**Request for Non-Substantive Change to the
2020 Census New Construction Program
OMB Control No. 0607-1007
U.S. Department of Commerce
U.S. Census Bureau**

Purpose

The U.S. Census Bureau offers the 2020 Census New Construction Program as a decennial opportunity for tribal, state, and local governments to submit addresses of new housing units (HUs), group quarters (GQs), and transitory locations (TLs) for which construction is in progress during or after March 1, 2018 and completion is expected by Census Day, April 1, 2020. The Census Bureau collects city-style addresses for the newly built HUs, GQs, and TLs in census blocks where the Census Bureau plans to mail the 2020 Census questionnaires.

The Office of Management and Budget (OMB) approved the New Construction Program on December 29, 2018 for three years with an expiration date of December 31, 2021. This non-substantive change (NSC) request is submitted to:
1. Update participants' materials that OMB previously approved and to add new materials for OMB approval.
2. Request authorization to communicate, when necessary, with participants during the New Construction Program.

Background

With this NSC request, the Census Bureau is submitting **19** materials in their final forms for the New Construction Program Invitation, Review, and Closeout Phases. The Census Bureau made cosmetic and formatting updates to the registration form used during the Invitation Phase. The four guides listed in **Table 1,** which contains instructions and guidance for participants to review, add, and submit new construction addresses, are now finalized. The Census Bureau also made cosmetic and formatting updates to the remaining materials for the Review and Closeout Phases and added a new webinar email to invite registered participants to an online training in September 2019.

Lastly, the Census Bureau may need to contact groups of partners through the New Construction Program Address Updates Phase to notify them of issues and clarifications related to the materials and software that may affect their review. As time to conduct the New Construction Program Address Updates Phase is limited, the Census Bureau requests the authorization to send emails and/or letters to groups of participants to document issues and provide additional instruction. At the end of the New Construction Program Address Updates Phase, the Census Bureau will supply documentation of all correspondences sent to participants/groups of participants related to these possible issues.
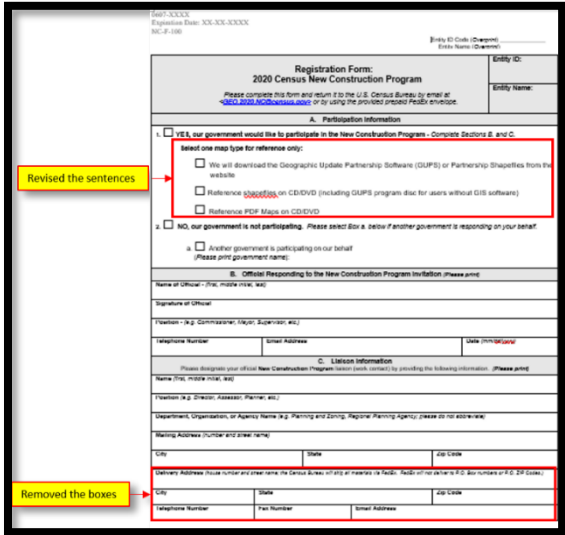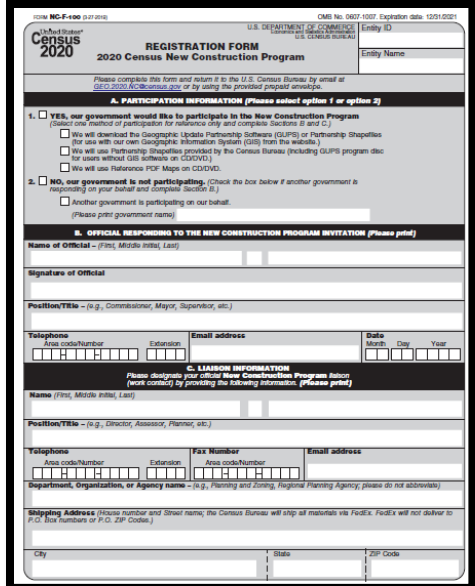
There are no substantive changes to the program resulting from this change.
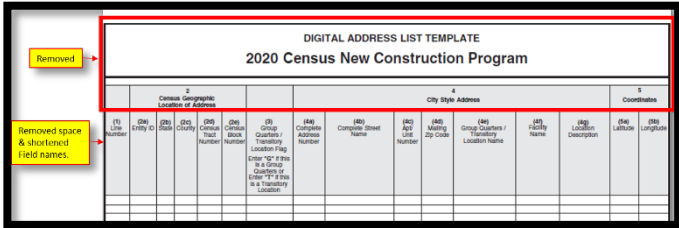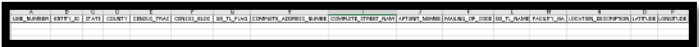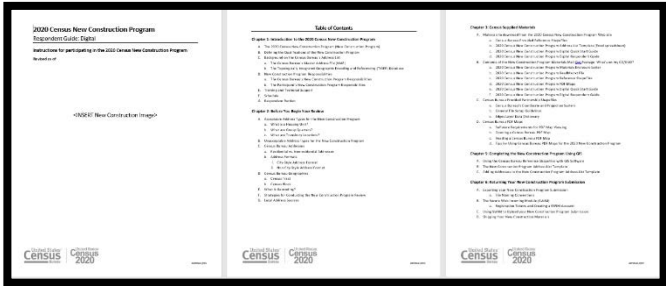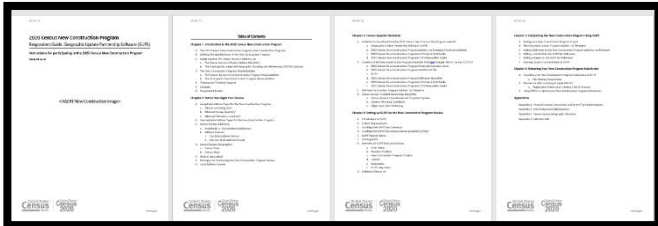
Burden

The burden of the New Construction Program is unchanged by this update.

Attachments

Table 1: New Construction Program Materials

New Construction Program Materials		
Changes as part of this NSC	**Material identification**	**Description or content**
Re-delivering an updated document – (cosmetic changes)	NC-F-100	Registration Form used by participants to register during the Invitation Phase. *Updates include the revision of the sentences in section A1 and the removal of a repetitive and unnecessary field "Delivery Address" in section C.* Previous: Current:

New Construction Program Materials		
Changes as part of this NSC	**Material identification**	**Description or content**
Re-delivering an updated document	NC-T-102	"Digital Address List Template" or "Sample Header Template". This updated template (Now) only displays the fields necessary for the participants to add their new construction addresses. Changes include the removal of the first two rows and spaces in the name fields (Before). Previous: Current:
Adding a new document	NC-W-250	Webinar Invitation Email.
Adding a finalized document (Final guide to replace the Table of Contents or TOC)	NC-G-100	Digital Respondent Guide. Previous – Table of Contents (a four-page document):
Adding an updated and finalized document	NC-G-120	Digital Quick Start Guide.
Adding a finalized document (Final guide to replace the TOC))	NC-G-110	GUPS Respondent Guide. Previous – Table of Contents (a four-page document):

New Construction Program Materials		
Changes as part of this NSC	**Material identification**	**Description or content**
Adding an updated and finalized document (cosmetic changes)	NC-G-130	GUPS Quick Start Guide.
Adding an updated material (cosmetic changes)	NC-E-200	Materials Available Online.
Adding an updated material (cosmetic changes)	NC-L-200	Materials Enclosure Letter for Digital Participants.
Adding an updated material (cosmetic changes)	NC-E-230	SWIM Account Email.
Adding an updated material (cosmetic changes)	NC-E-240	SWIM Token Email.
Adding an updated material (cosmetic changes)	NC-E-210	Follow-Up 20 Day Notice Email.
Adding an updated material (cosmetic changes)	NC-L-210	Follow-Up 20 Day Notice Letter.
Adding an updated material (cosmetic changes)	NC-R-150	ReadMe.txt file for Digital participants.
Adding an updated material (cosmetic changes)	NC-R-140	ReadMe.txt file GUPS participants.
Adding an updated material (cosmetic changes)	NC-E-300	Thank You Email to Participants (to be submitted via email).
Adding an updated material (cosmetic changes)	NC-E-310	Closeout Email to Non-Participants (to be submitted via email).
Adding an updated material (cosmetic changes)	NC-L-300	Thank You Letter to Participants (to be submitted via mail).
Adding an updated material (cosmetic changes)	NC-L-310	Closeout Letter to Non-Participants (to be submitted via mail).

United States®
Census 2020

U.S. DEPARTMENT OF COMMERCE
Economics and Statistics Administration
U.S. CENSUS BUREAU

REGISTRATION FORM
2020 Census New Construction Program

Entity ID

Entity Name

Please complete this form and return it to the U.S. Census Bureau by email at GEO.2020.NC@census.gov or by using the provided prepaid envelope.

A. PARTICIPATION INFORMATION *(Please select option 1 or option 2)*

1. ☐ **YES, our government would like to participate in the New Construction Program**
   (Select one method of participation for reference only and complete Sections B and C.)

   ☐ We will download the Geographic Update Partnership Software (GUPS) or Partnership Shapefiles (for use with our own Geographic Information System (GIS) from the website.)

   ☐ We will use Partnership Shapefiles provided by the Census Bureau (including GUPS program disc for users without GIS software on CD/DVD.)

   ☐ We will use Reference PDF Maps on CD/DVD.

2. ☐ **NO, our government is not participating.** *(Check the box below if another government is responding on your behalf and complete Section B.)*

   ☐ Another government is participating on our behalf.

   (Please print government name)

B. OFFICIAL RESPONDING TO THE NEW CONSTRUCTION PROGRAM INVITATION *(Please print)*

Name of Official – *(First, Middle initial, Last)*

Signature of Official

Position/Title – *(e.g., Commissioner, Mayor, Supervisor, etc.)*

Telephone		Email address	Date		
Area code/Number	Extension		Month	Day	Year

C. LIAISON INFORMATION
Please designate your official **New Construction Program** *liaison (work contact) by providing the following information.* **(Please print)**

Name *(First, Middle initial, Last)*

Position/Title – *(e.g., Director, Assessor, Planner, etc.)*

Telephone		Fax Number	Email address
Area code/Number	Extension	Area code/Number	

Department, Organization, or Agency name – *(e.g., Planning and Zoning, Regional Planning Agency; please do not abbreviate)*

Shipping Address *(House number and Street name; the Census Bureau will ship all materials via FedEx. FedEx will not deliver to P.O. Box numbers or P.O. ZIP Codes.)*

City	State	ZIP Code

LINE_NUMBER	ENTITY_ID	STATE	COUNTY	CENSUS_TRACT	CENSUS_BLOCK	GQ_TL_FLAG	COMPLETE_ADDRESS_NUMBER	COMPLETE_STREET_NAME	APTUNIT_NUMBER	MAILING_ZIP_CODE	GQ_TL_NAME

FACILITY_NAME	LOCATION_DESCRIPTION	LATITUDE	LONGITUDE

Subject: Announcement: 2020 Census New Construction Program Webinar

The 2020 Census New Construction Program (New Construction Program) provides tribal, state, and local governments an opportunity to submit a list of city-style addresses for housing units, group quarters (GQs), and transitory locations for which construction is in progress during or after March 1, 2018 and completion is expected by the Census Day, April 1, 2020. Participation in the New Construction Program helps to ensure that the Census Bureau's address list is as complete and accurate as possible for the 2020 Census.

The Census Bureau is conducting New Construction Program webinars beginning in September 2019. The webinars provide an overview of the New Construction Program and demonstrate the method of participation and submission. As the New Construction Program liaison for a registered government, you are encouraged to attend a webinar. Please have your materials available, as there will be opportunity to ask Census Bureau staff questions about the New Construction Program and materials.

Please visit the New Construction Program website to see webinar dates and times. You may RSVP by emailing your name, phone number, Entity ID (see below), government name, and date/time of webinar to <GEO.2020.NC@census.gov> with a subject of "RSVP to 2020 Census New Construction Program Webinar, Entity ID". An agenda and other webinar specific information will be emailed to registered attendees prior to the webinar.

ADDITIONAL INFORMATION:
Additional information about the New Construction Program, including participation materials, can be found on the New Construction Program website.

If you have any questions, please contact the Census Bureau via the information below.

Email: <GEO.2020.NC@census.gov>
Phone: 1-844-242-1765
Website: <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>

Thank you for your participation in the New Construction Program.

Entity ID: <Entity_ID>

2020 Census New Construction Program Respondent Guide

Instructions for Participants Using Materials Provided Digitally on CD/DVD

New Construction Program

United States Census Bureau

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov

United States Census 2020

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INTRODUCTION

A. Background

The 2020 Census New Construction Program (New Construction Program) provides tribal, state, and local governments an opportunity to update the U.S. Census Bureau's address list with living quarters for which construction is in progress during or after March 1, 2018 and completion is expected by Census Day, April 1, 2020. The participants supplement the address list for enumeration during the 2020 Census and ensure that the Census Bureau's address list is as complete as possible to produce an accurate population count.

IMPORTANT: All examples within this document are for training purposes and include fictitious information. They do not reflect Title 13 protected data.

All local government entity codes, also known as the "EntityID," appearing in the review materials have a two-letter code identifying the type of entity. County, place, and minor civil division (MCD) codes include the state two-digit Federal Information Processing Standards (FIPS) numeric code. MCD codes also include the county three-digit FIPS numeric code. See **Table 1** and **Table 2** for information regarding the coding on New Construction Program materials.

Table 1: Entity Identification Codes

Entity	Entity Identification Code (EntityID)	Total Characters
State	ST (2 alpha) + (2 FIPS numeric)	4
County	CO (2 alpha) + State (2 FIPS numeric) + County (3 FIPS numeric)	7
Place	PL (2 alpha) + State (2 FIPS numeric) + FIPS Place (5 FIPS numeric)	9
Minor Civil Division	MC (2 alpha) + State (2 FIPS numeric) + County (3 FIPS numeric) + FIPS MCD (5 FIPS numeric)	12

Below are examples showing the "Entity ID" for local government entities:
- State: ST01 (state of Alabama.)
- County: CO42085 (Mercer County, Pennsylvania.)
- Place: PL5127200 (Falls Church city, VA.)
- Minor Civil Division: MC1703716483 (Cortland Township, DeKalb County, Illinois.)

Tribal government entity codes contain a unique 12-character alphanumeric identification code assigned by the Census Bureau that identifies the tribe and its associated geographic area. An example of a 12-character tribal identification code, TR0013TA0185, where TR0013 is the 6-character tribal code that represents the Utu Utu Gwaitu Paiute Tribe of the Benton Paiute Reservation and TA0185 is the 6-character tribal geographic area code that represents Bento Paiute Reservation, the geographic area associated with the Utu Utu Gwaitu Pauite Tribe.

All map related materials include in digital format on the participant CD/DVD have special codes that differ from the "EntityID." The abbreviation for the special map related coding is "<EntType><EntCode>." See **Table 2** for an explanation of this unique coding.

Table 2: Entity Types and Entity Codes on Map Materials

<EntType> is Entity Type	<EntCode> is Entity Code
C = County	County = SSCCC
M = Minor civil division (MCD)	MCD = SSCCCMMMMM
P = Incorporated Place	Place = SSPPPPP
R = American Indian Reservation (AIR)	AIR = RRRR
	Where, SS= State FIPS code; CCC = county FIPS code; MMMMM = MCD FIPS code; RRRR = AIR Census code.

B.   Defining the Qualifications of New Construction

To be eligible, federally recognized tribes, states, counties, cities (incorporated places), and townships (minor civil divisions) must have city-style residential addresses in blocks where the Census Bureau plans for self-enumeration during the 2020 Census. The New Construction Program does not accept non-city style addresses. The structure of the living quarters must have basic construction (windows, doors, roof that close the structure from the elements) completed by Census Day.

The Census Bureau will not accept structure types that do not meet the criteria explained above. Acceptable structure types include housing units, group quarters, including transitory locations. Unacceptable structure types include condemned or scheduled for demolition, any housing under renovation or remodeling for conversion to a non-residential purpose. See **Appendix H** for the definition of housing units and group quarters that includes a list of acceptable addresses within each of those structure types.

This program does not allow for changes to street features, legal, or statistical boundaries. The Census Bureau updates the legal or statistical boundaries through its annual Boundary and Annexation Survey (BAS), the Participant Statistical Areas Program (PSAP), and other geographic programs.

Unlike the Local Update of Census Addresses Operation (LUCA), the Census Bureau does not provide its address list as part of the New Construction Program. Participants are not required to sign confidentiality and security agreements that applied to LUCA. When participants submit address data for new housing to be included in the 2020 Census, the Census Bureau will protect the submitted data from subsequent disclosure under Title 13, U.S.C. Section 9, which provides for the confidential treatment of census-related information, including individual address and structure coordinates.

C.   Training and Technical Support

The Census Bureau plans to conduct training webinars to provide instruction on participating in the New Construction Program. The webinar schedule is available at <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>. For any technical support, please contact the Census Bureau by e-mail at: <GEO.2020.NC@census.gov> or by phone at (844) 242-1765.

D. Respondent Guide Organization

This respondent guide contains detailed instructions for participants that registered to receive their New Construction Program materials on CD/DVD. Participants that selected reference maps in portable document format® (.pdf) on CD/DVD refer to **Chapter 1** and skip **Chapter 2**. Participants that selected partnership shapefiles skip **Chapter 1** and refer to **Chapter 2**.

Participants that intend to use Geographic Update Partnership Software (GUPS) in conjunction with the partnership shapefiles must refer to the *2020 Census New Construction Program Geographic Update Partnership Software (GUPS) Respondent Guide* (e.g., NC_GUPS_Respondent_Guide.pdf) and the *2020 Census New Construction GUPS Quick Start Guide* (e.g., NC_GUPS_Respondent_Guide.pdf) for detailed instructions on using GUPS for the New Construction Program.

Note: In all the Action/Result tables throughout the respondent guide, the action is usually a command or action performed and the Result(s) of the action will be shown in italics. For example: double-click on the folder named "maps", a list of files appears. The window closes upon completion of the files extraction.

CHAPTER 1. THE REFERENCE PDF MAPS

The Census Bureau provides large format (i.e., 36" x 32") reference maps in PDF format exclusively to participants who selected to receive the "Reference PDF Maps on CD/DVD" during registration, as shown in **Figure 1**.

Figure 1: Registration Form with Reference PDF Maps on CD/DVD

Participants receive one Data Disc that contains the PDF maps in the "maps" folder. The root directory of the Data Disc contains other files necessary to complete the program. The maps differentiate between census blocks in which addresses are eligible for submission through the New Construction Program and those that are not.

IMPORTANT: Participants use the Reference PDF Maps as a reference for geocoding (i.e., locating the state, county, census tract, and census block codes) individual addresses into the proper location. The New Construction Program does not allow for updates to these materials.

Participants use the Address List Template .xls file included in the root directory to create their digital address file of new address records for submission to the Census Bureau. Included within the template are fields for the geocode information that participants locate on the Reference PDF Maps. **Chapter 3** includes instructions regarding the use of the template.
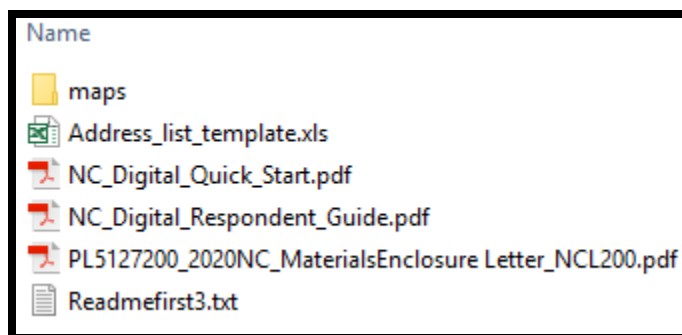

Figure 2: Example of Data Disc Contents for a Digital Participant with Reference PDF Maps

1.1 Getting Started

If a participant has not used the instructions from the *Digital Quick Start Guide* to setup their local computer for receipt of the New Construction Program materials, follow the steps below to copy and paste the New Construction Program materials into a folder or new directory created on a local computer.

1. Create a new folder (or new directory) on a local computer to copy the contents from the Data Disc DVD. Consider using "NC2020" or "NewConstruction".
2. Insert the Data Disc into the CD/DVD drive of the local computer with the newly created folder.
3. When the window opens that shows the Data Disc contents, as shown in **Figure 2**, select all of the materials and right-click the mouse to **Copy** the selected materials.
4. Navigate to the newly created folder and right-click to **Paste** the copied materials.
5. Ensure everything is in the new folder that was included on the Data Disc and then remove the Data Disc from the CD/DVD drive.

Note: Adobe Acrobat Reader® is required to view the Reference PDF Map file effectively. Other software that open PDF files may distort this product. If the local computer does not contain the software, download it free from the following URL: <https://acrobat.adobe.com/us/en/acrobat/pdf-reader.html>.

1.2 Viewing the Reference PDF Map File

Once the materials are successfully copied to the local computer, follow the instructions in this section to view the Reference PDF Map file. Remember, participants do not update these materials. They use them to obtain the geocodes necessary to add addresses.

From the local computer, double-click the "maps" folder shown in **Figure 2** to reveal a list of four files shown in **Figure 3**.
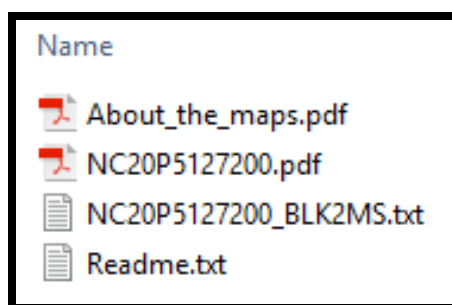
Figure 3: Example of the "maps" Folder Contents

The **About_the_maps.pdf** is a portable document file that contains tips for using the .pdf maps.

The **NC20P5127200.pdf** is the bundled .pdf file of the large format maps that participants use as reference to geocode their addresses. The bundled .pdf file uses the naming convention outlined in the Background section of the Introduction, e.g., NC20<EntType><EntCode>.pdf, where EntType is the entity type and EntCode is the entity identification code.

The **NC20P5127200_BLK2MS.txt** is a semicolon delimited text file that shows the relationship between census block and large format map sheet(s). It contains the list of all blocks within a given entity that are eligible for the New Construction Program and the large format map sheet(s) on which they fall. Open the file with a simple text editor such as WordPad® or import the file with a spreadsheet software such as Microsoft Excel®. When the file opens, it contains the block's GEOID, suffix (if applicable), and the map sheet information as displayed in **Figure 4**. In that example, census block 3008 is located on map sheet 2, while census block 3005B is on map sheet 1.

```
NC_ELIGIBLE_BLOCK;SHEETS
090076702003004;1
090076702003005B;1
090076702003006;1
090076702003007;1,2
090076702003008;2
090076702003009;1
090076702003046;1
090076702003069;1
090076702003077;1
```

Figure 4: Example of a Block to Map Sheet Relationship List Text File

The **Readme.txt** contains a statement regarding the use of Adobe Acrobat Reader or Acrobat Professional® to properly open and view the .pdf maps. Given that other software that open PDF files may distort the Reference PDF Map file, observe the recommendation in the **ReadMe.txt** and launch Adobe Acrobat Reader or Adobe Professional. Choose **File-Open** and navigate to the "maps" folder. Select the large format map bundle and click **Open**. For the example in **Figure 3**, the file is NC20P5127200.pdf.

If there is more than one large format map sheet in the bundled .pdf, participants must scroll through each sheet to see the entire extent of their entity. Adjust the zoom level within Adobe as necessary to view the census tract and census block numbers needed for geocoding addresses to include in the New Construction Program submission. Harvest the state and county geocode information from the margin of the map sheet(s) and the census tract and census block information from the individual map sheets. The next two sections explain the map elements and their use in geocoding.

1.2.1 Map Types

There are three types of large format maps; Index, Parent, and Inset. All map sheet types are identified along the lower right margin and within the barcode of the map. The lower right margin is also the place to locate the state and county FIPS codes necessary for geocoding.

Index map sheets cover the entire extent of the entity. They are divided into numbered grids that correspond to the parent sheets. They are provided to entities with more than one parent sheet and are for reference purposes only. Index map sheets are noted for summarizing the total number of sheets for the entity. See **Figure 5** for a visual that shows six total sheets (1 index, 4 parent, and 1 inset) for this particular example.
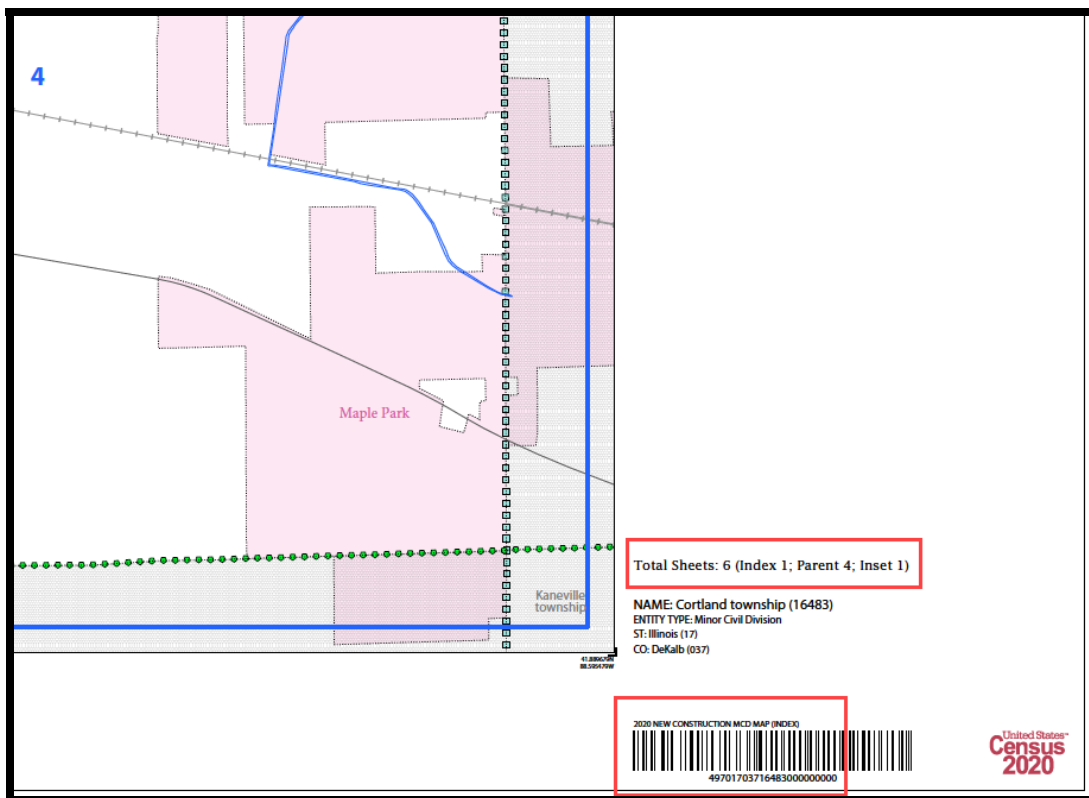
Figure 5: Example of an Index Map Sheet Margin

Parent map sheets provide a detailed view of a section of the entity. They correspond to the numbered grid on the index sheet. They show detail for features and geographic areas and are used to identify the census tracts and census blocks within an entity and can also be easily identified in the lower right margin. See **Figure 6** for a visual of the lower right margin of parent sheet 3 for this example. Also notice the key to adjacent sheets and sheet location graphics that provide an overview of the map layout for the entity. See **Figure 7** for a zoomed section of the same parent sheet that shows the presence of an inset sheet.
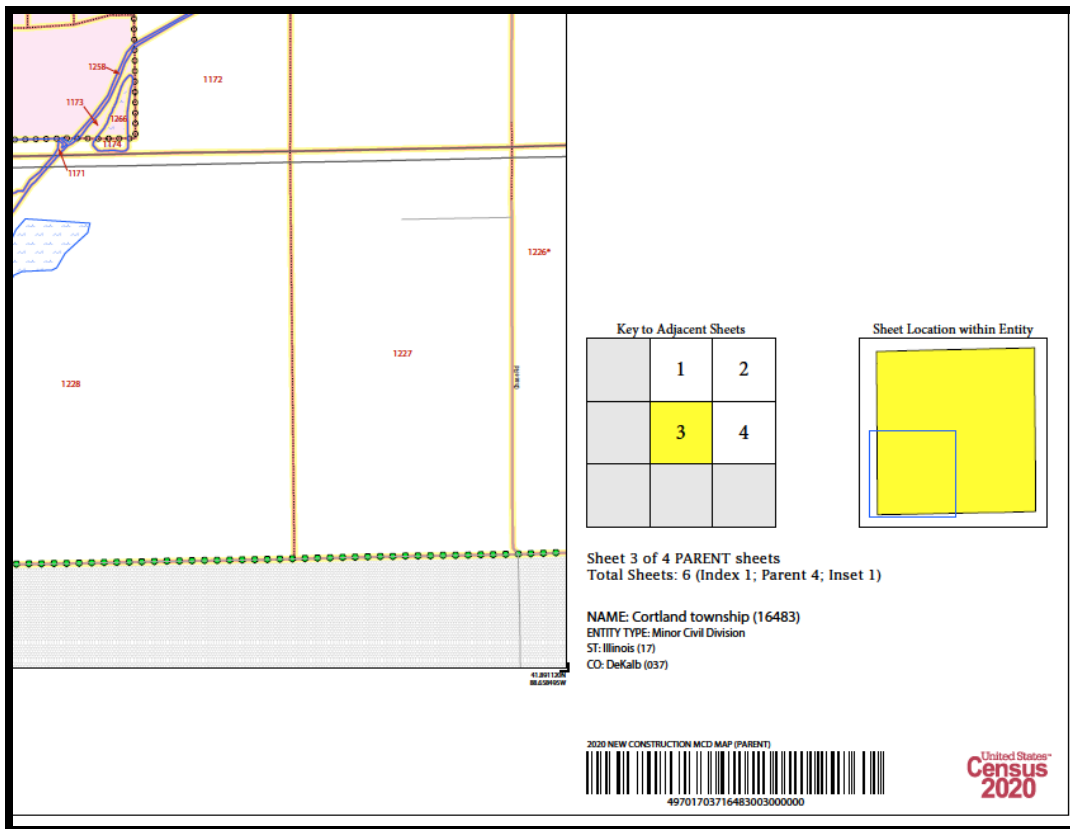
Figure 6: Example of a Parent Map Sheet Margin
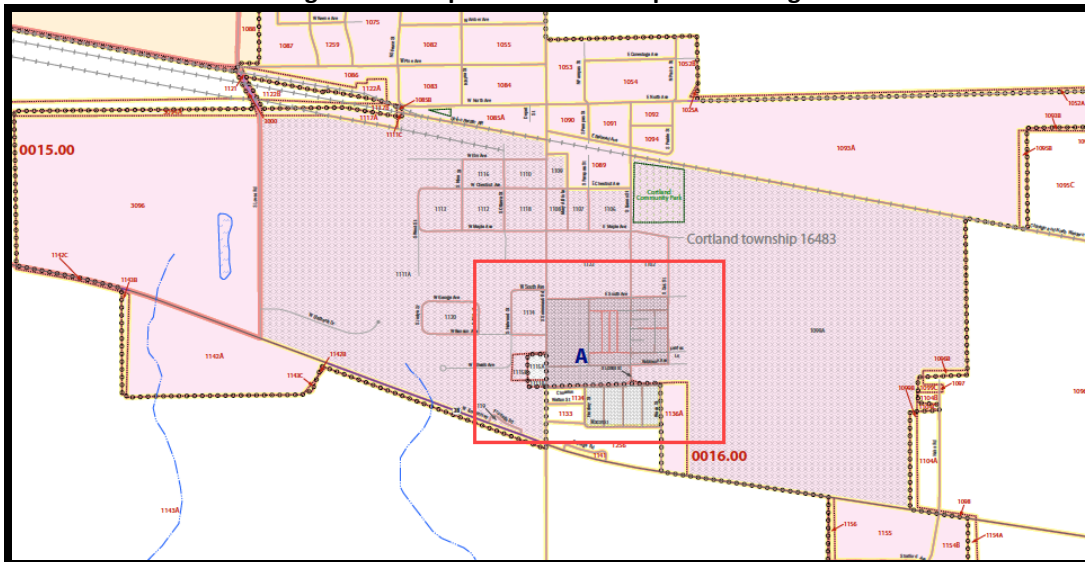
Figure 7: Example of a Parent Map Sheet with an Inset Map Denoted

Inset map sheets, if they exist for an entity, may not exist on every parent sheet. They show detail for congested areas on parent sheets and are highlighted on the parent sheet with a fill pattern. They are denoted by an alpha character (e.g, A) and may be multi-sheeted (e.g. A1, A2). They, like parent sheets, show detail for features and geographic areas and are used to identify census tracts and census blocks for a specific area within an entity. See **Figure 8** for a visual of the lower right margin of inset sheet A for this example.
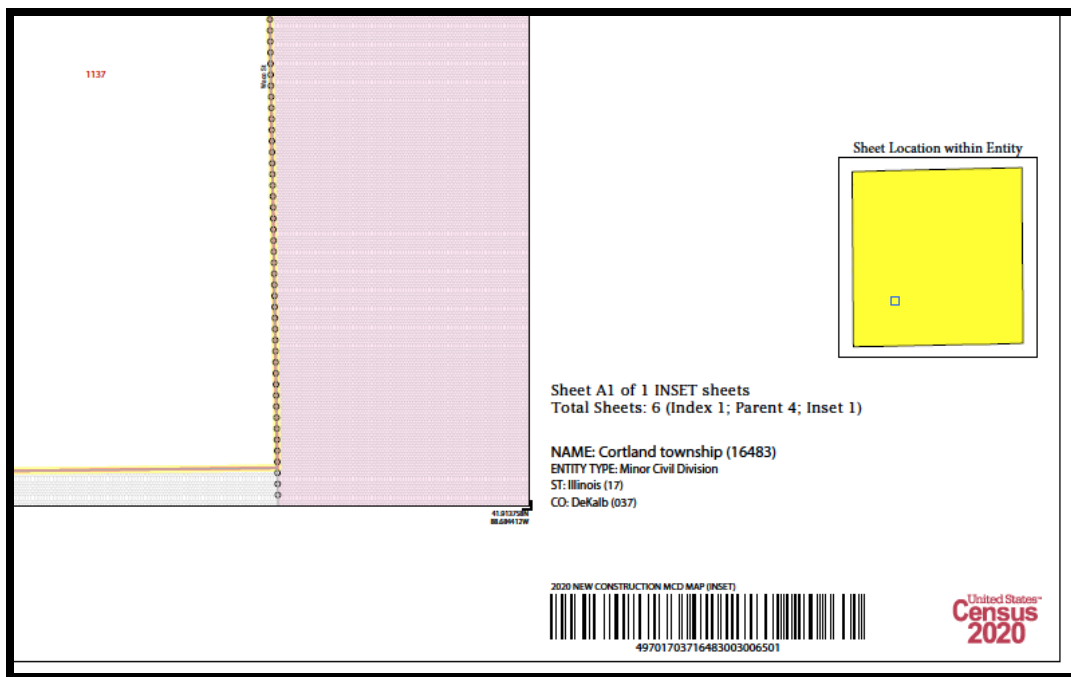
Figure 8: Example of an Inset Map Sheet Margin

The area of a entity dictates the type of maps generated for the New Construction Program. For example, participants with an entity that has a small land area may only receive a single, large format parent map sheet while those with large area may receive an index map, a series of parent maps, and a number of inset maps.

1.3   Understanding the Elements of a Reference PDF Map

The large format map contains the Data Frame and the Map Border. See **Figure 9** for an example of a large format map example.

The map border includes the map title, corner sheet coordinates, disclaimer information, data source information, projection information, number of total sheets, entity type information, key to adjacent areas (if there are multiple map sheets), a barcode, a scale, a north arrow, and the legend.

The title is located at the top of each map sheet within the map border. It provides the program name and product (e.g., 2020 Census New Construction Program (NC) Map) and entity information (e.g., Cortland Township, IL).

The legend includes some of the same information found on a typical road map, such as streets and roads, water features, and legal boundaries. However, the large format maps used for the New Construction Program display information with symbols unique to the Census Bureau. Refer to **Appendix A** for an example of the map legend.
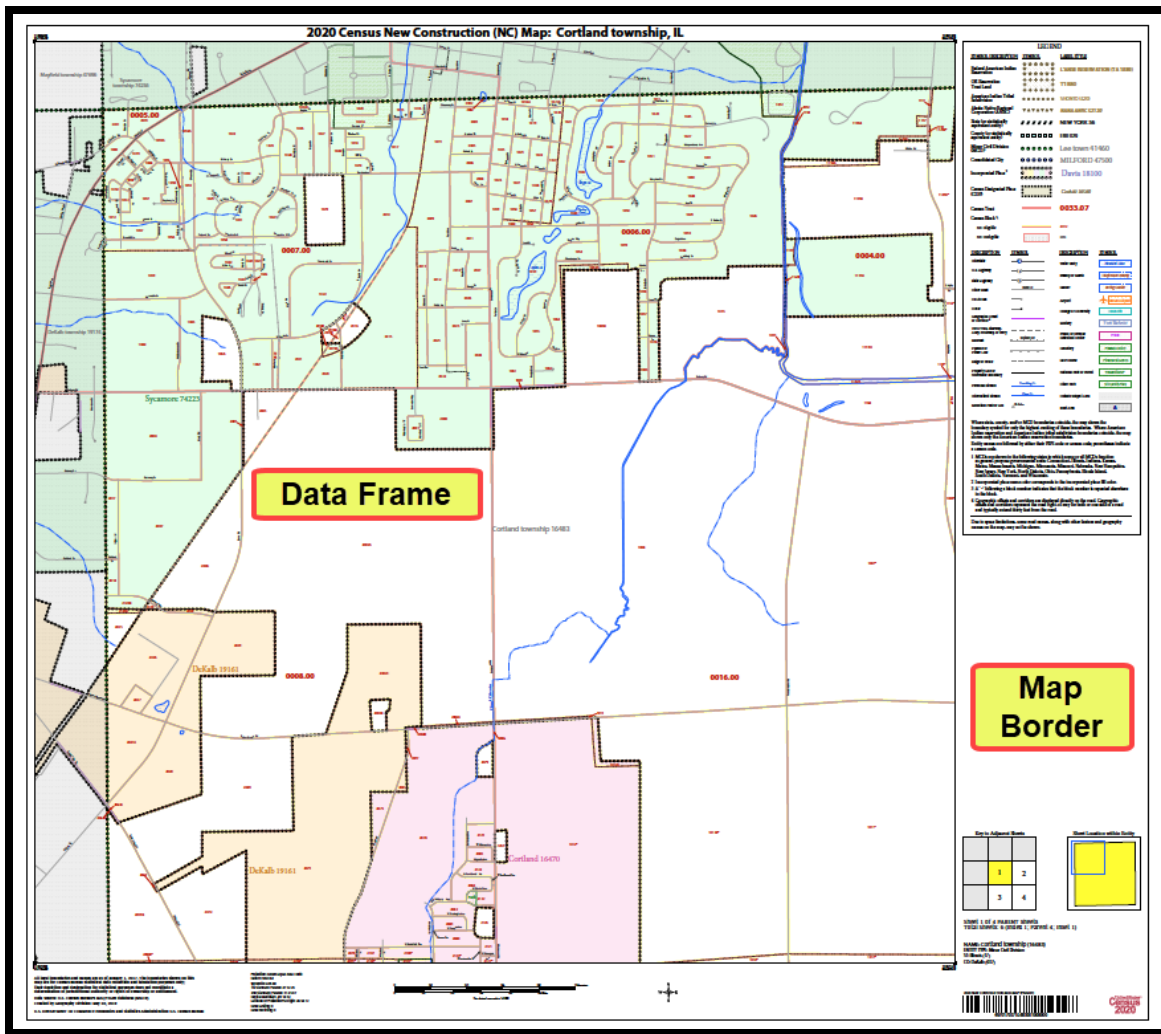
Figure 9: Example of a Parent Map Sheet for a Reference PDF Map

1.3.1 Understanding the Contents of the Data Frame

For the purpose of the New Construction Program, the Reference PDF Map(s) depict the census tract and the census blocks within the entity, their boundaries, and the numbers that identify them. Within the entity, there may be census blocks that are not eligible for the New Construction Program; those census blocks are shaded with a gray "X" pattern. Eligible census blocks use both yellow and pink colors as their boundaries as depicted in the example in **Figure 10** and are not "X'd" out.
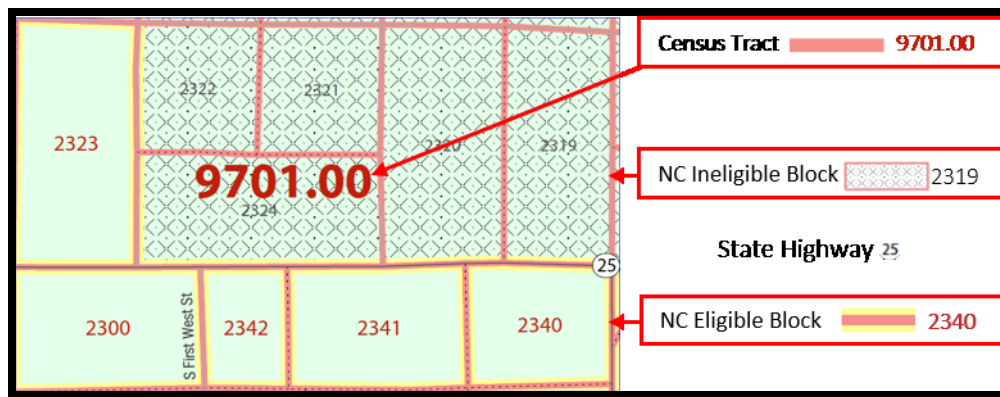
Figure 10: Example of a Reference PDF Map with Eligible and Ineligible Blocks

Some participants may have blocks with an alpha suffix such as the two displayed in **Figure 11**. Participants must include the suffix with the block code in the **CENSUS_BLOCK** field when completing the Address List Template.
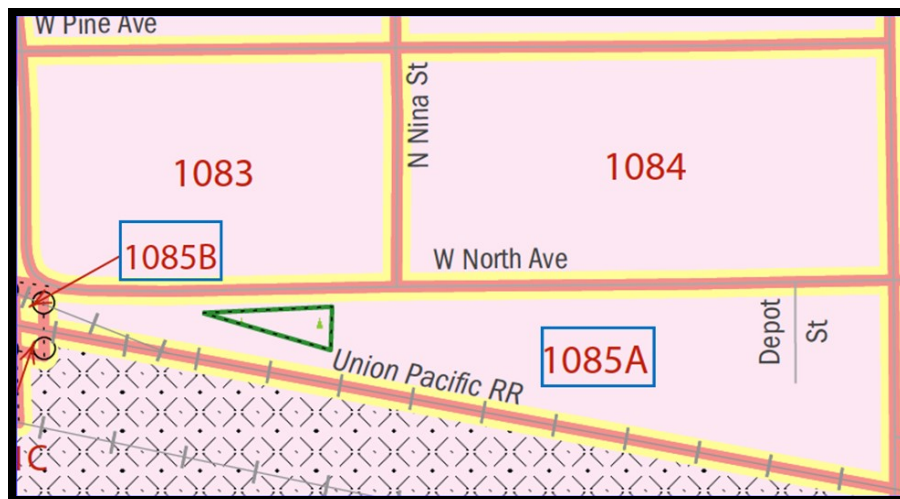
Figure 11: Example of Census Blocks with Alpha Suffixes

1.4   Geocoding Addresses Using the Reference PDF Maps

After using their own address source(s) to identify new addresses to add as part of the New Construction Program, participants must use the Reference PDF Maps in order to provide geographic information (known as geocodes) for each address they intend to submit. Participants include the geocode information on the Address List Template, or on their own spreadsheet that follows the content of the Address List Template, when providing addresses for the New Construction Program. Do not add a map spot or include the address locations on the Reference PDF Map(s) as the map materials are for reference purposes only.

The geocodes are numeric codes that uniquely identify all administrative/legal and statistical geographic areas for which the Census Bureau tabulated data. For the purpose of adding a new address record where the new address exists, the geocodes required are the State FIPS Code, the County FIPS Code, the complete census tract number (including leading or trailing zeros as well as the decimal between the fourth and fifth digits), and the complete census block number (including suffix).

For example, in **Figure 10** a new address for a housing unit falls on the east side of S First West St in block 2342. The location of the state and county FIPS information is found along the lower right section of the map border, as highlighted below in **Figure 12**. Following the example in Figure 10, the geocodes to enter into the Address List Template are as follows: 17 (state FIPS), 037 (county FIPS), 9701.00 (census tract number), and 2342 (census block number).

Figure 12: Example of State and County Geocodes within the Border of a Reference PDF Map

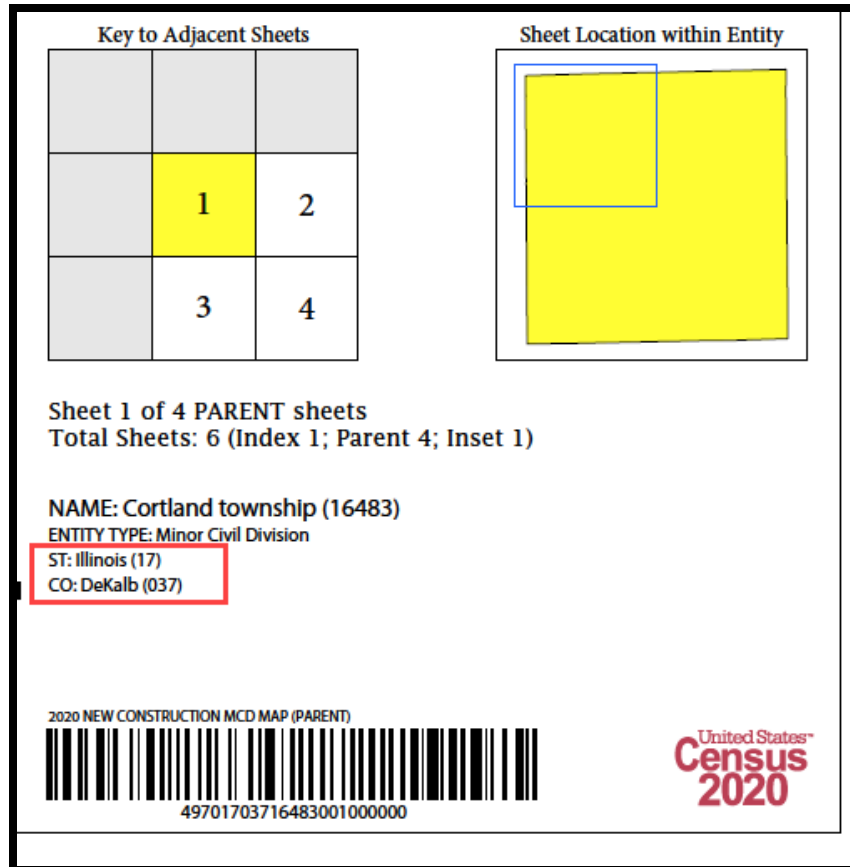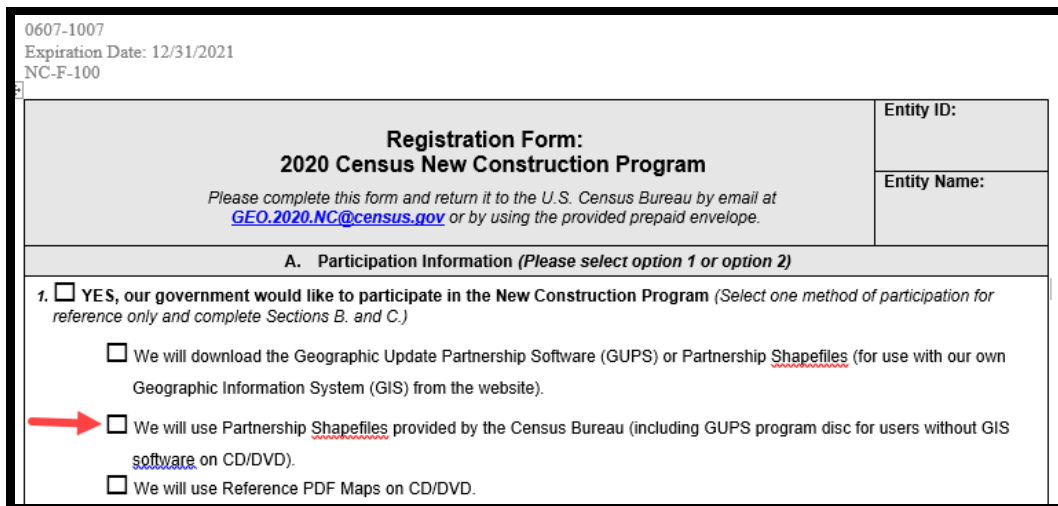Refer to **Chapter 3** for detailed instructions on how to use the Address List Template to add addresses for housing unit, group quarters, and transitory locations in the blocks eligible for the New Construction Program.

CHAPTER 2. THE PARTNERSHIP SHAPEFILES

The Census Bureau provides partnership shapefiles on CD/DVD exclusively to participants who requested to receive their materials digitally rather than by downloading them from the Census Bureau website during the registration process. See **Figure 13** for a visual of the registration form.

Figure 13: Registration Form with Partnership Shapefiles on CD/DVD

Partnership shapefiles are digital representations of geographic features, such as roads and boundaries used to create maps. A partnership shapefile stores non-topological geometry attribute information for the spatial feature in a dataset. For example, partnership shapefiles include state shapefiles, county shapefiles, American Indian Areas shapefiles, census block shapefiles, and edges shapefiles to assist in geocoding addresses for submission in the New Construction Program.

