

Farmland Industries Redevelopment Plan

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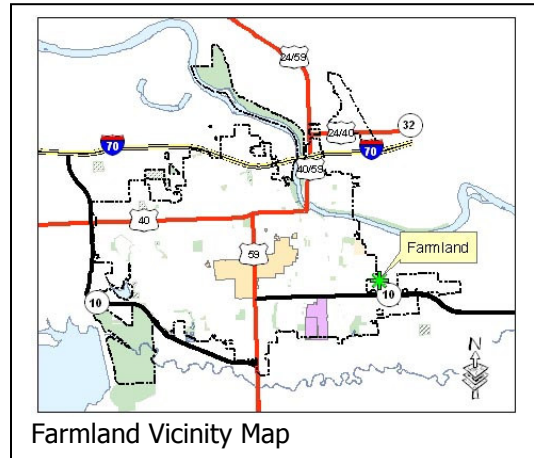
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I. Introduction and Purpose

Location

The Farmland Industries property is approximately 467 acres and is located east of Lawrence along K-10 Highway and just west of the East Hills Business Park. It is approximately one half mile south of the Kansas River. The site extends into Sections 4 and 5 of Township 13 South, Range 20 East.



Setting

Heavily traveled K-10 Highway borders the property to the south and 15th Street and the Burlington Northern Santa Fe Railroad border it to the north. The area is predominately industrial in nature, with some residential uses west of the property. In addition, the Douglas County Fairgrounds are nearby to the west and agricultural uses are to the north. South of K-10 is an industrial park.

Background

The former Farmland Nitrogen Manufacturing plant began operations in 1954. It produced throughout its operating period various nitrogen-containing chemicals. Manufacturing operations were shut down in 2001 due to an economic downturn of the agricultural fertilizer market, rising energy costs, and the bankruptcy of Farmland Industries. The Kansas Department of Health (KDHE) began monitoring and regulating environmental issues at the site in the early 1990's. The site has been inactive since its closure in 2001.

In May 2004, KDHE and Farmland reached settlement through bankruptcy proceedings, with Farmland contributing money to an independent trust fund (FI Kansas Remediation Trust) for future cleanup activities at the site.

Under the direction of KDHE, a Site Characterization Report was completed for the site in 2006 by Shaw Environmental, Inc. Extensive field work was conducted for the report in the summer of 2005. Approximately 1,200 soil, sediment, and ground water samples were collected from more than 400 locations, with the intent of both evaluating cleanup options and supporting potential site redevelopment. A major conclusion of that report is that a significant portion of the property has been found to be suitable for reuse in its present state.

The Farmland Industries Redevelopment Plan planning process was initiated by the Lawrence City Commission in early 2007.

Purpose

The Farmland Industries Redevelopment Plan brings together the community goals of creating additional employment and open space by providing a plan to redevelop a brownfield into a major community asset. This Plan will act as the City's official land use guide for Farmland Industries redevelopment. The Plan should be reviewed every 5 years to ensure it is being implemented and remains relevant.

Relation to Other Plans

This Plan constitutes an amendment to Horizon 2020, The Comprehensive Plan for Lawrence and Unincorporated Douglas County. It is consistent with Horizon 2020. Additional policy guidance has foundation in the following plans:

- 23rd Street Corridor Study, Lawrence-Douglas County Metropolitan Planning Office. September 2002.
- Transportation 2025, Lawrence/Douglas County Long Range Transportation Plan. Lawrence/ Douglas County Metropolitan Planning Office and LSA Associates. September 2002.
- K-10 Transportation Study, HDR and HTNB, May, 2005.
- K-10 Corridor Study, Johnson County Planning Office, April 1991.
- K-10 Corridor Study Update, Johnson County Planning, Development and Codes Office, January, 2004.
- Lawrence-Douglas County Bicycle Plan, Lawrence/Douglas County Metropolitan Planning Office. May 2004.
- City of Lawrence, Kansas Water Master Plan. Black & Veatch. December 2003.
- City of Lawrence, Kansas Wastewater Master Plan. Black & Veatch. December 2003.
- Site Characterization Report Former Farmland Industries Plant, Lawrence, KS, Shaw Environmental, Inc, February, 2006.

