

MetroGIS Address Working Group - Meeting Minutes

Wednesday, August 31, 2016, 1 PM - 3:30 PM

Metro Counties Government Center, 2099 University Avenue, St Paul



Meeting Minutes (Draft)

Attendees:

Nancy Read, Metro Mosquito Control Board
Dave Brandt, Washington County
Jon Hoekenga, Metropolitan Council
Adam Iten, Emergency Communications Network
Cory Richter, City of Blaine
Gordy Chinander, MESB
Kent Tupper, Dakota County
Ben Verbick, LOGIS
Tanya Mayer, Metropolitan Council
Matt Koukol, Ramsey County

Mark Kotz, Metropolitan Council (Chair)
Geoff Maas, MetroGIS
Joel Koepp, City of Roseville & North St. Paul
Dan Ross, MnGeo
John Slusarczyk, Anoka County
Bob Basques, City of St. Paul
Todd Lusk, Dakota
Marcia Broman, MESB
Matt McClees, Scott County

1) Welcome & Introductions

Chair Kotz welcomed the members to the meeting, and encouraged everyone to introduce themselves.

2) Approve Meeting Agenda

No changes to the agenda were advanced by the group; Motion to approve: Verbick; Second: Brandt
Agenda approved unanimously.

3) Housekeeping Update to MetroGIS Address Specification (Kotz)

Chair Kotz described his recent review of the updated FGDC Address Standard, specifically the changing of numerous element numbers, and how these have been updated in the metro address specification. He cited the assistance of Marcia Broman (MESB) and thanked her for her attention and work to review the documents. Kotz indicated that the central purpose of today's meeting was to review the existing specification in light of the new business needs of the 911 community and find a way to align the two specifications to work more closely together.

4) Overview of MN 9-1-1 Address Points Standard Effort (Iten)

Adam Iten (Emergency Communications Network) gave a brief presentation on the current status and future direction of the NextGen911 initiative.

Iten described the transition from land line technology to enhanced 911 mobile technology and its impact to how the data is stored and used by the dispatch systems, in particular, how county master MSAG lists are to incorporate GIS into their updating and maintenance.

Iten further elaborated on the current process of working with partners across the state to develop a 911 specification for road centerlines and address points. The 911 standard is taking much of its structure from the draft NENA standard and is working to align with the developing MRCC specification and dataset. The Minnesota 911 effort is looking at the work of other states and how they are meeting the needs of fire, law, emergency and NextGen 911 to develop their standard. The Minnesota effort has prepared a detailed spread sheet comparing the developing 911 standard with MRCC, other states and

NENA. A cross-comparison with neighboring states and review of their standards is underway to determine how they align.

The standard in development has been put out for review, with over 300 comments collected. Another review period is anticipated. Additional work will be focused on provisioning GIS for ECRF/LVF Services; although portions of this are an 'unknown' at this time, we will work with the information on that as it comes in, especially information from the vendor community.

Iten indicated that a Version 1.0 of the NextGen standard is anticipated to be complete and hopefully approved by early 2017. The approval process will be lengthy, as MESB will need to sign off on it, followed up approval by the 911 GIS Subcommittee, the NextGen911 Subcommittee, the Statewide Emergency Communications Board, the Geospatial Advisory Council and finally MN.IT Services. Ideally these approvals will take place in 2017 and we can be in maintenance mode by sometime in 2018.

5) Proposed Changes to MetroGIS Specs to Align with 9-1-1 Specs (Kotz)

Overview and context. Kotz provided some contextual background on the development and use of the current metro address standard. After years of work and development, and using the FDGC materials as a template and starting point, a version of the metro address specification was approved in 2010, shortly before the FDGC approved their address standard in 2011. The Address Point Editor tool was developed with the metro address specification at its core. In 2015, the metro group did some additional work making some minor updates and revisions to their standard. The FDGC standard was recently updated, however, upon review by Kotz, none of the FDGC standard modifications impacted the metro specification. Kotz indicated that NENA was a contributing participant in the development of the FDGC standard and that NENA does, however, deviate in some aspects from the FDGC standard.

