



Parser & Standardization White Paper

NOVEMBER, 2012

Prepared for: ENVIRONMENTAL PROTECTION AGENCY

Prepared by: INDUS Corporation
1951 Kidwell Drive
Vienna, Virginia 22182



TABLE OF CONTENTS

PREPARED FOR:	I
TABLE OF CONTENTS	II
REVISION HISTORY	III
A. INTRODUCTION	4
B. PRIMARY NAME STANDARDIZATION	8
C. ADDRESS TYPE PROCEDURE	11
C.1 Address Standardization.....	13
D. CITY AND COUNTY STANDARDIZATION	19
E. STATE AND ZIP STANDARDIZATION	20
F. DATA QUALITY STANDARDIZATION	20
G. ALTERNATIVE NAME STANDARDIZATION	22
H. SUMMARY	22
I. APPENDIX A: STANDARDIZED NAME DATA VALUES	24
J. APPENDIX B: STANDARDIZED ADDRESS DATA VALUES	39
K. APPENDIX C: STANDARDIZED CITY AND COUNTY DATA VALUES	47

REVISION HISTORY

Version Number	Date	Description of Changes

A. INTRODUCTION

The Facility Registry System (FRS) database receives a large number of data files from various sources. The first procedures that execute on the data file are a parser procedure and a standardization procedure, both of which were developed years ago. The purpose of the parser and standardization procedure is to break up the data values into distinct parts and the smallest data units, to derive where there is missing data, see where data is similar once characters are standardized to improve the matching purpose, and to generate data quality and address type (for example: rural, urban, mailing directions). Without all the procedures in place, the data will not allow matching software to link some data values accurately and the data will also be inconsistent because of various naming conventions used. Plus, without any procedures in place to catch possible duplicate facility listings, there will be multiple records within FRS of the same facility. This can create problems, especially when handling highly sensitive data.

Overall, the parser and standardization procedure manipulates incoming data through multiple processes. The parser prepares the data by dividing it into different fields based on their data type. The values are then standardized to create uniformity. Once standardized, the values are then validated using a data quality code procedure to verify there are no inconsistent or null values. After the data quality code is assigned to each data record, it is then integrated into the FRS database.

The standardization procedure is designed to create uniformity among the data. Uniformity is important when handling large amounts of incoming data records that use various naming conventions. The parser is used to break down and link parts of the incoming data to the correct standardization procedure, since the standardization procedure consists of multiple sub procedures that handle the different types of data. The purpose of this document is to explain, in detail, the different procedures used to parse and standardize incoming data.

Figure 1 depicts the overall flow of how incoming data is handled. Data enters from various sources and is temporarily stored in staging tables. It is then separated into site and non-site related data tables. The parser and standardization procedure is executed on site data with the exception of alternate name data. In this case, the alternate name data only executes the standardization procedure.

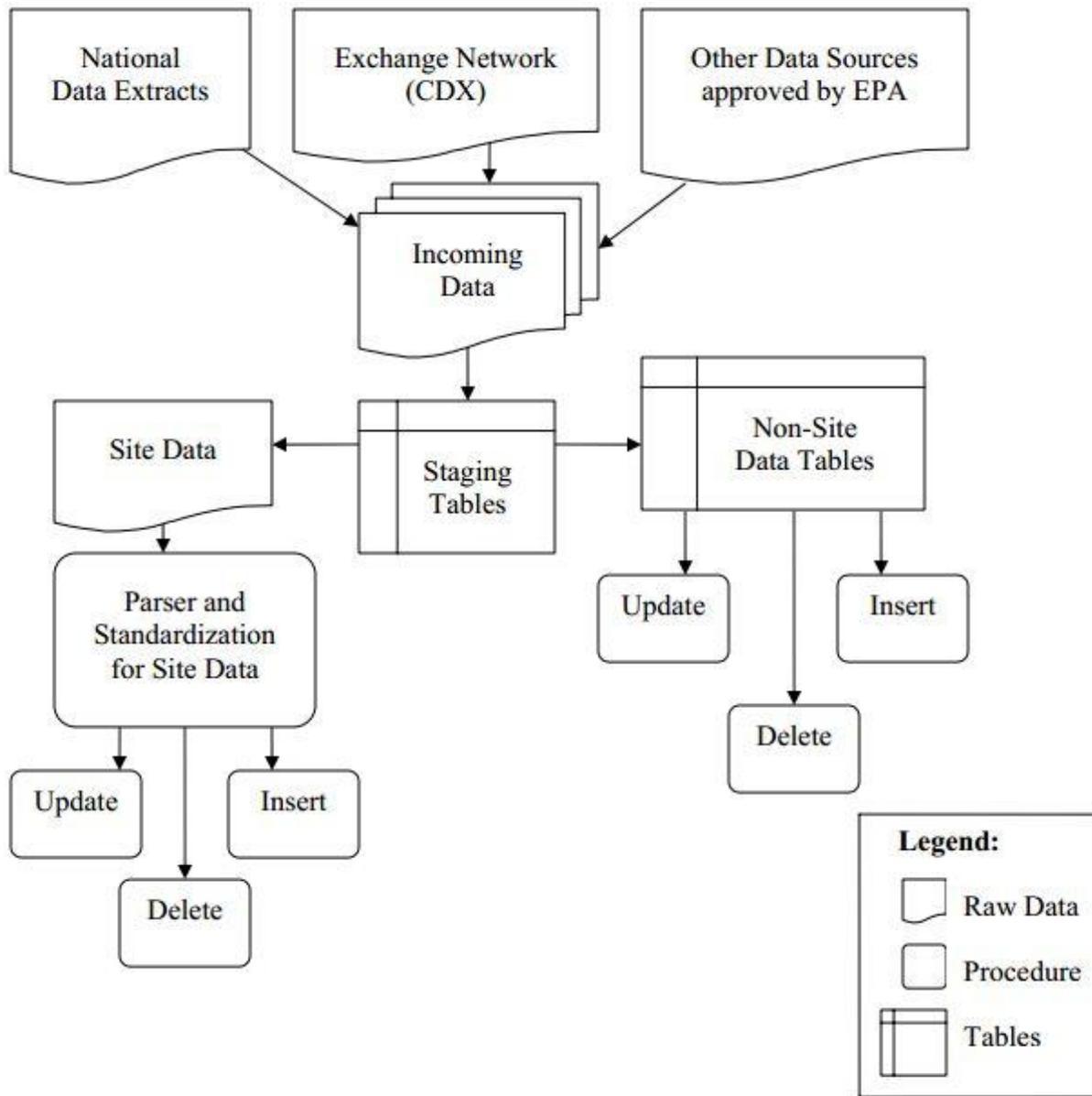


Figure 1. High Level Data Flow Diagram.

The current FRS system utilizes many procedures to execute standardization and to format of incoming data into the FRS database. These data files are in a different format and need to be verified and validated using various procedures; in this case the standardization procedures. Then the files are put into temporary database tables for later integration. The parser procedure takes apart the data file and puts the values into their corresponding fields as shown in Figure 2. The parser procedure does not execute on alternate name data even though it is considered to be site data, because the data does not need to be parsed. The standardization procedure executes on alternate name data to standardize the name, which is why it is handled separately in Figure 2.

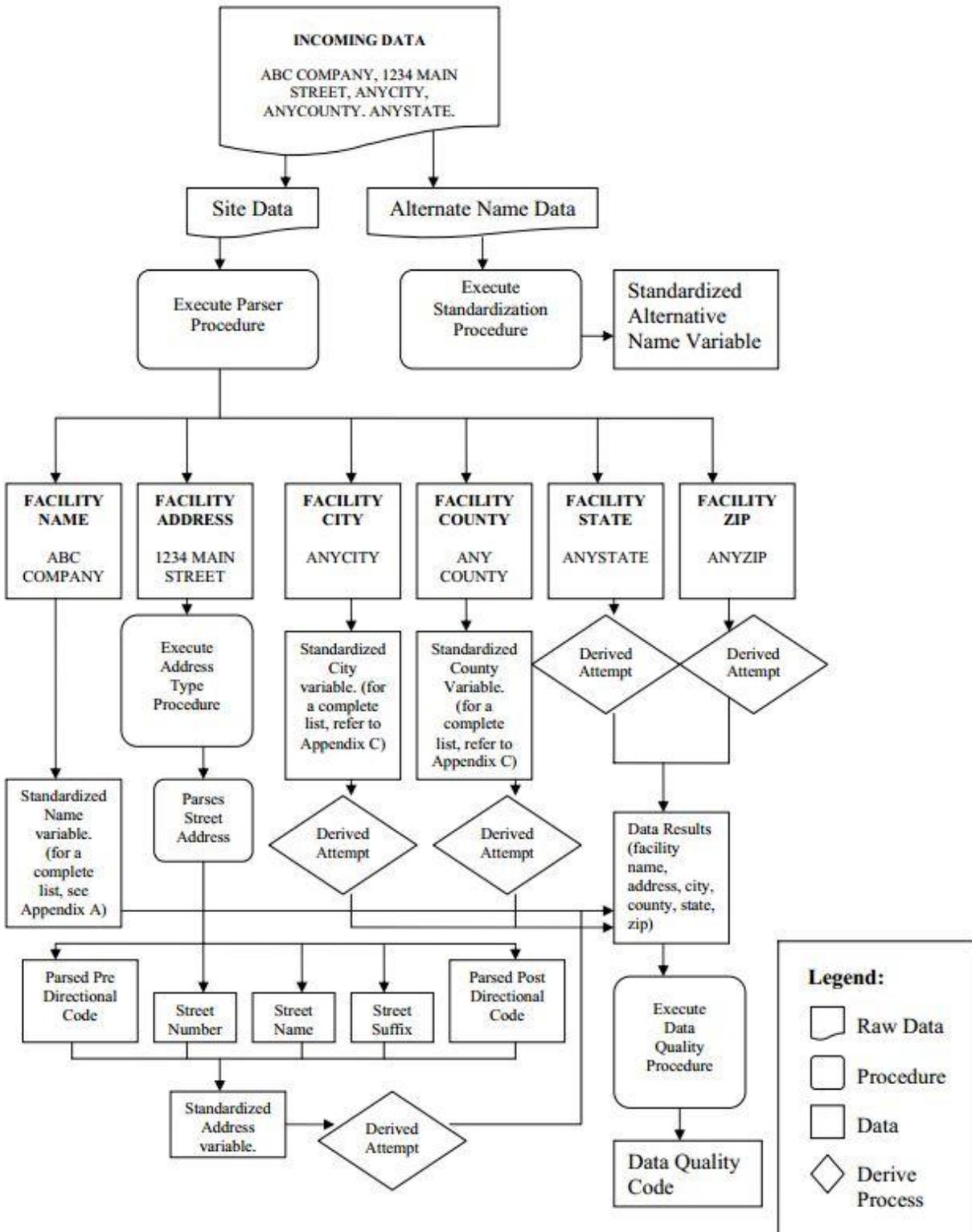


Figure 2. Parser and Standardization Flow Diagram.

