Meeting Agenda

Technical Panel
Tuesday, February 10, 2015 at 9:00am
Varner Hall - Board Room
3835 Holdrege Street
Lincoln, NE

9:00am	1. Roll Call, Meeting Notice & Open Meetings Act Information 2. Public Comment 3. Approval of Minutes* - December 9, 2014	Chair
9:05am	4. Enterprise Projects a. Project Status Dashboard b. Project Update 1. DHHS - Medicaid Eligibility & Enrollment System (Eric Henrichsen)	A. Weekly
9:25am	5. Standards and Guidelines a. Recommendations to the NITC 1. NITC 3-205: Street Centerline Standards (New)* 2. NITC 3-206: Address Standards (New)* b. Requests for Waiver 1. Dismiss all pending waiver requests related to NITC 7-104 (Department of Economic Development; Nebraska Wheat Board; Nebraska State Historical Society; andCapitol Commission)*	R. Becker
9:45am	6. Work Group Updates and Other Business	Chair
9:50am	7. Adjourn (Next Meeting - March 10, 2015)	Chair

* Denotes action items

The Technical Panel will attempt to adhere to the sequence of the published agenda, but reserves the right to adjust the order of items if necessary and may elect to take action on any of the items listed.

Meeting notice was posted to the NITC website and Nebraska Public Meeting Calendar on December 15, 2014. The agenda was posted to the NITC website on February 6, 2015. Nebraska Open Meetings Act

TECHNICAL PANEL
Tuesday, December 9, 2014 at 9:00 a.m.
NET Boardroom
Nebraska Educational Telecommunications
1800 N. 33rd St.
Lincoln, NE
MINUTES

MEMBERS PRESENT:
Walter Weir, CIO, University of Nebraska, Chair
Brenda Decker, CIO, State of Nebraska
Christy Horn, University of Nebraska
Kirk Langer, Lincoln Public Schools

MEMBERS ABSENT: Michael Winkle, Nebraska Educational Telecommunications

ROLL CALL, MEETING NOTICE & OPEN MEETINGS ACT INFORMATION

Mr. Weir called the meeting to order at 9:02 a.m. A quorum was present to conduct official business. Meeting notice was posted to the NITC website and Nebraska Public Meeting Calendar on November 7, 2014. The agenda was posted to the NITC website on December 7, 2014. A copy of the Nebraska Open Meetings Act was posted on the wall of the meeting room.

PUBLIC COMMENT

There was no public comment.

APPROVAL OF MINUTES*

Ms. Horn moved to approve the October 14, 2014 minutes as presented. Mr. Langer seconded. Roll call vote: Langer-Yes, Weir-Yes, and Horn-Yes. Results: Yes-3, No-0, Abstained-0. Motion carried.

Ms. Decker arrived.

PROJECT PROPOSALS - 2015-2017 BIENNIAL BUDGET - SUPPLEMENTAL REVIEWS*
(**Project summary sheets** and **Full text of the projects)**

Approval of New Reviewer

Ms. Horn moved to approved Tod Wyrick as a reviewer. Mr. Langer seconded. Roll call vote: Langer-Yes, Weir-Yes, Decker-Yes, and Horn-Yes. Results: Yes-4, No-0, Abstained-0. Motion carried.

The members reviewed each of the projects. The following individuals were available to discuss their agency's projects: Dean Folkers and Brent Gaswick, Department of Education; and Bill Wehling, Department of Roads.

Through discussion and by consensus, the panel made the following comments on the projects:

Project	Q1	Q2	Q3	Comment
13-01	✓	UNK	UNK	The specific, agreed upon, technology to be utilized for this project is unknown at this time.
13-02	✓	UNK	UNK	The specific, agreed upon, technology to be utilized for this project is unknown at this time.
13-03	✓	UNK	UNK	The specific, agreed upon, technology to be utilized for this project is unknown at this time.
27-01	✓	✓	UNK	
27-02	✓	UNK	UNK	Unknown until a specific technology is chosen for the project.
27-03	✓	✓	✓	

Q1: Is the project technically feasible?
Q2: Is the proposed technology appropriate for the project?
Q3: Can the technical elements be accomplished within the proposed timeframe and budget?
✓=Yes; ×=No; UNK=Unknown

Mr. Langer moved to approve the supplement project reviews. Ms. Decker seconded. Roll call vote: Langer-Yes, Weir-Yes, Decker-Yes, and Horn-Yes. Results: Yes-4, No-0, Abstained-0. Motion carried.

ENTERPRISE PROJECTS
Andy Weekly, Office of the CIO, Project Manager

Project Update

DHHS - Medicaid Eligibility & Enrollment System
Eric Henrichsen, DHHS.

Mr. Henrichsen provided an update to the Panel on the status of the project. The project has a steering committee. The issues facing the project at this time are not technical. Some of the activities include: improving process documentation; improving meeting minutes; ensuring coordination between the vendors; ensuring coordination between the state and the vendors; and use of an integrated master schedule. To date, the expenditures have been primarily for hardware and software.

Project Status Dashboard. Mr. Weekly reviewed the dashboard report. Members discussed the NeSA project and asked Mr. Weekly to follow-up with the agency on questions raised by the discussion.

STANDARDS AND GUIDELINES

Recommendations to the NITC

These standards were tabled at the last meeting to allow the GIS Council to review the comments received during the 30-day comment period. The GIS Council comments and recommendations were linked to the agenda. Mr. Watermeier addressed the Panel and was available for questions.

NITC 3-205: Street Centerline Standards (New)*
(Comments | GIS Council Comments)

Ms. Horn moved to revise NITC 3-205: Street Centerline Standards (New) as recommended by the GIS Council and repost the draft document for another 30-day comment period. Mr. Langer seconded. Roll call vote: Langer-Yes, Weir-Yes, Decker-Yes, and Horn-Yes. Results: Yes-4, No-0, Abstained-0. Motion carried.

NITC 3-206: Address Standards (New)*
(Comment | GIS Council Comments)

Ms. Decker moved to revise NITC 3-206: Address Standards (New) as recommended by the GIS Council and repost the draft document for another 30-day comment period. Mr. Langer seconded. Roll call vote: Langer-Yes, Weir-Yes, Decker-Yes, and Horn-Yes. Results: Yes-4, No-0, Abstained-0. Motion carried.

Requests for Waiver

Department of Economic Development - Request for Waiver from the requirements of NITC 7-104*

Nebraska Wheat Board - Request for Waiver from the requirements of NITC 7-104*

Members discussed the waiver requests. It was suggested that the requests be tabled and the Office of the CIO work with the submitting agencies to determine if the issues can be resolved.

Ms. Horn move to table the waiver requests from the Department of Economic Development and Nebraska Wheat Board until the next meeting. Ms. Decker seconded. Roll call vote: Langer-Yes, Weir-Yes, Decker-Yes, and Horn-Yes. Results: Yes-4, No-0, Abstained-0. Motion carried.

ELECTION - TECHNICAL PANEL CHAIR FOR 2015*

Ms. Decker nominated Walter Weir to serve as the Technical Panel Chair for 2015. Mr. Langer seconded. There were no other nominations. Roll call vote: Langer-Yes, Weir-Abstain, Decker-Yes, and Horn-Yes. Results: Yes-3, No-0, Abstained-1. Motion carried.

WORK GROUP UPDATES AND OTHER BUSINESS

There were no work group reports.

ADJOURNMENT AND NEXT MEETING

The next meeting of the NITC Technical Panel will be held on Tuesday, February 10, 2015 at 9 a.m.

Ms. Decker moved to adjourn. Ms. Horn seconded. All were in favor. Motion carried.

The meeting was adjourned at 10:55 a.m.

Meeting minutes were taken by Rick Becker of the Office of the CIO.

Nebraska Information Technology Commission
Enterprise Project Status Dashboard – as of February, 2015

Project: **LINK – Procurement**				Contact: **Bo Botelho**		
Start Date	01/14/2013	Orig. Completion Date	10/31/2013	Revised Completion Date		Pending
	February	December	October	September	July	May
Overall Status						
Schedule						
Budget						
Scope						

Project Description

Workday Procurement standardizes business processes for procurement documents. Workday Procurement will be the data entry location for all procurement documents (requisitions, purchase orders and contracts). Approvals and printing of the documents will be processed in Workday. Selected supplier websites will be available for access to state contracted pricing through punch-out capability. Purchase Orders will be interfaced in to the State's financial system for encumbering, receipts, and accounts payable. Suppliers will be available for selection in Workday and their associated commodities and procurement contact information will be maintained within Workday.

Project Estimate: $1,895,800 ($1,624,009.27 has been expended)

Comments

The Workday Procurement project has been suspended. The Department will continue to prioritize the current upgrading of the EnterpriseOne financial system and ongoing support of the existing HCM solution.

Nebraska Information Technology Commission
Enterprise Project Status Dashboard – as of February, 2015

Project: **Network Nebraska Education**			Contact: **Tom Rolfes**			
Start Date	05/01/2006	Orig. Completion Date	06/30/2012	Revised Completion Date		08/01/2015
	February	December	October	September	July	May
Overall Status						
Schedule						
Budget						
Scope						

Project Description

Network Nebraska-Education is a statewide consortium of over 260 K-12 and higher education entities working together to provide a statewide backbone, commodity Internet, distance education, and other value-added services to its participants. Network Nebraska-Education is managed by the State Office of the CIO partnering with the University of Nebraska Computing Services Network (UNCSN).

Project Budget (2014-15): $717,781 ($477,934 has been expended)

Comments

February update:

Since the last reporting period, State Purchasing made an intent to award to Cogent Communications for Internet service out of 1623 Farnam in Omaha. The unit cost is expected to decrease by $ .68/Mbps/month, or about a 50% drop in price. Discussions have continued with ESU 3 schools and the Lincoln Diocese schools and both groups are expected to join the network on 7/1/2015. The Network Nebraska Advisory Group met to recommend implementation of dynamic provisioning of Internet for the upcoming year, which will permit Network Nebraska to experience some cost avoidance by reducing the purchase of unused Internet bandwidth, and redirecting those funds into the hardware and infrastructure to deliver the Internet. Internet orders are due from all entities by March 1, 2015, and the deadline for E-rate filing is March 26, 2015.

December update:

Looking ahead to the fall 2014 procurement, Omaha commodity Internet will be rebid.. After hearing from the FCC that there will be no national preferred master contracts for internal connections equipment, the ESU-NOC voted to have the Office of the CIO and State Purchasing procure maximum discounts on up to 9 different types of equipment such as wireless access points, cabling, switches/routers, etc… This will become an invitation to bid to extend over the life of the FCC equipment funding (2015-2020) with a possible fiscal impact of $52 million for Nebraska K-12 schools.

Additional Comments/Concerns:

The Network Nebraska-Education Participation Fee fund account has been updated with the 2014-15 estimated costs and the 2nd quarter UNCSN invoice submitted on 1/29/2015.

Even though the Chief Information Officer fulfilled the Legislative benchmark of "providing *access* (the ability to connect) to every public K-12 and public higher education entity at the earliest date and no later than July 1, 2012" [Neb. Rev. Stat. 86-5,100], the NITC Technical Panel has extended the enterprise project designation for Network Nebraska-Education until 8/1/2015 so that all public school districts that want to participate have actually connected.

Nebraska Information Technology Commission
Enterprise Project Status Dashboard – as of February, 2015

Project:	**Nebraska State Accountability (NeSA) (formerly Statewide Online Assessment)**		Contact:	**John Moon**		
Start Date	07/01/2010	Orig. Completion Date	06/30/2011	Revised Completion Date		6/30/2015
	February	December	December	October	September	July
Overall Status						
Schedule						
Budget						
Scope						

Project Description

Legislative Bill 1157 passed by the 2008 Nebraska Legislature required a single statewide assessment of the Nebraska academic content standards for reading, mathematics, science, and writing in Nebraska's K-12 public schools. The new assessment system was named Nebraska State Accountability (NeSA), with NeSA-R for reading assessments, NeSA-M for mathematics, NeSA-S for science, and NeSA-W for writing. The assessments in reading and mathematics were administered in grades 3-8 and 11; science was administered in grades 5, 8, and 11; and writing was administered in grades 4, 8, and 11.

Project Estimate: $5,364,408 ($2,174,622.75 has been expended)

Comments

February update:

The NeSA- W window is scheduled to close on February 6, 2015. Almost 38,000 of the 8th and 11th grade online writing tests were completed by January 30th. About 5,000 online tests still need to be completed. Unlike previous years, there were very few technological issues during the 2015 testing. There have been very few reports of software issues this year. Another 24,000 students took the writing practice tests in preparation for the actual testing. In reports made by Nebraska Department of Education observations and informal statements by teachers the students seem to be very focused on the test performance.

The student data will be uploaded to DRC for NeSA-Reading, Math, and Science (NeSA-RMS) Operational Tests on February 1, 2015. The NeSA-reading, math and science assessments are scheduled for March 23rd through May 1, 2015. Along with teacher developed C4L tests, practice tests for reading, math and science have been available since August 29, 2014.

Discussions with DRC have begun on future improvements to the NeSA testing.

December update:

The student data will be uploaded to DRC for NeSA-Writing (NeSA-W) Operational Tests on December 5, 2014. The NeSA- W window is scheduled for January 19 through February 6, 2015 while districts have been conducting practice tests for NeSA-W since August 29, 2014. NDE has encouraged districts to participate in the NeSA-W practice tests with over 7,379 tests completed so far. Students have completed 1072 NeSA-W field test since the window opened on November 10, 2014. There have been minimal reports of any technology issues. The testing engine is the same for field testing and for secure operational testing.

NeSA-W test administration training for test administrators and N-TACS have been scheduled for January 5th, 6th, and 7th and invitations posted on the NDE Assessment website, http://www.education.ne.gov/Assessment/Index.html .

DRC and NDE has responded to district concerns about chromium browser "bug" that randomly turns on the "overwrite" mode and the connection requirement for dictionary/thesaurus/spell check tools to work. More technical explanation was posted on the eDIRECT site for districts to access.

Additional Comments/Concerns:

Nebraska State Accountability (NeSA) is a statewide assessment system mandated by Nebraska Statute. Nebraska

Department of Education has contracted with Data Recognition Corporation (DRC) to continue the development of the assessment system including management, development, delivery, administration, scanning/imaging, scoring, analysis, reporting, and standard setting for the online and pencil/paper reading, science, writing, and mathematics tests (NeSA-RMS) for July 1, 2014 through June 30, 2015. DRC will facilitate the delivery, administration, scanning/imaging, scoring, analysis, and reporting for the alternate pencil/paper reading, science, and mathematics tests during the same assessment window. DRC will deliver the online writing assessment (NeSA-W) for grades 8 and 11 and the pencil/paper writing assessment for grade 4 as well.

Nebraska Information Technology Commission
Enterprise Project Status Dashboard – as of February, 2015

Project:	**Nebraska Regional Interoperability Network (NRIN)**	Contact:	**Sue Krogman**

Start Date	10/01/2010	Orig. Completion Date	06/01/2013	Revised Completion Date	~~09/30/2015~~ 09/30/2016

	February	December	October	September	July	May
Overall Status	🟢	🟢	🟢	🟢	🟢	🟢
Schedule	🟡	🟡	🟡	🟡	🟡	🟡
Budget	🟡	🔴	🔴	🔴	🟢	🟢
Scope	🟢	🟢	🟢	🟢	🟢	🟢

Project Description

The Nebraska Regional Interoperability Network (NRIN) is a project that will connect a majority of the Public Safety Access Points (PSAP) across the State by means of a point to point microwave system. The network will be a true, secure means of transferring data, video and voice. Speed and stability are major expectations; therefore there is a required redundant technology base of no less than 100 mbps with 99.999% availability for each site. It is hoped that the network will be used as the main transfer mechanism for currently in-place items, thus imposing a cost-saving to local government. All equipment purchased for this project is compatible with the networking equipment of the OCIO.

