Introduction

The Case for Addressing Standards

Street name and address assignment is a basic function of local government and it is often perceived as a relatively mundane task until something goes wrong and a problem arises. Unfortunately, the current address assignment process has created a number of problems in the past and does little to prevent future problems from occurring. The purpose of this document is to provide address assignment standards throughout Johnson County for those who assign addresses with the county.

Many of our current problems stem from the fact that addressing is generally performed without any consistent guidelines and with too little communication with other addressing entities in the County. In the past, this has led to:

- Duplicate street names being used for different streets in different cities
- Duplicate addresses (street number and name) being assigned in different cities
- Multiple street names being used for the same street
- Inconsistent use of street direction and street type (i.e., Avenue, Road, Drive, etc.)
- Address numbers out of sequence
- Address updates that are not communicated to all affected parties

This situation has made it more difficult to minimize the response times for emergency services, provide the timely delivery of mail, and efficiently route service delivery functions. It also causes considerable confusion for the general public. Although addressing problems are often just a minor inconvenience, they can in some circumstances be of paramount importance.

In response to these problems, the County initiated an interagency committee with representatives from city and county government, the Postal Service, and the utility companies.

The objectives of this committee were to:

1. Develop addressing and street naming standards that would be used as guidelines for addressing new development
2. Improve the lines of communication between all of the agencies involved
3. Coordinate local addressing standards with the state-wide GIS addressing recommendations currently under development

The committee is not trying to retroactively change existing addresses or street names. We are simply trying to prevent future problems.
Chapter 1 - Address Format

Street addresses can be formatted in many different ways. However, there are significant advantages that could be realized if all addressing entities in the County followed the same address formatting rules. A standardized format, for example, would reduce the opportunity for errors when addresses for an emergency service request are being reported and entered into a computerized dispatch system. It would also reduce confusion and misinterpretation by members of the general public when addressing mail or communicating address information. Finally, a standard format for addresses would simplify the maintenance, exchange and interpretation of computerized address files in both the public and private sectors of the County’s business community.

1. Component Order

Components of a street address should always be in the following order: address number, directional prefix (if any), street name, street type, directional suffix (if any), and unit number.

For example: 12345 W 119th St Apt 24

2. Address Numbers

Where possible, address numbers should consist entirely of numbers. Where that is not possible, an alpha-character added to the end of the address (without any separating space) is preferable to a fraction. As a general rule, characters other than letters and whole numbers should be avoided in all parts of the address (even hyphens should be avoided).

For example: 2456A is preferable to 2456 1/2

3. Directional Prefixes

The general pattern in the County is that east-west streets use "west" as the directional prefix and north-south streets do not use any directional. This pattern should be followed unless there is a clear, localized pattern to the contrary. Dual directionals such as northwest or southeast are also not typically used in the County and should be avoided.

4. Directional Suffixes

The use of a directional suffix (e.g. 4550 Lake Rd West or 4550 Lake Rd East) is strongly discouraged. A better solution is to use either a directional prefix or separate street names (e.g., 4550 Bayside Rd or 4550 Cliffside Rd).

5. Street Types

Every street should be assigned one (and only one) street type. Preferably, each street name should have a street type that is used consistently or have a street type that is based on a logical pattern of street types. 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., Maple St and Maple Ct).
A common practice in the County is to drop the street type where it is not needed for uniqueness (e.g., "9600 Metcalf" rather than "9600 Metcalf Ave"). However, this usage pattern should not be used as an excuse to not assign a street type to every street.

Where a street has two street types (e.g., 87th Street Parkway), the first "type" should be considered part of the street name and the second should be the official street type (e.g., "87th Street" is the street name and "Parkway" is the street type).

6. **Abbreviations**

It is recommended that directionals and street types always be abbreviated, but that street names never be abbreviated. This will help to reduce confusion where street names could be mistaken for a directional or type. For example, 12345 W 125th Ter is preferred over 12345 West 125th Terrace. As a more complicated example, 10600 East Metcalf Frontage Rd is better than 10600 E Metcalf Frontage Road because "East Metcalf Frontage" is the street name and "Rd" is the street type.

Unless there are strong reasons for doing otherwise, it is recommended that the standard Postal Service abbreviations be used.

