

**Boundary and Annexation Survey  
Respondent Guide: Tribal Digital BAS**

Issued August 2009

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# 1. Introduction to the Tribal Digital Boundary and Annexation Survey (BAS)

## 1.1 Overview of the Tribal BAS

The Census Bureau conducts the Tribal Boundary and Annexation Survey (BAS) annually to collect boundary information about federally recognized American Indian reservations, including off-reservation trust lands and tribal subdivisions. The Census Bureau's primary purpose for delineating tribal boundaries is to develop the best possible geographic framework for the tabulation and presentation of statistical information. For tribal governments with reservations or off-reservation trust lands, the Census Bureau developed the tribal BAS to obtain and maintain the most current, legally established boundaries of these reservations and off-reservation trust lands.

In support of the government-to-government relationship with federally recognized American Indian tribes, the Census Bureau works directly with tribal officials to maintain a current and comprehensive inventory of correct names, legal descriptions and boundaries for federally recognized tribes with reservations and/or off-reservation trust lands. Through the BAS, the Census Bureau updates reservation, off-reservation trust land and tribal subdivision boundaries, as well as their names and features (such as roads or rivers), and address information at the boundaries. The information collected is used to tabulate data from various programs and surveys, such as the American Community Survey and 2010 Census. Maintaining these boundaries and boundary-to-feature relationships correctly through the BAS makes certain that the appropriate population is assigned to your area.

If there are changes to the boundary of your AIA, the Census Bureau appreciates your cooperation in creating digital change polygons and returning the shapefiles to the Census Bureau by **March 1<sup>st</sup>**.

In compliance with the Office of Management and Budget Circular A-16, the BAS supports the Census Bureau's spatial data stewardship responsibilities for the Federal Geographic Data Committee and the Geospatial One-Stop by updating the inventory of, and boundaries for, governmental units. In addition, the BAS is the source of up-to-date information on boundaries, codes, and names for the U.S. Geological Survey's (USGS) National Map and the Geographic Names Information System.

## 1.2 Disputes

If a tribal government disagrees with the Census Bureau's depiction of their boundary and provides supporting documents that pre-date 1990, when our boundaries were last sanctioned by the Bureau of Indian Affairs, we ask for clarification from the U.S. Department of the Interior, Office of the Solicitor regarding the correct current boundary. Often complicated land issues require an extended period of time for resolution, and in those cases, the Census Bureau retains the boundary we have in our database until a legal opinion is issued by the Solicitor's office.

### 1.3 Key Dates for Tribal Digital BAS Participants

All changes received by **March 1<sup>st</sup>** will be reflected in the American Community Survey. If the Census Bureau receives your updates by **April 30<sup>th</sup>**, they will be included in your Tribal BAS materials next year, as well as the 2010 Census.

To change your method of participation in BAS from Tribal Digital BAS to paper, you must notify the Census Bureau by January 15<sup>th</sup>. You can contact the Census Bureau by phone at (800) 972-5651 or by email at [geo.aiana@census.gov](mailto:geo.aiana@census.gov). (Note: To change from Tribal Digital BAS to MAF/TIGER Partnership Software (MTPS), simply use the MTPS program disc provided along with the instructions found in the MTPS Respondent Guide, which can be found on the data disc or on the BAS website.)

Additionally, to participate in the Tribal Digital BAS your entity must meet the following requirements:

1. You must have the ability to edit a Census Bureau shapefile<sup>1</sup> extract of your tribal area. We require that you update the Census Bureau shapefile with boundary and boundary-related feature changes, rather than submit a shapefile from your own local Geographic Information System (GIS).
2. You must provide information for the tribal BAS point of contact, the person updating the shapefiles, and the tribal chair.
3. You must provide legal documentation, such as trust deeds and court orders, and effective dates for all boundary changes (additions and deletions).

If you have any questions or concerns about the participation requirements, please contact the Geography Division Legal Areas Team at 301-763-1099 or email [geo.aiana@census.gov](mailto:geo.aiana@census.gov).

## 2. Topological Relationships and Spatial Accuracy

The Geography Division of the Census Bureau is responsible for developing geographic applications and executing the geographic and cartographic activities needed to support the Census Bureau in collecting and disseminating census data. For the past twenty years, the Census Bureau's TIGER and Master Address File (MAF) have become the two most critical geographic resources for supporting the Census Bureau in its collection and dissemination of data.

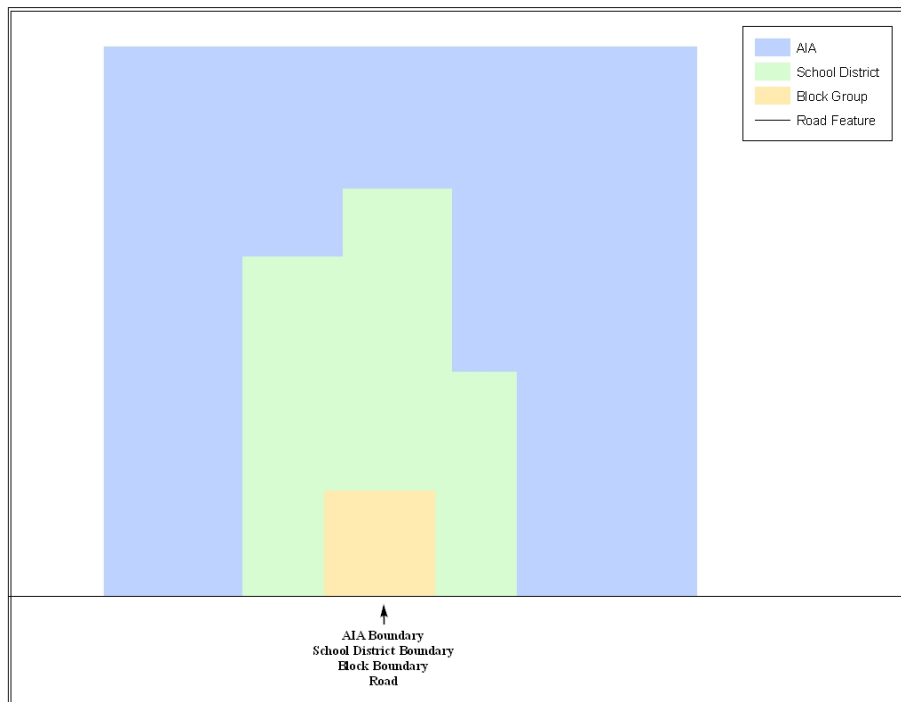
The following section will describe how the Census Bureau uses a topologically integrated system and how this differs from a traditional GIS system using separate layers of data.

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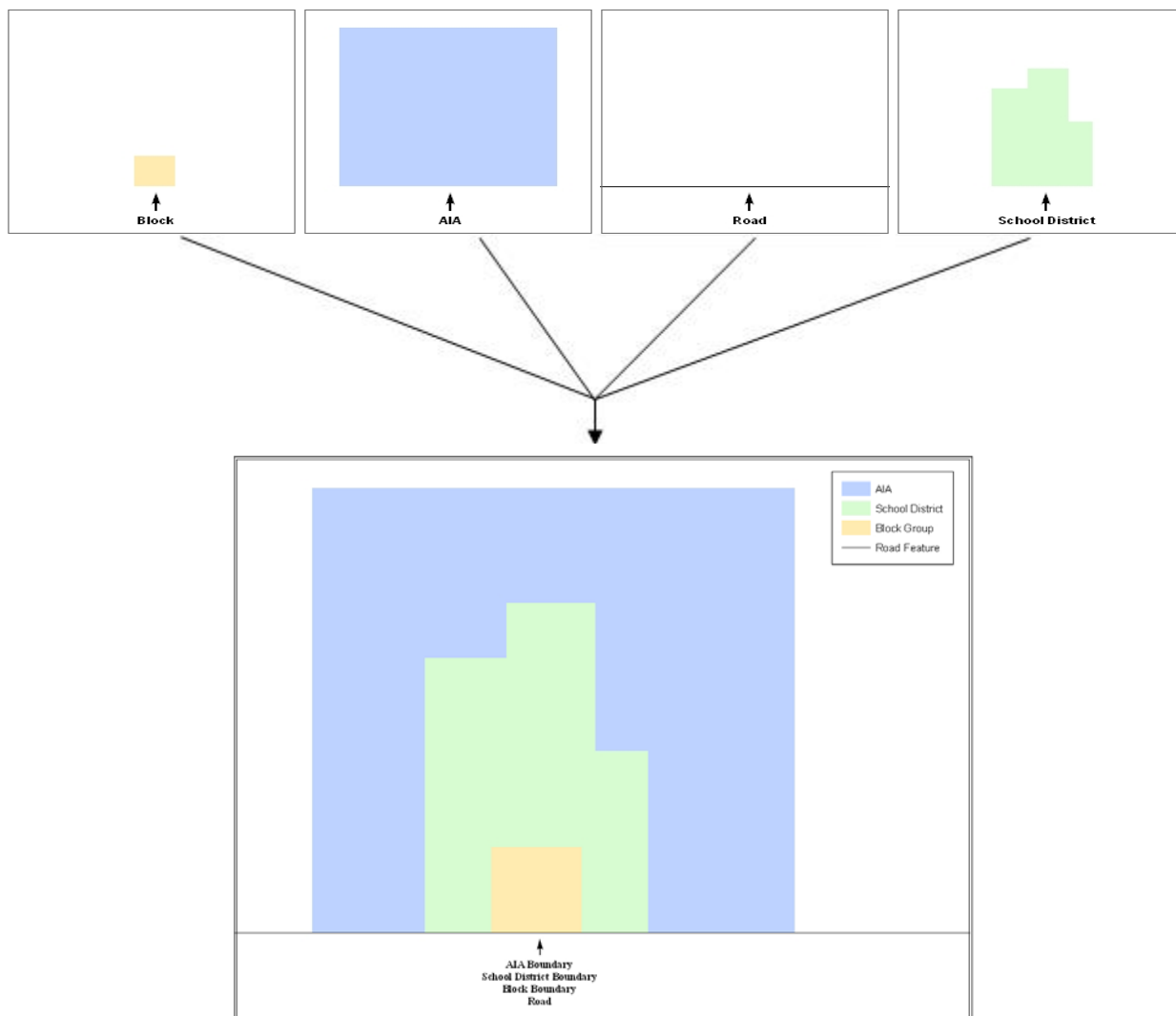
<sup>1</sup> The use of brand names does not represent an endorsement of a company or its products by the U.S. government. Due to the wide use of ESRI products by our partners in the GIS community, and the ubiquitous use of the shapefile format as a medium for GIS data exchange, the Census Bureau is providing this data in shapefile format. You should encounter no problems when importing these shapefiles into your local GIS software. However, if you are using GIS software that does not contain a shapefile translator, please contact the Census Bureau for further instructions (phone 301-763-1099 or e-mail [geo.aiana@census.gov](mailto:geo.aiana@census.gov)).

## 2.1 Topological Relationships in the MAF/TIGER Database

For its use in MAF/TIGER, topology can be described as the relationship between different levels of geography. MAF/TIGER is a topologically integrated geographic database in which the topological structures define the location, connection, and relative relationship of streets, rivers, railroads, and other features to each other, and to the numerous geographic entities for which the Census Bureau tabulates data for its censuses and sample surveys. Instead of having a layer for each feature class (i.e. roads, American Indian Area boundaries, block boundaries, and school district boundaries) all information is stored in one layer or file. Examples 2.1.1 and 2.1.2 provide a visual interpretation of how a file is topologically integrated in MAF/TIGER.



**Example 2.1.1:** This example shows how a road in MAF/TIGER can also represent an American Indian Area boundary, a block boundary, and a school district boundary.



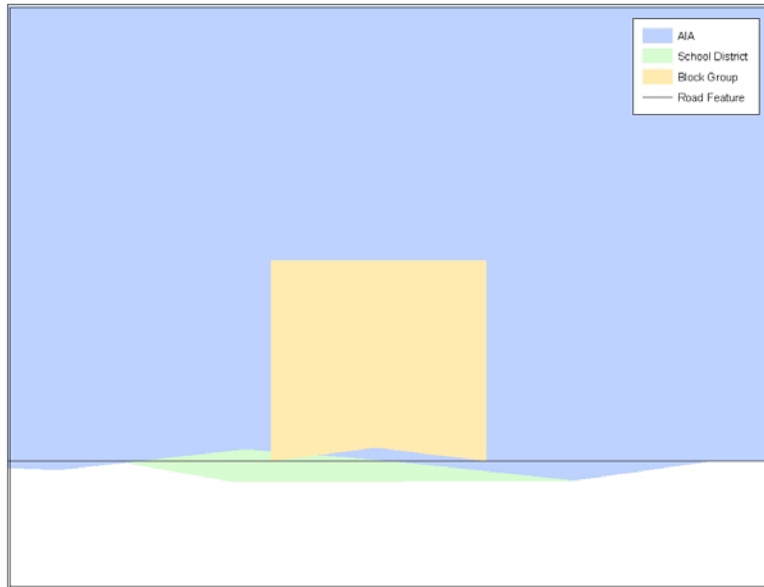
**Example 2.1.2:** This example shows how four different feature classes are topologically integrated into one layer. The file is topologically integrated so that the one road represents not only a road, but also an American Indian Area boundary, a block boundary, and a school district boundary.

