

RADCLIFF/ELIZABETHTOWN  
METROPOLITAN PLANNING ORGANIZATION  
GLENDALE AREA TRANSPORTATION STUDY  
UPDATE



FEBRUARY 2021



Planning for the transportation needs of the region.

LINCOLN TRAIL AREA DEVELOPMENT DISTRICT  
P. O. BOX 604  
613 COLLEGE STREET ROAD  
ELIZABETHTOWN, KENTUCKY 42702-0604

## Table of Contents

<b>Executive Summary .....</b>	<b>3</b>
Short Range Highway Improvements .....	3
Medium Range Highway Improvements .....	4
Long Range Highway Improvements .....	4
<b>Chapter 1 – Introduction.....</b>	<b>5</b>
Purpose .....	5
Scope .....	6
The Hardin County Economic Development Site .....	6
Study Area.....	6
<b>Chapter 2 – Public Involvement Plan.....</b>	<b>8</b>
<b>Chapter 3 – Existing Conditions .....</b>	<b>8</b>
Transportation Network .....	9
Functional Classifications.....	9
Principal Arterials.....	9
Minor Arterials.....	10
Collectors.....	10
Local Streets and Roads.....	10
Study Area Roadway Classifications.....	10
Daily Traffic Volumes.....	12
Roadway Safety.....	14
Railroad Information and Crossing Safety .....	17
<b>Chapter 4 – Development Analysis .....</b>	<b>19</b>
Glendale Industrial Area .....	23
Glendale Junction .....	23
Interstate and Highway Overlay Zone.....	23
North Glendale Urban Area .....	26
Glendale Rural Village .....	26
US 31W/South Dixie Corridor .....	26
<b>Chapter 5 – Transportation Plan Development .....</b>	<b>26</b>
Bypass Alternative.....	26
Interchange Alternative.....	27
Other Improvements .....	29

**Chapter 6 - Recommended Transportation Plan.....29**  
    **Short Range Highway Improvements.....29**  
    **Medium Range Highway Improvements .....30**  
    **Long Range Highway Improvements .....31**  
    **Recommendations Outside of Study Area.....33**  
**Conclusion.....33**

## Executive Summary

The following plan is an update to a 2008 transportation study for the Glendale, Kentucky area and its 1,551-acre mega site. The original study sought to develop both short- and long-range transportation improvements to adequately meet the needs of the mega site while also helping to preserve the historic character of the Glendale Historic District. This update holds the same purpose but seeks to ensure that the proposed transportation improvements meets the 2020 needs of both the community of Glendale and the site itself.

Looming large adjacent to historic Glendale is the Glendale Mega Site; one of the primary economic development sites in the state of Kentucky. Identified as site 093-005 by the Kentucky Economic Development Cabinet, this 1,551-acre parcel of land is zoned for Heavy Industrial (I-2) use by the Hardin County Planning and Development Commission.

Several years ago, this site was a candidate for a Hyundai automotive manufacturing plant but was not selected. Then in 2009, the site was almost purchased and developed by The National Alliance for Advanced Transportation Batteries to provide 2,000 jobs to the area. After missing out on federal funding the plans were canceled. Since then, state and local officials have continued to market this site. A restrictive covenant requiring that the property be used for a single manufacturing, processing or assembly plant was originally in place at the site. Presently, the Elizabethtown Hardin County Industrial Foundation is open to the possibility of subdividing the property for multiple industries.

With the proper roadway infrastructure and buffers in place, the site can blend into the surrounding rural area without compromising area mobility or the Glendale Historic District. This report sets forth short, medium and long-range projects that can be constructed over time to distribute costs, making the plan both fiscally responsible and scalable to grow as the development grows.

### Short Range Highway Improvements

These five (5) improvements are strongly recommended by the Project Team to be in place on opening day of the new plant at the industrial site:

- I-65 Interchange relocation at KY 222
- Widen KY 1136 (Gilead Church Road) to 3 Lanes with shoulders from proposed site entrance at Jagers Road to US 31W (including bridge crossing I-65).
- Partial Glendale Bypass linking KY 222 east of Glendale to KY 1136 (New Glendale Road) north of Glendale This will include improvements to the KY 222/Mud Splash Road intersection.
- Access road to KY 222 from the Northwest portion of site

- Improve KY 1136 (New Glendale Road) from proposed Glendale Bypass to the proposed KY 3005 (Ring Road) extension

### Medium Range Highway Improvements

The following medium range improvements are recommended to be in place soon after the site is developed and open:

- Extend the Glendale Bypass on the west side of Glendale to connect to KY 222.
- Review traffic control measures and evaluate potential intersection improvements (including possible left turn lanes) at the KY 222 & KY 1136 (New Glendale Road) intersection.

### Long Range Highway Improvements

As the plant expands, additional development occurs, and employment increases, the roadway infrastructure will also need additional improvements:

- Extend the Glendale Bypass on the west side of Glendale to connect to KY 222.
- Improve/Widen US 31W from Western Kentucky Parkway/Lincoln Parkway Intersection to KY 222 in Glendale.
- Improve/widen US 31W from KY 222 to Gilead Church Road.
- Improve KY 1136 (Gilead Church Road) all the way west to New Glendale Road, including reconstruction of the CSX railroad crossing.
- Improve New Glendale Road from its intersection with KY222, south to Gilead Church Road.
- KY 222 improvements from KY 1136 west to US 62

## Chapter 1 – Introduction

In August 2007, URS Corporation and their project partner, Jordan, Jones & Goulding, Inc., were selected by the Radcliff/Elizabethtown Metropolitan Planning Organization (MPO) to perform the Glendale Area Transportation Study. This document serves as the 2020 Lincoln Trail Area Development District minor update to that study. The purpose for updating the 2008 study is to re-evaluate the proposed uses and needs of the mega site to ensure that the transportation plan for the Glendale area meets those needs and also helps to preserve the character of the Glendale Historic District.

Adjacent to historic Glendale, Kentucky is one of the premiere economic development sites in the Commonwealth. Identified as site 093-005 by the Kentucky Economic Development Cabinet, this 1,551-acre parcel of land is zoned for Heavy Industrial (I-2) use. Several years ago, this site was a candidate for a Hyundai automotive manufacturing plant and then for a National Alliance for Advanced Transportation Batteries site. Neither of those efforts were successful in landing an industry for the mega site. Since that time, state and local officials have continued to market the site. Originally, a restrictive covenant required that the property be used for a single manufacturing, processing or assembly plant, meaning it cannot be subdivided into an industrial or office park. Presently, the Elizabethtown Hardin County Industrial Foundation is considering subdividing the site for smaller developments.

The 2008 Glendale study focused on the interdependency of land use and the transportation network. The existing road network consists of all two-lane facilities. There have been no major changes to the transportation network since 2008, except for the KY 1136 (Gilead Church Road) bridge widening, which occurred with the I-65 widening project. Several short-term upgrades will be needed to facilitate traffic generated by the 1,551-acre site.

This update to the study focuses on refreshing the data, revisiting the highway recommendations, and noting any updates to the study area to ensure a quality transportation improvement plan that will best meet the needs of future development on the site, as well as attempt to buffer any effects of the development on the nearby Glendale Historic District.

