAS fields, which
- Note that in selected cases there can be some approximations, specifically for list fields.
- Note that ESMA format for dates is YYYY-MM-DD, in LPU/LSU the format is YYYYMMDD. The ESMA format fo

ESMA - Field Code	ESMA - Field Name	ESMA - Format	ESMA - Content to Report
CREL1	Unique Identifier	{ALPHANUM-28}	The unique identifier assigned by the reporting entity according to Article 11(1) of the Commission Delegated Regulation (EU) …/… [include full reference to the disclosure RTS].
CREL2	Original Obligor Identifier	{ALPHANUM-1000}	Original unique obligor identifier. The identifier must be different from any external identification number, in order to ensure anonymity of the obligor. The reporting entity shall not amend this unique identifier.

CREL3	New Obligor Identifier	{ALPHANUM-1000}	If the original identifier in field CREL2 cannot be maintained in this field enter the new identifier here. If there has been no change in the identifier, enter the same identifier as in CREL2. The reporting entity shall not amend this unique identifier.
CREL4	Original Underlying Exposure Identifier	{ALPHANUM-1000}	Unique underlying exposure identifier. The identifier must be different from any external identification number, in order to ensure anonymity of the obligor. The reporting entity shall not amend this unique identifier.
CREL5	New Underlying Exposure Identifier	{ALPHANUM-1000}	If the original identifier in field CREL4 cannot be maintained in this field enter the new identifier here. If there has been no change in the identifier, enter the same identifier as in CREL4. The reporting entity shall not amend this unique identifier.
CREL6	Data Cut-Off Date	{DATEFORMAT}	The data cut-off date for this data submission.
CREL7	Pool Addition Date	{DATEFORMAT}	The date that the underlying exposure was transferred to the SSPE. For all underlying exposures in the pool as at the cut-off date in the first report submitted to the securitisation repository, if this information is not available then enter the later of: (i) the closing date of the securitisation, and (ii) the origination date of the underlying exposure.
CREL8	Date Of Restructuring	{DATEFORMAT}	Enter the date at which the underlying exposure has been restructured. Restructuring refers to any changes made to the contractual terms of the underlying exposure agreement due to forbearance, including payment holidays, arrears capitalisation, change of interest rate basis or margins, fees, penalties, maturity and/or other generally-accepted measures of restructuring due to forbearance. In the event of multiple dates, all dates must be provided according to the XML schema.
CREL9	Date Of Repurchase	{DATEFORMAT}	Date on which the underlying exposure was repurchased from the pool.
CREL10	Date Of Substitution	{DATEFORMAT}	If underlying exposure was substituted for another underlying exposure after the Securitisation Date, the date of such substitution.

CREL11	Redemption Date	{DATEFORMAT}	Date on which account redeemed or (for defaulted underlying exposures) the date that the recovery process was completed.
CREL12	Geographic Region - Obligor	{NUTS}	The geographic region (NUTS3 classification) where the obligor is located. Where no NUTS3 classification has been produced by Eurostat (e.g. a non-EU jurisdiction), enter the two-digit country code in {COUNTRYCODE_2} format followed by 'ZZZ'.
CREL13	Geographic Region Classification	{YEAR}	Enter the year of the NUTS3 classification used for the Geographic Region fields, e.g. 2013 for NUTS3 2013. All geographic region fields must use the same classification consistently for each underlying exposure and across all underlying exposures in the data submission. For example, reporting using NUTS3 2006 for some geographic fields relating to a given underlying exposure and reporting using NUTS3 2013 for other fields relating to the same exposure is not allowed. In the same way, reporting geographic region fields using NUTS3 2006 for some underlying exposures and reporting geographic region fields using NUTS3 2013 for other underlying exposures in the same data submission is not allowed.
CREL14	Special Scheme	{ALPHANUM-10000}	If the underlying exposure is governed by any special public sector arrangement, enter the full name (without abbreviations) of the arrangement here.
CREL15	Origination Date	{DATEFORMAT}	Date of original underlying exposure advance.
CREL16	Start Date Of Amortisation	{DATEFORMAT}	The date that amortisation will commence on the securitised underlying exposure (this can be a date prior to the securitisation date).
CREL17	Maturity Date At Securitisation Date	{DATEFORMAT}	The maturity date of the underlying exposure as defined in the underlying exposure agreement. This would not take into account any extended maturity date that may be allowed under the underlying exposure agreement.
CREL18	Maturity Date	{DATEFORMAT}	The date of maturity of the underlying exposure or expiry of the lease.

CREL19	Original Term	{INTEGER-9999}	Original contractual term (number of months) at the origination date.
CREL20	Duration Of Extension Option	{INTEGER-9999}	Duration in months of any maturity extension option available to the underlying exposure. In the event of multiple maturity extensions available, enter in the duration of the option that has the shortest extension period for the underlying exposure.
CREL21	Nature Of Extension Option	{LIST}	Reference thresholds involved for the possibility of triggering/exercising the extension option referred to in field CREL20: Minimum Interest Coverage Ratio (MICR) Minimum Debt Service Ratio Coverage (MDSC) Maximum Loan-To-Value (MLTV) Multiple Conditions (MLTC) Other (OTHR)
CREL22	Currency Denomination	{CURRENCYCODE_3}	The underlying exposure currency denomination.
CREL23	Current Principal Balance	{MONETARY}	Outstanding principal balance of the securitised underlying exposure. This shall include any amounts that are secured by the mortgage and will be classed as principal in the securitisation. For example if fees have been added to the underlying exposure balance and are part of the principal in the securitisation these shall be added. It shall exclude any interest arrears or penalty amounts. Current balance shall include the principal arrears. However, savings amount shall be deducted if a subparticipation exists. (i.e. underlying exposure balance = underlying exposure +/- subparticipation; +/- 0 if no subparticipation). Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL24	Original Principal Balance	{MONETARY}	Original underlying exposure balance (inclusive of fees). This is referring to the balance of the underlying exposure at the underlying exposure origination date, not the date of the underlying exposure's sale to the SSPE or the closing date of the securitisation. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL25	Original Principal Balance At Securitisation Date	{MONETARY}	Original Principal Balance of the securitised underlying exposure at the Securitisation Date as identified in the Offering Circular. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.

CREL26	Committed Undrawn Facility Underlying Exposure Balance	{MONETARY}	The total whole underlying exposure remaining facility/ Undrawn balance at the end of the period. The total whole underlying exposure remaining facility at the end of the Interest Payment Date that the obligor can still draw upon. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL27	Total Other Amounts Outstanding	{MONETARY}	Cumulative outstanding amounts on loan (e.g. insurance premium, ground rents, cap ex) that have been expended by SSPE/Servicer. The cumulative amount of any property protection advances or other sums that have been advanced by the Servicer or SSPE and not yet reimbursed by the obligor. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL28	Purchase Price	{PERCENTAGE}	Enter in the price, relative to par, at which the underlying exposure was purchased by the SSPE. Enter in 100 if no discounting was applied.
CREL29	Latest Utilisation Date	{DATEFORMAT}	Date of the most recent utilisation/drawdown of the underlying exposure facility agreement.
CREL30	Purpose	{LIST}	Underlying exposure purpose - In the event of multiple purposes, report the option that best describes the arrangement: Acquisition for investment (ACQI) Acquisition for Liquidation (ACQL) Refinancing (RFIN) Construction (CNST) Redevelopment (RDVL) Other (OTHR)
CREL31	Structure	{LIST}	Underlying Exposure Structure: Whole loan - not split into subordinated debt items/notes (LOAN) Participated mortgage underlying exposure with pari passu debt outside the issuance vehicle (PMLP) Participated mortgage underlying exposure with subordinate debt outside the issuance vehicle (PMLS) A Loan; as part of an A/B participation structure (AABP) B Loan; as part of an A/B participation structure (BABP) A Loan; as part of an A/B/C participation structure (AABC)

CREL32	Waterfall A-B Pre Enforcement Scheduled Interest Payments	{LIST}	Waterfall pre-enforcement schedule for interest payments: Sequential (SQNL) B loan first (BLLF) Pro-Rata (PRAT) Modified Pro-Rata (MPRT) Other (OTHR)
CREL33	Waterfall A-B Pre Enforcement Scheduled Principal Payments	{LIST}	Waterfall pre-enforcement schedule for principal payments: Sequential (SQNL) B loan first (BLLF) Pro-Rata (PRAT) Modified Pro-Rata (MPRT) Other (OTHR)
CREL34	Principal Payment Allocation To Senior Loan	{PERCENTAGE}	Insert % of all periodical scheduled principal payments that go to the senior loan (e.g. A loan), if there are multiple loans in the lending arrangement (for example, if field CREL31 is completed with values PMLS, AABP, BABP, AABC, BABC, or CABC).
CREL35	Waterfall Type	{LIST}	Type of waterfall governing the overall lending arrangement: Interest A, principal A, interest B, principal B (IPIP) Interest A, interest B, principal A, principal B (IIPP) Other (OTHR)
CREL36	Defaulted Underlying Exposure Purchase Price	{PERCENTAGE}	If the subordinated loan holder (e.g. B loan holder) can purchase the senior loan in an event of default, enter in the purchase price as per the applicable co-lender/intercreditor agreement.
CREL37	Cure Payments Possible?	{LIST}	Can the subordinated loan holder (e.g. B loan holder) make cure payments in lieu of the mortgage obligor? Select from the list below: No possibility to make cure payment (NCPP) Cure payment can be made up to a fixed number limit over the lifetime of the underlying exposure (FNLP) Cure payment can be made without limit over the lifetime of the underlying exposure (NLCP) Other (OTHR)
CREL38	Restrictions On Sale Of Subordinated Loan?	{Y/N}	Are there any restrictions on the ability of the subordinated loan holder (e.g. B loan holder) to sell off the loan to a third party?
CREL39	Subordinated Loan Holder Affiliated To Obligor?	{Y/N}	Is there a non-disenfranchised subordinated loan holder (e.g. B loan holder) affiliated (i.e. part of the same financial group) as the commercial mortgage obligor?

CREL40	Subordinated Loan Holder Control Of Workout Process	{Y/N}	Can the subordinated loan holder (e.g. B loan holder) exercise control over the decision to and process to enforce and sell the loan collateral?
CREL41	Do Non-Payments On Prior Ranking Claims Constitute A Default Of The Underlying Exposure?	{Y/N}	Do Non-payments on Prior Ranking Claims Constitute a Default of the underlying exposure?
CREL42	Do Non-Payments On Equal Ranking Underlying Exposures Constitute Default Of Property?	{Y/N}	Do Non-payments on Equal Ranking underlying exposures Constitute Default of Property?
CREL43	Noteholder Consent	{Y/N}	Is Noteholder consent needed in any restructuring? Restructuring includes changes in the securitised underlying exposure's payment terms (including interest rate, fees, penalties, maturity, repayment schedule, and/or other generally-accepted measures of payment terms)
CREL44	Noteholder Meeting Scheduled	{DATEFORMAT}	What date is the next noteholder meeting scheduled for?
CREL45	Syndicated	{Y/N}	Is the underlying exposure syndicated?
CREL46	Participation Of SSPE	{LIST}	Method used by the SSPE to acquire ownership in the syndicated underlying exposure: Assignment (ASGN) Novation (NOVA) Equitable Assignment (EQTB) Funded Participation (pari passu interest) (PARI) Junior Participation Interest (JUNP) Legal Assignment (LGAS) Notified Assignment (NOTA) Sub Participation (SUBP) Risk Participation (RSKP) Sale Event (SALE) Other (OTHR)
CREL47	Consequence For Breach Of Financial Covenant	{LIST}	The consequence for the financial covenant breach: Event of Default (EDFT) Additional Amortisation (AAMR) Cash Trap Reserve (CTRS) Terminate Property Manager (TPRM) Other (OTHR)
CREL48	Financial Information Non-Submission Penalties	{Y/N}	Are there are monetary penalties for obligor's failure to submit required financial information (Op. Statement, Schedule, etc.) as per underlying exposure documents?

CREL49	Recourse	{Y/N}	Is there recourse (full or limited) to the obligor's assets beyond the proceeds of any collateral for this underlying exposure?
CREL50	Recourse - 3rd Party	{Y/N}	Is there recourse (full or limited) to another party (e.g. guarantor) in the event the obligor defaults on an obligation under the underlying exposure agreement?
CREL51	Servicing Standard	{Y/N}	Does the servicer of this securitised underlying exposure also service the whole underlying exposure or only one/several components of the whole underlying exposure (e.g. A or B component; or one of the pari-passu components)?
CREL52	Amounts Held In Escrow	{MONETARY}	Total balance of the legally charged reserve accounts as at the data cut-off date. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL53	Collection Of Escrows	{Y/N}	Enter Y if any payments are held in reserve accounts to cover ground lease payments, insurance or taxes only (not maintenance, improvements, capex etc.) as required under the underlying exposure agreement.
CREL54	Collection Of Other Reserves	{Y/N}	Are any amounts other than ground rents taxes or insurance held in reserve accounts as required under the terms of the underlying exposure agreement for tenant improvements, leasing commissions and similar items in respect of the related property or for purpose of providing additional collateral for such underlying exposure?
CREL55	Trigger For Escrow To Be Held	{LIST}	Type of trigger event leading to amounts to be paid into escrow: No Trigger (NONE) Loan to Value Trigger (LVTX) Interest Coverage Trigger (ICVR) Debt Service Coverage Trigger (DSCT) Net Operating Income Trigger (NOIT) Other (OTHR)

CREL56	Target Escrow Amounts / Reserves	{MONETARY}	Target escrow amounts / reserves. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL57	Escrow Account Release Conditions	{ALPHANUM-1000}	Release conditions of the escrow account. If multiple conditions, each condition must be provided according to the XML schema.
CREL58	Conditions Of Drawing Cash Reserve	{LIST}	When the Cash Reserve can be used: Financial Covenant Breach (FICB) Trigger Event (TREV) Other (OTHR)
CREL59	Escrow Account Currency	{CURRENCYCODE_3}	Escrow account currency denomination.
CREL60	Escrow Payments Currency	{CURRENCYCODE_3}	Currency of the Escrow payments. Fields CREL52 and CREL56.
CREL61	Total Reserve Balance	{MONETARY}	Total balance of the reserve accounts at the underlying exposure level at the underlying exposure Payment Date. Includes Maintenance, Repairs & Environmental, etc. (excludes Tax & Insurance reserves Includes LC's for reserves. shall be completed if field CREL54 ("Collection of Other Reserves") is equal to "Y" = Yes. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL62	Reserve Balance Currency	{CURRENCYCODE_3}	Reserve account currency denomination.
CREL63	Escrow Trigger Event Occurred	{Y/N}	Enter Y if an event has occurred which has caused reserve amounts to be established. Enter N if payments are built up as a normal condition of the underlying exposure agreement.
CREL64	Amounts Added To Escrows In Current Period	{MONETARY}	Amount that has been added to any escrows or reserves between the previous data cut-off date and the data cut-off date of this data submission. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL65	Revenue	{MONETARY}	Total revenues from all sources for the period covered by the most recent financial operating statement (i.e. year to date or trailing 12 months) for all the properties. May be normalised if required by the applicable servicing agreement. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.

