



# **US-56 Corridor Management Plan**



**March 10, 2011**

# Study Area and Purpose



**Purpose** – To improve access management and capacity along US-56 in a way that supports the needs and addresses the concerns of the Corridor community.

**Structure** – The Counties and Cities have executed agreements to work together.

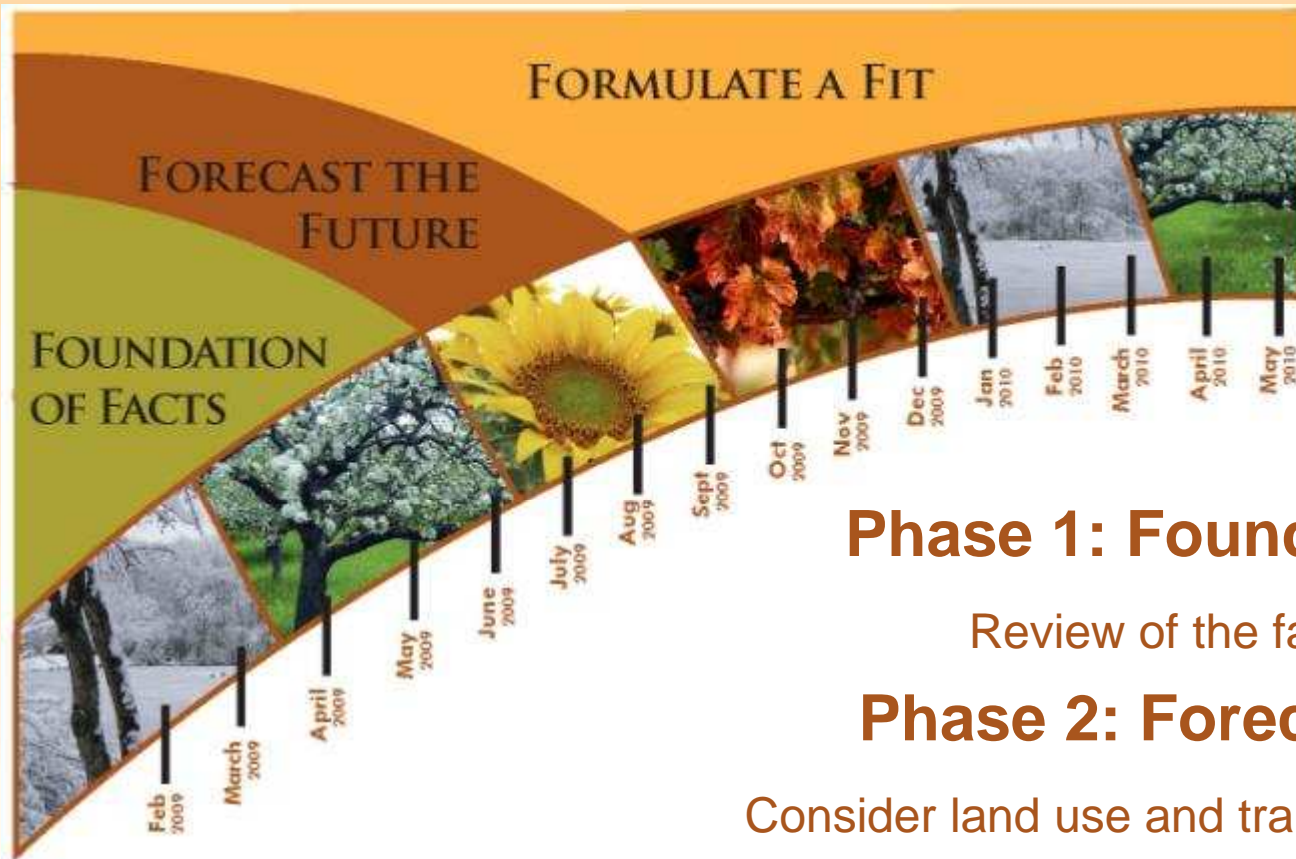


# US-56 Partners

- Kansas Department of Transportation
- Douglas and Johnson Counties
- Cities of Baldwin City, Edgerton, Gardner
- Lawrence-Douglas County Metropolitan Planning Organization
- Mid-America Regional Council
- Consultant Team



# Schedule and Process



## Phase 1: Foundation of Facts –

Review of the facts with informed input

## Phase 2: Forecast the Future –

Consider land use and transportation alternatives

## Phase 3: Formulate a Fit –

Agreement on Management Plan including roadway elements, character and policies. Communities will adopt the Plan and enter into agreement





# Regional Context of US-56

- Other Influences
  - BNSF Intermodal
  - New I-35 Interchange
  - K-7 Freeway



# Learning From the Community

- **Public Opinion Survey**
- **Advisory Committee** – 2 to 3 leaders from each county and community
- **Stakeholders & Corridor Community** – people with a variety of interests and expertise throughout the corridor
- **Elected Officials** – briefings
- **Check the Web Site** –  
[www.us56corridorplan.org](http://www.us56corridorplan.org)



# Selected Results of Survey

Q3. How safe do you feel driving on US-56?

by percentage of respondents



Source: ETC Institute DirectionFinder (April 2009 - US-56 Highway Corridor Study)



# Selected Results of Survey

What change would you most like to see along the Corridor now? (611 responses)

- Wider Shoulders – 23%
- Four-Lanes – 11%
- Wider (General) – 9%
- Turn Lanes - 6%

