

# An Alternate Approach to Address Creation and Maintenance

**Hernando County Property Appraiser**

Alvin R. Mazourek, CFA



Presenters:

Neil F. "Nick" Nikkinen, CFE

Manuel J. Padrón

# Hernando County, Florida

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## Statistics:

- **2004 Population:**
  - approximately 140,000+
- **2004 Real Property Parcels**
  - 108,659
- **2004 Approximate #Addresses**
  - 103,002



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# Why is addressing so important?

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**“Every Second Counts in Emergency Response!”**

Many people, including those in public safety, view enhanced 9-1-1 as a great emergency response tool; however, without accurate and consistent address information it can not always be counted on to help speed-up emergency response. Of the total parts that comprise the enhanced 9-1-1, addressing can be considered one of the most vital.



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# Addressing History

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- Some two years ago the Hernando County Florida Property Appraiser's office assembled a group of GIS stakeholders of county, municipal and state government offices and agencies.
- The purpose was to advise the attendees of the Property Appraiser's base map and to discuss the future of the GIS system in Hernando County.
- The greatest common factor affecting everyone was the county's addressing system.
- The current addressing system had not kept pace with technological advances and was not a centrally maintained system allowing departments and agencies to access the system electronically.



# Addressing History cont.

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- The previous addressing department used hardcopy maps as a source for addressing the county.
- A translucent device similar to a ruler, called a fly tape, was used to calculate address numbers.
- The fly tape had predetermined distances to assign addresses. This poses a problem since the tape does not easily bend around corners.
- Information stored in hard copy format limited distribution or sharing of information.



# Addressing Review

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## Purpose:

Developing, maintaining and enforcing roadway naming and addressing standards is for the best interest of public health, safety and general welfare of the citizens and inhabitants of Hernando County.

## Responsibility:

The responsibility of the addressing department is to function with the Sheriff's Office (E-911), US Post Office and other city and county government organizations to accomplish all addressing requirements.



# Addressing Timeline

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- **June 13, 2002:** Hernando County Property Appraiser hires 3001, Inc. to develop an addressing design plan.
- **July 16, 2002:** 3001 and the Hernando County Property Appraiser conduct a stakeholders meeting to establish existing addressing workflow.
- **October 15, 2003:** 3001 creates new addressing system and installs Phase I testing.
- **November 24, 2003:** 3001 delivers Phase II.
- **February 17, 2004:** addressing department on line.



# 3001 System Design

- Establish Requirements
- Point Data Creation
- Legacy Data Migration
- Database Design
- Addressing Standards
- Structure > Segment Assignment
- Establish Line Directionality
- Creating Ranges



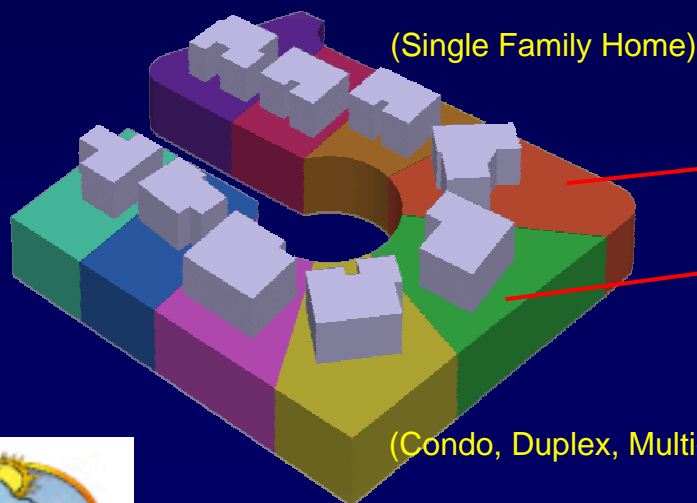
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# Required Spatial Link

- Parcel Identifier (PID) – We use the PID as our spatial link. Many government agencies currently store address information with the PID provided by the Property Appraiser.