IMPORTANT: Participants use the partnership shapefiles as a reference for geocoding (i.e., locating the state, county, census tract, and census block codes) individual addresses into the proper location. The New Construction Program does not allow for updates to these materials.

The Census Bureau provides two discs to the participants who requested partnership shapefiles on CD/DVD. One of the discs is a Data Disc that contains the partnership shapefiles within a "shape" folder and the various other materials needed to participate in the program within the root folder. A sample of Data Disc structure is depicted in **Figure 14**. The second is the installation software disc for the Geographic Update Partnership Software (GUPS[1]).

Participants choose between using their own geographic information system (GIS) and GUPS to

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[1] If a participant intends to use GUPS, please use *the 2020 New Construction Program Geographic Update Partnership Software (GUPS) Respondent Guide* included on the root directory of the data disc or available for download from the New Construction Program website instead of this respondent guide.

prepare their New Construction Program submission. For digital participants, the GUPS installation software disc is provided in case someone using their own GIS wants to switch to GUPS. Participants must use the Census Bureau's tabblock partnership shapefile to geocode addresses for the New Construction Program.
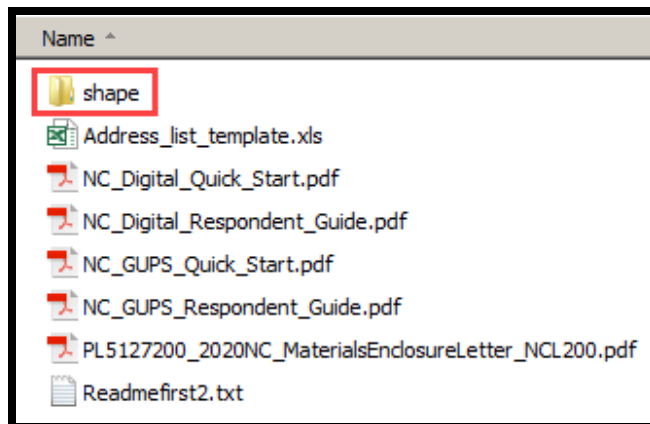
Figure 14: Example of Data Disc Contents for a Digital Participant with Partnership Shapefiles

2.1   Getting Started

If a participant has not used the instructions from the *Digital Quick Start Guide* to setup their local computer for receipt of the New Construction Program materials, follow the steps below to copy and paste the New Construction Program materials into a folder or new directory created on a local computer:

1. Create a new folder (or new directory) on a local computer to copy the contents from the Data Disc DVD. Consider using "NC2020" or "NewConstruction".
2. Insert the Data Disc into the CD/DVD drive of the local computer with the newly created folder.
3. When the window opens that shows the Data Disc contents, as shown in **Figure 14**, select all of the materials and right-click the mouse to **Copy** the selected materials.
4. Navigate to the newly created folder and right-click to **Paste** the copied materials.
5. Ensure everything is in the new folder that was included on the Data Disc and then remove the Data Disc from the CD/DVD drive.

2.2   Extracting the Partnership Shapefiles

Once the materials are successfully copied to the local computer, follow the instructions in this section to extract the partnership shapefiles. Remember, participants do not use these materials for update, just for viewing in order to obtain the current census geocode information necessary to add addresses.

From the local computer, double-click the "shape" folder shown in **Figure 14**. Within the "shape" folder, double-click on the file name **2020NC_<EntityID>.exe**. In this instance, since the example is for participant PL5127200, the .exe file name would be **2020NC_PL5127200.exe**.

A command prompt appears on screen to show the progress of the file extraction and closes automatically upon completion. Numerous files extract as part of this process. They extract within the "shape" folder into individual folders for the state and each county in which the

participant's entity is located. For example, if a place participant's entity spans three counties, as with Austin, Texas, look for a state folder (shown as the state FIPS number, e.g., Texas is 48) and three county folders (shown as the state FIPS and county FIPS number, Hays (48209), Travis (48453) and Williamson (48491) counties).

Once extracted, open the shapefiles with a GIS. Concentrate on the files needed for geocoding, specifically the tabblock partnership shapefile. Consult **Appendix B** for information regarding file names and file layout to assist with determining which shapefiles are most relevant to the New Construction Program.

2.3   Geocoding Addresses Using the Partnership Shapefiles

As discussed in **Section B**, not all census blocks are eligible for the New Construction Program. The tabblock shapefile contains an attribute field entitled NCELIGIBLE (i.e., New Construction eligible). New Construction eligible blocks include a "Y" in the NCELIGIBLE field. Only addresses located in census blocks where "NCELIGIBLE = 'Y' are accepted through the New Construction Program. The Census Bureau will reject any address submitted in a block where "NCELIGIBLE IS NULL". The Census Bureau recommends symbolizing the tabblock layer based on the NCELIGIBLE field within the local GIS in order to visualize the census blocks for which addresses may be submitted.

When submitting address updates, participants must provide the state code, county code, census tract, and census block numbers (geocode) OR structure coordinates (e.g., latitude and longitude) for each address record. Participants do not need to provide a state, county, tract, and block geocode if they provide the latitude and longitude coordinate information.

The geocode information is in the tabblock partnership shapefile. The geocode information, along with the block eligibility information, is highlighted in purple within **Table 3**. For the New Construction Program to derive the geocode, use the STATEFP, COUNTYFP, TRACTCE10, and the BLOCK fields. Using the BLOCK field ensures the presence of the block suffix if one exists.

To provide the latitude and longitude coordinate instead of the geocode, please be sure to include the coordinate information in decimal degrees with a minimum of six digits after the decimal. In addition, please ensure that these coordinates are based on the unprojected, GCS_NAD83 coordinate system.

Table 3: Census Tabulation Block Shapefile (PVS_19_v1_tabblock)

Attribute Field	Length	Type	Description
STATEFP	2	Char	Current FIPS State code. USE for New Construction Program.
COUNTYFP	3	Char	Current FIPS County code. USE for New Construction Program.
STATEFP10	2	Char	2010 FIPS State code.
COUNTYFP10	3	Char	2010 FIPS County code.

Attribute Field	Length	Type	Description
TRACTCE10	6	Char	Census Tract code. USE for New Construction Program.
BLOCKCE	4	Char	2010 Tabulation Block Number.
SUFFIX1CE	2	Char	Census Block Suffix 1 (first character).
SUFFIX2CE	2	Char	Census Block Suffix 2 (second character, if necessary).
NCELIGIBLE	1	Char	New Construction Eligible flag. USE for New Construction Program.
BLKSZIND	1	Char	Block Size Indicator.
BLOCK	4	Char	Current Tabulation Block Number (Concatenates BLOCK, SUFFIX1CE, and SUFFIX2CE). USE for New Construction Program.
PARTFLG	1	Char	Flag that indicates if only part of a feature is represented.
BLOCKID	15	Char	Concatenates the 2010 geocodes from STATEFP10, COUNTYFP10, TRACTCE10, and BLOCKCE. Do not use because it refers to the 2010 block geocode, which may differ from the current block geocode.

Participants may utilize other pertinent shapefiles that extracted during the setup process in order to overlay reference layers that may assist with geocoding. For instance, using the county boundary, place boundary, edges, and water shapefiles may be useful in providing a depiction of the specific entity. **Appendix B** provides information on the file names and layouts that is helpful in determining what shapefiles to potentially use. The Census Bureau is unable to prepare examples for each software possibility or file combination of use during the New Construction Program. Use local knowledge of the entity, of the local GIS, and of the local sources to choose the files that are most helpful to proceed with geocoding new addresses for submission in the proper format for the New Construction Program. To derive a geocode, a participant may generate structure points from their local address source in their GIS and then geocode the structure points to the tabblock layer. Alternatively, participants may choose to visually geocode to the tabblock layer.

IMPORTANT: Participants may utilize their own GIS layers to assist with their work, but must use the tabblock partnership shapefile for assigning the geocodes to address records as part of the New Construction Program.

Refer to **Chapter 3** for instructions on how to use the Address List Template to add addresses for housing unit, group quarters, and transitory locations for the New Construction Program.

CHAPTER 3. THE ADDRESS LIST TEMPLATE FILE

As discussed in the previous two chapters, participants use either the Reference PDF Maps or the Partnership Shapefiles to identify geocodes for each address record they want to include in their New Construction Program submission. Once an address geocode is determined, participants may use the *Address_list_template.xls* file to add their address records or they may use the template as a resource to identify equivalent fields within their existing address source and restructure it according to the Census Bureau requirements outlined in **Section 3.2** and detailed in **Table 4**. If participants wish to create a new file for use in the New Construction Program, and not use the provided template, it is vital they use **Table 4** as a guide for naming and defining the fields.

3.1   Opening and Saving the Address List Template File

The Address List Template is a blank Microsoft Excel .xls spreadsheet included on the Data Disc for use by all New Construction Program participants whether they requested Reference PDF Maps or Partnership Shapefiles during registration. The Census Bureau provides this header file as a reference for participants to ensure that qualifying residential, city-style addresses for housing units, group quarters, and transitory locations are submitted in the required format. The file contains a preset format to preserve all fields as Text. Refer to **Section 3.2** and **Table 4** for information on the fields, their descriptions and whether they are required as part of the New Construction Program submission.

In order to read the file contents, the New Construction Program liaison must open the file using Microsoft Excel or a similar processing application. Use the following steps to open and save the Address List Template .xls file:

- Open **Excel**.
- Click **File-Open**.
- Browse/Navigate to the folder containing the *Address_list_template.xls* and click the file to open it.
- Click **Save As** and name the file as follows: **nc20_<EntityID>_addresses_return.xls**. In order to preserve the preset format embedded within the .xls file, **do not save to a newer version of Excel**.
- Follow **Section 3.2.1** to add address records to the template.

3.2   Understanding the Address List Template File

The Census Bureau will only accept addresses submitted in the predefined format that include the required information. The instructions provided in the following sections will assist participants when creating their submission for the New Construction Program. Refer to **Figure 15** for an example of a blank Address List Template file showing the header row.

Figure 15: Example of an Address List Template with Header Row

The Address List Template contains a header row that identifies the names of the sixteen fields of information. Refer to the descriptions below and to the tabular form in **Table 4** to see the specific character length of each field, understand which fields are required, and which fields apply to certain types of records.

First field, **"LINE_NUMBER"** – Field to identify the record number within the Address List Template. Use sequential numbers when adding address records.

Second field, **"ENTITY_ID"** – Field to identify the unique ID assigned to an entity by the Census Bureau. This code is located on all the New Construction materials and its structure defined in **Table 1**. For example, Falls Church, VA is PL5127200.

Third field, **"STATE"** – Field to identify the two-digit FIPS state code for the specific record within the Address List Template. This field is used as part of the geocode if not providing latitude and longitude coordinates. For example, 51 is the FIPS state code for the state of Virginia. This field is usually identical in all records for a participant, with the exception of American Indian Areas whose entities span multiple states. This coding is located within the materials (Reference PDF Maps or Partnership Shapefiles) received for the New Construction Program.

Fourth field, **"COUNTY"** – Field to identify the three-digit FIPS county code for the specific record within the Address List Template. This field is used as part of the geocode if not providing latitude and longitude coordinate. For example, 087 is the FIPS county code for Henrico County, VA. It is very important to maintain the leading zeros if they exist for a value. This coding is located within the materials (Reference PDF Maps or Partnership Shapefiles) received for the New Construction Program.

Fifth field, **"CENSUS_TRACT"** – Field to identify the six-digit census tract code with a decimal between the fourth and fifth digit; contains a four-digit base number, including leading zeros, and two digits after the decimal, including trailing zeros. In short, ensure that all seven characters of this field are included in the Address List Template. Census tracts are unique within state and county. This field is used as part of the geocode if not providing latitude and longitude coordinate. Two examples include 1234.01 and 0003.00. This coding is located within the materials (Reference PDF Maps or Partnership Shapefiles received for the New Construction Program.

Sixth field, **"CENSUS_BLOCK"** – Field to identify the four-digit current census tabulation block number, and suffixes if present, for the specific record within the Address List Template. Maximum field length is six, with four digits and a potential of a two-character suffix. Census blocks are numbered uniquely within a census tract from 1000 to 9999. The first digit of the census block number identifies the block group. Suffixes are one or two letters depending on the number of times a block has split. Suffixes do not exist for all tabulation blocks. This field is used as part of the geocode if not providing latitude and longitude coordinate. This coding is located within the materials (Reference PDF Maps or Partnership Shapefiles) received for the New Construction Program.

Seventh field**, "GQ_TL_FLAG" (i.e., Group Quarters_Transitory Location Flag)** – Field to identify the record as a group quarters or transitory location. Add a "G" for addresses that are group quarters (e.g., nursing homes or dormitories) and a "T" for addresses that are transitory locations (e.g., camping sites). Include only the main GQ or TL address not the individual rooms or pad sites. Refer to **Appendix H** for definitions and examples of group quarters and transitory locations.

Eighth field, **"COMPLETE_ADDRESS_NUMBER"** – Field to identify the complete address number of a housing unit, group quarters, or transitory location, alone or with an address number prefix and/or address number suffix that identifies a location along a thoroughfare or within a community. Do not use any special character such as comma, period, etc.

Ninth field, **"COMPLETE_STREET_NAME"** – Field to identify the full street or road name that is the official name of thoroughfare as assigned by a governing authority, or a used and recognized alternate (alias) name. Do not use any special character such as comma, period, etc.

Tenth field, **"APTUNIT_NUMBER"** – Field to identify the apartment or unit number, if applicable, for the specific record within the Address List Template. This field may contain apartment unit numbers (e.g., Apt 101 or Unit 101A), location (e.g., rear, basement), or lot numbers (e.g., 1, 2, 3). Do not use any special character such as comma, period, etc.

Eleventh field, **"MAILING_ZIP_CODE"** – Field to identify the United States Post Office (USPS) city-style, mail delivery, five-digit ZIP Code. It is very important to maintain the leading zeros if they exist for a ZIP Code. Do not include an entry in this field if uncertain of the correct ZIP Code. It is better to omit than provide inaccurate ZIP Code.

Twelfth field, **"GQ_TL_NAME"** – Field to identify the name of a group quarters such as Bayside Nursing Home or Dobbs Hall, and/or a transitory location such as Motel 13 or Dolce Vita Campground. Do not use any special character such as comma, period, etc.

Thirteenth field, **"FACILITY_NAME"** – Field to identify the facility name of the group quarters record if it is part of a facility. For example, include the name of a facility name such as University of Illinois for Dobbs Hall dormitory. Do not use any special character such as comma, period, etc.

Fourteenth field, **"LOCATION_DESCRIPTION"** – Field to include a brief physical location description of living quarters. This field may be useful for hidden living quarters to assist where an address is not clearly identified, is confusing, or is shared with another structure. For example, if due to an unexpected circumstance a homeless tent is setup behind a local hardware store, enter the required city-style address (i.e., that of the hardware store), but also include the location description to assist with locating the tent rather than the commercial address provided (i.e., temporary homeless tent behind hardware store) Do not use any special character such as comma, period, etc.

Fifteenth field, **"LATITUDE"** – Field to include the latitude coordinate for the address record. Must be in GCS NAD83 and in decimal degrees with six digits after the decimal to achieve optimal accuracy. Refer to **Appendix C** for information on GCS NAD83.

Sixteenth field, **"LONGITUDE"** – Field to include the longitude coordinate for the address record. Must be in GCS NAD83 and in decimal degrees with six digits after the decimal to achieve optimal accuracy. Must also include the negative sign to place the coordinate in the proper hemisphere. Refer to **Appendix C** for information on GCS NAD83.

Table 4: Address List Template Fields, Descriptions, and Valid Entries

Field Number	Max Character Length	Field Name	Field Description	Required (Yes or No or Recommended)
1	7	LINE_NUMBER	Sequential number for each address record in a file.	Recommended.
2	12	ENTITY_ID	Unique identification number assigned by the Census Bureau to each entity.	Yes.
3	2	STATE	Two-digit FIPS state code.	Yes, if not providing latitude and longitude information.
4	3	COUNTY	Three-digit FIPS county code.	Yes, if not providing latitude and longitude information.
5	7	CENSUS_TRACT	Six-digit current census tract number, with a decimal point between the fourth and fifth digit, consisting of a 4-digit base number, including leading zeros, plus 2-digit number suffix, with trailing zeros. For example, 1234.01 and 0003.00.	Yes, if not providing latitude and longitude information.

Field Number	Max Character Length	Field Name	Field Description	Required (Yes or No or Recommended)
6	6	CENSUS_BLOCK	Current census tabulation block number, consisting of 4 numbers followed by up to 2 alpha characters that represent block suffixing. Though uncommon, the template accounts for the potential of six digits. Ex. 1001, 1001D, 1001AA	Yes, if not providing latitude and longitude information.
7	1	GQ_TL_FLAG	Field to denote the address record as either a group quarters or transitory location. Enter 'G' for group quarters or a 'T' for transitory location.	Yes, if adding a group quarters or transitory location address.
8	35	COMPLETE_ADDRESS_NUMBER	Housing unit or group quarters assigned address number, alone or with an address number prefix and/or address number suffix that identifies a location along a thoroughfare or within a community. For 123 Main St, the "123" is the complete address number.	Yes.

Field Number	Max Character Length	Field Name	Field Description	Required (Yes or No or Recommended)
9	100	COMPLETE_STREET_NAME	Full street or road name. The official name of a thoroughfare as assigned by a governing authority or used and recognized alternate (alias) name. For 123 Main St, "Main St" is the complete street name. For 456 W Apple St N, "W Apple St N" is the complete street name.	Yes.
10	65	APTUNIT_NUMBER	Combination of Within Structure Descriptor and Identifier, e.g., "Apt 1", "Ste 22", "Unit A", "Bldg 2 Unit 10", etc. Populate with a value other than one already used for the address.	Yes, if the address is a duplicate (same State/County/Tract/Block, House #, Street Name, ZIP or Lat/Long, House #, Street Name, ZIP).
11	5	MAILING_ZIP_CODE	The USPS city-style mailing ZIP Code for the address.	Recommended if known. Omit if uncertain. If included it must be five-digit numeric characters only. Cannot be "00000", "11111", "33333", "66666", "77777", "88888", or "99999".
12	100	GQ_TL_NAME	Name of group quarters (e.g., Dobbs Hall or Bayside Nursing Home) or transitory location (e.g., Royal RV Park or Seabird Marina).	Yes, if adding a group quarters or transitory location. Cannot be "null" if there is a value in "GQ_TL_FLAG" or "FACILITY NAME" field. Cannot contain a comma (e.g.",").
13	100	FACILITY_NAME	Name of group quarters facility. Usually a broader name than the GQ name (e.g., University of Illinois).	No, but recommended if group quarters addresses being added are associated with a facility (e.g., The University of Illinois for dorms on its campus).

Field Number	Max Character Length	Field Name	Field Description	Required (Yes or No or Recommended)
14	100	LOCATION_DESCRIPTION	A short written description of the location and physical characteristics of living quarters (e.g., tent city behind hardware store) that may assist the Census Bureau with locating the living quarters.	No.
15	11	LATITUDE	Latitude coordinate of address in decimal degrees with minimum of 6 digits following the decimal.	Yes, if not providing the state, county, census tract, and census block geocode. Cannot contain special characters, except the decimal (e.g. ".").
16	12	LONGITUDE	Longitude coordinate of address in decimal degrees with minimum of 6 digits following the decimal.	Yes, if not providing the state, county, census tract, and census block geocode. Cannot contain special characters, except the decimal (e.g. ".") and the negative sign (e.g. "-") for this hemisphere.

3.2.1 Adding Address Records to the Address List Template File

The Census Bureau will not accept addresses in the incorrect format or with inadequate information. All fields of information, whether it be in the Address List Template or in a participant's own address material, must be in text format. This is critical for the fields that may include numbers, leading and trailing zeros (e.g, **CENSUS_TRACT**, **MAILING_ZIP_CODE**, **LATITUDE**, **LONGITUDE**) to ensure no information within those fields is lost. Before adding address records for the New Construction Program, please become well versed with the information outlined in **Section 3.2** and **Table 4** to determine the fields that are required or not for use with housing unit, group quarters, and transitory locations.

IMPORTANT: Participants may enter the latitude and longitude coordinate information in addition to OR in lieu of the **STATE**, **COUNTY**, **CENSUS_TRACT**, and **CENSUS_BLOCK** geocode information.

Participants may **Copy** and **Paste** information from an existing address source or export information from their GIS to create their own template that follows the field layout and instructions for the Address List Template as outlined in this chapter.

To manually add a new residential, city-style address to the Address List Template file, follow the steps below in **Table 5**:

Table 5: Adding Records to the Address List Template File

Step	Action and *Result*
Step 1	Navigate to the folder location of the Address List Template file, **nc20_<EntityID>_addresses_return.xls**, from **Section 3.1**.
🟥ⓘ	Please remember to keep the fields in the given format (Text) to ensure that leading and trailing zeros are not lost in the process of keying or copying information. Participants must not include special characters such as commas or periods when annotating information about their addresses.
Step 2	Update the **LINE_NUMBER** to create a new record by inserting a new row for each address to add. Use sequential order as adding new address records *such as 1, 2, and 3.*
Step 3	Enter the participant's entity ID code in the **ENTITY_ID** field, f*or instance PL5127200.* The Entity ID is located on all New Construction Program materials (letters, emails, DVD, Reference PDF Maps).
Step 4	Enter the two-digit FIPS state code in the **STATE** field, f*or instance 51 for Virginia.* The FIPS state code information is located within the map or shapefile materials.
Step 5	Enter the three-digit FIPS county code in the **COUNTY** field, f*or instance 610 for Falls Church.* The FIPS county code information is located within the map or shapefile materials. Participants with an entity that crosses county boundaries must pay close attention to this coding. Incorrect FIPS county codes invalidate geocoding.
Step 6	Enter the six-digit census tract code in the **CENSUS_TRACT** field. Census tracts consist of a six-digit code, with a decimal between the fourth and fifth digit, containing a four-digit base number, including leading zeros, plus a two-digit number suffix, including trailing zeros. Census tract codes are located within the map or shapefile materials. When keying the census tract information, ensure that the leading zeros and suffixes annotate as text format to avoid address invalidation
Step 7	Enter the four-digit census block code in the **CENSUS_BLOCK** field and any suffix information if applicable. Census block codes are located within the map or shapefile materials.
🟥ⓘ	Some census blocks include an alpha suffix (e.g., 1085A). If a suffix exists, include it with the census block code in the **CENSUS_BLOCK** field.
Step 8	If the address record is a housing unit, leave the **GQ_TL_FLAG** field blank. If the address record is a group quarters or transitory location, enter '**G**' for a group quarter or '**T**' for a transitory location in **GQ_TL_FLAG** field.
🟥ⓘ	Refer to the Glossary in **Appendix H** for a complete list of definitions and examples for housing unit, group quarters, and transitory locations.
Step 9	Enter the complete city-style address number in the **COMPLETE_ADDRESS_NUMBER** field.
Step 10	Enter the entire street name in the **COMPLETE_STREET_NAME** field, for instance *N Apple St or Cherry St W*.
Step 11	If the address is a multi-unit record, enter the within unit number in the **APTUNIT_NUMBER** field. Participants adding multi-unit addresses must provide unit identifiers (e.g., Apt 1, Apt 2, Unit A, Unit B) to make the records unique. The Census Bureau is not collecting addresses for individual rooms inside a GQ/TL, so this field is unnecessary for GQ/TL records.

Step	Action and *Result*
Step 12	Enter the city-style **MAILING_ZIP_CODE**, if known. This field is optional for all three type of living quarters. Leave it blank if uncertainty surrounds the information.
Step 13	If the address record is a housing unit. Leave the **GQ_TL_NAME** field blank. If the address record is a group quarter or a transitory location, enter the Group Quarters or Transitory Location Name in the **GQ_TL_NAME** field. This information is required for all GQ or TL records. The Census Bureau will not process a group quarters address record without a group quarters name or a transitory location address record without a transitory location name.
Step 14	Enter the facility name in the **FACILITY_NAME** field, if applicable. Facility names are most common with group quarters (e.g. group quarters name—Pandora Hall; Facility Name—UVA).
Step 15	Enter a well-defined description in the **LOCATION_DESCRIPTION** field (up to 100 characters, do not use commas) if providing a description helps locate the address or clear any confusion that may exist regarding the address (e.g., homeless tent city behind the hardware store). This information is not required since the New Construction Program handles only residential, city-style address records; however, the location description may be useful in certain city-style address situations where locating the address may be difficult.
Step 16	If known or preferred over including the geocode information, enter the structure latitude coordinate in the **LATITUDE** field. Latitude and longitude coordinates must be in GCS NAD83 and in decimal degrees. Include the decimal and maintain the field as Text to preserve all the digits of the coordinate. Include a minimum of 6-digits after the decimal for optimal accuracy.
Step 17	If known or preferred over including the geocode information, enter the structure longitude coordinate in the **LONGITUDE** field. Latitude and longitude coordinates must be in GCS NAD83 and in decimal degrees. Be certain to include the negative sign for the northern hemisphere and include the decimal. Maintain the field as Text to preserve all the digits of the coordinate. Include a minimum of 6-digits after the decimal for optimal accuracy.
Step 18	Upon completion of adding all the new address records, save the file as a comma delimited value .csv file. Retain the same naming convention as the .xls file, but change the file format. See **Figure 16** for an example of an Address List Template filled with fictitious address information. It contains a mixture of geocodes as well as latitude and longitude coordinates. No Title 13 address information is included in the example.
[i]	**Important note for participants using their GIS**: Participants who plan to export their own address shapefile to an .xls must also take the extra step to save the .xls as a .csv. The file must maintain all of the fields as Text to ensure the preservation of leading and trailing zeros that may exist in the data as well as the 6-digit decimal accuracy for the latitude and longitude coordinates.
Step 19	Upon completion of all added records, refer to **Section 3.3** for the instructions on preparing the file for submission**.**

Figure 16: Example of an Address List Template with Fictitious Address Information (No Title 13 U.S.C. Information)

LINE_NUMBER	ENTITY_ID	STATE	COUNTY	CENSUS_TRACT	CENSUS_BLOCK	GQ_TL_FLAG	COMPLETE_ADDRESS_NUMBER	COMPLETE_STREET_NAME	APTUNIT_NUMBER	MAILING_ZIP_CODE	GQ_TL_NAME	FACILITY_NAME	LOCATION_DESCRIPTION	LATITUDE	LONGITUDE
1	PL5127200					G	2252	Achilles Dr			Pandora Hall Bldg 1	UVA		38.123456	-77.987654
2	PL5127200					G	227	Achilles Dr			Pandora Hall Bldg 2	UVA		38.123456	-77.987654
3	PL5127200					G	229	Achilles Dr			Pandora Hall Bldg 3	UVA		38.123456	-77.987654
4	PL5127200					T	211	Jeffras Dr			Summer County RV Park			38.886879	-77.182144
5	PL5127200	51	610	4514.00	1000		691	N First St	Apt 3	31409				38.886456	-77.113456
6	PL5127200	51	610	4514.00	1000		691	N First St	Apt 4	31409				38.886456	-77.113456
7	PL5127200	51	610	4514.00	1000		691	N First St	Apt 5	31409				38.886456	-77.113456
8	PL5127200	51	610	4514.00	1000		700	N First St		31409					
9	PL5127200	51	610	4513.01	1000		101	Main St		31409			Homeless tent behind hardware store		

3.3 Preparing a File for Submission

After completing the process of adding new addresses, conduct a quality assessment or check of the .csv file, whether it be the Census provided Address List Template, a locally generated template, or an export from a GIS. Some items to check include the following:

- Ensure the addresses included in the file are within tabulation blocks that are eligible for the New Construction Program (check the specific map symbology on the Reference PDF Maps or check the tabblock partnership shapefile for "NCELIGIBLE=Y").
- Ensure the file contains qualifying residential city-style addresses for your entity; (i.e., those for which construction is in progress during or after March 1, 2018 and completion is expected by Census Day, April 1, 2020).
- Ensure all of the required fields, as outlined in **Table 4**, contain accurate information. Pay close attention for the presence of the geocode information and/or latitude and longitude coordinates, or both.
- Ensure all fields are Text to preserve the content of the data (i.e., leading and trailing zeros and 6-digit decimal accuracy).

Once satisfied with the content and quality of the content in the .csv file, zip the file and name it with the following naming convention: **nc20_<EntityID>_addresses_return.zip**. The file does not need password protection. For participants unfamiliar with preparing a .zip file, refer to **Appendix G** for instructions on how to create a .zip file. Refer the next chapter for instructions on using the Secure Web Incoming Module (SWIM) for uploading the New Construction Program submission. SWIM is the official web portal used for uploading files for the various Census Bureau partnership programs.

CHAPTER 4. USING THE SECURE WEB INCOMING MODULE (SWIM) FOR THE NEW CONSTRUCTION PROGRAM

New Construction Program participants must utilize the Census Bureau's Secure Web Incoming Module, or SWIM, to submit their zipped address file submission for processing. Use the steps outlined in this chapter to establish or access an account and to submit the zipped address file generated in the previous section.

Some liaisons may have established a SWIM account for other Census geography programs. If so, the Census Bureau sent an email to the liaison's email on-file for the established account indicating there is no need to establish a new SWIM account for use in the New Construction Program.

For liaisons without an existing SWIM account, the Census Bureau emailed one SWIM registration token in a separate message from the New Construction Program materials and cover letter. Liaisons without a SWIM account must utilize the 12-digit registration token to establish an account.

If questions remain regarding the existence of a SWIM account, click "**Forgot your password?**" on the main SWIM page and enter the email address to check for account existence. If SWIM does not locate an account associated with the email address, it returns the following message, "*No account registered for this email. The email address associated with the account is case sensitive. Try again with the proper case or go to Account Registration to register for a SWIM account.*" Choosing the Account Registration link in the message opens another window to establish a SWIM account.

Note:	The components of the email and password of SWIM system accounts are case-sensitive. Make note of the case-sensitive format used when establishing the SWIM account (e.g., jane@anytown.org or Jane@anytown.org or JANE@ANYTOWN.ORG). The Census Bureau recommends the use of lowercase characters and recommends safe retention of this information in a secure location for future reference.

SWIM allows four attempts to login before it temporarily locks the account for 15 minutes. After the 15-minute lock expires, participants may try to login again or reset their password using the "Forgot your password?" link on the login page. Once selected, follow the prompts to enter the case-sensitive email address and provide the security answer. If the security answer is correct, the SWIM system sends a password reset link to the email account for use in resetting the password. Please note the security answer is not case-sensitive. Once logged into SWIM, participants can modify their password and security answer by selecting the 'Change Security' link at the top, right-hand side of the page.

Participants continuing to experience login issues should confirm use of the current internet browser version (or one previous version). SWIM runs on the two most recent versions of each

of the major internet browsers: Internet Explorer, Google Chrome, Mozilla Firefox, and Apple Safari. If the browser version is older, upgrade to a newer version. If problems with SWIM still occur, contact the New Construction Program Help Desk at (844) 242-1765 for assistance. An additional SWIM token may be necessary to create another account.
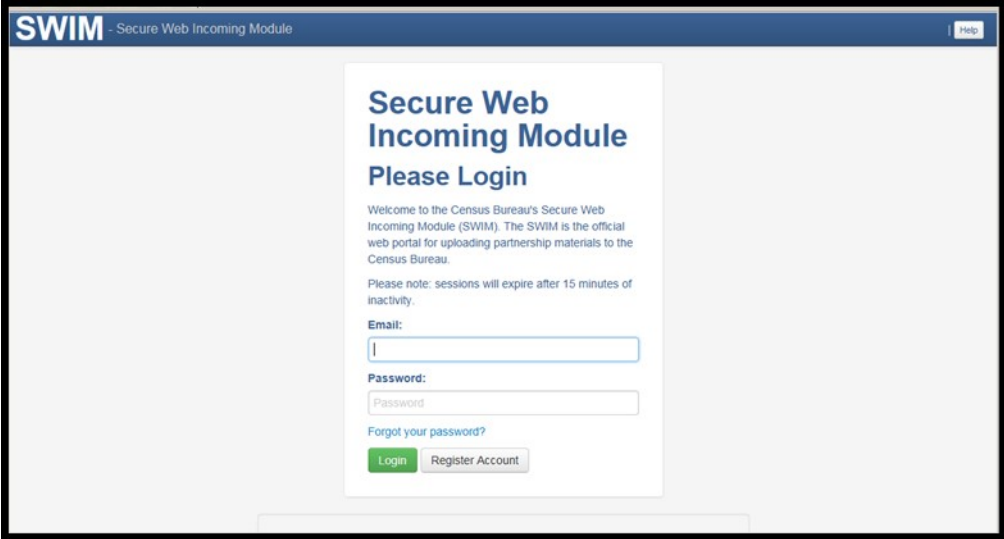
IMPORTANT:	Do not use email to send the New Construction Program's submission to the Census Bureau. Work with the Census Bureau to resolve SWIM issues.
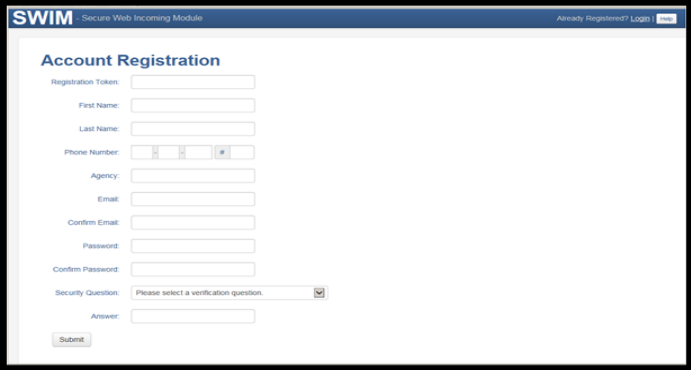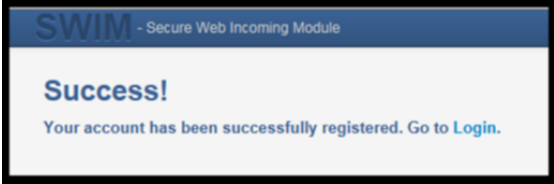
The following list contains the file requirements for using SWIM:
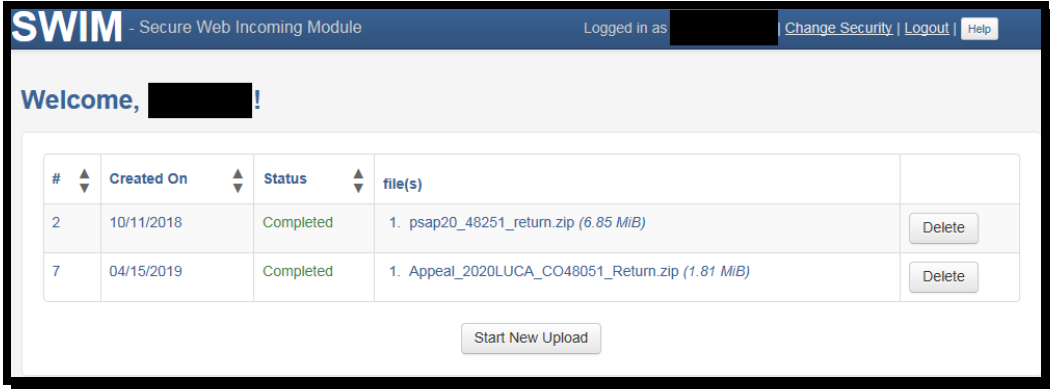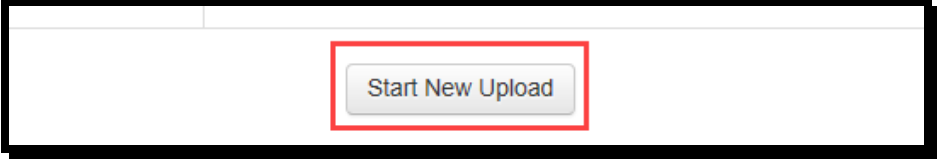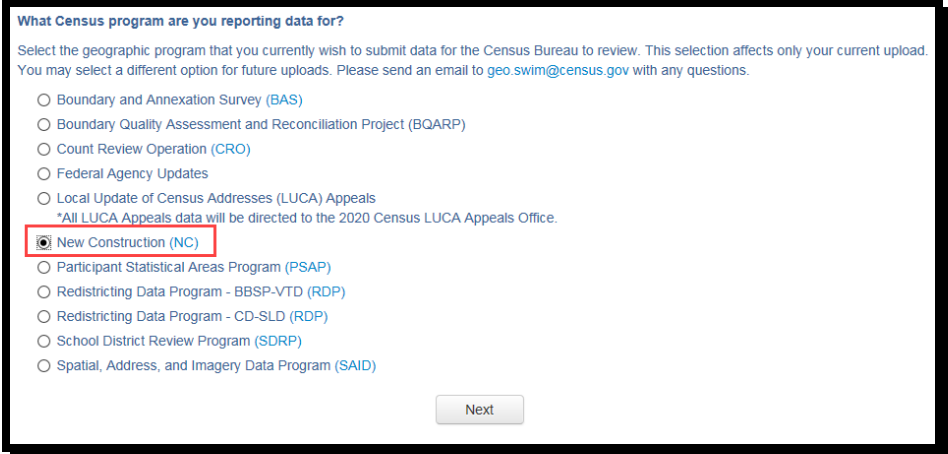
- File to upload must be .zip file format.
- The .zip file may not include another .zip file as a component.
- The .zip file must not be larger than 250 megabytes in size.

Refer to **Table 6** for instructions on utilizing the SWIM application to submit the New Construction Program address .zip file.

Table 6: SWIM Submission

Step	Action and *Result*
Step 1	Open a new browser window and enter the SWIM URL <https://respond.census.gov/swim>. *The **SWIM Please Login** screen opens*.
Step 2	For participants with an existing SWIM account, enter the email address and password and then click the Login button. *The **Welcome** screen opens*. Go to **Step 8**.

Step	Action and *Result*
Step 3	For participants without a SWIM account, have the 12-digit registration token provided by the Census Bureau ready for account registration. Choose the **Register Account** button after accessing the SWIM URL. *The* **Account Registration** *screen opens*.
	All fields on the **Account Registration** screen are required.
Step 4	Enter the registration token, name, phone number, agency or organization, email address in the appropriate fields.
Step 5	Create a password using the following criteria: 1. Must be at least 8-characters in length. 2. Must have at least one uppercase character. 3. Must have at least one lowercase character. 4. Must have at least one number. 5. Must have at least one special character. Valid choices are as follows: #, !, $, *, &,?, and ~. **Note**: The commas shown in the previous list are for spacing purposes only. The comma is not a valid special character for use in the password.
Step 6	Establish a security question. Click the arrow to the right of the **Security Question** field and select a question from the drop-down menu. Enter an answer in the **Answer** field. Click the **Submit** button when finished. *A* **Success** *screen opens to confirm the successful creation of a SWIM account.*

Step	Action and *Result*
Step 7	On the **Success** screen, select **Login** to return to the **SWIM Please Login** screen (shown in Step 1) to proceed with the login process.
Step 8	Enter the email and password information and click the green **Login** button to login to SWIM. *The Welcome screen opens*. If the account has uploaded other files for different geography programs administered by the Census Bureau, *a list of files previously uploaded by the SWIM user displays, as shown in the example below*. The list includes the creation date of the file upload, the name of the file, and the corresponding size of the .zip file.
Step 9	To begin a new upload, click the **Start New Upload** button at the bottom of the screen. The *"**What Census program are you reporting data for?**" screen opens*. Choose the **New Construction Program** radio button and click the **Next** button.

Step	Action and *Result*
Step 10	*The "**What type of NC entity are you reporting for?**" screen opens*. Participants must select the level of geography that matches the type of entity they represent. County participants (e.g., CO48001) choose the County choice. Minor Civil Division (MCD) participants (e.g., MC2500119295) choose MCD. Incorporated Place participants (e.g., PL5127200) choose Place, as shown in the screenshot below. If questions arise about the proper entity choice, contact the New Construction Program Help Desk at (844) 242-1765 for assistance. **What type of NC entity are you reporting for?** ○ State ◉ Place ○ County ○ Minor Civil Division (MCD) ○ Tribal Area ○ Consolidated City Previous Next Click the radio button for the entity type (e.g., **Place** for this example) to upload. *The choice of Place opens the **Select a State and Place** screen*. Complete the two sections and click the **Next** button. **Select a State and Place** State: Select Place: Previous Next
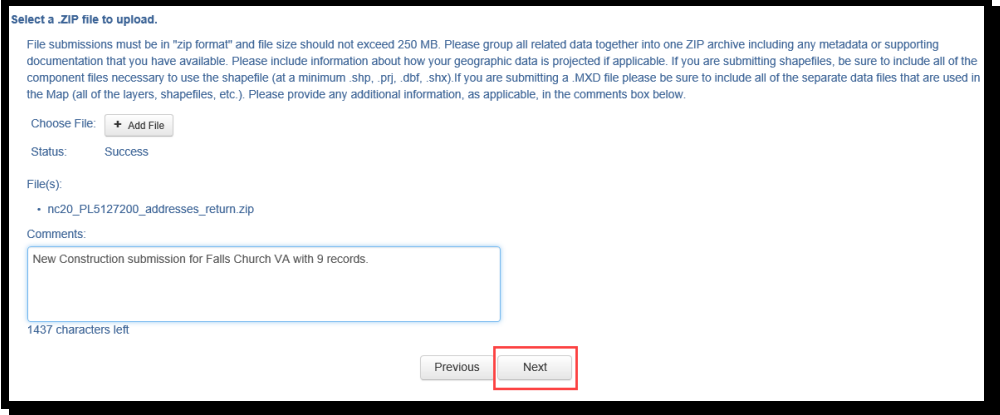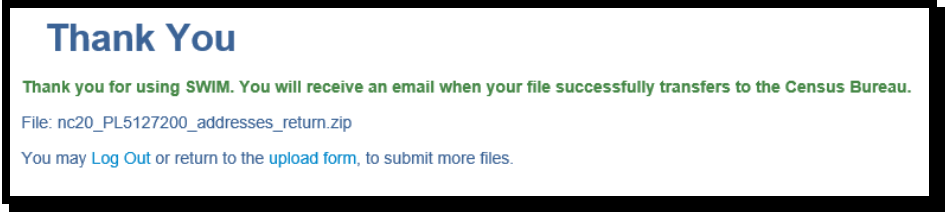
Step	Action and *Result*
Step 11	Following the selection of the entity type to upload, *the **Select a .ZIP file to upload** screen opens*. Click the **+Add File** button to *launch the **Choose File to Upload** window and navigate to the folder where the .zip file resides*. This is likely "C:\NC2020 or C:\NewConstruction".

 |

Step	Action and *Result*
Step 12	Once the file upload completes, *the **Status** field shows "**Success**." The name of the file appears in the **File(s)** field*. Participants can add comments to the **Comment** section if they choose. Click the **Next** button to proceed with the upload. **Select a .ZIP file to upload.** File submissions must be in "zip format" and file size should not exceed 250 MB. 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, .shx).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: Success File(s): • nc20_PL5127200_addresses_return.zip Comments: New Construction submission for Falls Church VA with 9 records. 1437 characters left Previous Next
Step 13	*The **Thank You** screen appears*. It thanks the participant and indicates a forthcoming email once the transfer completes. **Thank You** Thank you for using SWIM. You will receive an email when your file successfully transfers to the Census Bureau. File: nc20_PL5127200_addresses_return.zip You may Log Out or return to the upload form, to submit more files.
Step 14	Choose "**upload form**" in the phrase "**You may Log Out or return to the upload form, to submit more files**." sentence to return to the **Welcome** screen and begin the upload process again. If complete with the upload process, choose **Log Out**.

Step	Action and *Result*
ℹ	It is important to mention that SWIM sessions deactivate after 15 minutes of inactivity. Participants taking longer than 15 minutes to upload a file must log back into the system and start again. *They will receive a message noting the period of inactivity on the Login screen*.

Secure Web Incoming Module

Please Login

Welcome to the Census Bureau's Secure Web Incoming Module (SWIM). The SWIM is the official web portal for uploading partnership materials to the Census Bureau.

Please note: sessions will expire after 15 minutes of inactivity.

You have been logged out due to inactivity.

Email:

Password:

Password

Forgot your password?

Login   Register Account

When they reach the **Welcome** screen, a record listed with a **Status** of "**In progress, Continue?**" appears with that day's date in the **Created On** field. Participants can choose the "**Continue?**" link to continue uploading or they can delete the item by choosing the **Delete** button to the far right of the row.

#	Created On	Status	file(s)	
2	10/11/2018	Completed	1. psap20_48251_return.zip *(6.85 MiB)*	Delete
7	04/15/2019	Completed	1. Appeal_2020LUCA_CO48051_Return.zip *(1.81 MiB)*	Delete
8	07/09/2019	Completed	1. nc20_PL5127200_return_20190709_100731.zip *(21.53 KiB)*	Delete
9	07/09/2019	In Progress. Continue?		Delete

Start New Upload |

CHAPTER 5. NEXT STEPS FOR THE NEW CONSTRUCTION PROGRAM

Congratulations on the completion of the 2020 Census New Construction Program. From September through November 2019, the Census Bureau will process the submission .zip files received through SWIM. The Census Bureau will conduct basic quality checks to verify the file format and content to confirm the submitted addresses fall within blocks eligible for the New Construction Program and that proper geocoding exists for each record. The Census Bureau will also compare each address received as part of the New Construction Program submissions against the Census Address List to ensure participants did not submit duplicated records.

The Census Bureau will not process address records without geocodes or latitude and longitude coordinates, improperly formatted files that do not follow the predefined Address List Template, or any address submitted in a block that is not eligible for the New Construction Program.

Participants will receive an email acknowledging receipt of submission through SWIM, but the Census Bureau will not provide feedback and the results of their processing.

APPENDICES

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APPENDIX A   REFERENCE PDF MAP LEGEND

The legend describes the various symbols and colors used on the paper maps. The legend includes three columns: Symbol Description, Symbol, and Label Style.

Figure 17: Example of a Legend for the Reference PDF Maps

- The **Symbol Description** column includes the type of features, boundaries, and geography shown on the map.
- The **Symbol** column shows the symbols representing the feature in the symbol description.
- The **Label Style** column shows an example of the name of a particular feature such as a road, waterway, or geographic area displayed on the map.

Within the legend, there are five groupings:

- The **boundaries** grouping refers to different boundary types or geographic areas shown on the map. Each with its own distinct color or symbol.
- The **transportation** grouping represents the various types of transportation features. Thicker lines identify major roadways such as interstate and U.S. highways while thinner lines represent secondary roads and city streets. Also identified are cul-de-sacs and circles, jeep trails, walkways, stairways, and ferries. Each represented by distinctive symbology.
- The **other features** grouping includes features such as pipelines, streams, and nonvisible boundaries. Streams and shorelines are blue and geographic offsets and corridors are speckled red.
- The last grouping of symbols represents various **landmarks** on the map such as rivers, lakes, glaciers, airports, cemeteries, golf courses, jails, military installations, parks, and mountain peaks. The area outside of the subject area is speckled gray.
- The **footnote and notes** grouping provides additional information and details on geographic relationships, boundaries, and symbols.

APPENDIX B   PARTNERSHIP SHAPEFILE NAMES AND LAYOUTS

The information in this section provides background information for the partnership shapefiles provided with the New Construction Program. The list of state-based shapefiles is in **Table 7**. They are found within the state folder created during the .exe extraction process.

State-based shapefiles follow the naming convention of **PVS_19_v1_<layername>_<SS>.shp**, where <SS> is the number corresponding FIPS number for the state, (e.g., "24" corresponds to Maryland) and <layername> is the abbreviation for the shapefile layer. For example, **PVS_19_v1_place_24.shp** is the Maryland shapefile for incorporated places. Using the place file from the state depicts all places within the state.

The shapefiles highlighted in purple within the two tables below are files that may be most relevant for a New Construction Program participant. Some of the same files are available at the county level as well, but the state organized files likely will be of more use to a state or tribal participant or to a person participating for an incorporated place that crosses multiple counties.

Table 7: State Shapefiles Names

Shapefile layer	<layername>
American Indian Areas (AIA) – Legal	aial
2010 American Indian Areas (AIA) – Legal	aial2010
American Indian Areas (AIA) – Statistical	aias
American Indian Tribal Subdivisions (AITS) - Legal	aitsl
American Indian Tribal Subdivisions (AITS) - Statistical	aitss
Block Area Group	bag
Metropolitan Statistical Area/Metropolitan Statistical Area	cbsa
Congressional Districts	cd
Census Designated Place	cdp
Counties and Equivalent Areas	county
2010 Counties and Equivalent Areas	county2010
Elementary School Districts	elsd
County Subdivisions - Legal	mcd
New England City and Town Areas	necta
Incorporated Places	place
2010 Public Use Microdata Areas	puma2010
Secondary School Districts	scsd
State Legislative Districts Lower	sldl
State Legislative District Upper Chambers	sldu

Shapefile layer	<layername>
State	state
Tribal Block Groups	tbg
Tribal Census Tracts	tct
2010 Census Tracts	tracts2010
Urban Area	uac
Unified School District State-Based	unsd

Similar to the state-based shapefile names, the county-based shapefiles have the following naming convention: **PVS_19_v1_<layername>_<SSCCC>.shp**, where <SSCCC> is the number corresponding FIPS number for the state and county, (e.g. "24001" corresponds to Allegany County, Maryland) and <layername> is the abbreviation for the shapefile layer. They are found within the individual county folder(s) created during the .exe extraction process.

Table 8 details the county-based shapefile layers and layer names. For example, **PVS_19_v1_curtracts_24001.shp** is the Allegany County, Maryland, shapefile for current census tracts. The shapefiles that may be of specific use during the New Construction Program, dependent on the entity type, are highlighted with light purple within both tables.