## 2.2 GIS and Spatial Accuracy

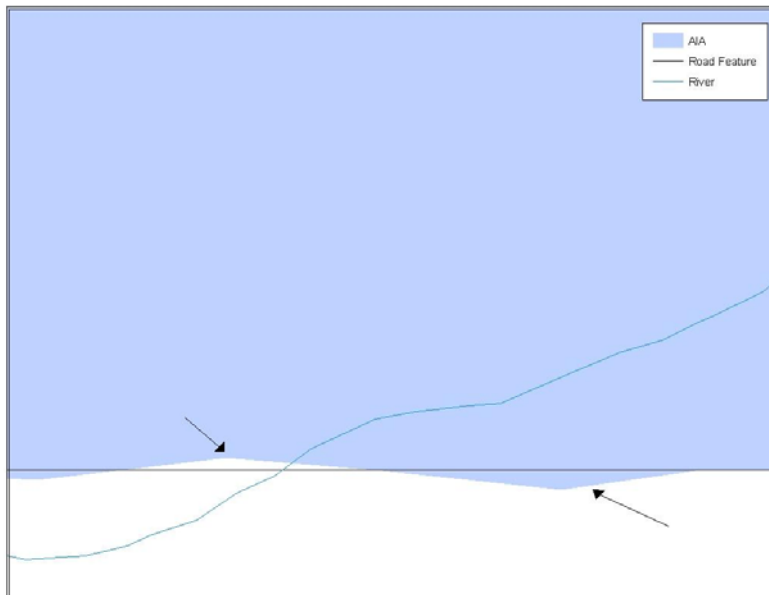
In a GIS, feature classes are not often topologically integrated. Instead feature classes stand alone in separate layers that contain a high level of spatial or coordinate accuracy. When overlaying these layers in a GIS one may find that the layers may not be coincident with one another as they are in the MAF/TIGER database. Examples 2.2.1 and 2.2.2 show how files that are not integrated may appear in a GIS when they are overlaid on top of one another.

The spatial differences found between the local GIS file and the Census Bureau's integrated file are often very small (i.e. often less than five or ten feet) and can create boundary-to-feature relationship issues for the Census Bureau. Section 5.7 provides instructions on how to review your digital submission for small spatial boundary corrections, as well as some of the potential consequences of making spatial boundary corrections that dissolve the topological relationships

present in the MAF/TIGER database. An example process detailing a suggested method for making your boundary changes correctly can be found in Appendix 5.



**Example 2.2.1:** This example shows how four different feature classes, each with a high level of spatial accuracy, are overlaid and how the topological relationship is compromised. The American Indian Area, block, and school district boundaries, which are supposed to be coincident with the road feature, are now not aligned with the feature in several locations.



**Example 2.2.2:** This example depicts a situation where an American Indian Area boundary is not coincident (topologically related) with a road feature. Assuming that the Census Bureau boundary is coincident with the road feature, making the changes represented by the arrows would dissolve the topological relationship in MAF/TIGER. Later sections will describe how to review these spatial boundary corrections, as well as discuss some of the consequences of dissolving the relationships in MAF/TIGER.

### 3. Census Bureau Provided Shapefiles

The Census Bureau is providing all Tribal Digital BAS participants with entity layers in ESRI shapefile format. The number of polygon-based shapefiles that the Census Bureau sends to each Tribal Digital BAS participant depends on the type of entities present for that participant. However, each participant, regardless of the number of geographic entities, receives only one shapefile for the linear feature network for each relevant county. See Table 3.1 for the names of the shapefiles that you will be receiving.

Geographic Entity Type	Shapefile Naming Convention
AIA	bas_2010_aial_<ssccc>.shp
Tribal Subdivision	bas_2010_aitsl_<ssccc>.shp
ANRC	bas_2010_anrc_<ssccc>.shp
Hawaiian Homeland	bas_2010_hhl_<ssccc>.shp
Edges (Roads, Rail, Hydro, etc)	bas_2010_edges_<ssccc>.shp
Area Landmarks	bas_2010_arealm_<ssccc>.shp
Point Landmarks	bas_2010_pointlm_<ssccc>.shp
Hydro Area	bas_2010_water_<ssccc>.shp

**Table 3.1**

All shapefiles provided by the Census Bureau are in the following unprojected geographic-based coordinate system:

- Geographic Coordinate System: North American Datum 1983 (GCS NAD83)
- Angular Unit: Degree (0.017453292519943299)
- Prime Meridian: Greenwich (0.000000000000000000)
- Datum: D\_North\_American\_1983
- Spheroid: GRS\_1980
- Semi-major Axis: 6378137.0000000000000000
- Semi-minor Axis: 6356752.314140356100000000
- Inverse Flattening: 298.257222101000020000

### 4. Census Bureau Geocoding

Knowledge of two of the Census Bureau’s geocoding methods is critical for correctly creating your Tribal Digital BAS submission. These two methods are using a MAF structure point to geocode an address, and geocoding addresses based on the street centerline (feature matching).



When a MAF structure point is available, the Census will geocode to the location of the structure point which was originally captured using GPS during an earlier Census Bureau operation. However, if there is no structure point available, the Census Bureau will geocode to the street centerline.

Based on the methods by which the Census Bureau geocodes, it is very important to review your Tribal Digital BAS submission to ensure that your changes are topologically related to features where appropriate, and to create and code geographic offsets and corridors wherever necessary.

## **5. Updating the Census Bureau Shapefiles**

The following section will describe how to update the Census Bureau shapefiles to reflect any boundary changes or linear feature changes that have occurred since the last Tribal BAS survey. There will also be a brief discussion of the procedures that should be followed to submit boundary changes and associated documentation. (An example process can be found in Appendix 5 to supplement this brief description.) Furthermore, there will be a short section on steps that should be taken to review your digital file before submitting it to the Census Bureau.

If the Census Bureau has any problems processing the submitted boundary or feature file, you will receive a feedback document, by email, requesting clarification of the issue. If we cannot resolve the problem prior to our project deadline, your updates will not be incorporated into MAF/TIGER. We will continue to work with you to try and resolve these issues before the next Tribal BAS cycle.

### **5.1 General File Setup Guidelines**

When you receive your shapefiles, follow these guidelines before beginning actual updates:

- Open the CD to verify that it contains the correct shapefiles for the entity that you will be updating.
- Copy the shapefiles into a directory on your server/hard drive.
- Open the shapefiles in a GIS.

### **5.2 Changing Our Coordinate System to Match Yours**

Our files are in GCS NAD83 format. Please feel free to project these files into your local coordinate system/projection. Most GIS software packages contain projection wizards, or something similar, that allow the user to transform file coordinate systems and projections. For example, if your office uses ArcView to update files, please activate and utilize ArcView's 'Projection Utility Wizard' extension. If using ArcGIS, please use its 'Projection Utilities' in ArcToolbox. MAF/TIGER shapefile extracts contain defined projection information in the \*.PRJ file. Both ArcView and ArcGIS access the \*.PRJ file for projection information; therefore, there is no need for you to define these parameters before changing the file coordinate systems.

After completing your updates, you may submit the boundary shapefile using your local coordinate system/projection provided that the shapefile's coordinate system contains a defined projection file (i.e. \*.PRJ file) or spatial reference materials (i.e. metadata).

### 5.3 Boundary Changes

In order to update MAF/TIGER, a separate change polygon layer must be created for each updated entity type (i.e. AIA, ANRC, Tribal Subdivision, or Hawaiian Homeland). The change polygons must be created in relation to the current MAF/TIGER boundary.

Appendix 5 provides an example process for creating addition, deletion, boundary correction, new entity, geographic corridor, and geographic offset change polygons. The Census Bureau also requests that you review any boundary changes (change polygons) that you create. Section 5.7 contains information on what to look for when reviewing your change polygons.

If a boundary update crosses into a new county and additional shapefiles are needed, please contact the Census Bureau’s geographic Legal Areas Team at 301-763-1099 or e-mail [geo.aiana@census.gov](mailto:geo.aiana@census.gov).

#### 5.3.1 Additions and Deletions

The Census Bureau will accept additions and deletions from AIAs, ANRCs, and Hawaiian Homelands. Individual change polygons must be created in relation to the MAF/TIGER shapefiles. Each addition or deletion change polygon must have the required attributes and corresponding change type populated, as seen in Table 5.3.1.1. The Census Bureau will snap any addition or deletion to a MAF/TIGER feature when it exists within thirty feet of that feature.

	NAME	CHNG_TYPE	EFF_DATE	DOCU	RELATE
Addition	X	‘A’	X	X	
Deletion	X	‘D’	X	X	

Table 5.3.1.1

#### 5.3.2 Boundary Corrections

The Census Bureau will also accept specific boundary corrections from AIAs, ANRCs, and Hawaiian Homelands. As with additions and deletions, individual change polygons must be created for each boundary correction that is made. Each boundary correction must also have the required attributes and corresponding change type populated, as seen in Table 5.3.2.1.

	NAME	CHNG_TYPE	EFF_DATE	DOCU	RELATE
Boundary Correction (Add Area)	X	'B'			'IN'
Boundary Correction (Remove Area)	X	'B'			'OUT'

**Table 5.3.2.1**

Because the Census Bureau uses a topologically integrated database, not all types of boundary corrections can be processed for inclusion into MAF/TIGER. The list below provides an outline of the types of boundary corrections that we will and will not be able to accept through Tribal Digital BAS.

The Census Bureau **will** accept boundary corrections...

- in situations where the existing boundary has been digitized incorrectly or appears in the incorrect location due to other Census Bureau processes.
- where the overall shape of the geographic entity is maintained, and no feature-to-boundary relationships are dissolved.

The Census Bureau **will not** accept boundary corrections...

- between adjacent AIAs, ANRCs, or Hawaiian Homelands unless there is a written agreement between the two AIAs, ANRCs, or Hawaiian Homelands.
- that dissolve boundary-to-feature relationships (i.e. roads, rivers, railroads, etc.) if the difference is less than thirty feet.
- which are greater than one square mile. These boundary corrections may be part of additions which were never reported to the Census Bureau. If so, an effective date and legal documentation must be provided.
- that have a width of less than thirty feet (over the entire polygon).

Please remember that the Census Bureau will snap any boundary correction to a MAF/TIGER feature when it exists within thirty feet of that feature.

### 5.3.3 New Entities

AIA participants may submit new entities (tribal subdivisions) through Tribal Digital BAS. As with other change types, an individual change polygon must be created for each new entity. Each change polygon must have the required attributes and corresponding change type populated, as seen in Table 5.3.3.1.

	NAME	CHNG_TYPE	EFF_DATE	DOCU	RELATE
New Entity <sup>2</sup>	X	'E'	X	X	

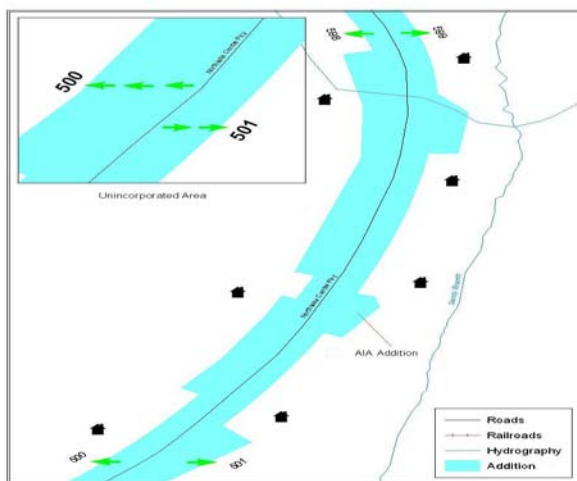
Table 5.3.3.1

Please contact your Regional Census Center (see Appendices 2 and 3) for the required documentation for new entities.

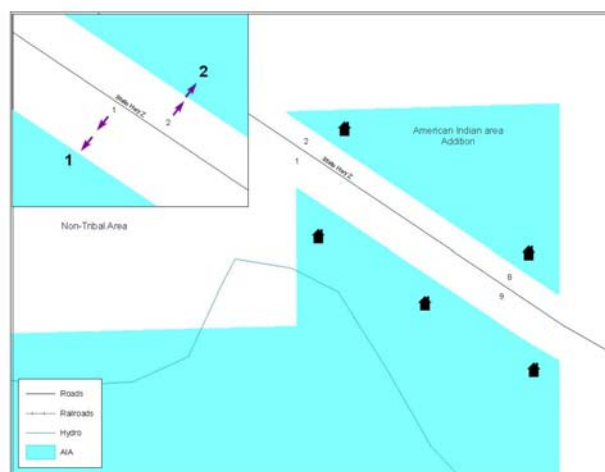
### 5.3.4 Geographic Corridors

The Census Bureau geocodes addresses based on the street centerline. If the geocoding of these addresses would result in the population being assigned to the incorrect geographic entity, we recommend the creation of a geographic corridor.

A **geographic corridor** is an area that includes only the road right-of-way and does not contain any structures addressed to either side of the street. Example 5.3.4.1 shows a corridor being created where the AIA owns the right-of-way but the housing units are not included in the AIA. Example 5.3.4.2 shows that a non-tribal entity owns the right-of-way, while the housing units are included in the AIA. In both examples the AIA is shown in blue.



Example 5.3.4.1



Example 5.3.4.2

As with all other types of geographic changes, individual change polygons must be created for each geographic corridor that is created. Each geographic corridor change polygon must have the required attributes populated and corresponding change type, as seen in Table 5.3.4.1. In the RELATE field, please provide the distance between the centerline and the entity boundary (e.g. “(30,30)” for 30 feet on each side of the centerline).