Process

Planning Staff developed a draft Plan with input from other City departments. The draft Plan was made available for public review for a period of approximately one month. Staff made changes to the draft plan based on comments received and produced a final draft. The final draft was discussed at the Lawrence-Douglas County Planning Commission's Mid-Month meeting on November 14, 2007. Unanimous action to approve the Plan, after the appropriate public hearing, was taken by the Lawrence-Douglas County Planning Commission at their regular meeting on November 28, 2007. The City Commission unanimously approved the Plan at their meeting on March 11, 2008. The Board of County Commissioners approved the Plan on March 31, 2008.

II. Existing Conditions

Environmental

Brownfields are properties whose expansion, redevelopment, or reuse may be complicated by the presence, or perceived presence, of contamination. The Farmland Industries property has environmental issues, but the reality of those issues



perhaps isn't quite as severe as the general perception of those issues. As stated earlier in this document, a major conclusion of the Site Characterization Report for the Farmland Industries property is that a significant portion of the property has been found to be suitable for reuse in its present state. More specifically, 225 acres of the 467-acre site that were tested were deemed to not have been impacted by former plant operations and require no further action. These are areas C, E and F of the property as identified in the Site Characterization Report. This information can be found on pages ii and iii of the Executive Summary of the Site Characterization Report.

The environmental issues identified on the remainder of the site include elevated nitrogen levels in soil, localized groundwater contamination, and pond sediment contamination. Please see the Site Characterization Report for a full accounting of the environmental issues.

Cleanup activities on the site are either underway or in the planning stages for future implementation. Existing cleanup activities includes the neutralization of acidic groundwater in the regulated Resource Conservation and Recovery Act (RCRA) unit. Dewatering of the wastewater ponds and land application for beneficial re-use on agricultural farmland in North Lawrence is ongoing. Dewatering the most contaminated ponds will allow for the cleanup of the sludge and contaminated soil in those ponds, which is the major source of pollution at the site. KDHE will place emphasis on cleanup strategies for the ponds that employ beneficial re-use of the contaminated sludge and soils as fertilizers.

Future cleanup activities will likely include: excavation and disposal of chrome-contaminated waste catalyst material from the Catalyst

Landfill; consolidation of nitrogen-contaminated soils into the East Lime Pond for capping in place and closure; and stormwater pollution prevention.

Transportation

The property is bordered by the Burlington Northern Santa Fe Railroad and also by K-10 highway. The multi-modal aspect of the property is an advantage for future redevelopment. There also is a spur from the mainline railroad that runs through the property.

The local road system is limited in serving the property. N 1500 Rd is a county road that serves the Farmland property along its northern boundary. 19th Street dead ends on the west edge of the property. No roads currently extend into the property from East Hills Business Park. No connections exist to the industrial park south of K-10 either. No roads bisect the property.

K-10 is state highway that connects Lawrence and Douglas County to Johnson County and the Kansas City Metro area. It is a heavily traveled highway that also functions as a commuter route. The road is a divided highway with two lanes each westbound and eastbound. The speed limit along the section that fronts East Hills



Traveling west on K-10 just beyond East Hills Business Park

Business Park and the Farmland property is 65 miles per hour. Speeds gradually reduce as the roadway narrows to a 5-lane road in the city just beyond Farmland.

The divided highway, high speeds, and large volume of traffic on K-10 make accessing the property safely a priority for future redevelopment.

Demolition

Farmland Industries ceased operations at the Lawrence facility in 2001. Some of the processing equipment and buildings have been purchased and removed from the site. Those that remain, however, will need to be removed, along with concrete pads and foundations that are assumed to be incompatible with redevelopment.



