

APPENDIX C
NCOA^{Link}® SOFTWARE DEVELOPER
SOFTWARE PERFORMANCE REQUIREMENTS
END USER MAILER SOFTWARE

1.0 GENERAL

The NCOA^{Link} Product is a product that provides mailers with a tool to update and correct mailing lists used for the preparation of mail that will be submitted to the USPS® for acceptance and delivery. NCOA^{Link} will analyze the names and addresses in mailing lists and provide an updated address where a change of address has been submitted to USPS in order for mail to be delivered to a new address. A CASS Certified™ ZIP + 4® address-matching product matches, standardizes and parses addresses to provide input for NCOA^{Link} and name matching. Utilization of the NCOA^{Link} Product will allow mailers to keep their address lists up-to-date.

1.1 PURPOSE

- 1.1.1 The purpose of these performance requirements is to establish standard criteria of performance that USPS requires NCOA^{Link} Software Developers (“Developers”) to comply with. The software will enable NCOA^{Link} Licensees to have access to the following address list services:
- Acceptable standardization and address matching services
 - Detection of undeliverable addresses due to change of address
 - New address when a name and old address match the change of address file
- 1.1.2 Developer’s matching software must adhere to specific USPS requirements regarding the services as well as to the matching rules and specifications herein. Developers must utilize CASS Certified software for ZIP + 4 processing. In addition, Developers will be tested on a periodic basis using an NCOA^{Link} test address file similar to CASS™. CASS is an existing USPS certification process available to all commercial firms.
- 1.1.3 Developer is responsible for programming all necessary NCOA^{Link} software. Prior to any use, sale and/or distribution of Developer’s NCOA^{Link} software, Developer must obtain a separate license under one or more of the license categories authorizing said use, sale and/or distribution.

1.2 PRODUCT DESCRIPTION

- 1.2.1 The NCOA^{Link} Product utilizes what is referred to as “hash” tables. The hash tables are secure datasets that will only provide new address information when queried with a specific algorithm of the name and old address from a mailer’s address list which matches the information as it appears on a Change of Address form (PS 3575).
- 1.2.2 Extensive programming will be required to interface with the NCOA^{Link} Product datasets. A software interface will customize the type of input format, provide the output desired and contain appropriate links with ZIP + 4 matching software.
- 1.2.3 Periodic updates to the NCOA^{Link} Product datasets (hash tables) will be provided via Electronic Product Fulfillment (EPF) to Licensees. Licensees should utilize the current monthly CASS ZIP + 4 product with the NCOA^{Link} updates to provide the up-to-date address. Refer to Figure 2 for acceptable use dates of the ZIP + 4 product. The NCOA^{Link} Product release must be synchronized with the ZIP + 4 data release.
- 1.2.4 The Developer and Licensee, in order to utilize the NCOA^{Link} product, must meet all requirements and specifications contained within the License Agreement, the most current version of these Performance Requirements, and the most current version of the Software Developer Guide (SDG), unless modified by USPS in writing.

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- 1.2.5 Weekly updates more than 45 days old shall be destroyed using common practice for disposal of sensitive materials, such as permanent file deletion.

1.3 MULTIPLE SERVICE OFFERINGS

- 1.3.1 Additional processes, such as ZIP + 4, DPV[®], LACS^{Link} and Suite^{Link}®, can be run either independently or interactively with NCOA^{Link} processing.
- 1.3.2 Prior to NCOA^{Link} processing, input addresses presented to NCOA^{Link} must be processed through CASS Certified matching software to obtain ZIP + 4 coded, parsed addresses. The ZIP + 4 coded, parsed result and the corresponding name will be used to query NCOA^{Link}. If a LACS^{Link} match is made to the original address during CASS processing, Licensees must query the NCOA^{Link} Product using the LACS^{Link} converted address. ZIP + 4 results must be obtained within the valid window for processing based on the date NCOA^{Link} processing is performed and the chart of valid ZIP + 4 dates provided in Figure 2.
- 1.3.3 DPV, LACS^{Link} and Suite^{Link} are optional for End User Mailers and may be obtained at the licensee's expense. The software required for processing these multiple services may be bundled as a single integrated software package or provided separately for each individual service.
- 1.3.4 The ANK^{Link}® option is available through Limited Service Provider Licensees and to End User Licensees to enable mailers to make informed choices regarding a specific customer contact. If the data indicates a move, the mailer may choose to suppress the record from their list or attempt to determine the actual new address by engaging the services of an NCOA^{Link} Full Service Provider Licensee.

2.0 DEFINITION

- 2.1 In order for a Licensee to use NCOA^{Link}, it must submit a series of inquiries to USPS secure hash tables that will yield a new address for the purpose of updating mailing lists when both the name and old address are matched (NCOA^{Link} process). Input is in the form of a complete name, a 9-digit ZIP + 4 Code and a parsed address. The direct output contains the 11 digit Delivery Point Barcode (DPBC), the move effective date, the middle initial (if present on the COA) and gender identification. The software must convert the information to a normalized street address in accordance with the SDG.

3.0 GENERAL REQUIREMENTS

- 3.1 Any Developer wishing to use, sell and/or distribute NCOA^{Link} software must first develop software that utilizes as its address input the 9-digit ZIP + 4 Code and parsed address output from a USPS CASS Certified software. The NCOA^{Link} software will utilize this information along with the complete name as it appears on the input record to obtain a match to a COA. NCOA^{Link} cannot assign a ZIP + 4 Code nor will it respond to a non-ZIP + 4 coded address. The Developer must perform a process quality review. USPS must review and approve the software's performance prior to any actual NCOA^{Link} processing occurring in a production environment to ensure that all license requirements are met. Upon USPS determining that Developer has met all requirements in the license and that the software meets all USPS requirements, the USPS will provide the Developer a license for its proposed software.
- 3.2 Developer shall not export the NCOA^{Link} Product and/or datasets outside the boundaries of the United States of America or its territories without prior written approval of the USPS.

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- 3.3 As a Licensee of the USPS, the Developer agrees that any and all data, source code, or information received from the USPS or otherwise obtained or developed in the course of, or as the result of, the performance of this license shall:
 - 3.3.1 Be kept in strict confidence and shall not be disclosed in any manner to any organization (including professional societies) other than the USPS until released of such obligation by the USPS in writing, and,
 - 3.3.2 When in Developer's possession, be provided with adequate physical, technical and administrative safeguards to prevent unauthorized access, disclosure, misuse, or attention.
- 3.4 Copies of this document and any new updates to the License Agreement, the Performance Requirements, or the Certification Procedures will be posted on the RIBBS website at https://ribbs.usps.gov/ncoalink/documents/tech_guides/DEV_INFO/.
- 3.5 Licensee must incorporate use of the Daily Delete process into all NCOA^{Link} processing. The Daily Delete file is available from the USPS Electronic Product Fulfillment website. Instructions for use of this process must be obtained from the Licensee's software interface supplier.

4.0 SPECIFIC REQUIREMENTS

- 4.1 Developers must create NCOA^{Link} software for licensing that will access the NCOA^{Link} Product.
- 4.2 Software must use USPS CASS certified Address Matching software parsed, standardized output to query the NCOA^{Link} Product.
- 4.3 Software must contain features to meet the provisions of Standards of Performance as summarized here and detailed in paragraph 8.0 below.
 - a. Record and store required reporting information from list processing.
 - b. Produce reports in expected format upon request.
 - c. Repair all software deficiencies promptly.
- 4.4 Software must generate and maintain all specific reports as required in paragraph 10.0 below.
- 4.5 Software must be capable of:
 - a. Processing full file replacements via Electronic Product Fulfillment.
 - b. Processing address lists of at least 100 unique names and addresses.
 - c. Rejecting address lists of less than 100 unique names and addresses.
 - d. Accessing the NCOA^{Link} system as required by the NCOA^{Link} Software Developer Guide.
 - e. Translating the new Delivery Point Codes returned into standardized addresses where matches are found.
 - f. Assigning all applicable standard footnote codes.
 - g. Performing the following processing options:

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Option	Description	Code
Business only	Software system will provide new address information for Business moves only.	B
Individual only	Software system will provide new address information for Individual moves only.	I
Individual and Business	Software system will provide new address information for Individual and Business moves only.	C
Standard	Software system will not restrict any matches or prohibit the return of information based on move types (Business, Individual or Family).	S
Residential	Software will provide new address information for Individual and Family moves only.	R

h. Processing Standard matching logic inquiries in the following order:

Business	Match on business name.
Individual	Match on first name, middle name, surname and title required. Gender is checked and nickname possibilities are considered.
Family	Match on surname only.

- i. Prohibiting surname only matching except as allowed in Standard matching logic.
- j. Allowing User to select time frame shorter than the NCOA^{Link} Product but no less than six months. (Time period covered and total matches rejected must be reported in the Customer Service Log.)
- k. Providing footnote only processing options.
- l. Providing and storing all statistical reports and data files as required.
- m. Enforcing a 45-day expiration date based on the date of the NCOA^{Link} Product.
- n. Providing adequate security that will prohibit unauthorized access to or use of the software and NCOA^{Link}.
- o. Processing specialized USPS certification, audit or test files.

4.7 Developer shall provide the USPS with access to any resource used in performance of this license and with the necessary equipment and/or reports to monitor compliance at the NCOA^{Link} Developer's facility.

4.8 Licensee shall establish a central email address for receipt and disbursement of USPS electronic correspondence within Licensee's organization.

5.0 BASIC NCOA^{Link} PRODUCT OUTPUT

5.1 The software must include USPS' standardized footnotes to provide consistency of products and facilitate USPS evaluation of customer data.

