

# City of Wichita Brownfields Projects

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Environmental Assessment  
& Remediation







# Brownfields Programs

City of Wichita has worked with  
the EPA and KDHE  
Brownfield Programs

These include:

- EPA Brownfield Grant
- KDHE Brownfield Target Assessments (BTA)
- KDHE Brownfield Petroleum Grant



# Brownfields

Brownfields (BF)	Application	Selection	Work Scope
EPA Competitive Grant	Owner	EPA	EPA/Owner
KDHE Grant Program (GP)	KDHE	KDHE/EPA	KDHE
KDHE GP - BF Projects	Owner	KDHE	KDHE/Owner



# Brownfields

	Financial Management	Project Management	Project Execution	Project Completion	Final Payments
Brownfields (BF)					
EPA Competitive Grant	Owner	Owner	Owner/ Consultant	Owner	EPA/Owner
KDHE Grant Program (GP)	KDHE	KDHE	KDHE/ Consultant	KDHE	KDHE
KDHE GP - BF Projects	KDHE	KDHE	KDHE/ Consultant	KDHE	KDHE



# Brownfields Projects - Completed

- Delano District Assessment (EPA Grant)
- 21<sup>st</sup> Corridor (KDHE BTA)
- 151 N Waco (KDHE BTA)
- Midtown Bike Path (KDHE BTA)
- East Bank Gander Mountain (KDHE BTA)
- Oil Well Inventory (KDHE Petroleum Grant)

*Continued*



# Brownfields Projects

- Redbud Rails to Trails (KDHE BTA)\*\*\*\*
  - Phase I and Phase II
- Prairie Sunset Rails to Trails (KDHE BTA)
  - Phase I and Phase II
- Wichita-Haysville Rails to Trails (KDHE BTA)
  - Phase I and Phase II
- Harry to K-96 Bike Path (KDHE BTA)
  - Phase I
- McAdams Bike Path (KDHE Petroleum Grant)
  - Phase I



# Brownfields Projects

- Brownfields Target Assessments (BTA)
  - Allows for Environmental Due Diligence to be completed
  - Allows for Environmental Conditions to be Identified and Mitigated through Planning and Management
    - ❖ KDHE Env. Use Control (EUC) Program
    - ❖ KDHE Voluntary Cleanup Program
  - Allows for Opportunities to Seek other Environmental Cleanup Funding and/or Manage the Environmental Conditions Identified

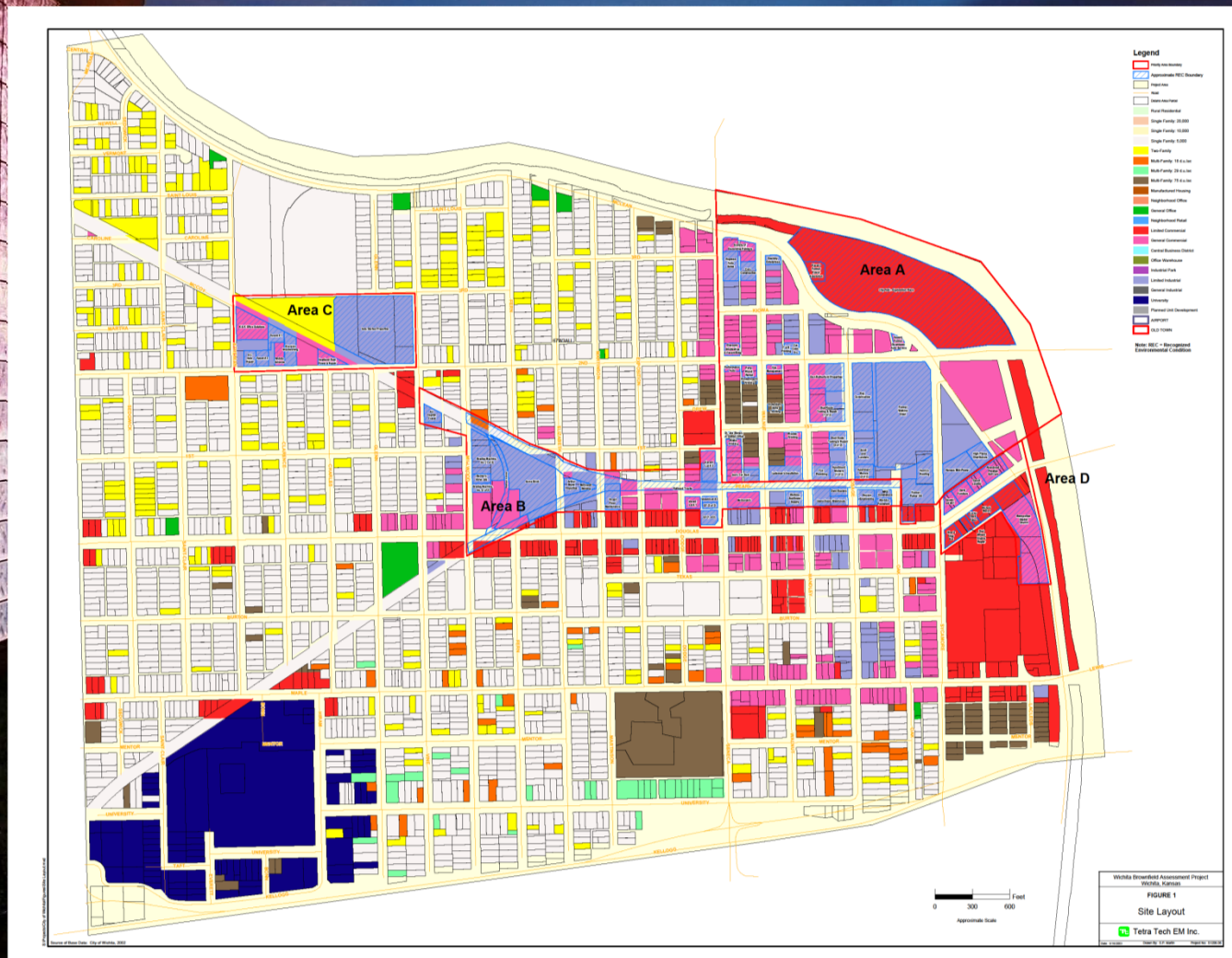


# Delano Neighborhood Brownfield Project

- A Brownfield Assessment Project was performed on the Delano Neighborhood
  - Allowed for community wide issues to be identified prior to redevelopment efforts
  - Encompassed a large historic part of Wichita West of the Arkansas River
- City managed Brownfields Project
  - RFP process for selecting a consultant to conduct the assessment
  - Internal staff managed the project
  - EPA Brownfields Grant reimbursed the project expenditures
  - Approximate project cost \$200,000