### Purpose

The purpose of this study is to serve as a minor update to the original 2008 Glendale Area Transportation Study and has the following objectives:

- Evaluate existing roadway facilities based on quality, usage, and number of incidents
- Revisit land use characteristics in the study area and noting the relationship with the site

- Develop a series of roadway improvement recommendations based on the input of relevant stakeholders

## Scope

The scope of this project was to conduct a minor update to the original comprehensive small area transportation study for Glendale area and develop a financially feasible transportation plan that will accommodate projected transportation demands through the Year 2030. There were four basic components to this study:

1. Stakeholder Involvement Plan.
2. Updating Pertinent Data.
3. Revisiting Land Use Information.
4. Develop Recommended Improvements.

## The Hardin County Economic Development Site

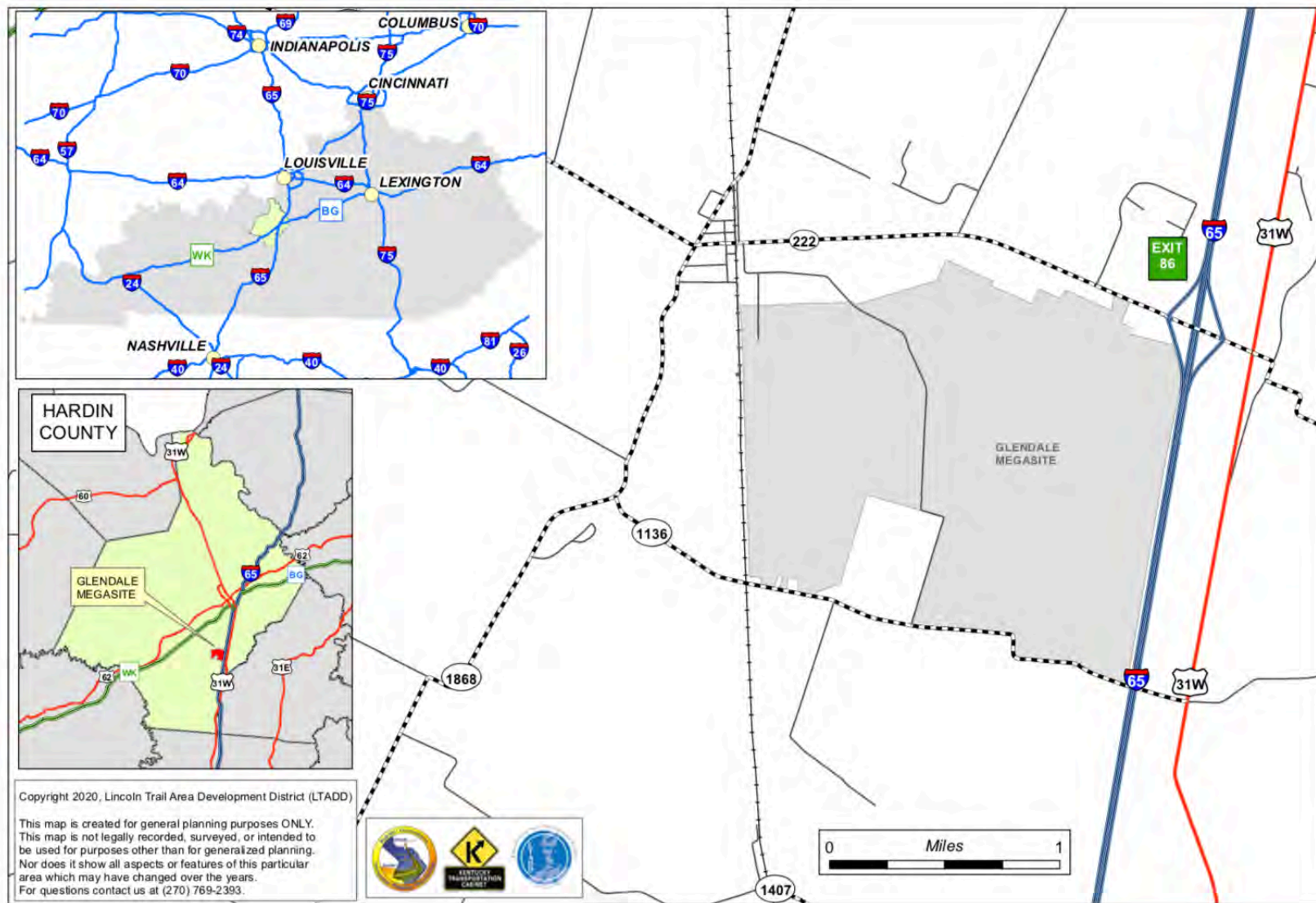
The Glendale Mega Site is 1551 acres. Identified as site 093-005 by the Kentucky Economic Development Cabinet, it is the second largest parcel available in the Commonwealth and is zoned for Heavy Industrial (I-2) use. An original restrictive covenant required that the property be used for a single manufacturing, processing or assembly plant and that it cannot be subdivided into an industrial or office park. The land was purchased by the Commonwealth of Kentucky and is currently being marketed by the Elizabethtown Industrial Foundation. The option to subdivide the site is currently under consideration.

The site is a shovel ready, CSX Certified Mega Site, and only 50 miles south of Louisville, Kentucky. The 1551-acre site is equipped with electricity, natural gas, sewer collection services, water, and broadband access. Several years ago, this site was a candidate for a Hyundai automotive manufacturing plant and then as a site for The National Alliance for Advanced Transportation Batteries. Since then, the site has been continuously marketed.

## Study Area

Glendale is located in the southern portion of Hardin County, south of Elizabethtown and approximately two miles west of I-65. The mega site is roughly bounded by I-65 on the east, the CSX railroad on the west, KY 222 on the north, and KY 1136 (Gilead Church Road) on the south. The study area for the transportation facilities used the same southern boundary, and extended to US 31W to the east, to the Western Kentucky Parkway in the west and approximately two miles to the north on KY 1136 (New Glendale Road). Figure I shows the study area and shows the study area in the context of Hardin County and in the context of the Commonwealth of Kentucky.

Figure I: Map of study area and maps of study area in context





## Chapter 2 – Public Involvement Plan

The original Glendale Area Transportation study incorporated public involvement in the process of the study. The public involvement activities included a public forum in Glendale and relevant stakeholder interviews to understand the public’s concerns and desires concerning changes to their community associated with the mega site. Glendale’s economy is heavily based on tourism, it is designated a Historic district and has multiple buildings that are on the National Register of Historic Places, thus the community has concerns regarding the potential effects of development at the site on the town’s rural character.

Several local issues emerged from the stakeholder interviews and public forum. Among the concerns were:

- Preservation of the Historic District
- Tourism
- Identity
- Local split for/against development

In addition, multiple other stakeholders contributed to highway recommendations included in the report. In this minor update, a group of relevant stakeholders were contacted for their input about updates to the study area and any input on possible new highway recommendations. The individuals contacted expressed their thoughts on new highway recommendations and on the mega site and study area.