Farmland Industries Buildings and Equipment

Natural Features

While a good portion of the property has been developed, there remain areas that have mature tree stands and retain the natural contours of the land. These areas are located in the southwestern part of the site and in the northwest section. The northwest and north part of the property is the area with the steepest slopes. There is a sandstone bluff overlooking the Kansas River valley near the Bag Warehouse. Generally the property drains from the southwest to the northeast, towards the Kansas River. There currently is no flood hazard area on the property.

Surrounding Land Uses

Adjacent to the west of the property are a variety of land uses including residential, salvage, and the Douglas County Fairgrounds. North and northeast of the property is primarily agriculture uses. East of the property is the East Hills Business Park. South of the property and across K-10 is another business park. Map #1 details the surrounding City and County zoning.

Infrastructure

There are public water connections to the property. However, private infrastructure on the property needs to be identified in order to provide an inventory and condition assessment for future use of that infrastructure. A 16-inch City of Lawrence water transmission line runs along the north side of K-10 and serves the East Hills Business Park.

City of Lawrence wastewater service is provided to adjacent properties and does not serve this property. It's likely that future wastewater service to this property will be extended from East Hills Business Park.

III. Goals and Guiding Principles

Employment

Goal – Create an area that will further the City’s efforts to promote additional employment opportunities for economic development and tax base expansion.

Guiding Principles

- Redevelop the Farmland Industries property to support employment center development.
- Connect the property to East Hills Business Park to help foster a synergy of employment opportunities.
- Promote and market the area as a strong employment center.

Land Use

Goal – Redevelop the Farmland Industries property to support the employment and open space needs of the community.

Guiding Principles

- Industrial/Business/Research Park land use should be the dominant future land use of the property.
- Limited commercial should be allowed to support the needs of the workers in the area. Commercial of a neighborhood, community, or regional nature shall not be allowed. Commercial shall not be permitted along the frontage of K-10 Highway as the Plan discourages strip commercial development along K-10.
- Integrate open space into the property to serve the workers and the community at-large.
- Provide civic space and civic uses to integrate with the neighboring Douglas County Fairgrounds.
- Residential is not an allowable use for future redevelopment of the property.

Public Infrastructure

Goal - Provide ongoing improvement of infrastructure and public facilities that will facilitate the redevelopment of the Farmland Industries property.

Guiding Principles

- Ensure safe access to K-10 from the site.
- Provide a road network through the site that provides connections to the City's existing road system and connects to East Hills Business Park.
- Provide sewer and water connections and ensure adequate City system capacity to handle the redevelopment of the property.
- Continue to manage the stormwater system with the existing mechanisms that are in place. Improve the stormwater system when appropriate in the future.

IV. Future Land Use

The Farmland Future Land Use Plan (Map #2) graphically illustrates a conceptual guide for future redevelopment that embodies the goals and guiding principles presented in Section III. The map is conceptual and should not be used to determine precise zoning boundaries. This future land use plan only supports commercial uses necessary for the long-term redevelopment of the property. In addition, residential uses are not permitted.

Industrial/Business/Research Park

This category applies to the majority of the Farmland Industries property to support redevelopment for a future employment area. This category includes office uses, light industrial, manufacturing and warehousing. Attention should be paid to site buffering and design as the property borders a major highway which is a gateway into the community.

Primary Uses: office, light industrial, manufacturing and warehousing

Zoning Districts: IBP (Industrial/Business Park), IL (Limited Industrial District), IG (General Industrial District) and PID (Planned Industrial District).

Density/Intensity: Light to heavy

Civic

Civic space is assigned to the westernmost part of the property that is adjacent to the Douglas County Fairgrounds. Uses here should be compatible with the Fairgrounds and provide a buffer to the residential uses to the west. Uses that support the Fairgrounds would be appropriate at this location.

Primary Uses: Arts, culture, education, and government

Zoning Districts: GPI

Density/Intensity: Light to medium

Open Space

This category applies to the areas of the property reserved for future open space for use by workers at the site and the public at-large. Trails are recommended in the open space area. Integrating trails within this space and connecting them to the area's trail system is recommended.