Kotz provided a point-by-point presentation of each element of the existing specification with recommendations and suggestions for revision to more closely align with the emerging needs of the NextGen 911 effort. Kotz indicated that he met previously with Iten and Broman to come up with an agreement and some specific changes and recommendations to make this alignment feasible.

In aligning the metro specification and the 911 address point standard, we want it to be as compatible as possible; a strong business needs driver is to match with and work with the 911 needs. The standard does not have to be identical, but we do wish to align them as closely as possible to meet the range of uses and needs.

Modifications to the Metro Address Specification. Kotz indicated that many of the changes are simple cases of *modifying a field width*, in general, 911 needs larger (wider) field widths (with one exception where a smaller width is needed) and most other changes include *modification of the name of the attribute* in the metro specification where 911 is using a clearer or more easily understood column (field) name. Others include adding elements to the metro specification for attributes that are needed by the 911 users.

Kotz indicated that in his recent review, he examined the alignment of the attribute categories. Three (Optional, Conditions and Mandatory) were in use by 911; however, the metro makes use of only two (Optional and Unspecified), and the proposed changes align these categories in a more cohesive and useful way. Kotz also specified that 911 has a handful of additional elements that are not currently represented in the metro specification.

Kotz described the most significant changes as being the following:

- How to treat the Address Separator attribute
- Modifying the County Code format from a 3 digit to a 5 digit code
- Positional accuracy indicator/placement method

He further indicated that we would discuss each of these in detail later in the meeting.

>> Field widths. Kotz presented the group with the suggested modifications to the changes to the widths of the fields, these were determined **as acceptable changes to the metro address specification and approved by the group.** This included the consistent “rounding up” of any fields using a width of 254 to 255 to align with the 911 field widths.

>> Address Separator Element. Kotz provided the background of the FDGC having created an address separator element to accommodate three different use cases, these being:

- To accommodate the separator in an intersection address (Ninth **and** Hennepin);
- The use of a dash (a dash can be incorporated as part of an address number, e.g. **61-63** Skylark Lane for a multi-unit structure, the dash would be held in the separator);
- A prepositional phrase (e. g. ‘Avenue **of the** Stars’), the prepositional phrase ‘of the’ is the separator;

Prior discussions at the metro level resulted in just using a width of one (1) as the other examples let’s were not seen as relevant to the known use cases of the metro during the development of the metro address specification.

Address Separator Element Recommended Change: *Make the attribute: Text with a Width of 20;*

Kotz: The NENA and 911 approach makes more sense, if that is national for 911, if that is a compelling business driver for us to align with. In instances where address range example occurs, we can modify it to place the dash with the Number Prefix or Suffix as needed.

Tupper: Number is still part of the text, we do have instances where something like “-A” would go in the suffix. This would echo what we’re doing now, it is rare, but we do have a few that would need to be dealt with.

Final decision was to *align with Align with how NENA/911 is using the Address Separator Element and to use text, width 20.*

>> **Positional Accuracy Indicator.** Kotz outlined the current differences between the metro and 911 specifications. The metro came to an agreement in 2015 and developed the following domain of nine (9) values:

Metro Positional Accuracy Indicator

Code	Value
0	Unknown;
1	Parcel polygon centroid or random placement within parcel polygon;
2	Aligned to doorstep based on aerial photo;
3	Placed on correct building, not necessarily on doorstep;
4	Placed over the portion of building in which the unit exists;
5	Driveway entrance from road;
6	Preliminary location for new address created without aid of parcel boundary, air photo, etc.;
7	Preliminary location based on digital pre-final plat;
99	Other;

NENA has a similar element called **PLACEMENT METHOD**, which contains six values;

- Geocoding;
- Parcel;
- Property Address;
- Structure;
- Site;
- Unknown.

Kotz asked the group if it would like to switch from the metro domain of values to NENA. Would using the NENA values meet our use cases and needs? Our metro element that is more descriptive and it might add more values.

