

# **Austin's Pipeline Ordinance**

## **A Risk Based Approach**



**Watershed Protection**  
**Development Review**

A black and white photograph of a city skyline with several tall buildings, likely New York City, viewed from across a body of water.

## What's a City to Do?

Federal law severely limits the authority of cities in the area of pipeline regulation

- How do you protect the public and the environment? and;*
- Provide developer flexibility?*
- What can a City actually do within it's authority?*







## Austin, Texas

Pop 656,000, metro area pop. 14 million

Rapid growth thru '80's and '90's, much of it over former rural areas home to pipelines

High level of citizen political involvement and environmental awareness

Numerous sensitive environmental features and issues (river, creeks, aquifer, endangered species)

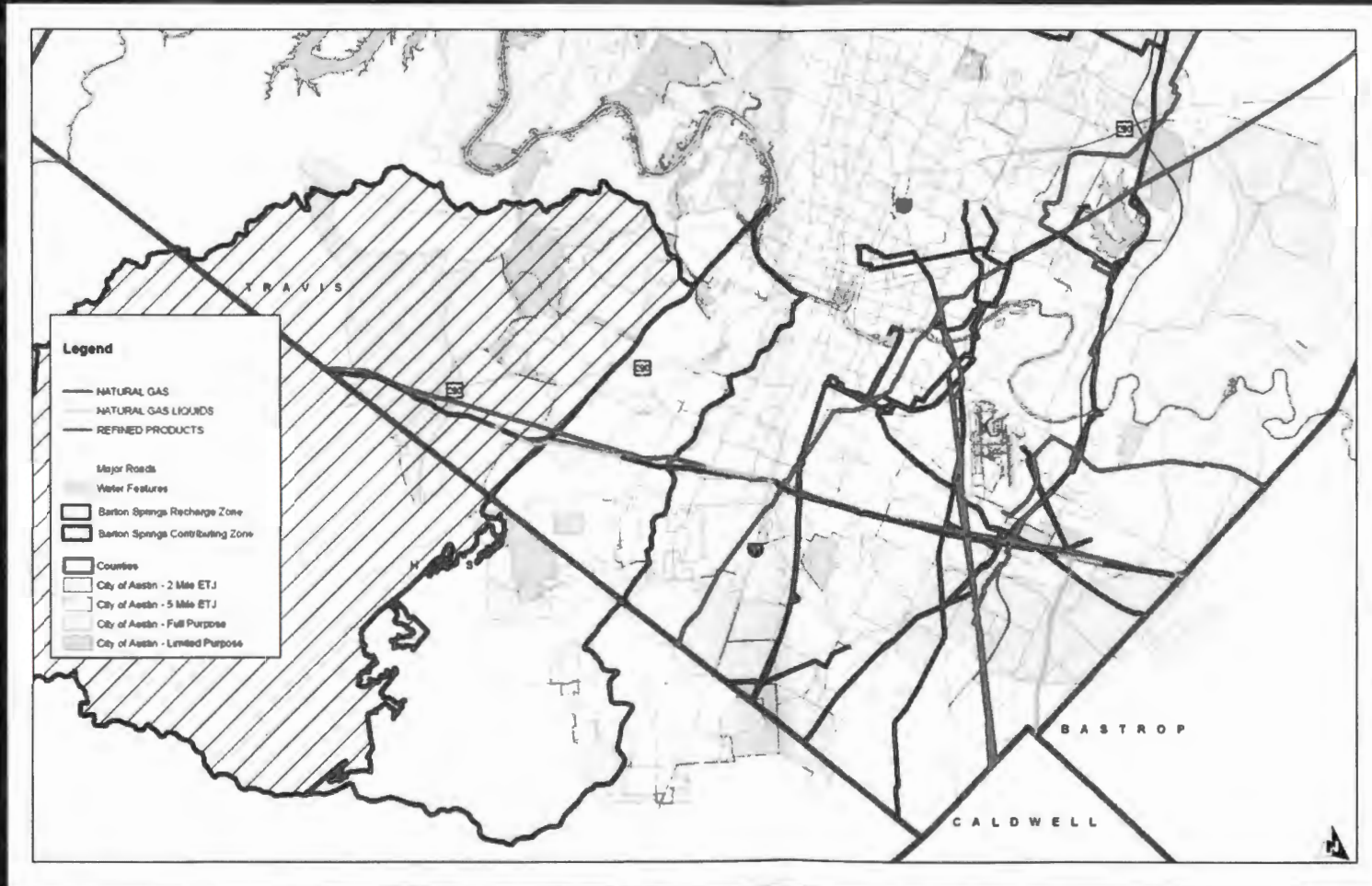
**Over 400 miles of hazardous liquids and natural gas pipelines**