For example, an incoming file could have the facility name, address, city, county, state, and zip separated by some common parser delimiter like a comma. The parser procedure will then dissect the information and put each value into its respective field tag such as in Figure 2. If any of the data is missing from the incoming data file, the values are then derived using the zip code reference table. For example, if the incoming data is missing a zip code, the parser procedure will reference the zip code table to locate the correct zip code using the city and state information for that specific data record. The zip code reference table is populated using information obtained from United States Postal Service.

Throughout this document, each section in the above diagram will be explained in further detail. The primary name, also known as the facility name, will be standardized and compared to a list of anomalies in Appendix A. An anomaly is an unexpected result. Not everyone inputs everything the same. For example, the incoming state data could have zeros listed as the state code instead of an actual state abbreviation. Another example is when alphanumeric data is listed in the zip code field. In both instances, these are anomalies and are verified using either the state or zip code anomaly list. There are anomaly lists for the other remaining data fields, such as facility name, but only the standard name, city, and county are shown in this document. These lists have been developed over time and contain most of the commonly used words.

The address field has a list of anomalies that are checked as well. For instance, when encountering different versions of the word ROAD and STREET it has become helpful to standardize these different versions down to one common version. The address field is parsed into separate groupings before the anomaly is checked. The address field consists of the pre directional code, the street number, the street name, the suffix, the post directional code, the city, the county, the state, and the zip code. The pre directional code consists of the value that is before the street number in the address field and is usually represented by using N, S, E, and W for example. The post directional code is the value that follows the street number field and is represented by using acronyms such as NW, NE, SE, and SW. The city, county, state, and zip code are handled separately from the rest of the address field.

The data quality code is derived using the address, city, county, state, and zip code. This field is important because it determines the validity of the data. Deriving the data quality code is an automated process that evaluates the quality of each record's data values and based on the evaluation, assigns a data quality code. The facility site name and location address are checked against a table of known anomalies. Next, the standardized city name, county name, state code, and zip code are validated for consistency across data fields using data extracted from the zip code reference table. If the combination of city name, county name, state code, and zip code is invalid, the invalid data elements are identified and a data quality code is assigned to the record.

B. PRIMARY NAME STANDARDIZATION

The primary name field is standardized by calling the name standardization procedure and assigning it to the standard name field (STD_NAME). The standard name procedure uses the primary name field as the only input parameter. Once completed, the results are placed into another variable called STD_PRIMARY_NAME or the standardized primary name field. The following is a hard-coded list

depicting any original text that is replaced by the procedure. The procedure checks the data for any of the following text and, if found, replaces the original text with the new data value. For example, if there was a '@' sign in the primary name, the procedure will remove the symbol. Please refer to Appendix A for a detailed list of primary name anomalies.

Primary Name Special Characters

<u>Original</u>	<u>New Data Value</u>	<u>Original</u>	<u>New Data Value</u>
"."	" "	"."	Dollar
"@"	" "	"@"	" "
"/"	" "	"/"	" "
"\\$"	" "	"\\$"	" "
"+"	" "	"+"	" "
"("	" "	"	" "
")"	" "	" " "	" "
","	" "	"{"	" "
":"	" "	"}"	" "
"%"	" "	"["	" "
"*"	" "	"]"	" "
"#"	Number	"&"	And

Table 1. Hard-Coded Primary Name Special Characters.

The abbreviated name in the FRS standard name table is found for each word of the primary name and it is assigned to the standard name field. The following is a hard-coded list of abbreviations that are reassigned by its respective counterpart during the procedure.

Standard Name Abbreviations

<u>Original</u>	<u>New Data Value</u>
CO OF	COUNTY OF
CO OF	;
CORP	;
INC	;
U S	US
U.S.	US
U. S.	US
L L P	;
L L C	;
LTD	;
;;	;
THE	" "
ALABAMA	AL
ALASKA	AK
AMERICAN SAMOA	AS
ARIZONA	AZ
ARKANSAS	AR
CALIFORNIA	CA
COLORADO	CO
CONNECTICUT	CT
DISTRICT OF COLUMBIA	DC
DELAWARE	DE
FLORIDA	FL
GEORGIA	GA
GUAM	GU
HAWAII	HI
IDAHO	ID
ILLINOIS	IL
INDIANA	IN
IOWA	IA
KANSAS	KS
KENTUCKY	KY
LOUISIANA	LA
MAINE	ME
MARYLAND	MD

Standard Name Abbreviations

<u>Original</u>	<u>New Data Value</u>
MASSACHUSETTES	MA
MICHIGAN	MI
MINNESOTA	MN
MISSISSIPPI	MS
MISSOURI	MO
MONTANA	MT
NEBRASKA	NE
NEVADA	NV
NEW HAMPSHIRE	NH
NEW JERSEY	NJ
NEW MEXICO	NM
NEW YORK	NY
NORTH CAROLINA	NC
NORTH DAKOTA	ND
OHIO OH	OH
OKLAHOMA	OK
OREGON	OR
PENNSYLVANIA	PA
PUERTO RICO	PR
RHODE ISLAND	RI
SOUTH CAROLINA	SC
TENNESSEE	TN
TEXAS	TX
UTAH	UT
VERMONT	VT
VIRGIN ISLANDS	VI
VIRGINIA	VA
WASHINGTON	WA
WEST VIRGINIA	WV
WISCONSIN	WI
WYOMING	WY
PLT NUMBER	PLT
BLDG NUMBER	BLDG
UNIT NUMBER	UNIT
DIV NUMBER	DIV

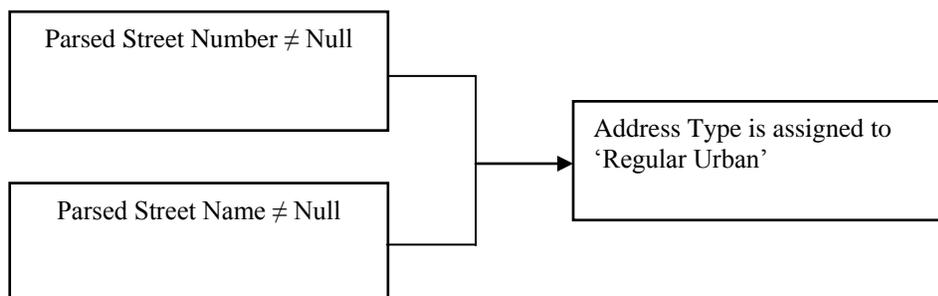
Table 2. Hard-Coded Standard Name Abbreviations.

Finally, if the last word in the primary name field is AND, it is removed from the standard name field.

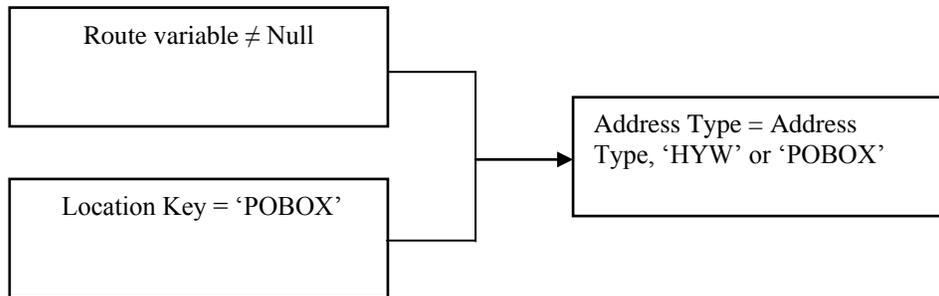
C. ADDRESS TYPE PROCEDURE

The procedure that handles the address type field first checks the address for the following keywords: TO, FROM, AND, MI (for middle), and BEHIND. If none of the keywords are found in the address field, the data value then gets parsed using the street address parser procedure, which uses the standardized location address and the location key as parameters. The parse address procedure uses the parameters and populates the following fields: parsed pre directional code, parsed street number, parsed street name, parsed street suffix, and parsed post directional code. After the fields are derived, the procedure then checks whether the parsed street number and the parsed street name are accurate. If so, they are then assigned appropriate values.

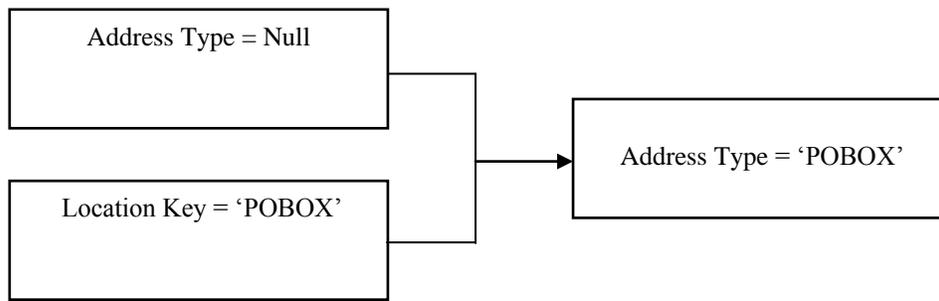
For example, an address listed as route 1, box 60. If the parsed street number variable is null and the variable for BOX is not null, then the ROUTE variable is assigned to the parsed street name variable. For an address listed as 1800 route 1, the procedure checks to see whether there are null values in the parsed street name, the parsed street number, and the ROUTE variables. If the parsed street name variable is null and both the parsed street number and ROUTE variables are not null, then the ROUTE variable is assigned to the parsed street name variable. The address type field is then assigned based on the values in the parsed street number, parsed street name, location key, and the ROUTE variables. Please refer to the diagram below to see the specific cases that can occur.