Table 8: County Shapefiles Names

Shapefile layer	<layername>
American Indian Areas (AIA) – Legal	aial
American Indian Areas (AIA) – Statistical	aias
American Indian Tribal Subdivisions (AITS) - Legal	aitsl
American Indian Tribal Subdivisions (AITS) - Statistical	aitss
Alaska Native Regional Corporations (ANRC)	anrc
Area Landmark	arealm
Block Area Groups	bag
Block Groups	bg
Metropolitan Statistical Area/Metropolitan Statistical Area	cbsa
Census County Division	ccd
Congressional Districts	cd
Census Designated Place	cdp
Consolidated Cities	concity
Counties and Equivalent Areas	county
Census Tracts - Current	curtracts
All Lines	edges

Shapefile layer	<layername>
Elementary School Districts	elsd
Hawaiian Home Lands (HHL)	hhl
County Subdivisions - Legal	mcd
New England City and Town Areas	necta
Offsets	offset
Incorporated Places	place
Point Landmarks	pointlm
2010 Public Use Microdata Areas	puma2010
Secondary School Districts	scsd
State Legislative Districts Lower	sldl
State Legislative Districts Upper	sldu
Subbarrios	submcd
Census Blocks - Current	tabblock
2010 Census Blocks	tabblock2010
2010 Traffic Analysis Delineation	tad2010
2010 Traffic Analysis Zones	taz2010
Tribal Block Groups	tbg
Tribal Census Tracts	tct
2010 Census Tracts	tracts2010
Census Urban Areas	uac
Urban Growth Area	uga
Unified School Districts	unsd
Hydrography - Area	water
Relationship Tables	**<layername>**
Address Ranges	addr
All Names (Linear Feature Names – Fielded)	allnames
Topological Faces (2-cells with all geocodes)	faces
Topological Faces - Area Landmark Relationship	areafaces
Topological Faces - Area Hydrography Relationship	hydrofaces

From the two previous tables, a participant can see the numerous files that are bundled within the .exe file. The New Construction Program does not use most of them, but they are included as a part of standard files available from the Census Bureau.

The tables below present the file layout of some of the most common files of use for the New Construction Program. **Table 3** contains the file layout for the tabblock shapefile, so that information is not repeated within this appendix.

Though not identical to the TIGER/Line shapefiles, should detailed questions arise about the partnership shapefiles, first refer to the TIGER/Line Files Technical Documentation located at: <https://www.census.gov/programs-surveys/geography/technical-documentation/complete-technical-documentation/tiger-geo-line.html>. If the information in this appendix and in the TIGER/Line shapefiles technical documentation do not resolve the question, please contact the New Construction Program Help Desk at (844) 242-1765.

Table 9: Edges Shapefile (PVS_19_v1_edges)

Attribute Field	Length	Type	Description
STATEFP	2	Char	FIPS State code.
COUNTYFP	3	Char	FIPS County code.
TLID	10,0	Number	Permanent edge ID.
TFIDL	10,0	Number	Permanent face ID on the left of the edge.
TFIDR	10,0	Number	Permanent face ID on the right of the edge.
MTFCC	5	Char	MAF/TIGER Feature Class Code of the primary feature for the edge.
FIDELITY	1	Char	Indication to a respondent when their entity boundary has changed through spatial enhancement.
FULLNAME	40	Char	Decoded feature name with abbreviated qualifier, directional, and feature type.
SMID	22,0	Number	Spatial metadata identifier.
SMIDTYPE	1	VarChar	SMIDTYPE code that reflect source attribution for boundary edges, PLSS, Parcels, Surveyed, etc.
RTTYPE	1	VarChar	Route type code.
BBSPFLG	1	Char	Redistricting data project participant submitted request of an edge for selection as a block boundary.
CBBFLG	1	Char	Indicates the status of an edge for a selection as a tabulation block boundary.
BBSP_2020	1	Char	New BBSP flag.
CHNG_TYPE	4	Char	Type of linear feature update.
JUSTIFY	150	Char	Justification of change.
LTOADD	10	Char	Left To address.
RTOADD	10	Char	Right To address.
LFROMADD	10	Char	Left From address.
RFROMADD	10	Char	Right From address.
ZIPL	5	Char	Left ZIP Code.
ZIPR	5	Char	Right ZIP Code.
EXTTYP	1	Char	Extension type.
MTUPDATE	10	Date	Date of last update to the edge.

Table 10: Census Tract Shapefile (PVS_19_v1_curtracts)

Attribute Field	Length	Type	Description
STATEFP	2	Char	FIPS State code (e.g., 08).
COUNTYFP	3	Char	FIPS County code (e.g., 009).
TRACTCE	6	Char	Census Tract Code (e.g., 964600).
NAME	100	Char	Base name for the census tract. Drops trailing zeros of suffix displayed in TRACTCE (e.g., 9646).
TRACTID	11	Char	Concatenation of STATEFP, COUNTYFP, and TRACTCE fields (e.g., 08009964600).
NEW_CODE	2	Char	New Tract Code.
CHNG_TYPE	2	Char	Type of area update.
EFF_DATE	8	Date	Effective date or vintage of the boundary.
TRACTTYP	1	Char	Tract Characteristic Flag.
RELATE	120	Char	Relationship Description.
JUSTIFY	150	Char	Justification of change.
TRACTLABEL	7	Char	Six-digit TRACTCE and decimal between fourth and fifth digit used for geocoding (e.g., 9646.00).
VINTAGE	2	Char	Vintage updated with returned data.

Table 11: American Indian Areas Shapefile (PVS_19_v1_aial)

Attribute Field	Length	Type	Description
STATEFP	2	Char	FIPS State code.
AIANNHCE	4	Char	Census American Indian, Alaska Native, or Native Hawaiian (AIANNH) code.
COMPTYP	1	Char	Indicates if Reservation (or equivalent), Trust Land, or both are Present.
AIANNHFSR	1	Char	Flag indicating level of recognition of an AIANNH tribe or group.
NAMELSAD	100	Char	Name with translated LSAD.
AIANNHNS	8	Char	American National Standards Institute (ANSI) numeric identifier for AIANNH areas.
LSAD	2	Char	Legal / Statistical Area Description codes describe the particular typology for each geographic entity.
FUNCSTAT	1	Char	Functional Status defines the current functional status of a geographic entity. See https://www.census.gov/library/reference/code-lists/functional-status-codes.html for more information.
CLASSFP	2	Char	FIPS 55 Class Code defines the current class of a geographic entity. See https://www.census.gov/library/reference/code-lists/class-codes.html for more information.
PARTFLG	1	Char	Flag that indicates if only part of a feature is represented.
CHNG_TYPE	2	Char	Type of area update.
EFF_DATE	8	Date	Effective date or vintage of the boundary.
AUTHTYPE	1	Char	Authorization type for legal area updates (O – Ordinance, R – Resolution, L – Local Law, S – State Level Action, X – Other).
DOCU	120	Char	Supporting documentation.
FORM_ID	4	Char	Record ID for any boundary update (GUPS only).
AREA	10	Number (Double)	Acreage of area update.
RELATE	120	Char	Relationship description.
JUSTIFY	150	Char	Justification of change.
NAME	100	Char	Entity name.
VINTAGE	2	Char	Vintage updated with returned data.

Table 12: County Shapefile (PVS_19_v1_county)

Attribute Field	Length	Type	Description
STATEFP	2	Char	FIPS State code.
COUNTYFP	3	Char	FIPS County code.
COUNTYNS	8	Char	American National Standards Institute (ANSI) feature code for the county or equivalent feature.
NAMELSAD	100	Char	Name with translated LSAD code.
LSAD	2	Char	Legal / Statistical Area Description codes describe the particular typology for each geographic entity.
FUNCSTAT	1	Char	Functional Status defines the current functional status of a geographic entity. See https://www.census.gov/library/reference/code-lists/functional-status-codes.html for more information.
CLASSFP	2	Char	FIPS 55 Class Code defines the current class of a geographic entity. See https://www.census.gov/library/reference/code-lists/class-codes.html for more information.
CHNG_TYPE	2	Char	Type of area update.
EFF_DATE	8	Date	Effective date or vintage of the boundary.
AUTHTYPE	1	Char	Authorization type for legal area updates (O – Ordinance, R – Resolution, L – Local Law, S – State Level Action, X – Other).
DOCU	120	Char	Supporting documentation.
FORM_ID	4	Char	Record ID for any boundary update (GUPS only).
AREA	10,3	Number (Double)	Acreage of area update.
RELATE	120	Char	Relationship description.
JUSTIFY	150	Char	Justification of change.
NAME	100	Char	Entity name.
VINTAGE	2	Char	Vintage updated with returned data.

Table 13: County Subdivisions Shapefile (PVS_19_v1_mcd)

Attribute Field	Length	Type	Description
STATEFP	2	Char	FIPS State code.
COUNTYFP	3	Char	FIPS County code.
COUSUBFP	5	Char	FIPS 55 county subdivision code.
NAMELSAD	100	Char	Name with translated LSAD.
COUSUBNS	8	Char	American National Standards Institute (ANSI) feature code for the county subdivision.
LSAD	2	Char	Legal / Statistical Area Description codes describe the particular typology for each geographic entity.
FUNCSTAT	1	Char	Functional Status defines the current functional status of a geographic entity. See https://www.census.gov/library/reference/code-lists/functional-status-codes.html for more information.
CLASSFP	2	Char	FIPS 55 Class Code defines the current class of a geographic entity. See https://www.census.gov/library/reference/code-lists/class-codes.html for more information.
CHNG_TYPE	2	Char	Type of area update.
EFF_DATE	8	Date	Effective date or vintage of the boundary.
AUTHTYPE	1	Char	Authorization type for legal area updates (O – Ordinance, R – Resolution, L – Local Law, S – State Level Action, X – Other).
DOCU	120	Char	Supporting documentation.
FORM_ID	4	Char	Record ID for any boundary update (GUPS only).
AREA	10,3	Number (Double)	Acreage of area update.
RELATE	120	Char	Relationship description.
JUSTIFY	150	Char	Justification of change.
NAME	100	Char	Entity name.
VINTAGE	2	Char	Vintage updated with returned data.

Table 14: Incorporated Place Shapefile (PVS_19_v1_place)

Attribute Field	Length	Type	Description
STATEFP	2	Char	FIPS State code.
COUNTYFP	3	Char	FIPS County code.
PLACEFP	5	Char	FIPS 55 Place code.
NAMELSAD	100	Char	Name with translated LSAD.
PLACENS	8	Char	American National Standards Institute (ANSI) feature code for the place.
LSAD	2	Char	Legal / Statistical Area Description (LSAD) codes describe the particular typology for each geographic entity.
FUNCSTAT	1	Char	Functional Status codes define the current functional status of a geographic entity. See https://www.census.gov/library/reference/code-lists/functional-status-codes.html for more information.
CLASSFP	2	Char	FIPS 55 Class code defines the current class of a geographic entity. See https://www.census.gov/library/reference/code-lists/class-codes.html for more information.
PARTFLG	1	Char	Flag that indicates if only part of a feature is represented.
CHNG_TYPE	2	Char	Type of area update.
EFF_DATE	8	Date	Effective date or vintage of the boundary.
AUTHTYPE	1	Char	Authorization type for legal area updates (e.g., O – Ordinance, R – Resolution, L – Local Law, S – State Level Action, X – Other).
DOCU	120	Char	Supporting documentation.
FORM_ID	4	Char	Record ID for any boundary update (GUPS only).
AREA	10,3	Number (Double)	Acreage of area update.
RELATE	120	Char	Relationship description.
JUSTIFY	150	Char	Justification of change.
NAME	100	Char	Entity name.
VINTAGE	2	Char	Vintage updated with returned data.

APPENDIX C   PARTNERSHIP SHAPEFILE COORDINATE SYSTEM AND PROJECTION

The partnership shapefiles provided by the Census Bureau are in an unprojected geographic-based coordinate system that follows the specifications below:

- GCS_NAD83
- Angular Unit: Degree (0.017453292519943299)
- Prime Meridian: Greenwich (0.000000000000000000)new
- Datum: D_North_American_1983
- Spheroid: GRS_1980
- Semi-major Axis: 6378137.000000000000000000
    - Semi-minor Axis: 6356752.31414035610000000
    - Inverse Flattening: 298.257222101000020000

IMPORTANT: Participants may re-project the partnership shapefiles into a local coordinate system projection; however, the Census Bureau requests that participants convert the submission back to GCS NAD83 prior to submission.

Most GIS software packages contain projection wizards, or something similar, allowing the user to transform file coordinate systems and projections. For example, if participants have access to ArcGIS to update files, the Census Bureau recommends that participants activate and utilize ArcGIS's "Projection Utility Wizard" extension. TIGER partnership shapefiles contain defined projection information in the *.prj file. Since ArcGIS accesses the *.prj file for projection information, there is no need to define these parameters before changing the file coordinate system.

APPENDIX D   MAF/TIGER FEATURE CLASSIFICATION CODES

The addition of new features is not permitted during the New Construction Program; however, having the information within this appendix may assist participants with understanding the MAF/TIGER Feature Classification Codes (MTFCCs) as they exist in the edges shapefile described in **Appendix B**.

The MTFCC is a five-digit code assigned by the Census Bureau intended to classify and describe geographic objects or features. Map symbolization of these codes assist participants with distinguishing feature types, for instance symbolizing based on the MTFCC helps distinguish a road from a stream or a railroad from a pipeline.

Table 15: MAF/TIGER Feature Classification Codes (MTFCCs)

MTFCC	Feature Name
S1100	Interstate Highway or Primary Road with limited access
S1200	Primary Road without limited access, US Highway, State Highway, or County Highway, Secondary and connecting roads
S1400	Local Neighborhood Road, Rural Road, City Street
S1500	Vehicular Trail (4WD)
S1630	Ramp
S1640	Service Drive usually along a limited access highway
S1710	Walkway/Pedestrian Trail
S1720	Stairway
S1730	Alley
S1740	Private Road for service vehicles (logging, oil fields, ranches, etc.)
S1750	Private Driveway
H3010	Stream/River
H3013	Braided Stream
H3020	Canal, Ditch or Aqueduct
R1011	Railroad Feature (Main, Spur, or Yard)
R1051	Carline, Streetcar Track, Monorail, Other Mass Transit Rail
R1052	Cog Rail Line, Incline Rail Line, Tram
P0001	Nonvisible Legal/Statistical Boundary
L4010	Pipeline
L4020	Power Transmission Line
L4110	Fence Line
L4121	Ridge Line
L4031	Aerial Tramway/Ski Lift
K2451	Airport or Airfield
L4140	Property/Parcel Line
L4165	Ferry Crossing

APPENDIX E   UNIT DESIGNATION ABBREVIATION EXAMPLES

Participants adding new addresses with unit information refer to the table in this appendix for proper abbreviations approved for use by the Census Bureau.

Table 16: Unit Designation Abbreviations

Name	Abbreviation
Apartment	APT
Basement	BSMT
Bottom	BOTM
Building	BLDG
Downstairs	DOWN
Floor	FLR
Front	FRNT
Interior	INTE
Level	LVL
Lower	LOWR
Middle	MIDL
Mobile Home	MH
Number	#
Penthouse	PH
Room	RM
Right	RGHT
Space	SP
Studio	STUD
Suite	STE
Suites	STES
Trailer	TRLR
Upper	UPPR
Upstairs	UPS

APPENDIX F PHYSICAL LOCATION DESCRIPTION AND STREET TYPE ABBREVIATION EXAMPLES

Participants refer to this appendix for the approved physical location descriptions and street type abbreviations to use when preparing their address information.

Table 17: Physical Location Descriptions and Street Type Abbreviations
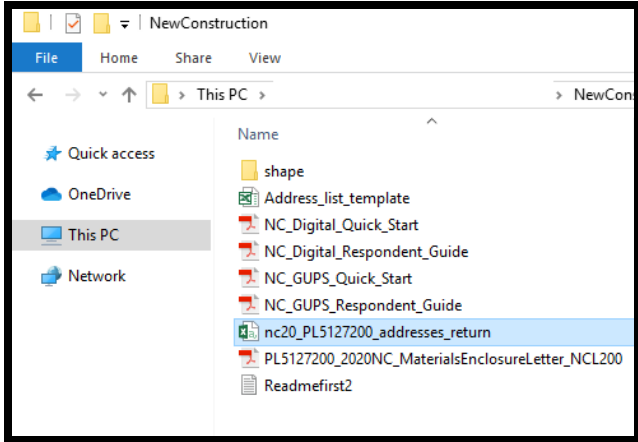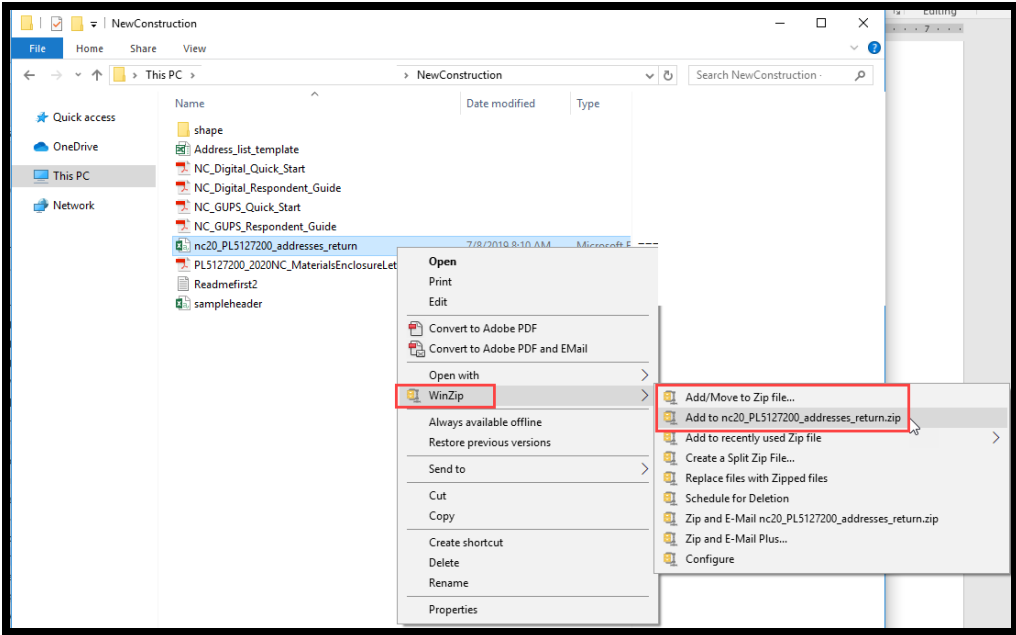
Full Name	Abbreviation
Alternate Route	ALT
Avenue	AVE
Blue	BL
Boulevard	BLVD
Brown	BRN
Boarded Up	BU
Circle	CIR
County Highway	CO Hwy
County Road	CO Rd
Court	CT
Drive	DR
East	E
Four-Wheel Drive Trail	4WD
Freeway	FWY
Green	GR
General Delivery	GEN DEL
Hospital	HOSP
Highway Contract Route	HCR
House	HSE
Interstate	I
Intersection	INT
Lane	LN
North	N
Parkway	PKWY
Post Office Box	PO BOX
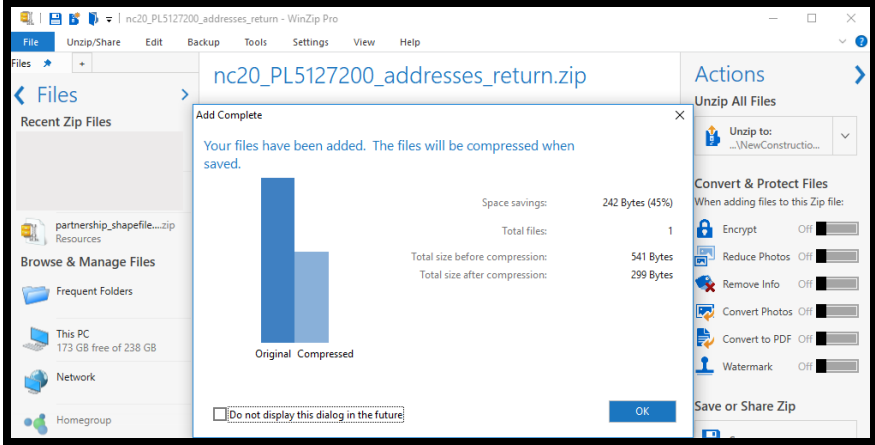
Full Name	Abbreviation
Road	RD
Route	RTE
Rural Route	RR
South	S
Star Route	ST RT
State Highway	ST HWY
State Road	ST RD
State Route	ST RTE
Street	ST
Thoroughfare	THFR
Township Highway	TWP HY
Township Road	TWP RD
West	W
White	WHT
Yellow	YLW
With	W/
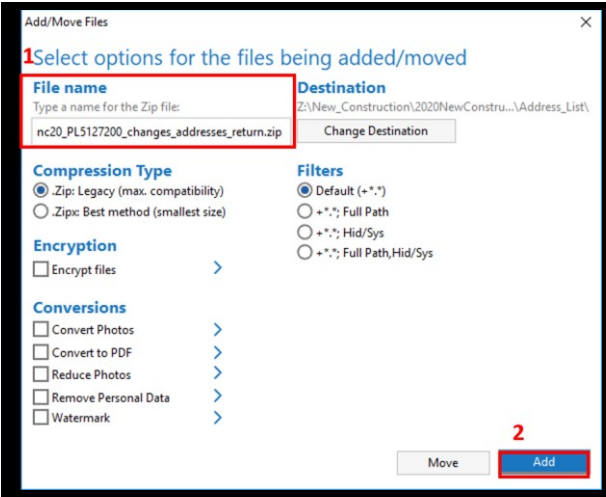
APPENDIX G   CREATING A .ZIP FILE WITH WINDOWS 10

For participants unfamiliar with the process of zipping a file, refer to the instruction below. This example uses Windows 10 operating system. Windows 10 does not require any third-party tools to zip or unzip a file or folder. Contact your local computer staff for assistance with other programs that create .zip files. Contact the New Construction Help Desk at (844) 242-1765 if questions remain about zipping the New Construction Program submission.

Table 18: Using Windows 10 to Create a .ZIP File

Step	Action and *Result*
Step 1	Navigate to the file location and select the file.
Step 2	Right-click on the file, then select to **WinZip**, and select **Add to "file name" .zip** file or **Add/Move to Zip file**.

Step	Action and *Result*
Step 3	Using the **Add to "file name".zip** choice takes the guesswork out of choosing specific settings or the retyping the file name. If a participant has named the file as suggested in this documentation, *the .zip file has the same file naming convention, i.e., **nc20_<EntityID>_addresses_return.zip***. *The **Add Complete** window appears showing successful completion of the zip process*. Select **OK** to dismiss the window.
Step 4	Using the **Add/Move to Zip file** choice allows for alteration of various zip file settings. Enter the name of the zipped file or hit Enter to accept the suggested filename. *Windows automatically suggests a filename for the ZIP file based on the file a participant right-click on. In the example, the participant right-clicked on the "nc20_PL5127200_addresses_return.csv" file, so the suggested ZIP file is "nc20_PL5127200_addresses_return.zip".* Retain the other default settings and select **Add**. The same "**Add Complete**" window, as shown in **Step 3**, appears. Click **OK** to dismiss the window.

APPENDIX H   GLOSSARY

American Indian Area (AIA) – A Census Bureau term that refers to any or all of the following entities: American Indian reservation, American Indian off-reservation trust land, Oklahoma tribal statistical area, joint use area, American Indian tribal subdivision, tribal designated statistical area, and state designated American Indian statistical area.

American Indian Reservation (AIR) – An area of land with boundaries established by final treaty, statute, executive order, and/or court order and over which a federally recognized, American Indian tribal government has governmental authority. Along with ''reservation'' primary governmental or administrative division of a county in 28 states and the ''reservation'' designations such as colonies, communities, pueblos, rancherias, and reserves apply to AIRs.

American Indian tribal subdivision – A legal subdivision of a federally recognized American Indian reservation, off-reservation trust land, or a statistical subdivision of Oklahoma tribal statistical areas. These entities are internal units of self-government or administration that serve social, cultural, and/or economic purposes for American Indians.

Boundary – A line, either invisible or coincident with a visible feature that identifies the extent of a geographic entity, such as a census tract, city, county, state, or reservation. A boundary marks the limits of an area.

Boundary and Annexation Survey (BAS) – An annual survey to collect information about selected legally defined geographic areas. The Census Bureau uses BAS as a means to update information about the legal boundaries and names of all governmental units in the United States.

Campground – A specific area set aside primarily for people to camp (e.g., in a tent, cabin, or camping trailer). Campgrounds often charge a fee and sometimes provide minimal amenities. This category includes both public campgrounds (e.g., in national/state/local parks or recreation areas) and private campgrounds (e.g., KOA campgrounds, religious campgrounds, hunting camps, or self-improvement camps).

Carnival or Circus – A traveling show or amusement enterprise (e.g., a circus, carnival, or fair), where the performers and workers may reside in temporary quarters on site, such as tents, buses, or recreational vehicles.

Census block – A census block is the smallest statistical geography for which the Census Bureau collects and tabulates decennial census data. Census blocks are bounded by visible features, such as roads, streams, and railroad tracks, and by invisible features, such as the boundaries of governmental units and other legal entities. Census blocks are statistical geographic subdivision of census tracts. Census blocks are numbered within census tracts and are unique to the census tract to which they belong. Census block numbers consist of 4-digits and may include a single alpha character suffix reflecting a boundary change or added feature (e.g. 3001A and 3001B).

Note: If an entity has three different census tracts, each will likely contain a census block 1000. Respondents are encouraged to pay close attention to both the census tract and census block number when completing address updates. The New Construction Program uses 2019 partnership tabulation blocks represented as "tabblock" in the Partnership shapefiles for digital participants.

A census block is an area bounded by visible and/or invisible features shown on Census Bureau maps. A census block is the smallest geographic area created by the Census Bureau for which it collects and tabulates decennial census data. Census blocks are numbered within block groups and are uniquely numbered within census tracts.

Census block group – Block groups are statistical geographic divisions of a census tract, defined for the tabulation and dissemination of census data from the decennial censuses, the ACS, and other select surveys.

Census block number – Census block numbers contain a 4-digit number. Census blocks are numbered uniquely within each census tract.

Census Bureau – An agency within the U.S. Department of Commerce. The Census Bureau is the country's preeminent statistical collection and dissemination agency. It publishes a wide variety of statistical data about people and the economy of the nation. The Census Bureau conducts approximately 200 annual surveys and conducts the decennial census of the United States population.

Census Bureau map – Any map produced by the Census Bureau. A Census Bureau map displays geographic entities used in a Census Bureau sponsored census or survey for which the Census Bureau tabulates data.

Census county division (CCD) – Statistical geographic entities in 21 states where minor civil divisions either do not exist or have been unsatisfactory for reporting statistical data. The Census Bureau, in cooperation with state, tribal, and local officials, delineate these areas solely for statistical purposes. CCDs have no legal function and are not legal governmental units. The primary goal of CCDs is to establish and maintain a set of sub-county geographies with stable boundaries and recognizable names. Naming of each CCD is based on a place, county, or well-known local name that identifies its location. In most cases, census tracts nest within CCDs, but in less populated counties CCDs nest within census tracts.

Census designated place (CDP) – Statistical geographic entities representing closely settled, unincorporated communities that are locally recognized and identified by name. CDPs are the statistical equivalent of incorporated places, with the primary differences being the lack of both a legally defined boundary and an active, functioning governmental structure chartered by the state and administered by elected official.

Census tracts – Census tracts are relatively permanent statistical geographies of a country or equivalent entity delineated for the tabulation and presentation of statistical data. The following criteria apply to reviewing, updating, and delineating census tracts. Census tracts

generally have a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people.

- Census tracts follow relatively permanent visible features.
- Census tracts may follow governmental unit boundaries and other non-visible features.
- Census tracts consist of a six-digit code, with a decimal between the fourth and fifth digit, containing a four-digit base number, including leading zeros, plus a two-digit number suffix, including trailing zeros. For example, 1234.01 and 0003.00.
- Census tracts may split due to population growth or merge because of substantial population decline.

Census tract number – Unique numbers to identify census tracts within a county or statistically equivalent entity. Census tract numbers contain up to a 4-digit number followed by a decimal point and a 2-digit number for suffixed tracts, e.g., 1234.01. For census tracts without a suffix, the number will contain a period with zero fill, e.g., 4567.00.

Census Bureau geocoding – To process participants' New Construction Program submission, the Census Bureau requires the inclusion of census geographic code information including the **state**, **county**, **census tract**, and **census block** codes or the **structure coordinates** (latitude and longitude) on the address list. Geocoding is how the Census Bureau codes population to geographic entities. The Census Bureau will not accept addresses without the census geographic codes (geocodes) or the **structure coordinates** (latitude and longitude). Respondents can find the census geographic codes on the New Construction Program materials.

City-style address – The city-style addresses are housing units and group quarters that have a house number and street name address, for example, 212 Elm Street, or 137 Clark Court, Apt. 3. At times, the house numbers may also include an alpha character such as 35A or W9254. These are mailing addresses or addresses that provide location for emergency services, such as police, fire, and rescue (E-911 addresses). City-style addresses for housing units in multiunit structures, such as apartment buildings, contain a unit designator, for example, Apt 101 or Suite D or a location designator such as "rear" or "basement" (Refer to Appendix C, Unit Designation Abbreviations). The Census Bureau and the U.S. Postal Service (USPS) treat these designators as part of the housing unit address, and they are included in each affected census address record.

Note: For the New Construction Program, participants must provide unit identifiers (e.g., Apt 1, Apt 2, Unit A, Unit B, Suite #) for multiunit buildings. Ensure that all apartment buildings, especially small multiunit buildings (3-4 units) such as large houses subdivided into apartments, have a separate address line for each unit that includes the basic street address and the individual unit designation.

County – The primary legal division of most states. Most are governmental units with powers defined by state law.

Edges – All linear features contained in the MAF/TIGER System.

Edges shapefile – All linear features in the MAF/TIGER System are contained in the edges shapefile. Participants use the edges shapefile to add, delete, or change linear feature attributes.

Faces – Topological areas in the MAF/TIGER System formed by edges.

Feature – Any part of the landscape, whether natural (a stream or ridge) or artificial (a road or power line). In a geographic context, features are any part of the landscape portrayed on a map, including nonvisible boundaries of legal entities, such as, city limits or county lines.

Federal Information Processing Series (FIPS)—These are codes formerly known as Federal Information Processing Standards codes, until the National Institute of Standards and Technology (NIST) announced its decision in 2005 to remove geographic entity codes from its oversight. The Census Bureau continues to maintain and issue codes for geographic entities covered under FIPS oversight, albeit with a revised meaning for the FIPS acronym. Geographic entities covered under FIPS include states, counties, congressional districts, core based statistical areas, places, county subdivisions, sub-minor civil divisions, consolidated cities, and all types of American Indian, Alaska Native, and Native Hawaiian areas. FIPS codes are assigned alphabetically according to the name of the geographic entity and may change to maintain alphabetic sort when new entities are created or names change. FIPS codes for specific geographic entity types are usually unique within the next highest level of geographic entity with which a nesting relationship exists. For example, FIPS state, congressional district, and core based statistical area codes are unique within nation; FIPS county, place, county subdivision, and sub-minor civil division codes are unique within state. The codes for American Indian, Alaska Native, and Native Hawaiian areas also are unique within state; those areas in multiple states will have different codes for each state.

Geocodes – Codes that place an individual address in its correct geographic location, which includes the correct state, county, census tract, and census block codes. Because the Census Bureau counts people where they live, geocodes provide information to Census enumerators for locating an address. Accurate geocoding also ensures the Census Bureau counts housing units, and the people associated with them, in the correct census geography.

Geographic Information System (GIS) – A computer system for the storage, retrieval, and maintenance of information about the points, lines, and areas that represent the streets and roads, rivers, railroads, geographic entities, and other features on the surface of the Earth-information that previously was available only on paper maps.

Geographic Update Partnership Software (GUPS) – A self-contained GIS update and processing package provided by the Census Bureau for participation in a variety of Census geography programs, including 2020 New Construction Program. Pre-packaged to include all of the

components for 2020 New Construction, the GUPS contains the Census Bureau's TIGER partnership shapefiles necessary to participate. GUPS allows the participant to add external geospatial data (shapefiles, geodatabases, and imagery) for comparison and update purposes.

Group quarters – Group Quarters (GQs) are places where people live or stay, in a group arrangement, owned or managed by an entity or organization providing housing and/or services for the residents. These services may include custodial or medical care as well as other types of assistance, and residency is commonly restricted to those receiving these services. Residents of group quarters are usually not related.

The following types of group quarters are acceptable and should be included on participants' address list:

- Correctional facilities:
  - o Federal and state prisons.
  - o Local jails and other municipal confinement facilities.
  - o Correctional residential facilities.
- Group homes:
  - o 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.

Note: Residents of assisted living, congregate care, and continuing care communities who are not receiving skilled nursing care are included in the housing unit population. Assisted living quarters are considered housing units and not group quarters as long as they have separate access from outside or from a common hall.

- Homeless shelters.
- Hospitals:
  - o Mental (psychiatric) hospitals and psychiatric units in other hospitals.
  - o Hospitals with patients who have no usual home elsewhere.
  - o In-patients hospice facilities.
- College or university dormitories, fraternities, sororities.
- 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.

Note: Housing units and group quarters can exist within the same structure. For example, assisted living quarters (housing units) may be located in the same structure that contains a nursing facility (group quarters).

Housing unit – The Census Bureau defines a housing unit as a single-family house, townhouse, mobile home, trailer, apartment, group of rooms, or a single room occupied as a separate living quarters or, if vacant, intended for occupancy as a separate living quarters. Separate living quarters are living quarters in which one or more occupants (or intended occupants, if vacant) live separate from any other individual(s) in the building and have direct access to the living quarters without going through another's living quarters, such as from outside the building or through a common hall.

The following types of housing units are acceptable and should be included on the updates to the Census Bureau's Address List that you submit:

- 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 living quarters, or if vacant, intended for occupancy as separate living quarters.
- Transitory location sites for movable or mobile housing, portable housing units, boats, motorized recreational vehicles (RVs), tents, and trailers pulled by cars or trucks. TRANSITORY LOCATION also include hotels and/or motels if people occupy rooms on a transient basis because they have no other residence. Transient locations are acceptable for inclusion in the New Construction Program.
- Any new housing units under construction that will have basic construction (windows, doors, roof that close the structure from the elements) completed by Census Day, April 1, 2020.

Hotel or Motel – A lodging facility that some people may use as long-term or permanent housing. Lodging facilities include hotels, motels, hostels, single-room occupancy units, inns, resorts, lodges, and bed and breakfasts. The types of units within these lodging facilities could be single rooms, suites, cabins, cabanas, cottages, or bungalows. In addition, organizations such as the YMCA and YWCA may offer lodging, along with other services, at their facilities.

Incorporated place —A type of governmental unit, incorporated under state law as a city, town (except in New England, New York, and Wisconsin), borough (except in Alaska and New York), or village, generally to provide governmental services for a concentration of people within legally prescribed boundaries.

Legal boundary – The legally defined boundary of a governmental unit, usually referring to a county, minor civil division, or incorporated place.

Marina – A dock or basin where small vessels (commercial or private), such as boats or yachts, can be securely moored or parked, in which some people may use the vessels as their primary residence. Marinas may offer supplies, repairs, and other services/amenities. Marinas may be standalone entities or components of a resort, and they may be owned and operated by public entities (e.g., municipal facilities) or by a private club (e.g., yacht club) or company.

Master Address File (MAF) – The Master Address File (MAF) is the Census Bureau's nationwide database of all addresses and physical/location descriptions used to support many of the Census Bureaus' operations. It contains mailing addresses and ZIP Codes, and address records containing geographic information such as location description of the addresses. In areas where there are non-city style addresses (e.g. rural routes or post office box numbers), the address record may contain additional information such as location description. The Census Bureau continues to update the MAF using the U.S. Postal Service's (USPS) Delivery Sequence File (DSF) and various automated, computer assisted, and clerical field operations.

MAF/TIGER Feature Classification Code (MTFCC) – A 5-digit code assigned by the Census Bureau to classify and describe geographic objects or features in the MAF/TIGER System and its output products**.**

Minor Civil Division (MCD) – The primary governmental or administrative division of a county in 29 states and the Island Areas having legal boundaries, names, and descriptions. The MCDs represent many different types of legal entities with a wide variety of characteristics, powers, and functions depending on the state and type of MCD. In some states, some or all of the incorporated places also constitute MCDs. MCDs are identified by a variety of terms, such as town (in eight states), township, and/or district. They include both functioning and nonfunctioning government entities.

New Construction Program – A Census Bureau program offered every 10 years that allows eligible participants, following established guidelines, to submit city-style addresses for existing geographies and delineate new statistical geographies as appropriate.

New Construction Program liaison – A person designated by the Tribal Chairman/Chairwoman or Highest Elected Official to serve as the primary point of contact for the New Construction Program.

Non-city style address – Non city-style addresses are addresses that do not include a house number and/or a street name. Non-city style addresses also may not include a complete house number and street name address. Frequently used non-city style mailing addresses include:

- Rural route and box number.
- Highway contract route and box number.
- General delivery.
- Post Office box only delivery.

Important Note: The New Construction Program does not accept non-city style addresses.

Nonvisible feature – The Census Bureau defines a nonvisible feature as one that is not visible on the ground and/or in imagery such as a city or county boundary through space, a property line or line-of-sight extension of a road.

Place – A concentration of population either legally bound as an incorporated place or identified by the Census Bureau as a census designated place.

Racetrack – A facility used for racing automobiles, motorcycles, horses, or dogs where traveling workers may reside in temporary quarters on site, such as tents, buses, or recreational vehicles. This category includes both commercial and private racetrack facilities.

Recreational Vehicle (RV) Park – A specific area set aside primarily for people to temporarily park and occupy recreational vehicles (also referred to as travel trailers or camping trailers). RV parks typically use short-term (e.g., daily, weekly, monthly) rental agreements to provide spaces (with or without basic utility hook-ups) for people to park their RV. RVs are often on wheels while people live or stay in them; they are not permanent structures because they could be easily driven or towed away on any given day. This category includes both public and private RV park facilities.

Regional Census Center (RCC) – Temporary offices set up approximately two years prior to the decennial census. The geographic staff from the Regional Offices are assigned to their respective RCC and assist with the execution of various geographic operations as well as provide support for the field operations conducted during the decennial.

Regional Office (RO) – One of the permanent Census Bureau offices responsible for the Census Bureau's office and field operations within its region.

Residential vs Nonresidential Addresses - The Census Bureau classifies all addresses into two use types, residential and nonresidential. Residential addresses are addresses of housing units, group quarters, and transitory locations where one or more people could live. Nonresidential addresses are addresses of a structure or unit within a structure that do not serve as a residence, such as commercial establishments, schools, government offices, and churches.

Note: Some structures can contain both residential and nonresidential units even though they have a single address, such as an apartment over a store or a home with an office. In this instance, the New Construction Program considers this address residential since it contains a housing unit.

Shapefile – Digital representations of geographic features, such as roads and boundaries used to create maps. A shapefile stores non-topological geometry and attribute information for the spatial features in a dataset. The Census Bureau provides county-based shapefiles in Esri shapefile format.

Street segment – The portion of a street or road between two features that intersect that street or road, such as, other streets or roads, railroad tracks, streams, and governmental unit boundaries. The Census Bureau records the known address ranges for every street segment with city-style addresses.

Topologically Integrated Geographic Encoding and Referencing System (TIGER) – Address records in the MAF are linked to feature segments in the Topologically Integrated Geographic Encoding and Referencing (TIGER) System. The TIGER database includes the geographic coordinates and names of all streets, water features, other linear features, and boundaries for jurisdictions and statistical areas (census tracts, census blocks, etc.,) used to tabulate decennial census data.

Transitory Location — The Census Bureau defines a Transitory location (TL) as a site with movable or mobile housing that may include transitory units such as boats, motorized recreational vehicles or trailers (RVs), tents, or other types of portable housing. Transitory locations also include hotels and/or motels if people occupy rooms on a transient basis because they have no other residence. Transitory locations are acceptable for inclusion in the New Construction.

The Enumeration of Transitory Locations (ETL) is a census operation designed to provide coverage for enumeration for locations where people live in non-traditional housing that is transient or movable in nature. The types of transitory locations that are included in the ETL include:

- Recreational Vehicle (RV) Parks.
- Campgrounds.
- Carnivals.
- Marinas.
- Racetrack Hotel.
- Motels.
- Hostels.
- Single-Room Occupancy Units.
- Inns.
- Resorts.
- Lodges.
- Bed and Breakfast.

Quick Start (CD/DVD) - Partnership Shapefiles or Reference PDF Maps

2020 Census New Construction Program

Getting Started

Open (or print) the *2020 Census New Construction Program Digital Respondent Guide* (e.g., NC_Digital_Respondent_Guide.pdf) as listed in **Figure 1** and **Figure 2**. The Digital Respondent Guide offers participants instructions on using the Partnership Shapefiles, Reference PDF Maps, and the Address List Template to submit their newly constructed addresses to the U.S. Census Bureau. Please note the sections below correspond to the method of participation an entity selected when registering for the New Construction Program. Participants that selected to receive Partnership Shapefiles by Data Disc DVD also receive a Geographic Update Partnership Software (GUPS) installation disc in the event they decide to use GUPS rather than their own GIS. Participants that selected to receive Reference PDF Maps by Data Disc DVD do not receive a GUPS installation disc.

If a participant with Partnership Shapefiles chooses to use GUPS, they must locate the GUPS Quick Start Guide to begin their work. A printed copy is included with the New Construction Program materials or a digital version, NC_GUPS_Quick_Start.pdf, is located on their Data Disc. They must also open (or print) the *2020 Census New Construction Program Geographic Update Partnership Software (GUPS) Respondent Guide* (e.g., NC_GUPS_Respondent_Guide.pdf) because it includes specific instructions on the use of GUPS for the New Construction Program. **Figure 1** depicts digital versions of both the GUPS Quick Start Guide and the GUPS Respondent Guide.

While available on the Data Disc, most of these materials are also available for download from the New Construction Program website: <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>.

To get started, follow these steps.
1. First, create a new folder (or new directory) on a local computer to copy the contents from the Data Disc. Consider using the "NC2020" naming convention for the folder name.
2. Insert the Data Disc into the CD/DVD drive of the local computer with the newly created folder. One of two windows, as shown in **Figure 1** and **Figure 2**, opens based on the method of participation selected during registration.

Partnership Shapefiles
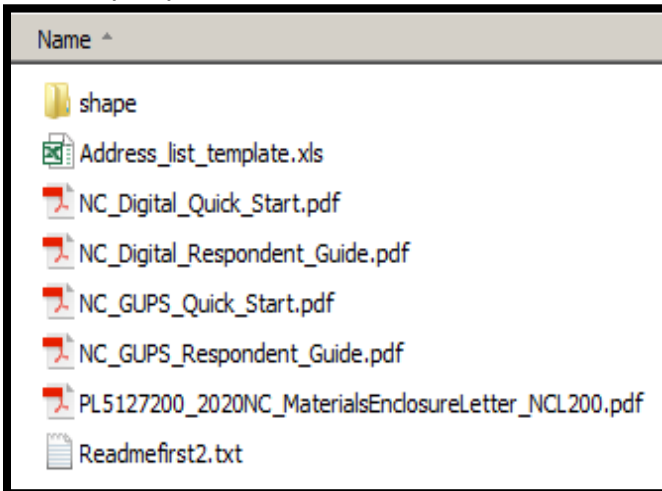
Figure 1: Data Disc Layout for Partnership Shapefiles (*refer to Section I to proceed with setup*)

Reference PDF Maps (e.g., Large Format PDF Maps)
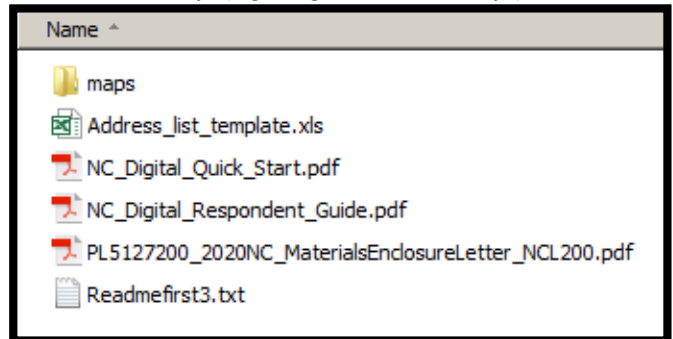
Figure 2: Data Disc Layout for Reference PDF Maps (*refer to Section II to proceed with setup*)

3. With the window open that shows the Data Disc contents, select all of the materials and right-click the mouse to **Copy** the selected materials.
4. Navigate to the newly created folder and right-click to **Paste** the copied materials. Ensure everything from the Data Disc is in the new folder and then remove the Data Disc from the CD/DVD drive.

I.   **Extracting the Partnership Shapefiles**
     To open the Partnership Shapefiles from the new folder created in step 1 of the **Getting Started** section, follow these steps.
     1. Double-click on the folder named "**shape**" shown in **Figure 1**.

2. Within the "**shape**" folder, double-click on the file name **2020NC_<EntityID>.exe** to extract the shapefiles. In this instance, since the example is for participant PL5127200, the .exe file name would be **2020NC_PL5127200.exe**.
3. A command prompt shows the progress of the file extraction and closes upon completion. The Partnership Shapefiles extract within the "**shape**" folder as individual folders for the state and each county in which the participant's jurisdiction is located.
4. Refer to Chapter 2 in the Digital Respondent Guide for information on using the Partnership Shapefiles.

II. **Viewing the Reference PDF Maps (e.g., Large Format PDF Maps)**

To open the Reference PDF Maps from the new folder created in step 1 of the **Getting Started** section, follow these steps.
1. Launch Adobe Acrobat Reader® software. **IMPORTANT**: Adobe Acrobat Reader is required to view the Reference PDF Maps effectively. Other software that open PDF files may distort this product.
2. Choose **File-Open** and navigate to the "**maps**" folder shown in **Figure 2**.
3. The large format maps are located within the bundled PDF file named NC20<EntType><EntCode>.pdf, where EntType is the entity type and EntCode is the entity code. In this instance, the bundled PDF file name would be **NC20P5127200.pdf**. The Digital Respondent Guide contains more detail on this file and the three other files in the "**maps**" folder.
4. Select the **NC20<EntType><EntCode>.pdf** file and click **Open**.
5. Refer to Chapter 1 in the Digital Respondent Guide for information on using the Reference PDF Maps.

III. **Using the Address List Template**

The Address List Template, shown in **Figure 3**, is a blank Microsoft Excel®.xls spreadsheet included on the Data Disc for all New Construction Program participants. The Census Bureau provides this file for the purpose of keying addresses into a file to ensure that city-style addresses for housing units, group quarters, and transitory locations are submitted in the required format for the New Construction Program and as a "header" file for participants that already have their address information in a digital file and would like to import that information into GUPS.

IMPORTANT: The Census Bureau will not accept addresses in the incorrect file format or with inadequate information.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	LINE_NUMBER	ENTITY_ID	STATE	COUNTY	CENSUS_TRACT	CENSUS_BLOCK	GQ_TL_FLAG	COMPLETE_ADDRESS_NUMBER	COMPLETE_STREET_NAME	APTUNIT_NUMBER	MAILING_ZIP_CODE	GQ_TL_NAME	FACILITY_NAME	LOCATION_DESCRIPTION	LATITUDE	LONGITUDE
2																
3																
4																
5																
6																
7																
8																

Figure 3: Address List Template

To open the Address List Template from the new folder created in step 1 of the **Getting Started** section, follow these steps.
1. From the new folder created in step 1 of the **Getting Started** section, double-click on the **Address_list_template.xls** to open it.
2. Save the template as **nc20_<EntityID>_addresses_return.xls**, where "EntityID" matches the aforementioned coding (e.g., PL5127200). This file name for this example would be **nc20_PL5127200_addresses_return.xls**.
3. **IMPORTANT**: The file must maintain the fields as text to ensure the preservation of the format embedded within the template. Upon completion of all work and prior to submission to the Census Bureau, participants must save the .xls file as a comma delimited value .csv file. Participants that use the template to format their own locally sourced address information and plan to import their addresses into GUPS must also save their file in the .csv format prior to importing into GUPS. Refer to Chapter 4 in the GUPS Respondent Guide for more instructions.
4. Following the instructions in the Digital Respondent Guide, provide the required address information in the appropriate fields.
5. Save often to preserve the edits.
6. Refer to Chapters 3, 4, and 5 in the Digital Respondent Guide for more instructions on the use of the template and the subsequent tasks for submitting the information to the Census Bureau.

Please contact the New Construction Program Help Desk by phone at (844) 242-1765 or by email at GEO.2020.NC@census.gov if questions remain after consulting the respondent guide(s) or for additional assistance. As a reminder, information about the New Construction Program, as well as Frequently Asked Questions (FAQs) and schedules, is available on the New Construction Program website at <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>.

2020 Census New Construction Program Respondent Guide

Instructions for Participants Using Geographic Update Partnership Software (GUPS)

New Construction Program

United States Census 2020

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INTRODUCTION

A.   Background

The 2020 Census New Construction Program (New Construction Program) provides tribal, state, and local governments an opportunity to update the U.S. Census Bureau's address list with living quarters for which construction is in progress during or after March 1, 2018 and completion is expected by Census Day, April 1, 2020. The participants supplement the address list for enumeration during the 2020 Census and ensure that the Census Bureau's address list is as complete as possible to produce an accurate population count.

IMPORTANT: All examples within this document are for training purposes and include fictitious information. They do not reflect Title 13 protected data.

B.   Defining the Qualifications of New Construction

To be eligible, federally recognized tribes, states, counties, cities (incorporated places), and townships (minor civil divisions) must have city-style residential addresses in blocks where the Census Bureau plans for self-enumeration (i.e., in blocks where the Census Bureau plans to mail correspondence regarding the census questionnaires to households rather than hand deliver the census questionnaire) during the 2020 Census. The New Construction Program does not accept non-city style addresses. The structure of the living quarters must have basic construction (windows, doors, roof that close the structure from the elements) completed by Census Day.