CREL66	Operating Expenses At Securitisation Date	{MONETARY}	Total underwritten operating expenses for all the properties as described in the Offering Circular. These may include real estate taxes, insurance, management, utilities, maintenance and repairs and direct property costs to the landlord; capital expenditures and leasing commissions are excluded. If multiple properties exist, total the operating expenses of the underlying properties. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL67	Capital Expenditures At Securitisation Date	{MONETARY}	Anticipated capex over the life of the securitised underlying exposure at Securitisation Date (as opposed to repairs and maintenance) if identified in the Offering Circular. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL68	Financial Statement Currency	{CURRENCYCODE_3}	The currency used in the initial financial reporting of fields CREL65 - CREL66.
CREL69	Obligor Reporting Breach	{Y/N}	Is obligor in breach of its obligation to deliver reports to underlying exposure servicer or lender? Y = Yes or N = No.
CREL70	Debt Service Coverage Ratio Method	{LIST}	Define the calculation of the Debt Service Coverage Ratio financial covenant requirement, the inferred method of calculation. If the calculation method differs between the whole loan and the A-loan, then enter in the A-loan method. Current Period (CRRP) Projection - 6 month forward calculation (PRSF) Projection - 12 month forward calculation (PRTF) Combo 6 - Current period and a 6 month forward calculation (CMSF) Combo 12 - Current period and a 6 month forward calculation (CMTF)
CREL71	Debt Service Coverage Ratio Indicator At Securitisation Date	{LIST}	How the Debt Service Coverage Ratio is calculated or applied when an underlying exposure relates to multiple properties: Partial - Not all properties received financials, servicer to leave empty (PRTL) Average - Not all properties received financials, servicer allocates debt service only to properties where financials are received (AVER) Full - All statements collected for all properties (FULL) Worst Case - Not all properties received financials, servicer allocates 100% of debt service to all properties where financials are received (WCAS)

CREL72	Most Recent Debt Service Coverage Ratio Indicator	{LIST}	How the Debt Service Coverage Ratio is calculated or applied when an underlying exposure relates to multiple properties: Partial - Not all properties received financials, servicer to leave empty (PRTL) Average - Not all properties received financials, servicer allocates debt service only to properties where financials are received (AVER) Full - All statements collected for all properties (FULL) Worst Case - Not all properties received financials, servicer allocates 100% of debt service to all properties where financials are received (WCAS) None Collected - No financials were received
CREL73	Debt Service Coverage Ratio At The Securitisation Date	{PERCENTAGE}	The Debt Service Coverage Ratio calculation for the securitised underlying exposure, at the Securitisation Date, based on the underlying exposure documentation.
CREL74	Current Debt Service Coverage Ratio	{PERCENTAGE}	Current Debt Service Coverage Ratio calculation for the securitised underlying exposure, based on the underlying exposure documentation.
CREL75	Original Loan-To- Value	{PERCENTAGE}	The Loan to Value ratio (LTV) for the entire lending arrangement (i.e. not just reflecting the securitised loan amount), as at the Securitisation Date.
CREL76	Current Loan-To- Value	{PERCENTAGE}	Current Loan to Value ratio (LTV) for the entire lending arrangement (i.e. not just reflecting the securitised loan amount).
CREL77	Interest Coverage Ratio At The Securitisation Date	{PERCENTAGE}	The Interest Coverage Ratio calculation for the securitised underlying exposure, at the Securitisation Date.
CREL78	Current Interest Coverage Ratio	{PERCENTAGE}	Current Interest Coverage Ratio calculation for the securitised underlying exposure.

CREL79	Interest Coverage Ratio Method	{LIST}	Define the calculation of the Interest Coverage Ratio financial covenant requirement at the level of the securitised underlying exposure (or the whole underlying exposure level if not specified for any specific underlying exposure arrangements within the overall lending arrangement), the inferred method of calculation: Current Period (CRRP) Projection - 6 month forward calculation (PRSF) Projection - 12 month forward calculation (PRTF)
CREL80	Number Of Properties At Securitisation Date	{INTEGER-9999}	The number of properties that serve as security for the underlying exposure at the Securitisation Date.
CREL81	Number Of Properties At Data Cut-Off Date	{INTEGER-9999}	The number of properties that serve as security for the underlying exposure.
CREL82	Properties Collateralised To The Underlying Exposure	{ALPHANUM-1000}	Enter the unique collateral identifiers (CREC4) of the properties that serve as security for the underlying exposure at the data cut-off date. If multiple properties enter all of the identifiers as set out in the XML schema.
CREL83	Property Portfolio Value At Securitisation Date	{MONETARY}	The valuation of the properties securing the underlying exposure at the Securitisation Date as described in the Offering Circular. If multiple properties then sum the value of the properties. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL84	Property Portfolio Valuation Currency At Securitisation Date	{CURRENCYCODE_3}	The currency of the valuation in CREL83.
CREL85	Status Of Properties	{LIST}	Status of properties. Where multiple situations from the list below exist, choose the situation which best represents the overall set of properties. Lasting Power of Attorney (LPAX) Receivership (RCVR) In Foreclosure (FCLS) Real Estate Owned (REOX) Defeased (DFSD) Partial Release (PRLS) Released (RLSD) Same as at Securitisation Date (SCDT) In special servicing (SSRV) Other (OTHR)
CREL86	Valuation Date At Securitisation Date	{DATEFORMAT}	The date the valuation was prepared for the values disclosed in the Offering Circular. For multiple properties, if several dates, take the most recent date.

CREL87	Amortisation Type	{LIST}	Type of amortisation of the underlying exposure including principal and interest. French - i.e. Amortisation in which the total amount — principal plus interest — repaid in each instalment is the same. (FRXX) German - i.e. Amortisation in which the first instalment is interest-only and the remaining instalments are constant, including capital amortisation and interest. (DEXX) Fixed amortisation schedule - i.e. Amortisation in which the principal amount repaid in each instalment is the same. (FIXE) Bullet - i.e. Amortisation in which the full principal amount is repaid in the last instalment. (BLLT) Other (OTHR)
CREL88	Principal Grace Period End Date	{DATEFORMAT}	If applicable as at the data cut-off date, indicate the principal grace period end date.
CREL89	Grace Days Allowed	{INTEGER-9999}	The number of days after a payment is due in which the lender will not consider the missed payment to be an Event of Default. This refers to missed payments due to non-technical reasons (i.e. missed payments not due to systems failures for example).
CREL90	Scheduled Principal Payment Frequency	{LIST}	Frequency of principal payments due, i.e. period between payments: Monthly (MNTH) Quarterly (QUTR) Semi Annual (SEMI) Annual (YEAR) Other (OTHR)
CREL91	Scheduled Interest Payment Frequency	{LIST}	Frequency of interest payments due, i.e. period between payments: Monthly (MNTH) Quarterly (QUTR) Semi Annual (SEMI) Annual (YEAR) Other (OTHR)
CREL92	Number Of Payments Before Securitisation	{INTEGER-9999}	Enter the number of payments made prior to the exposure being transferred to the securitisation.
CREL93	Prepayment Terms Description	{ALPHANUM-100}	Shall reflect the information in offering circular. For instance, if the prepayment terms are the payment of a 1% fee in year one, 0.5% in year two and 0.25% in year three of the loan this may be shown in the offering circular as: 1%(12), 0.5%(24), 0.25%(36).
CREL94	Prepayment Lock-Out End Date	{DATEFORMAT}	The date after which the lender allows prepayment of the underlying exposure.
CREL95	Yield Maintenance End Date	{DATEFORMAT}	Date after which underlying exposure can be prepaid without yield maintenance.

CREL96	Prepayment Fee	{MONETARY}	Amount collected from the obligor as the fee/penalty due for making prepayments as required under the terms of the underlying exposure agreement. This is not intended to include any amounts paid as a "break cost" to make up interest payments up to the underlying exposure Payment Date. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL97	Prepayment Fee End Date	{DATEFORMAT}	The date after which the lender allows prepayment of the underlying exposure without requirement for a prepayment fee to be paid.
CREL98	Unscheduled Principal Collections	{MONETARY}	Unscheduled payments of principal received in the most recent collection period. Other principal payments received during the interest period that will be used to pay down the underlying exposure. This may relate to sales proceeds, voluntary prepayments, or liquidation amounts. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL99	Liquidation / Prepayment Date	{DATEFORMAT}	The most recent date on which an unscheduled principal payment was received or liquidation proceeds are received.
CREL100	Liquidation / Prepayment Code	{LIST}	Code assigned to any unscheduled principal payments or liquidation proceeds received during the collection period: Partial Liquidation (Curtailment) (PTLQ) Payoff Prior to Maturity (PTPY) Liquidation or Disposition (LQDP) Repurchase or Substitution (RPSB) Full Payoff at Maturity (FLPY) Discounted Payoff (DPOX) Payoff with Penalty (PYPN) Payoff with Yield Maintenance (YLMT) Curtailment with Penalty (CTPL) Curtailment with Yield Maintenance (CTYL) Other (OTHR)

CREL101	Prepayment Interest Excess / Shortfall	{MONETARY}	Shortfall or excess of actual interest payment from the scheduled interest payment that is not related to an underlying exposure default. Results from a prepayment received on a date other than a scheduled payment due date: Shortfall – The difference by which the amount of interest paid is less than the scheduled interest that was due on the underlying exposure Payment Date, (this would only apply if there is a shortfall after the obligor has paid any break costs). Excess – Interest collected in excess of the accrued interest due for the underlying exposure interest accrual period. A negative number represents a shortfall and excess is represented as a positive number. Refers to the entire lending arrangement (i.e. not just reflecting the securitised underlying exposure amount) Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL102	Payment Date	{DATEFORMAT}	The most recent date principal and interest is paid to the SSPE as at the data cut-off date, this would normally be the interest payment date of the underlying exposure.
CREL103	Next Payment Adjustment Date	{DATEFORMAT}	For adjustable rate underlying exposures, the next date that the amount of scheduled principal and/or interest is due to change. For fixed rate underlying exposures, enter the next payment date.
CREL104	Next Payment Date	{DATEFORMAT}	Date of next underlying exposure payment.
CREL105	Payment Due	{MONETARY}	This is the next contractual payment due by the obligor according to the payment frequency of the underlying exposure. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL106	Original Interest Rate	{PERCENTAGE}	Underlying exposure all-in interest rate at the date of origination of the securitised underlying exposure.
CREL107	Interest Rate At The Securitisation Date	{PERCENTAGE}	The total interest rate (e.g. EURIBOR + Margin) that is being used to calculate interest due on the securitised underlying exposure for the first Interest Payment Date after the Securitisation Date.

CREL108	First Payment Adjustment Date	{DATEFORMAT}	For adjustable rate underlying exposures, the first date that the amount of scheduled principal and/or interest is due to change. For fixed rate underlying exposures, enter the first date that the amount of scheduled principal or interest is due (not the first date after securitisation on which it could change).
CREL109	Interest Rate Type	{LIST}	Interest rate type: Floating rate underlying exposure (for life) (FLIF) Floating rate underlying exposure linked to one index that will revert to another index in the future (FINX) Fixed rate underlying exposure (for life) (FXRL) Fixed with future periodic resets (FXPR) Fixed rate underlying exposure with compulsory future switch to floating (FLCF) Floating rate underlying exposure with floor (FLFL) Floating rate underlying exposure with cap (CAPP) Floating rate underlying exposure with both floor and cap (FLCA) Discount (DISC) Switch Optionality (SWIC) Obligor Swapped (OBLS) Modular (MODE) Other (OTHR)
CREL110	Current Interest Rate	{PERCENTAGE}	Gross rate per annum used to calculate the current period scheduled interest on the securitised underlying exposure. Rates calculated on a period-by-period basis must be annualised.
CREL111	Current Interest Rate Index	{LIST}	The base reference interest index currently applicable (the reference rate off which the interest rate is set): MuniAAA (MAAA) FutureSWAP (FUSW) LIBID (LIBI) LIBOR (LIBO) SWAP (SWAP) Treasury (TREA) Euribor (EURI) Pfandbriefe (PFAN) EONIA (EONA) EONIASwaps (EONS) EURODOLLAR (EUUS) EuroSwiss (EUCH) TIBOR (TIBO) ISDAFIX (ISDA) GCFRepo (GCFR) STIBOR (STBO) BBSW (BBSW) JIBAR (JIBA) BUBOR (BUBO) CDOR (CDOR) CIBOR (CIBO) MOSPRIM (MOSP) NIBOR (NIBO) PRIBOR (PRBO) TELBOR (TLBO) WIBOR (WIBO) Bank of England Base Rate (BOER) European Central Bank Base Rate (ECBR) Lender's Own Rate (LDOR) Other (OTHR)

CREL112	Current Interest Rate Index Tenor	{LIST}	Tenor of the current interest rate index: Overnight (OVNG) IntraDay (INDA) 1 day (DAIL) 1 week (WEEK) 2 week (TOWK) 1 month (MNTH) 2 month (TOMN) 3 month (QUTR) 4 month (FOMN) 6 month (SEMI) 12 month (YEAR) On Demand (ONDE) Other (OTHR)
CREL113	Current Interest Rate Margin	{PERCENTAGE}	Current interest rate margin of the floating- rate underlying exposure over (or under, in which case input as a negative) the index rate.
CREL114	Interest Rate Reset Interval	{INTEGER-9999}	Number of months between each interest rate reset date on the underlying exposure.
CREL115	Current Index Rate	{PERCENTAGE}	The index rate used to determine the current securitised underlying exposure interest rate. The interest rate (before margin) used to calculate the interest paid on the securitised underlying exposure payment date in field CREL102.
CREL116	Index Determination Date	{DATEFORMAT}	If the underlying exposure Agreement states specific dates for the index to be set, enter the next index determination date.
CREL117	Rounding Increment	{PERCENTAGE}	The incremental percentage by which an index rate shall be rounded in determining the interest rate as set out in the underlying exposure agreement.
CREL118	Interest Rate Cap	{PERCENTAGE}	Maximum rate that the obligor must pay on a floating rate underlying exposure as required under the terms of the underlying exposure agreement.
CREL119	Interest Rate Floor	{PERCENTAGE}	Minimum rate that the obligor must pay on a floating rate underlying exposure as required under the terms of the underlying exposure agreement.
CREL120	Current Default Interest Rate	{PERCENTAGE}	Interest rate used to calculate the default interest paid on the securitised underlying exposure payment date in field CREL102.
CREL121	Accrual Of Interest Allowed	{Y/N}	Do the documents describing the terms and conditions of the underlying exposure allow for interest to be accrued and capitalised?

CREL122	Day Count Convention	{LIST}	The 'days' convention used to calculate interest: 30 / 360 (A011) Actual / 365 (A005) Actual / 360 (A004) Actual / Actual ICMA (A006) Actual / Actual ISDA (A008) Actual / Actual AFB (A010) Actual / 366 (A009) Other (OTHR)
CREL123	Total Scheduled Principal & Interest Due	{MONETARY}	Scheduled principal & interest payment due on the securitised underlying exposure on the most recent payment date, as at the data cut-off date. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL124	Total Scheduled Principal & Interest Paid	{MONETARY}	Scheduled Principal & Interest payment paid on the securitised underlying exposure on the last payment date, as at the data cut-off date. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL125	Negative Amortisation	{MONETARY}	Negative amortisation/deferred interest/capitalised interest without penalty. Negative amortisation occurs when interest accrued during a payment period is greater than the scheduled payment and the excess amount is added to the outstanding underlying exposure balance. Refers to the entire lending arrangement (i.e. not just reflecting the securitised underlying exposure amount) Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL126	Deferred Interest	{MONETARY}	Deferred interest on the whole loan (i.e. including the securitised loan and any other loan belonging to the lending arrangement with the obligor). Deferred interest is the amount by which the interest an obligor is required to pay on a mortgage loan, less than the amount of interest accrued on the outstanding principal balance. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.

