GUIDELINES FOR STATESIDE COUNT QUESTION RESOLUTION (CQR) CHALLENGES

Table of Contents

1 Overview of CQR Address Lists & Map Submission Guidelines....3
2 Address List Template Guidelines....4
2.1 General Guidelines for CQR Address List Submissions....4
2.2 Template Field Definitions....6
3 Updating Maps for CQR Challenges....10
3.1 Overview of Maps in CQR....10
3.2 2010 Census Public Law 94-171 County Block Map....12
3.3 2010 Census Block Maps....13
3.4 TIGER/Line Shapefile Derived Maps....13
3.5 2010 Census Block Work Maps....14
3.6 2010 Census Maps Generated from American Fact Finder....15
3.7 Sketch maps....15
3.8 Boundary Challenges....16
4 Step by Step Instructions for Preparing Address and Map Components of a CQR Submission....17
5 Final Steps before Submitting the Challenge....21
5.1 Provide Certification that the Living Quarters Existed and could be Lived in on April 1, 2010....21
5.2 Provide General Information on the Challenge....21
5.3 Checklist of the Required Information for CQR Challenges....22
5.4 Submit the CQR Challenge to the Count Question Resolution Office....23
Appendix A....24

1 Overview of CQR Address Lists & Map Submission Guidelines

This document is intended to assist governmental units in preparing the materials required for a geocoding or coverage challenge during the 2010 Census Count Question Resolution (CQR) program, defined in the Federal Register, Vol. 76, No. 45.

All challenges within the 2010 Census Count Question Resolution (CQR) program require the submission of a complete address list containing all of the housing units and/or group quarters (for the purposes of this document to be referred to as Living Quarters or LQs) that are within each contested 2010 Census Tabulation block(s), and an accompanying map identifying the specific location of each LQ in the contested block(s)[1]. The address list must include *all* LQs within the contested block(s), which the challenger (the highest elected or appointed official of state, local, and tribal area governmental units or those representing them or acting on their behalf), certifies existed and could be lived in on April 1, 2010, and believes the Census Bureau should include in the 2010 Census results. Additionally, each address on the list must be represented on a Census block map by a map spot number that is placed at the LQ's specific location within the block. The map spot number is the link between the visual representation of the LQ on the block map, and the written address of the LQ on the list.

The remainder of this document describes what challengers should consider when:

- Creating address lists of all housing units and/or group quarters that are within the 2010 Census tabulation blocks that the governmental unit is contesting,
- Identifying the location of housing units and boundary changes on 2010 Census maps, and
- Submitting documentation that supports the existence of challenged housing units on April 1, 2010.

[1] Address lists are not required if the challenge is **solely** for a name or status change, or to add a new entity.

[2] Address lists are not required if the challenge is **solely** for a name or status change, or to add a new entity.

2 Address List Template Guidelines

The Census Bureau has developed templates for governmental units (GUs) to use in submitting their address list(s) of LQs within the block(s) they are contesting. There are three different templates; one for City Style addresses, one for Non-City Style addresses, and one for Group Quarters. **Use of these templates** is strongly recommended, as they serve as a guide for submitting the required information for the different types of addresses and/or Group Quarters, which in turn **expedites** the challenge process. GUs may submit their data in other formats, but it is essential that all required information be provided for the different types of addresses submitted. Additional processing steps by the Census Bureau are required of data that is submitted outside of the template format. These templates are located on the 2010 Census CQR Website (http://2010census.gov/about/cqr).

2.1 General Guidelines for CQR Address List Submissions

Following are some general points to consider when submitting an address list in the CQR program:

- Stateside guidelines include the 50 states and the District of Columbia. For Puerto Rico, use the Guidelines for Puerto Rico Count Question Resolution (CQR) Challenges.

- There are **three different address templates**, (City Style, Non-City Style, and Group Quarters), each of which requires different address components. It is important to read the instructions carefully in order to include the correct components on each address template.

- A challenge must include one list for each address template represented in the overall challenge, regardless of how many blocks are submitted. For example, if the block(s) challenged include(s) City Style addresses plus a Group Quarters address, then two address lists should be submitted. Another example would be if a GU challenged 14 blocks that contained City Style, Non-City Style and Group Quarters addresses, there would be 3 address lists for the entire challenge – one list for each template.

- Each address must represent the physical location of the Living Quarters (LQ). An LQ can be either a Housing Unit (HU) or a Group Quarters (GQ).

- Each address must contain all of the required fields indicated in the specific address list template instructions.

- For multi-unit buildings, (such as apartments) enter each individual LQ unit address within the building on a separate line of the address list. Each unit within a multi-unit building must have a unique apartment or unit identification. For example:
    - 101 Main St Apt 1,
    - 101 Main St Apt 2,
    - 101 Main St Apt 3, …

- The address lists must be accompanied by the appropriate 2010 Census block map(s). A **map spot number** must be assigned and placed on the 2010 Census block map(s), indicating the physical location of each Living Quarters (LQ) for each challenged address. The map spot number representing the LQ must also be entered on the address list for each corresponding address. The map spot number is the **link** between the visual representation of the LQ on the block map, and the written address of the LQ on the list.

- The map spot numbers for each challenged block should begin with "1" and continue in ascending order.

- For multi-unit buildings, put one map spot number marking the multi-unit's location, and reference that single map spot number on each line of the address list for LQ units located within the multi-unit building.

    - For example: If there are 12 units within a multi-unit building, then the Map Spot Number will repeat 12 times on the address list.
    - Reference Examples 1 & 2 shown on page 20 for illustration of how to provide multi units within your submission.

- When populating the Group Quarters (GQ) template, provide the address for each building at the Facility. For example, if a university, the "Facility", has six college dormitories, list the address of each dormitory, the "Group Quarters", on a separate line of the address list. **For GQs only**, do not provide each individual unit (such as room numbers) within the GQ building.

- When populating the Group Quarters template, provide the population count of the GQ as of April 1, 2010.

- Whenever possible provide all Non-City Style address information such as a Rural Route Identifier and Box ID. Only when no other address information is available should challengers solely provide detail describing the units being challenged in the location description field.

- **If there is no data** for an optional field, then **leave it BLANK**. Do **NOT** write "NA", "None", "Not Applicable", or fill it with repeating digits like 999999999.

- FIPS State and FIPS County Codes are required for all LQs submitted on address lists. FIPS State and County Codes can be obtained through the CQR Website at http://2010census.gov/about/cqr.

2.2 Template Field Definitions

Stateside City Style Address List Guidelines			
Field	**Maximum Character Length**	**Comments**	**Required or Optional**
State FIPS Code	2	Must contain legal FIPS State code of **two** digits and include the leading zero when appropriate. Example: **08**	Required
County FIPS Code	3	Must contain legal FIPS County code of **three** digits and include the leading zero when appropriate. Examples: **041**, **007**, **113**	Required
Tract Number	7	Must contain a 2010 Tabulation Tract number, decimal point, and a tract suffix. Example: **1001.01** *(Four digits – a decimal point – two digits)* A Tract Number *must* contain six digits even if there are zeros in front or behind a number. Examples: **0832.01** *or* **0092.00**	Required
Block Number	4	Must be a **four** digit Block number. Example: **1001** *(Must be four digits)*	Required
House Number	20	Use only alphanumeric characters and the following special characters: # / -	Required
Street Name	100	Use only alphanumeric characters and the following special characters: # / - & ( ) '	Required
Unit Descriptor	12	Some examples are: APT, #, ROOM, STE, UNIT, LOT, SLIP, PIER	Required for a Multi-Unit
Apt/Unit ID	40	Use only alphanumeric characters and the following special characters: # / - ( ) In addition to unit letters & numbers, some examples are: basement, upstairs, garage.	Required for a Multi-Unit
Location Description	100	A short written description of the location and physical characteristics of a Living Quarters (LQ).	Optional
City	16		Required
ZIP Code	5	Must be **five** numeric characters. Can not contain: 00000, 11111, 33333, 66666, 77777, 88888 or 99999	Required
Map Spot Number	4	Number that marks the exact location of an LQ on the submitted 2010 Census block map, and corresponds/links to the LQ on the address list.	Required

Stateside Non-City Style Address List Guidelines			
Field	**Maximum Character Length**	**Comments**	**Required or Optional**
State FIPS Code	2	Must contain legal FIPS state code of **two** digits and include the leading zero when appropriate. Example: **08**	Required
County FIPS Code	3	Must contain legal FIPS county code of **three** digits and include the leading zero when appropriate. Examples: **041**, **007**, **113**	Required
Tract Number	7	Must contain a 2010 Tabulation Tract number, decimal point, and a tract suffix. Example: **1001.01** *(Four digits – a decimal point – two digits)* A Tract Number *must* contain six digits even if there are zeros in front or behind a number. Examples: **0832.01** *or* **0092.00**	Required
Block Number	4	Must be a **four** digit Block number. Example: **1001** *(Must be four digits)*	Required
Rural Route Descriptor	3	Legal Values: RT = Route, RR = Rural Route, HCR = Highway Contract Route, SR = Star Route, PSC =Private Support Contractor	Required, if applicable
Rural Route ID	4		Required, if applicable
BOX Descriptor	3	Must contain "BOX" for all addresses.	Required, if applicable
BOX ID	10		Required, if applicable
Location Description	100	A short written description of the location and physical characteristics of a Living Quarters (LQ). Location description can include E911 address. If no other address information is available for the LQ, then provide a short written description of the location and physical characteristics. Example: **Brick house off Rt. 55**	Required, if applicable
City	16		Required
ZIP Code	5	Must be **five** numeric characters. Can not contain: 00000, 11111, 33333, 66666, 77777, 88888 or 99999	Required
Map Spot Number	4	Number that marks the exact location of an LQ on the submitted 2010 Census block map, and corresponds/links to the LQ on the address list.	Required