49% of Respondents would like to see widening of some sort along corridor

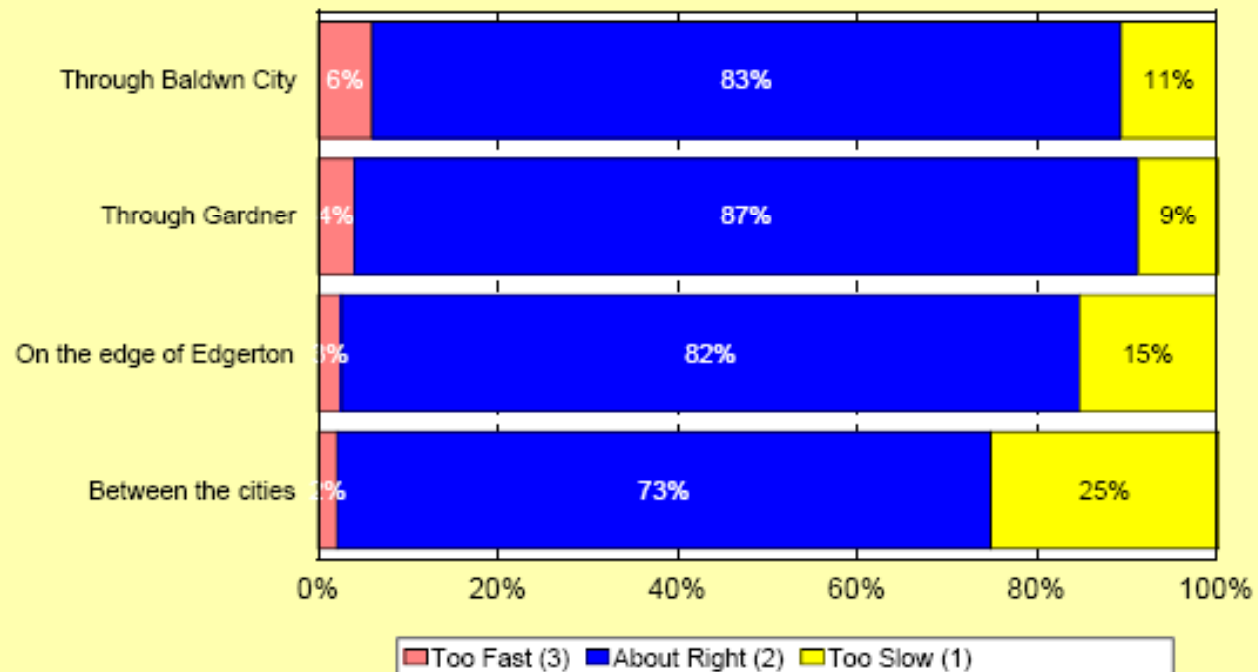




# Selected Results of Survey

Q5. What is your opinion about the speed limits on US-56 in the following locations?

by percentage of respondents who rated the item as a 1 to 3 on a 3-point scale (excluding don't knows)



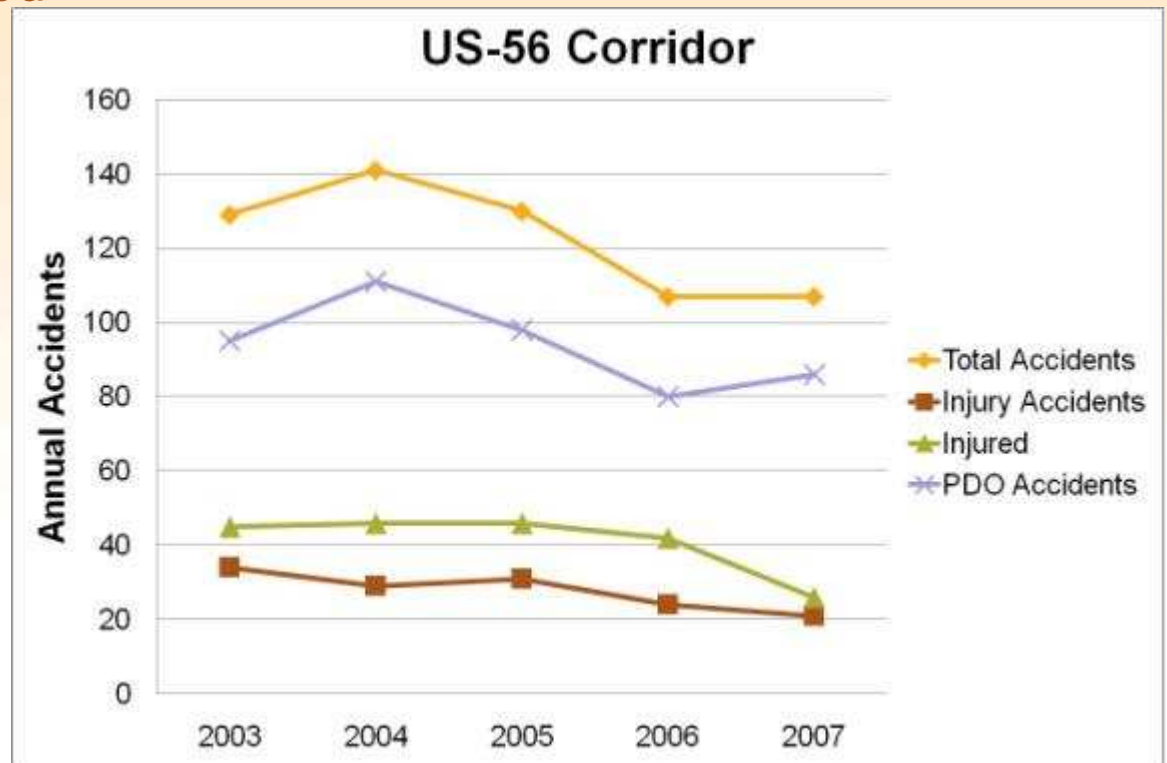
Source: ETC Institute DirectionFinder (April 2009 - US-56 Highway Corridor Study)

**Note – Survey conducted prior to speed limit being raised to 60 mph.**



# Safety History (2003 to 2007)

- Overall downward trend in collisions in five year period
- Intersection and intersection-related accidents account for more than 51% of accidents
  - Top locations include:
    - Moonlight (Gardner), US-59 and 6<sup>th</sup> St (Baldwin City)
- Five fatal accidents occurred
  - Two at the junction of US-59
  - Addressed with four-way STOP control



# Operational Efficiency - Existing

- Highway Segments
  - Governed by ability to pass (no passing zones)
  - Generally acceptable conditions today
- Intersections
  - Governed by delay
    - Signalized Intersections
      - Some congestion in Gardner
    - Unsignalized Intersections
      - Acceptable operations