Utility uses are not precluded by this designation.

Primary Uses: Open space, passive recreation, and trails

Zoning Districts: OS

Intensity: Light

Utility

This category designates those areas of the property necessary for public sewer and water service. Uses include pump stations, water storage, etc.

Primary Uses: Public utilities

Zoning Districts: GPI

Intensity: Light to medium

V. Redevelopment Strategy

A number of issues need to be addressed on this property before it can reach its ultimate potential of becoming an employment center for the community. There is environmental cleanup to complete, demolition of former Farmland Industries structures is necessary, public infrastructure must be extended into the site, and transportation issues need to be resolved. The following strategy addresses those issues for the long-term redevelopment of the Farmland Industries site.

Action steps are provided at the end of each section. The action steps represent implementation activities that should occur in order for this property to properly redevelop. The responsible party, or parties, is listed in parentheses at the end of each action step. Responsibility is either full or partial depending on the circumstances of each situation. Extension of infrastructure shall follow existing City development procedures and policies that are in place at the time development occurs.

A. Environmental

While a good portion of the property has no environmental issues, those portions that do will need remediation before redevelopment can occur. The independent trust fund, FI Kansas Remediation Trust, contains money dedicated for future remediation activities at the site.

Action Step: Complete environmental remediation as the property develops (property owner/developer/KDHE)

B. Demolition

Demolition of existing structures and concrete foundations deemed deficient for redevelopment is a cost that needs to be considered for future redevelopment.

Action Step: Complete necessary demolition as the property develops (property owner/developer)

C. Public Infrastructure

Water

There are public water connections to the property. However, private infrastructure on the property needs to be identified in order to provide an inventory and condition assessment for future use of that infrastructure. A 16-inch City of Lawrence water transmission line runs along the north side of K-10 and serves the East Hills Business Park. City of Lawrence public water will need to be extended to serve future redevelopment of the entire site. Public water is available along the north side of K-10 and in East Hills Business Park.

A water transmission line from the KAW Water Treatment Plant is being planned to service the southeast area of the city. This transmission line likely will run along the western boundary of the property.

The possibility exists that the City will use the site of the existing Farmland Industries water storage tank for future potable water storage for the City's water system. The Future Land Use Map designates this possibility.

Wastewater

City of Lawrence sewer service will need to be extended into the site to serve future redevelopment. Public sewer service is available in East Hills Business Park.

Any future water and wastewater service to the property is contingent upon the ability of the City to properly serve the development as it occurs on the property. In other words, adequate City system capacity must be in place before service can be utilized on the property.

Stormwater

The overall redevelopment should include two or three regional detention basins to maximize land use. The existing detention basin should continue to be utilized to accommodate drainage on the western portion of the property. The existing drainage channel that runs through the property should be preserved as well and function as the primary drainage channel for the site. A possible second location for regional detention would be located southwest of the existing settling basins. Existing topography also provides the opportunity for a third basin immediately south of the existing settling basins. The general locations of the above mentioned existing and future facilities are shown on Map #3.

Action Step: Survey existing private infrastructure on the property to determine viability for future public use (Property owner/developer, City)

Action Step: Ensure adequate system capacity before providing public utility service to property (City)

Action Step: Extend public utility services to serve the site (property owner/developer)

Action Step: Construct regional detention basins as needed during development of the property (Property owner/developer)

Map #3 – General locations of existing and future stormwater facilities.



D. Transportation

Road System

Map #4 shows the future major roads that should be extended through the property. O'Connell Road should be extended north to connect to 19th Street. 19th Street should be extended east through the property to connect to East Hills Business Park and beyond. 15th Street, as it extends to the east to this property, should be improved to urban standards as the property redevelops.

Franklin Road should be extended north to connect with 15th Street. This plan identifies options to make that connection. Topographic conditions on the site as well as the presence of a railroad make it necessary to present options that can be studied in more detail and when a project to extend the road is initiated.

