

NCOA Layout Summary

FreeNCOA(powered by IMDataCenter) was born in 2009 with the goal of providing positive ROI on every direct mailing by providing a Free Hygiene Report illustrating the value NCOA adds and breaking out 18 vs 48 month moves. A few years later, when the post office mandated NCOA to receive postal discounts, our business took off. Others have since tried to copy our solution, but our customer service, technology, and response time remain paramount in the industry. Our layout was also updated in 2023 with two additions that you might find helpful: Congressional District Codes and a Residential Delivery Indicator (RDI) which flags a business vs. residential addresses. If you have a question please do not hesitate to reach out.

For files under 1 million records, NCOA processing is typically under 60 minutes. We recommend processing larger files in batches of 1 million records or less, because smaller files complete more quickly. If your file has not completed processing in two hours you will receive an email letting you know the file is delayed. Feel free to contact us by phone at 800-531-2601 or text our support team with your job number at 239-908-0595. You can also email us at processing@imdatacenter.com. Normal business hours are 9 AM to 6 PM Eastern with night and weekend support available via text or email request.

For Files Under 300	0,000 Record	ds 6 files	are provided to make post processing easier:	
	File 1: NCO	Aed_AllF	Records	
		_	iverable_no_dups (status_ = "V" and left.1 dpv_ = "Y" 6 or K" and no dups)	and Vacant_ not "Y" and
		_	iverable_with_dupes (status_ = "V" and left.1 dpv_ ot "Y" and Matchflag_ not "F, G or K")	
		_	sAdd2_no_dup (status_ = "V" and Vacant_ not "Y" "F, G or K" and no dups)	
		_	nDeliverable (status_ not "V" or left.1 dpv_ = "D, S, = "F, G, or K" or Vacant = "Y")	
	File 6: NCO	Aed_Dup	olicates (can be Deliverable or NonDeliverable)	
For Files over 300 (000 Records	only the	"all records" file is output to expedite processing	

For Files over 300,000 Records only the "all records" file is output to expedite processing time and limit overall file size.

Field Name	Field	Width	Description	Historical FreeNCOA
	Type			Headers
Sort	Character	7	IMDC Unique ID (Recno)	Sort
sal	Character	15	Salutation	Salutation
first***	Character	55	First Name	First Name
middle	Character	20	Middle Name	Middle Name
last	Character	30	Last Name	Last Name
title	Character	50	Contact Title (Sr. Jr.)	Name Suffix
company***	Character	50	Company Name	Business

primary_	Character	10	Primary Address Number for parsed address information	Primary Number
pre_	Character	2	Address Pre Direction (W, SE, etc.) for parsed address information	Pre-Directional
street_	Character	30	Street Name for parsed address information	Street Name
suffix_	Character	4	Address Suffix (DR, AVE, BLVD, etc.) for parsed address information	Street Suffix
post_	Character	2	Address Post Direction (S, NW, etc.) for parsed address information	Post-Directional
abrev_	Character	4	Address Secondary Name Abbreviation (APT, STE, etc.) for parsed address information	Unit Designator
secy_	Character	8	Address Secondary Number (APT #, STE #, etc.) for parsed address information	Unit Number
address*	Character	60	Mailing Address	Address Line 1
address2	Character	50	Second Address Line	Address Line 2
city*	Character	30	City Name	City
st*	Character	2**	State Abbreviation	State
zip*	Character	10**	Contains the Entire ZIP+4 After CASS Certifying (when valid)	ZIP Code
crrt	Character	4**	Carrier Route Number	Carrier Route
barcode	Character	14**	Delivery Point Barcode	Delivery Point Barcode
dpv_	Character	6	Delivery Point Validation Codes (Table 1)	DPV Indicator
errno_	Character	30	CASS Certification Codes and Errors (Table 4)	Error Code
type_	Character	1	Address Type	Record Type
lacs_	Character	1	LACS Match Flag "L"	LACS Flag
lacsind_	Character	1	LACSLink Indicator Return Code (Table 2)	
lacssrc_	Character	2	LACSLink Source (Table 2)	LACS Footnote
dpc	Character	3	Delivery Point and Check Digit	Delivery Point
dpvnotes_	Character	8	Additional Information Pertaining to Delivery Point Validation (see Table)	DPV Footnotes
vacant_	Character	1	Flags the record during validation with "Y" for Vacant or "N" for occupied.	DPV Vacant (used True instead of Y)
movedate_	Character	6	Date of Move Filed with USPS in YYYYMM format.	Move Effective Date
movetype_	Character	1	Move Type Returned During NCOA Link Processing: I - Individual Match, F - Family Match, B - Business Name Match	Move Type
matchflag_	Character	2	Move Status Applied During NCOA Link Processing: M - Moved, G - PO Box Closed, K - Moved, left no forwarding address, F - Moved to a Foreign Country	Match Flag
nxi_	Character	2	Status Code Returned During NCOA Link Processing (Table 3)	NCOALink Footnote
countyno_	Character	3	County Number (FIPS)	County FIPS
countynm_	Character	30	County Name	County Name
congress_	Character	2	Congressional District Code	Title (Removed)
status_	Character	1	Record Validation Status: V - Deliverable with Valid Zip4, N - NonDeliverable, M - Multi-matched found multiple address matches.	Country (Removed)
ffapplied	Character	8	Contains the Date the Record was Processed Through NCOA Link	Error Description (Removed)