The Census Bureau will not accept structure types that do not meet the criteria explained above. Acceptable structure types include housing units and group quarters, including transitory locations. Unacceptable structure types include condemned or scheduled for demolition and any housing under renovation or remodeling for conversion to a non-residential purpose. See **Appendix F** for the definition of housing units and group quarters that includes a list of acceptable addresses within each of those structure types.

This program does not allow for changes to street features, legal, or statistical boundaries. The Census Bureau updates the legal and statistical boundaries through its annual Boundary and Annexation Survey (BAS), the Participant Statistical Areas Program (PSAP), and other geographic programs.

Unlike the Local Update of Census Addresses Operation (LUCA), the Census Bureau does not provide its address list as part of the New Construction Program. Participants are not required to sign confidentiality and security agreements that applied to LUCA. When participants submit address data for new housing to be included in the 2020 Census, the Census Bureau will protect the submitted data from subsequent disclosure under Title 13, U.S.C. Section 9, which provides for the confidential treatment of census-related information, including individual address and structure coordinates.

C.   Training and Technical Support

The Census Bureau plans to conduct training webinars to provide instruction on participating in the New Construction Program. The webinar schedule is available at <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>. For any technical support, please contact the Census Bureau by e-mail at: <GEO.2020.NC@census.gov> or by phone at (844) 242-1765.

CHAPTER 1.   SYSTEM REQUIREMENTS AND INSTALLATION

This chapter includes hardware and operating system requirements information necessary to install and use the Geographic Update Partnership Software (GUPS). GUPS is a customized geographic information system (GIS) provided by the Census Bureau to participants without extensive GIS experience. GUPS runs in QGIS, an open-source GIS platform, and contains all functionality required to add or import address points in census blocks eligible for the New Construction Program, to execute automated quality checks, and to create standardized data output files for Census Bureau processing. For information on the QGIS open-source platform, go to: <http://www.qgis.org/en/site/>.

The Census Bureau recommends using GUPS in conjunction with this respondent guide. GUPS is available on DVD or available for download from the New Construction Program website. In addition, a digital version of this guide is also available at <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>.

1.1   Hardware and Operating System Requirements

Before beginning the installation, check the computer to verify if it has the capabilities needed to run GUPS. **Table 1** lists the requirements to install and run GUPS as well as the internet browsers that support the use of SWIM.

Table 1: Hardware and Operating System Requirements
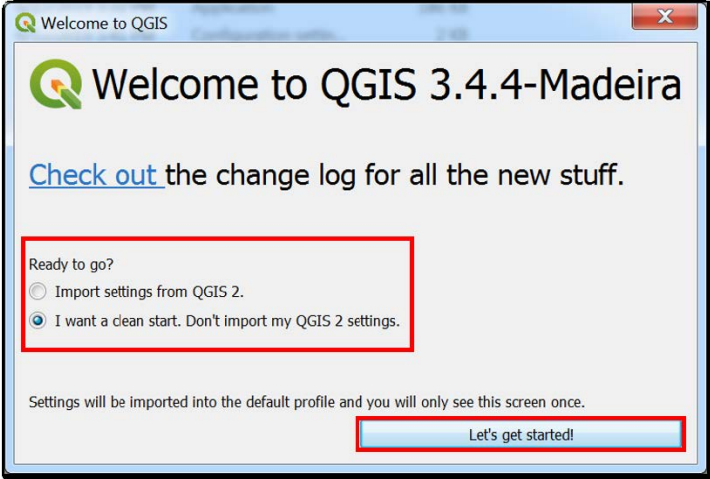
Hardware	Operating System	Supported Browser
Disk Space Needed to Run GUPS: 4 GB ***Disk Space Needed to Store Shapefiles:*** Shapefile sizes vary. To view the size of the shapefiles, right-click, and choose **Properties** in the drop-down menu. *The **Files Properties** box opens and displays the folder size.* Select multiple files/folders in the list to view their properties via the same method. **RAM:** 4 GB minimum, 8 GB or more recommended for optimal performance.	**Windows®:** To run GUPS, Windows users need one of the following operating systems: • Windows 7® • Windows 8® • Windows 10® ***Apple®:*** Mac OS X® users must secure a license for Microsoft Windows and use a Windows bridge. The suggested bridge software is Boot Camp®, which comes pre-installed on all Mac computers. Locate instructions for using Boot Camp at: <https://www.apple.com/support/bootcamp/getstarted/>. **IMPORTANT:** Since Boot Camp requires a restart of the computer to set up the bridge, be sure to print the instructions provided at the URL above before beginning installation.	**SWIM runs on the two most recent versions of each of these major browsers:** • Internet Explorer® • Google Chrome® • Mozilla Firefox® • Apple Safari®

Note: Depending on the Windows OS version, GUPS may have a different appearance than the screenshots contained in the respondent guide; however, the content is the same.

1.2 GUPS Installation

To install the GUPS application, participants must have Administrator privileges for their computer. Participants with previous versions of GUPS installed on their computer for use with other Census Bureau programs must install this updated version for the New Construction Program. Download the software from the New Construction Program website or use the Census Bureau's installation DVD to update GUPS. To complete the installation from the installation DVD, follow the steps in **Table 2**. Locate instructions for installing a downloaded copy of GUPS on the New Construction Program website.
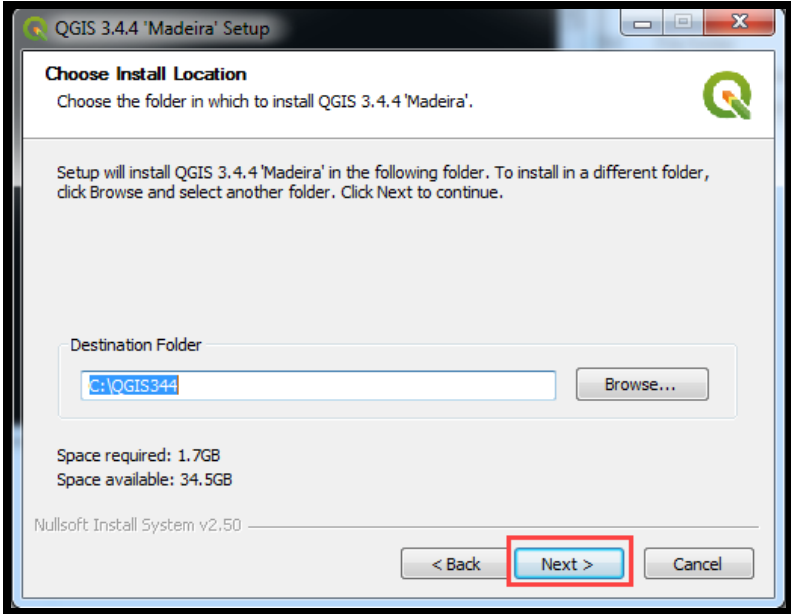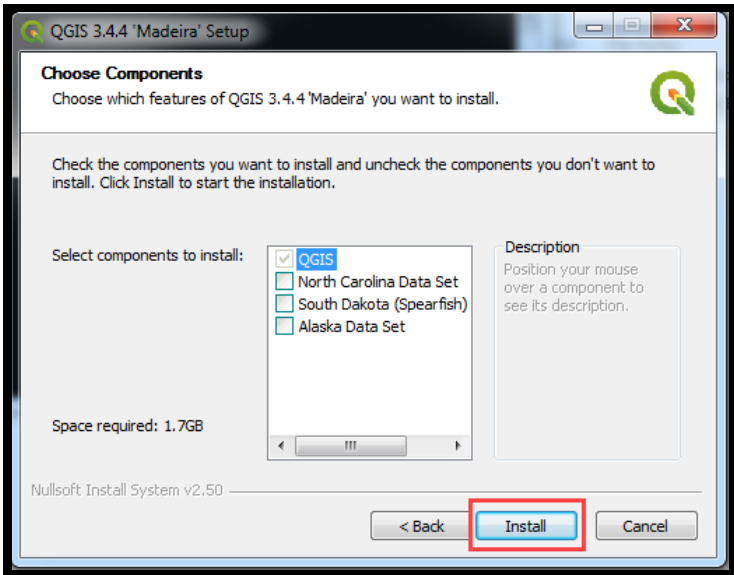
Table 2: Install the GUPS Application from the Installation DVD
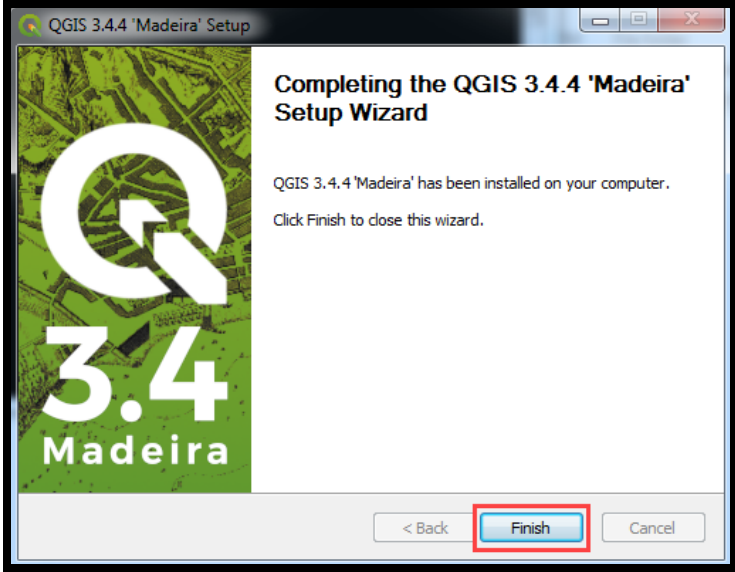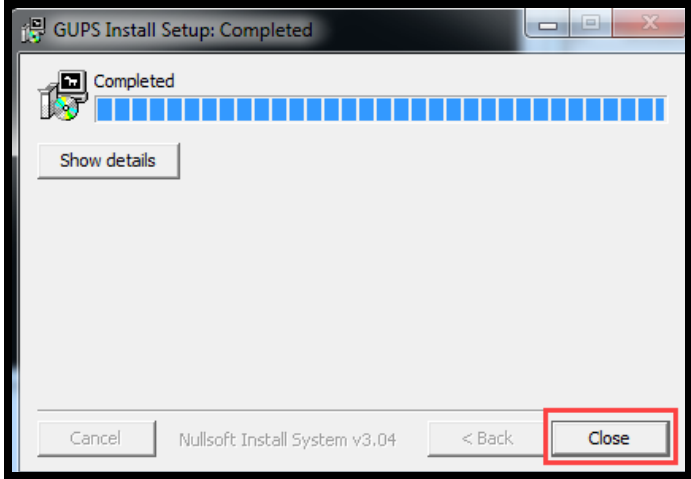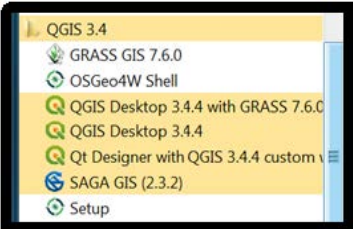
Step	Action and *Result*
Step 1	Place the GUPS software installer DVD received with the New Construction Program materials into the computer's CD/DVD drive. Depending on the version of Windows, a *Windows protected your PC pop-up display window may appear. Note: this pop-up appears differently depending on the operating system.* To continue, click 'More info', then select 'Run anyway'.
Step 2	Other computers may show a pop-up display window that asks, *"Do you want to run this file?", "Do you want to allow the following program from an unknown publisher to make changes to this computer?", or a similar query*. If any of these occur, click '**Run**', '**Yes**', '**Allow**', or an option that allows the software installation to proceed. *The software should begin to run automatically.*
Step 3	The software should auto-install, but if the installation does not run automatically, navigate to the CD/DVD drive, and double-click on the file named ***SETUP-10.0.x.x.bat***. **IMPORTANT**: The name of this file may vary slightly, but it will be the only setup batch (e.g., .bat) file available. If the software still does not run properly, contact the local System Administrator for assistance. If they cannot resolve the installation problem, contact the New Construction Program Help Desk at (844) 242-1765 or by email at <GEO.2020.NC@census.gov>.
Step 4	A ***Welcome to QGIS 3.4.4-Madeira*** window pops up allowing users to import previous settings used into the default profile. Users may choose to import their settings or to have a clean start. Select the desired options and click "Let's get started".

Step	Action and *Result*
Step 5	When the installer opens, the ***Welcome to the QGIS 3.4.4 'Madeira' Setup Wizard*** *screen appears*. **Note**: The version needed for the New Construction Program is QGIS 3.4.4 Madeira. If the exact same version of QGIS exists on the computer, an instruction to uninstall and reinstall appears. Participants may retain other versions of QGIS that may be in use for other programs, but must reinstall if the same version exists on the computer to ensure installation of the latest update. Before proceeding with installation, close all other programs or applications. Once other programs and applications are closed, click the **Next** button.
Step 6	*The **License Agreement** screen appears*. Read the License Agreement and click the **I Agree** button to continue.

Step	Action and *Result*
Step 7	*The **Choose Install Location** screen opens.* The Browse button on this screen allows participants to browse the local computer for an installation location. The Census Bureau recommends the installation of the GUPS application to the default location: (e.g., C:\QGIS344) to prevent installation errors or issues. To begin the installation, click the **Next** button.
Step 8	*The **Choose Components** screen opens.* '☑QGIS' in the Select components to install field is checked and grayed out since it is the default. Simply click **Install** to continue.
	To review a previous screen or reread the license agreement, click the **Back** button (each screen contains this button). *This returns the screen to the previous page*.

Step	Action and *Result*
Step 9	The software takes between five and 10 minutes to install. *When it finishes installation*, the ***Completing the QGIS 3.4.4 'Madeira' Setup Wizard** screen opens.* Click the **Finish** button.
Step 10	*The **GUPS Install Setup: Completed** screen opens showing the status of the installation of GUPS.* To complete the installation, click the **Close** button.
Step 11	Participants use **QGIS Desktop 3.4.4** for their New Construction Program work. They can ignore the other software installed as part of the process. *Once the application installs QGIS 3.4 (or QGIS344) to the Start Menu, All Programs list.*

CHAPTER 2.   GETTING STARTED WITH GUPS

After successfully installing GUPS, participants are ready to begin their work of adding newly constructed addresses. There are two ways to access the partnership shapefiles within GUPS:

1. **Census Web**. This choice downloads shapefiles directly into GUPS from the Census Bureau's website. It is the recommended method for accessing the shapefiles in GUPS.
2. **My Computer**. This choice requires navigating to a folder on the local computer where the participant copied and extracted data from the Data Disc or where they saved and extracted the shapefiles after downloading them from the New Construction Program website. This is the more complicated choice.

IMPORTANT: At the time of creation of this material, neither GUPS nor the New Construction Program website was finalized. As a result, the software icons, website section names, and the images referenced within this document may vary slightly from what a participant sees as they begin their work. None of the variances will be significant; however, contact the New Construction Program Help Desk by phone at (844) 242-1765 or by email at <GEO.2020.NC@census.gov> should any questions arise.

2.1   Accessing the Partnership Shapefiles

Regardless of the method of participation selected during registration, the shapefiles necessary to conduct the New Construction Program are available directly within the GUPS application. By choosing the **Census Web** option when selecting the geography initially in GUPS, participants with internet connectivity can load one or multiple county files at once if their entity spans multiple counties or if they are a state or tribal participant. Refer to **Table 3** for instructions on getting started with GUPS by using the shapefiles downloaded directly into GUPS by Census Web.

Note: The Census Web option is the recommended method for accessing the partnership shapefiles for use in the New Construction Program. Use of this option ensures the proper placement of the required files for GUPS to operate properly.

To use the **My Computer** option in GUPS, participants have two methods to acquire the partnership shapefiles. They can copy, paste, and extract the .exe file that contains the partnership shapefiles from the Data Disc DVD onto their local computer if they requested to receive one during registration or they can download exe file that contains the partnership shapefiles from the New Construction Program website, <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>, onto their local computer. Please note that downloading files to the hard drive is not the preferred method when working in GUPS, and should be used only when necessary (e.g., if internet connectivity is unreliable or not possible).

IMPORTANT: Regardless of the method used to acquire the partnership shapefiles, Data Disc or website, participants must not change any of the shapefile or folder names. The shapefiles and folders must retain their exact names as extracted for GUPS to recognize and load them. GUPS will not work if participants alter the naming convention.

Refer to **Table 4** for instructions on getting started with GUPS by using the shapefiles sourced from the Data Disc. Refer to **Table 5** for instructions on getting started with GUPS by using the shapefiles sourced from the New Construction Program website.
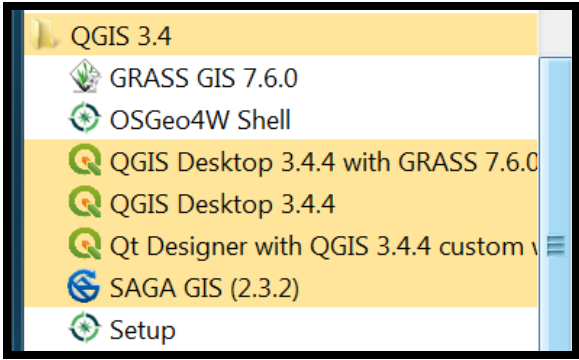
2.2 Opening GUPS and Starting a New Project using Census Web
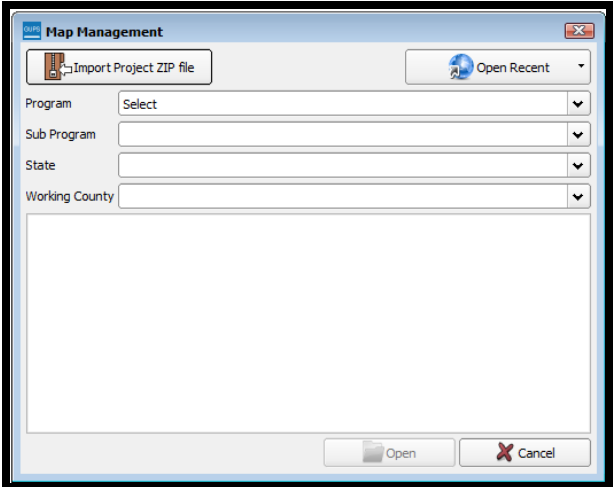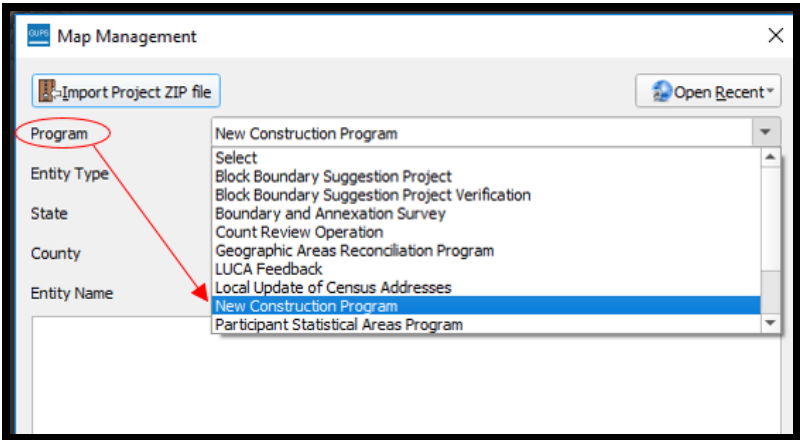
To open the GUPS and begin adding or importing addresses for the New Construction Program using the preferred choice of Census Web, follow the steps in **Table 3** below. Before beginning, note that:

1. To practice using GUPS without committing the changes, simply exit the system without saving. Before the system closes, it will give the option to save or discard the changes.
2. If comfortable with GUPS, but completion of updates are not possible in one session, simply save the changes and close GUPS. Participants can reopen saved projects and continue working later.

Note: In all the Action/*Result* tables, the action is usually a command or action to perform and the *Result(s)* of the action will appear in italics. For example, "click the QGIS icon the desktop, *the software should begin to run automatically.*"

Table 3: Getting Started with GUPS using Shapefiles from the Census Web

Step	Action and *Result*
Step 1	After installing GUPS using instructions in **Table 2** or from the New Construction Program website, select **QGIS Desktop 3.4.4** from the All Programs list in the Start Menu.

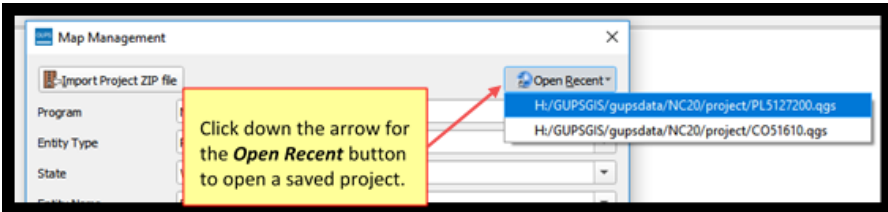| Step	Action and *Result*
	The QGIS splash screen appears.
Step 2	*GUPS launches with the **Map Management** window.*
Step 3	In the **Map Management** *window*, use the drop-down menu next to the **Program** field to select the **New Construction Program**. *The 'New Construction Program' populates the Program field.*
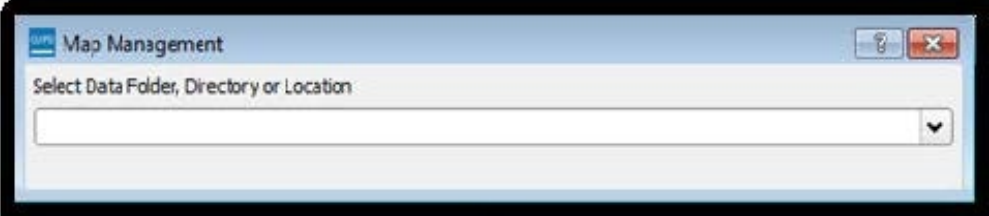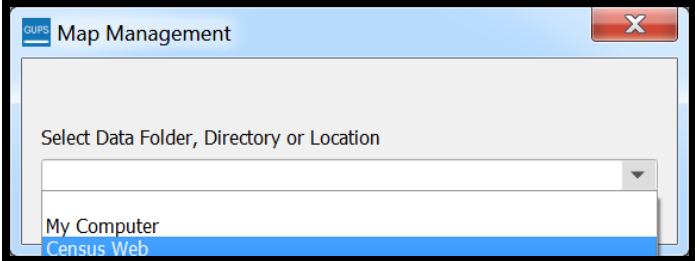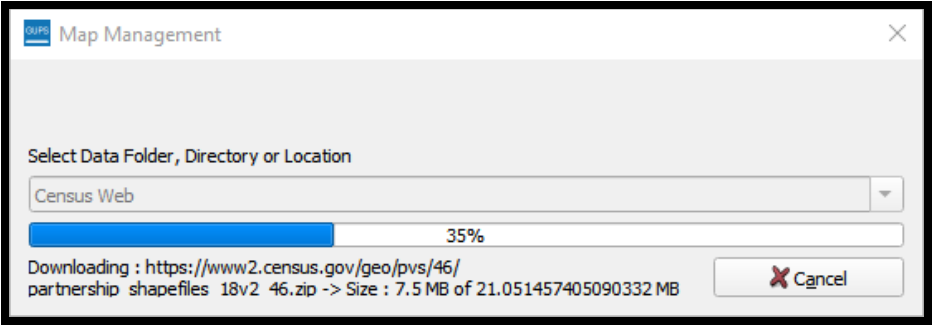
Step	Action and *Result*
Step 4	In the **Entity Type** field, use the drop-down menu to select the type of entity. The options are 'Tribe', 'State', 'County', 'Place', 'Minor Civil Division (MCD)'. Independent city participant should select 'Place'. *This example uses Place as the Entity Type.* **Note**: The subsequent menu options vary, depending on the Entity Type chosen.
Step 5	In the **State** field, use the drop-down menu to select the state. The scroll bar to the right allows participants to move up and down the list of state available. *This example uses Virginia.*
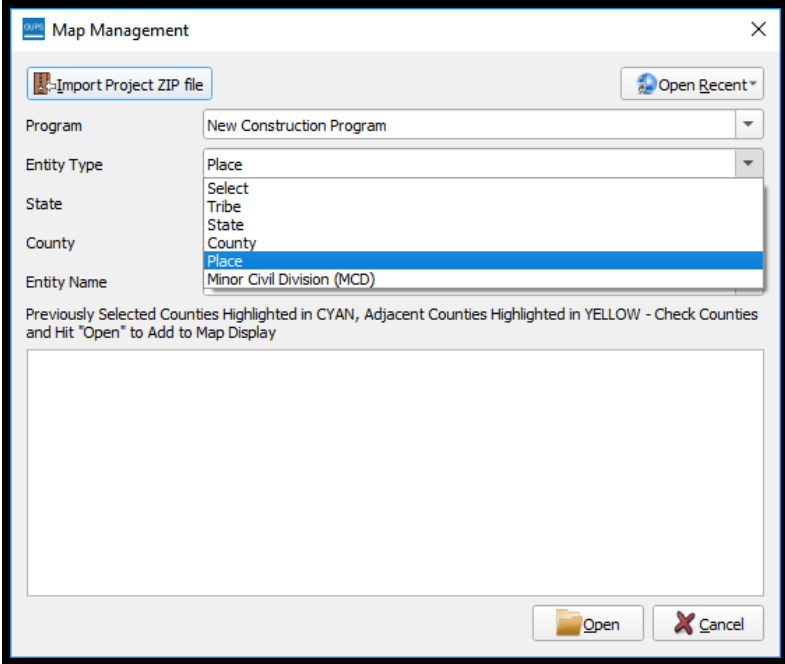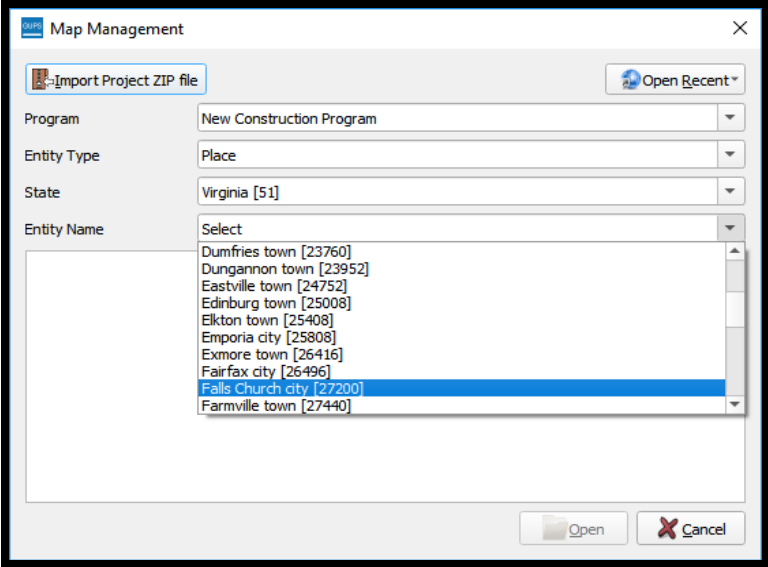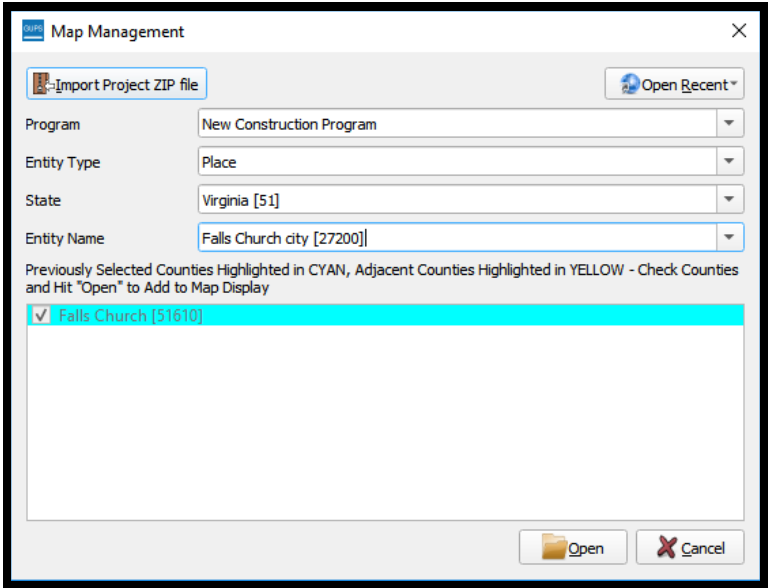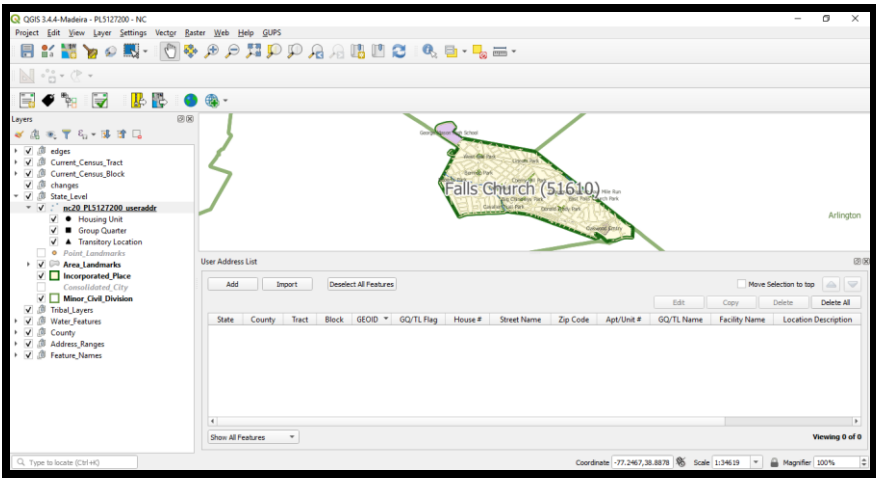
Step	Action and *Result*
Step 6	After selecting the state, GUPS prompts participants for a location from which to download the place's (or place equivalent's) partnership shapefiles. *The **Select Data Folder, Directory or Location** window opens.* **Note**: The launch of this menu is dependent on the entity type selected. For this example, it launched after choosing the State.
	GUPS only asks to specify a download location once per project. When a project closes and reopens, the shapefiles automatically reload, even if a participant made no changes during the first session.
Step 7	In the **Select Data Folder, Directory or Location** drop-down menu, select a data download location. *This example uses the '**Census Web**' option from the drop-down menu.*
Step 8	When '**Census Web**' is chosen, the shapefile for the state with the places begins to load and progress is displayed by a grey blank bar (color may vary), with the percentage of the upload completed displayed to the middle.

Step	Action and *Result*
Step 9	*After the shapefiles load, GUPS returns to the **Map Management** window. In the **Entity Name** field, use the drop-down menu to select the place that corresponds to the specific participant. This example uses Falls Church city, Virginia.*
Step 10	To open the data for Falls Church city, Virginia, select the **Open** button. **Note**: When choosing an entity that has been previously loaded, any previously loaded county(s) appear in cyan blue and remain checked in the Map Management window. Other counties associated with the entity appear in yellow if they have not been selected previously and must be checked to download.

Step	Action and *Result*
![info icon]	Important note for the other entity types, Tribe, State, County, and MCD participants: For the '**Tribe**' Entity Type, a drop-down menu that lists all Reservations and Off-Reservations Trust Lands within the Entity Name field activates and allows for the selection of the 'Tribe'. For the '**State**' Entity Type, a drop-down menu that lists all the states within the State field activates and allows the selection of the 'State'. Following the selection of the 'State', a list of counties within that state appears. Participants can select up to 10 counties to load at once. For the '**County**' Entity Type, participants select their state from the drop-down menu next to State field and then select their county from the drop-down menu next to the County field. For the '**MCD**' Entity Type, participants use the drop-down menu next to State field to select the state and then select the county from the drop-down menu next to County field followed by the Entity Name.
Step 11	As GUPS loads the data, it unzips and copies the shapefiles to a folder in the home directory created during the GUPS installation process. The data is then loaded into the GUPS application. The **Map Management** window remains on-screen, with grayed-out fields, while the project is loading followed by a progress bar with the message "Starting GUPS". *The shapefile data layers for Falls Church city, Virginia, appear in the Table of Contents along with a blank User Address List to use for manually adding or importing addresses and the Map View load to use for adding map spots to geocode the new address records*.
![info icon]	If the '**Census Web**' option is not successful, follow the instructions in Table 4 or Table 5 for loading shapefiles using the '**My Computer**' option.
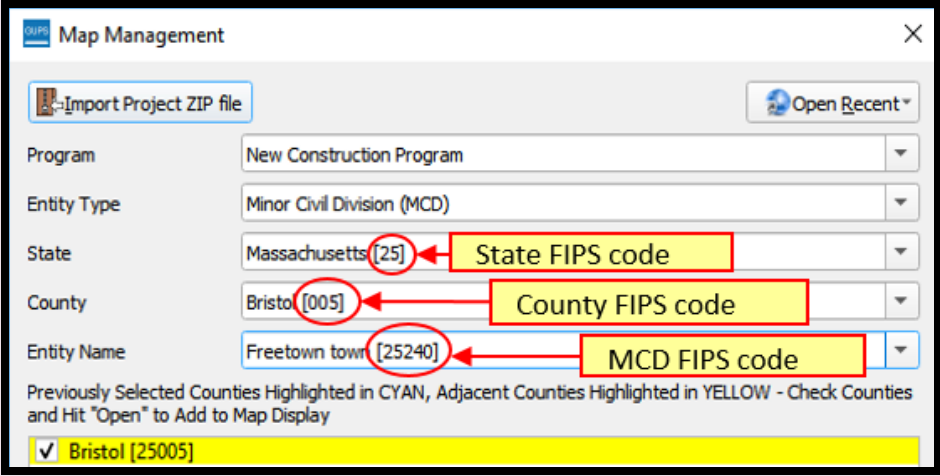
Step	Action and *Result*
Step 12	To open a previously saved project, in the **Map Management** window, click the drop-down arrow next to the **Open Recent** button. *The drop-down menu opens with a list of current projects.*
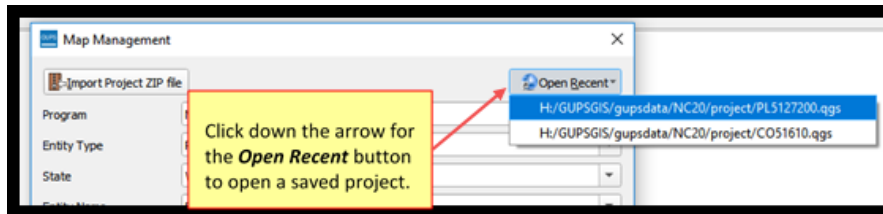
	Multiple project files, for multiple programs, may appear, as shown above. In the example above, two separate projects exist on the same computer. To identify which of the entries in the list represents a particular project, look at folder name that follows "/gupsdata" to identify the project (e.g., NC20). Look at the entity identification code on the file name to identify the entity. The entity identification code is a unique identification number of up to twelve characters in length assigned to each entity by the Census Bureau. The characters are strings composed of letters and numbers. See the chart below for more detail on the entity identification coding.

Entity	Entity Identification Code	Total Characters
Tribe	TR (2 alpha) + (4 numeric tribal code) + TA (2 alpha) + (4 numeric tribal geographic area code)	12
State	ST (2 alpha) + (2 FIPS numeric) FIPS is acronym for the Federal Information Processing Standards.	4
County	CO (2 alpha) + State (2 FIPS numeric) + County (3 FIPS numeric)	7
Place	PL (2 alpha) + State (2 FIPS numeric) + FIPS Place (5 FIPS numeric)	9
Minor Civil Division	MC (2 alpha) + State (2 FIPS numeric) + County (3 FIPS numeric) + FIPS MCD (5 FIPS numeric)	12

The entity identification code for a particular geography is available within the **Map Management** window and on the other New Construction Program materials. *Below is an example for Freetown Township, an MCD in Bristol County, Massachusetts.*

Step	Action and *Result*
Step 13	Proceed to **Chapter 3** for an introduction to the GUPS menus and toolbars.
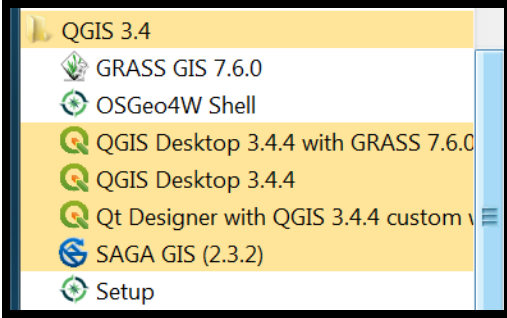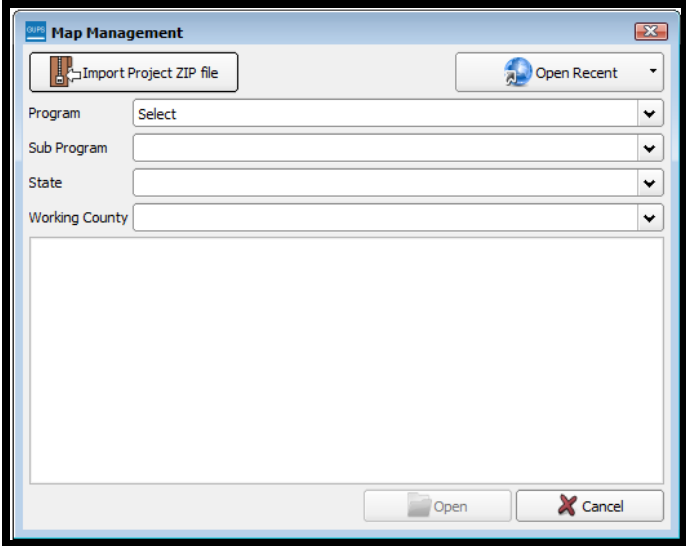
2.3 Opening GUPS and Starting a New Project using My Computer (Data Disc)

GUPS participants with limited internet connectivity for using the '**Census Web**' option can use the partnership shapefiles from the Census Bureau-provided DVD (e.g., the Data Disc) they requested during registration. Participants must copy the data from the Data Disc directly on a local computer's hard drive. Retain the Data Disc as backup in the event something happens to the data copied onto the local computer.

To open the GUPS and begin adding or importing addresses for the New Construction Program using the shapefiles that originate from the Data Disc, follow the steps in **Table 4**.

Table 4: Getting Started with GUPS using Shapefiles from the Data Disc

Step	Action and *Result*
Step 1	Create a new folder or new directory on a local computer. Consider using "NC2020" or "NewConstruction" for the new folder name.
Step 2	Insert the Data Disc into the CD/DVD drive of the local computer with the newly created folder. '**Copy**' and '**Paste**' all of the contents on the Data Disc into the new folder on the local computer.
Step 3	Open the '**shape**' folder on the local computer. Double-click the **2020NC_<EntityID>.exe** to extract the partnership shapefiles necessary to participate in the New Construction Program. *The shapefiles extract into subdirectories created within the 'shape' folder*.

Step	Action and *Result*
![info icon]	DO NOT CHANGE any shapefile or folder name. The files and folders must have the **exact** names given for the GUPS application to recognize and load them.
Step 4	After installing GUPS using instructions in **Table 2** or from the New Construction Program website, select **QGIS Desktop 3.4.4** from the All Programs list in the Start Menu.

The QGIS splash screen appears.

Step 5	*GUPS launches with the* **Map Management** *window.*
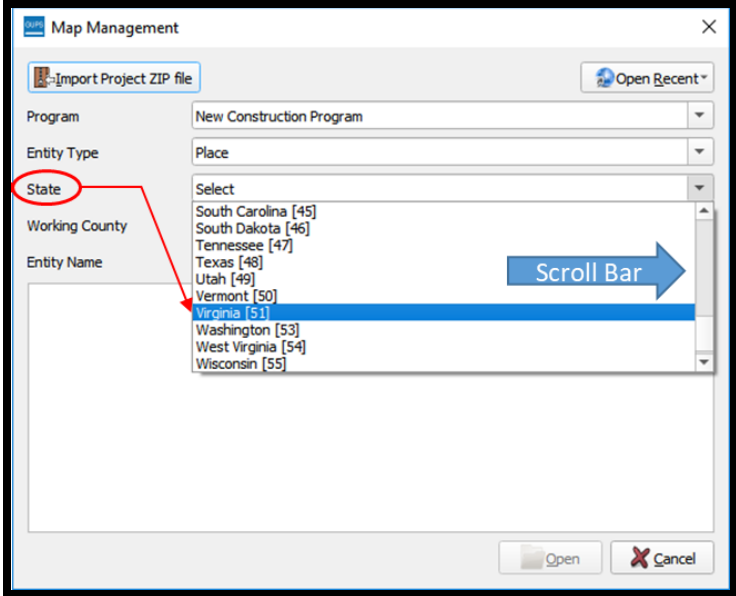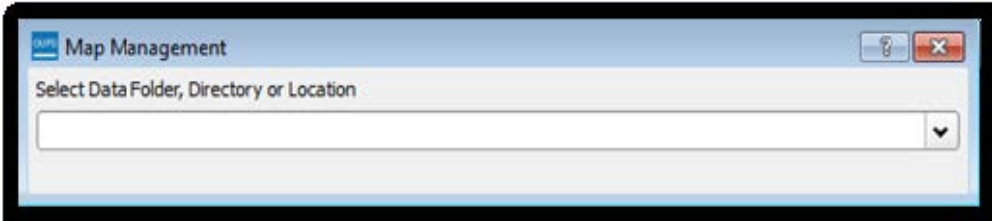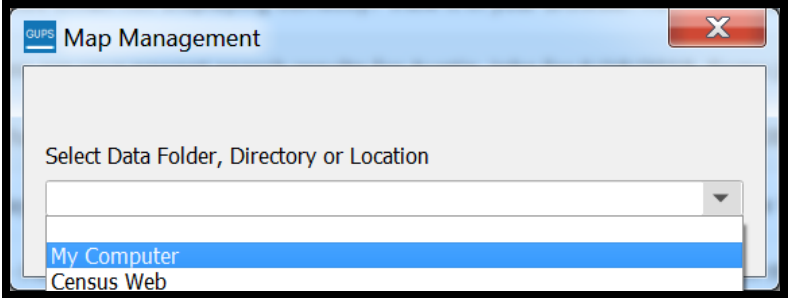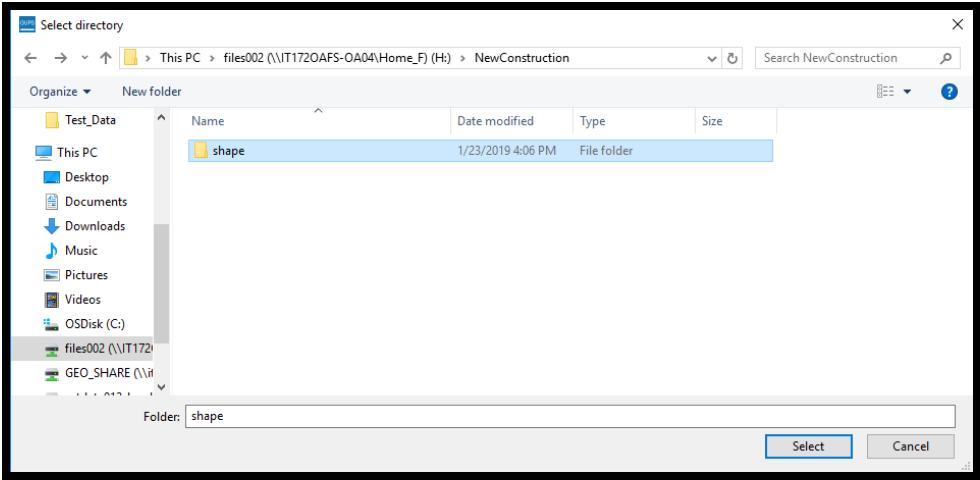
Step	Action and *Result*
Step 6	In the **Map Management** window, use the drop-down menu next to the **Program** field to select the **New Construction Program**. *The 'New Construction Program' populates the Program field.*
Step 7	In the **Entity Type** field, use the drop-down menu to select the type of entity. The options are 'Tribe', 'State', 'County', 'Place', 'Minor Civil Division (MCD)'. Independent city participant should select 'Place'. *This example uses Place as the Entity Type.* **Note**: The subsequent menu options vary, depending on the Entity Type.
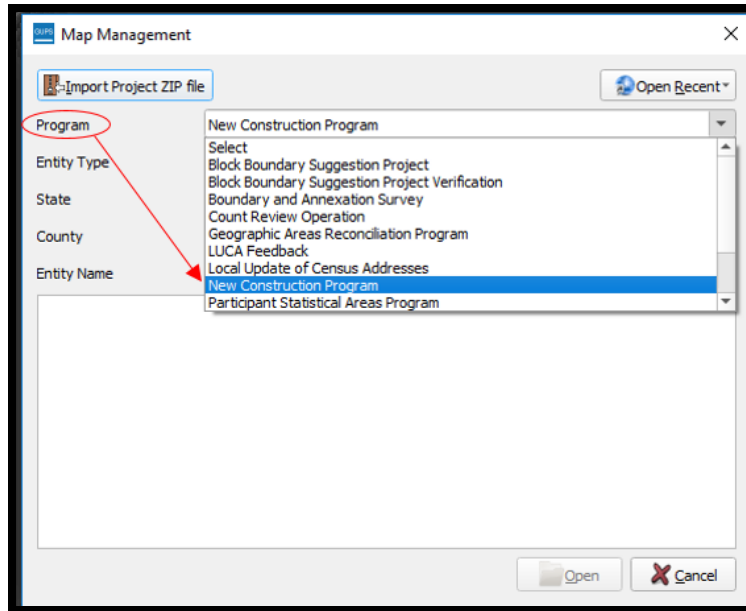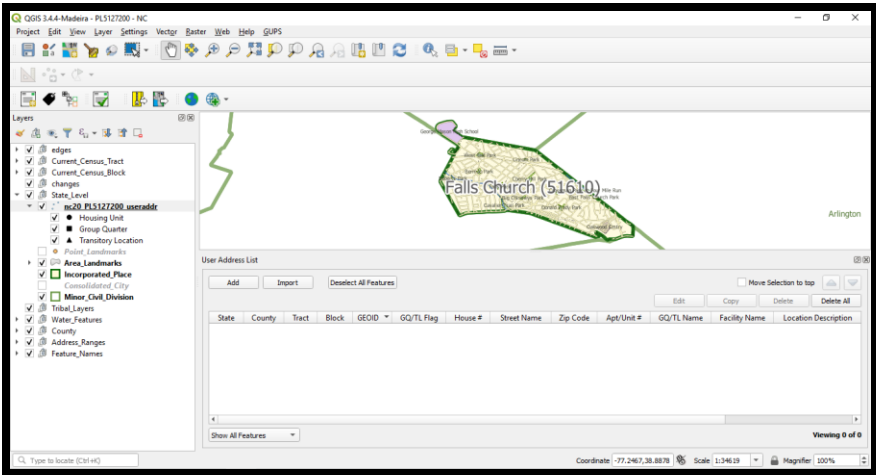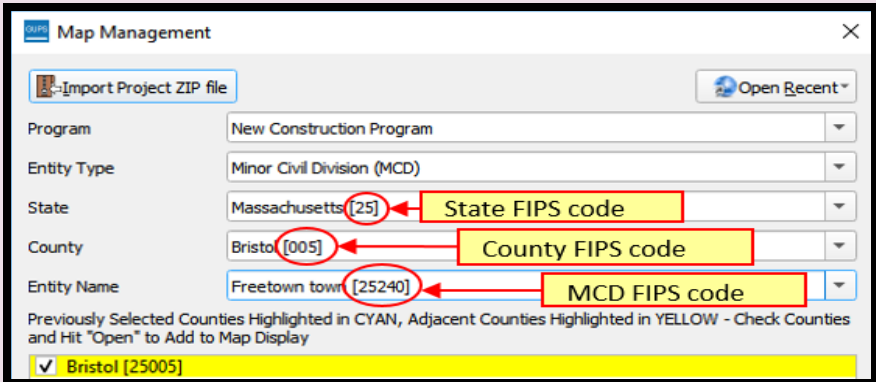
Step	Action and *Result*
Step 8	In the **State** field, use the drop-down menu to select the state. The scroll bar to the right allows participants to move up and down the list of state available. *This example uses Virginia*.
Step 9	After selecting the state, GUPS prompts participants for a location from which to download the place's (or place equivalent's) partnership shapefiles. *The **Select Data Folder, Directory or Location** window opens*. **Note**: The launch of this menu is dependent on the entity type selected. For this example, it launched after choosing the State.

Step	Action and *Result*
Step 10	In the **Select Data Folder, Directory or Location** drop-down menu, select a data download location. This example uses the '**My Computer**' option from the drop-down menu.
	GUPS only asks to specify a download location once per project. When a project closes and reopens, the shapefiles automatically reload, even if a participant made no changes during the first session.
Step 11	With '**My Computer**' selected, navigate to the '**shape**' folder on the local computer where the partnership shapefiles were extracted as explained in Step 3, choose the '**shape**' folder, and then click the **Select** button. **IMPORTANT**: Do not open/double-click into the '**shape**' folder.