<sup>2</sup> Only new tribal subdivisions can be created as new entities.

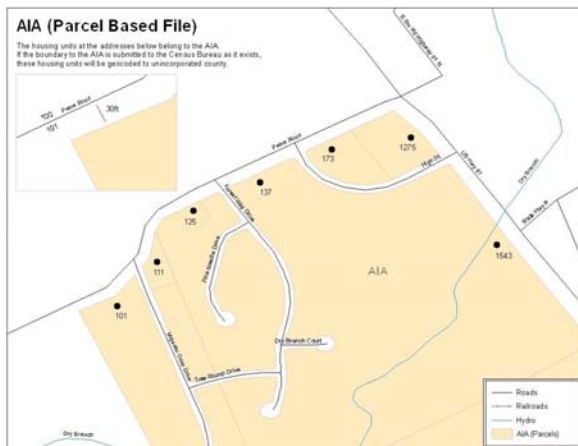
	NAME	CHNG_TYPE	EFF_DATE	DOCU	RELATE
Geographic Corridor	X	‘C’			Distance

Table 5.3.4.1

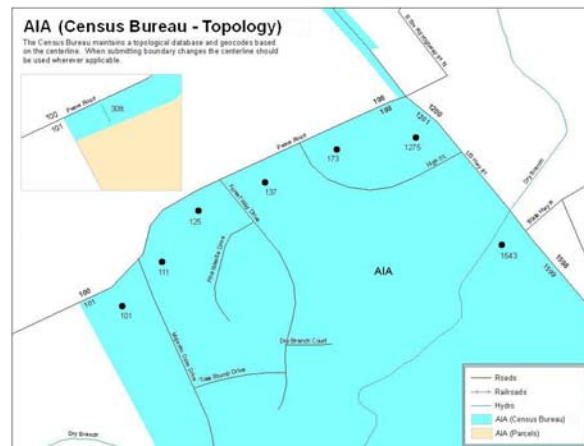
### 5.3.5 Geographic Offsets

A **geographic offset** is an area claimed by a geographic entity that is only on one side of the road and does not include structures addressed to that side of the road.

The Census Bureau is aware that many tribal governments base their boundaries on cadastral (parcel-based) right-of-way mapping. Our maps are based on spatial data that is topologically integrated, and this makes maintenance of geographic offsets inefficient. Snapping your area boundary to the centerline wherever applicable will also help to establish more accurate population counts. Example 5.3.5.1 depicts a cadastral (parcel-based) boundary map and Example 5.3.5.2 shows how the boundary should be reflected when it is sent to the Census Bureau.



Example 5.3.5.1



Example 5.3.5.2

Ultimately, if you do prefer to create geographic offsets, you must create individual change polygons to represent each geographic offset. Each geographic offset change polygon must have the required attributes and corresponding change type populated, as seen in Table 5.3.5.3. In the RELATE field, please provide the distance between the centerline and the entity boundary (e.g. “(30)” for 30 feet).

	NAME	CHNG_TYPE	EFF_DATE	DOCU	RELATE
Geographic Offset	X	‘F’			Distance

Table 5.3.5.3

## 5.4 Tribal Subdivisions

Tribes may submit the boundaries for one type of administrative area within their reservation(s) and/or off-reservation trust lands (land base) for inclusion into the MAF/TIGER database. The Census Bureau will consider any type of unit of self-government or administration as a “tribal subdivision.” Tribal subdivisions should cover all, or most, of the tribe’s land base. If a tribe has more than one type of distinct administrative area that could qualify as a tribal subdivision (i.e. tribal election districts, tribal water districts, or health service areas with different boundaries), the tribe may submit only one type of subdivision. Tribal subdivisions can be considered either active (A) or inactive (I). Active subdivisions are defined as having a functioning government with elected officials that provides programs and services. Inactive subdivisions have no functioning government or elected officials and receive services solely from the tribe.

Some examples of areas submitted as tribal subdivisions are:

- Areas used by your tribe for the election of tribal government officials (e.g., districts or precincts used for the election of tribal council members);
- Areas used by your tribal government for tax purposes;
- Areas used by your tribal government for the provision of general services or specified services, such as:
  - Water districts
  - Health service areas
  - Emergency service delivery areas (e.g., 911, fire, and/or police), or
  - Grazing districts or range units
- Historical or traditional areas recognized by your tribal government;
- Local tribal community governments.

### 5.4.1 Criteria for Defining Tribal Subdivisions

- The delineation of tribal subdivisions is restricted to the area contained within your reservation(s) and/or associated off-reservation trust lands (land base).
- There is no minimum population threshold for a tribal subdivision.
- Tribal subdivisions should cover all, or most, of the tribe’s land base.
- A tribal subdivision may be discontinuous.
- Your tribe may designate only ONE type of tribal subdivision. If your tribe has more than one level of tribal subdivisions within its land base, the Census Bureau recommends delineating subdivisions corresponding to the lowest geographic level (i.e. those geographic areas containing the smallest area) of the tribe’s administrative hierarchy.

- Tribal subdivisions should not be based solely on land ownership or other cadastral areas, nor should they consist of divisions based on the U.S. public land survey system (PLSS) of townships, ranges, and sections, if these areas have no governmental or administrative function for your tribe.

#### 5.4.2 Updating Tribal Subdivisions

Tribal Subdivisions are updated in a similar manner to boundary changes (i.e. additions, deletions, etc.). In order to submit tribal subdivision updates please create a separate tribal subdivision change polygon layer. Updates that can be made to tribal subdivisions include: additions, deletions, boundary corrections (adding and removing area), and creating new tribal subdivisions. Please note that all tribal subdivision updates (additions, deletions, and new entities), with the exception of boundary corrections, require a tribal resolution. Tables 5.3.1.1, 5.3.2.1, and 5.3.3.1 display the required attributes for each of the change types. Review the example process in Appendix 5 for information on how to create change polygons. Change polygons for tribal subdivisions may be created in the same manner as for reservations and off-reservation trust lands.

### 5.5 Linear Feature Updates

#### 5.5.1 Adding, Deleting, Renaming, and Recoding Linear Features

If you have reviewed your features using our linear feature network, and have determined that the Census Bureau needs to add, remove, rename, or recode a linear feature, you may submit your modifications in a separate linear feature update layer. Each linear feature update must have the required attributes and corresponding change type populated, as seen in Table 5.5.1.1.

	CHNG_TYPE	TLID	FULLNAME	MTFCC
Add Feature	'AL'		X	X
Delete Feature	'DL'	X		
Rename Feature	'CA'	X	X	
Recode Feature	'CA'	X		X

**Table 5.5.1.1**

A list of MTFCC codes can be found at:

[http://www.census.gov/geo/www/tiger/cfcc\\_to\\_mtfcc.xls](http://www.census.gov/geo/www/tiger/cfcc_to_mtfcc.xls).

#### 5.5.2 Special Note Regarding Linear Feature Updates for the 2010 Census

Please note that the Census Bureau has spent the last six years improving the spatial accuracy of the roads in our MAF/TIGER database through the MTAIP project. Many organizations

throughout the country who maintain geographic information in digital form have worked with us on this project.

At this point, the Census Bureau is moving forward with our 2010 Census field canvassing and collection activities. This means that we are no longer processing widespread spatial corrections to our street network. What is critical for the success of the 2010 Census data tabulation is the location of roads relative to the entity boundary. As long as the road is within the correct entity, the population and housing will be properly reported. The guidelines below explain what types of linear feature updates we can accept at this point in time.

#### Street Update Guidelines

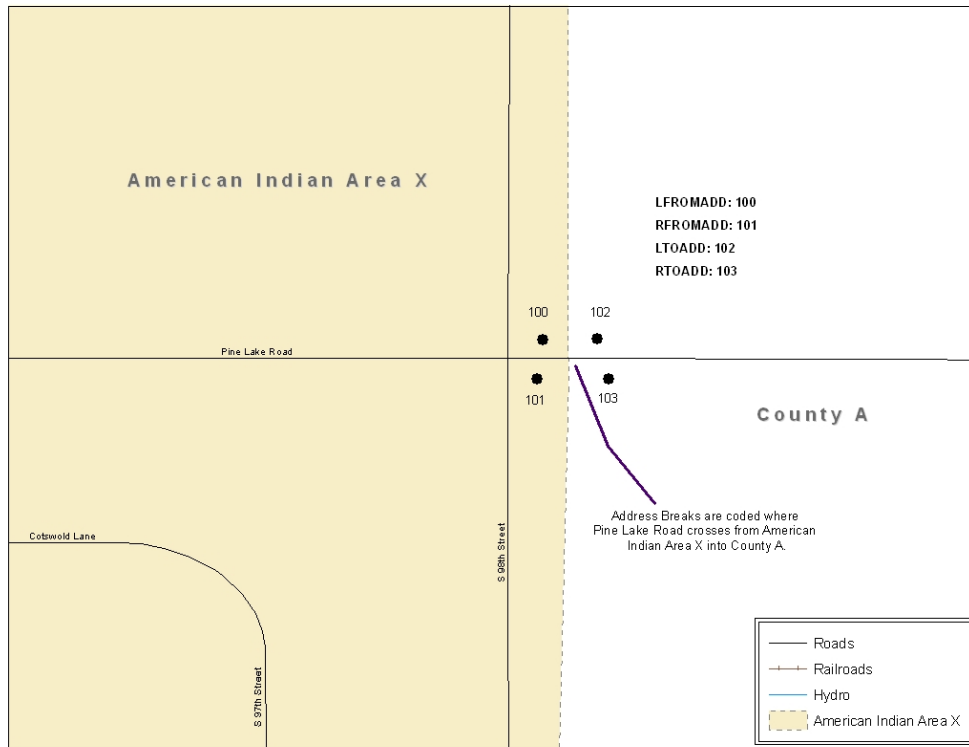
- If a road is missing and it forms the boundary for the area you are defining, add the road and provide the name.
- If you cannot correctly delineate the boundary for an entity you are updating because the feature you need to follow is incorrectly located, mislabeled or distorted in the Census Bureau's file, we request that you put the boundary on the problematic feature in our file. This will establish for us what feature you want the boundary to follow. In addition, we request that you report the problem area to the Census Bureau by sending information to [geo.aiana@census.gov](mailto:geo.aiana@census.gov) describing the incorrect feature including the TIGER Line Identifier (TLID) and the specific entity boundary affected. This can be done using an image file, PDF or other medium showing the appropriate correction.
- **Do not** spatially realign street features by merging your roads into our spatial file and flagging your roads as adds and our roads as deletes.
- You may add new subdivisions that are not in our database.

#### *5.5.3 Address Range Break Updates*

An address range break is a notation indicating the addresses that fall within the boundaries of a tribal governmental entity. This information will not be displayed on your map but can be inserted when you move a boundary that intersects a street, or you add a street that intersects a boundary. This will help the Census Bureau to assign the correct addresses to your jurisdiction.

Address breaks may be submitted to the Census Bureau as part of the linear feature update layer. Please see Example 5.5.3.1 for more information on what an address break would look like. As with other linear feature updates, address breaks must have the required attributes and corresponding change type populated, as seen in Table 5.5.3.2.





**Example 5.5.3.1:** This example depicts where a participant would record an address break. In the Census Bureau’s ‘Edges’ layer please be sure to fill in the correct attribute fields to show the location of the address range break. This would include the CHNG\_TYPE, LTOADD, RTOADD, LFROMADD, and RFROMADD fields.

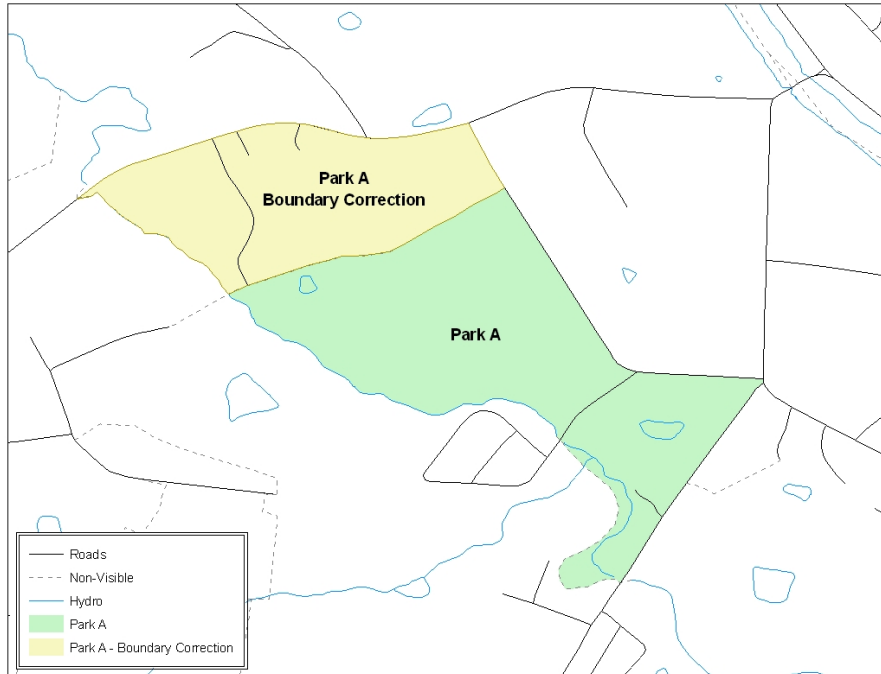
	CHNG_TYPE	FULLNAME	MTFCC	LTOADD	RTOADD	LFROMADD	RFROMADD
Address Breaks	‘CA’			X	X	X	X

**Table 5.5.3.2**

## 5.6 Area Landmarks, Hydro Areas, and Point Landmarks

### 5.6.1 Area Landmark / Hydro Area Updates

Area landmarks and hydrographic areas are updated in a similar manner to boundary changes (i.e. additions, deletions, etc.). However, area landmarks and hydro areas are not legal entities, so documentation and effective dates are not required. In order to submit area landmark and hydro area updates please create a separate change polygon layer. Updates that can be made to area landmarks and hydro areas include: boundary corrections (adding and removing area), creating a new area landmark or hydro area, removing an area landmark or hydro area, or changing the name. Refer to Example 5.6.1.1 for what a sample boundary correction to an area landmark would look like.



