CUSTER'S LAST POLYGON

DATA MANAGEMENT
IN A RURAL COUNTY

9-1-1 ADDRESSING

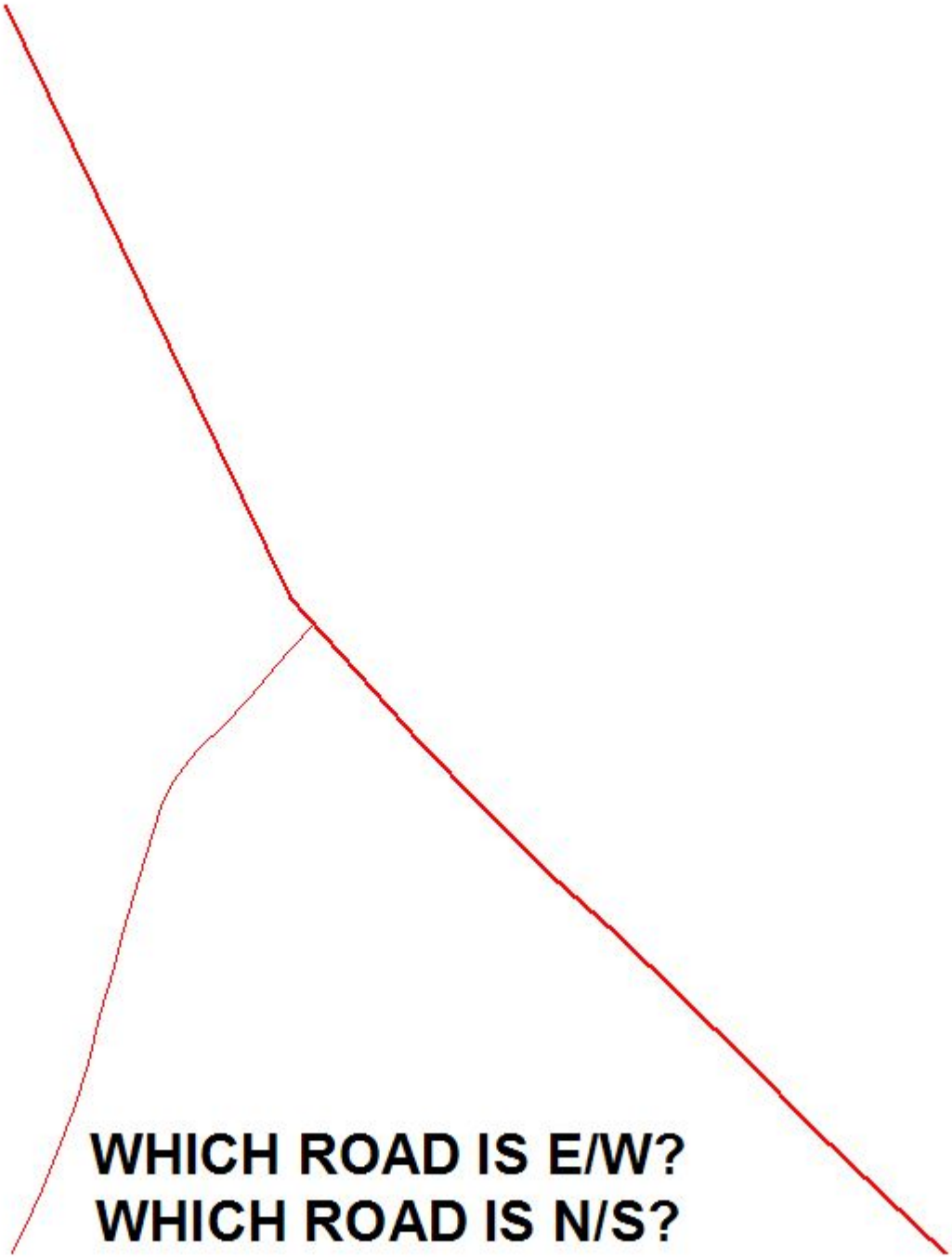
- The County Commission began work on addressing in 1988.
- Implementing a complex project without a plan, sufficient funding, or trained people does not work.
- Having significant areas of your county on fire provides great incentive to get your act together!