Stateside GQ Address List Guidelines			
Field	**Maximum Character Length**	**Comments**	**Required or Optional**
State FIPS Code	2	Must contain legal FIPS state code of **two** digits and include the leading zero when appropriate. Example: **08**	Required
County Code	3	Must contain legal FIPS county code of **three** digits and include the leading zero when appropriate. Examples: **041**, **007**, **113**	Required
Tract Number	7	Must contain a 2010 Tabulation Tract number, decimal point, and a tract suffix. Example: **1001.01** *(Four digits – a decimal point – two digits)* A Tract Number *must* contain six digits even if there are zeros in front or behind a number. Examples: **0832.01** *or* **0092.00**	Required
Block Number	4	Must be a **four** digit Block number. Example: **1001** *(Must be four digits)*	Required
Facility Name	100	Facility name is the broader name for entities such as a University or Extended Care Hospital that has multiple residential buildings. **Example**: "The University of Nevada Las Vegas" would be a Facility name. The separate dormitories would be the GQ names.	Optional
GQ Name	100	Group Quarters are the individual buildings located within a Facility. **Example**: "Reed Dormitory" would be a GQ name. There are instances where the GQ Name and Facility Name are potentially the same. **Example**: Shady Acres (Facility Name) may have only *one* housing building (GQ), which would make the Facility name and GQ names the same.	Required
House Number	20	Use only alphanumeric characters and the following special characters: # / -	Required for City Style
Street Name	100	Use only alphanumeric characters and the following special characters: # / - & ( ) '	Required for City Style
Unit Descriptor	12	Some examples are: APT, #, ROOM, STE, UNIT, LOT, SLIP, PIER	Required for a City Style Multi-Unit
Apt/Unit ID	40	Use only alphanumeric characters and the following special characters: # / - ( ) In addition to unit letters & numbers, some examples are: basement, upstairs, garage.	Required for a City Style Multi-Unit

Continued on next page

Stateside GQ Address List Specifications, *continued from page 8*			
Field	**Maximum Character Length**	**Comments**	**Required or Optional**
Rural Route Descriptor	3	Legal Values: RT = Route, RR = Rural Route, HCR = Highway Contract Route, SR = Star Route, PSC = Private Support Contractor	Required for Non-City Style if applicable
Rural Route ID	4		Required for Non-City Style if applicable
BOX Descriptor	3	Must contain "BOX" for all addresses.	Required for Non-City Style if applicable
BOX ID	10		Required for Non-City Style if applicable
Location Description	100	A short written description of the location and physical characteristics of a Living Quarters (LQ). Location description can include E911 address. If no other address information is available for LQ, then provide a short written description of the location and physical characteristics. Example: **Brick house off Rt. 55**	Required for Non-City Style if applicable
City	16		Required
ZIP Code	5	Must be **five** numeric characters. Can not contain: 00000, 11111, 33333, 66666, 77777, 88888 or 99999	Required
Population	5	Number of persons residing at the GQ as of April 1, 2010	Required
Contact Name	35		Optional
Contact Phone Area Code	3	Area code of the contact telephone number. *(Must be three digits)*	Optional
Contact Phone Number	8	Telephone number of the contact. *(Three digits – a dash – four digits)* Format: 000-0000	Optional
Contact Phone Extension	8		Optional
Map Spot Number	4	Number that marks the exact location of an LQ on the submitted 2010 Census block map, and corresponds/links to the LQ on the address list.	Required

3 Updating Maps for CQR Challenges

A map(s) indicating the specific geographic location of the challenged living quarters and geographic boundaries is required with each submission in order for the Census Bureau to fully understand the scope of each CQR challenge. This map(s) ensures that the local official effectively illustrates the areas they disagree with, and shows specifically what they are challenging. Thus, it is imperative that the local official preparing the challenge is able to read and understand maps and CQR map annotations.

This section provides descriptions of the various types of maps that the Census Bureau will accept for CQR challenges, and instructions on how to annotate these maps when submitting a challenge. If a CQR submission includes a boundary challenge, the local official will also need to follow the more detailed procedures and documentation requirements used by the Boundary and Annexation Survey in addition to these guidelines. These detailed boundary challenge procedures can be found at www.census.gov/geo/www/bas/bas11/bas11_rgm.html.

For those who are unfamiliar with reading and using Census maps, Appendix A of these guidelines provides extensive instructions on reading and using Census maps.

3.1 Overview of Maps in CQR

The Census Bureau will accept several different types of maps for CQR, however, there are some base requirements for these maps. Maps must identify the state, county, 2010 Census tract(s) and 2010 census tabulation blocks associated with the challenge. If a challenge involves an American Indian Reservation or off-reservation trust land, the maps must identify the American Indian area, census tribal tract, and 2010 census tabulation block boundary. The following table summarizes the maps that can be used. Sections 3.2 through 3.7 describe each map type in more detail.

Maps that can be used in 2010 CQR Challenges			
Map Type	**Description**	**Availability**	**Applicable Type of CQR Challenge**
2010 Census Public Law 94-171 County Block Map	Large format: 36" x 32" County-based maps created as a reference for the Redistricting Data Files available for all States, the District of Columbia, and Puerto Rico.	Available now at: http://www.census.gov/geo/www/maps/pl10_map_suite/cou_block.html	Boundary, Geocoding, Coverage
2010 Census Block Maps	Large format: 36" x 32" Block-level maps created as a reference for SF1 files. Available for geographic entities, such as, counties or equivalent entities, American Indian Reservations, incorporated places, consolidated cities, and minor civil divisions.	Available beginning June 1, 2011 from the Census Web site, and will be released on a state by state basis through August 2011.	Boundary, Geocoding, Coverage
2010 Census Public Law 94-171 TIGER/Line Shapefile derived map	Small or large format maps generated from challenger's GIS using the 2010 TIGER/Line shapefiles as a base for Census 2010 Tracts, Census 2010 Blocks, and other legal or statistical boundaries being challenged.	2010 TIGER Shapefiles available now at: http://www.census.gov/geo/www/tiger/tgrshp2010/tgrshp2010.html	Boundary, Geocoding, Coverage
2010 Census Block Work map	Small format: 8 ½ X 14 individual block-based maps available for all blocks within a given county, which will be sent to you on a CD/DVD upon request.	Contact the CQR program office. Phone: (301) 763-9329 Email: dmd.cqr@census.gov	Geocoding, Coverage
2010 Block Maps Generated from American Fact Finder	Maps generated from web based American Fact Finder printed on paper and annotated as required.	American Fact Finder website: http://factfinder2.census.gov	Geocoding, Coverage
Sketch maps	When no other map is available or suits the challenger's purpose, they can create a sketch map containing all of the necessary information.	Templates for sketch maps will be available beginning June 2011 from the CQR Website (http://2010census.gov/about/cqr). They can also be requested by calling the CQR Office on (301)763-9329.	Geocoding, Coverage

3.2 2010 Census Public Law 94-171 County Block Map

These large format maps show 2010 Census statistical boundaries, such as census blocks, census tracts, and legislative districts, as well as legal boundaries, such as county, place, and American Indian Area boundaries at a very small scale as shown in Figure 1 below. They are available to be viewed or plotted from the Census website (http://www.census.gov/geo/www/maps/pl10_map_suite/cou_block.html). These maps are small scale, so they can be used to report challenges regarding boundaries, and are ideal for statistical boundary challenges. 2010 Census Public Law 94-171 County Block Maps can also be used as reference maps to determine which blocks will be involved in a challenge. These maps can also be used for geocoding challenges, but due to their scale, there is often insufficient detail, or space, to fit all map spots within the desired area as is illustrated in Figure 2 on the following page.