5.2 For each address submitted to NCOA^{Link}, the software must return the following output:

- a. Each original unaltered input name and address as it was presented
- b. The standardized address appended with the correct ZIP + 4/DPC, other postal values and any other intelligence flags or footnotes that result from the CASS processing segment.
- c. For each mailing address for which there is a match to the NCOA^{Link} hash table(s) as defined in this document, the 11 digit DPBC and a conversion to a standard street

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- address, and standard footnote codes as listed in Figure 1. Software shall assign all applicable standard footnote codes.
- d. When a match is made, the following elements must be returned: the move effective date (CCYYMM), specific name and address utilized in the query that obtained the match, and the move type. The move type is determined by the software based on the specific name inquiry utilized to obtain the match.
 - e. For each mailing address for which there is not a match to the NCOA^{Link} hash table(s), the software shall return all elements as appropriate under a and b as well as any standard footnote codes as may be appropriate under Figure 1.
 - f. The urbanization name information, when applicable.
 - g. The carrier route information for new (updated) addresses.
 - h. DPV results, if requested. (Optional)
 - i. LACS^{Link} results, if requested. (Optional)
 - j. Suite^{Link} results, if requested. (Optional)

6.0 QUALITY STANDARDS AND TESTING CRITERIA

- 6.1 The NCOA^{Link} software will be subject to periodic process quality reviews (audits) and evaluation of its adherence to the conditions of the NCOA^{Link} License Agreement for which it was designed. Please note that the USPS audit file must be processed through the same NCOA^{Link} system utilized for mailing list processing.
- 6.2 The NCOA^{Link} software will provide the necessary output as described in 5.0 utilizing the specific USPS format as described in Figure 3. Upon notification of the transmission of an audit file, it can be retrieved from Developer's specific USPS account via the internet. The audit output and supporting documentation derived from the NCOA^{Link} process will be posted to the same account.
- 6.3 The audit file will test the NCOA^{Link} software with a series of known forwardable addresses and known non-forwardable addresses to validate the software's ability to query the NCOA^{Link} Product and return the appropriate output responses.
- 6.4 The audit will also verify the administrative output, including all reports, of the NCOA^{Link} process.
- 6.5 Auditing will be performed once annually or as specified by the USPS. If necessary, subsequent audits due to failures must be completed within the annual license period to prevent suspension and/or termination.
- 6.6 Upon validation of the results, Developer will receive official notification of the audit results from the USPS.
- 6.7 The software must provide accurately matched responses for at least 99% of the inquiries where data to support these responses are known to be in the USPS file and shall produce no unexpected matches.
 - a. The percentage of audit file input name and address records that achieve the correct result shall not be less than 99% when compared to the USPS expected results.
 - b. The audit file output shall not result in a match that is not expected and would result in returning incorrect information that would eventually cause the misdirection of mail.
 - c. The audit file output must correctly provide all NCOA^{Link} elements with 100% accuracy.
- 6.8 In the event that a problem is identified by the USPS that is related to the NCOA^{Link} process, the USPS will, at its sole discretion, direct correction of the problem and/or exercise the suspension or termination provisions of the License, as it deems appropriate by the situation.

7.0 LICENSEE CERTIFICATION

See Certification Procedures at

https://ribbs.usps.gov/ncoalink/documents/tech_guides/DEV_INFO/DEV_CERT_PROC.PDF.

8.0 STANDARDS OF PERFORMANCE

- 8.1 Software must record Licensee service log, which will be maintained and be made available for Postal Service review for a period of 5 years. This service log shall also be kept on a computer file and shall be submitted to the USPS electronically or on approved electronic media on a monthly basis (see Reports Section for format).
- 8.2 Developer shall repair or have repaired all software deficiencies related to the NCOA^{Link} system within 30 days of identification of said deficiencies.
- 8.3 Licensee is responsible for redistributing license related electronic correspondence from USPS to the appropriate personnel within Licensee's organization. Pursuant to Paragraph 4.8, all electronic correspondence will be directed to a central email address within Licensee's organization. The email address must be ncscinfo@<yourcompany.com>. In the event that this address is already assigned for some other purpose, an alternate address must be submitted to USPS for approval. Licensee will subsequently distribute all applicable USPS notifications internally to ensure receipt by the proper staff. Such correspondence will also be sent to the pertinent contacts provided during the application process but in the event of "bounce backs" successful delivery via the central email address will be considered confirmation of receipt.

9.0 ADVERTISING

- 9.1 Developer is prohibited from representing to third parties that USPS has certified Developer's software product until USPS issues a software certification notice to Developer. Prior to receiving the software certification notice from USPS, Developer may only represent that it has "applied" to receive software certification, and is prohibited from making any representations or warranties as to the availability of its software and/or the ability of its software to support the NCOA^{Link} product.
- 9.2 As stated in Section 1.1, prior to any use, sale and/or distribution of Developer's NCOA^{Link} software, Developer must obtain a separate license under one or more of the license categories authorizing said use, sale and/or distribution.

10.0 REPORTS

- 10.1 The software shall be capable of producing a monthly performance report from the service log by system platform. The reports begin on the first day of the month and terminate on the last day of the month and must be kept in sequential order. The log must contain a record for each list processed through the NCOA^{Link} system and the resultant statistics. The reports will be maintained and made available for Postal Service review for a period of 5 years at the Licensee's facility. The electronic report file layout follows Section 10.
- 10.2 The monthly performance reports will be named using a four-part eight-character identification scheme. The first character will be "C" to identify it as a Customer Service Log. Characters 2-5 will contain the USPS-assigned four-character Licensee platform identification code. The sixth character will identify the month of the report; refer to the chart following this paragraph. The last two characters will identify the year of the report by the last two digits of the calendar year.

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Month	Code
January	1
February	2
March	3
April	4
May	5
June	6
July	7
August	8
September	9
October	A
November	B
December	C

- 10.3 NCOA^{Link} is intended solely for use as a mailing list update tool. Testing of any kind using NCOA^{Link} is strongly discouraged by the USPS. However, the USPS does acknowledge that certain testing is necessary. In an effort to obtain an accurate statistical reporting regarding addresses updated by NCOA^{Link}, the type of processing must be accurately and consistently recorded. Therefore, the following list of codes must be used to populate the "PROCESSING CATEGORY" field in the service log:

Code	Description	Disposition of Results
EMP TRAIN	File processed as part of employee training.	Results discarded; no update performed or information released.
INT DB TST	Testing involving proprietary Licensee database.	No updates performed; results discarded after analysis.
NORMAL	Process mailing list for update prior to mailing.	COA information obtained and updates performed.
STAGE I	Test of matching performance against USPS self-test file.	Results used for internal program analysis and subsequently discarded.
STAGE II	Test of matching performance scored by USPS.	Output transmitted to USPS for evaluation and discarded when test results finalized.
SYS TEST	File processed as part of system testing such as loading of USPS file updates.	Results discarded; no updates performed or information released.

- 10.4 NCOA^{Link} Licensees must electronically transmit all required monthly reports to the NCSC. The software must allow for information retrieval based on an input of a date range.

- 10.5 Upon request, the software must be capable of producing a hardcopy report summarizing the processing of each list. The report shall be named NCOA^{Link} Processing Summary Report. The report may contain any and all information gathered to fulfill the requirements of Section 10.4 and information from other processes as desired. At a minimum, the processing summary must contain:

- Licensee Company Name
- License ID
- List Name
- Processing Category
- Matching Logic Applied flag

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- Class of Mail
- Date NCOA^{Link} Processing Completed
- Total Number of Records Processed
- Total Number of Records Matched – NCOA^{Link}
- Total Number of Records Matched – ANK^{Link}
- Total Number of Records ZIP + 4 Coded
- Total Number of Records DPV Confirmed
- Total Number of Records LACS^{Link} Matched
- Total Number of Records Suite^{Link} Matched
- Move Activity Summary by Return Codes – This section consists of 15 data elements providing a Move Activity Summary (Age of Change of Address) for the nine NCOA^{Link} Match Return Codes.
 - The Return Codes are separated into three groupings:
 - Moved, New Address Provided (Return Codes A, 91 & 92)
 - Moved, No New Address Available (Return Codes 01, 02 & 03)
 - Moved, Unable to Provide New Address (Return Codes 05, 14 & 19)
 - The Move Effective Dates are separated into five groupings:
 - Sum of Months 00-03
 - Sum of Months 04-06
 - Sum of Months 07-12
 - Sum of Months 13-18
 - Sum of Months 19 and older

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RECORD FROM	POSITION TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
1	4	CUSTOMER ID Alphanumeric. Licensee ID (USPS assigned)	4	X(4)
5	18	NUMBER OF RECORDS Total number of records in the Customer Service Log excluding Header Record	14	9(14)
19	70	Filler	52	X(52)
		<i>The Header Record must contain file totals for all fields in the subsequent Detail Record(s). All field positions in the Header Record correspond to field positions in the Detail Record(s).</i>		
		<i>Fields listed as "Optional – Filler" in the Detail Record are also optional in the Header Record. However, if data is provided in these fields in the Detail Record(s), file totals MUST appear in the Header Record for the corresponding fields.</i>		
		Processing Statistics Summary		
71	81	TOTAL NUMBER OF RECORDS PROCESSED	11	9(11)
82	92	TOTAL NUMBER OF NCOA ^{Link} QUERIES PERFORMED	11	9(11)
93	103	TOTAL NUMBER OF RECORDS MATCHED – NCOA ^{Link} NOTE: NCOA ^{Link} matches only, exclude ANK ^{Link} matches from calculation	11	9(11)
104	114	TOTAL NUMBER OF MATCHES REJECTED	11	9(11)
115	125	TOTAL NUMBER OF RECORDS MATCHED to ZIP + 4 FILE (Should equal total DPV Response: AA)	11	9(11)
126	136	TOTAL NUMBER OF RECORDS DPV CONFIRMED (Sum of DPV Return Code: Y, S, and D)	11	9(11)
		Product Information		
137	286	Filler	150	X(150)
		ZIP + 4 Match Statistics		
287	297	ZIP + 4 File: Total matched to PO Box	11	9(11)
298	308	ZIP + 4 File: Total matched to HCR Exact	11	9(11)
309	319	ZIP + 4 File: Total matched to RR Default	11	9(11)
320	330	ZIP + 4 File: Total matched to Firm	11	9(11)
331	341	ZIP + 4 File: Total matched to General Del	11	9(11)
342	352	ZIP + 4 File: Total matched to Highrise Default	11	9(11)
353	363	ZIP + 4 File: Total matched to Military	11	9(11)
364	374	ZIP + 4 File: Total matched to Non-Deliverable	11	9(11)
375	385	ZIP + 4 File: Total matched to RR Exact	11	9(11)
386	396	ZIP + 4 File: Total matched to Street	11	9(11)
397	407	ZIP + 4 File: Total matched to HCR Default	11	9(11)
408	418	ZIP + 4 File: Total matched to Highrise Exact	11	9(11)
419	429	ZIP + 4 File: Total matched to Other	11	9(11)
430	440	ZIP + 4 File: Total matched to Pos LACS	11	9(11)
441	451	EWS File: Total matched to EWS	11	9(11)
		Footnote Information: Number of responses containing each footnote code:		
		New Address Provided by NCOA^{Link}		
452	462	A – Match	11	9(11)
463	473	91 – Match with Secondary Number Dropped on COA (Old Side)	11	9(11)
474	484	92 – Match with Secondary Number Dropped on Input	11	9(11)