CREL127	Total Shortfalls In Principal & Interest Outstanding	{MONETARY}	Cumulative outstanding principal and interest amounts due on the entire lending arrangement (i.e. not just the securitised underlying exposure) as at the data cut-off date. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL128	Date Last In Arrears	{DATEFORMAT}	Date the obligor was last in arrears.
CREL129	Arrears Balance	{MONETARY}	Current balance of arrears, which is defined as: Total payments due to date PLUS any amounts capitalised PLUS any fees applied to the account LESS total payments received to date. If no arrears then enter 0. Include the currency in which the amount is denominated, using {CURRENCYCODE_3}
CREL130	Number Of Days In Arrears	{INTEGER-9999}	Number of days this underlying exposure is in arrears (either interest or principal and, if different, the higher number of the two) as at the data cut-off date.
CREL131	Reason for Default or Foreclosure	{LIST}	If the underlying exposure is in default as per Article 178 of Regulation (EU) No 575/2013, select the appropriate reason: In default because the debtor is unlikely to pay, in accordance with Article 178 of Regulation (EU) No 575/2013. (UPXX) In default because any debt is more than 90/180 days past due, in accordance with Article 178 of Regulation (EU) No 575/2013. (PDXX) In default both because it is considered that the debtor is unlikely to pay and because any debt is more than 90/180 days past due, in accordance with Article 178 of Regulation (EU) No 575/2013. (UPPD)
CREL132	Default Amount	{MONETARY}	Total gross default amount before the application of sale proceeds and recoveries and inclusive of any capitalised fees/penalties/etc. If not in default, enter 0. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL133	Default Date	{DATEFORMAT}	The date of default.

CREL134	Interest In Arrears	{Y/N}	Is the interest that accrues on the underlying exposure paid in arrears?
CREL135	Actual Default Interest	{MONETARY}	Actual default interest paid between the previous data cut-off date and the data cut-off date of this data submission. Total amount of default interest paid by the obligor during the interest period or on the underlying exposure payment date. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL136	Account Status	{LIST}	Current status of the underlying exposure that has been securitised: Performing (PERF) Restructured - No Arrears (RNAR) Restructured - Arrears (RARR) Defaulted according to Article 178 of Regulation (EU) No 575/2013 (DFLT) Not defaulted according to Article 178 of Regulation (EU) No 575/2013 but classified as defaulted due to another definition of default being met (NDFT) Defaulted both according to Article 178 of Regulation (EU) No 575/2013 and according to another definition of default being met (DTCR) Defaulted only under another definition of default being met (DADB) Arrears (ARRE) Repurchased by Seller – Breach of Representations and Warranties (REBR) Repurchased by Seller – Defaulted (REDF) Repurchased by Seller – Restructured (RERE) Repurchased by Seller – Special Servicing (RESS) Repurchased by Seller – Other Reason (REOT) Redeemed (RDMD) Other (OTHR) Restructuring refers to any changes made to the contractual terms of the underlying exposure agreement due to forbearance, including payment holidays, arrears capitalisation, change of interest rate basis or margins, fees, penalties, maturity, and/or other generally-accepted measures of restructuring due to forbearance.

CREL137	Allocated Losses	{MONETARY}	The allocated losses to date, net of fees, accrued interest etc. after application of sale proceeds (excluding prepayment charge if subordinate to principal recoveries). Show any gain on sale as a negative number. Should reflect most recent situation as at the data cut-off date, i.e. as recoveries are collected and the work out process progresses. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL138	Net Proceeds Received On Liquidation	{MONETARY}	Net proceeds received on liquidation used to determine loss to the SSPE per the Securitisation Documents. The amount of the net proceeds of sale received, this will determine whether there is a loss or shortfall on the underlying exposure. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL139	Liquidation Expense	{MONETARY}	Expenses associated with the liquidation to be netted from the other assets of issuer to determine loss per the Securitisation Documents. Amount of any liquidation expenses that will be paid out of the net sales proceeds to determine whether there will be any loss. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL140	Expected Timing Of Recoveries	{INTEGER-9999}	The underlying exposure servicer's expected recovery timing in months.
CREL141	Cumulative Recoveries	{MONETARY}	Total recoveries (regardless of their source) on the (defaulted/charged-off/etc.) debt, net of costs. Include all sources of recoveries here, not just proceeds from the disposal of any collateral. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL142	Enforcement Start Date	{DATEFORMAT}	The date on which foreclosure or administration proceedings or alternative enforcement procedures were initiated against or agreed by the obligor.

CREL143	Workout Strategy Code	{LIST}	Work-out strategy: Modification (MODI) Enforcement (ENFR) Receivership (RCVS) Insolvency (NSOL) Extension (XTSN) Loan Sale (LLES) Discounted Pay Off (DPFF) Property in Possession (PPOS) Resolved (RSLV) Pending Return to Servicer (PRTS) Deed in Lieu of Foreclosure (DLFR) Full Pay Off (FPOF) Representations and Warranties (REWR) Other (OTHR)
CREL144	Modification	{LIST}	Type of modification: Maturity Date Extension (MEXT) Amortisation Change (AMMC) Principal Write-off (PWOF) Temporary Rate Reduction (TMRR) Capitalisation of Interest (CINT) Capitalisation of Costs Advanced (e.g. insurance, ground rent) (CPCA) Combination (COMB) Other (OTHR)
CREL145	Special Servicing Status	{Y/N}	As of the underlying exposure Payment Date is the underlying exposure currently being specially serviced?
CREL146	Most Recent Special Servicer Transfer Date	{DATEFORMAT}	The date an underlying exposure was transferred to the special Servicer following a servicing transfer event. Note: If the underlying exposure has had multiple transfers, this shall be the last date transferred to special servicing.
CREL147	Most Recent Primary Servicer Return Date	{DATEFORMAT}	The date an underlying exposure becomes a "corrected mortgage underlying exposure", which is the date the underlying exposure was returned to the master/primary Servicer from the special Servicer. Note: If the underlying exposure has had multiple transfers, this shall be the last date returned to the master/primary Servicer from special servicing.
CREL148	Non Recoverability Determined	{Y/N}	Indicator (Yes/No) as to whether the Servicer or Special Servicer has determined that there will be a shortfall in recovering any advances it has made and the outstanding underlying exposure balance and any other amounts owing on the underlying exposure from proceeds upon sale or liquidation of the property or underlying exposure.

CREL149	Covenant Breach / Trigger	{LIST}	Type of Covenant Breach / Trigger: Interest Coverage Ratio (ICRX) Debt Service Coverage Ratio (DSCR) Loan-to-Value (LLTV) Interest Coverage Ratio or Debt Service Coverage Ratio (ICDS) Interest Coverage Ratio or Debt Service Coverage Ratio or Loan-to-Value (ICDL) Property Level Breach (PROP) Obligor Level Breach (OBLG) Tenant or Vacancy Level Breach (TENT) Other (OTHR)
CREL150	Date Of Breach	{DATEFORMAT}	The date that any breach of the underlying exposure terms and conditions occurred. If multiple breaches, the date of the earliest breach.
CREL151	Date Of Breach Cure	{DATEFORMAT}	The date that any breach reported in field CREL150 cured. If multiple breaches, the date which the last breach cured.
CREL152	Servicer Watchlist Code	{WATCHLIST}	If the underlying exposure has been entered onto the servicer watchlist, enter in the most appropriate corresponding code from Table 2 in Annex 1 of this Regulation. If multiple criteria are applicable, list the most detrimental code.
CREL153	Servicer Watchlist Date	{DATEFORMAT}	Determination Date that an underlying exposure was placed on the Watchlist. If underlying exposure came off the Watchlist in a prior period and is now coming back on, use the new entry date.
CREL154	Interest Rate Swap Provider	{ALPHANUM-100}	Name of underlying exposure interest rate swap provider.
CREL155	Interest Rate Swap Provider Legal Entity Identifier	{LEI}	Provide the Legal Entity Identifier (as specified in the Global Legal Entity Foundation (GLEIF) database) of the underlying exposure interest rate swap provider.
CREL156	Interest Rate Swap Maturity Date	{DATEFORMAT}	Date of maturity for the interest rate underlying exposure level swap.
CREL157	Interest Rate Swap Notional	{MONETARY}	Interest rate underlying exposure level swap notional amount Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL158	Currency Swap Provider	{ALPHANUM-100}	Name of underlying exposure currency swap provider.
CREL159	Currency Swap Provider Legal Entity Identifier	{LEI}	Provide the Legal Entity Identifier (as specified in the Global Legal Entity Foundation (GLEIF) database) of the underlying exposure currency swap provider.

CREL160	Currency Swap Maturity Date	{DATEFORMAT}	Date of maturity for the currency underlying exposure level swap.
CREL161	Currency Swap Notional	{MONETARY}	Currency underlying exposure level swap notional amount Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL162	Exchange Rate For Swap	{PERCENTAGE}	The exchange rate that has been set for a currency underlying exposure level swap.
CREL163	Other Swap Provider	{ALPHANUM-100}	The legal name of the swap provider for the underlying exposure, where the swap is neither an interest rate nor currency swap. Where a Legal Entity Identifier (LEI) is available in the Global Legal Entity Foundation (GLEIF) database, the name entered shall match the name associated with the LEI.
CREL164	Other Swap Provider Legal Entity Identifier	{LEI}	Provide the Legal Entity Identifier (as specified in the Global Legal Entity Foundation (GLEIF) database) of the underlying exposure 'other' swap provider.
CREL165	Obligor Must Pay Breakage On Swap	{LIST}	Extent to which the obligor is obligated to pay breakage costs to the underlying exposure swap provider. In the event of multiple swaps, enter in the most appropriate value. Total Indemnification from obligor (TOTL) Partial Indemnification from obligor (PINO) No Indemnification from obligor (NOPE)
CREL166	Full Or Partial Termination Event Of Swap For Current Period	{LIST}	If underlying exposure swap has been terminated between the previous data cut-off date and the data cut-off date of the current report submission, identify reason. In the event of multiple swaps, enter in the most appropriate value. Swap Terminated due to Ratings Downgrade of Underlying Exposure Swap Provider (RTDW) Swap Terminated due to Payment Default to Underlying Exposure Swap Provider (PYMD) Swap Terminated due to Other Type of Default by Underlying Exposure Swap Counterparty (CNTD) Swap Terminated due to Full or Partial Prepayment by Obligor (PRPY) Swap Terminated due to Other Type of Default by Obligor (OBGD) Other (OTHR)

CREL167	Net Periodic Payment Made By Swap Provider	{MONETARY}	Net amount of payment made by the swap counterparty securitised underlying exposure, on the underlying exposure Payment Date as required by the swap contract. This does not include any breakage or termination payments. In the event of multiple swaps, enter in the sum across all swaps. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL168	Breakage Costs Due To Underlying Exposure Swap Provider	{MONETARY}	Amount of any payment due from the obligor to the swap counterparty for partial of full termination of the swap. In the event of multiple swaps, enter in the most appropriate value. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL169	Shortfall In Payment Of Breakage Costs On Swap	{MONETARY}	Amount of any shortfall, if any, of breakage costs resulting from the full or partial termination of the swap, paid by the obligor. In the event of multiple swaps, enter in the sum across all swaps. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL170	Breakage Costs Due From Swap Counterparty	{MONETARY}	Amount of any gains paid by the swap counterparty to the obligor on full or partial termination. In the event of multiple swaps, enter in the most appropriate value. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREL171	Next Swap Reset Date	{DATEFORMAT}	Date of next reset date on the underlying exposure level swap. In the event of multiple swaps, enter in the most appropriate value.
CREL172	Sponsor	{ALPHANUM-100}	The name of the underlying exposure sponsor.
CREL173	Agent Bank Of Syndication Legal Entity Identifier	{LEI}	Provide the Legal Entity Identifier (as specified in the Global Legal Entity Foundation (GLEIF) database) of the agent bank of syndication, i.e. the entity acting as an interface between the obligor and the lending parties involved in the syndicated underlying exposure.
CREL174	Servicer Legal Entity Identifier	{LEI}	Provide the Legal Entity Identifier (as specified in the Global Legal Entity Foundation (GLEIF) database) of the underlying exposure servicer.

CREL175	Servicer Name	{ALPHANUM-100}	Give the full legal name of the underlying exposure servicer. Where a Legal Entity Identifier (LEI) is available in the Global Legal Entity Foundation (GLEIF) database, the name entered shall match the name associated with the LEI.
CREL176	Originator Name	{ALPHANUM-100}	Give the full legal name of the underlying exposure originator. Where a Legal Entity Identifier (LEI) is available in the Global Legal Entity Foundation (GLEIF) database, the name entered shall match the name associated with the LEI.
CREL177	Originator Legal Entity Identifier	{LEI}	Provide the Legal Entity Identifier (as specified in the Global Legal Entity Foundation (GLEIF) database) of the underlying exposure originator.
CREL178	Originator Establishment Country	{COUNTRYCODE _2}	Country where the underlying exposure originator is established.
CREL179	Original Lender Name	{ALPHANUM-100}	Give the full legal name of the original lender. Where a Legal Entity Identifier (LEI) is available in the Global Legal Entity Foundation (GLEIF) database, the name entered shall match the name associated with the LEI.
CREL180	Original Lender Legal Entity Identifier	{LEI}	Provide the Legal Entity Identifier (as specified in the Global Legal Entity Foundation (GLEIF) database) of the original lender. Where no Legal Entity Identifier is available, enter ND5.
CREL181	Original Lender Establishment Country	{COUNTRYCODE _2}	Country where the original lender is established.
Collateral-level information section			
CREC1	Unique Identifier	{ALPHANUM-28}	Report the same unique identifier here as the one entered into field CREL1.
CREC2	Underlying Exposure Identifier	{ALPHANUM-1000}	Unique underlying exposure identifier. This must match the identifier in field CREL5. The reporting entity shall not amend this unique identifier.
CREC3	Original Collateral Identifier	{ALPHANUM-1000}	The original unique identifier assigned to the collateral. The reporting entity shall not amend this unique identifier.