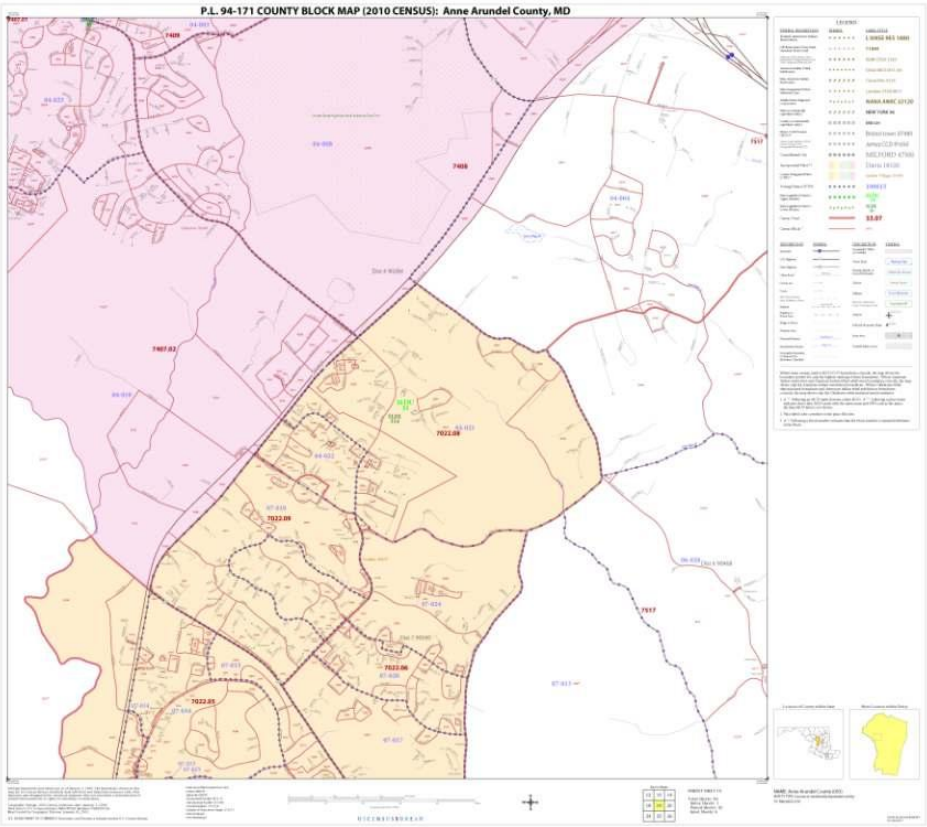


Figure 1: 2010 Census Public Law 94-171 County Block Map Example

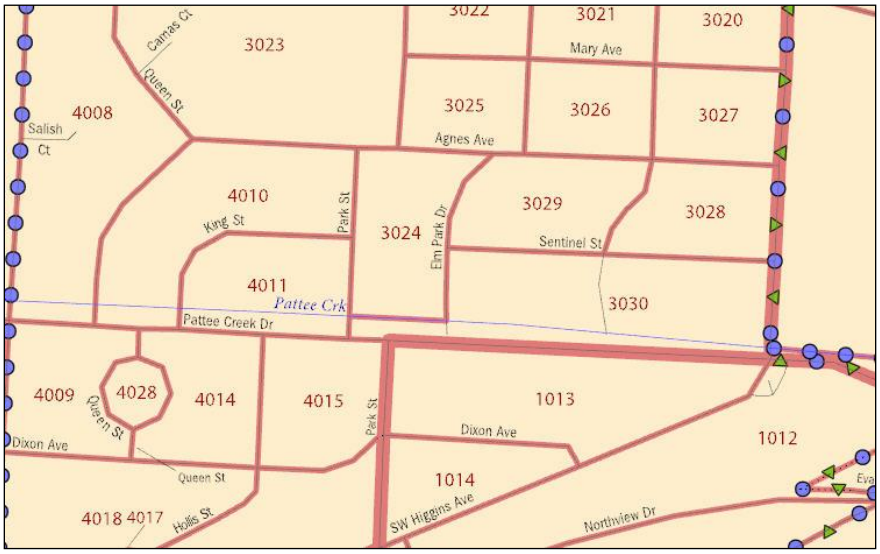


Figure 2: Small-scale maps may not provide enough detail to make desired CQR annotations.

3.3 2010 Census Block Maps

The 2010 Census Block Maps are governmental unit-based block maps, which will be produced for all governmental units. The scale, content, and "look and feel" of these maps will be similar to the 2010 Census Public Law 94-171 County Block Maps described in section 3.2 of this document. These maps will be made available on the internet beginning June 1, 2011 and will be released on a state by state basis through August 2011. There will be a link to these maps from the CQR Web site.

3.4 TIGER/Line Shapefile Derived Maps

Governmental Units submitting a CQR challenge may also create and submit their own map using 2010 TIGER/Line Shapefiles. These shapefiles are available to download for free from the Census Bureau website (http://www.census.gov/geo/www/tiger/tgrshp2010/tgrshp2010.html). When submitting a map created from these files, the challenger must include all required CQR information on the map, including the state, county, 2010 census tract(s) and 2010 census tabulation blocks associated with the challenge and annotation of LQ(s) that corresponds to addresses submitted in the template. If the Challenger is also challenging a boundary, the maps generated from the 2010 TIGER/Line files must show the correct location of the boundary and the portion of the boundary that the Census Bureau potentially depicted incorrectly (see section 3.8 for more information on boundary challenges). Maps which do not include this information won't have sufficient information to be reviewed in CQR.

3.5 2010 Census Block Work Maps

When the scale of a map is too small to show challenged housing units, CQR challengers can elect to request a CD/DVD containing PDF files of maps for each block in the county/counties that contain the jurisdiction submitting the CQR challenge. Note these maps are not available on the Census Bureau website – they are created on demand and therefore must be requested through the CQR office via email (dmd.cqr@census.gov) or phone (301-763-9329). As their name suggests, Census Block maps show a single census block as shown in Figure 3 below.

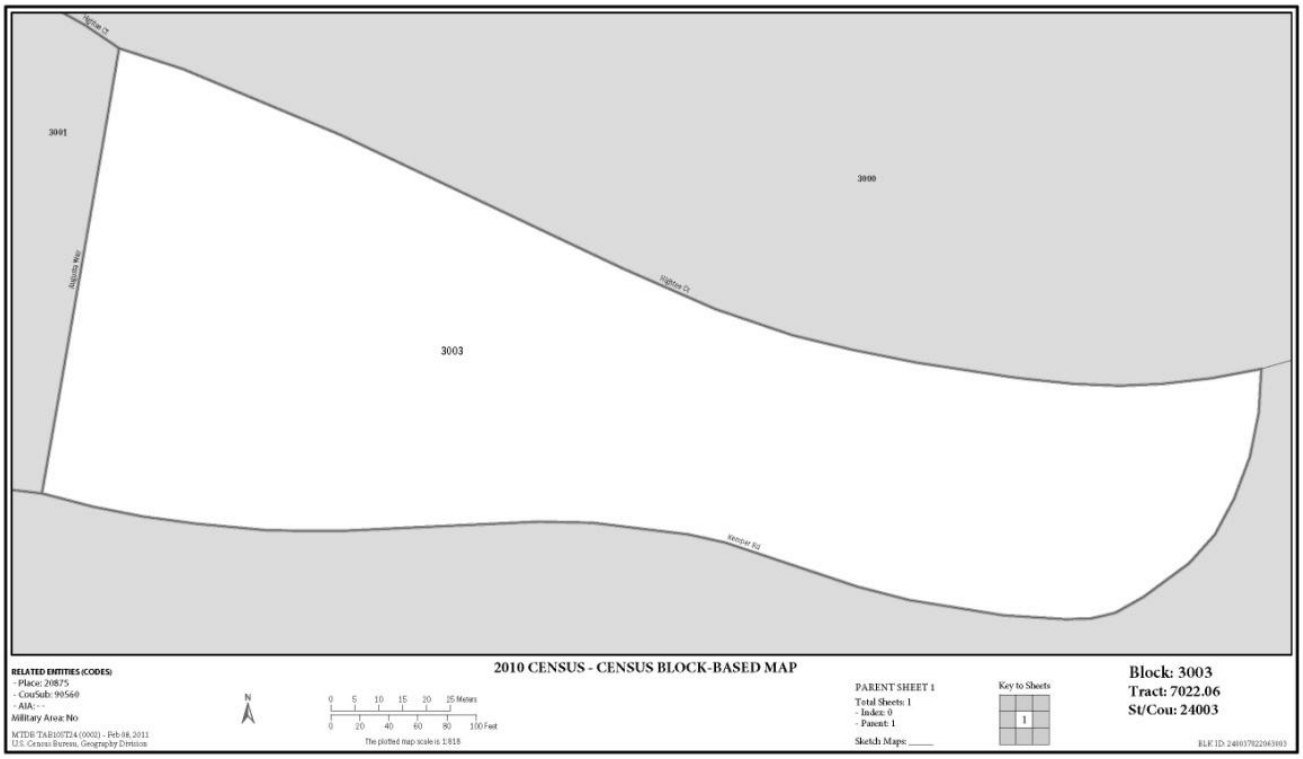


Figure 3: Census Block maps show a single block.

Sometimes a single census block is divided into multiple maps so that it can be shown in greater detail, although this depends on the size of the census block – this is shown in Figure 4 on the next page. As Census Block maps are large scale, they show a small area in great detail. Thus, they are ideal for geocoding and coverage challenges. They provide the user with ample space to draw all map spots within the given census block.