Tupper: It would be very helpful if we had the definitions of NENA items, they don't seem specific enough; ours (metro) are quite detailed.

Iten: NENA has a placement document resources that provides definition of their terms.

Chinander: I have the most current copy of that document, I am willing to share it.

Kotz: Yes, Gordy please send that to me so we can distribute it to the group.



Task Item:

Chinander to send Kotz the NENA address point placement document for posting to the group for review.

Basques: I am interested in how it would treat sites like campuses which usually has one primary address or in other occasions, each building has its own address, this is a challenge for emergency management.

Iten: Maybe we can't decide on this specifically today, let's review the NENA definitions, see how they align with what you've come up with in the metro and think about it a bit.

Kotz: After we've had a chance to review the NENA material, perhaps we can proposed something and make a decision via email.

>> County Code. The metro address specification currently carries only the 3 digit county (ANSI) county code instead of the complete 5 digit code (which includes the state prefix). The county code in either the 3 or 5 digit format is beyond what is needed for or used by the NENA standard, however, inclusion of the state prefix (27) makes the data more usable to data consumers outside of Minnesota and is consistent with what we are doing with the MRCC and 911 centerlines efforts.

Proposal: Add the 27- prefix to the county code attribute

Code	Value
27003	Anoka County
27019	Carver County
27037	Dakota County
27053	Hennepin County
27123	Ramsey County
27139	Scott County
27163	Washington County

Final decision was to *add the state number prefix (27) to the attribute to match the other (MRCC, 911 centerlines) efforts.*

>> Renaming and Modifying Existing Attributes to Align with 911. In the development of the metro address specification, each city had its own ID for its own internal business purpose. The metro specification also carried a national unique ID for other user. This formal unique ID would comply with FDGC and the NENA standard.

The following changes to the metro address specification were approved by the Work Group.

Rename **ADD_ID_NATT** to **UNIQUE_ID**, expand its width to 100

Rename **ANUMBERSEP** to **ASEPARATOR** to match NENA.

Address Number: The metro uses 10, NENA/911 needs 6. To anyone's knowledge we do not have any instances where an address number exceeds 6. **Group decision: *Reduce width to 6.***

Sub Address Elements: NENA and FDGC treat these differently. FDGC and subsequently the metro specification have pairs of repeating generic elements, (where APARTMENT, BUILDING, etc. and a corresponding number can be used) whereas the NENA standard has identified specific *types* such as BUILDING, FLOOR, ROOM, SEAT etc.

Kotz iterated that the NENA/911 approach seems to limit the type of 'type' possible and doesn't comply with FDGC standard and expressed concern as to if we (metro users) can use the NENA approach. Until the NENA standard is finalized he indicated that it might be best to not change to that format yet.

Kotz advanced a recommendation that the metro not change what it is doing until there is a final NENA Standard approved. This was agreed to and approved by the work group. Marcia Broman recommended that the work group look into developing a list or domain of the possible values that could be used.

Postal Community: A recommendation to change the metro attribute to **POSTCOMM** (from **USPS_PLACE**) to match the 911 and MRCC specifications was advanced and approved.

Landmark Name: Within the NENA standard, there is landmark and complete landmark name, we propose one element that combines them all. If there are two landmarks at one address (rare, but possible) they could be concatenated in one field. **LANDMARK** will be known as Complete Landmark Name and have a width of 150 to be consistent with NENA. This was unanimously approved.

Source: MRCC, NENA and 911 are all using **SOURCE** (*this lists the direct source of the data*). Changing the metro specification to match this was approved unanimously.



Task Item:

Todd Lusk (Dakota County) recommended determining if SOURCE is a reserved word in SQL.

If “**SOURCE**” is a reserved term in SQL another column (field) title may need to be considered by the work group to represent the attribute.

Edited Update: A recommendation to change the metro attribute Updated Date to Edited Date and column (field) header **EDITED_DR** (from **UPDATEDATE**) to match the 911 and MRCC specifications was advanced and approved.