Step	Action and *Result*
![info icon]	Important note for the other entity types, Tribe, State, County, and MCD participants: For the '**Tribe**' Entity Type, a drop-down menu that lists all Reservations and Off-Reservations Trust Lands within the Entity Name field activates and allows for the selection of the 'Tribe'. For the '**State**' Entity Type, a drop-down menu that lists all the states within the State field activates and allows the selection of the 'State'. Following the selection of the 'State', a list of counties within that state appears. Participants can select up to 10 counties to load at once. For the '**County**' Entity Type, participants select their state from the drop-down menu next to State field and then select their county from the drop-down menu next to the County field. For the '**MCD**' Entity Type, participants use the drop-down menu next to State field to select the state and then select the county from the drop-down menu next to County field followed by the Entity Name.
Step 12	The shapefiles begin to load and progress is displayed by the blue striped bar (color may vary), with the progress percentage noted to the right. Once complete, *the shapefile data layers for Falls Church city, Virginia, appear in the Table of Contents along with a blank User Address List to use for manually adding or importing addresses and the Map View loads to use for adding map spots to geocode the new address records.*
Step 13	To open a previously saved project, in the **Map Management** window, click the drop-down arrow next to the **Open Recent** button. *The drop-down menu opens with a list of current projects.*

Step	Action and *Result*
![info icon]	Multiple project files, for multiple programs, may appear, as shown above. In the example above, two separate projects exist on the same computer. To identify which of the entries in the list represents a particular project, look at the entity identification code on the file name. The entity identification code is a unique identification number of up to twelve characters in length assigned to each entity by the Census Bureau. The characters are strings composed of letters and numbers. See the chart below for more detail on the entity identification coding.

Entity	Entity Identification Code	Total Characters
Tribe	TR (2 alpha) + (4 numeric tribal code) + TA (2 alpha) + (4 numeric tribal geographic area code)	12
State	ST (2 alpha) + (2 FIPS numeric)	4
County	CO (2 alpha) + State (2 FIPS numeric) + County (3 FIPS numeric)	7
Place	PL (2 alpha) + State (2 FIPS numeric) + FIPS Place (5 FIPS numeric)	9
Minor Civil Division	MC (2 alpha) + State (2 FIPS numeric) + County (3 FIPS numeric) + FIPS MCD (5 FIPS numeric)	12

The entity identification code for a particular geography is available within the **Map Management** window and on the other New Construction Program materials. *Below is an example for Freetown Township, an MCD in Bristol County, Massachusetts.*

Step 14	Proceed to **Chapter 3** for an introduction to the GUPS menus and toolbars.

2.4 Opening GUPS and Starting a New Project using My Computer (Website)

GUPS participants with limited internet connectivity that did not request a CD/DVD during registration download an .exe file that includes the partnership shapefiles from the New Construction Program website. They must also download the respondent guide(s) and the Address List Template, should they wish to use it to import addresses into GUPS or use it instead of using GUPS.

To open the GUPS and begin adding or importing addresses for the New Construction Program using the partnership shapefiles that originate from the website, follow the steps in **Table 5**.

Table 5: Getting Started with GUPS using Shapefiles from the New Construction Program Website

Step	Action and *Result*
Step 1	Create a new folder or new directory on a local computer. Consider using "NC2020" or "NewConstruction" for the new folder name.
Step 2	Navigate to the New Construction Program website and locate the section for downloading data: <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>. **Note**: At the time of creation of this respondent guide, the website development was not complete; therefore, creating a screenshot showing the download data section was not possible. Participants that are unable to locate the download data section on the New Construction Program website can contact the New Construction Program Help Desk at (844) 242-1765 for assistance.
Step 3	Under the download data section, select the name of the state in which the entity is located from the drop-down list. For American Indian Areas, choose "AIA" from the drop-down menu. The system routes participants to a file transfer protocol (FTP) directory for that state or AIAs.
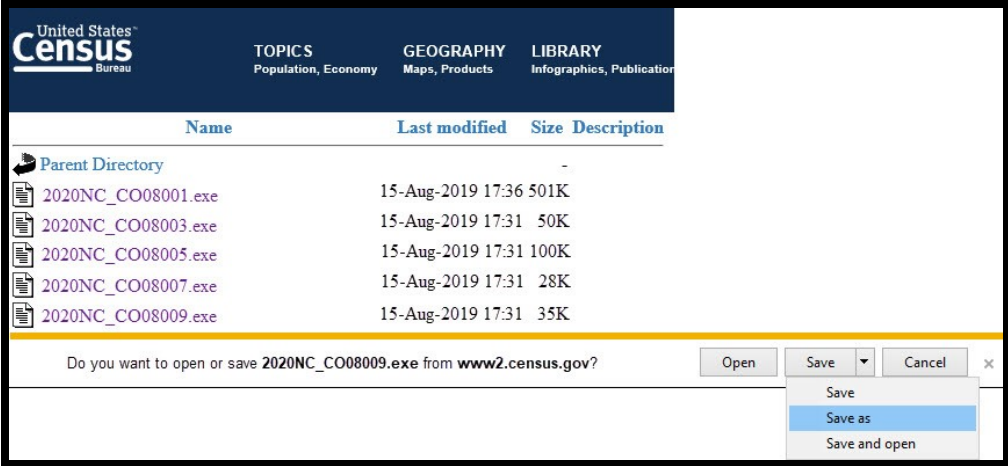
Step	Action and *Result*
Step 4	*For this example, the state of Colorado's FTP directory opens.* The state directory will have additional subdirectories for each entity type in the state. State participants select the .exe file the root directory that includes 'ST'. *The example below shows 2020NC_ST08.exe.* Also in the state directory is a 'locator' text file that lists every entity in the state, the Entity IDs, and the subdirectory in which the data is located. *For example, Alma, Colorado's Entity ID is PL0801530 and its .exe file is located within the place subdirectory.* County participants (i.e., those with Entity ID that begins with CO) choose the county directory. Incorporated place, independent city, or consolidated city participants (i.e., those with Entity ID that begins with PL) choose the place directory. Minor civil division participants (i.e., those with Entity ID that begins with MC) choose the mcd directory. *The example below depicts the state of Colorado's "county" subdirectory.*

Step	Action and *Result*
Step 5	Click the file name to save the .exe file and select '**Save As**' in the drop-down list. *The example shows the selection of CO08009's .exe file.* *The **Save As** pop-up appears with the .exe file appearing in the File Name field*. Navigate to the newly created directory from **Step 1**. Click the **Save** button.
Step 6	Minimize or close the New Construction Program website. Navigate to the newly created directory where the .exe file resides. Double-click the **2020NC_<EntityID>.exe** to extract the partnership shapefiles.

Step	Action and *Result*

The shapefiles extract into subdirectories created within the same folder.

DO NOT CHANGE any shapefile or folder name. The files and folders must have the **exact** names given for the GUPS application to recognize and load them.

Step 7

After following the instructions for downloading and installing GUPS from the New Construction Program website, select **QGIS Desktop 3.4.4** from the All Programs list in the Start Menu.
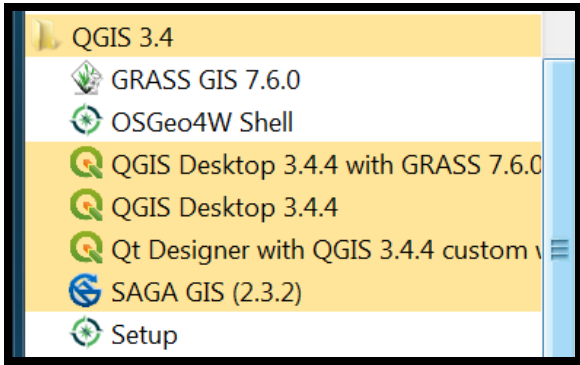
The QGIS splash screen appears.

Step	Action and *Result*
Step 9	*GUPS launches with the **Map Management** window.*
Step 10	In the **Map Management** window, use the drop-down menu next to the Program field to select the **New Construction Program**. *The 'New Construction Program' populates the Program field.*
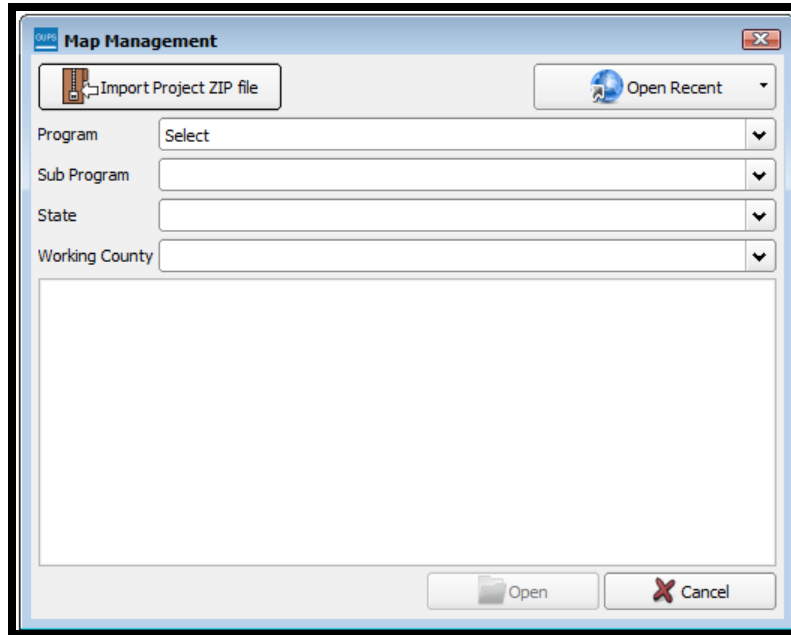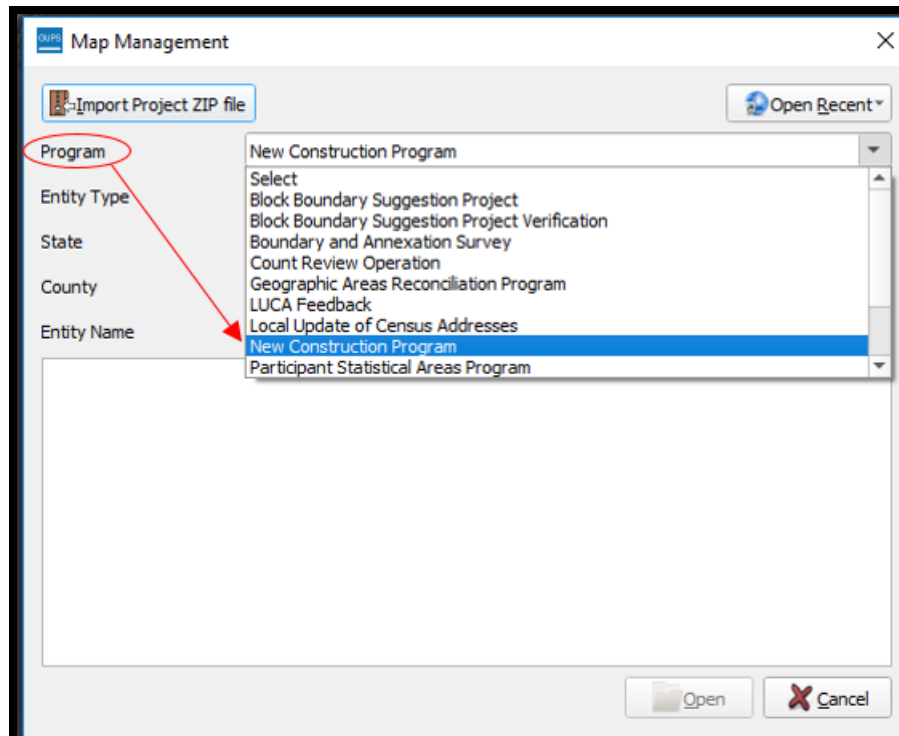
Step	Action and *Result*
Step 11	In the **Entity Type** field, use the drop-down menu to select the type of entity. The options are 'Tribe', 'State', 'County', 'Place', 'Minor Civil Division (MCD)'. Independent city or consolidated city participants should select 'Place'. *This example uses County as the Entity Type*. **Note**: The subsequent menu options vary, depending on the Entity Type.
Step 12	Select the **State** field and use the drop-down menu to select the state then select the **County** field and select the county. *This example uses Baca County, Colorado*.
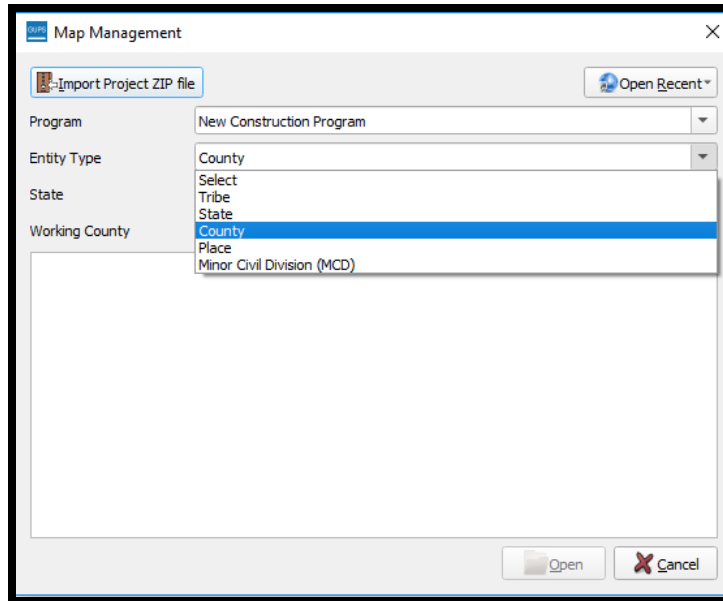
Step	Action and *Result*
Step 13	After selecting the state and county, GUPS prompts participants for a location from which to download the county's partnership shapefiles. *The **Select Data Folder, Directory or Location** window opens*. **Note**: The launch of this menu is dependent on the entity type selected. For this example, it launched after choosing the County.
Step 14	In the **Select Data Folder, Directory or Location** drop-down menu, select a data download location. This example uses the '**My Computer**' option from the drop-down menu.
	GUPS only asks to specify a download location once per project. When a project closes and reopens, the shapefiles automatically reload, even if a participant made no changes during the first session.

Step	Action and *Result*
Step 15	With '**My Computer**' selected, navigate to the folder on the local computer where the partnership shapefiles extracted (i.e., where the .exe file resides) and choose that folder. Do not open or double-click the folder. Click the **Select** button. **IMPORTANT**: Do not open or double-click into the folder because GUPS is programmed to search for specific subdirectories created with .exe file extraction.
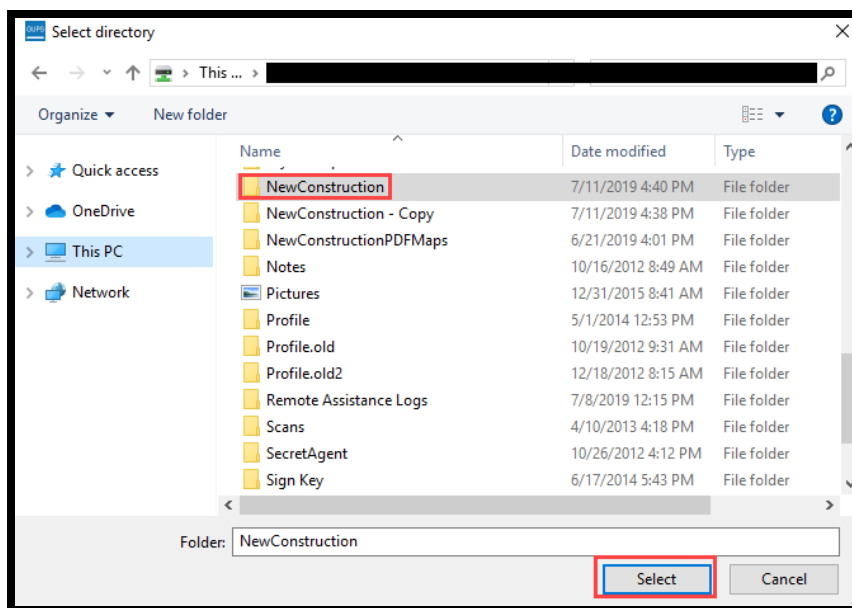
	Important note for the other entity types, Tribe, State, Place, and MCD participants: For the '**Tribe**' Entity Type, a drop-down menu that lists all Reservations and Off-Reservations Trust Lands within the Entity Name field activates and allows for the selection of the 'Tribe'. For the '**State**' Entity Type, a drop-down menu that lists all the states within the State field activates and allows the selection of the 'State'. Following the selection of the 'State', a list of counties within that state appears. Participants can select up to 10 counties to load at once. For the '**Place** Entity Type, participants select their state from the drop-down menu next to State field and then select their place from the drop-down menu next to the Entity Name field. For the '**MCD**' Entity Type, participants use the drop-down menu next to State field to select the state and then select the county from the drop-down menu next to County field. GUPS directs participants to select the location from which to download the shapefiles.
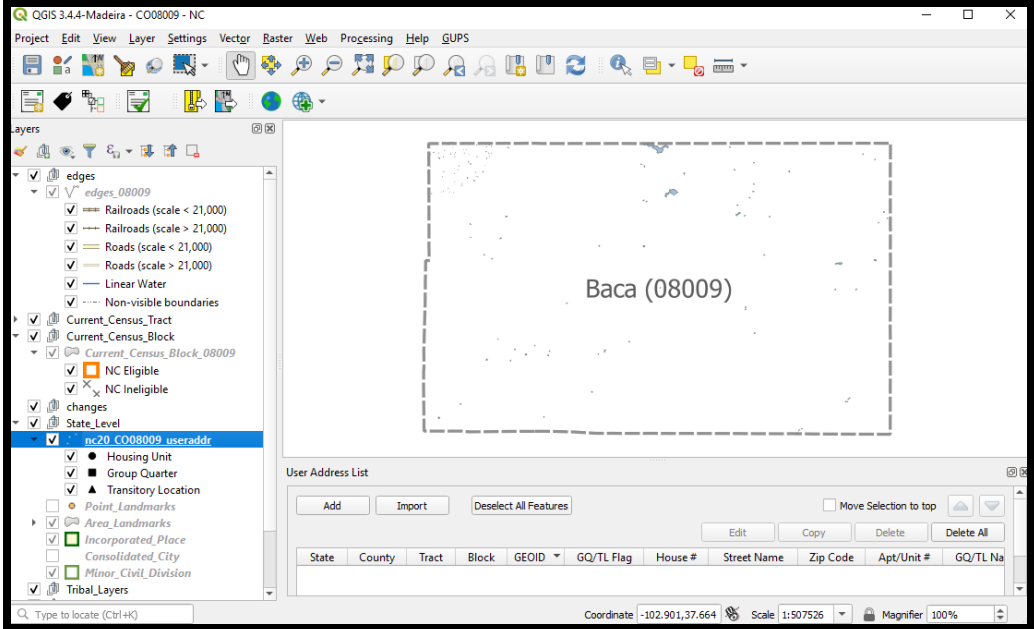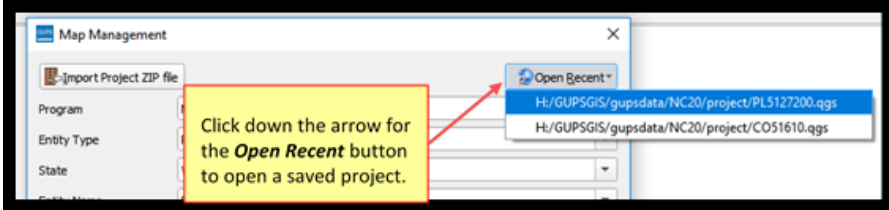
Step	Action and *Result*
Step 16	The shapefiles begin to load and progress is displayed by the blue striped bar (color may vary), with the progress percentage noted to the right. Once complete, *the shapefile data layers for Baca County, Colorado, appear in the Table of Contents along with a blank User Address List to use for manually adding or importing addresses and the Map View loads to use for adding map spots to geocode the new address records.*
Step 17	To open a previously saved project, in the **Map Management** window, click the drop-down arrow next to the **Open Recent** button. *The drop-down menu opens with a list of current projects.*

Step	Action and *Result*
	Multiple project files, for multiple programs, may appear, as shown above. In the example above, two separate projects exist on the same computer. To identify which of the entries in the list represents a particular project, look at the entity identification code on the file name. The entity identification code is a unique identification number of up to twelve characters in length assigned to each entity by the Census Bureau. The characters are strings composed of letters and numbers. See the chart below for more detail on the entity identification coding.

Entity	Entity Identification Code	Total Characters
Tribe	TR (2 alpha) + (4 numeric tribal code) + TA (2 alpha) + (4 numeric tribal geographic area code)	12
State	ST (2 alpha) + (2 FIPS numeric)	4
County	CO (2 alpha) + State (2 FIPS numeric) + County (3 FIPS numeric)	7
Place	PL (2 alpha) + State (2 FIPS numeric) + FIPS Place (5 FIPS numeric)	9
Minor Civil Division	MC (2 alpha) + State (2 FIPS numeric) + County (3 FIPS numeric) + FIPS MCD (5 FIPS numeric)	12

The entity identification code for a particular geography is available within the **Map Management** window and on the other New Construction Program materials. *Below is an example for Freetown Township, an MCD in Bristol County, Massachusetts.*

Step 18	Proceed to **Chapter 3** for an introduction to the GUPS menus and toolbars.

CHAPTER 3.   GUPS MENUS AND TOOLBARS

With an introduction to getting started with GUPS and the choices for accessing the partnership shapefiles provided in the previous chapter, the focus of this chapter is to provide information on the GUPS menus and toolbars used most frequently in the New Construction Program as well as discussing the layout of the Table of Contents and Map View.

3.1   GUPS Main Page

Figure 1 shows the layout of the GUPS main page following the launch of GUPS for the New Construction Program. This page contains all the tools needed for completing the New Construction Program using GUPS. The main elements include:

- Menu Bar.
- Table of Contents.
- Map View (where the data displays).
- Toolbars (e.g., Standard toolbar and New Construction toolbar).
- User Address List.
- Status Bar (at bottom of page).
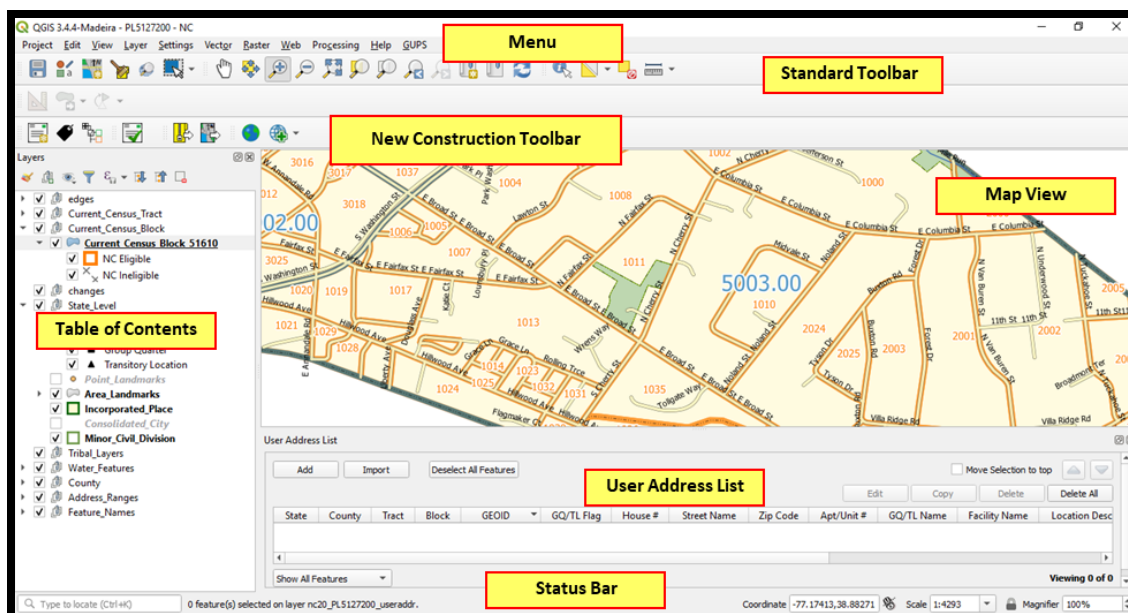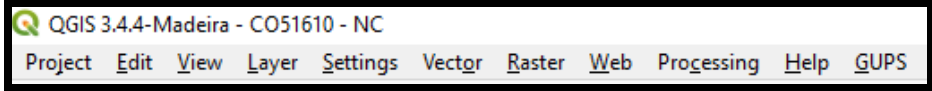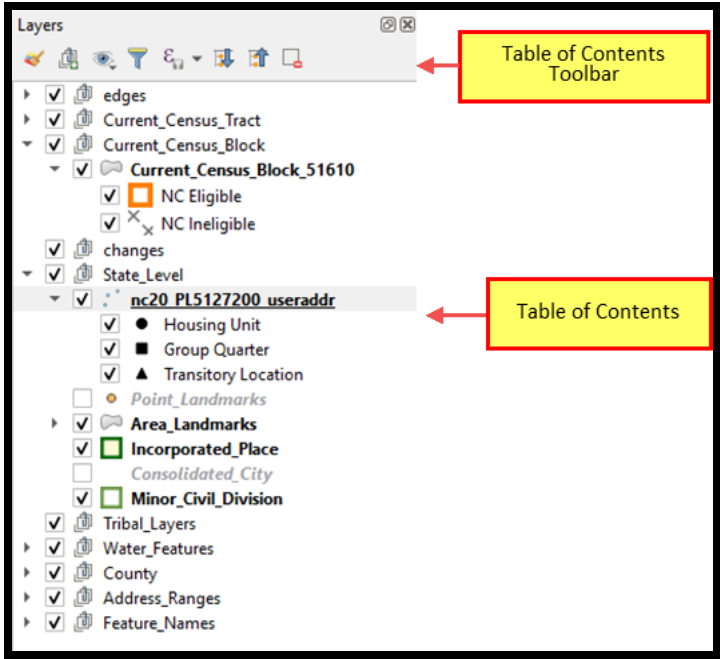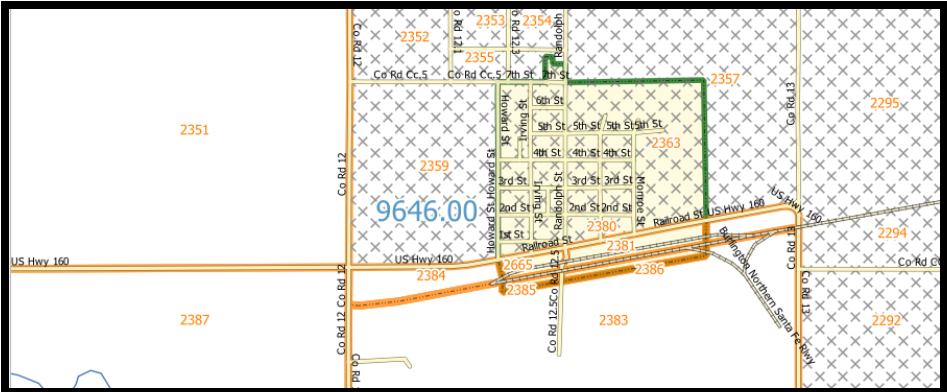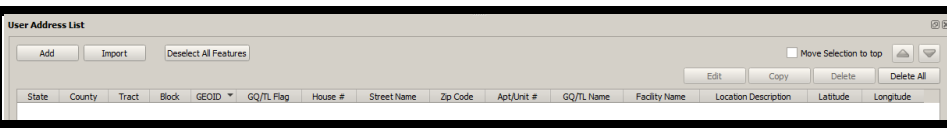
Figure 1: GUPS Main Page Layout

Table 6 explains the purpose of main elements on the GUPS Page Layout for the New Construction Program. For detailed descriptions and functions of the additional menus and toolbars, please see **Appendix A**.

Table 6: GUPS Main Page Elements

Page Element	General Function
Menu Bar	The **Menu Bar** offers basic features such as **Settings** and **Help,** tools to manage the map view and import user-provided data, as well as important calculation, measurement, and geoprocessing tools. Note that almost all of the functions available from the **Menu Bar** are also available in the application's more conveniently located toolbars. More information on this page element is available in **Appendix A.1**. QGIS 3.4.4-Madeira - CO51610 - NC Project Edit View Layer Settings Vector Raster Web Processing Help GUPS
Table of Contents	The **Table of Contents** shows the layers (boundaries and features) on the map for the entity type selected, including NC eligible/ineligible block designations, and housing type designations. The top panel allows users to style layers, add layer (or groups), manage layer visibility, filter content, expand or collapse layers, and to remove layers. Layers Table of Contents Toolbar edges Current_Census_Tract Current_Census_Block Current_Census_Block_51610 NC Eligible NC Ineligible changes State_Level nc20_PL5127200_useraddr — Table of Contents Housing Unit Group Quarter Transitory Location Point_Landmarks Area_Landmarks Incorporated_Place Consolidated_City Minor_Civil_Division Tribal_Layers Water_Features County Address_Ranges Feature_Names

Page Element	General Function
Map View	The **Map View** displays the data for the county selected in the **Map Management** window.
Standard Toolbar	The **Standard toolbar** provides the navigation and other tools needed to interact with the map and layers' attribute tables. More information on this page element is available in **Appendix A.3**.
New Construction Toolbar	The **New Construction toolbar** provides the specific tools needed to open the User Address List, turn address labels off/on, toggle the legend, review address list inputs for submission and errors, export zipped files, print, and interact with imagery layers. More information on this page element is available in **Section 4.1**.
User Address List	The **User Address List** includes tools to add addresses manually or import addresses from a local address list (.csv or .txt format only). Once addresses are added, the User Address List has tools to deselect, edit, copy, delete, and filter the data as needed. More information on the User Address List is available in **Section 4.1.2**.
Status Bar	The **Status Bar**, located along the bottom of the GUPS window, displays information on the map scale, projection, and coordinates and allows the user to adjust the display. More information on this page element is available in **Appendix A.2**.

3.2 Table of Contents and Map View

When choosing a program and geography in the Map Management window, GUPS automatically loads a set of default data layers (and default layer groups) defined by the Census Bureau for the program selected. As the map opens in Map View, the list of the preset layers (already grouped) appears in the Table of Contents. **Figure 2** illustrates some of the default data layers and layer groups.
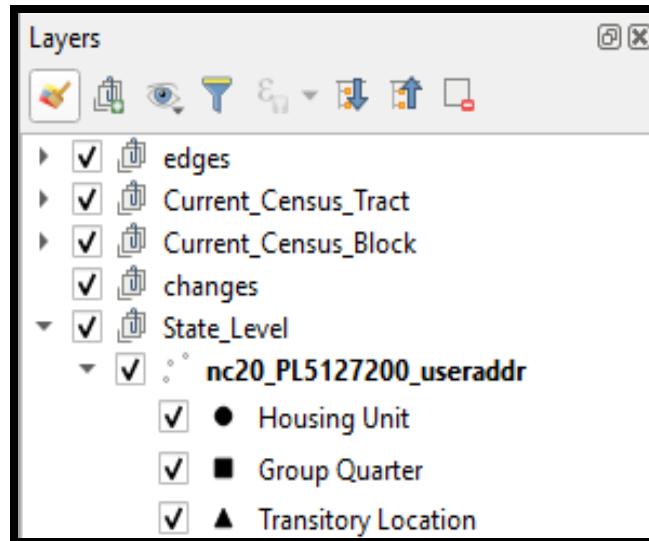
Figure 2: Table of Contents - Default Layers and Layer Groupings

Use the Table of Contents and the small toolbar appearing at its top to manage the Map View. The Table of Contents and the Map View windows are interdependent. This means selections made in the Table of Contents immediately reflect in the Map View. By clicking the small 'x' in the upper right hand corner of the Table of Contents, participants may close it to see more of the Map View. To restore the Table of Contents, click the button Show Hide button from the New Construction toolbar as shown in **Table 7**. The Table of Contents will then reopen and display in its default position on the page.

For the New Construction Program, participants can manage layer visibility (i.e., determine what layers display on the map), reordered the data layers, and expand and collapse grouped data layers to see what lies within the grouping. This functionality may assist participants with viewing information more appropriately in the Map View.

To manage visibility, click the checkbox next to a layer to make the layer visible (e.g., turn the layer on) in the Map View. Uncheck the checkbox (e.g., turn the layer off) next to a layer to make the layer invisible in the Map View. This tactic may prove beneficial if the Map View is cluttered with too many data layers.

The order in which the layers appear in the Table of Contents determines the order that the layers display in the Map View. The layers at the top of the Table of Contents display on top of the layers that appear below them. While programmed to display data layers in an order that works for most participants, adding imagery or other data layers may require a reordering of layers in order for the map elements to appear properly within GUPS. To manage the data order, follow these steps:

- Left-click on the data layer name in the Table of Contents.
- Hold down the mouse button and drag the layer to the desired position in the Table of Contents.
- Release the mouse button to place the data layer in its new position. The Map View display will then reflect the new layer order in the Table of Contents.

To expand the menu for a layer or grouped layer, click the ' ▶ ' symbol. When clicking the ' ▶ ' symbol, the submenu opens as visible in **Figure 3** for *Current_Census_Block_51610*. Click the ' ▾ ' symbol to collapse the submenu.
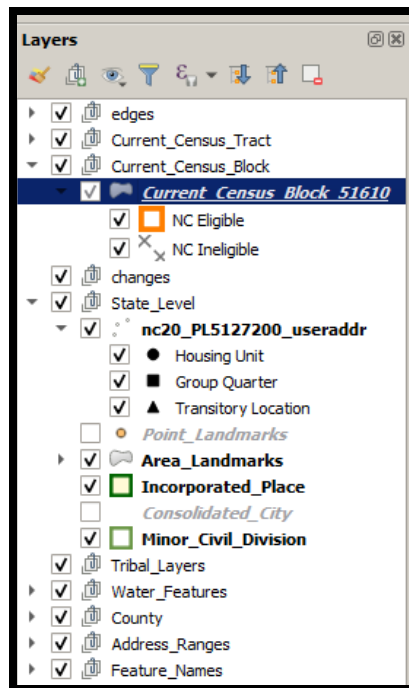
Figure 3: Expand/Collapse Layers

CHAPTER 4.   USING GUPS FOR THE NEW CONSTRUCTION PROGRAM

With the information presented in the first three chapters, this chapter turns its focus to teaching participants about specific tools necessary to add or import addresses into GUPS for the New Construction Program.

IMPORTANT: The various examples included within this documentation are fictitious and does not include Title 13 protected data.

4.1 The New Construction Toolbar

Table 7 details the New Construction toolbar, introduced in **Table 6**.
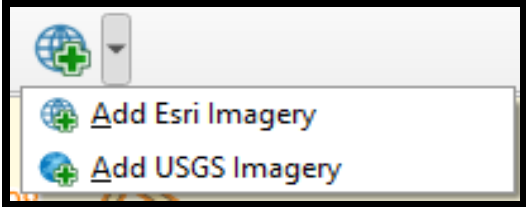
Table 7: New Construction Toolbar Buttons

Button	Name	Function/Description
	User Address List	Click the **User Address List** button to activate the User Address List and reopen it if closed.
	Show Label On/Off	Click the **Show Label On/Off** button to turn on and off the map spot labels from the User Address List in the Map View.
	Show/Hide Legend	Click the **Show/Hide Legend** button to hide the legend (e.g., Table of Contents). Click it again to shows the Table of Contents.
	Address Review Tool	Click the **Address Review Tool** button to preform quality checks of the User Address List before executing the Export to Zip button to ensure the address records in the User Address List are valid and do not contain errors. This tool is particularly beneficial for participants that import their addresses from an external source rather than manually adding them directly into GUPS.
	Export to Zip	Click the **Export to Zip** button to create the .zip file containing all required data and for submission to the Census Bureau. Execute the Address Review Tool first to ensure the data is valid.
	Print Map to File	Click the **Print Map to File** button to export a printable map in *.pdf, *.png, *.tif, or *.jpeg format.
	Internet Map Service	Click the **Internet Map Service** button to load a GIS map service from the internet into GUPS to assist with overlaying external source visuals/data. Note: An internet connection is required for this button to function.
	Add Imagery	Click the **Add Imagery** button to add either United States Geological Survey (USGS) or Esri imagery to overlay the data in GUPS. Remove imagery by using the same button.

4.1.1   Adding Imagery to the Map View

After successfully opening GUPS and starting a new project, one of the first actions the Census Bureau recommends is loading imagery to assist with accurate map spot placement and geocoding for new addresses. To add imagery in the GUPS Map View; follow the steps in **Table 8**. To reference imagery outside of GUPS in a separate internet browser, follow the steps for adding an internet map service as described in **Table 9**.

Table 8: Add Imagery Button

Step	Action and *Result*
Step 1	Click the drop-down menu next to the **Add Imagery** button from the New Construction toolbar. Choose **Add Esri Imagery** or **Add USGS Imagery** to add the imagery file to the Map View.
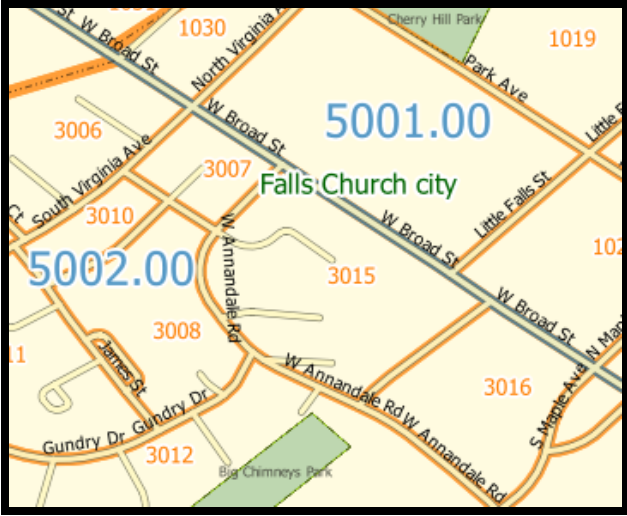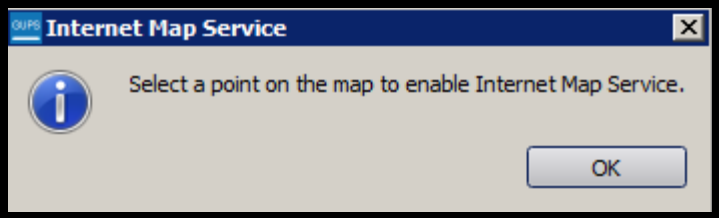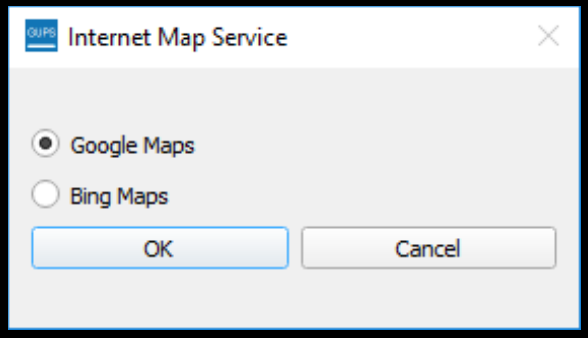
Step	Action and *Result*
Step 2	*The screenshots below includes a visual of the Map View without and with imagery added.*
Step 3	To remove the imagery from the map display, click again on the **Add Imagery** button or uncheck the imagery layer from the **Table of Contents** to manage the layer visibility as described in **Section 3.2**.

Table 9: Referencing Imagery from an Internet Map Service

Step	Action and *Result*
Step 1	From the **New Construction Program toolbar**, click the **Internet Map Service** button. *A pop-up display window appears asking the participant to "Select a point on the map to enable Internet Map Service."*
Step 2	Click on a point in the Map View. *The **Internet Map Service** pop-up display window opens with two options, **Google Maps** and **Bing Maps**. Check one option and choose **OK** to launch an internet browser displaying the imagery of the location selected in the Map View.*
Step 3	Participants may use the imagery launched from this tool to compare with the Map View. They can close the internet browser when they complete their comparison.

4.1.2 The User Address List

As described in **Table 7** and shown below in **Figure 4**, the button for the User Address List is located on the New Construction toolbar. It provides ways to add, import, copy, and manipulate address data. As shown in **Figure 5**, the User Address List opens empty at the bottom of the initial GUPS startup screen for the New Construction Program project for a participant. If participants close the User Address List to make more room for the Map View or close it in error, they may reopen it by clicking the User Address List button on the New Construction toolbar.

Figure 4: User Address List Button on the New Construction Toolbar
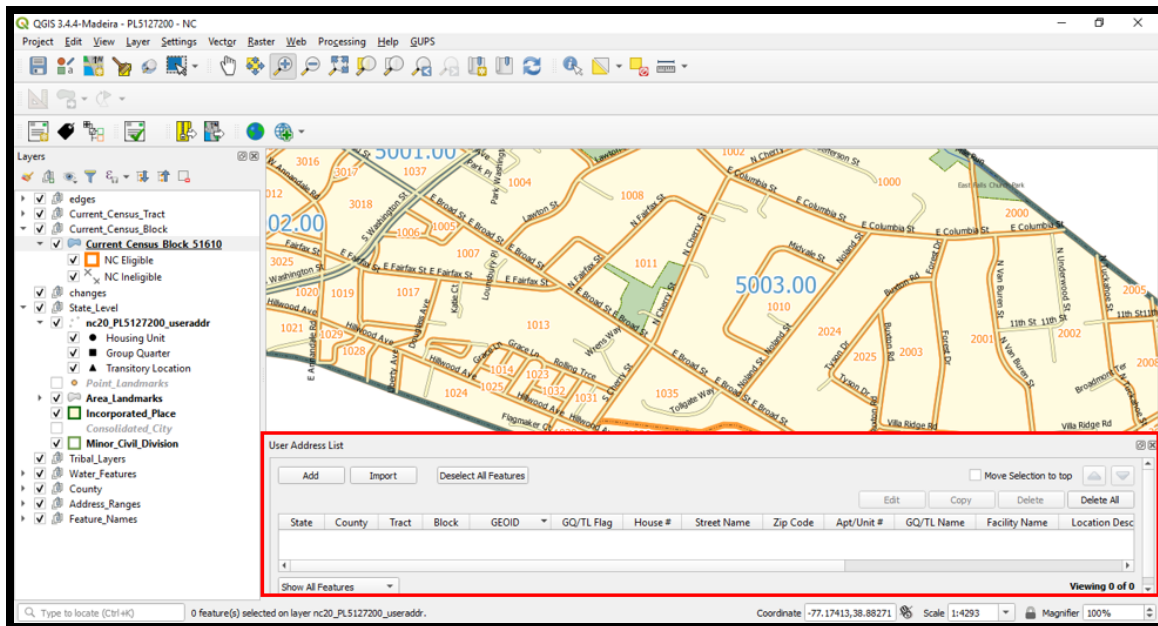
Figure 5: User Address List within GUPS for the New Construction Program

The User Address List offers tools to add addresses manually or import an address list file (CSV or text format only). Added addresses may be selected, edited, copied, deleted, and filtered as needed. Participants can add newly constructed addresses for census blocks in their jurisdiction that are <u>eligible</u> for the New Construction Program. Recall from **Section B** that only blocks where the Census Bureau plans self-enumeration are eligible for inclusion in the New Construction Program.

Eligible blocks display in GUPS with an orange border. They are in the Table of Contents as an attribute of the **Current_Census_Block** layer with the layer name of **NC Eligible**. See **Figure 3** for a visual of this layer in the Table of Contents. **Figure 6** illustrates an example of eligible and ineligible blocks within the GUPS Map View. In this example, participants must submit addresses only for blocks 2348 and 2351 in census tract 9646.00 since they are the only two eligible blocks shown. The Census Bureau would reject addresses received for the other five blocks in the example (e.g., 2352, 2353, 2354, 2349, and 2357).
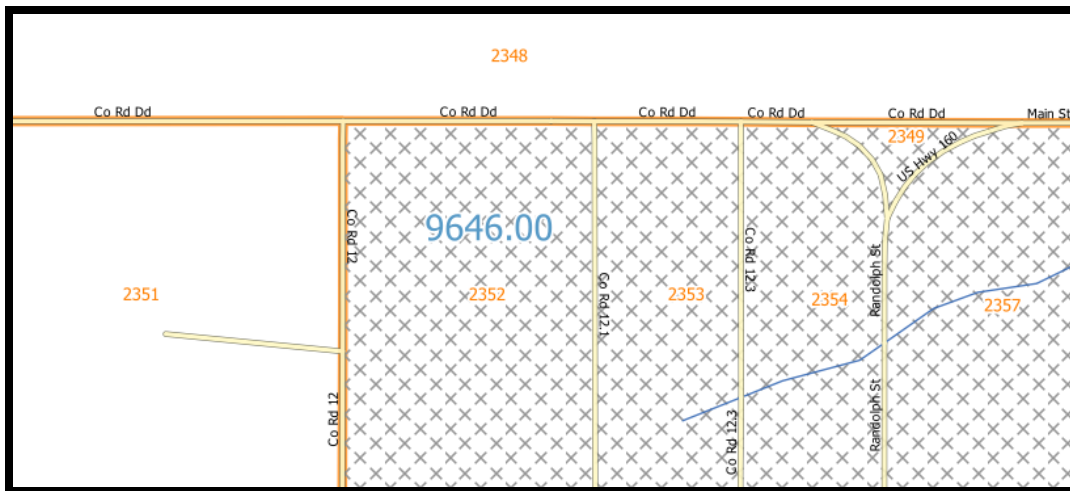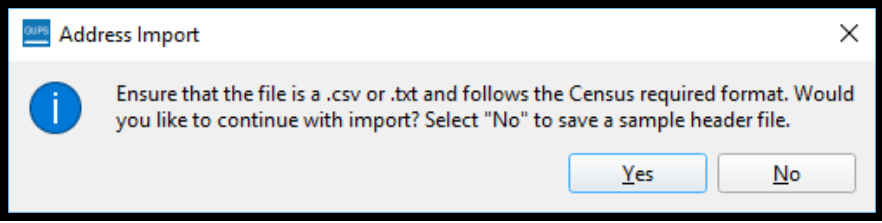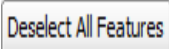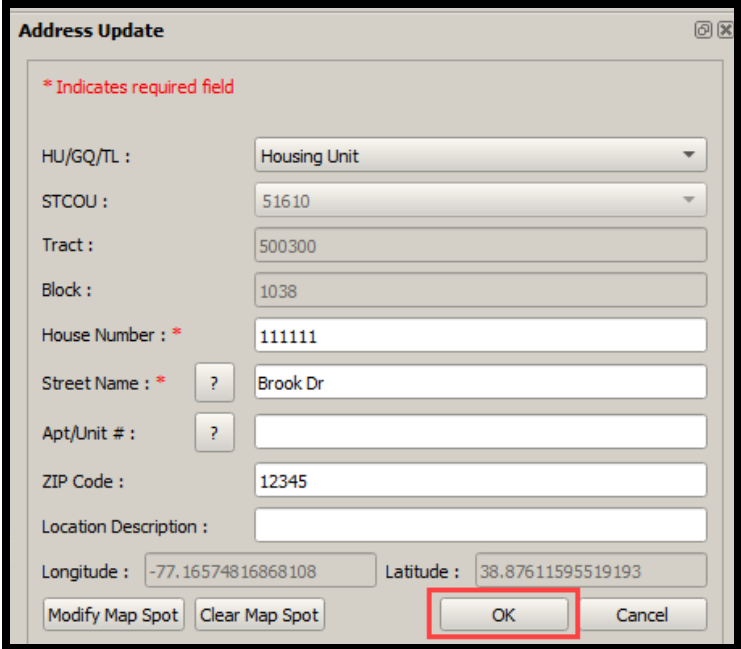
Figure 6: New Construction (NC) Eligible and Ineligible Census Blocks

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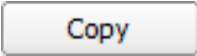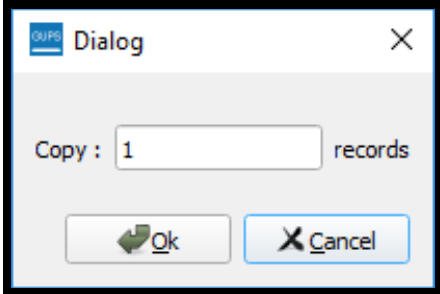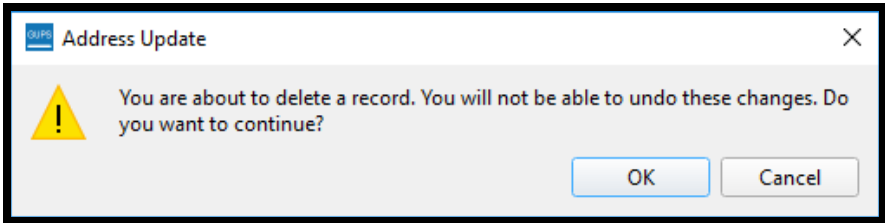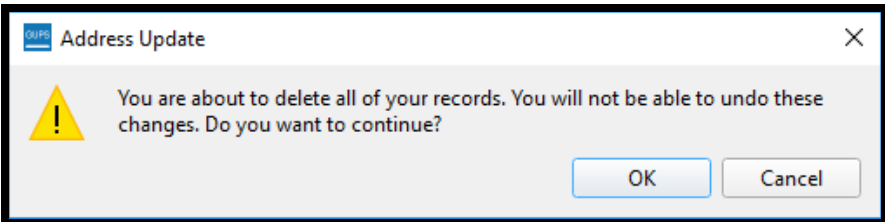
IMPORTANT: The New Construction Program only accepts residential, city-style addresses for living quarters located in the census blocks eligible for the New Construction Program.

With the discussion of eligible blocks complete, the remainder of this chapter focuses on the User Address List itself. **Table 10** describes the buttons located within the User Address List once it appears within the New Construction Program project.

Table 10: User Address List Buttons

Button	Function/Description
Add	Click the **Add** button to open the Address Update form shown below. Fields with and asterisk (*) are required. The required fields do not appear in the example because the structure type (HU/QG/TL) remains unselected.