Project Estimate: $10,820,003 ($8,915,330.26 has been expended)

Comments

NEMA is struggling with issues of governance and maintenance of the network. Governance would be needed at the local jurisdiction and not at the state agency (there is no state agency is heading the project, it's all run at the local jurisdiction). There is no formal governance heading the project.

February update:

There has been an extreme amount of equipment installed and sites that have been brought on line thanks to the ability of work being able to continue with no interruptions. The MOU that NEMA has with the OCIO utilizing the two contractors with MSA's has been a huge benefit to this project. Because of the knowledge both contractors have of Ceragon Equipment and the use of an OCIO employee to configure the Juniper routers, we have seen a great improvement in the amount of work being accomplished. Weather may be a factor between now and the next report, but that is and has been an issue all along.

December update:

All issues on the process have been alleviated and the quote, invoicing and billing process has been addressed and refined. Weather conditions should not be a big factor over the next couple of months as the majority of the work to be completed will be inside buildings and/or shelters.

Additional Comments/Concerns:

It's possible that upcoming target dates might be missed. Based on the uncertainty of the infrastructure needed for the project and the time involved in obtaining the environmental approvals to proceed with the project, any target dates are fluid. Delays are inevitable due to the difficulty in locating adequate tower sites and negotiating leasing agreements and/or MOU's.

Nebraska Information Technology Commission
Enterprise Project Status Dashboard – as of February, 2015

Project: **MMIS**						Contact:
Start Date	N/A	Orig. Completion Date	N/A	Revised Completion Date		N/A
	February	December	October	September	July	May
Overall Status						
Schedule						
Budget						
Scope						
Comments						

Project On Hold until renewed

Funding has been appropriated for a MMIS replacement in the current biennial budget starting July 1, 2014. Once the project moves forward (a RFP will be developed) DHHS will resume monthly reporting.

Nebraska Information Technology Commission
Enterprise Project Status Dashboard – as of February, 2015

Project: **District Dashboards**			Contact: **Dean Folkers**			
Start Date 07/01/2013	Orig. Completion Date 06/30/2015		Revised Completion Date			
	February	December	October	September	July	May
Overall Status						
Schedule						
Budget						
Scope						

Project Description

Made possible by a Statewide Longitudinal Data System (SLDS) grant from the United States Department of Education in 2012, the focus of the Nebraska Ed-Fi Dashboard initiative is to provide readily available data to the Nebraska classrooms to facilitate informed decision-making. Potential users include teachers, counselors, and administrators. NDE intends to leverage the Ed-Fi dashboard solution made available by the Michael & Susan Dell Foundation to provide Nebraska with an advanced student performance dashboard system to be customized for Nebraska needs. The Ed-Fi data standard will serve to define the initial data elements powering the Nebraska Ed-Fi dashboard.

Our Plan of Work for design, development, and piloting of the Nebraska Dashboards will commence in three phases, each to proceed subsequently upon successful completion of the previous phase, between the months of September 2013 and December 2014. The phases include: Phase I - Dashboard Readiness (September 2013-February 2014), Phase II – Dashboard Development (February 2014-June 2014), and Phase III – Dashboard Deployment (June 2014-December 2014).

Project Estimate: $466,623.75 has been expended, grant funds only

Comments

February update:
No status report for February.

December update:
The project is running behind the original baseline schedule by about five - six months. The primary cause for extended project duration is changes in the pilot SIS vendor implementation schedules. All three pilot SIS vendors, Pearson, Tyler Technologies and Infinite Campus, are experiencing delays in planned start of development and readiness for data staging with pilot districts. The project and sponsor have agreed to adjust the dashboard schedule to align with vendor schedules. The revised plan is to start staging activities in early 2015, dependent upon vendor progress, and reschedule the dashboard pilot testing for spring 2015. Delays in vendor implementation and data staging will have an impact on the planned start of data warehouse validation with production data. However, the project is still on schedule for data warehouse and accountability data mart pilot testing in the spring of 2015. Additionally, there have been delays in Nebraska SSO integration, development of the Nebraska SSO portal, on premise implementation for Ed-Fi v.Next and completion of dashboard co-development required for the initial pilot. These delays impact the overall timeline and budget but are not a significant factor in readiness for data staging with the pilot districts.

October update:
Overall the project is running behind schedule by about four months for vendor implementation, SSO implementation, Ed-Fi v.Next on premise support and planned co-development/ knowledge transfer activities with Nebraska Department of Education staff. The project and sponsor have agreed to adjust the dashboard schedule due to vendor delays in development activities. The revised plan is to start staging activities in late fall 2014, dependent upon vendor progress, and reschedule the dashboard pilot testing for early 2015. Delays in vendor implementation and data staging will have an impact on the planned start of data warehouse validation. However, the project is still on schedule for data warehouse and accountability data mart pilot testing in the spring of 2015. The delay in co-development will not have an impact on planned staging activities with vendors nor the start of pilot testing.

Nebraska Information Technology Commission
Enterprise Project Status Dashboard – as of February, 2015

Project:	**EnterpriseOne System Upgrade**			Contact:	**Lacey Pentland**	
Start Date	10/01/2013	Orig. Completion Date	10/03/2014	Revised Completion Date		Spring, 2015
	February	December	October	September	July	May
Overall Status						
Schedule						
Budget						
Scope						

Project Description

The State of Nebraska has been using JD Edwards to support the State's agencies for over ten years. The current EnterpriseOne 9.0 system is relatively stable with a medium level of modifications. The program is planned, as much as possible, to be a technical upgrade with minimal impact on the existing business processes, interfaces and the related applications. The current applications landscape is proposed to be upgraded as follows:

- Upgrade from E1 9.0 to E1 9.1 to stay current with the JD Edwards technology stack
- Migrate/Retrofit required customizations to E1 9.1 based on the keep drop analysis
- Be on the latest stack
- Simplification of the existing ecosystem – minimize customization, expand usage of JDE application
- Leverage standard functionalities provided by new features of E1 9.1

Project Estimate: $2,250,000 ($1,096,750.20 has been expended)

Comments

February update:

The PD910 environment is being used for the user acceptance testing phase which is well under way. The EnterpriseOne team is working through the issues as they arise. There are 3-4 weeks remaining for user acceptance testing but at this time we have not run into any issues which would prevent us from moving forward with Go-Live.

Current work completed:

- Functional Testing completed on 12/11/2014.
- Mock Go-Live Conversion occurred 12/12/2014 – 12/16/2015.
- UAT Phase: PD910 environment created and UAT started 12/22/2014.
- On-boarded new resources to help for the remainder of the project.

Next Steps:

- UAT phase is scheduled to be completed by mid-February 2015.
- Planning for performance testing (stress test), training and cutover at Go-Live.

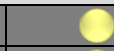
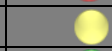
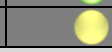
December update:

The EnterpriseOne 9.1 system is stable and the modification disposition phase was completed on 11/10/2014. Functional testing started 10/20/2014 with a target date for completion on 12/11/2014. UAT is in the planning stages, a Mock Go-Live conversion is scheduled to start on 12/12/2014 in preparation for the UAT phase.

Nebraska Information Technology Commission
Enterprise Project Status Dashboard – as of February, 2015

Project:	**Medicaid Eligibility & Enrollment System**	Contact:	**Eric Henrichsen**

Start Date	10/28/2014	Orig. Completion Date	06/30/2016	Revised Completion Date	N/A

	February	December	October	September	July	May
Overall Status						
Schedule						
Budget						
Scope						

Project Description

The Affordable Care Act (ACA) included numerous provisions with significant information systems impacts. One of the requirements was to change how Medicaid Eligibility was determined and implement the changes effective 10/1/2014. As a result of the lack of time available to implement a long-term solution, the Department of Health and Human Services implemented a short-term solution in the current environment to meet initial due dates and requirements. This solution did not meet all Federal technical requirements for enhanced Federal funding but was approved on the assumption that a long-term solution would be procured. An RFP was developed and procurement has been completed with Wipro selected as the Systems Integrator for an IBM/Curam software solution.

Project Estimate: $57,741,564 ($9,770,337 has been expended)

Comments

February update:

The project is gaining some momentum as a project approach for Requirements Gathering has been developed and agreed upon. Work on an Integrated Master Schedule is progressing as well but a little behind the project approach work. Business Process Reengineering sessions have completed. Preparation work for Fit-Gap and Operation Process Reengineering stages is under way. The project and vendor are making improvements in many areas, but there is still cause for general concern.

December update:

The project continues to have a slow start and the vendor is having difficulties developing an acceptable integrated project plan and project approach. “Business Process Reengineering” (review of Curam functionality and attempt to understand where state requirements vary from what exists) sessions have nearly completed but next steps are not very clear and completely agreed upon. The project and vendor are making improvements in many areas, but there is still cause for general concern and action plans needed. The vendor has delivered a “Go To Green” plan with improvement actions and due dates listed.

Additional Comments/Concerns:

The project master schedule is well behind the original schedule. The vendor and the State of Nebraska have agreed to the project approach in concept, but the vendor is struggling to produce the documentation and a project plan to support it. One additional risk, many state resources are not full-time on the project and have other duties including other Legislative mandates to implement. The vendor is having difficulty in filling key roles on the project.

Nebraska Information Technology Commission
Enterprise Project Status Dashboard – as of February, 2015

Color Legend		
	Red	**Project has significant risk to baseline cost, schedule, or project deliverables.** **Current status requires immediate escalation and management involvement.** Probable that item will **NOT** meet dates with acceptable quality without changes to schedule, resources, and/or scope.
	Yellow	**Project has a current or potential risk to baseline cost, schedule, or project deliverables.** **Project Manager will manage risks based on risk mitigation planning.** Good probability item will meet dates and acceptable quality. Schedule, resource, or scope changes may be needed.
	Green	**Project has no significant risk to baseline cost, schedule, or project deliverables.** Strong probability project will meet dates and acceptable quality.
	Gray	**No report for the reporting period or the project has not yet been activated.**

NITC 3-205
Street Centerline Standards

Review Version 5.0
(Date 12.12.2014)

Category: Data and Information Architecture
Applicability: See Each Section of Standards
History: Adopted on [Month Day, Year]

NEBRASKA INFORMATION TECHNOLOGY COMMISSION GIS COUNCIL

TABLE OF CONTENTS

1.0 Standard

1.1 Description

This standard provides requirements necessary for the creation, development, delivery, and maintenance of street centerline data to support a statewide Nebraska Street Centerline Database (NSCD). The database provides spatial location of a seamless road network including information tied to that location with appropriate attribute data. The standard provides a consistent structure for data producers and users to ensure compatibility of datasets within the same framework layer and when used between other Nebraska Spatial Data Infrastructure (NESDI) framework layers such as address points, parcels and administrative/political boundaries.

There are multiple uses for street centerline data. These requirements will enable the data to be integrated not only with Next Generation 9-1-1 (NG9-1-1) but with existing state road network databases, routing services, emergency management, and public safety. Furthermore, this standard will serve as a guideline for future maintenance activity data requirements.

This standard does not restrict or limit additional information collected and stored in a particular database. The specific requirements for street naming and road conditions are primarily the responsibility of the local jurisdiction. These standards are meant to be a minimum set of standards and are subject to be updated based on technology enhancements, necessary workflow changes, and other data requirements.

The standard is not intended to be a substitute for an implementation design. These standards can be used at local, state and federal level to ensure interdisciplinary compatibility and interoperability with other databases. These standards integrate with existing standards such as the US Federal Highways, National Emergency Number Association (NENA), U.S. Postal Service (USPS) Addressing Standard, and other NITC related standards.

1.2 Spatial Representation

1.2.1 Geometric Placement

The methodology for proper geometric placement of street centerlines will vary based on the application. Street centerlines can be placed either manually or by calculated placement. The calculated placement of the street centerline is completed by automated software techniques, typically in CAD or GIS. Calculations or manual placement methods can be made from the physical footprint referenced from imagery, LiDAR or from mapping grade GPS.

Providing an adequate seamless street centerline database to support public safety and emergency response is the primary focus and will need to support NG9-1-1 standards identified by NENA.

1.2.2 Data Development

All data will consist of visual and verifiable street centerline with address ranges and other information corresponding to some level of ground control. The geometric placement of street centerlines can be derived from digitizing and using field GPS data collection.

1.2.2.1 Digitizing

The data source used to digitize or place street centerlines must meet the following minimum requirements.

Capture Scale for digitizing: 1:2400
Projection: Nebraska State Plane Coordinate System
Datum: North American Datum of 1983 (NAD83)
Source: Using aerial imagery that meets verified horizontal accuracy requirements for spatial resolution (12 inch minimum), preferably leaf-off. In cases where tree cover or other obstructions are identified in imagery, it will be necessary to conduct field verification of that location with a mapping grade GPS unit. The NAIP imagery therefore does not meet these accuracy standards.

LiDAR can also be used as a guide to support spatial accuracy placement of certain aspects of roads.

Imagery, LiDAR, or other source document that was used to digitize street centerlines that is newly acquired or not made available for public access will need to be provided to entity conducting quality control of the data.

For information regarding standards for imagery and LiDAR requirements for Nebraska, refer to the Elevation Acquisition using LiDAR Standards (NITC 3-203) and Imagery Standards (NITC 3-204).

1.2.2.2 Global Positioning Systems (GPS)

The development of street centerlines can be utilized using field observation and data collection techniques using mapping grade stationary and vehicle equipped GPS. Data collected using a mapping grade GPS will need to meet spatial accuracy requirements in section 1.2.3. Additional post processing of GPS data may be necessary to meet these spatial requirements.

1.2.3 Spatial Accuracy

The minimum positional accuracy standards need to meet the following standard as set forth in the FGDC Geospatial Positioning Accuracy Standards Part 3, Appendix 3-D (FGDC-STD-007.3-1998).

1.2.3.1 Minimum Horizontal Accuracy Standard

Data that has been collected through digitization or visual representation methods must have an accuracy level of 3.28 to 9.84 feet (1-3 meters) or better.

When using mapping grade GPS, data will need to be collected at 3.28 feet (1 meter) or better. Additional requirements and suggestions for acquiring data by field GPS is located in the NENA GIS Data Collection and Maintenance Standards.

1.2.3.2 Minimum Vertical Accuracy Standard

There are no vertical accuracy requirements at this time.

1.2.4 Feature Type and Tables

1.2.4.1 Lines (Polylines)

A line represents the estimated center of a street or road and is not the legal right of way. Attribute data consists of four address range fields representing low to high on odd and even side of road segments necessary for geocoding. Address range values can be represented as theoretical (potential) or actual address ranges for the line segment and stored in the feature attribute table of the data set.

It is recommended whenever possible to develop actual address ranges. Theoretical address ranges typically start with zero and end with 99 for each street centerline segment. This includes every address between zero and 99 that is contained within each segment. Actual address ranges are defined as the actual ranges that exist along a street. The ranges can start with either a zero or one and end with a number that best represents that range for each street centerline segment. This method is desirable, as it produces greater range accuracies compared to theoretical address ranges. This results in better representation of geocoded addresses in relation to a street centerline. However, this approach is more costly to derive as it requires additional verification at the field to determine the exact range. If potential ranges are used, it is recommended to keep the range to a level appropriate for the segment. For example, consider going from a segment starting at 100 to 150 compared to 100 to 198.

1.2.4.2 Centerline Points

These are points used to create and reference particular information on street centerlines useful for assisting topology, addressing, and routing. These include point features considered as nodes to represent intersections, changes in street names, crossings, bridges, and jurisdictional boundary changes. Corresponding attribute information tied to each point is further defined in Section 1.3.6 Data Schema and Descriptions.

1.2.4.3 Tables

Corresponding tables for representing alternative street names can be further represented in tabular format. See Section 1.3.6 Data Schema and Descriptions for description on information for tables.

1.2.5 Projection and Datum

For data to be made available for NG9-1-1 operations, the data will need to be in a geographic coordinate system and not projected. This is necessary for the Emergency Call Routing Function (ECRF) or the Location Validation Function (LVF) uses for display.