PREPARING A PLAN

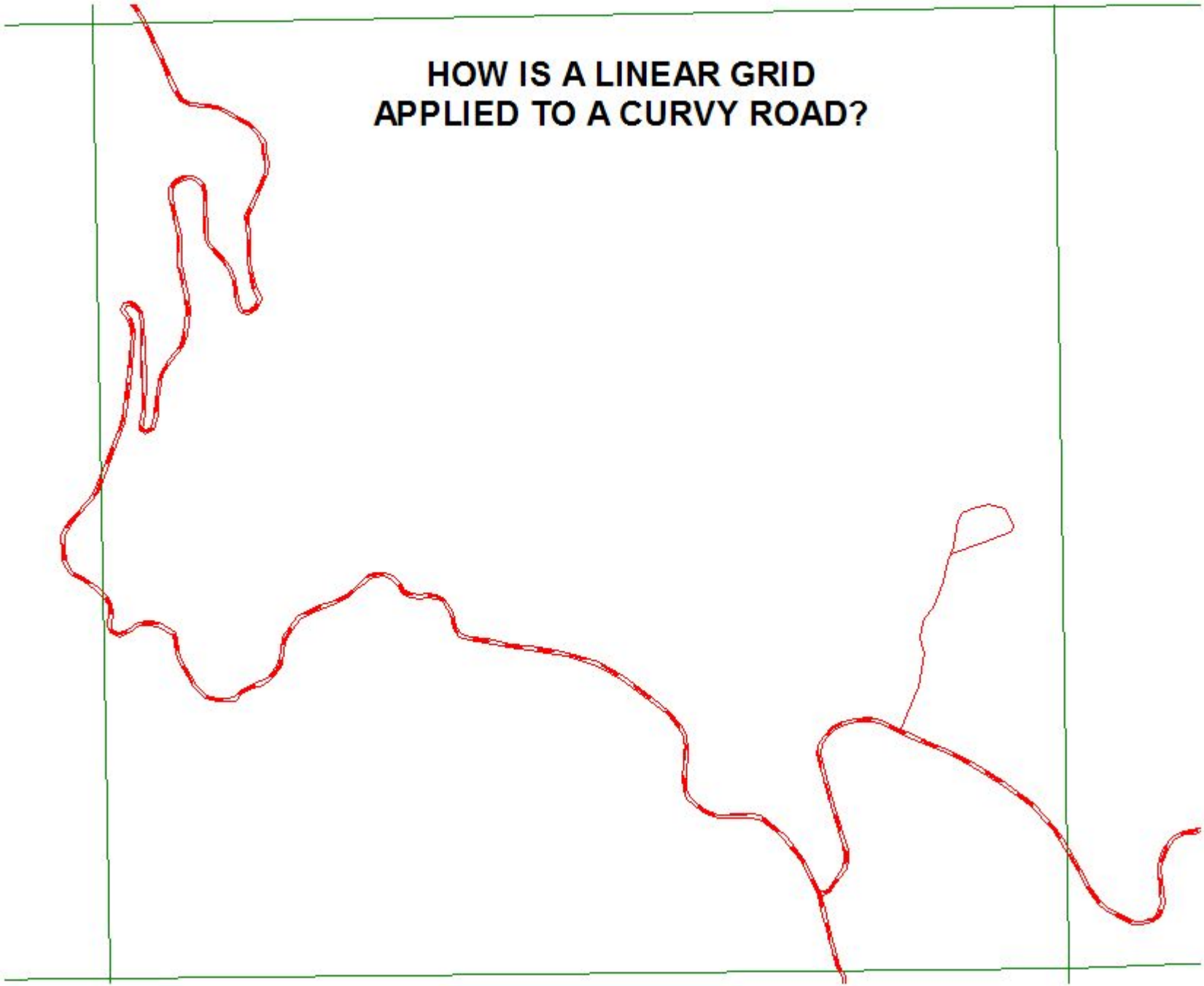
- Kadrmas, Lee, and Jackson was hired to perform an assessment of the software and hardware of our GIS system and to create base map layers for our addressing project.
- We created a project plan.
- We created GPS data gathering protocols.