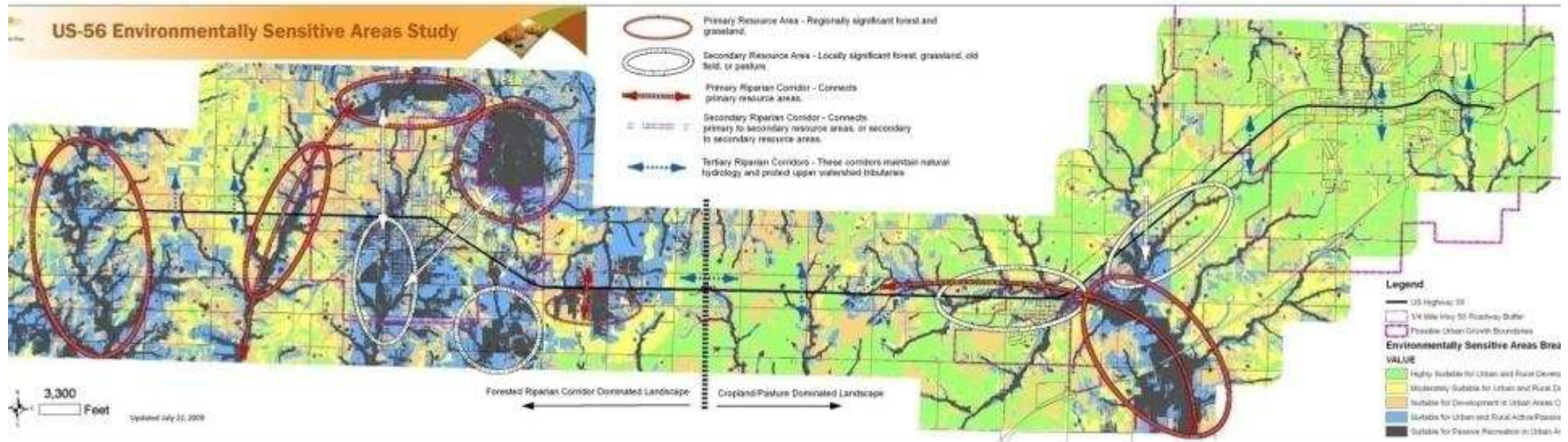


# Forecast the Future: Environmentally Sensitive Areas

- Considered:
  - Soils
  - Hydrology/flood plains
  - Land Cover
  - Slopes
  - Land Use
  - Habitat
- Aggregated/weighted data shows sensitive areas & crossings important for transportation and land use planning



# Forecast the Future: Environmentally Sensitive Areas





# Forecast the Future: Land Capacity

- **Developable Land:** Land that is not environmentally sensitive & that is not developed
- Developable Land within growth boundaries:
  - **Baldwin City:** 1,600 acres developable land
    - **Developed & Environmentally Vulnerable Acres: 3,800**
  - **Edgerton:** 460 acres developable land (plus new annexation)
    - **Developed & Environmentally Vulnerable Acres: 600**
  - **Gardner:** 4,000 acres developable land
    - **Developed & Environmentally Vulnerable Acres: 5,500**



# Forecast the Future: Developable Land

## Big Picture

|                                 |                  |
|---------------------------------|------------------|
| – Study Area                    | 57,700 ac        |
| – Environmental/Developed Lands | <u>36,200 ac</u> |
| <b>Blue Area Net Acres</b>      | <b>21,500 ac</b> |



# Forecast the Future: Low-Growth Scenario

- Follows Adopted Plans of Cities
- Minimizes environmental sensitivity
- Does not include developed land within City growth boundaries
- Has sewers or is in City's current plans
- One times market demand
- Infill first & then key intersections





# Forecast the Future: High-Growth Scenario

- Considers Adopted Plans, environmental sensitivity, developed land within City growth boundaries
- Avoided areas difficult to serve with sewers unless needed for market demand
- Three times market demand
- Commercial at key regional intersections



# Consensus Land Use Projection



## Baldwin City Low Growth Scenario

### Residential Demand

- Population Forecast 6,400
- New Dwelling Units = 1,200
- Requires 290 acres

### Commercial Demand

- 600 New Employees
- Requires 40 acres

## Edgerton High Growth Scenario

### Residential Demand

- Population Forecast 8,400
- New Dwelling Units = 1,500
- Requires 300 acres

### Commercial Demand

- 600 New Employees
- Requires 60 acres

## Gardner Low Growth Scenario

### Residential Demand

- Population Forecast 47,800
- New Dwelling Units = 14,300
- Requires 3,600 acres

### Commercial Demand

- 11,600 New Employees
- Requires 1,300 acres



# Corridor Character

- **Rural/agricultural** – high speed, few access points, no pedestrians
- **Suburban** – low density, often multi-lane, with sidewalks
- **Town Center** – mixed uses, low speeds, pedestrian accessibility
- **Industrial** – numerous access points, higher speeds, but also jobs



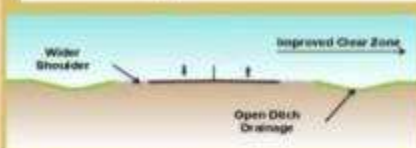
# Corridor Characteristics

ACCESS MANAGEMENT PLAYS A KEY ROLE IN DETERMINING  
THE LOCATION AND SPACING OF PUBLIC AND PRIVATE ACCESS POINTS

EXAMPLES



POTENTIAL



## Rural

At junctions with collector roadways and supporting traffic volumes, exclusive turn lanes may be necessary. An improved profile would allow for more passing opportunities.

**SPEED** – Typically 55 mph or greater  
**CONTROL** – Side street under STOP control



## Suburban

Multi-lane roadway, sometimes with median treatment that varies from a center turn lane to a raised median or even without a turn lane. Sidewalks can also be present.

**SPEED** – Typically between 30 - 45 mph  
**CONTROL** – Major intersections often controlled by traffic signals



## Industrial

Often multi-lane roadways, and sometimes with median treatment. To accommodate large vehicles, acceleration and deceleration lanes as well as large turning radii are often present.

**SPEED** – Typically between 30 - 45 mph  
**CONTROL** – Major intersections sometimes controlled by traffic signals



## Town Center

Multi-lane roadway sometimes with median treatment. On-street parking, sidewalks and other amenities (such as landscape and hardscape) may be present.

**SPEED** – Typically 35 mph or less  
**CONTROL** – Major intersections often controlled by traffic signals

The number of lanes and their configurations will be determined by projected traffic volumes.