ID*	ParcelKey*	Uln	Last	Compos	Location	APT Number	Structure Number	Mol Used
1	00000028	001	CHG	<Null>	LA CROSSE ST	<Null>	22423	<Null>
2	00000037	001	CHG	<Null>	LAKE LINDSEY RD	<Null>	22476	<Null>
3	00000046	001	ADD	<Null>	LAKE LINDSEY RD	<Null>	22458	<Null>
4	00000055	001	ADD	<Null>	LAKE LINDSEY RD	<Null>	22446	<Null>
5	00000064	001	ADD	<Null>	LAKE LINDSEY RD	<Null>	22434	<Null>
6	00000073	001	ADD	<Null>	DAKLAWN AVE	<Null>	14320	<Null>
7	00000073	002	ADD	<Null>	DAKLAWN AVE	<Null>	14322	<Null>
8	00000082	001	ADD	<Null>	LA CROSSE ST	<Null>	22337	<Null>
9	00000091	001	ADD	<Null>	LA CROSSE ST	<Null>	22355	<Null>



# Point Data Creation

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- Parcel Centroids
  - Points generated will inherit the PID attribute from the parcel-base map
- Building Footprint Centroids
  - Increased spatial accuracy
  - Conflation of PID from the parcel-base map to the points (intersect)





9459

9479

9468

9151

1230

1236

9437

9141

GILLMAR ST

1255

MEREDITH DR

GILLMAR ST

9170

9158

1179

1230

122

HORIZON DR  
HORIZON DR

9450

9160

9175

1281

9463

9160

9191

9203

9211

9211

121

9408

9473

9170

LAVINA LN

120

9464

9483

9178

LAVINA LN

120

9477

9491

9184

9196

9200

9208

9214

9220

119

9480

9601

9173

9535

9543

9551

9559

9567

119

2

1187

NEMCO LN

9623

9535

9543

9551

9559

9567

1182

MEREDITH DR

# Legacy Data Preparation

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- Review how the current address data is stored
  - ▶ Single Address Field
  - ▶ Multiple Fields Creating The Address

– Example:

Location – 1234 N. Main St.

vs

House Number – 1234

Prefix – N.

Street Name – Main

Street Type – St.



# Multiple Location Fields

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- Why We Chose this Format?
  - ▶ Simple - We find it is easier to merge multiple fields rather than to separate a single field.
  - ▶ We can also put our expensive Relational Data Base Management System (RDBMS) to work and make the most of it's capabilities.
  - ▶ Establish Database Diagram



# Street Name Analysis

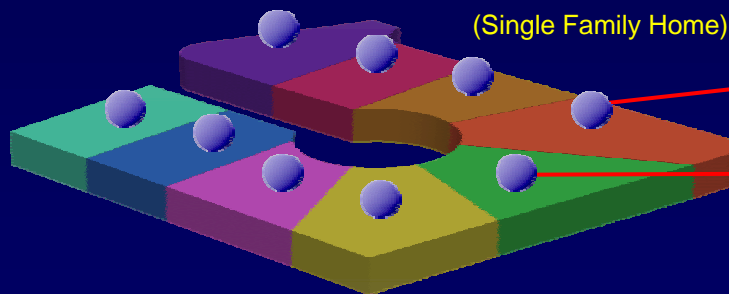
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- Before the point data is merged to the street names a clean up is conducted.
- A master street name index was obtained through the local post office.
- Using the master index, the street names in the address data are matched to the street names in the centerline data.



# Final Data Merge

- Utilizing the PID field for the relationship, a unique ID is created for each structure and related to its corresponding addressing data.



(Single Family Home)

ID*	ParcelKey*	Unit	Last	Compan	Location	APT_Number	Structure_Number	Not_Used
1	00000029	001	CHG	<Nul>	LA CROSSE ST	<Nul>	22423	<Nul>
2	00000037	001	CHG	<Nul>	LAKE LINDSEY RD	<Nul>	22476	<Nul>
3	00000046	001	ADD	<Nul>	LAKE LINDSEY RD	<Nul>	22499	<Nul>
4	00000055	001	ADD	<Nul>	LAKE LINDSEY RD	<Nul>	22446	<Nul>
5	00000064	001	ADD	<Nul>	LAKE LINDSEY RD	<Nul>	22434	<Nul>
6	00000073	001	ADD	<Nul>	DAKLAWN AVE	<Nul>	14329	<Nul>
7	00000073	002	ADD	<Nul>	DAKLAWN AVE	<Nul>	14322	<Nul>
8	00000082	001	ADD	<Nul>	LA CROSSE ST	<Nul>	22337	<Nul>
9	00000091	001	ADD	<Nul>	LA CROSSE ST	<Nul>	22395	<Nul>

(Condo, Duplex, Multi-Addressed Structure, Etc.)



