The State of Oklahoma Geographic Information NG911 and Addressing Standard

Oklahoma GI Council / Office of Geographic Information / Oklahoma 9-1-1 Authority

Oklahoma Geographic Information Council Approved: *Modifications Highlighted*

Oklahoma 9-1-1 Management Authority Approved: *Modifications Highlighted*

Version 3

Oklahoma Address Standards

Article I. Introduction

This document shall serve as the primary reference document for Next Generation 911 (NG911) Geographic Information System (GIS) Components and Address Standards in the State of Oklahoma regarding GIS based addressing. The standard set forth is to be maintained, utilized, and distributed under the authority of the Oklahoma 9-1-1 Management Authority, the Oklahoma Geographic Information Council, and the Oklahoma Office of Geographic Information. This standard is mandatory for NG911 purposes in the State of Oklahoma. While not mandatory beyond the scope of NG911 purposes the following guidelines as defined within this standard are highly recommended for all addressing applications, both geospatial and tabular, to promote interdisciplinary compatibility. ~~The following guidelines should be incorporated into all addressing applications, both geospatial and tabular, to ensure interdisciplinary compatibility.~~

Article II. Background

Section 2.01 History

The Oklahoma State Geographic Information Council (further known as GI Council) has continually adapted to the technological advancements within the GIS profession to provide the State of Oklahoma the best possible collective GIS resource since its inception in 1994. The current GI Council of 19 members and the Office of Geographic Information (OGI) represent a professionally diverse cross section of the existing GIS community in Oklahoma and operate under the following legislative authority.

The Oklahoma 9-1-1 Management Authority (further known as 911 Authority) was created on November 1st, 2016, and developed a technical subcommittee that would oversee the deployment of NG911 in the State. A partnership was formed between the 911 Authority and the GI Council with the goal of developing a Statewide GIS Standard that will meet or exceed National Emergency Number Association (NENA) requirements for NG911 (NENA i3 standard).

Below are the legislative initiatives that support the overall goal of the GI Council and 911 Authority partnership:

- 1994 **SB 722** Created the State GIS Council of 11 members under the Conservation Commission serving as the Chair
- 1995 **HB 1964** Added 3 members to the State GIS Council
- 2001 Amendment adding 1 member to the State GIS Council
- 2003 **Interim Study H2003-105** considered a State-wide Coordinator, adding more members to the State GIS Council, & the authority to set policies / standards.
- 2004 **HB 2457** Changed the name of the State GIS Council to the State GI Council, added 4 new members, created the Office of Geographic Information (OGI) and corresponding positions in the OGI, along with specifying duties for the OGI and the GI Council
- 2011 **HB 1086** Established the "Oklahoma State Government Geographic Information One-Stop Initiative"

NG911 Standard Update - Oklahoma 9-1-1- Management Authority History

- 2016 **HB 3126** Created the Oklahoma 9-1-1- Management Authority and the position of State 9-1-1-Coordinator. Wireless 911 Bill passed to change funding and require the NENA Location Services Standard for all 911 centers to follow.

Section 2.02 Legislative Duties

~~As set forth in 2004 Regular Session of the Oklahoma State Legislature by **§82-1501-205.1** and **§82-1501-205.3 HB 2457** includes the following duties for the GI Council and the Office of Geographic Information. The GI Council developed this address standard under the following legislation. Below are the specific excerpts from existing State Statute.~~ As set forth in State Statute by the Oklahoma State Legislature the GI Council, Office of Geographic Information, and Oklahoma 9-1-1 Management Authority have the following duties and responsibilities. This standard has been developed and is maintained under the following legislation. Below are specific excerpts from

existing State Statute as pertaining to this standard.

Oklahoma State Geographic Information Council

- **§82-1501-205.1**

G. The duties of the Council shall include overseeing the Office of Geographic Information concerning the following:
1. Development, adoption, and recommendation of standards and procedures that may be applied to geographic information and Geographic Information Systems to promote consistency of data elements;

- **§82-1501-205.3**

(A) There is hereby established an Office of Geographic Information in the Oklahoma Conservation Commission.

(D) The Office shall:
6. Develop, maintain, update, and interpret Geographic Information System standards under the direction of the Council and working with state and local agencies;

Oklahoma State Government Geographic Information One-Stop Initiative

- **§62-31.11.5**

(A) There is hereby established the "Oklahoma State Government Geographic Information One-Stop Initiative"

(B) The State Geographic Information Coordinator shall develop and maintain an online web presence at the web address "maps.ok.gov". The site shall allow public access to geodata described in this section.

(C) The State Geographic Information Coordinator shall promulgate procedures by which each state agency, board, commission and public trust having the State of Oklahoma as a beneficiary shall submit geodata to the Office of Geographic Information to be published on the "maps.ok.gov" website.

(D) For the purposes of this section, the term "geodata" shall mean information which can be presented as a component of a geographic or spatial presentation.

(E) State agencies, boards, commissions and public trusts having the State of Oklahoma as a beneficiary shall comply with procedures promulgated pursuant to the terms of this section.

**Current online web presence is located at the web address : https://okmaps.org/OGI/search.aspx*

NG911 Standard Update- Oklahoma 9-1-1 Management Authority Legislative Duties

- **§63-2864**

The powers and duties of the Oklahoma 9-1-1 Management Authority created in Section 3 of this act shall be to:

(4) Direct the Oklahoma Tax Commission to escrow all or any portion of funds collected pursuant to the Oklahoma 9-1-1 Management Authority Act attributable to a public agency, if the public agency fails to:

(b) meet standards of the National Emergency Number Association (**NENA**) limited to call-taking and caller-location technology or comply with an improvement plan to meet such standards as directed by the Authority,

Public Health and Safety - Outgoing calls - Confidentiality – Liability

- **§63-2815.1**

(A) Nine-one-one emergency telephone service information may be used by a public law enforcement or public health agency for the purpose of placing outgoing emergency calls

that notify the public of an emergency or provide to the public information relative to an emergency.

(B) Nine-one-one emergency telephone service information shall be confidential. Any public law enforcement or public health agency that uses nine-one-one emergency telephone service information for the purposes set forth in subsection A of this section shall establish methods and procedures that ensure the confidentiality of the information.

Section 2.03 Need for a Standard

Addresses today are the primary reference commonly accepted as the indexing system used to represent specific geospatial locations in an easily searchable tabular format. The increasing integration of geospatial information into every aspect of daily operations has led to the need for a statewide address standard. Throughout Oklahoma there are many authorities that assign addresses within their respective jurisdiction. The development of addressing systems throughout the state without an existing single point reference document has led to diversity in the datasets. In accomplishing the required tasks of the assigning agencies multiple methods have been employed to accommodate ~~the~~ unique local functionality or overcome existing limitations. While many of the limitations that once constrained the development of addresses are no longer applicable today, there are several that are still very much a consideration for the assigning agency. The development of Oklahoma's address standard ensures the fundamental minimum requirements needed to accurately depict an address are met within any current accepted system today while preparing for future development. The development and integration of NG911 relies primarily on GIS data to accurately determine the location of the caller in order to route the call to the proper Public Safety Answering Point (PSAP) and dispatch the necessary emergency services. All GIS data that is ~~utilized~~ implemented in NG911 applications in Oklahoma must adhere to the requirements as set forth in this standard.

Section 2.04 Workgroup Formation

(a) **Initial Workgroup** -In response to the increasing need for address standardization the GI Council formed the Address Standard Workgroup on **April 1, 2011**, to research, develop, and submit an address standard for adoption by the GI Council. The primary focus of this group was to research what address standards were being utilized in Oklahoma currently and develop a simple custom set of fundamental address standards that adhered to current industry standards. A fundamental provision from the start of the workgroup was to consider existing formats that currently are operational. While an address assigning jurisdiction may add certain elements to their data the focus of this workgroup was to isolate on the commonalities across the jurisdictions that are required for addressing. After this assessment a fundamental schema and associated documentation was to be built that could either be utilized to create a new address dataset, incorporate an existing, or enhance an older dataset with added functionality.

NG911 Standard Workgroup – The additional requirement beyond the scope of the initial State of Oklahoma Geographic Information Address Standards constituted a need to form another workgroup between the GIS and 911 professionals. In an effort to meet the overall goal and enhance the end product the 911 Authority and the GI Council worked together through a joint GIS Technical Workgroup. This workgroup updated the existing State of Oklahoma Geographic Information Address Standards (Version 1.0 - September 5, 2014) to meet and exceed the required NENA standard for NG911. Subsequent revisions to this standard are based on NENA modifications, necessary changes for functionality within Oklahoma's NG911 GIS data collection and workflow, and lessons learned to achieve the overall goal of creating and maintaining functional statewide NG911 GIS datasets. Workgroups for subsequent revisions of this standard are acknowledged under Section 4.03 (Workgroup Acknowledgements)

Section 2.05 Address Data Formats

Addresses as recognized within this standard generally exist in one of three formats.

(a) A single address field or possibly set of fields in a tabular database.

(b) A specific address associated with a point feature.

(c) An address range associated with a linear feature such as a street or railroad centerline. *(This format generalizes the address along the length of the linear feature. It is generally more forgiving but not as precise due to numerous theoretical addresses that may not exist)*

Section 2.06 Essential Address Elements- USPS Publication 28

An address is comprised of several different attribute components, all of which are required to accurately define a specific address. When an address is matched against a Master Address File (MAF) it must be parsed (divided) into the individual components separated by a single space between the components. The minimum components required to accurately define the geospatial portion of an address with relation to this address standard are:

USPS Publication 28 Data Element	OK Address Standard Field Name	E911 Example Value
Street Number	~~Address~~ AddNumber	101
Predirectional	PreDir	N

Street Name	Street	Main
Street Suffix	StreetType	ST
Postdirectional	SufDir	NE
Secondary Unit Indicator	BldgUnit	APT
Secondary Number	BldgName	3
City	City	Guthrie
State	State	OK
Zipcode	Zipcode	73044

Mailing Standards of the United States Postal Service Publication 28 - Postal Addressing Standards

While not all ~~of~~ the elements are required to be filled out for an address to be valid all of the placeholders need to be present in the attribute table to accurately represent the accepted United States Postal Service Standards. The Postal Service uses the following parsing logic to enter address information into their appropriate fields. When parsing an address into the individual components, start from the right-most element of the address and work toward the left. This methodology places 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. In accordance with USPS Publication 28 all punctuation, with the exception of Zipcode4, should be omitted unless absolutely essential throughout all elements of an address. *(i.e. 101 1/2 MAIN ST, 101.5 MAIN ST)*

Section 2.07 Enhanced 911 (E911) vs Next Generation 911 (NG911) NENA Mapping Requirements

(a) **Enhanced 911 (E911)** - E911 utilizes landlines, wireless lines, and Voice VoIP through a combination of the MSAG and the ANI/ALI to pass locational data into the PSAP. The tabular data is then displayed on the mapping platform in the PSAP via positional information from coordinates or by point or street centerline geocoding functions on premises. Address elements used in geocoding functions within E911 generally adhere to USPS Publication 28 Postal Address Standards. The following layers are required for E911 to functionally map an emergency service request.

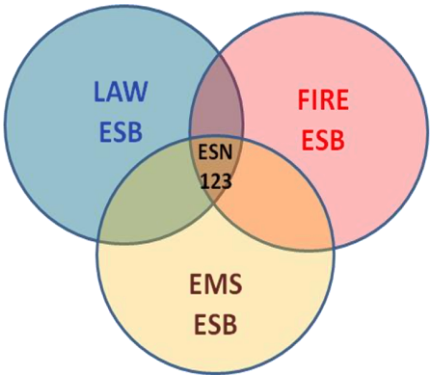
- ADDRESS_POINT – *(Local Agency Maintained Dataset)*
- ROAD_CENTERLINE – *(Local Agency Maintained Dataset)*
- ESZ_BOUNDARY – *(Local Agency Maintained Dataset)*

(b) **Next Generation 911(NG911) –** NG911 is an Internet Protocol (IP)-based system that allows digital information (e.g., voice, photos, videos, text messages) to flow seamlessly from the public, through the 911 network to emergency responders. This process does not rely on the ANI/ALI – MSAG to pass tabular data to the PSAP. NG911 utilizes various functions within a server environment to determine the caller location based on GIS attributes and polygons. The following layers are necessary for NG911 to provide call routing to the proper PSAP.

- PSAP_BOUNDARY– *(State of Oklahoma NG911/GIS Maintained Dataset)*
- ESB_FIRE_BOUNDARY – *(Local Agency Maintained Dataset)*
- ESB_LAW_BOUNDARY– *(Local Agency Maintained Dataset)*
- ESB_EMS_BOUNDARY– *(Local Agency Maintained Dataset)*
- DISCREPANCYAGENCY_BOUNDARY– *(State of Oklahoma NG911/GIS Maintained Dataset)*

(c) **ESN -ESZ/ESB Relationship**

- **ESN** – (Emergency Service Number) The three to five digit **Number** assigned to the unique combination of ESB that represents an ESZ polygon. *Required at a minimum as a legacy lookup table for the **MSAG**.*
- **ESZ** – (Emergency Service Zone) The **Polygon** that defines the unique geographic area of the combination of ESB (Fire, Law, & EMS ~~Combined~~) *(Each polygon generally corresponds to a composite ESN)*
- **ESB** – (Emergency Service Boundary) The **Polygon** that defines the geographic area of a **SINGLE** emergency response service. (Fire or Law or EMS separately) *Required to be separate service layers for **NG911**.*



Section 2.08 Definition of the Standard

The following address standard defines the intended applications and usages associated with NG911 and the address standard along with the detailed components required for accurately representing caller location technology and addresses in a GIS. NG911 data as defined by this standard must meet or exceed the minimum standards outlined within this standard to be considered compliant with regards to Oklahoma NG911.

Section 2.09 Applicability and Intended Uses of the Standard

The intended use of this document is to provide emergency services with a ~~mandatory~~ MANDATORY standard for the implementation and maintenance of a NG911 system, specifically pertaining to the development and maintenance of the NG911 required GIS datasets. The standard also provides a simple basic address schema for anyone working with addresses in the State of Oklahoma. The associated documentation standardizes the basic structure of the tabular and attribute data required for geocoding using points, lines, and polygons. It is intended to be used by both the public and private sector**.**

Section 2.10 Spatial Components

For the purpose of this standard the spatial feature types referenced are points, lines, and polygons.

(a) **Points** may be used to represent the center of building footprints, access locations such as driveway, building entrances, or parcel centroids. The address point identifies a single address or at the very least the primary address of a location. (i.e... an apartment complexes main address) The individual point may not completely reflect the address of a parcel or structure considering some buildings or parcels have more than one address. In such a case it is generally advisable to place a single point per valid address to ensure a one to one match in geocoding.

(b) **Lines** are generally used for street centerlines in this standard but can represent any linear feature where addressing is based on a distance along the line. This address format requires address ranges along the linear feature providing an even / odd address parity instead of individual numbers. It is critical that topology and line directionality are strictly adhered to regarding lines to ensure ~~a~~ functional geocoding.

(c) **Polygons** represent areas and will be used to delineate areas of ~~a~~ an Emergency Service Zone (ESZ), PSAP, Emergency Service Boundary (ESB), and Discrepancy Agency Boundary. NG911 will rely on these layers to determine the caller location and services for a particular area as well as maintain an accurate data stewardship to report discrepancy errors and corrections back to the local Agency.

Section 2.11 Attributes

Attributes are the tabular datasets represented by rows and columns of information associated with a geographic spatial feature. The following list represents the types of information that can be stored in attribute tables.

(a) Required attributes are the essential fields of data that are, at a minimum, required for correct geocoding and accurate address placement.

(b) Associated attributes pertain to the tabular and related data tied to an address. Examples of this could include a business name, incident number, structure type, etc. Many times, associated data is stored in alias tables.

(c) Alias tables may also be associated with any type of attribute data to provide extra information or increase the accuracy of geocoding operations.

Section 2.12 Data Field Requirements and Types

It is completely acceptable for local datasets to contain extra data fields beyond the required attributes as defined by this standard. ~~The data may be locally stored in whatever format the local Agency requires.~~ Regardless of how the data is being maintained locally, data SHALL be provided in accordance with this standard when exported for NG911 purposes. Data Domains have been provided and must be utilized to ensure information is not lost when merging local data to a statewide dataset.

(a) Data Field Requirement attributes are tagged as **M**andatory (**M**), **C**onditional (**C**), **O**ptional (**O**) or **T**ransportation (**T**). Transportation fields have been included for use in other public safety applications.

- **Mandatory** means the data field must be populated
  *(i.e. The field "County" will **ALWAYS** have a value such as "**GARVIN COUNTY**")*
- **Conditional** means that **IF** an attribute value exists for a given feature, it **MUST** be populated. If no value exists for a given feature, the data field is left blank unless other guidance is given.
  *(i.e. The Street Prefix Direction "PreDir" **MAY** have a value such as "NORTH" in 100 **NORTH** MAIN)*
- **Optional** means the data field must be present but may or may not be populated
- **Transportation** denotes fields that are only essential to Transportation and Routing functionality, the data fields must be present but may or may not be populated.
  *(i.e. The Street Speed Limit "SpeedLimit" **MAY** have a value such as"25" if so then 25 will be included in the data field. The default speed limit **SHOULD** be set at "21" unless the limit is known).*

(b) Data Field Types

- ALPHANUMERIC – Any combination of letters, numbers, & characters.
- DATETIME- Specifically a Date/Time format
  (Since a shapefile only stores dates in a yyyy-mm-dd format a default time of 12am of the attributes stated date will be assigned to all Date/Time attributes not specified when necessary)
- NUMERIC - Consisting of whole numbers only (No Decimals)
- DECIMAL - Consisting of whole numbers including decimals

(c) Data File Format

The data must be stored and maintained locally in a type of geodatabase sufficiently capable of retaining the necessary layers, schema, topology, and accuracy required to submit to the State of Oklahoma NG911/GIS Repository. The file geodatabase as defined within this standard will export each feature class to a respective shapefile without truncating any of the field names or widths however topological accuracy will not be retained due to a shapefile's inherent limitations. It is NOT recommended to

reintroduce shapefile geometry back into your production file geodatabase for this reason.

Section 2.13 Standard Addressing Practices

In order to provide ~~for~~ data consistency and interoperability this is the NG911 standard for the State of Oklahoma.