CREC4	New Collateral Identifier	{ALPHANUM-1000}	If the original identifier in field CREC3 cannot be maintained in this field enter the new identifier here. If there has been no change in the identifier, enter the same identifier as in CREC3. The reporting entity shall not amend this unique identifier.
CREC5	Collateral Type	{LIST}	The primary (in terms of value) type of asset securing the debt. Where there is a guarantee backed by physical or financial collateral, look through the guarantee to any collateral that may be supporting that guarantee. Automobile (CARX) Industrial Vehicle (INDV) Commercial Truck (CMTR) Rail Vehicle (RALV) Nautical Commercial Vehicle (NACM) Nautical Leisure Vehicle (NALV) Aeroplane (AERO) Machine Tool (MCHT) Industrial Equipment (INDE) Office Equipment (OFEQ) IT Equipment (ITEQ) Medical Equipment (MDEQ) Energy Related Equipment (ENEQ) Commercial Building (CBLD) Residential Building (RBLD) Industrial Building (IBLD) Other Vehicle (OTHV) Other Equipment (OTHE) Other Real Estate (OTRE) Other goods or inventory (OTGI) Securities (SECU) Guarantee (GUAR) Other Financial Asset (OTFA) Mixed Categories Due to Security Over All Assets of the Obligor (MIXD) Other (OTHR)
CREC6	Property Name	{ALPHANUM-100}	The name of the property that serves as security for the underlying exposure. If the collateral being reported is not property collateral, enter ND5.
CREC7	Property Address	{ALPHANUM-1000}	The address of the property that serves as security for the underlying exposure. If the collateral being reported is not property collateral, enter ND5.
CREC8	Geographic Region - Collateral	{NUTS}	The geographic region (NUTS3 classification) where the physical collateral is located. Where no NUTS3 classification has been produced by Eurostat (e.g. a non-EU jurisdiction), enter the two-digit country code in {COUNTRYCODE_2} format followed by 'ZZZ'.

CREC9	Property Post Code	{ALPHANUM-100}	The primary property full postal code. If the collateral being reported is not property collateral, enter ND5.
CREC10	Lien	{INTEGER-9999}	Highest lien position held by the originator in relation to the collateral.
CREC11	Property Status	{LIST}	Status of property: Lasting Power of Attorney (LPOA) Receivership (RCVS) In Foreclosure (FCLS) Real Estate Owned (REOW) Defeased (DFSD) Partial Release (PRLS) Released (RLSD) Same as at Securitisation Date (SCDT) In Special Servicing (SSRV) Other (OTHR) If the collateral being reported is not property collateral, enter ND5.
CREC12	Property Type	{LIST}	Property type: Caravan Park (CRVP) Car Park (CARP) Health Care (HEAL) Hospitality or Hotel (HOTL) Industrial (IDSR) Land (LAND) Leisure (LEIS) Multifamily (MULF) Mixed Use (MIXD) Office (OFFC) Pub (PUBX) Retail (RETL) Self Storage (SSTR) Warehouse (WARE) Various (VARI) Other (OTHR) If the collateral being reported is not property collateral, enter ND5.
CREC13	Property Form Of Title	{LIST}	The relevant form of property title. A lease on land only, in which the obligor usually owns a building or is required to build as specified in the lease. Such leases are usually long-term net leases; the obligor's rights and obligations continue until the lease expires or is terminated through default: Leasehold (LESH) Freehold (FREE) Mixed (MIXD) Other (OTHR) If the collateral being reported is not property collateral, enter ND5.
CREC14	Current Valuation Date	{DATEFORMAT}	The date of the most recent valuation.

CREC15	Current Valuation Amount	{MONETARY}	The most recent valuation of the property as assessed by an independent external or internal appraiser; if such assessment is not available, the current value of the property can be estimated using a real estate value index sufficiently granular with respect to geographical location and type of property; if such real estate value index is also not available, a real estate price index sufficiently granular with respect to geographical location and type of property can be used after application of a suitably chosen mark-down to account for the depreciation of the property. If the collateral being reported is not property collateral, enter the most recent valuation of the collateral as assessed by an independent external or internal appraiser or, if not available, by the originator. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREC16	Current Valuation Method	{LIST}	The most recent method of calculating the value of the collateral provided in field CREC15. Full, internal and external inspection (FIEI) Full, only external inspection (FOEI) Drive-by (DRVB) Automated Valuation Model (AUVM) Indexed (IDXD) Desktop (DSKT) Managing Agent / Estate Agent (MAEA) Tax Authority (TAXH) Other (OTHR)
CREC17	Current Valuation Basis	{LIST}	The most recent Valuation Basis: Open Market (OPEN) Vacant Possession (VCNT) Other (OTHR)
CREC18	Original Valuation Method	{LIST}	The method of calculating the value of the collateral at the time of underlying exposure origination: Full, internal and external inspection (FIEI) Full, only external inspection (FOEI) Drive-by (DRVB) Automated Valuation Model (AUVM) Indexed (IDXD) Desktop (DSKT) Managing Agent / Estate Agent (MAEA) Tax Authority (TAXH) Other (OTHR)

CREC19	Collateral Securitisation Date	{DATEFORMAT}	Date the property / collateral was contributed as security for the underlying exposure. If this property / collateral has been substituted, enter the date of the substitution. If the property / collateral was part of the original securitisation, this will be the Securitisation Date.
CREC20	Allocated Percentage Of Underlying Exposure At Securitisation Date	{PERCENTAGE}	Allocated underlying exposure % attributable to property / collateral at Securitisation Date where there is more than one property / collateral item securing the underlying exposure. This may be set out in the underlying exposure Agreement, otherwise assign by valuation or Net Operating Income.
CREC21	Current Allocated Underlying Exposure Percentage	{PERCENTAGE}	Allocated underlying exposure % attributable to the collateral at the underlying exposure payment date. Where there is more than one collateral item securing the underlying exposure, the sum of all percentages shall equal 100%. This may be set out in the underlying exposure agreement, otherwise assign by valuation (Net Operating Income).
CREC22	Valuation At Securitisation	{MONETARY}	The valuation of the property / collateral securing the underlying exposure at Securitisation Date as described in the Offering Circular. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREC23	Name Of Valuer At Securitisation	{ALPHANUM-100}	Name of valuation firm who performed the property / collateral valuation at the Date of Securitisation.
CREC24	Date Of Valuation At Securitisation	{DATEFORMAT}	The date the valuation was prepared for the values disclosed in the Offering Circular.
CREC25	Year Built	{YEAR}	Year the property was built per the valuation report or underlying exposure document.
CREC26	Year Last Renovated	{YEAR}	Year that last major renovation/new construction was completed on the property per the valuation report or underlying exposure document.
CREC27	Number Of Units	{INTEGER-999999999}	For property type Multifamily enter number of units, for Hospitality/Hotel/Healthcare - beds, for Caravan Parks - units, Lodging=rooms, Self Storage=units.
CREC28	Net Square Metres	{INTEGER-999999999}	The total net rentable area of the property in square metres that serve as security for the underlying exposure per the most recent valuation report.

CREC29	Commercial Area	{INTEGER-999999999}	The total net Commercial rentable area of the property in square metres that serves as security for the underlying exposure per the most recent valuation report.
CREC30	Residential Area	{INTEGER-999999999}	The total net Residential rentable area of the property in square metres that serves as security for the loan per the most recent valuation report.
CREC31	Net Internal Floor Area Validated	{Y/N}	Has the valuer (of the most recent valuation) verified the net internal floor area of the property?
CREC32	Occupancy As Of Date	{DATEFORMAT}	Date of most recently received rent roll/ tenancy schedule. For hospitality (hotels), and health care properties use average occupancy for the period for which the financial statements are reported.
CREC33	Economic Occupancy At Securitisation	{PERCENTAGE}	The percentage of rentable space with signed leases in place at Securitisation Date if disclosed in Offering Circular (tenants may not be in occupation but are paying rent).
CREC34	Physical Occupancy At Securitisation	{PERCENTAGE}	At Securitisation the available percentage of rentable space actually occupied (i.e. where tenants are actually in occupation and not vacated), if disclosed in Offering Circular. Shall be derived from a rent roll or other document indicating occupancy consistent with most recent financial year information.
CREC35	Vacant Possession Value At Securitisation Date	{MONETARY}	Vacant possession value at Date of Securitisation. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREC36	Date Of Financials At Securitisation	{DATEFORMAT}	The end date of the financials for the information used in the Offering Circular (e.g. year to date, annual, quarterly or trailing 12 months).
CREC37	Net Operating Income At Securitisation	{MONETARY}	Revenue less Operating Expenses at Securitisation Date. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREC38	Most Recent Financials As Of Start Date	{DATEFORMAT}	The first day of the period covered in the most recent financial operating statement available (e.g. Monthly, Quarterly, Year to Date or Trailing 12 months).
CREC39	Most Recent Financials As Of End Date	{DATEFORMAT}	The end date of the financials used for the most recent financial operating statement (e.g. Monthly, Quarterly, Year to Date or Trailing 12 months).

CREC40	Most Recent Revenue	{MONETARY}	Total revenues for the period covered by the most recent financial operating statement (e.g. Monthly, Quarterly, Year to Date or Trailing 12 months) for the property. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREC41	Most Recent Operating Expenses	{MONETARY}	Total operating expenses for the period covered by the most recent financial operating statement (e.g. Monthly, Quarterly, Year to Date or Trailing 12 months) for the property. These may include real estate taxes, insurance, management, utilities, maintenance and repairs and direct property costs to the landlord; capital expenditures and leasing commissions are excluded. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREC42	Most Recent Capital Expenditure	{MONETARY}	Total Capital Expenditure (as opposed to repairs and maintenance) for the period covered by the most recent financial operating statement e.g. Monthly, Quarterly, Year to Date or Trailing 12 months) for the property. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREC43	Ground Rent Payable	{MONETARY}	If property is leasehold, provide the current annual leasehold rent payable to the lessor. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREC44	Weighted Average Lease Terms	{PERCENTAGE}	Weighted average lease terms in years, using as weights the latest-available outstanding value of the lease.
CREC45	Property Leasehold Expiry	{DATEFORMAT}	Provide the earliest date the leasehold interest expires.
CREC46	Contractual Annual Rental Income	{MONETARY}	The contractual annual rental income derived from the most recent obligor tenancy schedule. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
CREC47	Income Expiring 1-12 Months	{PERCENTAGE}	Percentage of income expiring in 1 to 12 months.
CREC48	Income Expiring 13-24 Months	{PERCENTAGE}	Percentage of income expiring in 13 to 24 months.
CREC49	Income Expiring 25-36 Months	{PERCENTAGE}	Percentage of income expiring in 25 to 36 months.
CREC50	Income Expiring 37-48 Months	{PERCENTAGE}	Percentage of income expiring in 37 to 48 months.

	CREC51	Income Expiring 49+ Months	{PERCENTAGE}	Percentage of income expiring in 49 or more months.
Tenant-level information section				
	CRET1	Unique Identifier	{ALPHANUM-28}	Report the same unique identifier here as the one entered into field CREL1.
	CRET2	Underlying Exposure Identifier	{ALPHANUM-1000}	Unique underlying exposure identifier. This must match the identifier in field CREL5. The reporting entity shall not amend this unique identifier.
	CRET3	Collateral Identifier	{ALPHANUM-1000}	Unique identifier for the collateral. This field must match CREC4, to allow mapping.
	CRET4	Tenant Identifier	{ALPHANUM-1000}	Unique identifier for the tenant. The identifier must be different from any external identification number, in order to ensure anonymity of the obligor. The reporting entity shall not amend this unique identifier.
	CRET5	Tenant Name	{ALPHANUM-100}	Name of current tenant. If tenant is a natural person, then this field should match field CRET4.
	CRET6	NACE Industry Code	{NACE}	Tenant industry NACE Code, as set out in Regulation (EC) No 1893/2006 (or as otherwise amended).
	CRET7	Date Of Lease Expiration	{DATEFORMAT}	Expiration date of lease of current tenant.
	CRET8	Rent Payable	{MONETARY}	Annual Rent payable by current tenant. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.
	CRET9	Rent Currency	{CURRENCYCODE_3}	Rent currency denomination.

e www.crefc.com for more details on reporting guidelines for commercial mortgages

n is outlined in the column "Input for ESMA field and Explanations".

r monetary values is preceded by the currency, so use e.g. "USD 100000.00"

ESMA - ND1 - ND4 Allowed?	ESMA - ND5 Allowed?	Relevant LPU / LSU Field(s)	LPU / LSU Field Name(s)	Input for ESMA field and Explanations
NO	NO			Fannie Mae does not produce a Unique Identifier based on EU guidelines. Users can construe such an ID for a MCAS transaction by: In sequential order: a) The reporting entity LEI - B1V7KEBTPIMZEU4LTD58 b) The letter N, as the securitisation is non-ABCP c) Four-digit year that the first securities of the securitisation were issued d) A two digit number corresponding to the number order in which securitisations with the same identifier according to items a) to c) of this list Example: B1V7KEBTPIMZEU4LTD58N201901
NO	NO			Fannie Mae does not provide an Obligor Identifier in its loan-level data. A unique identifier can be constructed by using the respective Loan Seller, Zip code and Property name, all of which are available in the loan-level appendix of the respective Offering Circular Example: "WellsFargoBank_63123_VillagesGeneralGrant"

NO	NO			Fannie Mae does not provide an Obligor Identifier in its loan-level data. A unique identifier can be constructed by using the respective Loan Seller, Zip code and Property name, all of which are available in the loan-level appendix of the respective Offering Circular Example: "WellsFargoBank_63123_VillagesGeneralG rant"
NO	NO	LSU 3 / LPU 3	Loan ID	Relevant LSU / LPU field
NO	NO	LSU 3 / LPU 3	Loan ID	Relevant LSU / LPU field
NO	NO	LPU 136	Reporting Period End Date	Relevant LPU Field
NO	YES			For MCAS transactions, the Pool Addition Date refers to the Closing Date of the securitization which can be found in the respective Offering Circular
YES	YES	LPU 130	Modification Execution Date	Relevant LPU Field
NO	YES	LPU 29 LPU 32	- Liquidation / Prepayment Date - Liquidation / Prepayment Code	If LPU 32 = 4 (Repurchase), then LPU 29 refers to the Loan Repurchase Date
NO	YES			Always "ND5"

NO	YES			MCAS are synthetic CRT transactions and hence the redemption date corresponds to the removal date from the reference portfolio. Removal of an underlying reference loan can be followed in the monthly LPU data tape
YES	NO			Always "USZZZ"
YES	NO			Always "ND5"
YES	YES			Always "ND5"
YES	NO	LSU 91	Origination Date	Relevant LSU field
YES	YES	LSU 12 LSU 10	- Interest Only (Y/N) - First Loan Payment Due Date	If LSU 12 = N - Use LSU 10 - Otherwise use the Payment Date following the Interest Only End Date as per the loan-level appendix of the respective Offering Circular
NO	YES	LSU 43	Maturity Date At Contribution	Relevant LSU field
NO	YES	LPU 11	Maturity date	Relevant LPU Field

YES	YES	LSU 6	Original Term Of Loan	Relevant LSU field
NO	YES			Always "ND5"
NO	YES			Always "ND5"
NO	NO			Always "USD"
NO	YES	LPU 36	Actual Balance	Relevant LPU Field
YES	YES	LSU 5	Original Note Amount	Relevant LSU field
YES	NO	LSU 44	Scheduled Principal Balance At Contribution	Relevant LSU field

NO	NO			Always "USD 0.00"
NO	YES			Always "ND5"
NO	YES			Always "ND5"
NO	YES			Always "ND5"
YES	NO			As per the loan-level appendix of the respective Offering Circular (see under "Loan Purpose"), use -ACQI for loan purpose 'Acquisition' -RFIN for loan purpose 'Refinance' -OTHR for loan purpose 'Conversion'
YES	NO			Use "LOAN" To the extent that there would be deviations from "LOAN", these would be indicated in the respective Offering Circular

