

# AGENDA

## FGDC Address Theme Subcommittee

Wednesday, January 11, 2017

U.S. Department of Transportation

1200 New Jersey Ave SE Washington, DC

Conference Center Room 3

(Navy Yard Station, Metro *Green Line*)

### WebEx

[Click here](#) to join the meeting  
Meeting Number: 744 968 579

### Call-in

Phone: 866-752-9050  
Passcode: 366-520-2

- 1:00 Welcome and Meeting Goals
- Adopt theme definition
  - Review draft charter
- 1:05 Address Theme Definition
- Review subcommittee comments
  - Review and revise
  - Vote on sending definition to FGDC Coordination Group
- 1:45 Address Subcommittee Charter
- Main components
  - Key issues for subcommittee consideration
- 2:15 Next Steps
- User Requirements Workshop
- 2:30 Adjourn

### Draft Address Theme Definition Feedback

The following comments were received from the FGDC Address Theme Subcommittee members and partners regarding the draft Theme definition developed at the subcommittee’s first meeting. See the end of the document for a list of individual commenters. These comments were used to draft the revised definition at the end of this document for discussion at the second subcommittee meeting.

#### ORIGINAL DRAFT DEFINITION (12/14/2016)

An address specifies a location by reference to a thoroughfare or landmark; or it specifies a point of postal delivery. The address theme encompasses all United States and U.S. Territory addresses, and the address reference systems that govern them. It also includes the coordinate locations, linear reference locations, and transportation network identifiers (nodes and segment identifiers) that correspond to addresses. The address theme includes address content (elements and attributes), classification, data quality measures, data exchange schemas, and address reference system elements and rules, as defined in the FGDC United States Thoroughfare, Landmark, and Postal Address Data Standard. The address theme does not include the features (parcels, buildings, etc.) whose locations may be specified by addresses. The address theme also excludes email, IP, and other computer system addresses. It also excludes the names of occupants or addressees of mail.

**Subject:** Geographic Coordinates

AUTHOR	COMMENT
A	Suggest keep exact wording of FGDC standard and add geography to it: An address point specifies a location with reference to a thoroughfare or a landmark and provides its <i>geographic coordinates</i> ; it may correspond to a point of postal delivery.
B	I think it would be helpful to include the explicit use of ‘geographic’ location (i.e., “An address specifies a geographic location...”). Given the intentionally broad and inclusive use of the term ‘thoroughfare’ in the address standard, could an IT guru argue that IP addresses are located on a digital thoroughfare? (I have no idea or background with that. Just asking.) Seems like this kind of extreme interpretation would be precluded by the explicit use of the term ‘geographic location’ at the outset.
F	Change “It also includes the locations,...” to “...the <i>geo-coordinate</i> locations...”
E	Add, “...and the associated geographic coordinates.” to end of first sentence.

**Result:** Added the term “geographic location” to the first sentence. Also added language to clarify that coordinates include systems such as the U.S. National Grid: “...also includes the coordinate locations of various coordinate systems,...”

**Subject: Linear Reference Locations**

AUTHOR	COMMENT
A	What are linear reference locations exactly? I'm interpreting that to mean the linear reference specification of access points, that is identified locations along named thoroughfares where the unnamed driveways, pathways and other forms of proximate access to address locations intersect the mapped transportation network (including, I realize other kinds of networks than streets, but mainly streets). Simplistically, it's the location of the mailbox at the end of the driveway. My comment is that access points, whether or not they have a linear reference specification, are tremendously important and should be part of the theme. For example, in many parts of the country access points are the primary determinants of the number, street name and place name associated with an address location. But does the inclusion of linear reference and segment identifiers assume the existence of a national transportation network theme? Where do these identifiers come from?
D	Drop 'linear reference locations and transportation network identifiers' Why? The method for obtaining an LRS location (route and measure) is to convert the address to a coordinate pair and then find the nearest location to the coordinate pair along the LRS geometries. Suspect the same goes for the transportation network identifiers what ever that is? (subway line and stop name?) Get the coordinate pair and you're ready to crosswalk to other geography as desired.
D	After the first half of the second sentence, I became very confused because at that point the definition starts listing specific elements and attributes, some of which are duplicated in the definition (e.g. "...and the address reference systems that govern them" followed later by "...and address reference system elements and rules"). I also am confused as to what is being referenced by "transportation network identifiers" (unique IDs of street centerlines and intersections?)
E	"linear reference locations" I personally worry that including linear reference is outside the scope.
D	"An address specifies a location by reference to a thoroughfare or landmark" would seem to include an LRS point event (milepost 13.753, highway 67) as a valid address. Is that intended? Keep in mind that there are over 6 million valid LRS 'addresses' on Utah's federal and state highway system alone.