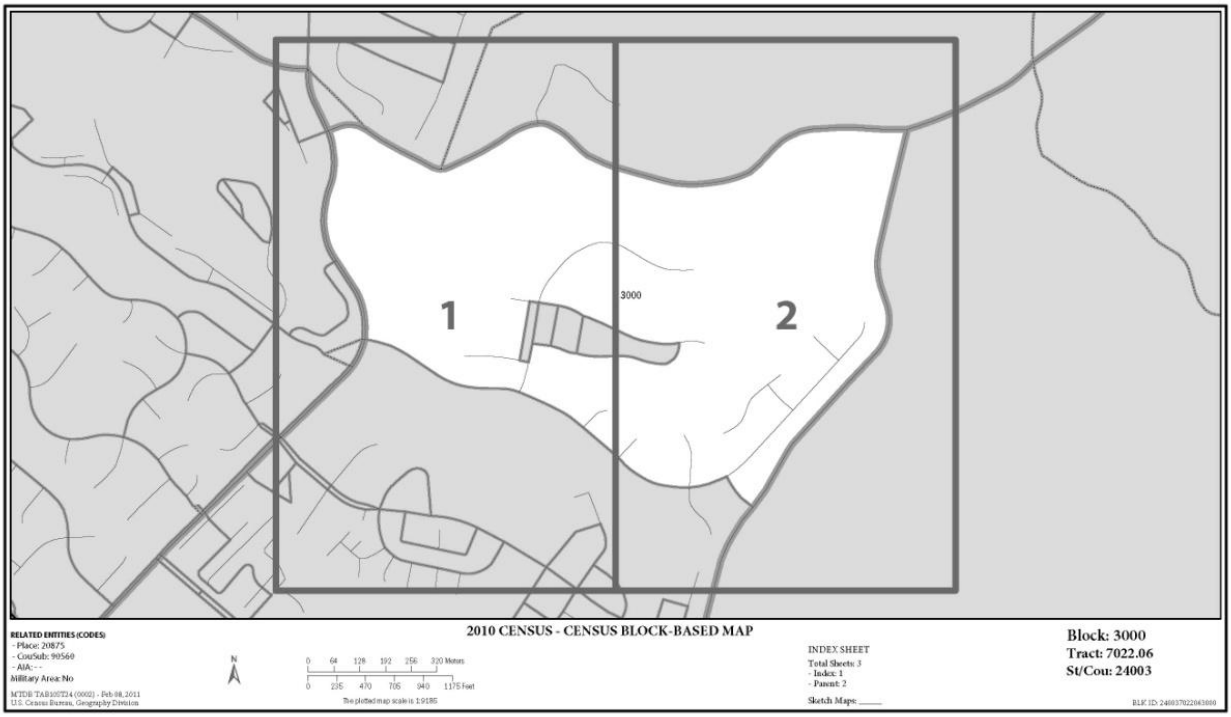


Figure 4: In some cases, the census block is divided and shown on multiple map sheets. In this example, the block will be shown in detail on two corresponding map sheets.

3.6 2010 Census Maps Generated from American Fact Finder

For challenges involving only a few blocks, challengers may elect to use American Fact Finder to generate block maps, with the associated 2010 Census Block, 2010 Census Tract and other legal or statistical boundaries being challenged. These maps can be generated from American Fact Finder (http://factfinder2.census.gov); however the challenger must then print the maps out and annotate them as required.

3.7 Sketch maps

A sketch map is a blank map like that shown in Figure 5 on the next page which can be used to manually draw a challenged area when that area is too cluttered on a large format/small scale map as illustrated in Figure 2 on page 13. Sketch maps are beneficial because, unlike Census Block maps, they will be available for download from the CQR Website (http://2010census.gov/about/cqr). This allows the user to download the map and make changes immediately, rather than having to call the Census Bureau and then wait for the Census Block map to be mailed. Because a sketch map is literally a blank map, the user can draw the map at any desired scale to show the challenged area with the appropriate level of detail.

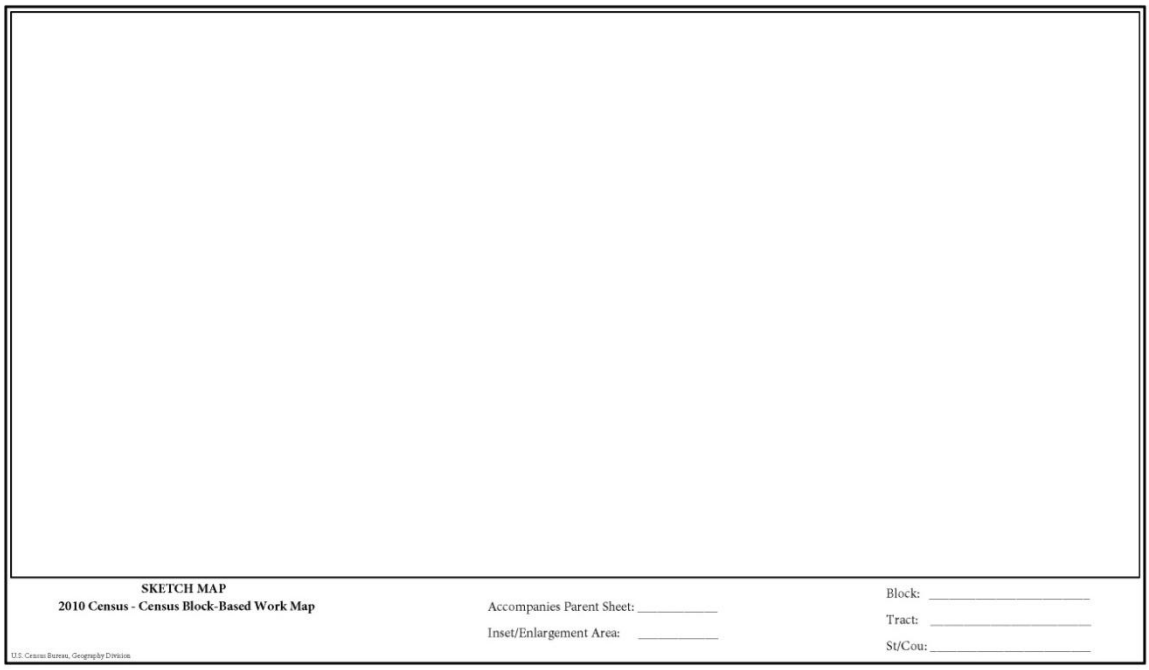


Figure 5: A Sketch Map is a blank map on which the user can draw the challenged area at the desired scale.

3.8 Boundary Challenges

State, local, or Tribal area governments must base challenges on boundaries legally in effect on January 1, 2010. The Census Bureau will compare the maps and appropriate supporting documentation submitted by the challenging governmental unit with the information used by the Census Bureau to depict the boundaries for the 2010 Census. Maps submitted by State, local or Tribal area governments must show the correct location of the boundary and the portion of the boundary that the Census Bureau potentially depicted incorrectly, including the 2010 Census tabulation block numbers associated with the boundary. The State, local, or Tribal area government must also provide the Census Bureau with a list of addresses in challenged 2010 Census tabulation blocks, indicating their location in relationship to the boundary that the governmental unit wants the Census Bureau to correct. For boundary challenges affected by legal actions not recorded by the Census Bureau, governmental units must submit the effective date and the ordinance number or law that effectuated the change in boundaries, provide evidence that the State certifying official has approved the boundary change if required by State law, and provide a statement that the boundary is not under litigation.

Local officials filing CQR challenges that include boundary challenges may also need to refer the more detailed procedures and documentation requirements used by the Census Boundary and Annexation Survey. These detailed boundary challenge procedures can be found at www.census.gov/geo/www/bas/bas11/bas11_rgm.html.

4 Step by Step Instructions for Preparing Address and Map Components of a CQR Submission

Step 1 – Select appropriate Census Map(s).

- Using the information provided in sections 3.1-3.7, the governmental unit should select what type of map will best suit their CQR challenge. A challenge may contain multiple map types, however, all maps included in the challenge must identify the state, county, 2010 Census tracts, and 2010 Census tabulation blocks associated with the challenge.

Step 2 – Identify the address list type(s) for the block(s) that is part of this challenge.

- The local official must include address lists of housing units and/or group quarters located within the challenged areas for all challenges[2]. These address lists must be in the form of city-style, non-city style, and/or group quarters address lists, and they may be submitted within one of the approved address list templates provided on the 2010 CQR website (http://2010census.gov/about/cqr) and described in section 2 of this document.

- Each address that is submitted for a CQR challenge must be submitted on one of the following address templates:

  1) **City Style** Addresses – include a house number, street name and ZIP Code.
  2) **Non-City Style** Addresses – when applicable, include a Rural Route or Highway Contract Route ID, a Box Descriptor, a Box ID, and ZIP Code. *P.O. Boxes are not acceptable*.
  3) **Group Quarters (GQ)** – a place where people live or stay that is normally 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. People living in group quarters are usually not related to each other. Some examples of residences that are GQs include college dormitories, skilled nursing facilities, residential treatment centers, group homes, military barracks, worker's dormitories, facilities for people experiencing homelessness and correctional facilities. GQs must be either City Style OR Non-City Style addresses.

[2] Address lists are not required if the challenge is **solely** for a name or status change, or to add a new entity.

Step 3 – Select the address list template field definitions that correspond with your identified address list type(s).

- Each address template has different fields and field instructions associated with it; these are illustrated in this document on pages 6 through 9:

  1) City Style Address field definitions, page 6
  2) Non-City Style Address field definitions, page 7
  3) GQ field definitions, pages 8 & 9

Step 4 – Decide what file type you will use to create the address list(s).

- The address list templates are in .xls (Excel) format. However, if a challenger chooses to submit their address lists without using the provided templates, there are a variety of file types that challengers may use to submit their address list (.txt, .dbf, etc.).

Step 5 – Populate the address list template(s) with the required address component data according to the specific address list(s) field definitions, and GQ information when appropriate.

- Challengers should first assemble the lists of living quarters (HUs and GQs), and then populate the address list template(s) with the required data according to the specific field definitions listed in section 2.2.

- For multi-unit buildings (such as apartments) enter each individual LQ unit address within the building on a separate line of the address list.

- This should be done ***in conjunction with*** indicating the location of these units on a Census 2010 block map as described in step 6 below.

Step 6 - Provide the location of all Living Quarters (LQs) in the block(s) on the Census 2010 block Map:

- Place a map spot (dot) on the Census map indicating the location of each building in the block that is a living quarters (LQ). After you have placed your "spot" on the map, number this spot using a sequential number for each of the buildings that contain or are living quarters within the block- this is known as the map spot number.

- For multi-unit buildings (such as apartments) put **one map spot number** marking the building's location. An example of a block map with map spots and map spot numbers can be seen in Example 2 on page 20.

