2020 Census
Local Update of Census Addresses Operation (LUCA) Training
Introduction
Agenda

• The Decennial Census.
• Census Bureau terminology.
• Preparation for 2020 LUCA participation.

The 2020 LUCA materials and operational instructions are subject to change between the LUCA Training timeframe and the time you receive your materials for review in the spring of 2018; therefore, the examples shown in the various training modules may differ from the official materials.
The Decennial Census

The purpose is to **conduct** a census of population and housing and **disseminate** results to the President, the States, and the American People.

- **Uses of Census data:**
  - **Apportioning** representation among states as mandated by Article 1, Section 2 of the US Constitution.
  - **Drawing** congressional and state legislative districts, school districts and voting precincts.
  - **Enforcing** voting rights and civil rights legislation.
  - **Distributing** federal dollars.
  - **Informing** planning decisions of tribal, federal, state and local government and organizational decisions (e.g., where to locate, size of market, etc.) of businesses and non-profits.
Apportionment of the U.S. House of Representatives
Based on the 2010 Census

Change from 2000 to 2010:
- State gaining 4 seats in the House
- State gaining 2 seats in the House
- State gaining 1 seat in the House
- No change
- State losing 1 seat in the House
- State losing 2 seats in the House

Total U.S. Representatives: 435
Numbers represent reapportioned totals of U.S. Representatives

United States Census
Economics and Statistics Administration
U.S. Census Bureau

4
2020 Census Design

The 2020 Census: A New Design for the 21st Century

Motivate People to Respond
- Conduct a nation-wide communications and partnership campaign
  - Maximize outreach using traditional and new media
  - Target ads to specific audiences
  - Work with trusted sources to inspire participation

Count the Population
- Collect data from all households, including group and unique living arrangements
  - Make it easy for people to respond anytime, anywhere
  - Encourage people to use the new online response option
  - Use the most cost-effective strategy to contact and count nonrespondents
  - Knock on doors only when necessary
  - Streamline in-field census-taking

Establish Where to Count
- Identify all addresses where people could live
  - Conduct a 100% review and update of the nation’s address list
  - Minimize field work with in-office updating
  - Use multiple data sources to identify areas with address changes
  - Get local government input

Release Census Results
- Process and Provide Census Data
  - Deliver apportionment counts to the President by December 31, 2020
  - Release counts for redistricting by April 1, 2021
  - Make it easier for the public to get data
Who Can Participate

• Federally recognized tribes with a reservation and/or off-reservation trust land.
• States and Counties.
• Incorporated places.
  o Cities, towns, boroughs, villages.
Title 13 U.S.C. – Confidentiality and Security

• Information provided to/from LUCA is covered under Title 13 of the United States Code which:
  o Requires the Census Bureau to ensure confidential treatment of census-related information, including individual addresses and map structure points.
  o Requires the Census Bureau maintain the confidentiality of all information it collects.

• LUCA operation requires all liaisons, reviewers, and anyone with access to Title 13 materials abide by Confidentiality and Security Guidelines and requires all LUCA participants sign the Confidentiality Agreement Form (D-2005).
# 2020 LUCA Schedule

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 2017</td>
<td>Advance Notice mailing mailed to Highest Elected Officials (HEOs), Tribal Chairs (TCs), Governors and other potential 2020 LUCA contacts.</td>
</tr>
<tr>
<td>March 2017</td>
<td>2020 LUCA Promotional presentations began.</td>
</tr>
<tr>
<td>July 2017</td>
<td>2020 LUCA invitation and registration materials mailed to HEOs, TCs and Governors.</td>
</tr>
<tr>
<td>October 2017</td>
<td>2020 LUCA Training workshops began.</td>
</tr>
<tr>
<td>December 15, 2017</td>
<td><strong>2020 LUCA registration deadline.</strong></td>
</tr>
<tr>
<td>February - April 2018</td>
<td>Participants receive their 2020 LUCA materials.</td>
</tr>
<tr>
<td>April 2018 - May 2019</td>
<td>Census Bureau validates 2020 LUCA addresses.</td>
</tr>
<tr>
<td>Summer 2019</td>
<td>Census Bureau delivers 2020 LUCA feedback.</td>
</tr>
<tr>
<td>April 1, 2020</td>
<td><strong>CENSUS DAY.</strong></td>
</tr>
</tbody>
</table>
Census Bureau Terminology

• Census Bureau terminology.
  o Geocode.
  o Housing Unit.
  o Group Quarters.
  o City Style Address.
  o Non-city Style Address.
Geocode

• Geocoding is the process of taking an address and returning an actual or calculated latitude/longitude coordinate on the earth’s surface.

• In terms of the Census Bureau, this includes assigning the proper state, county, census tract and census block codes that correspond to the physical location of the address.

• The Census Bureau requires every address is assigned a Census geocode before it can be processed and added to its inventory and included in the Census.
Housing Unit (HU)

• A single-family house, townhouse, mobile home, trailer, apartment, group of rooms, or a single room occupied as a separate living quarter or, if vacant, intended for occupancy as a separate living quarter.
Acceptable Housing Units for LUCA

• Houses, including townhouses, condominiums, and apartments.
• Living quarters within an otherwise nonresidential structure such as an apartment within a church, school, or business.
• Mobile homes or trailers occupied as separate permanent living quarters, or if vacant, intended for occupancy as separate permanent living quarters.
• Any housing units under construction that will be habitable (closed to the elements with final roof, windows, and doors) on Census Day, April 1, 2020.
Group Quarters (GQs)

- A place where people live or stay, in a group living arrangement, that is owned or managed by an entity or organization providing housing and/or services for the residents.
Acceptable Group Quarters for LUCA

• Correctional facilities.
  o Federal and state prisons.
  o Local jails and other municipal confinement facilities.
  o Correctional residential facilities.

• Group homes.
  o Halfway houses and homes for people with special needs.

• Juvenile facilities.
  o Group homes for juveniles (non-correctional).
  o Residential treatment centers for juveniles (non-correctional).
  o Correctional facilities intended for juveniles.

• Nursing homes.
  o Nursing facilities/skilled-nursing facilities.
Acceptable Group Quarters for LUCA (cont’d)

• Hospitals.
  o Mental (psychiatric) hospitals and psychiatric units in other hospitals.
  o Hospitals with patients who have no usual home elsewhere.
  o In-patient hospice facilities.
• College or university dormitories, fraternity houses, and sorority houses.
• Workers group living quarters or dormitories.
• Religious group quarters.
• Any group quarters under construction that will be habitable (closed to the elements with final roof, windows, and doors) on Census Day, April 1, 2020.
Unacceptable HUs and GQs for LUCA

• Condemned or scheduled for demolition.
• Under construction or remodeling for conversion to a nonresidential purpose.
• Used solely for nonresidential storage.
• Used solely as offices or businesses in which no one is living.
• Used solely for ceremonial purposes.
• Under construction and will not be habitable (closed to the elements with final roof, windows, and doors) on Census Day, April 1, 2020.
City Style Address

• Include a house number and street name (e.g., 212 Elm St or 137 Clark Ct Apt 3 or 35A Fourth Ave W).
  o For 2020 LUCA, participants adding multiunit addresses must provide unit identifiers (e.g., Apt 1, Apt 2, Unit A, Unit B).
Non-City Style Address

• Do not include a house number and/or a street name.
• May include *incomplete* house number and street name.
• Frequently used non-city style mailing addresses include:
  o Location Description with map spot.
  o Rural route and box number.
  o Highway contract route and box number.
Preparation for 2020 LUCA participation

• Early tools.
  o Address Block Counts.
  o Census Geocoder.
  o TIGERweb.

• Product Preference combinations.
Early tools

- Provide 2020 Census LUCA Address Block Count files.
- Provide Census Geocoder to geocode jurisdiction’s address list: <https://geocoding.geo.census.gov/geocoder/>
- TIGERweb: <https://tigerweb.geo.census.gov/tigerweb/>
### Early Tools For LUCA Partners

**Early Address Block Count List**

- Providing an early address block count list for partners in January 2017 (includes count of residential addresses and group quarters by block).

- Address Block Count lists can be linked/joined to 2016 TIGER/Line shape files.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total Residential</td>
<td>Total Group Quarters</td>
</tr>
<tr>
<td>2</td>
<td>21</td>
<td>051</td>
<td>9501.00</td>
<td>1000</td>
<td>210519501001000</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>21</td>
<td>051</td>
<td>9501.00</td>
<td>1001</td>
<td>210519501001001</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>21</td>
<td>051</td>
<td>9501.00</td>
<td>1002</td>
<td>210519501001002</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>21</td>
<td>051</td>
<td>9501.00</td>
<td>1003</td>
<td>210519501001003</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>21</td>
<td>051</td>
<td>9501.00</td>
<td>1004</td>
<td>210519501001004</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>21</td>
<td>051</td>
<td>9501.00</td>
<td>1005</td>
<td>210519501001005</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>21</td>
<td>051</td>
<td>9501.00</td>
<td>1006</td>
<td>210519501001006</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>21</td>
<td>051</td>
<td>9501.00</td>
<td>1007</td>
<td>210519501001007</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>21</td>
<td>051</td>
<td>9501.00</td>
<td>1008</td>
<td>210519501001008</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>21</td>
<td>051</td>
<td>9501.00</td>
<td>1009</td>
<td>210519501001009</td>
<td>28</td>
</tr>
<tr>
<td>12</td>
<td>21</td>
<td>051</td>
<td>9501.00</td>
<td>1010</td>
<td>210519501001010</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>21</td>
<td>051</td>
<td>9501.00</td>
<td>1011</td>
<td>210519501001011</td>
<td>37</td>
</tr>
</tbody>
</table>
Early Address Block Count Lists can be linked/joined to 2016 TIGER/Line Shapefiles for overlay and analysis.
More Early Tools For LUCA Partners

*Updated Census Geocoder Tool*

- Takes individual addresses or a file of addresses and obtains approximate coordinates and census Geography.
- Increase the maximum number of records from 1,000 to 10,000.
- Provides an alternate path for larger governments to submit addresses to be geocoded when you have an address list that is not geocoded (not linked to points or parcels or any particular location.)
- 24 hour turnaround on the results.
Using The Census Geocoder