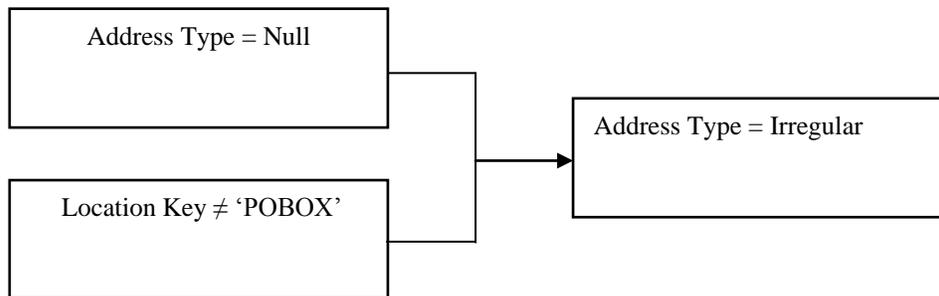
If the parsed street number and the parsed street name are not null, then the address type is assigned to Regular Urban. This means that the address is valid.



If the route variable is not null and the location key is equal to POBOX or HWY, then the address type will be Regular or Irregular and have HWY or POBOX appended to it.



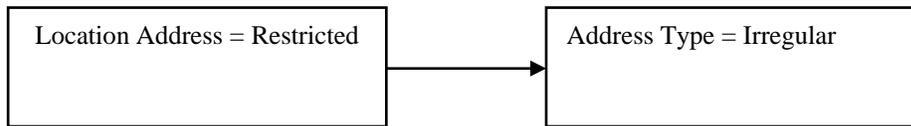
If the address type is null and the location key is equal to POBOX or HWY, then the address type is equal to the value of the location key.



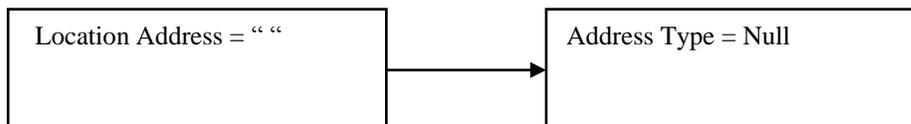
If the address type is null and the location key does not equal POBOX or HWY, then the address type is irregular.



If the parsed street name has latitude, LAT, or LAT in the data value, then the address type is equal to irregular lat/long.



If the location address contains the word restricted, then the address type is irregular.



If the location key is null or empty, then it is assigned to Null.

If the parsed street name includes any of the following keywords or symbols it is reassigned a new data value:

- '-' is replaced by a space
- South is replaced by S
- North is replaced by N

C.1 ADDRESS STANDARDIZATION

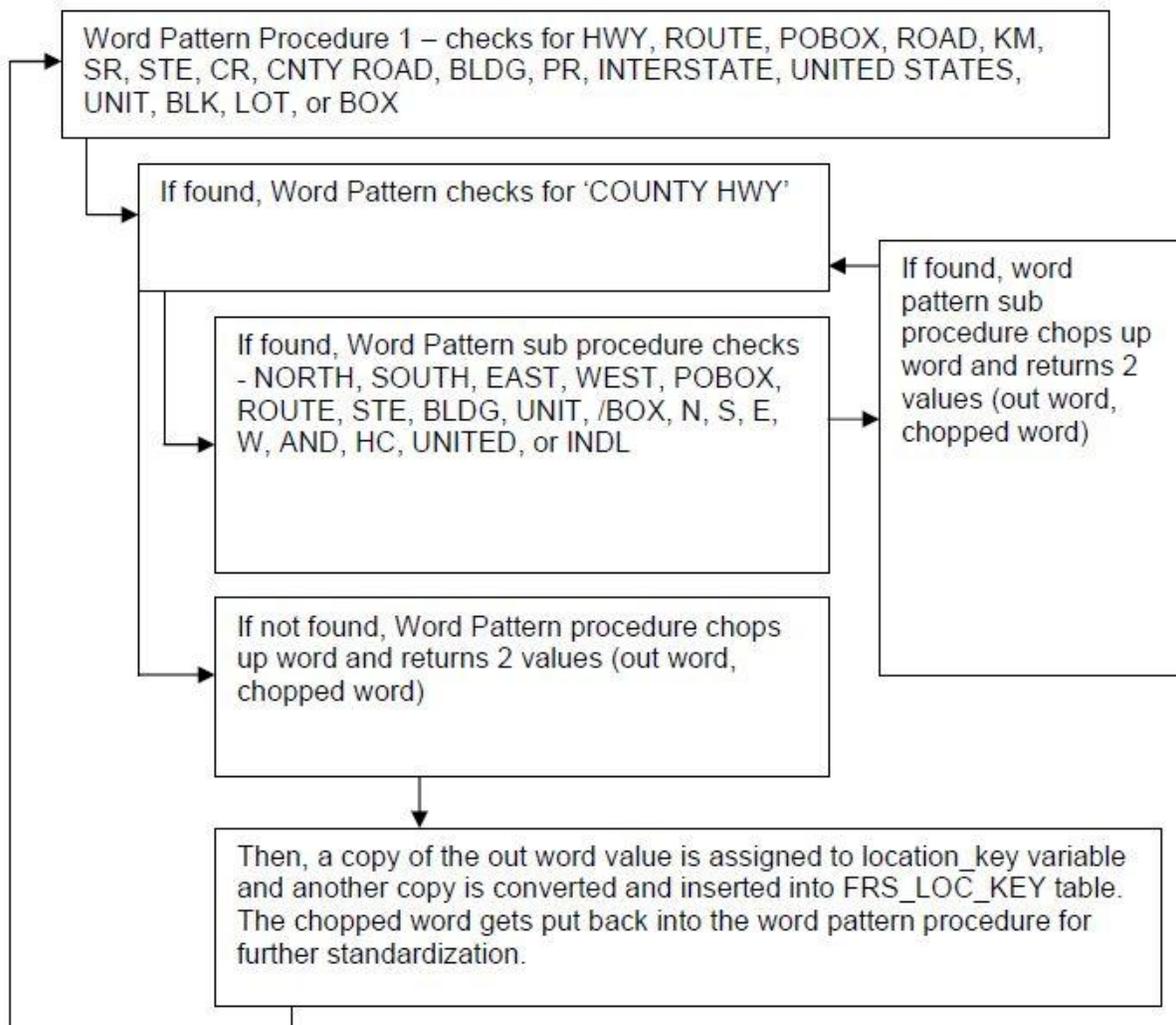
The next procedure, address standardization, standardizes the address location. The data values from the address location field are put into another field named standardized location address. This variable holds the data value after the procedure standardizes the data. The standardized location address field is checked for any of the following keywords:

- | | |
|-------------|-----------------|
| • HWY | • BLDG |
| • ROUTE | • PR |
| • POBOX | • INTERSTATE |
| • ROAD | • UNITED STATES |
| • KM | • UNIT |
| • SR | • BLK |
| • STE | • LOT |
| • CR | • BOX |
| • CNTY ROAD | |

If the field contains any of these keywords, a word pattern procedure is used to check the word pattern in the field. For example, a value of 2095 COUNTY HWY PARK HWY EAST is entered into the address location field. The value is copied and put into the standardized location address for modification. Then the procedure checks for any of the keywords listed previously. In this case, the keyword HWY is found. Then the procedure runs another check to see whether COUNTY HWY is entered. Finally, the procedure checks for any of the following words that come after the keyword HWY:

- SOUTH
- EAST
- WEST
- POBOX
- ROUTE
- STE
- BLDG
- UNIT
- /BOX
- N
- S
- E
- W
- AND
- HC
- UNITED
- INDL

If any of these keywords are found, the value repeats the word pattern procedure. Once the word pattern procedure is finished, FRS continues with the first procedure. After the procedures are finished executing, two values are returned. One value stored in the FRS location key table is called the 'out word.' The other value, 'chopped word', is then executed again through the word pattern loop to get truncated even more. For a visual interpretation of how the procedures work, please refer to the diagram below.



Furthermore, if the next word in the word pattern is not any of the following terms (NORTH, SOUTH, EAST, WEST, POBOX, ROUTE, STE, BLDG, UNIT, /BOX, N, S, E, W, AND, HC, UNITED, or INDL), or if it is any of the following words (ROAD, KM, PR, HWY) followed by a number, the out word will equal the word pattern, plus the next word. Otherwise, the chopped word will be the previous part, plus the next part of the out word (if the next part is null then it will be only the previous part). If none of the above conditions are true, then the out word is null and the chopped word will be the previous part, plus the next part of the word pattern. If the word pattern doesn't match with the string, then the chopped word is the same as the string. However, if the word pattern and the string match, then the chopped word is null. The loop keeps executing until the chopped word and the out word are null. Every time the out word is placed into the location key variable, it is inserted into the FRS location key table. This procedure is true for all other keywords. There is an exception to these cases that include any of the following keywords: ROUTE, SR, CR, COUNTY ROAD, ROAD, PR, or UNITED STATES. In these cases, the out word is also assigned to a local variable called V_RTE, or the route variable. Another exception is when any of the following keywords are found:

- POBOX
- KM
- STE
- BLDG

- UNIT
- BLK
- LOT
- BOX
- INTERSTATE

In these cases, the word is also assigned to a variable. For example, if the out word is equal to BOX, the local variable used to store the data will be called V_BOX. The variables are determined by the result of the out word. Whatever the out word is equal to, the variable will be created as V_[out word]. This is true for POBOX, KM, STE, BLDG, UNIT, BLK, LOT, and INTERSTATE.

The address standardization procedure looks for any of the following words and symbols listed under the 'original' heading and, if found, is replaced by the word listed under the new data value heading. Please refer to the diagram below that shows the hard-coded data values that are in the current address location script. Refer to Appendix B for a list of address location anomalies.

Location Address Data Values

<u>Original</u>	<u>New Data Value</u>	
#	" "	
RR	RR	(if the pattern is 'RRnumber')
RTE	RTE	(if the pattern is 'RTEnumber')
RT	RT	(if the pattern is 'RTnumber')
ROUTE	ROUTE	(if the pattern is 'ROUTEnumber')
RTS	RTS	(if the pattern is RTSnumber')
P.R.	PR	
K.M.	KM	
PR-	PR	
R.D.	ROAD	
junk dot	" "	
I-	INTERSTATE	
I\number	INTERSTATE Inumber	
I \number	INTERSTATE I number	
N/A	NOT APPLICABLE	
-	" "	
@	" "	
\	" "	
,	" "	
&	" "	
(" "	
)	" "	
;	" "	
:	" "	
%	" "	
*	" "	
NO	" "	
No.	" "	
\$	" "	

+	" "
"	" "
“ ”	" "
{	" "
}	" "
[" "
]	" "
`	" "
~	" "
^	" "
RD.	ROAD
R.D.	ROAD
R R	ROUTE
S E	SE
S W	SW
N W	NW
N E	NE
E W	EW
NORTH WEST	NW
EAST WEST	EW
NORTH EAST	NE
SOUTH WEST	SW
SOUTH EAST	SE
P O BOX	POBOX
PO BOX	POBOX
POST OFFICE BOX	POBOX
—	" "
OUTER	" "
EXTENDED	" "
BUSINESS	" "
OF	FROM
TO	FROM
OFF	FROM
TWENTY FIRST	21ST
TWENTY SECOND	22ND
TWENTY THIRD	23RD
**SAME UNTIL 99 TH **	

Table 3. Hard-Coded Location Address Part A.