Step 7 – Enter the map spot number on the address list that corresponds to the map spot numbers you marked on the accompanying 2010 Census block maps.

- The map spot number is the **link** between the visual representation of the LQ on the block map, and the written address of the LQ on the list. Therefore, the end result of this activity should be that each LQ on the map has a corresponding LQ on the address list(s).
- For multi-unit buildings (such as apartments) the single map spot number marking the buildings location on the map on each line of the address list for each LQ unit located within the multi-unit building. This is illustrated in Examples 1 & 2 on page 20.

Step 8 – Double check that the map spot numbers you created for each LQ on the submitted block map(s) correspond to the map spot numbers you entered on the accompanying address list(s).

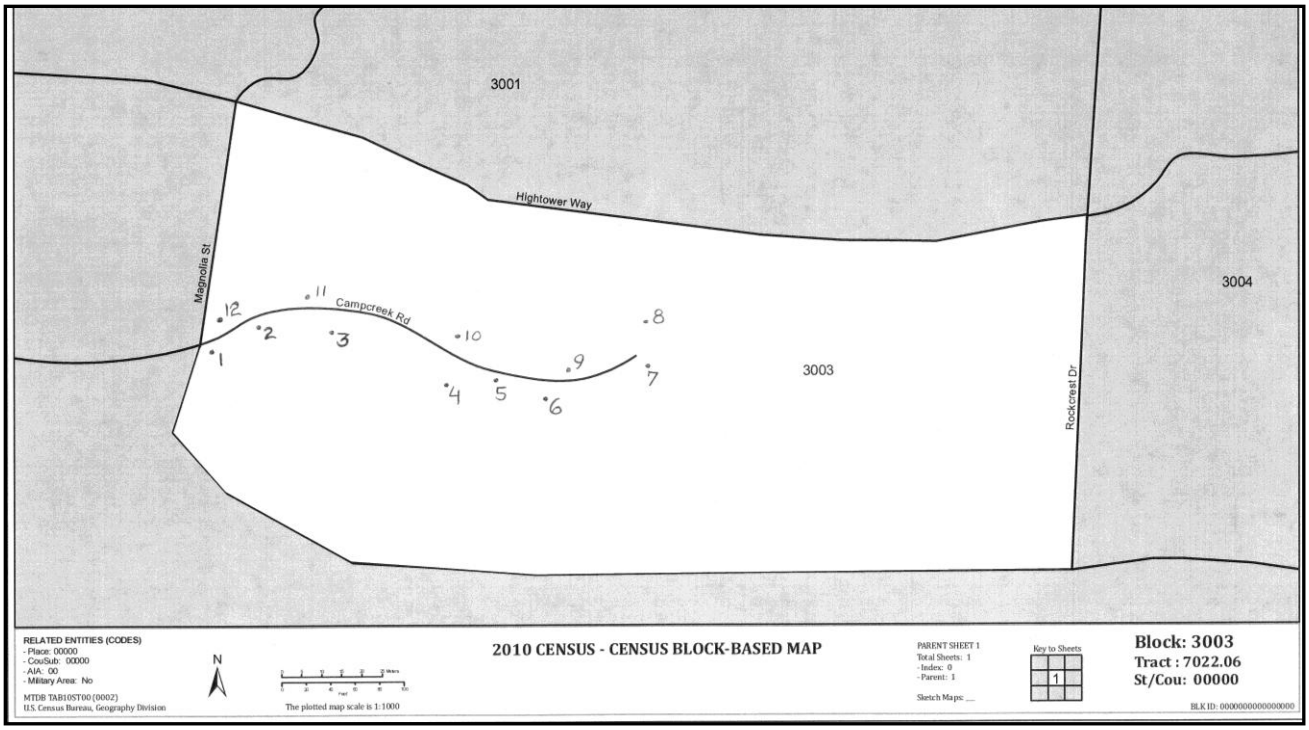
Example 1 – Address List Example

City-Style Address List Template for Stateside CQR Challenge

Maximum Character Length	2	3	7	4	20	100	12	40	100	16	5	4
Instructions	Must contain legal FIPS state code of 2 digits	Must contain legal FIPS county code of 3 digits	Must contain a 2010 Tabulation Tract number with 4 digits, a decimal and a 2 digit suffix. Example: 1001.01	Must contain a 2010 Tabulation Block number with 4 digits. Example: 3104	Use only alphanumeric characters and the following special characters:	Use only alphanumeric characters and the following special characters: # / - & ( ) '	Some examples are: Apt, Lot, Slip, #, Pier, Room, Ste, Unit **(Required for a Multi-Unit)**	Use only alphanumeric characters and the following special characters: # / - ( ) **(Required for a Multi-Unit)**			Must be 5 numeric characters. Can NOT contain 00000, 11111, 33333, 66666, 77777, 88888, 99999	Number that marks the exact location of an LQ on the submitted 2010 Census block map, and corresponds/links to the LQ on the address list.
Required Fields in Pink *	* State FIPS Code	* County FIPS Code	* Tract Number	* Block Number	* House Number	* Street Name	Unit Descriptor	Apt/Unit ID	Location Description	* City	* ZIP Code	* Map Spot Number
	14	215	7022.06	3003	400	Campcreek Rd				Example	10897	1
	14	215	7022.06	3003	402	Campcreek Rd				Example	10897	2
	14	215	7022.06	3003	406	Campcreek Rd				Example	10897	3
	14	215	7022.06	3003	410	Campcreek Rd				Example	10897	4
	14	215	7022.06	3003	412	Campcreek Rd				Example	10897	5
	14	215	7022.06	3003	414	Campcreek Rd				Example	10897	6
	14	215	7022.06	3003	416	Campcreek Rd	#	101		Example	10897	7
	14	215	7022.06	3003	416	Campcreek Rd	#	102		Example	10897	7
	14	215	7022.06	3003	416	Campcreek Rd	#	103		Example	10897	7
	14	215	7022.06	3003	416	Campcreek Rd	#	104		Example	10897	7
	14	215	7022.06	3003	418	Campcreek Rd				Example	10897	8
	14	215	7022.06	3003	415	Campcreek Rd				Example	10897	9
	14	215	7022.06	3003	411	Campcreek Rd				Example	10897	10
	14	215	7022.06	3003	405	Campcreek Rd				Example	10897	11
	14	215	7022.06	3003	401	Campcreek Rd				Example	10897	12

Example of a multi-unit building, represented by one map spot number.

Example 2 - Census Block Map & Map Spot Example



(Please note: The above images of an address list, block map and map spot numbers are fictional, and in no way represent actual LQs.)

5 Final Steps before Submitting the Challenge

Before submitting the challenge to the CQR Program, the Highest Elected Official (HEO); or appointed official of state, local and tribal area governments; or those representing them or acting on their behalf will need to complete a few final steps. This section provides details on how to complete these final steps.

5.1 Provide Certification that the Living Quarters Existed and could be Lived in on April 1, 2010

The CQR program announcement in the Federal Register, Vol. 76, No. 45 states the Highest Elected Official (HEO); or appointed official of state, local, and tribal area governments; or those representing them or acting on their behalf must include a signed statement that the living quarters included with the challenge existed and could be lived in on April 1, 2010. The signed statement serves as the HEO's certification of the addresses provided, and is considered the validation that those housing unit and/or group quarters addresses on the submitted list and maps existed and could be lived in on April 1, 2010.

5.2 Provide General Information on the Challenge

Provide the following information with the submission:

- The local official must specify whether the challenge disputes:
  - The location of a governmental unit boundary (i.e. "boundary" challenge),
  - The geographic location of living quarters (housing units and/or group quarters) within the governmental unit boundary and census tabulation blocks (i.e. "geocoding" challenge), and/or
  - The count of living quarters within one or more census tabulation blocks (i.e. "coverage" challenge).

- The submitting official must specify whether the challenge(s) is being submitted by the HEO, or, if it is not include a signed statement by the HEO that he/she has designated the contact person to submit the challenge.

5.3 Checklist of the Required Information for CQR Challenges

The following information needs to be included in a CQR challenge prior to submitting it to the Count Question Resolution Office. This checklist is a guide to help you ensure that all of the necessary information is submitted.

Included in Submission	*Description of Required Information*
☐	The challenge must include a complete address list(s) for **all** housing units and group quarters that existed and could be lived in on April 1, 2010, for each contested census tabulation block. *(As described in Section 2.[3])*
☐	The challenge must include a 2010 Census block map(s) on which the location of each housing unit and group quarters address is indicated by a map spot number. *(As described in Sections 2 & 3.)*
☐	If submitting a boundary challenge: • Maps submitted by State, local or Tribal area governments must show the correct location of the boundary and the portion of the boundary that the Census Bureau potentially depicted incorrectly, including the 2010 Census tabulation block numbers associated with the boundary. • The State, local, or Tribal area government must also provide the Census Bureau with a list of addresses in challenged 2010 Census tabulation blocks, indicating their location in relationship to the boundary that the governmental unit wants the Census Bureau to correct. • For boundary challenges affected by legal actions not recorded by the Census Bureau, governmental units must submit the effective date and the ordinance number or law that effectuated the change in boundaries, provide evidence that the State certifying official has approved the boundary change if required by State law, and provide a statement that the boundary is not under litigation. . *(As described in Section 3.8.)*
☐	The challenge must include certification by the HEO that addresses existed and could be lived in on April 1, 2010. The local official may write a certification statement and sign the address list itself or the local official may include the certification as a separate letter with the challenge documents. *(As described in Section 5.1.)*
☐	Specify the type of challenge (boundary, geocoding, and/or coverage). *(As described in Section 5.2.)*
☐	The challenge must be submitted by the HEO or include a signed statement by the HEO that he/she has designated the contact person to submit the challenge. *(As described in Section 5.2)*

[3] Address lists are not required if the challenge is **solely** for a name or status change, or to add a new entity.