These individuals include:

Adam King	Director, Hardin County Planning and Development
Vicki Meredith	Hardin County Engineer
Harry Berry	Hardin County Judge Executive
Charlie Allen	KYTC – District 4 Planning
Kevin Young	KYTC – District 4 Planning
Rick Games	President, Elizabethtown Hardin County Industrial Foundation
Mike Skaggs	MPO Trans. Planner, Lincoln Trail Area Development District

## Chapter 3 – Existing Conditions

There are few existing traffic issues in the study area. The Historic District is a quiet tourist area that usually does not have significant peak period traffic problems. The only source of daily congestion in Glendale results from school traffic, in the mornings and afternoons, at the KY 222/KY 1136 (New Glendale Road) intersection. However, a new school is being built outside of the study area, replacing the school in question, that will alleviate school related traffic. Additionally, Glendale does experience significant congestion during the annual Crossing

Festival in October. However, this is only a one-day event on the 3<sup>rd</sup> Saturday in October and does not pose any issues beyond that specific day.

Currently there are significant congestion and safety problems at the I-65/KY 222 interchange. The interchange is currently being redesigned by the Kentucky Transportation Cabinet (KYTC) to improve a variety of issues such as capacity and access management. The project's objectives are to improve traffic flow and safety. The tentative construct date is 2022-2023 (as of the time of this report). It is important to note that this is a standalone project to address current deficiencies and is not associated with marketing the development site.

The one improvement to the transportation network in the study area since 2008 was the widening of the KY 1136 (Gilead Church Road) bridge over I-65. This project was completed as part of the I-65 major widening project.

### Transportation Network

All of the roadways in the study area are two-lane rural roadways. All intersections are two-way stop controlled and no intersection approaches have dedicated turn lanes. The only electronic traffic control devices in the study area are the school speed zone flashers for East Hardin Middle School and the railroad crossing signals. There are 5 railroad crossings in the area: two are located in the Historic District at KY 222 and KY 1136 (New Glendale Road); a third is located on the Gilead Church Road section of KY 1136 and two more are on private roads.

### Functional Classifications

Streets and highways are grouped into classes or systems according to the character of service they are intended to provide. This is referred to as functional classification. Integral to this process is the recognition that individual roads and streets do not serve travel independent from the rest of the highway system. Rather, most travel involves movement through a network of roads.

Functional classification can be applied in planning highway system development, determining the jurisdictional responsibility for particular systems, and in fiscal planning. Functional classification is also important in determining eligibility for Federal-aid funding.

Urban and rural functional systems are classified as such:

#### Principal Arterials

Principal arterials are designed to provide for major travel desires between, across, and within urban areas. Expressways within this system do not provide access to adjacent land. Principal arterials are intended to carry high traffic volumes and serve the longest trip lengths.

### Minor Arterials

Minor arterials are moderate volume streets and roads that interconnect with and augment the principal arterial system. More emphasis is placed on land access than for principal arterials, but the primary emphasis is on the movement of traffic. Also, travel desires typically are shorter for minor arterials than for principal arterials.

### Collectors

Collector streets penetrate neighborhoods and the urban core, collecting and distributing trips from arterials to the local street system. Collectors provide both access to adjoining land and through movement of traffic. In rural areas, collectors are further divided into two categories: rural major collectors and rural minor collectors

### Local Streets and Roads

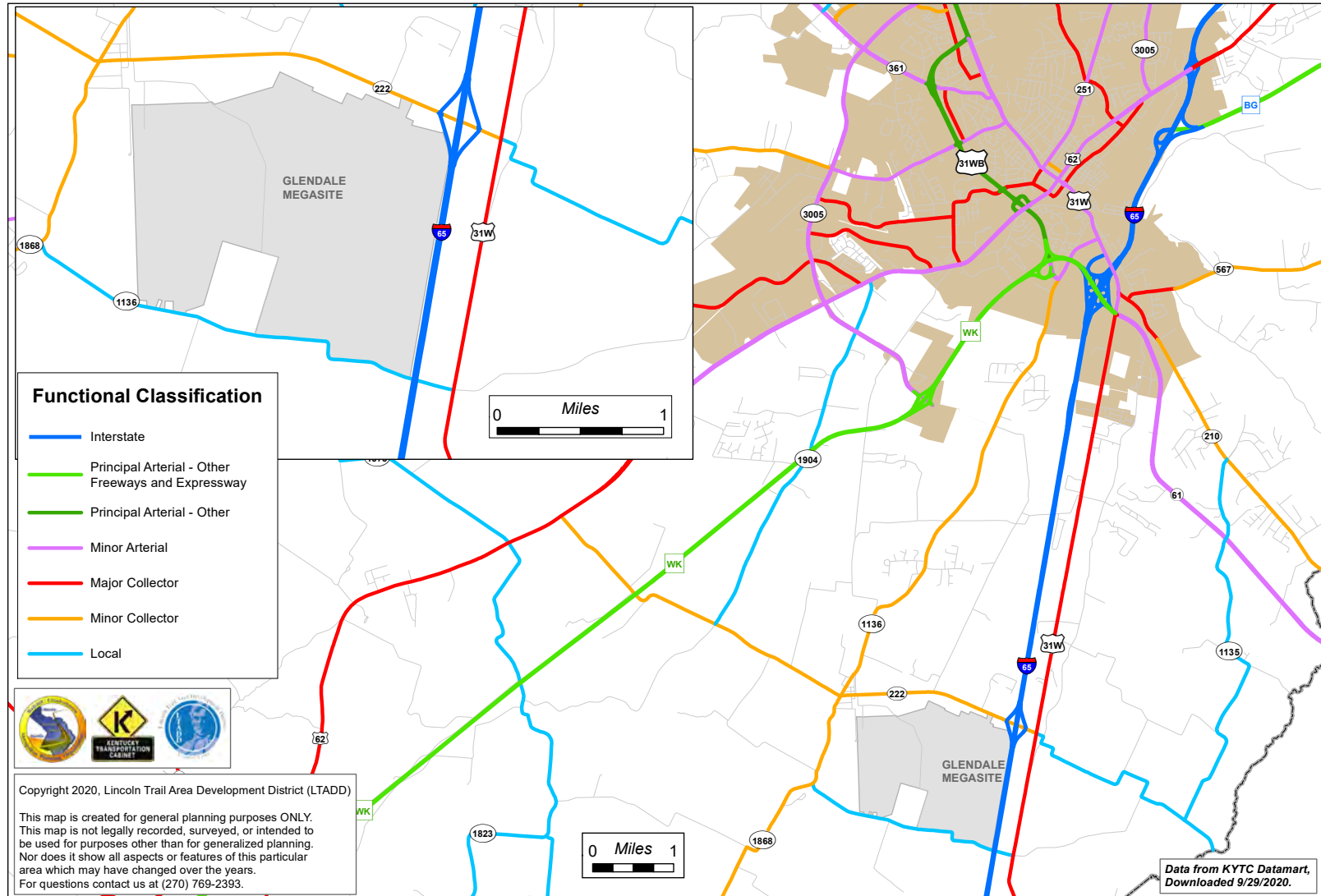
The sole function of local streets is to provide access to abutting land. Local streets often comprise the largest portion of total street mileage in an urban area but carry only a small portion of the total vehicle-miles traveled. Local streets were not evaluated in this study.