# CONCEPTUAL IMPROVEMENT SUMMARY

US-56 CORRIDOR, US-59 TO I-35  
January 12, 2010



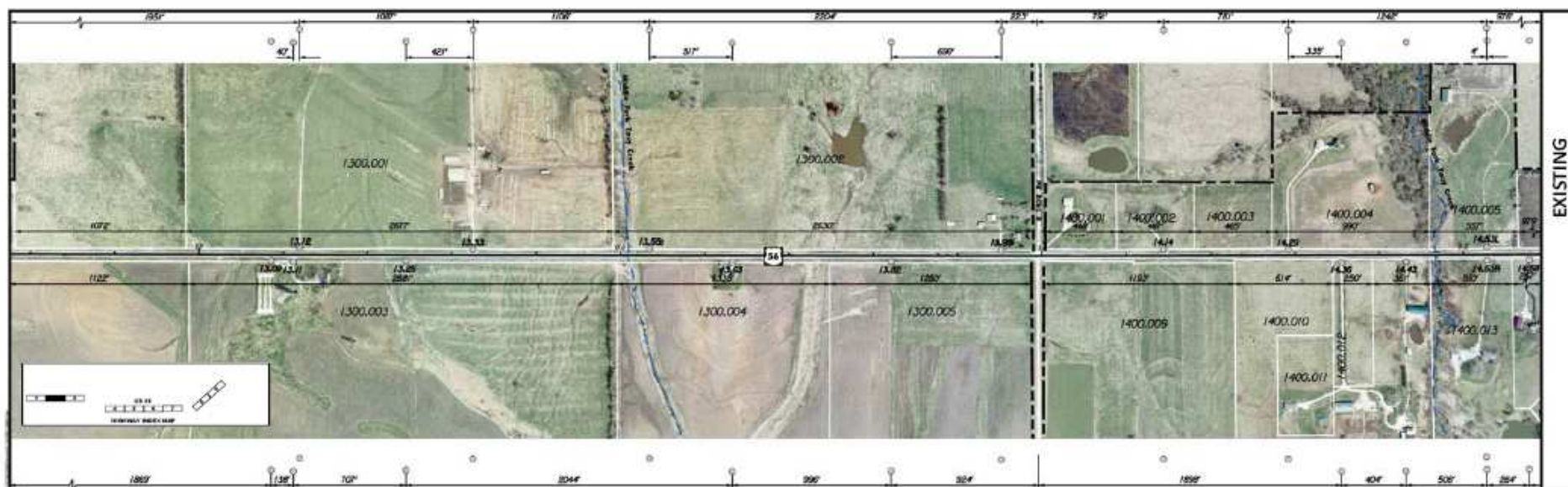


# Projected Traffic Volumes

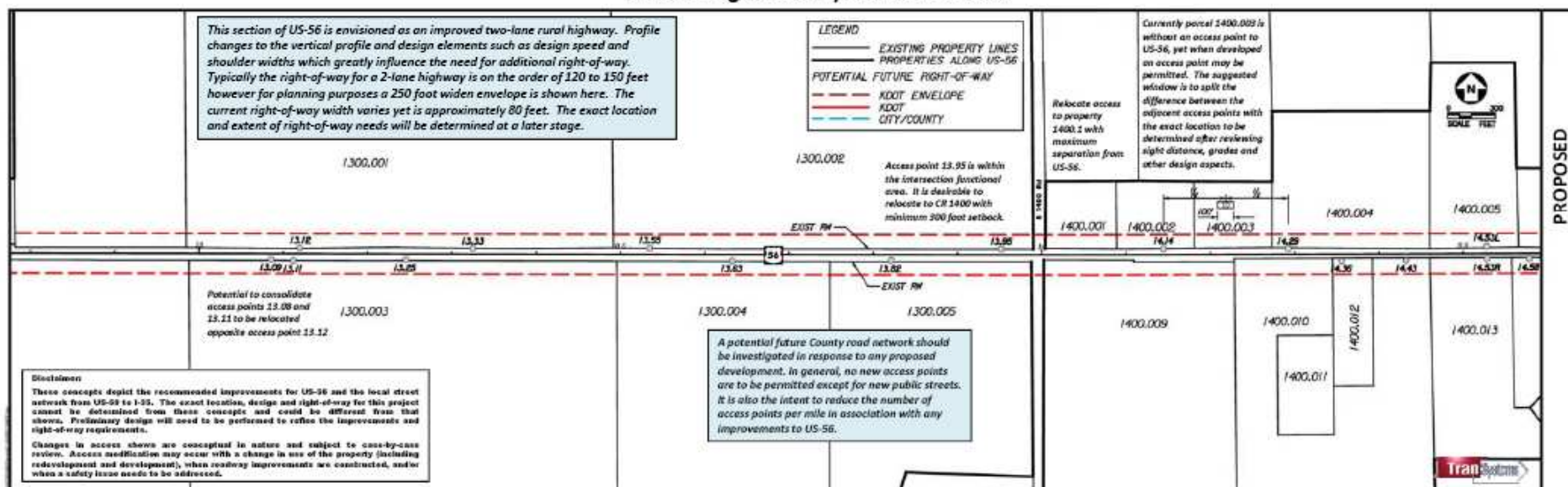
| Location                   | Existing      |            | 2040 Projections |              |
|----------------------------|---------------|------------|------------------|--------------|
|                            | ADT           | Trucks     | ADT              | Trucks       |
| US-59 to 1600 Road         | 4,900         | 280        | 7,500            | 900          |
| <b>Baldwin City</b>        | <b>7,500</b>  | <b>280</b> | <b>14,000</b>    | <b>1,000</b> |
| 1900 Road to K-33          | 4,600         | 260        | 5,500            | 900          |
| K-33 to Edgerton Road      | 4,700         | 270        | 6,500            | 900          |
| <b>Edgerton</b>            | <b>4,900</b>  | <b>270</b> | <b>12,000</b>    | <b>800</b>   |
| 199th Street to Waverly    | 4,900         | 270        | 4,800            | 500          |
| <b>Waverly to Center</b>   | <b>9,000</b>  | <b>270</b> | <b>30,000</b>    | <b>1,200</b> |
| <b>Center to Moonlight</b> | <b>17,500</b> | <b>270</b> | <b>37,500</b>    | <b>1,100</b> |
| <b>Moonlight to I-35</b>   | <b>25,000</b> | <b>800</b> | <b>47,000</b>    | <b>1,800</b> |