(a) **Unique Identification Code (Mandatory)** - A unique identifier is required for all databases, whether they are associated attributes or geospatial data sets. This unique identifier shall be used to link address attributes and indexes with other information. The unique identifier is defined in the NENA standard as the NENA Globally unique ID (**NGUID)**. ~~Solely this~~ This unique ID will enable tracking the address data element back to the original owner. Each **NGUID** shall be configured to the following format to comply closer to the adopted i3 format utilized in the current and future NG9-1-1 GIS Data Models:

~~**(LayerName)_(Local911UniqueID)@(Agency_ID)**~~
~~**Example: ROAD_CENTERLINE_24965@psap.5585.ok.gov**~~

(URN):(LayerName):(Local911UniqueID):(Agency_ID)
Example: urn:emergency:uid:gis: ROAD_CENTERLINE: 24965: psap.5585.ok.gov

(b) **Legacy E911 Data Fields** – Legacy E911 fields **(*LgcyFulAdd, LgcyFulSt, LgcyPreDir, LgcyPreType, LgcyStreet, LgcyType, LgcySufDir*)** are to be used for the current and predominate street names in a Legacy E911 format. All legacy street names must match identically to the corresponding field values as they exist in the MSAG. They shall **ALWAYS** use abbreviations as defined by the "**LGCYDIRECTION**" and "**LGCYSTREETTYPE**" domains. The actual street **(LgcyStreet)** names must match identically to the corresponding field values as they exist in the MSAG. ~~**NEVER** be abbreviated because they are not a "Direction" or a "Street Type" but rather a "Proper" street name even if they contain a word listed in either "**LGCYDIRECTION**" and "**LGCYSTREETTYPE**" domains.~~ Unless there are strong reasons for doing otherwise, it is recommended that the *Mailing Standards of the United States Postal Service Publication 28 - Postal Addressing Standards - Appendix B & C1 be used for legacy data fields.* Legacy data fields most likely will be utilized for map labeling & address locators required throughout various applications that require abbreviated street names. **Legacy data fields are NOT to be used as Historic or Alternate Street names.** Historic or Alternate Street names are to be stored in AltStName1, AltStName2, or AltStName3. If further Historic or Alternate Street names are necessary, it is recommended to ~~implement~~ add more local fields to the dataset or an Alias table as mentioned in this standard & further defined in the *NENA Standard for NG9-1-1 GIS Data Model*.

(c) **Alias Tables** – The usage of associated alias tables will greatly increase the accuracy of the automated geocoding. It allows the system to handle various spellings or misspellings (aliases). A series of alias tables create alternate spelling options for common discrepancies regarding addresses. Whenever an address is being processed by the system it needs to go through a process of standardization. A crucial part of this standardization is to look up each address component in the alias tables and replace alias values with the standard equivalents. Constructing such alias tables requires considerable judgment to avoid distortions and are typically built up over time as unmatchable addresses are reviewed. While some alias table information is fairly common many customizations are specific to a particular jurisdiction and cannot be universally adopted.

i.e. A single street with multiple legal names within a single jurisdiction:
14TH AVENUE NORTHEAST / STATE HIGHWAY 199 / SAM NOBLE PARKWAY

(d) Abbreviations – NG911 Address elements do **NOT** recognize any abbreviations **EXCEPT IN THE FOLLOWING INSTANCES**

- **Legacy E911 Data Fields** as previously defined.

- The Country & State name components of an address are **RECOMMENDED** to be abbreviated as defined in the **"COUNTRY**" and **"STATE**" domains.

(e) **Street Naming** - A standard method of assigning numeric and character street names shall be developed and adopted for the whole jurisdiction. The primary objective is to establish a grid within each jurisdiction regardless of the detailed pattern of the individual grid.

(f) **Vanity Street Names** - Vanity street names and addresses that related to a particular business, developer or property owner and should never be used in place of the primary street address. They may, however, be used as a supplemental address in compliance with the *Mailing Standards of the United States Postal Service Publication 28 - Postal Addressing Standards*

(g) **Avoiding Obvious Conflicts** – For the sake of accuracy and clarity avoid obvious conflicting names and numbers.

Names with directions:	*(i.e. SOUTH RIDGE)*
Names that include street types:	*(i.e. SUNSET PLACE DRIVE)*
Names that sound alike:	*(i.e. ROE and ROW)*
Easily misleading names:	*(i.e. MAIN DRIVE and MAIN STREET)*
Multiple word names without hyphens :	*(i.e. HICKORY WOOD VIEW MANOR)*

(h) **Street Segment Break & Naming Rules** – Individual street segments should break at an intersection whenever possible, and preferably at an intersection with a major cross street along with locations that attributes of a street segment change. *(City Limits, ESB, Jurisdictions, etc.)* Where it is not possible to make the break at an intersection, the break should occur at a point on the curve where the street orientation changes from primarily north-south to east-west, or vice-versa. Street name signs should be used at every street name break to clarify the change.

(i) **Non-Grid Street Names** - Street names that are not in the street name grid should always be unique to the overall jurisdiction.

(j) **Street Types** -Each street name should have a street type that is used consistently, or have a street type that is based on a logical pattern. The exception to this rule is where street type is needed to distinguish between two streets in the same area with the same name (e.g., Sunset Dr and Sunset Ct). The recommended standard for establishing the street type values in NG911 is set forth in the ~~*NENA Civic Location Data Exchange Format (CLDXF).*~~ *The USPS Publication 28 Appendix C1 and the NENA Registry System – Street Name Pre Types and Street Name Post Type*

(k) **Logical Address Consistency** – Addresses located across the street from each other shall be assigned so that they are nearly equal. Where there are more addresses on one side of the street, addresses assigned to the other side will be more widely spaced so that addressing consistency is maintained for addresses across from one another.

(l) **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 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.

(m) **Address Number Assignment** - Each jurisdiction shall adopt a standard method of

assigning address numbers. A jurisdiction may elect to have address numbers increase from north to south and from east to west. The jurisdiction may also choose to assign odd address numbers on the south and east sides of the street and even numbers on the north and west sides of the street. Regardless of the method selected, it must remain consistent throughout the jurisdiction and should be coordinated with as many contiguous jurisdictions as possible.

(n) **Address 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.

(o) **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 centerline of the road by addresses at either end of a street centerline segment. Two values of the range represent the lowest addresses, and the other two represent the highest. The values are further distinguished as being on either the left or the right side of the segment. In topological terms, the low values are associated with the FROM node of the segment, while the high values 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 is being developed. Implementation of the address parity (i.e., odd vs. even) is usually determined by the addressing software.

Section 2.14 Geocoding

Geocoding is the process of finding associated geographic coordinates (often expressed as latitude and longitude) from other geographic data, such as street addresses, or ZIP codes (postal codes). This process can be accomplished through various methods. For the purpose of this standard the following three methods are preferred.

(a) **Point based geocoding** provides for the most accurate one to one geocoding option. It utilizes a preset number of essential fields to parse an address and accurately correlate the parsed address to the tabular data associated with a specific geographic point representing an address. While this method is highly accurate it is generally not very tolerant of address discrepancies or errors unless alias tables are utilized. It is generally the preferred first method of geocoding and provides real addresses with ~~absolute~~ the highest accuracy.

(b) **Linear based geocoding** provides the most widely accepted and error tolerant geocoding option. It allows for any number of addresses within a preset range based on either a single high and low number or an even and odd high and low number parity along a linear feature. A geographic position is calculated along a line based on the measured distance and address interval. This method can be extremely accurate depending on the data ranges. While this method is very tolerant of address discrepancies and errors it can produce theoretical addresses where real addresses do not exist. Linear based geocoding also allows for street intersections to be searched. It is generally preferred for complete coverage of a jurisdiction and provides relative accuracy of an address.

i.e. Linear Theoretical & Actual Address Ranges:
Theoretical Address Range: 701-799; 700-798
Actual address range: 701-725; 700-724

(c) **Composite Geocoding** is a dual stage geocoding option where generally a more accurate (generally point based) geocoding option is initially utilized to find a location. If a suitable match is not found the address is passed to the second (generally linear based) geocoding option for an attempted match based on more forgiving parameters. This dual

pass geocoding provides very ~~good absolute~~ high accuracy while retaining complete coverage of relative accuracy throughout a jurisdiction.

Section 2.15 Data Quality

Data quality is a cumulative relationship of data accuracy, consistency, currency, and completeness accurately representing reality within NG911. Every effort must be continually pursued to maintain every aspect of data quality as set forth in this standard. Failure to maintain any portion of the cumulative relationship of data quality for NG911 data compromises the entire integrity of the data and poses a serious risk of loss of life considering the ~~sole~~ primary intent of the data.

Section 2.16 Topology

Topology describes the spatial relationships between GIS features (Ex. Road centerlines within Service Boundaries) and must be considered when developing or maintaining NG9-1-1 GIS data layers. When a specific relationship between features is desired, topology rules need to be developed to enforce that relationship. The following exceptions are allowed within the standard when correctly utilized.

- DANGLE_EXCEPTION – Feature is an exception to the "Must Not Have Dangles" topology rule – *This is intended to be utilized for dead end roads and cul-de-sacs. It is not applicable for address points.*
- INSIDE_EXCEPTION - Feature is an exception to the "Must be Inside Discrepancy Agency Boundary" topology rule – *This is intended to be utilized for roads or address points that are completely contained within and intentionally are coincidental to other boundaries or intentionally touch other boundaries.*
- BOTH_EXCEPTION- Feature is an exception to both topology rules – *This is intended to be used for features that intentionally are exceptions to both Dangle & Inside Exceptions. It is not applicable for address points.*
- NO_EXCEPTION - Feature is not an exception to the topology rules – *This option should be the default value utilized for the majority of the features to adhere to required topology rules.*

Section 2.17 Snap-to-Vertexes

Snap-to-vertexes *(also known as anchor points, agreement points, stitch points, edge-match points, etc.)* are vertexes that represent where data from one PSAP ends, and another begins. This standard does not maintain a specific feature class designated for these critical data points. It does provide current, validated, & submitted statewide datasets available for download from the State of Oklahoma NG911/GIS Repository. All PSAPs within Oklahoma should work with their neighboring PSAPs to ensure proper edge matching of features along mutual borders. The utilization of these vertexes provides critical locations to which disparate GIS data layers can be snapped together *(i.e. end nodes of two road centerlines coming together at a boundary line)*. This continual process ensures coincidence and edge matching across borders and between GIS data layers as well as promoting critical awareness of neighboring PSAP datasets. These are not points representing formal or legal boundaries but instead represent an agreed upon location between PSAPs to ensure logical, continuous NG911/GIS statewide datasets.

Section 2.18 Positional Accuracy Standards

The geospatial accuracy of an address location and the critical datasets required for NG911 should be pursued to achieve the highest feasible and attainable positional accuracy possible. While the positional accuracy of this data may vary greatly between agencies there must be a minimum statewide accuracy standard that ensures accurately and reliably locating individuals for emergency response. In 2016 NAIP Orthophotography accuracy specifications changed the true ground accuracy to 4 meters (13.1234 feet) at 95% confidence level. Considering many rural address point locations within Oklahoma have been and will be derived from this 1 meter or subsequently higher resolution NAIP Orthophotography or by GPS collection devices capable of differential correction to attain

comparable accuracy the following minimum standards should be feasibly attainable in most addressing applications within Oklahoma. The equipment and methodology used to acquire and derive this data must be that of a grade capable of collecting data to within a horizontal accuracy of +/- 13.1234 feet at 95% confidence. Data collection at higher accuracy is obviously preferred as resources permit such acquisition.

Section 2.19 Spatial Reference

Local GIS data may be stored in any projection desired as long as the data projection is ~~a~~ clearly defined and is a regionally recognized projection. For NG911 purposes the NG911 data must be in the following projection prior to loading into the Emergency Call Routing Function (ECRF) or Location Validation Function (LVF). All GIS data in i3 must be in this WGS84 format to support interoperability between all systems and all sites.

Geodetic parameters for **WGS84** are specified by the European Petroleum Survey Group (EPSG) for both 2-dimensional and 3-dimensional geometries.

(a) For 2-dimensional geometries the geodetic parameters are required to follow **EPSG::4326**

(b) For 3-dimensional geometries the geodetic parameters are required to follow **EPSG::4979**

~~**EPSG:** 4326 WGS 84 / Latlong~~
~~**Projection:** Geographic, Plate Carrée, Equidistant Cylindrical, Equirectangular~~
~~**Latitude of the origin:** 0°~~
~~**Longitude of the origin:** 0°~~
~~**Scaling factor:** 1~~
~~**False eastings:** 0°~~
~~**False northings:** 0°~~
~~**Ellipsoid:** WGS84~~
~~**Horizontal Datum:** WGS84~~
~~**Vertical Datum:** WGS84 Geoid, which is equivalent to Local Mean Sea Level (MSL)~~
~~**Units:** decimal degrees~~
~~**Global extent:** -180, -90, 180, 90~~

Section 2.20 Content Accuracy

Content accuracy is measured based on the overall functional correctness of the data to accurately represent reality. This accuracy can be measured by the following aspects.

(a) The individual components of the data must be complete (filled in where appropriate) and contain the correct information.

(b) The data must be correct for the location in question. Routing to someplace is important but locating that someplace is critical.

(c) The data must be correct sequentially in terms of its relationship with the overall addressing schema.

(d) The data must be both current and valid with regard to content in order to function correctly.

Section 2.21 Approved Agencies

(a) **Agency** - An Agency as defined within this standard is an organization approved by the State of Oklahoma 911 Coordinator to edit and/or submit NG911 data to the State of Oklahoma NG911/GIS Repository for provisioning to the ESInet. A current table of these approved Agencies along with their assigned Agency IDs and corresponding Discrepancy Agency will be maintained by the State of Oklahoma 9-1-1 Coordinator. Below are the types of Agencies that can be approved as an Agency.

- Public Safety Answering Point *(PSAP) – An Agency that receives the initial 911 call*
- Council of Government
- Vendor

(b) **Agency ID** – ID Assigned to each dispatching Agency by the State of Oklahoma 911 Coordinator. ~~Every approved Agency will be assigned an Agency ID by the State of Oklahoma 9-1-1 Coordinator.~~ This unique Agency ID will be utilized within all related tools & documentation to reference an agency in following format:

• PSAP	psap.XXXX.ok.gov	(XXXX is the Registered FCC ID #)
• COG	cog.cogname.ok.gov	(Abbreviated name of the COG)
• VENDOR	ven.companyname.ok.gov	(Company Name)

(c) **Discrepancy Agency** – Historically, the Discrepancy Agency has been referred to by many previous names for a variety of reasons. (Authoritative, Provisioning, Steward, Jurisdiction, and in some cases Source or Source Agency) As functionally defined within this standard the Discrepancy Agency is to serve as both the Agency that officially submits data to and receives a discrepancy report back from the State of Oklahoma NG911/GIS Repository as the data is checked before provisioning up to the ESInet. A Discrepancy Agency may submit data on behalf of another Agency as approved by the State of Oklahoma 9-1-1 Coordinator. The Discrepancy Agency *"MAY"* be responsible for actually correcting the data if it is the same Agency that locally maintains the data within their respective jurisdiction and also submits data to the State of Oklahoma NG911/GIS Repository. *(i.e. Single PSAP)* In the instance of a Discrepancy Agency submitting another Agencies' data to the State of Oklahoma NG911/GIS Repository it "IS ALWAYS" the Discrepancy Agency's responsibility to ensure any discrepancies found get resolved back at the local level. *(i.e. multiple PSAPs, COG, or Vendor)*
Not every Agency is a Discrepancy Agency, but every Agency must have a Discrepancy Agency.

Section 2.22 Data Stewardship

The local Agency is ultimately responsible for ensuring the NG911 data is maintained and submitted to the State of Oklahoma NG911/GIS Repository. This can be accomplished by directly working with the State of Oklahoma NG911/GIS Repository or by entering into agreements with other Agencies to allow data to be maintained and / or submitted to the State of Oklahoma NG911/GIS Repository on behalf of the local Agency.

The following feature classes are to be continually maintained at the local Agency level and submitted, at a minimum quarterly to the State of Oklahoma NG911/GIS Repository , regardless of if there are any changes to the data during this time period as per Title 145 Oklahoma Department of Emergency Management, Chapter 15 Oklahoma Management Authority, Subchapter 11 : NG9-1-1 Compliance Requirements, (145-15-11-2.a.1.D) as determined by the 911 Authority to the State of Oklahoma NG911/GIS Repository.

- ADDRESS_POINT
- ROAD_CENTERLINE
- ESZ_BOUNDARY
- ESB_EMS_BOUNDARY
- ESB_FIRE_BOUNDARY
- ESB_LAW_BOUNDARY

The following feature classes are maintained and can be downloaded as a statewide dataset housed in the State of Oklahoma NG911/GIS Repository. If a PSAP requests to change any vertex of their existing boundary as defined by the State of Oklahoma they MUST follow the process as outlined in *Appendix B the 9-1-1 PSAP Boundary Change Request* found on the Oklahoma 9-1-1- Management Authority Website.

- PSAP_BOUNDARY
- DISCREPANCY_AGENCY_BOUNDARY

(The Discrepancy Agency Boundary feature class is a modified derivative of Statewide PSAP Boundary feature class)

When a single feature has more than one responsible agency, *(i.e. a road between two Agencies)* each Agency shall work in conjunction with its neighbor to resolve any conflicts locally for their respective portion of data associated with the feature. While there may be several acceptable methods used to handle this situation locally, these methods must work toward providing seamless statewide interoperability and avoid any obvious confusion. A clear reference must be maintained in the metadata and tabular data to the Agency regarding the development and maintenance of any dataset.

i.e. A specific method currently being utilized is two roads of identical geometry (vertices to vertices) that overlap the data of the two owners. The road name within one ownership with a boundary layer separating the road by PARITY (Odd, Even) could have a duplicate road with opposing parity which could be of a different name (Stacking). The direction or purpose of the Discrepancy Agency of the data, whether a multi-jurisdictional collection, COG or State GIS repository, will be to ensure the EDGE Matching of these single owners or stewards to allow for routing topology (intersection breaks, boundary breaks, etc.) between the individual owners.

Section 2.23 Data Privacy

All data stored within the attribute datasets is public record and should never contain any personal information regarding anyone's private information. Names, phone numbers, email addresses, etc. are prohibited from all NG911 GIS datasets as pertaining to this standard.