**Example 5.6.1.1:** This example shows an example boundary correction to Park A. Please refer to the example process in Appendix 5 for more information on how to create change polygons for area landmarks and hydro areas. *Note: While the example process in Appendix 5 refers to boundary changes, the process used to create the change polygons for area landmarks and hydro areas is the same.*

Each area landmark or hydro area update must have the required attributes and corresponding change type populated, as seen in Table 5.6.1.2.

	FULLNAME	CHNG_TYPE	RELATE
Boundary Correction (Add Area)	X	'B'	'IN'
Boundary Correction (Remove Area)	X	'B'	'OUT'
Delete Landmark		'D'	
Change Landmark Name	X	'G'	
New Landmark	X	'E'	

**Table 5.6.1.2**

The example process in Appendix 5 will provide you with the information on how to create change polygons. While the sample process is written for boundary changes, the same methods apply for creating change polygons for area landmarks and hydro areas.

Please be advised that due to heavy workloads for boundary changes to legal areas, changes to area landmarks and hydrographic areas may not be added to the database until after the next year's BAS materials are created. You may need to wait two BAS cycles in order to see these changes reflected in your materials.

### 5.6.2 Point Landmark Updates

Updates to point landmarks may also be made. In order to submit point landmark updates, please create a separate point landmark update layer. The updates to point landmarks include: adding a new point landmark, deleting an existing point landmark, and renaming a point landmark. Each point landmark update must have the required attributes and corresponding change type populated, as seen in Table 5.6.2.1.

	FULLNAME	CHNG_TYPE	MTFCC
New Point Landmark	X	'E'	X
Delete Point Landmark		'D'	
Change Name	X	'G'	

Table 5.6.2.1

Please be advised that due to heavy workloads for boundary changes to legal areas, changes to point landmarks may not be added to the database until after the next year's BAS materials are created. You may need to wait two BAS cycles in order to see these changes reflected in your materials.

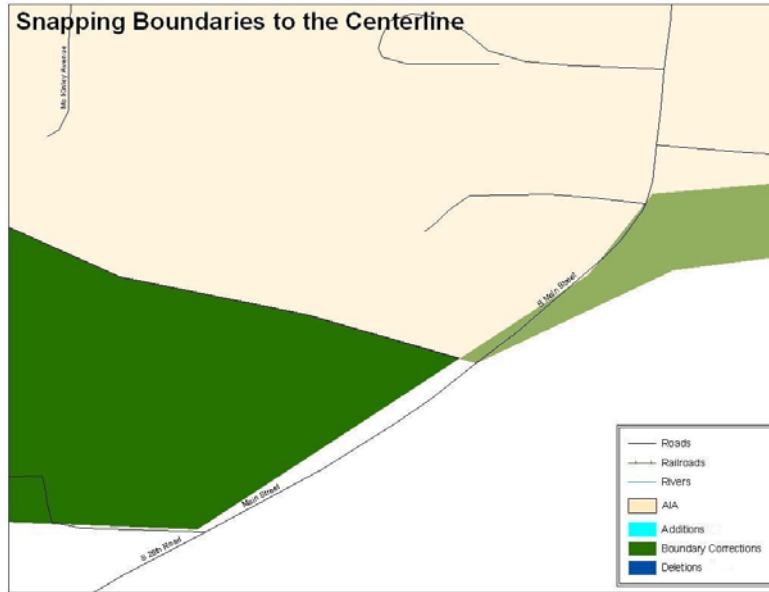
## 5.7 Reviewing Changes to the Census Bureau Shapefiles

A comprehensive review of each change polygon and feature update layer is an important aspect of your Tribal Digital BAS submission. Any addition, deletion, or boundary correction must be reviewed to ensure that it is an intentional change. This section will cover critical items that are important to that review.

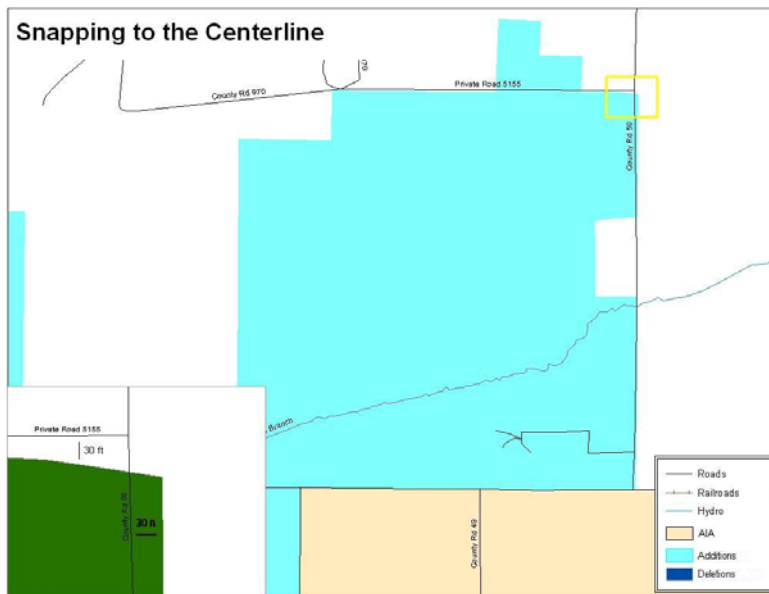
### 5.7.1 Boundary-to-Feature Relationships

Each addition, deletion, and boundary correction change polygon should be reviewed to determine if the correct boundary-to-feature relationships are being created or maintained. The Census Bureau is aware that many governments base their boundaries on cadastral (parcel-based) right-of-way mapping; however, we base our maps on spatial data that is topologically integrated. Therefore we encourage you to snap boundaries to street centerlines (or rivers, railroads, etc.) wherever applicable. This will help to establish a more accurate population count for your tribal entity.

The following examples show situations where the boundary changes should be snapped to existing linear features. As a reminder, the Census Bureau will snap any boundary change that is created within thirty feet of an existing linear feature to that feature.

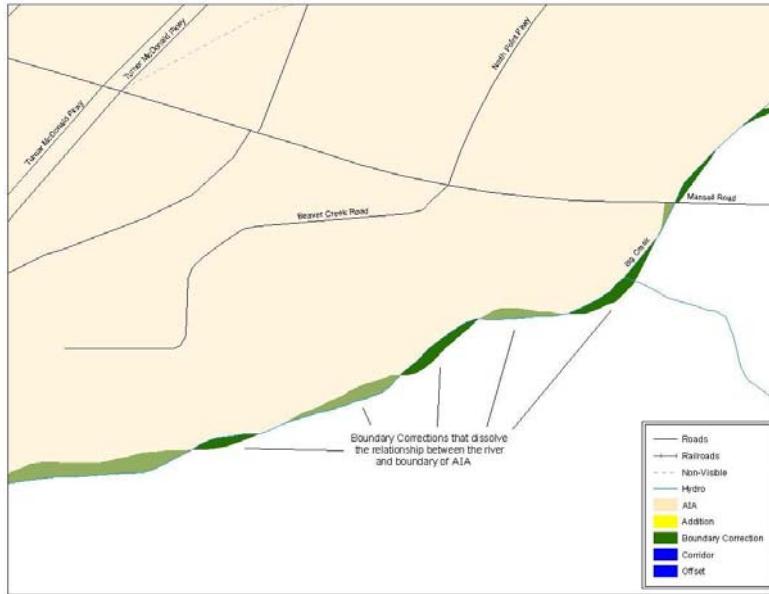


**Example 5.7.1.1:** Both the boundary correction adding area and the boundary correction removing area are not snapped to existing linear features in the MAF/TIGER database. Both boundary corrections should be snapped to the centerline or population may be assigned to the incorrect entity.



**Example 5.7.1.2:** This is an example of an addition that is created without snapping to the existing centerline in the MAF/TIGER database. The boundary of the addition should be snapped to the centerline; otherwise, the population may be assigned to the incorrect entity.

The Census Bureau will not accept “spatial” boundary corrections that dissolve the current relationship between an existing boundary and linear feature. Any boundary correction that creates thirty feet or less of gap or overlap between the existing linear feature and boundary will not be able to be incorporated into the MAF/TIGER database. The examples below display the types of “spatial” boundary corrections that will not be accepted.



**Example 5.7.1.3:** In the image above the participant has created very small “spatial” boundary corrections that dissolve the relationship with the river. These boundary corrections will not be incorporated in the MAF/TIGER database.

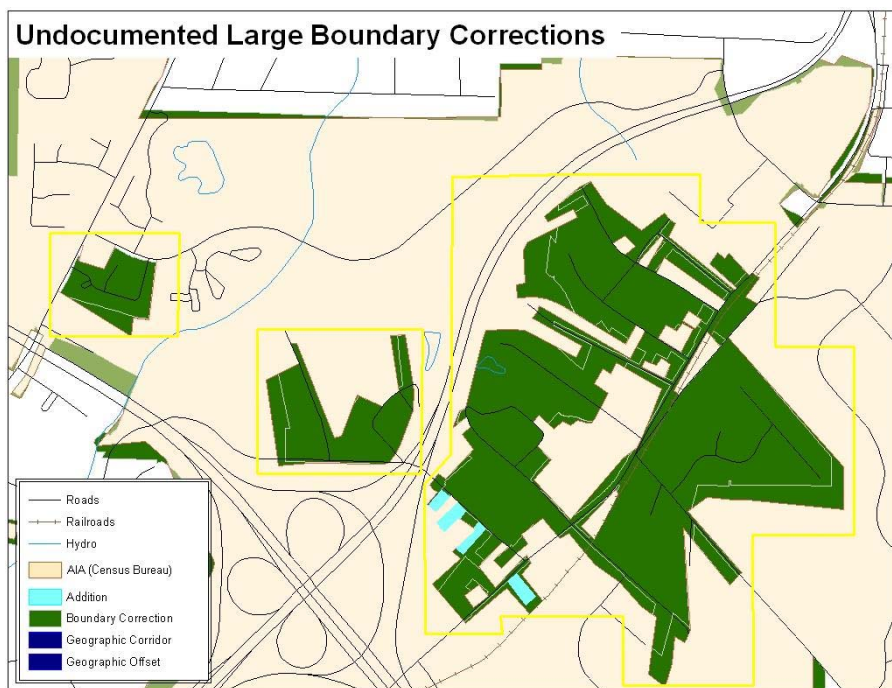


**Example 5.7.1.4:** In the image above the participant has created very small “spatial” boundary corrections that are dissolving the boundary-to-feature relationship with multiple streets. Incorporating these changes would affect the population counts for the area. Therefore the Census Bureau will not accept these small “spatial” boundary corrections.

### 5.7.2 Large Boundary Corrections

The Census Bureau will not accept large boundary corrections to an entity without the appropriate legal documentation and effective dates. Often times these large boundary corrections may be boundary changes that occurred in the past and were never reported to the Census Bureau. However, we still do require that you submit the appropriate legal

documentation and effective dates so that we may incorporate your changes into the MAF/TIGER database. See Example 5.7.2.1 for an example of some large boundary corrections that we will not be able to accept without the appropriate documentation.



**Example 5.7.2.1:** Without the appropriate documentation we will not accept large boundary corrections like those highlighted in the above image.

Please note that there may be a few instances when large boundary corrections do need to be made as a result of incorrect digitizing or where the boundary appears in the incorrect location due to other Census Bureau processes.

### 5.7.3 Required Attribute Information Included

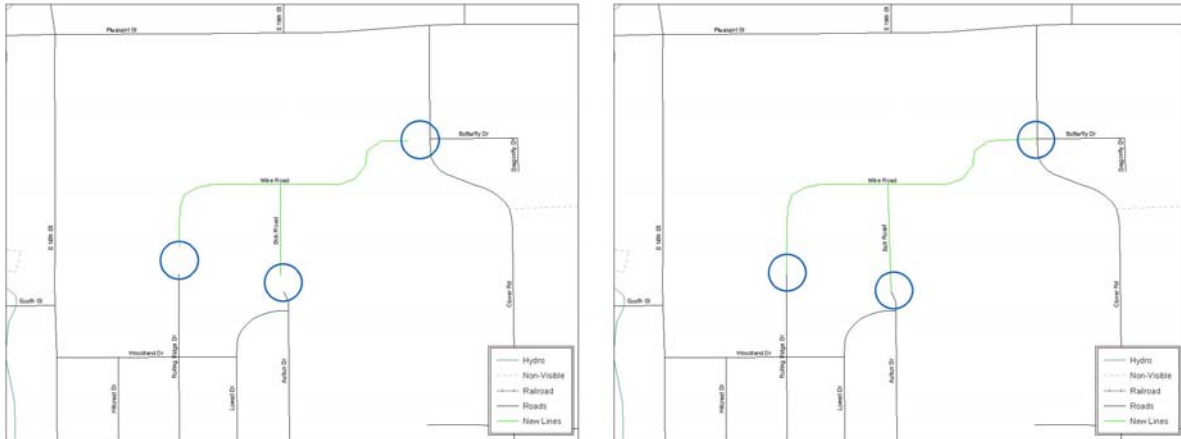
It is important that each change polygon is reviewed to determine that the correct attribute information is included. Without the correct attribute information we will be unable to process your file and incorporate the changes into the MAF/TIGER database. Reference Section 5.3 for the required attribute information and corresponding change type codes for each type of update that you make.