Some other values that are checked for in the address standardization procedure are as follows:

<u>Original</u>	<u>New Data Value</u>
" "	" "
RURAL ROUTE	ROUTE
OLD ROUTE	ROUTE
R ROUTE	ROUTE
STATE ROUTE	ROUTE
ST ROUTE	ROUTE
ROUTE NO	ROUTE
SR	ROUTE
S R	ROUTE
COUNTY	CNTY
CNTY ROUTE	ROUTE
CNTY	COUNTY
	" " (if the pattern is 'STATE ROADnumber' or 'STATE ROAD number')
STATE	
ST ROAD	ROAD
R D	ROAD
ACCESS ROAD	ROAD
PR ROAD	ROAD
HCR	ROAD
U.S.	UNITED STATES
US.	UNITED STATES
US.	UNITED STATES
U S	UNITED STATES
UNITED STATE	UNITED STATES
UNITED STATES HWY	HWY
UNITED STATES ROUTE	ROUTE
STATE HWY	HWY
ST. HWY	HWY
NATIONAL HWY	HWY
NATL. HWY	HWY
NATL HWY	HWY
NATNL. HWY	HWY
NATNL HWY	HWY
OLD HWY	HWY
NEW HWY	HWY
HWY	HWY

Table 4. Hard-Coded Location Address Part B.

D. CITY AND COUNTY STANDARDIZATION

The city name and county name fields are standardized by calling the city and county standardization procedure one by one, using the fields as parameter values. Once the procedure finishes, FRS then stores the values in the standard city name and standard county name fields STD_CITY_NAME and STD_COUNTY_NAME, respectively. If the procedure finds any of the following special characters or keywords within the city and county name fields, it will be replaced by the value under the 'new data value' heading. Refer to Appendix C for a list of city and county name anomalies.

Special Characters and Dave Values for City and County Names		Special Characters and Dave Values for City and County Names	
<u>Original</u>	<u>New Data Values</u>	<u>Original</u>	<u>New Data Values</u>
/C/	" "	&	" "
/T/	" "	(" , "
/V/	" ")	" , "
/O/	" "	;	" "
-	" "	:	" "
—	" "	%	" "
.	" "	*	" "
@	" "	#	" "
/	" "	\$	" "
\	" "	+	" "
" ' ' "	" "	^	" "
"	" "	" "	" "
{	" "	CITY OF	NULL
}	" "	BOROUGH OF	NULL
[" "	BORO OF	NULL
]	" "	TOWNSHIP OF	NULL
`	" "	TWNSP OF	NULL
~	" "	TWP OF	NULL

Table 5. Hard-Coded City and County Name.

Next, any commas and entries after the comma are removed as well. The next step in the procedure is to retrieve the word and construct a new primary name; specifically, the program retrieves each word in the field, separates them using quotes, and standardizes them. For example, if the word is 'LA', then 'LA' is appended to the standard city name field or standard county name field. Another example is if the word is 'CO', then 'Colorado' is appended to the standard city name or standard county name field. Additionally, the standard name from the FRS standard city and county table can be appended to the standard city name or standard county name field for that particular name.

After standardization, the following items, if found, are replaced with corresponding values listed under the 'new data value' heading. Please refer to the list below for a complete hard-coded list of these values and their new data values.

After Standardization Dave Values for
City and County Names

After Standardization Dave Values for
City and County Names

<u>Original</u>	<u>New Data Values</u>	<u>Original</u>	<u>New Data Values</u>
TOWN OF	NULL	NORTH EAST OF	NULL
TWN OF	NULL	SOUTH EAST OF	NULL
VILLAGE OF	NULL	NORTH OF	NULL
SOUTH WEST OF TOWN	NULL	SOUTH OF	NULL
NORTH WEST OF TOWN	NULL	EAST OF	NULL
NORTH EAST OF TOWN	NULL	WEST OF	NULL
SOUTH EAST OF TOWN	NULL	VICINITY OF	NULL
EAST OF TOWN	NULL	IS NEARBY	NULL
WEST OF TOWN	NULL	BURGH	BURG
NORTH OF TOWN	NULL	A F B	NULL
SOUTH OF TOWN	NULL	AIR FORCE BASE	NULL
SOUTH WEST OF	NULL	" "	" "
NORTH WEST OF	NULL	" "	" "

Table 6. Hard-Coded Standardized City and County Names.

Finally, if the final word after standardization is null, then the original value is going to be assigned to standard city name or standard county name.

E. STATE AND ZIP STANDARDIZATION

States and zip codes are both derived using the zip code reference table. The procedure takes the data values in the other columns, such as address, city, and county, and uses the zip code reference table to match up the missing states and zip code data. Once the information is found, the state and zip code for the record is stored in the FRS RES program facility table. Otherwise, if there is no match, then the data fields stay empty.

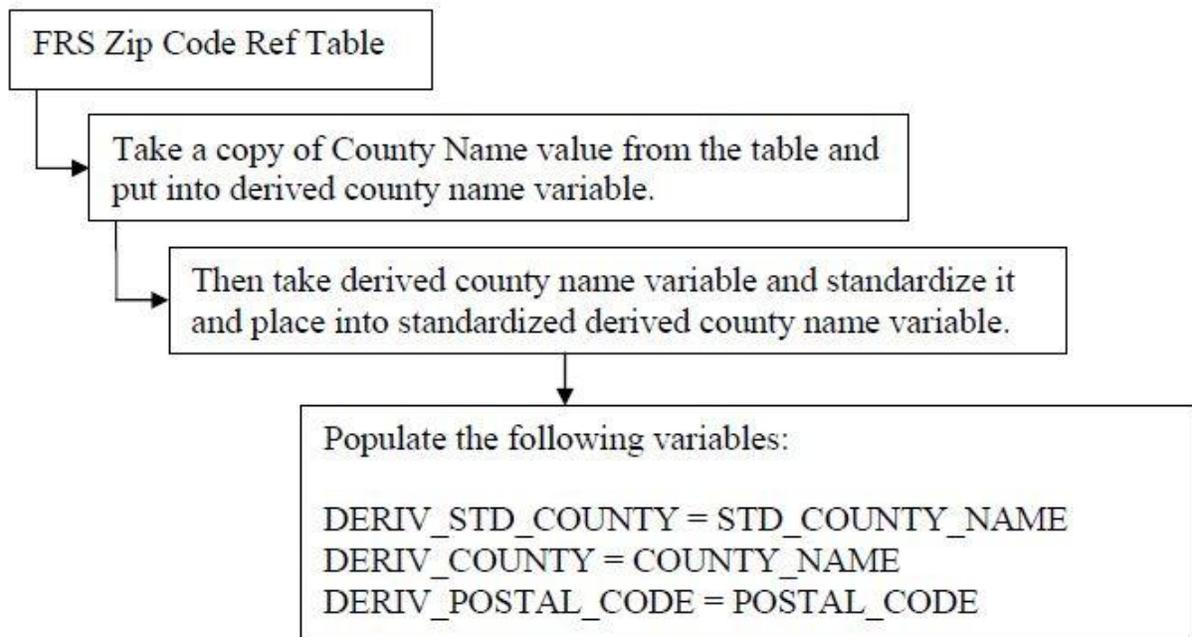
F. DATA QUALITY STANDARDIZATION

Data quality uses the city, county, state, and zip code fields to standardize and determine the quality of the data. If any of the data values in those four fields are missing or invalid, that data value is marked in the data quality code field. The lowercase letters identify what problem has been identified, and the uppercase letters identify which data element has been identified with having a problem. Please refer to the chart below for a list of the data quality codes that are used in the FRS database.

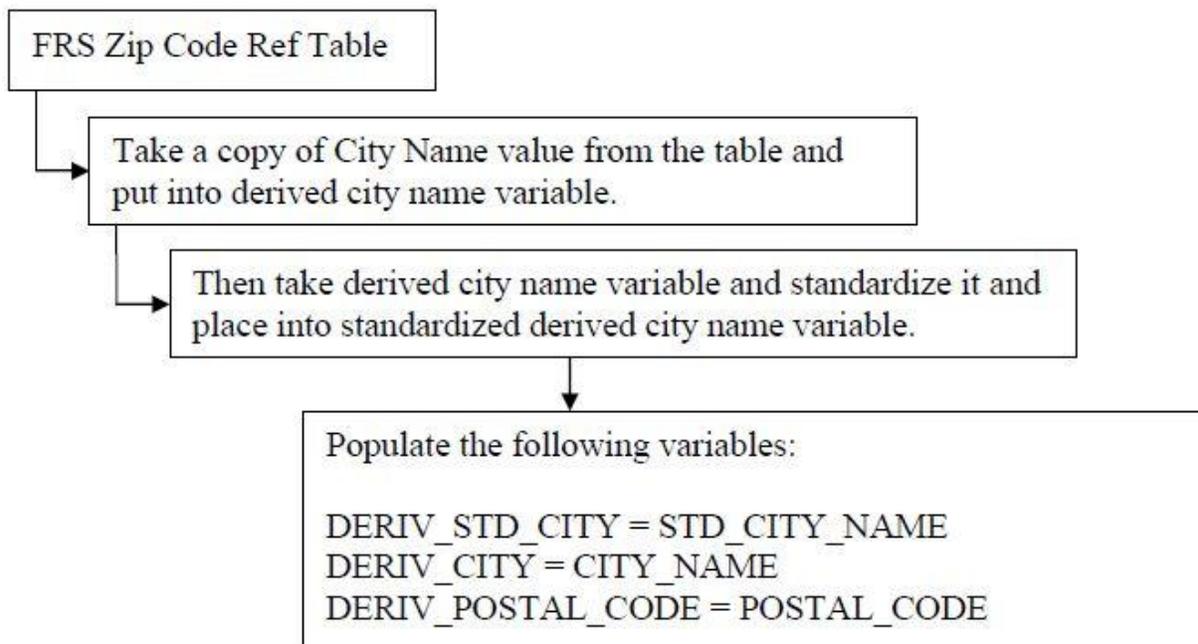
Code	Description
i	Invalid: used for ZIP codes, County names and City names that do not correspond with one another.
e	Erroneous: Used for facility names and addresses that contains anomalies.
m	Missing: Used for any core data element containing no

	information (Facility Name, Address, City, County, State or ZIP Code).
A	Address
N	Facility Name
C	City Name
O	County Name
Z	ZIP Code
M	Combination of city and county
V	Valid

The data quality code field is determined by calling the FRS data quality code procedure. There are three different cases that determine the outcome of this procedure. The first case is concerned with missing or invalid county name. The county name is derived from the FRS zip code reference table from the county name column for a particular record. The county name is then standardized using the city and county name procedure and is stored into a variable called the derived standard county variable. Also, the derived postal code variable is populated with the value in the postal code field. Please refer to the following for a graphical representation of the first case.