EPSG:	4326 WGS84 / Latlong
Projection:	Geographic Coordinates, Plate Carrée, Equidistant Cylindrical, Equirectangular
Latitude of the origin:	0°
Longitude of the origin:	0°
Scaling factor:	1
False easting:	0°

False northing:	0°
Ellipsoid:	WGS84
Horizontal Datum:	WGS84
Vertical Datum:	WGS84 Geoid
Units:	decimal degrees
Global extent:	-180, -90, 180, 90

The NSCD will also be projected and delivered in Nebraska (State) Plane Coordinate System projection and datum for North American Datum of 1983 (NAD83). The plane coordinate values for a point on the earth's surface should be expressed in feet. The data will also be made available as Web Mercator with WGS 1984 horizontal datum for use among other needed web services.

1.3 Address Attributes

1.3.1 General Address Components

There are several components that make up a street address. Many are required to accurately define a specific address and location. When an address is matched against other address database files or for the purpose of generating an address it must be broken down into the individual components separated by a single space between the components. These standards follow the FGDC United State Thoroughfare, Landmark and Postal Address Data standard for address components. The minimum components required to accurately define an address are:

Primary Address Number:	123
Prefix Directional Street:	W
Street Name:	Main
Street Type:	ST
Street Direction:	NW
Unit Address Identifiers:	STE
Unit Number:	5
City:	Lincoln
State:	NE
Zip Code:	68509

Not all of the elements are required to be filled out for an address to be valid. However, the placeholders need to be present in the attribute table to accurately represent the accepted USPS standards. The USPS uses a parsing logic to enter address information into their appropriate fields. When parsing an address into the individual components, start from the right element of the address and work toward the left. Place each element in the appropriate field until all address components are isolated. This process facilitates matching files and produces the correct format for standardized output as well as isolating the mismatches to the closest possible fit before failing.

Associated attributes pertain to formatting and storing of address data within attribute tables that are external to and associated with feature attribute tables of geospatial datasets. For example, a city's master address database could be associated with and address matched against a city-wide geospatial dataset of points.

Addressing authorities at the local level that maintain address data within their each jurisdiction shall develop a master address database that can be referenced to the NSCD when new street names are being created or assigned so that duplications are avoided. All street names and address numbers shall be kept consistent with geospatial datasets.

1.3.2 Unique Identification Code

A unique identifier is required for the statewide street centerline database. This unique identifier allows the data to be tied or joined to other spatial data sets having the same identifier. The field name for this unique code in NSCD is “NEStreetID.”

1.3.3 Directional Prefixes and Suffixes

The street address directional prefixes and suffixes shall always be abbreviated and capitalized, and shall not include periods. For example, North should be abbreviated as N. A complete set of directional prefix and suffix abbreviations are listed in Appendix 8.1.

1.3.4 Street Name

The NENA and FGDC United State Thoroughfare, Landmark and Postal Address Data standards will be followed for numbering streets. Street names will use capital and lower case letters. Street names should not be abbreviated unless it is common practice. For example, Doctor (DR) or Junior (JR) could be abbreviated.

Numeric streets shall be written using numbers rather than spelled out. For example, using “1^{ST}” rather than “FIRST”. The numeric street names should use “TH”, “RD”, “ST” or “ND” characters as part of the street name.

Vanity street names and numbers shall not be used as the primary street name or address range component.

For classifying new street names, a standard method of assigning numeric and character street names shall be developed and adopted for a jurisdiction. The primary objective is to establish a grid within each jurisdiction regardless of the detailed pattern of the individual grid. Streets that run primarily east and west would use a numeric street name grid, while those that run primarily north and south would be based on names from a master street name grid, or vice versa. The spacing of numeric street names should be based on a standard increment. A numeric street name should not be used outside of its proper location and sequence as established by the grid. The spacing of character streets should be based on a similar pattern. A character street name that is part of the grid should not be used outside of its proper location and sequence as established by the grid.

For public safety jurisdictions who maintain a Master Street Address Guides (MSAG), Automatic Location Information (ALI), and other local addressing standards are encouraged to update their databases to these standards. The NG9-1-1 requirements, as defined by NENA, define data layers and attributes to be the same throughout each of these databases since they will need to be standardized anyway in a statewide model.

1.3.5 Street Type

Street type is signified by Street (ST), Boulevard (BLVD), Court (CT), and Road (RD) to give you an example. A complete set of street type domains are listed in Appendix 8.1. Each street address will have only one street type based on a logical pattern of street types. The street type names used follow USPS Postal Addressing Standards Publication 28 and other standards through the NENA Civic Location Data Exchange Format (CLDXF). An exception to this rule would be where two streets in the same area have the same name (e.g., Destination Dr and Destination Ct).

1.3.6 Odd/Even Numbering (Address Parity)

Parity shall remain consistent within the system adopted by the local jurisdiction. Address ranges are sets of numbers, usually comprised of four (4) distinct values, representing a range of addresses along the sides of the street centerlines by addresses at either end of a street centerline segment. Two numbers of the range represent the lowest addresses, and the other two represent the highest. The numbers are further distinguished as being on either the left or the right side of the segment. In topological terms, the lower numbers are associates with the FROM node of the segment, while the high numbers are associated with the TO node. Likewise, left and right are determined by the direction of the segment, as defined by the FROM and TO nodes. Topology is critical when a set of addressed centerlines are developed. Implementation of the address parity (e.g., odd versus even) is usually determined by the addressing software.

1.3.7 Sequential Direction

Address ranges shall increase as you travel in the direction adopted by the jurisdiction. The direction of each line segment shall follow the sequence direction of the address ranges. Typically this is accomplished by controlling from-node and to-node topology. One-way streets are NOT an exception to this rule. Curvilinear streets may violate this standard for short stretches provided that they are in compliance with respect to the general direction of the full street segment. Where compliance with this standard is difficult or impossible, it may warrant considering a change in the street name at the point where it changes direction.

1.3.8 Consistency with Distance-Based Address Grid

Depending on the preference of the jurisdiction there must be a defined standard interval based grid system. Whether it is hundred blocks as in a city, a potential 1000 addresses per mile, (a possible address every 5.28 feet), or another variation the jurisdictions accepted standards should be adhered to as close as possible. In rural areas addresses can be assigned based on the distance south or west from the nearest section line. This standard is particularly useful in areas that are largely undeveloped (and thus don't have many cross streets) or in areas that have existing streets that are not in the standard street name grid. This standard should generally be considered to be less important, however, than staying consistent with the address designations of cross streets.

1.3.9 Use of Characters

Street addresses shall not contain characters such as hyphens, dashes, +, #, & or other non-alpha-characters or symbols. An alpha-character added to the address as a sub-number is preferable to a fraction (e.g., 123 A is preferable to 123 1/2).

1.3.10 Data Schema and Descriptions

The following are feature layers necessary for a comprehensive street centerline database. The data schema and descriptions table is provided for each of the features. Each table provides the minimum requirements for each feature type.

Feature	Type	Description
Street Centerlines	Line Layer	Contains street centerline segments
Alternate Street Names	Table/Value	Contains alternate street names
Centerline Points	Point Layer	Point locations used to create road centerlines and assisting with topology, addressing, and routing.

Street Centerlines

The minimum required fields for these standards are represented by the following identifiers: "**R**" – required, "**RC**" –Recommended, and "**O**" – Optional.

Field Name	Field Type	Field Length	Field Description	Domain Name	Required Level
NEStreetID	Number	20	Unique ID of corresponding street centerline segment	N/A	R
FullStreet	String	150	Unique ID of corresponding street centerline segment	N/A	R
PreModifier	String	15	Prefix directional component of segment name	PreModifier	R
PreDirectional	String	2	A street direction that precedes the street name (i.e., N, S, E, W, NE, NW, SE, SW)	Direction	R
PreType	String	20	A street type that precedes the street name (i.e., AVE, RD, ST, CIR, PL, PKWY, LN, DR, BLVD, ALY)	StreetType	R
StreetName	String	30	Legal authoritative street name component of segment name	N/A	R
PostType	String	4	A street type that follows the street name (i.e., AVE, RD, ST, CIR, PL, PKWY, LN, DR, BLVD, ALY)	StreetType	R
PostDirectional	String	2	A street direction that follows the street name (i.e., N, S, E, W, NE, NW, SE, SW)	Direction	R
PostModifier	String	12	A descriptor that follows the street name and is not a suffix or a direction (i.e., Access, Central, Crossover, Scenic, Terminal, Underpass)	PostModifier	R
LFrom	Number	6	Left low address range	N/A	R
LTo	Number	6	Left high address range	N/A	R
RFrom	Number	6	Right low address range	N/A	R
RTo	Number	6	Right high address range	N/A	R
ParityLeft	String	1	Parity of address range on the left side of the road. E, O, B, Z for even, Odd, Both or Zero.	N/A	R
ParityRight	String	1	Parity of address range on the right side of the road. E, O, B, Z for	N/A	R

			even, Odd, Both or Zero.		
LCityPostal	String	7	5-digit postal code on the left side of the road segment.	N/A	R
RCityPostal	String	7	5-digit postal code on the right side of the road segment.	N/A	R
FIPS_LCity	String	5	City FIPS code of left side of segment	N/A	R
FIPS_RCity	String	5	City FIPS code of right side of segment	N/A	R
FIPS_LCOUNTY	String	3	County FIPS code of left side of segment	CountyFIPS	R
FIPS_RCOUNTY	String	3	County FIPS code of right side of segment	CountyFIPS	R
FIPS_LSTATE	String	2	State FIPS code for left side of segment	StateFIPS	R
FIPS_RSTATE	String	2	State FIPS code for right side of segment	StateFIPS	R
ESNLeft**	String	5	Emergency Service Number on left side of road segment	N/A	R
ESNRight**	String	5	Emergency Service Number on right side of road segment	N/A	R
ESNCenter**	String	5	Responsible ESN responder at centerline	N/A	O
MSAGLeft**	String	30	MSAG on left side of road segment	N/A	R
MSAGRight**	String	30	MSAG on right side of road segment	N/A	R
ZCoordS	String	Number	Elevation at the start of the segment node	N/A	R
ZCoordE	String	Number	Elevation at the end of the segment node	N/A	R
OneWay	String	2	Signifies if the segment is one way in direction	OneWay	O
Travel	String	20	Direction of travel for divided roadways	N/A	O
RoadClass	String	15	This is the classification for the road segment as adopted from the MAF/TIGER Feature Classification Codes (MTFCC) Attachment D	RClass	O
SurfType	String	10	This is the surface type of the segment	SType	O
StreetOwner	String	25	Current local entity responsible for creation of physical street segment	N/A	R
StreetMaint	String	25	Current local entity responsible for maintenance of street segment data	N/A	R

Create_DT	Date	26	Date/time stamp when data was first created	N/A	R
Update_DT	Date	26	Date/time stamp when data segment geometry/attribution last modified	N/A	R
UpdateBy	String	50	Person who made the last update to the record	N/A	R
SourceOfData	String	30	Entity that provided the data	N/A	R
Street_Status_CD	String	1	Status code indicating operational condition of street (1=open, 2=retired, 3=temporarily closed, 4=under construction)	StreetStatus	R
ActiveDT	Date	26	Date when the segment is activated or becomes available for use.	N/A	R
UActiveDate	Date	26	Date when the segment becomes unactive or not available for use.	N/A	RC
Interstate_Num	Number	2	Interstate Highway number of road segment, if appropriate	N/A	RC
US_Hwy_Num	Number	2	US Highway number of road segment, if appropriate	N/A	RC
State_Hwy_Num	Number	2	State Highway number of road segment, if appropriate	N/A	RC
Local_Rd_Num	Number	2	Local road number of road segment, if appropriate	N/A	RC
Alias1*	String	50	Alias name of road segment	N/A	RC
LZIP	String	10	Area descriptor to aid in geocoding, left side of centerline	N/A	R
RZIP	String	10	Area descriptor to aid in geocoding, right side of centerline	N/A	R
LOCAL_FUNC_CLASS	String	2	Functional Class assigned by road owner with possible suggestions guidelines for possible local classification schema	N/A	RC
STATE_FUNC_CLASS	String	2	Functional Class with classification schema define by standards TWG	N/A	RC
LRS_ID	String	20	ID associated to the road segment found in the NDOR Linear Referencing System	N/A	R
Length	Number	12	Calculated length in US Survey Feet	N/A	R

SpeedLimit	Number	3	The speed limit of the road segment in miles per hour (mph)	N/A	R

* Can have multiple Alias numbers relationship table to infinite number.
** Not required in full NG9-1-1 implementation, used in legacy systems.

Alternate Street Names

Field Name	Field Type	Field Length	Field Description	Domain Name	Required Level
NEStreetID	Number	20	Unique ID of corresponding street centerline segment	N/A	R
AltStreetID	Number	100	Unique ID of alternate street segment name	N/A	R
PreModifier	Alpha	15	Alternate street prefix type	PreModifier	R
AltStreetName	Alpha	30	Alternate street name. Example: Main, 2nd, Country Creek, Third	N/A	R
PostType	String	4	A street type that follows the street name (i.e., AVE, RD, ST, CIR, PL, PKWY, LN, DR, BLVD, ALY)	StreetType	R
PostDirectional	Alpha	2	Alternate street directional suffice. Example: N, S, E, W, NW, NE, SW, and SE	Direction	R
PostModifier	String	12	A descriptor that follows the alternate street name and is not a suffix or a direction (i.e., Access, Central, Crossover, Scenic, Terminal, Underpass)	PostModifier	R
ASN	Alpha	75	Concatenated Alternate Street Name (STR_PRE+STR_NAME+STR_TYPE+STR_DIR)	N/A	O
SourceOfData	String	75	Entity that provided the data	N/A	R
ActiveDT	Date	26	Date when the alternate street name is activated or becomes available for use.	N/A	R
UActiveDate	Date	26	Date when the alternate street name becomes unactive or not available for use.	N/A	RC

Centerline Points

Field Name	Field Type	Field Length	Field Description	Domain Name	Required Level
Unique_ID	Number	9	Framework unique sequential identifier (generated by Framework data steward)	N/A	O
CPType	String	20	Type of point or node (intersection, bridge, railroad crossing, low water crossing, under pass, over pass, change of lane, change of street name in linear path)	N/A	O
X_COORD	Number	15	Points X coordinate	N/A	O
Y_COORD	Number	15	Points Y coordinate	N/A	O
Z_COORD	Number	6	Points Z elevation coordinate in feet	N/A	O
Agree_PT_IND	String	7	Indicator if point is or is not an agreement point.	AgreePoint	O
Create_DT	Date	26	Date/time stamp when that point geometry/attribution was first created	N/A	O
Update_DT	Date	26	Date/time stamp when geometry/attribution last modified	N/A	O
UpdateBy	String	50	Person who made the last update to the record	N/A	O
Status_CD	String	1	Code indicating operational condition of road segment point	N/A	O
Local_ID	Number	9	Local road centerline segment feature identifier, unique and permanent to the segment at the local level (generated by road authority/data custodian)	N/A	O
SourceOfData	String	75	Entity that provided the data	N/A	O

1.4 Data Format

The data format provided will need to be in a format that can be interpreted by commercial GIS software, preferably as an Esri geodatabase. A geodatabase schema including domains can be provided by contacting the State of Nebraska, Office of the CIO GIS Shared Services. Street centerline data stored on NebraskaMAP will be in an Esri geodatabase format but provided through various formats for other users to consume.

Other supporting tabular data will need to be provided in MS ACCESS, DBF, or MS SQL formats.

1.5 Maintenance

Authorities need to be identified for approval and assuring the data is implemented towards the database. This will ensure that the database is updated and maintained in a timely manner. After spatial and attribute updates and/or modifications are performed to the database it shall be submitted to the appropriate entity(s) responsible for performing quality control.

Maintenance of street centerline data determines the suitability to support the greatest range of applications. Spatial location of a seamless road network, including appropriate attribute data, is

essential for many projects. Therefore, maintenance of this data is necessary to provide the maximum return on investment.