**Result:** Dropped the language referring to linear reference locations and transportation network identifiers to limit confusion following the logic that linear reference points, access points, etc. are all allowed for by the first sentence of the definition.

**Subject: Negative Definitions**

AUTHOR	COMMENT
B	I understand the rationale for including what the address theme excludes. But I think it's simpler/clearer to limit a definition to what something is, rather than what it isn't. I see limited value in the last two sentences.
E	Last two sentence seem to run on. I suggest tightening up the sentences a little.
D	Could all the exclusions be simplified and rolled into one sentence?

B	I'm not sure I fully understand the implications of the phrase "The address theme does not include the features (parcels, buildings, etc.) whose locations may be specified by addresses." Does this mean that fundamental distinctions like residential/non-residential would not be part of the theme? Or would that type of attribute fall under the notion of "address content (elements and attributes)" or "classifications"?
D	Buildings can be part of address (1 State Office Building) but buildings are later excluded. Maybe the latter mention could be improved by saying 'does not include the two and three dimensional physical features (parcels, structures, etc)'
D	I agree that the three sentence of exclusions could be simplified and perhaps be rolled into one sentence.

**Result:** The last two sentences were combined and simplified to clarify that these features are part of other themes. For example, a building address will be in the Address Theme, the building footprint will be in Real Property.

**Subject:** Use of the FGDC Standard

AUTHOR	COMMENT
C	My one comment regarding the Theme Definition is the reference to the FGDC United States Thoroughfare, Landmark, and Postal Address Data Standard. I realize the Standard is an FGDC standard and the FGDC is providing oversight of the Address Theme, so it seems to make sense. But I worry that defining the Address Theme based on a specific standard might unnecessarily link the two and make it more difficult to maintain them both. For example, as things change over time and the Standard needs to be updated do those changes have direct implications on the Address Theme that might be unwanted? Or visa versa, if it is decided the Theme needs to move in a certain direction, is it possible the Standard could constrain what needs to be done, or even just delay changes until the Standard can be updated? Seems we could still accomplish the same goal of defining what the address theme includes in the first part of that sentence but just leave out the second part, "...as defined in the FGDC United States Thoroughfare, Landmark, and Postal Address Data Standard".
D	With the reference to the FGDC standard, is the theme definition trying to incorporate just the term definitions in that standard or the whole body of work within the standard? I would think the former, and would suggest a change from 'as defined in the FGDC...' to 'as these terms are defined in the FGDC...'

**Result:** The sentence ending with "...as defined in the FGDC United States Thoroughfare, Landmark, and Postal Address Data Standard." was removed. This is also in-line with other FGDC Theme definitions.

**Subject:** Include Jurisdictional Boundaries

AUTHOR	COMMENT
A	<p>Another geographic consideration is that the address theme, to be truly useful, should include or at least reference two kinds of features not mentioned. One is the jurisdictional boundary for identified addressing authorities. There is no way to validate an address at a given location without knowing who is responsible for assigning the address at that location – it can be just an attribute of an address record but that attribute will most commonly be assigned by overlay - hence the importance of polygon geometry for jurisdictions.</p> <p>The second geometry is a subdivision of the first - the map of polygons within which any given thoroughfare address is unique. For example, in MA there are almost 200 Elm Streets (no elm trees anymore, alas) and you only know which one is meant by considering the place name in the address. This seems obvious, but what we have discovered with respect to the PIDF-LO hierarchy of places, it that it is critical to map that level of geography that combines with named street segments to ensure unique addresses, again so they can be validated using overlay operations.</p> <p>Jurisdiction boundaries and place boundaries which are needed to make street names unique are identified in the NAD pilot proposed schema as “addAuth” and “uniqWithin” but their usefulness entirely depends on being managed as geometries. I would urge consideration of including these geometries in the address theme.</p> <p>This raises the more general question of whether the address theme encompasses a full-fledged relational data model to accommodate the different components mentioned. There was a brief allusion in the discussion to many points corresponding to one address, but as frequently one finds many addresses (e.g. unit level records) linked to one location. Traditional data modeling wisdom is to avoid such many-to-many relationships if at all possible. Many programs have handled this situation by allowing for “multi-points” which are an OGC simple feature, and this approach is discussed in the NENA Site Structure Address Point guidance document and other places as a future direction for address data management. The issue is how far beyond the simplicity of the “flat file” does the FGDC want to go? In brief, does the theme encompass a data model which relates address points (including multi-points) and address records in a one-to-many relationship?</p>

**Result:** Leaving this topic for subcommittee discussion. Is this capability provided via linkages to the FGDC Boundaries Theme?