### 5.7.4 Appropriate Metadata Included (Projection Information)

It is important that the appropriate projection information in the metadata is included. Each update layer submitted must also contain a \*.prj file so that the Census Bureau can convert the projection back to GCS\_NAD83 when necessary. This is critical for us to be able to process the file and incorporate the updates into the MAF/TIGER database.

### 5.7.5 Linear Feature Updates

The Census Bureau also asks you to review your feature changes to ensure that all changes align with the features currently in the MAF/TIGER database. As a reminder, the Census Bureau has improved the feature network using a locally provided source to assure connectivity and topology through the MAF/TIGER Accuracy Improvement Project (MTAIP). If your linear feature changes do not align with current MAF/TIGER linear features, the Census Bureau may not be able to incorporate the linear feature updates that you have submitted. Example 5.7.5.1 shows something you might look for when reviewing your linear feature updates.



**Example 5.7.5.1:** The image on the left depicts new road features that were added to the existing feature network, but do not connect to existing road features. The image on the right shows the correction and how the new roads now connect to the existing road features.

### 5.7.6 Additional Review Information

As documented in Section 5.3, the Census Bureau will not make any boundary change that affects an adjacent legal entity without the appropriate documentation. We ask that you please review any change polygon that affects an adjacent entity to determine if this is an intentional change.

It is important to emphasize that the Census Bureau will snap any addition, deletion, or boundary correction to a MAF/TIGER feature when it exists within thirty feet of that feature. This helps to maintain the boundary-to-feature relationships in MAF/TIGER and will ensure correct housing tabulation counts for your entity.

## 5.8 Submitting Digital Data

The Census Bureau requires that each participant submit at least two shapefiles, with the potential of more depending on which types of changes need to be made. These layers are described below:

- *Change Polygon Layers (AIA, ANRC, Tribal Subdivisions, and Hawaiian Homelands)*
  - These layers consist of the changes that you would like the Census Bureau to make to your entity(s).

- A layer of change polygons should be created for each level of geography that changes are being submitted for.
- *Whole Modified Entity Layer (AIA, ANRC, Tribal Subdivisions, and Hawaiian Homelands)*
  - These layers should only contain the complete and current boundary for the entity being updated.
  - A whole entity layer should be created for each level of geography that changes are being created for.
- *Feature Update Layer (required only if there are feature (road, river, railroad, etc.) additions, deletions, name changes, recodes, or address break changes)*
  - If you have linear feature updates that you would like the Census Bureau to make, include a linear feature update layer with only the feature segments that you would like us to correct.
- *Area / Hydro Landmark Layer (required only if there are area / hydro landmark updates)*
  - If you have area landmark updates, please include an area landmark / hydro area update layer with only the area landmark changes that you would like us to make.
- *Point Landmark Layer (required only if there are point landmark updates)*
  - If you have point landmark updates, please include a point landmark update layer with only the point landmark changes that you would like us to make.

5.8.1 AIA, ANRC, Tribal Subdivision, and Hawaiian Homeland Submissions (Change Polygons)

Table 5.8.1.1 provides the change polygon naming conventions for AIA’s, ANRC’s and Hawaiian Homelands.

Participant	Changes Submitted For	Shapefile Naming Conventions
<i>AIA</i>	AIA	bas<yy>_<basID>_changes_aiannh
<i>AIA</i>	Tribal Subdivisions	bas<yy>_<basID>_changes_tribalsub
<i>ANRC</i>	ANRC	bas<yy>_<basID>_changes_anrc
<i>Hawaiian Homelands</i>	Hawaiian Homelands	bas<yy>_<basID>_changes_hhl

**Table 5.8.1.1:** The table above displays the change polygon naming conventions for all participants listed above. <yy> represents the BAS year, and <basID> represents your BAS entity ID, which can be found on the data CD.

5.8.2 AIA, ANRC, Tribal Subdivision, and Hawaiian Homeland Submissions (Whole Entity Polygons)

Table 5.8.2.1 provides the whole entity polygon naming conventions for AIAs, ANRCs and Hawaiian Homelands.



Participant	Changes Submitted For	Shapefile Naming Conventions
<i>AIA</i>	AIA	bas<yy>_<basID>_WholeEntity_aiannh
<i>AIA</i>	Tribal Subdivisions	bas<yy>_<basID>_WholeEntity_tribalsub
<i>ANRC</i>	ANRC	bas<yy>_<basID>_WholeEntity_anrc
<i>Hawaiian Homelands</i>	Hawaiian Homelands	bas<yy>_<basID>_WholeEntity_hhl

**Table 5.8.2.1:** The table above displays the whole entity polygon naming conventions for all participants listed above. <yy> represents the BAS year, and <basID> represents your BAS entity ID, which can be found on the data CD.

### 5.8.3 Linear Feature, Area Landmark / Hydro Area, and Point Landmark Updates (Not Required)

Table 5.8.3.1 provides the update layer naming conventions for the edges, area landmark, and point landmark update layer.

Participant	Changes Submitted For:	Shapefile Naming Conventions
<i>All Participants</i>	Edges	bas<yy>_<basID>_LN_Changes
<i>All Participants</i>	Area / Hydro Landmarks	bas<yy>_<basID>_Alndk_Changes
<i>All Participants</i>	Point Landmarks	bas<yy>_<basID>_Plndk_Changes

**Table 5.8.3.1:** The table above displays the naming conventions for the edges, area landmark, and point landmark update layers. <yy> represents the BAS year, and <basID> represents your BAS entity ID, which can be found on the data CD.

### 5.8.4 Compressing the Digital Files

Please compress all update materials including: change polygon shapefiles, whole entity shapefiles, linear feature updates, landmark updates, and a text or other file with your contact information, into a single ZIP formatted file named **bas<yy>\_<basID>\_return** (where <yy> represents the BAS year and <basID> represents your BAS entity ID, which can be found on the data CD).

### 5.8.5 Submitting Digital Files via File Transfer Protocol (FTP)

We request that you submit your Tribal Digital BAS response through the Census Bureau's "Send A File" FTP utility. The "Send A File" utility is located at:

<http://www2.census.gov/cgi-bin/basupload>

*Source Information >> File to Send: >> Browse*

Browse to the location where your file is stored to submit it to the Census Bureau.

*Notify by Email >> Census Bureau Employee's E-Mail Address:*

Please type [geo.aiana@census.gov](mailto:geo.aiana@census.gov) so that the Legal Areas Team is notified whenever a file is submitted to the FTP site. **Please also include your e-mail address in the *Sender's E-Mail Address* field** so that we can notify you that we have received your file.

Enter the *Verification Code* shown on the screen and click the *Upload* button to FTP your Tribal Digital BAS file to the Census Bureau. If you have any questions on the "Send A File" FTP utility please contact the Legal Areas Team at 301-763-1099 or email [geo.aiana@census.gov](mailto:geo.aiana@census.gov).

### 5.8.6 Additional Information

The Census Bureau recommends using FIPS codes to identify entities such as counties, minor civil divisions, and American Indian Areas. Using a standard coding scheme facilitates the digital exchange of data.

These codes can be found in the Census Bureau shapefiles or can be obtained at:

[http://geonames.usgs.gov/domestic/download\\_data.htm](http://geonames.usgs.gov/domestic/download_data.htm)

If you have any questions or problems, please contact the Legal Areas Team at 301-763-1099 or email [geo.aiana@census.gov](mailto:geo.aiana@census.gov).

## **Appendix 1: Paperwork Reduction Project**

The U.S. Census Bureau estimates that the BAS review will take most respondents from 1 to 6 hours to complete. This includes the time needed to read the instructions, assemble materials, organize and review the information, and report any needed changes. This estimate is based on 80 percent of all areas having few or no changes. However, for areas with many changes, it may take 20 hours or longer to complete the survey. Please send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to:

Paperwork Project 0607-0151  
U.S. Census Bureau  
4600 Silver Hill Road  
Room 3K138  
Washington, DC 20233

Or you may e-mail comments to:













[paperwork@census.gov](mailto:paperwork@census.gov)

Note: Use “Paperwork Project 0607-0151” as the subject.

Please include a copy of your message addressed to:

[geo.aiana@census.gov](mailto:geo.aiana@census.gov).

## Appendix 2: Census Bureau Regional Census Centers - Contact Information

	<p>Atlanta Regional Census Center 285 Peachtree Center Ave NE Marquis II Tower, Suite 1000 Atlanta, GA 30303-1230 Phone: (404) 332-2711 Fax: (404) 688-4329 E-mail: <a href="mailto:atlanta.geography@census.gov">atlanta.geography@census.gov</a></p>	<p>Detroit Regional Census Center 300 River Place Dr, Suite 2950 Detroit, MI 48207 Phone: (313) 396-5002 Fax: (313) 567-2119 TDD: (313) 259-5169 E-mail: <a href="mailto:detroit.geography@census.gov">detroit.geography@census.gov</a></p>	
	<p>Boston Regional Census Center One Beacon St, 7<sup>th</sup> Floor Boston, MA 02108-3107 Phone: (617) 223-3600 Fax: (617) 223-3675 Email: <a href="mailto:boston.geography@census.gov">boston.geography@census.gov</a></p>	<p>Kansas City Regional Census Center 2001 NE 46<sup>th</sup> St, Suite LL100 Kansas City, MO 64116-2051 Phone: (816) 994-2020 Fax: (816) 298-9614 E-mail: <a href="mailto:kansas.city.geography@census.gov">kansas.city.geography@census.gov</a></p>	
	<p>Charlotte Regional Census Center 3701 Arco Corporate Dr, Suite 250 Charlotte, NC 28273 Phone: (704) 936-4200 Fax: (704) 909-6714 E-mail: <a href="mailto:charlotte.geography@census.gov">charlotte.geography@census.gov</a></p>	<p>Los Angeles Regional Census Center 9301 Corbin Ave, Suite 1000 Northridge, CA 91324-2406 Phone: (818) 717-6701 Fax: (818) 717-6778 TTY: (818) 717-6705 E-mail: <a href="mailto:los.angeles.geography@census.gov">los.angeles.geography@census.gov</a></p>	
	<p>Chicago Regional Census Center 500 W Madison St, Suite 1600 Chicago, IL 60661-4555 Phone: (312) 454-2705 Fax: (312) 448-1510 E-mail: <a href="mailto:chicago.geography@census.gov">chicago.geography@census.gov</a></p>	<p>New York Regional Census Center 330 W 34<sup>th</sup> St, 13<sup>th</sup> Floor New York, NY 10001-2406 Phone: (212) 971-8800 Fax: (212) 971-8990 E-mail: <a href="mailto:new.york.rcc.geography@census.gov">new.york.rcc.geography@census.gov</a></p>	
	<p>Dallas Regional Census Center 2777 N Stemmons Fwy, Suite 200 Dallas, TX 75207-2514 Phone: (214) 267-6920 Fax: (972) 755-3705 TTY: (214) 655-5363 E-mail: <a href="mailto:dallas.geography@census.gov">dallas.geography@census.gov</a></p>	<p>Philadelphia Regional Census Center 1234 Market St, Suite 340 Philadelphia, PA 19107-3721 Phone: (215) 717-1000 Fax: (215) 253-8001 E-mail: <a href="mailto:philadelphia.geography@census.gov">philadelphia.geography@census.gov</a></p>	
	<p>Denver Regional Census Center 6950 W Jefferson Ave, Suite 250 Denver, CO 80235-2032 Phone: (720) 475-3600 Fax: (720) 962-4606 E-mail: <a href="mailto:denver.geography@census.gov">denver.geography@census.gov</a></p>	<p>Seattle Regional Census Center 19820 North Creek Pkwy, Suite 100 Bothell, WA 98011 Phone: (425) 908-3010 Fax (425) 908-3020 E-mail: <a href="mailto:seattle.geography@census.gov">seattle.geography@census.gov</a></p>	