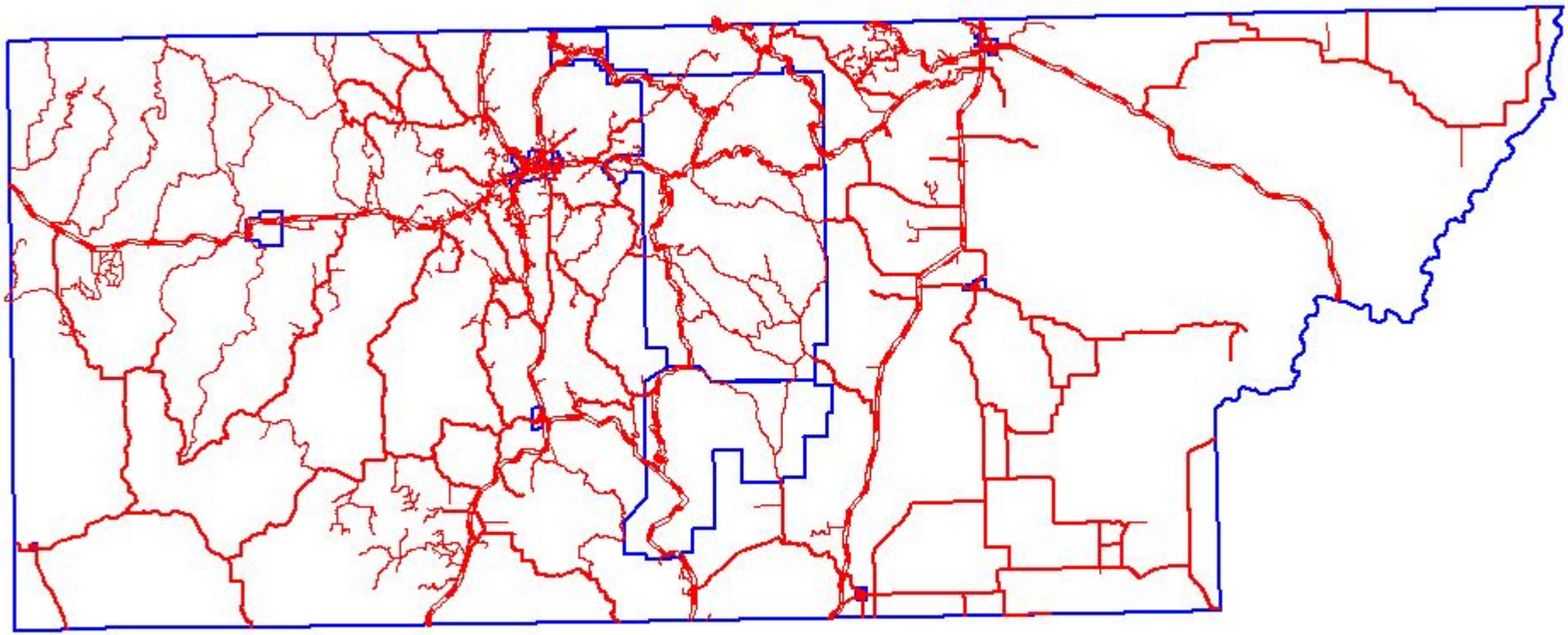
ROADS ARE THE KEY

- We spent a year researching and GPSing public roads and assigning address ranges.
- Custer County has 790 public roads but only 8% fall on section lines.
- Several different schemes were attempted before a comprehensive set of addressing standards were created.