Button	Function/Description
Import	Click the **Import** button to import participant created/maintained address files. The format of the file must be text format, either.csv or .txt. **Address Import** ✕ ⓘ Ensure that the file is a .csv or .txt and follows the Census required format. Would you like to continue with import? Select "No" to save a sample header file. Yes No
Deselect All Features	Click the **Deselect All Features** button to deselect all rows/lines/address points selected in the User Address List.
☐ Move Selection to top	Check the **Move Selection to top** button to move the selected row(s) to the top of the User Address List.
🔼	Click the **Move Up** button to move the highlighted record to the next line up in the User Address List.
🔽	Click the **Move Down** button to move the highlighted record to the next line down in the User Address List.
Edit	Click the **Edit** button to reopen the Address Update form for a selected record in the User Address List as shown below. Participants can edit the information in the form. **Address Update** * Indicates required field HU/GQ/TL : Housing Unit STCOU : 51610 Tract : 500300 Block : 1038 House Number : * 111111 Street Name : * ? Brook Dr Apt/Unit # : ? ZIP Code : 12345 Location Description : Longitude : -77.16574816868108 Latitude : 38.87611595519193 Modify Map Spot Clear Map Spot OK Cancel

Button	Function/Description
Copy	Click the **Copy** button to copy a selected address record in the User Address List. After selecting the **Copy** button, a **Dialog** window appears prompting participants for the number of copies to create.
	Once copied, participants use the **Edit** button to modify the duplicate records in the User Address List. Participants may find this button useful when adding multi-unit address records such as apartments, condominiums, townhomes, etc.
Delete	Click the **Delete** button to delete a selected record or records from the User Address List. After selecting the address record(s) and clicking the **Delete** button a warning window appears, as shown below. Participants can click **OK** to delete or **Cancel** to abort the deletion. **OK** permanently deletes the selected records from the User Address List.
Delete All	Click the **Delete All** button to delete all records from the User Address List. This button removes every record in the User Address List without having to select them. As with the **Delete** button, a warning message appears that warns participants the deletion is permanent. Participants can click **OK** to delete or **Cancel** to abort the deletion. **OK** permanently deletes all records from the User Address List.
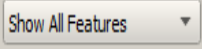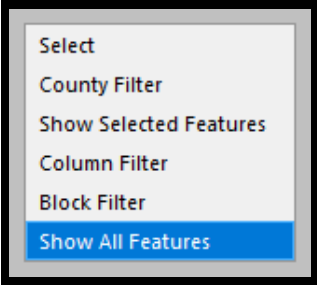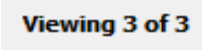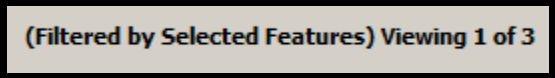
Button	Function/Description
Add Map Spot	Once a participant has selected the **Add** button, *an Address Update window launches with a form (i.e., Address Update form) to complete for the new address*. Click the **Add Map Spot** button to add a map spot to the Map View and update the geocode information (e.g., the latitude and longitude coordinate and the tract and block information) in the form. Participants must zoom in on the eligible census block before clicking on the **Add Map Spot** button. *A "+" sign indicates GUPS is ready to capture the map spot*. Before and after examples are below.
Clear Map Spot	Within the Address Update form, participants may click the **Clear the Map Spot** button to clear the map spot from the Map View and the Address Update form. This button is functional prior to saving the record as well as while using the **Edit** button within the User Address List after the adding the address.
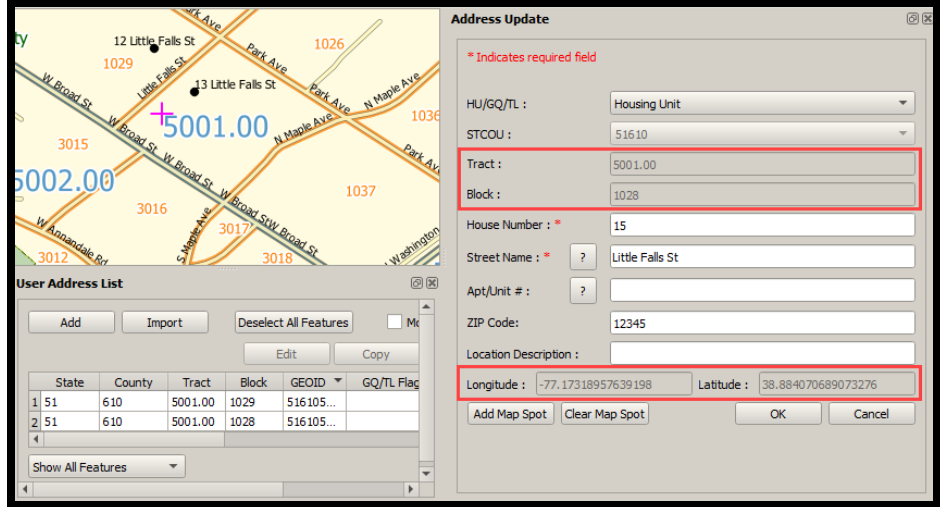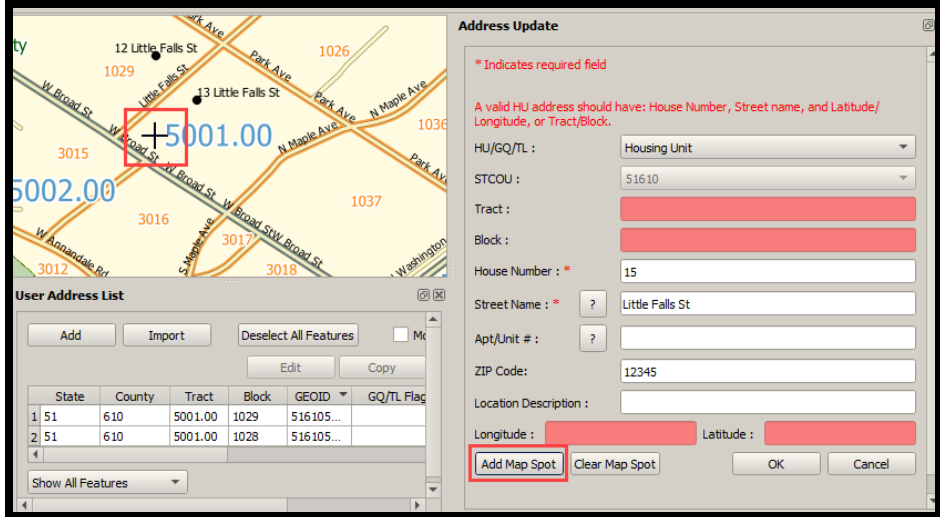
Button	Function/Description
Show All Features ▼	Click the **Show All Features** button to expose filter options within the User Address List. The default is to show all the features, but the User Address List can be filtered county, selected features, columns, and blocks as shown below.
Viewing 3 of 3	This section, in the bottom right of the User Address List, relates to the use of the **Show All Features** button. It depicts the visible number of addresses in the User Address List compared to the total number of addresses in the User Address List. These numbers can vary based on the filters. See below for an example.

4.1.2.1 Adding Addresses

Having completed the introduction to the User Address List and the buttons within it, this section highlights one of the two ways for adding addresses. Participants may add addresses manually by using the **Add Map Spot** button within the User Address List to add the geocode (e.g., census tract and census block information) or they may add addresses manually by using their own local address and/or map source(s) as a reference to locate the area in GUPS and manually key the geocode information. Participants may opt to use a single method or a combination of both to add a housing unit, group quarters, or transitory location to the User Address List.

Table 11 provides specific instructions necessary to add an address using the **Add Map Spot** button. To enter the geocode information manually using a local source to key the geocode, follow the guidance in **Table 12**.
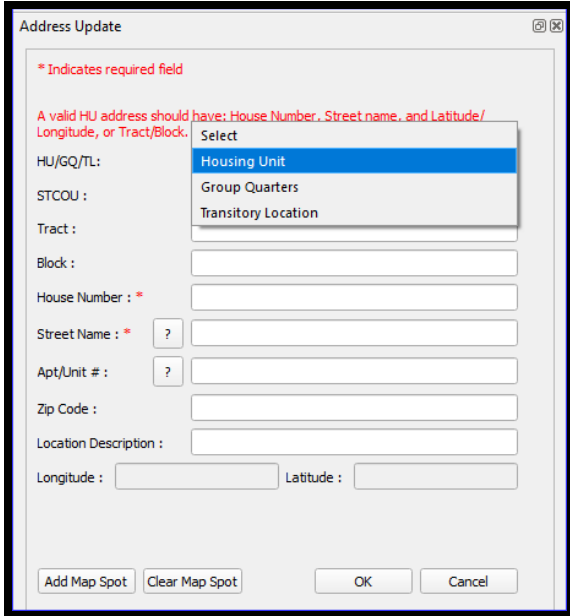
4.1.2.1.1 Manually Adding an Address Using the Add Map Spot Button
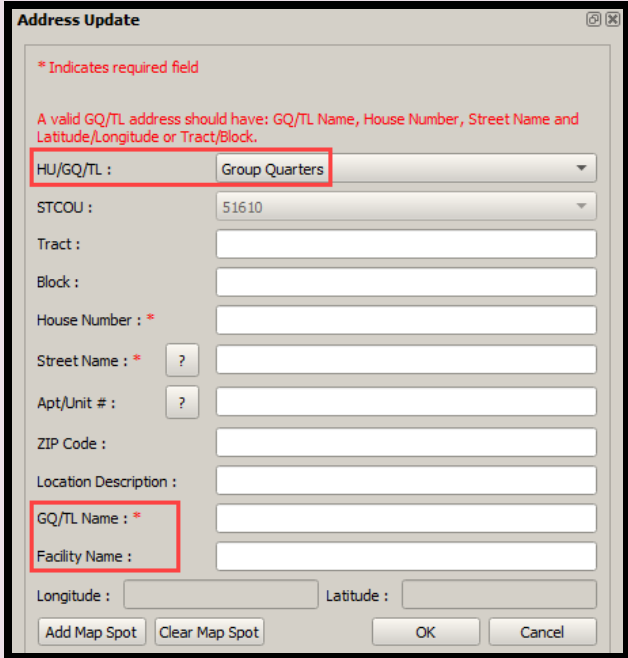
The example in the table within this section adds an address for a housing unit. Additional fields appear for adding a group quarters or transitory location, but participants follow the same process to add those types of residential address records. Refer to the Glossary in **Appendix F** for definitions and types of housing units, group quarters, or transitory locations.
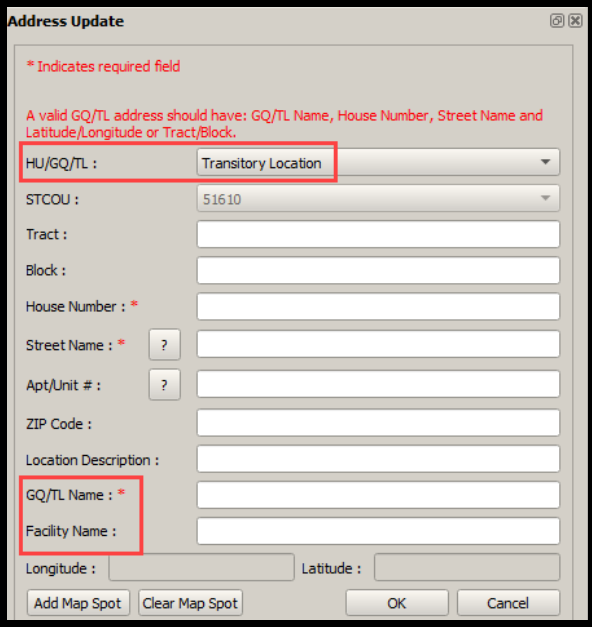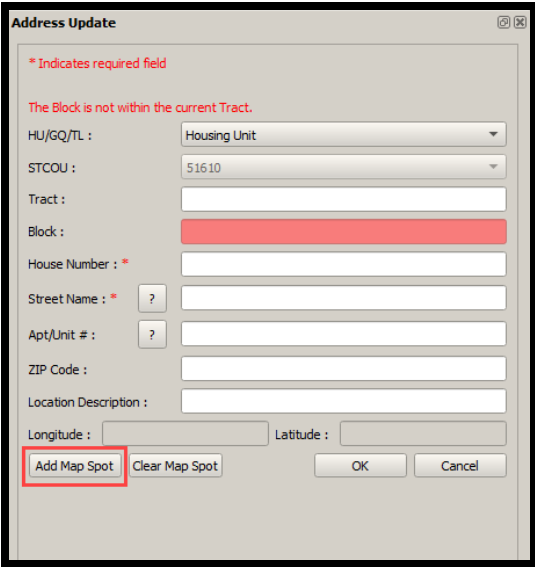
Table 11: Adding an Address Using the Add Map Spot Button

Step	Action and *Result*
Step 1	Once a participant determines from the local sources that adding an address is necessary, locate the census block on the Map View to add the address record. Use the **Pan Map**, **Zoom In**, or **Zoom Out** buttons on the **Standard toolbar** to shift and display the map at a larger or smaller scale. For information on the **Standard toolbar** buttons, refer to **Appendix A.2**.
	The Census Bureau strongly recommends the use of imagery to assist with the placement of map spots within GUPS. To add imagery, refer to **Section 4.1.1**.
Step 2	Once zoomed to the specific location on the Map View, click the **Add** button from the User Address List. *The Address Update form opens to complete for a new address.*

Step	Action and *Result*
Step 3	For this example, select **Housing Unit** from the **HU/GQ/TL** drop-down menu. Fields with a red asterisk (*) are required.
	If a participant selects *Group Quarters or Transitory Location, the fields GQ/TL Name and Facility Name appear.* Participants must enter the **GQ/TL name** and the **Facility Name**, if applicable, when adding addresses for GQs or TLs. See below for visuals of the GQ and TL selections.

Step	Action and *Result*
	Though not marked by asterisks, geocode information is required. It is the participants' choice whether to include the geocode by utilizing the **Add Map Spot** button to gather a latitude and longitude coordinate or by manually entering the six-digit tract number and four-digit block (with suffix if applicable) number. If capturing a map spot, the **Latitude** and **Longitude** fields and the **Tract** and **Block** fields automatically populate with the addition of the map spot in the Map View. The Census Bureau recommends using the **Add Map Spot** button, in conjunction with imagery, to capture an accurate latitude and longitude coordinate for each added address record, whenever possible.
Step 4	Click the **Add Map Spot** button to add the latitude and longitude coordinate for a housing unit record.

Step	Action and *Result*
Step 5	If necessary, zoom further into the Map View to choose the appropriate location for the address and click the mouse to add the map spot. *A pink cross hair identifies the map spot location. The latitude and longitude coordinates associated with the map spot location in the Map View and the tract and block information automatically fill on the Address Update form.*
	Please note that a census block number may include a one or two digit alpha suffix. In the screenshot below, census block 2009 contains suffix B. Participants using **Add Map Spot** must not worry about the inclusion of the suffix because the tool automatically includes the complete tract and block information.

Step	Action and *Result*
Step 6	Enter the required information (e.g., the **House Number** and **Street Name**) and other applicable information (e.g., **Apt/Unit #** and **ZIP Code**) to complete the address record. Select **OK** to save the new address in the User Address List. **Reminder**: All information is for training purposes and is fictitious. There is no Title 13 information displayed.

Step	Action and *Result*
Step 7	Save the project after making updates. Once all address updates are complete, refer to **Section 4.1.2.3** for instructions on the Address Review Tool.

4.1.2.1.2 Manually Adding an Address by Keying the Tract and Block Information

Participants who would rather key the tract and block information rather than utilize the Add Map Spot button utilize their local source(s) to determine the proper location within the Map View to add the address. Follow the steps in **Table 12** to add an address by manually keying the tract and block geocode.
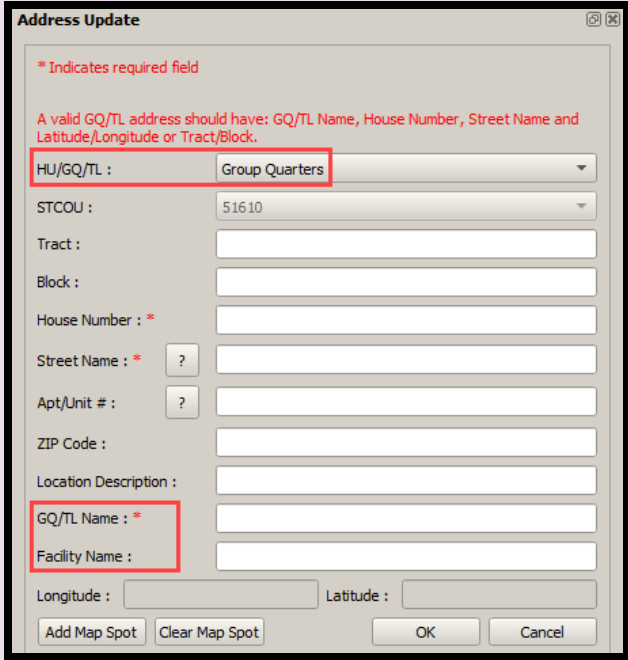
As with the previous section, the example in the table adds an address for a housing unit. While there are additional fields that appear for adding a group quarters or transitory location, follow the same process to add those types of residential address records. Refer to the Glossary in **Appendix F** for definitions and types of housing units, group quarters, or transitory locations.
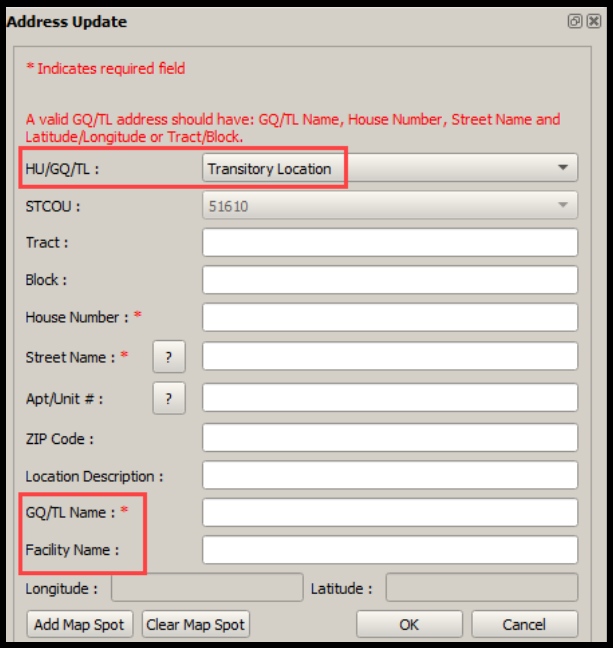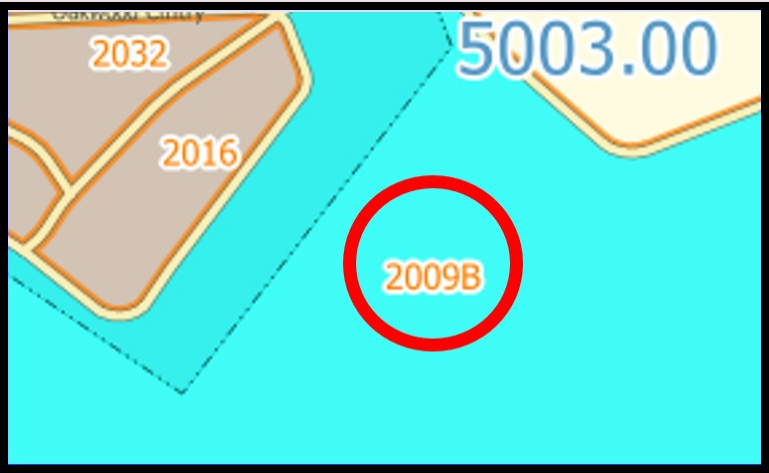
Table 12: Adding Address by Keying the Tract and Block Information

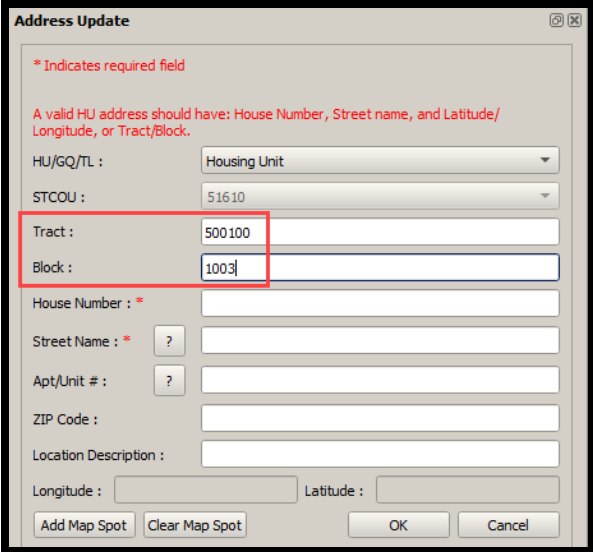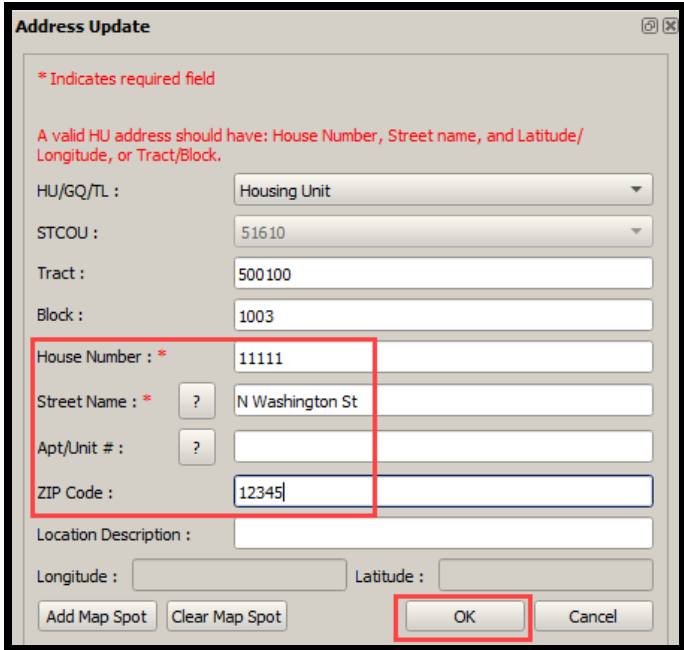| Step	Action and *Result*
Step 1	In the local source, identify the addresses to add for the New Construction Program. Locate the census block in the GUPS Map View to add the address record(s). Use the **Pan Map**, **Zoom In**, or **Zoom Out** buttons on the **Standard toolbar** to shift and display the map at a larger or smaller scale. For information on the **Standard toolbar** buttons, refer to **Appendix A.2**.
	The Census Bureau strongly recommends the use of imagery to assist with the confirmation of the geocode. To add imagery, refer to **Section 4.1.1**.
Step 2	Once zoomed to the specific location on the Map View, click the **Add** button from the User Address List. *The Address Update form opens to complete for a new address.*

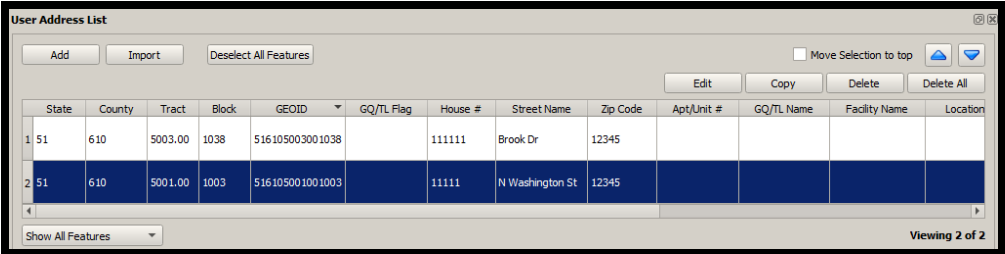| Step	Action and *Result*
Step 3	For this example, select **Housing Unit** from the **HU/GQ/TL** drop-down menu. Fields with a red asterisk (*****) are required.
	If a participant selects *Group Quarters or Transitory Location, the fields GQ/TL Name and Facility Name appear.* Participants must enter the **GQ/TL name** and the **Facility Name**, if applicable, when adding addresses for GQs or TLs. See below for visuals of the GQ and TL selections.

Step	Action and *Result*
	Though not marked by asterisks, geocode information is required. It is the participants' choice whether to include the geocode by utilizing the **Add Map Spot** button to gather a latitude and longitude coordinate or by manually entering the six-digit tract number and four-digit block (with suffix if applicable) number. If adding manually, participants must enter the six-digit tract number and four-digit block number (with alpha suffix, if applicable). Manually entry of the latitude and longitude information is not applicable when keying the tract and block information. The Census Bureau recommends using the **Add Map Spot** button, in conjunction with imagery, to capture an accurate latitude and longitude coordinate for each added address record, whenever possible.
	Please note that a census block number may include a one or two digit alpha suffix. In the screenshot below, census block 2009 contains suffix B. If the census block number on the Map View includes an alpha suffix, please ensure the inclusion of the suffix in the **Block** field of the Address Update form.

Step	Action and *Result*
Step 4	To add a record by keying the geocode, click the **Tract** field to enter the six-digit tract number located within the GUPS Map View. It is not necessary to include the decimal between the fourth and fifth digit. Click the **Block** field to enter the four-digit block number, and suffix if one exists.
Step 5	Enter the required information (e.g., the **House Number** and **Street Name**) and other applicable information (e.g., **Apt/Unit #** and **ZIP Code**) to complete the address record. Select **OK** to save the new address in the User Address List. **Reminder**: All information is for training purposes and is fictitious. There is no Title 13 information displayed.

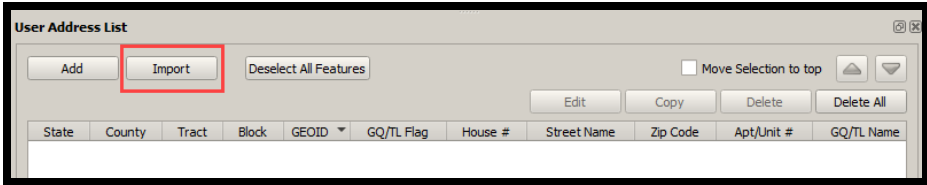| Step	Action and *Result*
Step 6	Save the project after making updates. Once all address updates are complete, refer to **Section 4.1.2.3** for instructions on the Address Review Tool.

4.1.2.2 Importing Addresses

Participants who plan to import their new addresses into the User Address List rather than manually adding them can refer to the Address List Template shown in **Appendix B** for the proper file structure and content. The Address List Template is available for use from the New Construction Program website and/or from the Data Disc if requested during registration.
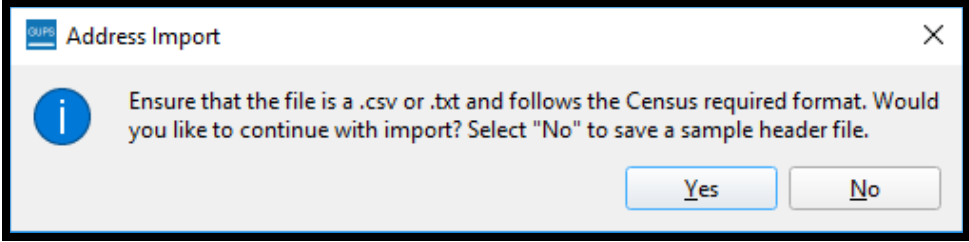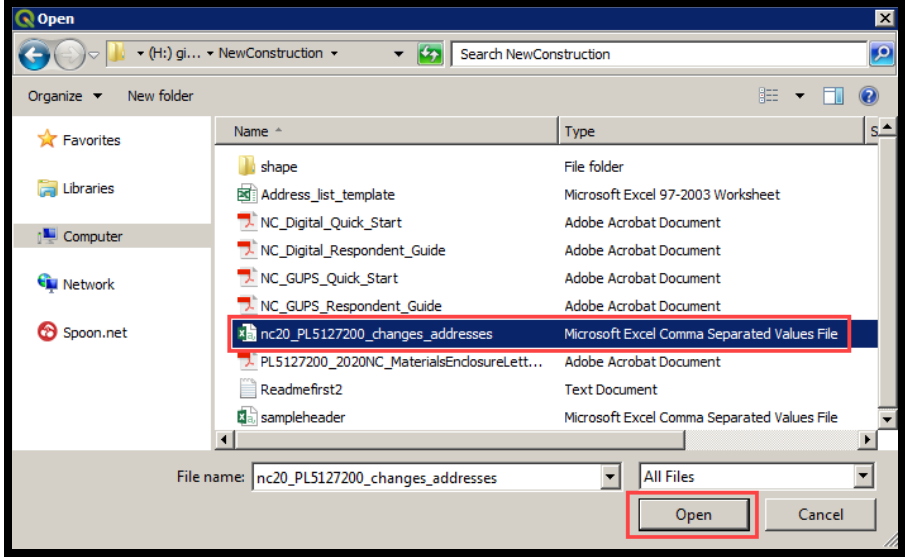
Before importing the addresses into GUPS, participants must follow the Census Bureau specifications to format their local address list source. Format the local address list of new addresses in a comma delimited text format such as a .csv or txt with the corresponding headers from the Address List Template. Participants must include the required fields as listed in **Table 25** within **Appendix B** .

IMPORTANT: If participants provide the latitude and longitude for an address record, it is not necessary to fill in the fields for the STATE, COUNTY, TRACT, and BLOCK. GUPS will automatically populate this information during import.

Follow the steps in **Table 13** to import a local address list into the User Address List.

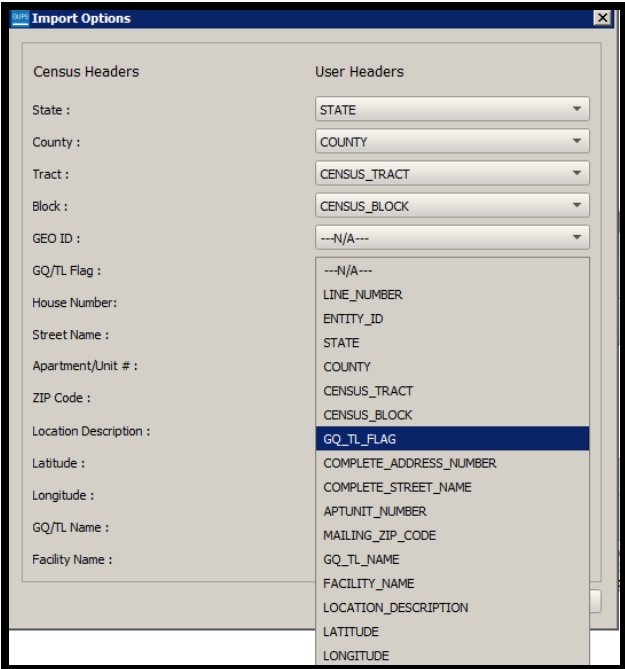**Table 13: Importing Addresses into the User Address List**

Step	Action and *Result*
Step 1	To import address records into the User Address List, select the **Import** button.

Step	Action and *Result*
Step 2	*An **Address Import** pop-up display window indicates that the file to import should be in comma separated values (.csv) or text file format (.txt).* Click the **Yes** button to continue. Click the **No** button to save a sample header file to your local hard drive for use in properly structuring the local address list. **Note**: The Address List Template .xls file on the DVD is, in essence, the same file as the sample header file mentioned in this pop-up display window.
Step 3	Navigate to the location of the properly formatted, local address list. Select the .csv or .txt file and then click **Open**.

Step	Action and *Result*
Step 4	*The Import Options window opens.* On the left, is the **Census Headers** section used to cross-reference to the local data in the .csv or .txt file. On the right, is a corresponding list of **User Headers** with choices to match to the **Census Headers**.

| Step	Action and *Result*
Step 5	Participants match each of the applicable **User Headers** with the corresponding **Census Headers**. *For this example, to map the **GQ/TL flag** field from the **Census Headers**, select **GQ_TL_FLAG** field from the **User Headers** drop-down menu*. Once all the applicable headers are set, click the **OK** button. **Note**: Retain the N/A for the **GEO ID** field since this field is a concatenation of the State, County, Tract, and Block fields. Participants may retain N/A for the STATE, COUNTY, TRACT, and BLOCK if every address in their .csv or .txt file contains a latitude and longitude. Conversely, they may retain N/A for the LATITUDE and LONGITUDE fields if every record contains the state, county, tract, and block geocode information. All records require a geocode to the state, county, tract, and block OR a latitude and longitude coordinate for each record submitted for the New Construction Program.
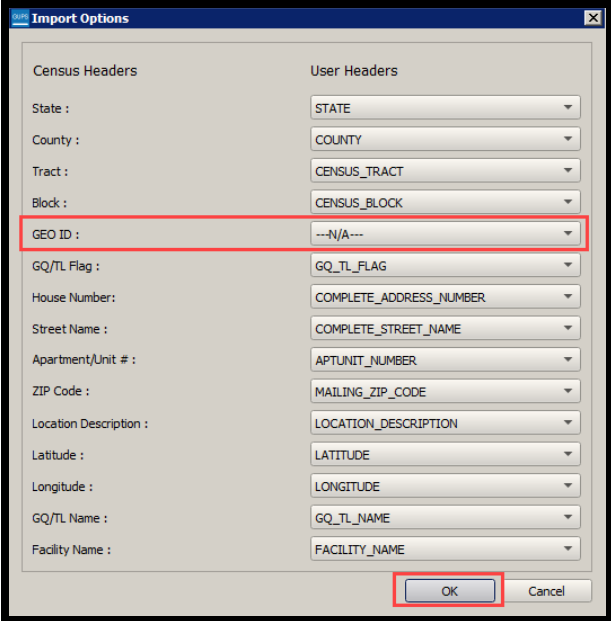
Step	Action and *Result*

Step 6

*An **Address Progress** status window followed by a **GeocodeLatLon** status window appear showing the progress of the import.*
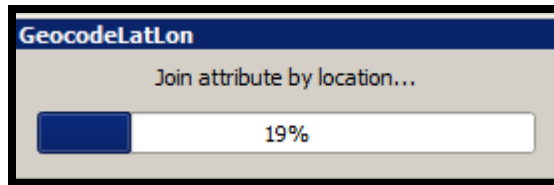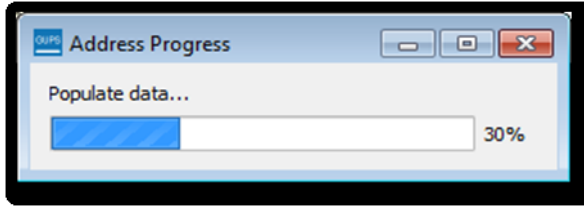
The *windows disappear if no problems with the data or import were noted. The User Address List populates with the address record(s) from locally generated .csv or .txt file.*
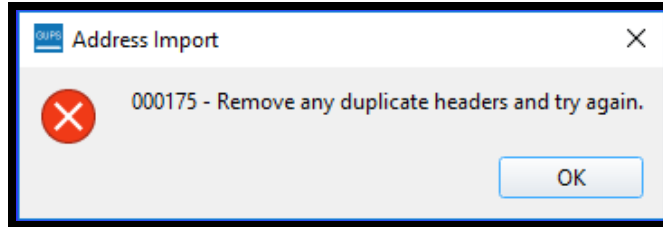

Save the project and proceed to **Section 4.1.2.3** if no errors occur with the import process and no further additions are required.

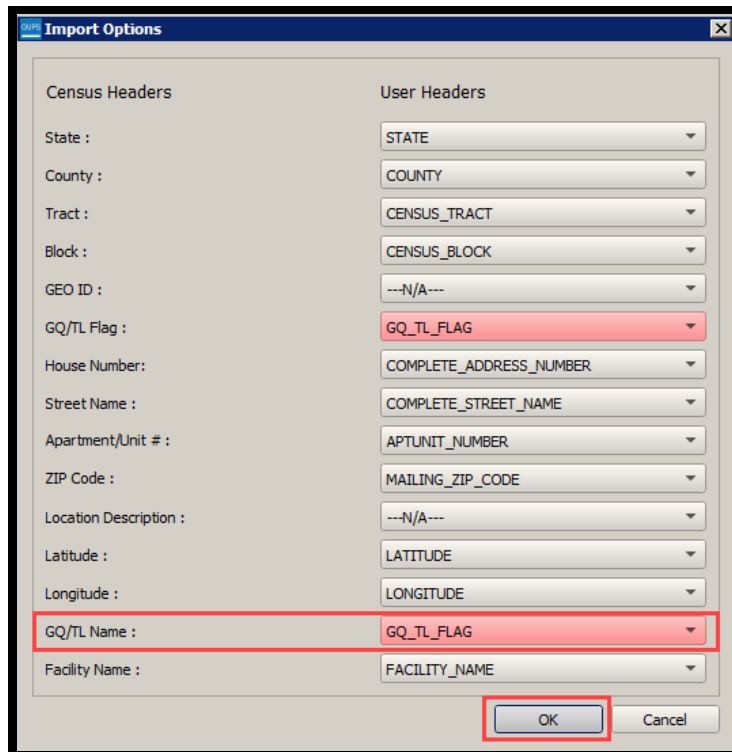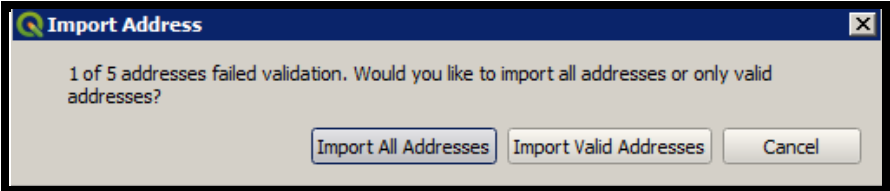| Step	Action and *Result*
Step 7	If there were duplicate headers selected in the **User Headers** column, *the following Address Import message appears.* Click **OK** to return to the **Import Options** window that identifies the duplicate headers by highlighting them. In this example, the participant erroneously selected the User Header **GQ_TL_FLAG** for Census Headers **GQ/TL Flag** and **GQ/TL Name**. Correct the error (e.g., GQ/TL Name) and choose **OK**. The windows described in Step 6 appear and disappear upon a successful import of a local file. If the data is error-free, the populated User Address List appears as shown in Step 6. Save the project and proceed to **Section 4.1.2.3**. If errors exist with the data, proceed to Step 8.

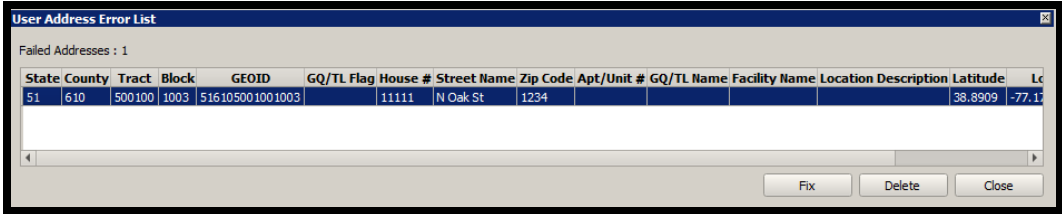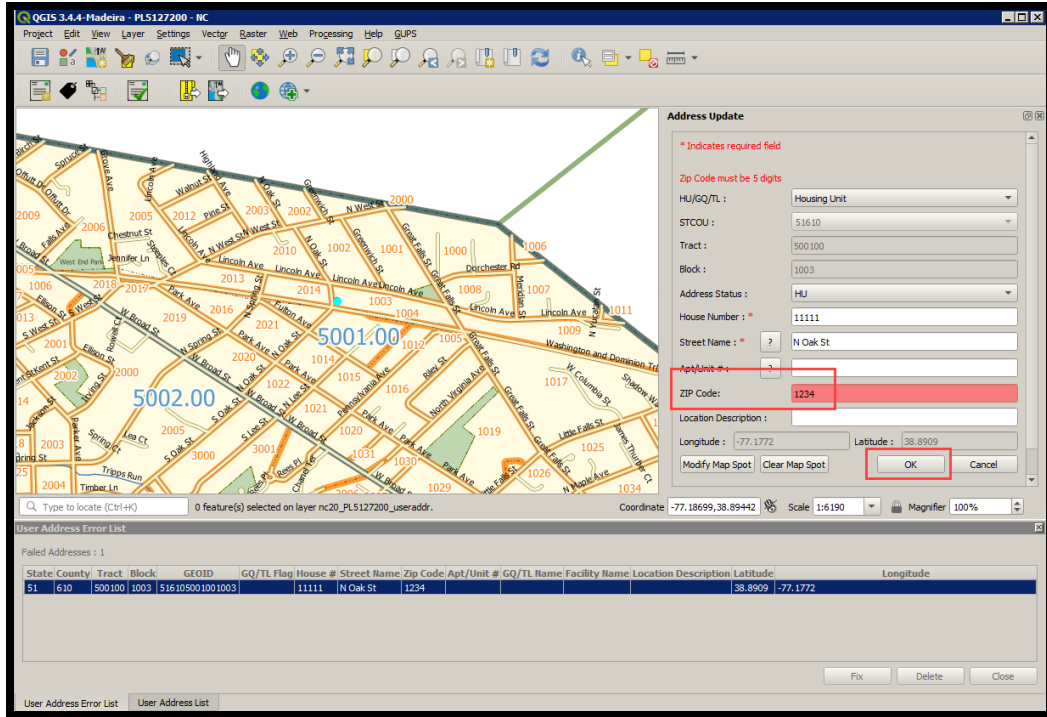| Step	Action and *Result*
Step 8	If problems exist with the data itself (e.g., blank lines, records without geocodes or latitude and longitude coordinates, missing GQ information, etc.) *an **Import Address** pop-up display window appears with information about the number of records that failed validation.* Participants have three choices, **Import All Addresses**, **Import Valid Addresses**, and **Cancel**, as displayed below. For this example, choosing **Import All Addresses** loads all five records from the .csv or .txt into GUPS. From GUPS, participants can correct the errors. Choosing **Import Valid Addresses** only imports the four valid records that pass all of the Census Bureau requirements. **Cancel** allows participants to cancel the import of the local file and correct the error prior to importing.
Step 9	Click the **Import All Addresses** button to import every record and correct the failed addresses. *A User Address Error List window appears allowing user to correct or delete individual address failures.* Please note, the **User Address Error List** window can appear docked beneath the Table of Contents or may open above the **User Address List**. If the **User Address Error List** window does not appear on-screen, click the **Address Review Tool** button on the **New Construction toolbar** and follow the instructions in **Section 4.1.2.3**. After selecting the errant address record, the participant can correct it by clicking the **Fix** button or delete it by clicking the **Delete** button.

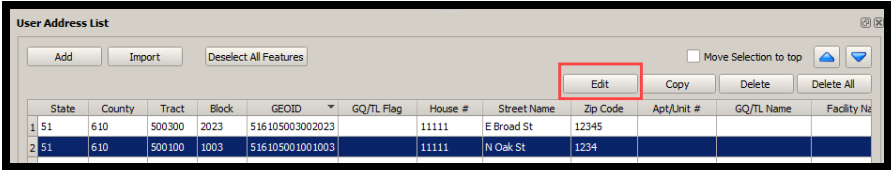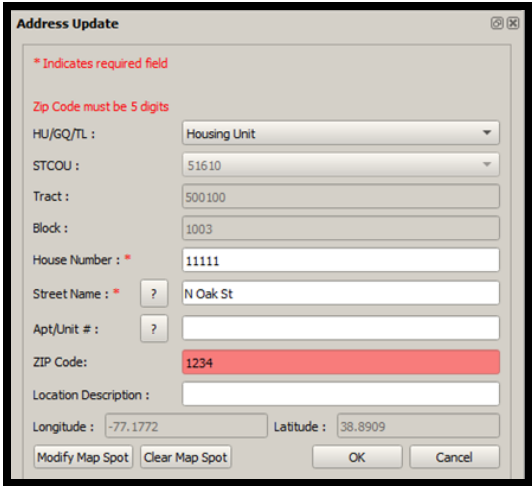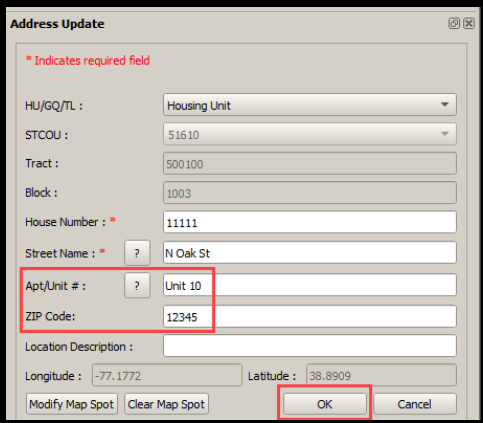| Step	Action and *Result*
Step 10	For this example, select the record and click the **Fix** button. *The Address Update form opens with the information pre-populated and the erroneous field highlighted.* Edit the errant information (e.g., update the four-digit ZIP Code to the correct five-digit ZIP Code) and click the **OK** button.
	Participants may import more than one address source for a particpant's jurisdiction if they conform to the required file format and include the required information. Doing so appends the sources together into one User Address List within the GUPS project for the participant. While this is not necessarily recommended, the quality and validation checks within GUPS will prevent duplicates.Participants must use the Address Review Tool and resolve all errors that occur within the User Address List prior to submission. i
Step 11	Save the project after making updates to the User Address List.

4.1.2.3 Editing Addresses

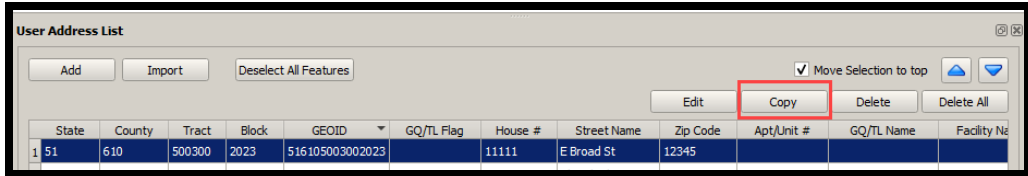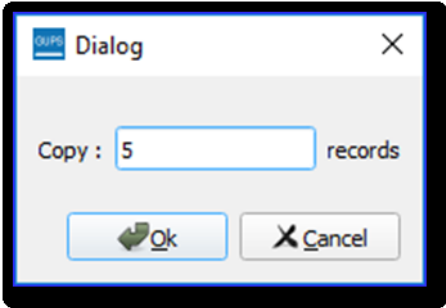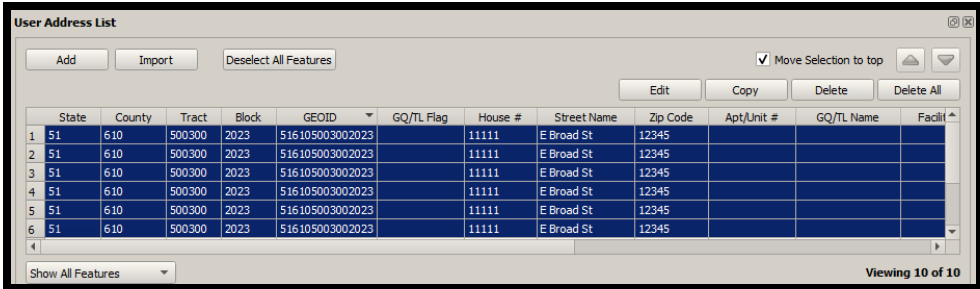Follow the steps in **Table 14** to edit addresses within the User Address List.

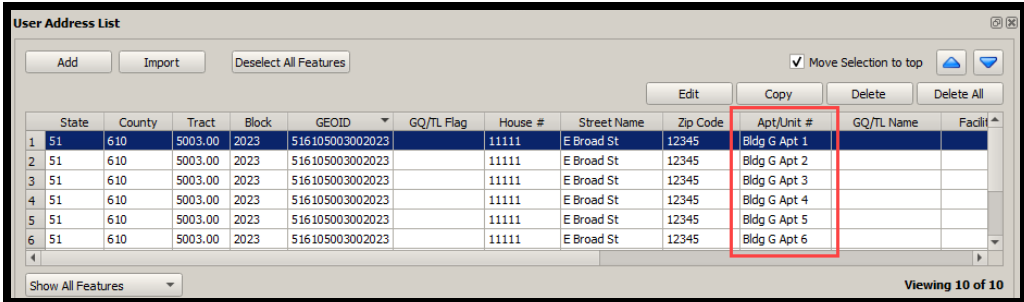**Table 14: Editing Addresses in the User Address List**

Step	Action and *Result*
Step 1	Locate the address record to edit within the User Address List and left-click on the row to select it. With the record selected in the User Address List, click the **Edit** button.
	Note: the individual cells are not editable. GUPS does not permit in-line editing.
Step 2	*The **Address Update** form opens with the original address information pre-populated.* Perform edits where necessary, including changing the structure type, updating any of the fields shown in white, and modifying (e.g., moving) the map spot. Click the **OK** button to close the form once the edits are complete to return to the User Address List.
Step 3	Save the project after making updates to the User Address List.

4.1.2.4 Copying Addresses

GUPS provides a way to copy existing address records in order to perform minor modifications to handle multi-unit addresses or addresses in need of only minor changes. Participants can copy a selected address record up to 99 times in one action. The process for copying an address once or 99 times is the same. If there is a need to copy an address more than 99 times, repeat the process until reaching the required number of copies. **Table 15** shows how to create copies of an address record for six apartments. The Census Bureau anticipates that the multi-unit address scenario is the most common reason for using this GUPS functionality.

Table 15: Copying Address in the User Address List

Step	Action and *Result*
Step 1	Select an address record from the User Address List to copy. Click the **Copy** button to copy the address.
Step 2	After selecting the **Copy** button, a *dialog screen opens asking how many records (copies) to make*. Enter the 5 in the box and click the **OK** button. *Entering 5 results in six copies of the same record in the User Address List.*

Step	Action and *Result*
Step 3	Follow the steps in **Table 14** to edit each address individually and add the apartment information to prevent duplicate addresses. Should duplicate records remain in the User Address List the Address Review Tool discussed in **Section 4.1.3** will catch them and instruct participants to correct the duplication.
Step 4	Save the project after making updates to the User Address List.

4.1.2.5 Deleting Addresses

If a participant determines they added a record(s) in error, they may delete them using the steps outlined in **Table 16**.