# Example Rural Access Plans

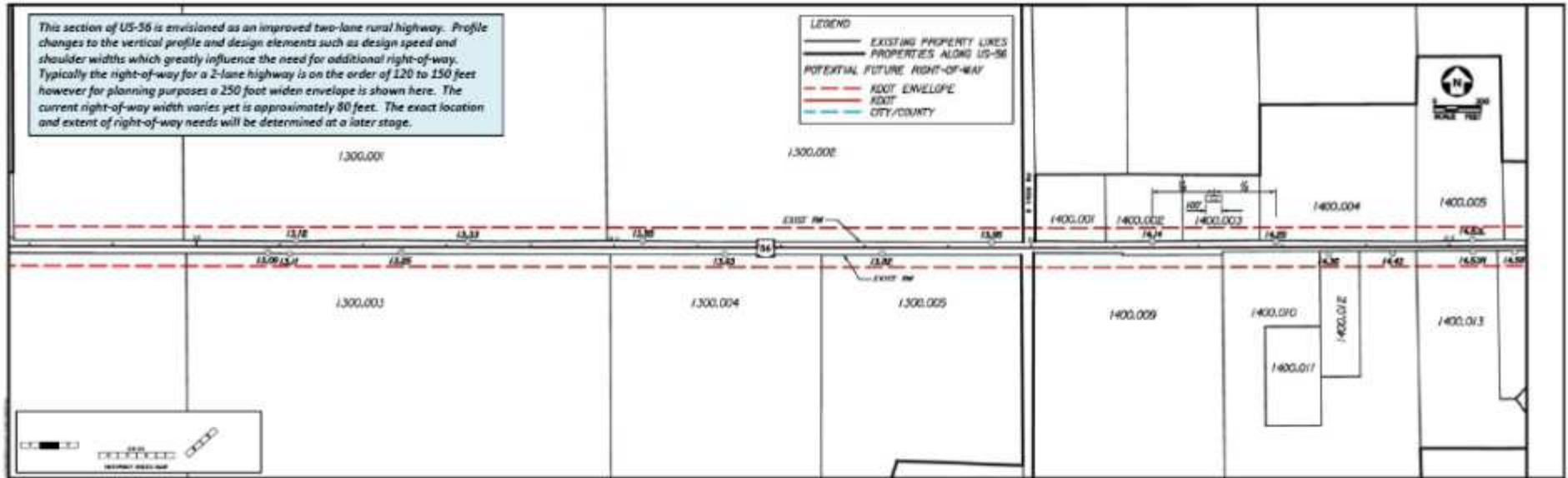


Rural Douglas County MM 13.0 to 14.5

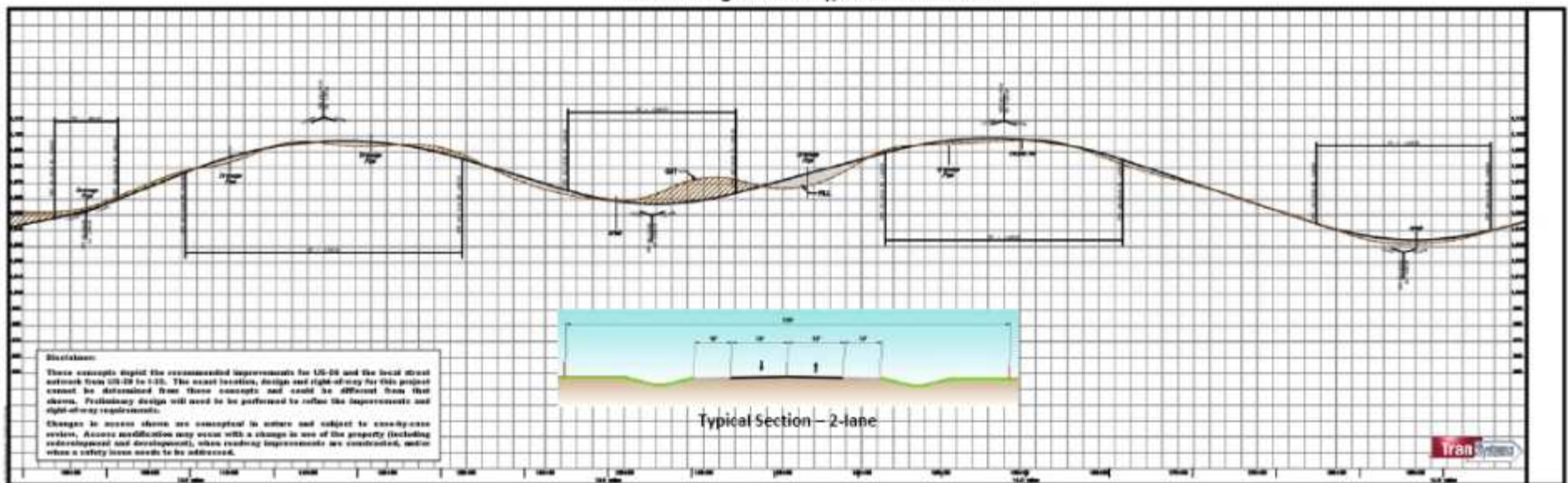




# Example Rural Plan/Profile



Rural Douglas County, MM13.0 to 14.5