The second case involves missing or invalid city name. The city name value is derived from the FRS zip code reference table as in the first case and then is put into the derived city name variable for standardization. The city and county name standardization procedure then occurs and creates a standardized city name variable and populates it with the result. Also the derived standard county variable populates the standard county name field. The derived county name variable populates the county name field. The derived postal code variable populates the postal code field. Please refer to the following for a graphical representation of the second case.



The third case involves missing or invalid zip codes. The postal code is derived from the FRS zip code reference table and populates the following fields:

- DERIV_STD_COUNTY = STD_COUNTY_NAME
- DERIV_STD_CITY = STD_CITY_NAME
- DERIV_COUNTY = COUNTY_NAME
- DERIV_CITY = CITY_NAME

All above populated values are updated in the FRS RES program facility table.

G. ALTERNATIVE NAME STANDARDIZATION

The alternative name standardization procedure takes in one parameter, and is used to standardize the alternative name field. The result is then assigned to another variable, called STD_ALT_NAME, or standardized alternative name.

H. SUMMARY

As previously seen throughout this document, the parser and standardization procedure contains multiple processes for the data to go through. First the data is divided using the parser procedure into different fields corresponding to the type of data it is. Then these values are standardized by their respective procedures to allow for consistency, such as the standardized name procedure that will standardize the primary name field. These values are then validated using the data quality code procedure to make sure the data is not null or contain any inconsistencies. Once this code is assigned to each record, the data is integrated into the FRS database.

The parser and standardization procedures are important because it ensures the accuracy of the data. If any data is found to be inaccurate, the procedures will flag the data records for manual review and an analyst will review the record for inconsistencies and correct any data that is incorrect. These procedures also improve the matching purpose by making sure that the data is accurate and uniform. Without the accuracy and uniformity, there will be multiple records within FRS that could be the same facility; however, the difference in data between the records may not suggest that they are the same and therefore, the records will be left unlinked. The automation of these procedures saves time and money compared to when the parser and standardization is not used.

I. APPENDIX A: STANDARDIZED NAME DATA VALUES

FULL_NAME	ABBR_NAME	REPL_NAME
DEPARTM	DEPT	DEPT
DEPARTMNT	DEPT	DEPT
DEPART	DEPT	DEPT
DEVELOPMENT	DEV	DEV
DEVELP	DEV	DEV
DEVLMT	DEV	DEV
DEVELPMT	DEV	DEV
DVLPMT	DEV	DEV
DVLPMT	DEV	DEV
DVLOPMT	DEV	DEV
DEVMT	DEV	DEV
DEVLPMT	DEV	DEV
CORPORATIN	CORP	
DEVELOPMT	DEV	DEV
DEVELOP	DEV	DEV
DEVELOPM	DEV	DEV
DEVELOPMNT	DEV	DEV
DEVELOPMEN	DEV	DEV
DEVEL	DEV	DEV
DEVELOPMENTAL	DEV	DEV
DISTILLERY	DISTLR	DISTLR
DISTILLER	DISTLR	DISTLR
DISTILLING	DISTLR	DISTLR
DIVISION	DIV	
DIVISIONS	DIV	
DIVSN	DIV	
DIVISIONAL	DIV	
ECONOMIC	ECON	ECON
ECONOMY	ECON	ECON
ECONOMIST	ECON	ECON
ECOM	ECON	ECON
ELECTRONIC	ELEC	ELEC
ELECTRONICS	ELEC	ELEC
ELECTRICS	ELEC	ELEC
ELECTRIC	ELEC	ELEC
ELECT	ELEC	ELEC
ELECTRICIAN	ELEC	ELEC
ELECTRICITY	ELEC	ELEC

FULL_NAME	ABBR_NAME	REPL_NAME
ELECTRICAL	ELEC	ELEC
ENERGY	ENGRY	ENGRY
ENGY	ENGRY	ENGRY
ENRG	ENGRY	ENGRY
ENTERPRISES	ENTRPRS	ENTRPRS
ENTS	ENTRPRS	ENTRPRS
ENTERPRISE	ENTRPRS	ENTRPRS
ENTERP	ENTRPRS	ENTRPRS
ENTRPR	ENTRPRS	ENTRPRS
ENTPR	ENTRPRS	ENTRPRS
ENVIRONMENT	ENVIR	ENVIR
ENVRMT	ENVIR	ENVIR
ENVRONMEN	ENVIR	ENVIR
ENVIRON	ENVIR	ENVIR
ENVIRONMENTAL	ENVIR	ENVIR
ENVRNMTL	ENVIR	ENVIR
ENVRMTL	ENVIR	ENVIR
ESTATES	ESTATE	ESTATE
FACILITIES	FACLTY	FACLTY
FAC	FACLTY	FACLTY
FACILITY	FACLTY	FACLTY
FABRIC	FAB	FAB
FABR	FAB	FAB
FIBERGLASS	FBRGLS	FBRGLS
FEDERAL	FED	FED
FEDL	FED	FED
FDRL	FED	FED
FOUNDRY	FNDRY	FNDRY
FDRY	FNDRY	FNDRY
FNDY	FNDRY	FNDRY
FREIGHT	FRGHT	FRGHT
FRGT	FRGHT	FRGHT
FRT	FRGHT	FRGHT
CORPORATIO	CORP	
CORPORATE	CORP	
FISHERY	FSHRY	FSHRY
FORT	FT	FT
GASOLINE	GAS	GAS
GENERAL	GNRL	GNRL
GENL	GNRL	GNRL
GEOLOGICAL	GEO	GEO
GEOLOGY	GEO	GEO
GEOPHYSICAL	GEO	GEO
GENERATION	GNRTNG	GNRTNG

FULL_NAME	ABBR_NAME	REPL_NAME
GENERATING	GNRTNG	GNRTNG
GEN	GNRTNG	GNRTNG
GENERATOR	GNRTNG	GNRTNG
GYMNASTIC	GYM	GYM
GYMNASIUM	GYM	GYM
HEADQUARTERS	HQ	HQ
HDQS	HQ	HQ
HQTS	HQ	HQ
HQS	HQ	HQ
HDQTRS	HQ	HQ
HARDWARE	HDWR	HDWR
HOSPITAL	HOSP	HOSP
HOSPIT	HOSP	HOSP
HSPTL	HOSP	HOSP
IMPORT	IMPRT	IMPRT
IMPORTERS	IMPRT	IMPRT
IMPORTING	IMPRT	IMPRT
IMPORTS	IMPRT	IMPRT
INCORPORATED	INC	
INCOR	INC	
INCORP	INC	
INCORPORATED	INC	
INDUSTRIAL	IND	IND
INDL	IND	IND
INDUS	IND	IND
INDUSTR	IND	IND
INDUSTRIA	IND	IND
INDSTR	IND	IND
INDUSTRY	IND	IND
INDTRY	IND	IND
INDUSTR	IND	IND
INDUSTRIES	IND	IND
INDS	IND	IND
INFIRM	INFRM	INFRM
INFIRMARY	INFRM	INFRM
INSTITUTE	INST	INST
INSTITUT	INST	INST
INSTITUE	INST	INST
INSTIT	INST	INST
INSTITUTION	INST	INST
INSTITUTIONAL	INST	INST
INTERNATIONAL	INTL	INTL
INTRNTNL	INTL	INTL
INTNL	INTL	INTL

FULL_NAME	ABBR_NAME	REPL_NAME
INTERNATIO	INTL	INTL
INTERNATION	INTL	INTL
INTERNATIONA	INTL	INTL
INTERNATL	INTL	INTL
INTERNATI	INTL	INTL
INVESTMENT	INVSTMNT	INVSTMNT
CORPORT	CORP	
INVST	INVSTMNT	INVSTMNT
INVESTMNT	INVSTMNT	INVSTMNT
INVEST	INVSTMNT	INVSTMNT
INVESTMT	INVSTMNT	INVSTMNT
JUNCTION	JCT	JCT
JUNCTON	JCT	JCT
JUNCTN	JCT	JCT
JCTION	JCT	JCT
JCTN	JCT	JCT
LABORATORY	LAB	LAB
LABORATORIES	LAB	LAB
LABS	LAB	LAB
LANDFILL	LNDFLL	LNDFLL
LNDFL	LNDFLL	LNDFLL
LDFL	LNDFLL	LNDFLL
LNFL	LNDFLL	LNDFLL
LAUNDROMAT	LNDRY	LNDRY
LAUNDRY	LNDRY	LNDRY
LANDSCAPE	LNDSCP	LNDSCP
LIMITED	LTD	LTD
LMTD	LTD	LTD
LUBRICATION	LUBE	LUBE
LUBRICANT	LUBE	LUBE
LUBRICNT	LUBE	LUBE
LUBRICANTS	LUBE	LUBE
LIVESTOCK	LVSTCK	LVSTCK
LVSTK	LVSTCK	LVSTCK
MACHINE	MACH	MACH
MCH	MACH	MACH
MCHINE	MACH	MACH
MACHINING	MACH	MACH
MACHINER	MACH	MACH
MACHINIST	MACH	MACH
MACHINERY	MACH	MACH
MCHY	MACH	MACH
MATERIALS	MATL	MATL
MATERIAL	MATL	MATL