1.5.1 Reporting Errors and Handling Updates

The reporting of errors need to be directed to the appropriate entity in a timely manner. Updated spatial and attribute information in the database will also need to be redistributed. The date field in the database when the last record was modified will also need to be updated to ensure proper records management and communication with others in the workflow.

1.6 Quality Control

The quality of the NSCD is evaluated based on the overall functional correctness and completeness of the attribute and spatial data. The FGDC and NENA have adopted nationally recognized standards for accuracy testing of GIS data. NENA recommends that street centerline address data for use in data exchanges associated with NG-911 call processing be based on the FGDC compliant database. Refer to the FGDC United State Thoroughfare, Landmark and Postal Address Data standard and the NENA Civic Location Data Exchange Format (CLDXF) Standard for these data exchange standards.

1.6.1 Attribute Accuracy

a) Attribute fields are complete compared to source data having valid data elements, domain or range values.
b) Correct spelling in comparison of source data.
c) Standard first letter capitalized of every word and USPS capitalization of the State abbreviation.
d) Not to contain duplicate road segments, each road segment should be uniquely identifiable by the attributes.
e) Assure that the address range and information on the left or right of the street centerline are consistently either odd or even addresses.
f) For NG9-1-1 applications, the address ranges need to qualify and meet certain thresholds for the MSAG and ALI databases. For MSAG and ALI databases, the address for each point will need to be valid at a rate of 98 percent or better. For areas without an MSAG, the addresses will meet USPS Publication 28 standards. For the ALI database, this is determined by geocoding the addresses in the ALI database to the road layer with addresses developed for that area. Overall, the address data is consistent with source information from MSAG and ALI.
g) The correct formatting of street centerline attributes are used in these standards and are also included in the NENA standards and abbreviations as they are found in USPS Publication 28.
h) The temporal quality is met by being current through updating appropriate attributes and indicating the time the changes were made in the date updated field. Street centerlines that change due to add-on's from new construction or changes to the existing road structures will need to be updated frequently.
i) Quality checks for allowable domain values, summary statistics and record counts.

1.6.2 Physical Location

The quality of the physical location will be evaluated based on:

a) The placement of the street centerline representing it's real location and if it meets horizontal accuracy requirements. The National Standard for Spatial Data Accuracy (NSSDA) outlines a methodology for measuring positional accuracy. If additional testing is required, the NSSDA procedures outline the statistical procedures.

b) The geometric placement of the street centerline is consistently logical to the context of other features such as parcels and administrative/political boundaries.

1.6.3 Connectivity Validation (99% acceptance required with 1 foot tolerance)

a) Undershoots - Condition when the end of a linear geometry falls short of intersecting with another linear geometry
b) Overshoots - Condition when the end of a linear geometry extends beyond the point at which it should intersect and stop at another linear geometry
c) Node Mismatch - Condition when the end of a linear geometry falls short of intersecting with the end of another linear geometry
d) Non-coincident Intersecting Geometry - Condition when features intersect one another without creating corresponding vertices at the intersecting points
e) Nearly Coincident Geometry - Condition when a vertex of one geometry falls within the tolerance of a vertex of another geometry

1.6.4 Linear Referencing System (LRS) Validation (99% acceptance required)

a) Missing LRS Keys - Condition when records are missing required LRS keys: NLF_ID, Begin measure and/or End Measure
b) Begin Distance >= End Distance - Condition when begin distance measure greater than or equal to end distance measure
c) Overlapping Distances - Condition when records have the same NLF_ID and that contain overlapping distances between the end measure of one record and the begin measure of another record
d) Linear Measure/Geometry Ratio - Condition when the user-defined linear measure (end distance minus begin distance) compared to the measured map distance for each records exceeds specified tolerance (90-120 percent)
e) Geometry sequence/direction problems - Condition when the digitized direction of geometry is not consistent with direction of increasing measures.
f) Gaps between geometries - Condition when gaps exist between geometry of records with the same NLF_ID exceed specified tolerance (10 ft.).

1.7 Integration with other Standards

1.7.1 Address Standards (NITC 3-206)

The street centerline and address elements identified in these standards shall meet the same address related field names found in the Address Standards NITC 3-206. This is to assure the connection of street addresses and routing to address points having the same address information.

1.8 Metadata

A requirement for street centerline and address range data is creating and maintaining its metadata. The metadata for street centerline data will require detailing the characteristics and quality of submitted street centerline data. Information needs to be provided to allow the user sufficient information so they can determine the data's intended purpose as well as how to access the data. The metadata requires a process description summarizing collection parameters such as: contact information, data source, scale, accuracy, projection, use restrictions, and date associated to each street centerline segment. The process description will also need to be included to describe methodology towards the deliverable products.

1.8.1 Federal Metadata

The Federal Metadata Content Standard from FGDC should be used when feasible and

in every effort possible to assure high quality rigorous standards. All geospatial street centerline geodatabases, and their associated attribute databases should be documented with FGDC compliant metadata outlining how the data was derived, attribute field definitions and values, map projections, appropriate map scale, contact information, access and use restrictions, to name a few.

1.8.2 State Metadata

These standards need to apply to Nebraska's metadata standards located within NITC 3-201 Geospatial Metadata Standard. All metadata from street centerline data will need to be registered through the metadata portal at NebraskaMAP (http://NebraskaMAP.gov). All developers of Nebraska-related geospatial data are encouraged to use the site to either upload existing metadata and/or use the online tools available on the site to create the metadata for street centerline data.

2.0 Purpose and Objectives

2.1 Purpose

The purpose of this standard is to provide the necessary requirements for the creation, development, delivery, and maintenance of street centerline and address range data to support a statewide NSCD. These standards will help ensure that street centerline and address range data creation and development are current, consistent, accurate, publicly accessible, and cost-effective.

2.2 Objectives

These standards will guide the statewide NSCD having the following objectives:

2.2.1 Provide guidance, street centerline schema, and necessary workflows to state and local officials as they work, either in-house or with private contractors, to create, develop and maintain street centerline and address range data. This can increase the likelihood that the data created will be suitable for the range of intended applications and likely future applications. The maintenance of street centerline and address range data is necessary for the data to be current and accurate.

2.2.2 Enhance coordination and program management across jurisdictional boundaries by insuring that street centerline and address range data can be horizontally integrated across jurisdictional and/or project boundaries, and other framework data layers for regional or statewide applications.

2.2.3 Save public resources by facilitating the sharing of street centerline and address range data among public agencies or sub-divisions of agencies by incorporating data standards and following guidelines. Data that is developed by one entity can be done in a way that is suitable to serve the multiple needs of other entities. This avoids the costly duplication of developing and maintaining similar street centerline and address range data in the state.

2.2.4 Make street centerline and address range data current and readily accessible to the wide range of potential users through NebraskaMAP and other necessary resources.

2.2.5 Facilitate harmonious, trans-agency and public policy decision-making and implementation by enabling multiple agencies and levels of government to access and appropriately use current street centerline and address range data. This can make it more likely that intersecting public policy decisions, across levels of government, will be

based on the same information.

2.2.6 Lay the foundation for facilitating intergovernmental partnerships for the acquisition and development of high-quality street centerline and address range data by defining standards that increase the likelihood that this data will meet the needs of multiple users.

2.2.7 Establish and promote the integration and interrelationships of street centerline and address range data with related NESDI framework layers through geometric placement and attributes.

3.0 Definitions

Accuracy

Absolute - A measure of the location of features on a map compared to their true position on the face of the earth.

Relative - A measure of the accuracy of individual features on a map when compared to other features on the same map.

Address

Actual or Real - The simple, everyday element that designates a specific, situs location, such as a house number or an office suite.

Range - Numbers associated with segments of a digital street centerline file that represent the actual high and low addresses at either end of each segment.

Theoretical - A location that can be interpolated along a street centerline file through geocoding software.

Vanity - A special address that is inconsistent with or an exception to the standard addressing schema.

Address matching – See Geocoding

Automatic Location Identification (ALI) - The automatic display at the PSAP of the caller's phone number, the address/location of the telephone and supplementary emergency services information of the location from which a call originates.

Attribute - Attributes are the properties and characteristics of entities.

Data Stewardship – Entity(s) responsible for developing and maintaining the data.

Datum – A set of values used to define a specific geodetic system.

Emergency Call Routing Function (ECRF) - A functional element in an ESInet which is a LoST protocol server where location information (either civic address or geo-coordinates) and a Service URN serve as input to a mapping function that returns a URI used to route an emergency call toward the appropriate PSAP for the caller's location or towards a responder agency.

Entity - A data entity is any object about which an organization chooses to collect data.

Geocoding – A mechanism for building a database relationship between addresses and geospatial features. When an address is matched to the geospatial features, geographic coordinates are assigned to the address.

Line - A linear feature built of straight line segments made up of two or more coordinates.

Location Validation Function (LVF) - A real time database that allows authorized service providers to validate a subscriber's location in real time using a pre-defined interface.

Master Street Address Guide (MSAG) - A listing of streets and house number hich describes the exact spelling of streets, street number ranges, and other address elements.

National Emergency Number Association (NENA) – A professional association consisting of emergency number agencies and telephone company personnel responsible for the planning, implementation, establishing national standards, management, and administration of emergency number systems.

Nebraska Spatial Data Infrastructure (NESDI) - A framework of geospatial data layers that have multiple applications, used by a vast majority of stakeholders, meet quality standards and have data stewards to maintain and improve the data on an ongoing basis. These layers are also consistent with the Federal National Spatial Data Infrastructure (NSDI).

Point - A geospatial feature that is stored as a single X-Y coordinate pair. Some data systems store X-Y-Z coordinates, where Z represents elevation of the point above a given surface (or datum).

Projection – A map projection flattens the earth, allowing for locations to by systematically assigned new positions so that a curved surface can be represented on a flat map

Public Safety Answering Point (PSAP) - An entity operating under common management which receives 9-1-1 calls from a defined geographic area and processes those calls according to a specific operational policy.

Road - Generally, this is the physical real-world feature that can be used for vehicular travel. However, this general definition is subject to the road owner's authority to define its accessibility (thus, while navigable by a vehicle, some linear features may be "trails" and thus excluded from the ORCDS). The federal definition used by ODOT for their purposes is appended below.

State Plane Coordinate System - The State Plane Coordinate System is a set of 124 geographic zones or coordinate systems designed for specific regions of the United States. It uses a simple Cartesian coordinate system to specify locations rather than a more complex spherical coordinate system (the geographic coordinate system of latitude and longitude). By thus ignoring the curvature of the Earth, "plane surveying" methods can be used, speeding up and simplifying calculations. The system is highly accurate within each zone (error less than 1:10,000). Outside a specific state plane zone, accuracy rapidly declines, thus the system is not useful for regional or national mapping

Topology – Spatial relationships and connectivity among graphic GIS features, such as points, lines and polygons. These relationships allow display and analysis of "intelligent" data in GIS. Many topological structures incorporate begin and end relationships, direction and right / left identification

Unique Identification Code - Every element is assigned an identification code, making it unique from other elements.

USGS United States Geological Survey - is a scientific agency of the United States government. The scientists of the USGS study the landscape of the United States and its natural resources.

4.0 Applicability

4.1 State Government Agencies

State agencies that have the primary responsibility for developing and maintaining street centerline and address range data for a particular jurisdiction(s) or geographic area (e.g. for counties for which it has assumed the primary role) are required to comply with the standards as described in Section 1. Those state agencies with oversight responsibilities in this area are required to ensure that their oversight guidelines, rules, and regulations are consistent with these standards.

4.2 State Funded Entities

Entities that are not State agencies but receive State funding, directly or indirectly, for street centerline, street naming, and address range development and maintenance for a particular jurisdiction or geographic area are required to comply with the standards as described in Section 1.

4.3 Other

Other entities, such as city and local government agencies (e.g. County Engineer, PSAPs, and municipalities) that receive state funds have the primary responsibility for developing and maintaining street centerline, street naming, and address range data are required to comply with the standards as described in Section 1.

5.0 Responsibility

5.1 NITC

The NITC shall be responsible for adopting minimum technical standards, guidelines, and architectures upon recommendation by the technical panel. Neb. Rev. Stat. § 86-516(6)

5.2 State Agencies

The State of Nebraska, Office of the CIO (OCIO) GIS Shared Services will be responsible for assuring that metadata is completed and the data is registered and available for distribution through NebraskaMAP.

5.3 Granting Agencies and Entities

State granting or fund disbursement entities or agencies will be responsible for ensuring that these standards are included in requirements related to fund disbursements as they relate to street centerlines and address range data.

5.4 Other

Local government agencies that have the primary responsibility and authority for street naming and street centerline placement will be responsible for ensuring that those sub-sections defined in Section 1 will be incorporated in the overall NSCD data development efforts and contracts.

6.0 Authority

6.1 NITC GIS Council

According to Neb. Rev. Stat. § 86-572(2), the GIS Council shall: Establish guidelines and policies for statewide Geographic Information Systems operations and management (a) The acquisition, development, maintenance, quality assurance such as standards, access, ownership, cost recovery, and priorities of data bases; (b) The compatibility, acquisition, and communications of hardware and software; (c) The assessment of needs, identification of scope, setting of standards, and determination of an appropriate enforcement mechanism; (d) The fostering of training programs and promoting education and information about the Geographic Information Systems; and (e) The promoting of the Geographic Information Systems development in the State of Nebraska and providing or coordinating additional support to address Geographic Information Systems issues as such issues arise.

7.0 Related Documents

7.1 NENA."NENA Next Generation 9-1-1 (NG9-1-1) Civic Location Data Exchange Format (CLDXF) Standard." NENA-STA-004. March 23, 2014. NENA Joint Data Technical/Next Generation Integration Committees, Next Generation Data Development Working Group.

7.2 National Emergency Number Association. “NENA Standard for NG9-1-1 GIS Data Model.”NENA-STA-XXX (Currently in Development),

7.3 NENA GIS Data Collection and Maintenance Standards, NENA 02-014, July 17, 2007

7.4 NENA Information Document for Synchronizing Geographic Information System databases with MSAG & ALI, NENA 71-501, Version 1.1, September 8, 2009

7.5 Federal Geographic Data Committee (FGDC) United States Thoroughfare, Landmark and Postal Address Data Standard. FGDC Document Number FGDC-STD-016-2011. February 2011.

7.6 NITC 3-201 Geospatial Metadata Standard – http://nitc.ne.gov/standards/3-201.html

7.7 NITC 3-206 Address Standards (Waiting Review and Approval)

7.8 United States Postal Service Publication 28. “Postal Addressing Standards.”

7.9 FGDC Geospatial Positioning Accuracy Standards Part 3, Appendix 3-D (FGDC-STD-007.3-1998)

7.10 NITC 3-203 Elevation Acquisition using LiDAR Standards

7.11 NITC 3-204 Imagery Standards

8.0 Appendices

8.1 Domains

Domains are provided for street centerline, alternate street names, and centerline points. This information provides consistency in reporting of data across multiple data sets.