# Delano Neighborhood Brownfield Project





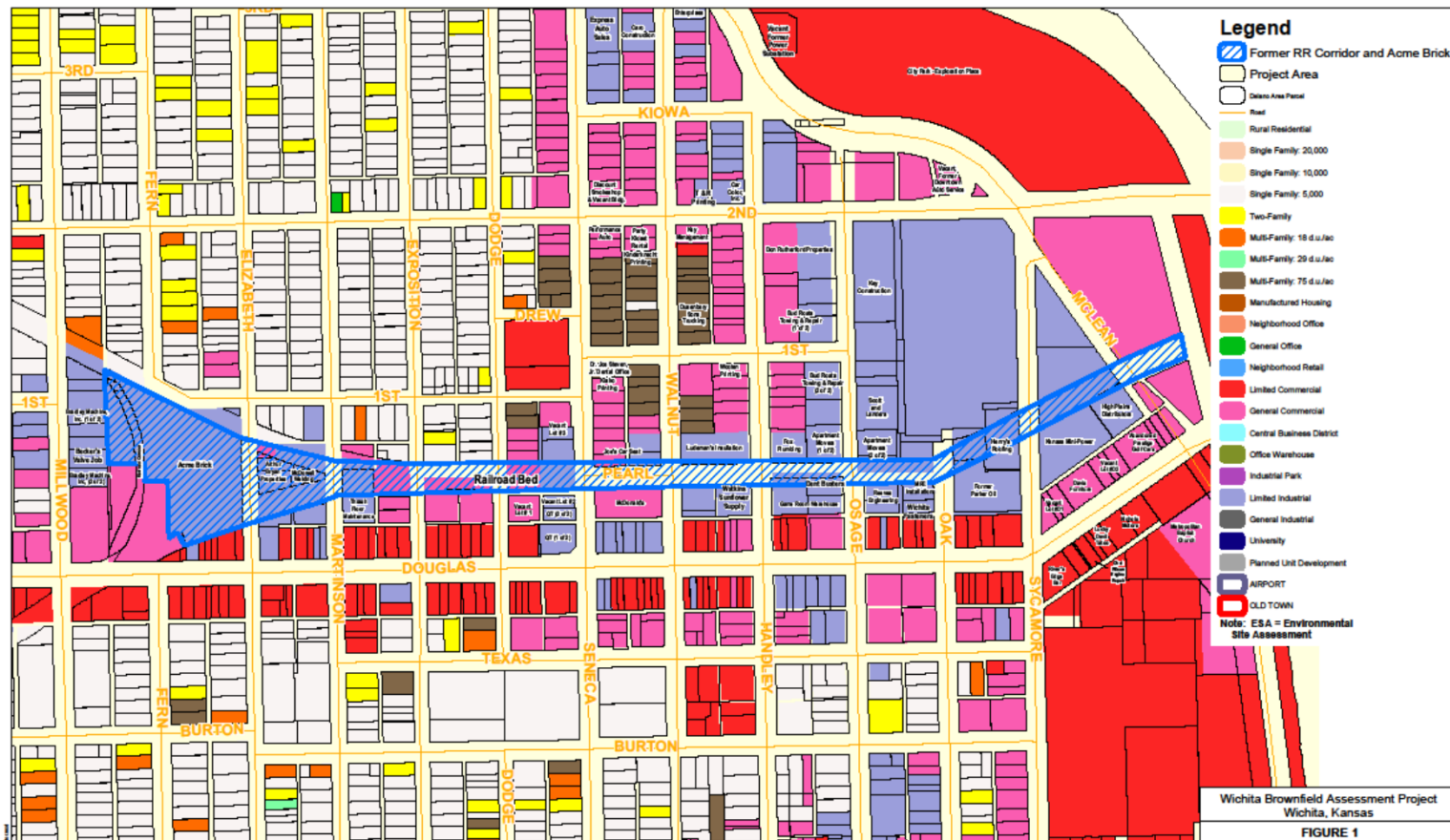
# Delano Neighborhood Brownfield Project

- Detailed Phase I ESA Completed on the Entire Site
- Follow-up Phase II ESA Completed on Areas determined to be of Concern





# Delano Neighborhood Brownfield Project



0 100 200  
Feet  
Approximate Scale

Wichita Brownfield Assessment Project  
Wichita, Kansas  
**FIGURE 1**  
Former Pearl Street  
Railroad Corridor  
Phase II ESA  
Tetra Tech EM Inc.  
Date: 5/18/2005 Drawn By: S.P. Martin Project No: 51208.00