**Watershed Protection  
Development Review**



# Austin's Pipelines







# Austin Pipeline Experiences

Historical contamination problems have been associated with tank farms and pipelines

Multiple ruptures in the last 30 years (NGL, crude)

Longhorn lawsuit, EA, and conversion

Kinder Morgan, Enterprise risk evaluations





# Longhorn Pipeline



**Watershed Protection  
Development Review**





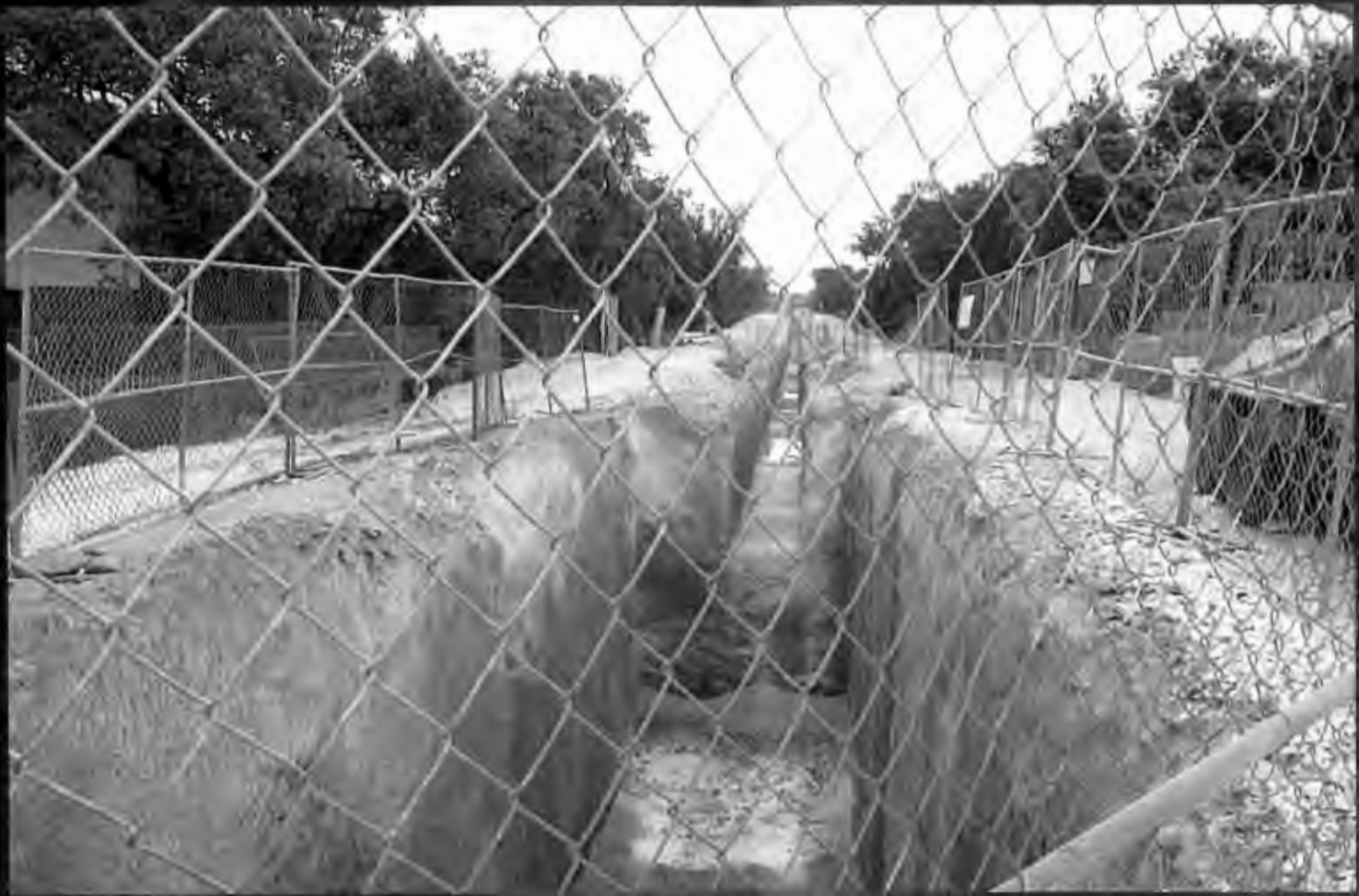
# Longhorn Pipeline



**Watershed Protection  
Development Review**



# Longhorn Pipeline



**Watershed Protection  
Development Review**