**COMMENT KEY**

Code	Author
A	Christian Jacqz, State of Massachusetts
B	Doug Gevert, Dept of Education
C	Michael Fashoway, State of Montana
D	NSGIC Address Committee Email List
E	Michael Byrne, CFPB
F	Fharon Hicks, USPS

## **REVISED DRAFT DEFINITION**

Based on the above comments and guided by an interest in keeping the definition in line with other FGDC definitions, the following revised draft is proposed:

Addresses specify a geographic location by reference to a thoroughfare or landmark, or specifies a point of postal delivery, or both. It also includes point features such as coordinate locations in various coordinate systems. The address theme does not include the features (parcels, building footprints, occupants, addressees, etc.) whose locations may be specified by an address, but may include linkages to these and other theme datasets.

Note that the sentence on the geographic scope was removed in keeping with other Theme definitions.

## Working Draft

### OMB CIRCULAR A-16 SUBCOMMITTEE CHARTER ADDRESS SUBCOMMITTEE

#### BACKGROUND

The need for a consolidated public listing of the location of every address in the United States has been recognized for many years. Many tribal, federal, state, and local organizations collect and maintain separate address databases with variable levels of completeness and accuracy. The Census Bureau maintains a Master Address File used to guide the decennial census and related programs and is considered the most complete and accurate spatially referenced national address database in existence, but limitations under U.S. Code Title 13 prevent these private data from being disclosed publically. In 2011, the Census Address Summit brought together 41 tribal, state, and local government representatives to gain a common understanding regarding the definition of an address and learn how partners collect, use, and maintain address databases. Several pilot projects came out of this summit that resulted in recommendations for data sharing, intergovernmental coordination, implementing standards and the capture of hidden or hard to capture addresses. In 2012 the Census Bureau created an Address Ontology.

These efforts laid the groundwork for the recent push to create an open National Address Database (NAD). The National Geospatial Advisory Committee (NGAC) released the influential report *The Need for a National Address Database* (2012) and this was followed by increasing calls for a NAD from concerned organizations such as the National States Geographic Information Council (NSGIC) and Urban and Regional Information Systems Association (URISA) that helped shape a 2015 GAO recommendation, “to create an address data theme with associated subcommittees and working groups to assist in furthering a national address database” (report GAO-15-193). The third *U.S. Open Government National Action Plan* (2015) made specific commitments to open government that included a commitment to launch a process to create a consolidated public listing of every address in the United States.

That same year, the Department of Transportation convened representatives from the tribal, federal, state, local, private sector, and non-profit communities for a National Address Database Summit to identify and discuss possible options for developing an Address Theme. There was general agreement that the Address Theme effort should be coordinated by a subcommittee of the Federal Geographic Data Committee (FGDC). In 2016, the National States Geographic Information Council (NSGIC) issued guidelines for selecting lead agencies that highlighted the work of both the Department of Transportation and Census Bureau. An Address Theme was recommended by the FGDC Executive Committee and approved as the 17<sup>th</sup> National Geospatial Data Asset (NGDA) Theme by the FGDC Steering Committee on August 8, 2016.

## **PURPOSE**

This Charter establishes the Federal Geographic Data Committee (FGDC) Address Subcommittee with the purpose of developing and promoting a national strategy to identify, prioritize, implement, coordinate, manage, and provide oversight of activities required to access or acquire and make freely available the most accurate spatially referenced national address data available in partnership with tribal, state, local, non-profit, and private organizations. The Address Subcommittee is accountable to the FGDC Steering Committee and provides recommendations to the FGDC Coordination Group.

## **AUTHORITIES**

The Address Subcommittee is chartered under the FGDC Steering Committee and coordinated by the FGDC Secretariat, which is granted authority through the Office of Management and Budget (OMB) Circular A-16, Executive Order 12906 and the E-Government Act of 2002. In addition, the activities of the Address Subcommittee are in accordance with OMB circulars A-16, A-119, and A-130 and the Address List Improvement Act of 1994. The Department of Transportation and Census Bureau are designated by the FGDC Steering Committee as co-lead agencies for the Address Theme.