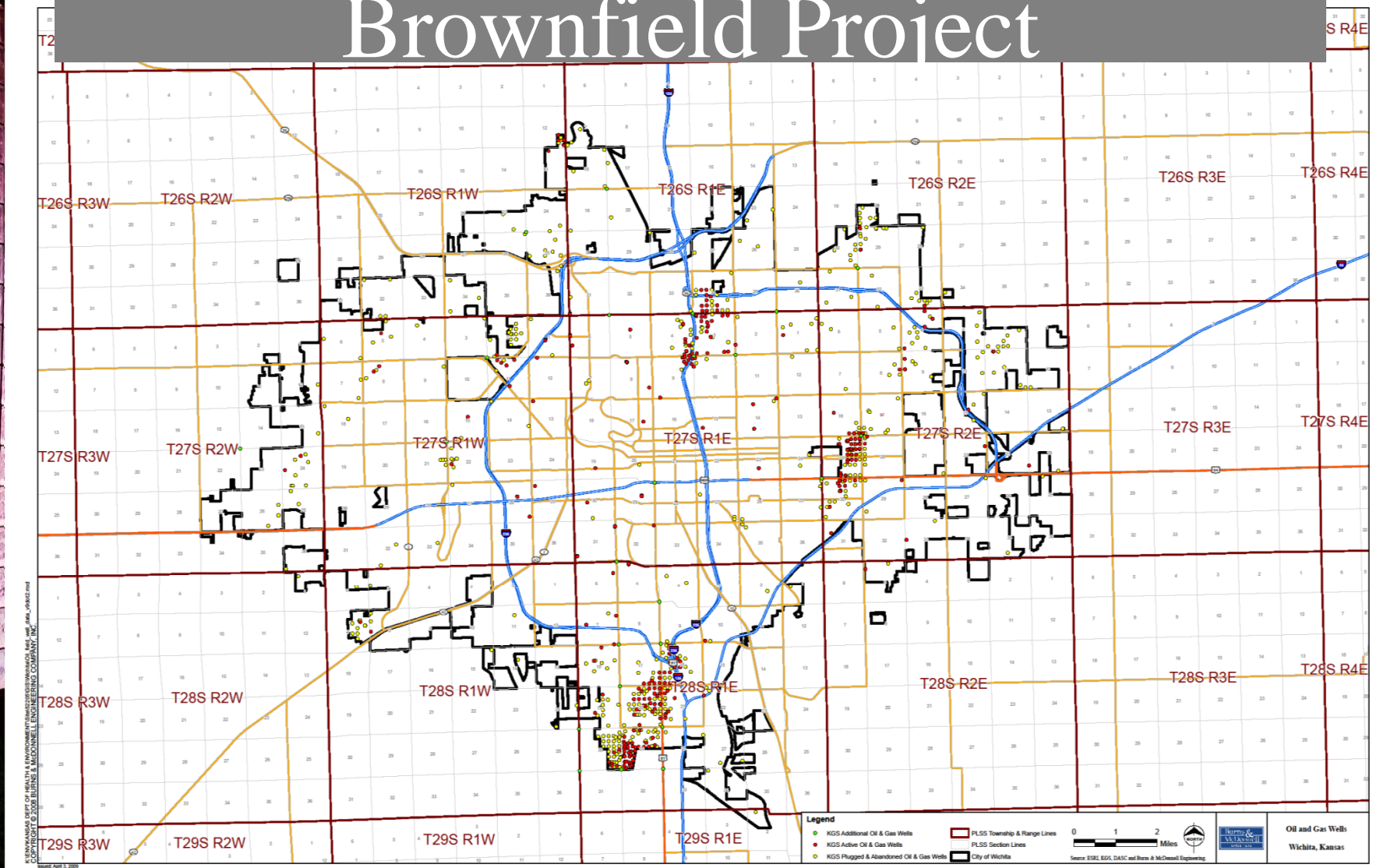
Source of Base Data: City of Wichita, 2002



# Oil Well Inventory Brownfield Project

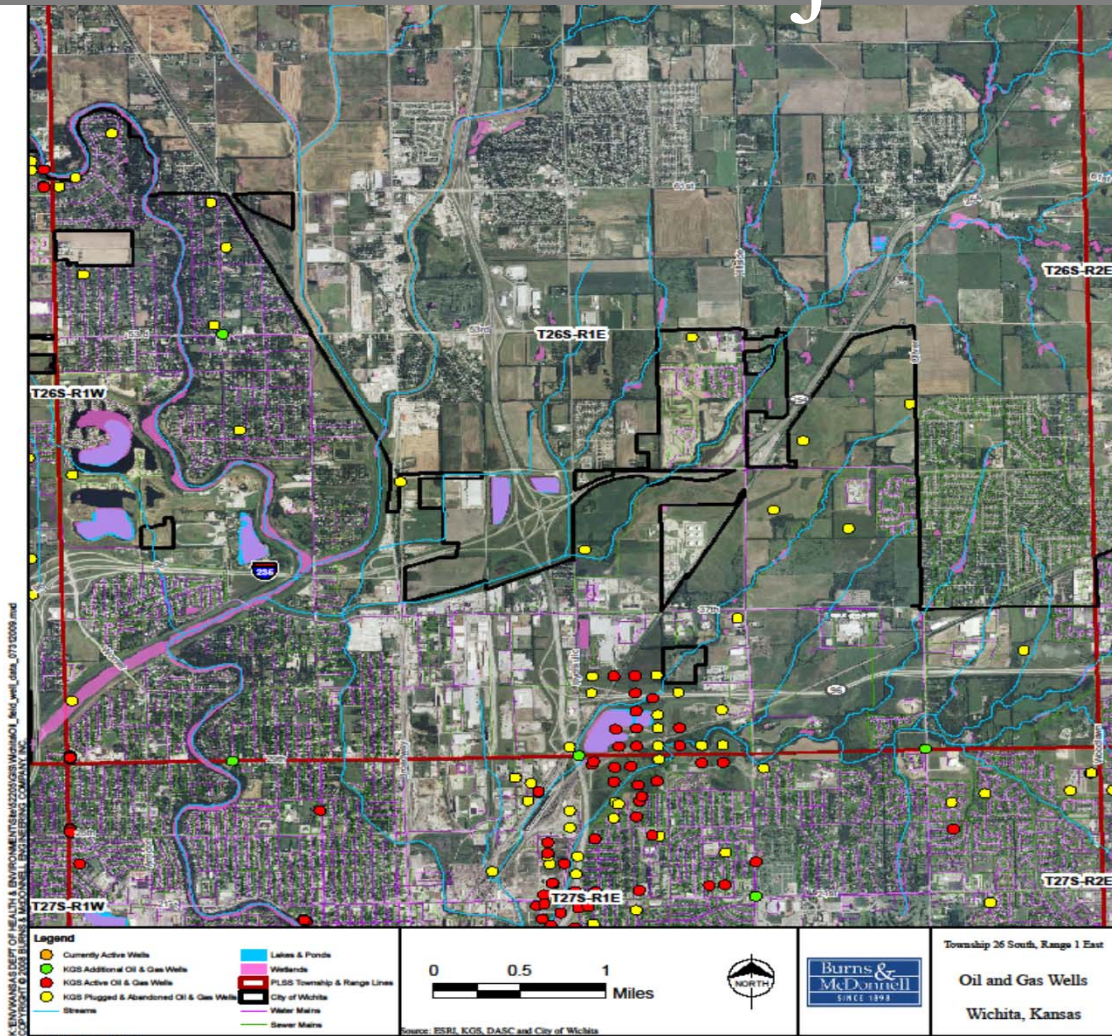
- A Brownfield Project was performed to inventory the Oil & Gas Wells within the City of Wichita
  - Allowed for community wide use of information in planning and coordinating
  - Delineates area for additional focus
- KDHE managed Brownfields Project
  - KDHE received the grant and oversaw the project
    - process for selecting a consultant to conduct the inventory
  - KDHE provided information and allowed for City input
  - KDHE provided the final report and data base