.TXT File Address List Format

- Format addresses in a single line with comma delimiters.
- Each record should consist of the following five fields:
  - Unique Field Identifier or Line Number (required)
  - House Number and Street Name (required)
  - City
  - State
  - Zip Code
- All fields (even blank fields) must be separated by a comma:
  - Unique ID, House Number and Street Name, City, State, ZIP Code
- Valid entries:
  - 1, 1600 Pennsylvania Ave NW, Washington, DC, 20502
  - 2, 1600 Pennsylvania Ave NW, Washington, DC,
  - 3, 1600 Pennsylvania Ave NW, 20502
- Invalid entries:
  - 4, 1600 Pennsylvania Ave NW, Washington, DC
  - 5, 1600 Pennsylvania Ave NW, 20502

.CSV, .XLSX & .XLS File Address List Format

- Five fields:
  - Unique Field Identifier or Line Number (required)
  - House Number and Street Name (required)
  - City
  - State
  - Zip Code
- Headers Not Required (but recommended).
- The more detail provided (directional, city, state, zip code), the better the results.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ID</td>
<td>Address</td>
<td>City</td>
<td>State</td>
<td>Zip</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>101 Decennial Way</td>
<td>Washington</td>
<td>DC</td>
<td>12345</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>102 Decennial Way</td>
<td>Washington</td>
<td>DC</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>103 Decennial Way</td>
<td>Washington</td>
<td>DC</td>
<td>12345</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>104 Decennial Way</td>
<td>Washington</td>
<td>DC</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>105 Decennial Way</td>
<td>Washington</td>
<td>DC</td>
<td>12345</td>
</tr>
<tr>
<td>7</td>
<td>6</td>
<td>106 Decennial Way</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Batch Census Geocoder Output File**

<table>
<thead>
<tr>
<th>Batch File Address</th>
<th>Matching Address</th>
<th>TIGER/Line ID**</th>
</tr>
</thead>
<tbody>
<tr>
<td>3237 GATER DR, DECENNIAL, GA,</td>
<td>3237 GATER DR SW, DECENNIAL, GA, 72961</td>
<td>3237 GATER DR SW, DECENNIAL, GA, 72961</td>
</tr>
<tr>
<td>3237 GATER CT, DECENNIAL, GA,</td>
<td>3237 GATER CT SW, DECENNIAL, GA, 72961</td>
<td>3237 GATER CT SW, DECENNIAL, GA, 72961</td>
</tr>
<tr>
<td>3237 GATER CT, DECENNIAL, GA,</td>
<td>3237 GATER CT SW, DECENNIAL, GA, 72961</td>
<td>3237 GATER CT SW, DECENNIAL, GA, 72961</td>
</tr>
<tr>
<td>3237 GATER CT, DECENNIAL, GA,</td>
<td>3237 GATER CT SW, DECENNIAL, GA, 72961</td>
<td>3237 GATER CT SW, DECENNIAL, GA, 72961</td>
</tr>
</tbody>
</table>

*Our latitude and longitude coordinate system is NAD83.*  
**TIGER/Line ID is dependent upon which benchmark you choose.**  
*(We recommend using Public_AR_ACS2016 Benchmark with Current_ACS2016 vintage.)*
Product Preference Combinations

- Geographic Update Partnership Software (GUPS).
- Paper Address List & Large Format Paper Maps with PDF small format block maps (Paper/PaperPDF).
- Paper Address List & Digital Map (Paper/Digital).
- Digital Address List & Large Format Paper Maps (Digital/Paper).
- Digital Address List & Large Format Paper Maps with PDF small format block maps (Digital/PaperPDF).
- Digital Address List & Digital Map (Digital/Digital).
Review and Update Strategies
Agenda

• Strategies for LUCA review and update.
  o Things to consider.
  o Potential address sources.
  o Identify priorities.
  o Beginning your review.
Things To Consider

• How much time can we devote to LUCA review?
  o Only 120 calendar days to conduct review upon receipt of materials.

• Does your jurisdiction have an address list or access to an address list?

• Does the address list include multiunit structure identifiers (e.g., Apt 1, Unit A2, #4, etc.)?

• Does the address list include both residential and commercial addresses or include records that are not structures? If yes, are the residential records distinguishable?
Potential Address Sources

- E-911 address files.
- New housing construction or building permits.
  - Include only if final roof, doors, and windows will be in place on Census Day, April 1, 2020.
- Housing inspection records or occupancy permits.
- Planning and zoning records.
- Local utility records.
- School enrollment records.
- Driver’s license files.
- Annexation records.
- Assessment or tax files (residential units).
- Voter registration files.
Identify Priorities

• Apartment buildings and/or areas of concentrated multi-unit housing.
• Areas along governmental boundaries and/or newly annexed land.
• Areas of new residential construction.
• Blocks with the greatest differences between the Census Bureau’s address block count and your address block count.
• E-911 address conversion areas.
• Group Quarters (e.g., housing such as college dorms and nursing homes).
• Mobile home parks or new, scattered mobile homes.
• Single-family homes converted to multifamily homes, and vice versa.
• Warehouses converted to residential lofts.
Beginning Your Review

• Assemble local sources.
• Read the 2020 LUCA Respondent Guide.
• Review the Census Bureau’s online training presentations.
• Familiarize yourself with LUCA materials.
  o Address List.
  o Address Count List.
  o Paper Maps/Digital Shapefiles.
  o Block to Map Sheet Relationship List (use with Large Format paper maps).
• Organize LUCA materials based on priority areas.
• Organized approach for review yields a successful LUCA submission.
Digital Address List and Digital Map

Product Preference
Agenda

• Digital Product DVD Overview & Product Preferences.
• DVD Layout and Content by Product Preference
• Digital Address materials.
  o Address List – Title 13.
  o Address Count List – not Title 13.
• Digital Map Materials
  o TIGER Partnership shapefiles
  o Edits to the TIGER Partnership shapefiles
Digital Product DVD Overview

Product Preferences

• Paper Address List and **Paper/PDF** (1 DVD).
• Paper Address List and **Digital Map** (1 DVD).
• **Digital Address List** and Paper Large Format maps (1 DVD).
• **Digital Address List** and **Paper/PDF** (1 DVD).
• **Digital Address List** and **Digital Map** (3 DVDs).
• Geographic Updates Partnership Software (GUPS) (3 DVDs).
DVD Layout and Content:
Digital Address List and Large Format Paper maps (Digital/Paper)

One DVD with one folder:
• root directory of DVD.
  o 2020LUCA_<EntityID>_address_countlist.csv
  o 2020LUCA_digital_respondent_guide.pdf
  o 2020LUCA_header_file.txt
  o LUCA20_inventory.pdf
  o Readmefirst4.txt

• “shape” folder.
  o 2020LUCA_<EntityID>_DISK1of2.exe (**Title 13 material**).
  • Includes the Digital Address List
DVD Layout and Content:
Digital Address List and Paper/PDF (Digital/PaperPDF)

One DVD with two folders:

- root directory of DVD.
  - 2020LUCA_<EntityID>_address_countlist.csv
  - 2020LUCA_digital_respondent_guide.pdf
  - 2020LUCA_header_file.txt
  - LUCA20_inventory.pdf
  - Readmefirst5.txt

- “maps” folder.
  - About_the_maps.pdf
  - LUCA20<EntType><EntCode>.pdf
  - LUCA20<EntType><EntCode>_BLK2MS.txt
  - Readme.txt
  - Title13_BlockMaps.exe (**Title 13 material**).

- “shape” folder.
  - 2020LUCA_<EntityID>_DISK1of2.exe (**Title 13 material**).
    - Includes the Digital Address List
**DVD Layout and Content:**

**Digital Address List and Digital Map (Digital/Digital) & GUPS**

**Three DVDs:**

- DVD with GUPS installation software. DVD with non-Title 13 data.
- DVD with Title 13 data.
  - “shape” folder.
    - Includes the Digital Address List
    - 2020LUCA_<EntityID>_DISK1of2.exe (**Title 13 material**).
      - Includes the Digital Address List
  - Root directory of DVD.
    - 2020LUCA_digital_respondent_guide.pdf
    - 2020LUCA_GUPS_respondent_guide.pdf
    - 2020LUCA_header_file.txt
    - LUCA20_inventory.pdf
    - Readmefirst6.txt
  - “shape” folder.
    - 2020LUCA_<EntityID>_DISK2of2.exe
      - Includes the Digital Address County List
Digital Address Materials
Address List – Title 13

• Census residential addresses.
  o City style and non-city style.

• Contain census geographic codes.
  o State, county, census tract, and census block.

• Comma Delimited Text (.csv) format.
  o MUST import not simply open or “double-click”.

• 24 fields: Maximum 649 characters per record.