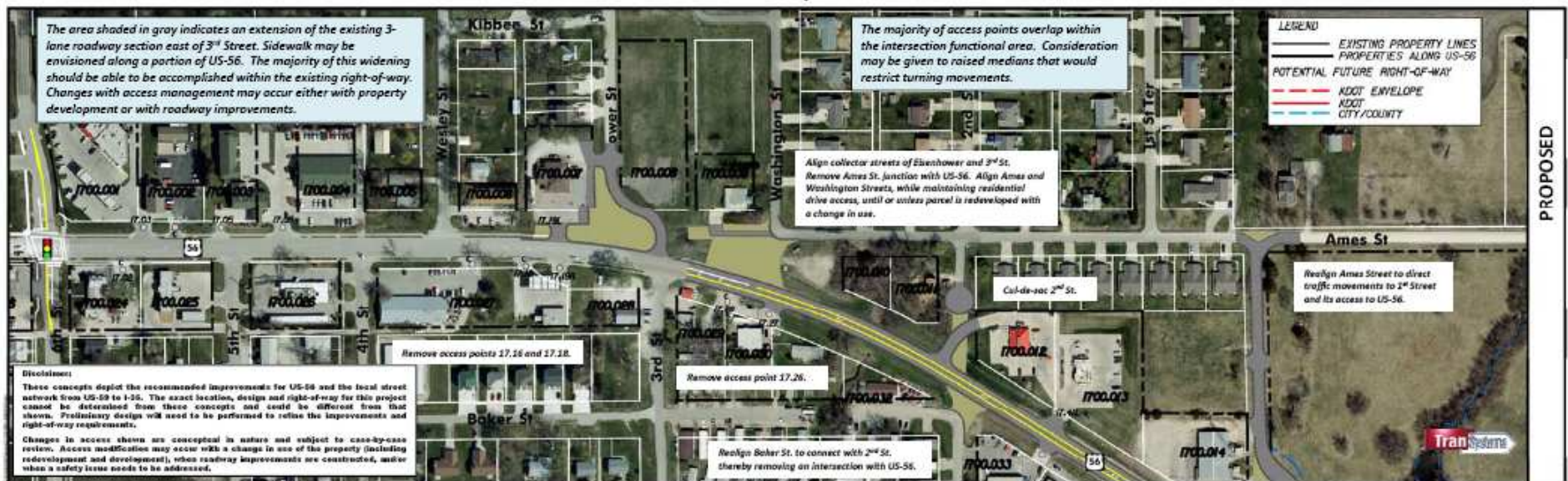




# Example Urban Plans



Urban Baldwin City





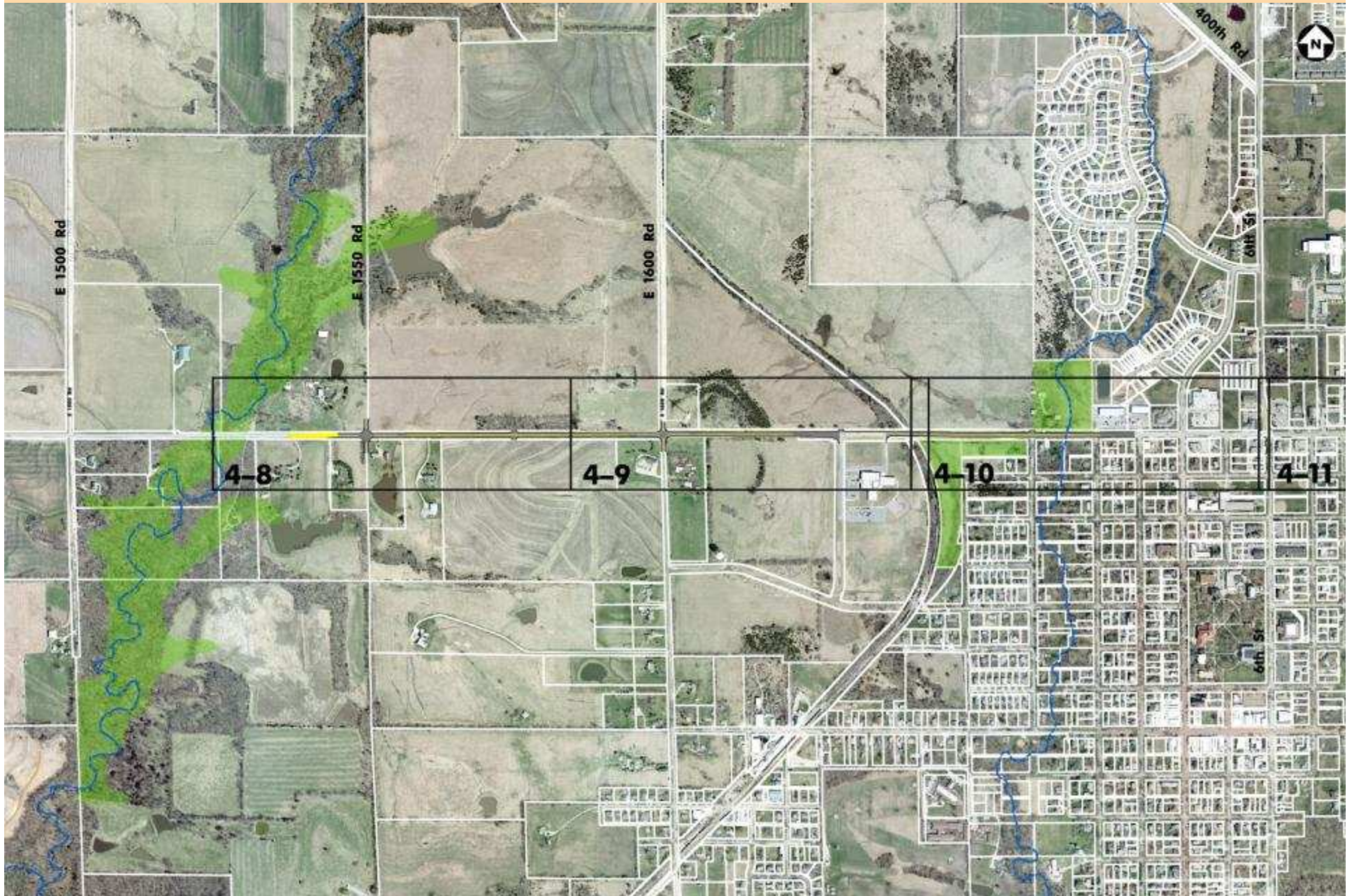
# US-56 Corridor Study



- What makes a corridor?
- Handling transitions between areas
- Responding to travel demands