# Oil Well Inventory Brownfield Project





# Oil Well Inventory Brownfield Project





# Oil Well Inventory Brownfield Project

KGS\_O&G\_Active\_withinCoW\_withPLSS [Compatibility Mode] - Microsoft Excel

	U	V	W	X	Y	Z	AA	AB	AC	AD
1	LATITUDE	LONGITUDE	TOWNSHIP	RANGE	ISP_SECTIO	S_R_T	TWN_DIR	RANGE_DIR	LAND USE	STATUS
2	37.73058000	-97.37135000	27	1	6	S6-T27S-R1E	S	E	Residential	Not Active
3	37.73033000	-97.37135000	27	1	6	S6-T27S-R1E	S	E	Residential	Not Active
4	37.73808000	-97.37122000	26	1	31	S31-T26S-R1E	S	E	Abandoned Commercial/Empty Mobile Home Lot	Not Active
5	37.79860000	-97.37496000	26	1	12	S12-T26S-R1W	S	W	Farmfield	Not Active
6	37.79860000	-97.37268000	26	1	12	S12-T26S-R1W	S	W	Farmfield	Not Active
7	37.62955000	-97.36649000	28	1	7	S7-T28S-R1E	S	E	Field	Not Active
8	37.65367000	-97.36997000	27	1	31	S31-T27S-R1E	S	E	Residential	Not Active
9	37.60060000	-97.36106000	28	1	19	S19-T28S-R1E	S	E	Residential	Not Active
10	37.60513000	-97.35990000	28	1	19	S19-T28S-R1E	S	E	Undeveloped	Not Active
11	37.57951000	-97.35020000	28	1	29	S29-T28S-R1E	S	E	Residential	Not Active
12	37.58805000	-97.34727000	28	1	29	S29-T28S-R1E	S	E	Unreachable	N/A
13	37.65099000	-97.34753000	28	1	5	S5-T28S-R1E	S	E	Residential	Not Active
14	37.65066000	-97.34743000	28	1	5	S5-T28S-R1E	S	E	Residential	Not Active
15	37.66388000	-97.35313000	27	1	31	S31-T27S-R1E	S	E	Commercial Area	Not Active
16	37.58685000	-97.34708000	28	1	29	S29-T28S-R1E	S	E	Unreachable	N/A
17	37.58667000	-97.34218000	28	1	29	S29-T28S-R1E	S	E	Farmfield	No Visible

Microsoft Windows Taskbar: start, Inbox - Micro..., PowerPoint Pre..., Oil Well Inventory, Brownfields 04..., Microsoft Excel ...

- Results:
  - Mapping of Oil Wells
  - Data Base of Oil Well Locations, Status, & Info



# Redbud Rails to Trails

- Former Burlington Northern Santa Fe (BNSF) Rail Road
- BNSF formally abandoned in 2004
- City of Wichita “Rail Banked” for future development as a trail and/or bike path in 2006

# Wichita Priority Pathways

1. (tie) I-135 – K-96 Pathway
1. (tie) “Redbud Trail” Pathway Segment
2. K-96 to Harry St. Pathway
3. Arkansas to Haysville Pathway
4. Bitting Avenue to 13<sup>th</sup> Street Pathway
5. Delano Neighborhood Pathway
6. South Central Neighborhood Pathway



# Community Support - Articles

## RAILS to TRAIL



Larry Rose of Prairie Trailers, right, discusses the group's recreation trail proposal. At left are Carl Ligon of the Neighbor Neighborhood Association and Cecile Kellenberger of Prairie Trailers.

### Group will offer City Council plan for east side

**BY ANNEKE STOLE**  
 The Wichita Eagle

A **new** railroad bridge near Woodstock and Hydraulic has blocked an east side by a rail chain-link fence.

Woods and a pile of century-old boards from the track lie just beyond the fence, and one who by overheard on 1-25.

When Larry Rose looks across the fence and debates and revises new life for the long dead rail line: a four-mile recreation path that would wind through the east side and provide new life for the neighborhood without cars people wandering through our backyards," she said. "You never know who is going to be on those trails."

Vic Hansen, president of the Patrons Neighborhood Association, said a trail would create an alley-venue it would be easy for people to hide.

"A lot of neighbors definitely feel that will be a safety issue," he said.

At a public meeting on the idea, and in calls to City Council members, a number

#### NEWSUPDATE

**THE STORY SO FAR**  
 The District 1 Advisory Board has endorsed Prairie Trailers' proposal to build a four-mile path along an abandoned railroad track in east-central Wichita.

**WHAT'S NEXT**  
 Sometime in the next several weeks, the organization will present its proposal to the City Council. Prairie Trailers needs the council's approval before it can apply for a state grant that would pay 80 percent of the cost.

Please see TRAIL, Page 2E

#### BICYCLES

Page 1A

The Wichita Police Department is looking for people to help with a bicycle safety program. The program is called "Bicycle Safety Week" and will run from November 17 to November 21, 2005.