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RECORD FROM	POSITION TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
		From NCOA^{Link} File Build		
485	495	01 – Match – Foreign Move	11	9(11)
496	506	02 – Match – Moved Left No Address	11	9(11)
507	517	03 – Match – PO Box Closed	11	9(11)
518	528	04 – No Match – Family move from Street Address w/Secondary	11	9(11)
529	539	05 – Match – New 11 digit DPBC is ambiguous	11	9(11)
540	550	06 – No Match – Middle Name Related	11	9(11)
551	561	07 – No Match – Gender Related	11	9(11)
562	572	08 – No Match – Conflicting Instructions	11	9(11)
573	583	09 – No Match – Family move from Highrise default	11	9(11)
584	594	10 – No Match – Family move from Rural/HC Route default	11	9(11)
595	605	11 – No Match – Individual move – Insufficient name data	11	9(11)
606	616	18 – No Match – Family move from General Delivery	11	9(11)
617	627	19 – Match – New Address not ZIP + 4 codeable	11	9(11)
628	638	20 – No Match – Multiple Response – Conflicting Directions	11	9(11)
		From NCOA^{Link} File Run		
639	649	12 – No Match – Middle Name test failed	11	9(11)
650	660	13 – No Match – Gender test failed	11	9(11)
661	671	14 – Match – New Address would not convert	11	9(11)
672	682	15 – No Match – Individual Name insufficient on input to match	11	9(11)
683	693	16 – No Match – Secondary Number discrepancy	11	9(11)
694	704	17 – No Match – Different First Name	11	9(11)
		From “Daily Delete” Process		
705	715	66 – No Match – Input Address appears in “Daily Delete” suppression file	11	9(11)
		From DPV Processing of Input Addresses		
716	726	AA – ZIP + 4 Match	11	9(11)
727	737	A1 – ZIP + 4 No Match	11	9(11)
738	748	M1 – Primary Number missing	11	9(11)
749	759	M3 – Primary Number invalid	11	9(11)
760	770	P1 – Missing PO, RR or HC Box number	11	9(11)
771	781	P3 – Invalid PO, RR or HC Box number	11	9(11)
782	792	BB – DPV matched (all components)	11	9(11)
793	803	RR – DPV Matched to CMRA	11	9(11)
804	814	CC – Primary Number Match – Secondary present but invalid	11	9(11)
815	825	N1 – Primary Number Match – Secondary missing	11	9(11)
826	836	R1 – DPV Matched to CMRA– PMB number not present	11	9(11)
		Move Activity Summary		
		Age based on month and year of process date.		
837	847	ADDRESSES MATCHED MONTH 0	11	9(11)
848	858	ADDRESSES MATCHED MONTH 1	11	9(11)
859	869	ADDRESSES MATCHED MONTH 2	11	9(11)
870	880	ADDRESSES MATCHED MONTH 3	11	9(11)
881	891	ADDRESSES MATCHED MONTH 4	11	9(11)
892	902	ADDRESSES MATCHED MONTH 5	11	9(11)
903	913	ADDRESSES MATCHED MONTH 6	11	9(11)

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RECORD FROM	POSITION TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
914	924	ADDRESSES MATCHED MONTH 7	11	9(11)
925	935	ADDRESSES MATCHED MONTH 8	11	9(11)
936	946	ADDRESSES MATCHED MONTH 9	11	9(11)
947	957	ADDRESSES MATCHED MONTH 10	11	9(11)
958	968	ADDRESSES MATCHED MONTH 11	11	9(11)
969	979	ADDRESSES MATCHED MONTH 12	11	9(11)
980	990	ADDRESSES MATCHED MONTH 13	11	9(11)
991	1001	ADDRESSES MATCHED MONTH 14	11	9(11)
1002	1012	ADDRESSES MATCHED MONTH 15	11	9(11)
1013	1023	ADDRESSES MATCHED MONTH 16	11	9(11)
1024	1034	ADDRESSES MATCHED MONTH 17	11	9(11)
1035	1045	ADDRESSES MATCHED MONTH 18	11	9(11)
1046	1056	ADDRESSES MATCHED MONTH 19	11	9(11)
1057	1067	ADDRESSES MATCHED MONTH 20	11	9(11)
1068	1078	ADDRESSES MATCHED MONTH 21	11	9(11)
1079	1089	ADDRESSES MATCHED MONTH 22	11	9(11)
1090	1100	ADDRESSES MATCHED MONTH 23	11	9(11)
1101	1111	ADDRESSES MATCHED MONTH 24	11	9(11)
1112	1122	ADDRESSES MATCHED MONTH 25	11	9(11)
1123	1133	ADDRESSES MATCHED MONTH 26	11	9(11)
1134	1144	ADDRESSES MATCHED MONTH 27	11	9(11)
1145	1155	ADDRESSES MATCHED MONTH 28	11	9(11)
1156	1166	ADDRESSES MATCHED MONTH 29	11	9(11)
1167	1177	ADDRESSES MATCHED MONTH 30	11	9(11)
1178	1188	ADDRESSES MATCHED MONTH 31	11	9(11)
1189	1199	ADDRESSES MATCHED MONTH 32	11	9(11)
1200	1210	ADDRESSES MATCHED MONTH 33	11	9(11)
1211	1221	ADDRESSES MATCHED MONTH 34	11	9(11)
1222	1232	ADDRESSES MATCHED MONTH 35	11	9(11)
1233	1243	ADDRESSES MATCHED MONTH 36	11	9(11)
1244	1254	ADDRESSES MATCHED MONTH 37	11	9(11)
1255	1265	ADDRESSES MATCHED MONTH 38	11	9(11)
1266	1276	ADDRESSES MATCHED MONTH 39	11	9(11)
1277	1287	ADDRESSES MATCHED MONTH 40	11	9(11)
1288	1298	ADDRESSES MATCHED MONTH 41	11	9(11)
1299	1309	ADDRESSES MATCHED MONTH 42	11	9(11)
1310	1320	ADDRESSES MATCHED MONTH 43	11	9(11)
1321	1331	ADDRESSES MATCHED MONTH 44	11	9(11)
1332	1342	ADDRESSES MATCHED MONTH 45	11	9(11)
1343	1353	ADDRESSES MATCHED MONTH 46	11	9(11)
1354	1364	ADDRESSES MATCHED MONTH 47	11	9(11)
1365	1375	ADDRESSES MATCHED MONTH 48	11	9(11)
1376	1452	Filler	77	X(77)
		DPV Statistics		
1453	1463	ZIP + 4 File: Street (S) Records – DPV Confirmed (Y, S or D)	11	9(11)
1464	1474	CMRA Presented	11	9(11)
1475	1485	CMRA Validated	11	9(11)
1486	1496	ZIP + 4 File: High Rise (H) Records – DPV Confirmed (Y, S or D)	11	9(11)
1497	1507	CMRA Presented	11	9(11)
1508	1518	CMRA Validated	11	9(11)
1519	1529	ZIP + 4 File: PO Box (P) Records – DPV Confirmed (Y, S or D)	11	9(11)

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RECORD FROM	POSITION TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
1530	1540	ZIP + 4 File: RR/HC (R) Records – DPV Confirmed (Y, S or D)	11	9(11)
1541	1551	CMRA Presented	11	9(11)
1552	1562	CMRA Validated	11	9(11)
1563	1573	ZIP + 4 File: Firm (F) Records – DPV Confirmed (Y, S or D)	11	9(11)
1574	1584	CMRA Presented	11	9(11)
1585	1595	CMRA Validated	11	9(11)
1596	1606	ZIP + 4 File: General Delivery (G) Records – DPV Confirmed (Y, S or D)	11	9(11)
1607	1617	Total Primary Number Error	11	9(11)
1618	1672	FILLER	55	9(55)
1673	1683	Total Secondary Number Error	11	9(11)
1684	1694	Street (S) Records with Secondary Number Error	11	9(11)
1695	1705	High Rise (H) Records with Secondary Number Error	11	9(11)
1706	1716	Firm (F) Records with Secondary Number Error	11	9(11)
1717	1766	FILLER	50	X(50)
		LACS^{Link} Return Codes		
1767	1777	A – LACS ^{Link} Record Match	11	9(11)
1778	1788	00 – No Match	11	9(11)
1789	1799	14 – Match – Found LACS ^{Link} Record – New Address would not convert	11	9(11)
1800	1810	92 – Match with Secondary Number Dropped on Input		
		From DPV Processing of Input Addresses – Additional Return Codes		
1811	1821	F1 – Military	11	9(11)
1822	1832	U1 – Unique ZIP Code	11	9(11)
1833	1843	G1 – General Delivery	11	9(11)
		From NCOA^{Link} File Run – Additional Footnote Codes		
1844	1854	NL – New address not DPV confirmable with vendor software. (Required only when this code is returned to the customer)***	11	9(11)
		ANK^{Link} and corresponding NCOA^{Link} Return Codes and Definition		
1855	1865	77 – A – Match	11	9(11)
1866	1876	77 – 91 – Match with Secondary No. Dropped on COA (Old Side)	11	9(11)
1877	1887	77 – 92 – Match with Secondary Number Dropped on Input	11	9(11)
1888	1898	77 – 01 – Match – Foreign Move	11	9(11)
1899	1909	77 – 02 – Match – Moved Left No Address	11	9(11)
1910	1920	77 – 03 – Match – PO Box Closed	11	9(11)
1921	1931	77 – 04 – No Match – Family move - Street Address w/Secondary	11	9(11)
1932	1942	77 – 05 – Match – New 11 digit DPBC is ambiguous	11	9(11)
1943	1953	77 – 06 – No Match – Middle Name Related	11	9(11)
1954	1964	77 – 07 – No Match – Gender Related	11	9(11)
1965	1975	77 – 08 – No Match – Conflicting Instructions	11	9(11)
1976	1986	77 – 09 – No Match – Family move from Highrise default	11	9(11)
1987	1997	77 – 10 – No Match – Family move from Rural/HC Route default	11	9(11)
1998	2008	77 – 11 – No Match – Individual move – Insufficient name data	11	9(11)
2009	2019	77 – 18 – No Match – Family move from General Delivery	11	9(11)

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RECORD FROM	POSITION TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
2020	2030	77 – 19 – Match – New Address not ZIP + 4 codeable	11	9(11)
2031	2041	77 – 20 – No Match – Multiple Response – Conflicting Directions	11	9(11)
2042	2052	77 – 12 – No Match – Middle Name test failed	11	9(11)
2053	2063	77 – 13 – No Match – Gender test failed	11	9(11)
2064	2074	77 – 14 – Match – New Address would not convert	11	9(11)
2075	2085	77 – 15 – No Match – Individual Name insufficient on input	11	9(11)
2086	2096	77 – 16 – No Match – Secondary Number discrepancy	11	9(11)
2097	2107	77 – 17 – No Match – Different First Name	11	9(11)
2108	2118	77 – 66 – No Match – Input Address appears in “Daily Delete” suppression file	11	9(11)
2119	2129	77 – Total records matched using ANK ^{Link}	11	9(11)
		LACS^{Link} Return Codes – Additional Return Code		
2130	2140	09 – LACS ^{Link} – Old Addr Highrise Default – No New Address	11	9(11)
2141	2192	FILLER	52	X(52)
		Suite^{Link} Return Codes		
2193	2203	Suite ^{Link} Return Code A – Match	11	9(11)
2204	2214	Suite ^{Link} Return Code 00 – No Match	11	9(11)
		NCOA^{Link} Return Codes (continued)		
2215	2225	NCOA ^{Link} Return Code 21 – To Be Determined	11	9(11)
2226	2236	NCOA ^{Link} Return Code 22 – To Be Determined	11	9(11)
2237	2247	NCOA ^{Link} Return Code 23 – To Be Determined	11	9(11)
2248	2258	NCOA ^{Link} Return Code 24 – To Be Determined	11	9(11)
2259	2269	NCOA ^{Link} Return Code 25 – To Be Determined	11	9(11)
2270	2280	NCOA ^{Link} Return Code 26 – To Be Determined	11	9(11)
2281	2291	NCOA ^{Link} Return Code 27 – To Be Determined	11	9(11)
2292	2302	NCOA ^{Link} Return Code 28 – To Be Determined	11	9(11)
2303	2313	NCOA ^{Link} Return Code 29 – To Be Determined	11	9(11)
2314	2324	NCOA ^{Link} Return Code 30 – To Be Determined	11	9(11)
		ANK^{Link} Return Codes (continued)		
2325	2335	77 – 21 – To Be Determined	11	9(11)
2336	2346	77 – 22 – To Be Determined	11	9(11)
2347	2357	77 – 23 – To Be Determined	11	9(11)
2358	2368	77 – 24 – To Be Determined	11	9(11)
2369	2379	77 – 25 – To Be Determined	11	9(11)
2380	2390	77 – 26 – To Be Determined	11	9(11)
2391	2401	77 – 27 – To Be Determined	11	9(11)
2402	2412	77 – 28 – To Be Determined	11	9(11)
2413	2423	77 – 29 – To Be Determined	11	9(11)
2424	2434	77 – 30 – To Be Determined	11	9(11)
2435	2638	FILLER	204	X(204)
		DPV Return Codes		
2639	2649	Count of DPV Return Code = Y	11	9(11)
2650	2660	Count of DPV Return Code = S	11	9(11)
2661	2671	Count of DPV Return Code = D	11	9(11)