FULL_NAME	ABBR_NAME	REPL_NAME
MATLS	MATL	MATL
MANF	MFG	MFG
MANUF	MFG	MFG
MANUFACTURE	MFG	MFG
MANUFACTURER	MFG	MFG
MANUFACTURI	MFG	MFG
MANUFACTURING	MFG	MFG
MFGNG	MFG	MFG
MFGR	MFG	MFG
MFR	MFG	MFG
MANAGEMENT	MGMT	MGMT
MNGMNT	MGMT	MGMT
MNGN	MGMT	MGMT
MNGMT	MGMT	MGMT
MGMENT	MGMT	MGMT
MANGMNT	MGMT	MGMT
MANAGER	MGMT	MGMT
MANAGE	MGMT	MGMT
MNAGER	MGMT	MGMT
MNGR	MGMT	MGMT
MINNG	MINE	MINE
MINES	MINE	MINE
MINING	MINE	MINE
MARKET	MKT	MKT
MRKT	MKT	MKT
MARKETING	MKTG	MKTG
MRKTG	MKTG	MKTG
OPRTR	OPR	OPR
OPER	OPR	OPR
OPERATIONS	OPR	OPR
OPERATION	OPR	OPR
OPERATING	OPR	OPR
OPERATIONAL	OPR	OPR
PETROLEUM	PETRO	PETRO
PHARMACY	PHARM	PHARM
PHARMACEUTICAL	PHARM	PHARM
PHARMACIST	PHARM	PHARM
TELEPHONE	TELE	TELE
COATING	COTG	COTG
COATINGS	COTG	COTG
COATER	COTG	COTG
COATERS	COTG	COTG
CAPITAL	CPTL	CPTL
CAPITOL	CPTL	CPTL

FULL_NAME	ABBR_NAME	REPL_NAME
CPTAL	CPTL	CPTL
CPTOL	CPTL	CPTL
CORRECTION	CRRCTN	CRRCTN
CORRECTIONAL	CRRCTN	CRRCTN
COURT	CT	CT
CRT	CT	CT
CEN	CTR	CTR
CENT	CTR	CTR
CENTER	CTR	CTR
CENTERS	CTR	CTR
CENTR	CTR	CTR
CENTRE	CTR	CTR
CNTR	CTR	CTR
DEPARTMENT	DEPT	DEPT
FOTO	PHOTO	PHOTO
PHOTOGRAPH	PHOTO	PHOTO
PHOTOGRAPHER	PHOTO	PHOTO
PHOTOGRAPHY	PHOTO	PHOTO
PACKAGE	PKG	PKG
PACKG	PKG	PKG
PACKAGING	PKG	PKG
PASTICS	PLAS	PLAS
PLASTIC	PLAS	PLAS
PLANT	PLT	PLT
PLANTS	PLT	PLT
PLNT	PLT	PLT
PRODS	PROD	PROD
PRODUCE	PROD	PROD
PRODUCT	PROD	PROD
PRODUCTS	PROD	PROD
PRODUCING	PROD	PROD
PSYCHOLOGIST	PSYCH	PSYCH
PSYCHIATRIST	PSYCH	PSYCH
PSYCHIATRIC	PSYCH	PSYCH
PSYCHOLOGICAL	PSYCH	PSYCH
PSYCHIATRY	PSYCH	PSYCH
PSYCHOLOGY	PSYCH	PSYCH
PUBLICATIONS	PUB	PUB
PUBLISHERS	PUB	PUB
PUBLISHING	PUB	PUB
PUBLISHER	PUB	PUB
PUBLICATION	PUB	PUB
POWER	PWR	PWR
REGIONAL	REGN	REGN

FULL_NAME	ABBR_NAME	REPL_NAME
REGION	REGN	REGN
REFINING	RFNRY	RFNRY
REFINERY	RFNRY	RFNRY
REFY	RFNRY	RFNRY
REF	RFNRY	RFNRY
RAILROAD	RR	RR
RAIL	RR	RR
RAILWAY	RR	RR
SCHO	SCH	SCH
SCHOOLS	SCH	SCH
SCHOOL	SCH	SCH
SPECIALIST	SPCLTY	SPCLTY
SPECIALTY	SPCLTY	SPCLTY
SPEC	SPCLTY	SPCLTY
SPECIALTIES	SPCLTY	SPCLTY
STATN	STA	STA
STATION	STA	STA
STAT	STA	STA
STN	STA	STA
SERVIC	SVC	SVC
SVCS	SVC	SVC
SERV	SVC	SVC
SERVICES	SVC	SVC
SRVCS	SVC	SVC
SERVICE	SVC	SVC
SER	SVC	SVC
SYSTEM	SYS	SYS
SYSTEMS	SYS	SYS
TECHNOLOGIST	TECH	TECH
TECHS	TECH	TECH
TECHNOLOGY	TECH	TECH

FULL_NAME	ABBR_NAME	REPL_NAME
TECHNOLOGIES	TECH	TECH
TECHNOLOGICAL	TECH	TECH
TECHNICAL	TECH	TECH
TECHNICIAN	TECH	TECH
TELECOMMUNICATION	TELE	TELE
TELCOMMN	TELE	TELE
TERMINAL	TERML	TERML
TERMINALS	TERML	TERML
TERM	TERML	TERML
TERMINAL	TERML	TERML
ADMINISTRATN	ADMN	ADMN
ADMINIST	ADMN	ADMN
ADMINISTRATION	ADMN	ADMN
ADMINISTRATI	ADMN	ADMN
ADMINISTRA	ADMN	ADMN
ADMINISTR	ADMN	ADMN
ADMINISTER	ADMN	ADMN
ADMINISTRATOR	ADMN	ADMN
ADMINSTR	ADMN	ADMN
ADMNSTRN	ADMN	ADMN
ADMR	ADMN	ADMN
ADMSTR	ADMN	ADMN
ADMINI	ADMN	ADMN
ADMINISTRATV	ADMN	ADMN
ADMINISTRATIVE	ADMN	ADMN
ADVERTISE	ADVT	ADVT
ADVERTISER	ADVT	ADVT
ADVERTISERS	ADVT	ADVT
ADVERT	ADVT	ADVT
ADVTNG	ADVT	ADVT
ADVERTISING	ADVT	ADVT
ADVG	ADVT	ADVT
ADVR	ADVT	ADVT
ADVTG	ADVT	ADVT
ADVERTISNG	ADVT	ADVT
ADVERTISIN	ADVT	ADVT
AFFILIATE	AFFL	AFFL
AFFILIATES	AFFL	AFFL
AFFILIATIONS	AFFL	AFFL
AFFILIATION	AFFL	AFFL
AFFILIATED	AFFL	AFFL
AGENC	AGCY	AGCY

FULL_NAME	ABBR_NAME	REPL_NAME
AGENCY	AGCY	AGCY
AGNCY	AGCY	AGCY
AGENCIES	AGCY	AGCY
AGRICULTURE	AGRI	AGRI
AGRCLTRL	AGRI	AGRI
AGRICULTURAL	AGRI	AGRI
ALGNMNT	ALIGN	ALIGN
ALIGNMT	ALIGN	ALIGN
ALIMENT	ALIGN	ALIGN
ALIGNMNT	ALIGN	ALIGN
ALGNMT	ALIGN	ALIGN
ALIGNMENT	ALIGN	ALIGN
ALIGNMENTS	ALIGN	ALIGN
ALIGNING	ALIGN	ALIGN
ALIG	ALIGN	ALIGN
ALLIANCE	ALLNCE	ALLNCE
ALARM	ALRM	ALRM
ALARMS	ALRM	ALRM
ALUMINUM	ALUMN	ALUMN
ALUM	ALUMN	ALUMN
AMERICA	AMER	AMER
AMERICAN	AMER	AMER
AMMONIA	AMMN	AMMN
NH3	AMMN	AMMN
AMMUNITION	AMMO	AMMO
&&	AND	AND
&	AND	AND
+	AND	AND
ANAL	ANLYST	ANLYST
ANLYS	ANLYST	ANLYST
ANALYS	ANLYST	ANLYST
ANALYSIS	ANLYST	ANLYST
ANALYST	ANLYST	ANLYST
ANLST	ANLYST	ANLYST
ANALY	ANLYST	ANLYST
ANALYTIC	ANLYST	ANLYST
ANALYTICAL	ANLYST	ANLYST
ANIMAL	ANML	ANML
ANIML	ANML	ANML
ANMAL	ANML	ANML
ANESTHESIA	ANESTHES	ANESTHES
ANESTHESIOLOGY	ANESTHES	ANESTHES
ANNX	ANX	ANX
ANNEX	ANX	ANX

FULL_NAME	ABBR_NAME	REPL_NAME
APART	APT	APT
APARTMENT	APT	APT
ARCHITECTURE	ARCH	ARCH
ARCHITECTURAL	ARCH	ARCH
ARCHITECT	ARCH	ARCH
ARCHTCT	ARCH	ARCH
AIRP	ARPRT	ARPRT
AIRPT	ARPRT	ARPRT
AIRPORTS	ARPRT	ARPRT
AIRPORT	ARPRT	ARPRT
ARPT	ARPRT	ARPRT
ARSENAL	ARSNL	ARSNL
ASSEM	ASMBLY	ASMBLY
ASSEMBLY	ASMBLY	ASMBLY
ASSEMBLE	ASMBLY	ASMBLY
ASSEMBLER	ASMBLY	ASMBLY
ASSOCIATIONS	ASSOC	
ASSCO	ASSOC	
ASSCE	ASSOC	
ASSOCATE	ASSOC	
ASSOCIA	ASSOC	
ASSOCI	ASSOC	
ASSOCIATES	ASSOC	
ASSOCIATED	ASSOC	
ASSOCIATE	ASSOC	
ASSOCIAT	ASSOC	
ASSO	ASSOC	
ASSC	ASSOC	
ASO	ASSOC	
ASOC	ASSOC	
ASS	ASSOC	
ASSOCIATION	ASSOC	
ASSCD	ASSOC	
ASSOD	ASSOC	
ASSOCATED	ASSOC	
ASSURE	ASSURNC	ASSURNC
ASSRNC	ASSURNC	ASSURNC
ASSURANCE	ASSURNC	ASSURNC
ASSUR	ASSURNC	ASSURNC
AUTHORI	ATHRTY	ATHRTY
AUTHY	ATHRTY	ATHRTY
AUTHORITIES	ATHRTY	ATHRTY
AUTHORITY	ATHRTY	ATHRTY
AUTH	ATHRTY	ATHRTY