Section 2.24 Metadata

Metadata shall be created and maintained for all address data sets before the data is submitted to the State of Oklahoma NG911/GIS Repository. The metadata shall meet the standards as set forth in the *FGDC Content Standards for Geospatial Metadata (FGDC-STD-001-1998)* and shall be made available through accepted publishing methods.

Article III. Required Point, Line, & Polygon Schema

Section 3.01 Address Point – Point

Addresses can be accessed as or through geospatial points. Address points can be used for a variety of purposes, ranging from precise geocoding to assigning addresses in a reliable manner. This schema has the potential to serve as both an address repository while referencing a master street name list, providing an invaluable resource to a broad community of users. This dataset is to be maintained at the local Agency level and submitted to the State of Oklahoma NG911/GIS Repository.

Reference **OK_ADDRESS_SCHEMAS_3.XLS** – ADDRESS_POINT

Field Name	Field Description	Field Type	Field Width	Priority	Domain Table
DiscrpAgID	Discrepancy Agency ID (Agency that receives the Discrepancy Report)	ALPHANUMERIC	100	M	AGENCYID
NGUID_ADD	NENA Globally Unique ID : (URN):(LayerName):(Local911UniqueID):(Agency_ID)	ALPHANUMERIC	254	M	
Agency_ID	ID Assigned to each dispatching Agency by the State of Oklahoma 911 Coordinator	ALPHANUMERIC	100	M	AGENCYID
Local_ID	Local Unique ID (Locally Assigned & Maintained Unique ID)	ALPHANUMERIC	100	O	
FullAddr	Full Address (ie.101 West Main Street)	ALPHANUMERIC	254	C	
FullName	Full Name of the Primary Street	ALPHANUMERIC	254	C	
Label	Map Label of the Address	ALPHANUMERIC	50	C	
AddPre	Extension that Precedes an Address Number (ie "A" 100 North Main Street)	ALPHANUMERIC	15	C	
Address	Address Number (ie "100" North Main Street)	NUMERIC	6	M	
AddSuf	House Number Suffix (ie 100 "A")	ALPHANUMERIC	15	C	
PreMod	Primary Street Modifier (ie "Old" Church Street)	ALPHANUMERIC	15	C	
PreDir	Primary Street Directional Prefix (ie "North" Main Street) (Unabbreviated DIRECTION Domain)	ALPHANUMERIC	10	C	DIRECTION
PreType	Primary Street Prefix Type (ie "Highway" 70 East)	ALPHANUMERIC	50	C	STREETTYPE
PreTypeSep	Primary Street Name Pre Type Separator (ie Circle "in the" Woods)	ALPHANUMERIC	20	C	SEPARATOR
Street	Primary Street Name (ie North "Main" Street)	ALPHANUMERIC	254	C	
StreetType	Primary Street Type (ie North Main "Street") (Unabbreviated STREETTYPE Domain)	ALPHANUMERIC	50	C	STREETTYPE
SufDir	Primary Street Directional Suffix (ie Highway 70 "East") (Unabbreviated DIRECTION Domain)	ALPHANUMERIC	10	C	DIRECTION
SufMod	Primary Street Name Suffix Modifier (ie North Main Street "Extension")	ALPHANUMERIC	25	C	
Country	Name of Country the Address Resides In (US) (Abbreviated COUNTRY Domain)	ALPHANUMERIC	2	M	COUNTRY
State	Name of the State the Address Resides In (OK) (Abbreviated STATE Domain)	ALPHANUMERIC	2	M	STATE
County	Name of the County the Address Resides In (Kay County)	ALPHANUMERIC	100	M	COUNTY
City	Name of the Municipality the Address Resides In (Use "UNINCORPORATED" address is not within a City)	ALPHANUMERIC	100	M	
UnincComm	Name of the Unincorporated Community the Address Resides In	ALPHANUMERIC	100	O	
NbrhdComm	Name of Neighborhood, Subdivision, Community	ALPHANUMERIC	100	O	
ESN	The three to five digit Number assigned to the unique combination of ESB that represent a ESZ polygon	ALPHANUMERIC	5	M	
PSAP	Agency (PSAP) name assigned to each dispatching Agency by the State of Oklahoma 911 Coordinator	ALPHANUMERIC	60	M	PSAP
MSAGComm	Master Street Address Guide Community - as Exists in the MSAG	ALPHANUMERIC	30	M	
PostComm	Postal Community	ALPHANUMERIC	40	C	
Zipcode	Zipcode	ALPHANUMERIC	7	C	
Zipcode4	Zip Code +4 Extension	ALPHANUMERIC	4	O	
LandmkName	Business or Agency at the Address	ALPHANUMERIC	150	C	
AddtnlLoc	Additional Location Information (ie Loading Dock, Gate A1, West Wing)	ALPHANUMERIC	225	O	
BldgName	Building or Unit Name (ie Building A, Building 1)	ALPHANUMERIC	75	O	
Floor	Floor of the Building	ALPHANUMERIC	75	O	
BldgUnit	Building Unit Type (ie Suite B, Apartment 206)	ALPHANUMERIC	75	O	
Room	Room Number in the Building	ALPHANUMERIC	75	O	
Seat	Seat in the Room	ALPHANUMERIC	75	O	
GrpQuarter	Group Living Quarters	ALPHANUMERIC	1	O	YESNO
OccupTime	Times the Building is Occupied (8:00 a.m.- 5:00 p.m.)	ALPHANUMERIC	50	O	
StrmSheltr	Type of Storm Shelter	ALPHANUMERIC	25	O	STORMSHELTER
Basement	Existing Basement	ALPHANUMERIC	1	O	YESNO
PlaceType	Type of Feature Identified by an Address	ALPHANUMERIC	50	O	PLACETYPE
Placement	Methodology Used For Address Point Placement	ALPHANUMERIC	25	O	PLACEMENT
MilePost	Mile Post	ALPHANUMERIC	150	C	
Longitude	Longitude Coordinates of the Address Point in Decimal Degrees	DECIMAL	15	O	
Latitude	Latitude Coordinates of the Address Point in Decimal Degrees	DECIMAL	15	O	
Elevation	Elevation of the Address Point (Meter - No Decimal)	NUMERIC	6	O	
AddDataURI	Uniform Resource Identifier (URI) for Additional Associate Data (Floorplans, Photos, URL)	ALPHANUMERIC	254	C	
InitiSrce	Original source of the data	ALPHANUMERIC	75	M	
InitiDate	Initial Time-Stamp - (Creation Entry Date)	DATETIME	20	M	
RevEditor	Most recent editor of the data	ALPHANUMERIC	75	M	
RevDate	Modified Time-Stamp - (Modify Entry Date)	DATETIME	20	M	
EffectDate	Date & Time that the record is scheduled to take effect	DATETIME	20	O	
ExpireDate	Date & Time that the record is no longer valid	DATETIME	20	O	
~~Comment~~	~~Comments / Notes~~	~~ALPHANUMERIC~~	~~100~~	~~E~~	
LgcyFulAdd	Legacy Full Address with Abbreviations as Exists in the MSAG (ie.101 W Main St)	ALPHANUMERIC	254	O	
LgcyFulSt	Legacy Full Name of the Primary Street as Exists in the MSAG (Abbreviated Names ie.W Main St)	ALPHANUMERIC	254	C	
LgcyPreDir	Legacy Street Name Pre Directional as Exists in the MSAG (Abbreviated DIRECTION Domain)	ALPHANUMERIC	2	C	LGCYDIRECTION
LgcyPreTyp	Legacy Street Prefix Type (Abbreviated STREETTYPE Domain)	ALPHANUMERIC	4	C	LGCYSTREETTYPE
LgcyStreet	Legacy Street Name as Exists in the MSAG	ALPHANUMERIC	75	C	
LgcyType	Legacy Street Name Type as Exists in the MSAG (Abbreviated STREETTYPE Domain)	ALPHANUMERIC	4	C	LGCYSTREETTYPE
LgcySufDir	Legacy Street Name Post Directional as Exists in the MSAG (Abbreviated DIRECTION Domain)	ALPHANUMERIC	2	C	LGCYDIRECTION
SUBMIT	Submit Feature to be Validated in OK NG911 GIS Toolkit	ALPHANUMERIC	1	M	YESNO
TopoExcept	Topological Exceptions when Validated in OK NG911 GIS Toolkit	ALPHANUMERIC	20	M	TOPOEXCEPT
RCLMatch	NGUID_RDCL of the road segment the address point should match to as Validated in OK NG911 GIS Toolkit	ALPHANUMERIC	254	M	
RCLSide	Checks the Left or Right Side of the Address Point	ALPHANUMERIC	8	M	RCLSIDE

Section 3.02 Road Centerline - Line

The line in this instance is a linear geospatial feature that represents a street centerline. Other linear features that have incremental address ranges along their sides may also utilize this basic structure. Address ranges are typically established for individual centerline segments so address matching may be performed. Street names and address ranges shall conform to the actual addresses assigned to specific points as a practical rule. This dataset is to be maintained at the local Agency level and submitted to the State of Oklahoma NG911/GIS Repository.

Reference **OK_ADDRESS_SCHEMAS_3.XLS** - ROAD_CENTERLINE

Field Name	Field Description	Field Type	Width	Priority	Domain Table
DiscrpAgID	Discrepancy Agency ID (Agency that receives the Discrepancy Report)	ALPHANUMERIC	100	M	AGENCYID
NGUID_RDCL	NENA Globally Unique ID : (URN):(LayerName):(Local911UniqueID):(Agency_ID)	ALPHANUMERIC	254	M	
Agency_ID	ID Assigned to each dispatching Agency by the State of Oklahoma 911 Coordinator	ALPHANUMERIC	100	M	AGENCYID
Local_ID	Local Unique ID (Locally Assigned & Maintained Unique ID)	ALPHANUMERIC	100	O	
FullName	Full Name of the Primary Road	ALPHANUMERIC	254	M	
Label	Map Label of the Road Segment	ALPHANUMERIC	50	O	
Add_L_Pre	Extension that Precedes an Address Number on the Left Side of the Road (ie "A" 100 North Main Street)	ALPHANUMERIC	15	C	
Add_R_Pre	Extension that Precedes an Address Number on the Right Side of the Road (ie "A" 100 North Main Street)	ALPHANUMERIC	15	C	
Add_L_From	Left From (Low) Address	NUMERIC	6	M	
Add_L_To	Left To (High) Address	NUMERIC	6	M	
Add_R_From	Right From (Low) Address	NUMERIC	6	M	
Add_R_To	Right To (High) Address	NUMERIC	6	M	
Parity_L	The Even or Odd Property of the Address Number Range on the Left Side of the Road Segment	ALPHANUMERIC	4	M	PARITY
Parity_R	The Even or Odd Property of the Address Number Range on the Right Side of the Road Segment	ALPHANUMERIC	4	M	PARITY
PreMod	Primary Street Modifier (ie "Old" Church Street)	ALPHANUMERIC	15	C	
PreDir	Primary Street Directional Prefix (ie "North" Main Street) (Unabbreviated DIRECTION Domain)	ALPHANUMERIC	10	C	DIRECTION
PreType	Primary Street Prefix Type (ie "Highway" 70 East) (Unabbreviated STREETTYPE Domain)	ALPHANUMERIC	50	C	STREETTYPE
PreTypeSep	Primary Street Name Pre Type Separator (ie Circle "in the" Woods)	ALPHANUMERIC	20	C	SEPARATOR
Street	Primary Street Name (ie North "Main" Street)	ALPHANUMERIC	254	M	
StreetType	Primary Street Type (ie North Main "Street") (Unabbreviated STREETTYPE Domain)	ALPHANUMERIC	50	C	STREETTYPE
SufDir	Primary Street Directional Suffix (ie Highway 70 "East") (Unabbreviated DIRECTION Domain)	ALPHANUMERIC	10	C	DIRECTION
SufMod	Primary Street Name Suffix Modifier (ie North Main Street "Extension")	ALPHANUMERIC	25	C	
Country_L	Name of Country on the Left Side of the Road (US) (Abbreviated COUNTRY Domain)	ALPHANUMERIC	2	M	COUNTRY
Country_R	Name of Country on the Right Side of the Road (US) (Abbreviated COUNTRY Domain)	ALPHANUMERIC	2	M	COUNTRY
State_L	Name of the State on the Left Side of the Road (OK) (Abbreviated STATE Domain)	ALPHANUMERIC	2	M	STATE
State_R	Name of the State on the Right Side of the Road (OK) (Abbreviated STATE Domain)	ALPHANUMERIC	2	M	STATE
County_L	Name of the County on the Left Side of the Road (Kay County)	ALPHANUMERIC	100	M	COUNTY
County_R	Name of the County on the Right Side of the Road (KayCounty)	ALPHANUMERIC	100	M	COUNTY
City_L	Name of the Municipality on the Left Side of the Road (Use "UNINCORPORATED" address is not within a City)	ALPHANUMERIC	100	M	
City_R	Name of the Municipality on the Right Side of the Road (Use "UNINCORPORATED" address is not within a City)	ALPHANUMERIC	100	M	
UnincCommL	Name of the Unincorporated Community on the Left Side of the Road	ALPHANUMERIC	100	O	
UnincCommR	Name of the Unincorporated Community on the Right Side of the Road	ALPHANUMERIC	100	O	
NbrhdCommL	Name of Neighborhood, Subdivision, Community on the Left Side of the Road	ALPHANUMERIC	100	O	
NbrhdCommR	Name of Neighborhood, Subdivision, Community on the Right Side of the Road	ALPHANUMERIC	100	O	
Esn_L	The three to five digit number assigned to the unique combination of ESB that represent a ESZ polygon on the Left Side of the Road	ALPHANUMERIC	5	M	
Esn_R	The three to five digit number assigned to the unique combination of ESB that represent a ESZ polygon on the Right Side of the Road	ALPHANUMERIC	5	M	
PSAP_L	Agency (PSAP) name assigned to each dispatching Agency by the State of Oklahoma 911 Coordinator on the Left Side of the Road	ALPHANUMERIC	60	M	PSAP
PSAP_R	Agency (PSAP) name assigned to each dispatching Agency by the State of Oklahoma 911 Coordinator on the Right Side of the Road	ALPHANUMERIC	60	M	PSAP
MSAGComm_L	MSAG Community on the Left Side of the Road - as Exists in the MSAG	ALPHANUMERIC	30	M	
MSAGComm_R	MSAG Community on the Right Side of the Road - as Exists in the MSAG	ALPHANUMERIC	30	M	
Zipcode_L	Zipcode on the Left Side of the Road	ALPHANUMERIC	7	C	
Zipcode_R	Zipcode on the Right Side of the Road	ALPHANUMERIC	7	C	
~~Zipcode4_L~~	~~Zipcode +4 Extension on the Left Side of the Road~~	~~ALPHANUMERIC~~	~~4~~	~~O~~	
~~Zipcode4_R~~	~~Zipcode +4 Extension on the Right Side of the Road~~	~~ALPHANUMERIC~~	~~4~~	~~O~~	
PostComm_L	Postal Community on the Left Side of the Road	ALPHANUMERIC	40	C	
PostComm_R	Postal Community on the Right Side of the Road	ALPHANUMERIC	40	C	
RoadClass	HPMS Functional Classification	ALPHANUMERIC	24	O	ROADCLASS
Oneway	Travel Direction of the Segment Related to Line Direction	ALPHANUMERIC	7	O	ONEWAY
SpeedLimit	Speed Limit of Street Centerline Segment	NUMERIC	3	O	
InitiSrce	Original source of the data	ALPHANUMERIC	75	M	
InitiDate	Initial Time-Stamp - (Creation Entry Date)	DATETIME	20	M	
RevEditor	Most recent editor of the data	ALPHANUMERIC	75	M	
RevDate	Modified Time-Stamp - (Modify Entry Date)	DATETIME	20	M	
EffectDate	Date & Time that the record is scheduled to take effect	DATETIME	20	O	
ExpireDate	Date & Time that the record is no longer valid	DATETIME	20	O	
~~Comment~~	~~Comments / Notes~~	~~ALPHANUMERIC~~	~~100~~	~~O~~	
AltStName1	1st Alternate Street Name	ALPHANUMERIC	254	O	
AltStName2	2nd Alternate Street Name	ALPHANUMERIC	254	O	
AltStName3	3rd Alternate Street Name	ALPHANUMERIC	254	O	
LgcyFulSt	Legacy Full Name of the Primary Street as Exists in the MSAG (Abbreviated Names ie.W Main St)	ALPHANUMERIC	254	C	
LgcyPreDir	Legacy Street Name Pre Directional as Exists in the MSAG (Abbreviated DIRECTION Domain)	ALPHANUMERIC	2	C	LGCYDIRECTION
LgcyPreTyp	Legacy Street Prefix Type (Abbreviated STREETTYPE Domain)	ALPHANUMERIC	4	C	LGCYSTREETTYPE
LgcyStreet	Legacy Street Name as Exists in the MSAG	ALPHANUMERIC	75	C	
LgcyType	Legacy Street Name Type as Exists in the MSAG (Abbreviated STREETTYPE Domain)	ALPHANUMERIC	4	C	LGCYSTREETTYPE
LgcySufDir	Legacy Street Name Post Directional as Exists in the MSAG (Abbreviated DIRECTION Domain)	ALPHANUMERIC	2	C	LGCYDIRECTION
FromLevel	Level from Overpass / Underpass	ALPHANUMERIC	16	T	LEVEL
ToLevel	Level to Overpass / Underpass	ALPHANUMERIC	16	T	LEVEL
BoundLane	Direction of the Lane of Traffic if Dedicated Direction	ALPHANUMERIC	9	T	DIRECTION
RoadLength	Length of Street Segment (In US Survey Feet)	DECIMAL	15	T	
DriveTime	Drivetime of the Street Segment (In Minutes)	DECIMAL	15	T	
DeadEnd	Dead End Street Segment	ALPHANUMERIC	1	T	YESNO
Surface	Paving Surface of the Street	ALPHANUMERIC	10	T	
Lanes	Number of Lanes Represented by the Street Segment	ALPHANUMERIC	5	T	NUMBER
Toll	Requires Toll to Access	ALPHANUMERIC	1	T	YESNO
LtdAccess	Limited Access to the General Public	ALPHANUMERIC	1	T	YESNO
Valid_L	Indicates if Address Range on the Left Side of the Segment Should be used for Civic Location	ALPHANUMERIC	1	O	YESNO
Valid_R	Indicates if Address Range on the Right Side of the Segment Should be used for Civic Location	ALPHANUMERIC	1	O	YESNO
SUBMIT	Submit Feature to be Validated in OK NG911 GIS Toolkit	ALPHANUMERIC	1	M	YESNO
TopoExcept	Topological Exceptions when Validated in OK NG911 GIS Toolkit	ALPHANUMERIC	20	M	TOPOEXCEPT
GeoMSAG_L	Toggle denoting whether the Left Side of the Road Centerline segment's address range will be included in the submitting agencies MSAG validation check.	ALPHANUMERIC	1	M	YESNO
GeoMSAG_R	Toggle denoting whether the Right Side of the Road Centerline segment's address range will be included in the submitting agencies MSAG validation check.	ALPHANUMERIC	1	M	YESNO

Section 3.03 Emergency Service Zone (ESZ) Boundary – Polygon

The Emergency Service Zone (ESZ) boundary is the geographical representation of the Emergency Service Number (ESN). The ESN is a three to five digit number representing a unique combination of emergency service agencies (Law, Fire, and EMS) designated to serve a specific range of addresses within a particular geographical area, or ESZ. The ESN facilitates selective routing and selective transfer, if required, to the appropriate PSAP and the dispatching of the proper service agencies through the MSAG. There can be no overlaps or gaps in this dataset. This dataset is to be maintained at the local Agency level and submitted to the State of Oklahoma NG911/GIS

Repository.