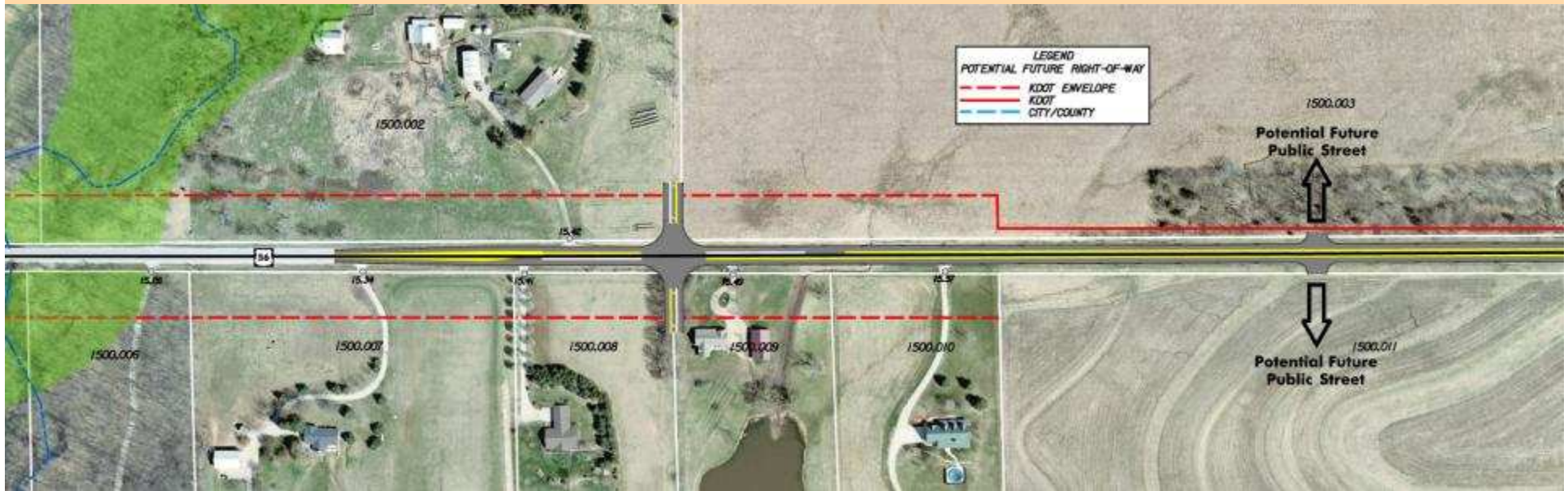


# West Area, Baldwin City





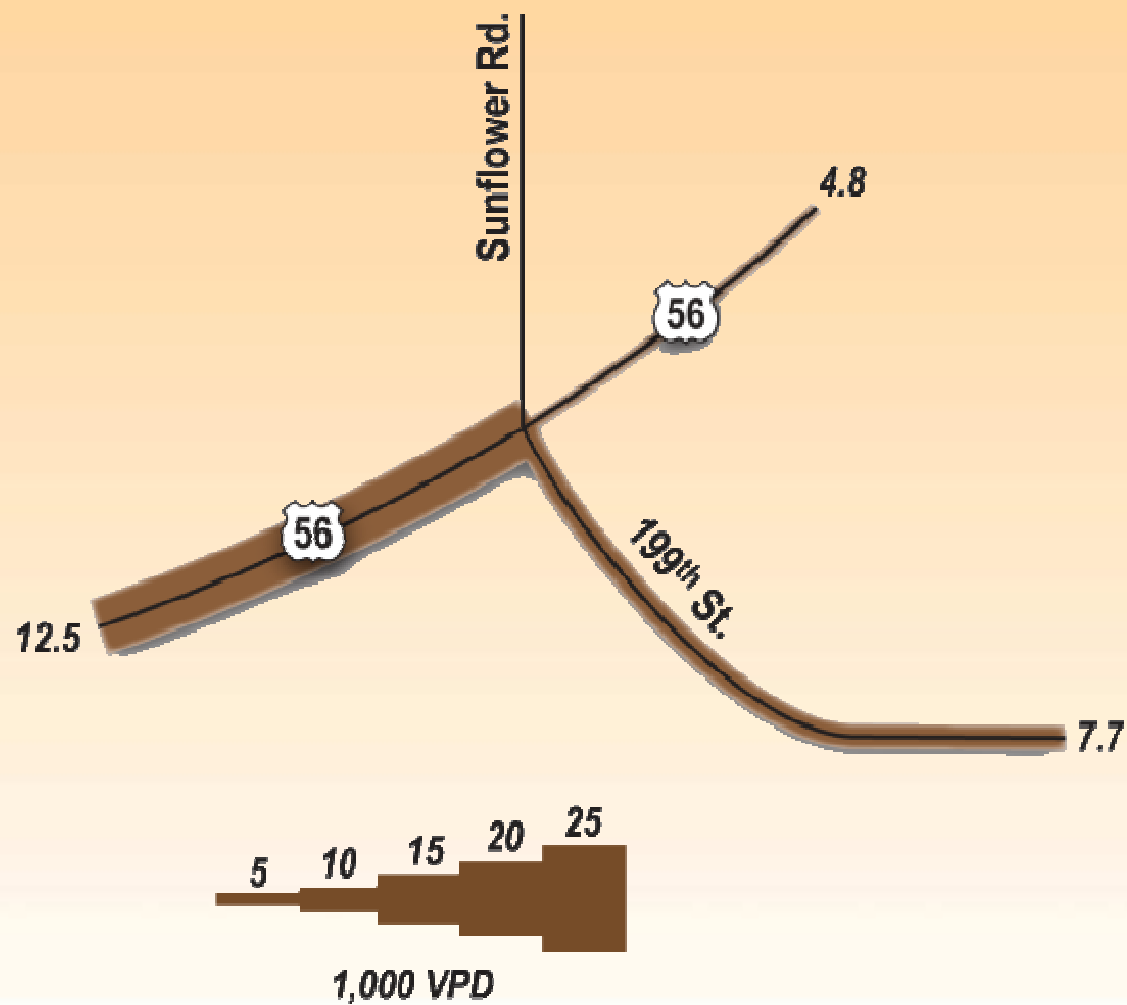
# 1550 Rd through Bullpup







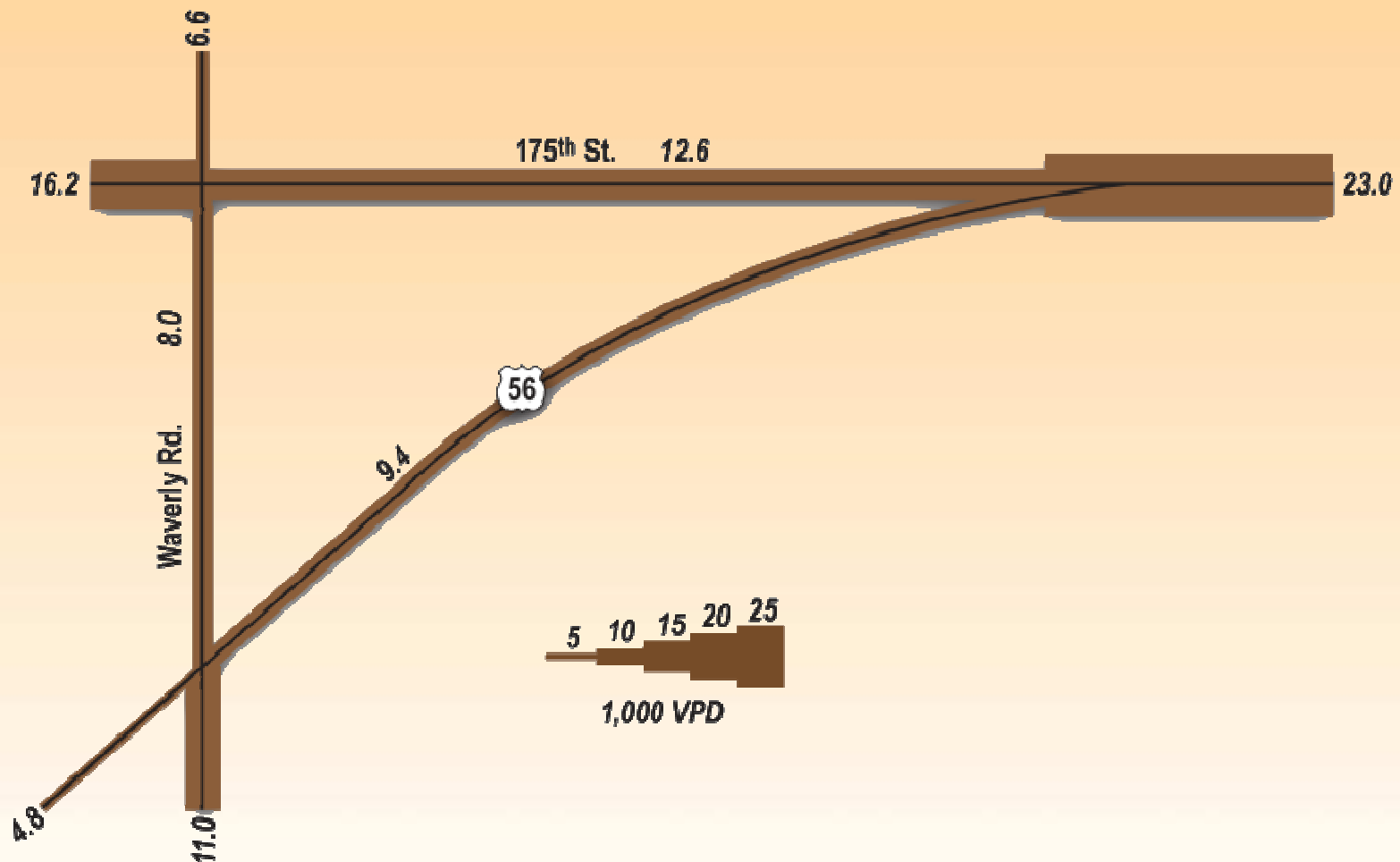
## Regional Impacts on US-56



## US-56/199<sup>th</sup> Street Projected Traffic Flow



## **Conceptual Improvement 199<sup>th</sup> and Sunflower**



## Gardner's West Gateway Traffic Flow



# Option 1





# Option 2



# Comparing the Options

|   | Option 1 | Option 2 |
|---|----------|----------|
| <b>Cost</b>                             | +        | -        |
| <b>Right-of-Way Impact</b>              | +        | -        |
| <b>Responds to Traffic Flow</b>         | +        | 0        |
| <b>Discourages Truck Traffic</b>        | +        | -        |
| <b>Preserves US-56 as Primary Route</b> | -        | +        |
| <b>Access to New Development</b>        | +        | -        |
| <b>Corrects Skew at US-56/Waverly</b>   | 0        | +        |