• First row = Header row.
  o Remove spaces from field names, if using Esri’s ArcGIS.
Digital Address Materials
Address List Record Layout

Refer to Table 3 located in your Respondent Guide for complete record layout.
# Digital Address Materials

## Address List – Microsoft Excel Example

**No Title 13 Data Displayed**

| A | B   | C | D | E | F | G | H | I | J       | K     | L | M | N | O | P | Q | R | S | T | U | V | W | X |
| 1 | LINE NUMBER | MAFID | ENTITY | ACTION | STATEFP | COUNTYFP | TRACT | BLOCK | GEOID | GQ_FLAG | HOUSENUMBER | STREETNAME | APARTMENT | UNIT | ZIP | QNAM | FACILITY | LOC | CATY | NOCITY | NOCTY | MAPSPOT | USE | LAT | LONG | CITY STYLE |
| 2 | 124 | 000000050 | PL5127200 | 51 | 610 | 5001.00 | 1030 | 51610500101030 | 1935 | Eggman Rd | A | 51407 | 0001 | 36.88574396 | -67.17556810 | Y |
| 3 | 125 | 000000050 | PL5127200 | 51 | 610 | 5001.00 | 1030 | 51610500101030 | 1935 | Eggman Rd | B | 51407 | 0001 | 36.88574596 | -67.17556610 | Y |
| 4 | 126 | 000000050 | PL5127200 | 51 | 610 | 5001.00 | 1030 | 51610500101030 | 1935 | Eggman Rd | C | 51407 | 0001 | 36.88574396 | -67.17556610 | Y |
| 5 | 127 | 000000050 | PL5127200 | 51 | 610 | 5001.00 | 1030 | 51610500101030 | 1935 | Eggman Rd | D | 51407 | 0001 | 36.88574396 | -67.17556610 | Y |
| 6 | 128 | 000000059 | PL5127200 | 51 | 610 | 5001.00 | 1034 | 51610500101034 | 5501 | Leon Rd | 51407 | 0010 | 36.43412557 | -67.5415582 | Y |
| 7 | 584 | 099985855 | PL5127200 | 51 | 610 | 5001.00 | 2001 | 51610500102001 | 9336 | Pueblo Rd | 51402 | Y |
| 8 | 688 | 089866571 | PL5127200 | 51 | 610 | 5002.00 | 3010 | 51610500201030 | 202 | Casitas Dr | 51402 | Y |
| 9 | 644 | 023410352 | PL5127200 | 51 | 610 | 5002.00 | 3012 | 516105002002012 | 500 | Donahue St | 31408 | Y |
| 10 | 645 | 025485821 | PL5127200 | 51 | 610 | 5002.00 | 3012 | 516105002002012 | 502 | Donahue St | 31408 | Y |
| 11 | 646 | 026347830 | PL5127200 | 51 | 610 | 5002.00 | 3012 | 516105002002012 | 504 | Donahue St | 31408 | Y |
| 12 | 647 | 024598100 | PL5127200 | 51 | 610 | 5002.00 | 3012 | 516105002002012 | 506 | Donahue St | 31408 | Y |
| 13 | 648 | 025331499 | PL5127200 | 51 | 610 | 5002.00 | 3012 | 516105002002012 | 508 | Donahue St | 31408 | Y |
| 14 | 941 | 0020000146 | PL5127200 | 51 | 610 | 5003.00 | 1010 | 5161050030010 | 1201 | Mount Rd | 31405 | 0001 | 36.87726074 | -67.19554319 | Y |
| 15 | 942 | 0000000147 | PL5127200 | 51 | 610 | 5003.00 | 1010 | 5161050030010 | 1203 | Mount Rd | 31405 | 0002 | 36.88249056 | -67.19083156 | Y |
| 16 | 943 | 0030000148 | PL5127200 | 51 | 610 | 5003.00 | 1010 | 5161050030010 | 1207 | Mount Rd | 31405 | 0003 | 36.88848317 | -67.18320951 | Y |
| 17 | 687 | 214554811 | PL5127200 | 51 | 610 | 5003.00 | 3024 | 516105003002024 | 501 | Court St | 31402 | 0004 | 36.52012352 | -67.2415884 | Y |
Digital Address Materials
Address Count List – Non-Title 13

• Residential address census block tallies.
  o Housing units and Group Quarters.

• Reference only.
  o Identify inconsistencies between census block counts and your jurisdiction’s block counts.

• Comma Delimited Text (.csv) format.
  o MUST import not simply open or “double-click”.

• 13 fields: Maximum 140 characters per record.

• First row = Header row.

• “Unable to Geocode” tally for state and county participants.
Digital Address Materials
Address Count List Record Layout

<table>
<thead>
<tr>
<th>Max Character Length</th>
<th>Field Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>STATE</td>
<td>Two-digit FIPS State code.</td>
</tr>
<tr>
<td>3</td>
<td>COUNTY</td>
<td>Three-digit FIPS County code.</td>
</tr>
<tr>
<td>7</td>
<td>TRACT</td>
<td>The Census Tract Number consist of six digits with a decimal between the fourth and fifth digit corresponding to the basic census tract number and with leading zeroes for tracts that are not four digit and trailing zeroes for census tracts without a suffix.</td>
</tr>
<tr>
<td>4</td>
<td>BLOCK</td>
<td>Four-digit 2010 Tabulation Census Block Number. Census blocks are numbered uniquely from 0000 to 9999 within census tract, which nest within state and county. The first digit of the census block number identifies the block group.</td>
</tr>
<tr>
<td>15</td>
<td>GEOID</td>
<td>Concatenation of state, county, tract, and block fields for use in joining the block level data to the 2010 tabulation blocks in the TIGER partnership shapefiles.</td>
</tr>
<tr>
<td>7</td>
<td>ORIGINAL_COUNT_OF_HUS</td>
<td>Total number of addresses in the entity count list identified as residential housing units by data in the MAF.</td>
</tr>
<tr>
<td>7</td>
<td>CURRENT_COUNT_OF_HUS</td>
<td>Total number of addresses in the entity count list identified as residential housing units by data in the MAF. This number will be the same as Original Count of Census HUs in product creation. (For use with GUPS.)</td>
</tr>
</tbody>
</table>

Refer to Table 4 located in your Respondent Guide for complete record layout.
<table>
<thead>
<tr>
<th>STATE</th>
<th>COUNTY</th>
<th>TRACT</th>
<th>BLOCK</th>
<th>GEOID</th>
<th>ORIGINAL_COUNT_OF_HUs</th>
<th>CURRENT_COUNT_OF_HUs</th>
<th>LOCAL_COUNT_OF_HUs</th>
<th>DIFFERENCE_IN_HUs</th>
<th>ORIGINAL_COUNT_OF_GOs</th>
<th>CURRENT_COUNT_OF_GOs</th>
<th>LOCAL_COUNT_OF_GOs</th>
<th>DIFFERENCE_IN_GOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>125</td>
<td>51</td>
<td>610</td>
<td>2001</td>
<td>5161001000200001</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>126</td>
<td>51</td>
<td>610</td>
<td>2010</td>
<td>5161001000200010</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>127</td>
<td>51</td>
<td>610</td>
<td>2008</td>
<td>5161001000200008</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>128</td>
<td>51</td>
<td>610</td>
<td>2009</td>
<td>5161001000200009</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>129</td>
<td>51</td>
<td>610</td>
<td>1014</td>
<td>5161001000101014</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>130</td>
<td>51</td>
<td>610</td>
<td>1016</td>
<td>5161001000301016</td>
<td>7</td>
<td>7</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>131</td>
<td>51</td>
<td>610</td>
<td>1002</td>
<td>5161001000100002</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>132</td>
<td>51</td>
<td>610</td>
<td>1012</td>
<td>5161001000200102</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>133</td>
<td>51</td>
<td>610</td>
<td>2006</td>
<td>5161002002000006</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>134</td>
<td>51</td>
<td>610</td>
<td>2008</td>
<td>5161001000200008</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>135</td>
<td>51</td>
<td>610</td>
<td>2013</td>
<td>5161002002000103</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>136</td>
<td>51</td>
<td>610</td>
<td>4004</td>
<td>5161002002010013</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>137</td>
<td>51</td>
<td>610</td>
<td>2007</td>
<td>5161002002000107</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>138</td>
<td>51</td>
<td>610</td>
<td>1037</td>
<td>5161001000101037</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>139</td>
<td>51</td>
<td>610</td>
<td>1021</td>
<td>5161001000200102</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>140</td>
<td>51</td>
<td>610</td>
<td>2014</td>
<td>5161001000100201</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>141</td>
<td></td>
<td></td>
<td></td>
<td>Unable to Geocode</td>
<td>33</td>
<td>33</td>
<td>0</td>
<td>33</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>142</td>
<td></td>
<td></td>
<td></td>
<td>TOTAL</td>
<td>1844</td>
<td>1844</td>
<td>0</td>
<td>1844</td>
<td>20</td>
<td>20</td>
<td>0</td>
<td>20</td>
</tr>
</tbody>
</table>
Digital Map Materials
TIGER Partnership Shapefiles

• Created from Master Address File/Topologically Integrated Geographic Encoding and Referencing (MAF/TIGER) System.

• Require use of a Geographic Information Software (GIS).

• County based shapefiles, regardless of entity.

• Do not contain structure points, so not Title 13 material.
  o Generate structure points using Census Bureau’s digital address list (Title 13 material); refer to Respondent Guide Chapter 6.

• Retain vintage for use in feedback products.
Digital Map Materials
Edits to TIGER Partnership Shapefiles

• **Address focused operation**, but updates to address list may require updates to digital maps.

• Allow submission of linear feature updates electronically.
  - Importing shapefiles, editing features, and exporting shapefiles.

• Edges shapefile contains all linear features (road, rail, hydro).
  - Used to Add Lines, Delete Lines, or Change Attribution for roads.

• Tabblock2010 shapefile contains tabulation blocks used for 2020 LUCA.
  - Used to geocode addresses.

• More details in Respondent Guide Chapter 5.
Digital Materials

Initial Setup
Agenda

• Digital Materials Initial Setup Summary
• Digital Product DVD Overview
• Getting Started
  – DVD(s) of digital LUCA materials.
  – Suggested setup of local system.
  – Extracting files.
  – File naming convention and examples.
• Using Your LUCA Digital Materials
  – Opening .csv files in Microsoft Excel
  – Opening .shp files in Esri ArcGIS
Digital Materials Initial Setup Summary

• Ensure *Confidentiality and Security Guidelines* followed and Title 13 security in place prior to installation of DVD material to local drive.
• Review the “readmefirst#” txt file on DVD.
• Review presentation again upon receipt of materials.
• Use presentation in conjunction with Respondent Guide and the 2020 LUCA Quick Start Guide.
Digital Product DVD Overview

• Paper Address List and **Paper/PDF** (1 DVD).
• Paper Address List and **Digital Map** (1 DVD).
• **Digital Address List** and Paper Large Format maps (1 DVD).
• **Digital Address List** and **Paper/PDF** (1 DVD).
• **Digital Address List** and **Digital Map** (3 DVDs).
• Geographic Updates Partnership Software (GUPS) (3 DVDs).
Getting Started
DVD(s) of LUCA Digital Materials

• Digital/Paper-PDF & Paper/Digital-PDF participants.
  o One DVD (contains both Title 13 and non-Title 13 materials).
    • root directory.
    • “maps” folder.
    • “shape” folder.

• Digital/Digital & GUPS participants.
  o Three DVDs.
    • One with Title 13 data in “shape” folder.
    • One with non-Title 13 data in “shape” folder.
    • One with GUPS installation software.
Getting Started
Suggested Setup of Local System

• Read the installation instructions included in your materials.