### Study Area Roadway Classifications

The following information is from the Kentucky Transportation Cabinet's Highway Information System (HIS); a database of existing roadway characteristics. Figure II is a map that highlights the roadway's functional classifications.

- Interstate 65 in the study area is classified as a rural interstate or principal arterial. It is median-divided with six 12-foot lanes, three in each direction, and 11-foot outside shoulders. The speed limit is 70 miles per hour (MPH).
- US 31W is a rural major collector, with 11-foot wide lanes and four-foot wide shoulders. The speed limit in the study area is 55 MPH.
- KY 222 is classified as a rural minor collector. The HIS reports that KY 222 has 10-foot lanes with three-foot wide shoulders. The speed limit in the study area varies from 35 MPH to 45 MPH. The 35 MPH zone is through the Glendale area.
- KY 1136 (New Glendale Road and Gilead Church Road) is also classified as a rural minor collector. It has 10-foot lanes and three-foot wide shoulders. The speed limit in the study area varies from 35 MPH to 45 MPH. Again, the 35 MPH speed zone is through the Glendale area.

Figure II: Map of Functional Classifications in the study area



### Daily Traffic Volumes

Table I compares the average daily traffic on roads in the study area between the original 2008 study and recent data on the roads. A map will follow.

Table I: Comparison of Average Daily Traffic in the Study Area Between 2008 Study and Present Day

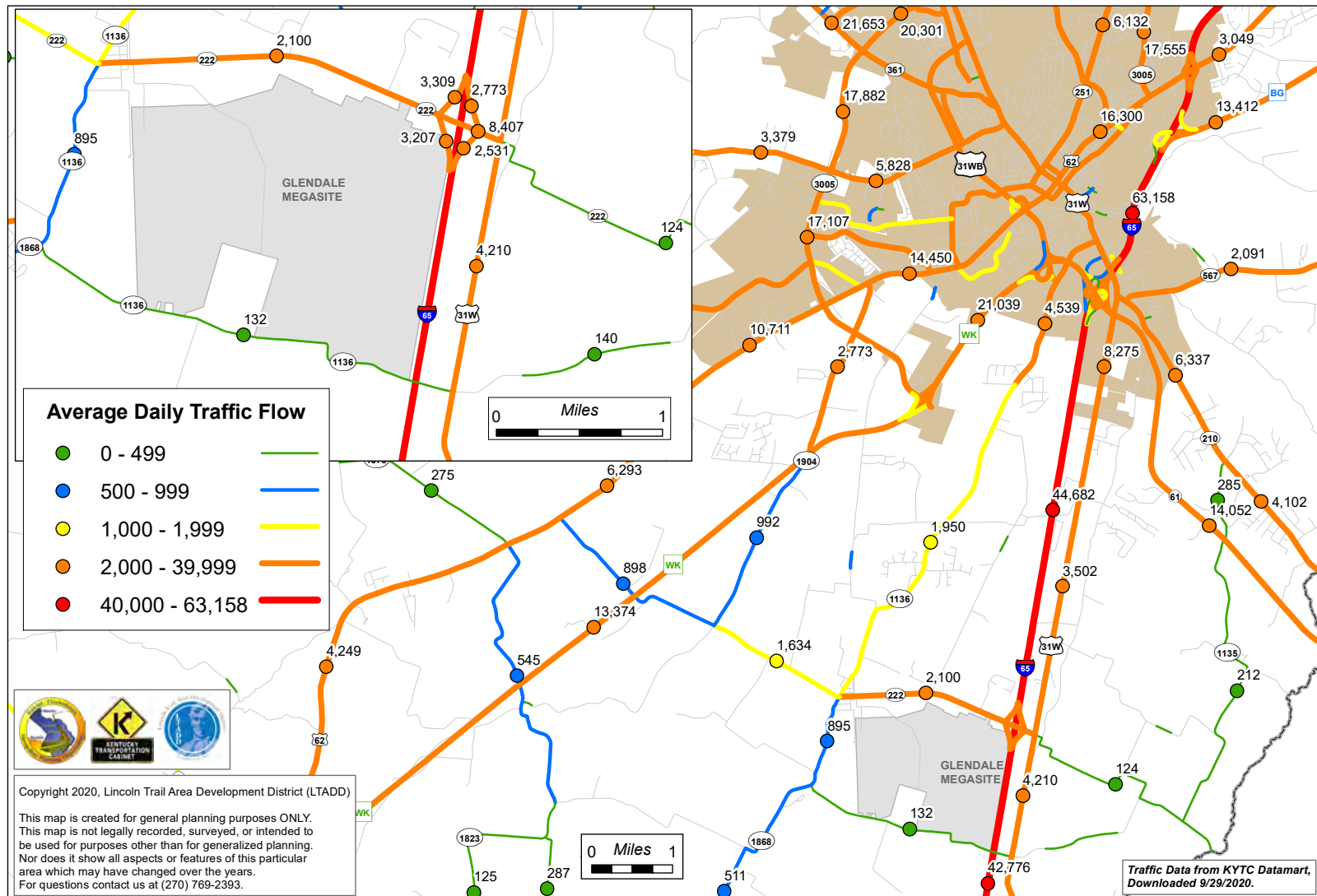
Roadway	2008 (ADT)*	2020 (ADT)†
I-65	39,100	44,700
US 31W	3,380	4,200
KY 222	2,480	2,100
KY 1136 (New Glendale Road and Gilead Church Road)	930	1,000

\*Numbers from the 2008 Glendale Area Transportation Study

†Figures calculated using annual average daily traffic between study area specific mile points

Figure III is a map of the Glendale area's average daily traffic counts. It highlights the average daily traffic counts for the roads in the study area

Figure III: Average Daily Traffic Counts



GLENDALE AREA TRANSPORTATION STUDY - 2020 UPDATE  
 AVERAGE DAILY TRAFFIC COUNTS

## Roadway Safety

In the update to roadway safety data, the current crash data (2017-2019) has been collected for comparison to the original data. The data on crashes is compared to determine the amount of change in roadway safety in the study area. The roadway segments examined include KY 1136, KY 222, and the KY 222/I-65 interchange. Additionally, Figure IV is a map showing the location of accidents on the roadways in the study area since 2018. It also details where injuries and fatalities occurred.

Table II compares the number of collisions and the details of the incidents on roadway KY 1136 between the years 2005-2007 and 2017-2019. Overall, the number of collisions on this road in the study area increased since the time of the original study. This is consistent with the apparent increase in average daily traffic on the road.

Table II: Roadway Incidents on KY 1136 (New Glendale Road and Gilead Church Road) in the Study Area in 2005-2007 Versus in 2017-2019

Incident Details	KY 1136 2017-2019	KY 1136 2005-2007
Collisions w/injury	11	3
Collisions w/fatality	1	0
Collisions w/property damage	53	10
Collisions w/commercial vehicle	1	1
Total injuries	14	4
Total Fatalities	1	0
Total Accidents	65	13

Table III compares the number of collisions and the details of the incidents on roadway KY 222 between the years 2005-2007 and 2017-2019. Again, the overall number of collisions increased in this study area on this roadway, compared to the time of the original study. However, the rise is not as sharp as seen on KY 1136. Similarly, KY 222 also saw an increase in average daily traffic on the roadway.