Reference **OK_ADDRESS_SCHEMAS_3.XLS** – ESZ_BOUNDARY

Field Name	Field Description	Field Type	Field Width	Priority	Domain Table
DiscrpAgID	Discrepancy Agency ID (Agency that receives the Discrepancy Report)	ALPHANUMERIC	100	M	AGENCYID
NGUID_ESZ	NENA Globally Unique ID : (URN):(LayerName):(Local911UniqueID):(Agency_ID)	ALPHANUMERIC	254	M	
DisplayName	Name of the Service Provider within this Authoritative Service area (PSAP)	ALPHANUMERIC	60	M	
Agency_ID	ID Assigned to each dispatching Agency by the State of Oklahoma 911 Coordinator	ALPHANUMERIC	100	M	AGENCYID
Local_ID	Local Unique ID (Locally Assigned & Maintained Unique ID)	ALPHANUMERIC	100	O	
~~Avcard_URI~~	~~The internet address of an XML data structure which contains contact information in the form of a vCard~~	~~ALPHANUMERIC~~	~~254~~	~~M~~	
ESN	The three to five digit number assigned to the unique combination of ESB that represent a ESZ polygon	ALPHANUMERIC	5	M	
ESZ	The local identifier that defines the unique geographic area of the combination of ESB polygons	ALPHANUMERIC	5	M	
FIRE	Name of the Service Provider within this Responding Service area (Fire Responder)	ALPHANUMERIC	60	O	
LAW	Name of the Service Provider within this Responding Service area (Law Responder)	ALPHANUMERIC	60	O	
EMS	Name of the Service Provider within this Responding Service area (EMS Responder)	ALPHANUMERIC	60	O	
~~ServiceNum~~	~~A dialable number or dial string on a 12-digit keypad to reach the emergency service appropriate for the location~~	~~ALPHANUMERIC~~	~~15~~	~~O~~	
Country	Name of Country the Address Resides In (US) (Abbreviated COUNTRY Domain)	ALPHANUMERIC	2	M	COUNTRY
State	Name of the State the Address Resides In (OK) (Abbreviated STATE Domain)	ALPHANUMERIC	2	M	STATE
InitiSrce	Original source of the data	ALPHANUMERIC	75	M	
InitiDate	Initial Time-Stamp - (Creation Entry Date)	DATETIME	20	M	
RevEditor	Most recent editor of the data	ALPHANUMERIC	75	M	
RevDate	Modified Time-Stamp - (Modify Entry Date)	DATETIME	20	M	
EffectDate	Date & Time that the record is scheduled to take effect	DATETIME	20	O	
ExpireDate	Date & Time that the record is no longer valid	DATETIME	20	O	
~~Comment~~	~~Comments / Notes~~	~~ALPHANUMERIC~~	~~100~~	~~C~~	
SUBMIT	Submit Feature to be Validated in OK NG911 GIS Toolkit	ALPHANUMERIC	1	M	YESNO

Section 3.04 Public Safety Answer Point (PSAP) Boundary – Polygon

The PSAP boundary layer may contain one or many PSAP Boundaries. Each PSAP boundary defines the geographic area of a PSAP that has primary responsibilities for an emergency request. This boundary layer provides the primary call routing. This layer is used by the ECRF to perform the geographic query to determine which PSAP receives the emergency service request. There can be no overlaps or gaps in this dataset. This dataset is maintained and can be downloaded as a statewide dataset housed in the State of Oklahoma NG911/GIS Repository. Any boundary disputes within this dataset will be resolved by the State of Oklahoma 911 Coordinator on an individual basis with input from all involved Agencies.

Reference **OK_ADDRESS_SCHEMAS_3.XLS** – PSAP_BOUNDARY

Field Name	Field Description	Field Type	Field Width	Priority	Domain Table
DiscrpAgID	Discrepancy Agency ID (Agency that receives the Discrepancy Report)	ALPHANUMERIC	100	M	AGENCYID
NGUID_PSAP	NENA Globally Unique ID : (URN):(LayerName):(Local911UniqueID):(Agency_ID)	ALPHANUMERIC	254	M	
DisplayName	Name of the Service Provider within this Authoritative Service area (PSAP)	ALPHANUMERIC	60	M	
Agency_ID	ID Assigned to each dispatching Agency by the State of Oklahoma 911 Coordinator	ALPHANUMERIC	100	M	AGENCYID
Local_ID	Local Unique ID (Locally Assigned & Maintained Unique ID)	ALPHANUMERIC	100	O	
Avcard_URI	The internet address of an XML data structure which contains contact information in the form of a vCard	ALPHANUMERIC	254	M	
ServiceURN	The ECRF is queried with a location and a service URN that returns the Service URI.	ALPHANUMERIC	55	M	SERVICEURN
ServiceURI	URI for Call Routing contained in the ESB layer	ALPHANUMERIC	254	M	
ServiceNum	A dialable number or dial string on a 12-digit keypad to reach theemergency service appropriate for the lo	ALPHANUMERIC	15	O	
Country	Name of Country the Address Resides In (US) (Abbreviated COUNTRY Domain)	ALPHANUMERIC	2	M	COUNTRY
State	Name of the State the Address Resides In (OK) (Abbreviated STATE Domain)	ALPHANUMERIC	2	M	STATE
InitiSrce	Original source of the data	ALPHANUMERIC	75	M	
InitiDate	Initial Time-Stamp - (Creation Entry Date)	DATETIME	20	M	
RevEditor	Most recent editor of the data	ALPHANUMERIC	75	M	
RevDate	Modified Time-Stamp - (Modify Entry Date)	DATETIME	20	M	
EffectDate	Date & Time that the record is scheduled to take effect	DATETIME	20	O	
ExpireDate	Date & Time that the record is no longer valid	DATETIME	20	O	
~~Comment~~	~~Comments / Notes~~	~~ALPHANUMERIC~~	~~100~~	~~C~~	
SUBMIT	Submit Feature to be Validated in OK NG911 GIS Toolkit	ALPHANUMERIC	1	M	YESNO

Section 3.05 Emergency Service Boundary – Polygons (FIRE, LAW, EMS)

The Emergency Service Boundaries (ESB) are the geographical representation of the primary responding FIRE, LAW, and EMS agencies within the given area. This layer is used by the ECRF to perform the geographic query to determine which PSAP receives the emergency service request based on specific need or type of emergency. These boundary layers provide~~s~~ the secondary call routing. There can be no overlaps or gaps in the **THREE SEPARATE LAYERS**. *(There **MUST** be a separate ESB for each type of emergency responding service)* These datasets are to be maintained at the local Agency level and submitted to the State of Oklahoma NG911/GIS Repository.

Reference **OK_ADDRESS_SCHEMAS_3.XLS** – ESB_FIRE_BOUNDARY

Field Name	Field Description	Field Type	Field Width	Priority	Domain Table
DiscrpAgID	Discrepancy Agency ID (Agency that receives the Discrepancy Report)	ALPHANUMERIC	100	M	AGENCYID
NGUID_FIRE	NENA Globally Unique ID : (URN):(LayerName):(Local911UniqueID):(Agency_ID)	ALPHANUMERIC	254	M	
DsplayName	Name of the Service Provider within this Responding Service area (Fire Responder)	ALPHANUMERIC	60	M	
Agency_ID	ID Assigned to each dispatching Agency by the State of Oklahoma 911 Coordinator	ALPHANUMERIC	100	M	AGENCYID
Local_ID	Local Unique ID (Locally Assigned & Maintained Unique ID)	ALPHANUMERIC	100	O	
Avcard_URI	The internet address of an XML data structure which contains contact information in the form of a vCard	ALPHANUMERIC	254	M	
ServiceURN	The ECRF is queried with a location and a service URN that returns the Service URI.	ALPHANUMERIC	55	M	SERVICEURN
ServiceURI	URI for Call Routing contained in the ESB layer	ALPHANUMERIC	254	M	
ServiceNum	A dialable number or dial string on a 12-digit keypad to reach the emergency service appropriate for the location	ALPHANUMERIC	15	O	
Country	Name of Country the Address Resides In (US) (Abbreviated COUNTRY Domain)	ALPHANUMERIC	2	M	COUNTRY
State	Name of the State the Address Resides In (OK) (Abbreviated STATE Domain)	ALPHANUMERIC	2	M	STATE
InitiSrce	Original source of the data	ALPHANUMERIC	75	M	
InitiDate	Initial Time-Stamp - (Creation Entry Date)	DATETIME	20	M	
RevEditor	Most recent editor of the data	ALPHANUMERIC	75	M	
RevDate	Modified Time-Stamp - (Modify Entry Date)	DATETIME	20	M	
EffectDate	Date & Time that the record is scheduled to take effect	DATETIME	20	O	
ExpireDate	Date & Time that the record is no longer valid	DATETIME	20	O	
~~Comment~~	~~Comments / Notes~~	~~ALPHANUMERIC~~	~~100~~	~~C~~	
SUBMIT	Submit Feature to be Validated in OK NG911 GIS Toolkit	ALPHANUMERIC	1	M	YESNO

Reference **OK_ADDRESS_SCHEMAS_3.XLS** – ESB_LAW_BOUNDARY

Field Name	Field Description	Field Type	Field Width	Priority	Domain Table
DiscrpAgID	Discrepancy Agency ID (Agency that receives the Discrepancy Report)	ALPHANUMERIC	100	M	AGENCYID
NGUID_LAW	NENA Globally Unique ID : (URN):(LayerName):(Local911UniqueID):(Agency_ID)	ALPHANUMERIC	254	M	
DsplayName	Name of the Service Provider within this Responding Service area (Law Responder)	ALPHANUMERIC	60	M	
Agency_ID	ID Assigned to each dispatching Agency by the State of Oklahoma 911 Coordinator	ALPHANUMERIC	100	M	AGENCYID
Local_ID	Local Unique ID (Locally Assigned & Maintained Unique ID)	ALPHANUMERIC	100	O	
Avcard_URI	The internet address of an XML data structure which contains contact information in the form of a vCard	ALPHANUMERIC	254	M	
ServiceURN	The ECRF is queried with a location and a service URN that returns the Service URI.	ALPHANUMERIC	55	M	SERVICEURN
ServiceURI	URI for Call Routing contained in the ESB layer	ALPHANUMERIC	254	M	
ServiceNum	A dialable number or dial string on a 12-digit keypad to reach the emergency service appropriate for the location	ALPHANUMERIC	15	O	
Country	Name of Country the Address Resides In (US) (Abbreviated COUNTRY Domain)	ALPHANUMERIC	2	M	COUNTRY
State	Name of the State the Address Resides In (OK) (Abbreviated STATE Domain)	ALPHANUMERIC	2	M	STATE
InitiSrce	Original source of the data	ALPHANUMERIC	75	M	
InitiDate	Initial Time-Stamp - (Creation Entry Date)	DATETIME	20	M	
RevEditor	Most recent editor of the data	ALPHANUMERIC	75	M	
RevDate	Modified Time-Stamp - (Modify Entry Date)	DATETIME	20	M	
EffectDate	Date & Time that the record is scheduled to take effect	DATETIME	20	O	
ExpireDate	Date & Time that the record is no longer valid	DATETIME	20	O	
~~Comment~~	~~Comments / Notes~~	~~ALPHANUMERIC~~	~~100~~	~~C~~	
SUBMIT	Submit Feature to be Validated in OK NG911 GIS Toolkit	ALPHANUMERIC	1	M	YESNO

Reference **OK_ADDRESS_SCHEMAS_3.XLS** – ESB_EMS_BOUNDARY

Field Name	Field Description	Field Type	Field Width	Priority	Domain Table
DiscrpAgID	Discrepancy Agency ID (Agency that receives the Discrepancy Report)	ALPHANUMERIC	100	M	AGENCYID
NGUID_EMS	NENA Globally Unique ID : (URN):(LayerName):(Local911UniqueID):(Agency_ID)	ALPHANUMERIC	254	M	
DsplayName	Name of the Service Provider within this Responding Service area (EMS Responder)	ALPHANUMERIC	60	M	
Agency_ID	ID Assigned to each dispatching Agency by the State of Oklahoma 911 Coordinator	ALPHANUMERIC	100	M	AGENCYID
Local_ID	Local Unique ID (Locally Assigned & Maintained Unique ID)	ALPHANUMERIC	100	O	
Avcard_URI	The internet address of an XML data structure which contains contact information in the form of a vCard	ALPHANUMERIC	254	M	
ServiceURN	The ECRF is queried with a location and a service URN that returns the Service URI.	ALPHANUMERIC	55	M	SERVICEURN
ServiceURI	URI for Call Routing contained in the ESB layer	ALPHANUMERIC	254	M	
ServiceNum	A dialable number or dial string on a 12-digit keypad to reach the emergency service appropriate for the location	ALPHANUMERIC	15	O	
Country	Name of Country the Address Resides In (US) (Abbreviated COUNTRY Domain)	ALPHANUMERIC	2	M	COUNTRY
State	Name of the State the Address Resides In (OK) (Abbreviated STATE Domain)	ALPHANUMERIC	2	M	STATE
InitiSrce	Original source of the data	ALPHANUMERIC	75	M	
InitiDate	Initial Time-Stamp - (Creation Entry Date)	DATETIME	20	M	
RevEditor	Most recent editor of the data	ALPHANUMERIC	75	M	
RevDate	Modified Time-Stamp - (Modify Entry Date)	DATETIME	20	M	
EffectDate	Date & Time that the record is scheduled to take effect	DATETIME	20	O	
ExpireDate	Date & Time that the record is no longer valid	DATETIME	20	O	
~~Comment~~	~~Comments / Notes~~	~~ALPHANUMERIC~~	~~100~~	~~C~~	
SUBMIT	Submit Feature to be Validated in OK NG911 GIS Toolkit	ALPHANUMERIC	1	M	YESNO

Section 3.06 Discrepancy Agency Boundary – Polygon

The Discrepancy Agency Boundary *(Formerly referred to as Authoritative and Provisioning Boundary)* is the geographical representation of the Agency that officially submits data to and receives a discrepancy report back from the State of Oklahoma NG911/GIS Repository as the data is checked before provisioning up to the ESInet. There can be no overlaps in this dataset. This dataset is a derivative of the Statewide PSAP Boundary and is maintained and can be downloaded as a statewide dataset housed in the State of Oklahoma NG911/GIS Repository. Any boundary disputes within this dataset will be resolved by the State of Oklahoma 911 Coordinator on an

individual basis with input from all involved Agencies.

Reference **OK_ADDRESS_SCHEMAS_3.XLS** – DISCREPANCYAGENCY_BOUNDARY

Field Name	Field Description	Field Type	Field Width	Priority	Domain Table
DiscrpAgID	Discrepancy Agency ID (Agency that receives the Discrepancy Report)	ALPHANUMERIC	100	M	AGENCYID
NGUID_DISC	NENA Globally Unique ID : (URN):(LayerName):(Local911UniqueID):(Agency_ID)	ALPHANUMERIC	254	M	
DsplayName	Name of the Service Provider within this Authoritative Service area (PSAP)	ALPHANUMERIC	60	M	
Agency_ID	ID Assigned to each dispatching Agency by the State of Oklahoma 911 Coordinator	ALPHANUMERIC	100	M	AGENCYID
Local_ID	Local Unique ID (Locally Assigned & Maintained Unique ID)	ALPHANUMERIC	100	O	
~~Avcard_URI~~	~~The internet address of an XML data structure which contains contact information in the form of a vCard~~	~~ALPHANUMERIC~~	~~254~~	~~M~~	
~~ServiceURN~~	~~The ECRF is queried with a location and a service URN that returns the Service URI.~~	~~ALPHANUMERIC~~	~~50~~	~~M~~	~~SERVICEURN~~
~~ServiceURI~~	~~URI for Call Routing contained in the ESB layer~~	~~ALPHANUMERIC~~	~~254~~	~~M~~	
~~ServiceNum~~	~~A dialable number or dial string on a 12-digit keypad to reach the emergency service appropriate for the location~~	~~ALPHANUMERIC~~	~~15~~	~~O~~	
Country	Name of Country the Address Resides In (US) (Abbreviated COUNTRY Domain)	ALPHANUMERIC	2	M	COUNTRY
State	Name of the State the Address Resides In (OK) (Abbreviated STATE Domain)	ALPHANUMERIC	2	M	STATE
InitiSrce	Original source of the data	ALPHANUMERIC	75	M	
InitiDate	Initial Time-Stamp - (Creation Entry Date)	DATETIME	20	M	
RevEditor	Most recent editor of the data	ALPHANUMERIC	75	M	
RevDate	Modified Time-Stamp - (Modify Entry Date)	DATETIME	20	M	
EffectDate	Date & Time that the record is scheduled to take effect	DATETIME	20	O	
ExpireDate	Date & Time that the record is no longer valid	DATETIME	20	O	
~~Comment~~	~~Comments / Notes~~	~~ALPHANUMERIC~~	~~100~~	~~C~~	
SUBMIT	Submit Feature to be Validated in OK NG911 GIS Toolkit	ALPHANUMERIC	1	M	YESNO

Section 3.07 Other Recommended Layers Polygon

Additional GIS Data layers may be extremely helpful in ultimately meeting your local purposes. The following layers may aid in the functionality of the ECRF and LVF and are strongly recommended for call taking and dispatch operations:

ECRF & LVF Recommended Layers

- Street Name Alias Table
- Landmark Name Part Table
- Complete Landmark as Table
- States
- Counties
- Incorporated Municipal Boundaries
- Unincorporated Community Boundaries
- Neighborhood Community Boundaries
- Other ESB (Poison Control, Forest Service, Animal Control)

Other Recommended Layers

- Railroad Centerline
- Hydrology Line
- Hydrology Polygon
- Cell Site Location
- Mile Marker Location

Section 3.08 Reference Domains

Reference domain values provide a pick list of preset values for various attributes in order to standardize data values both within an organization as well as across multiple jurisdictions. The following domain values are either preset static values or professionally authoritative standard values in order to provide consistency among various datasets. While domains within this standard adhere to NENA requirements or the stricter original source NENA references for domain values this standard further simplifies domain values recorded and displayed by replicating the Code & Description to reflect identical values. All domain values are uppercase except for AGENCYID and SERVICEURN values.

