



## The **Address Point Data Standard** for Minnesota Overview and Frequently Asked Questions

**Introduction.** Address points are a core geospatial infrastructure dataset for Minnesota. They are a foundational data layer for many types of analysis, mapping and applications development including emergency response, public safety, law enforcement, emergency notification systems, health and human services, planning and zoning, permit tracking, addressable structures documentation, geocoding, development and density measurement density and many other uses.



**The origin of address points.** Addresses originate primarily from the work of **city governments and county governments**. In Minnesota, **city councils** have legal authority to assign addresses (Minnesota Statutes §412.221, Subd. 18) and in practice, that action is then carried out on behalf of a city council by different city departments such as public works, planning or zoning.

**County governments** play an important role in assigning addresses in townships, unincorporated and unorganized areas of the state as well as aggregating data from their constituent townships and cities at the county level. Cities and counties are therefore the **authoritative sources** of address point data in the state.

The Address Point Data Standard is intended to be a common **reference** and **resource** for our professional geospatial community. This document seeks to answer many common questions about what the standard is, where it came from and how it can be of use to the state's geospatial professional community. Links to other resources and contacts are provided at the end of this document.



### **What is the Address Point Data Standard?**

As noted above, the Address Point Data Standard is intended be a **reference** and **resource** for the transfer, integration and aggregation of geospatial address point data in Minnesota. It establishes a common set of attributes and field definitions to encourage the efficient use, aggregation and transfer of address point data among geospatial data users. The range of

attributes contained in the standard is intended to facilitate its use for a wide variety of purposes.



### **Is the Address Point Data Standard a mandate on how to prepare address point data?**

**No.** The Address Point Data Standard does not and cannot mandate how data producers should capture, produce, store or use their address point data internally or in any way dictate how they meet their internal business needs for the data. The standard simply defines a series of desired attributes, their preferred names and widths and other features as reviewed and supported by the entire professional community. The standard does not dictate or mandate any internal agency uses and it does not direct which specific GIS format or projection system is to be used for the data.



### **What are the benefits of using this standard?**

Use of the standard would provide significant benefit and efficiency to anyone using address point data which comes from more than one source in Minnesota. When datasets have standardized attribute names, types, lengths, order, etc. the data is easier to combine, compare, aggregate and work with providing value and efficiency to end users and consumers.

There are many instances of agencies and interests who need to consume geospatial data from more than one source. A few examples include:

- *Cities who wish to consume the address point data of their neighboring cities or townships;*
- *Emergency services providers;*
- *State and regional agencies using address point data sourced from many cities and counties or encompassing numerous jurisdictions;*
- *Real estate interests and economic development staff researching parcel availability in a region;*
- *Delivery businesses who cover a larger service area covering many jurisdictions;*

Additionally, address point data can change frequently. New addresses are continually being assigned, and existing addresses can be renumbered, or retired. An agreed upon standard for this data serves to streamline the process of sharing and merging data meaning aggregated datasets can more easily be kept up-to-date. Anyone creating new address point data can also make use of this standard as a template to assist them. For example, a municipality that does not yet have address point data could have a ready-made standard to follow without having to research or create one from scratch.



## Where did this address point standard come from?

The data specifications for the Address Point Standard are derived primarily from the Content portion of the ***United States Thoroughfare, Landmark, and Postal Address Data Standard***, which has been endorsed by the Federal Geographic Data Committee (FGDC). These specifications also draw from the National Emergency Numbering Association (NENA) geospatial data standards that are in draft format as this specification was being developed. Additional data elements have been added to satisfy the specific needs of the Minnesota geospatial community.

This Minnesota ‘flavor’ of the federal standard has its origin in the **MetroGIS Address Point Data Specification** and is strongly informed by the more recent development of the **NextGen9-1-1 Address Point Standard**.

The MetroGIS collaborative—a partnership of interests in government, private sector, non-profits and academia operating in the Seven Metropolitan Counties—began to develop an address point standard to meet their expressed needs in 2004. Work at the federal level on a standard through the FGDC and Urban and Regional Information Systems Association (URISA) commenced in 2005. The Metro effort then aligned with the content of the federal effort and issued a draft address standard in 2006.

By 2010, both the FGDC and MetroGIS Address Working Group had released their initial standards, with much of the metro standard taking its core structure and attributes from the FGDC model. The FDGC formally approved their standard in 2011.

In 2015, the state NextGen9-1-1 effort began, to develop data standards to help satisfy the needs of the emergency services sector using the NENA (National Emergency Number Association) data standards as their starting point.

In August 2016, the Metro and 9-1-1 interests convened in St. Paul to compare and discuss their two address point standards. The Metro partners decided to further modify their existing standard to better align with the needs of the 9-1-1 stakeholders. Subsequent discussions led to the realization that ***a single, statewide address point standard*** could be developed from the Metro and 9-1-1 standards to meet the range of core business needs.