<table>
<thead>
<tr>
<th>Standard Street Type Abbreviations</th>
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</thead>
<tbody>
<tr>
<td>Avenue Ave Boulevard Blvd</td>
</tr>
<tr>
<td>Circle Cir Court Ct</td>
</tr>
<tr>
<td>Drive Dr Highway Hwy</td>
</tr>
<tr>
<td>Lane Ln Parkway Pkwy</td>
</tr>
<tr>
<td>Place Pl Roads Rd</td>
</tr>
<tr>
<td>Street St Terrace Ter</td>
</tr>
</tbody>
</table>

7. **Numeric Street Names**

Numeric street names (e.g., 75th) should be written using numbers rather than spelled out. For example, "1st St" is preferable to "First St". In addition, numeric street names should include the "th", "rd", "st" or "nd" characters as part of the street name (e.g., 9900 W 120th St is preferable over 9900 W 120 St).
Chapter 2 - Street Naming

One of the most basic components of an address is the street name (including both the name itself and also the street type). If the street name causes confusion because there are several streets with the same or similar name, then the address is nearly useless. On the other hand, if the street name is part of a clearly understood system, then the address is very helpful even to people who may not be familiar with the specific area in which the address is located. The following standards are intended to provide guidance for street naming decisions so that the result will be as coherent and understandable as possible. They should be applied to all public streets and to any private streets or drives that are used for addressing or which carry a significant amount of public traffic.

1. **East-West Street Names**

   Streets that run primarily east and west should use the numeric street name grid that is commonly used throughout most of the County. The spacing of numeric street names should be based on the current pattern of 8 numeric names per mile. Where additional names are needed, street types such as Terrace or Place should be used in conjunction with the numeric street grid (for example, 98th Street, 98th Terrace, 98th Place, 99th Street).

2. **North-South Street Names**

   Whenever possible, streets that run primarily north and south should use one of the names from the grid of street names maintained by the County (see Appendix A). The spacing of named streets should be based on the current pattern of 16 names per mile. A street name that is part of the grid should **not** be used outside of its proper location and sequence as established by the grid.

   For example: "Rosehill" is in the street name grid at the 12700 block (halfway between Quivira and Pflumm) -- it should not be used at any other location in the County.

   Where a new street is proposed at a location that does not have an established grid name, a new name may be used and should be added to the official grid list (see Chapter 4 on Addressing Procedures and Communication). New grid names cannot be duplicates of existing street names. Once a new grid name is adopted, all future streets at the same east-west location should use that name even if they are not directly connected.

3. **Non-Grid Street Names**

   Using a street name which is not in the street name grid should generally be avoided, but may be acceptable when: (1) all of the grid names have been used; (2) when the street runs for a substantial distance on a diagonal and thus crosses several of the normal locations for grid streets; or (3) where there is clear reason why a grid name would cause confusion. Street names that are not in the street name grid should always be unique in the County and, preferably, unique in the metropolitan area.
4. **Vanity Street Names**

Vanity street names and addresses (i.e., names or addresses that are related to a particular business, developer or property owner) should never be used in place of the primary street address. They may, however, be used as a supplemental address in compliance with U.S. Post Office standards.

5. **Location of Street Name Break Points**

The name of a continuous street may change because of a change in the street’s east-west vs. north-south orientation, or because of a change in alignment that makes another name from the street name grid more accurate. Such street name breaks should occur at an intersection whenever possible, and preferably at an intersection with a major cross street. 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. Street name signs should be used at every street name break to clarify the change.

6. **Cul-de-sac Street Names**

Cul-de-sacs that have 7 or more lots along their length should be given a street name in the same manner as any other street. Short cul-de-sacs (or "eyebrows") not meeting the above standard should generally be given the same name as the street they get access from (i.e., the street that generally runs perpendicular to the cul-de-sac). This general rule for short cul-de-sacs may not apply, however, in the following circumstances:

1. Where the lots are very large, the number of lots allowed on a cul-de-sac without a distinct name should be reduced.
2. Where the end of the cul-de-sac is not clearly visible from the entrance, then a name different from the street providing access to the cul-de-sac should be used.
3. Where a cul-de-sac is an extension of a street with a street name separate from the perpendicular street, then that name should generally be used.
In the situations described above, the best judgement of each street naming entity should be used to determine the name which would be least confusing.

7. **Street Name Composition**

When choosing a new street name that is not part of the accepted grid, names should comply with the following standards: (1) avoid names that sound like existing street names even if they are spelled differently (e.g., "Roe" and "Row"); (2) avoid names that include directions (e.g., "Southwind") or words commonly associated with street types (e.g., "Melrose Place Drive"); and (3) avoid names that contain more than two "words" (except that hyphenated words should count as one word).