The domain tables shown below are current at the approval date of this standard; however, values may be updated as necessary between approved versions of this standard. For the most current domain values please reference the associated Excel file and File Geodatabase. OK_ADDRESS_SCHEMAS_3.XLS

Associated Reference Document: **OK_ADDRESS_SCHEMAS_3.XLS**

(a) Reference **OK_ADDRESS_SCHEMAS_3.XLS** –AGENCYID

Data Source - Approved by State of Oklahoma 911 Coordinator - 06-23-2021			
PSAPs without current FCC ID #'s are listed with a temporary name until a FCC ID # is secured and accepted by the State of Oklahoma 9-1-1 Coordinator			
Code	**Description**	psap.5578.ok.gov	psap.5578.ok.gov

psap.5603.ok.gov	psap.5603.ok.gov
psap.5579.ok.gov	psap.5579.ok.gov
psap.5585.ok.gov	psap.5585.ok.gov
cog.acog.ok.gov	cog.acog.ok.gov
cog.ascog.ok.gov	cog.ascog.ok.gov
psap.5586.ok.gov	psap.5586.ok.gov
psap.5589.ok.gov	psap.5589.ok.gov
psap.5592.ok.gov	psap.5592.ok.gov
psap.5593.ok.gov	psap.5593.ok.gov
psap.5594.ok.gov	psap.5594.ok.gov
psap.5595.ok.gov	psap.5595.ok.gov
psap.8642.ok.gov	psap.8642.ok.gov
psap.5596.ok.gov	psap.5596.ok.gov
psap.5597.ok.gov	psap.5597.ok.gov
psap.5631.ok.gov	psap.5631.ok.gov
psap.8328.ok.gov	psap.8328.ok.gov
cog.coedd.ok.gov	cog.coedd.ok.gov
psap.8835.ok.gov	psap.8835.ok.gov
psap.5604.ok.gov	psap.5604.ok.gov
psap.5608.ok.gov	psap.5608.ok.gov
psap.5657.ok.gov	psap.5657.ok.gov
psap.5610.ok.gov	psap.5610.ok.gov
psap.5616.ok.gov	psap.5616.ok.gov
psap.5615.ok.gov	psap.5615.ok.gov
psap.5612.ok.gov	psap.5612.ok.gov
psap.5617.ok.gov	psap.5617.ok.gov
psap.5618.ok.gov	psap.5618.ok.gov
psap.5669.ok.gov	psap.5669.ok.gov
psap.5622.ok.gov	psap.5622.ok.gov
psap.5623.ok.gov	psap.5623.ok.gov
psap.5741.ok.gov	psap.5741.ok.gov
psap.5625.ok.gov	psap.5625.ok.gov
psap.5626.ok.gov	psap.5626.ok.gov
ven.datamark.ok.gov	ven.datamark.ok.gov
Code	**Description**
psap.5627.ok.gov	psap.5627.ok.gov
psap.5628.ok.gov	psap.5628.ok.gov
psap.5629.ok.gov	psap.5629.ok.gov
psap.8394.ok.gov	psap.8394.ok.gov
psap.5630.ok.gov	psap.5630.ok.gov
cog.eodd.ok.gov	cog.eodd.ok.gov

psap.5633.ok.gov	psap.5633.ok.gov
psap.5634.ok.gov	psap.5634.ok.gov
psap.8134.ok.gov	psap.8134.ok.gov
psap.5635.ok.gov	psap.5635.ok.gov
psap.5636.ok.gov	psap.5636.ok.gov
psap.8274.ok.gov	psap.8274.ok.gov
ven.geocomm.ok.gov	ven.geocomm.ok.gov
ven.geotg.ok.gov	ven.geotg.ok.gov
psap.5643.ok.gov	psap.5643.ok.gov
psap.5644.ok.gov	psap.5644.ok.gov
cog.ggeda.ok.gov	cog.ggeda.ok.gov
psap.5645.ok.gov	psap.5645.ok.gov
psap.5646.ok.gov	psap.5646.ok.gov
psap.5647.ok.gov	psap.5647.ok.gov
psap.5648.ok.gov	psap.5648.ok.gov
psap.5650.ok.gov	psap.5650.ok.gov
psap.8406.ok.gov	psap.8406.ok.gov
psap.5652.ok.gov	psap.5652.ok.gov
psap.5653.ok.gov	psap.5653.ok.gov
psap.5655.ok.gov	psap.5655.ok.gov
psap.5654.ok.gov	psap.5654.ok.gov
cog.incog.ok.gov	cog.incog.ok.gov
ven.intrado.ok.gov	ven.intrado.ok.gov
psap.5659.ok.gov	psap.5659.ok.gov
psap.5661.ok.gov	psap.5661.ok.gov
psap.5662.ok.gov	psap.5662.ok.gov
cog.keddo.ok.gov	cog.keddo.ok.gov
psap.8417.ok.gov	psap.8417.ok.gov
psap.5667.ok.gov	psap.5667.ok.gov
Code	**Description**
psap.5670.ok.gov	psap.5670.ok.gov
psap.8215.ok.gov	psap.8215.ok.gov
psap.8331.ok.gov	psap.8331.ok.gov
psap.5639.ok.gov	psap.5639.ok.gov
psap.5673.ok.gov	psap.5673.ok.gov
psap.8288.ok.gov	psap.8288.ok.gov
psap.5674.ok.gov	psap.5674.ok.gov
psap.8180.ok.gov	psap.8180.ok.gov
psap.8097.ok.gov	psap.8097.ok.gov
psap.5613.ok.gov	psap.5613.ok.gov
psap.8334.ok.gov	psap.8334.ok.gov

psap.5679.ok.gov	psap.5679.ok.gov
psap.5680.ok.gov	psap.5680.ok.gov
psap.5682.ok.gov	psap.5682.ok.gov
psap.5684.ok.gov	psap.5684.ok.gov
psap.5685.ok.gov	psap.5685.ok.gov
psap.5686.ok.gov	psap.5686.ok.gov
psap.5687.ok.gov	psap.5687.ok.gov
psap.5689.ok.gov	psap.5689.ok.gov
psap.5688.ok.gov	psap.5688.ok.gov
psap.5690.ok.gov	psap.5690.ok.gov
cog.noda.ok.gov	cog.noda.ok.gov
psap.5691.ok.gov	psap.5691.ok.gov
psap.5692.ok.gov	psap.5692.ok.gov
psap.5693.ok.gov	psap.5693.ok.gov
psap.5694.ok.gov	psap.5694.ok.gov
cog.oeda.ok.gov	cog.oeda.ok.gov
psap.5697.ok.gov	psap.5697.ok.gov
psap.5698.ok.gov	psap.5698.ok.gov
psap.5700.ok.gov	psap.5700.ok.gov
psap.5678.ok.gov	psap.5678.ok.gov
psap.5705.ok.gov	psap.5705.ok.gov
psap.5708.ok.gov	psap.5708.ok.gov
psap.5710.ok.gov	psap.5710.ok.gov
psap.5676.ok.gov	psap.5676.ok.gov
psap.5713.ok.gov	psap.5713.ok.gov
psap.5714.ok.gov	psap.5714.ok.gov
psap.5577.ok.gov	psap.5577.ok.gov
Code	**Description**
psap.8183.ok.gov	psap.8183.ok.gov
psap.5719.ok.gov	psap.5719.ok.gov
psap.5720.ok.gov	psap.5720.ok.gov
ven.rsdigital.ok.gov	ven.rsdigital.ok.gov
psap.5721.ok.gov	psap.5721.ok.gov

psap.5722.ok.gov	psap.5722.ok.gov
psap.5725.ok.gov	psap.5725.ok.gov
psap.5726.ok.gov	psap.5726.ok.gov
psap.5727.ok.gov	psap.5727.ok.gov
psap.8145.ok.gov	psap.8145.ok.gov
psap.5729.ok.gov	psap.5729.ok.gov
psap.5730.ok.gov	psap.5730.ok.gov
psap.5732.ok.gov	psap.5732.ok.gov
cog.swoda.ok.gov	cog.swoda.ok.gov
cog.soda.ok.gov	cog.soda.ok.gov
ven.sdr.ok.gov	ven.sdr.ok.gov
psap.5733.ok.gov	psap.5733.ok.gov
psap.5734.ok.gov	psap.5734.ok.gov
psap.8614.ok.gov	psap.8614.ok.gov
psap.5736.ok.gov	psap.5736.ok.gov
psap.5640.ok.gov	psap.5640.ok.gov
psap.5737.ok.gov	psap.5737.ok.gov
psap.8550.ok.gov	psap.8550.ok.gov
psap.5738.ok.gov	psap.5738.ok.gov
psap.5739.ok.gov	psap.5739.ok.gov
psap.5740.ok.gov	psap.5740.ok.gov
psap.8397.ok.gov	psap.8397.ok.gov
psap.5742.ok.gov	psap.5742.ok.gov
psap.8408.ok.gov	psap.8408.ok.gov
psap.5743.ok.gov	psap.5743.ok.gov
psap.5588.ok.gov	psap.5588.ok.gov
psap.5621.ok.gov	psap.5621.ok.gov
psap.5744.ok.gov	psap.5744.ok.gov
psap.5581.ok.gov	psap.5581.ok.gov
psap.5746.ok.gov	psap.5746.ok.gov
psap.8529.ok.gov	psap.8529.ok.gov
psap.5749.ok.gov	psap.5749.ok.gov

(b) Reference **OK_ADDRESS_SCHEMAS_3.XLS** –PSAP

Data Source - Approved by State of Oklahoma 911 Coordinator - 06-23-2021
PSAPs without current FCC ID #'s are listed with a temporary name until a FCC ID # is secured and accepted by the State of Oklahoma 9-1-1 Coordinator
Only Current Approved Primary PSAP's are included in this list. They are the Agencies that receive the initial 911 call.
As per multiple requests for standardization from PSAPs during implementations this domain's Code & Description values are identical.

Code	Description
Adair County 911	Adair County 911
Alfalfa County 911	Alfalfa County 911
Altus-Jackson County 911	Altus-Jackson County 911
Ardmore-Carter County 911	Ardmore-Carter County 911
Atoka County 911	Atoka County 911
Beaver County 911	Beaver County 911
Bethany 911	Bethany 911
Bixby 911	Bixby 911
Blackwell 911	Blackwell 911
Blanchard 911	Blanchard 911
Bristow 911	Bristow 911
Broken Arrow 911	Broken Arrow 911
Durant-Bryan County 911	Durant-Bryan County 911
Caddo County 911	Caddo County 911
Checotah 911	Checotah 911
Cherokee County 911	Cherokee County 911
Chickasha 911	Chickasha 911
Choctaw County 911	Choctaw County 911
Cimarron County 911	Cimarron County 911
Cleveland 911	Cleveland 911
Cleveland County 911	Cleveland County 911
Clinton 911	Clinton 911
Coal County 911	Coal County 911
Collinsville 911	Collinsville 911
Comanche County 911	Comanche County 911
Cotton County 911	Cotton County 911
Coweta 911	Coweta 911
Craig County 911	Craig County 911
Creek County 911	Creek County 911
Cushing 911	Cushing 911
Del City 911	Del City 911
Delaware County 911	Delaware County 911
Dewey County 911	Dewey County 911
Drumright 911	Drumright 911
Code	**Description**
Duncan 911	Duncan 911
Edmond 911	Edmond 911
El Reno 911	El Reno 911
Elk City 911	Elk City 911
Garfield County 911	Garfield County 911
Garvin County 911	Garvin County 911
Glenpool 911	Glenpool 911
Grady County 911	Grady County 911
Greer County 911	Greer County 911
Grove 911	Grove 911
Guthrie 911	Guthrie 911
Harper County 911	Harper County 911
Stigler-Haskell County 911	Stigler-Haskell County 911
Henryetta 911	Henryetta 911
Hobart 911	Hobart 911
Hollis 911	Hollis 911
Hughes County 911	Hughes County 911
Jefferson County 911	Jefferson County 911
Jenks 911	Jenks 911
Johnston County 911	Johnston County 911
Kingfisher 911	Kingfisher 911
Latimer County 911	Latimer County 911
Le Flore County 911	Le Flore County 911
Lincoln County 911	Lincoln County 911
Love County 911	Love County 911
Major County 911	Major County 911
Mannford 911	Mannford 911
Marlow 911	Marlow 911
Marshall County 911	Marshall County 911
Mayes County 911	Mayes County 911
McClain County 911	McClain County 911
McCurtain County 911	McCurtain County 911
McIntosh County 911	McIntosh County 911
Midwest City 911	Midwest City 911
Code	**Description**
Moore 911	Moore 911
Murray County 911	Murray County 911
Muskogee County 911	Muskogee County 911
Mustang 911	Mustang 911
Newcastle 911	Newcastle 911
Nichols Hills 911	Nichols Hills 911
Noble 911	Noble 911
Perry-Noble County 911	Perry-Noble County 911
Norman 911	Norman 911
Nowata County 911	Nowata County 911
Okemah-Okfuskee County 911	Okemah-Okfuskee County 911

Oklahoma City 911	Oklahoma City 911
Oklahoma County 911	Oklahoma County 911
Oklahoma State University 911	Oklahoma State University 911
Okmulgee County 911	Okmulgee County 911
Osage County 911	Osage County 911
Ottawa County 911	Ottawa County 911
Owasso 911	Owasso 911
Pawnee County 911	Pawnee County 911
Payne County 911	Payne County 911
McAlester-Pittsburg County 911	McAlester-Pittsburg County 911
Pocola 911	Pocola 911
Ponca City 911	Ponca City 911
Pontotoc County 911	Pontotoc County 911
Pottawatomie County 911	Pottawatomie County 911
Pryor 911	Pryor 911
Pushmataha County 911	Pushmataha County 911
Roger Mills County 911	Roger Mills County 911
Rogers County 911	Rogers County 911
Code	**Description**
Sand Springs 911	Sand Springs 911
Sapulpa 911	Sapulpa 911
Sayre 911	Sayre 911
Seminole County 911	Seminole County 911
Sequoyah County 911	Sequoyah County 911

Shawnee 911	Shawnee 911
Skiatook 911	Skiatook 911
Stephens County 911	Stephens County 911
Stillwater 911	Stillwater 911
Texas County 911	Texas County 911
The Village 911	The Village 911
Tillman County 911	Tillman County 911
Tinker 911	Tinker 911
Tonkawa 911	Tonkawa 911
Tulsa 911	Tulsa 911
Tulsa County 911	Tulsa County 911
Tuttle 911	Tuttle 911
University Of Oklahoma 911	University Of Oklahoma 911
Wagoner 911	Wagoner 911
Wagoner County 911	Wagoner County 911
Warr Acres 911	Warr Acres 911
Washington County 911	Washington County 911
Washita County 911	Washita County 911
Weatherford 911	Weatherford 911
Woods County 911	Woods County 911
Woodward 911	Woodward 911
Yale 911	Yale 911
Yukon 911	Yukon 911

(c) Reference **OK ADDRESS SCHEMAS 3.XLS** –YESNO

Data Source - None
STATIC

Code	Description
Y	Y
N	N

(d) Reference **OK ADDRESS SCHEMAS 3.XLS** –NUMBER

Data Source -None
STATIC

Code	Description
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10

(e) Reference **OK ADDRESS SCHEMAS 3.XLS** –LEVEL

Data Source - None
STATIC
As per multiple requests for standardization from PSAPs during implementations this domain's Code & Description values are identical.

Code	Description
0 LEVEL OVERPASS	0 LEVEL OVERPASS
1 LEVEL OVERPASS	1 LEVEL OVERPASS
2 LEVEL OVERPASS	2 LEVEL OVERPASS
3 LEVEL OVERPASS	3 LEVEL OVERPASS
4 LEVEL OVERPASS	4 LEVEL OVERPASS

(f) Reference **OK ADDRESS SCHEMAS 3.XLS** –STORMSHELTER

Data Source - None
STATIC

Code	Description
ABOVE GROUND IN STRUCTURE	ABOVE GROUND IN STRUCTURE
ABOVE GROUND OUTSIDE	ABOVE GROUND OUTSIDE
BELOW GROUND IN STRUCTURE	BELOW GROUND IN STRUCTURE
BELOW GROUND OUTSIDE	BELOW GROUND OUTSIDE

(g) Reference **OK ADDRESS SCHEMAS 3.XLS** – RDCLSIDE

Data Source - ODOT
STATIC
As per multiple requests for standardization from PSAPs during implementations this domain's Code & Description values are identical.

Code	Description
LEFT	LEFT
RIGHT	RIGHT
NO MATCH	NO MATCH

(h) Reference **OK ADDRESS SCHEMAS 3.XLS** – TOPOEXCEPT

Data Source - ODOT
STATIC
As per multiple requests for standardization from PSAPs during implementations this domain's Code & Description values are identical.