NO	YES			Always "ND5"
NO	YES			Always "ND5"
NO	YES			Always "ND5"
NO	YES			Always "ND5"
NO	YES			Always "ND5"
YES	NO			Always "NCPP"
NO	YES			If Additional Debt Type in the loan-level appendix of the respective Offering Circular indicates mezzanine debt or similar -Use "Y" -Otherwise use "ND5"
NO	YES			Always "ND5"

NO	YES			Always "ND5"
NO	YES			Always "ND5"
NO	YES			There might be cross-defaulted loans which are highlighted in the loan-level appendix of the respective Offering Circular (see under "Cross Defaulted (Y/N)"). If this is the case -Use Y -Otherwise use ND5
YES	NO			Always "N"
NO	YES			Always "ND5"
YES	NO			Always "N"
NO	YES			Always "ND5"
NO	YES			Always "EDFT"
YES	NO			Always "N"

YES	YES	LSU 73	Recourse (Y/N)	Relevant LSU field
YES	YES			Use N unless it is specifically outlined in the respective Offering Circular that 3rd Party Recourse is relevant for some loans in which case use Y for the respective loans
NO	NO			Always "Y"
NO	YES			Existence of Escrow accounts is indicated in the loan-level appendix of the respective Offering Circular (see under "Tax Escrow (Y/N), "Insurance Escrow (Y/N)" and "Other Escrow (Y/N)"). If not indicated, use ND5. As a general comment, Escrow and Reserve accounts are managed and monitored by the respective loan servicer according to the loan documentation. Details of Escrow and Reserve accounts are generally not reported to Fannie Mae.
YES	NO			Relevant information on tax and insurance escrows can be found in the loan-level appendix of the respective Offering Circular (see under "Tax Escrow (Y/N)" and "Insurance Escrow (Y/N)")
NO	NO	LSU 77	Collection of Other Reserves (Y/N)	Relevant LSU field
YES	NO			Always "ND1"

NO	YES			See CREL52
NO	YES			See CREL52
NO	YES			See CREL52
NO	YES			Always "USD"
NO	YES			Always "USD"
NO	YES			See CREL52
NO	YES			Always "USD"
NO	NO			See CREL52
NO	YES			See CREL52
YES	NO	LPU 66	Most Recent Revenue	Relevant LPU Field

NO	YES	LSU 71	Operating Expenses at Contribution	Relevant LSU field
NO	YES			Use "ND5" as there is no information identified in the Offering Circular. Information on relevant Capital Expenditures can be found in the respective Multifamily Operating Statements. Note that the amounts refer to ongoing CapEx rather than over the life of the loan
YES	NO			Always "USD"
YES	NO			Always "N"
YES	NO			Always "CRRP"
NO	YES			Use "ND5" for single properties. Use "FULL" for multiple properties

NO	YES			Use "ND5" for single properties. Use "FULL" for multiple properties
YES	NO	LSU 84	DSCR (NCF) at Contribution	Relevant LSU field
YES	NO	LPU 97	Most Recent DSCR (NCF)	Relevant LPU Field
YES	NO	LSU 5 LSU 67	- Original Note Amount - Valuation Amount at Contribution	Use LSU 5 divided by LSU 67
YES	NO	LPU 36 LPU 75	- Actual Balance - Most Recent Value	Use LPU 36 divided by LPU 75
YES	NO	LSU 12	Interest Only (Y/N)	IF LSU 12 = Y - Use CREL 73 (Debt Service Coverage Ratio At The Securitisation Date) - Otherwise use "ND2"
YES	NO	LSU 12	Interest Only (Y/N)	IF LSU 12 = Y - Use CREL 74 (Current Debt Service Coverage Ratio) - Otherwise use "ND2"

NO	YES			Always "CRRP"
NO	YES	LSU 54	Number of Properties at Contribution	Relevant LSU field
YES	NO	LPU 86	Number of Properties	Relevant LPU Field
NO	NO			There is no unique Collateral identifier directly available but use combination of Zip Code and Property Name as unique identifier which are available in the loan-level appendix of the respective Offering Circular (see also CREC 3/4) Example: "63123_VillagesGeneralGrant"
NO	YES	LSU 67	Valuation Amount at Contribution	In case of single property, use LSU 67, in case of multiple properties, sum up all LSU 67 values for the respective loan
NO	YES			Always "USD"
NO	YES	LPU 76 LPU 77	- Workout Strategy - Most Recent Special Servicer Transfer Date	If LPU 77 is filled out, use "SSRV" IF LPU 76 = 2, use "FCLS" If LPU 76 = 7, use "REOX" Otherwise use "SCDT"
NO	YES	LSU 68	Valuation Date at Contribution	Relevant LSU field

YES	NO			The Amortization Type can be found in the loan-level appendix of the respective Offering Circular (see under "Amortization Type"). Note that the list outlined in CREL87 is not exhaustive, hence use "OTHR"
NO	YES			For performing loans, use "ND5" Information on potential Principal Grace Periods can be found in the reporting segment 'Historical Loan Modification/Forbearance'
NO	YES			While the underlying loan documentation will have a number of days specified, in practice Fannie Mae evaluates the non-payment individually and in line with the monthly reporting cycle. Hence the number of Grace Days Allowed can somewhat deviate from the contractual number of grace days
NO	YES	LSU 12	Interest Only (Y/N)	If LSU12 = N - Use "MNTH" - Otherwise use "OTHR"
NO	YES			Always "MNTH"
YES	NO	LSU 6 LSU 41	- Original Term - Remaining Term at Contribution	Calculate as LSU 6 minus LSU 41 minus 1
YES	YES	LSU 21	Prepayment Terms Description	Relevant LSU field
YES	YES	LSU 18	Prepayment Lock-Out End Date	Relevant LSU field
NO	YES	LSU19	Yield Maintenance End Date	Relevant LSU field

NO	YES	LPU 30	Prepayment Premium/Yield Maintenance (YM) Received	Relevant LPU Field
YES	YES	LSU 20	Prepayment Premium End Date	Relevant LSU field
NO	YES	LPU 27	Unscheduled Principal Collections	Relevant LPU Field
NO	YES	LPU 29	Liquidation/ Prepayment Date	Relevant LPU Field
NO	YES	LPU 32	Liquidation/ Prepayment Code	IF LPU32 = 1, use "PTLQ" IF LPU32 = 2, use "PTPY" IF LPU32 = 3, use "LQDP" IF LPU32 = 4, use "RPSB" IF LPU32 = 5, use "FLPY" IF LPU32 = 6, use "DPOX" IF LPU32 = 8, use "PYPN" IF LPU32 = 9, use "YLMT" IF LPU32 = 10, use "CTPL" IF LPU32 = 11, use "CTYL"

NO	YES			Always "ND5"
NO	YES	LPU 8	Paid Through Date	Relevant LPU Field
NO	YES	LPU 22	Next Payment Adjustment Date	Relevant LPU Field
NO	YES			The next payment date follows the same day of the month as indicated in CREL 102 for the subsequent month (subject to business day convention)
NO	YES	LPU 25	Total Scheduled P&I Due	Relevant LPU Field
YES	NO	LSU 8	Original Note Rate	Relevant LSU field
YES	NO	LSU 45	Note Rate At Contribution	Relevant LSU field

YES	YES	LSU 24 LSU 22 LSU 10	- First Payment Adjustment Date - ARM Index - First Loan Payment Due Date	If LSU 22 not blank - Use LSU 24 - Otherwise use LSU 10
NO	YES	LSU 14	Interest Rate Type	If LSU 14 = 1, use "FXRL" If LSU 14 = 2, use "FLIF"
NO	YES	LPU 10	Current Note Rate	Relevant LPU Field
NO	YES	LSU 22	ARM Index	If LSU 22 not blank - Use "LIBO" - Otherwise use "ND5" Note that of October 2020, there will be a transition of Libor to SOFR in which case use "OTHR" The transition will affect all new MCAS transactions issued post September 2020. Transactions issued before October 2020 will transition underlying loans from Libor to SOFR over some months

NO	YES	LSU 14	Interest Rate Type	If LSU14 = 2 (ARM) - Use "MNTH" - Otherwise use "ND5"
NO	YES	LSU 25 LSU 14	- ARM Margin - Interest Rate Type	IF LSU14 = 2 (ARM) - Use LSU 25 - Otherwise use "ND5"
NO	YES			If LSU14 = 2 (ARM) - Use "1" - Otherwise use "ND5"
NO	YES	LPU 9	Current index Rate	Relevant LPU Field
NO	YES	LSU 14 LPU 21	- Interest Rate Type - Next Rate Adjustment Date	If LSU14 = 1 (FRM), use "ND5" If LSU14 = 2 (ARM), the Index Determination Date varies between product categories and typically ranges from 15 to 45 days on a lookback basis from the Next Rate Adjustment Date (LPU21)
NO	YES			Always "0.001%"
NO	YES	LSU 26	Lifetime Rate Cap %	Relevant LSU field
NO	YES	LSU 27	Lifetime Rate Floor %	Relevant LSU field
NO	YES			Always "ND5"
YES	NO			Use "ND2"

NO	YES	LSU 15	Interest Accrual Method	Relevant LSU field
NO	NO	LPU 25	Total Scheduled P&I Due	Relevant LPU Field
NO	NO			Use CREL 123 Note that the Scheduled Principal & Interest payment paid will be always the same as the payment due for Fannie Mae portfolio loans but the actual payment paid might differ. Moreover, partial payments are not accepted by Fannie Mae
YES	NO			Use "ND2"
YES	NO			Use "ND2"

NO	YES			Always "USD 0.00" Note that as per Fannie Mae payment and guarantee mechanisms, there are no shortfalls for underlying portfolio loans
YES	YES			Use "ND1"
NO	NO			Always "USD 0.00" Note that as per Fannie Mae payment and guarantee mechanisms, there are no shortfalls for underlying portfolio loans
NO	NO	LPU 40	Payment Status of Loan	IF LPU 40 = 0, use "0" IF LPU 40 = 1, use "59" IF LPU 40 = 2, use "89" IF LPU 40 = 3, use "120" Relevant information can be also found in the Delinquency Loan Detail in the Investor report. Note that LPU 40 = 3 equates to 90+ days
YES	YES			Always "ND5"
NO	YES	LPU 76 LPU 36	- Workout Strategy - Actual Balance	If LPU 76 = 2 or 3 or 7 - Use LPU 36 - Otherwise use "USD 0.00"
NO	YES	LPU 76 LPU 8	- Workout Strategy - Paid Through Date	If LPU 76 = 2 or 3 or 7 - Use LPU 8 plus one month - Otherwise use "ND5"

NO	NO			Always "Y"
NO	YES			Always "ND5"
NO	NO	LPU 40 LPU 32 LPU 49 LPU 76	- Payment Status of Loan - Liquidation/ Prepayment Code - Modification Code - Workout Strategy	If LPU 40 = 0, use "PERF" If LPU 40 = 1 or 2 or 3, use "ARRE" If LPU 32 = 4, use "REDF" If LPU 49 is populated, use "RNAR" if LPU 40 = 0 If LPU 49 is populated, use "RARR" if LPU 40 = 1 or 2 or 3 If LPU 76 = 2 or 3 or 7, use "DADB" If an underlying reference loan has been removed from the LPU data tape, use "RDMD" Note that for repurchased loans, a small percentage might be repurchased for reasons other than default

NO	YES	LPU 47	Realized Loss to Trust	Relevant LPU Field
NO	YES	LPU 45	Net Proceeds Received on Liquidation	Relevant LPU Field
NO	YES			Use "ND5" for performing loans. For loans in foreclosure, please note that there will be blanks as Fannie Mae collects this information only in cases or REO or when the loan has been foreclosed
NO	YES			Use "ND5" Note that in case of defaulted loans, there is no stated expected recovery timing but estimates vary significantly based on location and property individual factors
NO	YES	LPU 45	Net Proceeds Received on Liquidation	Relevant LPU Field
NO	YES			Use "ND5" for performing loans. For loans in foreclosure, please note that there will be blanks as Fannie Mae collects this information only in cases or REO or when the loan has been foreclosed

NO	YES	LPU 76	Workout Strategy	IF LPU 76 = 1, use "MODI" IF LPU 76 = 2, use "ENFR" IF LPU 76 = 3, use "NSOL" IF LPU 76 = 4, use "XTSN" IF LPU 76 = 5, use "LLES" IF LPU 76 = 6, use "DPFF" IF LPU 76 = 7, use "PPOS" IF LPU 76 = 8, use "RSLV" IF LPU 76 = 9, use "PRTS" IF LPU 76 = 10, use "DLFR" IF LPU 76 = 11, use "FPOF" IF LPU 76 = 12, use "REWR" IF LPU 76 = 13, use "OTHR" IF LPU 76 = 98, use "OTHR"
NO	YES	LPU 49	Modification Code	IF LPU 49 = 1, use "MEXT" IF LPU 49 = 2, use "AMMC" IF LPU 49 = 3, use "PWOF" IF LPU 49 = 5, use "TMRR" IF LPU 49 = 6, use "CINT" IF LPU 49 = 7, use "OTHR" IF LPU 49 = 8, use "OTHR" IF LPU 49 = 9, use "COMB" IF LPU 49 = 10, use "OTHR"
NO	NO	LPU 77	Most Recent Special Servicer Transfer Date	If LPU 77 is filled out - Use "Y" - Otherwise use "N"
NO	YES	LPU 77	Most Recent Special Servicer Transfer Date	Relevant LPU Field
NO	YES	LPU 78	Most Recent Master Servicer Return Date	Relevant LPU Field
YES	YES			Use "ND5" (or "ND2" for non-performing loans)

NO	YES			Fannie Mae does not have covenant trigger or breaches as data fields in its reporting system. Note that a material breach of the terms and conditions might be reported in the respective investor reports
YES	YES			Use "ND2" Note that a material breach of the terms and conditions might be reported in the respective investor reports
NO	YES			Fannie Mae does not have covenant trigger or breaches as data fields in its reporting system. In case of a material breach, the Date of Breach Cure might be reported in the respective investor reports
NO	YES			Use the Servicer Watchlist Code as indicated in the Servicer Watchlist Report (Field 18). Note that in some cases the mapping to the ESMA Watchlist Codes might not be accurate
NO	YES			Use the field 'Date Added to Servicer Watchlist' in the Servicer Watchlist Report
NO	YES			Always "ND5"
NO	YES			Always "ND5"
NO	YES			Always "ND5"
NO	YES			Always "ND5"
NO	YES			Always "ND5"
NO	YES			Always "ND5"

NO	YES			Always "ND5"
NO	YES			Always "ND5"
NO	YES			Always "ND5"
NO	YES			Always "ND5"
NO	YES			Always "ND5"
YES	NO			Use "NOPE"
NO	YES			Always "ND5"

NO	YES			Always "ND5"
NO	YES			Always "ND5"
NO	YES			Always "ND5"
NO	YES			Always "ND5"
NO	YES			Always "ND5"
NO	YES			Always "ND5"
NO	YES			Always "ND5"
NO	YES			Use CREL 177