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RECORD FROM	POSITION TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
2672	2682	Count of DPV Return Code = N	11	9(11)
2683	2693	Count of DPV Return Code = BLANK	11	9(11)
2694	2704	Count of DPV Vacant Flag = Y	11	9(11)
2705	2715	Count of DPV CMRA Flag	11	9(11)
2716	2726	Count of DPV No Stat Flag	11	9(11)
		MAS (Move Activity Summary) for the PSR (Processing Summary Report)		
2727	2737	Sum of Match Return Codes A, 91 & 92 with Move Effective Month: Mon 0-3	11	X(11)
2738	2748	Sum of Match Return Codes A, 91 & 92 with Move Effective Month: Mon 4-6	11	X(11)
2749	2759	Sum of Match Return Codes A, 91 & 92 with Move Effective Month: Mon 7-12	11	X(11)
2760	2770	Sum of Match Return Codes A, 91 & 92 with Move Effective Month: Mon 13-18	11	X(11)
2771	2781	Sum of Match Return Codes A, 91 & 92 with Move Effective Month: Mon 19+	11	X(11)
2782	2836	FILLER	55	X(55)
2837	2847	Sum of Match Return Codes 01, 02 & 03 with Move Effective Month: Mon 0-3	11	X(11)
2848	2858	Sum of Match Return Codes 01, 02 & 03 with Move Effective Month: Mon 4-6	11	X(11)
2859	2869	Sum of Match Return Codes 01, 02 & 03 with Move Effective Month: Mon 7-12	11	X(11)
2870	2880	Sum of Match Return Codes 01, 02 & 03 with Move Effective Month: Mon 13-18	11	X(11)
2881	2891	Sum of Match Return Codes 01, 02 & 03 with Move Effective Month: Mon 19+	11	X(11)
2892	2902	Sum of Match Return Codes 05, 14 & 19 with Move Effective Month: Mon 0-3	11	X(11)
2903	2913	Sum of Match Return Codes 05, 14 & 19 with Move Effective Month: Mon 4-6	11	X(11)
2914	2924	Sum of Match Return Codes 05, 14 & 19 with Move Effective Month: Mon 7-12	11	X(11)
2925	2935	Sum of Match Return Codes 05, 14 & 19 with Move Effective Month: Mon 13-18	11	X(11)
2936	2946	Sum of Match Return Codes 05, 14 & 19 with Move Effective Month: Mon 19+	11	X(11)
2947	2999	FILLER)	53	X(53)
3000	3000	Record Type – H = Header/ D = Detail	1	X(1)
		CR/LF Carriage Return/Line Feed required at end of each record.		

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RECORD FROM	POSITION TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
1	4	LICENSEE ID Platform ID assigned by USPS.	4	X(4)
5	10	NAICS North American Industry Classification System	6	9(6)
11	12	PROCESSING FREQUENCY Number of times per year list processed. If update frequency not established for a particular list, fill with "99".	2	9(2)
13	18	FILLER	6	X(6)
19	28	PROCESSING CATEGORY Set values to identify the type of processing performed. EMP TRAIN, INT DB TST, MKTG TEST, NORMAL, STAGE I, STAGE II, SYS TEST	10	X(10)
29	33	FILLER	5	X(5)
34	34	MATCHING LOGIC APPLIED S = Standard (Business, Individual and Family matches allowed) I = Individual only B = Business only C = Individual and Business only R = Individual and Family only	1	X(1)
35	35	FILLER	1	X(1)
36	37	NUMBER OF MONTHS REQUESTED By request of list owner, number of months for which COA data accepted	2	9(2)
38	38	CLASS OF MAIL Alphanumeric. Class of mail to be used for mailings produced from customer mailing list. A = First-Class™ only B = Periodicals only C = Standard Mail® only D = Package Services only E = First-Class & Periodicals F = First-Class & Standard Mail G = First-Class & Package Services H = Periodicals & Standard Mail I = Periodicals & Package Services J = Standard Mail & Package Services K = First-Class, Periodicals & Standard Mail L = First-Class, Periodicals & Package Services M = First-Class, Standard Mail & Package Services N = Periodicals, Standard Mail & Package Services O = First-Class, Periodical, Standard Mail, Package Services	1	X(1)
Processing Date Information				
39	46	FILLER	8	9(8)
47	54	DATE NCOA ^{Link} PROCESSING BEGAN Numeric. Format CCYYMMDD.	8	9(8)
55	62	DATE NCOA ^{Link} PROCESSING COMPLETED Numeric. Format CCYYMMDD.	8	9(8)
63	70	FILLER	8	9(8)

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RECORD FROM	POSITION TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
Processing Statistics Summary				
71	81	TOTAL NUMBER OF RECORDS PROCESSED Total number of records presented on the original input list.	11	9(11)
82	92	TOTAL NUMBER OF NCOA ^{Link} QUERIES PERFORMED Total number of all queries made into NCOA ^{Link} including all variations of name and address attempted for each input record. (ie: nickname attempts; dropped secondary attempts)	11	9(11)
93	103	TOTAL NUMBER OF RECORDS MATCHED Results returned indicate match: Return codes A, 91, 92, 01, 02, 03, 05, 14, 19 NOTE: NCOA ^{Link} matches only, exclude ANK ^{Link} matches from calculation	11	9(11)
104	114	TOTAL NUMBER OF MATCHES REJECTED Results discarded based on Move Effective Date: Return code 00 generated due to age of COA	11	9(11)
115	125	TOTAL NUMBER OF RECORDS ZIP + 4 CODED OPT – FILLER	11	9(11)
126	136	TOTAL NUMBER OF RECORDS DPV CONFIRMED OPT – FILLER	11	9(11)
CASS™/MASS™ Product Information				
137	166	CASS/MASS Software Name	30	X(30)
167	178	CASS/MASS Software Version	12	X(12)
179	186	CASS/MASS Directory (Data) Release Date Numeric. Format CCYYMMDD.	8	9(8)
NCOA^{Link} Product Information				
187	216	NCOA ^{Link} Software Name	30	X(30)
217	228	NCOA ^{Link} Software Version	12	X(12)
229	236	NCOA ^{Link} Data Release Date Numeric. Format CCYYMMDD.	8	9(8)
FILLER				
237	286	FILLER	50	X(50)
ZIP + 4 Match Statistics				
287	297	ZIP + 4 File: Total matched to PO Box	11	9(11)
298	308	ZIP + 4 File: Total matched to HCR Exact	11	9(11)
309	319	ZIP + 4 File: Total matched to RR Default	11	9(11)
320	330	ZIP + 4 File: Total matched to Firm	11	9(11)
331	341	ZIP + 4 File: Total matched to General Del	11	9(11)
342	352	ZIP + 4 File: Total matched to Highrise Default	11	9(11)
353	363	ZIP + 4 File: Total matched to Military	11	9(11)
364	374	ZIP + 4 File: Total matched to Non-Deliverable	11	9(11)
375	385	ZIP + 4 File: Total matched to RR Exact	11	9(11)
386	396	ZIP + 4 File: Total matched to Street	11	9(11)
397	407	ZIP + 4 File: Total matched to HCR Default	11	9(11)
408	418	ZIP + 4 File: Total matched to Highrise Exact	11	9(11)
419	429	ZIP + 4 File: Total matched to Other	11	9(11)
430	440	ZIP + 4 File: Total matched to Pos LACS	11	9(11)
441	451	EWS File: Total matched to EWS	11	9(11)

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RECORD FROM	POSITION TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
		Footnote Information: Number of responses containing each footnote code:		
		New Address Provided by NCOA^{Link}		
452	462	A – Match	11	9(11)
463	473	91 – Match with Secondary Number Dropped on COA (Old Side)	11	9(11)
474	484	92 – Match with Secondary Number Dropped on Input	11	9(11)
		From NCOA^{Link} File Build		
485	495	01 – Match – Foreign Move	11	9(11)
496	506	02 – Match – Moved Left No Address	11	9(11)
507	517	03 – Match – PO Box Closed	11	9(11)
518	528	04 – No Match – Family move from Street Address w/Secondary	11	9(11)
529	539	05 – Match – New 11 digit DPBC is ambiguous	11	9(11)
540	550	06 – No Match – Middle Name Related	11	9(11)
551	561	07 – No Match – Gender Related	11	9(11)
562	572	08 – No Match – Conflicting Instructions	11	9(11)
573	583	09 – No Match – Family move from Highrise default	11	9(11)
584	594	10 – No Match – Family move from Rural/HC Route default	11	9(11)
595	605	11 – No Match – Individual move – Insufficient name data	11	9(11)
606	616	18 – No Match – Family move from General Delivery	11	9(11)
617	627	19 – Match – New Address not ZIP + 4 codeable	11	9(11)
628	638	20 – No Match – Multiple Response – Conflicting Directions	11	9(11)
		From NCOA^{Link} File Run		
639	649	12 – No Match – Middle Name test failed	11	9(11)
650	660	13 – No Match – Gender test failed	11	9(11)
661	671	14 – Match – New Address would not convert	11	9(11)
672	682	15 – No Match – Individual Name insufficient on input to match	11	9(11)
683	693	16 – No Match – Secondary Number discrepancy	11	9(11)
694	704	17 – No Match – Different First Name	11	9(11)
		From “Daily Delete” Process		
705	715	66 – No Match – Input Address appears in “Daily Delete” suppression file	11	9(11)
		From DPV Processing of Input Addresses		
716	726	AA – ZIP + 4 Match	11	9(11)
727	737	A1 – ZIP + 4 No Match	11	9(11)
738	748	M1 – Primary Number missing	11	9(11)
749	759	M3 – Primary Number invalid	11	9(11)
760	770	P1 – Missing PO, RR or HC Box number	11	9(11)
771	781	P3 – Invalid PO, RR or HC Box number	11	9(11)
782	792	BB – DPV matched (all components)	11	9(11)
793	803	RR – DPV Matched to CMRA	11	9(11)
804	814	CC – Primary Number Match – Secondary present but invalid	11	9(11)
815	825	N1 – Primary Number Match – Secondary missing	11	9(11)
826	836	R1 – DPV Matched to CMRA– PMB number not present	11	9(11)