Code	Description
DANGLE_EXCEPTION	DANGLE_EXCEPTION
INSIDE_EXCEPTION	INSIDE_EXCEPTION
BOTH_EXCEPTION	BOTH_EXCEPTION
NO_EXCEPTION	NO_EXCEPTION

(i) Reference **OK ADDRESS SCHEMAS 3.XLS** –PLACEMENT

Data Source - NENA Standard for NG9-1-1 GIS Data Model -NENA-STA-006.2a-2022, September 23, 2022 - 5.79 -Page 72
https://cdn.ymaws.com/www.nena.org/resource/resmgr/standards/nena-sta-006.2a_ng9-1-1_gis_.pdf
http://technet.nena.org/nrs/registry/SiteStructureAddressPointPlacementMethod.xml

Code	Description
GEOCODING	GEOCODING
PARCEL	PARCEL
PROPERTY ACCESS	PROPERTY ACCESS
STRUCTURE	STRUCTURE
SITE	SITE
UNKNOWN	UNKNOWN

(j) Reference **OK ADDRESS SCHEMAS 3.XLS** –PARITY

Data Source - NENA Standard for NG9-1-1 GIS Data Model -NENA-STA-006.2a-2022, September 23, 2022 - 5.76-5.77 - Page 71
https://cdn.ymaws.com/www.nena.org/resource/resmgr/standards/nena-sta-006.2a_ng9-1-1_gis_.pdf
As per multiple requests for standardization from PSAPs during implementations this domain's Code & Description values are identical.

Code	Description
ODD	ODD
EVEN	EVEN
BOTH	BOTH
ZERO	ZERO

(k) Reference **OK ADDRESS SCHEMAS 3.XLS** –COUNTRY

Data Source - NENA Standard for NG9-1-1 GIS Data Model -NENA-STA-006.2a-2022, September 23, 2022 - 5.24-5.26 - Page 57
https://cdn.ymaws.com/www.nena.org/resource/resmgr/standards/nena-sta-006.2a_ng9-1-1_gis_.pdf
Data Source - represented by 2 letter ISO 3166-1 Code -NENA-STA-004.1.1-2014_CLDXF - 3.2.2 - Page 26
https://cdn.ymaws.com/www.nena.org/resource/resmgr/Standards/NENA-STA-004.1.1-2014_CLDXF.pdf
https://www.iso.org/obp/ui/#search
As per multiple requests for standardization from PSAPs during implementations this domain's Code & Description values are identical.

Code	Description
US	US

(l) Reference **OK ADDRESS SCHEMAS 3.XLS** –STATE

Data Source - NENA Standard for NG9-1-1 GIS Data Model -NENA-STA-006.2a-2022, September 23, 2022 - 5.107-5.109 - Page 80-81
https://cdn.ymaws.com/www.nena.org/resource/resmgr/standards/nena-sta-006.2a_ng9-1-1_gis_.pdf
Data Source - USPS Publication 28 - Appendix B - Two–Letter State and Possession Abbreviations
http://pe.usps.com/text/pub28/28apb.htm
As per multiple requests for standardization from PSAPs during implementations this domain's Code & Description values are identical.

Code	Description
OK	OK
TX	TX
CO	CO
NM	NM
AR	AR
KS	KS
MO	MO

(m) Reference **OK_ADDRESS_SCHEMAS_3.XLS** –COUNTY

Data Source - NENA Standard for NG9-1-1 GIS Data Model -NENA-STA-006.2a-2022, September 23, 2022 - 5.27 -Page 58
https://cdn.ymaws.com/www.nena.org/resource/resmgr/standards/nena-sta-006.2a_ng9-1-1_gis_.pdf
https://www.census.gov/library/reference/code-lists/ansi.html

Code	Description	State
ADAIR COUNTY	ADAIR COUNTY	OK
ALFALFA COUNTY	ALFALFA COUNTY	OK
ATOKA COUNTY	ATOKA COUNTY	OK
BEAVER COUNTY	BEAVER COUNTY	OK
BECKHAM COUNTY	BECKHAM COUNTY	OK
BLAINE COUNTY	BLAINE COUNTY	OK
BRYAN COUNTY	BRYAN COUNTY	OK
CADDO COUNTY	CADDO COUNTY	OK
CANADIAN COUNTY	CANADIAN COUNTY	OK
CARTER COUNTY	CARTER COUNTY	OK
CHEROKEE COUNTY	CHEROKEE COUNTY	OK
CHOCTAW COUNTY	CHOCTAW COUNTY	OK
CIMARRON COUNTY	CIMARRON COUNTY	OK
CLEVELAND COUNTY	CLEVELAND COUNTY	OK
COAL COUNTY	COAL COUNTY	OK
COMANCHE COUNTY	COMANCHE COUNTY	OK
COTTON COUNTY	COTTON COUNTY	OK
CRAIG COUNTY	CRAIG COUNTY	OK
CREEK COUNTY	CREEK COUNTY	OK
CUSTER COUNTY	CUSTER COUNTY	OK
DELAWARE COUNTY	DELAWARE COUNTY	OK
DEWEY COUNTY	DEWEY COUNTY	OK
ELLIS COUNTY	ELLIS COUNTY	OK
GARFIELD COUNTY	GARFIELD COUNTY	OK
GARVIN COUNTY	GARVIN COUNTY	OK
GRADY COUNTY	GRADY COUNTY	OK
GRANT COUNTY	GRANT COUNTY	OK
GREER COUNTY	GREER COUNTY	OK
Code	**Description**	**State**
HARMON COUNTY	HARMON COUNTY	OK
HARPER COUNTY	HARPER COUNTY	OK
HASKELL COUNTY	HASKELL COUNTY	OK
HUGHES COUNTY	HUGHES COUNTY	OK
JACKSON COUNTY	JACKSON COUNTY	OK
JEFFERSON COUNTY	JEFFERSON COUNTY	OK
JOHNSTON COUNTY	JOHNSTON COUNTY	OK
KAY COUNTY	KAY COUNTY	OK
KINGFISHER COUNTY	KINGFISHER COUNTY	OK
KIOWA COUNTY	KIOWA COUNTY	OK
LATIMER COUNTY	LATIMER COUNTY	OK
LE FLORE COUNTY	LE FLORE COUNTY	OK
LINCOLN COUNTY	LINCOLN COUNTY	OK
LOGAN COUNTY	LOGAN COUNTY	OK
LOVE COUNTY	LOVE COUNTY	OK
MAJOR COUNTY	MAJOR COUNTY	OK
MARSHALL COUNTY	MARSHALL COUNTY	OK
MAYES COUNTY	MAYES COUNTY	OK
MCCLAIN COUNTY	MCCLAIN COUNTY	OK
MCCURTAIN COUNTY	MCCURTAIN COUNTY	OK
MCINTOSH COUNTY	MCINTOSH COUNTY	OK
MURRAY COUNTY	MURRAY COUNTY	OK
MUSKOGEE COUNTY	MUSKOGEE COUNTY	OK
NOBLE COUNTY	NOBLE COUNTY	OK
NOWATA COUNTY	NOWATA COUNTY	OK
OKFUSKEE COUNTY	OKFUSKEE COUNTY	OK
OKLAHOMA COUNTY	OKLAHOMA COUNTY	OK
OKMULGEE COUNTY	OKMULGEE COUNTY	OK
OSAGE COUNTY	OSAGE COUNTY	OK
OTTAWA COUNTY	OTTAWA COUNTY	OK
PAWNEE COUNTY	PAWNEE COUNTY	OK
PAYNE COUNTY	PAYNE COUNTY	OK
PITTSBURG COUNTY	PITTSBURG COUNTY	OK
PONTOTOC COUNTY	PONTOTOC COUNTY	OK
POTTAWATOMIE COUNTY	POTTAWATOMIE COUNTY	OK
PUSHMATAHA COUNTY	PUSHMATAHA COUNTY	OK

ROGER MILLS COUNTY	ROGER MILLS COUNTY	OK
ROGERS COUNTY	ROGERS COUNTY	OK
SEMINOLE COUNTY	SEMINOLE COUNTY	OK
SEQUOYAH COUNTY	SEQUOYAH COUNTY	OK
STEPHENS COUNTY	STEPHENS COUNTY	OK
TEXAS COUNTY	TEXAS COUNTY	OK
TILLMAN COUNTY	TILLMAN COUNTY	OK
TULSA COUNTY	TULSA COUNTY	OK
WAGONER COUNTY	WAGONER COUNTY	OK
WASHINGTON COUNTY	WASHINGTON COUNTY	OK
WASHITA COUNTY	WASHITA COUNTY	OK
WOODS COUNTY	WOODS COUNTY	OK
WOODWARD COUNTY	WOODWARD COUNTY	OK
DALLAM COUNTY	DALLAM COUNTY	TX
SHERMAN COUNTY	SHERMAN COUNTY	TX
HANSFORD COUNTY	HANSFORD COUNTY	TX
OCHILTREE COUNTY	OCHILTREE COUNTY	TX
LIPSCOMB COUNTY	LIPSCOMB COUNTY	TX
HEMPHILL COUNTY	HEMPHILL COUNTY	TX
WHEELER COUNTY	WHEELER COUNTY	TX
COLLINGSWORTH COUNTY	COLLINGSWORTH COUNTY	TX
CHILDRESS COUNTY	CHILDRESS COUNTY	TX
HARDEMAN COUNTY	HARDEMAN COUNTY	TX
WILBARGER COUNTY	WILBARGER COUNTY	TX
WICHITA COUNTY	WICHITA COUNTY	TX
CLAY COUNTY	CLAY COUNTY	TX
MONTAGUE COUNTY	MONTAGUE COUNTY	TX
COOKE COUNTY	COOKE COUNTY	TX
GRAYSON COUNTY	GRAYSON COUNTY	TX

FANNIN COUNTY	FANNIN COUNTY	TX
LAMAR COUNTY	LAMAR COUNTY	TX
RED RIVER COUNTY	RED RIVER COUNTY	TX
BOWIE COUNTY	BOWIE COUNTY	TX
MORTON COUNTY	MORTON COUNTY	KS
STEVENS COUNTY	STEVENS COUNTY	KS
SEWARD COUNTY	SEWARD COUNTY	KS
MEADE COUNTY	MEADE COUNTY	KS
CLARK COUNTY	CLARK COUNTY	KS
BARBER COUNTY	BARBER COUNTY	KS
SUMNER COUNTY	SUMNER COUNTY	KS
COWLEY COUNTY	COWLEY COUNTY	KS
CHAUTAUQUA COUNTY	CHAUTAUQUA COUNTY	KS
MONTGOMERY COUNTY	MONTGOMERY COUNTY	KS
LABETTE COUNTY	LABETTE COUNTY	KS
BACA COUNTY	BACA COUNTY	CO
LAS ANIMAS COUNTY	LAS ANIMAS COUNTY	CO
UNION COUNTY	UNION COUNTY	NM
BENTON COUNTY	BENTON COUNTY	AR
CRAWFORD COUNTY	CRAWFORD COUNTY	AR
SEBASTIAN COUNTY	SEBASTIAN COUNTY	AR
SCOTT COUNTY	SCOTT COUNTY	AR
POLK COUNTY	POLK COUNTY	AR
SEVIER COUNTY	SEVIER COUNTY	AR
LITTLE RIVER COUNTY	LITTLE RIVER COUNTY	AR
MCDONALD COUNTY	MCDONALD COUNTY	MO
NEWTON COUNTY	NEWTON COUNTY	MO

(n) Reference **OK_ADDRESS_SCHEMAS_3.XLS** –PLACETYPE

Data Source - NENA Standard for NG9-1-1 GIS Data Model -NENA-STA-006.2a-2022, September 23, 2022 - 5.78 -Page 71
https://cdn.ymaws.com/www.nena.org/resource/resmgr/standards/nena-sta-006.2a_ng9-1-1_gis_.pdf
Data Source - NENA-STA-004.1.1-2014_CLDXF.pdf - Page 104
https://cdn.ymaws.com/www.nena.org/resource/resmgr/Standards/NENA-STA-004.1.1-2014_CLDXF.pdf
https://tools.ietf.org/html/rfc4589
https://www.iana.org/assignments/location-type-registry/location-type-registry.xml

Code	Description
AIRCRAFT	AIRCRAFT
AIRPORT	AIRPORT
ARENA	ARENA
AUTOMOBILE	AUTOMOBILE
BANK	BANK
BAR	BAR
BICYCLE	BICYCLE
BUS	BUS
BUS-STATION	BUS-STATION
CAFE	CAFE
CLASSROOM	CLASSROOM
CLUB	CLUB
CONSTRUCTION	CONSTRUCTION
CONVENTION-CENTER	CONVENTION-CENTER
Code	**Description**
GOVERNMENT	GOVERNMENT
HOSPITAL	HOSPITAL
HOTEL	HOTEL

INDUSTRIAL	INDUSTRIAL
LIBRARY	LIBRARY
MOTORCYCLE	MOTORCYCLE
OFFICE	OFFICE
OTHER	OTHER
OUTDOORS	OUTDOORS
PARKING	PARKING
PLACE-OF-WORSHIP	PLACE-OF-WORSHIP
PRISON	PRISON
PUBLIC	PUBLIC
PUBLIC-TRANSPORT	PUBLIC-TRANSPORT
RESIDENCE	RESIDENCE
RESTAURANT	RESTAURANT
SCHOOL	SCHOOL
SHOPPING-AREA	SHOPPING-AREA
STADIUM	STADIUM
STORE	STORE
STREET	STREET
THEATER	THEATER
TRAIN	TRAIN
TRAIN-STATION	TRAIN-STATION
TRUCK	TRUCK
UNDERWAY	UNDERWAY
UNKNOWN	UNKNOWN
WAREHOUSE	WAREHOUSE
WATER	WATER
WATERCRAFT	WATERCRAFT

(o) Reference **OK ADDRESS SCHEMAS 3.XLS** –DIRECTION

Data Source - NENA Standard for NG9-1-1 GIS Data Model -NENA-STA-006.2a-2022, September 23, 2022 - Search "Directional"
https://cdn.ymaws.com/www.nena.org/resource/resmgr/standards/nena-sta-006.2a_ng9-1-1_gis_.pdf
Data Source - USPS Publication 28 - Appendix B - Two–Letter State and Possession Abbreviations
http://pe.usps.com/text/pub28/28apb.htm
Abbreviation Usage Clarification: Abbreviations are **ALWAYS** used in Legacy E911 required data fields & **NEVER** used in NG911 required data fields.
Only English versions of directionals are utilized within this standard

Code	Description
NORTH	NORTH
SOUTH	SOUTH
EAST	EAST
WEST	WEST
NORTHEAST	NORTHEAST
NORTHWEST	NORTHWEST
SOUTHEAST	SOUTHEAST
SOUTHWEST	SOUTHWEST

(p) Reference **OK ADDRESS SCHEMAS 3.XLS** –LCGYDIRECTION

Data Source - NENA Standard for NG9-1-1 GIS Data Model -NENA-STA-006.2a-2022, September 23, 2022 - Search "Directional"
https://cdn.ymaws.com/www.nena.org/resource/resmgr/standards/nena-sta-006.2a_ng9-1-1_gis_.pdf
Data Source - USPS Publication 28 - Appendix B - Two–Letter State and Possession Abbreviations
http://pe.usps.com/text/pub28/28apb.htm
Abbreviation Usage Clarification: Abbreviations are **ALWAYS** used in Legacy E911 required data fields & **NEVER** used in NG911 required data fields.
Only English versions of directionals are utilized within this standard
As per multiple requests for standardization from PSAPs during implementations this domain's Code & Description values are identical.

Code	Description
N	N
S	S
E	E
W	W
NE	NE
NW	NW
SE	SE
SW	SW

(q) Reference **OK ADDRESS SCHEMAS 3.XLS** –STREETTYPE

Data Source - USPS Publication 28 - Appendix C1 - Street Suffix Abbreviations
http://pe.usps.com/text/pub28/28apc_002.htm
NENA REFERENCE - NENA_71-501-v1_Synchronizing_GIS_Databases_with_MSAG_and_ALI.pdf - Page 9
http://www.nena.org/resource/collection/F2E0D66A-4824-418C-8670-3238D262B84A/NENA_71-501-v1_Synchronizing_GIS_Databases_with_MSAG_and_ALI.pdf
https://cdn.ymaws.com/www.nena.org/resource/resmgr/standards/nena-sta-006.2a_ng9-1-1_gis_.pdf
Abbreviation Usage Clarification: Abbreviations are **ALWAYS** used in Legacy E911 required data fields & **NEVER** used in NG911 required data fields.
NENA REFERENCE - NENA Registry System Street Name Pre Types and Street Name Post Types
http://technet.nena.org/nrs/registry/StreetNamePreTypesAndStreetNamePostTypes.xml
Street Name Pre Types and Street Name Post Types
CLDFX & NENA GIS Data Model both state "Restricted to Values" and publish a "list" as stated in the XML link above
National Address Database (NAD) REFERENCE - NAD_Schema_202304.pdf - Street Name Type - Domain
https://www.transportation.gov/gis/nad/nad-schema
Street Name Pre Types and Street Name Post Types
NAD has Identical Pre & Post Domains

Code	Description
ALLEY	ALLEY
ANNEX	ANNEX
ARCADE	ARCADE
AVENUE	AVENUE
BAYOU	BAYOU
BEACH	BEACH
BEND	BEND
BLUFF	BLUFF
BLUFFS	BLUFFS
BOTTOM	BOTTOM
BOULEVARD	BOULEVARD
BRANCH	BRANCH
BRIDGE	BRIDGE
BROOK	BROOK
BROOKS	BROOKS
BURG	BURG
BURGS	BURGS
BYPASS	BYPASS
CAMP	CAMP
CANYON	CANYON
CAPE	CAPE
CAUSEWAY	CAUSEWAY
Code	**Description**
CENTER	CENTER
CENTERS	CENTERS
CIRCLE	CIRCLE
CIRCLES	CIRCLES
CLIFF	CLIFF
CLIFFS	CLIFFS
CLUB	CLUB
COMMON	COMMON
COMMONS	COMMONS
CORNER	CORNER
CORNERS	CORNERS
COUNTY ROAD	COUNTY ROAD
COURSE	COURSE
COURT	COURT
COURTS	COURTS
COVE	COVE
COVES	COVES
CREEK	CREEK
CRESCENT	CRESCENT
CREST	CREST
CROSSING	CROSSING
CROSSROAD	CROSSROAD
CROSSROADS	CROSSROADS
Code	**Description**
CURVE	CURVE
DALE	DALE
DAM	DAM
DIVIDE	DIVIDE
DRIVE	DRIVE
DRIVES	DRIVES
ESTATE	ESTATE
ESTATES	ESTATES
EXPRESSWAY	EXPRESSWAY
EXTENSION	EXTENSION
EXTENSIONS	EXTENSIONS
FALL	FALL
FALLS	FALLS
FERRY	FERRY
FIELD	FIELD
FIELDS	FIELDS
FLAT	FLAT
FLATS	FLATS
FORD	FORD
FORDS	FORDS
FOREST	FOREST
FORGE	FORGE
FORGES	FORGES
Code	**Description**
FORK	FORK
FORKS	FORKS
FORT	FORT
FREEWAY	FREEWAY
GARDEN	GARDEN