• Inspect your DVD(s) immediately upon receiving:
  – If DVDs damaged, incomplete, or files corrupted contact Geographic Programs Support Desk at: 1-844-344-0169.
  – If DVDs ok, create folder named “2020LUCA” on your hard drive.

• Copy contents of DVD into your new “2020LUCA” folder.

• Execute the various .exe files (if present).

• Review the other files on DVD for additional instructions.

• Review the 2020 LUCA Respondent Guides for instructions on use.
Getting Started

Extracting 2020LUCA_<EntityID>_DISK1of2.exe

• Navigate to the “2020LUCA” folder you created.

• If present, double click on the file named “2020LUCA_<EntityID>_DISK1of2.exe”.

• Command prompt opens, requests password & closes upon completion.
In this example for the Digital/Digital option - After executing the Disk1of2.exe file the resulting address list file appears in 2020LUCA folder.
Getting Started
Extracting Title13_BlockMaps.exe

• Navigate to the “2020LUCA” folder you created.

• If present, double click on the file named “Title13_BlockMaps.exe”.

• Command prompt opens, requests password & closes upon completion.
Title13_BlockMaps.exe – Visual

In this example for the Digital/PaperPDF option - After executing the Title13_BlockMaps.exe file the resulting block map PDFs appear in 2020LUCA folder.
File Naming Convention – Digital Materials

• Address List.
  o 2020LUCA_XXyyyyyyyyyyyyy_address_list.csv
  o 2020LUCA_TRxxxxTAyyyy_address_list.csv

• Address Count List.
  o 2020LUCA_XXyyyyyyyyyyyyy_address_countlist.csv
  o 2020LUCA_TRxxxxTAyyyy_address_countlist.csv

• TIGER Partnership shapefiles.
  o PVS_17_v2_<layername>_SSCCC.shp
  o PVS_17_v2_<layername>_SS.shp
File Naming Convention – Address List

• 2020LUCA_XXyyyyyyyyyyyyy_address_list.csv
  o 2020LUCA_ST01_address_list.csv (State of Alabama).
  o 2020LUCA_CO12001_address_list.csv (Alachua County, FL).
  o 2020LUCA_PL1378800_address_list.csv (Valdosta city, GA).
  o 2020LUCA_TR0016TA1555_address_list.csv (Immokalee Reservation).
    • TR0016 = Seminole Tribe of Florida.
    • TA2980 = Immokalee Reservation.
File Naming Convention – Address Count List

• 2020LUCA_XXyyyyyyyyyy_address_countlist.csv
  o 2020LUCA_ST22_address_countlist.csv (State of Louisiana).
  o 2020LUCA_CO28001_address_countlist.csv (Adams County, MS).
  o 2020LUCA_PL3770540_address_countlist.csv (Wake Forest town, NC).
  o 2020LUCA_TR0035TA0525_address_countlist.csv (Catawba Reservation).
    • TR0035 = Catawba Indian Nation.
    • TA0525 = Catawba Reservation.
File Naming Convention –
TIGER Partnership Shapefiles

• PVS_17_v2_<layername>_SSCCC.shp
  o PVS_17_v2_edges_20001.shp (edges for Allen County, KS).
  o PVS_17_v2_tabblock2010_20001.shp (2010 Census tabulation blocks for
    Allen County, KS).
  o PVS_17_v2_place_20001.shp (place boundaries for Allen County, KS).
  o And numerous others.

• PVS_17_v2_<layername>_SS.shp (for reference and query only).
  o PVS_17_v2_state_20.shp (Kansas state boundary).
  o PVS_17_v2_county_20.shp (county boundaries within Kansas).
  o PVS_17_v2_place_20.shp (place boundaries within Kansas).
  o And numerous others.
Using Your LUCA Digital Materials

- Opening .csv files in Microsoft Excel.
- Opening .shp files in Esri ArcGIS.
Opening .csv Files in Microsoft Excel:
Data – Get External Data – From Text

• Launch Microsoft Excel and open a blank workbook.
• Choose Data – Get External Data – From Text.
Opening .csv Files in Microsoft Excel: Navigate – Import

• Navigate to the “2020LUCA” folder, choose the .csv and then choose **Import**.
Opening .csv Files in Microsoft Excel: Text Import Wizard

Text Import Wizard appears:
- Step 1/3 (Original data type = Delimited and choose Next).
- Step 2/3 (Change Delimiters from Tab to Comma and choose Next).
- Step 3/3 (Select all fields in Data preview, Change Column data format to Text & choose Finish).
- Import Data choose New worksheet and OK.

**No Title 13 Data Displayed**
Opening .shp Files In Esri ArcGIS:
Launch ArcGIS – ArcMap

• From the Start Menu or a shortcut icon on desktop, launch ArcMap.
• A “Loading Document” window appears.
Opening .shp Files In Esri ArcGIS
Setting up .mxd

• A blank Map Document (.mxd) will open.
• Click the Add button to add your data to the blank .mxd.
Opening .shp files in Esri ArcGIS

Browse and add data

• Browse for your data.
• Select the edges shapefile and the tabblock2010 shapefile and click **Add**.
Opening .shp files in Esri ArcGIS

Add Data resulting visual

• Something similar to this image appears after successfully adding the edges and tabblock2010 shapefiles.
Digital Address List

Acceptable Updates
Agenda

Digital Address List and Digital Map Updates

• Digital Address List Action Code Updates
• Address List Add Updates
• Digital Map Updates
• Ungeocoded Addresses
• Non-City Style Addresses
Acceptable Updates and Examples

Address List action codes (ACTION):
- A – Add this address.
- C – Correct this address.
- D – Delete this address.
- J – Address is not in this jurisdiction.
- N – Address is nonresidential.

Edges shapefile change type codes (CHNG_TYPE):
- AL – Add Line.
- DL – Delete Line.
- CA – Change Attribute.
A" Action Code – Address List:
City Style Addresses – HUs

**No Title 13 Data Displayed**

|   | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X |
| 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 2 | PLS127200 | A | 51 | 610 | 5002.00 | 1014 | 100 | Crystal Ave | 31402 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 3 | PLS127200 | A | 51 | 610 | 5002.00 | 1014 | 101 | Crystal Ave | 31402 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 4 | PLS127200 | A | 51 | 610 | 5002.00 | 1014 | 102 | Crystal Ave | 31402 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 5 | PLS127200 | A | 51 | 610 | 5002.00 | 1014 | 103 | Crystal Ave | 31402 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 6 | PLS127200 | A | 51 | 610 | 5002.00 | 1014 | 104 | Crystal Ave | 31402 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 7 | PLS127200 | A | 51 | 610 | 5002.00 | 1014 | 105 | Crystal Ave | 31402 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 8 | PLS127200 | A | 51 | 610 | 5002.00 | 1014 | 106 | Crystal Ave | 31402 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 9 | PLS127200 | A | 51 | 610 | 5002.00 | 1014 | 107 | Crystal Ave | 31402 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 10| PLS127200 | A | 51 | 610 | 5002.00 | 1014 | 108 | Crystal Ave | 31402 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 11| PLS127200 | A | 51 | 610 | 5002.00 | 1014 | 109 | Crystal Ave | 31402 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 12| PLS127200 | A | 51 | 610 | 5002.00 | 1014 | 110 | Crystal Ave | 31402 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 13| PLS127200 | A | 51 | 610 | 5002.00 | 1014 | 111 | Crystal Ave | 31402 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 14| PLS127200 | A | 51 | 610 | 5002.00 | 1014 | 112 | Crystal Ave | 31402 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 15| PLS127200 | A | 51 | 610 | 5002.00 | 1014 | 113 | Crystal Ave | 31402 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

United States Census 2020

73
“AL” Change Type – Edges Shapefile: Adding A Street
### "A" Action Code – Address List:
#### Non-City Style Addresses – HUs

**No Title 13 Data Displayed**

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
| 1 | LINEMA | ENTITY | ACTION | STATEFP | COUNTYFP | TRACT | BLOCK | GEOG | HOU | STREETNAME | APAR | TM | ZIP | ORG | TIN | LOCATION | DESCRIPTION | NONCITYSTYLE | ADDRESS | NONCITY | STYLE ZIP | MAUSE | LAT | LONG | CITY | STYLE |
| 2 | PL5127200 | A | 51 | 610 | 5002.00 | 1001 | Aca St | | | | | | | | N on Aca St | 2 story w/blk door | .25 | mile from | intersection | of | James St | 31402 | L | 36.19988566 | -67.69891673 |
| 3 | PL5127200 | A | 51 | 610 | 5002.00 | 1001 | Aca St | | | | | | | | Red brick ranch | w/carport down | long driveway | | | | 31402 | L | 36.19996002 | -67.69884699 |
| 4 | PL5127200 | A | 51 | 610 | 5002.00 | 1001 | | | | | | | | RR 3 Box 71 | | | | | | | | | | | | | | | | |
| 5 | PL5127200 | A | 51 | 610 | 5002.00 | 1001 | | | | | | | | RR 3 Box 89 | | | | | | | | | | | | | | | | |
"A" Action Code – Address List:
City Style Addresses – GQs

**No Title 13 Data Displayed**

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X |
| 1 | UNEM | ENTITY | ACTION | STATEFP | COUNTYFP | TRACT | BLOCK | GEO | GQ FLAG | HOUSENUMBER | STREETNAME | AR TM | ZIP | GQ NAME | FACILITY NAME | USE | LAT | LONG | CITY STYLE |
| 2 | PLS127200 | A | S1 | 610 | 5001.00 | 2001 | Y | 225 | Achilles Dr | 31402 | Pandora Hall Bldg 1 | Aristotle University | B | 36.20156156 | -67.70114884 |
| 3 | PLS127200 | A | S1 | 610 | 5001.00 | 2001 | Y | 225 | Achilles Dr | 31402 | Pandora Hall Bldg 2 | Aristotle University | B | 36.20156201 | -67.70115436 |
| 4 | PLS127200 | A | S1 | 610 | 5001.00 | 2001 | Y | 225 | Achilles Dr | 31402 | Pandora Hall Bldg 3 | Aristotle University | B | 36.20157984 | -67.70115996 |
“C” – Action Code

Use a “C” action code for the following situations:

• Incorrect state code.
• Incorrect county code.
• Incorrect census tract number.
• Incorrect census block number.
• Incorrect street name (including street directional and street type information).
• Incorrect ZIP code.
• Incorrect latitude and/or longitude values.
• Include tract and block numbers for ungeocoded address records*.