5.4 Submit the CQR Challenge to the Count Question Resolution Office

Submissions with all documentation may be emailed, faxed, mailed, or sent direct delivery.

- **Email Address:** dmd.cqr@census.gov
- **Fax Number:** (301) 763-8327
- **Mailing Address:**
  U.S. Census Bureau
  Count Question Resolution Office
  Decennial Management Division
  4600 Silver Hill Road
  Washington, DC 20233
- **Direct Delivery Address:**
  (Use for items delivered to Census by other than USPS, i.e. FedEx, DHL, UPS, couriers and suppliers)

  U.S. Census Bureau
  Count Question Resolution Office
  Decennial Management Division
  4600 Silver Hill Road
  Suitland, MD 20746

Appendix A

Scales

A map is a paper or digital representation of an area. Naturally, the map is always smaller than the area it represents, so nearly all maps are equipped with a scale, which depicts the ratio of distance on the map to the actual distance on land. The scale can be designed any number of ways, but two of the most common scales are ratio scales (Figure 6), which describe a ratio between the map and the real world (i.e. 1:24,000), and bar scales, which depict that relationship graphically by displaying how much a certain distance on the map represents in the real world (Figure 6). In other words, if a map has a ratio scale of 1:24,000, it means that one inch on the map represents 24,000 inches on the ground. (This works with any unit of measurement, so long as the unit being used on the map is the same as – or properly converted from – the unit being depicted on the ground.) Often a map will have both types of scale.

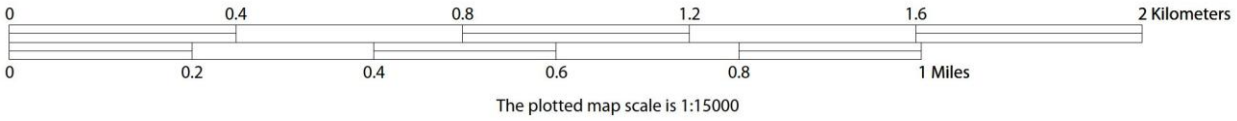


Figure 6: The map from which this scale was taken has a ratio scale of 1:15,000. The bar scale shows distances in kilometers and miles.

A bar scale will often be a set length (i.e. one inch), and/or represent a set distance (i.e. one mile). You can use the bar scale to determine distance on your map by using a ruler. Simply place the ruler on the map to determine the distance on the map; then place the ruler along the bar scale, which will show how much that distance represents on the ground.

Maps which display a small area, but with a relatively large amount of detail, are considered large scale maps see Figure 7 on the next page. A map which displays a large area, but shows less detail, is called a small scale map (see Figure 8 on the next page). This is because the representative fraction of a large scale map (i.e. 1/7,500 or 1:7,500) is a larger fraction than that of a small scale map (i.e. 1/250,000 or 1:250,000).

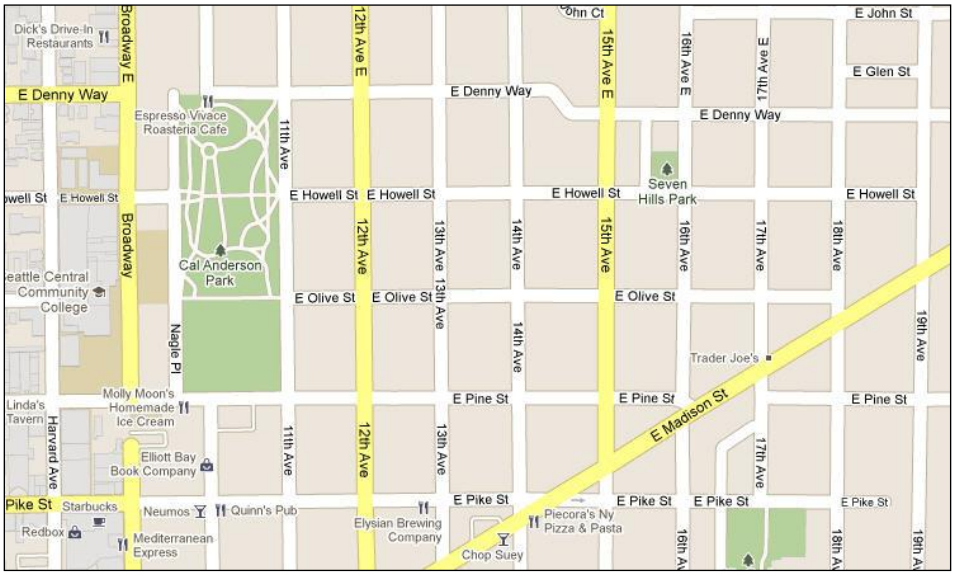


Figure 7: A large scale map shows a greater amount of detail; this example displays streets, parks, churches and restaurants.

Figure 8: A small scale map shows a large area, but with a small amount of detail.

Compass Rose

All maps should have some sort of diagram depicting at least one – but sometimes all – of the cardinal directions (north, south, east, and west) that the map reader can use to orient the map. This diagram is sometimes called a compass rose as shown in Figure 9 below. A compass rose can have any number of designs, and north can be shown in any direction on the map, but most maps are oriented with north at the top of the map. It is important to check the compass rose when beginning to read a map, so you will know which direction it is oriented in (e.g. which direction is at the top of the map).

Figure 9: Compass Rose

Legend

Because a map is a graphic representation of a real-world area, naturally it is necessary, and convenient, to symbolize real-world features with representative symbols. These symbols can take any form, so long as they are consistent within any individual map. In order to describe what each symbol means, most maps have a legend as shown in Figure 10 below. The legend is typically located on the side or bottom of the map – they can be anywhere, so long as they do not obstruct the integral parts of the map. Typically, the legend will have a small example of each symbol (i.e. a line, or a picture of a tent), and next to the symbol, in text, a brief description of what is being depicted (i.e. "road", or "campground").

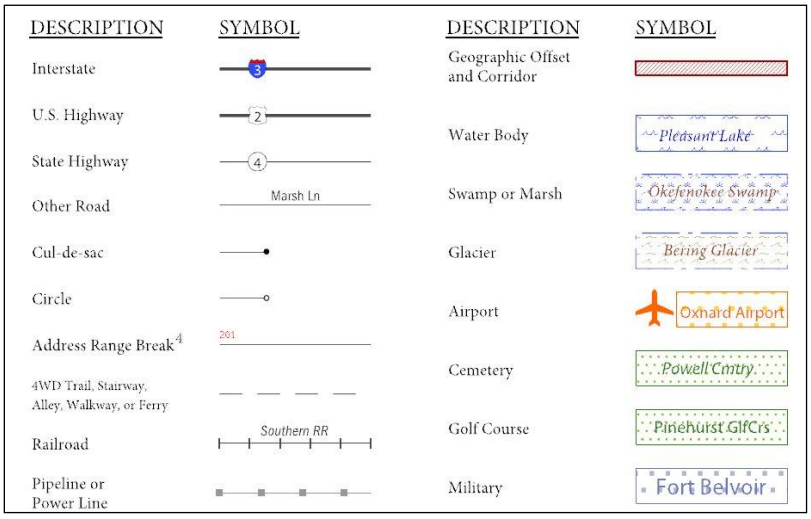


Figure 10: A legend describes what each symbol means

Sometimes a map needs to depict multiple features concurrently. This is because some lines are the boundaries of multiple geographies at the same time (i.e. a county boundary can also be a city boundary, a voting district boundary, and even a highway or river). Such instances can be depicted in various ways, but Census Bureau maps often depict coincident lines by alternating the symbols for each type of line as shown in Figure 11 below. In other words, if a line is both a county boundary (symbolized by a series of squares) and a city boundary (a series of circles), that boundary will be depicted as a series of alternating squares and circles for the length of the concurrency.