GARDENS	GARDENS
GATEWAY	GATEWAY
GLEN	GLEN
GLENS	GLENS
GREEN	GREEN
GREENS	GREENS
GROVE	GROVE
GROVES	GROVES
HARBOR	HARBOR
HARBORS	HARBORS
HAVEN	HAVEN
HEIGHTS	HEIGHTS
HIGHWAY	HIGHWAY
HILL	HILL
HILLS	HILLS
HOLLOW	HOLLOW
INLET	INLET
INTERSTATE	INTERSTATE
ISLAND	ISLAND
ISLANDS	ISLANDS
ISLE	ISLE
JUNCTION	JUNCTION
JUNCTIONS	JUNCTIONS
KEY	KEY
KEYS	KEYS
KNOLL	KNOLL
KNOLLS	KNOLLS
LAKE	LAKE
LAKES	LAKES
LAND	LAND
LANDING	LANDING
LANE	LANE
LIGHT	LIGHT
LIGHTS	LIGHTS
LOAF	LOAF
LOCK	LOCK
LOCKS	LOCKS
LODGE	LODGE
LOOP	LOOP
MALL	MALL
MANOR	MANOR
MANORS	MANORS
MEADOW	MEADOW
MEADOWS	MEADOWS
MEWS	MEWS
Code	**Description**
MILL	MILL
MILLS	MILLS
MISSION	MISSION

MOTORWAY	MOTORWAY
MOUNT	MOUNT
MOUNTAIN	MOUNTAIN
MOUNTAINS	MOUNTAINS
NECK	NECK
ORCHARD	ORCHARD
OVAL	OVAL
OVERPASS	OVERPASS
PARK	PARK(S)
PARKWAY	PARKWAY(S)
PASS	PASS
PASSAGE	PASSAGE
PATH	PATH
PIKE	PIKE
PINE	PINE
PINES	PINES
PLACE	PLACE
PLAIN	PLAIN
PLAINS	PLAINS
PLAZA	PLAZA
POINT	POINT
POINTS	POINTS
PORT	PORT
PORTS	PORTS
PRAIRIE	PRAIRIE
RADIAL	RADIAL
RAMP	RAMP
RANCH	RANCH
RAPID	RAPID
RAPIDS	RAPIDS
REST	REST
RIDGE	RIDGE
RIDGES	RIDGES
RIVER	RIVER
ROAD	ROAD
ROADS	ROADS
ROUTE	ROUTE
ROW	ROW
RUE	RUE
RUN	RUN
SHOAL	SHOAL
SHOALS	SHOALS
SHORE	SHORE
SHORES	SHORES
SKYWAY	SKYWAY
SPRING	SPRING
SPRINGS	SPRINGS
Code	**Description**
SPUR	SPUR(S)

SQUARE	SQUARE
SQUARES	SQUARES
STATE HIGHWAY	STATE HIGHWAY
STATION	STATION
STRAVENUE	STRAVENUE
STREAM	STREAM
STREET	STREET
STREETS	STREETS
SUMMIT	SUMMIT
TERRACE	TERRACE
THROUGHWAY	THROUGHWAY
TRACE	TRACE
TRACK	TRACK
TRAFFICWAY	TRAFFICWAY
TRAIL	TRAIL
TRAILER	TRAILER
TUNNEL	TUNNEL
TURNPIKE	TURNPIKE
UNITED STATES HIGHWAY	UNITED STATES HIGHWAY
UNDERPASS	UNDERPASS
UNION	UNION
UNIONS	UNIONS
VALLEY	VALLEY
VALLEYS	VALLEYS
VIADUCT	VIADUCT
VIEW	VIEW
VIEWS	VIEWS
VILLAGE	VILLAGE
VILLAGES	VILLAGES
VILLE	VILLE
VISTA	VISTA
WALK	WALK(S)
WALL	WALL
WAY	WAY
WAYS	WAYS
WELL	WELL
WELLS	WELLS

(r) Reference **OK_ADDRESS_SCHEMAS_3.XLS** –LGCYSTREETTYPE

Data Source - USPS Publication 28 - Appendix C1 - Street Suffix Abbreviations
http://pe.usps.com/text/pub28/28apc_002.htm
NENA REFERENCE - NENA_71-501-v1_Synchronizing_GIS_Databases_with_MSAG_and_ALI.pdf - Page 9
http://www.nena.org/resource/collection/F2E0D66A-4824-418C-8670-3238D262B84A/NENA_71-501-v1_Synchronizing_GIS_Databases_with_MSAG_and_ALI.pdf
Abbreviation Usage Clarification: Abbreviations are **ALWAYS** used in Legacy E911 required data fields & **NEVER** used in NG911 required data fields.
NENA REFERENCE - NENA Registry System Street Name Pre Types and Street Name Post Types
http://technet.nena.org/nrs/registry/StreetNamePreTypesAndStreetNamePostTypes.xml
Street Name Pre Types and Street Name Post Types
CLDFX & NENA GIS Data Model both state "Restricted to Values" and publish a "list" as stated in the XML link above
National Address Database (NAD) REFERENCE - NAD_Schema_202304.pdf - Street Name Type - Domain
https://www.transportation.gov/gis/nad/nad-schema
Street Name Pre Types and Street Name Post Types
NAD has Identical Pre & Post Domains
As per multiple requests for standardization from PSAPs during implementations this domain's Code & Description values are identical.

Code	Description	Non Legacy Type
ALY	ALY	ALLEY
ANNX	ANNX	ANNEX
ARC	ARC	ARCADE
AVE	AVE	AVENUE
BYU	BYU	BAYOU
BCH	BCH	BEACH
BND	BND	BEND
BLF	BLF	BLUFF
BLFS	BLFS	BLUFFS
BTM	BTM	BOTTOM
BLVD	BLVD	BOULEVARD
BR	BR	BRANCH
BRG	BRG	BRIDGE
BRK	BRK	BROOK
BRKS	BRKS	BROOKS
BG	BG	BURG
BGS	BGS	BURGS
BYP	BYP	BYPASS
CP	CP	CAMP
CYN	CYN	CANYON
CPE	CPE	CAPE
CSWY	CSWY	CAUSEWAY
CTR	CTR	CENTER
CTRS	CTRS	CENTERS
CIR	CIR	CIRCLE
CIRS	CIRS	CIRCLES
CLF	CLF	CLIFF
CLFS	CLFS	CLIFFS
CLB	CLB	CLUB
CMN	CMN	COMMON
CMNS	CMNS	COMMONS
COR	COR	CORNER
CORS	CORS	CORNERS
CR	CR	COUNTY ROAD
CRSE	CRSE	COURSE
CT	CT	COURT
CTS	CTS	COURTS
CV	CV	COVE
CVS	CVS	COVES
CRK	CRK	CREEK
CRES	CRES	CRESCENT
Code	**Description**	**Non Legacy Type**
CRST	CRST	CREST
XING	XING	CROSSING
XRD	XRD	CROSSROAD
XRDS	XRDS	CROSSROADS
CURV	CURV	CURVE
DL	DL	DALE
DM	DM	DAM
DV	DV	DIVIDE
DR	DR	DRIVE
DRS	DRS	DRIVES
EST	EST	ESTATE
ESTS	ESTS	ESTATES
EXPY	EXPY	EXPRESSWAY
EXT	EXT	EXTENSION
EXTS	EXTS	EXTENSIONS
FALL	FALL	FALL
FLS	FLS	FALLS
FRY	FRY	FERRY
FLD	FLD	FIELD
FLDS	FLDS	FIELDS
FLT	FLT	FLAT
FLTS	FLTS	FLATS
FRD	FRD	FORD
FRDS	FRDS	FORDS
FRST	FRST	FOREST
FRG	FRG	FORGE
FRGS	FRGS	FORGES
FRK	FRK	FORK
FRKS	FRKS	FORKS
FT	FT	FORT
FWY	FWY	FREEWAY
GDN	GDN	GARDEN
GDNS	GDNS	GARDENS
GTWY	GTWY	GATEWAY
GLN	GLN	GLEN
GLNS	GLNS	GLENS
GRN	GRN	GREEN
GRNS	GRNS	GREENS
GRV	GRV	GROVE
GRVS	GRVS	GROVES
HBR	HBR	HARBOR
HBRS	HBRS	HARBORS
Code	**Description**	**Non Legacy Type**
HVN	HVN	HAVEN
HTS	HTS	HEIGHTS
HWY	HWY	HIGHWAY

HL	HL	HILL
HLS	HLS	HILLS
HOLW	HOLW	HOLLOW
INLT	INLT	INLET
I	I	INTERSTATE
IS	IS	ISLAND
ISS	ISS	ISLANDS
ISLE	ISLE	ISLE
JCT	JCT	JUNCTION
JCTS	JCTS	JUNCTIONS
KY	KY	KEY
KYS	KYS	KEYS
KNL	KNL	KNOLL
KNLS	KNLS	KNOLLS
LK	LK	LAKE
LKS	LKS	LAKES
LAND	LAND	LAND
LNDG	LNDG	LANDING
LN	LN	LANE
LGT	LGT	LIGHT
LGTS	LGTS	LIGHTS
LF	LF	LOAF
LCK	LCK	LOCK
LCKS	LCKS	LOCKS
LDG	LDG	LODGE
LOOP	LOOP	LOOP
MALL	MALL	MALL
MNR	MNR	MANOR
MNRS	MNRS	MANORS
MDW	MDW	MEADOW
MDWS	MDWS	MEADOWS
MEWS	MEWS	MEWS
ML	ML	MILL
MLS	MLS	MILLS
MSN	MSN	MISSION
MTWY	MTWY	MOTORWAY
MT	MT	MOUNT
MTN	MTN	MOUNTAIN
MTNS	MTNS	MOUNTAINS
NCK	NCK	NECK
ORCH	ORCH	ORCHARD
OVAL	OVAL	OVAL
OPAS	OPAS	OVERPASS
PARK	PARK	PARK(S)
PKWY	PKWY	PARKWAY(S)
PASS	PASS	PASS
PSGE	PSGE	PASSAGE
PATH	PATH	PATH
PIKE	PIKE	PIKE
PNE	PNE	PINE
PNES	PNES	PINES
PL	PL	PLACE
PLN	PLN	PLAIN
Code	**Description**	**Non Legacy Type**
PLNS	PLNS	PLAINS
PLZ	PLZ	PLAZA
PT	PT	POINT

PTS	PTS	POINTS
PRT	PRT	PORT
PRTS	PRTS	PORTS
PR	PR	PRAIRIE
RADL	RADL	RADIAL
RAMP	RAMP	RAMP
RNCH	RNCH	RANCH
RPD	RPD	RAPID
RPDS	RPDS	RAPIDS
RST	RST	REST
RDG	RDG	RIDGE
RDGS	RDGS	RIDGES
RIV	RIV	RIVER
RD	RD	ROAD
RDS	RDS	ROADS
RTE	RTE	ROUTE
ROW	ROW	ROW
RUE	RUE	RUE
RUN	RUN	RUN
SHL	SHL	SHOAL
SHLS	SHLS	SHOALS
SHR	SHR	SHORE
SHRS	SHRS	SHORES
SKWY	SKWY	SKYWAY
SPG	SPG	SPRING
SPGS	SPGS	SPRINGS
SPUR	SPUR	SPUR(S)
SQ	SQ	SQUARE
SQS	SQS	SQUARES
SH	SH	STATE HIGHWAY
STA	STA	STATION
STRA	STRA	STRAVENUE
STRM	STRM	STREAM
ST	ST	STREET
STS	STS	STREETS
SMT	SMT	SUMMIT
TER	TER	TERRACE
TRWY	TRWY	THROUGHWAY
TRCE	TRCE	TRACE
TRAK	TRAK	TRACK
TRFY	TRFY	TRAFFICWAY
TRL	TRL	TRAIL
TRLR	TRLR	TRAILER
TUNL	TUNL	TUNNEL
TPKE	TPKE	TURNPIKE
US	US	UNITED STATES HIGHWAY
UPAS	UPAS	UNDERPASS
UN	UN	UNION
UNS	UNS	UNIONS
VLY	VLY	VALLEY
VLYS	VLYS	VALLEYS
VIA	VIA	VIADUCT
VW	VW	VIEW
Code	**Description**	**Non Legacy Type**
VWS	VWS	VIEWS
VLG	VLG	VILLAGE
VLGS	VLGS	VILLAGES

VL	VL	VILLE
VIS	VIS	VISTA
WALK	WALK	WALK(S)
Code	**Description**	**Non Legacy Type**
WALL	WALL	WALL

WAY	WAY	WAY
WAYS	WAYS	WAYS
WL	WL	WELL
WLS	WLS	WELLS

(s) Reference **OK ADDRESS SCHEMAS 3.XLS** –SEPARATOR

Data Source - NENA Standard for NG9-1-1 GIS Data Model -NENA-STA-006.2a-2022, September 23, 2022 - 5.117 -Page 83
https://cdn.ymaws.com/www.nena.org/resource/resmgr/standards/nena-sta-006.2a_ng9-1-1_gis_.pdf
Data Source - NENA-STA-004.1.1-2014_CLDXF.pdf - Page 83
https://cdn.ymaws.com/www.nena.org/resource/resmgr/Standards/NENA-STA-004.1.1-2014_CLDXF.pdf
http://technet.nena.org/nrs/registry/StreetNamePreTypeSeparators.xml

Code	**Description**
OF THE	OF THE
AT	AT
DE LAS	DE LAS
DES	DES
IN THE	IN THE
TO THE	TO THE
OF	OF
ON THE	ON THE
TO	TO

(t) Reference **OK ADDRESS SCHEMAS 3.XLS** –ONEWAY

Data Source - NENA Standard for NG9-1-1 GIS Data Model -NENA-STA-006.2a-2022, September 23, 2022 - 5.75 -Page 70
https://cdn.ymaws.com/www.nena.org/resource/resmgr/standards/nena-sta-006.2a_ng9-1-1_gis_.pdf
Data Source - NENA_71-501-v1_Synchronizing_GIS_Databases_with_MSAG_and_ALI.pdf - Page 14
https://cdn.ymaws.com/www.nena.org/resource/collection/F2E0D66A-4824-418C-8670-3238D262B84A/NENA_71-501-v1_Synchronizing_GIS_Databases_with_MSAG_and_ALI.pdf
As per multiple requests for standardization from PSAPs during implementations this domain's Code & Description values are identical.

Code	**Description**
BOTH	BOTH
FROM TO	FROM TO
TO FROM	TO FROM
NONE	NONE

(u) Reference **OK ADDRESS SCHEMAS 3.XLS** – ROADCLASS

Data Source - NENA Standard for NG9-1-1 GIS Data Model -NENA-STA-006.2a-2022, September 23, 2022 - 5.96 -Page 76
https://cdn.ymaws.com/www.nena.org/resource/resmgr/standards/nena-sta-006.2a_ng9-1-1_gis_.pdf
https://www2.census.gov/geo/pdfs/reference/mtfccs2022.pdf
As per multiple requests for standardization from PSAPs during implementations this domain's Code & Description values are identical.

Code	**Description**
PRIMARY	PRIMARY
SECONDARY	SECONDARY
LOCAL	LOCAL
RAMP	RAMP
SERVICE DRIVE	SERVICE DRIVE
VEHICULAR TRAIL	VEHICULAR TRAIL
WALKWAY/PEDESTRIAN TRAIL	WALKWAY/PEDESTRIAN TRAIL
STAIRWAY	STAIRWAY
ALLEY	ALLEY
PRIVATE	PRIVATE
PARKING LOT	PARKING LOT
Code	**Description**
WINTER TRAIL	WINTER TRAIL