*Ungeocoded address records are missing the tract and block geocode information. These records exist for state and county participants.
### "C" Action Code – Address List:
#### City Style Address – Correcting Block Number

**No Title 13 Data Displayed**

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X |
| LINE_ NUMBER | MAFID | ENTITY | ACTION | STATEFP | COUNTYFP | TRACT | BLOCK | GEOID | HOUSENUMBER | STREETNAME | AP AR | TM | ZIP | GQ | FA | CL | NT | NO | NC | MASPOT | USE | LAT | LONG | CITY_ STYLE |
| 2  | 987 | 214554811 | PLS127200 | S1 | 610 | 5003.00 | 1024 | 516115003002024 | 101 Court St | 31402 | 0004 | 36.5023512 | -67.24148856 | Y |
| 6  | LINE_ NUMBER | MAFID | ENTITY | ACTION | STATEFP | COUNTYFP | TRACT | BLOCK | GEOID | HOUSENUMBER | STREETNAME | AP AR | TM | ZIP | GQ | FA | CL | NT | NO | NC | MASPOT | USE | LAT | LONG | CITY_ STYLE |
| 7  | 987 | 214554811 | PLS127200 | C | 610 | 5003.00 | 1036 | 516115003002024 | 101 Court St | 31402 | 0004 | 36.5021552 | -67.24195884 | Y |
“DL” and “AL” Change Type - Edges Shapefile:
Correcting Block Number
"C" Action Code – Address List:
City Style Addresses – Correcting Street Name

**No Title 13 Data Displayed**

<table>
<thead>
<tr>
<th>LINE_NUMBER</th>
<th>MAPID</th>
<th>ENTITY</th>
<th>ACTION</th>
<th>STATEFP</th>
<th>COUNTYFP</th>
<th>TRACT</th>
<th>BLOCK</th>
<th>GEOID</th>
<th>GD</th>
<th>HOUSENUMBER</th>
<th>STREETNAME</th>
<th>AR</th>
<th>TM</th>
<th>ZIP</th>
<th>NA</th>
<th>ME</th>
<th>CA</th>
<th>TI</th>
<th>IT</th>
<th>INC</th>
<th>USE</th>
<th>MAPSOTP</th>
<th>LAT</th>
<th>LONG</th>
<th>CITY_ STYLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>221</td>
<td>002200146</td>
<td>LS5127200</td>
<td>C</td>
<td>1</td>
<td>600</td>
<td>5000.00</td>
<td>1010</td>
<td>5100500003000100</td>
<td>1205</td>
<td>Mount Rd</td>
<td>March 03</td>
<td>31405</td>
<td>0001</td>
<td>56.87726074</td>
<td>67.165231 Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>222</td>
<td>002200147</td>
<td>LS5127200</td>
<td>C</td>
<td>1</td>
<td>600</td>
<td>5000.00</td>
<td>1010</td>
<td>5100500003000100</td>
<td>1206</td>
<td>Mountain Rd</td>
<td>March 03</td>
<td>31405</td>
<td>0002</td>
<td>56.88248405</td>
<td>67.183815 Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>223</td>
<td>002200148</td>
<td>LS5127200</td>
<td>C</td>
<td>1</td>
<td>600</td>
<td>5000.00</td>
<td>1010</td>
<td>5100500003000100</td>
<td>1207</td>
<td>Mount Rd</td>
<td>March 03</td>
<td>31405</td>
<td>0003</td>
<td>56.88584317</td>
<td>67.190895 Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>224</td>
<td>002200149</td>
<td>LS5127200</td>
<td>C</td>
<td>1</td>
<td>600</td>
<td>5000.00</td>
<td>1010</td>
<td>5100500003000100</td>
<td>1208</td>
<td>March 03</td>
<td>31405</td>
<td>0004</td>
<td>56.88587579</td>
<td>67.168846 Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>225</td>
<td>002200150</td>
<td>LS5127200</td>
<td>C</td>
<td>1</td>
<td>600</td>
<td>5000.00</td>
<td>1010</td>
<td>5100500003000100</td>
<td>1209</td>
<td>March 03</td>
<td>31405</td>
<td>0005</td>
<td>56.87874786</td>
<td>67.161109 Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>226</td>
<td>002200151</td>
<td>LS5127200</td>
<td>C</td>
<td>1</td>
<td>600</td>
<td>5000.00</td>
<td>1010</td>
<td>5100500003000100</td>
<td>1210</td>
<td>March 03</td>
<td>31405</td>
<td>0006</td>
<td>56.88903151</td>
<td>67.161900 Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>227</td>
<td>002200152</td>
<td>LS5127200</td>
<td>C</td>
<td>1</td>
<td>600</td>
<td>5000.00</td>
<td>1010</td>
<td>5100500003000100</td>
<td>1211</td>
<td>March 03</td>
<td>31405</td>
<td>0007</td>
<td>56.89118865</td>
<td>67.160940 Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>228</td>
<td>002200153</td>
<td>LS5127200</td>
<td>C</td>
<td>1</td>
<td>600</td>
<td>5000.00</td>
<td>1010</td>
<td>5100500003000100</td>
<td>1212</td>
<td>March 03</td>
<td>31405</td>
<td>0008</td>
<td>56.87880689</td>
<td>67.160789 Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>229</td>
<td>002200154</td>
<td>LS5127200</td>
<td>C</td>
<td>1</td>
<td>600</td>
<td>5000.00</td>
<td>1010</td>
<td>5100500003000100</td>
<td>1213</td>
<td>March 03</td>
<td>31405</td>
<td>0009</td>
<td>56.87580394</td>
<td>67.164439 Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>230</td>
<td>002200155</td>
<td>LS5127200</td>
<td>C</td>
<td>1</td>
<td>600</td>
<td>5000.00</td>
<td>1010</td>
<td>5100500003000100</td>
<td>1214</td>
<td>March 03</td>
<td>31405</td>
<td>0010</td>
<td>56.88577500</td>
<td>67.165716 Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
“CA” Change Type – Edges Shapefile: Correcting Street Name
“C” Action Code – Address List:
City Style Addresses – Correcting Ungeocoded Records

**No Title 13 Data Displayed**

<table>
<thead>
<tr>
<th>LINE NUMBER</th>
<th>MA FID</th>
<th>ENTITY</th>
<th>ACTION</th>
<th>STATEFP</th>
<th>COUNTYFP</th>
<th>TRACT</th>
<th>BLOCK</th>
<th>GECCQ</th>
<th>HOUSENUMBER</th>
<th>STREETNAME</th>
<th>AP</th>
<th>AR</th>
<th>ZIP</th>
<th>CITY_ STYLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2090</td>
<td>100200301</td>
<td>COS1610</td>
<td>C</td>
<td>51</td>
<td>510</td>
<td>5003.00</td>
<td>1000</td>
<td>2501</td>
<td>Oliver Ave</td>
<td>31402</td>
<td>36.54239968</td>
<td>-67.98615562</td>
<td>Y</td>
</tr>
<tr>
<td>3</td>
<td>2091</td>
<td>100200802</td>
<td>COS1610</td>
<td>C</td>
<td>51</td>
<td>510</td>
<td>5003.00</td>
<td>1000</td>
<td>2505</td>
<td>Oliver Ave</td>
<td>31402</td>
<td>36.54235541</td>
<td>-67.98988865</td>
<td>Y</td>
</tr>
<tr>
<td>4</td>
<td>2092</td>
<td>100200303</td>
<td>COS1610</td>
<td>C</td>
<td>51</td>
<td>510</td>
<td>5003.00</td>
<td>1000</td>
<td>2507</td>
<td>Oliver Ave</td>
<td>31402</td>
<td>36.54226674</td>
<td>-67.98589156</td>
<td>Y</td>
</tr>
<tr>
<td>5</td>
<td>2093</td>
<td>100200304</td>
<td>COS1610</td>
<td>C</td>
<td>51</td>
<td>510</td>
<td>5003.00</td>
<td>1000</td>
<td>2509</td>
<td>Oliver Ave</td>
<td>31402</td>
<td>36.54213112</td>
<td>-67.98581426</td>
<td>Y</td>
</tr>
<tr>
<td>6</td>
<td>2094</td>
<td>100200305</td>
<td>COS1610</td>
<td>C</td>
<td>51</td>
<td>510</td>
<td>5003.00</td>
<td>1000</td>
<td>2515</td>
<td>Oliver Ave</td>
<td>31402</td>
<td>36.54200083</td>
<td>-67.98575832</td>
<td>Y</td>
</tr>
<tr>
<td>7</td>
<td>2095</td>
<td>100200306</td>
<td>COS1610</td>
<td>C</td>
<td>51</td>
<td>510</td>
<td>5003.00</td>
<td>1000</td>
<td>2517</td>
<td>Oliver Ave</td>
<td>31402</td>
<td>36.54198882</td>
<td>-67.98568756</td>
<td>Y</td>
</tr>
<tr>
<td>8</td>
<td>2096</td>
<td>100200307</td>
<td>COS1610</td>
<td>C</td>
<td>51</td>
<td>510</td>
<td>5003.00</td>
<td>1000</td>
<td>2523</td>
<td>Oliver Ave</td>
<td>31402</td>
<td>36.54185552</td>
<td>-67.98558104</td>
<td>Y</td>
</tr>
<tr>
<td>9</td>
<td>2097</td>
<td>100200308</td>
<td>COS1610</td>
<td>C</td>
<td>51</td>
<td>510</td>
<td>5003.00</td>
<td>1000</td>
<td>2525</td>
<td>Oliver Ave</td>
<td>31402</td>
<td>36.54149999</td>
<td>-67.98530019</td>
<td>Y</td>
</tr>
<tr>
<td>10</td>
<td>2098</td>
<td>100200309</td>
<td>COS1610</td>
<td>C</td>
<td>51</td>
<td>510</td>
<td>5003.00</td>
<td>1000</td>
<td>2531</td>
<td>Oliver Ave</td>
<td>31402</td>
<td>36.54123364</td>
<td>-67.98547774</td>
<td>Y</td>
</tr>
<tr>
<td>11</td>
<td>2099</td>
<td>100200310</td>
<td>COS1610</td>
<td>C</td>
<td>51</td>
<td>510</td>
<td>5003.00</td>
<td>1000</td>
<td>2537</td>
<td>Oliver Ave</td>
<td>31402</td>
<td>36.54119945</td>
<td>-67.98541971</td>
<td>Y</td>
</tr>
</tbody>
</table>
“D” – Action Code

Use a “D” action code for the following situations:

• Residential address no longer exists, is uninhabitable, or is a duplicate.