The option that turns east near the northern boundary of the property does this because of topographic concerns and also because it will not create a need for another rail crossing. The option that goes straight north will need approval from the railroad for another crossing, something that may be a challenge to receive. The options presented are not meant to convey final alignments. Final alignments will have to be determined through the design process of the road

**Farmland Industries Redevelopment Plan
Future Major Roads
Map #4**

Legend

- Railroad
- City Limits
- Farmland Boundary
- Farmland Future Roads

Name

- 19th Street
- Franklin Road Option 1
- Franklin Road Option 2
- Portage Road
- O'Connell Road

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allows internal circulation without the necessity of constructing local roads to direct that circulation to the arterial road. Such access shall be based on sound traffic engineering principles and shall be properly controlled with appropriate signalization and turn lanes. Smaller lots shall take access from local roads.

The map also shows a road extending to the west from East Hills Business Park to provide a reverse frontage road for development lots that will front K-10. Additional local roads that serve the site should be arranged to minimize development lot access to the future major roads. The functional classifications of the future major roads are identified in Table 1.

Table 1 - Farmland Future Roads Functional Classifications

Future Road	Functional Classification
Franklin Road	Minor Arterial
19th Street	Minor Arterial
O'Connell Road	Collector
Frontage Road	Collector

Franklin Road/K-10 Intersection

Providing safe access to K-10 at Franklin Road will be a key component to the redevelopment of the Farmland Industries property. Traffic on K-10 Highway in this area travels at a high rate of speed. Controlling access is important for the safety of the workers and others that will be accessing the employment center. Options for this intersection include:

- Stop sign controls – install stop signs on the Farmland property to stop traffic before it enters K-10. This is similar to the existing condition at East Hills Drive and K-10. This is an interim measure at best and not recommended as a long-term solution.
- Signalized at-grade intersection – this would stop traffic on K-10 to allow workers and others from this site to safely access the highway. This is a feasible solution that is an affordable option.
- Separated grade intersection – ramps control traffic entering and exiting the site from the highway. The best option for safely accessing the site while also keeping traffic moving on K-10. This is a potential solution and also the most costly.

Phasing the access control at Franklin Road and K-10 is an appropriate way to address long-term redevelopment of the Farmland property. Stop sign controls on the property for traffic exiting onto K-10 are only appropriate for a small amount of development on the property. Upgrading to a signalized intersection should happen when traffic warrants are met to require the upgrade.