### Appendix 3: AIAs by Region

<b>BasID</b>	<b>Reservation Name</b>	<b>Regional Office</b>
49900010010	Acoma Pueblo	Denver
49900020020	Agua Caliente Reservation	Los Angeles
49900030050	Alabama-Coushatta Reservation	Dallas
49900040080	Allegany Reservation	Boston
49900050095	Alturas Rancheria	Seattle
49900060110	Annette Island Reserve	Seattle
49906570120	Auburn Rancheria	Seattle
49900070125	Augustine Reservation	Los Angeles
49900080140	Bad River Reservation	Chicago
49900090155	Barona Reservation	Los Angeles
49900110165	Battle Mountain Reservation	Denver
49900120170	Bay Mills Reservation	Detroit
49900130185	Benton Paiute Reservation	Seattle
49900140200	Berry Creek Rancheria	Seattle
49900150215	Big Bend Rancheria	Seattle
49900160225	Big Cypress Reservation	Atlanta
49900170240	Big Lagoon Rancheria	Seattle
49900180250	Big Pine Reservation	Los Angeles
49900190265	Big Sandy Rancheria	Los Angeles
49900200275	Big Valley Rancheria	Seattle
49900210290	Bishop Reservation	Los Angeles
49900220305	Blackfeet Reservation	Denver
49900230325	Blue Lake Rancheria	Seattle
49900250335	Bois Forte Reservation	Kansas City
49900260350	Bridgeport Reservation	Seattle
49900160360	Brighton Reservation	Atlanta
49900270400	Burns Paiute Colony	Seattle
49900280415	Cabazon Reservation	Los Angeles
49900290435	Cahuilla Reservation	Los Angeles
49900300440	Campbell Ranch	Denver
49900310450	Campo Reservation	Los Angeles
49900090495	Capitan Grande Reservation	Los Angeles
49900320495	Capitan Grande Reservation	Los Angeles
49900340510	Carson Colony	Denver
49900350525	Catawba Reservation	Charlotte
49900040540	Cattaraugus Reservation	Boston
49900360555	Cedarville Rancheria	Seattle
49900370560	Celilo Village	Seattle
49900380560	Celilo Village	Seattle

49900390560	Celilo Village	Seattle
49900400575	Chehalis Reservation	Seattle
49900410585	Chemehuevi Reservation	Los Angeles
49900420605	Cheyenne River Reservation	Denver
49900430620	Chicken Ranch Rancheria	Seattle
49900440635	Chitimacha Reservation	Dallas
49900160690	Coconut Creek Trust Land	Atlanta
49900460695	Cocopah Reservation	Denver
49900470705	Coeur d'Alene Reservation	Seattle
49900480720	Cold Springs Rancheria	Los Angeles
49900490735	Colorado River Reservation	Denver
49900500750	Colusa Rancheria	Seattle
49900510760	Colville Reservation	Seattle
49900520770	Coos, Lower Umpqua, and Siuslaw Reservation	Seattle
49900530775	Coquille Reservation	Seattle
49900540780	Cortina Rancheria	Seattle
49900550795	Coushatta Reservation	Dallas
49900560815	Cow Creek Reservation	Seattle
49900570825	Coyote Valley Reservation	Seattle
49900590855	Crow Creek Reservation	Denver
49900580845	Crow Reservation	Denver
49900610940	Dresslerville Colony	Denver
49900620955	Dry Creek Rancheria	Seattle
49900630965	Duck Valley Reservation	Denver
49900640975	Duckwater Reservation	Denver
49900650990	Eastern Cherokee Reservation	Charlotte
49900671010	Elk Valley Rancheria	Seattle
49900661005	Elko Colony	Denver
49900681040	Ely Reservation	Denver
49900691055	Enterprise Rancheria	Seattle
49900601065	Ewiiapaayp Reservation	Los Angeles
49900701070	Fallon Paiute-Shoshone Colony	Denver
49900701075	Fallon Paiute-Shoshone Reservation	Denver
49900711100	Flandreau Reservation	Denver
49900721110	Flathead Reservation	Denver
49900731125	Fond du Lac Reservation	Kansas City
49900741135	Forest County Potawatomi Community	Chicago
49900751140	Fort Apache Reservation	Denver
49900761150	Fort Belknap Reservation	Denver
49900771160	Fort Berthold Reservation	Denver
49900781170	Fort Bidwell Reservation	Seattle
49900791185	Fort Hall Reservation	Seattle
49900801195	Fort Independence Reservation	Los Angeles

49900811210	Fort McDermitt Reservation	Denver
49900821220	Fort McDowell Reservation	Denver
49900831235	Fort Mojave Reservation	Denver
49900841250	Fort Peck Reservation	Denver
49900161260	Fort Pierce Reservation	Atlanta
49900861280	Fort Yuma Reservation	Los Angeles
49900871310	Gila River Reservation	Denver
49900881340	Goshute Reservation	Denver
49900891355	Grand Portage Reservation	Kansas City
49900901365	Grand Ronde Community	Seattle
49900911370	Grand Traverse Reservation	Detroit
49900921380	Greenville Rancheria	Seattle
49900931395	Grindstone Rancheria	Seattle
49900941400	Guidiville Rancheria	Seattle
49900951410	Hannahville Community	Detroit
49900961440	Havasupai Reservation	Denver
49900971450	Ho-Chunk Nation Reservation	Chicago
49900981460	Hoh Reservation	Seattle
49900161475	Hollywood Reservation	Atlanta
49900991490	Hoopa Valley Reservation	Seattle
49901001505	Hopi Reservation	Denver
49901011515	Hopland Rancheria	Seattle
49901021530	Houlton Maliseet Reservation	Boston
49901031545	Hualapai Reservation	Denver
49901041550	Huron Potawatomi Reservation	Detroit
49900161555	Immokalee Reservation	Atlanta
49901051560	Inaja and Cosmit Reservation	Los Angeles
49901061575	Indian Township Reservation	Boston
49901071590	Iowa (KS-NE) Reservation	Kansas City
49901081610	Isabella Reservation	Detroit
49901091625	Isleta Pueblo	Denver
49901101640	Jackson Rancheria	Seattle
49901111655	Jamestown S'Klallam Reservation	Seattle
49901121670	Jamul Indian Village	Los Angeles
49901131685	Jemez Pueblo	Denver
49905971690	Jena Band of Choctaw Reservation	Dallas
49901141700	Jicarilla Apache Reservation	Denver
49901151720	Kaibab Reservation	Denver
49901161735	Kalispel Reservation	Seattle
49901171750	Karuk Reservation	Seattle
49901181770	Kickapoo (KS) Reservation	Kansas City
49901184910	Kickapoo (KS)/Sac and Fox joint use area	Kansas City
49902194910	Kickapoo (KS)/Sac and Fox joint use area	Kansas City

49901191775	Kickapoo (TX) Reservation	Dallas
49901201785	Klamath Reservation	Seattle
49901211800	Kootenai Reservation	Seattle
49901261850	La Jolla Reservation	Los Angeles
49901291895	La Posta Reservation	Los Angeles
49901221815	Lac Courte Oreilles Reservation	Chicago
49901231825	Lac du Flambeau Reservation	Chicago
49901241830	Lac Vieux Desert Reservation	Detroit
49901251840	Laguna Pueblo	Denver
49901271860	Lake Traverse Reservation	Denver
49901281880	L'Anse Reservation	Detroit
49901301915	Las Vegas Colony	Denver
49901311925	Laytonville Rancheria	Seattle
49901321940	Leech Lake Reservation	Kansas City
49900151955	Likely Rancheria	Seattle
49901331960	Little River Reservation	Detroit
49901341963	Little Traverse Bay Reservation	Detroit
49901351970	Lone Pine Reservation	Los Angeles
49900151980	Lookout Rancheria	Seattle
49901361995	Los Coyotes Reservation	Los Angeles
49901372015	Lovelock Colony	Denver
49901382030	Lower Brule Reservation	Denver
49901392040	Lower Elwha Reservation	Seattle
49901402055	Lower Sioux Reservation	Kansas City
49901412070	Lummi Reservation	Seattle
49900852075	Lytton Rancheria	Seattle
49901422085	Makah Reservation	Seattle
49901432100	Manchester-Point Arena Rancheria	Seattle
49901442115	Manzanita Reservation	Los Angeles
49901452130	Maricopa (Ak Chin) Reservation	Denver
49901462145	Mashantucket Pequot Reservation	Boston
49906412150	Match-e-be-nash-she-wish Band of Pottawatomis Trust Land	Detroit
49901472175	Menominee Reservation	Chicago
49901474915	Menominee Reservation/Stockbridge Munsee Community joint use area	Chicago
49902594915	Menominee Reservation/Stockbridge Munsee Community joint use area	Chicago
49901482190	Mesa Grande Reservation	Los Angeles
49901492205	Mescalero Reservation	Denver
49901502240	Miccosukee Reservation	Atlanta
49901512255	Middletown Rancheria	Seattle
49901522270	Mille Lacs Reservation	Kansas City
49900242285	Minnesota Chippewa Trust Land	Kansas City
49901532300	Mississippi Choctaw Reservation	Dallas
49901542315	Moapa River Reservation	Denver



49901552320	Mohegan Reservation	Boston
49900152330	Montgomery Creek Rancheria	Seattle
49901562340	Mooretown Rancheria	Seattle
49901572360	Morongo Reservation	Los Angeles
49901582375	Muckleshoot Reservation	Seattle
49901592400	Nambe Pueblo	Denver
49901602415	Narragansett Reservation	Boston
49901612430	Navajo Nation Reservation	Denver
49901622445	Nez Perce Reservation	Seattle
49901632460	Nisqually Reservation	Seattle
49901642475	Nooksack Reservation	Seattle
49901662495	North Fork Rancheria	Los Angeles
49901652490	Northern Cheyenne Reservation	Denver
49901672505	Northwestern Shoshone Reservation	Denver
49902272510	Ohkay Owingeh	Denver
49900042535	Oil Springs Reservation	Boston
49901682550	Omaha Reservation	Denver
49901692555	Oneida (NY) Reservation	Boston
49901702560	Oneida (WI) Reservation	Chicago
49901802570	Onondaga Reservation	Boston
49901282580	Ontonagon Reservation	Detroit
49901822595	Osage Reservation	Kansas City
49901832625	Paiute (UT) Reservation	Denver
49901842635	Pala Reservation	Los Angeles
49901852680	Pascua Yaqui Reservation	Denver
49906592685	Paskenta Rancheria	Seattle
49901062695	Passamaquoddy Trust Land	Boston
49901812695	Passamaquoddy Trust Land	Boston
49901862715	Pauma and Yuima Reservation	Los Angeles
49901872745	Pechanga Reservation	Los Angeles
49901882760	Penobscot Reservation	Boston
49901892775	Picayune Rancheria	Los Angeles
49901902785	Picuris Pueblo	Denver
49901912810	Pine Ridge Reservation	Denver
49901922820	Pinoleville Rancheria	Seattle
49900152835	Pit River Trust Land	Seattle
49901812850	Pleasant Point Reservation	Boston
49901932865	Poarch Creek Reservation	Atlanta
49906002890	Pokagon Reservation	Detroit
49906602900	Ponca (NE) Trust Land	Denver
49901952910	Port Gamble Reservation	Seattle
49901962925	Port Madison Reservation	Seattle
49901972980	Prairie Band Potawatomi Reservation	Kansas City

49901982985	Prairie Island Indian Community	Kansas City
49900450680	Pueblo de Cochiti	Denver
49901942990	Pueblo of Pojoaque	Denver
49901993000	Puyallup Reservation	Seattle
49902003010	Pyramid Lake Reservation	Denver
49902013020	Quartz Valley Reservation	Seattle
49902023030	Quileute Reservation	Seattle
49902033040	Quinault Reservation	Seattle
49902043070	Ramona Village	Los Angeles
49902053085	Red Cliff Reservation	Chicago
49902073100	Red Lake Reservation	Kansas City
49902063095	Redding Rancheria	Seattle
49902083115	Redwood Valley Rancheria Reservation	Seattle
49902093130	Reno-Sparks Colony	Denver
49902103145	Resighini Rancheria	Seattle
49902113165	Rincon Reservation	Los Angeles
49900153185	Roaring Creek Rancheria	Seattle
49902123195	Robinson Rancheria	Seattle
49902133205	Rocky Boy's Reservation	Denver
49902143220	Rohnerville Rancheria	Seattle
49902153235	Rosebud Reservation	Denver
49902163250	Round Valley Reservation	Seattle
49902173265	Rumsey Rancheria	Seattle
49902193285	Sac and Fox Reservation	Kansas City
49902183280	Sac and Fox/Meskwaki Reservation	Kansas City
49902223340	Salt River Reservation	Denver
49902233355	San Carlos Reservation	Denver
49902253400	San Felipe Pueblo	Denver
49902254930	San Felipe/Santa Ana joint use area	Denver
49902304930	San Felipe/Santa Ana joint use area	Denver
49902254940	San Felipe/Santo Domingo joint use area	Denver
49902374940	San Felipe/Santo Domingo joint use area	Denver
49902263415	San Ildefonso Pueblo	Denver
49902283445	San Manuel Reservation	Los Angeles
49902293460	San Pasqual Reservation	Los Angeles
49902243370	Sandia Pueblo	Denver
49902303480	Santa Ana Pueblo	Denver
49902313495	Santa Clara Pueblo	Denver
49902323520	Santa Rosa Rancheria	Los Angeles
49902333525	Santa Rosa Reservation	Los Angeles
49902343540	Santa Ynez Reservation	Los Angeles
49902353550	Santa Ysabel Reservation	Los Angeles
49902363565	Santee Reservation	Denver