• Street, or section of street, no longer exists (and addresses along street no longer exist).

• Incorrect house number or incorrect apartment/unit number.

• Housing Unit, Multiunit, or Group Quarters Conversions:
  o Housing unit converted to a multiunit structure or group quarters.
  o Multiunit structure converted to a housing unit or group quarters.
  o Group quarters converted to a housing unit or multiunit structure.

Do not modify any other columns.
"D" Action Code – Address List:
City Style Addresses – Delete Addresses

**No Title 13 Data Displayed**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
<th>P</th>
<th>Q</th>
<th>R</th>
<th>S</th>
<th>T</th>
<th>U</th>
<th>V</th>
<th>W</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LINE_NUMBER</td>
<td>MAFID</td>
<td>ENTITY</td>
<td>ACTION</td>
<td>STATEFP</td>
<td>COUNTYFP</td>
<td>TRACT</td>
<td>BLOCK</td>
<td>GEOID</td>
<td>GQ_HOUSENUMBER</td>
<td>STREETNAME</td>
<td>AP</td>
<td>AR</td>
<td>ZIP</td>
<td>GQ</td>
<td>FA</td>
<td>CL</td>
<td>CA</td>
<td>NO</td>
<td>NC</td>
<td>MA</td>
<td>USE</td>
</tr>
<tr>
<td>2</td>
<td>844</td>
<td>024510132</td>
<td>PL5127200</td>
<td>D</td>
<td>51</td>
<td>610</td>
<td>5002.00</td>
<td>3012</td>
<td>516105002003012</td>
<td>500</td>
<td>Donahue St</td>
<td>31408</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>845</td>
<td>025468521</td>
<td>PL5127200</td>
<td>D</td>
<td>51</td>
<td>610</td>
<td>5002.00</td>
<td>3012</td>
<td>516105002003012</td>
<td>500</td>
<td>Donahue St</td>
<td>31408</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>846</td>
<td>020347819</td>
<td>PL5127200</td>
<td>D</td>
<td>51</td>
<td>610</td>
<td>5002.00</td>
<td>3012</td>
<td>516105002003012</td>
<td>500</td>
<td>Donahue St</td>
<td>31408</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>847</td>
<td>024596100</td>
<td>PL5127200</td>
<td>D</td>
<td>51</td>
<td>610</td>
<td>5002.00</td>
<td>3012</td>
<td>516105002003012</td>
<td>500</td>
<td>Donahue St</td>
<td>31408</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>848</td>
<td>025354199</td>
<td>PL5127200</td>
<td>D</td>
<td>51</td>
<td>610</td>
<td>5002.00</td>
<td>3012</td>
<td>516105002003012</td>
<td>500</td>
<td>Donahue St</td>
<td>31408</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
“DL” Change Type – Edges Shapefile: Delete A Street
"D" and "A" Action Codes – Address List: City Style Addresses – Incorrect Apartment Unit

**No Title 13 Data Displayed**

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | CITY | STYLE |
| 1 | 24 | 00000000 | D | 51 | 110 | 0001 | 0030 | 91935 | Track | 1407 | A | 51407 | 0001 | 56.88575419 | 67.17566100 | Y | | | | | | | | | 1407 | | | |
| 2 | 125 | 00000000 | D | 51 | 110 | 0001 | 0030 | 91935 | Track | 1407 | B | 51407 | 0001 | 56.88575419 | 67.17566100 | Y | | | | | | | | | 1407 | | | |
| 3 | 126 | 00000000 | D | 51 | 110 | 0001 | 0030 | 91935 | Track | 1407 | C | 51407 | 0001 | 56.88575419 | 67.17566100 | Y | | | | | | | | | 1407 | | | |
| 4 | 127 | 00000000 | D | 51 | 110 | 0001 | 0030 | 91935 | Track | 1407 | D | 51407 | 0001 | 56.88575419 | 67.17566100 | Y | | | | | | | | | 1407 | | | |
| 5 | 128 | 00000000 | D | 51 | 110 | 0001 | 0030 | 91935 | Track | 1407 | E | 51407 | 0001 | 56.88575419 | 67.17566100 | Y | | | | | | | | | 1407 | | | |
| 6 | 129 | 00000000 | D | 51 | 110 | 0001 | 0030 | 91935 | Track | 1407 | F | 51407 | 0001 | 56.88575419 | 67.17566100 | Y | | | | | | | | | 1407 | | | |
| 7 | 130 | 00000000 | D | 51 | 110 | 0001 | 0030 | 91935 | Track | 1407 | G | 51407 | 0001 | 56.88575419 | 67.17566100 | Y | | | | | | | | | 1407 | | | |
| 8 | 131 | 00000000 | D | 51 | 110 | 0001 | 0030 | 91935 | Track | 1407 | H | 51407 | 0001 | 56.88575419 | 67.17566100 | Y | | | | | | | | | 1407 | | | |
| 9 | 132 | 00000000 | D | 51 | 110 | 0001 | 0030 | 91935 | Track | 1407 | I | 51407 | 0001 | 56.88575419 | 67.17566100 | Y | | | | | | | | | 1407 | | | |
**“D” and “A” Action Codes – Address List:**

**City Style Addresses – HU Converted to Multiunit**

**No Title 13 Data Displayed**

<table>
<thead>
<tr>
<th>LINE</th>
<th>MAP ID</th>
<th>ENTITY</th>
<th>ACTION</th>
<th>STAFFID</th>
<th>COUNTYFP</th>
<th>TRACT</th>
<th>BLOCK</th>
<th>GEOID</th>
<th>SQFT</th>
<th>HOUSENUMBER</th>
<th>STREETNAME</th>
<th>APARTMENT</th>
<th>ZIP</th>
<th>COUNTY</th>
<th>CITYSTYLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>G0000599</td>
<td>PLS127200</td>
<td>B</td>
<td>S1</td>
<td>610</td>
<td>96100</td>
<td>004</td>
<td>016100501001034</td>
<td>0561</td>
<td>Leon Rd</td>
<td>Apt 107</td>
<td>01407</td>
<td>34</td>
<td>M</td>
<td>Y</td>
</tr>
<tr>
<td>3</td>
<td>PLS127200</td>
<td>A</td>
<td>S1</td>
<td>610</td>
<td>96100</td>
<td>004</td>
<td>016100501001034</td>
<td>0561</td>
<td>Leon Rd</td>
<td>Apt 102</td>
<td>01407</td>
<td>34</td>
<td>M</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>PLS127200</td>
<td>A</td>
<td>S1</td>
<td>610</td>
<td>96100</td>
<td>004</td>
<td>016100501001034</td>
<td>0561</td>
<td>Leon Rd</td>
<td>Apt 102</td>
<td>01407</td>
<td>34</td>
<td>M</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>PLS127200</td>
<td>A</td>
<td>S1</td>
<td>610</td>
<td>96100</td>
<td>004</td>
<td>016100501001034</td>
<td>0561</td>
<td>Leon Rd</td>
<td>Apt 103</td>
<td>01407</td>
<td>34</td>
<td>M</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>PLS127200</td>
<td>A</td>
<td>S1</td>
<td>610</td>
<td>96100</td>
<td>004</td>
<td>016100501001034</td>
<td>0561</td>
<td>Leon Rd</td>
<td>Apt 104</td>
<td>01407</td>
<td>34</td>
<td>M</td>
<td>Y</td>
<td></td>
</tr>
</tbody>
</table>
“J” – Action Code

• Use a “J” action code to flag residential addresses that are not in your jurisdiction.

• Use for city style, non-city style, and ungeocoded address records.

• Do not make modifications to any other columns.

| A | B | C | D   | E   | F   | G   | H   | I   | J   | K   | L   | M   | N   | O   | P   | Q   | R   | S   | T   | U   | V   | W   | X   |
|---|---|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| LINE_NUMBER | MAID | ENTITY | ACTION | STATEFP | COUNTYFP | TRACT | BLOCK | GEOID | GQ_FL | HOUSENUMBER | STREETNAME | APART | ZIP | GO NA | FACILITIES | LOC | ATI | NO1 | NO2 | NO3 | PSP | USE | LAT | CITY-STYLE |
| 1 | 454 | 9995555 | PL5127200 | J | 51 | 610 | 5001.00 | 2001 | 516105001002001 | 3526 | Pueblo Trl | 31402 |
| 2 | 455 | 9995556 | PL5127200 | J | 51 | 610 | 5001.00 | 2001 | 516105001002001 | 3528 | Pueblo Trl | 31402 |
“N” – Action Code

• Use an “N” action code to flag addresses used for purposes other than residential such as:
  - Businesses.
  - Schools.
  - Churches.
  - Government offices.

• Use for city style, non-city style, and ungeocoded address records.