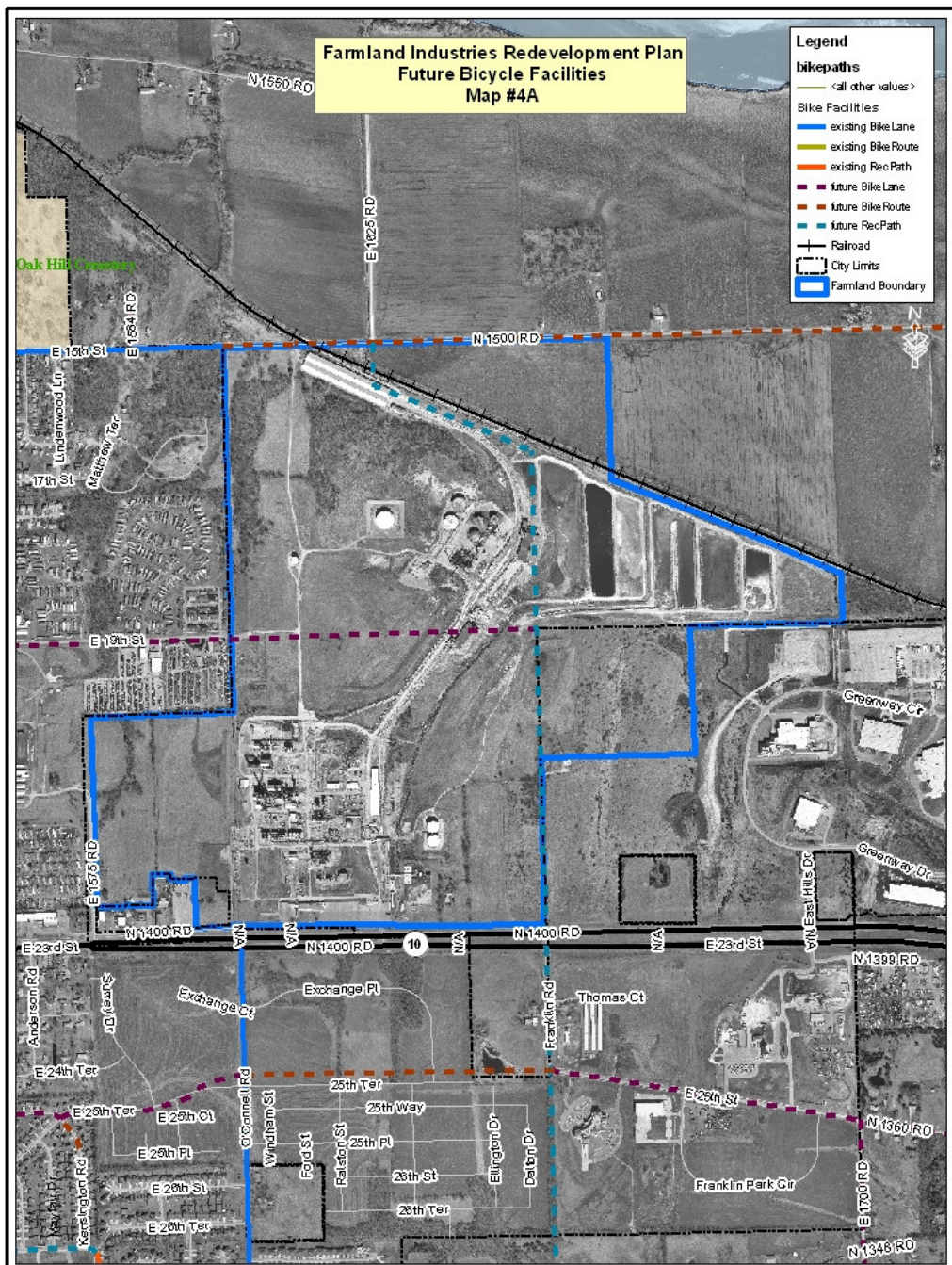
The determination to create a separated grade intersection will in large measure be dependent on the status of K-10 Highway. If K-10 remains a divided highway with traffic moving at a high rate of speed, a separated grade intersection may

be warranted by the amount of redevelopment on the property. If K-10 becomes an urbanized arterial street (23rd Street) with slower speeds, a separated grade intersection may not be necessary. This Plan simply recognizes that a separated grade intersection may be necessary in the future.

Previous planning efforts have addressed the situation with the future of Franklin Road. The 23rd Street Corridor Study recommends a signalized intersection at Franklin Road as an interim measure with the ultimate improvement being an interchange with frontage roads. It also recommends closing the East Hills Drive access to K-10 and replacing it with a connection to Franklin Road. The K-10 Transportation Study recommends that if an interchange is constructed at Franklin Road, the current access at East Hills Business Park would be closed with a new roadway connection established between the Business Park and Franklin Road.

Bicycles

Map #4A shows the future bicycle facilities for the Farmland Industries area. This Plan supports constructing bicycle facilities as part of the long-term redevelopment of the property. Any trail system created as part of the redevelopment of the property should connect to the bicycle facilities on the major roads. This plan recommends extending bicycle facilities as roads extend through the property, even if Map #4A does not show the bicycle facility extension.