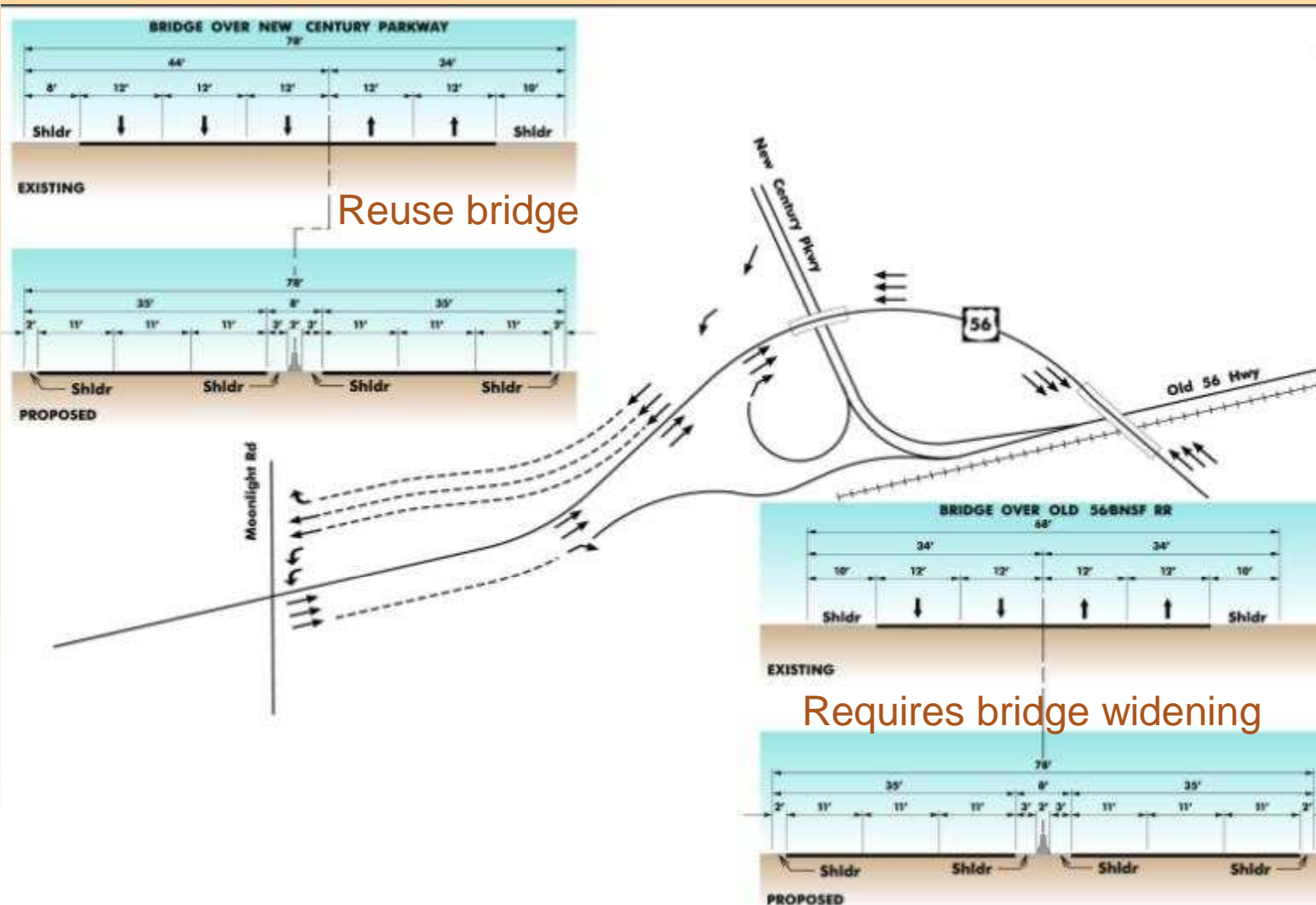
## Gardner's West Gateway





# Conceptual Improvement Old US-56 Intersection





# Conceptual Improvement Six-Lanes on US-56



## US-56 Designation

# Consensus Reached

- **Partner Buy-In on General Principles**
  - No new access – EXCEPT Public Roads
  - No development anticipated in rural areas
- **Philosophical Approach – “What is, is”**
  - Passive, or Reactive, Plan
  - Changes occur with redevelopment, new development, or roadway improvements
  - At time of the plan, no funding for improvements



# Consensus Reached

- **Re-designation of US-56 to 199<sup>th</sup> Street is supported with new I-35 interchange**
  - Many details to work out
  - New Century Airport to I-35
- **How does the location of the new interchange impact this?**





# Gap Analysis

- Review of existing development codes
- Develop recommendations on changes to support/enhance:
  - US-56 Corridor Management Plan
  - Access Management



# Agreement Process

- Final Piece in Agreements With KDOT on US-56 Corridor Management Study
  - Partnership Agreement
  - Study Agreement
  - Interlocal Cooperation Agreement
- Agreement of all parties to Cooperatively Implement the Corridor Management Plan



# Interlocal Agreements

- Based on template prepared by KDOT to be used in all Corridor Studies
- Executed upon agreement of all parties to Plan
- Upon execution approved by Attorney General and filed with County Register





# Implementation

- Defines implementation roles of KDOT, cities and counties and joint implementation efforts
- KDOT agrees to streamline approvals and provide priority funding to Plan-compliant projects
- Cities and counties agree, as is necessary and appropriate, to implement techniques outlined in Implementation Chapter of Plan
- Advisory Committee and KDOT Plan amendment provisions



# Quotes

Nancy Thellman, commission chairwoman, lauded the effort's authors and participants, describing the plan as accessible, understandable, logical and friendly. Commissioner Mike Gaughan liked that the plan made “some fairly difficult concepts very easy to understand.”

(cont.)



# Quotes

Commissioner Jim Flory also offered support for the plan, noting that the recommendations would guide future decisions, not mandate them.

“It’s not controlling,” he said, “but it’s certainly something that we need to take into account.”



*Mark Fagan, Lawrence World Journal  
July 1, 2010*



# Questions?