ank_	Character	2	ANK Flag = "Address Not Known" for Moves 19 to	DPV CMRA (Removed)
			48 Months with 18 Month Move Process	
rdi_	Character	1	Residential Delivery Record Status: "Y" =	Default Matched
			Residential Delivery, "N" = Not Residential	(Removed)
			Delivery, Blank = Did not query	
Input User Fields	Character	TBD	All Input User Data Will Be Added To the End of	
			Each Input Record	
* Input fields red	quired to sta	ndardize	address (note: city or st/zip combinations work).	
** Widths marked	d with a dou	ble aster	risk are required widths.	
*** For NCOA pro	cessing, the	name in	formation must be stored in either "First" or "Comp	pany". If not provided the
address will be va	lidated and	no move	es found.	

dpv_ Codes 6 Position	ons
dpv_ Position 1	Position 1 = DPV Confirmation Indicator
· -	The DPV Confirmation Indicator is the primary method used by the USPS to determine
	whether an address was considered deliverable or undeliverable.
	Y = Address was DPV confirmed for both primary and (if present) secondary numbers.
	D = Address was DPV confirmed for the primary number only, and Secondary number
	information was missing.
	S = Address was DPV confirmed for the primary number only, and Secondary number
	information was present but unconfirmed.
	N = Both Primary and (if present) Secondary number information failed to DPV Confirm.
	Blank = Address not presented to hash table.
dpv_ Position 2	Position 2 = DPV CMRA Indicator
	*CMRA Indicates a private business that acts as a mail-receiving agent for specific clients.
	Y = Address was found in CMRA table.
	N = Address was not found in CMRA table.
	Blank = Address not presented to hash table.
dpv_ Position 3	Position 3 = DPV False Positive Indicator
	The False Positive table flags the False Positive addresses. This is a flag to determine whether
	a mailing list is being generated or created during validation. Creating a mailing list through
	DPV certification is not allowed by the USPS.
	Y = Address was found in False Positive table.
	N = Address was not found in False Positive table.
	Blank = Address not presented to hash table.
dpv_ Position 4	Position 4 = Vacant Indicator (New)
	A delivery point was active in the past, but is currently vacant (in most cases, unoccupied over
	90 days) and not receiving delivery.
	Y = Address was found in VACANT table.
	N = Address was not found in VACANT table.
	Blank = Address not presented to hash table.