Action Step: Extend roads through the site (property owner/developer, City)

Action Step: Extend bicycle facilities through the site (property owner/developer, City)

Action Step: Provide safe access to the property from K-10 at Franklin Road (City, State, property owner/developer)

E. Development

Annexation/Rezoning/Subdivision

Annexation of the property into the City of Lawrence must precede redevelopment of the site. A small portion of the property is annexed, but the majority is still within Unincorporated Douglas County. The City boundary is this property's western boundary and also its eastern boundary. East Hills Business Park to the east is in the City. City services will not be available to the site without annexation.

Rezoning and subdividing the property to the appropriate classifications to support the future land use of this property will need to proceed either concurrently with annexation or separately as the property becomes ready for redevelopment.

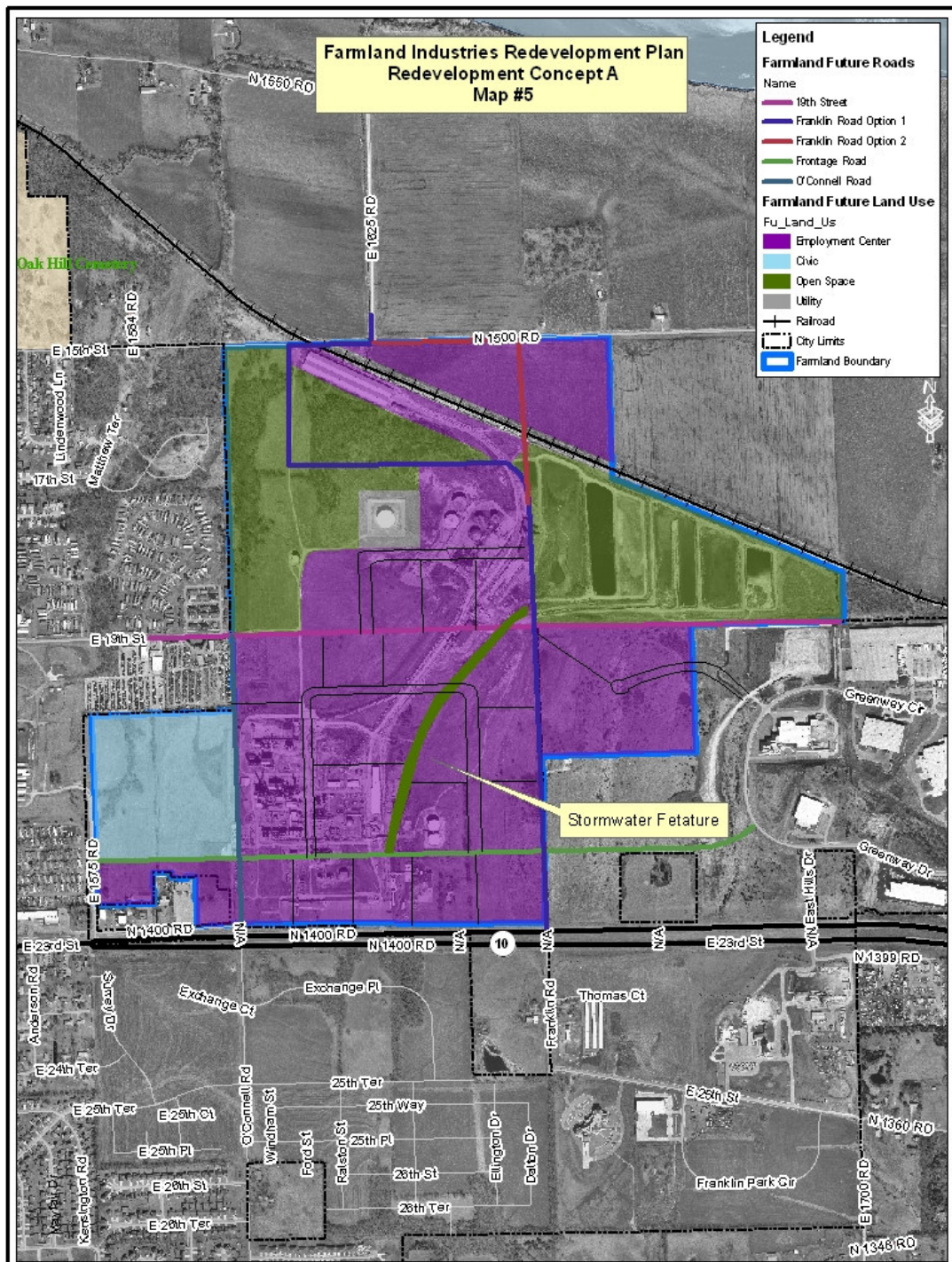
Redevelopment Concepts

Redevelopment concepts are presented on the next two pages. The key features of the concepts are the varying sizes of development lots, lot access primarily limited to an interior road system within the site, and a stormwater feature. Concept B also keeps the interior rail line as an option for redevelopment.

These concepts, and the key features listed above, are meant to present a guide for future redevelopment that meets the intent of this Plan. They are not intended to provide the only options for redevelopment. Lots sizes, and their arrangement, should be determined as the market necessitates at the time of redevelopment.

Action Step: Annex the property (City, property owner/developer)

Action Step: Rezone and plat the property consistent with this Plan
(City, property owner/developer)



VI. Design Guidelines and Standards

Purpose

K-10 Highway is a major gateway into the community. As such, future development and redevelopment of the Farmland property should respect this roadway's prominence for drivers entering the community. In addition, the overall development of the Farmland property should:

- Facilitate safe, functional and attractive development.
- Protect investment in the community by encouraging consistently high quality development.
- Foster a sense of community and encourage pride of ownership.

Building Orientation

1. While development lots in the Farmland property will not be able to take direct access to K-10, buildings that are adjacent to K-10 will be required to present their best faces to K-10. In other words, buildings must present a front door image to K-10. Parking must be located behind the building and opposite of K-10.