Table III: Roadway Incidents on KY 222 in the Study Area in 2005-2007 Versus in 2017-2019

Incident Details	KY 222 2017-2019	KY 222 2005-2007
Collisions w/injury	3	8
Collisions w/fatality	2	1
Collisions w/property damage	52	30
Collisions w/commercial vehicle	23	16
Total injuries	6	11
Total Fatalities	2	1
Total Accidents	57	39

Table IV compares the number of collisions and details of the incidents on the I-65/KY 222 interchange in the study area between the years 2005-2007 and 2017-2019. Here, the number of collisions has decreased from the time of the study, despite the fact that both roads have an increase in use since the original study and no improvements have been made to this interchange from the time of the original study.

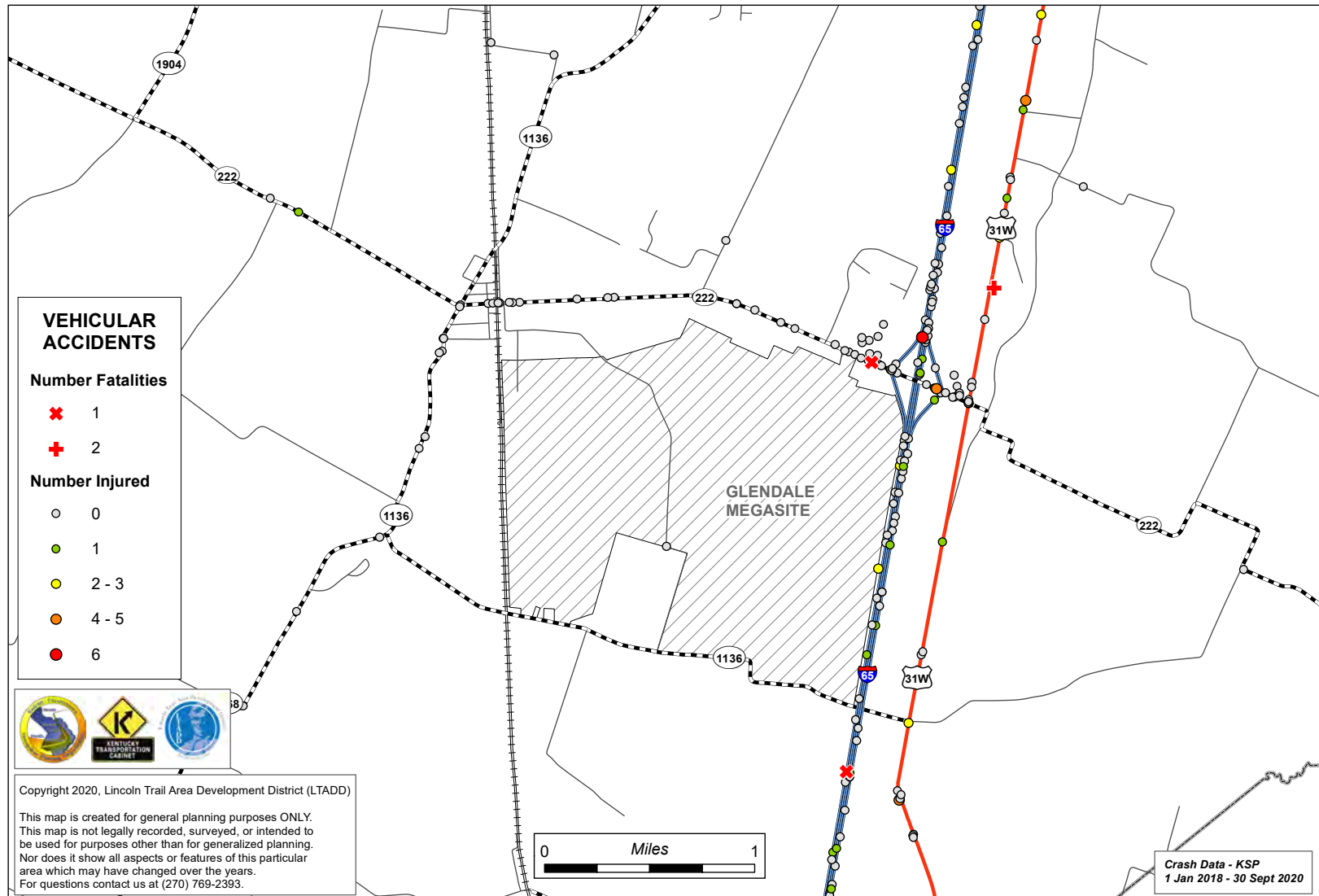
Table IV: Roadway Incidents on I-65/KY 222 interchange in the Study Area in 2005-2007 Versus in 2017-2019\*

Incident Details	I-65/KY 222 Interchange 2017-2019	I-65/KY 222 Interchange 2005-2007
Collisions w/injury	4	11
Collisions w/fatality	0	1
Collisions w/property damage	28	42
Collisions w/commercial vehicle	15	23
Total injuries	12	17
Total Fatalities	0	1
Total Accidents	32	54

\*The above data on roadway incidents has been found using the Kentucky State Police “location search” function that allows specific roadways to be highlighted to generate data on specific area.