dpv_ Position 5	Position 5 = DSF2 No Stats Indicator (New)
	Indicates the address is not receiving delivery, and the address is not counted as a possible
	delivery. These addresses are not receiving delivery because A) delivery has not been
	established; B) customer receives mail as a part of a drop; or C) the address is no longer a
	possible delivery because the carrier destroys or returns all of the mail.
	Y = Address was found in NOSTATS table.
	N = Address was not found in NOSTATS table.
	Blank = Address not presented to hash table.
dpv_ Position 6	Position 6 = PBSA Indicator - P.O. Box Street-Style Address (New)
	Identifies which Street addresses in a database are actually Post Office Box physical locations
	Field Description:
	Y = Address is actually a PO Box physical address
	N = Address was not found in PBSA table.
	Blank = Address not presented to hash table.
	If the DPV_ field is empty, the Address was not submitted for confirmation. The record must
	first pass CASS certification to be passed to DPV. Any records which fail the preliminary CASS
	validation will not have a code in the DPV_ field.

dpvnotes_ any combination

dpvnotes_

Additional Information Pertaining to Delivery Point ValidationField could contain any combination of the following codes:AA: ZIP4 matchedA1: ZIP4 did not matchBB: HSA_DPV confirmed entire addressCC: HSA_DPV confirmed address by dropping secondary infoF1: Military MatchG1: General Delivery Match.N1: HSA_DPV confirmed a Highrise or box type address w/o secondary infoM1: Primary number missing from addressM3: Could not confirm addressP1: Box type address missing box numberP3: Box number invalidRR: HSC_DPV confirmed addressR1: HSC_DPV confirmed a Highrise or box type address w/o secondary infoU1: Unique ZIP Code Match.R7: R777 Phantom Route Matching. Physical addresses that are assigned to a phantom are not eligible for street delivery.

TABLE 2: LACS Inc	dicator and Source
lacsind_	Y = New Address N = New Address not provided D = Derived by data – returned in lieu of 11-digit S = Derived by software
lacsrc_	A = LACS Record Match: The input record matched to a record in the master file. A new address could be furnished. O = No Match: The input record could not be matched to a record in the master file. A new address could not be furnished. O9 = LACS Record Match: Highrise Default - The input record matched to a record in the master file, but the old address is a Highrise default. 14 = LACS Record Match: New Address Would Not Convert at Run Time - The input record matched to a record in the master file. The new address could not be converted to a deliverable address. 92 = LACS Record Match: Secondary Number Dropped from Input Address - The input record

	matched to a master file record, but the input address had a secondary number and the
	master file record did not. The record is a ZIP + 4 street level or Highrise match.
TABLE 3: NCOA	nxi_ Field Descriptions
nxi_	A - Matched record and a new address has been provided
	00 - No Match (NCOALink 18 month Service code only)
	01 - Found COA: Foreign Move - The input record matched to a business, individual or family
	type master file record but the new address was outside USPS delivery area.
	02 - Found COA: Moved Left No Address (MLNA) - The input record matched to a business,
	individual or family type master file record and the new address was not provided to USPS.
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	03 - Found COA: Box Closed No Order (BCNO) - The Input record matched to a business,
	individual or family type master file record which contains an old address of PO BOX that has
	been closed without a forwarding address provided.
	04 - Cannot match COA: Street Address with Secondary - In the STANDARD mode utilizing
	Family matching logic the input record matched to a family record type on the master file
	with an old address that contained secondary information which obtained a ZIP+4 street level
	match. The input record does not contain secondary information. This address match
	situation requires individual name matching logic to obtain a match and individual names do
	not match.
	05 - Found COA: New 11-digit DPBC is Ambiguous - The input record matched to a business,
	individual or family type master file record. The new address on the master file record could
	not be converted to a deliverable address because the DPBC represents more than one
	delivery point.
	06 - Cannot Match COA: Conflicting Directions: Middle Name Related -There is more than one
	COA (individual or family type) 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.
	07 - Cannot Match COA: Conflicting Directions: Gender Related -There is more than one COA
	(individual or family type) 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.
	08 - Cannot Match COA: Other Conflicting Instructions - The input record matched to two
	master file (business, individual or family type) records. The two records in the master file
	were compared and due to differences in the new addresses, a match could not be made.
	09 - Cannot Match COA: High-rise Default - The input record matched to a family record on
	the master file 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.
	10 - Cannot Match COA: Rural Default - The input record matched to a family record on the
	master file 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.
	11 - Cannot Match COA: Individual Match: Insufficient COA Name for Match - There is a
	master file (individual or family type) record with the same surname and address but there is
	insufficient name information on the master file record to produce a match using individual
	matching logic.
	12 - Cannot Match COA: Middle Name Test Failed - The input record matched to an individual
	or family record on the master file with the same address and surname. However, a match