NO	YES			The Servicer Name can be found in the loan-level appendix of the respective Offering Circular (see under "Loan Servicer")
NO	NO			Note that for loans included in MCAS transactions, the Originator equals the Original Lender equals the Loan Seller. The Loan Seller can be found in the loan-level appendix of the respective Offering Circular (see under "Loan Seller")
NO	NO			Fannie Mae does not have LEIs in its database. The Loan Seller LEI (which is the equivalent of the Originator LEI) can be retrieved from the GLEIF database (see www.gleif.org)
NO	NO			Always "US"
YES	YES			Equivalent to the field 'Loan Seller' in the loan-level appendix of the respective Offering Circular
YES	YES			Use CREL 177
YES	YES			Always "US"
▆				
NO	NO			Same as CREL 1
NO	NO			Same as CREL 5
NO	NO			There is no unique Collateral Identifier directly available but use combination of Zip Code and Property Name as unique identifier which are available in the loan-level appendix of the respective Offering Circular Example: "63123_VillagesGeneralGrant"

NO	NO			There is no unique Collateral Identifier directly available but use combination of Zip Code and Property Name as unique identifier which are available in the loan-level appendix of the respective Offering Circular Example: "63123_VillagesGeneralGrant"
NO	NO			Use "CBLD"
NO	YES	LSU 55	Property Name	Relevant LSU field
NO	YES	LSU 56 LSU 57 LSU 58	- Property Address - Property City - Property State	Relevant LSU fields
YES	YES			Always "USZZZ"

NO	YES	LSU 59	Property Zip Code	Relevant LSU field
YES	YES	LSU 78	Lien Position at Contribution	Relevant LSU field
NO	YES	LPU 76 LPU 77	- Workout Strategy - Most Recent Special Servicer Transfer Date	If LPU 77 is filled out, use "SSRV" IF LPU 76 = 2, use "FCLS" If LPU 76 = 7, use "REOX" Otherwise use "SCDT"
NO	YES			Always "MULF"
NO	YES			The Property Form of Title can be found in the loan-level appendix of the respective Offering Circular (see under "Ownership Interest")
YES	YES	LPU 74	Most Recent Valuation Date	Relevant LPU Field

YES	YES	LPU 75	Most Recent Value	Relevant LPU Field
YES	NO			Use "ND1"
YES	NO			Use "ND1"
YES	NO			Use "ND2" Note that there is a defined collateral valuation approach for MCAS loans which is described in the respective Offering Circular

YES	NO			Use the Closing Date of the respective Offering Circular
YES	YES			Use "ND2" Note that the allocation will be generally on a pro-rata basis but deviations cannot be excluded
NO	YES			Fannie Mae does not track this percentage as a separate data field. Note that the allocation will be generally on a pro-rata basis but deviations cannot be excluded
NO	YES	LSU 67	Valuation Amount at Contribution	Relevant LSU field
NO	YES			This information is not available in Fannie Mae's systems
NO	YES	LSU 68	Valuation Date at Contribution	Relevant LSU field
YES	YES	LSU 64	Year Built	Relevant LSU field
YES	YES			Always "ND2"
NO	YES	LSU 63	Number of Units	Relevant LSU field
NO	YES			This information is not available in Fannie Mae's systems

NO	YES			Always "ND5"
NO	YES			See CREC 28
YES	YES			Use "ND1"
NO	YES	LPU 73	Most Recent Financial As of End Date	Relevant LPU Field
NO	YES			The value can be found in the loan-level appendix of the respective Offering Circular (see under "UW Economic Occupancy (%)")
NO	YES	LSU 69	Physical Occupancy at Contribution	Relevant LSU field
NO	YES			Always "ND5"
YES	YES	LSU 72	Contribution Financials As Of Date	Relevant LSU field
YES	YES	LSU 65	NOI at Contribution	Relevant LSU field
YES	YES	LPU 72	Most Recent Financials As Of Start Date	Relevant LPU Field
YES	YES	LPU 73	Most Recent Financials As Of End Date	Relevant LPU Field

YES	YES	LPU 66	Most Recent Revenue	Relevant LPU Field
YES	YES	LPU 67	Most Recent Operating Expenses	Relevant LPU Field
YES	YES			This value can be found in the Capital Expenditure Section in the MF Operating Statements
NO	YES			This value can be found in the MF Operating Statements
NO	YES			For multifamily properties, lease term is typically annual but deviations can occur (e.g. monthly in student housing)
NO	YES			The Property Leasehold Expiry can be found in the loan-level appendix of the respective Offering Circular (see under "Ground Lease Maturity Date")
NO	YES			This information can be derived from the Gross Rent in the MF Operating Statements
YES	YES			Always "ND5"
YES	YES			Always "ND5"
YES	YES			Always "ND5"
YES	YES			Always "ND5"

YES	YES			Always "ND5"
NO	NO			Given the high level of tenant granularity with natural persons as tenants in multifamily properties, Fannie Mae does not obtain information on individual tenant terms
NO	NO			Same as CREL 5
NO	NO			Same as CREC 4
NO	NO			See CRET1
YES	NO			See CRET1
YES	YES			See CRET1
NO	YES			See CRET1
NO	YES			See CRET1
NO	YES			Always "USD"

MCAS to ESMA Annex 12 Mapping

Explanatory Notes:

- The table below maps MCAS investor report information to ES
- MCAS investor reports for each transaction are available on th
- MCAS investor reports are available in PDF format and do not
  below provides input for certain ESMA data fields that can be f

ESMA - Field Code	ESMA - Field Name	ESMA - Format
IVSS1	Unique Identifier	{ALPHANUM-28}
IVSS2	Data Cut-Off Date	{DATEFORMAT}
IVSS3	Securitisation Name	{ALPHANUM-100}
IVSS4	Reporting Entity Name	{ALPHANUM-100}
IVSS5	Reporting Entity Contact Person	{ALPHANUM-256}
IVSS6	Reporting Entity Contact Telephone	{TELEPHONE}
IVSS7	Reporting Entity Contact Emails	{ALPHANUM-256}

IVSS8	Risk Retention Method	{LIST}
IVSS9	Risk Retention Holder	{LIST}
IVSS10	Underlying Exposure Type	{LIST}
IVSS11	Risk Transfer Method	{Y/N}

IVSS12	Trigger Measurements/Ratios	{Y/N}
IVSS13	Revolving/ Ramp-Up Period End-Date	{DATEFORMAT}
IVSS14	Principal Recoveries In The Period	{MONETARY}
IVSS15	Interest Recoveries In The Period	{MONETARY}
IVSS16	Principal Collections In The Period	{MONETARY}
IVSS17	Interest Collections In The Period	{MONETARY}
IVSS18	Drawings Under Liquidity Facility	{Y/N}
IVSS19	Securitisation Excess Spread	{MONETARY}
IVSS20	Excess Spread Trapping Mechanism	{Y/N}
IVSS21	Current Overcollateralisation	{PERCENTAGE}

IVSS22	Annualised Constant Prepayment Rate	{PERCENTAGE}
IVSS23	Dilutions	{MONETARY}
IVSS24	Gross Charge Offs In The Period	{MONETARY}
IVSS25	Repurchased Exposures	{MONETARY}
IVSS26	Restructured Exposures	{MONETARY}

IVSS27	Annualised Constant Default Rate	{PERCENTAGE}
IVSS28	Defaulted Exposures	{MONETARY}
IVSS29	Defaulted Exposures CRR	{MONETARY}
IVSS30	Risk Weight Approach	{LIST}
IVSS31	Obligor Probability Of Default in Range [0.00%,0.10%)	{PERCENTAGE}
IVSS32	Obligor Probability Of Default in Range [0.10%,0.25%)	{PERCENTAGE}

IVSS33	Obligor Probability Of Default in Range [0.25%,1.00%)	{PERCENTAGE}
IVSS34	Obligor Probability Of Default in Range [1.00%,7.50%)	{PERCENTAGE}
IVSS35	Obligor Probability Of Default in Range [7.50%,20.00%)	{PERCENTAGE}
IVSS36	Obligor Probability Of Default in Range [20.00%,100.00%]	{PERCENTAGE}
IVSS37	Bank Internal Loss Given Default Estimate	{PERCENTAGE}
IVSS38	Arrears 1-29 Days	{PERCENTAGE}

IVSS39	Arrears 30-59 Days	{PERCENTAGE}
IVSS40	Arrears 60-89 Days	{PERCENTAGE}
IVSS41	Arrears 90-119 Days	{PERCENTAGE}
IVSS42	Arrears 120-149 Days	{PERCENTAGE}
IVSS43	Arrears 150-179 Days	{PERCENTAGE}

IVSS44	Arrears 180+ Days	{PERCENTAGE}

Tests/Events/Triggers information section

IVSR1	Unique Identifier	{ALPHANUM-28}
IVSR2	Original Test/Event/Trigger Identifier	{ALPHANUM-1000}
IVSR3	New Test/Event/Trigger Identifier	{ALPHANUM-1000}
IVSR4	Description	{ALPHANUM-1000000}
IVSR5	Threshold Level	NA
IVSR6	Actual Value	#N/A
IVSR7	Status	{Y/N}
IVSR8	Cure Period	#N/A

IVSR9	Calculation Frequency	#N/A
IVSR10	Consequence for Breach	{LIST}

Cash-flow information section

IVSF1	Unique Identifier	{ALPHANUM-28}
IVSF2	Original Cashflow Item Identifier	{ALPHANUM-1000}
IVSF3	New Cashflow Item Identifier	{ALPHANUM-1000}
IVSF4	Cashflow Item	{ALPHANUM-1000}
IVSF5	Amount Paid During Period	{MONETARY}

IVSF6	Available Funds Post	{MONETARY}

SMA reporting fields.
he Wells Fargo website at www.ctslink.com
t have data fields in the format of the ESMA investor report template. The table
found in specific sections of the MCAS investor reports.

ESMA - Content to Report	ESMA - ND1 - ND4 Allowed?	ESMA - ND5 Allowed?
The unique identifier assigned by the reporting entity according to Article 11(1) of the Commission Delegated Regulation (EU) …/… [include full reference to the disclosure RTS].	NO	NO
The data cut-off date for this data submission. This must match the data cut-off date in the applicable underlying exposure templates submitted.	NO	NO
Enter the name of the securitisation	NO	NO
Legal name of the entity designated as per Article 7(2) of the Regulation (EU) 2017/2402; this name shall match the name entered in for that entity in field SESP3 in the counterparty information section. Where a Legal Entity Identifier (LEI) is available in the Global Legal Entity Foundation (GLEIF) database, the name entered shall match the name associated with the LEI. Entity Foundation (GLEIF) database, the name entered shall match the name associated with the LEI.	NO	NO
First and Last name of the contact person(s) responsible for preparing this securitisation comprehensive report and to whom questions on this comprehensive report must be addressed.	NO	NO
Direct telephone number(s) of the contact person(s) responsible for preparing this securitisation comprehensive report and to whom questions on this comprehensive report must be addressed.	NO	NO
Direct email address(es) of the contact person(s) responsible for preparing this securitisation comprehensive report and to whom questions on this comprehensive report must be addressed.	NO	NO

Method for complying with risk retention requirements in the EU (e.g. Article 6 of the Regulation (EU) 2017/2402, or until entry into force, Article 405 of Regulation (EU) 575/2013): Vertical slice - i.e. Article 6(3)(a) (VSLC) Seller's share - i.e. Article 6(3)(b) (SLLS) Randomly-selected exposures kept on balance sheet - i.e. Article 6(3)(c) (RSEX) First loss tranche - i.e. Article 6(3)(d) (FLTR) First loss exposure in each asset - i.e. Article 6(3)(e) (FLEX) No compliance with risk retention requirements (NCOM) Other (OTHR)	NO	NO
Which entity is retaining the material net economic interest, as specified in Article 6 of the Regulation (EU) 2017/2402, or until its entry into force, Article 405 of Regulation (EU) 575/2013): Originator (ORIG) Sponsor (SPON) Original Lender (OLND) Seller (SELL) No Compliance with Risk Retention Requirement (NCOM) Other (OTHR)	NO	NO
Enter in the type of underlying exposures of the securitisation. If multiple types from the list below are present, enter in 'Mixed' (with the exception of securitisations whose underlying exposures consist exclusively of a combination of consumer loans and automobile loans or leases--for these securitisations the value corresponding to 'Consumer loans' must be entered): Automobile Loan or Lease (ALOL) Consumer Loan (CONL) Commercial Mortgage (CMRT) Credit-Card Receivable (CCRR) Lease (LEAS) Residential Mortgage (RMRT) Mixed (MIXD) Small and Medium Enterprise (SMEL) Non Small and Medium Enterprise Corporate (NSML) Other (OTHR)	NO	NO
In accordance with Article 242(10) and (11) of Regulation (EU) No 575/2013, the securitisation risk transfer method is 'true sale'.	NO	NO

Has any underlying exposure-related trigger event occurred? These include any delinquency, dilution, default, loss, stopsubstitution, stop-revolving, or similar exposurerelated events which impact the securitisation, as at the data cut-off date. This also includes if there is a debit balance on any PDL or an asset deficiency.	NO	NO
Enter the date at which the securitisation's revolving or ramp-up period is scheduled to cease. Enter the securitisation maturity date if there is a revolving period with no scheduled end date.	NO	YES
Gross principal recoveries received during the period. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.	NO	YES
Gross interest recoveries received during the period. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.	NO	YES
Collections treated as principal in the period. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.	NO	YES
Collections treated as revenue in the period. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.	NO	YES
If the securitisation has a liquidity facility confirm whether or not there has been a drawing under the liquidity facility in the period ending on the last interest payment date.	NO	YES
The amount of funds left over after application of all currently-applicable stages of the waterfall, commonly referred to as 'excess spread'. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.	NO	NO
Excess spread is currently trapped in the securitisation (e.g. accumulated in a separate reserve account)	NO	NO
Current overcollateralisation of the securitisation, calculated as the ratio of (the sum of the outstanding principal balance of all underlying exposures, excluding underlying exposures classified as defaulted, as at the data cut-off date) to (the sum of the outstanding principal balance of all tranches/bonds as at the data cut-off date).	NO	NO

The annualised Constant Prepayment Rate (CPR) of the underlying exposures based upon the most recent periodic CPR. Periodic CPR is equal to the [(total unscheduled principal received at the end of the most recent collection period) / (the total principal balance at the start of the collection period)]. The Periodic CPR is then annualised as follows: 1-((1-Periodic CPR)^number of collection periods in a year) 'Periodic CPR' refers to the CPR during the last collection period i.e. for a securitisation with quarterly paying bonds this will usually be the prior three month period.	NO	NO
Total reductions in principal exposures during the period. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.	NO	NO
Total amount of gross principal charge-offs (i.e. before recoveries) for the period. Charge-off is as per securitisation definition, or alternatively per lender's usual practice. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.	NO	NO
The amount of underlying exposures that have been repurchased by the originator/sponsor between the immediately previous data cut-off date and the current data cut-off date. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.	YES	YES
The amount of underlying exposures that have been restructured by the originator/sponsor between the immediately previous data cut-off date and the current data cut-off date. Restructuring refers to any changes made to the contractual terms of the underlying exposure agreement due to forbearance, including payment holidays, arrears capitalisation, change of interest rate basis or margins, fees, penalties, maturity and/or other generally-accepted measures of restructuring due to forbearance. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.	NO	NO