## **SCOPE**

The Address Subcommittee scope of responsibilities includes the following:

- Advise the Address Theme leads on the creation, management, and maintenance of the Address Theme.
- Establish a governance process for the Address Theme.
- Create partnerships with tribal, federal, state, and local governments and private organizations.
- Facilitate the availability of, and public access to, national address data and associated metadata from distributed databases. Investigate, evaluate, promote, and implement new technologies to improve data acquisition, address accuracy, geocoding, and database maintenance.
- Support coordination and standards goals, and objectives established by federal, national, and international standards organizations such as the FGDC, the National Spatial Data Infrastructure (NDSI), American National Standards Institute (ANSI), and the International Organization of Standardization (ISO).

## **OBJECTIVES**

The primary objective of the Address Subcommittee is to support the National Spatial Data Infrastructure through coordination among tribal, federal, state, and local programs and interested commercial vendors to make spatially referenced national address data freely available.

Other objectives include:

- Develop and promote a national strategy to access or acquire the best address data available.
- Collect user requirements for the Address Theme.
- Support and advise the Theme Lead, national data set managers, and data stewards, to develop and maintain the Address Theme covering all 50 states, Puerto Rico, the Virgin Islands, and all other U.S. territories and possessions.
- Support the maintenance of the Address Theme and associated metadata. Maintain all address data in the public domain.
- Investigate the accessibility, accuracy, integration, and application of data collection from emerging technologies.
- Coordinate tribal, federal, state, local, and private sector address requirements through federal liaisons and state GIS councils/committees or the equivalent.
- Facilitate the implementation and compliance with Federal standards, policies, and protocols as they apply to acquisition, management, development, and maintenance of address data.
- Facilitate an Address Theme Governance Board that recommends to the Subcommittee actions and guidance on creating and maintaining the Address Theme to meet national requirements.
- Be aware of tribal, federal, state, and local emergency operations requirements for data processing and distribution capabilities to assure and facilitate data use when needed.

## LEAD AGENCIES

The US Department of Transportation and US Census Bureau are the co-lead agencies responsible for the identification, coordination, and dissemination of information on best practices, standards for data exchange, standards development, and use of geospatial data.

## MEMBERSHIP

The Address Subcommittee shall consist of both Members and non-voting Partners. Members and alternates will be solicited by the committee or designated by their respective agency.

**Members:** The Address Subcommittee shall consist of representatives from federal agencies that, as part of their mission, collect or finance the collection or aggregation of address data, and those same agencies that are legislatively mandated to directly apply these data in support of their missions. Each agency will have one vote in committee decision-making.

### **Partners:**

Non-federal individuals and organizations representing tribal, state, local, non-profit, and private sector interests may be added with the consensus of the Address Subcommittee voting members. These non-voting partners may engage in Address

Subcommittee discussions and offer information and opinions. Engagement with these partners is essential to the success of the Address Theme.

### **CHAIRPERSONS**

The chair or co-chairs shall be designated by the Subcommittee lead agencies. The role of the Subcommittee chair(s) is to provide leadership, direction, and to coordinate Subcommittee activities with other FGDC subcommittees, working groups, the FGDC Coordination Group and other appropriate venues.

### **SUBGROUPS**

The Subcommittee may create subgroups at the discretion of the Subcommittee Co-chairs to carry out its activities and meet its responsibilities. The establishment of subgroups of more than 12 months duration and the abolishment of any such subgroup requires the approval of the FGDC Coordination Committee. Participation in these groups may be drawn from both Member and Partners, but only Members may vote on Subgroup decision-making.

### **PROCEDURES**

Address Subcommittee meetings shall be held at the call of the Address Subcommittee chair(s) and shall be conducted at least semi-annually. Meetings may be held virtually or in-person with teleconferencing options. Agenda items will be coordinated with other subcommittee members, as well as with tribal, state and local partners. Subcommittee decisions shall be the outcome of consensus agreement among the Address Subcommittee voting members.

The Address Subcommittee will employ the tools best suited to meet its responsibilities such as Subcommittee meetings, national user forums, annual research initiatives, and cooperative venues.

### **REPORTS**

The Address Subcommittee shall develop an annual goals and objectives plan and provide it to the FGDC Coordination Group and FGDC Secretariat. The Address Subcommittee will also develop an annual summary of accomplishments. All progress documented as a result of Subcommittee activities shall be submitted to the FGDC Coordination Group and the FGDC Secretariat and posted on the committee's FGDC web page (<https://www.fgdc.gov>).

### **APPROVALS**

This Charter shall remain in effect until amended or replaced or until terminated by the FGDC Steering Committee.

Approved by FGDC Coordination Group vote on: \_\_\_\_\_  
date

Approved by FGDC Steering Committee vote on: \_\_\_\_\_  
date