Figure IV: Traffic Accidents



GLENDALE AREA TRANSPORTATION STUDY - 2020 UPDATE

TRAFFIC ACCIDENTS

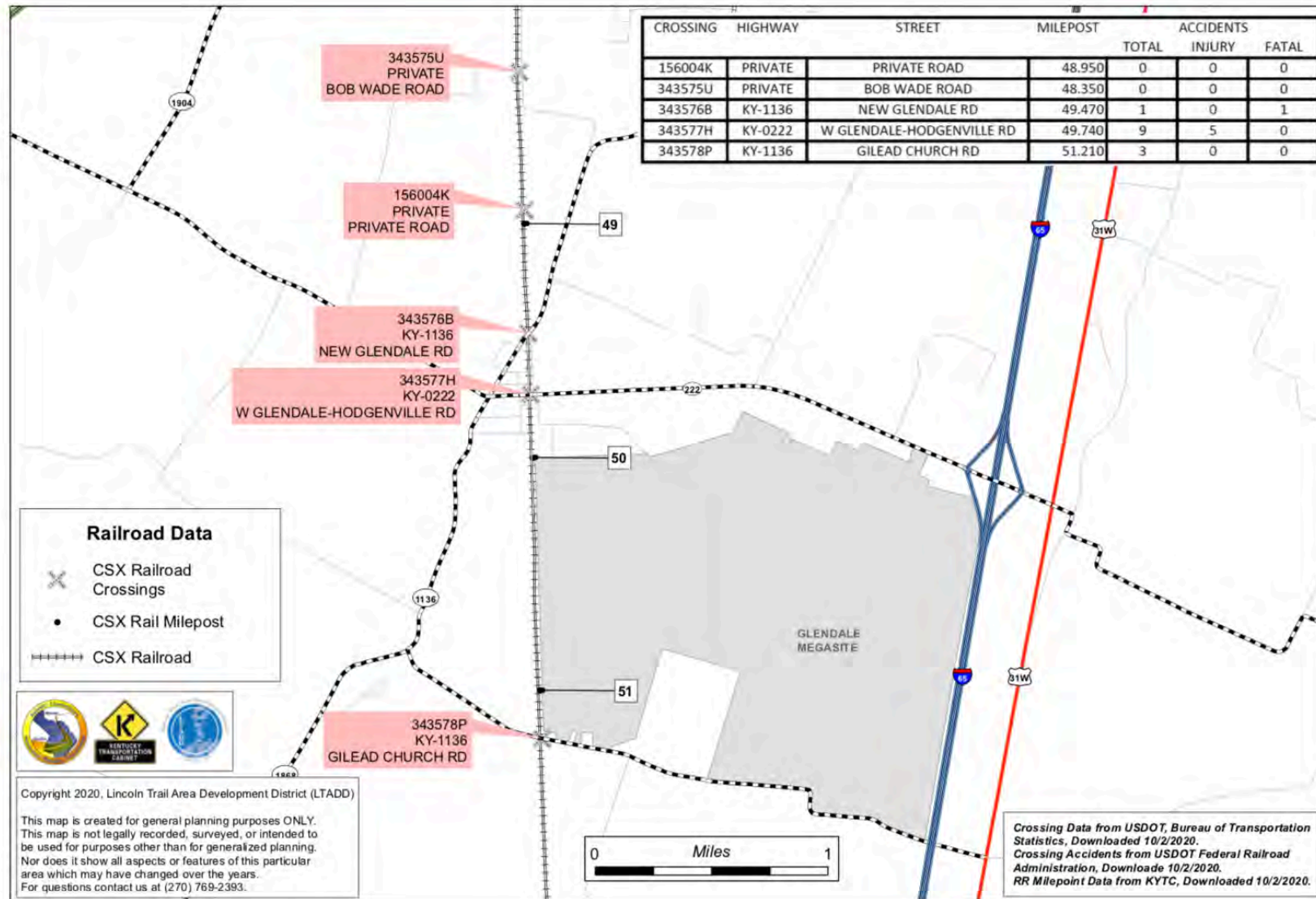
## Railroad Information and Crossing Safety

Historically, Glendale developed as a small commercial hub surrounding a stop on the Louisville & Nashville Railroad (L&N). The former L&N railroad is now part of the CSX Louisville Division mainline between Louisville and Nashville. The single track runs generally North/South through eastern edge of Glendale and has five at-grade crossings within the study area. Please refer to the corresponding map and table (figure V) of the existing at grade crossing locations. It should be noted that CSX did not provide input regarding the analysis or recommendations of this study, neither in the original study nor in this update.

A query of the railroad crossings within the study area was performed utilizing the FRA Office of Safety Analysis Web Site (<http://safetydata.fra.dot.gov/officeofsafety/>). The 2008 study included an analysis of crash data at each of the crossings from 1987 through 2007. There were eight incidents reported during that period with six occurring at the crossing of KY 222 in the heart of Glendale. Three of these incidents resulted in injuries. A motorist was struck and killed in a single incident at the crossing with KY 1136 (New Glendale Road), north of the Glendale in 1996. The crossing at KY 222 features automated flashing lights and gates. The crossing at KY 1136 (New Glendale Road) features automated flashing lights.

In this study update, a similar query of the railroad crossings was completed. There have only been five total incidents since 2007 in the study area, with two new injuries. Figure V details the locations of railway crossings in the study area and details the incidents at each crossing.

Figure V: Railroad Data



Based on the original study, the railroad within the study area is rated for 50 mph track speed and average approximately 30 trains per day. It was anticipated that the railroad segment within the project area will remain active within the plan year of this study and may experience an increase in volume.

Railroad access is an important consideration for the future development site as a manufacturing facility. Given the physical and operational significance of the railroad within the study area, it serves as a barrier to east-west travel. New roadway facilities crossing the railroad will be required to be grade separated, reutilize an existing at-grade crossing, or establish a new at-grade crossing. The latter option would require closure of three existing at-grade crossings in the area to permit the establishment of a crossing at a new location per CSX policy. In general, the establishment of new at grade crossings is not recommended unless there is no other feasible alternative.

Due to the unknown status of potential development at the site, the accommodation of new rail access could not be considered in the evaluation of alternative roadway improvements. The Glendale bypass for KY 222 is planned to be located north of Glendale. The first segment, as described in the Medium Range Highway Improvements, will not impact the existing railroad. However, the western completion of the Glendale Bypass as described in the Long-Range Highway Improvements will require a new railroad crossing. The need for this improvement and the associated railroad crossing issues will need to be further evaluated in the future.

The Industrial Element of the Hardin County Comprehensive Development Guide includes recommendations for a new grade separated crossing of KY 1136 (Gilead Church Road) south of Glendale as well as upgrading the existing at grade crossing of KY 1136 (New Glendale Road) north of Glendale to accommodate a potential Glendale bypass. Both of these plan's recommendations should be preserved, however, the need for a new grade separation with the railroad remains highly dependent on the distribution of trips associated with the development of the site, surrounding planning areas and the configuration of any rail service to the site.