49902373585	Santo Domingo Pueblo	Denver
49902383625	Sauk-Suiattle Reservation	Seattle
49902393635	Sault Ste. Marie Reservation	Detroit
49900163665	Seminole Trust Land	Atlanta
49902403680	Shakopee Mdewakanton Sioux Community	Kansas City
49902413735	Sherwood Valley Rancheria	Seattle
49902423750	Shingle Springs Rancheria	Seattle
49902433780	Shoalwater Bay Reservation	Seattle
49902443795	Siletz Reservation	Seattle
49902453825	Skokomish Reservation	Seattle
49902463840	Skull Valley Reservation	Denver
49902473855	Smith River Rancheria	Seattle
49906443860	Snoqualmie Reservation	Seattle
49902483870	Soboba Reservation	Los Angeles
49902493885	Sokaogon Chippewa Community	Chicago
49902513930	South Fork Reservation	Denver
49902503925	Southern Ute Reservation	Denver
49902523935	Spirit Lake Reservation	Denver
49902533940	Spokane Reservation	Seattle
49902543955	Squaxin Island Reservation	Seattle
49902203305	St. Croix Reservation	Chicago
49902213320	St. Regis Mohawk Reservation	Boston
49902553970	Standing Rock Reservation	Denver
49902563980	Stewart Community	Denver
49902573985	Stewarts Point Rancheria	Seattle
49902584000	Stillaguamish Reservation	Seattle
49902594015	Stockbridge Munsee Community	Chicago
49902604030	Sulphur Bank Rancheria	Seattle
49902614045	Summit Lake Reservation	Denver
49902624060	Susanville Rancheria	Seattle
49902634075	Swinomish Reservation	Seattle
49902644090	Sycuan Reservation	Los Angeles
49902654095	Table Bluff Reservation	Seattle
49902664110	Table Mountain Rancheria	Los Angeles
49900164130	Tampa Reservation	Atlanta
49902674140	Taos Pueblo	Denver
49902684170	Tesuque Pueblo	Denver
49906614180	Timbi-Sha Shoshone Reservation	Los Angeles
49902694200	Tohono O'odham Reservation	Denver
49902704225	Tonawanda Reservation	Boston
49902714235	Tonto Apache Reservation	Denver
49902724255	Torres-Martinez Reservation	Los Angeles
49902734275	Trinidad Rancheria	Seattle

49902744290	Tulalip Reservation	Seattle
49902754300	Tule River Reservation	Los Angeles
49902764315	Tunica-Biloxi Reservation	Dallas
49902774330	Tuolumne Rancheria	Seattle
49902784345	Turtle Mountain Reservation	Denver
49902794360	Tuscarora Reservation	Boston
49902804375	Twenty-Nine Palms Reservation	Los Angeles
49902814390	Uintah and Ouray Reservation	Denver
49900374405	Umatilla Reservation	Seattle
49902824430	Upper Lake Rancheria	Seattle
49902834445	Upper Sioux Reservation	Kansas City
49902844455	Upper Skagit Reservation	Seattle
49902854470	Ute Mountain Reservation	Denver
49900324500	Viejas Reservation	Los Angeles
49902864515	Walker River Reservation	Denver
49902874530	Wampanoag-Aquinnah	Boston
49900384545	Warm Springs Reservation	Seattle
49900334560	Washoe Ranches	Denver
49902884580	Wells Colony	Denver
49902894595	White Earth Reservation	Kansas City
49902904610	Wind River Reservation	Denver
49902914610	Wind River Reservation	Denver
49902924625	Winnebago Reservation	Denver
49902934635	Winnemucca Colony	Denver
49902944665	Woodfords Community	Denver
49900154680	XL Ranch Rancheria	Seattle
49900394690	Yakama Reservation	Seattle
49902954700	Yankton Reservation	Denver
49902964708	Yavapai-Apache Nation Reservation	Denver
49902974710	Yavapai-Prescott Reservation	Denver
49900304725	Yerington Colony	Denver
49902984740	Yomba Reservation	Denver
49902994755	Ysleta Del Sur Pueblo	Dallas
49903004760	Yurok Reservation	Seattle
49903014770	Zia Pueblo and Off-Reservation Trust Land	Denver
49903024785	Zuni Reservation	Denver

## Appendix 4: Data Dictionary

<b>-Alaska Native Regional Corporation (ANRC) Shapefile-</b>			
<u>ATTRIBUTE FIELD</u>	<u>LENGTH</u>	<u>TYPE</u>	<u>DESCRIPTION</u>
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
ANRCFP	5	String	FIPS ANRC Code
ANRCCE	2	String	Current Census ANRC Code
NAMELSAD	100	String	Name with Translated LSAD
LSAD	2	String	Legal / Statistical Area Description
AIANNHNS	8	String	ANSI Numeric Identifier for AIANNH Areas
FUNCSTAT	1	String	Functional Status
CLASSFP	2	String	FIPS 55 Class Code Describing an Entity
PARTFLG	1	String	Part Flag Indicator
CHNG_TYPE	2	String	Type of Area Update
EFF_DATE	8	Date	Effective Date
DOCU	120	String	Supporting Documentation
FORM_ID	4	String	(MTPS and Web BAS Only)
AREA	10	Double	Acreage of Area Update
RELATE	120	String	Relationship Description
NAME	100	String	ANRC name

<b>-American Indian Areas (AIA) Shapefile-</b>			
<u>ATTRIBUTE FIELD</u>	<u>LENGTH</u>	<u>TYPE</u>	<u>DESCRIPTION</u>
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
AIANNHCE	4	String	Census AIANNH Code
COMPTYP	1	String	Indicates if Reservation, Trust Land, or both are Present
AIANNHFSR	1	String	Flag Indicating Level of Recognition of an AIA
NAMELSAD	100	String	Name with Translated LSAD
AIANNHNS	8	String	ANSI numeric identifier for AIA areas
LSAD	2	String	Legal / Statistical Area Description
FUNCSTAT	1	String	Functional Status
CLASSFP	2	String	FIPS 55 Class Code Describing an Entity
PARTFLG	1	String	Part Flag Indicator
CHNG_TYPE	2	String	Type of Area Update
EFF_DATE	8	Date	Effective Date
DOCU	120	String	Supporting Documentation
FORM_ID	4	String	(MTPS and Web BAS Only)
AREA	10	Double	Acreage of Area Update
RELATE	120	String	Relationship Description
NAME	100	String	AIA name
VINTAGE	2	String	Vintage of the Data

**-American Indian Tribal Subdivisions (AITS) Shapefile-**

<u>ATTRIBUTE FIELD</u>	<u>LENGTH</u>	<u>TYPE</u>	<u>DESCRIPTION</u>
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
AIANNHCE	4	String	Census AIANNH Code
TRIBALSUBCE	3	String	Census Tribal Subdivision Code
NAMELSAD	100	String	Name with translated LSAD
AIANNHNS	8	String	ANSI Numeric Identifier for AIANNH Areas
LSAD	2	String	Legal / Statistical Area Description
FUNCSTAT	1	String	Functional Status
CLASSFP	2	String	FIPS 55 Class Code Describing an Entity
PARTFLG	1	String	Part Flag Indicator
CHNG_TYPE	2	String	Type of Area Update
EFF_DATE	8	Date	Effective Date
DOCU	120	String	Supporting Documentation
FORM_ID	4	String	(MTPS and Web BAS Only)
AREA	10	Double	Acreage of Area Update
RELATE	120	String	Relationship Description
NAME	100	String	Tribal subdivision name
VINTAGE	2	String	Vintage of the Data
AIANNHFSR	1	String	Flag Indicating Level of Recognition of an AIA

<b>-Edges Shapefile-</b>			
<u>ATTRIBUTE FIELD</u>	<u>LENGTH</u>	<u>TYPE</u>	<u>DESCRIPTION</u>
STATEFP	2	String	State FIPS Code
COUNTYFP	3	String	County FIPS Code
TLID	10	Double	Permanent Edge ID
TFIDL	10	Double	Permanent Face ID (Left)
TFIDR	10	Double	Permanent Face ID (Right)
MTFCC	5	String	MAF/TIGER Feature Class Code
FIDELITY	1	String	Indication to a respondent when their entity boundary has changed through spatial enhancement
FULLNAME	40	String	Prefix qualifier code, prefix direction code, prefix type code, base name, suffix type code, suffix qualifier code
SMID	22	String	Spatial Tmeta ID
BbspFLG	1	String	Redistricting data project participant's submitted request of an EDGE for selection as a block boundary
CBBFLG	1	String	Indicates the status of an EDGE for a selection as a block boundary
2010_BBSP	1	String	New BBSP flag
CHNG_TYPE	4	String	Type of linear update
LTOADD	10	String	Left To Address
RTOADD	10	String	Right To Address
LFROMADD	10	String	Left From Address
RFROMADD	10	String	Right From Address
ZIPL	5	String	Left Zip Code
ZIPR	5	String	Right Zip Code

<b>-Area Landmark Shapefile-</b>			
<u>ATTRIBUTE FIELD</u>	<u>LENGTH</u>	<u>TYPE</u>	<u>DESCRIPTION</u>
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
MTFCC	5	String	MAF/TIGER Feature Class Code
FULLNAME	120	String	Prefix direction code, prefix type code, base name, suffix type code, suffix direction code
AREAID	22	String	Landmark identification number
ANSICODE	8	String	ANSI code for area landmarks
CHNG_TYPE	2	String	Type of Area Landmark update
EFF_DATE	8	Date	Effective Date or Vintage
RELATE	120	String	Relationship description
BAG	3	String	Block Area Grouping

<b>-Hydro Area Shapefile-</b>			
<u>ATTRIBUTE FIELD</u>	<u>LENGTH</u>	<u>TYPE</u>	<u>DESCRIPTION</u>
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
ANSICODE	8	String	ANSI code for hydrography area
MTFCC	5	String	MAF/TIGER Feature Class Code
FULLNAME	120	String	Prefix direction code, prefix type code, base name, suffix type, suffix type code, suffix direction code
CHNG_TYPE	2	String	Type of Area Update
HYDROID	22	String	Hydrography Identification Number
RELATE	120	String	Relationship description

<b>-Point Landmarks Shapefile-</b>			
<u>ATTRIBUTE FIELD</u>	<u>LENGTH</u>	<u>TYPE</u>	<u>DESCRIPTION</u>
STATEFP	2	String	FIPS State Code
COUNTYFP	3	String	FIPS County Code
POINTID	22	String	Point Landmark Identification Number
MTFCC	5	String	MAF/TIGER Feature Class Code
FULLNAME	120	String	Prefix type code, base name, suffix type code
CHNG_TYPE	2	String	Type of Area Update



## Appendix 5: 2010 Tribal Digital BAS – Example Process

Note: This example uses an AIA participant as the subject. ANRCs and Hawaiian Homelands may use the same process.

### 1. Opening Census Bureau Shapefiles

Enclosed with your Tribal Digital BAS Materials should be a ZIP file with all of the necessary shapefiles as well as a PDF copy of this 2010 Tribal Digital BAS Respondent Guide. Use these materials to create your Tribal Digital BAS submission for 2010. If any questions arise please do not hesitate to contact the Legal Areas Team at 301-763-1099.

- ❑ Open the CD, copy the data to your hard drive/server, and unzip the data to ensure that the correct data has been sent to your area. For an AIA both the AIA and edges layers are critical: **bas\_2010\_aial\_<ssccc>.shp** and **bas\_2010\_edges\_<ssccc>.shp**. You should have a set of shapefiles for your county(ies), as well as all adjacent counties.

*Note: <ssccc> represents the two-digit state code and three-digit county code.*





- ❑ It is suggested that you make an extra copy of the data in case a file becomes corrupted, an error is made, etc.

### 2. Symbolizing Layers in ArcGIS

To most effectively create change polygons it is good to have symbolization that easily distinguishes between different types of linear features and geographic areas.

Symbolizing linear features in the edges layer:

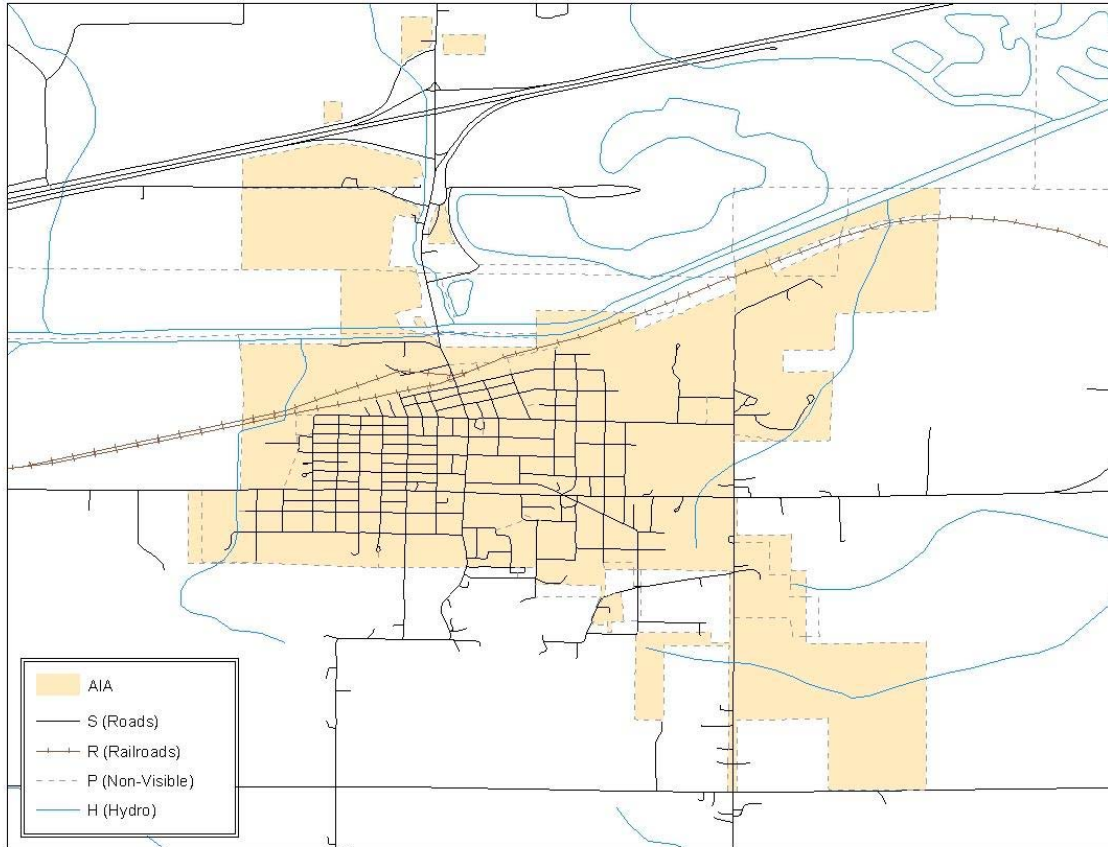
- ❑ Using the Layer Properties for the Edges layer, symbolize the linear features by grouping like MTFCC codes (i.e. codes sharing the same first character).
- ❑ Table A5.2.1 will show you which MTFCC types should be grouped and their recommended symbolization.