BIKE PATH OR TRAIL	BIKE PATH OR TRAIL
BRIDLE PATH	BRIDLE PATH
OTHER	OTHER

(v) Reference **OK ADDRESS SCHEMAS 3.XLS** –SERVICEURN

Data Source -NENA-STA-006.2a-2022, September 23, 2022 - 5.103 -Page 79		
https://cdn.ymaws.com/www.nena.org/resource/resmgr/standards/nena-sta-006.2a_ng9-1-1_gis_.pdf		
The URN used to select the service for which a route is desired.		
As per multiple requests for standardization from PSAPs during implementations this domain's Code & Description values are identical.		
Code	**Description**	
urn:emergency:service:additionalData	urn:emergency:service:additionalData	Return a URI to an Additional Data structure as defined in NENA-STA-012.2.
urn:emergency:service:responder.coast_guard	urn:emergency:service:responder.coast_guard	Coast Guard Station
urn:emergency:service:responder.ems	urn:emergency:service:responder.ems	Emergency Medical Service
urn:emergency:service:responder.ems.countyParish	urn:emergency:service:responder.ems.countyParish	County or Parish EMS
urn:emergency:service:responder.ems.local	urn:emergency:service:responder.ems.local	City, Town, Township, Borough or Village EMS
urn:emergency:service:responder.ems.military	urn:emergency:service:responder.ems.military	Used for military installations
urn:emergency:service:responder.ems.private	urn:emergency:service:responder.ems.private	Contracted Ambulance Service
urn:emergency:service:responder.ems.tribal	urn:emergency:service:responder.ems.tribal	Native American EMS (reservation)
urn:emergency:service:responder.federal.atf	urn:emergency:service:responder.federal.atf	Bureau of Alcohol, Tobacco, Fire Arms and Explosives
urn:emergency:service:responder.federal.cbp	urn:emergency:service:responder.federal.cbp	Customs and Border Protection
urn:emergency:service:responder.federal.dea	urn:emergency:service:responder.federal.dea	Drug Enforcement Agency
urn:emergency:service:responder.federal.dss	urn:emergency:service:responder.federal.dss	Diplomatic Security Service
urn:emergency:service:responder.federal.fbi	urn:emergency:service:responder.federal.fbi	Federal Bureau of Investigation
urn:emergency:service:responder.federal.fps	urn:emergency:service:responder.federal.fps	Federal Protective Service
urn:emergency:service:responder.federal.ice	urn:emergency:service:responder.federal.ice	Immigration and Customs Enforcement
urn:emergency:service:responder.federal.marshal	urn:emergency:service:responder.federal.marshal	Marshals Service
urn:emergency:service:responder.federal.military	urn:emergency:service:responder.federal.military	Used for military installations
urn:emergency:service:responder.federal.pp	urn:emergency:service:responder.federal.pp	U.S. Park Police
urn:emergency:service:responder.federal.rcmp	urn:emergency:service:responder.federal.rcmp	Royal Canadian Mounted Police
urn:emergency:service:responder.federal.usss	urn:emergency:service:responder.federal.usss	U.S. Secret Service
urn:emergency:service:responder.fire	urn:emergency:service:responder.fire	Fire Department
urn:emergency:service:responder.fire.airport	urn:emergency:service:responder.fire.airport	Airport Fire Service
urn:emergency:service:responder.fire.forest	urn:emergency:service:responder.fire.forest	Forest Fire Service
urn:emergency:service:responder.fire.military	urn:emergency:service:responder.fire.military	Used for military installations
urn:emergency:service:responder.fire.private	urn:emergency:service:responder.fire.private	Private Fire Service
urn:emergency:service:responder.mountain_rescue	urn:emergency:service:responder.mountain_rescue	Mountain Rescue Service
urn:emergency:service:responder.poison_control	urn:emergency:service:responder.poison_control	Poison Control Center
urn:emergency:service:responder.police	urn:emergency:service:responder.police	Police Agency
urn:emergency:service:responder.police.countyParish	urn:emergency:service:responder.police.countyParish	County or Parish police (not Sheriff)
urn:emergency:service:responder.police.federal	urn:emergency:service:responder.police.federal	An appropriate federal agency.
urn:emergency:service:responder.police.local	urn:emergency:service:responder.police.local	City, Town, Township, Borough or Village police
urn:emergency:service:responder.police.sheriff	urn:emergency:service:responder.police.sheriff	Sheriff's office, when both a police and Sheriff dispatch may be possible
urn:emergency:service:responder.police.stateProvincial	urn:emergency:service:responder.police.stateProvincial	State or provincial police office
urn:emergency:service:responder.police.tribal	urn:emergency:service:responder.police.tribal	Native American police (reservation)
urn:emergency:service:responder.psap	urn:emergency:service:responder.psap	Other purposes beyond use for dispatch via ECRF
urn:emergency:service:serviceAgencyLocator	urn:emergency:service:serviceAgencyLocator	Return a URI to a Service or Agency
urn:emergency:service:serviceagencyLocator.ADR	urn:emergency:service:serviceagencyLocator.ADR	Additional Data Repository (if hosted on an ESInet)
urn:emergency:service:serviceagencyLocator.BCF	urn:emergency:service:serviceagencyLocator.BCF	Border Control Function
urn:emergency:service:serviceagencyLocator.Bridge	urn:emergency:service:serviceagencyLocator.Bridge	Bridge
urn:emergency:service:serviceagencyLocator.ECRF	urn:emergency:service:serviceagencyLocator.ECRF	Emergency Call Routing Function
urn:emergency:service:serviceagencyLocator.ESRP	urn:emergency:service:serviceagencyLocator.ESRP	Emergency Service Routing Proxy
urn:emergency:service:serviceagencyLocator.GCS	urn:emergency:service:serviceagencyLocator.GCS	Geocode Conversion Service
urn:emergency:service:serviceagencyLocator.IMR	urn:emergency:service:serviceagencyLocator.IMR	Interactive Media Response Service
urn:emergency:service:serviceagencyLocator.LVF	urn:emergency:service:serviceagencyLocator.LVF	Location Validation Function
urn:emergency:service:serviceagencyLocator.Logging	urn:emergency:service:serviceagencyLocator.Logging	Logging Service
urn:emergency:service:serviceagencyLocator.MCS	urn:emergency:service:serviceagencyLocator.MCS	MSAG Conversion Service
urn:emergency:service:serviceagencyLocator.MDS	urn:emergency:service:serviceagencyLocator.MDS	Mapping Data Service
urn:emergency:service:serviceagencyLocator.PSAP	urn:emergency:service:serviceagencyLocator.PSAP	PSAP
urn:emergency:service:serviceagencyLocator.PolicyStore	urn:emergency:service:serviceagencyLocator.PolicyStore	Policy Store
urn:emergency:service:serviceagencyLocator.SAL	urn:emergency:service:serviceagencyLocator.SAL	Service/Agency Locator
urn:emergency:service:sos.call_taker	urn:emergency:service:sos.call_taker	Route calls to a call taker within a PSAP.
urn:emergency:service:sos.level_2_esrp	urn:emergency:service:sos.level_2_esrp	Route calls to a second level ESRP (for an example, a state ESRP routing towards a county ESRP).
urn:emergency:service:sos.level_3_esrp	urn:emergency:service:sos.level_3_esrp	Route calls to a third level ESRP (for example, a regional ESRP that received a call from a state ESRP and in turn routes towards a county ESRP).
urn:emergency:service:sos.psap	urn:emergency:service:sos.psap	Route calls to primary PSAP.
urn:emergency:service:test.call_taker	urn:emergency:service:test.call_taker	Normally not used, but some implementations may make use of this urn.
urn:emergency:service:test.level_2_esrp	urn:emergency:service:test.level_2_esrp	Route test calls to a second level ESRP (for an example, a state ESRP routing towards a county ESRP).
urn:emergency:service:test.level_3_esrp	urn:emergency:service:test.level_3_esrp	Route test calls to a third level ESRP (for example, a regional ESRP that received a call from a state ESRP and in turn routes towards a county ESRP).
urn:emergency:service:test.psap	urn:emergency:service:test.psap	Route test calls to primary PSAP.
urn:service:sos	urn:service:sos	The generic 'sos' service reaches a public safety answering point (PSAP), which in turn dispatches aid appropriate to the emergency.
urn:service:sos.ambulance	urn:service:sos.ambulance	This service identifier reaches an ambulance service that provides emergency medical assistance and transportation.
urn:service:sos.fire	urn:service:sos.fire	The 'fire' service identifier summons the fire service, also known as the fire brigade or fire department.
urn:service:sos.gas	urn:service:sos.gas	The 'gas' service allows the reporting of natural gas (and other flammable gas) leaks or other natural gas emergencies.
urn:service:sos.marine	urn:service:sos.marine	The 'marine' service refers to maritime search and rescue services such as those offered by the coast guard, lifeboat, or surf lifesavers.
urn:service:sos.mountain	urn:service:sos.mountain	The 'mountain' service refers to mountain rescue services (i.e., search and rescue activities that occur in a mountainous environment), although the term is sometimes also used to apply to search and rescue in other wilderness environments.
urn:service:sos.physician	urn:service:sos.physician	The 'physician' emergency service connects the caller to a physician referral service.
urn:service:sos.poison	urn:service:sos.poison	The 'poison' service refers to special information centers set up to inform citizens about how to respond to potential poisoning.
urn:service:sos.police	urn:service:sos.police	The 'police' service refers to the police department or other law enforcement authorities.
urn:service:sos.police.municipal	urn:service:sos.police.municipal	A police force that serves an incorporated community, city or other local area.
urn:service:sos.police.national	urn:service:sos.police.national	A police force that serves an entire country.

Article IV. Citations of Existing Standards, Sources, and Reference Material

Section 4.01 Existing Neighbor State Standards

The Oklahoma Address Standard utilized, in part the research and knowledge acquired from the following states published standards and documentation.

(a) **Kansas** - Kansas Geospatial Data Addressing Standard Final Edition – October 29, 1999

(b) **Arkansas** – Proposed Arkansas Centerline File Standard – June 18, 2002

(c) **Missouri** – Missouri Addressing Standard – January 26, 2005

(d) **Texas** – ESRI Address Geodatabase Schema – September 15, 2005

(e) **Nebraska** – Nebraska Street Centerline Address Database Schema – Draft-September 23, 2013

NG911 Standard Update- Existing State Standards Reviewed

(f) **Kansas** – Kansas NG9-1-1 GIS Data Model (Version 1.1) - April 14, 2015

(g) **Iowa** – Iowa Next Generation 9-1-1 GIS Standards

(h) **Texas** – Commission on State Emergency Communications (CSEC NG9-1-1 GIS DATA Standard)

Section 4.02 Existing Professional Standards Documentation & Legislation

The Oklahoma Address Standard directly referenced various pertaining portions of the following documents to ensure industry standards are adhered to.

(a) Federal Geographic Data Committee (FGDC)

- FDGC Standards Page
- FGDC Content Standard for Geospatial Metadata –(FGDC-STD-001-1998)
- FGDC Standards Reference Model – (March 1996)
- Postal Addressing Profile of the Federal Geographic Data Committee United States Thoroughfare, Landmark, and Postal Address Standard (December 16, 2010 FGDC Standards WG meeting)
- FGDC Endorsed Address Standard – (FGDC-STD-016-2011)
- Geospatial Positioning Accuracy Standards Part 3: National Standard for Spatial Data Accuracy (FGDC-STD-007.3-1998)

(b) National Emergency Number Association (NENA)

- NENA Standards Page
- NENA Standard Data Formats For 9-1-1 Data Exchange & GIS Mapping – (NENA-02-010)
- NENA Information Documentation for Synchronizing GIS Databases with MSAG & ALI – (NENA-71-501)
- GIS Data Collection and Maintenance – (NENA-02-014)
- NENA Next Generation 9-1-1 (NG9-1-1) United States Civic Location Data Exchange Format (CLDXF) Standard (NENA-STA-004.1.1-2014)
- ~~Recommended Standard For Street Thoroughfare Abbreviations Arkansas reference (NENA-02-002)~~
- Service URI for call routing. Contained in the Emergency Service Boundary layer

and will define the Service URI of the service.

- NENA Standard for NG9-1-1 GIS Data Model -NENA-STA-006.2a-2022
- NENA Standards for the Provisioning and Maintenance of GIS data to ECRF and LVFs (NENA-STA-005.1.2-2022)
- Detailed Functional and Interface Standards for the NENA i3 Solution (NENA-STA-010.2-2016 (originally 08-03))
- Development of Site/Structure Address Point GIS Data for 9-1-1(NENA-INF-014.1-2015)
- NENA Information Document for GIS Data Stewardship for Next Generation 9-1-1 (NENA-INF-028.1-2020)
- NENA Registry System

(c) National Address Database (NAD) Schema

- Addr_Point Feature Class Schema – 04-17-2023

(d) International Standards Organization (ISO)

- International Standards Organization - Country 2 letter codes

(e) United States Postal Service (USPS)

- Mailing Standards of the United States Postal Service Publication 28 - Postal Addressing Standards

(f) American Society for Photogrammetry and Remote Sensing (ASPRS)

- ASPRS Accuracy Standards for Digital Geospatial Data – (Draft March 2014) / (Edition 1, Version 1- November 2014)
- ASPRS Accuracy Standards for Large-Scale Maps(1990_jul_1068-1070)

(g) United States Census Bureau (Census)

- FIPS Codes for Counties and County Equivalent Entities
- 2022 MAF/TIGER Feature Class Codes

(h) United States Department of Agriculture (NAIP)

- NAIP Information Sheet – April 2016

(i) State of Oklahoma Legislative Actions

- Oklahoma Senate. 1994 Regular Session, SB722
- Oklahoma House of Representatives. 1995 Regular Session, HB1964
- Oklahoma House of Representatives. Interim Study H2003-105
- Oklahoma House of Representatives. 2004 Regular Session, HB2457
- Oklahoma House of Representatives. 2011 Regular Session, HB 1086
- Oklahoma House of Representatives. 2016 Regular Session, HB3126

Section 4.03 Workgroup Acknowledgements

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Section 4.04 Maintenance of the Standard

This standard will be maintained through a partnership between the 911 Authority and the GI Council. This partnership ensures that this address standard is relevant and applicable to the professions it represents and moreover the citizens it protects.

Oklahoma Geographic Information Council

- **Version 1.0**
  - Draft Submitted for Public Review: May 2, 2014 – September 4, 2014
  - Adopted: September 5, 2014
- **Version 2.0**
  - Draft Submitted for Public Review: November 3, 2017 – January 5, 2018
  - Adopted: April 6, 2018
- **Version 2.1**
  - Adopted: February 1, 2019
- **Version 2.2**
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- **Version 3**
  - Draft Submitted for Public Review: TBA
  - Adopted: TBA

Oklahoma 9-1-1 Management Authority

- **Version 2.0**
  - Draft Submitted for Public Review: November 3, 2017 – January 5, 2018
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- **Version 2.1**
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- **Version 2.2**
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- **Version 3**
  - Draft Submitted for Public Review: TBA
  - Adopted: TBA

Section 4.05 Technical Glossary

(a) **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.

(b) **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.

(c) **Address matching** – See **Geocoding.**

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

(e) **ANI** – (Automatic Number Identification) The 10-digit Telephone Number associated with a device originating a 9-1-1 call.

(f) **Attribute** - the properties and characteristics of entities.

(g) **CAD** – (Computer Aided Dispatch) Information about features or elements contained in GIS data is usually stored in a related table.

(h) **CLDFX** - (Civic Location Data Exchange Format) A set of data elements that describe detailed street address information.

(i) **E911** – (Enhanced 911) A telephone system which includes network switching, database, and Public Safety Answering Point premise elements capable of providing Automatic Location Identification (ALI) data, selective routing, selective transfer, fixed transfer, and a call back number. The term also includes any enhanced 9-1-1 service so designated by the Federal Communications Commission in its Report and Order in WC Docket Nos. 04-36 and 05-196, or any successor proceeding.

(j) **ECRF** - (Emergency Call Routing Function) A functional element in an ESInet which

is a Location-to-Service Translation (LoST) protocol server where location information (either civic address or geo-coordinates) and a Service Uniform Resource Name (URN) serve as input to a mapping function that returns a Uniform Resource Identifier (URI) used to route an emergency call toward the appropriate PSAP for the caller's location or towards a responder agency.

(k) **EMS** - (Emergency Medical Service) Fire, hospital, poison control, etc., response centers.

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

(m) **ESB** – (Emergency Service Boundary) The Polygon that defines the geographic area of a single emergency response service. (Fire or Law or EMS separately) *Required to be separate service layers for NG911.*

(n) **ESInet** - (Emergency Services Internet protocol network) An ESInet is a managed IP network that is used for emergency services communications, and which can be shared by all public safety agencies. It provides the IP transport infrastructure upon which independent application platforms and core functional processes can be deployed, including, but not restricted to, those necessary for providing NG9-1-1 services. ESInets may be constructed from a mix of dedicated and shared facilities. ESInets may be interconnected at local, regional, state, federal, national, and international levels to form an IPbased inter-network (network of networks).

(o) **ESN** – (Emergency Service Number) The three to five digit NUMBER assigned to the unique combination of ESB that represents an ESZ polygon. *Required at a minimum as a legacy lookup table for the MSAG.*

(p) **ESZ** – (Emergency Service Zone) The **Polygon** that defines the unique geographic area of the combination of ESB (Fire, Law, & EMS Combined)

(q) **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 resulting in a single geographic point for a specific address.

(r) **Geospatial feature** - A point, line or polygon stored within geospatial software.

(s) **Geospatial software** - Mapping software with analytical capabilities.

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

(u) **LVF** – (Location Validation Function) A functional element in a Next Generation 9-1-1 Core Services (NGCS) that is a Location-to-Service Translation (LoST) protocol server where civic location information is validated against the authoritative GIS database information. A civic address is considered valid if it can be located within the database uniquely, is suitable to provide an accurate route for an emergency call, and adequate and specific enough to direct responders to the right location.

(v) **MCS** – (MSAG Conversion Service) A web service providing conversion between PIDF-LO and MSAG data.

(w) **MSAG** – (Master Street Address Guide) A database of street names and house number ranges within their associated communities defining Emergency Service Zones (ESZs) and their associated Emergency Service Numbers (ESNs) to enable proper routing of 9-1-1 calls.

(x) **NENA** - The National Emergency Number Association is a not-for profit corporation established in 1982 to further the goal of "One Nation-One Number." NENA is a networking source and promotes research, planning, and training. NENA strives to educate, set standards, and provide certification programs, legislative representation, and technical assistance for implementing and managing 9-1-1 systems.

(y) **NG911** - (Next Generation 9-1-1) NG9-1-1 is an Internet Protocol (IP) based system comprised of managed Emergency Services IP networks (ESInets), functional elements (applications), and databases that replicate traditional E9-1-1 features and functions and provides additional capabilities. NG9-1-1 is designed to provide access to emergency services from all connected communications sources and provide multimedia data capabilities for Public Safety Answering Points (PSAPs) and other emergency service organizations.

(z) **NGUID** - (NENA Globally Unique ID) NENA Globally Unique IDs must exist for each feature within the GIS data layer such that the ID is unique within a set of aggregated data for each layer.

(aa) **Parity** - A characteristic of a set of addresses or address ranges in which the numbers are either odd or even.

(bb) **PIDF-LO** – (Presence Information Data Format Location Object) Provides a flexible and versatile means to represent location information in a Session Initiation Protocol (SIP) header using an XML schema.

(cc) **Point** - A geospatial feature that is stored as a single XY coordinate.

(dd) **PSAP** - (Public Safety Answering Point) An entity responsible for receiving 9-1-1 calls and processing those calls according to a specific operational policy.

(ee) **Road Centerline** – A linear representation of a road that contains the associated attributes required for geocoding. A road centerline can represent a single lane or multiple lanes depending on the required functionality.

(ff) **SI** – (Spatial Interface) A standardized interface between the GIS and the functional elements that consume GIS data, such as the ECRF and the LVF.

(gg) **URI** - (Uniform Resource Identifier) A predictable formatting of text used to identify a resource on a network (usually the Internet) OR A string of characters that must follow prescribed syntaxes such as URL, URN. Note: Version 1.1 of the XML namespaces recommendation uses IRIs (Internationalized Resource Identifiers) instead of URIs. However, because version 1.1 is not yet a full recommendation [February 2003] and because the IRI RFC is not yet complete, this document continues to refer to URIs instead of IRIs.

(hh) **URN** – (Uniform Resource Name) Uniform Resource Identifiers (URIs) that use the URN scheme, and are intended to serve as persistent, location independent resource names.

(ii) **VoIP** – (Voice Over Internet Protocol) A technology that allows you to make voice calls using a broadband Internet connection instead of a regular (or analog) phone line.