#### BICYCLING CLINICS

The Wichita Police Department is sponsoring bicycle safety clinics. The clinics will be held on November 17, 18, 19, 20, and 21, 2005. The clinics will be held at various locations throughout the city.

#### Let's make Wichita a bike-friendly city

Wichita is looking for ways to make the city more bike-friendly. The city is currently working on several projects to improve the city's bike infrastructure.

### AIRTRAN'S PLUNGE IN PROFITS ISN'T ALL BAD NEWS, 4B

## LOCAL & STATE

### Re-working the railroad



Carl Ligon, president of the Patrons Neighborhood Association, is working on the railroad track between 17th and 20th streets. He and his volunteers are clearing the track of debris and preparing it for a trail.

### lanes on city streets?

## Trail plan's pace slows



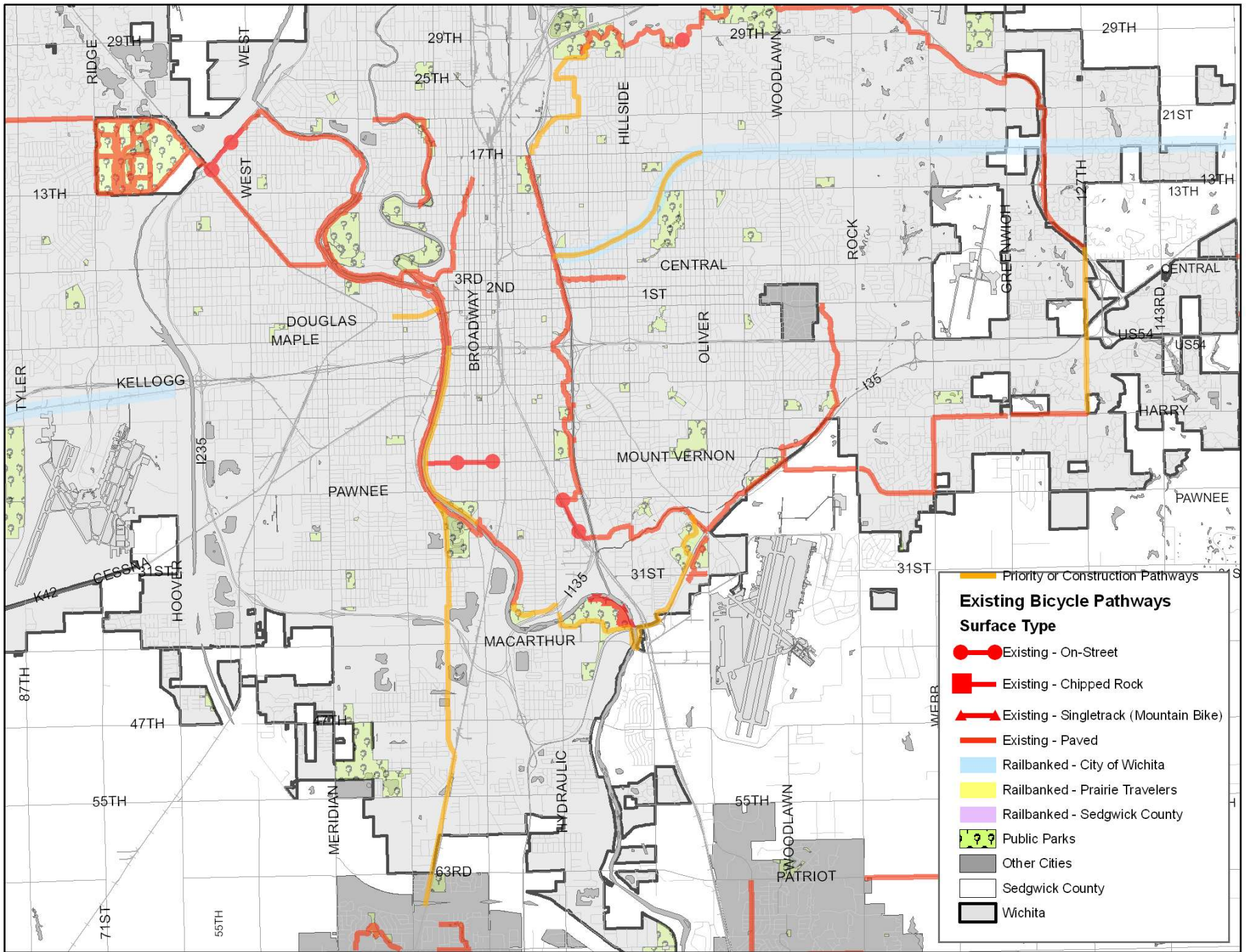
Runners on the 17th Street railroad trail. The trail is currently under construction and is expected to be open to the public in the future.