SuffixAddressNumber

Domain	Description
A	A
B	B
C	C
D	D
E	E
F	F
G	G
H	H
I	I
J	J
K	K
L	L
M	M
N	N
O	O
P	P
Q	Q
R	R
S	S
T	T
U	U
V	V
W	W
X	X
Y	Y
Z	Z

PreModifier

Domain	Description
Alternate	Alternate
Archway	Archway
Behind	Behind
Business	Business
Bypass	Bypass
Center	Center
De	De
Del	Del
Drive	Drive
Entrance	Entrance
Extended	Extended
Head	Head
Historic	Historic
La	La
Le	Le
Loop	Loop
New	New
Old	Old
Olde	Olde
Our	Our
Out	Out
Private	Private
Public	Public
Spur	Spur
The	The
To	To

Direction

Domain	Description
N	North
S	South
E	East
W	West
NE	Northeast
NW	Northwest
SE	Southeast
SW	Southwest

SeperatorElement

Domain	Description
And	And
At	At
By The	By The
Con	Con
De Las	De Las
For	For
For The	For The
In The	In The
Of	Of
Of The	Of The
On The	On The
The	The
To	To
Y	Y

PostModifier

Domain	Description
Access	Access
Alternate	Alternate
Approach	Approach
Business	Business
Bypass	Bypass
Center	Center
Central	Central
Centre	Centre
Company	Company
Concourse	Concourse
Connector	Connector
Crossing	Crossing
Crossover	Crossover
Cut Off	Cut Off
Cutoff	Cutoff
Dock	Dock
End	End
Entrance	Entrance
Executive	Executive
Exit	Exit
Extended	Extended
Extension	Extension
Industrial	Industrial
Interior	Interior
Loop	Loop
Overpass	Overpass
Private	Private
Public	Public
Ramp	Ramp
Scenic	Scenic
Service	Service
Spur	Spur
Terminal	Terminal
Transverse	Transverse
Underpass	Underpass

State

Domain	Description
NE	Nebraska
CO	Colorado
WY	Wyoming
SD	South Dakota
IA	Iowa
MO	Missouri
KS	Kansas

StateFIPS

Domain	Description
31	Nebraska
08	Colorado
56	Wyoming
46	South Dakota
19	Iowa
28	Missouri
20	Kansas

StreetSource

Domain	Description
PSC	Public Service Commission street centerlines
CountySC	County street centerlines
MunicipalSC	Municipal street centerlines
StateSC	State street centerlines
Other	Other

StreetStatus

Domain	Description
1	Open
2	Retired
3	Temporarily closed
4	Under Construction

StreetType (for both PreType and PostType) Additional commonly used street suffixes and abbreviations are located within the USPS Publication 28.

Domain	Description
Acrs	Acres
Aly	Alley
Anx	Annex
Arc	Arcade
Ave	Avenue
Bay	Bay
Bch	Beach
Bg	Burg
Bgs	Burgs
Blf	Bluff
Blfs	Bluffs
Blvd	Boulevard
Bnd	Bend
Br	Branch
Brg	Bridge
Brk	Brook
Brks	Brooks
Btm	Bottom
Byp	Bypass
Byu	Bayou
Chas	Chase
Cir	Circle
Cirs	Circles
Clb	Club
Clf	Cliff
Clfs	Cliffs
Clos	Close
Cmn	Common
Cmns	Commons
Cnrs	Corners
Cor	Corner
Cors	Corners
County Hwy	County Road
County Rte	County Touring Route
Cp	Camp
Cpe	Cape

StreetType, continued	
Cres	Crescent
Crk	Creek
Crse	Course
Crst	Crest
Cswy	Causeway
Ct	Court
Ctr	Center
Ctrs	Centers
Cts	Courts
Curv	Curve
Cv	Cove
Cvs	Coves
Cyn	Canyon
Dl	Dale
Dm	Dam
Dr	Drive
Drs	Drives
Drwy	Driveway
Dv	Divide
End	End
Est	Estate
Ests	Estates
Expy	Expressway
Ext	Extension
Exts	Extensions
Fall	Fall
Farm	Farm
Fld	Field
Flds	Fields
Fls	Falls
Flt	Flat
Flts	Flats
Frd	Ford
Frds	Fords
Frg	Forge
Frgs	Forges
Frk	Fork
Frks	Forks
Frst	Forest
Fry	Ferry
Ft	Fort
Fwy	Freeway
Gate	Gate
Gdn	Garden
Gdns	Gardens
Gln	Glen
Glns	Glens
Grds	Grounds
Grn	Green
Grns	Greens
Grv	Grove
Grvs	Groves
Gtwy	Gateway
Hbr	Harbor
Hbrs	Harbors
Hl	Hill
Hls	Hills
Holw	Hollow
Hrbr	Harbor
Hts	Heights
Hvn	Haven
Hwy	Highway
I	Interstate
Inlt	Inlet
Is	Island
Isle	Isle
Iss	Islands
Jct	Junction
Jcts	Junctions
Knl	Knoll
Knls	Knolls
Ky	Key
Kys	Keys
Land	Land
Lck	Lock
Lcks	Locks
Ldg	Lodge
Lf	Loaf
Lgt	Light
Lgts	Lights
Lk	Lake
Lks	Lakes
Ln	Lane
Lndg	Landing
Loop	Loop
Mall	Mall
Mdw	Meadow
Mdws	Meadows
Mews	Mews
Ml	Mill
Mls	Mills
Mnr	Manor
Mnrs	Manors
Msn	Mission
Mt	Mount
Mtn	Mountain
Mtns	Mountains
Mtwy	Motorway
Nck	Neck
Opas	Overpass
Orch	Orchard
Otlk	Outlook
Oval	Oval
Ovlk	Overlook
Park	Park
Pass	Pass
Path	Path
Pike	Pike
Pkwy	Parkway
Pl	Place
Pln	Plain
Plns	Plains
Plz	Plaza
Pne	Pine
Pnes	Pines
Pr	Prairie
Prom	Promenade
Prt	Port
Prts	Ports
Psge	Passage
Pt	Point
Pts	Points

StreetType, continued

Radl	Radial
Ramp	Ramp
Rd	Road
Rdg	Ridge
Rdgs	Ridges
Rds	Roads
Rdwy	Roadway
Rise	Rise
Riv	River
Rnch	Ranch
Row	Row
Rpd	Rapid
Rpds	Rapids
Rst	Rest
Rte	Route
Rue	Rue
Run	Run
Shls	Shoals
Sho	Shoal
Shr	Shore
Shrs	Shores
Skwy	Skyway
Smt	Summit
Spg	Spring
Spgs	Springs
Spur	Spur
Sq	Square
Sqs	Squares
St	Street
Sta	Station
State Hwy	State Touring Highway
State Pkwy	State Parkway
State Rte	State Route
Stra	Stravenue
Strm	Stream
Sts	Streets
Ter	Terrace
Tlpk	Trailer Park
Tpke	Turnpike
Trak	Track
Trce	Trace
Trfy	Trafficway
TrkTrl	Truck Trail
Trl	Trail
Trlr	Trailer
Trwy	Thruway
Tunl	Tunnel
Turn	Turn
Twrs	Towers
Un	Union
Uns	Unions
Upass	Underpass
US Hwy	Federal Highway
US Rte	US Route
Vale	Vale
Via	Viaduct
Vis	Vista
Vl	Ville
Vlg	Village
Vlgs	Villages
Vls	Villas
Vly	Valley
Vlys	Valleys
Vw	View
Vws	Views
Walk	Walk
Wall	Wall
Way	Way
Ways	Ways
Wds	Woods
Wels	Wells
Wl	Well
Wood	Wood
Xing	Crossing
Xrd	Crossroad
Xrds	Crossroads

AgreePoint

Domain	Description
Y	Yes
N	No

CountyFIPS

Domain	Description	Domain	Description	Domain	Description
1	Adams	63	Frontier	125	Nance
3	Antelope	65	Furnas	127	Nemaha
5	Arthur	67	Gage	129	Nuckolls
7	Banner	69	Garden	131	Otoe
9	Blaine	71	Garfield	133	Pawnee
11	Boone	73	Gosper	135	Perkins
13	Box Butte	75	Grant	137	Phelps
15	Boyd	77	Greeley	139	Pierce
17	Brown	79	Hall	141	Platte
19	Buffalo	81	Hamilton	143	Polk
21	Burt	83	Harlan	145	Red Willow
23	Butler	85	Hayes	147	Richardson
25	Cass	87	Hitchcock	149	Rock
27	Cedar	89	Holt	151	Saline
29	Chase	91	Hooker	153	Sarpy
31	Cherry	93	Howard	155	Saunders
33	Cheyenne	95	Jefferson	157	Scotts Bluff
35	Clay	97	Johnson	159	Seward
37	Colfax	99	Kearney	161	Sheridan
39	Cuming	101	Keith	163	Sherman
41	Custer	103	Keya Paha	165	Sioux
43	Dakota	105	Kimball	167	Stanton
45	Dawes	107	Knox	169	Thayer
47	Dawson	109	Lancaster	171	Thomas
49	Deuel	111	Lincoln	173	Thurston
51	Dixon	113	Logan	175	Valley
53	Dodge	115	Loup	177	Washington
55	Douglas	117	McPherson	179	Wayne
57	Dundy	119	Madison	181	Webster
59	Fillmore	121	Merrick	183	Wheeler
61	Franklin	123	Morrill	185	York

OneWay

Domain	Description
FT	One way travel from FROM or Start Node to TO or End Node
TF	One way travel from TO or END node to FROM or Start Node
B	Travel in both directions allowed

RClass

Domain	Description
1	Primary
2	Secondary
3	Local
4	Ramp
5	Service
6	Vehicular Trail
7	Walkway
8	Alley
9	Private
10	Parking Lot
11	Trail
12	Other

SType

Domain	Description
1	Paved
2	Gravel
3	Soil
4	Proposed
5	Minimum

NITC 3-206
Address Standards

Review Version 5.0
(Date 12.12.2014)

Category: Data and Information Architecture
Applicability: See Each Section of Standards
History: Adopted on [Month Day, Year]

NEBRASKA INFORMATION TECHNOLOGY COMMISSION GIS COUNCIL

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1.0 Standard

1.1 Description

This standard provides requirements necessary for the creation, development, delivery, and maintenance of address point data to support a statewide Nebraska Address Database (NAD). The address database provides the spatial location and information tied to that location with appropriate attribute data. The standard provides a consistent structure for data producers and users to ensure compatibility of datasets within the same framework layer and when used between other Nebraska Spatial Data Infrastructure (NESDI) framework layers such as street centerlines and parcels.

There are multiple uses for address point data. These requirements will enable the data to be integrated not only with Next Generation 9-1-1 (NG9-1-1) but with existing state address databases, routing services, emergency management, public safety, tax assessment, and the state's enterprise geocoding application databases. Furthermore, this standard will serve as a guideline for future maintenance activity data requirements.

This standard does not restrict or limit additional information collected and stored in a particular database. The specific requirements for address naming and point placement are primarily the responsibility of the local jurisdiction. These standards are meant to be a minimum set of standards and are subject to be updated based on technology enhancements, necessary workflow changes, and other data requirements.

The standard is not intended to be a substitute for an implementation design. These standards can be used at local, state and federal level to ensure interdisciplinary compatibility and interoperability with other databases. These standards integrate with existing standards such as the National Emergency Number Association (NENA), Federal Geographic Data Committee (FGDC), U.S. Postal Service (USPS) Addressing Standard, and other NITC related standards.

1.2 Spatial Representation

1.2.1 Geometric Placement

The methodology for proper geometric placement of address points will vary based on the application. Address points can be placed either manually or by calculated placement. The calculated placement is completed by automated software techniques, typically in GIS. Calculations or manual placement methods can be made from the structure's visual footprint seen in imagery, LiDAR or a determined boundary. Site or structures that have an address assigned to it would be considered an address point.

Providing adequate address point locations to support public safety and emergency response is the primary focus and will need to support NG9-1-1 standards identified by NENA. At a minimum, one address point placed per address is suggested by these standards. For NG9-1-1 applications, there will be one address point provided for dispatching as to not create conflict in interpretation among other address point locations tied to the same street address when responding to emergencies. For other applications, additional address points can be created as long as they are notated in the attribute table for purpose of the point type. The following suggestions are recommended in priority of address point placement. If a primary structure is not addressable on the property parcel then a property access point is placed within the property driveway or access location. In cases where the primary structure is not visible from the addressable road, an additional access point will need to be placed in the middle of the entrance or access location within that property parcel. Additional address points are required for public safety at entrance locations for public structures such as schools, hospitals, and government offices.

Specific requirements for the placement of entrance locations are located within NENA standards source located in section 7.0.

There are additional standards and best practices for the placement of address points within structures outlined by NENA. This includes single address with multiple structures or entrances, single structure or entrances with multiple addresses, multiple addresses with one structure or entrance. In addition, there are address point placement recommendations for exterior and interior entrance locations within a structure.

1.2.1.1 Primary Structure

The primary address point should be placed within every principal address structure's location or footprint. Placement can be achieved either manually or calculated. When placed manually, the point should reflect the center or entrance to the addressed structure as long as it is within the structure's footprint (Figure 1). When calculated, it typically refers to placement of a centroid in the middle of the building footprint or polygon. Either of these two placement techniques assign the address with that structure.

Figure 1. Placement of address point within structure's footprint.

If a structure is not visible on aerial imagery or LiDAR, but it's physical location is represented by other supplemental resources, the point can be placed according to the supplement resources and needs to be confirmed with field verification.

For multiple units within a structure, there does not need to be additional address points placed for each unit. The single point can relate to a table having multiple listings of addresses for each unit. Consider using this method when addresses are relatively within 10 feet of each other.

1.2.1.2 Property Access

This is the placement of the address point to accessing the property of interest. This typically is a driveway, access road, or other entrance path to a property that is connected to a named road or other path from a different

property. Address points should be located at the primary driveway entrance within a parcel boundary. This point is placed only after the primary structure address point has been identified and placed or if there is no primary addressable structure on the property parcel. If parcel data exists to the property, then the point should fall within the parcel boundary in the middle of the driveway or other access area.

Figure 2. Placement of address point on primary entrance path within a parcel boundary as shown on the left address point for 7909. The illustration also shows the placement of the address point on the primary structure footprint. This is helpful in cases where the primary building is difficult to see from the primary entrance path off an addressed road.

Interim placement of address points can exist if a site or structure is not available at the time of recording. This can include conditions where site or building is under construction or new developments that may have future sub-addresses. The expectation is that these interim locations are noted during time of creation and future modifications can occur to both the geometric placement and attributes.

1.2.1.3 Other Placement Options

After the primary and/or secondary address points have been placed or in special cases where the primary and secondary conditions are not able to be met, then there are other address point placement options. Specific requirements for these placement options are located within NENA standards source located in section 7.0. The following are a few descriptions for other placement options.

a) Parcels

This section addresses the placement of the address point within a parcel boundary when there are no addressed structures or visible access road to the property. The address point can either be placed in the center of the parcel, within a parcel where an internal road or main structures are located, within a parcel at the center of the parcel frontage next to the road that

references the address, and within and front of a parcel using address ranges to guide placement. Parcels that do not have an addressable structure present will have the address point at the centroid within the boundary of the parcel. If there is discrepancy in the placement accuracy of the parcel itself, it is best to have the point located in the middle of the parcel until or at an offset distance from the boundary line from the road that references the address. This will assure that the address point is well within the parcel boundary in case the spatial location of parcel boundary is updated in the future. It also assures that other spatial relationships exist with other GIS layers.

b) Site

A site is defined as a place that has no known or recognized structure or boundary. These can include places such as parks, camp sites, recreational areas, and other large areas. In this case, either an address point is placed based on the centroid of a defined boundary or is associated as a landmark. Point location can also be manually located at the entrance or area of concentration of structures or activities within the site.

c) Geocoding from Road Centerlines

Address point placement is achieved by interpolation of road centerline address ranges. Points are placed based on a calculated method of directional offset representing left or right of the street and providing a desired distance to the property based on address range breaks located in the street centerline layer. This practice should be considered last resort as it provides inconsistency with distances to the actual structure or access location to a property. This technique is useful when establishing and double checking the correct attributes between the street centerline database corresponding to the address point database.

1.2.2 Data Development

All data will consist of visual and verifiable address point information corresponding to some level of ground control. The geometric placement of address points can be derived from digitizing and using field GPS data collection.

1.2.2.1 Digitizing

Address point placement can be completed by visual registration using aerial imagery, site plans or other graphical resources that have been spatially adjusted to meet minimum spatial accuracy requirements. The data source used to digitize or place address points must meet the following minimum requirements.