FULL_NAME	ABBR_NAME	REPL_NAME
ATN	ATTN	ATTN
ATTENTION	ATTN	ATTN
ATTNTN	ATTN	ATTN
AUTOMOBILE	AUTO	AUTO
AUTOMOTIVE	AUTO	AUTO
AUXIL	AUX	AUX
AUXILIARY	AUX	AUX
AUXILRY	AUX	AUX
AUXILARY	AUX	AUX
AV	AVE	AVE
AVENUE	AVE	AVE
BAPTIST	BAPT	BAPT
BPTST	BAPT	BAPT
BAT	BATT	BATT
BATTERIES	BATT	BATT
BATTERY	BATT	BATT
BTRY	BATT	BATT
BARBEQUE	BBQ	BBQ
BARBQUE	BBQ	BBQ
BEACH	BCH	BCH
BRD	BOARD	BOARD
BD	BOARD	BOARD
BEVERAGE	BEV	BEV
BEVERAGES	BEV	BEV
BICYCLE	BIKE	BIKE
BIOTECHNOLOGY	BIOTECH	BIOTECH
BANK	BNK	BNK
BUILDING	BLDG	BLDG
BUILDINGS	BLDG	BLDG
BUILDER	BLDR	BLDR
BOULEVARD	BLVD	BLVD
BOROUGH	BORO	BORO
BRDGE	BRG	BRG
BRIDGE	BRG	BRG
BARREL	BRL	BRL
BROTHER	BROS	BROS
BROTHERS	BROS	BROS
BREWING	BREW	BREW
BREWERY	BREW	BREW
BOTLER	BTLG	BTLG
BOTLNG	BTLG	BTLG
BOTTLING	BTLG	BTLG
BTLNG	BTLG	BTLG
BTLR	BTLG	BTLG

FULL_NAME	ABBR_NAME	REPL_NAME
BTTLR	BTLG	BTLG
BSNS	BUSN	BUSN
BUSINESS	BUSN	BUSN
BUSN	BUSN	BUSN
BUSINES	BUSN	BUSN
CAPTAIN	CAPT	CAPT
CPT	CAPT	CAPT
CATHOLIC	CATH	CATH
CTHLC	CATH	CATH
CABINET	CBNT	CBNT
CABINETMAKER	CBNT	CBNT
CABINETRY	CBNT	CBNT
CABINETS	CBNT	CBNT
CEMENT	CEM	CEM
CERTD	CERT	CERT
CERTIFIE	CERT	CERT
CERTIFIED	CERT	CERT
CERTIF	CERT	CERT
CHEMCAL	CHEM	CHEM
CHEMICAL	CHEM	CHEM
CHEMICALS	CHEM	CHEM
CHEMIST	CHEM	CHEM
CHEMISTS	CHEM	CHEM
CHEMS	CHEM	CHEM
CHMST	CHEM	CHEM
CHEVROLET	CHEVY	CHEVY
CHEV	CHEVY	CHEVY
CHICKEN	CHICK	CHICK
CHKN	CHICK	CHICK
CHCKN	CHICK	CHICK
CHILD	CHLD	CHLD
CHILDHOOD	CHLD	CHLD
CHILDREN	CHLD	CHLD
CHILDRENS	CHLD	CHLD
CHILDS	CHLD	CHLD
CHLDHD	CHLD	CHLD
CHLDRN	CHLD	CHLD
CHUR	CHURCH	CHURCH
CHRCH	CHURCH	CHURCH
CHURC	CHURCH	CHURCH
CLEANG	CLNR	CLNR
CLEANER	CLNR	CLNR
CLEANING	CLNR	CLNR
CLEANERS	CLNR	CLNR

FULL_NAME	ABBR_NAME	REPL_NAME
CLEANSER	CLNR	CLNR
CLOTHING	CLTHS	CLTHS
CLOTHES	CLTHS	CLTHS
CMMNTY	CMNTY	CMNTY
COMMUNITY	CMNTY	CMNTY
ACADEMY	ACDMY	ACDMY
ACADEM	ACDMY	ACDMY
ACAD	ACDMY	ACDMY
ADHESIVES	ADHSV	ADHSV
ADHESIVE	ADHSV	ADHSV
ADMIN	ADMN	ADMN
ADMSTRN	ADMN	ADMN
COMNTY	CMNTY	CMNTY
CMTY	CMNTY	CMNTY
CMPR	CMPSR	CMPSR
CMPRSR	CMPSR	CMPSR
CMPRSSR	CMPSR	CMPSR
COMPRESSOR	CMPSR	CMPSR
CAMPSITE	CMPST	CMPST
CAMPGROUND	CMPST	CMPST
COMPUTING	CMPTR	CMPTR
COMPUTER	CMPTR	CMPTR
COMPTR	CMPTR	CMPTR
COMPU	CMPTR	CMPTR
CONFERENCE	CONF	CONF
CONFRECE	CONF	CONF
CONTG	CNTRCT	CNTRCT
CONTR	CNTRCT	CNTRCT
CONTRAC	CNTRCT	CNTRCT
CONTRACT	CNTRCT	CNTRCT
CONTRACTIN	CNTRCT	CNTRCT
CONTRACTING	CNTRCT	CNTRCT
CONTRACTOR	CNTRCT	CNTRCT
CONTRACTORS	CNTRCT	CNTRCT
CONTRG	CNTRCT	CNTRCT
CONTRL	CONTRL	CONTRL
CONTROL	CONTRL	CONTRL
CTL	CONTRL	CONTRL
CTRL	CONTRL	CONTRL
COUNTRY	CNTRY	CNTRY
COUNTRYSIDE	CNTRY	CNTRY
COUNTY	CNTY	CNTY
COMP	CO	
COMPANY	CO	

FULL_NAME	ABBR_NAME	REPL_NAME
COMPANIES	CO	
COMPAN	CO	
COMPNAV	CO	
COMPNY	CO	
COLLECTOR	COLLECT	COLLECT
COLLECTORS	COLLECT	COLLECT
CLCTN	COLLECT	COLLECT
COLLECTION	COLLECT	COLLECT
COLLECTIONS	COLLECT	COLLECT
COLLECTN	COLLECT	COLLECT
COLLECTOR	COLLECT	COLLECT
COMMUN	COMM	COMM
COMMUNICATI	COMM	COMM
COMMUNICATION	COMM	COMM
COMMUNICATIONS	COMM	COMM
COMMUNICTN	COMM	COMM
CNDMNM	CONDO	CONDO
CONDOMINIUMS	CONDO	CONDO
CONDOMINIUM	CONDO	CONDO
CONDOS	CONDO	CONDO
CNSRVTN	CONSERVE	CONSERVE
CNSVTN	CONSERVE	CONSERVE
CONSER	CONSERVE	CONSERVE
CONSERV	CONSERVE	CONSERVE
CONSERVATION	CONSERVE	CONSERVE
CONSTRUCTION	CONSTRCTN	CONSTRCTN
CONSTRUCTOR	CONSTRCTN	CONSTRCTN
CONSTRUCT	CONSTRCTN	CONSTRCTN
CNST	CONSTRCTN	CONSTRCTN
CNSTR	CONSTRCTN	CONSTRCTN
CNSTRCTN	CONSTRCTN	CONSTRCTN
CONST	CONSTRCTN	CONSTRCTN
CONSTN	CONSTRCTN	CONSTRCTN
CONSTR	CONSTRCTN	CONSTRCTN
CONSTRN	CONSTRCTN	CONSTRCTN
CONSTRTN	CONSTRCTN	CONSTRCTN
CONSTRUCTN	CONSTRCTN	CONSTRCTN
CNTRCTR	CNTRCT	CNTRCT
COOPERATIVES	COOP	COOP
COOPERATIVE	COOP	COOP
CORPORATION	CORP	
REMANUFACTURING	REMGF	REMGF
REMANUFACTURER	REMGF	REMGF
REMANUFACTURERS	REMGF	REMGF

FULL_NAME	ABBR_NAME	REPL_NAME
TERMINALING	TERML	TERML
TRANSMISSION	TRANS	TRANS
TRANSMSSN	TRANS	TRANS
TRANSPORT	TRANSP	TRANSP
TRANSPORTERS	TRANSP	TRANSP
TRANSPORTER	TRANSP	TRANSP
TRANSPORTATION	TRANSP	TRANSP
TRNSPRT	TRANSP	TRANSP
TRNSPRTN	TRANSP	TRANSP
TOWNSHIP	TWP	TWP
TWNSHP	TWP	TWP
UNIVERSITIES	UNIV	UNIV
UNIVERSITY	UNIV	UNIV
USA	US	US
UNITED STATES OF AMERICA	US	US
UNITED STATES	US	US
UTILITIES	UTIL	UTIL
UTILITY	UTIL	UTIL
VETERINARIAN	VET	VET
WAREHOUSE	WHSE	WHSE
WHS	WHSE	WHSE
ONE	1	1
TWO	2	2
THREE	3	3
FOUR	4	4
FIVE	5	5
SIX	6	6
SEVEN	7	7
EIGHT	8	8
NINE	9	9
TEN	10	10
ELEVEN	11	11
TWELVE	12	12
THIRTEEN	13	13
FOURTEEN	14	14
FIFTEEN	15	15
SIXTEEN	16	16
SEVENTEEN	17	17
EIGHTEEN	18	18
NINETEEN	19	19
TWENTY	20	20

J. APPENDIX B: STANDARDIZED ADDRESS DATA VALUES

FULL_NAME	ABBR_NAME	FULL_NAME	ABBR_NAME
ALLEY	ALY	SO	SOUTH
ARCADE	ARC	TWO	2
AVENUE	AVE	PK	PARK
AV	AVE	PT	POINT
BOULEVARD	BLVD	TNPK	TURNPIKE
COURT	CT	TPKE	TURNPIKE
CIR	CIRCLE	HEIGHTS	HTS
CRK	CREEK	STREETS	ST
FREEWAY	FWY	ROUTES	ROUTE
HIGHWAY	HWY	EXTENSION	EXT
HIWAY	HWY	STS	ST
HWYS	HWY	SUITE	STE
PLZ	PLAZA	ALLEE	ALY
PLC	PLACE	ALLY	ALY
TER	TERRACE	ANEX	ANX
MILES	MI	ANNEX	ANX
NORTHEAST	NE	ANNX	ANX
NORTHWEST	NW	AVEN	AVE
SOUTHEAST	SE	AVENU	AVE
SOUTHWEST	SW	AVN	AVE
ROUTE	ROUTE	AVNUE	AVE
RRTE	ROUTE	BAYOO	BYU
RR	ROUTE	BAYOU	BYU
FIRST	1ST	BEACH	BCH