Further, buildings throughout the entire development shall orient a front door to street from which the property is taking access.



Not appropriate – loading docks oriented towards the street.

Pedestrian and Employee Amenities

1. Provide for a continuation of pedestrian access when employment-related developments are located adjacent to existing or planned open space.
2. Accessible parking spaces shall be convenient to building entries.
3. Organize the site layout to provide functional employee spaces, including shade structures and amenities between or in front of buildings.



Employee seating in shaded courtyard

Vehicle Circulation and Parking

1. Public/visitor areas shall be separate from truck delivery and maneuvering areas.
2. Coordinate circulation and parking areas with adjoining lots to the extent possible.
3. Reduce pavement widths whenever possible in favor of greater landscaped open space.
4. Use canopy trees in parking lots to break up the scale of large parking lots, provide additional shading and reduce "heat island" impacts.

Loading Areas and Accessory Equipment

1. Service areas, loading and storage areas, and refuse enclosures should be oriented away from public street frontages or screened from these frontages.
2. Locate ground-mounted utility cabinets where they do not conflict with prominent site views or impair vehicle site distances and can be screened from major streets and public areas. Paint cabinets and screen walls to match the principal structure. Where space allows, provide landscaping in front of screening walls.

Landscaping

1. Design the project landscape theme to complement and enhance project architecture
2. Incorporate perimeter landscaping where sites border non-industrial uses.
3. Shade trees should be located throughout all paved parking areas wherever they are located on site and in association with pedestrian and employee amenities and gathering areas. Enclosed service, loading and storage areas are excluded.
4. Provide significant foundation and/or accent plantings, including trees, around buildings to accentuate or screen building and parking structure elements.
5. In highly visible areas, use taller and larger caliper trees.

Lighting

1. Provide pedestrian scale lighting fixtures adjacent to pedestrian paths and employee amenities. Select lighting fixtures that complement the general architectural style of the development.
2. Highlighting of significant architectural features, specimen trees and artwork with accent lighting should be considered. Lighting an entire building or major portion thereof is discouraged.
3. Provide security lighting that is both effective and attractive to promote a safe and secure facility.

Signs

1. Coordinate signage design and materials, including building addresses, to create a consistent style of building identification.