Capture Scale for digitizing: 1:2400
Projection: Nebraska State Plane Coordinate System
Datum: North American Datum of 1983 (NAD83)
Source: Using aerial imagery that meets verified horizontal accuracy requirements for spatial resolution (12 inch minimum), preferably leaf-off. In cases where tree cover or other obstructions are identified in imagery, it will be necessary to conduct field verification of that location with a mapping grade GPS unit. The NAIP imagery therefore does not meet these accuracy standards.

LiDAR can also be used as a guide to support spatial accuracy placement of certain aspects of building footprints.

Imagery, LiDAR, or other source document that was used to digitize street centerlines that is newly acquired or not made available for public access will need to be provided to entity conducting quality control of the data.

For information regarding standards for imagery and LiDAR requirements for Nebraska, refer to the Elevation Acquisition using LiDAR Standards (NITC 3-203) and Imagery Standards (NITC 3-204).

1.2.2.2 Global Positioning Systems (GPS)

The development of address points can be utilized using field observation and data collection techniques using mapping grade GPS. Data collected using a mapping grade GPS will need to meet spatial accuracy requirements in section 1.2.3. Additional post processing of GPS data may be necessary to meet these spatial requirements, particularly when placement of address point falls within the boundary of a structure.

1.2.3 Spatial Accuracy

The minimum positional accuracy standards need to meet the following standard as set forth in the FGDC Geospatial Positioning Accuracy Standards Part 3, Appendix 3-D (FGDC-STD-007.3-1998)

1.2.3.1 Minimum Horizontal Accuracy Standard

Data that has been collected through digitization or visual representation methods must have an accuracy level of 3.28 to 9.84 feet (1-3 meters) or better.

When using mapping grade GPS, data will need to be collected at 3.28 feet (1 meter) or better. Additional requirements and suggestions for acquiring address point data by field GPS is located in the NENA GIS Data Collection and Maintenance Standards.

1.2.3.2 Minimum Vertical Accuracy Standard

There are no vertical accuracy requirements at this time. These standards are subject to change in the future as data maintenance and accuracy of address point placement is further needed in places such as structures having multiple floors.

1.2.4 Feature Type and Tables

1.2.4.1 Points

Single points will represent the address point features. Corresponding attribute information tied to each point is further defined in Section 1.3.6 Data Schema and Descriptions. Having one point per valid address ensures a one to one match for the purposes of geocoding.

1.2.4.2 Tables

Corresponding tables for one address point location but reference to multiple locations or sub-addresses can be further represented in tabular format. See Section 1.3.6 Data Schema and Descriptions for description on information for tables.

1.2.5 Projection and Datum

For data to be made available for NG9-1-1 operations, the data will need to be in a geographic coordinate system and not projected. This is necessary for the Emergency Call Routing Function (ECRF) or the Location Validation Function (LVF) uses for display.

EPSG:	4326 WGS84 / Latlong
Projection:	Geographic Coordinates, Plate Carrée, Equidistant Cylindrical, Equirectangular
Latitude of the origin:	0°
Longitude of the origin:	0°
Scaling factor:	1
False easting:	0°
False northing:	0°
Ellipsoid:	WGS84
Horizontal Datum:	WGS84
Vertical Datum:	WGS84 Geoid
Units:	decimal degrees
Global extent:	-180, -90, 180, 90

The NAD will also be projected and delivered in Nebraska (State) Plane Coordinate System projection and datum for North American Datum of 1983 (NAD83). The plane coordinate values for a point on the earth's surface should be expressed in feet. The data will also be made available as Web Mercator with WGS 1984 horizontal datum for use among other needed web services.

1.3 Address Attributes

1.3.1 General Address Components

There are several components that make up an address. Many are required to accurately define a specific address and location. When an address is matched against other address database files or for the purpose of generating an address it must be broken down into the individual components separated by a single space between the components. These standards follow the FGDC United State Thoroughfare, Landmark and Postal Address Data standard for address components. The minimum components required to accurately define an address are:

Primary Address Number:	123
Prefix Directional Street:	W
Street Name:	Main
Street Type:	ST
Street Direction:	NW
Unit Address Identifiers:	STE
Unit Number:	5
City:	Lincoln
State:	NE
Zip Code:	68509

Not all of the elements are required to be filled out for an address to be valid. However, the placeholders need to be present in the attribute table to accurately represent the accepted USPS standards. The USPS uses a parsing logic to enter address information into their appropriate fields. When parsing an address into the individual components, start from the right element of the address and work toward the left. Place each element in the appropriate field until all address components are isolated. This process facilitates matching files and produces the correct format for standardized output as well as isolating the mismatches to the closest possible fit before failing.

Associated attributes pertain to formatting and storing of address data within attribute tables that are external to and associated with feature attribute tables of geospatial datasets. For example, a city's master address database could be associated with and address matched against a city-wide geospatial dataset of points.

Addressing authorities at the local level that maintain address data within each jurisdiction shall develop a master address database that can be referenced to the NAD when new street names are being created or assigned so that duplications are avoided. All street names and address numbers shall be kept consistent with geospatial datasets.

Additional information and guidelines for directional prefixes and suffixes, street naming, street type, address parity, sequential direction and consistency with distance-based address grid can be found in the Street Centerline Standards (NITC 3-205).

1.3.2 Unique Identification Code

A unique identifier is required for the statewide address point database. This unique identifier allows the data to be tied or joined to other spatial data sets having the same identifier. The field name for this unique code in NAD is "NEAddressID." The first four (4) digits are the county name followed by number associated from the local addressing authority. In certain cases, the unique identifier may change at the local level. This is acceptable and will also need to be reflected as the change to the statewide address point database.

1.3.3 Use of Characters

Street addresses shall not contain characters such as hyphens, dashes, +, #, & or other non-alpha-characters or symbols. An alpha-character added to the address as a sub-number is preferable to a fraction (e.g., 123 A is preferable to 123 1/2).

1.3.4 Data Schema and Descriptions

The following table represents the necessary data schema including field names, descriptions, and associated domains for the address point database. The minimum required fields for these standards are represented by the following identifiers: "**R**" – required, "**RC**" –Recommended, and "**O**" – Optional.

Field Name	Field Type	Field Length	Field Description	Domain Name	Required Level
NEAddressID	String	12	Unique ID of address point where first 4 characters are the first 4 letters of each County name. The remaining 8 characters of the number are provided by the local addressing authority.	N/A	R

NEStreetID	Integer	20	Unique ID of corresponding street centerline segment	N/A	R
State_PID	String	30	County FIPS code plus local government PID number (See Statewide Parcel Database ID requirements)	N/A	R
County_ID	String	3	County FIPS code of where address point resides	CountyFIPS	R
PrefixAddressNumber	String	10	An extension that precedes the address number	N/A	R
AddressNumber	Integer	6	The numeric identifier of a location along a thoroughfare (i.e., 100, 2345, 31)	N/A	R
SuffixAddressNumber	String	15	An extension that follows the address number (i.e., A through Z)	SuffixAddressNumber	R
PreModifier	String	15	A street name modifier that precedes the street name. (i.e., Alternate, bypass, loop, private, spur, etc.)	PreModifier	R
PreDirectional	String	2	A street direction that precedes the street name (i.e., N, S, E, W, NE, NW, SE, SW)	Direction	R
PreType	String	4	A street type that precedes the street name (i.e., AVE, RD, ST, CIR, PL, PKWY, LN, DR, BLVD, ALY)	StreetType	R
SeparatorElement	String	10	An element that precedes the StreetName which separates the PreType and StreetName	SeparatorElement	R
StreetName	String	30	Legal authoritative street name component of segment name	N/A	R
PostType	String	4	A street type that follows the street name (i.e., AVE, RD, ST, CIR, PL, PKWY, LN, DR, BLVD, ALY)	StreetType	R
PostDirectional	String	2	A street direction that follows the street name (i.e., N, S, E, W, NE, NW, SE, SW)	Direction	R
PostModifier	String	12	A descriptor that follows the street name and is not a suffix or a direction (i.e., Access, Central, Crossover, Scenic, Terminal, Underpass)	PostModifier	R
Building	String	60	The name of one among a group of buildings that have the same address number and street name, that are multiple independently named structures at the same address	N/A	R
Floor	String	10	A floor, story, or level within a building	N/A	O
NumberFloors	String	4	Number of floors in building	N/A	O
Room	String	10	A room identification in a building	N/A	RC

NumberRooms	String	4	Number of rooms in building or structure.	N/A	O
Seat	String	5	The place where a person may be located within a room or building.	N/A	O
Unit	String	4	A group or suite of rooms within a building that are under common ownership or tenancy, typically having a common primary entrance. (ie, A, 4, etc.)	N/A	R
UnitType	String	4	The unit type abbreviation. (ie, APT, BLDG, DEPT, FL, STE, UNIT	UnitType	C
Location	String	20	For sub-address, other than building, floor, unit, room or seat. For example, northeast corner of building.	N/A	O
Subdivision	String	60	Subdivision name	N/A	C
City	String	40	Name of the municipality where the site is located. Also the postal community name associated to the zip code or postal code.	N/A	R
State	String	2	State name abbreviation	State	R
ZipCode	String	5	5 digit zip code	N/A	R
Ph_Zip4	String	4	Mailing post code +4 designation for the tax parcel	N/A	RC
FullAddress	String	75	Concatenated street address consisting of address number, pre direction, pre type, street name, street type, suffix direction, unit number, building, floor.	N/A	R
SubAddress	String	75	Entire sub-address string that consists of Building, Floor, Unit, and Location fields concatenated together	N/A	RC
LandmarkName	String	60	Common Place Name such as library, town hall, Chimney Rock, stadium	N/A	R
MSAG**	String	30	Service community name associated with the location of the address.	N/A	R
ESN**	String	5	Emergency Service Number associated with the location of the address identified by MSAG.	N/A	R
PSAP	String	25	Public Service Access Point identifier number	N/A	R
PrimaryPoint	String	3	Is this the primary point? Yes or No. Distinguishes between Primary and SubAddress points.	PrimaryPoint	R
PointType	String	3	Address point type (primary structure, primary property entrance, secondary	PointType	R

			structure, secondary property entrance, parcel centroid, etc.)		
PlaceType	String	75	Description of the type of feature for address (House, duplex, trailer, apartment, secondary structure, utility, school, hospital, commercial business, industrial, etc.)	N/A	RC
MilePost	String	150	Mile marker or measurement at location	N/A	RC
AddOwner	String	25	Current local entity responsible for creation of address data	N/A	R
AddMaint	String	25	Current local entity responsible for maintenance of address data	N/A	R
AddressSource	String	30	The primary data source for the attributes used in this record	AddressSource	R
SourceOfData	String	30	Entity that provided the data	N/A	R
Create_DT	Date	26	Date/time stamp data was collected	N/A	R
Update_DT	Date	26	Date/time stamp the record was last modified	N/A	R
UpdateBy	String	50	Person who made the last update to the record	N/A	R
RecentFieldEditor	String	30	Recent field editor of data	N/A	R
Add_Status__Code	String	2	Status code indicating operational condition of address point (1=active, 2=retired, 3=unknown)	N/A	R
ActiveDT	Date	26	Date when the segment is activated or becomes available for use.	N/A	R
UActiveDate	Date	26	Date when the segment becomes unactive or not available for use.	N/A	RC
Basement	String	3	Is there a basement? Yes, No	N/A	O
StrmShelter	String	25	The type of storm shelter	N/A	O
OccupTime	String	50	Time when the site/structure is typically occupied (7:00 – 6:00 pm)	N/A	O
X_COORD	Numeric	15	Points X coordinate	N/A	R
Y_COORD	Numeric	15	Points Y coordinate	N/A	R
Z_COORD	Numeric	7	Points Z elevation coordinate in feet. Height above mean sea level.	N/A	O
NatGrid	String	15	This is the US National Grid address up to 10 digits at 1 meter	N/A	O

Comments	String	255	Comments or notes	N/A	O
URIAddData	String	255	Route Uniform Resource Identifier for additional information about the location or building (eg, blueprints, contact information). This is usually in the form of http://{domain}.	N/A	O

** Not required in full NG9-1-1 implementation, used in legacy systems.

1.4 Data Format

The data format provided will need to be in a format that can be interpreted by commercial GIS software, preferably as an Esri geodatabase. A geodatabase schema including domains can be provided free upon request by contacting the State of Nebraska, Office of the CIO GIS Shared Services. Address data stored on NebraskaMAP will be in an Esri geodatabase format but provided through various formats for other users to consume.

Other supporting tabular data will need to be provided in MS ACCESS, DBF, or MS SQL formats.

1.5 Maintenance

Addressing authorities need to be identified at the local level for approval of new addresses and assuring the addresses are implemented towards the database. This will insure that the physical location and the attribute database is updated and maintained in a timely manner. After spatial and attribute updates and/or modifications are performed to the database it shall be submitted to the appropriate entity(s) responsible for performing quality control and maintenance of the NAD.

Maintenance of address points requires capturing addresses and locations associated with new developments as soon as possible. This means mapping new structures by creating a geographic point as soon as (a) an address is assigned by the municipality and, if possible, (b) the physical location of the structure can be determined. For example, if a building permit has been issued and it includes a street address for the construction of a new residence, once a foundation is poured, then it would be possible to visit the site and capture that location.

1.5.1 Reporting Errors and Handling Updates

The reporting of errors need to be directed to specific local (city and/or county) and/or state entity(s) involved in the workflow in a timely manner. Updated spatial and attribute information in database will also need to be redistributed. The date field in the database when the last record was modified will also need to be updated to ensure proper records management and communication with others in the workflow.

1.6 Quality Control

The quality of the NAD is evaluated based on the overall functional correctness and completeness of the attribute and spatial data. The FGDC and NENA have adopted nationally recognized standards for accuracy testing of GIS data. NENA recommends that address data for use in data exchanges associated with NG-911 call processing be based on the FGDC compliant database. Refer to the FGDC United State Thoroughfare, Landmark and Postal Address Data standard and the NENA Civic Location Data Exchange Format (CLDXF) Standard for these data exchange standards.

1.6.1 Attribute Accuracy

a) Attribute fields are complete compared to source data having valid data elements, domain or range values.
b) Correct spelling in comparison of source data.
c) Standard first letter capitalized of every word and USPS capitalization of the State abbreviation.
d) Not to contain duplicate address points, each address point should be uniquely identifiable by the attributes.
e) Assure that the address points on the left or right of the street centerline are consistently either odd or even addresses.
f) The address point database has a thematic approach to accuracy. In other words, the type of address points recorded reflect the appropriate attribute values associated to that type. The data schema is setup with several field names that help qualify these relationships and thematic criteria to ensure accuracy of address point information.
g) For NG9-1-1 applications, the address for each point need to qualify and meet certain thresholds for the MSAG and ALI databases. For MSAG and ALI databases, the address for each point will need to be valid at a rate of 98 percent or better. For areas without an MSAG, the addresses in the point file will meet USPS Publication 28 standards. For the ALI database, this is determined by geocoding the addresses in the ALI database to the point layer with addresses developed for that area. Overall, the address data is consistent with source information from MSAG and ALI.
h) The correct formatting of address attributes are used in these standards and are also included in the NENA standards and abbreviations as they are found in USPS Publication 28.
i) The temporal quality is met by being current, updating appropriate attributes, and indicating the time the changes were made in the date updated field. Address points assigned early on due to missing or unknown structures may end up being incorrect later on as construction begins and structures are further identified.
j) Internal QA/QC checks for allowable domain values, summary statistics and record counts.

1.6.2 Physical Location

The quality of the physical location will be evaluated based on:

a) The placement of the address point representing it's real location and if it meets horizontal accuracy requirements. The National Standard for Spatial Data Accuracy (NSSDA) outlines a methodology for measuring positional accuracy. If additional testing is required, the NSSDA procedures outline the statistical procedures.
b) The geometric placement of the address point is consistently logical to the context of other features such as street centerlines, parcels, emergency service zones, and other address points.

1.7 Integration with other Standards

1.7.1 Street Centerline Standards (NITC 3-205)

The address elements identified in these standards shall meet the same address field relationships found in the Street Centerline Standards NITC 3-205. This is to assure the connection of street addresses and routing to address points having the same address information.