### Delayed project may wait at least one more year

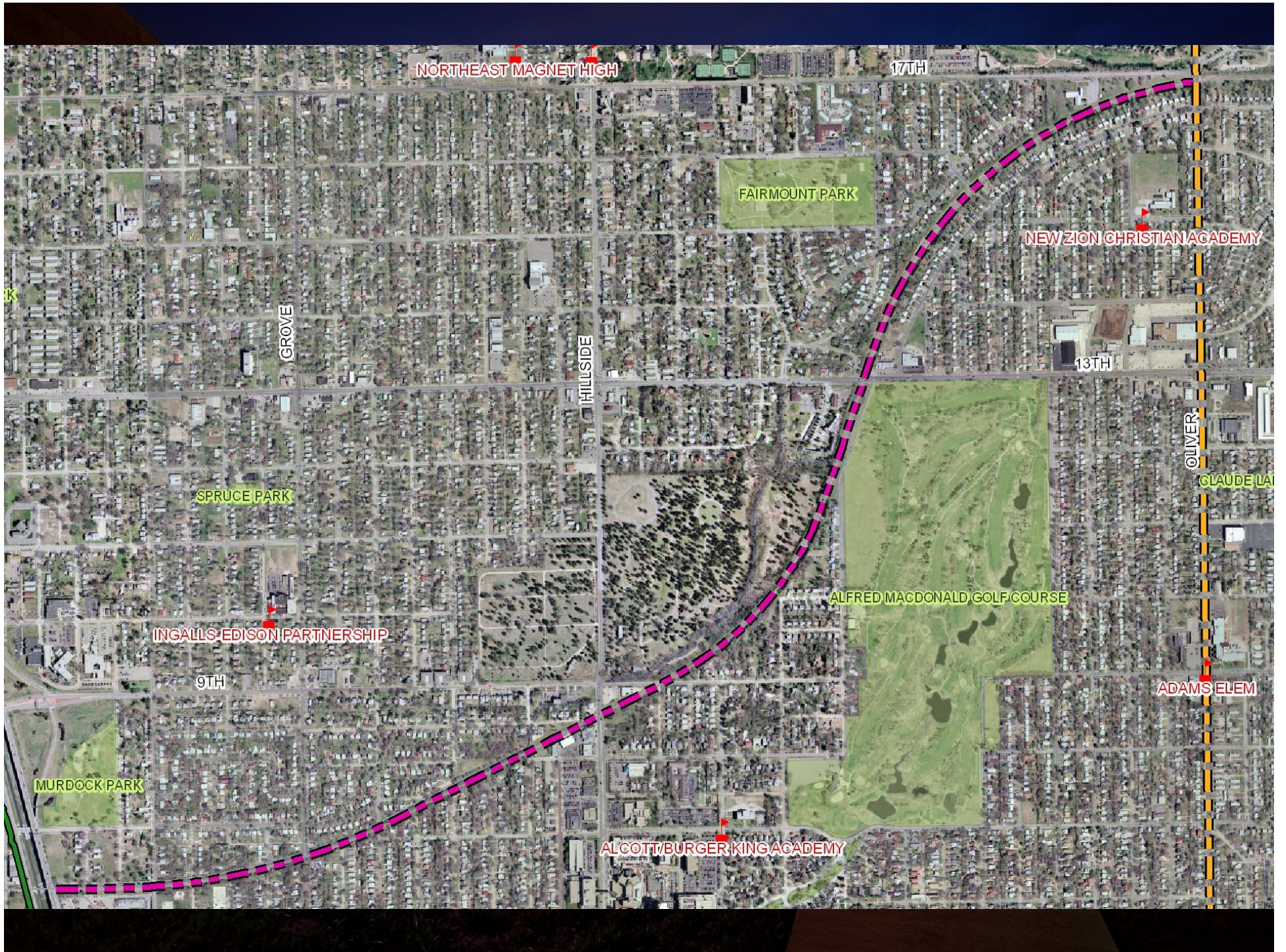
The 17th Street railroad trail project is being delayed. The city is currently working on several projects to improve the city's bike infrastructure.

The city is currently working on several projects to improve the city's bike infrastructure. The city is currently working on several projects to improve the city's bike infrastructure.









NORTHEAST MAGNET HIGH

17TH

FAIRMOUNT PARK

NEW ZION CHRISTIAN ACADEMY

GROVE

HILLSIDE

13TH

OLIVER

CLAUDE LA

SPRUCE PARK

ALFRED MACDONALD GOLF COURSE

INGALLS-EDISON PARTNERSHIP

9TH

ADAMS ELEM

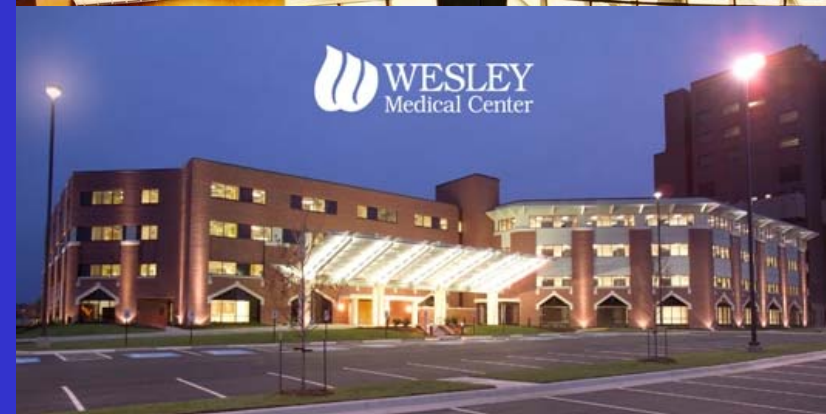
MURDOCK PARK

ALCOTT/BURGER KING ACADEMY



# Important Because: Within ¼ Mile-

- 5 Schools
- 11 Businesses  
(4,531 employees)
  - Wesley Hospital
  - Wichita State University