8. **Street Type Usage**

Every street should be assigned a street type. Where a street is continuous (or potentially continuous), the same street type should generally be used along its entire length (for example: "Metcalf" should not be "Metcalf Avenue" in some places and "Metcalf Road" in others). Where there is only one street with a particular name, a street type from the list of Primary Street Types should be used. Where there are two or more streets with the same name that are parallel to each other, then the northernmost, easternmost or most continuous street should be given a Primary Street Type and the others should be given a street type from the list of Secondary Street Types.

<table>
<thead>
<tr>
<th>Primary Street Types</th>
<th>Secondary Street Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street</td>
<td>Terrace</td>
</tr>
<tr>
<td>Avenue</td>
<td>Place</td>
</tr>
<tr>
<td>Boulevard</td>
<td>Lane</td>
</tr>
<tr>
<td>Drive</td>
<td>Circle</td>
</tr>
<tr>
<td>Road</td>
<td>Court</td>
</tr>
<tr>
<td>Parkway</td>
<td>Trail</td>
</tr>
<tr>
<td>Highway</td>
<td></td>
</tr>
</tbody>
</table>

A primary street type should never be used in place of a secondary street type and a secondary street type should never be used in a situation that calls for a primary street type.

9. **Street Type Sequence**

For numeric street names, street types are generally used in the following sequence: Street, Terrace, Place, and Court. This pattern should be followed whenever possible.
Chapter 3 - Assigning Address Numbers

Although assigning an address number to each structure on a particular street seems relatively straightforward at first glance, it actually poses some of the most difficult addressing problems. For example, the curvilinear streets and cul-de-sacs found in newer subdivisions create situations which are far harder to address than the traditional rectangular grid pattern of streets. Strip shopping centers and office parks often contain multiple buildings that are not in a clearly ordered sequence and often have the potential for many addresses being assigned in the same address range. As a result, it is likely that meeting all of the addressing standards suggested below will happen in some but not all situations. In the remaining cases, address number assignment will involve compromises between standards. The standards are listed in approximate order of importance, so that where compromise is necessary the standards near the bottom of the list should be the first to be considered for noncompliance.

In general, at least one address should be assigned to each habitable structure that is not clearly accessory to another building or insubstantial in nature (e.g., a detached garage for a single-family residence probably does not need an address but a commercial parking garage should have an address). Where a single building has multiple exterior entrances to separate tenant spaces or separate residential units, then a separate address number should be assigned to each such exterior door. Where a single building has multiple doors leading to a shared hallway or lobby, then only one address should be assigned.

1. **Numeric Sequence**

   Addresses should always be assigned so that they are in numeric sequence. Where two or more buildings addressed off of the same street are located in a "stacked" configuration (one building behind the other), addresses should be kept in sequence within each building (rather than alternating between buildings) to the greatest degree possible. In addition, the stacked building closest to the street should generally have lower address numbers than buildings farther away.

2. **Odd/Even Numbering (Address Parity)**

   Addresses should be assigned with odd numbers on the south and east sides of the street and even numbers on the north and west sides of the street. Since curvilinear street may change direction for short distances or run at a diagonal, this standard should be applied given the primary direction of the street.

   Addresses on very short cul-de-sacs or "eyebrows" that are not given a separate street name should be based on the numbering sequence and parity for the perpendicular street that provides access to the cul-de-sac. This will keep address numbers consistent with this standard with respect to the perpendicular street that is being used as the basis for addressing, although with respect to the cul-de-sac it may appear that there are odd or even numbers on both sides.
Address Parity Examples

Parity provides an important pattern to addressing. Parity around cul-de-sacs will vary depending on whether the cul-de-sac is an independent street or simply an extension of another street (see bottom example).

Parity is odd all the way around the cul-de-sac shown immediately above because it is an extension of 158TH TER.

3. Sequence Direction

Addresses should get bigger as you travel west and south. Again however, this standard must be interpreted based on the primary direction of the street. 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.

4. Consistency with Cross Streets

Since each street in the street name grid has a "hundred block" designation, addresses should be assigned so that they are consistent with those designations. Quivira Road, for example, is the 11900 block. Thus, addresses on a numbered street that intersects
with Quivira should be less than 11900 east of Quivira and greater than 11900 west of Quivira.

5. **Consistency with Distance-Based Address Grid**

Since there are 16 named streets per mile and 8 numbered street names per mile, "hundred block" designations should normally change every 330 feet on an east-west street and every 660 feet on a north-south street. Thus, addresses can be assigned based on the distance south or west from the nearest section line. This standard is particularly useful in areas that are largely undeveloped (and thus don’t have many cross streets) or in areas that have existing streets that are not in the standard street name grid. This standard should generally be considered to be less important, however, than staying consistent with the address designations of cross streets (see Standard 4 above).