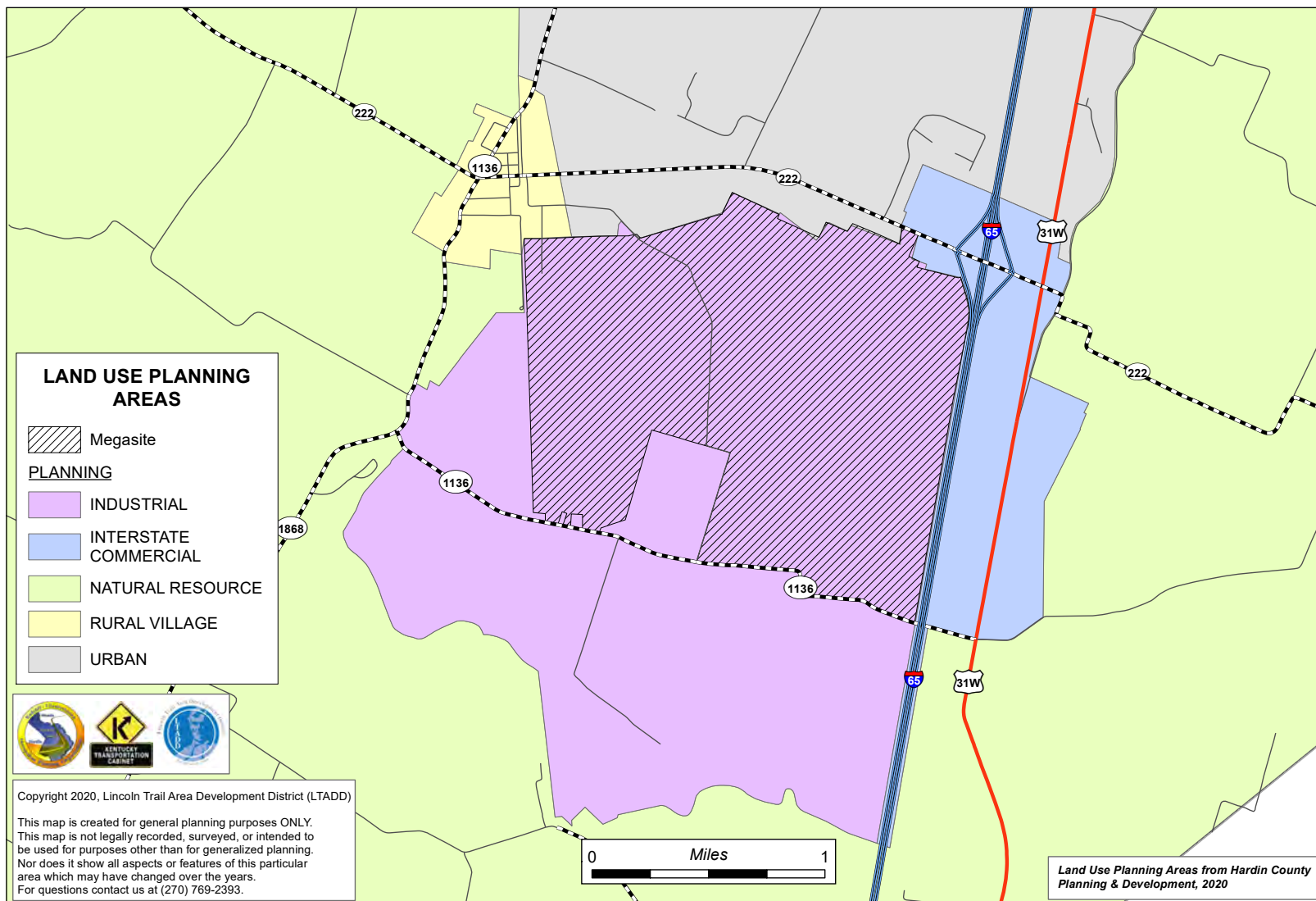
## Chapter 4 – Development Analysis

The following section will explore the planning areas within the study area to attempt to examine their effects on transportation planning and, in turn, impacts of transportation planning on these areas. There are several Planning Areas identified in the 2019 Hardin County Comprehensive Plan which fall within the project study area. These include the:

- Glendale Industrial Area (25)
- North Glendale Urban Area (2)
- I-65 Glendale Junction (27)
- Glendale Rural Village (7)
- US 31W/South Dixie Corridor (17)

The 2019 Comprehensive Plan will be used to explore these planning areas. Figure VI is a map of the study area that highlights the above-mentioned planning areas by their corresponding number. Figure VII is a map of the type of zone planning areas are. Figure VIII is a map of the current zoning types in the study area

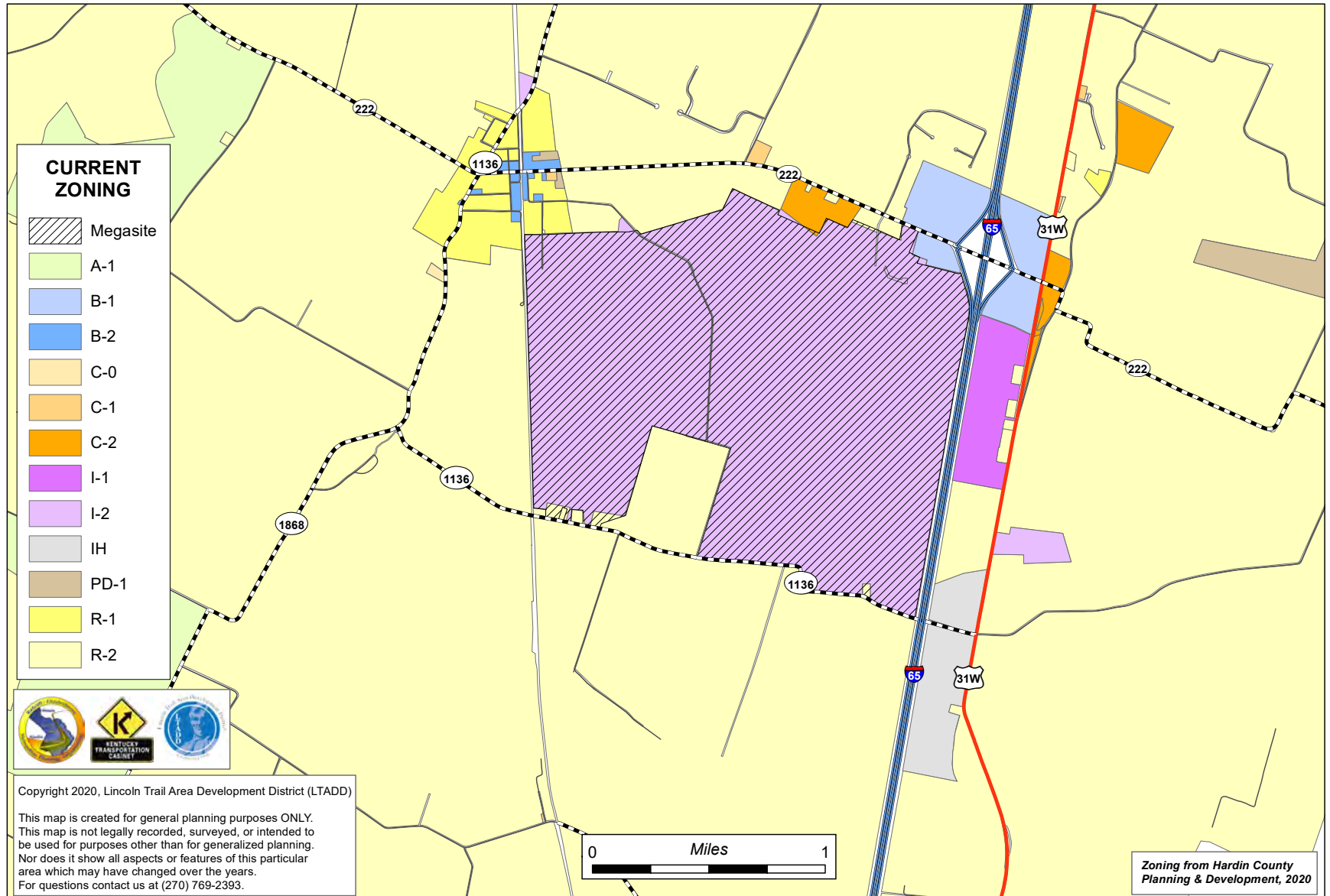
Figure VI: Planning Areas



GLENDALE AREA TRANSPORTATION STUDY - 2020 UPDATE

LAND USE - PLANNING AREAS

Figure VII: Current Zoning



## Glendale Industrial Area

The Glendale Industrial Area consists primarily of the Glendale mega site. It is located between I-65 and the CSX railway and between KY 222 and the Nolin River to the south. It is equipped with many of the utilities desired for industrial development and is presently available for development. It is accessible directly from KY 222 and KY 1136 (Gilead Church Road).

Future land use was recommended for single entity use, but is now open to possible multiple developments. The plan recommends that a consideration of lighting, signage, and traffic flow should be considered before development. Future development will bring a change to the physical landscape of the area and to the flow of traffic. The addition of an overlay zone was put in place over the southern and eastern portions of the industrial area.