Before Picture





Before Picture





Before Picture



Before Picture







# ENVIRONMENTAL REVIEW

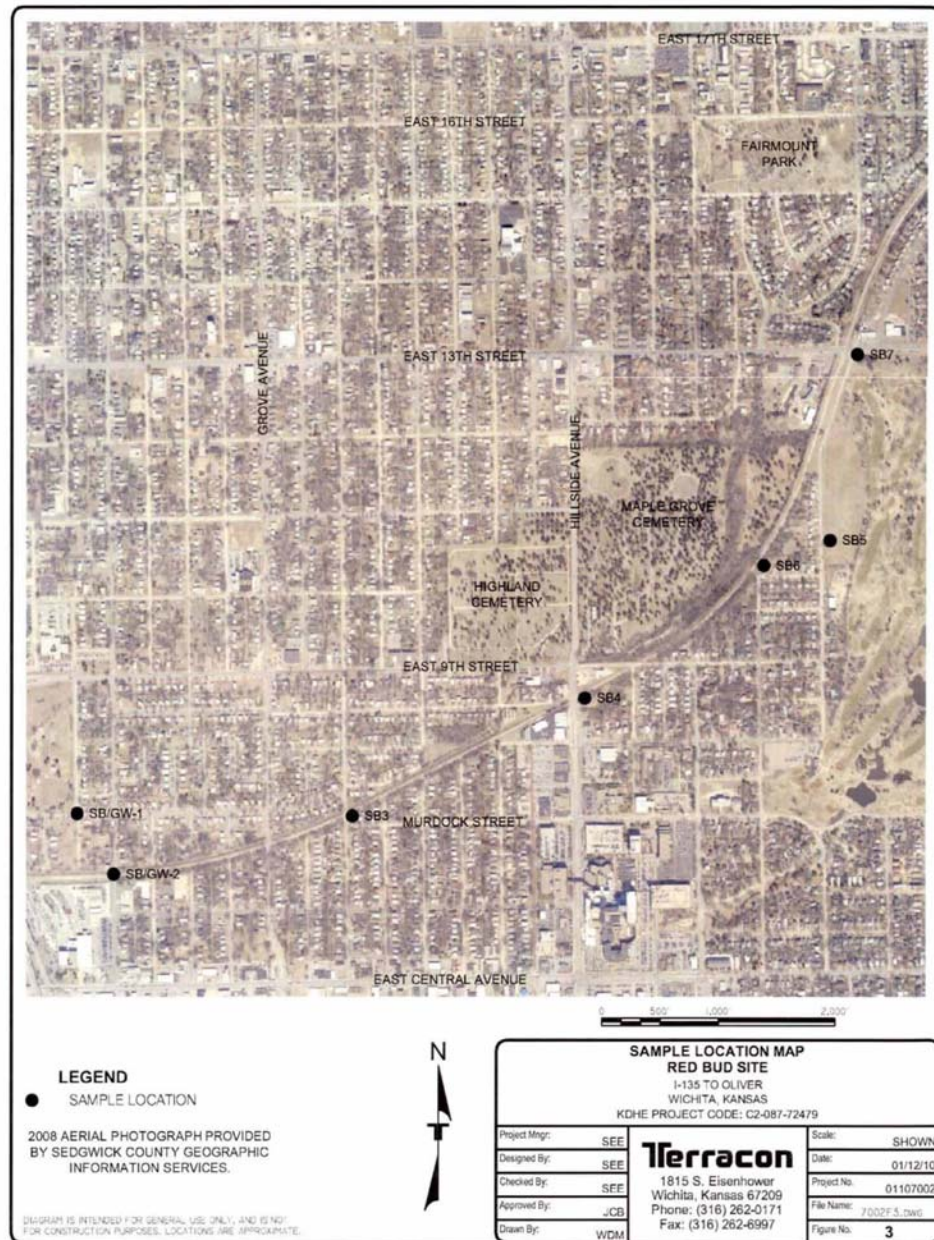
# Redbud Rails to Trails

- Potential Environmental Concerns
  - Heavy metals and poly aromatic hydrocarbons (PAHs)
- City applies for a Brownfield Target Assessment through the KDHE program
- KDHE contracts a Phase I ESA
- Potential Recognized Environmental Concern (REC) Identified
- KDHE contracts a Phase II ESA



# Phase II

- Arsenic
- Cadmium
- Lead
- Benzo(a)pyrene
- Naphthalene
  - Near surface
- No Groundwater Issues Identified



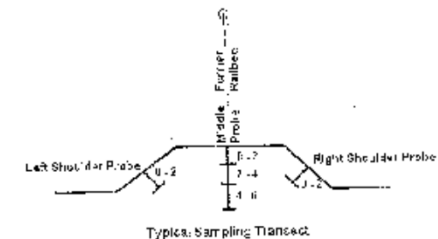


# Redbud Rails to Trails

- Phase III ESA
  - Scoped to focus on heavy metals and PAHs
  - Extent along former rail line
  - Lateral extent
  - and Depth
    - 0-2
    - 2-4
    - 4-6

Redbud BTA			
Phase III SOW			
18 Transects/3 borings per Transect			
Boring Location per Transect		Target Analytes	
		RCRA Metals	PAH's
Middle	0-2	X	X
	2-4	X	X
	4-6	X	X
Right shoulder	0-2	X	X
Left shoulder	0-2	X	X

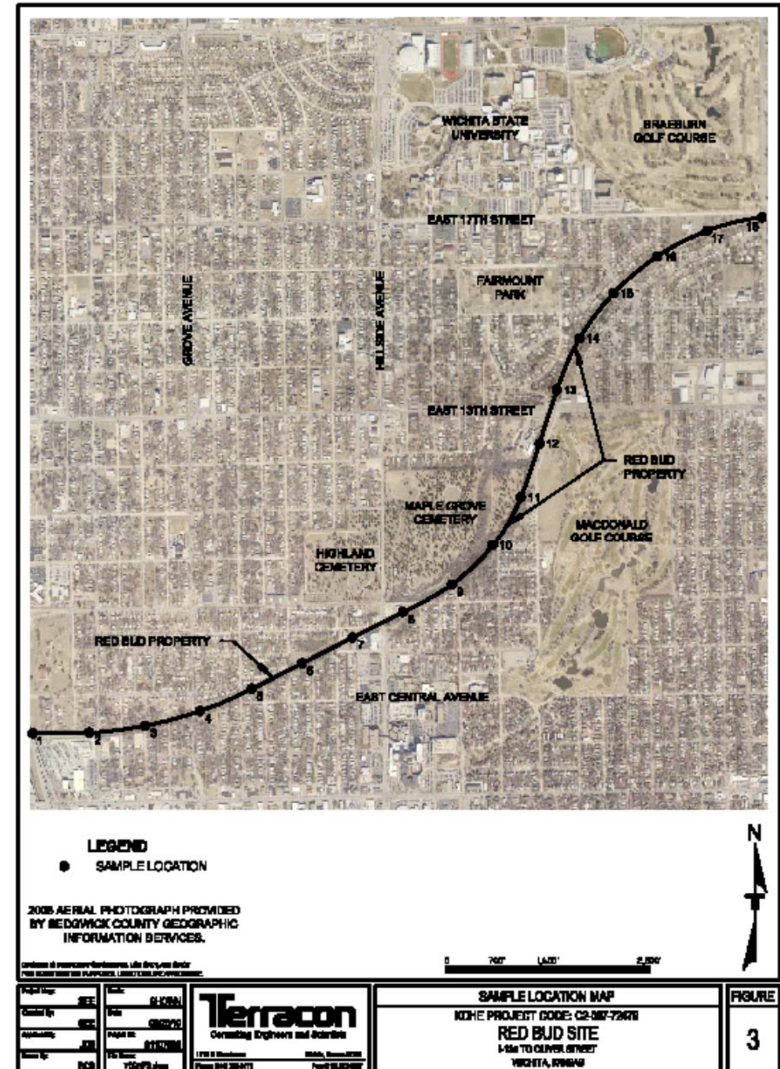
Notes: \*Include 10% samples for TCLP analysis. The location (a) requested for GUP is the areas identified in the Phase II with the highest concentrations (i.e., SB-3; SB5 on Phase II map). Terracon is responsible for obtaining all necessary access, City permits, and utility clearance. GeoProbe services and labor will be provided by KUI LLC staff. Metals analysis of concern are lead, arsenic and cadmium. The Terracon Redbud Phase II WPP will be used for the Phase III with an approved addendum. Only odd number on the map through 35 will be sampled.