6. **Avoid Duplicate Address Numbers**

Where two streets have the same street name but different street types (e.g., 98th Street and 98th Terrace), the same address number should not be used on both streets. For example, if addresses for a block on 98th Street are assigned as 13700, 13704, 13708, etc, then addresses on the corresponding block of 98th Terrace should be assigned as 13703, 13706, 13710, etc. This may help minimize potential service delivery mistakes if there is some confusion over the street type.

7. **Addressing Consistency**

Addresses located across the street from each other should 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 need to be more widely spaced so that addressing consistency is maintained for addresses across from one another.
Chapter 4 - Communication and Integration

In the past, addresses have been assigned by the various addressing organizations acting more or less autonomously. Communication has been limited mainly to notification letters that have been sent out to utility companies and other "address users" whenever addresses have been assigned or changed. It is this relatively limited degree of communication that has enabled addressing problems to occur and to go undetected for long periods of time. This chapter proposes several actions designed to improve communications to the point where most addressing problems are either avoided entirely or detected almost immediately.

In addition, address data has never been systematically compiled and integrated with other related databases on a County-wide basis. This is a particularly crucial shortcoming considering the sophistication of the GIS programs run by the County and several of the major cities and utility companies. An accurate, timely and comprehensive address database linked tightly with the GIS databases would not only improve the address assignment process but would substantially expand the amount of information that could be analyzed geographically and improve the precision and usefulness of spatial queries. This chapter proposes an "address repository" that would begin to solve this problem.

1. Directory of Address Assigners

A directory of people actively involved in address creation or correction may be obtained from AIMS by calling 913.715.1600. This list will allow questions about a particular address or about addresses in general to be quickly routed to the correct person. The directory will include name, address, phone number, email address and agency. Whenever changes occur, new information should be supplied by each participating organization. In addition, the directory information should be checked annually to make sure it is still accurate.

2. Directory of Address Recipients

A directory has also been created of those people who need to be notified when new addresses are created or existing addresses modified. This information can also be obtained from AIMS by calling 913.715.1600. This list will allow address information to be distributed as efficiently as possible. The directory will include name, address, phone number, email address, agency and geographic area of responsibility (if applicable).

3. Addressing Feedback

All participants in the addressing process and all address users are strongly encouraged to communicate directly with the address creator whenever any of the following situations occurs:

1. There is a clear addressing error (e.g., an assigned address is clearly out of sequence or on the wrong side of the street given its parity).
2. There is a potential addressing problem (e.g., a duplicate street name is being proposed).
3. Actual usage differs from address assignment (e.g., the address posted on a building is different than the address assigned to that building).

This communication should include the address (or addresses) in question, a description of the problem and how the problem was discovered, and suggestions for possible
corrections. The address creator, in turn, should make a good faith effort to respond to the person who identified the problem and to make changes, if appropriate.

4. **Addressing Compliance**

Once addresses have been assigned and communicated to all interested organizations, a concerted effort should be made to make sure that everyone in each organization actually uses the correct address. For example, it would be helpful if permits were not issued or utility service applications approved for incorrect addresses. Alternatively, such permits and approvals might be granted on an interim basis until the address can be verified.

5. **County-wide Address Repository**

It is strongly recommended that the County AIMS program create and maintain an electronic "address repository" for all valid addresses in the County. Ideally, this repository should be updated by each address creating organization either through direct editing or through digital file transfers. The updating process should be designed to identify addressing conflicts or errors so that corrections can be made before addresses are released to the public and other address users.

In addition to the address information itself, the repository file should contain the parcel ID number for the parcel of land on which the address is located and, ideally, an X-Y coordinate that would indicate the location of the address within the parcel. These pieces of information would allow address-based data to be very closely integrated with the GIS software in use throughout the County. In addition, it would allow easy access to address data through either logical or spatial queries. This has the potential to significantly improve emergency services response time by providing site specific locational information for each address.

A number of services and contacts have been established to assist in the communication of address questions or concerns. For questions relative to addressing or streets within the County, the following options are available:

**Contact AddressInfo:**
AddressInfo  
c/o AIMS  
111 S Cherry St, Suite 3500  
Olathe, KS 66061  
Email: addressinfo@jocogov.org

**Contact StreetInfo:**
StreetInfo  
c/o AIMS  
111S Cherry St, Suite 3500  
Olathe, KS 66061  
Email: streetinfo@jocogov.org