# Austin's Pipeline Ordinance

Flexible risk and performance-based approach

- Prevent ROW encroachment, protect the pipeline and make developers aware
- Protect residents and occupants of nearby structures by providing 1-hour evacuation time
- Developer decides how to meet standard



Watershed Protection  
Development Review



# Austin's Pipeline Ordinance

## Limitations

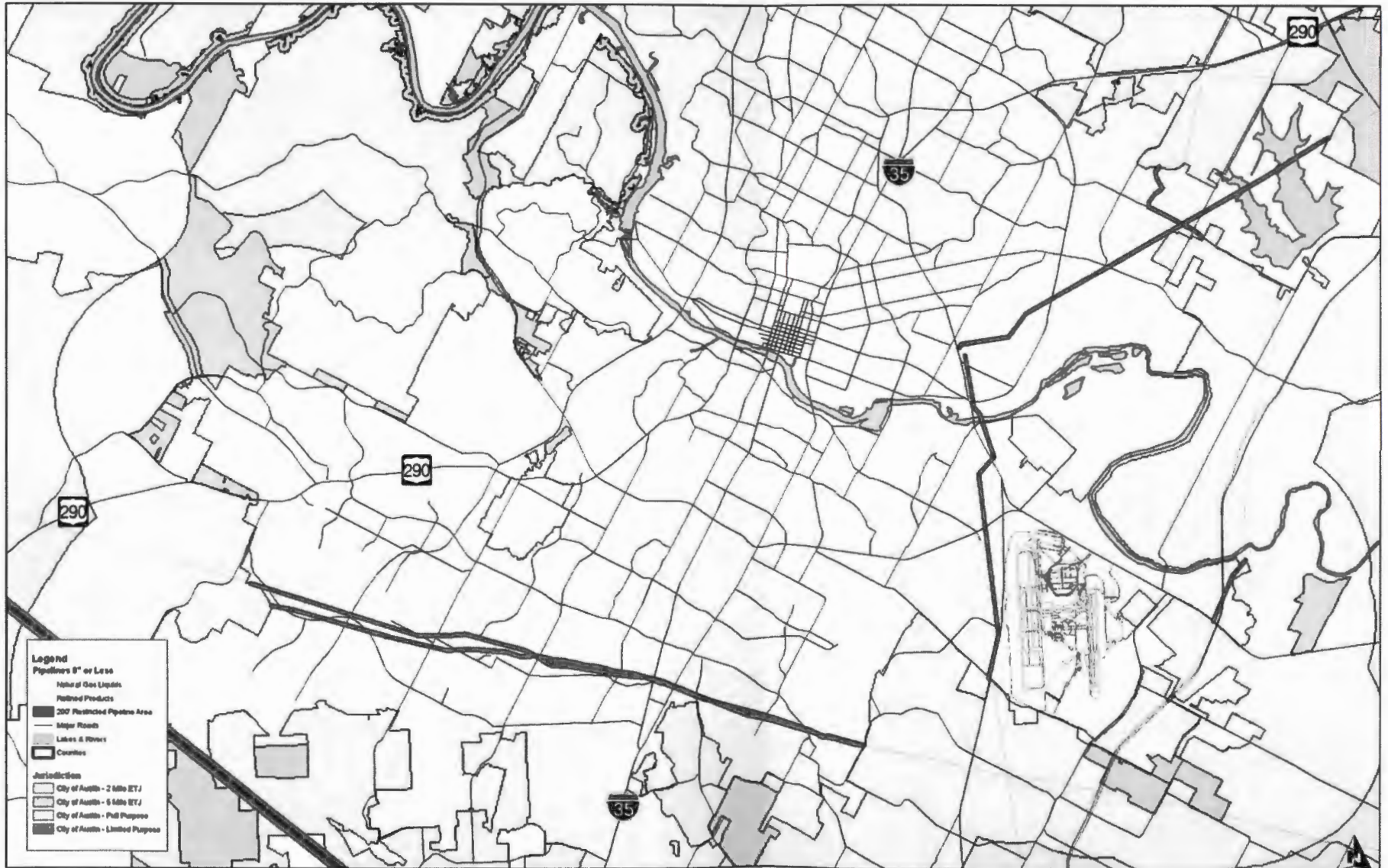
- Only applies to areas near hazardous liquids lines over 8" in diameter
- Doesn't include natural gas lines
- Doesn't address the issue of flowing product
  - *Studies indicate product can flow as much as 4 miles from a rupture in 1 hour*