1.8 Metadata

A requirement for address point data is creating and maintaining it's metadata. The metadata for address point data will require detailing the characteristics and quality of submitted address points. Information needs to be provided to allow the user sufficient information so they can determine the data's intended purpose as well as how to access the data. The metadata requires a process description summarizing collection parameters such as: contact information, data source, scale, accuracy, projection, use restrictions, and date associated to each street centerline segment. The process description will also need to be included to describe methodology towards the deliverable products.

1.8.1 Federal Metadata

The Federal Metadata Content Standard from FGDC should be used when feasible and in every effort possible to assure high quality rigorous standards. All geospatial address point geodatabases, and their associated attribute databases should be documented with FGDC compliant metadata outlining how the data was derived, attribute field definitions and values, map projections, appropriate map scale, contact information, access and use restrictions, to name a few.

1.8.2 State Metadata

These standards need to apply to Nebraska's metadata standards located within NITC 3-201 Geospatial Metadata Standard. All metadata from address point data will need to be registered through the metadata portal at NebraskaMAP (http://NebraskaMAP.gov). All developers of Nebraska-related geospatial data are encouraged to use the site to either upload existing metadata and/or use the online tools available on the site to create the metadata for address point data.

2.0 Purpose and Objectives

2.1 Purpose

The purpose of this standard is to provide the necessary requirements for the creation, development, delivery, and maintenance of address point data to support a statewide NAD. These standards will help ensure that address data creation and development are current, consistent, accurate, publicly accessible, and cost-effective.

2.2 Objectives

These standards will guide the statewide NAD having the following objectives:

2.2.1 Provide guidance, address database schema, and necessary workflows to state and local officials as they work, either in-house or with private contractors, to create, develop and maintain address point data. This can increase the likelihood that the data created will be suitable for the range of intended applications and likely future applications. The maintenance of address data is necessary for the data to be current and accurate.

2.2.2 Enhance coordination and program management across jurisdictional boundaries by insuring that address point data can be horizontally integrated across jurisdictional and/or project boundaries, and other framework data layers for regional or statewide applications.

2.2.3 Save public resources by facilitating the sharing of address point data among public agencies or sub-divisions of agencies by incorporating data standards and following guidelines. Data that is developed by one entity can be done in a way that is suitable to

serve the multiple needs of other entities. This avoids the costly duplication of developing and maintaining similar address point data in the state.

2.2.4 Make address point data current and readily accessible to the wide range of potential users through NebraskaMAP and other necessary resources.

2.2.5 Facilitate harmonious, trans-agency and public policy decision-making and implementation by enabling multiple agencies and levels of government to access and appropriately use current address data. This can make it more likely that intersecting public policy decisions, across levels of government, will be based on the same information.

2.2.6 Lay the foundation for facilitating intergovernmental partnerships for the acquisition and development of high-quality address point data by defining standards that increase the likelihood that this data will meet the needs of multiple users.

2.2.7 Establish and promote the integration and interrelationships of address data with related NESDI framework layers through geometric placement and attributes.

3.0 Definitions

Accuracy

Absolute - A measure of the location of features on a map compared to their true position on the face of the earth.

Relative - A measure of the accuracy of individual features on a map when compared to other features on the same map.

Address

Actual or Real - The simple, everyday element that designates a specific, situs location, such as a house number or an office suite.

Range - Numbers associated with segments of a digital street centerline file that represent the actual high and low addresses at either end of each segment.

Theoretical - A location that can be interpolated along a street centerline file through geocoding software.

Vanity - A special address that is inconsistent with or an exception to the standard addressing schema.

Address matching – See Geocoding

Automatic Location Identification (ALI) - The automatic display at the PSAP of the caller's phone number, the address/location of the telephone and supplementary emergency services information of the location from which a call originates.

Attribute – The properties and characteristics of entities.

Datum – A set of values used to define a specific geodetic system.

Data Stewardship – Entity(s) responsible for developing and maintaining the data.

Entity – a data entity is any object about which an organization chooses to collect data.

Geocoding – A mechanism for building a database relationship between addresses and geospatial features. When an address is matched to the geospatial features, geographic coordinates are assigned to the address.

Geospatial feature – A point, line or polygon stored within geospatial software.

Line – A linear feature built of straight line segments made up of two or more coordinates.

Master Street Address Guide (MSAG) - A listing of streets and house number hich describes the exact spelling of streets, street number ranges, and other address elements.

National Emergency Number Association (NENA) – A professional association consisting of emergency number agencies and telephone company personnel responsible for the planning, implementation, establishing national standards, management, and administration of emergency number systems.

Nebraska Spatial Data Infrastructure (NESDI) - A framework of geospatial data layers that have multiple applications, used by a vast majority of stakeholders, meet quality standards and have data stewards to maintain and improve the data on an ongoing basis. These layers are also consistent with the Federal National Spatial Data Infrastructure (NSDI).

Point - A geospatial feature that is stored as a single X-Y coordinate pair. Some data systems store X-Y-Z coordinates, where Z represents elevation of the point above a given surface (or datum).

Projection – A map projection flattens the earth, allowing for locations to by systematically assigned new positions so that a curved surface can be represented on a flat map

Public Safety Answering Point (PSAP) - An entity operating under common management which receives 9-1-1 calls from a defined geographic area and processes those calls according to a specific operational policy.

State Plane Coordinate System - The State Plane Coordinate System is a set of 124 geographic zones or coordinate systems designed for specific regions of the United States. It uses a simple Cartesian coordinate system to specify locations rather than a more complex spherical coordinate system (the geographic coordinate system of latitude and longitude). By thus ignoring the curvature of the Earth, "plane surveying" methods can be used, speeding up and simplifying calculations. The system is highly accurate within each zone (error less than 1:10,000). Outside a specific state plane zone, accuracy rapidly declines, thus the system is not useful for regional or national mapping

Unique Identification Code – Every element is assigned an identification code, making it unique from other elements. For these standards, the first four (4) digits are the county name followed by number associated from the local addressing authority.

4.0 Applicability

4.1 State Government Agencies

State agencies that have the primary responsibility for developing and maintaining address point data for a particular jurisdiction(s) or geographic area (e.g. for counties for which it has assumed the primary role) are required to comply with the standards as described in Section 1. Those state agencies with oversight responsibilities in this area are required to ensure that their oversight guidelines, rules, and regulations are consistent with these standards.

4.2 State Funded Entities

Entities that are not State agencies but receive State funding, directly or indirectly, for address point development and maintenance for a particular jurisdiction or geographic area are required to comply with the standards as described in Section 1.

4.3 Other

Other entities, such as city and local government agencies (e.g. County Engineer, PSAPs, and municipalities) that receive state funds have the primary responsibility for developing and maintaining address point data are required to comply with the standards as described in Section 1.

5.0 Responsibility

5.1 NITC

The NITC shall be responsible for adopting minimum technical standards, guidelines, and architectures upon recommendation by the technical panel. Neb. Rev. Stat. § 86-516(6)

5.2 State Agencies

The State of Nebraska, Office of the CIO (OCIO) GIS Shared Services will be responsible for ensuring that standards and guidelines relative to development, meeting quality control standards, and approving address points for the statewide address point database for distribution are conducted according to subsections in Section 1. The OCIO GIS Shared Services will be responsible for assuring that metadata is completed and the data is registered and available for distribution through NebraskaMAP.

5.3 Granting Agencies and Entities

State granting or fund disbursement entities or agencies will be responsible for ensuring that these standards are included in requirements related to fund disbursements as they relate to address points.

5.4 Other

Local government agencies that have the primary responsibility and authority for address naming and point placement will be responsible for ensuring that those sub-sections defined in Section 1 will be incorporated in the address point data development efforts and contracts.

6.0 Authority

6.1 NITC GIS Council

According to Neb. Rev. Stat. § 86-572(2), the GIS Council shall: Establish guidelines and policies for statewide Geographic Information Systems operations and management (a) The acquisition, development, maintenance, quality assurance such as standards, access, ownership, cost recovery, and priorities of data bases; (b) The compatibility, acquisition, and communications of hardware and software; (c) The assessment of needs, identification of scope, setting of standards, and determination of an appropriate enforcement mechanism; (d) The fostering of training programs and promoting education and information about the Geographic Information Systems; and (e) The promoting of the Geographic Information Systems development in the State of Nebraska and providing or coordinating additional support to address Geographic Information Systems issues as such issues arise.

7.0 Related Documents

7.1 NENA."NENA Next Generation 9-1-1 (NG9-1-1) Civic Location Data Exchange Format (CLDXF) Standard." NENA-STA-004. March 23, 2014. NENA Joint Data Technical/Next Generation Integration Committees, Next Generation Data Development Working Group (NGDD).

7.2 National Emergency Number Association. “NENA Information Document for Development of Site/Structure Address Point GIS Data for 9-1-1.”NENA-STA-XXX (Currently in Development), http://www.nena.org/?NG911_Project.

7.3 National Emergency Number Association. “NENA Standard for NG9-1-1 GIS Data Model.”NENA-STA-XXX (Currently in Development).

7.4 NENA GIS Data Collection and Maintenance Standards, NENA 02-014, July 17, 2007

7.5 NENA Information Document for Synchronizing Geographic Information System databases with MSAG & ALI, NENA 71-501, Version 1.1, September 8, 2009

7.6 Federal Geographic Data Committee (FGDC) United States Thoroughfare, Landmark and Postal Address Data Standard. FGDC Document Number FGDC-STD-016-2011. February 2011.

7.7 NITC 3-201 Geospatial Metadata Standard – http://nitc.ne.gov/standards/3-201.html

7.8 NITC 3-205 Street Centerline Standards. (Waiting Review and Approval)

7.9 United States Postal Service Publication 28. “Postal Addressing Standards.”

7.10 FGDC Geospatial Positioning Accuracy Standards Part 3, Appendix 3-D (FGDC-STD-007.3-1998)

7.11 NITC 3-203 Elevation Acquisition using LiDAR Standards

7.12 NITC 3-204 Imagery Standards

8.0 Appendices

8.1 Domains

Domains are provided for street centerline, alternate street names, and centerline points. This information provides consistency in reporting of data across multiple data sets.

SuffixAddressNumber

Domain	Description
A	A
B	B
C	C
D	D
E	E
F	F
G	G
H	H
I	I
J	J
K	K
L	L
M	M
N	N
O	O
P	P
Q	Q
R	R
S	S
T	T
U	U
V	V
W	W
X	X
Y	Y
Z	Z

PreModifier

Domain	Description
Alternate	Alternate
Archway	Archway
Behind	Behind
Business	Business
Bypass	Bypass
Center	Center
De	De
Del	Del
Drive	Drive
Entrance	Entrance
Extended	Extended
Head	Head
Historic	Historic
La	La
Le	Le
Loop	Loop
New	New
Old	Old
Olde	Olde
Our	Our
Out	Out
Private	Private
Public	Public
Spur	Spur
The	The
To	To

Direction

Domain	Description
N	North
S	South
E	East
W	West
NE	Northeast
NW	Northwest
SE	Southeast
SW	Southwest

SeperatorElement

Domain	Description
And	And
At	At
By The	By The
Con	Con
De Las	De Las
For	For
For The	For The
In The	In The
Of	Of
Of The	Of The
On The	On The
The	The
To	To
Y	Y

PostModifier

Domain	Description
Access	Access
Alternate	Alternate
Approach	Approach
Business	Business
Bypass	Bypass
Center	Center
Central	Central
Centre	Centre
Company	Company
Concourse	Concourse
Connector	Connector
Crossing	Crossing
Crossover	Crossover
Cut Off	Cut Off
Cutoff	Cutoff
Dock	Dock
End	End
Entrance	Entrance
Executive	Executive
Exit	Exit
Extended	Extended
Extension	Extension
Industrial	Industrial
Interior	Interior
Loop	Loop
Overpass	Overpass
Private	Private
Public	Public
Ramp	Ramp
Scenic	Scenic
Service	Service
Spur	Spur
Terminal	Terminal
Transverse	Transverse
Underpass	Underpass

State

Domain	Description
NE	Nebraska
CO	Colorado
WY	Wyoming
SD	South Dakota
IA	Iowa
MO	Missouri
KS	Kansas

PointType

Domain	Description
1	Primary Structure
2	Primary Property Entrance
3	Secondary Structure
4	Secondary Property Entrance
5	Parcel Centroid
6	Other location in Parcel
7	Site
8	Geocoded from Street Centerlines
9	Other

AddressSource

Domain	Description
County911AL	County 911 Address List
CountyAP	County Address Points
CountyBF	County Building Footprint
CountyCP	County Common Places
CountyParcels	County Parcels
GDRAP	GDR Address Points
MunicipalAP	Municipal Address Points
MunicipalParcels	Municipal Parcels
StateAP	State Address Points
Other	Other

PrimaryPoint

Domain	Description
Y	Yes
N	No

StreetType (for both PreType and PostType) Additional commonly used street suffixes and abbreviations are located within the USPS Publication 28.

Domain	Description
Acrs	Acres
Aly	Alley
Anx	Annex
Arc	Arcade
Ave	Avenue
Bay	Bay
Bch	Beach
Bg	Burg
Bgs	Burgs
Blf	Bluff
Blfs	Bluffs
Blvd	Boulevard
Bnd	Bend
Br	Branch
Brg	Bridge
Brk	Brook
Brks	Brooks
Btm	Bottom
Byp	Bypass
Byu	Bayou
Chas	Chase
Cir	Circle
Cirs	Circles
Clb	Club
Clf	Cliff
Clfs	Cliffs
Clos	Close
Cmn	Common
Cmns	Commons
Cnrs	Corners
Cor	Corner
Cors	Corners

StreetType, continued

County Hwy	County Road
County Rte	County Touring Route
Cp	Camp
Cpe	Cape
Cres	Crescent
Crk	Creek
Crse	Course
Crst	Crest
Cswy	Causeway
Ct	Court
Ctr	Center
Ctrs	Centers
Cts	Courts
Curv	Curve
Cv	Cove
Cvs	Coves
Cyn	Canyon
Dl	Dale
Dm	Dam
Dr	Drive
Drs	Drives
Drwy	Driveway
Dv	Divide
End	End
Est	Estate
Ests	Estates
Expy	Expressway
Ext	Extension
Exts	Extensions
Fall	Fall
Farm	Farm
Fld	Field
Flds	Fields
Fls	Falls
Flt	Flat
Flts	Flats
Frd	Ford
Frds	Fords
Frg	Forge
Frgs	Forges
Frk	Fork
Frks	Forks
Frst	Forest
Fry	Ferry
Ft	Fort
Fwy	Freeway
Gate	Gate
Gdn	Garden
Gdns	Gardens
Gln	Glen
Glns	Glens
Grds	Grounds
Grn	Green
Grns	Greens
Grv	Grove
Grvs	Groves
Gtwy	Gateway
Hbr	Harbor
Hbrs	Harbors
Hl	Hill
Hls	Hills
Holw	Hollow
Hrbr	Harbor
Hts	Heights
Hvn	Haven
Hwy	Highway
I	Interstate
Inlt	Inlet
Is	Island
Isle	Isle
Iss	Islands
Jct	Junction
Jcts	Junctions
Knl	Knoll
Knls	Knolls
Ky	Key
Kys	Keys
Land	Land
Lck	Lock
Lcks	Locks
Ldg	Lodge
Lf	Loaf
Lgt	Light
Lgts	Lights
Lk	Lake
Lks	Lakes
Ln	Lane
Lndg	Landing
Loop	Loop
Mall	Mall
Mdw	Meadow
Mdws	Meadows
Mews	Mews
Ml	Mill
Mls	Mills
Mnr	Manor
Mnrs	Manors
Msn	Mission
Mt	Mount
Mtn	Mountain
Mtns	Mountains
Mtwy	Motorway
Nck	Neck
Opas	Overpass
Orch	Orchard
Otlk	Outlook
Oval	Oval
Ovlk	Overlook
Park	Park
Pass	Pass
Path	Path
Pike	Pike
Pkwy	Parkway
Pl	Place
Pln	Plain
Plns	Plains
Plz	Plaza
Pne	Pine
Pnes	Pines
Pr	Prairie
Prom	Promenade
Prt	Port