	cannot be made because the input name contains a conflict with the middle name or initials
	on the master file record.
	13 - Cannot Match COA: Gender Test Failed - The input record matched to a master file
	(individual or family type) 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 master file record.
	14 - Found COA: New Address Would Not Convert at Run Time - The input record matched to
	a master file (business, individual or family type) record. The new address could not be
	converted to a deliverable address.
	15 - Cannot Match COA: Individual Name Insufficient - There is a master file record with the
	same address and surname. A match cannot be made because the input record does not
	contain a first name or contains initials only.
	16 - Cannot Match COA: Secondary Number Discrepancy - The input record matched to a
	street level individual or family type record. However, a match is prohibited based on I of the
	following reasons: 1) There is conflicting secondary information on the input and master file
	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.
	17 - Cannot Match COA: Other Insufficient Name - The input record matched to an individual
	or family master file record. The input name is different or not sufficient enough to produce a
	match.
	18 - Cannot Match COA: General Delivery - The input record matched to a family record on
	the master file from a General Delivery address. This address situation requires individual
	name matching logic to obtain a match and individual names do not match.
	19 - Found COA: New Address not ZIP+4 coded - 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.
	20 - Cannot Match COA: Conflicting Directions after re-chaining - Multiple master file records
	were potential matches for the input record. The master file records contained different new
	addresses and a single match result could not be determined.
	66 - Daily Delete - The input record matched to a business, individual or family type master
	file record with an old address that is present in the daily delete file. The presence of an
	address in the daily delete file means that a COA with this address is pending deletion from
	the master file and that no mail may be forwarded from this address.
	91 - Found COA : Secondary Number dropped from COA
	The input record matched to a master file record. The master file record had a secondary
	number and the input address did not. A new address was provided.
	92 - Found COA : Secondary Number Dropped from input address
	The input record matched to a master file record, but the input address had a secondary
	number and the master file record did not. The record is a ZIP + 4® street level match. A new
	address was provided.
	Reviewing the ANKLink Returns
	There are also returns that can be identified when using the ANKLink service. Much
	like NCOALink, ANKLink queries the USPS' national change-of-address
	database. Unlike NCOALink's 0-to-18 month window, ANKLink queries the 19-to-48 month
	time frame. To query the ANKLink returns, perform the following steps:
	From the Look In pull-down menu, select Ank
	Type the number "77" into the Find text box.
	That displays all records that ANKLink returned a match on. There is only one value that will
	populate that field:
	77 - The record was found in the 48 month ANKLink service. You should suppress these
	records from your database or flag these records for deletion and not mail to them.
	Tecords from your dutubuse or mag these records for defection and not man to them.
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Address Types	
type_	Code DescriptionF = ZIP+4 Match on the Company NameG = General Delivery RecordH = High Rise RecordP = PO Box RecordR = Rural Route RecordS = Street Record

TABLE 4: CASS Error Descriptions

This is a complete list of errors and warning codes that could be attached to a record when you validate it. Even if a record is determined to be a good address, if any components of the address were altered or added, a warning code will be attached to the record. If the record is undeliverable, an error code will be attached to the record. These codes are filled into the field called Errno .

Errors & Warnings Summary List

We can detect forty different kinds of errors when checking an address. A single address will often have multiple errors. Each kind of error is identified by a number, as shown in the following list.