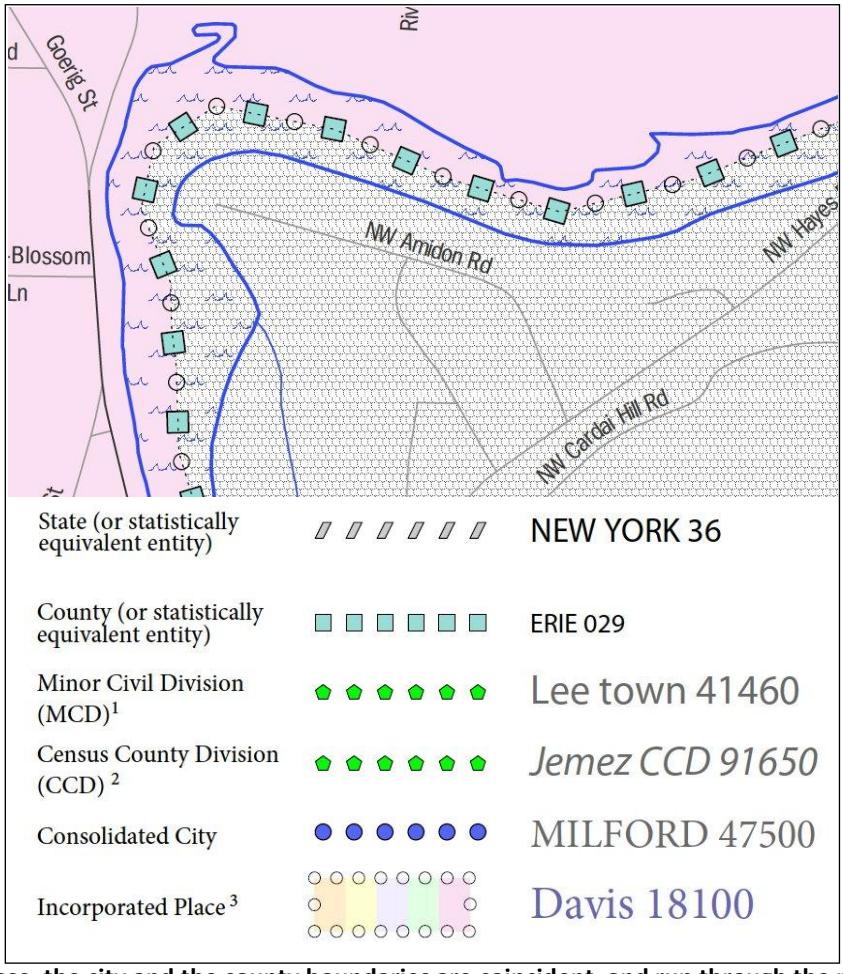


Figure 11: In this case, the city and the county boundaries are coincident, and run through the middle of the river.

In situations where higher level geographies (e.g. national, state, county, or county subdivisions) coincide, the Census Bureau's maps display only the symbol of the highest ranking of these boundaries. In other words, if a particular boundary is shared by both a state and county, only the state boundary will displayed.

Index Maps

In order to decide which parent map you need to use for your CQR challenge, it is necessary to view the entity as a whole, and choose the correct parent map sheet based on its location within the entity. You can do this by referring to the index map (Figure 12), a relatively small scale map which shows the entire entity, and the location and number of all parent map sheets within that entity. Each parent map sheet has a numerical locator which differentiates it from the other parent map sheets associated with that entity. The numbering begins with the northern and western-most parent map sheets, and continues left-to-right, in much the same pattern as words in a book. By referring to the index map, you can then determine which parent map sheet(s) you need to use for your CQR challenge, and then access it based on its number on the index map.

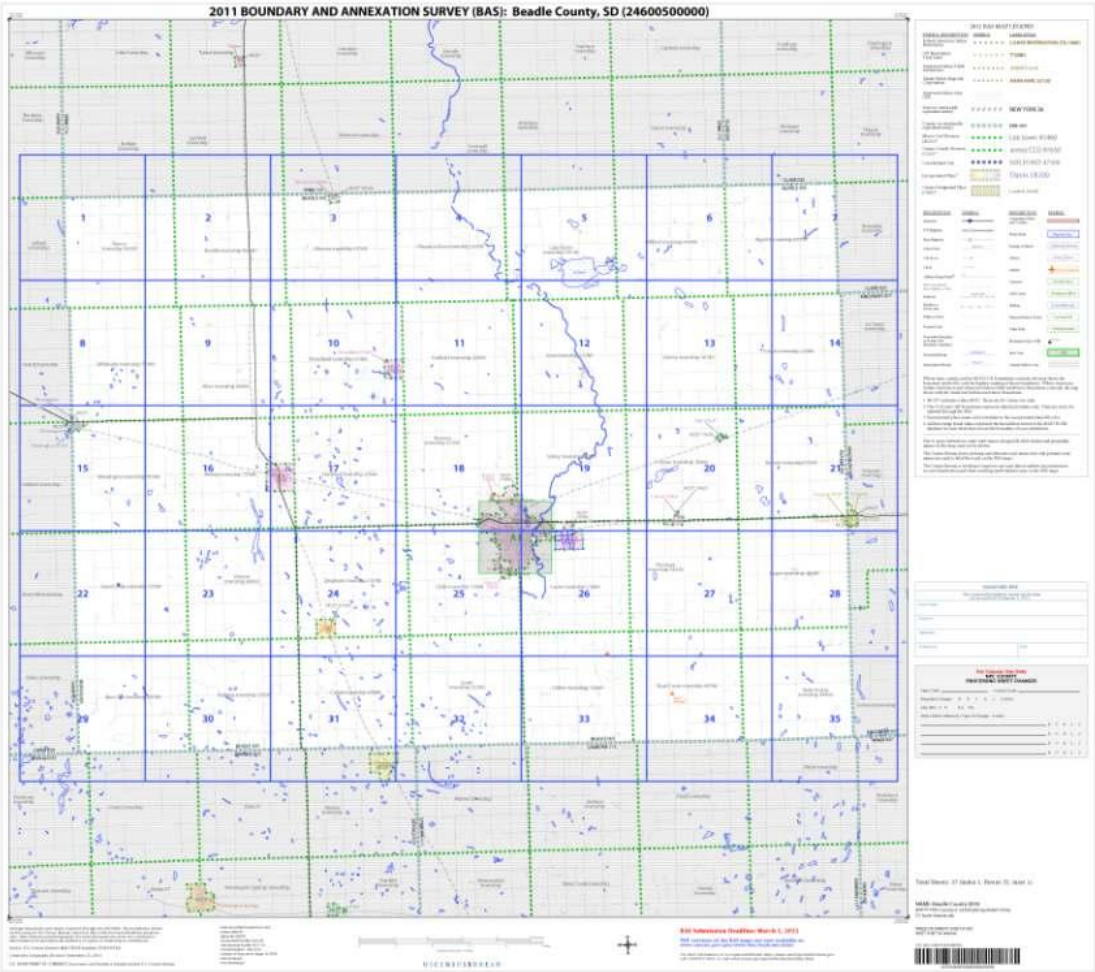


Figure 12: The Index Map sheet shows the location of all parent map sheets and inset map sheets within an entity.

The index map is not appropriate for CQR challenges. Its purpose is as a reference or index of parent maps, and it will not be accepted as a CQR submission.

Inset Maps

In some instances, in highly congested areas, even a parent map sheet provides insufficient detail for CQR purposes. In such cases, rather than using a parent map, the area is depicted within an inset map as shown in Figure 13. This refers to a map with a very large scale, so that it displays a smaller area than the parent map sheet, but with greater detail. On the index map, an inset map is represented by a green outline, and is assigned a number preceded by a letter (i.e. A1, A2, B1, etc.) as shown in Figure 14 on the next page. Inset maps are only found in areas with a large number of features, and as such are used less often than parent maps.

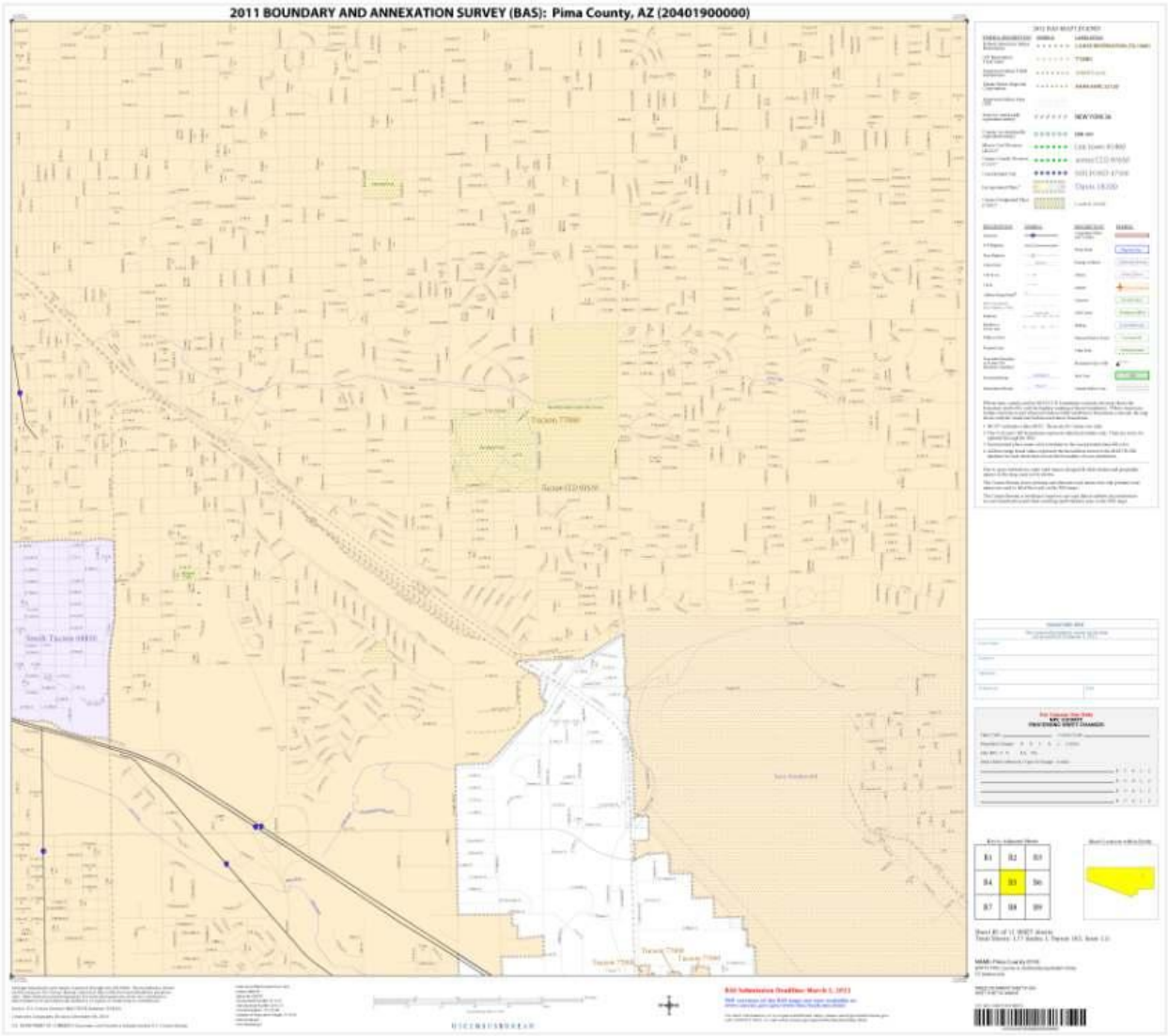


Figure 13: maps show areas of relative congestion at a large scale, allowing a greater amount of detail.