# Austin's Pipeline Ordinance






# Austin's Pipeline Ordinance

## ROW Encroachment/Developer Awareness

- No platted lots or structures within 25' of a pipeline or within a pipeline easement
- Subdivision plat must show pipeline easement or area within 25' of line
- Engineer certify that roads, parking lots, and utility lines are designed to protect pipeline





# Austin's Pipeline Ordinance

## Protect the Public

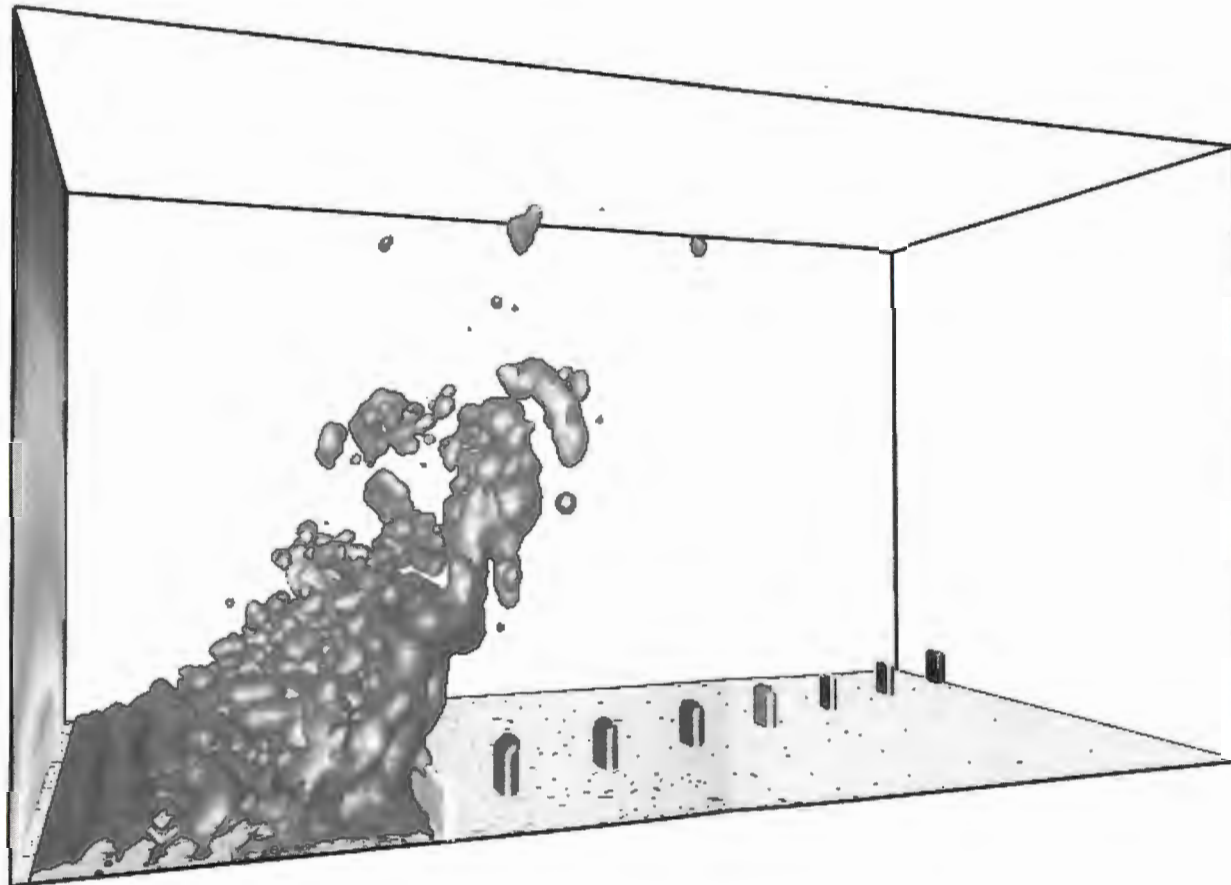
- Buildings with difficult to evacuate populations (hospitals, schools, daycare, etc) prohibited within 500' of pipeline ROW
- Residential lot < 1 acre = no ROW allowed in lot
- Buildings within 200' must:
  - Provide 1-hour evacuation time; and
  - Early leak detection system (if commercially available)