In May and June 2017, the NextGen9-1-1 project team published their standards for an additional round of review and comment. All comments received from this round related to address points will be considered for the Address Point Data Standard.

As of June 2017, the Metro Address Point Standard and NextGen9-1-1 Address Point Standards were effectively merged into a single standard. The Geospatial Advisory Council's Standards Committee reviewed the draft standard at its meeting on June 21, 2017 and approved its release to the stakeholder community for a formal 60-day review period beginning on **Monday, July 24, 2017** and ending on **Friday, September 22, 2017**.



### **My agency may not have all the attributes that are listed in the standard. Are we required to complete all the fields?**

**No.** An organization using the standard is not required to populate every attribute field. There are three categories of inclusion identified with the standard: **mandatory**, **conditional** and **optional**. To comply with this standard, in addition to the address point itself (the geometric point), all mandatory fields must be populated as well as all conditional fields where they apply. For example, West 7<sup>th</sup> Street has the pre-directional "West". For an address on this street, the conditional field 'Street Pre-Directional' must be populated to comply with the standard.

These three categories are defined as follows:

**Mandatory Element:** The attribute must be populated with a value; null values or blank fields are not acceptable.

**Conditional Element:** The attribute is to be populated if possible and available. For a conditional element, null values are valid for addresses where a given attribute does not apply. For example, if an address is simply '**616 7<sup>th</sup> Street**' with no directional indicator such as 'Northeast', then the directional indicator needn't be populated.

**Optional Element:** The attribute may be populated at the discretion of the data provider or authoritative source. Presence of the attribute is not essential to the functionality of the dataset, but would add value and expands the functionality of the dataset.



### **How can my agency translate our data to this format?**

There are numerous state and regional governments engaged in developing scripts to help automate the process of data aggregation and standardization. As these agencies develop these scripts, they are often willing to share their code with city and county partners who create address point data. To assist the stakeholder community with their review and analysis of the standard, both a geodatabase template and a sample dataset (featuring address points in Dakota County) that matches the standard are available from the Address Point Data Standard webpage on the MnGeo website:

[http://www.mngeo.state.mn.us/committee/standards/address/address\\_standard.html](http://www.mngeo.state.mn.us/committee/standards/address/address_standard.html)

If this Address Point Standard is finalized and approved, a potential next step would be the publication, refinement and use of these translation scripts for our entire geospatial professional community. While important, that aspect of the work is secondary to the collection, documentation, review and response to comments on the standard itself.



### How is the **Postal Community Name** attribute different than the **Municipal Jurisdiction Name**?

The Municipal Jurisdiction Name element represents the **city** or **township** *municipal division* in which a specific address point is located. The Postal Community Name element represents the default city name defined by the U.S. Postal Service for the address. The USPS defines a default city name for each ZIP Code. In many places, this will be different than the name of the city or township in which the address is physically located. For example, addresses within the cities of Hermantown and Proctor use the ZIP Code of 55810, but the USPS default city name for this ZIP Code is Duluth. Thus, the Postal Community Name for addresses within Hermantown and Proctor is Duluth. The default city name for a given zip code can be found using this USPS form: <https://tools.usps.com/go/ZipLookupAction!input.action?mode=2&refresh=true>



### How does a data producer handle inclusion of the **MSAG Community** attribute?

MSAG stands for Master Street Address Guide. A Master Street Address Guide is a database of street names and building number ranges within a community which facilitates the proper routing of emergency 9-1-1 calls. The MSAG Community attribute should match the community name provided in the corresponding MSAG in use in your jurisdiction. In an MSAG, there is a single community name field that can be populated with a Postal Community name, a CTU name (City, Township, Unorganized Territory), or whichever name is commonly in use and associated with your 9-1-1 system.



## What is the difference between an address point and a parcel centroid?

A **parcel centroid** is simply a point representing the center of a given parcel polygon which may or may not contain all the address information within the parcel. Address data or other attribute data can easily be linked to this point geometry as needed.

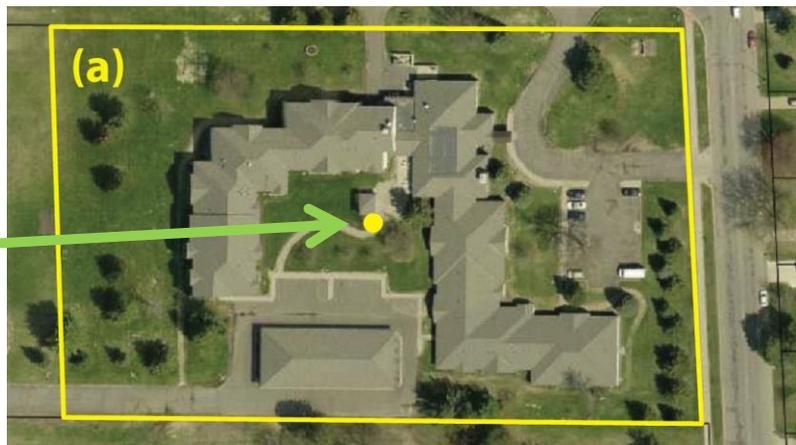
A parcel may contain multiple **address points** which can be placed on several types of locations, for example, on the parcel centroid, on a situs address (including on a building within the parcel), on the building's doorstep, on the driveway entrance point or other feature. Address point attributes typically contain more detailed address information.