Error Summary List (1 to 7)

Error group 1: State not found

1.1 State not found

Error group 2: City not found

2.1 City not found

Error group 3: Street not found

3.1 Street not found

Error group 4: Address not found

4.1 Address not found

Error group 5: Can't assign +4

- 5.1 Incomputable +4 range
- 5.2 +4 unavailable

Error group 6: Multiple Matches

- 6.1 Multiple streets match
- 6.2 Multiple addresses match
- 6.3 Cardinal Rule multiple match

Error group 7: Time/space error

- 7.1 Time ran out
- 7.2 Output too long

Warning Summary List (8 to 15, A1 to A10)

Warning group 8: Company warning

- 8.1 Company phonetic match used
- 8.2 First company match used

Warning group 9: State corrected

- 9.1 State determined from city
- 9.2 State determined from ZIP

Warning group 10: City corrected

- 10.1 City phonetic match used
- 10.2 City determined from ZIP
- 10.3 Acceptable city name used

Manusing and the Street connected
Warning group 11: Street corrected
11.0 Address component Chg/Del/Add
11.1 Street phonetic match used
11.2 Pre-direction dropped
11.3 Pre-direction added
11.4 Suffix dropped
11.5 Suffix added
11.6 Post direction dropped
11.7 Post direction added
11.8 Pre-direction standardized
11.9 Street standardized
11.10 Suffix standardized
11.11 Post direction standardized
11.12 Street missing
11.13 Alternate address used
11.14 Address Standardized
11.15 Dual address-Used PO Box
11.16 Dual address-Used Non-PO Box
11.17 Street Alias match-Better delivery address exists
Warning group 12: Unit/Box warning
12.1 Unit standardized
12.2 Unit missing
12.3 Unit not found
12.4 Unit unverified
12.5 Rural box not found
12.5 Rural box not found Warning group 13: Leftovers found
12.5 Rural box not found Warning group 13: Leftovers found 13.1 Leftovers found
12.5 Rural box not found Warning group 13: Leftovers found 13.1 Leftovers found Warning group 14: ZIP/Route warning
12.5 Rural box not found Warning group 13: Leftovers found 13.1 Leftovers found
12.5 Rural box not found Warning group 13: Leftovers found 13.1 Leftovers found Warning group 14: ZIP/Route warning
12.5 Rural box not found Warning group 13: Leftovers found 13.1 Leftovers found Warning group 14: ZIP/Route warning 14.1 No ZIP Code Available
12.5 Rural box not found Warning group 13: Leftovers found 13.1 Leftovers found Warning group 14: ZIP/Route warning 14.1 No ZIP Code Available 14.2 Incorrect ZIP Code was changed to correct ZIP
12.5 Rural box not found Warning group 13: Leftovers found 13.1 Leftovers found Warning group 14: ZIP/Route warning 14.1 No ZIP Code Available 14.2 Incorrect ZIP Code was changed to correct ZIP 14.3 +4 changed
12.5 Rural box not found Warning group 13: Leftovers found 13.1 Leftovers found Warning group 14: ZIP/Route warning 14.1 No ZIP Code Available 14.2 Incorrect ZIP Code was changed to correct ZIP 14.3 +4 changed 14.4 Route changed