# Austin's Pipeline Ordinance

Smokeview 4.0.6 - Sep 15 2005



Br<sub>dry</sub>  
heat  
kW/m<sup>2</sup>



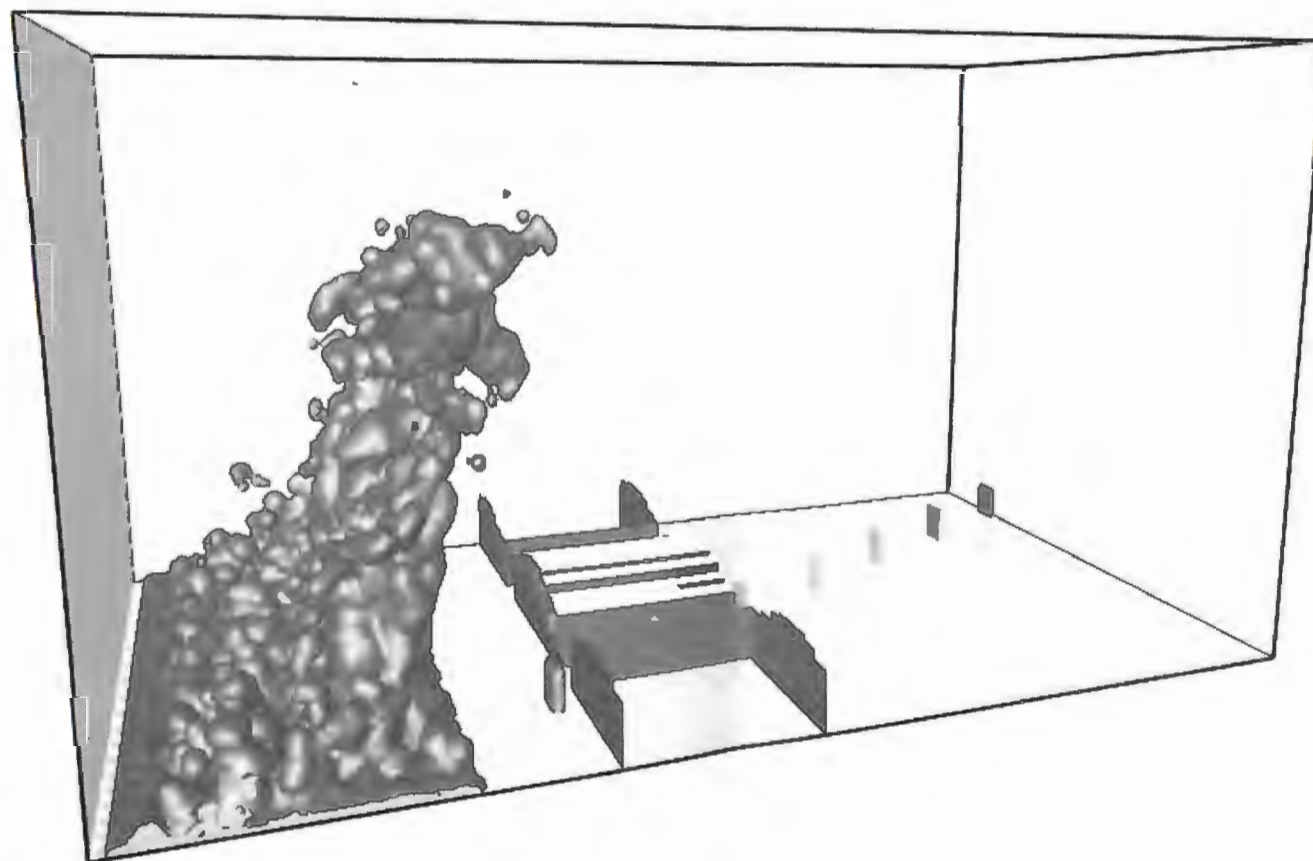
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Time: 140.4