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RECORD FROM	POSITION TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
		Move Activity Summary Age based on month and year of process date.		
837	847	ADDRESSES MATCHED MONTH 0 Total number of matches made with Move Effective Date (MED) corresponding to the process date.	11	9(11)
848	858	ADDRESSES MATCHED MONTH 1 Total number of matches made with MED 1 month prior to process date.	11	9(11)
859	869	ADDRESSES MATCHED MONTH 2 Total number of matches made with MED 2 months prior to process date.	11	9(11)
870	880	ADDRESSES MATCHED MONTH 3 Total number of matches made with MED 3 months prior to process date.	11	9(11)
881	891	ADDRESSES MATCHED MONTH 4 Total number of matches made with MED 4 months prior to process date.	11	9(11)
892	902	ADDRESSES MATCHED MONTH 5 Total number of matches made with MED 5 months prior to process date.	11	9(11)
903	913	ADDRESSES MATCHED MONTH 6 Total number of matches made with MED 6 months prior to process date.	11	9(11)
914	924	ADDRESSES MATCHED MONTH 7 Total number of matches made with MED 7 months prior to process date.	11	9(11)
925	935	ADDRESSES MATCHED MONTH 8 Total number of matches made with MED 8 months prior to process date.	11	9(11)
936	946	ADDRESSES MATCHED MONTH 9 Total number of matches made with MED 9 months prior to process date.	11	9(11)
947	957	ADDRESSES MATCHED MONTH 10 Total number of matches made with MED 10 months prior to process date.	11	9(11)
958	968	ADDRESSES MATCHED MONTH 11 Total number of matches made with MED 11 months prior to process date.	11	9(11)
969	979	ADDRESSES MATCHED MONTH 12 Total number of matches made with MED 12 months prior to process date.	11	9(11)
980	990	ADDRESSES MATCHED MONTH 13 Total number of matches made with MED 13 months prior to process date.	11	9(11)
991	1001	ADDRESSES MATCHED MONTH 14 Total number of matches made with MED 14 months prior to process date.	11	9(11)
1002	1012	ADDRESSES MATCHED MONTH 15 Total number of matches made with MED 15 months prior to process date.	11	9(11)
1013	1023	ADDRESSES MATCHED MONTH 16 Total number of matches made with MED 16 months prior to process date.	11	9(11)
1024	1034	ADDRESSES MATCHED MONTH 17 Total number of matches made with MED 17 months prior to process date.	11	9(11)
1035	1045	ADDRESSES MATCHED MONTH 18 Total number of matches made with MED 18 months prior to process date.	11	9(11)
1046	1056	ADDRESSES MATCHED MONTH 19 Total number of matches made with MED 19 months prior to process date.	11	9(11)
1057	1067	ADDRESSES MATCHED MONTH 20 Total number of matches made with MED 20 months prior to process date.	11	9(11)
1068	1078	ADDRESSES MATCHED MONTH 21 Total number of matches made with MED 21 months prior to process date.	11	9(11)
1079	1089	ADDRESSES MATCHED MONTH 22 Total number of matches made with MED 22 months prior to process date.	11	9(11)
1090	1100	ADDRESSES MATCHED MONTH 23 Total number of matches made with MED 23 months prior to process date.	11	9(11)

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RECORD FROM	POSITION TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
1101	1111	ADDRESSES MATCHED MONTH 24 Total number of matches made with MED 24 months prior to process date.	11	9(11)
1112	1122	ADDRESSES MATCHED MONTH 25 Total number of matches made with MED 25 months prior to process date.	11	9(11)
1123	1133	ADDRESSES MATCHED MONTH 26 Total number of matches made with MED 26 months prior to process date.	11	9(11)
1134	1144	ADDRESSES MATCHED MONTH 27 Total number of matches made with MED 27 months prior to process date.	11	9(11)
1145	1155	ADDRESSES MATCHED MONTH 28 Total number of matches made with MED 28 months prior to process date.	11	9(11)
1156	1166	ADDRESSES MATCHED MONTH 29 Total number of matches made with MED 29 months prior to process date.	11	9(11)
1167	1177	ADDRESSES MATCHED MONTH 30 Total number of matches made with MED 30 months prior to process date.	11	9(11)
1178	1188	ADDRESSES MATCHED MONTH 31 Total number of matches made with MED 31 months prior to process date.	11	9(11)
1189	1199	ADDRESSES MATCHED MONTH 32 Total number of matches made with MED 32 months prior to process date.	11	9(11)
1200	1210	ADDRESSES MATCHED MONTH 33 Total number of matches made with MED 33 months prior to process date.	11	9(11)
1211	1221	ADDRESSES MATCHED MONTH 34 Total number of matches made with MED 34 months prior to process date.	11	9(11)
1222	1232	ADDRESSES MATCHED MONTH 35 Total number of matches made with MED 35 months prior to process date.	11	9(11)
1233	1243	ADDRESSES MATCHED MONTH 36 Total number of matches made with MED 36 months prior to process date.	11	9(11)
1244	1254	ADDRESSES MATCHED MONTH 37 Total number of matches made with MED 37 months prior to process date.	11	9(11)
1255	1265	ADDRESSES MATCHED MONTH 38 Total number of matches made with MED 38 months prior to process date.	11	9(11)
1266	1276	ADDRESSES MATCHED MONTH 39 Total number of matches made with MED 39 months prior to process date.	11	9(11)
1277	1287	ADDRESSES MATCHED MONTH 40 Total number of matches made with MED 40 months prior to process date.	11	9(11)
1288	1298	ADDRESSES MATCHED MONTH 41 Total number of matches made with MED 41 months prior to process date.	11	9(11)
1299	1309	ADDRESSES MATCHED MONTH 42 Total number of matches made with MED 42 months prior to process date.	11	9(11)
1310	1320	ADDRESSES MATCHED MONTH 43 Total number of matches made with MED 43 months prior to process date.	11	9(11)
1321	1331	ADDRESSES MATCHED MONTH 44 Total number of matches made with MED 44 months prior to process date.	11	9(11)
1332	1342	ADDRESSES MATCHED MONTH 45 Total number of matches made with MED 45 months prior to process date.	11	9(11)
1343	1353	ADDRESSES MATCHED MONTH 46 Total number of matches made with MED 46 months prior to process date.	11	9(11)
1354	1364	ADDRESSES MATCHED MONTH 47 Total number of matches made with MED 47 months prior to process date.	11	9(11)
1365	1375	ADDRESSES MATCHED MONTH 48 Total number of matches made with MED 48 months or more prior to process date.	11	9(11)

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END USER MAILER SOFTWARE

NCOA^{Link} MONTHLY CUSTOMER SERVICE LOG
END USER MAILER
Detail Record
(page 6 of 9)

RECORD FROM	POSITION TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
1376	1422	FILLER	47	X(47)
		List Identification		
1423	1452	MAILING LIST NAME Name of mailing list processed. NOTE: If master house list and/or list owner's only mailing list, company name is sufficient.	30	X(30)
		DPV Statistics		
1453	1463	ZIP + 4 File: Street (S) Records – DPV Confirmed (Y, S or D)	11	9(11)
1464	1474	CMRA Presented	11	9(11)
1475	1485	CMRA Validated	11	9(11)
1486	1496	ZIP + 4 File: High Rise (H) Records – DPV Confirmed (Y, S or D)	11	9(11)
1497	1507	CMRA Presented	11	9(11)
1508	1518	CMRA Validated	11	9(11)
1519	1529	ZIP + 4 File: PO Box (P) Records – DPV Confirmed (Y, S or D)	11	9(11)
1530	1540	ZIP + 4 File: RR/HC (R) Records – DPV Confirmed (Y, S or D)	11	9(11)
1541	1551	CMRA Presented	11	9(11)
1552	1562	CMRA Validated	11	9(11)
1563	1573	ZIP + 4 File: Firm (F) Records – DPV Confirmed (Y, S or D)	11	9(11)
1574	1584	CMRA Presented	11	9(11)
1585	1595	CMRA Validated	11	9(11)
1596	1606	ZIP + 4 File: General Delivery (G) Records – DPV Confirmed (Y, S or D)	11	9(11)
1607	1617	Total Primary Number Error	11	9(11)
1618	1672	FILLER	55	X(55)
1673	1683	Total Secondary Number Error	11	9(11)
1684	1694	Street (S) Records with Secondary Number Error	11	9(11)
1695	1705	High Rise (H) Records with Secondary Number Error	11	9(11)
1706	1716	Firm (F) Records with Secondary Number Error	11	9(11)
1717	1766	FILLER	50	X(50)
		LACS^{Link} Return Codes		
1767	1777	A – LACS ^{Link} Record Match	11	9(11)
1778	1788	00 – No Match	11	9(11)
1789	1799	14 – Match – Found LACS ^{Link} Record – New Address would not convert	11	9(11)
1800	1810	92 – Match with Secondary Number Dropped on Input	11	9(11)
		From DPV Processing of Input Addresses – Additional Return Codes		
1811	1821	F1 – Military	11	9(11)
1822	1832	U1 – Unique ZIP Code	11	9(11)
1833	1843	G1 – General Delivery	11	9(11)