• Do not make modifications to any other columns.
## Summary of Address List Updates

<table>
<thead>
<tr>
<th>LINE_NUMBER</th>
<th>MAFEQ</th>
<th>ENTITY</th>
<th>ACTION</th>
<th>STATEFP</th>
<th>COUNTYPFP</th>
<th>TRACT</th>
<th>BLOCK</th>
<th>GEOFD</th>
<th>GQ_FLAG</th>
<th>HOUSENUMBER</th>
<th>STREETNAME</th>
<th>APARTMENT</th>
<th>ZIP</th>
<th>COUNTY</th>
<th>FACILITY</th>
<th>NAME</th>
<th>LOCATION</th>
<th>DESCRIPTION</th>
<th>NOTICTYSTYLE</th>
<th>ADOOR</th>
<th>NOTICTYSTYLEZIP</th>
<th>ZIPMAPPOT</th>
<th>USE</th>
<th>LAT</th>
<th>LONG</th>
<th>CITYSTYLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL51172798</td>
<td>A</td>
<td>$1</td>
<td>$1</td>
<td>530</td>
<td>5001</td>
<td>2014</td>
<td>100</td>
<td></td>
<td>100</td>
<td>Crystal Ave</td>
<td>51402</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PL51172798</td>
<td>A</td>
<td>$1</td>
<td>$1</td>
<td>530</td>
<td>5001</td>
<td>2014</td>
<td>112</td>
<td></td>
<td>112</td>
<td>Crystal Ave</td>
<td>51402</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PL51172798</td>
<td>A</td>
<td>$1</td>
<td>$1</td>
<td>530</td>
<td>5001</td>
<td>2014</td>
<td>113</td>
<td></td>
<td>113</td>
<td>Crystal Ave</td>
<td>51402</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PL52172798</td>
<td>A</td>
<td>$1</td>
<td>$1</td>
<td>5001</td>
<td>5000</td>
<td>2001</td>
<td>225</td>
<td></td>
<td>225</td>
<td>Archilles Dr</td>
<td>51402</td>
<td>Pandora Hall 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pandora Hall 1</td>
</tr>
<tr>
<td>PL52172798</td>
<td>A</td>
<td>$1</td>
<td>$1</td>
<td>5001</td>
<td>5000</td>
<td>2001</td>
<td>225</td>
<td></td>
<td>225</td>
<td>Archilles Dr</td>
<td>51402</td>
<td>Pandora Hall 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pandora Hall 1</td>
</tr>
<tr>
<td>PL52172798</td>
<td>A</td>
<td>$1</td>
<td>$1</td>
<td>5001</td>
<td>5000</td>
<td>2001</td>
<td>225</td>
<td></td>
<td>225</td>
<td>Archilles Dr</td>
<td>51402</td>
<td>Pandora Hall 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pandora Hall 1</td>
</tr>
<tr>
<td>PL52172798</td>
<td>A</td>
<td>$1</td>
<td>$1</td>
<td>5001</td>
<td>5000</td>
<td>2001</td>
<td>225</td>
<td></td>
<td>225</td>
<td>Archilles Dr</td>
<td>51402</td>
<td>Pandora Hall 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pandora Hall 1</td>
</tr>
<tr>
<td>PL53172798</td>
<td>A</td>
<td>$1</td>
<td>$1</td>
<td>5001</td>
<td>5000</td>
<td>2001</td>
<td>5001</td>
<td></td>
<td>5001</td>
<td>Loxon Rd</td>
<td>51407</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Loxon Rd</td>
</tr>
<tr>
<td>PL53172798</td>
<td>A</td>
<td>$1</td>
<td>$1</td>
<td>5001</td>
<td>5000</td>
<td>2001</td>
<td>5001</td>
<td></td>
<td>5001</td>
<td>Loxon Rd</td>
<td>51407</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Loxon Rd</td>
</tr>
<tr>
<td>PL53172798</td>
<td>A</td>
<td>$1</td>
<td>$1</td>
<td>5001</td>
<td>5000</td>
<td>2001</td>
<td>5001</td>
<td></td>
<td>5001</td>
<td>Loxon Rd</td>
<td>51407</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Loxon Rd</td>
</tr>
<tr>
<td>PL53172798</td>
<td>A</td>
<td>$1</td>
<td>$1</td>
<td>5001</td>
<td>5000</td>
<td>2001</td>
<td>5001</td>
<td></td>
<td>5001</td>
<td>Loxon Rd</td>
<td>51407</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Loxon Rd</td>
</tr>
<tr>
<td>PL54117279</td>
<td>A</td>
<td>$1</td>
<td>$1</td>
<td>5001</td>
<td>5000</td>
<td>2001</td>
<td>5001</td>
<td></td>
<td>5001</td>
<td>Loxon Rd</td>
<td>51407</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Loxon Rd</td>
</tr>
<tr>
<td>PL54117279</td>
<td>A</td>
<td>$1</td>
<td>$1</td>
<td>5001</td>
<td>5000</td>
<td>2001</td>
<td>5001</td>
<td></td>
<td>5001</td>
<td>Loxon Rd</td>
<td>51407</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Loxon Rd</td>
</tr>
<tr>
<td>PL54117279</td>
<td>A</td>
<td>$1</td>
<td>$1</td>
<td>5001</td>
<td>5000</td>
<td>2001</td>
<td>5001</td>
<td></td>
<td>5001</td>
<td>Loxon Rd</td>
<td>51407</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Loxon Rd</td>
</tr>
<tr>
<td>PL54117279</td>
<td>A</td>
<td>$1</td>
<td>$1</td>
<td>5001</td>
<td>5000</td>
<td>2001</td>
<td>5001</td>
<td></td>
<td>5001</td>
<td>Loxon Rd</td>
<td>51407</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Loxon Rd</td>
</tr>
<tr>
<td>PL55117279</td>
<td>A</td>
<td>$1</td>
<td>$1</td>
<td>5001</td>
<td>5000</td>
<td>2001</td>
<td>5001</td>
<td></td>
<td>5001</td>
<td>Loxon Rd</td>
<td>51407</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Loxon Rd</td>
</tr>
<tr>
<td>PL55117279</td>
<td>A</td>
<td>$1</td>
<td>$1</td>
<td>5001</td>
<td>5000</td>
<td>2001</td>
<td>5001</td>
<td></td>
<td>5001</td>
<td>Loxon Rd</td>
<td>51407</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Loxon Rd</td>
</tr>
<tr>
<td>PL55117279</td>
<td>A</td>
<td>$1</td>
<td>$1</td>
<td>5001</td>
<td>5000</td>
<td>2001</td>
<td>5001</td>
<td></td>
<td>5001</td>
<td>Loxon Rd</td>
<td>51407</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Loxon Rd</td>
</tr>
<tr>
<td>PL55117279</td>
<td>A</td>
<td>$1</td>
<td>$1</td>
<td>5001</td>
<td>5000</td>
<td>2001</td>
<td>5001</td>
<td></td>
<td>5001</td>
<td>Loxon Rd</td>
<td>51407</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Loxon Rd</td>
</tr>
</tbody>
</table>

### Notes:
- **Pandora Hall**: A Dormitory
- **University of Loxon**: The university located in Loxon, which is near Pandora Hall.

---

**Address Update Summary**
- Updated 90 addresses for the University of Loxon, including changes to street names and numbers.
- Address updates include changes to street names from intersection of main st. to 1st st., with some addresses now at 5001 Loxon Rd.
- Revised addresses to reflect the new location description, focusing on the nearby intersection to improve navigation.

**Contact Information**
- For inquiries, please contact the University of Loxon's Facilities Management at 51402-51407.
Summary of Edges Shapefile Updates
LUCA Update Submissions

Digital Materials
Agenda

Preparing Updated Materials for Submission.

• Address Materials
• Map Materials
• Accompanying paperwork.

Submitting updated materials.

• Shipping Instructions
• Secure Web Incoming Module (SWIM).
Address Materials

• Digital
  • Keeping secure.
  • Assembling and organizing.
Digital Address Materials – Sorting and Saving

• Ensure complete with all updates.
• Re-sort address list by ACTION field.
• Save only records with entry in ACTION field to new file.
• Name the new file “luca20_<EntityID>_changes_addresses.xxx” (where EntityID is entity identification code from LUCA materials and xxx is the file extension .csv, .txt, .xls, or .xlsx).
• Save to location for easy retrieval for submission and next steps.
Digital Address List – Keeping Secure

• Make copy of new file for use during the feedback phase.
• All address list materials (original and copy) are Title 13.
• Keep secure according to *Confidentiality and Security Guidelines (D-2004)*, Appendix A in LUCA Respondent Guide.
Digital Address List– Assembling and Organizing

• Navigate to directory where “luca20_<EntityID>_changes_addresses.xxx” resides (where EntityID is entity identification code from LUCA materials and xxx is the file extension .csv, .txt, or .xls).

• Zip the changes address file, name the zip file “luca20_<EntityID>_changes_addresses_return.zip”.
  o Password protection required because Title 13 material.
  o Use case sensitive password provided with original materials.

• Copy the zip file to CD/DVD if shipping submission with paper map materials, or stage the zip file for submission via Census Bureau’s secure online web application.
Map Materials

• Digital
  • Exporting updates.
  • Saving updates.
• Example
  • Assembling and organizing.
Map Materials – Digital: Exporting Updates

- Ensure complete with all updates.
- Select edges with value in CHNG_TYPE field.
- Export selected edges into new shapefile.
Map Materials – Digital: Saving Updates

- Ensure “Selected features” in “Export Data” window.
- Name new shapefile “luca20_<EntityID>_In_changes.shp”, where EntityID matches entity identification code in LUCA materials.
- Save to location for easy retrieval for submission and next steps.
Map Materials – Digital: Example – Updated Edges Shapefile
Accompanying Paperwork

• D-2011 Inventory Form, paper or digital.
• Provide with submission either as hardcopy or zipped on CD/DVD or with SWIM.
• Keep copies for your records.
Submitting Updated Materials

• Shipping instructions.
  o Title 13 details.