XML formatting template: Based on the assumptions in 2010 about XML transfers, it was asked if carrying the XML was still needed. Bob Basques of St. Paul indicated that they still make use of it, so it was determined to maintain the XML formatting template.

Additional 911 Attributes: Kotz listed the range of additional attributes sought by the 911 stakeholders and asked the work group if it desired to carry these as part of the metro specification. He noted that three (3) of these additional attributes were termed as are mandatory, carry these fields unless they can be automatically calculated.

(Please see full table on next page)

Additional 911 elements not included in MetroGIS Specs

FGDC Name	MN 911 Element Name	911 Database Field Name	911 Data Type	911 Width	MN 911 Domain	911 Inclusion
	Not Centerline Geocodable	NOC_GEO	Text	7	Yes, No, Unknown	Mandatory
<i>Address Start Date</i>	Effective Date	EFF_DATE	Date			Conditional
<i>Address End Date</i>	Expiration Date	EXP_DATE	Date			Conditional
	Emergency Service Number	ESN	Text	5		Mandatory
	MSAG Community Name	MSAG_C	Text	30	Y	Mandatory
	Additional Data URI	ADDDATAURI	Text	254		Conditional
	Milepost	MILEPOST	Text	150		Conditional
	Place Type	PLACE_TYPE	Text	50	Y	Optional
	Elevation	ELEV	Long Integer	6		Optional
	Legacy Street Prefix Directional	LST_PREDIR	Text	2		Conditional
	Legacy Street Name	LST_NAME	Text	75		Conditional
	Legacy Street Post Type	LST_POSTYP	Text	10		Conditional
	Legacy Street Post Directional	LST_POSDIR	Text	2		Conditional
	US National Grid Code	USNG_CODE	Text	10		Optional

Several of the attributes were discussed as to what they specifically contained and if they were relevant to the needs of the metro stakeholders.

Not Centerline Geocodable (NOC_GEO): These were defined as address points that do not correspond to any adjoining or nearby centerline data set, this attribute would be able to flag/identify those. Examples would include maintenance of historical addresses or addresses derived from alleys, retired streets, 'landlocked' parcels or other special cases. These would be addresses that resist common attempts to be geocoded via usual methods. It would be up to the address authority to make the determination if an address qualifies for a 'Yes' designation as a Not Centerline Geocodable address point. This would also be a way of flagging valid MSAG addresses that do not correspond to a centerline for 911 routing and dispatch purposes. *The group approved including NOC_GEO*, but did not make it mandatory.

Address Start and End Date (EFF_DATE, EXP_DATE): Item indicated that if a start date is not known (applicable to already existing data) that the group might agree to use the same selected start date. Any new point would carry the date it was added to the dataset. The dataset could potentially maintain retired addresses, and individual address authorities would have the ability to review and reuse/re-issue addresses if it saw fit. The Metropolitan Council agreed to examine the possibility of creating an annual address point dataset (time stamped, end-of-year) in the same way it does for the Metro Regional Parcel Dataset.

Emergency Service Number (ESN): The group discussed the merits of having this attribute auto populated by the MESB or the state and local authorities if the local agencies do not know their ESN. County GIS offices likely have the ability to auto-populate the ESN attribute, so it was agreed to be included in the metro specification as mandatory.

Additional URI (ADDDATAURI): This is not a mandatory field. The local address authority can decide to include this or not, it is effectively a Conditional attribute. **It was decided to by the group to leave this out of the metro address specification.**

Milepost (MILEPOST): **It was decided to by the group to leave this out of the metro address specification as it did not meet any business need.**

Place Type (PLAETYPE): **It was decided to by the group to leave this out of the metro address specification as it was determined that this would be a 'maintenance nightmare'.** The attribute LANDMARK could be used to contain and carry any place type description that was needed.

Elevation (ELEV): **It was decided to by the group to leave this out of the metro address specification.** Elevation in this attribute refers to meters above mean sea level. If it was needed in the future, it could be generated via automated routine.