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NCOA^{Link} MONTHLY CUSTOMER SERVICE LOG END USER MAILER Detail Record (page 7 of 9)				
RECORD FROM	POSITION TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
From NCOA^{Link} File Run – Additional Footnote Codes				
1844	1854	NL – New address not DPV confirmable with vendor software. (Required only when this code is returned to the customer)	11	9(11)
ANK^{Link} and corresponding NCOA^{Link} Return Codes and Definition				
1855	1865	77 – A – Match	11	9(11)
1866	1876	77 – 91 – Match with Secondary No. Dropped on COA (Old Side)	11	9(11)
1877	1887	77 – 92 – Match with Secondary Number Dropped on Input	11	9(11)
1888	1898	77 – 01 – Match – Foreign Move	11	9(11)
1899	1909	77 – 02 – Match – Moved Left No Address	11	9(11)
1910	1920	77 – 03 – Match – PO Box Closed	11	9(11)
1921	1931	77 – 04 – No Match – Family move - Street Address w/Secondary	11	9(11)
1932	1942	77 – 05 – Match – New 11 digit DPBC is ambiguous	11	9(11)
1943	1953	77 – 06 – No Match – Middle Name Related	11	9(11)
1954	1964	77 – 07 – No Match – Gender Related	11	9(11)
1965	1975	77 – 08 – No Match – Conflicting Instructions	11	9(11)
1976	1986	77 – 09 – No Match – Family move from Highrise default	11	9(11)
1987	1997	77 – 10 – No Match – Family move from Rural/HC Route default	11	9(11)
1998	2008	77 – 11 – No Match – Individual move – Insufficient name data	11	9(11)
2009	2019	77 – 18 – No Match – Family move from General Delivery	11	9(11)
2020	2030	77 – 19 – Match – New Address not ZIP + 4 codeable	11	9(11)
2031	2041	77 – 20 – No Match – Multiple Response – Conflicting Directions	11	9(11)
2042	2052	77 – 12 – No Match – Middle Name test failed	11	9(11)
2053	2063	77 – 13 – No Match – Gender test failed	11	9(11)
2064	2074	77 – 14 – Match – New Address would not convert	11	9(11)
2075	2085	77 – 15 – No Match – Individual Name insufficient on input	11	9(11)
2086	2096	77 – 16 – No Match – Secondary Number discrepancy	11	9(11)
2097	2107	77 – 17 – No Match – Different First Name	11	9(11)
2108	2118	77 – 66 – No Match – Input Address appears in “Daily Delete” suppression file	11	9(11)
2119	2129	77 – Total records matched using ANK ^{Link}	11	9(11)
LACS^{Link} Return Codes – Additional Return Code				
2130	2140	09 – LACS ^{Link} – Old Addr Highrise Default – No New Address	11	9(11)
NCOA^{Link} Product Version				
2141	2141	NCOA ^{Link} Product Version	1	X(1)
		A = 48 HASH		
		B = 48 FLAT		
		C = 18 HASH		
		D = 18 FLAT		
		E = ANK HASH		
		F = ANK FLAT		
2142	2142	High Match Rate Description – NCOA ^{Link} Match Percentage greater than 20%	1	X(1)
		A = ANK ^{Link} Extract File (FSP only)		
		S = Stage I or Stage II File		
		R = Returned Mail File		
2143	2192	FILLER	50	X(50)

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RECORD FROM	POSITION TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
Suite^{Link} Return Codes				
2193	2203	Suite ^{Link} Return Code A – Match	11	9(11)
2204	2214	Suite ^{Link} Return Code 00 – No Match	11	9(11)
NCOA^{Link} Return Codes (continued)				
2215	2225	NCOA ^{Link} Return Code 21 – To Be Determined	11	9(11)
2226	2236	NCOA ^{Link} Return Code 22 – To Be Determined	11	9(11)
2237	2247	NCOA ^{Link} Return Code 23 – To Be Determined	11	9(11)
2248	2258	NCOA ^{Link} Return Code 24 – To Be Determined	11	9(11)
2259	2269	NCOA ^{Link} Return Code 25 – To Be Determined	11	9(11)
2270	2280	NCOA ^{Link} Return Code 26 – To Be Determined	11	9(11)
2281	2291	NCOA ^{Link} Return Code 27 – To Be Determined	11	9(11)
2292	2302	NCOA ^{Link} Return Code 28 – To Be Determined	11	9(11)
2303	2313	NCOA ^{Link} Return Code 29 – To Be Determined	11	9(11)
2314	2324	NCOA ^{Link} Return Code 30 – To Be Determined	11	9(11)
ANK^{Link} Return Codes (continued)				
2325	2335	77 – 21 – To Be Determined	11	9(11)
2336	2346	77 – 22 – To Be Determined	11	9(11)
2347	2357	77 – 23 – To Be Determined	11	9(11)
2358	2368	77 – 24 – To Be Determined	11	9(11)
2369	2379	77 – 25 – To Be Determined	11	9(11)
2380	2390	77 – 26 – To Be Determined	11	9(11)
2391	2401	77 – 27 – To Be Determined	11	9(11)
2402	2412	77 – 28 – To Be Determined	11	9(11)
2413	2423	77 – 29 – To Be Determined	11	9(11)
2424	2434	77 – 30 – To Be Determined	11	9(11)
2435	2638	FILLER	314	X(314)
DPV Return Codes				
2639	2649	Count of DPV Return Code = Y	11	9(11)
2650	2660	Count of DPV Return Code = S	11	9(11)
2661	2671	Count of DPV Return Code = D	11	9(11)
2672	2682	Count of DPV Return Code = N	11	9(11)
2683	2693	Count of DPV Return Code = BLANK	11	9(11)
2694	2704	Count of DPV Vacant Flag = Y	11	9(11)
2705	2715	Count of DPV CMRA Flag	11	9(11)
2716	2726	Count of DPV No Stat Flag	11	9(11)
MAS (Move Activity Summary) for the PSR (Processing Summary Report)				
2727	2737	Sum of Match Return Codes A, 91 & 92 with Move Effective Month: Mon 0-3	11	X(11)
2738	2748	Sum of Match Return Codes A, 91 & 92 with Move Effective Month: Mon 4-6	11	X(11)
2749	2759	Sum of Match Return Codes A, 91 & 92 with Move Effective Month: Mon 7-12	11	X(11)
2760	2770	Sum of Match Return Codes A, 91 & 92 with Move Effective Month: Mon 13-18	11	X(11)

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Detail Record				
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RECORD FROM	POSITION TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
2771	2781	Sum of Match Return Codes A, 91 & 92 with Move Effective Month: Mon 19+	11	X(11)
2782	2836	FILLER	55	X(55)
		MAS (Move Activity Summary) for the PSR (Processing Summary Report)		
2837	2847	Sum of Match Return Codes 01, 02 & 03 with Move Effective Month: Mon 0-3	11	X(11)
2848	2858	Sum of Match Return Codes 01, 02 & 03 with Move Effective Month: Mon 4-6	11	X(11)
2859	2869	Sum of Match Return Codes 01, 02 & 03 with Move Effective Month: Mon 7-12	11	X(11)
2870	2880	Sum of Match Return Codes 01, 02 & 03 with Move Effective Month: Mon 13-18	11	X(11)
2881	2891	Sum of Match Return Codes 01, 02 & 03 with Move Effective Month: Mon 19+	11	X(11)
2892	2902	Sum of Match Return Codes 05, 14 & 19 with Move Effective Month: Mon 0-3	11	X(11)
2903	2913	Sum of Match Return Codes 05, 14 & 19 with Move Effective Month: Mon 4-6	11	X(11)
2914	2924	Sum of Match Return Codes 05, 14 & 19 with Move Effective Month: Mon 7-12	11	X(11)
2925	2935	Sum of Match Return Codes 05, 14 & 19 with Move Effective Month: Mon 13-18	11	X(11)
2936	2946	Sum of Match Return Codes 05, 14 & 19 with Move Effective Month: Mon 19+	11	X(11)
2947	2999	FILLER	53	X(53)
3000	3000	Record Type – H = Header/ D = Detail	1	X(1)
		CR/LF Carriage Return/Line Feed required at end of each record.		

Note: All numeric fields are right justified, zero filled.

All alphanumeric fields are left justified, spaced filled.

Note: This file shall be submitted in standard ASCII text format and electronically transmitted to the NCSC. The file shall be named using "C," the 4-character code assigned by the NCSC, the 1-character code for the month and the year with an extension of DAT. (e.g. CNAAC02.DAT)

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NCOA^{Link} Return Code Descriptions – continued

Code	Description	Address	How
06	Cannot Match COA: Conflicting Directions: Middle Name Related –There is more than one COA record for the match algorithm and the middle names or initials on the COAs are different. Therefore, a single match result could not be determined. This return code is only obtained when using individual matching logic. Please Note: If this return code is achieved, <u>no other matching attempts</u> are permitted regardless of the PROCESSING mode.	N	D
07	Cannot Match COA: Conflicting Directions: Gender Related –There is more than one COA record for the match algorithm and the genders of the names on the COAs are different. Therefore, a single match result could not be determined. This return code is only obtained when using individual matching logic. Please Note: If this return code is achieved, <u>no other matching attempts</u> are permitted regardless of the PROCESSING mode.	N	D
08	Cannot Match COA: Other Conflicting Instructions – The input record was a potential match to two COA records. The two records were compared and due to differences in the new addresses, a match could not be made. This return code may be returned regardless of the processing mode, matching logic, or COA type. Please Note: If this return code is achieved, <u>no other matching attempts</u> are permitted regardless of the PROCESSING mode.	N	D
09	Cannot Match COA: High-rise Default – The input record was a potential match to a family COA record from a High-rise address ZIP + 4 coded to the building default. This address match situation requires individual name matching logic to obtain a match and individual names do not match. Please Note: This return code is only obtained when processing in the STANDARD mode using Family matching logic.	N	D
10	Cannot Match COA: Rural Default – The input record was a potential match to a family COA record from a Rural Route or Highway Contract Route address ZIP + 4 coded to the route default. This address situation requires individual name matching logic to obtain a match and individual names do not match. Please Note: This return code is only obtained when processing in the STANDARD mode using Family matching logic.	N	D
11	Cannot Match COA: Individual Match: Insufficient COA Name for Match – There is a COA record with the same surname and address but there is insufficient name information on the COA record to produce a match using individual matching logic. This return code is only obtained when using individual matching logic. Please Note: When processing in the STANDARD mode and this return code is received utilizing Individual Logic, discontinue the Individual logic sequence and go straight to the FAMILY matching logic.	N	D
12	Cannot Match COA: Middle Name Test Failed – The input record was a potential match to a COA record. A match cannot be made because the input name contains a conflict with the middle name or initials on the COA record. This return code is only obtained when using individual matching logic. Please Note: If this return code is achieved, <u>no other matching attempts</u> are permitted regardless of the PROCESSING mode.	N	S
13	Cannot Match COA: Gender Test Failed – The input record was a potential match to a COA record. A match cannot be made because the gender of the name on the input record conflicts with the gender of the name on the COA record. This return code is only obtained when using individual matching logic. Please Note: When processing in the STANDARD mode and this return code is received utilizing Individual logic, discontinue the Individual logic sequence and go straight to FAMILY matching logic.	N	S
14	Found COA: New Address Would Not Convert at Run Time – The input record matched to a COA record. The new address could not be converted to a deliverable address. This return code may be returned regardless of the processing mode, matching logic, or COA type. Please Note: If this return code is achieved, <u>no other matching attempts</u> are permitted regardless of the PROCESSING mode.	N	S

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NCOA^{Link} Return Code Descriptions – continued