Table 16: Deleting Address in the User Address List

Step	Action and *Result*
Step 1	Select one or more address from the User Address List for deletion. Click the **Delete** button.
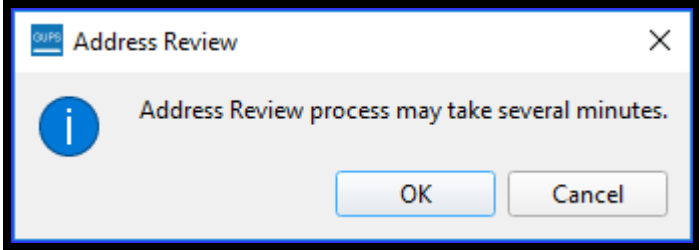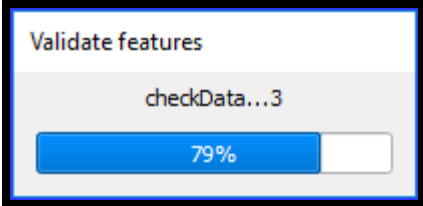
Step	Action and *Result*
Step 2	Once clicked, *a pop-up display window appears that warns participants of the consequences of this action*. Click **OK** to delete the record(s) or **Cancel** to retain the records in the User Address List.
Step 3	If participants want to delete their entire User Address List, click the **Delete All** button. Selecting the records in the User Address List is not required because this functionality deletes every record in the User Address List. **Use this button with caution**. Once clicked, *a pop-up display window appears that warns participants of the consequences of this action*. Click **OK** to delete all records or click **Cancel** to retain the records in the User Address List.
Step 4	Save the project after deleting records from the User Address List.

4.1.3   The Address Review Tool

With work complete within the User Address List by following instructions from the previous sections, this section turns its focus to the specific tool that performs quality control and validation checks on the User Address List, the Address Review Tool. This tool is most useful with imported data because manually adding records using the Address Update form already integrates quality checks and prevents the entry of errant data.

Before making a submission for the New Construction Program, the Census Bureau requests the execution of this tool to review the quality and validity of addresses within the User Address List. Follow the steps in **Table 17** to use the Address Review Tool.

Table 17: Using the Address Review Tool

Step	Action and *Result*
Step 1	Click the **Address Review Tool** button in the **New Construction toolbar**.
Step 2	*Clicking the **Address Review Tool** button opens a pop-up display window informing that the process may take several minutes.* Click the **OK** button to continue. A **Validate features** status window appears and disappears upon completion.

Step	Action and *Result*
Step 3	If there are no errors, click **OK** on the **Address Review** pop-up display window and proceed to **Section 4.1.4**. If there are errors, *the User Address Error List displays the failed addresses in a separate window that falls either beneath the Table of Contents or near the User Address List.*
Step 4	To correct an address record, participants may use the tools within the User Address Error List to **Fix** or **Delete** the record, or, after closing the User Address Error List, participants may select the errant record(s) in the User Address List and click the **Edit** button to open the Address Update form and correct the errors. Both methods display the specific errors in red and provide intel regarding why the information is problematic.
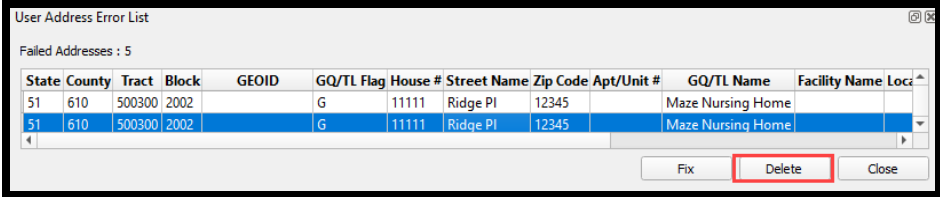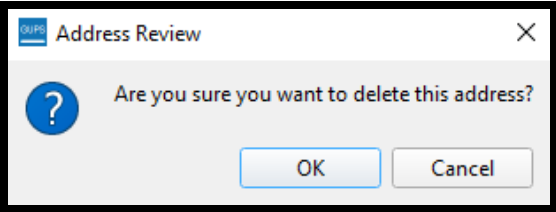
Step	Action and *Result*
Step 5	In this example of a problem record, the tract is not within the jurisdiction. Participants must correct the tract information or delete the record.

In the second example, the record is a duplicate of others. Participants must add apartment/unit information to make the record unique or must delete the record.

Once complete with the edit of the specific record, click the **OK** button to modify the record and remove it from the User Address Error List. If there are additional errors to fix, continue working through the User Address Error List until all errant records are corrected or deleted.
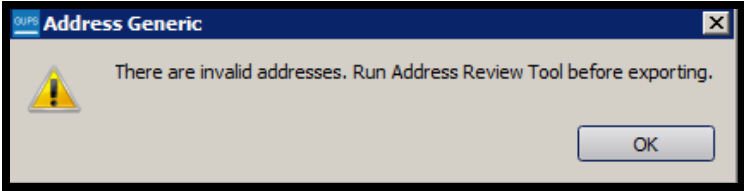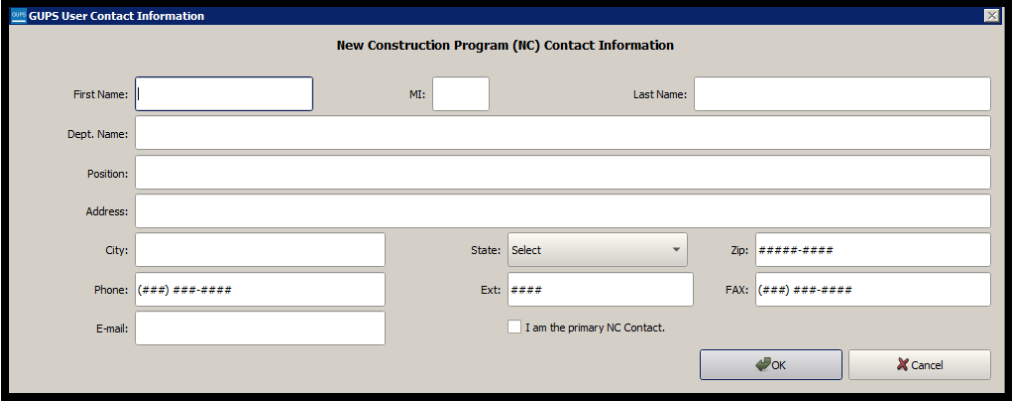
Step	Action and *Result*
Step 6	If participants are unable to resolve the errant information, they must **Delete** the record rather than **Fix** it. With the errant record selected in the User Address Error List, click the **Delete** button. ![User Address Error List window showing Failed Addresses: 5, with a table of address records and Fix, Delete, Close buttons] *A pop-up display window appears, asking to confirm the deletion.* Click **OK** to delete the record. ![Address Review dialog box asking "Are you sure you want to delete this address?" with OK and Cancel buttons]
Step 7	Save the project after making updates or deleting records from the User Address List and proceed to **Section 4.1.4**.

4.1.4 The Export to Zip Button

The Export to Zip button on the New Construction toolbar performs the quality control and validation checks like those within the Address Review Tool. If the Address Review Tool was not executed by participants prior to attempting to export their submission, the Export to Zip tool will catch the errors and instruct participants to correct them using the Address Review Tool. New Construction Program submissions must be error free, so participants must correct all errors before creating the export zip files. If every address record in the User Address List passes the checks, the New Construction (NC) Program Contact Information window opens. If the User Address List does not pass checks, a window opens asking the participant to run the Address Review Tool.

To export an address file to submit to the Census Bureau, follow the steps in **Table 18**. GUPS packages all the files required by the Census Bureau into the zip file and saves it in the location created on the participant's computer during the GUPS installation process.

Table 18: Using the Export to Zip Button

Step	Action and *Result*
Step 1	Click the **Export to Zip** button on the **New Construction toolbar**.
Step 2	If the User Address List contains errant records, *an **Address Generic** pop-up display window appears.* Click **OK** to launch the **Address Review Tool** as discussed in Section 4.1.2.3 and correct the errors. If the User Address List is free of errors, *the **GUPS User Contact Information** window opens.* Complete the form with the New Construction liaison information or with the information for the person submitting the data, if different from the liaison and click the **OK** button.

Step	Action and *Result*
Step 3	*The **Export to Zip** pop-up display window opens and informs the participant of the directory location and file name for the exported User Address List.* Click the **Yes** button to open the folder for the file location, shown below, or click the **No** button to dismiss the window. **IMPORTANT**: Participants must make a note of the file location in order to retrieve it for submission as described in **Chapter 5**. The file naming convention is **nc20_<EntityID>_return_<yyyymmdd>_<hhmmss>.zip,** where yyyy is the four-digit year; mm is the two-digit month; dd is the two-digit day; and where hh is the two-digit hour in 24-hour format (e.g., 00-23); mm is the two-digit minute; and ss is the two-digit second. In the example above, the date stamp is July 9, 2019 and the time stamp is 10:07am and 31 seconds.
Step 4	Refer to the next chapter for instructions on submitting the exported .zip file using the Secure Incoming Web Module (SWIM).

CHAPTER 5.   USING THE SECURE WEB INCOMING MODULE (SWIM) FOR THE NEW CONSTRUCTION PROGRAM

New Construction Program participants must utilize the Census Bureau's Secure Web Incoming Module, or SWIM, to submit their GUPS generated User Address List .zip file. Use the steps discussed in this chapter to establish or access an account in SWIM and submit the User Address List .zip file generated in the previous section, **Section 4.1.4**.

Some liaisons may have established a SWIM account for other Census geography programs. If so, the Census Bureau sent an email to the liaison's email on-file for the established account indicating there is no need to establish a new SWIM account for use in the New Construction Program.

For liaisons without an existing SWIM account, the Census Bureau emailed one SWIM registration token in a separate message from the New Construction Program materials and cover letter. Liaisons without a SWIM account must utilize the 12-digit registration token to establish an account.

If questions remain regarding the existence of a SWIM account, click "**Forgot your password?**" on the main SWIM page and enter the email address to check for account existence. If SWIM does not locate an account associated with the email address, it returns the following message, "*No account registered for this email. The email address associated with the account is case sensitive. Try again with the proper case or go to Account Registration to register for a SWIM account.*" Choosing the Account Registration link in the message opens another window to establish a SWIM account.

Note: The components of the email and password of SWIM system accounts are case-sensitive. Make note of the case-sensitive format used when establishing the SWIM account (e.g., jane@anytown.org or Jane@anytown.org or JANE@ANYTOWN.ORG). The Census Bureau recommends the use of lowercase characters for the email address and recommends safe retention of this information in a secure location for future reference.

SWIM allows four attempts to login before it temporarily locks the account for 15 minutes. After the 15-minute lock expires, participants may try to login again or reset their password using the "Forgot your password?" link on the login page. Once selected, follow the prompts to enter the case-sensitive email address and provide the security answer. If the security answer is correct, the SWIM system sends a password reset link to the email account for use in resetting the password. Please note the security answer is not case-sensitive. Once logged into SWIM, participants can modify their password and security answer by selecting the 'Change Security' link at the top, right-hand side of the page.

Participants continuing to experience login issues should confirm use of the current internet browser version (or one previous version). As mentioned in **Table 1**, SWIM runs on the two most recent versions of each of the major internet browsers: Internet Explorer, Google Chrome, Mozilla Firefox, and Apple Safari. If the browser version is older, upgrade to a newer version.

If problems with SWIM still occur, contact the New Construction Program Help Desk at (844) 242-1765 for assistance. An additional SWIM token may be necessary to create another account.
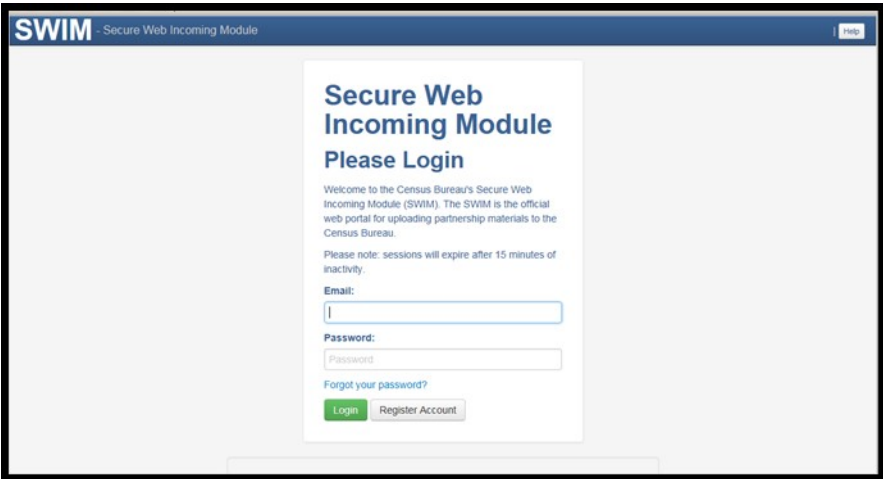
IMPORTANT: Do not use email to send the New Construction Program submission to the Census Bureau. Work with the Census Bureau to resolve SWIM issues.

The following list contains the file requirements for using SWIM:

- File to upload must be .zip file format.
- The .zip file may not include another .zip file as a component.
- The .zip file must not be larger than 250 megabytes in size.

Participants using GUPS should not encounter any problems related to these file requirements. Refer to **Table 19** for instructions on utilizing the SWIM application to submit the New Construction Program User Address List .zip file.

Table 19: SWIM Submission

Step	Action and *Result*
Step 1	Open a new browser window and enter the SWIM URL <https://respond.census.gov/swim>. *The **SWIM Please Login** screen opens*.
Step 2	For participants with an existing SWIM account, enter the email address and password and then click the Login button. *The **Welcome** screen opens*. Go to **Step 8**.

Step	Action and *Result*
Step 3	For participants without a SWIM account, have the 12-digit registration token provided by the Census Bureau ready for account registration. Choose the **Register Account** button after accessing the SWIM URL. *The **Account Registration** screen opens*.
	All fields on the **Account Registration** screen are required.
Step 4	Enter the registration token, name, phone number, agency or organization, email address in the appropriate fields.
Step 5	Create a password using the following criteria: 1. Must be at least 8-characters in length. 2. Must have at least one uppercase character. 3. Must have at least one lowercase character. 4. Must have at least one number. 5. Must have at least one special character. Valid choices are as follows: #, !, $, *, &,?, and ~. **Note**: The commas shown in the previous list are for spacing purposes only. The comma is not a valid special character for use in the password.
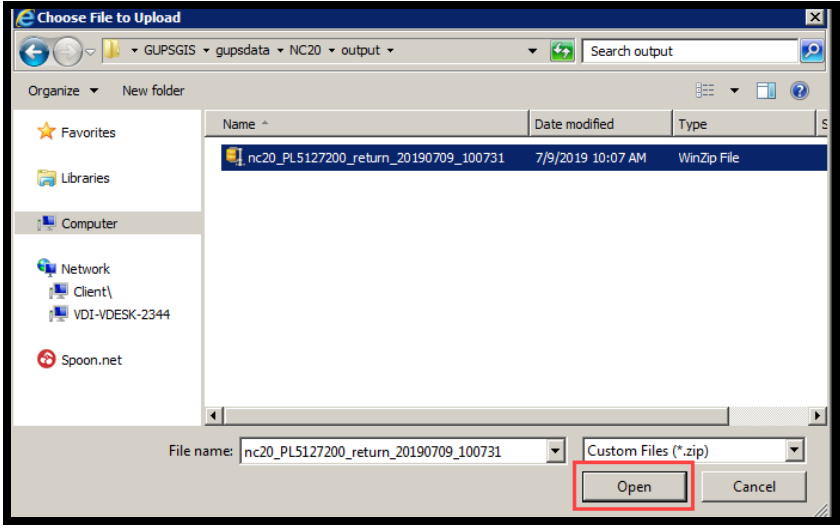
Step	Action and *Result*
Step 6	Establish a security question. Click the arrow to the right of the **Security Question** field and select a question from the drop-down menu. Enter an answer in the **Answer** field. Click the **Submit** button when finished. *A Success screen opens to confirm the successful creation of a SWIM account.*
Step 7	On the **Success** screen, select **Login** to return to the **SWIM Please Login** screen (shown in Step 1) to proceed with the login process.
Step 8	Enter the email and password information and click the green **Login** button to login to SWIM. *The Welcome screen opens*. If the account has uploaded other files for different geography programs administered by the Census Bureau, *a list of files previously uploaded by the SWIM user displays, as shown in the example below*. The list includes the creation date of the file upload, the name of the file, and the corresponding size of the .zip file.

Step	Action and *Result*
Step 9	To begin a new upload, click the **Start New Upload** button at the bottom of the screen. The *"**What Census program are you reporting data for?**" screen opens*. Choose the **New Construction Program** radio button and click the **Next** button.
Step 10	The *"**What type of NC entity are you reporting for?**" screen opens*. Participants must select the level of geography that matches the type of entity they represent. County participants (e.g., CO48001) choose the County choice. Minor Civil Division (MCD) participants (e.g., MC2500119295) choose MCD. Incorporated Place participants (e.g., PL5127200) choose Place, as shown in the screenshot below. If questions arise about the proper entity choice, contact the New Construction Program Help Desk at (844) 242-1765 for assistance. Click the radio button for the entity type (e.g., **Place** for this example) to upload. *The choice of Place opens the **Select a State and Place** screen*. Complete the two sections and click the **Next** button.

Step	Action and *Result*
	Select a State and Place State: Select Place: Previous Next
Step 11	Following the selection of the entity type to upload, *the **Select a .ZIP file to upload** screen opens*. Click the **+Add File** button to *launch the **Choose File to Upload** window and navigate to the directory where the .zip file resides*. The .zip file resides in the "output" folder on the drive selected when installing GUPS. This is likely "C:\GUPSGIS\gupsdata\NC20\output". **Select a .ZIP file to upload.** File submissions must be in "zip format" and file size should not exceed 250 MB. 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, .shx).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

Step	Action and *Result*
Step 12	Once the file upload completes, *the **Status** field shows "**Success**." The name of the file appears in the **File(s)** field.* Participants can add comments to the **Comment** section if they choose. Click the **Next** button to proceed with the upload.
Step 13	*The **Thank You** screen appears.* It thanks the participant and indicates a forthcoming email once the transfer completes.

Step	Action and *Result*
Step 14	Choose "**upload form**" in the phrase "**You may Log Out or return to the upload form, to submit more files**." sentence to return to the **Welcome** screen and begin the upload process again. If complete with the upload process, choose **Log Out**.

Step	Action and *Result*
	It is important to mention that SWIM sessions deactivate after 15 minutes of inactivity. Participants taking longer than 15 minutes to upload a file must log back into the system and start again. *They will receive a message noting the period of inactivity on the Login screen.*

When they reach the **Welcome** screen, a record listed with a **Status** of "**In progress, Continue?**" appears with that day's date in the **Created On** field. Participants can choose the "**Continue?**" link to continue uploading or they can delete the item by choosing the **Delete** button to the far right of the row.

CHAPTER 6.   NEXT STEPS FOR THE NEW CONSTRUCTION PROGRAM

Congratulations on the completion of the 2020 Census New Construction Program using GUPS. From September through November 2019, the Census Bureau will process the User Address List .zip files received through SWIM. Although GUPS performs quality checks and data validation, the Census Bureau will conduct basic quality checks to verify the file format and content to confirm the submitted addresses fall within blocks eligible for the New Construction Program and that proper geocoding exists for each record. The Census Bureau will also compare each address received as part of the New Construction Program submissions against the Census Address List to ensure participants did not submit duplicated records.

The Census Bureau will not process address records without geocodes or latitude and longitude coordinates, improperly formatted files that do not follow the predefined Address List Template, or any address submitted in a block that is not eligible for the New Construction Program**.**

Participants will receive an email acknowledging receipt of submission through SWIM, but the Census Bureau will not provide feedback and the results of their processing.

APPENDICES

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APPENDIX A   ADDITIONAL GUPS FUNCTIONALITY

The Menu bar, the Standard toolbar, and the New Construction Program toolbar are located at the top of the GUPS page as shown in **Figure 7**. These toolbars offer general GIS and system tools used during the New Construction Program and with other Census geography programs as well. The Status Bar is located at the bottom of the GUPS page as shown in **Figure 8**. It helps participants navigate the Map View in the New Construction Program project by adjusting the scale and magnification.

The Menu bar is always located at the top of the page and cannot be moved; however, the toolbars may be moved the toolbars to a more convenient location. While working with the toolbars, hover the mouse over any toolbar button to see the name of the tool it represents. Resize and reposition the toolbars by dragging them. By default, the Standard toolbar falls just beneath the Menu bar. The next two sections of this appendix discuss the Menu bar and Standard toolbar. **Table 7** discussed the New Construction toolbar.
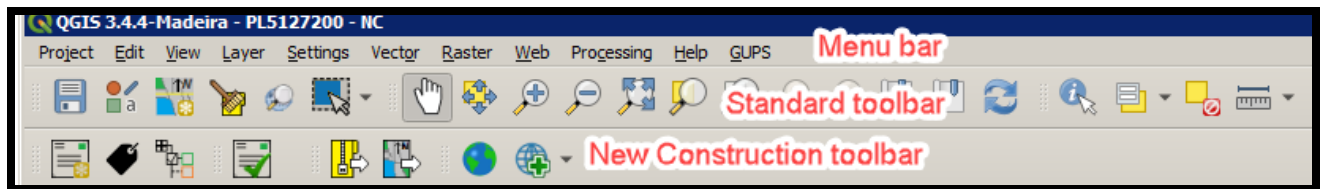
Figure 7: Menu and Toolbars
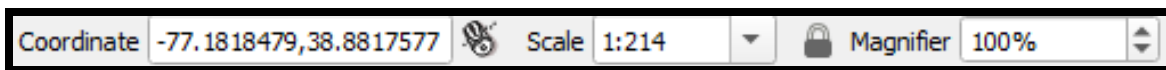
Figure 8: Status Bar
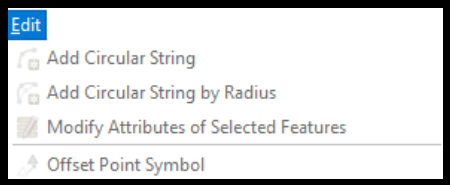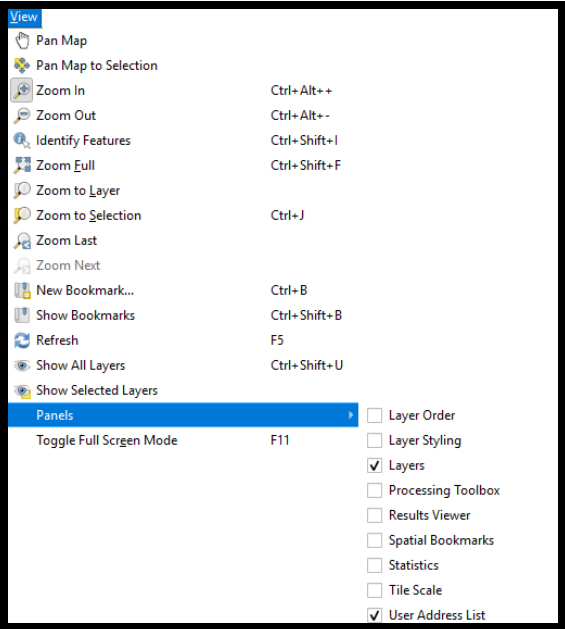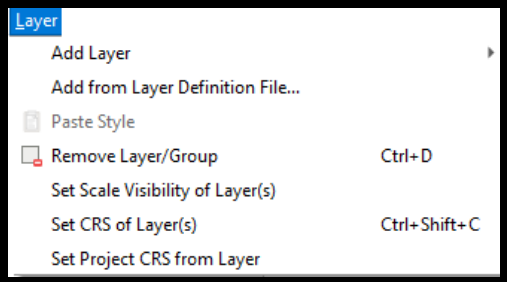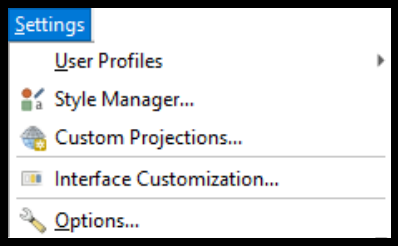
Note: The visualization of menus and toolbars may differ depending on the computer operating system, so the screenshots may not match identically to what a participant sees.
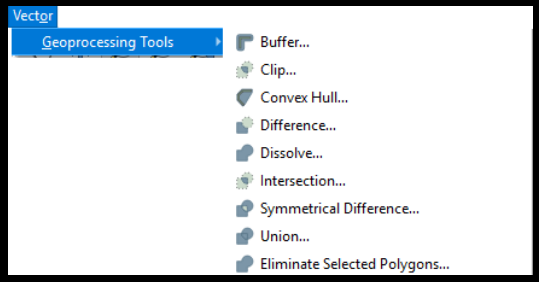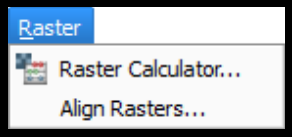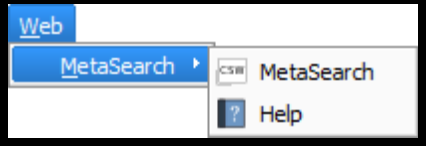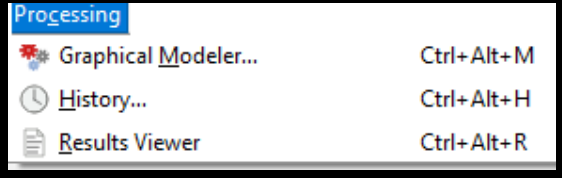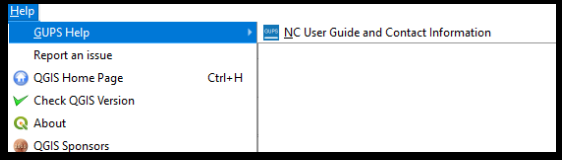
A.1   Menu Bar
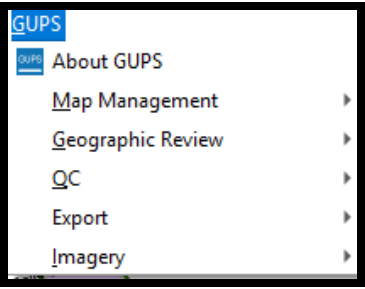
Table 20 defines each of the tabs on the Menu bar, provides an image of the drop-down options for each, and describes each tab's function.

Table 20: Menu Tabs and Their Functions

Tab	Drop-down Menu	Function/Description
Project		The **Project** tab allows participants to save changes, display project properties, adjust snapping options, import/export files, and exit the application. The Save and Exit QGIS menus will be used most often.

Tab	Drop-down Menu	Function/Description
Edit	Edit Add Circular String Add Circular String by Radius Modify Attributes of Selected Features Offset Point Symbol	The **Edit** tab does not apply for New Construction Program participants, so all of the drop-down menus are inactive.
View	View Pan Map Pan Map to Selection Zoom In .... Ctrl+Alt++ Zoom Out .... Ctrl+Alt+- Identify Features .... Ctrl+Shift+I Zoom Full .... Ctrl+Shift+F Zoom to Layer Zoom to Selection .... Ctrl+J Zoom Last Zoom Next New Bookmark... .... Ctrl+B Show Bookmarks .... Ctrl+Shift+B Refresh .... F5 Show All Layers .... Ctrl+Shift+U Show Selected Layers Panels ► Toggle Full Screen Mode .... F11 ☐ Layer Order ☐ Layer Styling ☑ Layers ☐ Processing Toolbox ☐ Results Viewer ☐ Spatial Bookmarks ☐ Statistics ☐ Tile Scale ☑ User Address List	The **View** tab duplicates several actions also available on the **Standard toolbar**. Included are options for navigating the map, zooming, identifying feature attributes, measuring distance, and creating spatial bookmarks to return to the same Map View later. This tab also provides a way to refresh the Map View, show layers or selected layers, set toolbars within the Panels drop-down, and toggle the software to full screen.
Layer	Layer Add Layer ► Add from Layer Definition File... Paste Style Remove Layer/Group .... Ctrl+D Set Scale Visibility of Layer(s) Set CRS of Layer(s) .... Ctrl+Shift+C Set Project CRS from Layer	The **Layer** tab adds and removes layers or groups of layers from the Map View and sets the scale visibility of layer(s). Participants must not change the CRS or projection in GUPS, so do not use the Set CRS or Set Project drop-down menus. **Note:** Many of these same functions are more conveniently located on the small toolbar that sits at the top of the **Table of Contents.**
Settings	Settings User Profiles ► Style Manager... Custom Projections... Interface Customization... Options...	The **Settings** tab provides access to customize user profiles and the Style Manager. Participants must not change the projection or interface, so do not use the Custom Projections or Interface Customization drop-down menus. The Options menu launches a general window with various customizations. None of the tools within this tab is needed for the New Construction Program.

Tab	Drop-down Menu	Function/Description
Vector		The **Vector** tab provides access to several Geoprocessing Tools, used to create buffers around features, overlay areas to create an intersection, union, or symmetrical difference, merge features, and perform other common geoprocessing actions. This tool is not necessary for the New Construction Program.
Raster		The **Raster** tab provides access to tools are QGIS based and not used for the New Construction Program.
Web		The **Web** tab provides access to tools are QGIS based and not used for the New Construction Program.
Processing		The **Processing** tab provides access to tools are QGIS based and not used for the New Construction Program.
Help		The **Help** tab provides tools for understanding QGIS; the GUPS application itself allows participants to report an issue with the software. The **GUPS Help** menu routes participants to the New Construction Program website for the guide and contact information. The **About** menu lists the version of QGIS installed on the computer with additional QGIS specifications.

Tab	Drop-down Menu	Function/Description
GUPS	GUPS ■ About GUPS Map Management ▸ Geographic Review ▸ QC ▸ Export ▸ Imagery ▸	The **GUPS** tab provides quick access to the key tools also available on the Standard and New Construction toolbars. The **Map Management** drop-down menu includes a shortcut to Map Management, GUPS Data Settings, and Search Zoom functions on the Standard toolbar. The **Geographic Review** drop-down menu provides shortcuts to the User Address List, Show Label On/Off, and Show/Hide Legend functions on the New Construction toolbar. The **QC** drop-down menu provides a shortcut to the Address Review Tool on the New Construction toolbar. The **Export** drop-down menu provides a shortcut to the Export to Zip and Print Map to File functions on the New Construction toolbar. The **Imagery** drop-down menu provides shortcuts to the Internet Map Service and Add Imagery functions on the New Construction toolbar. Participants likely will use the toolbar buttons rather than the drop-down menus within the Menu bar for all of the drop-down menus described in this table.

A.2   Status Bar

[Table 21](#) describes each item within the Status bar.

Table 21: Status Bar Elements

Item	Description
Coordinate	Shows the current position in map coordinates (default is decimal degrees for GUPS) as the mouse moves across the Map View. As a reminder, do not change the projection of the project.
	Toggles between the coordinate position of the mouse cursor or the map view extents as the map is panned and zoomed.
Scale	Shows the current zoom level in the Map View. Can be changed by selecting one of the predefined levels from the drop-down, by keying in a new ratio, or using the scroll wheel on the mouse.
	Locks the Scale to prevent zooming in or zooming out when using Magnifier.
Magnifier	Allows the participant to zoom without changing the scale.

A.3 Standard Toolbar

The Standard toolbar, shown in **Figure 9**, provides the navigation tools to interact with the map and layers. It includes three sub-toolbars, identified by the grouping bars or marker on the toolbar, shown in **Figure 10**. The first sub-toolbar, the Project toolbar, contains buttons for saving projects, changing map projects, and conducting searches. The second sub-toolbar, the Map Navigation toolbar, contains buttons for navigating the Map View. The third sub-toolbar, the Attributes toolbar, provides tools for selecting features, making measurements, creating bookmarks, and working with the attribute tables.

Figure 9: Standard Toolbar

To rearrange the toolbars, left-click and hold the sub-toolbar marker (shown in red below) then drag it to the desired location. Release the mouse button to set the toolbar in the new location.
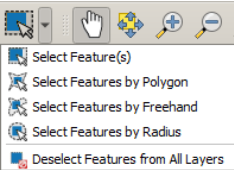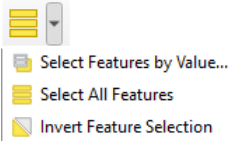
Figure 10: Sub-Tool Markers

Table 22 describes each button on the Standard toolbar.

Table 22: Standard Toolbar Buttons

Button	Name	Function/Description
	Save	Click the **Save** button to save the current GUPS project, including any changes to layer properties, projection, last viewed extent, and layers added.
	Style Manager	Click the **Style Manager** button for a list of symbology and colors for point, lines, and polygons features. The Census Bureau does not recommend participants change the style of the preset symbology.
	Map Management	Click the **Map Management** button to choose a geographic program in GUPS and the entity to update. GUPS automatically loads a set of default map layers based on the program chosen.
	GUPS Data Settings	Click the **GUPS Data Settings** button to change the GUPS working directory should problems with loading the GUPS data occur. Contact the New Construction Program Help Desk before performing this task. This button also is used to "clean GUPS" by removing GUPS data. Participants may remove GUPS data by Program, by Project, or by removal of all data**.** **Warning! The Clean options delete files and folders permanently and work will be lost**

Button	Name	Function/Description
	Search Zoom	Click the **Search Zoom** button to search the map by census tract, census block, landmark, or street name and zoom automatically to the feature. This functionality is quite helpful if a known list of address records exists to add to the User Address List.
	Search Feature(s)	Click the **Select Feature(s)** button to reveal four selection methods for selecting features in the Map View and one deselection method. Participants can select features by polygon, freehand, or radius. This button is not particularly useful for New Construction.
	Pan Map	Click the **Pan Map** button to re-center the map at the location clicked in the Map View without changing the map scale.
	Pan Map to Selection	Click the **Pan to Map to Selection** button after selecting a feature on the map to re-center the map based on the selected feature(s).
	Zoom In	Click the **Zoom In** button to increase the map scale after clicking on the map and to displays the map in Map View at a larger scale.
	Zoom Out	Click the **Zoom Out** button to decrease the map scale after clicking on the map and to displays the map in Map View at a smaller scale.
	Zoom Full	Click the **Zoom Full** button to display the map in Map View at the full extent of the county.
	Zoom to Selection	Click the **Zoom to Selection** button after selecting a feature on the map (or in the attribute table) to view the feature at the scale of the selected feature.
	Zoom to Layer	Click the **Zoom to Layer** button after selecting a layer in the Table of Contents to display the map at the extent of the selected layer.
	Zoom Last	Click the **Zoom Last** button to return to the previous zoom extent.
	Zoom Next	Click the **Zoom Next** button to move forward to the next zoom extent.
	New Bookmark	Click the **New Bookmark** button to create, name, and save geographic locations in the Map View for future reference. See **A.4** for additional information.
	Show Bookmarks	Click the **Show Bookmarks** button to view and manage the bookmarks. To zoom to a bookmark, double-click on the bookmark name in the Spatial Bookmarks window that appears after creating the bookmark. See **A.4** for additional information.
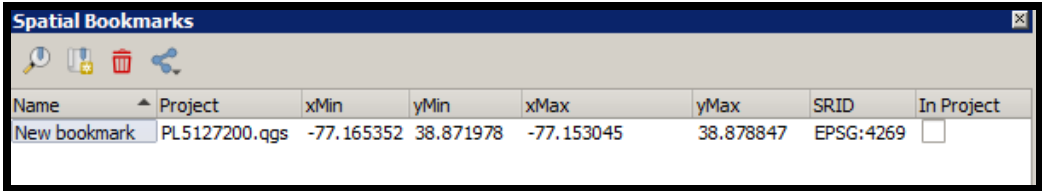
Button	Name	Function/Description
	Refresh	Click the **Refresh** button to refresh the screen at its current extent.
	Identify Features	Click the **Identify Features** button, followed by a click on a participant added map spot in the Map View to identify the record from the User Address List. *The selected map spot appears in red in the **Map View** and the results appear in the **Identify Results** window*. This button also identifies other Map View features in other layers within the Table of Contents.
	Select Features by Value, or Select All Features, or Invert Feature Selection	Click the **Select Features by Value** button to reveal three selection options for selecting features in the Map View. The options for this button allows the participant to select features of the project based upon the attributes of the layer selected in the Table of Contents. See **A.5** for additional information.
	Deselect Features from All Layers	Click the **Deselect Features from all Layers** button to deselect the selected features in all layers in a single action.
	Measure	Click the **Measure** button to measure the distance between two or more points, an area, or an angle on a map.
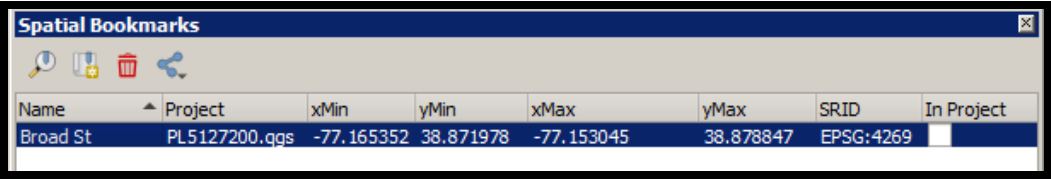
Most of the sub-toolbar buttons described above are straightforward to use; however, the next two sections provide additional details on buttons that may benefit participants in the New Construction Program.

A.4 Using the New Bookmark Button

Depending on the areal size of a participant's jurisdiction, use of spatial bookmarks to navigate the Map View may be more efficient than panning and zooming across the Map View. Follow the steps in **Table 23** to add new bookmarks for use in navigating the Map View.

Table 23: Adding a New Bookmark

Step	Action and *Result*
Step 1	Zoom to the location in the Map View to bookmark and click the **New Bookmark** button on the Standard toolbar. *The **Spatial Bookmarks** window opens*.

Step	Action and *Result*
Step 2	Click on the row named **New bookmark**. Erase the **Name** field containing **New bookmark** and type in a descriptive name (e.g., Broad St) for the new bookmark (255-character limit). Hit the Enter key. *This action adds the bookmark.*
Step 3	Participants can view and manage spatial bookmarks within the **Spatial Bookmarks** window. If the window closed, click the **Show Bookmarks** button on the Standard toolbar to reopen. From the **Spatial Bookmarks** window, participants can zoom, add, and delete bookmarks by using the corresponding buttons within the windows. In addition, double-clicking the bookmark zooms to it in the Map View. They can edit bookmark names and coordinates by clicking on those respective fields in the **Spatial Bookmarks** window. They can also import and export the bookmarks as .xml files.
Step 4	To close the **Spatial Bookmarks** window, click the "**X**" in the upper right corner.
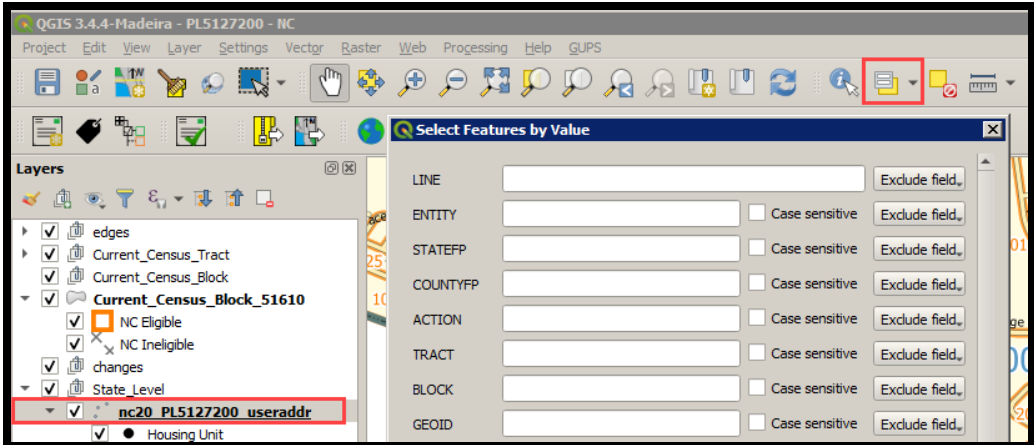
A.5   Using the Select Features by Value Button
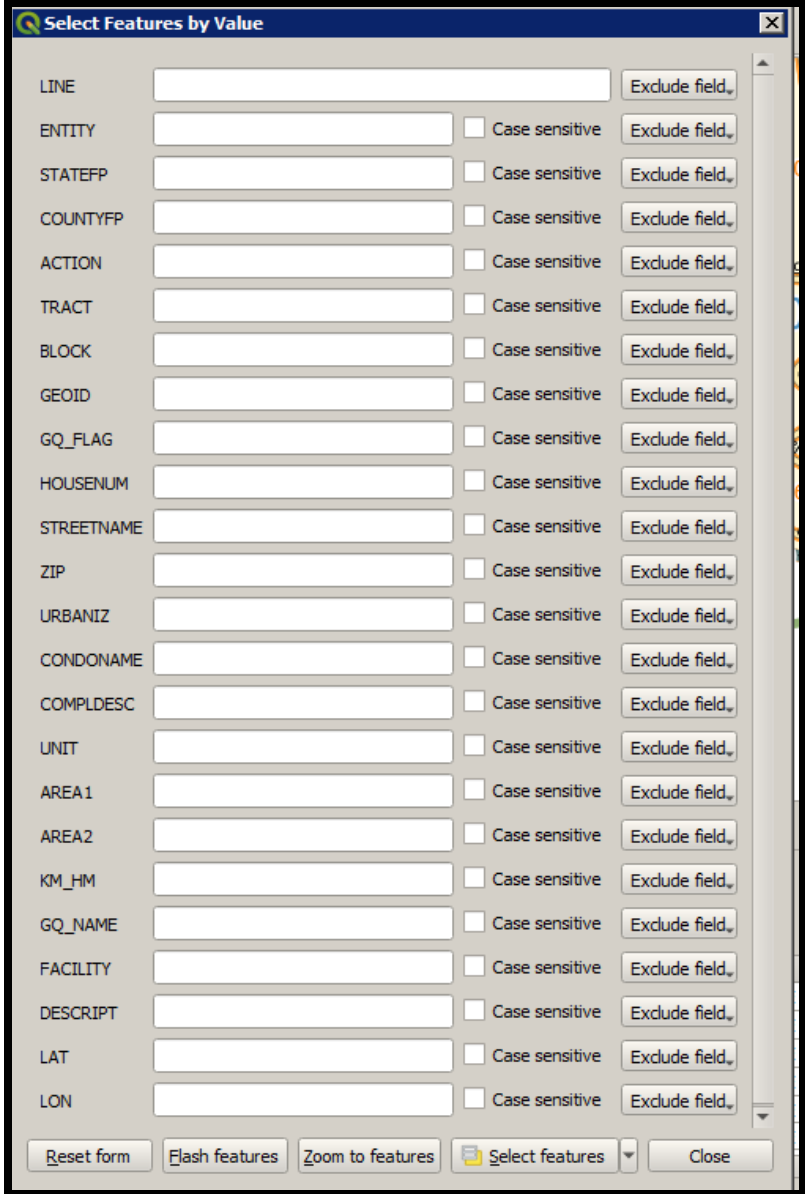
Participants utilize this window to write queries for selecting features/records. They may write simple or complex queries that use more than one field of information from within the layer attributes or use different query choices to select specific features/records. There is no edit functionality within the button; it simply selects the features/records meeting the query criteria. After selection, participants can use other tools on the Standard toolbar to pan, zoom, bookmark, etc.
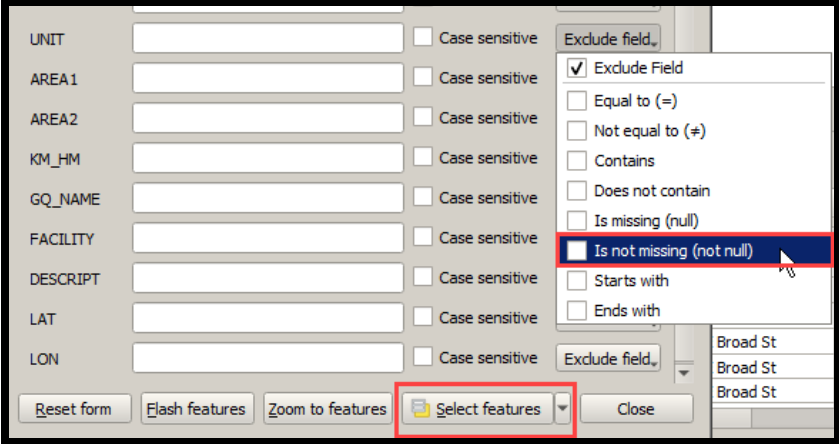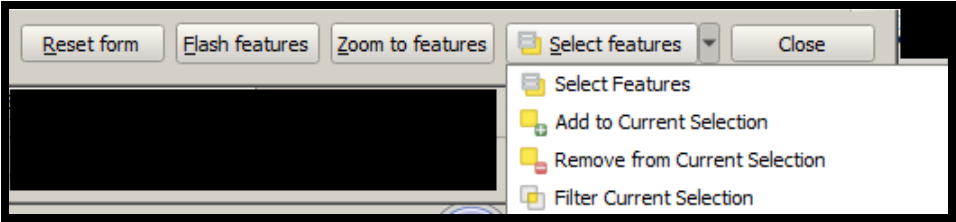
Participants may find this tool useful for reviewing the User Address List after they enter or import a large number of addresses or if they want to visually identify the New Construction Program eligible blocks. If the User Address List is the selected layer, after selecting the records using this tool use the buttons within the User Address List to make modifications as necessary. **Table 24** outlines one example.

IMPORTANT: This tool performs queries of the attributes for the layer selected in the Table of Contents and launches unique windows based upon the layer selected. Select the desired layer in the Table of Contents prior to clicking this button.

Table 24: Select Features by Value Button

Step	Action and *Result*
Step 1	Highlight/select the layer of interest in the Table of Contents. *This example highlights the User Address List layer, nc20_PL5127200_useraddr layer.* Click the **Select Features by Values** button. *The **Select Features by Value** window opens.*

Step	Action and *Result*
Step 2	The names that appear along the left side of the window are fields that are included in the User Address List attribute table that GUPS uses. Participants do not see these same field names in the User Address List within their GUPS project; however, the names between the two sets of field names closely mimic each other.
	Note: This window shows all fields for both stateside and Puerto Rico participants. Ignore the fields that do not apply to your jurisdiction or that are not applicable to your jurisdiction's data*.*
Step 3	To select records from the User Address List that contain an apartment unit attribute, click the **Exclude field** option arrow for the **UNIT** attribute.
	The choices for querying appear. Choose **Is not missing (not null)** and click the **Select features** button. *The records in the User Address List that have a value in the Apt/Unit # field are selected*.

Step	Action and *Result*
	  Click the **Close** button to close the **Select Features by Value** window. Closing allows a participant to see the selected records in the User Address List and take action on them if necessary. This action may be helpful if the individual apartment unit information requires an update.
Step 4	The **Select Features by Value** window has other options that allow participants to **flash** the selected features or **zoom** to them. Participants can also **reset** the form to prepare an additional query. Within the **Select features** button, options exist for adding to the current selection, removing from the current selection and filtering.

Step	Action and *Result*
![info icon]	As mentioned earlier, the **Select Features by Value** window reflects the fields within the layer selected in the Table of Contents. To illustrate the difference, below is an image of the window for the current census block layer.
	Use the same steps discussed before to query the attributes of the block layer, such as the NCELIGIBLE field. Doing so may assist participants with locating scattered blocks that are eligible for the New Construction Program.

APPENDIX B   ADDRESS LIST TEMPLATE .XLS FILE

Participants using GUPS that want to import their new addresses rather than manually add them, may use the template displayed in **Figure 11** and detailed in **Table 25**. Additionally, GUPS participants that decide to forgo the use of GUPS in favor of the template alone may do so and must follow the layout described in **Table 25**. Doing so ensures the new address information includes the proper fields, content, and field structure.

Figure 11: Address List Template File Layout with Header Row

Upon selection of the Import button within the User Address List, GUPS offers participants the chance to download a "sample header file" as shown in Step 2 of **Table 13**. This sample header file is similar to the Address List Template .xls file described below. Both files include the necessary fields for processing by the Census Bureau.

Table 25: Address List Tempate Fields, Descriptions, and Valid Entries

Field Number	Max Character Length	Field Name	Field Description	Required (Yes or No or Recommended)
1	7	LINE_NUMBER	Sequential number for each address record in a file.	Recommended.
2	12	ENTITY_ID	Unique identification number assigned by the Census Bureau to each entity.	Yes.
3	2	STATE	Two-digit FIPS state code.	Yes, if not providing latitude and longitude information.
4	3	COUNTY	Three-digit FIPS county code.	Yes, if not providing latitude and longitude information.

Field Number	Max Character Length	Field Name	Field Description	Required (Yes or No or Recommended)
5	7	CENSUS_TRACT	Six-digit current census tract number, with a decimal point between the fourth and fifth digit, consisting of a 4-digit base number, including leading zeroes, plus 2-digit number suffix, with trailing zeroes. For example, 123401 and 000300 correspond to 1234.01 and 3.00 respectively.	Yes, if not providing latitude and longitude information.
6	6	CENSUS_BLOCK	Up to six-digit Current Census Block Number, consisting of 4 numbers followed by up to 2 alpha characters that represent block suffixing. Ex. 1001, 1001D, 1001AA	Yes, if not providing latitude and longitude information.
7	1	GQ_TL_FLAG	Field to denote the address record as either a group quarters or transitory location. Enter 'G' for group quarters or a 'T' for transitory location.	Yes, if adding a group quarters or transitory location address.
8	35	COMPLETE_ADDRESS_NUMBER	Housing unit or group quarters assigned address number, alone or with an address number prefix and/or address number suffix that identifies a location along a thoroughfare or within a community. For 123 Main St, the "123" is the complete address number.	Yes.