The annualised Constant Default Rate (CDR) for the underlying exposures based on the periodic CDR. Periodic CDR is equal to the [(total current balance of underlying exposures classified as defaulted during the period) / (total current balance of non-defaulted underlying exposures at the beginning of the period)] * 100. This value is then annualised as follows: 1-((1-Periodic CDR)^number of collection periods in a year) "Periodic CDR" refers to the CDR during the last collection period, i.e. for a securitisation with quarterly paying bonds this will usually be the prior three month period.	NO	NO
The total outstanding principal amount as at the data cut-off date of exposures in default as at the cut-off date, using the definition of default specified in the securitisation documentation Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.	NO	NO
The total outstanding principal amount as at the data cut-off date of exposures in default as at the cut-off date, using the definition of default specified in Article 178 of Regulation (EU) No 575/2013. Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.	YES	YES
Indicate which risk weight approach was used by the originator to produce the risk weight attached to the underlying exposures, according to the Regulation (EU) 575/2013: Standardised Approach (STND) Foundation Internal Ratings-Based (FIRB) Advanced Internal Ratings-Based (ADIR)	NO	YES
The total outstanding amount of underlying exposures whose one-year-ahead probability of default has been assessed as in the range 0.00% <= x < 0.10%. This estimate can either come from the originator or the relevant national central bank. Where there is no regulatory requirement to calculate Probability of Default, enter ND5.	NO	YES
The total outstanding amount of underlying exposures whose one-year-ahead probability of default has been assessed as in the range 0.10% <= x < 0.25%. This estimate can either come from the originator or the relevant national central bank. Where there is no regulatory requirement to calculate Probability of Default, enter ND5.	NO	YES

The total outstanding amount of underlying exposures whose one-year-ahead probability of default has been assessed as in the range 0.25% <= x < 1.00%. This estimate can either come from the originator or the relevant national central bank. Where there is no regulatory requirement to calculate Probability of Default, enter ND5.	NO	YES
The total outstanding amount of underlying exposures whose one-year-ahead probability of default has been assessed as in the range 1.00% <= x < 7.50%. This estimate can either come from the originator or the relevant national central bank. Where there is no regulatory requirement to calculate Probability of Default, enter ND5.	NO	YES
The total outstanding amount of underlying exposures whose one-year-ahead probability of default has been assessed as in the range 7.50% <= x < 20.00%. This estimate can either come from the originator or the relevant national central bank. Where there is no regulatory requirement to calculate Probability of Default, enter ND5.	NO	YES
The total outstanding amount of underlying exposures whose one-year-ahead probability of default has been assessed as in the range 20.00% <= x <= 100.00%. This estimate can either come from the originator or the relevant national central bank. Where there is no regulatory requirement to calculate Probability of Default, enter ND5.	NO	YES
The originator's latest Loss Given Default estimate for the underlying exposure in a downturn scenario, weighted using the total outstanding principal balance of the underlying exposures as at the data cut-off date. Where there is no regulatory requirement to calculate Loss Given Default, enter ND5.	NO	YES
The percentage of exposures of this type in arrears on principal and/or interest payments due for a period between 1 and 29 days (inclusive) as at the data cut-off date. The percentage shall be calculated as the total outstanding principal amount as at the data cutoff date of the exposures of this type and in this category of arrears, relative to the total outstanding principal amount of all exposures of this type as at the data cut-off date.	NO	NO

The percentage of exposures in arrears on principal and/or interest payments due for a period between 30 and 59 days (inclusive) as at the data cut-off date. The percentage shall be calculated as the total outstanding principal amount as at the data cut-off date of the exposures in this category of arrears, relative to the total outstanding principal amount of all exposures as at the data cut-off date.	NO	NO
The percentage of exposures in arrears on principal and/or interest payments due for a period between 60 and 89 days (inclusive) as at the data cut-off date. The percentage shall be calculated as the total outstanding principal amount as at the data cut-off date of the exposures in this category of arrears, relative to the total outstanding principal amount of all exposures as at the data cut-off date.	NO	NO
The percentage of exposures in arrears on principal and/or interest payments due for a period between 90 and 119 days (inclusive) as at the data cut-off date. The percentage shall be calculated as the total outstanding principal amount as at the data cut-off date of the exposures in this category of arrears, relative to the total outstanding principal amount of all exposures as at the data cut-off date.	NO	NO
The percentage of exposures in arrears on principal and/or interest payments due for a period between 120 and 149 days (inclusive) as at the data cut-off date. The percentage shall be calculated as the total outstanding principal amount as at the data cut-off date of the exposures in this category of arrears, relative to the total outstanding principal amount of all exposures as at the data cut-off date.	NO	NO
The percentage of exposures in arrears on principal and/or interest payments due for a period between 150 and 179 days (inclusive) as at the data cut-off date. The percentage shall be calculated as the total outstanding principal amount as at the data cut-off date of the exposures in this category of arrears, relative to the total outstanding principal amount of all exposures as at the data cut-off date. The percentage shall be calculated as the total outstanding principal amount as at the data cutoff date of the exposures in this category of arrears, relative to the total outstanding principal amount of all exposures as at the data cut-off date.	NO	NO

The percentage of exposures in arrears on principal and/or interest payments due for a period for 180 days or more as at the data cutoff date. The percentage shall be calculated as the total outstanding principal amount as at the data cut-off date of the exposures in this category of arrears, relative to the total outstanding principal amount of all exposures as at the data cut-off date.	NO	NO
)		
Report the same unique identifier here as the one entered into field IVSS1.	NO	NO
The original unique test/event/trigger identifier. The reporting entity shall not amend this unique identifier.	NO	NO
If the original identifier in field IVSR2 cannot be maintained in this field enter the new identifier here. If there has been no change in the identifier, enter the same identifier as in IVSR2. The reporting entity shall not amend this unique identifier.	NO	NO
Describe the test/event/trigger, including any formulae. This is a free text field, however the description of the test/event/trigger shall include any formulae and key definitions to allow an investor/potential investor to form a reasonable view of the test/event/trigger and any conditions and consequences attached to it.	NO	NO
Enter the level at which the test is deemed to have been met, the trigger is deemed to have been breached, or at which any other action is deemed to occur, as applicable given the type of test/event/trigger being reported. In the event of non-numerical tests/events/triggers, enter ND5.	NO	YES
Enter the current value of the measure being compared against the threshold level. In the event of non-numerical tests/events/triggers, enter ND5. Where percentages are being entered, these shall be entered in the form of percentage points, e.g. 99.50 for 99.50%, e.g. 0.006 for 0.006%).	NO	YES
Is this status of the test/event/trigger set to 'Breach' (i.e. the test has not been met or the trigger conditions have been met) at the data cut-off date?	NO	NO
Enter in the maximum number of days granted for this test/trigger to be brought back into compliance with the required level. If no time is granted (i.e. there is no Cure Period), enter 0.	NO	YES

Enter in the number of calendar days' interval for calculating the test. Use round numbers, for example 7 for weekly, 30 for monthly, 90 for quarterly, and 365 yearly.	NO	YES
Enter in the consequence, as per the securitisation documentation, for this test/event/trigger not being satisfied (i.e. being breached): Change in the priority of payments (CHPP) Replacement of a counterparty (CHCP) Both change in the priority of payments and replacement of a counterparty (BOTH) Other consequence (OTHR)	NO	NO
Report the same unique identifier here as the one entered into field IVSS1.	NO	NO
The original unique cashflow item identifier. The reporting entity shall not amend this unique identifier.	NO	NO
If the original identifier in field IVSF2 cannot be maintained in this field enter the new identifier here. If there has been no change in the identifier, enter the same identifier as in IVSF2. The reporting entity shall not amend this unique identifier.	NO	NO
List the cashflow item, this field shall be completed in the order that would be used in a traditional investor report produced for investors, according to the applicable priority of payments as at the data cut-off date. That is, each source of cash inflows shall be listed in turn, after which sources of cash outflows shall be listed. This field shall therefore represent one line of the cashflow section of an investor report.	NO	NO
What are the funds paid out as per the priority of payments for this item? Enter negative values for funds paid out, positive values for funds received. Note that the "Amount Paid During Period" value entered in a given line (e.g. in line B) plus the "Available Funds Post" value entered in the preceding line (e.g. line A) shall together equal the "Available Funds Post" value entered in this line (e.g. line B). Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.	NO	NO

What are the funds available to the priority of payments after to the application of the cashflow item? Note that the "Amount Paid In Period" value entered in a given line (e.g. in line B) plus the "Available Funds Post" value entered in the preceding line (e.g. line A) shall together equal the "Available Funds Post" value entered in this line (e.g. line B). Include the currency in which the amount is denominated, using {CURRENCYCODE_3} format.	NO	NO

MCAS Investor Reporting#	Input for ESMA field
	CREL 1
	Use CREL 6 from the loan-level mapping file
Deal Name	Deal Name
	Fannie Mae
	Customer Service - CTSLink Wells Fargo Bank, N.A.
	1-866-846-4526
	ctslink.customerservice@wellsfargo.com

	Article 6(3)(a)
	ORIG
	CMRT
	N

Payment Date Statement - Section "Other Required Information"	Minimum Credit Enhancement Test Pass and Delinquency Test Pass can be found under "Other Required Information"
	ND5
	Not available, no distinction between interest and principal recoveries
	Not available, no distinction between interest and principal recoveries
Payment Date Statement - Section "Reconciliation Detail"	Scheduled and Unscheduled Principal Payments are in the "Principal Reconciliation" table
	ND5
	ND5
	USD 0
	N
	Will be always zero

Payment Date Statement - Section "Historical Detail"	Calculated CPRs
	Will be always zero
Payment Date Statement - Section "Reconciliation Detail"	
Payment Date Statement - Section "Other Required Information"	Amount stated as "Current unpaid principal balance of Reference Obligations that were removed from the Reference Pool as a result of a defect or breach of a representation and warranty"
Payment Date Statement - Section "Historical Detail"	Balance of Modifications

	Constant Default Rates (CDRs) are not available in the investor reports. Investors can calculate CDRs based on defaulted loan indications ("DADB") in data field CREL 136 (Account status) in Annex 3
Payment Date Statement - Section "Other Required Information"	
	ND5
	ND5
	ND5
	ND5

	ND5
	ND5
	ND5
	ND5
	ND5
	Not available

Payment Date Statement - Section "Historical Detail" and "Reconciliation Detail"	Can be calculated as Amount of Loans Delinquent for 30-59 days divided by Unpaid Ending Principal Balance
Payment Date Statement - Section "Historical Detail" and "Reconciliation Detail"	Can be calculated as Amount of Loans Delinquent for 60-89 days divided by Unpaid Ending Principal Balance
Payment Date Statement - Section "Historical Detail" and "Reconciliation Detail"	Can be calculated as Amount of Loans Delinquent for 90 days or more divided by Unpaid Ending Principal Balance
	Not available - see IVSS41 for loans which are more than 90 days delinquent
	Not available - see IVSS41 for loans which are more than 90 days delinquent

	Not available - see IVSS41 for loans which are more than 90 days delinquent
	Not applicable There are no triggers or tests which change the priority of payments or lead to the replacement of a counterparty as per ESMA guidelines

Payment Date Statement - Section "Cash Reconciliation Detail"	There is no traditional cash flow waterfall given the synthetic nature of MCAS Transactions Investors can analyse cash flows in the "Cash Reconciliation Detail" section which outlines Total Funds Collected and Total Funds Distributed

| Comments |
|---|
| See CREL 1 explanations in the loan-level mapping file |
| |
| |
| |
| |
| |
| |

See the EU Risk Retention Letter published on Fannie Mae's website for the respective transactions (http://www.fanniemae.com/portal/funding-the-market/credit-risk/transactions.html)
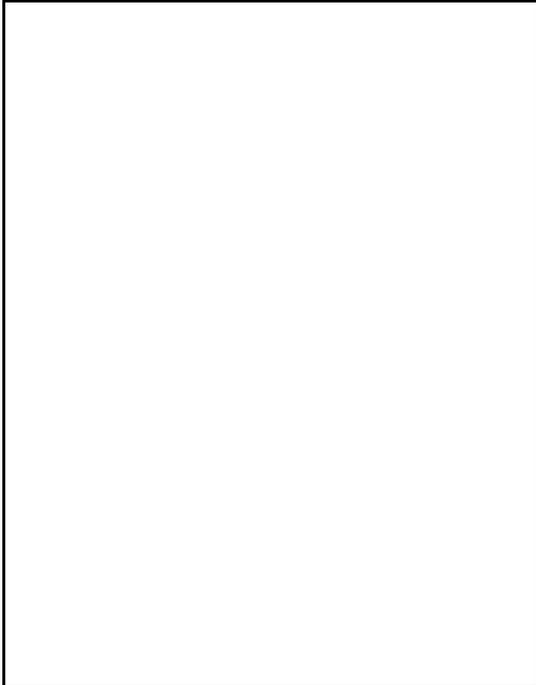
Not relevant in the context of a synthetic
transaction

CPRs can be calculated based on the prepayment information in the section "Historical Detail"

Dilutions are defined by ESMA as reduction in principal due to e.g. fraud claims; not relevant for MCAS transactions

Given the synthetic nature of the transaction, there is no equivalent to Gross Charge Offs - Realized Losses for the period can be found under "Principal Reconciliation"

Total amounts and details with respect to restructured loans can be also found in the "CREFC Historical Loan Modification and Corrected Mortgage Loan Report"