Code	Description	Address	How
15	Cannot Match COA: Individual Name Insufficient – The input record was a potential match to a COA record that contains a first initial and middle initial/name [ex. C M Smith or C Mary Smith]. A match cannot be made because the input middle initial/name is missing or does not equal the middle initial/name on the COA. This return code is only obtained when using individual matching logic. Please Note: When processing in the STANDARD mode and this return code is received utilizing Individual logic, discontinue the Individual logic sequence and go straight to FAMILY matching logic.	N	S
16	Cannot Match COA: Secondary Number Discrepancy – The input record was a potential match to a street level COA record. However, a match is prohibited based on one of the following reasons: 1) There is conflicting secondary information on the input and COA record; 2) the input record contained secondary information and matched to a family record that does not contain secondary information. In item 2, this address match situation requires individual name matching logic to obtain a COA match and individual names do not match. Please Note: If this return code is achieved, <u>no other matching attempts</u> are permitted regardless of the PROCESSING mode.	N	S
17	Cannot Match COA: Other Insufficient Name – The input record was a potential match to a COA record that contains a full first name and full middle name. The input middle initial/name is missing or different from the middle name on the COA. A match cannot be made because the first name on the COA was truncated (drop-n flag) and the middle names must be equal in order to make this match. This return code is only obtained when using individual matching logic. Please Note: When processing in the STANDARD mode and this return code is received utilizing Individual Logic, discontinue the Individual logic sequence and go straight to FAMILY matching logic.	N	S
18	Cannot Match COA: General Delivery – The input record was a potential match to a COA record from a General Delivery address. This address situation requires individual name matching logic to obtain a match and individual names do not match. Please Note: This return code is only obtained when processing in the STANDARD mode using Family matching logic.	N	D
19	Found COA: New Address not ZIP + 4 coded or New address primary number not DPV confirmable – There is a change of address on file but the new address cannot be ZIP + 4 coded and therefore there is no 11-digit DPBC to store or return, or the new address primary number cannot be confirmed on DPV. This return code may be returned regardless of the processing mode, matching logic, or COA type. Please Note: If this return code is achieved, <u>no other matching attempts</u> are permitted regardless of the PROCESSING mode.	N	D
20	Cannot Match COA: Conflicting Directions after re-chaining – Multiple COA records were potential matches to the input record. The COA records contained different new addresses and a single match result could not be determined. This return code may be returned regardless of the processing mode, matching logic, or COA type. Please Note: If this return code is achieved, <u>no other matching attempts</u> are permitted regardless of the PROCESSING mode.	N	D
91	COA Match: Secondary Number dropped from COA – The input record matched to a COA record. The COA record had a secondary number and the input address did not. Please Note: This return code is derived from Individual and business matching logic only. If this return code is achieved, <u>no other matching attempts</u> are permitted regardless of the PROCESSING mode.	Y	S
92	COA Match: Secondary Number Dropped from input address – The input record matched to a COA record. The input address had a secondary number and the COA record did not. The record is a ZIP + 4 street level match. Please Note: This return code is derived from individual and business matching logic only. If this return code is achieved, <u>no other matching attempts</u> are permitted regardless of the PROCESSING mode.	Y	S

Please Note: When processing in STANDARD mode and return codes 00, 11, 13, 15 and 17 are received utilizing Individual Logic it is required to attempt the match again using FAMILY matching logic.

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NCOA^{Link} Return Code Matrix

Code	Received during Business matching logic	Received during Individual matching logic	Received during Family matching Logic	Retry matching attempts
A	YES	YES	YES	NO
00	YES	YES	YES	attempt the match again using the next level of matching logic allowed by the processing mode
01	YES	YES	YES	NO
02	YES	YES	YES	NO
03	YES	YES	YES	NO
04	NO	NO	YES	NO
05	YES	YES	YES	NO
06	NO	YES	NO	NO
07	NO	YES	NO	NO
08	YES	YES	YES	NO
09	NO	NO	YES	NO
10	NO	NO	YES	NO
11	NO	YES	NO	When processing in the STANDARD mode and this return code is received utilizing Individual Logic it is required to attempt the match again using FAMILY matching logic.
12	NO	YES	NO	NO
13	NO	YES	NO	When processing in the STANDARD mode and this return code is received utilizing Individual Logic it is required to attempt the match again using FAMILY matching logic.
14	YES	YES	YES	NO
15	NO	YES	NO	When processing in the STANDARD mode and this return code is received utilizing Individual Logic it is required to attempt the match again using FAMILY matching logic.
16	NO	YES	YES	NO
17	NO	YES	NO	When processing in the STANDARD mode and this return code is received utilizing Individual Logic it is required to attempt the match again using FAMILY matching logic.

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NCOA^{Link} Return Code Matrix - continued

Code	Received during Business matching logic	Received during Individual matching logic	Received during Family matching logic	Retry matching attempts
18	NO	NO	YES	NO
19	YES	YES	YES	NO
20	YES	YES	YES	NO
66	YES	YES	YES	NO
91	NO	YES	NO	NO
92	NO	YES	NO	NO

New address information is returned only on the following return codes: A, 91, 92

Return Codes that indicate a COA was found but was unable to provide a new address: 01, 02, 03, 05, 14, 19

Return Codes that return a move effective date: A, 91, 92, 01, 02, 03, 05, 14, 19

Return Codes that should not return a move effective date: 04, 06, 07, 08, 09, 10, 11, 18, 20

Return Codes in which the move effective date must be discarded: 12, 13, 15, 16, 17

Return Codes that indicate potential matches but could not make the match due to rules: 04, 06, 07, 08, 09, 10, 11, 12, 13, 15, 16, 17, 18, 20

Return Codes returned during Individual logic only: 06, 07, 11, 12, 13, 15, 17, 91, 92

Return Codes returned during Family logic only: 04, 09, 10, 18

Return Codes that require Family matching attempts when processing in STANDARD mode: 00, 11, 13, 15, 17.

Return Codes that do not allow retry of matching logic: A, 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 12, 14, 16, 18, 19, 20, 91, 92

Other Return Code Descriptions

Code	Description	Process
AA	Input Address ZIP + 4 match	ZIP + 4
A1	Input Address ZIP + 4 not matched	ZIP + 4
M1	Input Address Primary Number Missing	ZIP + 4
M3	Input Address Primary Number Invalid	ZIP + 4
P1	Input Address Missing PO, RR, or HC Box number	ZIP + 4
P3	Input Address PO, RR, or HC Box number invalid	ZIP + 4
BB	Input Address DPV matched (all components)	DPV
RR	Input Address DPV matched to CMRA	DPV
CC	Input Address DPV Primary Number match, Secondary Number not Matched (secondary number present but is not DPV confirmed)	DPV
N1	Input Address DPV Primary Number match, High-rise Address Missing Secondary Number	DPV
R1	Input Address DPV matched to CMRA but PMB Number not Present	DPV

*Note: These codes are all generated during the DPV process. The Process indicator of "ZIP + 4" or "DPV" denotes from which portion of DPV processing the return codes was generated.

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Figure 2

Per the DMM[®], the ZIP + 4 and City/State data must be updated by ZIP + 4 and City/State Product users within 45 days of the release date. For general use, a data release is valid for 105 days from the USPS release date and users may elect to receive bi-monthly updates. However, NCOA^{Link} Licensees are required to update these files on a monthly basis in order to obtain the best possible results from the NCOA^{Link} process. The following chart is provided to assist in determining which data release is considered the most current for NCOA^{Link} Licensees.

Release	Required Use Date	Last Use Date
January 15	March 1	March 31
February 15	April 1	April 30
March 15	May 1	May 31
April 15	June 1	June 30
May 15	July 1	July 31
June 15	August 1	August 31
July 15	September 1	September 30
August 15	October 1	October 31
September 15	November 1	November 30
October 15	December 1	December 31
November 15	January 1	January 31
December 15	February 1	February 28 (Feb 29 in leap year)

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FIGURE 3

TEST CLIENT INPUT FILE HEADER RECORD				
RECORD FROM	POSITION TO	FIELD NAME	LENGTH	COBOL
1	8	NCSC AUDIT FILE CREATED DATE(YYYYMMDD)	8	9(08)
9	14	NCSC AUDIT FILE CREATED TIME(HHMMSS)	6	9(06)
15	18	NCSC AUDIT FILE NUMBER	4	9(04)
19	26	NCSC NCOA ^{Link} RELEASE DATE	8	9(08)
27	34	NCSC ZIP + 4 RELEASE DATE	8	9(08)
35	42	NCSC DPV RELEASE DATE	8	9(08)
43	43	NCSC TYPE (Audit, Certification, Stage)	1	X(01)
44	298	FILLER	255	X(255)
299	300	CARRIAGE RETURN LINE FEED	2	X(02)

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TEST CLIENT INPUT FILE DETAIL RECORD				
RECORD FROM	POSITION TO	FIELD NAME	LENGTH	COBOL
1	28	INPUT CUSTOMER KEY	28	X(28)
29	29	INPUT NAME PARSED (Y,N)	1	X(01)
30	95	INPUT CUSTOMER NAME	66	X(66)
	NOTE:	The information found in the INPUT CUSTOMER NAME will be fixed length. The data contained within the field may be presented as a single field or it may be parsed. If the name is a business, then the name will start in the first position.		
30	35	INPUT PREFIX TITLES	6	X(06)
36	50	INPUT CUSTOMER FIRST NAME	15	X(15)
51	65	INPUT CUSTOMER MIDDLE NAME	15	X(15)
66	85	INPUT CUSTOMER LAST NAME	20	X(20)
86	91	INPUT SUFFIX TITLES	6	X(06)
92	95	FILLER	4	X(04)
96	96	INPUT ADDRESS PARSED (Y,N)	1	X(01)
97	124	INPUT CUSTOMER URBANIZATION NAME	28	X(28)
125	191	INPUT CUSTOMER ADDRESS	67	X(67)
	NOTE:	The information found in the INPUT CUSTOMER ADDRESS will be fixed length. The data contained within the field may be presented as a single field or it may be parsed.		
125	134	INPUT PARSED PRIMARY NUMBER	10	X(10)
135	136	INPUT PARSED PRE-DIRECTIONAL	2	X(02)
137	164	INPUT PARSED PRIMARY NAME	28	X(28)
165	168	INPUT PARSED SUFFIX	4	X(04)
169	170	INPUT PARSED POST-DIRECTIONAL	2	X(02)
171	174	INPUT PARSED UNIT DESIGNATOR	4	X(04)
175	182	INPUT PARSED SECONDARY NUMBER	8	X(08)
183	191	FILLER	9	X(09)
192	192	INPUT LAST LINE PARSED (Y,N)	1	X(01)
193	234	CUSTOMER LAST LINE	42	X(42)
	NOTE:	The information found in the INPUT CUSTOMER LAST LINE will be fixed length. The data contained within the field may be presented as a single field or it may be parsed.		
193	220	INPUT CITY NAME	28	X(28)
221	222	INPUT STATE	2	X(02)
223	227	INPUT FIVE DIGIT ZIP	5	X(05)
228	231	INPUT ZIP + 4 ADDON	4	X(04)
232	234	FILLER	3	X(03)
235	298	FILLER	64	X(64)
299	300	CARRIAGE RETURN LINE FEED	2	X(02)