WHICH ROAD IS E/W?
WHICH ROAD IS N/S?


HOW IS A LINEAR GRID
APPLIED TO A CURVY ROAD?



CUSTER COUNTY ROADS

ROADS WERE THE EASY PART!

- Contracted with KLJ again and purchased Bullberry's R3 Dispatch software to assign addresses using the address ranges created for the public roads.
- It was very difficult to ensure that the correct resident was connected to the right address without parcel data.

- Coordination of attribute formats with USPS, telco's, and electric utilities added to the fun—I only needed three complete data rebuilds to make everybody happy!!
- It took 2 years to complete the project.
- I changed 98% of the rural addresses in the county—and survived!!!
- The Commissioners were very supportive and took a lot of heat.
- The critical final element was installation of number signs.

WHAT'S NEXT FOR 9-1-1?

- We've achieved E9-1-1, R9-1-1, and W9-1-1 and will shortly implement V9-1-1.
- Next step is to upgrade our CAD system.
- Then implement vehicle tracking.
- Ultimate goal is to dynamically transfer mapping and data to laptops, tablets, and pda's in the field.

A PARCEL INFORMATION SYSTEM

- Custer County faces several challenges:
  - Small budget
  - Personnel turnover
  - Lack of coordination--parcel data repeatedly recreated as it travels through our courthouse
  - Large number of requests for information and assistance limit available staff time
  - Impacts of rapid growth overwhelming staff

PARCEL SYSTEM GOALS

- Eliminate repetitive data entry
- Provide data to the public and frequent users via the internet and public data terminals to reduce queries to staff
- Reduce pressure to hire additional staff
- Improve accuracy of parcel data
- Provide easy access to all public data and documents for each parcel in the county

WHERE WE'RE AT

- Custer County contracted with Schneider Corp. (nee ProMap) to create a "bare bones" parcel system (polygons with PINs) plus floodplain boundaries, soils data, and a history layer.
- We created a Land Information System Committee to set policy, settle user conflicts, and consolidate data entry and maintenance.
- Schneider delivered our final group of parcels last week—we still need to run final QA/QC review and input plats and splits for 2006.

WHERE WE'RE GOING

- Short term—we will add attributes and map layers to represent special tax districts, school districts, utility service areas, etc. and integrate data maintenance of addressing and parcel data
- Long term goal is to attach a viewable/ printable copy of every property-related document in the courthouse to its property's polygon (from territorial days to the present).

OUR PARCEL SYSTEM VISION

- We envision a virtual county courthouse.
- Basic parcel data and mapping will be available for viewing by anyone with access to the internet.
- Cost recovery will come from subscription services for added value products, such as comparable sales reports, etc. and from per-item download/printing charges.

WHY WE NEED STATE GIS STANDARDS

- Counties are not islands—we regularly dispatch emergency services across county borders and deal with cross-border subdivision development
- State and federal agencies need address and parcel data
- Exchange of data between agencies without standards leads to problems

A PROPOSAL FOR SDGIS

- Counties & cities create and maintain parcel and address data.
- We need a state agency to create a clearing house for all county/city-maintained data—either by dynamic data linking or by data hosting.
- Data standards must be consensus driven and cannot be dictated by the state agency.

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- The state agency must create a standard method to address edge-matching issues between jurisdictions.
- The state agency must maintain a current register of local contact information.
- There must be a Technical Advisory Group of users, state agencies, and local government representatives established.

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- Financial incentives must be offered to local governments to participate—this does not have to be a cash incentive.
- Provision must be made to create parcel and address data for counties without this data.
- There is an existing group that meets these criteria—SDEMA. The state currently shares costs of emergency managers with every county for at least a part-time position.