• Secure Web Incoming Module (SWIM).
  o SWIM Introduction.
  o Numerous SWIM procedural screens.
Shipping Instructions: Submissions With Updated Paper Map Materials

• Follow procedures for shipping Title 13 materials.
• Double wrap Title 13 printed materials (paper maps) using inner/outer envelope (or box/container). Label both sides of inner envelope with “DISCLOSURE PROHIBITED BY Title 13, U.S.C.”.
• Place inner envelope into the outer envelope (or box/container).
• Include CD/DVD of zipped address list and completed D-2011, either hardcopy or as its own zipped file on same CD/DVD.
• Use mailing label included with original materials to ship to National Processing Center in Jeffersonville, IN.
• For any shipping uncertainty, consult Respondent Guide or contact Census Bureau.
Shipping Instructions:
Submissions With Updated Digital Map Materials

• Include CD/DVD of zipped updated address list and zipped updated edges shapefile.
• Include completed D-2011, either hardcopy or as its own zipped file on same CD/DVD.
• Use mailing label included with original materials to ship to National Processing Center in Jeffersonville, IN.
• For any shipping uncertainty, consult Respondent Guide or contact Census Bureau.
Shipping Instructions:
Title 13 Details – Double Wrap Visual

INNER ENVELOPE

DISCLOSURE PROHIBITED

BY Title 13, U.S.C.
(on both sides)

OUTER ENVELOPE

ATTN: Geography LUCA BLDG 63E
National Processing Center
1201 East 10th Street
Jeffersonville, IN 47132
SWIM Introduction

- Official web portal for uploading materials to Census Bureau.
- Used for other programs besides LUCA.
- Accounts are people based, not entity based.
- 12 digit registration token to establish account provided by Census Bureau.
- Only accepts .ZIP files.
- Size limitation of 250 megabytes.
SWIM Account Login and Welcome Screens

<https://respond.census.gov/swim/>
SWIM Account Registration Screens

Account Registration

- Registration Token: 
- First Name: 
- Last Name: 
- Phone Number: 
- Agency: 
- Email: 
- Confirm Email: 
- Password: 
- Confirm Password: 
- Security Question: Please select a verification question.
- Answer: 

Submit
What Census program are you reporting data for?

Select the geographic program that you currently wish to submit data for the Census Bureau to review. This selection affects only your current upload. You may select a different option for future uploads. If you are unsure what program to select send an email to geo.swim@census.gov for more guidance.

- Geographic Support System Initiative (GSSI)
- Boundary Annexation Survey (BAS)
- School District Review Program (SDRP)
- Boundary Quality Assessment and Reconciliation Project (BQARP)
- Federal Agency Updates (FDU)
- Redistricting Data Program - BBSP-VTD (RDP)
- Redistricting Data Program - CD-SLD (RDP)
- Local Update of Census Addresses (LUCA)
- Participant Statistical Areas Program (PSAP)
What type of LUCA entity are you reporting for?

- State
- Place
- County
- Minor Civil Division (MCD)
- Tribal Area
- Consolidated City
Select a .ZIP file to upload.

File submissions must be in "zip format" Please group all related data together into one ZIP archive including any metadata or supporting documentation that you have available. Please include information about how your geographic data is projected if applicable. If you are submitting shapefiles, be sure to include all of the component files necessary to use the shapefile (at a minimum .shp, .prj, .dbf, .sbn). If you are submitting a .MXD file please be sure to include all of the separate data files that are used in the Map (all of the layers, shapefiles, etc.). Please provide any additional information, as applicable, in the comments box below.

Choose File:  Add File

Status:

File(s):

Comments:

Previous  Next
SWIM Choose .ZIP to Upload Screen
SWIM .ZIP File Upload Status Screen
Thank You

Your files have uploaded successfully.

File(s):
1. luca20_PL5127200_changes_addresses_return.zip
2. luca20_PL5127200_inventory_return.zip
3. luca20_PL5127200_In_changes_return.zip

You may Log Out or return to the upload form, to submit more files.
Next Steps
Next Steps – Census Bureau

- Census Bureau processes submission for validation.
- Census Bureau ships feedback materials in Summer 2019.
- Census Bureau begins outreach to close out LUCA operation.
  - Must confirm destruction or return of all Title 13 materials, including originals and copies.
  - Must receive signed *Destruction or Return of Title 13 Materials Form (D-2012)* that includes signatures from liaison and all reviewers.
    - Appendix H of 2020 LUCA Respondent Guide.
Next Steps – Participant

• Agree with feedback materials, then participation ends.
  o Send D-2012 to confirm destruction, or if choose to return materials, do so quickly.

• Notify OMB LUCA Appeals office of disagreement with feedback materials.
  o Appeals Office works with participant and Census Bureau to resolve disagreement.
  o Once appeals process concludes, participants must destroy or return materials and submit signed *Destruction or Return of Title 13 Materials Form (D-2012)* that includes signatures from liaison and all reviewers.

• Filing an appeal is optional.
Next steps – Destruction or Return of Title 13 Materials Form (D-2012)

**A. LUCA Liaison Destruction or Return of Title 13 Materials**

Mark (X) one: **Destroyed Title 13, LUCA materials (Preferred method)**

- Printed Name of the LUCA Liaison:
- Signature of the LUCA Liaison:
- Date: Month, Day, Year

**B. LUCA Reviewers and Anyone With Access to Title 13 Materials**

<table>
<thead>
<tr>
<th>Printed Name</th>
<th>Signature</th>
<th>Date: Month, Day, Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section B continued on the reverse
Planned New Construction Program for 2020

• Non-Title 13.
• Decennial program designed to capture new addresses for housing units that will be habitable on Census Day (April 1, 2020).
• Address submissions will require either:
  – State/County/Tract/Block Geocodes or
  – Latitude/Longitude Coordinates
• Available in Self-Response Type of Enumeration areas.
  – New addresses in non-Self-Response areas will be captured during field operations.
• Tentatively scheduled: Summer 2019.
Geographic Updates
Partnership Software
(GUPS)
Agenda

• Intended audience.
• Introduction to GUPS and Title 13 U.S.C. refresher.
• GUPS setup and materials introduction.
• GUPS acceptable updates and examples.
• GUPS submission.
What is GUPS

- Customized geographic information system (GIS) provided by U.S. Census Bureau.
- Based on open-source platform known as QGIS.
- Replaces previous software known as MTPS (MAF/TIGER Partnership Software).
- Used for other geography programs (i.e., Boundary and Annexation Survey-BAS).
Why Use GUPS for 2020 LUCA

• Tailored to meet needs of those without extensive GIS experience.
• Specifically designed and developed by the Census Bureau for 2020 LUCA use.
• Reduces the complexity of LUCA with specific tools, including review and validation tools.
• Built-in security considerations.
• Standardizes submission process.
• However, NOT recommended for entities with more than 300,000 residential addresses.
Security Considerations

• Title 13 data is automatically encrypted within GUPS.
  o Need the password sent separately by the Census Bureau to the LUCA liaison to access the Title 13 data.

• Updated Census Address List files are automatically encrypted by GUPS when exporting for submission.
Security Considerations (cont’d): Automatic time-out

This session has been idle for ten minutes. GUPS will shut down and save your project if your session remains idle for a total of 15 minutes.

04:45
GUPS Demonstration Video

• https://census.webex.com/census/lsr.php?RCID=805ef5d40bb6617ce189d6d10a18ab25
Delivery of Materials

• Three DVDs:
  o GUPS installation software.
  o Title 13 data.
  o Non-Title 13 data.
    • Root directory.
      o Respondent Guide(s) – digital and GUPS.
      o Header text file.
      o Inventory form.
      o Readmefirst6.txt file.
GUPS Installation: Example

(Initial Screen With Data)

**No Title 13 Data Displayed**
Reviewing Records In GUPS: Sort By – Filter By – Selection Tool

**No Title 13 Data Displayed**
Validating Records in GUPS

• Includes built-in validation tools when editing/adding records.

• Recommend executing throughout review and update.

• **Address Review Tool** checks records for valid content and ensures no duplicates.
  
  ○ If invalid data or duplicates discovered, listed in the **Census Address Error List** window.
Pop Quiz!
How Well Do You Know LUCA?
True or False
Question 1

• The Census Bureau does not require individual unit identifiers for multi-unit structures.

False – Multi-unit structures such as apartments, mobile homes, condominiums, etc., DO require individual unit identifiers.

Note: Unit identifiers are not required for individual units within a group quarters, such as individual dorm rooms in a college dorm or room numbers in a nursing home. HOWEVER, you must provide a group quarters name and a facility name if the group quarters are associated with a facility (e.g. Group Quarters Name – Pandora Hall; Facility Name – Aristotle University). The Census Bureau will not process an identified group quarters address record without a group quarters name.
True or False
Question 2

• The Census Bureau requires lat/lon or map spots for all non-city style addresses.

True – New for 2020, Participants can submit non-city style addresses as long as they are accompanied by corresponding map spots on paper maps and address lists, or lat/lon coordinates on digital address lists and GUPS.
True or False

Question 3

• In LUCA, participant focus should be on making map updates.

False – Focus should be on updating your entity’s address list.
True or False
Question 4

• In order to review the digital Address List, you can simply open the file in Excel.

False – It is important to following the proper steps for importing your .csv Address List into Excel. Improper opening of the .csv corrupts the data content of the digital address list.
True or False

Question 5

• If the mayor wants to view a map with Census Map Spots or address points, you can show him or her this data.

It depends – Only if he or she has signed the confidentiality agreement.
True or False

Question 6

• IT personnel who have access to any Title 13 materials do not need to sign the confidentiality form.

False – Anyone with access to Title 13 materials, their storage or backup must sign the Confidentiality Agreement.
If the *house number* or *apartment unit identifier* is wrong on the Address List, it can be changed by using the “C” action code and correcting the house number or apartment number on the address list.

False – In order to correct an incorrect house number and/or apartment unit identifier, a reviewer must use a “Delete/Add” combination. The address must first be deleted from the Address List using a “D” action code, then added to the paper Address Add page or the digital Address List using an “A” action code.
True or False
Question 8

• The Census Bureau wants to receive your entire address list as part of your LUCA submission.

False - LUCA is an opportunity for local governments to review and update the Census Bureau’s address list. Your LUCA submission should only include the Census address records you edited, and the additional records that you added to the Census address list.
True or False

Question 9

• The Address List is the foundation of an accurate Census.

True - The accuracy and completeness of the Address List is critical to the success of the Census. An accurate Address List leads to an accurate Population Count.
True or False
Question 10

• If an address is ungeocoded, it will still be included in Census 2020 enumeration.

False - Ungeocoded addresses will not be included in the address list used for the 2020 Decennial. We cannot count the residents of a living quarters if we cannot geocode the living quarters.
Support and assistance

• Visit the 2020 LUCA Web site: <https://www.census.gov/geo/partnerships/luca.html>
  o Frequently Asked Questions document.

• Contact us:
  o Geographic Programs Support Desk toll-free telephone number: 1-844-344-0169.
  o E-mail: <GEO.2020.LUCA@census.gov>