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12.5 Rural box not found Warning group 13: Leftovers found 13.1 Leftovers found Warning group 14: ZIP/Route warning 14.1 No ZIP Code Available 14.2 Incorrect ZIP Code was changed to correct ZIP 14.3 +4 changed 14.4 Route changed 14.5 +4 added 14.6 Route added 14.7 ZIP assigned for Multi-matched address 14.8 Unique ZIP match
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12.5 Rural box not found Warning group 13: Leftovers found 13.1 Leftovers found Warning group 14: ZIP/Route warning 14.1 No ZIP Code Available 14.2 Incorrect ZIP Code was changed to correct ZIP 14.3 +4 changed 14.4 Route changed 14.5 +4 added 14.6 Route added 14.7 ZIP assigned for Multi-matched address 14.8 Unique ZIP match 14.9 Small town default match Warning group 15: Address Type warning 15.0 ZIP Code Changed 15.1 Highrise Default 15.2 Highrise Exact
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12.5 Rural box not found Warning group 13: Leftovers found 13.1 Leftovers found Warning group 14: ZIP/Route warning 14.1 No ZIP Code Available 14.2 Incorrect ZIP Code was changed to correct ZIP 14.3 +4 changed 14.4 Route changed 14.5 +4 added 14.6 Route added 14.7 ZIP assigned for Multi-matched address 14.8 Unique ZIP match 14.9 Small town default match Warning group 15: Address Type warning 15.0 ZIP Code Changed 15.1 Highrise Default 15.2 Highrise Exact 15.3 Rural Route Default 15.4 Rural Route Exact
12.5 Rural box not found Warning group 13: Leftovers found 13.1 Leftovers found Warning group 14: ZIP/Route warning 14.1 No ZIP Code Available 14.2 Incorrect ZIP Code was changed to correct ZIP 14.3 +4 changed 14.4 Route changed 14.5 +4 added 14.6 Route added 14.7 ZIP assigned for Multi-matched address 14.8 Unique ZIP match 14.9 Small town default match Warning group 15: Address Type warning 15.0 ZIP Code Changed 15.1 Highrise Default 15.2 Highrise Exact 15.3 Rural Route Exact 15.4 Rural Route Exact 15.5 Early Warning System match.
12.5 Rural box not found Warning group 13: Leftovers found 13.1 Leftovers found Warning group 14: ZIP/Route warning 14.1 No ZIP Code Available 14.2 Incorrect ZIP Code was changed to correct ZIP 14.3 +4 changed 14.4 Route changed 14.5 +4 added 14.5 +4 added 14.7 ZIP assigned for Multi-matched address 14.8 Unique ZIP match 14.9 Small town default match Warning group 15: Address Type warning 15.0 ZIP Code Changed 15.1 Highrise Default 15.2 Highrise Exact 15.3 Rural Route Default 15.4 Rural Route Exact 15.5 Early Warning System match.
12.5 Rural box not found Warning group 13: Leftovers found 13.1 Leftovers found Warning group 14: ZIP/Route warning 14.1 No ZIP Code Available 14.2 Incorrect ZIP Code was changed to correct ZIP 14.3 +4 changed 14.4 Route changed 14.5 +4 added 14.5 +4 added 14.7 ZIP assigned for Multi-matched address 14.8 Unique ZIP match 14.9 Small town default match Warning group 15: Address Type warning 15.0 ZIP Code Changed 15.1 Highrise Default 15.2 Highrise Exact 15.3 Rural Route Default 15.4 Rural Route Exact 15.5 Early Warning System match. 15.6 LACSLink Conversion Match 15.7 SuiteLink Match - Suite Returned