Legacy Street attributes (LST_PREDIR, LST_NAME, LST_POSTYP LST_POSDIR)
It was decided to by the group to leave these attributes out the metro address specification.

U. S. National Grid Code (USNG_CODE): **It was decided to by the group to include this attribute in the metro address specification and to expand the field width from 10 to 15.** The USNG could potentially be auto-generated and auto-populated. It was noted that in some instances the USNG signs get put in as an addresses, however, the current dispatch software packages cannot yet handle USNG coordinates.

<< End of changes to metro address specification >>



Task Item:

Work Group char Mark Kotz agreed to revised the standard draft and distribute it out the group for further consideration.

6) Implications for Updating the Address Editing Tool

Kotz indicated that revising the metro specification would potentially have implications for the editing tool that is presently in use by the counties of the metro. Kotz added that the Metropolitan Council and MetroGIS perspective on the issue is that it is up to the counties if they wish to change or update the Address Editing Tool and would be up to the counties to drive that initiative. Kotz encouraged the counties to assess their current use of the tool and bring a recommendation to MetroGIS about what direction they want to go with it.

Koukol: Some changes would certainly be needed, I think we should look at moving forward. Very likely a small amount of money would be needed to commit to the work of tweaking the existing tool

Ross: I will mention that there will be a statewide tool available coming soon for those who may want to use a tool but don't have or cannot afford an ArcServer license as is required by the metro address editor tool.

Kotz: Again, we'll leave that with the metro counties to discuss and see what they want to do.

7) Aggregation Update

Jon Hoekenga gave a short re-cap of the recent address point aggregation work. A sub-group was working on aggregation until late 2015. The group came up with different strategies, with the main goal of reducing duplicate processes in development at the state level. At present, the group is waiting for a formal long-term solution to be developed by MnGeo that aligns aggregation and validation with the larger statewide 911 effort including centerlines.

Metropolitan Council staff is currently performing a bi-annual (2x/year) collection from the counties of the metro region and a manual aggregation process until a more permanent solution is decided and acted upon.

Read: What is the status of the address point data in Anoka and Washington Counties? At last check those two counties didn't have address points in the aggregated metro dataset?

Brandt: In Washington we have no address points, save for the City of Woodbury and a number of senior assisted living facilities around the County. At this time we have no department with the commitment to step forward and make the points happen. At the county level, we really have no traction with this. We requested a position be filled for this in our GIS department, but we were denied. Another big consideration is the maintenance question; keeping it going.

Slusarczyk: We are in essentially the same boat in Anoka County, we have not deployed the Address Point Editor and have not addressed what would be involved with the long-term maintenance.

Broman: I will mention that we (MESB) are currently performing snapshot validations now of all the address points we can acquire. We find these to be very beneficial to our work. We currently pull them from each county, at some point in the future we would like to acquire the aggregated standardized dataset, in the same way we envision getting and using the MRCC data.

Ross: Also, we (MnGeo) will be putting out a Request for Information for a conflation tool and aggregation procedure solution. We hope to have access to these tools by the beginning of next year

(2017). I don't know if these will be available beyond the state agencies at this point. We are in the process of writing the functional requirements for this. This would help us when we pull things into the portal.

8) Review Action Items

Geoff Maas served as note taker for the meeting and reviewed the specific major action items with the group, these included:

- **Approval of name changes and field width changes as recommended by Kotz/Iten/Broman;**
- **Chinander to send Kotz the NENA address point placement document for posting to the group for review;**
- **Kotz, et. al. to organize a conference call or facilitate an email exchange to determine how the point placement attribute will be implemented in the metro standard based on review of the NENA definitions;**
- **Todd Lusk (Dakota County) to determine if "SOURCE" is a reserved word in SQL, if so, an alternate term needs to be agreed upon;**
- **Work Group char Mark Kotz agreed to revise the metro standards document based on the changes and revisions agreed to on August 31 and to distribute it out the group for further consideration and approval;**

9) Adjourn

Kotz asked the group if there were any additional questions or comments, hearing none, Kotz adjourned the meeting at 2:48 pm;