StreetType, continued

Prts	Ports
Psge	Passage
Pt	Point
Pts	Points
Radl	Radial
Ramp	Ramp
Rd	Road
Rdg	Ridge
Rdgs	Ridges
Rds	Roads
Rdwy	Roadway
Rise	Rise
Riv	River
Rnch	Ranch
Row	Row
Rpd	Rapid
Rpds	Rapids
Rst	Rest
Rte	Route
Rue	Rue
Run	Run
Shls	Shoals
Sho	Shoal
Shr	Shore
Shrs	Shores
Skwy	Skyway
Smt	Summit
Spg	Spring
Spgs	Springs
Spur	Spur
Sq	Square
Sqs	Squares
St	Street
Sta	Station
State Hwy	State Touring Highway
State Pkwy	State Parkway
State Rte	State Route
Stra	Stravenue
Strm	Stream
Sts	Streets
Ter	Terrace
Tlpk	Trailer Park
Tpke	Turnpike
Trak	Track
Trce	Trace
Trfy	Trafficway
TrkTrl	Truck Trail
Trl	Trail
Trlr	Trailer
Trwy	Thruway
Tunl	Tunnel
Turn	Turn
Twrs	Towers
Un	Union
Uns	Unions
Upass	Underpass
US Hwy	Federal Highway
US Rte	US Route
Vale	Vale
Via	Viaduct
Vis	Vista
Vl	Ville
Vlg	Village
Vlgs	Villages
Vls	Villas
Vly	Valley
Vlys	Valleys
Vw	View
Vws	Views
Walk	Walk
Wall	Wall
Way	Way
Ways	Ways
Wds	Woods
Wels	Wells
Wl	Well
Wood	Wood
Xing	Crossing
Xrd	Crossroad
Xrds	Crossroads

UnitType

Domain	Description
APT	Apartment
BSMT	Basement
	Blank, unable to determine
BLDG	Building
DEPT	Department
FL	Floor
FRNT	Front
HNGR	Hanger
KEY	Key
LBBY	Lobby
LOT	Lot
LOWR	Lower
OFC	Office
PH	Penthouse
PIER	Pier
REAR	Rear
RM	Room
SIDE	Side
SLIP	Slip
SPC	Space
STOP	Stop
STE	Suite
TRLR	Trailer
UNIT	Unit
UPPR	Upper

CountyFIPS

Domain	Description
1	Adams
3	Antelope
5	Arthur
7	Banner
9	Blaine
11	Boone
13	Box Butte
15	Boyd
17	Brown
19	Buffalo
21	Burt
23	Butler
25	Cass
27	Cedar
29	Chase
31	Cherry
33	Cheyenne
35	Clay
37	Colfax
39	Cuming
41	Custer
43	Dakota
45	Dawes
47	Dawson
49	Deuel
51	Dixon
53	Dodge
55	Douglas
57	Dundy
59	Fillmore
61	Franklin
63	Frontier
65	Furnas
67	Gage
69	Garden
71	Garfield
73	Gosper
75	Grant
77	Greeley
79	Hall
81	Hamilton
83	Harlan
85	Hayes
87	Hitchcock
89	Holt
91	Hooker
93	Howard
95	Jefferson
97	Johnson
99	Kearney
101	Keith
103	Keya Paha
105	Kimball
107	Knox
109	Lancaster
111	Lincoln
113	Logan
115	Loup
117	McPherson
119	Madison
121	Merrick
123	Morrill
125	Nance
127	Nemaha
129	Nuckolls
131	Otoe
133	Pawnee
135	Perkins
137	Phelps
139	Pierce
141	Platte
143	Polk
145	Red Willow
147	Richardson
149	Rock
151	Saline
153	Sarpy
155	Saunders
157	Scotts Bluff
159	Seward
161	Sheridan
163	Sherman
165	Sioux
167	Stanton
169	Thayer
171	Thomas
173	Thurston
175	Valley
177	Washington
179	Wayne
181	Webster
183	Wheeler
185	York

Request for Waiver

Agency Name
Nebraska Department of Economic Development
301 Centennial Mall South
Lincoln, NE 68509

Contact Person
Kate Ellingson
Director of Marketing and Public Relations
kate.ellingson@nebraska.gov
402-471-3749

Title of NITC Standard and Guidelines
NITC 7-104: Web Domain Name Standard

Description of the problem or issue
We request waivers for the custom URLs associated with our Department's websites.

Description of agency's preferred solution, including additional information and justification showing good cause for the requested waiver.

- ***Established programs and existing marketing materials***. We have invested substantial time and money in marketing the state of Nebraska and all of our programs. Materials feature existing custom URL websites. We've been using these custom URLs for many years. Many of our partner organizations, including overseas businesses would be adversely impacted by this change. We also have numerous marketing materials in other languages that would all be affected.

- ***Helps with image recognition***. Our custom URLs help our clients remember the different web addresses easier.

- ***Helps make our programs more visible in search results***. It's easier and more convenient for clients to find us when they can type the program name into a search engine and the website is similar to the program name. This also significantly improves our position in search rankings which is critical for economic development marketing efforts.

- ***Better for Search Engine Optimization (SEO)***. It's crucial for SEO because any of our Google rankings and the links to our site are all tied to our domain. If we switch domain names, we may encounter SEO implications and experience potential damage to our search engine rankings. Switching domain names may cause international issues, example firewall issues in China.

- ***International access would be impaired by a ".gov" URL.*** The Department maintains offices in Japan and China. Our International Trade and Investment work requires a robust web presence. Specifically ".gov" URLs are difficult to access (often blocked) for individuals seeking to access our site and materials from these and other foreign locations.

We appreciate you taking the time to consider and understand why we have custom URLs.

Thank you.

Mr. Becker

At the request of Royce Schaneman, the Nebraska Wheat Board's executive director, I am forwarding to you a request from NWB for a waiver of compliance for an NITC Standard regarding websites. Responses to the waiver request questions are listed below in red. If you have any questions, or would need anything further from NWB in order to place this request under consideration, please feel free to contact our office. Thank you.

- Agency name
  The Nebraska Wheat Development, Utilization and Marketing Board, commonly referred to as the Nebraska Wheat Board or NWB
- Name, title, and contact information for the agency contact person regarding the request
  Royce Schaneman, Executive Director
  (402) 471-2358
  royce.schaneman@nebraska.gov
- Title of the NITC Standards and Guidelines document at issue
  NITC 7-104: Web Domain Name Standard
- Description of the problem or issue

1. Regarding section 1.4: NWB shares a website with the Nebraska Wheat Growers Association (NWGA), a non-profit, membership based organization as the two organizations share similar missions of promoting the wheat industry and aiding wheat farmers. In addition, sharing the site aids NWGA with a limited budget, to maintain a digital presence. The two organizations have always shared a website. NWGA originally purchased the domain name, while NWB renewed the rights when the original purchase term was up. Should the domain switch to Nebraska.gov, NWGA would not be able to place the new site on any promotional materials, as it is not a government entity. It's options would be to not advertise a website (not a good option in a digital age) or to create its own separate website (A difficult option for a limited-budget organization, which would also result in increased confusion as the association's stakeholders are used to the shared site format. In addition multiple materials or information like crop reports and educational materials provided on the website are targeted to the audiences for both NWGA and NWB). A third option, that would be preferred is detailed in the corresponding request below.
2. Regarding section 1.4 and 1.5: The December 31, 2014 deadline falls in the middle of the fiscal year. A limited budget has been set aside for promotional materials. All promotional and educational materials currently in the office have the website listed as www.nebraskawheat.com. NWB does not have the budget to redo all these materials within this fiscal year. Knowing the change will be needed, NWB could create room in the budget for FY 15-16.
3. Regarding section 1.5: NWB works with a contracted, private vendor to develop and update parts of the website content, including managing the various domains currently owned by NWB and NWGA. NWB requires time to allow them to adopt changes, and account for any other domains that are owned.

- Description of the agency's preferred solution, including a listing of the specific requirement(s) for which a waiver is requested
  1. The site maintained by both NWB and NWGA to this time has been www.nebraskawheat.com. For the purposes of promoting *on NWGA materials only* (NWB would use the Nebraska.gov) we would like to maintain use of the domain

nebraskawheat.com, in the format of routing those who would type in into their browsers to the Nebraska.gov version, where the content would be hosted.

2. Waiver to extend compliance deadline for NWB to January 1, 2016. NWB would purchase/secure the Nebraska.gov domain by December 31, 2014, but would like to extend the deadline to publicly promote until January 1, 2016. This would give NWB the time to budget for updated promotional and educational materials 15-16, as well as develop the new materials, order them, and have the materials produced and shipped to the office for distribution.
3. NWB would secure rights to the required .gov domains, e.g. nebraskawheat.ne.gov and/or nebraskawheat.nebraska.gov by the December 31, 2014 deadline. However, to ensure everything rolls over correctly, and to prevent confusion of having them release the new site domain when it matches none of the marketing materials, NWB requests a waiver of compliance on full utilization of the domain name until January 1, 2016.

- Any additional information and justification showing good cause for the requested waiver

NWB is a non-code state agency. We operate solely with checkoff dollars and R&D fees. This means we are held accountable by the farmers who pay the checkoff. It would be extremely difficult to justify to them, the throwing away of promotional materials in stock (and thus funds already spent) simply because the materials carry the www.nebraskawheat.com website. Extending the compliance deadline through January 1, 2016 would allow NWB to make use of the materials on hand, rather than wasting them.

Also, NWB and NWGA have put out significant quantities of both promotional materials and items, and educational materials over the last several years. All materials passed out contain the www.nebraskawheat.com. Allowing the use of the old site, only as a router to the new domain, would ensure the stakeholders who have those materials, are still able to access our website and the desired content.

Caroline Brauer
Ag Promotion Coordinator - Nebraska Wheat Board

Nebraska
STATE HISTORICAL SOCIETY

Date: 12/9/2014

To: Nebraska Information Technology Commission, Technical Panel
From: Michael J. Smith, Director/CEO

RE: Request for Waiver of NITC 7-104

The Nebraska State Historical Society respectfully requests a waiver to the requirementsof *NITC 7-104: Web Domain Name Standard.* The Nebraska State Historical Society uses nebraskahistory.org as its official agency URL and has done so for more than 15 years.

The Nebraska State Historical Society sparks curiosity about the past and preserves historical resources to foster learning Nebraskans can use to build their futures. Established in 1878, the Nebraska State Historical Society (NSHS) is charged in statute to collect, preserve, study, and share Nebraska's history so the people can know and use their heritage. Designated in statute as an official state agency in 1994, the NSHS holds the state's historical resources in trust for the people. Artifacts, photographs, maps, manuscripts, archeological resources, historic buildings and places, government records and more are among items held in trust. Public demand for online access to many of these materials is robust and continues to grow. The nebraskahistory.org domain name was chosen for its brief and intuitive connection to the subject matter—Nebraska History—that most online users seek.

In response to increasing demand for historical resources in electronic format, the NSHS website has grown to many thousands of pages of content, approximately 10.2 Gigabytes with 22,410 files and 557 folders. Researchers may peruse collections catalogs for genealogy and family history records, photos, objects, buildings part of the Nebraska Historic Building Survey, historical markers and more. The nebraskahistory.org domain name has been proliferated in all our communications media since the turn of the 21st century.

A number of additional sites are linked to the nebraskahistory.org site, including Savingtreasures.org, which provides extensive information including how-to videos on care and preservation of objects of importance to Nebraskans, and Nebraskatudies.org, devoted to providing historical resources, lesson plans, standards-based content and more to teachers and students. (The former site is jointly owned with Nebraska Educational Telecommunications; the later with NET and the Nebraska State Department of Education.) *Family Tree* magazine recently listed the nebraskahistory.org site as one of the best state resources for genealogy.

1500 R Street
PO Box 82554
Lincoln, NE 68501-2554
p: (800) 833-6747
(402) 471-3270
f: (402) 471-3100
www.nebraskahistory.org

As the nebraskahistory.org content has grown, NSHS has listed it in all publications, educational and promotional materials, heritage tourism guidebooks and resources (Nebraska Tourism, AAA, Old West Trail, Lewis and Clark, and other regional promotional entities), state and local history organizations (Nebraska Museums Association, Mountain Plains Museums Association, American Association for State and Local History, American Alliance of Museums), state, federal, tribal and non-profit cultural resource management entities (Nebraska Land Trust, Nebraska Game and Parks Commission, National Park Service, Midwest Archeological Center, Tribal Historic Preservation Offices) and genealogical and family history resources (Library of Congress, Nebraskaccess, Nebraska State Genealogical Society, Ancestry, Family Search and more.) Replacement of the nebraskahistory.org brand with a new URL would mean considerable cost not available in our budget or requested in the budget process for production of new print media pieces, changed signage, and significant staff time for change of electronic network links connected to this wide range of organizations and sites. Our newest program, the Nebraska Historic Tax Credit, is jointly administered by NSHS and the Nebraska Department of Revenue; a changed URL would require revamping of all those program materials, as another example.

NSHS identifies each website page on the site with the standard logo and "Official Nebraska Government Website" headers and is the process of adding government identifiers to social media products (Facebook, blog). NSHS observes procedural and statutory requirements for independent state agencies and clearly affiliates itself with state government in its electronic communications.

Retention of the nebraskahistory.org domain will allow continued public service and growth of access to Nebraska history resources without incurring the costs in personnel time, printing, signage, and electronic communications that the otherwise-required change to a new URL would entail.

Your consideration of this waiver request is appreciated. Please contact me or Deputy Director Lynne Ireland if we may provide further information.

michael.smith@nebraska.gov (402-471-4745)
lynne.ireland@nebraska.gov (402-471-4758)

STATE OF NEBRASKA

Dave Heineman
Governor

OFFICE OF THE CAPITOL COMMISSION
State Capitol 7th Floor
Robert C. Ripley
Capitol Administrator

RECEIVED
JUN 10 2013
OFFICE OF THE CIO

Request for Waiver
Office of the Capitol Commission

Robert C. Ripley, AIA R. C. Ripley
Administrator, Office of the Capitol Commission
7th Floor State Capitol
(402)471-0419

Roxanne E. Smith
Capitol Tourism Supervisor
7th Floor State Capitol
(402)471-0449

NITC 7-104 Web Domain Name Standard
All state associated web sites will have a nebraska.gov domain name.

Description of problem or issue
Since 1998, the Office of the Capitol Commission has been using the website www.capitol.org for the Nebraska State Capitol's web presence. We are very proud of our Capitol and via capitol.org share it with many who are seeking general information about capitols. In our 2010 website upgrade and redesign we invested time and money in Search Engine Optimization for www.capitol.org. When capitol is typed into search engines, the Nebraska State Capitol is the one of the first entries in the search. NITC 7-104 would require us to change our website domain name to www.capitol.nebraska.gov and lose our very high visibility on the internet. Google will penalize us for forwarding the domain, and redirecting our URLs to a new URL will degrade our ranking in search engines.

Description of the agencies preferred solution
The Office of the Capitol Commission requests a waiver from the NITC 7-104 requirement to change our well established www.capitol.org 15 year domain name. Our preferred solution is to be allowed to continue our use of www.capitol.org into the future.

Additional Information and justification showing good cause for the waiver
The .org domains are widely accepted by the public as non-profit or public service websites and as such the Office of the Capitol Commission fits within this category as caretaker of the Capitol and keeper of the Capitol's web presence. We have built considerable equity in www.capitol.org and have been distributing this domain name for over 15 years via our publications and visitor information. OCC has invested our resources in establishing the domain name and the brand surrounding www.capitol.org. The www.capitol.org address is very easy for visitors and school children to remember.