Error and Warning Code Groups

Errors in groups 1 to 7 are serious enough to prevent finding a ZIP+4 code for an address. Errors in groups 8 to 14 are called warnings because they are not serious enough to prevent finding a ZIP+4 code.

Error and Warning Codes in Detail

The following is a description of the error and warning messages in detail:

Error number 1.1: State not found. The input record state is not a valid two-character abbreviation.

Error number 2.1: City not found. The input record city is not in list of cities for the input record state.

Error number 3.1: Street not found. The input record street is not in list of streets for the input record city; usually caused by misspelled street names that can't determine how to correctly spell.

Error number 4.1: Address not found. The input record has an address not found in list of addresses for the input record street. Caused by an out-of-range (including even/odd mismatched) house or apartment number.

Error number 5.1: Uncomputable +4 range. Cannot compute the ZIP+4 code for the address because of non-numeric characters in the input record house number or in the LOW to HIGH or LO+4 to HI+4 fields of the database as shown in the address window. Will output the correct five-digit ZIP code.

Error number 5.2: +4 unavailable. As shown in the addresses window, a complete LO+4 add-on code is unavailable; usually because the database thinks this address is still an undeveloped lot. Will output the correct five-digit ZIP code.

Error number 6.1: Multiple streets match. The input record is ambiguous, because more than one street name in the database matches the input address, and there is not enough information to let choose between the multiple choices. For example, if the database lists only and E MAIN ST and a W MAIN ST, then the input MAIN ST causes multiple matches.

Error number 6.2: Multiple addresses match. The ZIP+4 database is ambiguous, because more than one ZIP+4 database record matches the input address. For example, if a street has an address record for houses numbered from 100 to 500, and another record for houses numbered from 300 to 600, then the address 400 is a multiple match to both records.

Error number 6.3: Cardinal Rule Multiple Match. The input record had a street name that was also the suffix. For example, 100 Road Street would have the wrong suffix, and in that case, the address matching engine is not allowed to add the correct suffix.

Error number 7.1: Time ran out. The optional maximum time limit for processing this address was set too low.

Error number 7.2: Output too long. An output record (the length of all fields and field delimiters) exceeds 2000 characters. Fields at the end of the record will be lost.

Warning number 8.1: Company phonetic match used. Was able to match the input address in the ZIP+4 database that included a company name, but the input company name and the database company name only matched phonetically, not exactly.

Warning number 8.2: First company match used. There are multiple records in the ZIP+4 database at one address that match the company and address in the input record. Used the first of the multiple records to determine the ZIP+4 code.

Warning number 9.1: State determined from city. The input record state is not a valid two-character abbreviation, but could determine a valid state from the input record's city name.

Warning number 9.2: State determined from ZIP. The input record state is not a valid two-character abbreviation, but could determine a valid state from the input record's ZIP code.

Warning number 10.1: City phonetic match used. The input record city is not correct, but was matched to a phonetic equivalent city name.

Warning number 10.2: City determined from ZIP. The input record city is not correct, but could determine a valid city from the input record's ZIP code.

Warning number 10.3: Acceptable city name used. The Postal Service does not consider that the input record city designation acceptable for addressing purposes. Standardized the city to an allowable name.

Warning number 11.0: Address component chg/del/add. This warning indicates that at least one component of the input address was changed, deleted, or added.

Warning number 11.1: Street phonetic match used. The input record street is not correct, but was matched to a phonetic equivalent street name. Often has to ignore words in the original input address for standardization or

matching purposes, so be sure to check the address leftovers output field to find what original data was left out of the final address.

Warning number 11.2: Pre-direction dropped. A street name like N MAIN ST was standardized to MAIN ST.

Warning number 11.3: Pre-direction added. A street name like MAIN ST was standardized to N MAIN ST.

Warning number 11.4: Suffix dropped. A street name like BROADWAY AVE was standardized to BROADWAY.

Warning number 11.5: Suffix added. A street name like MAIN was standardized to MAIN ST.

Warning number 11.6: Post direction dropped. A street name like MAIN ST N was standardized to MAIN ST.

Warning number 11.7: Post direction added. A street name like MAIN ST was standardized to MAIN ST N.

Warning number 11.8: Pre-direction standardized. A street name like NORTH MAIN ST was standardized to N MAIN ST.

Warning number 11.9: Street standardized. Non-directional, non-suffix words in a street name were standardized. For example: THIRD ST to 3RD ST, BOX TO PO BOX, RURAL RT TO RR. Also occurs when an alternate street name is used in place of an alias.

Warning number 11.10: Suffix standardized. A street name like MAIN STREET was standardized to MAIN ST.

Warning number 11.11: Postdirection standardized. A street name like MAIN ST NORTH was standardized to MAIN ST N.

Warning number 11.12: Street missing. The input record's address field was empty.

Warning number 11.13: Alternate address used. The input record had both an address and an alternate address, and found the best match to the ZIP+4 database by using the alternate address.

Warning number 11.14: Address standardized. The input address was formatted in accordance to CASS standards, DMM A950.

Warning number 11.17: Street Alias Match. Compares the input address to the USPS City/State product to determine if a better delivery address exists for the input record.