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TEST CLIENT OUTPUT FILE HEADER RECORD				
RECORD FROM	POSITION TO	FIELD NAME	LENGTH	COBOL
1	8	NCSC AUDIT FILE CREATED DATE(YYYYMMDD)	8	9(08)
9	14	NCSC AUDIT FILE CREATED TIME(HHMMSS)	6	9(06)
15	18	NCSC AUDIT FILE NUMBER	4	9(04)
19	26	NCSC NCOA ^{Link} RELEASE DATE	8	9(08)
27	34	NCSC ZIP + 4 RELEASE DATE	8	9(08)
35	42	NCSC DPV RELEASE DATE	8	9(08)
43	43	NCSC TYPE (Audit, Certification, Stage)	1	X(01)
44	298	FILLER	255	X(255)
299	306	OUTPUT AUDIT FILE CREATED DATE(YYYYMMDD)	8	9(08)
307	312	OUTPUT AUDIT FILE CREATED TIME(HHMMSS)	6	9(06)
313	320	PROCESSED AGAINST NCOA ^{Link} RELEASE DATE	8	9(08)
321	328	PROCESSED AGAINST ZIP + 4 RELEASE DATE	8	9(08)
329	336	PROCESSED AGAINST DPV RELEASE DATE	8	9(08)
337	340	PROCESSED ON PLATFORM ID	4	X(04)
341	998	FILLER	658	X(658)
999	1000	CARRIAGE RETURN LINE FEED	2	X(02)

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TEST CLIENT OUTPUT FILE				
DETAIL RECORD (Page 1 of 2)				
RECORD FROM	POSITION TO	FIELD NAME	LENGTH	COBOL
1	28	INPUT CUSTOMER KEY	28	X(28)
29	29	INPUT NAME PARSED (Y,N)	1	X(01)
30	95	INPUT CUSTOMER NAME	66	X(66)
	NOTE:	The information found in the INPUT CUSTOMER NAME will be fixed length. The data contained within the field may be presented as a single field or it may be parsed. If the name is a business, then the name will start in the first position.		
30	35	INPUT PREFIX TITLES	6	X(06)
36	50	INPUT CUSTOMER FIRST NAME	15	X(15)
51	65	INPUT CUSTOMER MIDDLE NAME	15	X(15)
66	85	INPUT CUSTOMER LAST NAME	20	X(20)
86	91	INPUT SUFFIX TITLES	6	X(06)
92	95	FILLER	4	X(04)
96	96	INPUT ADDRESS PARSED (Y,N)	1	X(01)
97	124	INPUT CUSTOMER URBANIZATION NAME	28	X(28)
125	191	INPUT CUSTOMER ADDRESS	67	X(67)
	NOTE:	The information found in the INPUT CUSTOMER ADDRESS will be fixed length. The data contained within the field may be presented as a single field or it may be parsed.		
125	134	INPUT PARSED PRIMARY NUMBER	10	X(10)
135	136	INPUT PARSED PRE-DIRECTIONAL	2	X(02)
137	164	INPUT PARSED PRIMARY NAME	28	X(28)
165	168	INPUT PARSED SUFFIX	4	X(04)
169	170	INPUT PARSED POST-DIRECTIONAL	2	X(02)
171	174	INPUT PARSED UNIT DESIGNATOR	4	X(04)
175	182	INPUT PARSED SECONDARY NUMBER	8	X(08)
183	191	FILLER	9	X(09)
192	192	INPUT LAST LINE PARSED (Y,N)	1	X(01)
193	234	CUSTOMER LAST LINE	42	X(42)
	NOTE:	The information found in the INPUT CUSTOMER LAST LINE will be fixed length. The data contained within the field may be presented as a single field or it may be parsed.		
193	220	INPUT CITY NAME	28	X(28)
221	222	INPUT STATE	2	X(02)
223	227	INPUT FIVE DIGIT ZIP	5	X(05)
228	231	INPUT ZIP + 4 ADDON	4	X(04)
232	234	FILLER	3	X(03)
235	298	FILLER	64	X(64)
	NOTE:	The following fields reflect the results of input name after the utilization of a name parser. This is the final parsed name information utilized in the process which was responsible for the final result. If the name is a business, then the name will start in the first position. If no match (return code 00) then this field will be blank.		
299	304	QUERY PREFIX TITLE	6	X(06)
305	319	QUERY CUSTOMER FIRST NAME	15	X(15)
320	334	QUERY CUSTOMER MIDDLE NAME	15	X(15)
335	354	QUERY CUSTOMER LAST NAME	20	X(20)
355	360	QUERY SUFFIX TITLE	6	X(06)

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TEST CLIENT OUTPUT FILE				
DETAIL RECORD (Page 2 of 2)				
RECORD FROM	POSITION TO	FIELD NAME	LENGTH	COBOL
	NOTE:	The following fields reflect the results of the input address after the utilization of a certified CASS ZIP + 4 system. This is the final address information that was utilized in the process which was responsible for the final result.		
361	388	QUERY PARSED URBANIZATION NAME	28	X(28)
389	398	QUERY PARSED PRIMARY NUMBER	10	X(10)
399	400	QUERY PARSED PRE-DIRECTIONAL	2	X(02)
401	428	QUERY PARSED PRIMARY NAME	28	X(28)
429	432	QUERY PARSED SUFFIX	4	X(04)
433	434	QUERY PARSED POST-DIRECTIONAL	2	X(02)
435	438	QUERY PARSED UNIT DESIGNATOR	4	X(04)
439	446	QUERY PARSED SECONDARY NUMBER	08	X(08)
447	474	QUERY PARSED CITY NAME	28	X(28)
475	476	QUERY PARSED STATE	2	X(02)
477	481	QUERY FIVE DIGIT ZIP	5	X(05)
482	485	QUERY ZIP + 4 ADDON	4	X(04)
486	513	RESULT PARSED URBANIZATION NAME	28	X(28)
514	523	RESULT PARSED PRIMARY NUMBER	10	X(10)
524	525	RESULT PARSED PRE-DIRECTIONAL	2	X(02)
526	553	RESULT PARSED PRIMARY NAME	28	X(28)
554	557	RESULT PARSED SUFFIX	4	X(04)
558	559	RESULT PARSED POST-DIRECTIONAL	2	X(02)
560	563	RESULT PARSED UNIT DESIGNATOR	4	X(04)
564	571	RESULT PARSED SECONDARY NUMBER	08	X(08)
572	599	RESULT PARSED CITY NAME	28	X(28)
600	601	RESULT PARSED STATE	2	X(02)
602	606	RESULT FIVE DIGIT ZIP	5	X(05)
607	610	RESULT ZIP + 4 ADDON	4	X(04)
611	613	RESULT DBPC (including check digit)	3	X(03)
614	617	RESULT CARRIER RTE	4	X(04)
618	618	*RESULT DROP FLAG	1	X(01)
619	619	*RESULT DROP N FLAG	1	X(01)
620	625	RESULT MOVE EFFECTIVE DATE	6	X(06)
626	627	*RESULT MIDDLE NAME/Initials(returned from NCOA/Link)	2	X(02)
628	628	*RESULT GENDER (returned from NCOA/Link)	1	X(01)
629	636	*RESULT HINT BYTE (after expansion)	8	X(08)
637	638	RESULT NCOA LINK FOOTNOTE	2	X(02)
639	640	RESULT ZIP + 4 FOOTNOTE	2	X(02)
641	642	RESULT DPV FOOTNOTE	2	X(02)
643	658	HEX VALUE OF THE EMDP (from input address)	16	X(16)
659	698	HEX VALUE OF THE SHA OF EMPD (from input address)	40	X(40)
699	714	HEX VALUE OF THE FIRST 8 CHARACTERS OF 48 BYTE OBJECT	16	X(16)
715	729	FIRST NAME OF THE 48 BYTE OBJECT	15	X(15)
730	749	LAST NAME OF THE 48 BYTE OBJECT	20	X(20)
750	754	SUFFIX NAME OF THE 48 BYTE OBJECT	5	X(05)
755	794	HEX VALUE OF THE SHA OF 48 BYTE OBJECT	40	X(40)
795	810	HEX VALUE OF THE DATA RETRIEVED (before reorder)	16	X(16)
811	827	DECIMAL VALUE OF THE 17 DIGIT RESULT VALUE	17	X(17)
828	828	RESULT MOVE TYPE (Family, Individual, Business)(F,I,B)	1	X(01)
829	836	OPTIONAL – INTERMEDIATE FOOTNOTES	8	X(08)
837	838	ANK ^{Link} RETURN CODE (77)	2	X(02)
839	840	FUTURE RETURN CODE	2	X(02)
841	997	FILLER	157	X(157)
998	998	RECORD TYPE (Header/Detail) (H,D)	1	X(01)
999	1000	CARRIAGE RETURN LINE FEED	2	X(02)

***The following fields of returned data used for analysis must not be returned to the customer: result drop flag, result drop n flag, result middle name, result gender and result hint byte.**

Introduction

The United States Postal Service (USPS) has developed an extended option to the 18 month version of NCOA^{Link} called ANK^{Link}. The 18-month NCOA^{Link} Product provides change-of-address data for moves that occurred in the past eighteen months. The initial version of ANK^{Link} will enable NCOA^{Link} Licensees to optionally acquire an additional thirty months of data. This data will not reveal the new address, but will inform mailers of customer moves that occurred in months 19 through 48, along with the date that the move took place.

1. General Requirements

- 1.1 ANK^{Link} will be available only to users of the 18-month NCOA^{Link} Product and will be a component of that product.
- 1.2 To initiate ANK^{Link}, a modified Certification process will be used for existing NCOA^{Link} Developers of Limited Service Provider and End User Interface Products:
 - a. Resubmit the Application from the Certification Procedures package indicating ANK^{Link} will be a part of Licensee's Interface Product.
 - b. Develop or outsource development of ANK^{Link} interface in accordance with the NCOA^{Link} Developer License, Software Developer Guide and Software Performance Requirements,
 - c. Request and pass a Stage II NCOA^{Link} with ANK^{Link} certification test when ANK^{Link} Interface is completed.
- 1.3 NCOA^{Link} with ANK^{Link} application and certification procedures shall be incorporated into the NCOA^{Link} application and certification procedures for Developer applicants.

2. Specific Requirements

- 2.1 The sole purpose of the ANK^{Link} option is to enable mailers to make informed choices regarding a specific customer contact. If the data indicates a move, the mailer may choose to suppress the record from their list or attempt to determine the actual new address by engaging the services of an NCOA^{Link} Full Service Provider Licensee.
- 2.2 All laws, rules and restrictions governing the use of NCOA^{Link} data pertain with regards to ANK^{Link} data. Information derived from an NCOA^{Link} with ANK^{Link} process shall not be utilized in any way inconsistent with the terms and conditions set forth in the NCOA^{Link} License Agreements.

APPENDIX D
ANK^{Link}
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3. Standards of Performance

- 3.1 NCOA^{Link} Licensees must conform to the latest published version of the NCOA^{Link} Licensee Performance Requirements. Any changes will be published at https://ribbs.usps.gov/ncoalink/documents/tech_guides/.
- 3.2 NCOA^{Link} with ANK^{Link} interface will be tested with an NCOA^{Link} Stage II test file in accordance with the NCOA^{Link} license.

4. Reports and Administrative Requirements

- 4.1 NCOA^{Link} Licensees exercising the ANK^{Link} option will provide USPS with a monthly electronic statistics report. The statistical information required for ANK^{Link} is incorporated into the NCOA^{Link} Customer Service Log.