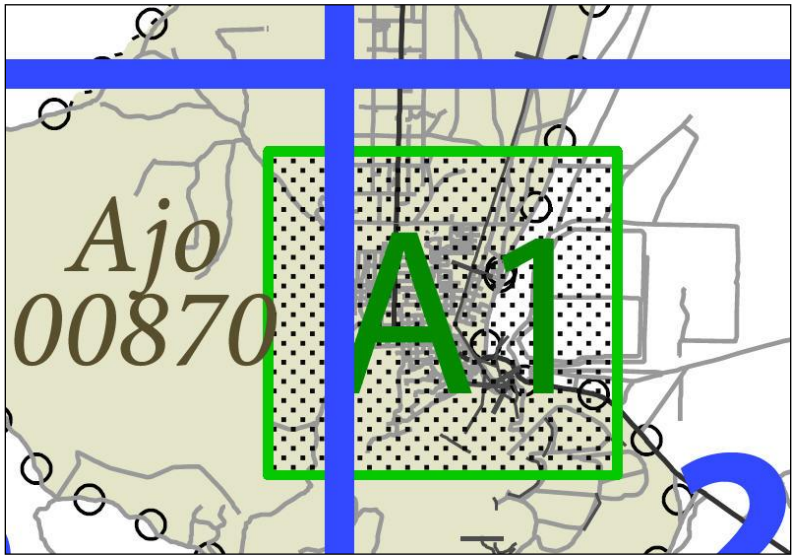


Figure 14: An inset map as it is displayed on the index map.

Parent Maps

Many entities[4], such as incorporated places and counties, are too large to be shown on a single map; that is, the scale is too small to allow the necessary details for CQR challenges. Thus, it is necessary to separate the entity into sections, each of which has its own map, called the parent map sheet[5] (Figure 15). Thus, a single entity is often represented with numerous map sheets, with each parent map sheet showing a small section of the entity. Each parent map is assigned a number, beginning with the number one and increasing progressively for each additional parent map sheet (i.e. 1, 2, 3, 4, etc.). In this way, viewing and editing map sheets becomes more manageable, and it becomes possible to depict an area with the level of detail necessary to make changes or challenges. In most instances, the parent map is the one that should be used for CQR challenges.

[4] Entity refers to any local governmental unit, e.g. a county, incorporated place, or minor civil division.

[5] Within the scope of CQR, the terms 'map' and 'map sheet' have the same meaning, and they are used interchangeably throughout this document.

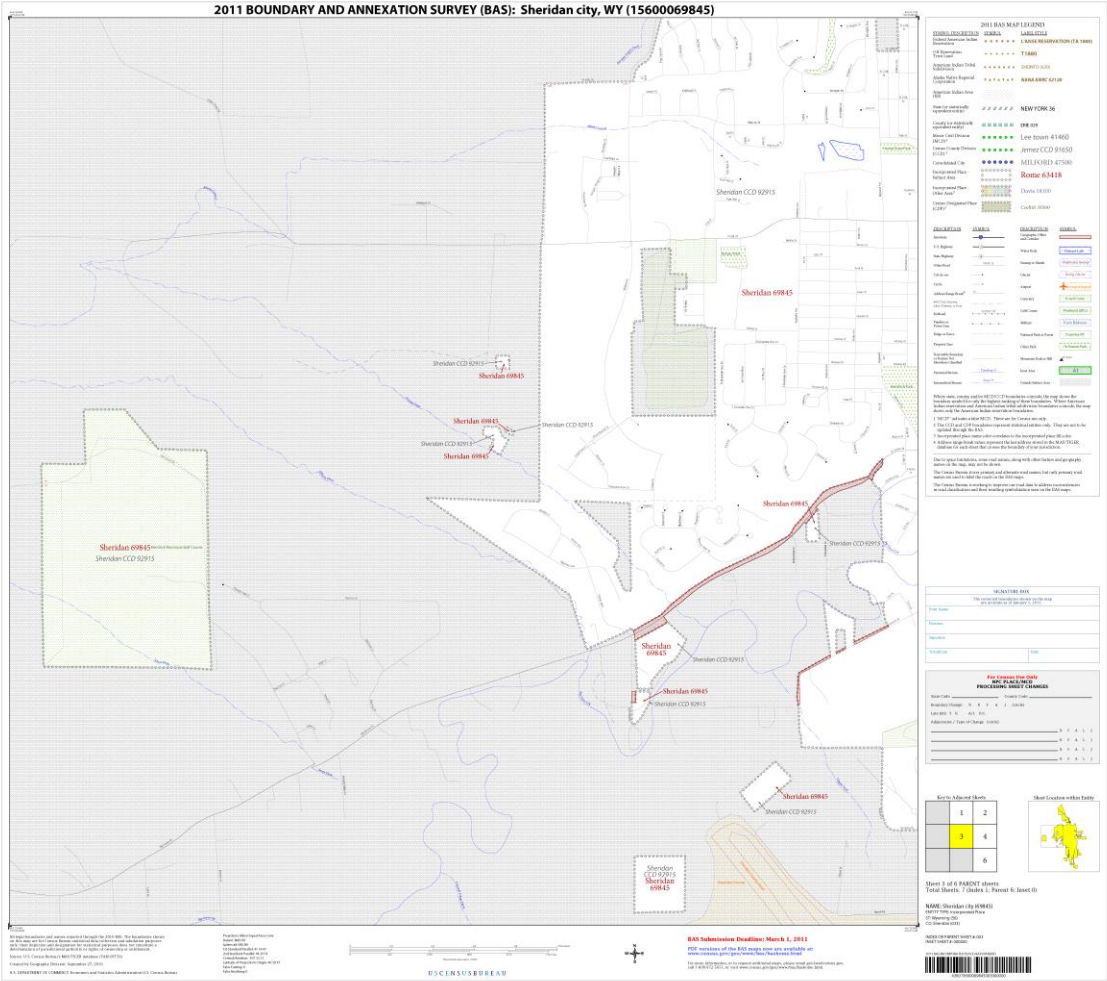


Figure 15: The parent map sheet shows a section of an entity at a relatively large scale.

In the bottom right-hand corner of the parent map sheet, there is a key to the parent map sheet's location in relation to adjacent map sheets as shown in Figure 15 above. A larger example of this key is shown in Figure 16 on the next page. This way, if you need to refer to an adjacent map sheet, you can quickly determine which one you will need.

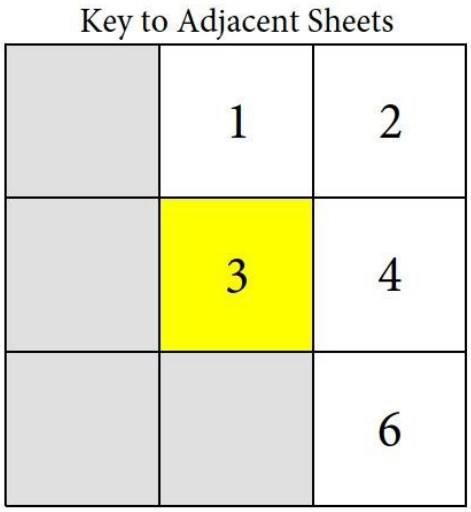


Figure 16: The key to adjacent sheets shows where the parent map sheet lies in relation to adjacent sheets.

Next to the key to adjacent sheets, there is a small outline of the entire entity (the inside of which is colored yellow), and a blue outline of the parent map sheet. This key displays the location of the map sheet in relation to the entity as a whole as is shown in Figure 17 below.

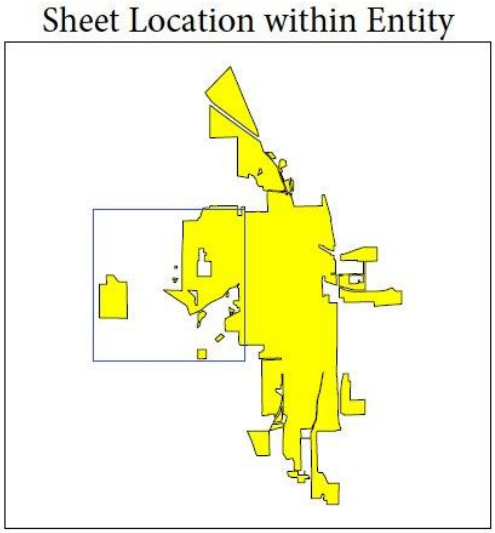


Figure 17: The Sheet Location within Entity key shows where the parent map sheet is located within the entity to which it belongs.