Warning number 12.1: Unit standardized. As address like 5 MAIN ST SUITE A was standardized to 5 MAIN ST STE A.

Warning number 12.2: Unit missing. The ZIP+4 database indicates that the address should have a unit like an apartment or suite, but none was specified in the input record.

Warning number 12.3: Unit not found. A unit such as an apartment or suite was specified in the input record, but not was found in the ZIP+4 database.

Warning number 12.4: Unit unverified. A unit such as an apartment of suite was specified in the input record, and the ZIP+4 database indicates units exist at the address, but there is insufficient detail in the database to verify the input unit as valid.

Warning number 12.5: Rural box not found. The input record includes a rural route box number not found in the ZIP+4 database.

Warning number 13.1: Leftovers found. The input record address contained words could not match to the ZIP+4 database. These "leftovers" can be found in a field called Leftout_. Leftovers are any words from the address that were not used. This is useful for creating a "department" field for the second line of the address.

Warning number 14.1: No ZIP Code Available. Indicates that the address (exactly as submitted) is not in the city, state, or ZIP code provided.

Warning number 14.2: ZIP changed. The input record has a ZIP code, but the correct five-digit ZIP code for the address is different.

Warning number 14.3: +4 changed. The input record has a +4 code, but the correct +4 code for the address is different.

Warning number 14.4: Route changed. The input record has a carrier route number, but the correct carrier route number for the address is different.

Warning number 14.5: +4 added. The input record did not have a +4 code, and the correct +4 code for the address was added.

Warning number 14.6: Route Added. The input record did not have a carrier route number, and the correct carrier route number for the address was added.

Warning number 14.7: ZIP assigned for multi-matched address. The input address was considered a multiple streets match, e.g. warning number 6.1, but a correct 5-digit ZIP was added to the record to improve delivery.

Warning number 14.8: Unique ZIP match. Some entities are assigned an entire 5-digit ZIP code. These ZIPs are flagged as "unique" in the USPS Database. If a street match cannot be made but the City/ZIP indicate a unique ZIP match, then this correction code will be used.

Warning number 14.9: Small town default match. If the location indicated by the City/ZIP contains a single general delivery record and nothing else, then any input street may be assigned to the general delivery ZIP+4. The input street is preserved.

Warning number 15.1: High-rise Default. The input address matched to a high-rise record in the USPS Database and a unit number was not provided in the input address.

Warning number 15.2: High-rise Exact. The input address matched to a high-rise record in the USPS database and the unit number matched exactly to one found in the USPS database.

Warning number 15.3: Rural Route Default. The input address matched to a Rural Route record in the USPS database and a box number was not provided in the input address.

Warning number 15.4: Rural Route Exact. The input address matched to a Rural Route record in the USPS database and the box number matched exactly one found in the USPS database.

Warning number 15.5: Early Warning System match. The record matched to a record in the Early Warning System file. A value of "W" means that this address was found in the USPS Early Warning System (EWS). The EWS file includes addresses that will be added to the USPS ZIP+4 Code Master File in the coming months, such as housing developments and new construction. EWS ensures that addresses not on the USPS Master File will not be eliminated, or coded inaccurately.

Warning number 15.6: LACSLink Conversion Match. The Input address matched a record in the LACS Conversion table and has been updated with a new address.

Warning number 15.7: There was a SuiteLink match on the company and address fields for that record. The suite value was returned. In this case, the "Stelink_" field will be populated with an "A".

Warning number 15.8: here was a Firm match on the company and address fields for that record, however the input record could not be matched to a record in the Master SuiteLink file. An Improved Business address could not be furnished. In this case, the "Stelink_" will be populated with a "00".

Warning A1 to A10: This indicates which Address block was used to code the record. The number after the A indicates which Address field contained the good address. For example, if the database contained eight address fields and the good address was located in the Address5 field, then the Address5 information would be moved to the Address field and the Address info would be moved to the Address5 field and the result Warning code would be A5. If the good address was found in the Company field, then the result would be A0, otherwise the result would be the number of the Address field matched.