FULL_NAME	ABBR_NAME	FULL_NAME	ABBR_NAME
SECOND	2ND	BEND	BND
THIRD	3RD	BLUF	BLF
FOURTH	4TH	BLUFF	BLF
FIFTH	5TH	BLUFFS	BLF
SIXTH	6TH	BOT	BTM
SEVENTH	7TH	BOTTM	BTM
EIGHTH	8TH	BOTTOM	BTM
BL	BLVD	BOUL	BLVD
TENTH	10TH	BOULV	BLVD
RT	ROUTE	BR	BRANCH
EXPRESSWAY	EXPY	BRNCH	BRANCH
ONE		1 BRG	BRIDGE
MILE	MI	BRDGE	BRIDGE
NINETH	9TH	BRK	BROOK
MILEPOST	MP	BROOKS	BROOK
SQ	SQUARE	BYPA	BYP
RRT	ROUTE	BYPAS	BYP
AVENIDA	AVE	BYPASS	BYP
LN	LANE	BYPS	BYP
INDUSTRIAL	INDL	CAMP	CP
PL	PLACE	CMP	CP
IND	INDL	CANYN	CYN
FORT	FT	CANYON	CYN
CNYN	CYN	EXPRESS	EXPY
CAPE	CPE	EXTN	EXT
CAUSEWAY	CSWY	EXTNSN	EXT
CAUSWAY	CSWY	EXTENSIONS	EXT
CEN	CTR	FALLS	FLS
CENT	CTR	FRRY	FERRY
CENTER	CTR	FRY	FERRY
CENTR	CTR	FLD	FIELD

FULL_NAME	ABBR_NAME	FULL_NAME	ABBR_NAME
CENTRE	CTR	FLDS	FIELD
CENTER	CTR	FIELDS	FIELD
CNTR	CTR	FLAT	FLT
CENTERS	CTR	FLATS	FLT
CIRC	CIRCLE	FORD	FRD
CIRCL	CIRCLE	FORDS	FRD
CRCL	CIRCLE	FORESTS	FOREST
CRCLE	CIRCLE	FORGE	FRG
CIRCLES	CIRCLE	FORGES	FRG
CLIFF	CLF	FORK	FRK
CLIFFS	CLF	FORKS	FRK
CLFS	CLF	FREEWY	FWY
CLB	CLUB	FRWAY	FWY
CMN	COMMON	FRWY	FWY
COMMONS	COMMON	GARDEN	GDN
JUNCTION	JCT	GARDN	GDN
CORS	CORNER	GRDEN	GDN
CORNERS	CORNER	GRDN	GDN
CRT	CT	GARDENS	GDN
COURTS	CT	GDNS	GDN
COURSE	CRSE	GRDNS	GDN
COVE	CV	GATEWAY	GTWY
COVES	CV	GATEWY	GTWY
CK	CREEK	GATWAY	GTWY
CRECENT	CRESCENT	GLN	GLEN
CRES	CRESCENT	GLENS	GLEN
CRESENT	CRESCENT	GROV	GROVE

FULL_NAME	ABBR_NAME	FULL_NAME	ABBR_NAME
CRSCNT	CRESCENT	GROVES	GROVE
CRSENT	CRESCENT	HARBOR	HBR
CRSNT	CRESCENT	HARBR	HBR
XING	CROSSING	HARB	HBR
CRSSING	CROSSING	HARBORS	HBR
CRSSNG	CROSSING	HRBOR	HBR
XRD	CROSSROAD	HVN	HAVEN
CURV	CURVE	HAVN	HAVEN
DR	DRIVE	HEIGHT	HTS
DRV	DRIVE	HGTS	HTS
DRIVES	DRIVE	HIGHWY	HWY
EXPW	EXPY	HIWY	HWY
EXP	EXPY	HWAY	HWY
EXPR	EXPY	INLET	INLT
ISLND	ISLAND	CALL BOX	POBOX
ISLANDS	ISLAND	URB	URBANIZATION
ISS	ISS	URBANIZACION	URBANIZATION
ISLES	ISLE	NORTE	NORTH
JCTION	JCT	NORESTE	NE
JCTN	JUNCTN	NOROESTE	NW
JUNCTN	JUNCTN	SUR	SOUTH
JUNCTON	JCT	SURESTE	SE
JCTNS	JCT	SUROESTE	SW
JCTS	JCT	OESTE	WEST

FULL_NAME	ABBR_NAME	FULL_NAME	ABBR_NAME
JUNCTIONS	JCT	VSTA	VISTA
KEYS	KEY	VST	VISTA
KYS	KEY	VISTA	VIS
LAKE	LKS	VL	VILLE
LANDING	LNDG	VLGS	VILLAGE
LNDNG	LNDG	VILLAGE	VILLIAGE
LANE	LANES	VILLG	VILLAGE
LODG	LODGE	VILLAG	VILLAGE
LDGE	LODGE	VILLAGE	VWS
LOOP	MNR	VW	VIEW
MANORS	MANOR	VIADCT	VIADUCT
MNRS	MANOR	VIADUCT	VDCT
MEADOW	MDWS	VLYS	VALLEY
MEADOWS	MEADOW	VLY	VALLEY
MEDOWS	MEADOW	VALLEY	VALLY
MILL	MOTORWAY	UN	UNION
MNT	MOUNT	UPAS	UNDERPASS
MNTAIN	MTN	TURNPIKE	TRPK
MTN	MOUNTAIN	TRNPK	TURNPIKE
MOUNTIN	MTN	TPK	TURNPIKE
MTIN	MTN	TUNNEL	TUNEL
MTN	MOUNTAINS	TUNL	TUNNEL
ORCH	ORCHARD	TUNLS	TUNNEL
ORCHRD	ORCHARD	TRAIL	TR

FULL_NAME	ABBR_NAME	FULL_NAME	ABBR_NAME
OVL	OPAS	TRFY	TRAFFICWAY
POB	POBOX	TRKS	TRACK
PO BOX	POBOX	TRACK	TRAK
POBOX	POST OFFICE BOX	TRWY	THROUGHWAY
DRAWER	POBOX	TERR	TERRACE
SUMIT	SUMMIT	PARKWAY	PARKWAY
SUMITT	SUMMIT	PRK	PARK
SMT	SUMMIT	RFD	ROUTE
STRT	ST	APPROX	
STR	ST	ABOUT	
STN	STATION	JCT	
STATN	STATION	TRL	TRAIL
STA	STATION	INTERSECTION	
SQRS	SQUARE	INTERSEC	
SQU	SQUARE	BETWEEN	
SQRE	SQUARE	AROUND	
SQR	SQUARE	ON	
SPRNGS	SPRINGS	LOCATED	
SPNGS	SPRINGS	THE	
SPGS	SPRINGS	NEAR	
SPRNG	SPRING	AT	
SPNG	SPRING	COR	CORNER
SPG	SPRING	RD	ROAD
SKWY	SKYWAY	RTS	ROUTE
SHRS	SHORE	RTE	ROUTE
SHOARS	SHORE	BLOCK	BLK
SHR	SHORE	ELEVENTH	11TH
SHOAR	SHORE	TWELFTH	12TH

FULL_NAME	ABBR_NAME	FULL_NAME	ABBR_NAME
SHLS	SHOAL	THIRTEENTH	13TH
SHL	SHOAL	FOURTEENTH	14TH
RDS	ROAD	FIFTEENTH	15TH
RVR	RIVER	SIXTEENTH	16TH
RIVR	RIVER	SEVENTEENTH	17TH
RIV	RIVER	EIGHTEENTH	18TH
RDGS	RIDGE	NINETEENTH	19TH
RDG	RIDGE	TWENTIETH	20TH
RDGE	RIDGE	THIRTIETH	30TH
RNCHS	RANCH	FORTIETH	40TH
RNCH	RANCH	FIFTIETH	50TH
PRAIRE	PRAIRE	SIXIETH	60TH
PTS	POINT	SEVENTIETH	70TH
PLNS	PLAINS	EIGHTIETH	80TH
PLN	PLAIN	NINETIETH	90HT
PNES	PINES	HYWAY	HWY
PSGE	PASSAGE	BUILDING	BLDG
PKWYS	PARKWAY	STREET	ST
PKWY	PARKWAY	STREEET	ST
PKY	PARKWAY	WAY	WY

FULL_NAME	ABBR_NAME	FULL_NAME	ABBR_NAME
PKWAY	PARKWAY		

K. APPENDIX C: STANDARDIZED CITY AND COUNTY DATA VALUES

NAME	STD_NAME
AFB	
AIR FORCE BASE	
BCH	BEACH
BORO	
BOROUGH	
BYU	BAYOU
C	
CA	CALIFORNIA
CT	
CITY	
CNTR	CENTER
CNTY	
COLO	CO
COLORADO	CO
COMPANY	CO
CORNERS	CORNER
COUNTY	
CT	CONNECTICUT
CTR	CENTER
CTY	
CY	
DC	DISTRICT OF COLUMBIA
DIV	
EAST	E
EASTWEST	EW
FORT	FT
HEIGHTS	HEIGHT
HGT	HEIGHT
HGTS	HEIGHT
HTS	HEIGHT
IL	ILLINOIS
IN	INDIANA
IS	ISLAND
ISL	ISLAND
ISLE	ISLAND
ISLND	ISLAND
JCT	JUNCTION
JUNC	JUNCTION
KC	KANSAS

NAME	STD_NAME
KS	KANSAS
KY	KENTUCKY
LK	LAKE
MD	MARYLAND
ME	MAINE
MH	MARSHALLISLANDS
MI	MICHIGAN
MOUNT	MT
MOUNTAIN	MT
MTN	MT
NE	NEBRASKA
NEAR	
NEARBY	
NJ	NEWJERSEY
NO	N
NORTH	N
NORTHEAST	NE
NORTHWEST	NW
NV	NEVADA
NYC	NEWYORK
OH	OHIO
PARK	PK
PEAK	PK
PHX	PHOENIX
POINT	PT
POINTE	PT
PORT	PT
SAINT	ST
SHORES	SHORE
SO	S
SOUTH	S
SOUTHEAST	SE
SOUTHWEST	SW
SPG	SPRING
SPGS	SPRING
SPRINGS	SPRING
STA	ST
STATION	ST
STE	ST
STREET	ST
THE	
TN	TENNESSEE
TOWNSHIP	
TWNSP	

NAME	STD_NAME
TWP	
TX	TEXAS
UNICORP	
UNINCORP	
UNINCORPORATED	
UNIV	UNIVERSITY
UNIVER	UNIVERSITY
VA	VIRGINIA
VLY	VALLEY
CENTRE	CENTER
NY	NEWYORK