Field Number	Max Character Length	Field Name	Field Description	Required (Yes or No or Recommended)
9	100	COMPLETE_STREET_NAME	Full street or road name. The official name of a thoroughfare as assigned by a governing authority or used and recognized alternate (alias) name. For 123 Main St, "Main St" is the complete street name.	Yes.
10	65	APTUNIT_NUMBER	Combination of Within Structure Descriptor and Identifier, e.g., "Apt 1", "Ste 22", "Unit A", "Bldg 2 Unit 10", etc. Populate with a value other than one already used for the address.	Yes, if the address is a duplicate (same State/County/Tract/Block, or Lat/Long, House #, Street Name, ZIP).
11	5	MAILING_ZIP_CODE	The United States Post Office (USPS) city-style mailing ZIP Code for the address.	Recommended if known. If included it must be five-digit numeric characters only. Cannot be "00000", "11111", "33333", "66666", "77777", "88888", or "99999".
12	100	GQ_TL_NAME	Name of group quarters (Dobbs Hall or Bayside Nursing Home) or transitory location (Royal RV Park or Seabird Marina).	Yes, if adding a group quarters or transitory location. Cannot be "null" if there is a value in "GQ_TL_FLAG" or "FACILITY NAME" field. Cannot contain a comma (e.g.",").
13	100	FACILITY_NAME	Name of group quarters facility. Usually a broader name than the GQ name.	No, but recommended if group quarters addresses being added are associated with a facility (e.g., The University of Nevada Las Vegas for dorms on its campus).

Field Number	Max Character Length	Field Name	Field Description	Required (Yes or No or Recommended)
14	100	LOCATION_DESCRIPTION	A short written description of the location and physical characteristics of living quarters (e.g., Red House w/ white shutters) that may assist the Census Bureau with locating the living quarters.	No.
15	11	LATITUDE	Latitude coordinate of address in decimal degrees with a minimum of 6 digits following the decimal.	Yes, if not providing the state, county, census tract, and census block geocode. Cannot contain special characters, except the decimal (e.g. ".").
16	12	LONGITUDE	Longitude coordinate of address in decimal degrees with a minimum of 6 digits following the decimal.	Yes, if not providing the state, county, census tract, and census block geocode. Cannot contain special characters, except the decimal (e.g. ".") and the negative sign (e.g. "-") for this hemisphere.

APPENDIX C   UNIT DESIGNATION ABBREVIATION EXAMPLES

Participants adding new addresses with unit information refer to this appendix for the proper abbreviations approved for use by the Census Bureau.

Table 26: Unit Designation Abbreviations

Name	Abbreviation
Apartment	APT
Basement	BSMT
Bottom	BOTM
Building	BLDG
Downstairs	DOWN
Floor	FLR
Front	FRNT
Interior	INTE
Level	LVL
Lower	LOWR
Middle	MIDL
Mobile Home	MH
Number	#
Penthouse	PH
Room	RM
Right	RGHT
Space	SP
Studio	STUD
Suite	STE
Suites	STES
Trailer	TRLR
Upper	UPPR
Upstairs	UPS

APPENDIX D PHYSICAL LOCATION DESCRIPTION AND STREET TYPE ABBREVIATION EXAMPLES

Participants refer to this appendix for the approved physical location descriptions and street type abbreviations to use in the User Address List.

Table 27: Physical Location Descriptions and Street Type Abbreviations

Full name	Abbreviation
Alternate Route	ALT
Avenue	AVE
Blue	BL
Boulevard	BLVD
Brown	BRN
Boarded Up	BU
Circle	CIR
County Highway	CO HWY
County Road	CO RD
Court	CT
Drive	DR
East	E
Four-Wheel Drive Trail	4WD
Freeway	FWY
Green	GR
General Delivery	GEN DEL
Hospital	HOSP
Highway Contract Route	HCR
House	HSE
Interstate	I
Intersection	INT
Lane	LN
North	N
Parkway	PKWY
Post Office Box	PO BOX
Road	RD
Route	RTE
Rural Route	RR

Full name	Abbreviation
South	S
Star Route	ST RT
State Highway	ST HWY
State Road	ST RD
State Route	ST RTE
Street	ST
Thoroughfare	THFR
Township Highway	TWP HY
Township Road	TWP RD
West	W
White	WHT
Yellow	YLW
With	W/

APPENDIX E   PARTNERSHIP SHAPEFILE NAMES

The information in this section provides background information about the shapefiles used by GUPS. Participants need not worry about opening the partnership shapefiles independently from GUPS. The list of state-based shapefiles is in **Table 28**.

State-based shapefiles follow the naming convention of **PVS_19_v1_<layername>_<SS>.shp**, where <SS> is the number corresponding FIPS number for the state, (e.g., "24" corresponds to Maryland) and <layername> is the abbreviation for the shapefile layer. For example, **PVS_19_v1_place_24.shp** is the Maryland shapefile for incorporated places.

Table 28: State Shapefiles Names

Shapefile layer	<layername>
American Indian Areas (AIA) – Legal	aial
2010 American Indian Areas (AIA) – Legal	aial2010
American Indian Areas (AIA) – Statistical	aias
American Indian Tribal Subdivisions (AITS) - Legal	aitsl
American Indian Tribal Subdivisions (AITS) - Statistical	aitss
Block Area Group	bag
Metropolitan Statistical Area/Metropolitan Statistical Area	cbsa
Congressional Districts	cd
Census Designated Place	cdp
Counties and Equivalent Areas	county
2010 Counties and Equivalent Areas	county2010
Elementary School Districts	elsd
County Subdivisions - Legal	mcd
New England City and Town Areas	necta
Incorporated Places	place
2010 Public Use Microdata Areas	puma2010
Secondary School Districts	scsd
State Legislative Districts Lower	sldl
State Legislative District Upper Chambers	sldu
State	state
Tribal Block Groups	tbg
Tribal Census Tracts	tct
2010 Census Tracts	tracts2010
Urban Area	uac
Unified School District State-Based	unsd

Similar to the state-based shapefile names, the county-based shapefiles have the following naming convention: **PVS_19_v1_<layername>_<SSCCC>.shp**, where <SSCCC> is the number corresponding FIPS number for the state and county, (e.g. "24001" corresponds to Allegany County, Maryland) and <layername> is the abbreviation for the shapefile layer. Table 29 details the county shapefile layers and layer names. For example, **PVS_19_v1_curtracts_24001.shp** is the Allegany County, Maryland, shapefile for current census tracts. The list of county-based shapefiles is in **Table 29**.

Table 29: County Shapefiles Names

Shapefile layer	<layername>
American Indian Areas (AIA) – Legal	aial
American Indian Areas (AIA) – Statistical	aias
American Indian Tribal Subdivisions (AITS) - Legal	aitsl
American Indian Tribal Subdivisions (AITS) - Statistical	aitss
Alaska Native Regional Corporations (ANRC)	anrc
Area Landmark	arealm
Block Area Groups	bag
Block Groups	bg
Metropolitan Statistical Area/Metropolitan Statistical Area	cbsa
Census County Division	ccd
Congressional Districts	cd
Census Designated Place	cdp
Consolidated Cities	concity
Counties and Equivalent Areas	county
Census Tracts - Current	curtracts
All Lines	edges
Elementary School Districts	elsd
Hawaiian Home Lands (HHL)	hhl
County Subdivisions - Legal	mcd
New England City and Town Areas	necta
Offsets	offset
Incorporated Places	place
Point Landmarks	pointlm
2010 Public Use Microdata Areas	puma2010
Secondary School Districts	scsd
State Legislative Districts Lower	sldl
State Legislative Districts Upper	sldu

Shapefile layer	<layername>
Subbarrios	submcd
Census Blocks - Current	tabblock
2010 Census Blocks	tabblock2010
2010 Traffic Analysis Delineation	tad2010
2010 Traffic Analysis Zones	taz2010
Tribal Block Groups	tbg
Tribal Census Tracts	tct
2010 Census Tracts	tracts2010
Census Urban Areas	uac
Urban Growth Area	uga
Unified School Districts	unsd
Hydrography - Area	water
Relationship Tables	**<layername>**
Address Ranges	addr
Topological Faces (2-cells with all geocodes)	faces
Topological Faces - Area Landmark Relationship	areafaces
Topological Faces - Area Hydrography Relationship	hydrofaces

APPENDIX F   GLOSSARY

American Indian Area (AIA) – A Census Bureau term that refers to any or all of the following entities: American Indian reservation, American Indian off-reservation trust land, Oklahoma tribal statistical area, joint use area, American Indian tribal subdivision, tribal designated statistical area, and state designated American Indian statistical area.

American Indian Reservation (AIR) – An area of land with boundaries established by final treaty, statute, executive order, and/or court order and over which a federally recognized, American Indian tribal government has governmental authority. Along with ''reservation'' primary governmental or administrative division of a county in 28 states and the ''reservation'' designations such as colonies, communities, pueblos, rancherias, and reserves apply to AIRs.

American Indian tribal subdivision – A legal subdivision of a federally recognized American Indian reservation, off-reservation trust land, or a statistical subdivision of Oklahoma tribal statistical areas. These entities are internal units of self-government or administration that serve social, cultural, and/or economic purposes for American Indians.

Boundary – A line, either invisible or coincident with a visible feature that identifies the extent of a geographic entity, such as a census tract, city, county, state, or reservation. A boundary marks the limits of an area.

Boundary and Annexation Survey (BAS) – An annual survey to collect information about selected legally defined geographic areas. The Census Bureau uses BAS as a means to update information about the legal boundaries and names of all governmental units in the United States.

Campground – A specific area set aside primarily for people to camp (e.g., in a tent, cabin, or camping trailer). Campgrounds often charge a fee and sometimes provide minimal amenities. This category includes both public campgrounds (e.g., in national/state/local parks or recreation areas) and private campgrounds (e.g., KOA campgrounds, religious campgrounds, hunting camps, or self-improvement camps).

Carnival or Circus – A traveling show or amusement enterprise (e.g., a circus, carnival, or fair), where the performers and workers may reside in temporary quarters on site, such as tents, buses, or recreational vehicles.

Census block – A census block is the smallest statistical geography for which the Census Bureau collects and tabulates decennial census data. Census blocks are bounded by visible features,

such as roads, streams, and railroad tracks, and by invisible features, such as the boundaries of governmental units and other legal entities. Census blocks are statistical geographic subdivision of census tracts. Census blocks are numbered within census tracts and are unique to the census tract to which they belong. Census block numbers consist of 4-digits and may include a single alpha character suffix reflecting a boundary change or added feature (e.g. 3001A and 3001B).

Note: If a jurisdiction has three different census tracts, each will likely contain a census block 1000. Respondents are encouraged to pay close attention to both the census tract and census block number when completing address updates. The New Construction Program uses 2019 partnership tabulation blocks represented as "tabblock2019" in the Partnership Shapefiles for digital participants.

Census block group – Block groups are statistical geographic divisions of a census tract, defined for the tabulation and dissemination of census data from the decennial censuses, the ACS, and other select surveys.

Census block number – Census block numbers contain up to 6-digit, consisting of 4 numbers followed by up to 2 alpha characters. Census blocks are numbered uniquely within each census tract.

Census Bureau – An agency within the U.S. Department of Commerce. The Census Bureau is the country's preeminent statistical collection and dissemination agency. It publishes a wide variety of statistical data about people and the economy of the nation. The Census Bureau conducts approximately 200 annual surveys and conducts the decennial census of the United States population.

Census Bureau map – Any map produced by the Census Bureau. A Census Bureau map displays geographic entities used in a Census Bureau sponsored census or survey for which the Census Bureau tabulates data.

Census county division (CCD) – Statistical geographic entities in 21 states where minor civil divisions either do not exist or have been unsatisfactory for reporting statistical data. The Census Bureau, in cooperation with state, tribal, and local officials, delineate these areas solely for statistical purposes. CCDs have no legal function and are not legal governmental units. The primary goal of CCDs is to establish and maintain a set of sub-county geographies with stable boundaries and recognizable names. Naming of each CCD is based on a place, county, or well-known local name that identifies its location. In most cases, census tracts nest within CCDs, but in less populated counties CCDs nest within census tracts.

Census designated place (CDP) – Statistical geographic entities representing closely settled, unincorporated communities that are locally recognized and identified by name. CDPs are the statistical equivalent of incorporated places, with the primary differences being the lack of both a legally defined boundary and an active, functioning governmental structure chartered by the state and administered by elected official.

Census tracts – Census tracts are relatively permanent statistical geographies of a country or equivalent entity delineated for the tabulation and presentation of statistical data. The following criteria apply to reviewing, updating, and delineating census tracts. Census tracts generally have a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people.

Census tract number – Unique numbers to identify census tracts within a county or statistically equivalent entity. Census tract numbers contain up to a 4-digit number followed by a decimal point and a 2-digit number for suffixed tracts, e.g., 1234.01. For census tracts without a suffix, the number will contain a period with zero fill, e.g., 4567.00.

Census Bureau geocoding – To process participants' New Construction Program submission, the Census Bureau requires the inclusion of census geographic code information including the **state**, **county**, **census tract**, and **census block** codes or the **structure coordinates** (latitude and longitude) on the address list. Geocoding is how the Census Bureau codes population to geographic entities. The Census Bureau will not accept addresses without the census geographic codes (geocodes) or the **structure coordinates** (latitude and longitude). Respondents can find the census geographic codes on the New Construction Program materials.

City-style address – The city-style addresses are housing units and group quarters that have a house number and street name address, for example, 212 Elm Street, or 137 Clark Court, Apt. 3. At times, the house numbers may also include an alpha character such as 35A or W9254. These are mailing addresses or addresses that provide location for emergency services, such as police, fire, and rescue (E-911 addresses). City-style addresses for housing units in multiunit structures, such as apartment buildings, contain a unit designator, for example, Apt 101 or Suite D or a location designator such as "rear" or "basement" (Refer to **Appendix C**). The Census Bureau and the U.S. Postal Service (USPS) treat these designators as part of the housing unit address, and they are included in each affected census address record.

Note: For the New Construction Program, participants must provide unit identifiers (e.g., Apt 1, Apt 2, Unit A, Unit B, Suite #) for multiunit buildings. Ensure that all apartment buildings, especially small multiunit buildings (3-4 units) such as large houses subdivided into apartments, have a separate address line for each unit that includes the basic street address and the individual unit designation.

County – The primary legal division of most states. Most are governmental units with powers defined by state law.

Edges – All linear features contained in the MAF/TIGER System.

Edges shapefile – All linear features in the MAF/TIGER System are contained in the edges shapefile. Participants use the edges shapefile to add, delete, or change linear feature attributes.

Faces – Topological areas in the MAF/TIGER System formed by edges.

Feature – Any part of the landscape, whether natural (a stream or ridge) or artificial (a road or power line). In a geographic context, features are any part of the landscape portrayed on a map, including nonvisible boundaries of legal entities, such as, city limits or county lines.

Federal Information Processing Series (FIPS)—These are codes formerly known as Federal Information Processing Standards codes, until the National Institute of Standards and Technology (NIST) announced its decision in 2005 to remove geographic entity codes from its oversight. The Census Bureau continues to maintain and issue codes for geographic entities covered under FIPS oversight, albeit with a revised meaning for the FIPS acronym. Geographic entities covered under FIPS include states, counties, congressional districts, core based statistical areas, places, county subdivisions, sub-minor civil divisions, consolidated cities, and all types of American Indian, Alaska Native, and Native Hawaiian areas. FIPS codes are assigned alphabetically according to the name of the geographic entity and may change to maintain alphabetic sort when new entities are created or names change. FIPS codes for specific geographic entity types are usually unique within the next highest level of geographic entity with which a nesting relationship exists. For example, FIPS state, congressional district, and core based statistical area codes are unique within nation; FIPS county, place, county subdivision, and sub-minor civil division codes are unique within state. The codes for American Indian, Alaska Native, and Native Hawaiian areas also are unique within state; those areas in multiple states will have different codes for each state.

Geocodes – Codes that place an individual address in its correct geographic location, which includes the correct state, county, census tract, and census block codes. Because the Census Bureau counts people where they live, geocodes provide information to Census enumerators for locating an address. Accurate geocoding also ensures the Census Bureau counts housing units, and the people associated with them, in the correct census geography.

Geographic Information System (GIS) – A computer system for the storage, retrieval, and maintenance of information about the points, lines, and areas that represent the streets and roads, rivers, railroads, geographic entities, and other features on the surface of the Earth-information that previously was available only on paper maps.

Geographic Update Partnership Software (GUPS) – A self-contained GIS update and processing package provided by the Census Bureau for participation in a variety of Census geography programs, including 2020 New Construction Program. Pre-packaged to include all of the components for 2020 New Construction, the GUPS contains the Census Bureau's TIGER partnership shapefiles necessary to participate. GUPS allows the participant to add external geospatial data (shapefiles, geodatabases, and imagery) for comparison and update purposes.

Group quarters – Group quarters (GQs) are places where people live or stay, in a group arrangement, owned or managed by an entity or organization providing housing and/or

services for the residents. These services may include custodial or medical care as well as other types of assistance, and residency is commonly restricted to those receiving these services. Residents of group quarters are usually not related.

The following types of group quarters are acceptable and should be included on participants' address list:

- Correctional facilities:
    - Federal and state prisons.
    - Local jails and other municipal confinement facilities.
    - Correctional residential facilities.
- Group homes:
    - Juvenile facilities:
    - Group homes for juveniles (non-correctional).
    - Residential treatment centers for juveniles (non-correctional).
    - Correctional facilities intended for juveniles.
- Nursing homes:
    - Nursing facilities/skilled-nursing facilities.

Note: Residents of assisted living, congregate care, and continuing care communities who are not receiving skilled nursing care are included in the housing unit population. Assisted living quarters are considered housing units and not group quarters as long as they have separate access from outside or from a common hall.

- Homeless shelters.
- Hospitals:
    - Mental (psychiatric) hospitals and psychiatric units in other hospitals.
    - Hospitals with patients who have no usual home elsewhere.
    - In-patients hospice facilities.
- College or university dormitories, fraternities, sororities.
- Workers' group living quarters or dormitories.
- Religious group quarters.
- Any group quarters under construction that will be habitable by Census Day, April 1, 2020.

Note: Housing units and group quarters can exist within the same structure. For example, assisted living quarters (housing units) may be located in the same structure that contains a nursing facility (group quarters).

Housing unit – The Census Bureau defines a housing unit as a single-family house, townhouse, mobile home, trailer, apartment, group of rooms, or a single room occupied as a separate living quarters or, if vacant, intended for occupancy as a separate living quarters. Separate living quarters are living quarters in which one or more occupants (or intended occupants, if vacant) live separate from any other individual(s) in the building and have direct access to the living quarters without going through another's living quarters, such as from outside the building or through a common hall.

The following types of housing units are acceptable and should be included on the updates to the Census Bureau's Address List:

- 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 living quarters, or if vacant, intended for occupancy as separate living quarters.
- Transitory location sites for movable or mobile housing, portable housing units, boats, motorized recreational vehicles (RVs), tents, and trailers that are pulled by cars or trucks. TRANSITORY LOCATION also include hotels and/or motels if people occupy rooms on a transient basis because they have no other residence. Transient locations are acceptable for inclusion in the New Construction Program.
- Any new housing units under construction that will have basic construction (windows, doors, roof that close the structure from the elements) completed by Census Day, April 1, 2020.

Hotel or Motel – A lodging facility that some people may use as long-term or permanent housing. Lodging facilities include hotels, motels, hostels, single-room occupancy units, inns, resorts, lodges, and bed and breakfasts. The types of units within these lodging facilities could be single rooms, suites, cabins, cabanas, cottages, or bungalows. In addition, organizations such as the YMCA and YWCA may offer lodging, along with other services, at their facilities.

Incorporated place —A type of governmental unit, incorporated under state law as a city, town (except in New England, New York, and Wisconsin), borough (except in Alaska and New York), or village, generally to provide governmental services for a concentration of people within legally prescribed boundaries.

Legal boundary – The legally defined boundary of a governmental unit, usually referring to a county, minor civil division, or incorporated place.

Marina – A dock or basin where small vessels (commercial or private), such as boats or yachts, can be securely moored or parked, in which some people may use the vessels as their primary residence. Marinas may offer supplies, repairs, and other services/amenities. Marinas may be standalone entities or components of a resort, and they may be owned and operated by public entities (e.g., municipal facilities) or by a private club (e.g., yacht club) or company.

Master Address File (MAF) – The Master Address File (MAF) is the Census Bureau's nationwide database of all addresses and physical/location descriptions used to support many of the Census Bureaus' operations. It contains mailing addresses and ZIP Codes, and address records containing geographic information such as location description of the addresses. In areas where there are non-city style addresses (e.g. rural routes or post office box numbers), the address record may contain additional information such as location description. The Census Bureau continues to update the MAF using the U.S. Postal Service's (USPS) Delivery Sequence File (DSF) and various automated, computer assisted, and clerical field operations.

MAF/TIGER Feature Classification Code (MTFCC) – A 5-digit code assigned by the Census Bureau to classify and describe geographic objects or features in the MAF/TIGER System and its output products**.**

Minor Civil Division (MCD) – The primary governmental or administrative division of a county in 29 states and the Island Areas having legal boundaries, names, and descriptions. The MCDs represent many different types of legal entities with a wide variety of characteristics, powers, and functions depending on the state and type of MCD. In some states, some or all of the incorporated places also constitute MCDs. MCDs are identified by a variety of terms, such as town (in eight states), township, and/or district. They include both functioning and nonfunctioning government entities.

New Construction Program – A Census Bureau program offered every 10 years that allows eligible participants, following established guidelines, to submit city-style addresses for eligible blocks within their jurisdiction.

New Construction Program liaison – A person designated by the Tribal Chairman/Chairwoman or Highest Elected Official to serve as the primary point of contact for the New Construction Program.

Non-city style address – Non city-style addresses are addresses that do not include a house number and/or a street name. Non-city style addresses also may not include a complete house number and street name address. Frequently used non-city style mailing addresses include:
- Rural route and box number.
- Highway contract route and box number.
- General delivery.
- Post Office box only delivery.

IMPORTANT: The New Construction Program does not accept non-city style addresses.

Nonvisible feature – The Census Bureau defines a nonvisible feature as one that is not visible on the ground and/or in imagery such as a city or county boundary through space, a property line, or line-of-sight extension of a road.

Place – A concentration of population either legally bound as an incorporated place or identified by the Census Bureau as a census designated place.

Racetrack – A facility used for racing automobiles, motorcycles, horses, or dogs where traveling workers may reside in temporary quarters on site, such as tents, buses, or recreational vehicles. This category includes both commercial and private racetrack facilities.

Recreational Vehicle (RV) Park – A specific area set aside primarily for people to temporarily park and occupy recreational vehicles (also referred to as travel trailers or camping trailers). RV parks typically use short-term (e.g., daily, weekly, monthly) rental agreements to provide spaces (with or without basic utility hook-ups) for people to park their RV. RVs are often on wheels while people live or stay in them; they are not permanent structures because they could be easily driven or towed away on any given day. This category includes both public and private RV park facilities.

Regional Census Center (RCC) – Temporary offices set up approximately two years prior to the decennial census. The geographic staff from the Regional Offices are assigned to their respective RCC and assist with the execution of various geographic operations as well as provide support for the field operations conducted during the decennial.

Regional Office (RO) – One of the permanent Census Bureau offices responsible for the Census Bureau's office and field operations within its region.

Residential vs Nonresidential Addresses - The Census Bureau classifies all addresses into two use types, residential and nonresidential. Residential addresses are addresses of housing units, group quarters, and transitory locations where one or more people could live. Nonresidential addresses are addresses of a structure or unit within a structure that do not serve as a residence, such as commercial establishments, schools, government offices, and churches.

Note: Some structures can contain both residential and nonresidential units even though they have a single address, such as an apartment over a store or a home with an office. In this instance, the New Construction Program considers this address residential since it contains a housing unit.

Shapefile – Digital representations of geographic features, such as roads and boundaries used to create maps. A shapefile stores non-topological geometry and attribute information for the spatial features in a dataset. The Census Bureau provides county-based shapefiles in Esri shapefile format.

Topologically Integrated Geographic Encoding and Referencing System (TIGER) – Address records in the MAF are linked to feature segments in the Topologically Integrated Geographic Encoding and Referencing (TIGER) System. The TIGER database includes the geographic coordinates and names of all streets, water features, other linear features, and boundaries for jurisdictions and statistical areas (census tracts, census blocks, etc.,) used to tabulate decennial census data.

Transitory Location — The Census Bureau defines a Transitory location (TL) as a site with movable or mobile housing that may include transitory units such as boats, motorized recreational vehicles or trailers (RVs), tents, or other types of portable housing. Transitory locations also include hotels and/or motels if people occupy rooms on a transient basis because they have no other residence. Transitory locations are acceptable for inclusion in the New Construction. The Enumeration of Transitory Locations (ETL) is a census operation designed to provide coverage for enumeration for locations where people live in non-traditional housing that is transient or movable in nature. The types of transitory locations that are included in the ETL include:

- Recreational Vehicle (RV) Parks.
- Campgrounds.
- Carnivals.
- Marinas.
- Racetrack Hotel.
- Motels.
- Hostels.
- Single-Room Occupancy Units.
- Inns.
- Resorts.
- Lodges.
- Bed and Breakfast.

Quick Start (CD/DVD) - Geographic Update Partnership Software (GUPS)

2020 Census New Construction Program

Getting Started

Open (or print) the *2020 Census New Construction Program Geographic Update Partnership Software (GUPS) Respondent Guide* (e.g., NC_GUPS_Respondent_Guide.pdf) as listed in **Figure 1**. For participants that intend to use the Address List Template rather than GUPS, consult the *2020 Census New Construction Program Digital Respondent Guide* (e.g., NC_Digital_Respondent_Guide.pdf). While available on the **Data Disc** DVD, some of these materials are also available for download from the New Construction Program website: <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>.
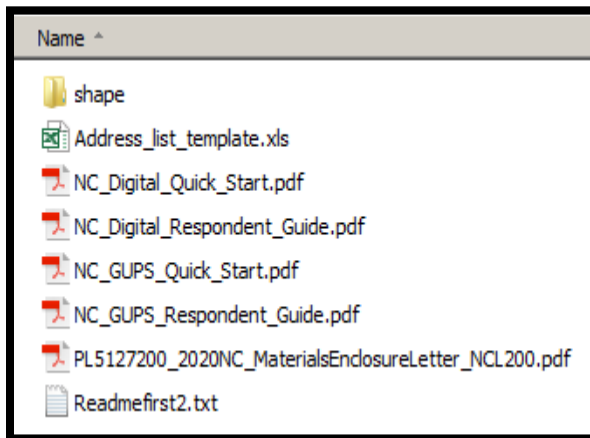
Figure 1: Data Disc Contents

1. First, create a new folder (or new directory) on a local computer to copy the contents from the **Data Disc** DVD. Consider using the "NC2020" naming convention for the folder name.
2. Insert the **Data Disc** into the CD/DVD drive of the local computer with the newly created folder.
3. When the window opens that shows the **Data Disc** contents, as shown in **Figure 1**, select all of the materials and right-click the mouse to **Copy** the selected materials.
4. Navigate to the newly created folder and right-click the mouse to **Paste** the copied materials. Ensure everything from the **Data Disc** is in the new folder and then remove the **Data Disc** from the CD/DVD drive.
5. Open the newly copied '**shape**' folder on the local computer. Double-click the **2020NC_<EntityID>.exe** file to extract the Partnership Shapefiles (e.g., shapefiles).
6. Close the new folder and locate the **GUPS Software Installer Disc** DVD.

I.   Installing GUPS from DVD

IMPORTANT: Participants likely need administrative privileges to install GUPS on their local computer. Check with the local system administrator regarding software installation protocol prior to contacting the New Construction Help Desk for assistance with installation.

1. Insert the **GUPS Software Installer Disc** into the CD/DVD drive of the local computer.
2. The software should auto-install, but if the installation wizard does not auto-launch, navigate to the CD/DVD drive to open (double-click) the **Setup-x.x.x** batch file. The file name may vary due to updated versioning of GUPS, but there is only one setup '.bat' file on the DVD to choose.
3. Follow the on-screen prompts and allow GUPS to install to the default location.
4. If participants encounter problems with installing GUPS from the DVD, navigate to the aforementioned New Construction Program website to download the zipped GUPS installation file to the new folder created in Step 1 of Getting Started. Instructions for installing GUPS after downloading the file are available in the same location of the downloaded file on New Construction Program website. They are very similar to the instructions provided in this section.

II.   Opening GUPS and Launching the New Construction Program

1. Launch **QGIS** from the All Programs within the Start Menu or double-click the **QGIS** icon from the Desktop. GUPS launches and the **Map Management** window opens.
2. Select the **New Construction Program** from the **Program** menu in the **Map Management** window as shown in **Figure 2**.
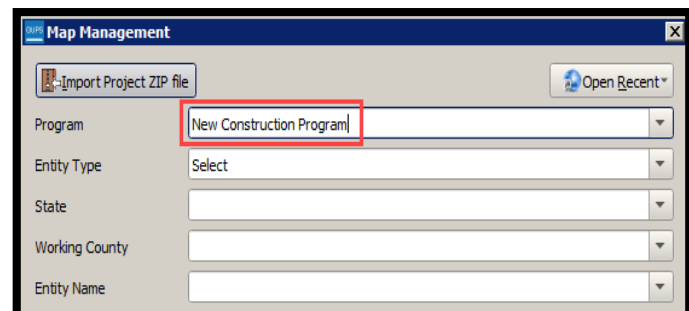
Figure 2: Map Management Window with New Construction Program

3. Select the **Entity Type** that matches your government. There are five choices (Tribe, State, County, Place, and Minor Civil Division). The subsequent sections are dependent on the **Entity Type** selected. Keep choosing the subsequent drop-down selections until the **Select Data Folder, Directory or Location** window appears.
   - Please note that the first two letters of your Entity ID provide the answer as to the Entity Type to select. Tribe is TR; State is ST; County is CO; Place is PL; Minor Civil Division is MC. If you have questions about your government's entity type, please contact the New Construction Help Desk at (844) 242-1765.

4. Select either **Census Web** (preferred) or **My Computer** from the **Select Data Folder, Directory or Location** window as shown in **Figure 3**.
   - Selecting **Census Web**, the preferred choice, downloads the shapefiles directly from the Census Bureau website into GUPS.
   - Selecting **My Computer** to load the shapefiles into GUPS requires participants navigate to the "shape" folder within the locally created folder from the **Getting Started** section above. **IMPORTANT**: Participant using this option must ensure the selection of the "shape" folder, not the actual shapefiles themselves for the data to load properly.

5. Once the **Select Data Folder, Directory or Location** window completes, the **Map Management** window reappears. After completing the remaining sections, select **Open** on the **Map Management** window, as shown in **Figure 4**.
   - Please note, once the data loads, subsequent launches of GUPS for the New Construction Program will not prompt participants to download the data again.

6. GUPS loads all of the required data and opens the project to begin work as shown in **Figure 5**.

7. Consult the GUPS Respondent Guide for instructions on working with GUPS for the New Construction Program.
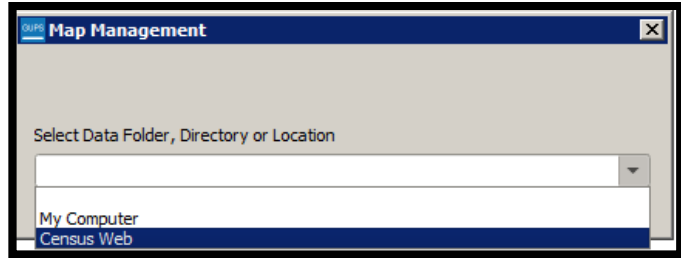
Figure 3: Select Data Folder, Directory or Location Window
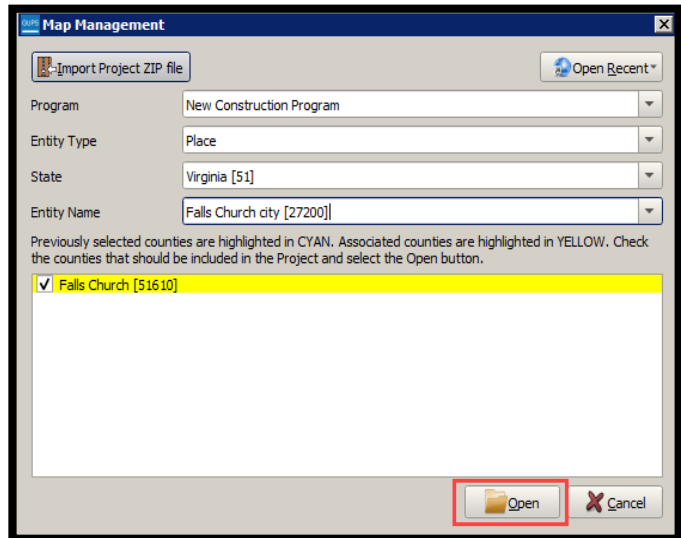
Figure 4: Map Management Window with Entity Type as Place
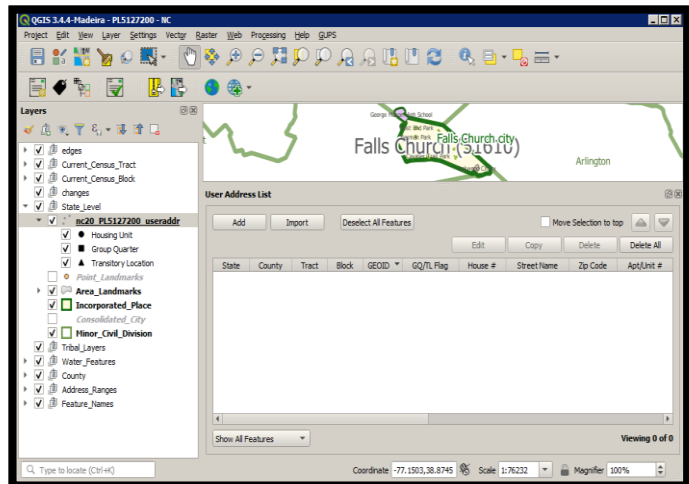
Figure 5: GUPS with New Construction Program Data Loaded

Please contact the New Construction Program Help Desk by phone at (844) 242-1765 or by email at GEO.2020.NC@census.gov if questions remain after consulting the respondent guide(s) or for additional assistance as necessary. As a reminder, information about the New Construction Program, as well as Frequently Asked Questions (FAQs) and schedules, is available on the New Construction Program website at <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>.

NC-E-200
Materials Available Online

Subject: 2020 Census New Construction Program – Materials Available Online

FROM THE ASSOCIATE DIRECTOR FOR
DECENNIAL CENSUS PROGRAMS

Dear <NC_LIAISON>:

Thank you for participating in the 2020 Census New Construction Program (New Construction Program). The materials for participation, including the Geographic Update Partnership Software (GUPS), partnership shapefiles, address list template, respondent guides, and quick start guides, are now available on the New Construction Program website. Please follow the action steps below to complete participation in the New Construction Program:

1. Review one of the following respondent guides applicable to you:
    a. *2020 Census New Construction Respondent Guide: Digital* – for those using their own GIS software.
    b. *2020 Census New Construction Respondent Guide: Geographic Update Partnership Software (GUPS)* – for those using GUPS.
2. Provide the New Construction Program addresses in the specified format using the Address List template.
3. Submit your New Construction Program updates within 45 calendar days of receiving your materials. *Updates submitted after 45 days will not be accepted.*

Please submit your New Construction Program updates using the Census Bureau's Secure Web Incoming Module (SWIM). If you do not already have a SWIM account, please email us via the email address below to request a SWIM token, which is required to create an account. If you already have a SWIM account, requesting a new account for the New Construction Program is not necessary.

SWIM website: <https://respond.census.gov/swim/>

If you have any questions regarding the New Construction Program or do not have any updates to submit, please contact the Census Bureau via the information below.

Email: <GEO.2020.NC@census.gov>
Phone: 1-844-242-1765
Website: <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>

Thank you for your participation in the New Construction Program.

Entity ID: <Entity_ID>

UNITED STATES DEPARTMENT OF COMMERCE
Economics and Statistics Administration
U.S. Census Bureau
Washington, DC 20233-0001

<Entity_Name>
<Entity_ID>
<Contact_ID>

<Date>

<NC_LIAISON>
<Position>
<Department Name>
<Mailing Address>
<City> <State> <ZIP>

FROM THE ASSOCIATE DIRECTOR FOR
DECENNIAL CENSUS PROGRAMS

Dear <NC_LIAISON>:

Thank you for participating in the 2020 Census New Construction Program (New Construction Program). This package includes your New Construction Program materials on one or two discs depending on the participation method you chose during the registration phase. Please follow the action steps below to complete participation in the New Construction Program:

1. Review one of the following respondent guides applicable to you:

    a. 2020 Census New Construction Respondent Guide: Digital – for those using PDF Maps or their own GIS software.

    b. 2020 Census New Construction Respondent Guide: Geographic Update Partnership Software (GUPS) – for those using GUPS.

2. Provide the New Construction Program addresses in the specified format using the Address List template.

3. Submit your New Construction Program updates within 45 calendar days of receiving your materials. *Updates submitted after 45 days will not be accepted.*

Please submit your New Construction Program updates using the Census Bureau's Secure Web Incoming Module (SWIM). If you do not already have a SWIM account, please email us via the email address below to request a SWIM token, which is required to create an account. If you already have a SWIM account, requesting a new account for the New Construction Program is not necessary.

SWIM website: <https://respond.census.gov/swim/>

If you have any questions regarding the New Construction Program or do not have any updates to submit, please contact the Census Bureau via the information below.

Email: <GEO.2020.NC@census.gov>
Phone: 1–844–242–1765
Website: <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>

Sincerely,

Albert E. Fontenot, Jr.
Associate Director for Decennial Census Programs

United States® Census Bureau | United States® Census 2020

census.gov

NC-E-230
For Existing SWIM Account

Subject: 2020 Census New Construction Program – Secure Web Incoming Module (SWIM) Token Request

FROM THE ASSOCIATE DIRECTOR FOR
DECENNIAL CENSUS PROGRAMS

Dear <NC_LIAISON>:

The email address you are using, <insert participant email>, is associated with an existing SWIM account. Please sign in to the SWIM website using the previously established user name and password. A new SWIM registration token is not required to log into an existing account. If you forgot your password, please click on *Forgot your password?* link on the main page. You can enter your registered email account to create a new password.

SWIM website: <https://respond.census.gov/swim/>

If you have any questions regarding the 2020 Census New Construction Program (New Construction Program), please contact the Census Bureau via the information below.

Email: <GEO.2020.NC@census.gov>
Phone: 1-844-242-1765
Website: <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>

Thank you for your participation in the New Construction Program.

Entity ID: <Entity_ID>

NC-E-240
Issue SWIM Registration Token

Subject: 2020 Census New Construction Program – Secure Web Incoming Module (SWIM) Registration
Token

FROM THE ASSOCIATE DIRECTOR FOR
DECENNIAL CENSUS PROGRAMS

Dear <NC_LIAISON>:

Please use the SWIM registration token below to register for a SWIM account. 2020 Census New
Construction Program (New Construction Program) submissions must be sent through the SWIM
account. The Census Bureau security policy prohibits submissions by all other methods or protocols
(e.g., email or ftp).

SWIM Registration Token: <XXXXXXXXXXXX>

If you have any questions regarding the New Construction Program, please contact the Census Bureau
via the information below.

Email: <GEO.2020.NC@census.gov>
Phone: 1-844-242-1765
Website: <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>

Thank you for your participation in the New Construction Program.

Entity ID: <Entity_ID>

NC-E-210
Follow-up Email

Subject: 2020 Census New Construction Program – 20 Days until Submission Deadline

FROM THE ASSOCIATE DIRECTOR FOR
DECENNIAL CENSUS PROGRAMS

Dear <NC_LIAISON>:

Thank you for your participation in the 2020 Census New Construction Program (New Construction Program). Approximately 25 days ago, you received the New Construction Program materials for review. If you have already submitted your New Construction Program updates or informed the Census Bureau that you have no updates, please disregard this message.

Your government has 20 days remaining to complete your New Construction Program submission. Please note that late submissions will not be accepted.

If you have any questions regarding the New Construction Program, please contact the Census Bureau via the information below.

Email: <GEO.2020.NC@census.gov>
Phone: 1-844-242-1765
Website: <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>

Entity ID: <Entity_ID>

UNITED STATES DEPARTMENT OF COMMERCE
Economics and Statistics Administration
U.S. Census Bureau
Washington, DC 20233-0001

<Entity_Name>
<Entity_ID>
<Contact_ID>

<Date>

<NC_LIAISON>
<Position>
<Department Name>
<Mailing Address>
<City> <State> <ZIP>

FROM THE ASSOCIATE DIRECTOR FOR
DECENNIAL CENSUS PROGRAMS

Dear <NC_LIAISON>:

Thank you for your participation in the 2020 Census New Construction Program (New Construction Program). Approximately 25 days ago, you received the New Construction Program materials for review. If you have already submitted your New Construction Program updates or informed the Census Bureau that you have no updates, please disregard this message.

Your government has 20 days remaining to complete your New Construction Program submission. Please note that late submissions will not be accepted.

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Email: <GEO.2020.NC@census.gov>
Phone: 1–844–242–1765
Website: <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>

Sincerely,

Albert E. Fontenot, Jr.
Associate Director for Decennial Census Programs

census.gov

Readmefirst3

2020 Census New Construction Program

Computer Readable Data Disc

This disc contains the following items in addition to this Readmefirst3 file:

Non-Title 13 Data Disc

1. Folder named "maps"

    -Within this folder are the Large Format PDF Maps, Readme, About the Maps, and Block to Map sheet Relationship file.

2. Digital Respondent Guide

3. Digital Quick Start Guide

4. Address List Template

5. NC-L-200 Materials Enclosure Letter

PURPOSE

The purpose of distributing the digital data disc is to provide 2020 Census New Construction Program (New Construction Program) participants with an electronic method of participating in the New Construction Program. This disc contains the data files needed to participate electronically.

Non-Title 13 Data Disc

----

1. Folder named "maps"

    -NC20<EntType><EntCode>.pdf - Large format images of the printed maps.

    Additionally, the "maps" folder contains:

    -Readme.txt file - explains the different components contained in the folder.

-About_the_maps.pdf - provides tips and a brief description of the map types.

-NC20<EntType><EntCode>_BLK2MS.txt - Block to map sheet relationship file containing a list of all New Construction eligible blocks within the jurisdiction, and the sheet or grid number(s) that identify the parent sheet where the block is located.

----

2. Digital Respondent Guide - File Name: NC_Digital_Respondent_Guide.pdf

-The Digital Respondent Guide provides instructions and examples for adding addresses using the digital materials. The Respondent Guide is in an Adobe Portable Document Format (PDF). If the computer does not already have software to read a PDF file, please download a PDF reader from the internet.

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3. Digital Quick Start Guide - File Name: NC_Digital_Quick_Start.pdf

-The Digital Quick Start Guide provides simple instructions to get started with the New Construction Program.

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4. Address List Template - File Name: Address_list_template.xls

-The Census Bureau provides an Address List Template to assist a government with providing the required address information for all new addresses.

----

5. NC-L-200 Materials Enclosure Letter - File Name: <EntityID>_2020NC_MaterialsEnclosureLetter_NCL200.pdf

-The Materials Enclosure Letter provides information about what is contained in the mailing package.

Readmefirst2

2020 Census New Construction Program

Computer Readable Data Discs and Geographic Update Partnership Software (GUPS) Installation Disc

These discs contain the following items in addition to this Readmefirst2 file:

Non-Title 13 Data Disc

1. Folder named "shape"

    -Within this folder are the Partnership Shapefiles (zipped)

2. Digital Respondent Guide

3. GUPS Respondent Guide

4. Digital Quick Start Guide

5. GUPS Quick Start Guide

6. Address List Template

7. NC-L-200 Materials Enclosure Letter

GUPS Installation Disc

1. Geographic Update Partnership Software (GUPS)

PURPOSE

The purpose in distributing the digital data disc is to provide 2020 Census New Construction Program (New Construction Program) participants with an electronic method of participating in the New Construction Program. These discs contain the data files needed to participate electronically, including users of Geographic Update Partnership Software (GUPS). All participants receiving shapefiles will receive a GUPS installation disc. Participants who did not specifically select to use GUPS are welcome to use it.

Readmefirst2

Non-Title 13 Data Disc

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1. Folder named "shape"

    -The "shape" folder contains a file named 2020NC_<EntityID>.exe; this is a zipped form of the Census Partnership shapefiles. To extract the files, double-click with the left mouse button on the executable (.exe). Please note that you may require administrative privileges to perform this task.

The <EntityID> is in the form of XXyyyyyyyyyy,

Where:

XX = 2 character, alpha entity type

yyyyyyyyyy = the variable length, numeric entity code depending on the type of entity.

ST = state, 2 digits

CO = county, 5 digits

PL = place, 7 digits

MC = Minor Civil Division (MCD), 10 digits

The naming convention for a tribal entity is 2020NC_TRxxxxTAyyyy.exe where xxxx is the Tribal Name code and yyyy is the Tribal Area code.

TR/TA = American Indian reservation or off-reservation trust land, 12 digits

The Partnership shapefiles will extract into multiple folders. A folder named "SS" (where "SS" is the state FIPS code corresponding to the state where the entity is located; e.g., Maryland is 24) will contain all state level shapefiles. A separate folder, or folders, named "SSCCC" (where "SS" is the state FIPS code and "CCC" is the county FIPS code corresponding to the county where the entity is located; e.g., Montgomery County, Maryland is 24031) will contain all county level shapefiles. If an entity resides in multiple states or counties, it will have corresponding folders for each of those locations.

The Census Bureau provides shapefiles as a reference for locating and geocoding individual addresses.

Readmefirst2

2. Digital Respondent Guide - File Name: NC_Digital_Respondent_Guide.pdf.

       -The Digital Respondent Guide provides instructions and examples for adding addresses using digital materials. The Respondent Guide is in an Adobe Portable Document Format (PDF). To read a PDF file, please download a PDF reader from the internet.

    ----

3. GUPS Respondent Guide - File Name: NC_GUPS_Respondent_Guide.pdf

       - The GUPS Respondent Guide provides instructions and examples for adding addresses using GUPS.

    ----

4. Digital Quick Start Guide - File Name: NC_Digital_Quick_Start.pdf

       -The Digital Quick Start Guide provides simple instructions to get started with the New Construction Program before reading the full-length respondent guide.

    ----

5. GUPS Quick Start Guide - File Name: NC_GUPS_Quick_Start.pdf

       -The GUPS Quick Start Guide provides simple instructions to get started with the New Construction Program using GUPS, including installation, before reading the full-length respondent guide.

    ----

6. Address List Template - File Name: Address_list_template.xls

       -The Census Bureau provides an Address List Template to assist with providing the required address information for all new addresses.

    ----

7. NC-L-200 Materials Enclosure Letter - File Name: <EntityID>_2020NC_MaterialsEnclosureLetter_NCL200.pdf

       -The Materials Enclosure Letter provides information about what is contained in the mailing package.

Readmefirst2

GUPS Installation Disc

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1. Geographic Update Partnership Software (GUPS)

This disc contains the installation software.

Additionally, this disc contains a readme.txt with general GUPS installation instructions.

NC-E-300
Submission Close-out Email

Subject: Thank you for your participation in the 2020 Census New Construction Program

FROM THE ASSOCIATE DIRECTOR FOR
DECENNIAL CENSUS PROGRAMS

Dear <NC_LIAISON>:

The U.S. Census Bureau appreciates your participation in the 2020 Census New Construction Program (New Construction Program). This email acknowledges our receipt of your submission. The Census Bureau will contact you if we have any questions regarding your submission.

If you have any questions regarding the New Construction Program, please contact the Census Bureau via the information below.

Email: GEO.2020.NC@census.gov
Phone: 1-844-242-1765
Website: <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>

Entity ID: <Entity_ID>

NC-E-310
Late Submission Close-out Email

Subject: Thank you for your participation in the 2020 Census New Construction Program

FROM THE ASSOCIATE DIRECTOR FOR
DECENNIAL CENSUS PROGRAMS

Dear <NC_LIAISON>:

The U.S. Census Bureau appreciates your participation in the 2020 Census New Construction Program (New Construction Program). This email acknowledges our receipt of your submission.

Unfortunately, the Census Bureau is unable to process your submission because it was submitted past the deadline.

If you have any questions regarding the New Construction Program, please contact the Census Bureau via the information below.

Email: GEO.2020.NC@census.gov
Phone: 1-844-242-1765
Website: <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>

Entity ID: <Entity_ID>

UNITED STATES DEPARTMENT OF COMMERCE
Economics and Statistics Administration
U.S. Census Bureau
Washington, DC 20233-0001

<Entity_Name>
<Entity_ID>
<Contact_ID>

<Date>

<NC_LIAISON>
<Position>
<Department Name>
<Mailing Address>
<City> <State> <ZIP>

FROM THE ASSOCIATE DIRECTOR FOR
DECENNIAL CENSUS PROGRAMS

Dear <NC_LIAISON>:

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Phone: 1–844–242–1765
Website: <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>

Sincerely,

Albert E. Fontenot, Jr.
Associate Director for Decennial Census Programs

United States® Census Bureau | United States® Census 2020

census.gov

UNITED STATES DEPARTMENT OF COMMERCE
Economics and Statistics Administration
U.S. Census Bureau
Washington, DC 20233-0001

<Entity_Name>
<Entity_ID>
<Contact_ID>

<Date>

<NC_LIAISON>
<Position>
<Department Name>
<Mailing Address>
<City> <State> <ZIP>

FROM THE ASSOCIATE DIRECTOR FOR
DECENNIAL CENSUS PROGRAMS

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Phone: 1–844–242–1765
Website: <https://www.census.gov/programs-surveys/decennial-census/about/new-construction.html>

Sincerely,

Albert E. Fontenot, Jr.
Associate Director for Decennial Census Programs

census.gov