# Austin's Pipeline Ordinance

Smokeview 4.0.6 - Sep 15 2005



Frame: 93

Time: 27.9






# Austin's Pipeline Ordinance



**Legend**  
200' Buffer  
**Pipelines**  
Natural Gas  
Natural Gas Lateral  
Refined Products



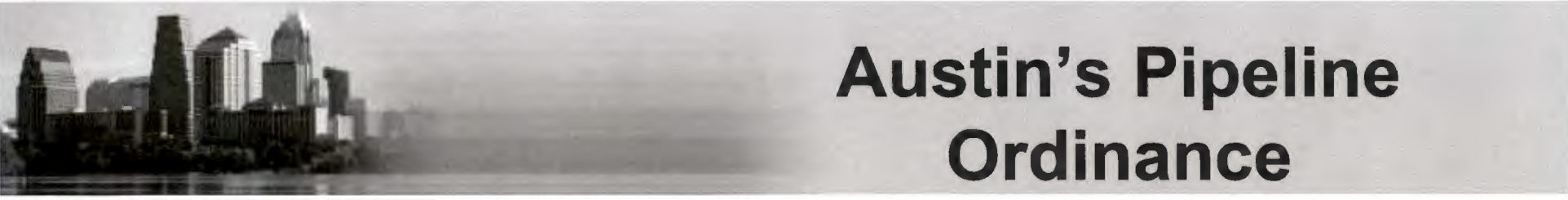


# Austin's Pipeline Ordinance

## Operator Financial Responsibility

- Original ordinance required pipeline owner to have liability insurance
- Insurance provision overturned (preemption) after challenge in federal court by the Texas Oil & Gas Association





# Austin's Pipeline Ordinance

## Ordinance Development Challenges

Line location information often poor

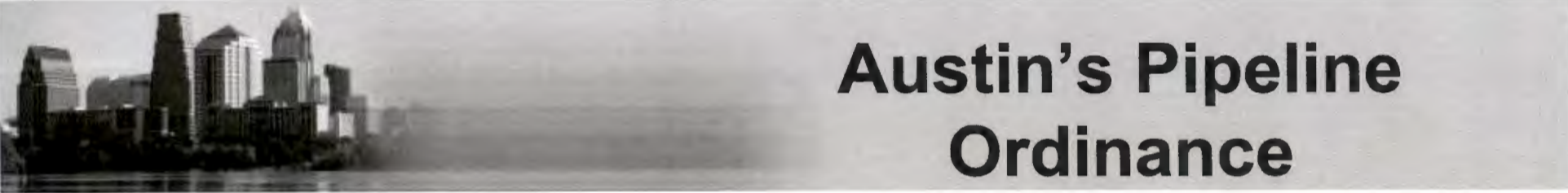
- CoA team “GPS’d” every line

Developer and property owner buy-in

- Multiple public meetings and 1:1’s with developer groups
- Flexibility for builders to meet requirements