A **situs address** (*situs* being Latin for 'position' or 'site'; a place where something physically exists or originates from) is the **physical address** of a property, building or structure. A parcel can have only one centroid (center point) but can potentially have many situs addresses (sites, buildings or structures) each with a unique address.

Both **address point** and **parcel centroid** geometry (points) can be used to represent a situs address. A parcel can also contain more than one address. In these cases, use of the parcel centroid by itself may not be the most effective means to display and account for all the addresses present.

A simple example of the difference between **parcel centroids** and **address points** is displayed in the two images below.

The single parcel shown in (a) contains a large interconnected building, a stand-alone building and two points of entry. The parcel centroid shown in (a) occurs in the **middle** of that parcel. An address for the *entire parcel* could be associated with that point, such as '**1500 Skylark Lane**'



The example shown in (b) illustrates each unique building situs within the parcel.

Each point might have its own address such as **'1500 Skylark Lane, Building 1, Unit 1'** or **'1500 Skylark Lane, Building 2'** and so on.



**Mailing address.** An additional attribute potentially associated with an address point that can differ from its **situs address** is its **mailing address**. The mailing address can also be known as the 'owner address' or 'taxpayer address'.

For example, a person who has their primary residence in the City of St. Paul may own a cabin or hunting land in the Town of Kalevala in Carlton County. The **situs address** (address of the physical site) would be associated with the parcel in Carlton County, such as:

**2727 County Road 35  
Barnum, Minnesota 55707**

However, the **mailing address** (a.k.a. the owner or taxpayer address) of this parcel would instead be their home address in St. Paul; this is where they receive their property tax bill.

It is not uncommon to see parcels in Minnesota with an owner/taxpayer address outside of the state. As a specific example, many parcels owned by the natural gas utility Center Point Energy have their mailing/owner/taxpayer address listed as Houston, Texas (*where the company's headquarters are located*) even though the parcels they own are physically located in Minnesota.



### **Who is guiding the development and review of this standard?**

This standard has emerged in response to the need to create **a single address point standard that meets the core needs of the data user community**. One of the primary needs is the data needed for the NextGen9-1-1 effort, however many other business needs can also be satisfied by data in this standard.

The Standards Committee—under the aegis of the Minnesota Geospatial Advisory Council—is tasked with ***facilitating the process*** by which geospatial standards such as the Address Point Standard can be developed in a transparent, inclusive, and stakeholder-driven way.

This process includes:

- *Understanding, defining, and documenting the business needs to be met by a standard;*
- *Developing and documenting the attributes needed to meet those needs;*
- *Publishing and disseminating documentation back to the stakeholders;*
- *Preparing sample datasets and resources to assist stakeholder review;*
- *Providing on-going outreach and facilitating communication among the stakeholders;*
- *Providing stakeholders an opportunity to submit comments on developing standards;*

The Standards Committee Charter, as approved by the Geospatial Advisory Council in March 2017, clearly indicates the role of the Committee as the following:

- *To provide a transparent and inclusive process by which geospatial data standards can be proposed, discussed, refined, developed, communicated, adopted, and revised to the benefit of the geospatial profession in the State of Minnesota;*
- *To develop materials, resources, and paths of communication to promote the development, adoption and use of standards within the geospatial community of Minnesota;*
- *To advise the state geospatial community about relevant standards issues and facilitate the creation and adoption of such standards within Minnesota;*
- *To serve as liaisons to standards initiatives at the Federal government level;*

Contact information for key individuals involved with the Standards Committee and other related agencies are provided at the end of this document.



## **Why was this standard published for a 60-day review and comment period during 2017?**

A 60-day review period for any proposed standard is essential. It provides a formal opportunity for stakeholders to fully review the proposed standard and most importantly, to provide comments back to the Standards Committee on how to modify or improve a proposed standard. The Standards Committee greatly values the comments it receives from our professional community and takes these comments into serious consideration for potential revisions, changes and additional review. The Standards Committee fully documents the comments received as part of the official record of a standard's development.



## **Who can I contact if I have additional questions?**

Contact information for key individuals involved with the Standards Committee are available on the [GAC web site](#).

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