MTFCC 1 <sup>st</sup> Character...	Linear Feature Type	Symbol
H	Hydrology	
P	Non-Visible Feature (boundary)	
R	Railroad	
S	Road	

**Table A5.2.1**

Symbolizing geographic areas:

- ❑ Symbolize the AIA layer using Fill Color of RGB (255,235,190) with no outline.
- ❑ Example A5.2.2 depicts how the AIA layer and the edges layer would look after they are symbolized as described above.



**Example A5.2.2**

### 3. Creating and Splitting Lines

Not all linear features that are needed to create change polygons will necessarily exist in the MAF/TIGER database. Therefore it will likely be necessary to create and split lines to form your changes. The existing and newly created linear features will be selected to form and create the boundary changes which will be submitted to the Census Bureau.

Creating new linear features



- ❑ *Table of Contents >> Selection*

Uncheck the AIA layer so that the only layer that can be selected while editing is the edges layer.

- ❑ *Activate Editor Toolbar >> Start Editing*

- ❑ *Task* should be set to Create New Feature and *Target* should be set to the edges layer (bas\_2010\_edges\_<ssccc>.shp)
- ❑ *Editor* >> *Snapping...*

*Vertex*, *Edge*, and *End* should be checked for the edges layer. Using snapping will ensure that newly created lines will be coincident with linear features currently in MAF/TIGER.

- ❑ Create new linear features using the *Sketch* tool 
- ❑ On the Editor Toolbar select the *Attributes* button  and enter the code “P0001” into the MTFCC attribute field



An MTFCC must be added to each new linear feature so that it is displayed on the map, if you have symbolized your linear features as suggested above. Use “P0001” as the default non-visible feature value. (Note: If you wish to submit linear feature changes it is best to create those in a separate process. It is not necessary to submit changes for non-visible boundaries to the Census Bureau.)

Reminder! Click *Editor* >> *Save Edits* often so that work is not lost.

### Splitting linear features

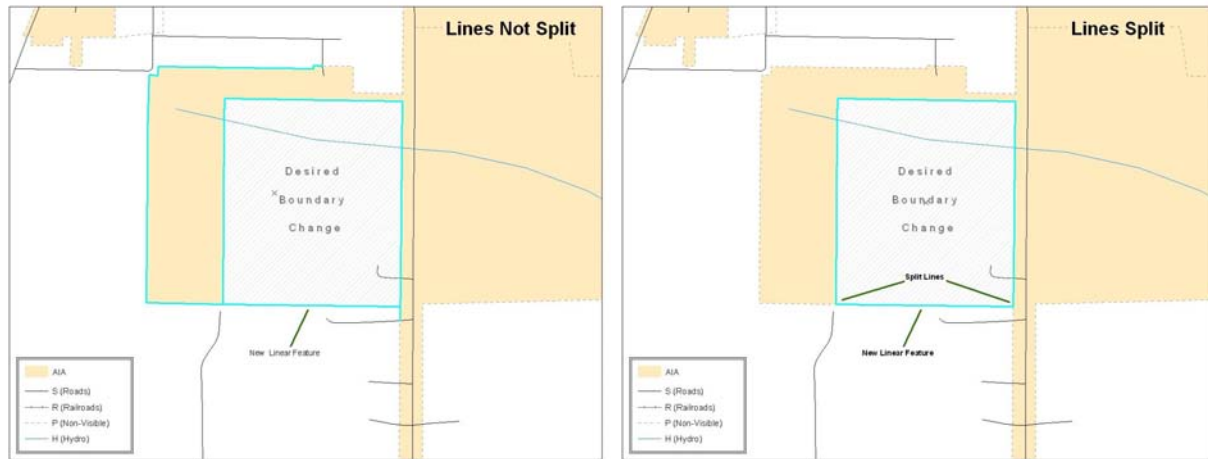
- ❑ Activate *Editor Toolbar* >> *Start Editing*

If you are continuing on from creating new linear features this step will have already been completed. Check to see that the *Task*, *Target*, and *Snapping* match what was selected above.

- ❑ Select a linear feature that needs to be split using the *Edit Tool*  on the Editor Toolbar
- ❑ Click the *Split Line* tool  after the line that should be split is selected. Click in the location where you wish to split the line.

Examples A5.3.1 and A5.3.2 display why it may be necessary to split lines when creating change polygons. In Example A5.3.1 the intended boundary change is indicated with grey hatching. However you can see that when selecting lines to form the boundary change, additional linear features are selected. Example A5.3.2 shows where two existing MAF/TIGER linear features can be split to create the desired boundary change.

- ❑ *Editor* >> *Save Edits* after all linear feature updates have been made



**Example A5.3.1**

**Example A5.3.2**

#### 4. Selecting Lines and Creating Change Polygons

After creating and splitting any necessary linear features, those features can be selected to form change polygons. Each change polygon must be created and coded separately. The steps below show how any type of boundary change can be created.


Creating change polygons

- Activate the *Editor Toolbar >> Start Editing*

Verify that the edges layer is the only selectable layer in the *Table of Contents*

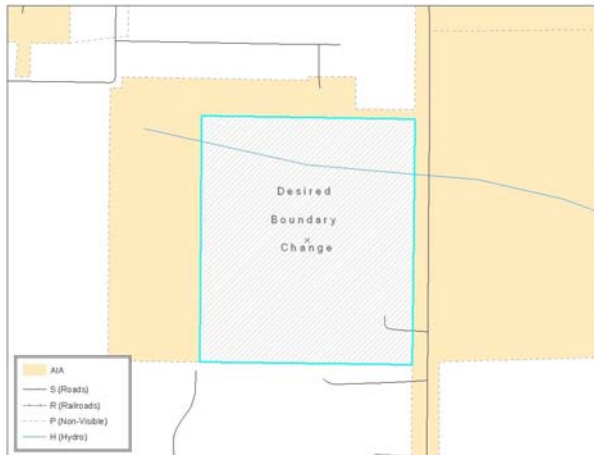
- Select the linear features that comprise the boundary of a change polygon (i.e. an addition, deletion, or incorrect area) using the *Edit Tool* by holding the *Shift* key while selecting each linear feature segment
- Activate the *Topology Toolbar*
- In the *Editor Toolbar* switch the *Target* from the edges layer to the AIA layer

In order to create change polygons using the linear features which have been selected the *Target* in the *Editor Toolbar* must be switched to the AIA layer. Then using the *Topology Toolbar* and the *Construct Features* tool, change polygons can be easily created.

- With all linear features that compose a single boundary change selected click the *Construct Features*  tool on the *Topology Toolbar*
- Click *OK* on the *Construct Features* dialog box. The default *Cluster Tolerance* can be accepted

The polygon will become part of the AIA; however, it will not have any attribute values associated with it. Example A5.4.1 displays the selected linear features for the boundary

change. In Example A5.4.2 you can see how the desired boundary change is created from the selected lines and the construct features tool.



Example A5.4.1



Example A5.4.2

The next section will describe how to appropriately attribute each boundary change that is created.


## 5. Attributing Change Polygons

After each change polygon has been created, it must be correctly attributed so that the boundaries can be appropriately updated in the MAF/TIGER database. You may also elect to update the attributes for each change polygon after you have created all of your boundary changes. The following steps will explain how to correctly attribute each type of boundary change. Table 6.4.1 in the guide indicates the attributes that are required for each type of boundary change.

### Additions

- *Table of Contents >> Selection*

Check the AIA layer. This will enable you to select the change polygons that you have created. The edges layer can remain checked, or unchecked, however you prefer.


- Using the *Edit Tool* button select the addition polygon that you have created
- With the addition polygon selected click the *Attributes*  tool on the *Editor Toolbar*
- When the Edit Attributes dialog box appears fill out the mandatory fields required for an addition. These include: NAME, CHNG\_TYPE, DOCU and EFF\_DATE

The CHNG\_TYPE for an addition is 'A'

## Deletions

- ❑ *Table of Contents >> Selection*

Check the AIA layer. This will enable you to select the change polygons that you have created. The edges layer can remain checked, or unchecked, however you prefer.


- ❑ Using the *Edit Tool* button select the deletion polygon that you have created
- ❑ With the deletion polygon selected click the *Attributes*  tool on the *Editor Toolbar*
- ❑ When the Edit Attributes dialog box appears fill out the mandatory fields required for a deletion. These include: NAME, CHNG\_TYPE, DOCU and EFF\_DATE

The CHNG\_TYPE for a deletion is 'D'

## Boundary Corrections

- ❑ *Table of Contents >> Selection*

Check the AIA layer. This will enable you to select the change polygons that you have created. The edges layer can remain checked, or unchecked, however you prefer.

- ❑ Using the *Edit Tool* button select the boundary correction polygon that you have created
- ❑ With the boundary correction polygon selected click the *Attributes*  tool on the *Editor Toolbar*
- ❑ When the Edit Attributes dialog box appears fill out the mandatory fields required for a boundary correction. These include: NAME, CHNG\_TYPE, and RELATE


The CHNG\_TYPE for a boundary correction is 'B.' In the RELATE field enter 'IN' if the boundary correction is adding area or 'OUT' if the boundary correction is removing area.

## Geographic Corridors

- ❑ *Table of Contents >> Selection*

Check the AIA layer. This will enable you to select the change polygons that you have created. The edges layer can remain checked, or unchecked, however you prefer.

- ❑ Using the *Edit Tool* button select the geographic corridor polygon that you have created

- ❑ With the geographic corridor polygon selected click the *Attributes*  tool on the *Editor Toolbar*
- ❑ When the Edit Attributes dialog box appears fill out the mandatory fields required for a geographic corridor. These include: NAME, CHNG\_TYPE, and RELATE

The CHNG\_TYPE for a geographic corridor is ‘C.’ In the RELATE field enter the width of the corridor on each side of the centerline (Left Side, Right Side) (30, 30).

## 6. Exporting Change Polygons

After creating and coding the change polygons you will want to export them to a separate change polygon layer, which will be submitted to the Census Bureau. This process will need to be completed for each level of geography (e.g. AIA, Tribal Subdivision) that has changes.

- ❑ Main Menu >> *Selection* >> *Select by Attributes*
- ❑ *Layer* should be set to the AIA layer (bas\_2010\_aial\_<ssccc>.shp).
- ❑ *Method* should be set to ‘Create a new selection’.
- ❑ In the *Select \* From \* Where* box an equation should be written so that each polygon with a change type is selected. Two equations are below:

“CHNG\_TYPE” < > ‘ ’

The equation above would select all polygons that have any change type (i.e. all change polygons which you have created and coded).

“CHNG\_TYPE” = ‘A’ OR “CHNG\_TYPE” = ‘B’ OR... (etc.)

The equation above can be written to select each change type for polygons that were created and coded.

- ❑ Click *OK*

After clicking OK each change polygon that you created and coded should be highlighted on the map and in the attribute table. You may want to open the attribute table and sort to verify that all change polygons with a change type code were selected.

- ❑ Right click the AIA layer >> *Data* >> *Export Data...*
- ❑ *Export* should be set to ‘Selected features’
- ❑ Select ‘this layer’s source data’ as the coordinate system to export to
- ❑ Save the output shapefile to your desired location naming it according to the naming conventions found in Section 5.8.1. (i.e. bas<yy>\_<basID>\_changes\_aiannh).

Once you have exported your change polygon file you should review the file according to Section 5.7. After you have reviewed your file please zip together any change polygon, feature, or landmark layers and name the ZIP file according to the guidelines in Section 5.8.4 (i.e. bas<yy>\_<basID>\_return).

## 7. FTP the ZIP file to the Census Bureau

The ZIP file that you have created should now be FTP'ed to the Census Bureau. You will do this using the Census Bureau's 'Send A File' utility.

Using Internet Explorer navigate to <http://www2.census.gov/cgi-bin/basupload>

This is the 'Send A File' utility where you will submit your file to the Census Bureau.

*Source Information (Local) >> File to Send: >> Browse...*

Browse to the location where your ZIP file is stored.

*Notify by Email >> Census Bureau Employee's Email Address*

In the *Census Bureau Employee's Email Address* box please enter:

[geo.aiana@census.gov](mailto:geo.aiana@census.gov). **Please also enter your email address in the *Sender's Email Address* box.**

Enter the *Verification Code* in the box provided at the bottom of the screen and click the *Upload* button after you confirm that everything on the page is correct.