# Austin's Pipeline Ordinance

## Successes

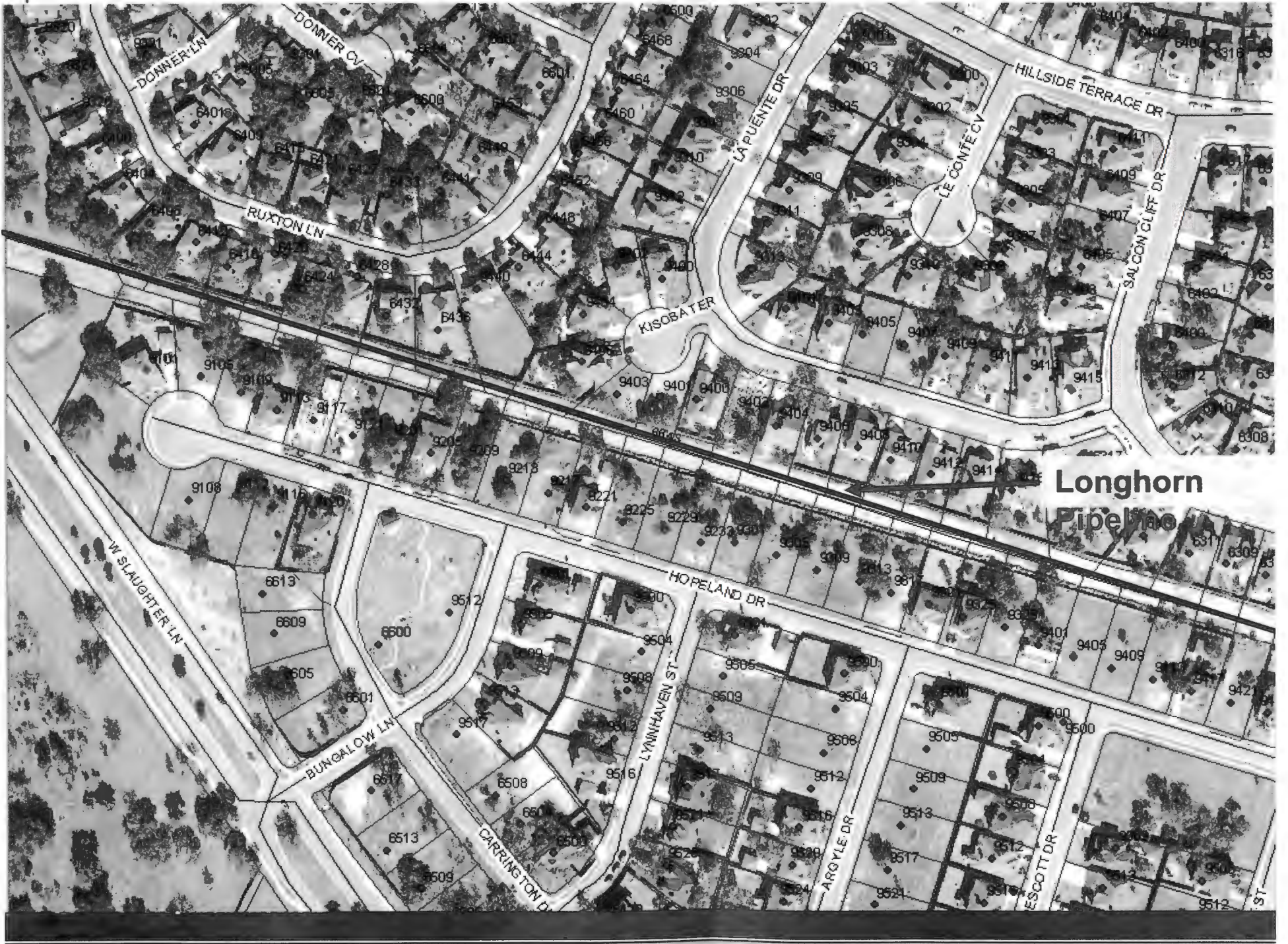
- Minimal subdivision impact, pipeline areas already subdivided
- Flexible, performance based rules have allowed almost all projects near lines to be built with enhanced safety

## Problems

- Vast majority of projects easily comply
- Mobile home developments impacted
- Loss of insurance requirement