# Redbud Rails to Trails

- Phase III ESA Investigation:
  - 18 transect locations
  - 54 soil samples
    - Metals: Ar, Cd, Pb
    - PAHs
    - 10 TCLP analysis for determining hazardous waste status





# Redbud Rails to Trails

- Phase III ESA Findings:
  - Elevated level of arsenic, cadmium, and lead
    - Generally in the upper most soil zone 0-2 feet
    - Passed the TCLP analysis for determining hazardous waste status
  - Elevated levels of PAHs
    - Naphthalene and Benzo(a)pyrene
    - Again generally located in upper soil zone 0-2 feet



# Redbud Rails to Trails

## Problem:

- Upper soil zone impacted with elevated metals and PAHs

## Solution:

- KDHE Grant
- KDHE Program for managing:
  - Voluntary Cleanup and Redevelopment Program



# Redbud Rails to Trails

## Funding:

- Multiple funding sources
  - KDHE grant \$200,000
  - City of Wichita CIP \$500,000
  - KDOT TE Grant \$2,300,000



# Redbud Rails to Trails

## Status:

- City prepared VC Plan and VC Proposal
  - Capping with concrete bike path selected and approved by KDHE
- KDHE/City funded initial capping
- Engineering firm designing the street improvements



# Redbud Rails to Trails

- Concrete was formed and poured on top of rail bed.
- Top soil was placed along edges





# Redbud Rails to Trails

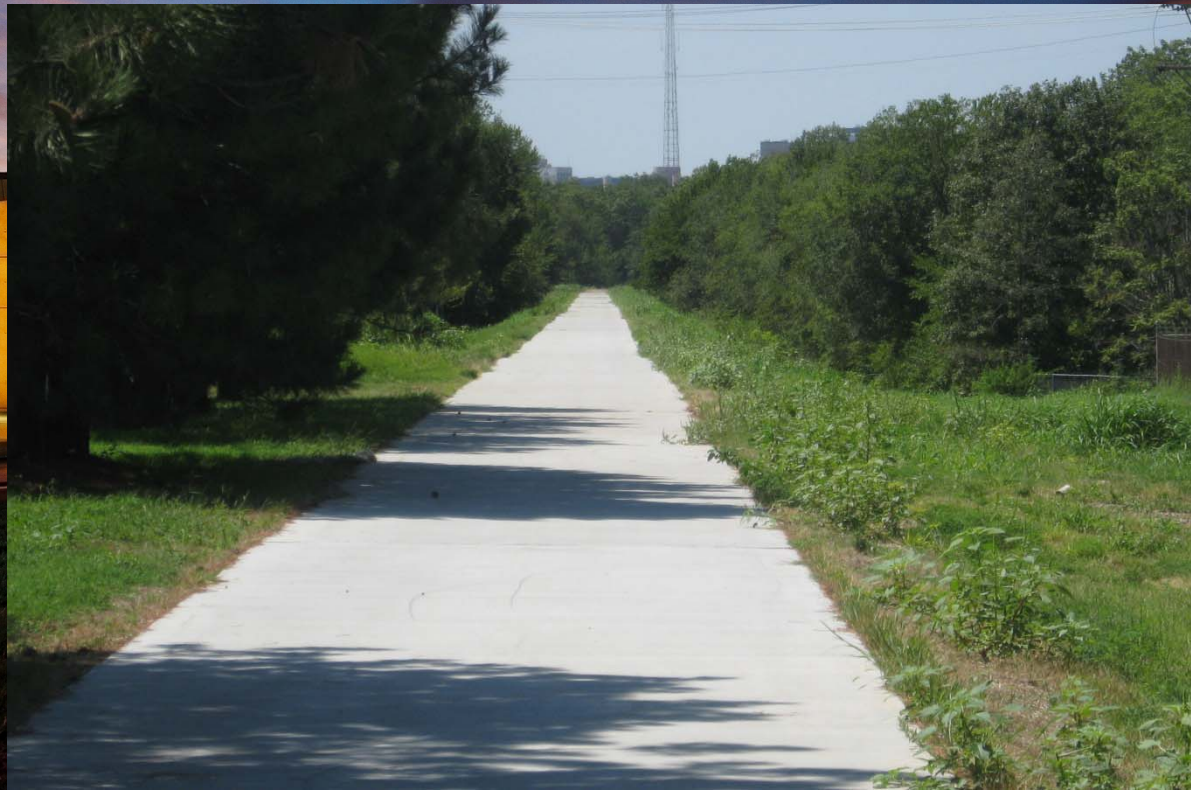
Erosion  
Protection  
was placed  
over top  
soil





# Redbud Rails to Trails

Summer growth is filling in along bike path (even in a really dry year)





# Redbud Rails to Trails

## Lessons Learned:

- KDHE Grant tied to EPA Grant program
  - Required a formal agreement
  - Required a number of Federal Stipulations
    - Davis Bacon Wages
    - DBE goal
    - Financial tracking



A photograph of a modern building at dusk. The building features a curved wall made of glass blocks on the left and a curved walkway leading towards a brightly lit interior on the right. The sky is a deep blue with some clouds. A semi-transparent blue rectangle is overlaid in the center, containing the text "Questions??".

Questions??