# HCPA Addressing Standards

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- Hernando County Roadway Naming and Addressing Ordinance
- Addressing Department Standard Operating Procedures(SOP)
- National Emergency Number Association Standards (NENA)
- United States Postal Addressing Standards, Publication 28

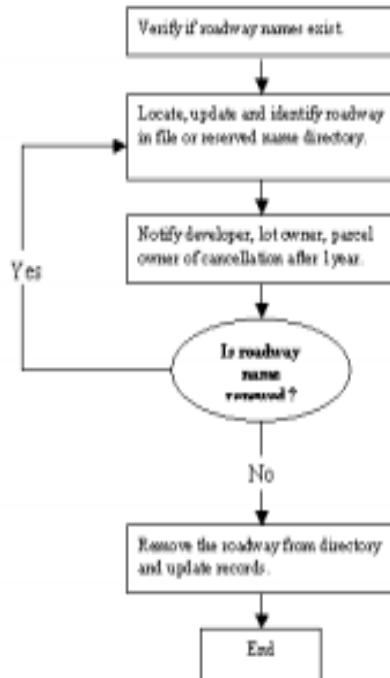


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# Standard Operating Procedures (SOP)

## PROCEDURES FOR CANCELING OR UPDATING ROADWAY NAME FLOWCHART



## PROCEDURES FOR ROADWAY NAME CHANGE

The following describes the steps involved in changing current roadway names. The guidance is outlined in the Hernando County Roadway Naming and Addressing Ordinance (No. 94-03) pertaining to roadway names/changes.

**Step 1:** The Petition for Roadway Name Change may be submitted by any property owner abutting the roadway involved or an adversely affected citizen of Hernando County. The property owner must complete the "PETITION FOR ROADWAY NAME CHANGE" form.

**Step 2:** When the petition form is completed, and all documentation is provided as per PETITION FOR ROADWAY NAME CHANGE, collect the fees for roadway name change listed in Addressing Fees. Start a file on current petition.

**Step 3:** Review current list of roadways and ensure that requested name is available for use.

**Step 4:** After determining availability of the new roadway name, send via certified mail the "NOTICE OF INTENT TO CHANGE ROADWAY NAME" to all property owners abutting the roadway, and shall be published at least once in a newspaper of general circulation within the County no less than ten (10) days prior to the hearing. Those in favor or against the petition will have a chance to testify before the Board of County Commissioners. The Board will approve or deny the request for the roadway name change.

**Step 5: No opposition:** if there is no opposition or no response, the Addressing Department will consider the roadway name change petition and approve the roadway name.

**Opposition:** Should there be opposition to the roadway name change petition and alternate names are considered, the Addressing Department may schedule a public hearing with the Board of County Commissioners. Should a hearing be necessary, a notice will be mailed at least ten (10) days before the hearing to all property owners abutting the roadway, and shall be published at least once in a newspaper of general circulation within the County no less than ten (10) days prior to the hearing. Those in favor or against the petition will have a chance to testify before the Board of County Commissioners. The Board will approve or deny the request for the roadway name change.

**To delete a point:** Select the Street segment, then click on the structure **Delete** button. A box will appear alerting, "system ready to delete a point, do you want to continue?". Click OK. The mouse pointer will change to an edit arrow. Select the point you would like to delete. If it is already addressed, another box appears asking if you would like to continue to delete. Click OK. The structure point is now removed. Continue this process until all required points are removed.