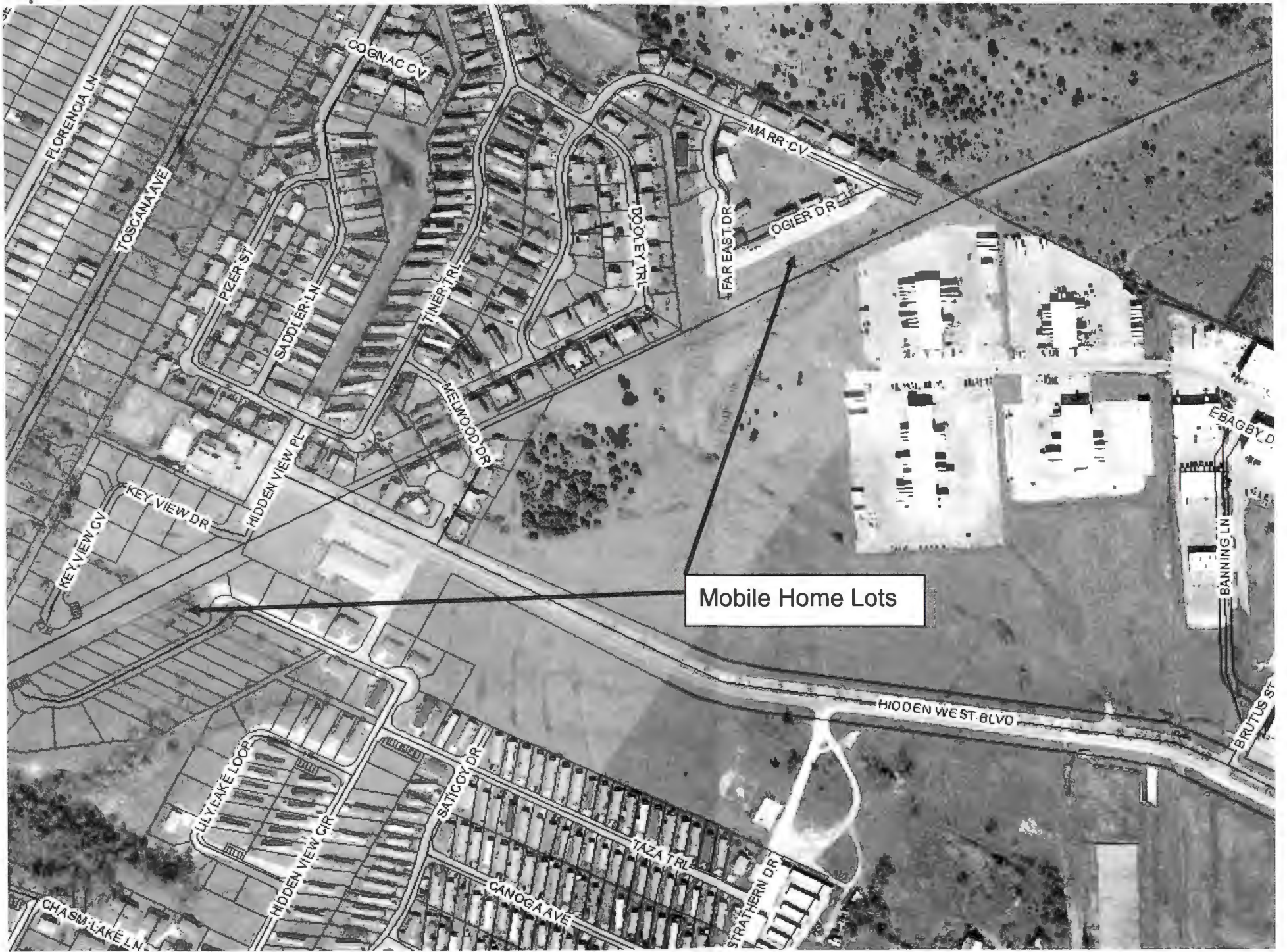






**Longhorn  
Pipeline**





Mobile Home Lots



## Next Steps?

- Add natural gas transmission lines?
- Add consultation requirement?
- Other?