Given the synthetic nature of the transaction, there is no (direct) equivalent to Defaulted Exposures - Credit Event Amounts for the period and cumulative can be found under "Other Required Information"
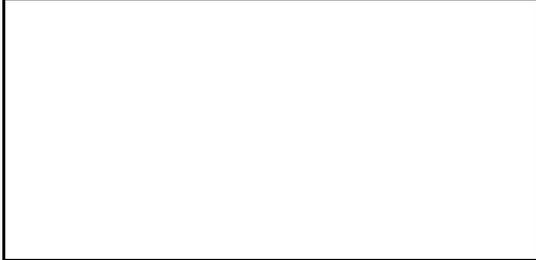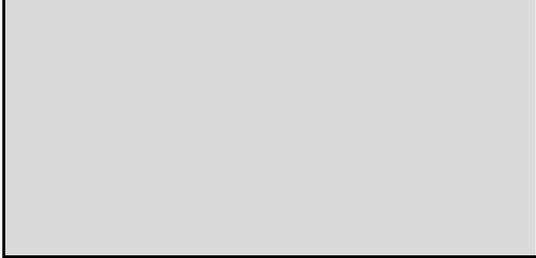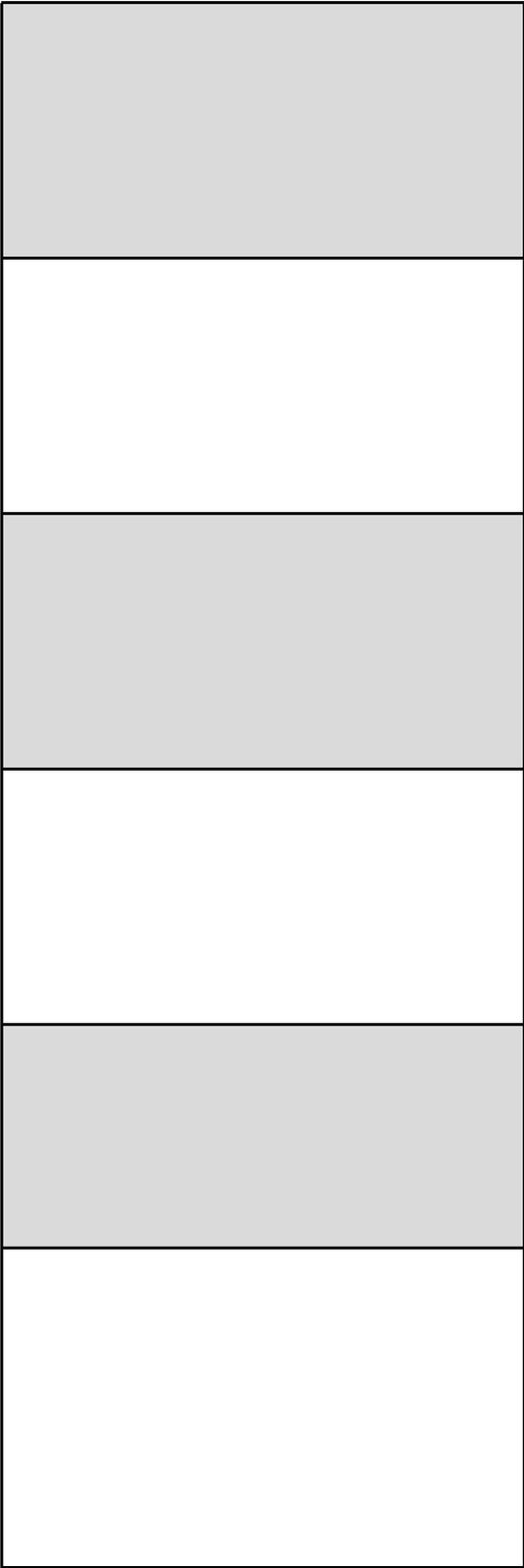
Refers to loans which are more than 90 days delinquent
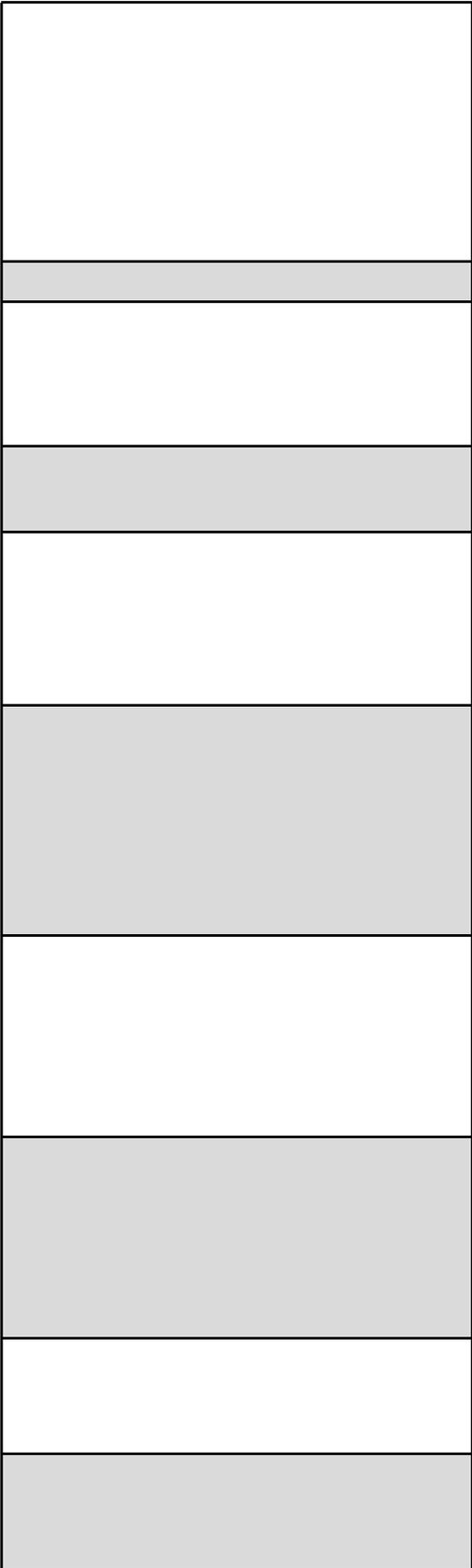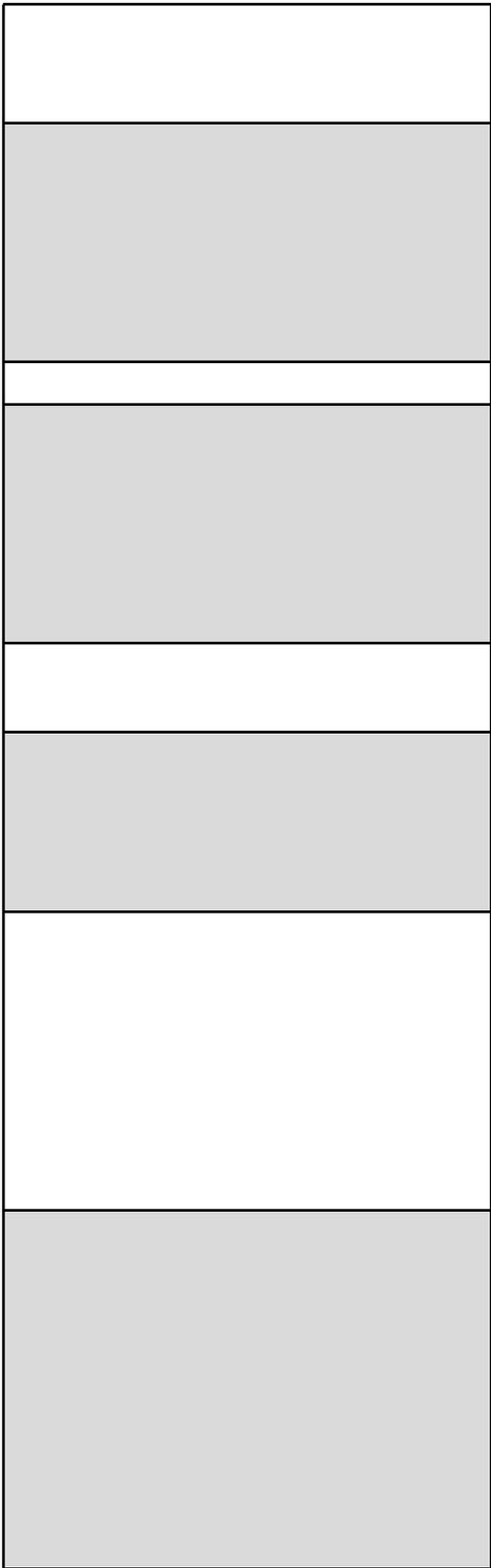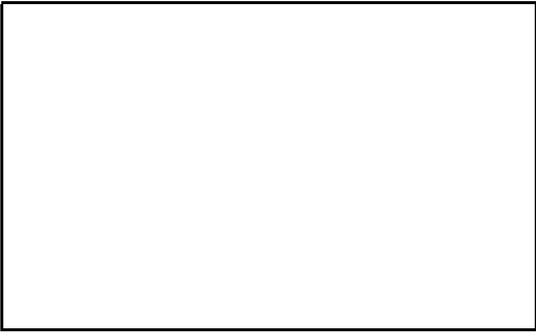
	Payment Status of Loan Legend (L40, A129)		
A	Payment Not Received But Still In Grace Period Or Not Yet Due		CREFC
B	Late Payment But Less Than 30 days Delinquent		PSA
0	Current		U/W
1	30-59 Days Delinquent		
2	60-89 Days Delinquent		
3	90-120 Days Delinquent		****Most**
4	Performing Matured Balloon		TN
5	Non Performing Matured Balloon		YA
6	121+ Days Delinquent		YN

	* Liquidation / Prepayment Code Legend (L32, D8, A144)		
1	Partial Liq'n (Curtailment)		
2	Payoff Prior To Maturity		P
3	Disposition / Liquidation		F
4	Repurchase/ Substitution		N
5	Full Payoff At Maturity		X
6	DPO		
7	Liquidated-only for use for loans liquidated prior to 7/1/2006.		
8	Payoff w/ penalty		
9	Payoff w/ yield Maintenance		1
10	Curtailment w/ Penalty		2
11	Curtailment w/ Yield Maintenance		3
			4
			5

	Workout Strategy Legend (L76, D29, A147)(D)		
1	Modification		6
2	Foreclosure		7
3	Bankruptcy		8
4	Extension		9
5	Note Sale		10
6	DPO		
7	REO		**Most**
8	Resolved		
9	Pending Return to Master Servicer		BPO
10	Deed In Lieu Of Foreclosure		MAI
11	Full Payoff		Non-MAI
12	Reps and Warranties		MS
13	TBD		SS
98	Other		98

	Property Type Legend (P13, S61, A61)(W, D, R, O, N)		
			WL
MF	Multifamily		PP
RT	Retail		A1
HC	Health Care		B1
IN	Industrial		A2
MH	Mobile Home Park		B2
OF	Office		C2
MU	Mixed Use		MZ

LO	Lodging
SS	Self Storage
98	Other
SE	Securities
CH	Cooperative Housing
WH	Warehouse
ZZ	Missing Information
SF	Single Family

1	
2	
3	

Property Status Legend (P18, DP16, A76)	
1	In Foreclosure
2	REO
3	Defeased
4	Partial Release/Release
5	Substituted
6	Same as at Contribution

Fi	
M	
N	
O	

Property Condition Legend (P89, C, DP15)	
1	Excellent
2	Good
3	Fair
4 or 5	Poor

0	
1	
2	
3	

1	
2	
3	
4	

DSCR Indicator Legend (S85, L87, L88, L89, A106, A107)	
C	Consolidated - All properties reported on one "rolled up" financial from the borrower
F	Full - All Statements Collected for all properties
N	None Collected - No financials were received
P	Partial - Not all properties received financials, servicer to leave empty

5	
6	
7	
8	
9	
10	

Servicer Advance Methodology (S94, A124)	
1	Scheduled Interest, Scheduled Principal
2	Actual Interest, Actual Principal
3	Scheduled Interest, Actual Principal
98	Other
99	Unknown

11	
12	
13	

* Liquidation / Prepayment Code Legend (L32, D8): At servicer's option, either 3 or 7
**If YA financial indicator is used then YN has also been performed per CREFC Guides.

NOI / NCF Indicator Legend (L90, P84, P98, A99, A100)

Calculated using CREFC standard	1
Calculated using a definition given in the PSA	2
Calculated using the underwriting method	3
	4

Recent Financial Indicator (L82, P75) (Interim Periods Only)

Trailing 12 Months Normalized	
Year to Date Annualized	1
Year to Date Normalized	2
	3
	4
	5

Defeasance Status Legend (L98, A78)

Portion of Loan Previously Defeased	6
Full Defeasance	7
No Defeasance Occurred	98
Defeasance not Allowable	

	1

Modification Code Legend (L49, D21, A149)(M)

Maturity Date Extension	2
Amortization Change	3
Principal Write-Off	4
(Not Used)	5
Temporary Rate Reduction	6
Capitalization on Interest	7
Capitalization on Taxes	98
Other	
Combination	
Forbearance	A

	B
	C

Recent Valuation Source Legend (P90, D25, DP13, A73)(R)
Valuation Source at Contribution Legend (P99, A69)

Broker's Price Opinion	D
Certified MAI Appraisal	E
Non-Certified MAI Appraisal	F
Master Servicer Estimate	G
SS Estimate	H
Other	I
	J
	98

Loan Structure Legend (S90, A20)

Whole Loan Structure	
Participated Mtg Loan with Pari Passu Debt Outside Trust	
A Note; A/B Participation Structure	
B Note; A/B Participation Structure	1
A Note; A/B/C Participation Structure	3
B Note; A/B/C Participation Structure	6
C Note; A/B/C Participation Structure	12
Mezzanine Financing	365

Sequential Pay Order (T)	
1st priority in distribution of principal	1
2nd priority in distribution of principal	2
3rd priority in distribution of principal	3
Etc.	4

inancial Information Submission Penalties Legend (S88)	
Monetary	1
No Penalties Allowed in Documents	2
Other Penalties	3
	98
	99

Additional Financing Indicator Legend (S89)	
Whole Loan No Additional Financing	**Certific**
Whole Loan With Additional Financing	**Master**
Participated Loan Structure, No Mezzanine Financing	**Specia**
Participated Loan Structure With Addl Mezzanine Financing	**Truste**
	For a fu

Reserve Account Types Legend (V)	
	Status
Replacement Reserve	
FF&E Reserve	0
Repair Reserve	1
Tenant Reserve	2
Environmental Reserve	3
Capital Improvement Reserve	4
Seasonality Reserve	
Deferred Maintenance Reserve	
Debt Service Reserve	**Repu**
Ground Rents Reserve	
Leasing Reserve	1
Letter of Credit (LOC)	2
Other	3
	4
	5
	98
	99

can be used for liq prior to 7/1/06. On or after 7/1/06, 3 should be used.

Interest Rate Type Legend (S14, A15)

Fixed
Arm
Step
Other

Interest Accrual Method Legend (S15, B18, A14)

30/360
Actual/365
Actual/360
Actual/Actual
Actual/366
Simple
78's
Other

Payment Type Legend (S17, A21)

Fully Amortizing
Amortizing Balloon
Interest Only / Balloon
Interest Only / Amortizing
Interest Only / Amortizing / Balloon
Principal Only
Hyper-Amortization
Other

ARM Index Legend (S22, A33)

11 FHLB COFI (1 Month)
11 FHLB COFI (6 Month)
1 Year CMT Weekly Average Treasury
3 Year CMT Weekly Average Treasury
5 Year CMT Weekly Average Treasury
Wall Street Journal Prime Rate
1 Month LIBOR
3 Month LIBOR
6 Month LIBOR
National Mortgage Index Rate
Other

Payment Frequency Legend (S32, A24)
Rate Reset Frequency Legend (S33, A43)
Pay Reset Frequency Legend (S34, A44)

Monthly
Quarterly
Semi-Annually
Annually
Daily

Rounding Code Legend (S35)

Unrounded
Nearest Percentage Increment
Up To Nearest Percentage Increment
Down To Nearest Percentage Increment

Lien Position at Contribution Legend (S78, A19)

First
Second
Third
Other
Uknown

cate Administrator Code (B50)
r Servicer Code (L133, A134) (L) (T)
l Servicer Code (L134) (L) (T)
e Code (B49) (T)
ull list of codes visit: www.CREFC.org

s of Asset Subject to Demand Code (L139, D84, A138)

Asset Pending Repurchase or Replacement
Asset was Repurchased or Replaced
Demand in Dispute
Demand Withdrawn
Demand Rejected

rchase Replacement Reason Code (L141, D86, A142)

Fraud
Early Payment Default
Other Recourse Obligation
Reps/Warrants Breach
Servicer Breach
Other
Unknown