**Step 8:** Click on the **Street** button in the Structures form. In the drop down box select **Auto Address**. Auto address is used to address a point using a set of calculations. Select the street segment and click the **Start** command. Select the structures to be auto-addressed. The address number edit box will display the calculated address. If desired, edit the calculated address then click the **Accept** command button. The address will be added to the database for the structure.



**Note:** The purpose for the address number edit box is to allow you to edit a number that is not logically round for that structure (e.g., a cul-de-sac will have structures that are spatially past the end of the street). All structures that are past the end of the street will receive the highest address, odd or even number, based on the range of the street.



# Addressing Standards

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- The Addressing Department Standard Operating Procedures (SOP) establishes specific guidelines on how this division shall conduct its administrative requirements.
- The Prefix, Suffix, and Type fields are verified against USPS standards to ensure that data can be converted to a standardized format.
  - ▶ *Example:*
    - *Alley, Ally, Aly, etc. are all standardized to Aly*



# Reviewing Officials

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- Hernando County Property Appraiser's Office, Addressing Department
- Hernando County Sheriff's Office (E-911)
- United States Post Office
- Development Department
- Code Enforcement

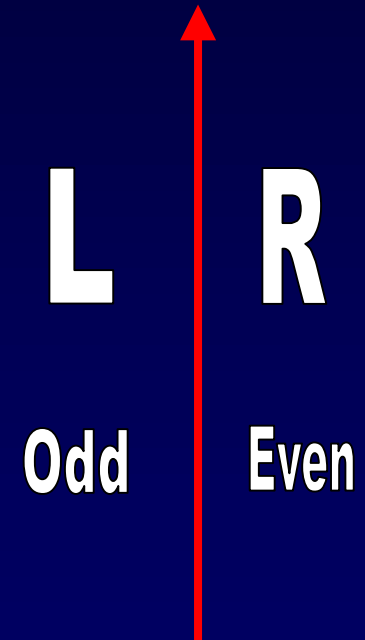


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# Why Is Line Directionality Important?

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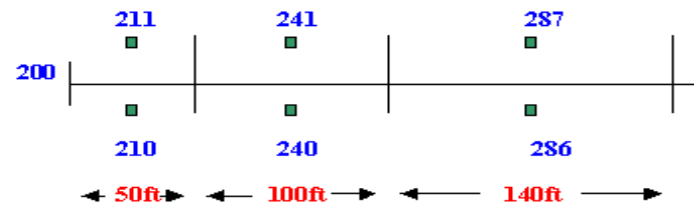
- It defines the left and the right side of the roadway .
- It minimizes address number conflicts by establishing even number and odd number addressing.
- In an emergency response having defined addresses reduces the possibility of any confusions.



# NENA Standard

- National Emergency Number Association (NENA), established in 1982 as a non-profit corporation in order to further the goal of “One Nation...One Number.”
- The protection of human life, the preservation of property, and the maintenance of general community security are among NENA’s objectives.

FRONTAGE INTERVAL ADDRESSING SYSTEM



# Frontage Interval Methodology

- A specified incremental distance determines possible new addresses.
  - ▶ i.e. interval 5.28'
    - Provides 2,000 (1,000 per side) addresses for every one mile of road frontage.
    - This example will allow for up to 287 address for a segment



**Name Street Segment**

Interval:

Street Length:  15405

Range Low:

Range High:

Select Street

Type in first letters of street name:



# Application Menus

Structures-1/26/2... [min] [max] [close]

File Search Notes Street

Using Street: N PELICAN DR

Address Range: 100 to 287

Address Number:

Secondary Locator:

Key Number:

Current Address(es) for this Structure

Structure Type:

Structure:

Address Search

Address Number:  (Leave blank for Street Search)

Type in first letters of street name:

Auto Address [min] [max] [close]

Configure

Street Name: N PELICAN DR

Segment Length: 494.94

Address Range: 100 To 287

Control

Struct Object ID:

Address Number:

Side

Even  Odd

Interval:



# REMEMBER

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“EVERY SECOND COUNTS IN  
EMERGENCY RESPONSE!”



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# ANY QUESTIONS?



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