## Glendale Junction

This planning area includes the vicinity of the I-65/KY 222 Interchange and extends south along US 31W to KY 1136 (Gilead Church Road). This area primarily consists of commercial activities relating to the interstate, such as truck stops and gas stations. Residential development is discouraged, instead commercial activities relating to the interstate and light industrial activities such as warehousing are preferred. This planning area is additionally established with an overlay zone.

## Interstate and Highway Overlay Zone

To preserve the integrity of the mega site and the surrounding area, an overlay zone was implemented south and the east of the site. The intention of the overlay zone is to regulate the land next to interstates and highways in the county.

The overlay zone in the mega site area includes a 100' foot green space setback and a 150' foot building setback from the right of way line from I-65, US 31W, and KY 1136 (Gilead Church Road). These setbacks can be reduced through a number of location landscape additions. The zone puts restrictions of certain uses and design and development standards in place for the area.

The restricted uses in the overlay zone include the following:

- Asphalt Manufacturing
- Blast furnaces, Metal Smelting, Ore or Metal Reducing
- Crushed Stone, Sand, Gravel Operations
- Junk Yard
- Livestock Auction and/or Stock Yard
- Petroleum Production, Refining and/or Storage
- Ready Mix and/or Concrete Plant

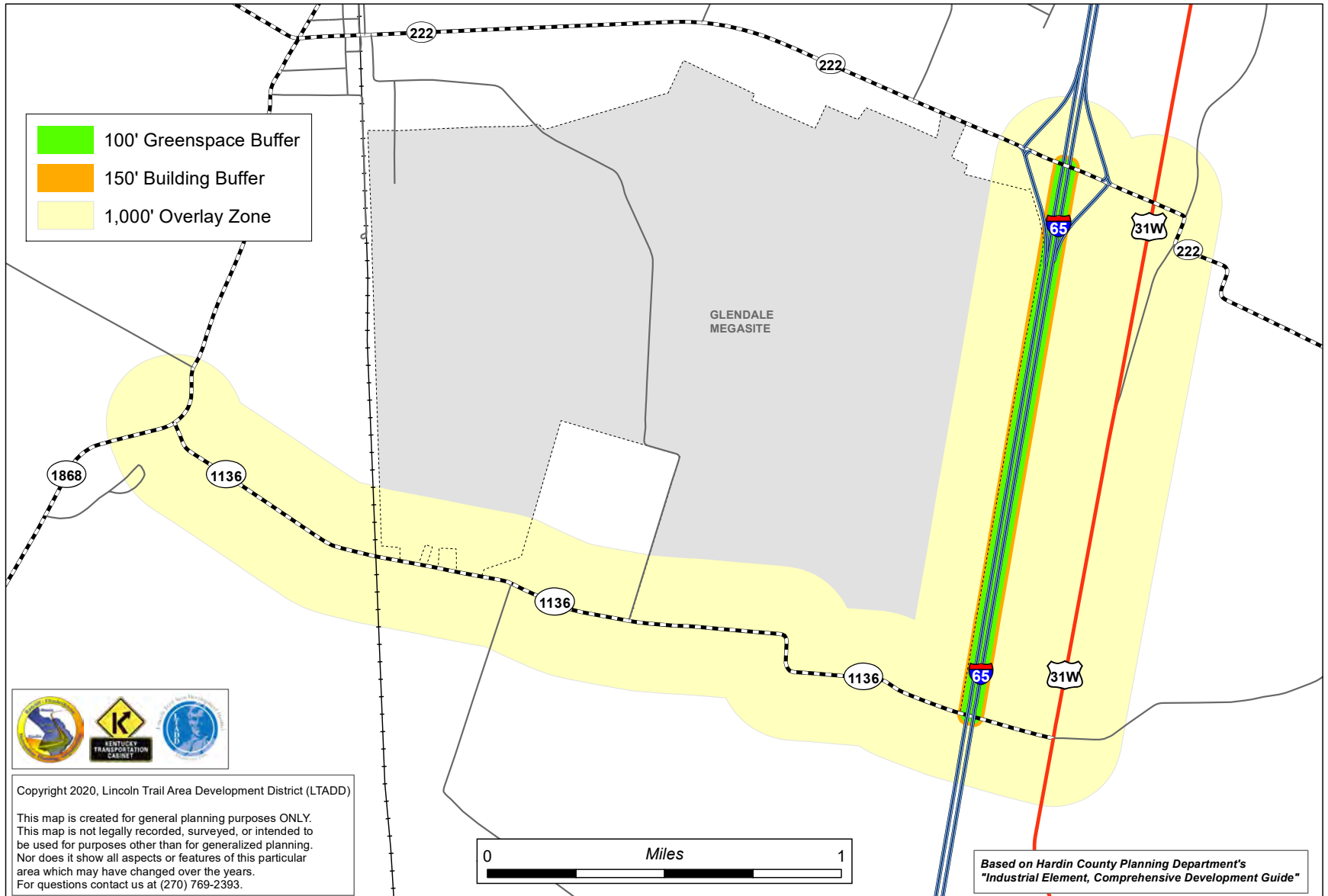


2/3/2021 Draft of Glendale Update

- Saw Mills
- Scrap Metal
- Sexually Oriented Business
- Slaughter House

Figure IX is map of this overlay zone.

Figure VIII: Interstate and Highway Overlay Zone



### North Glendale Urban Area

This planning area is situated north of the industrial site and south of Elizabethtown and between the CSX railway and I-65. It is designated as an area to address urban growth in the area. Residential development is the primary focus of this area, but it is recommended that residential lots follow specific size requirements to avoid the decrease of farmland/open space. Additionally, commercial development is recommended to continue only gradually through an expansion “target area” in the planning area.

### Glendale Rural Village

This planning area is the historical railroad community of Glendale. There is a desire to maintain its historic character, which makes it an attractive small-town tourist destination. It is located west of I-65 and has the intersection of KY 222 and KY 1136 (New Glendale Road). The comprehensive plan recommends a continual expansion of a mix of economic and residential development while maintaining its historical identity. The impact of increased activity and traffic in the area due to an industrial development should be given prime consideration to protect and ensure the Glendale Historic District remains a viable community and tourist attraction.

### US 31W/South Dixie Corridor

This planning area is a historic transportation area that begins near the southern portion of Elizabethtown and ending near the Glendale Junction planning area. The area is primarily intended for residential development except for the portions adjacent to I-65 and South Dixie which are noise generators.

## Chapter 5 – Transportation Plan Development

The primary objective of this plan was to develop a series of cost-effective projects that can be implemented to meet the initial and long-term needs of study area. A series of alternatives were developed for the study area in the original 2008 study. The final list of alternatives, for the integration of the industrial site into the wider community, involved a need for larger projects including bypass of Glendale; an I-65/KY 222 interchange reconstruction; and other miscellaneous improvements to KY 222, KY 1136 (New Glendale Road and Gilead Church Road), and US 31W that will be incorporated into short-, medium-, and long-range highway improvements in the Recommended Transportation Plan.

### Bypass Alternative

The plans for a bypass of Glendale will involve a two-step approach. The first is a partial bypass of Glendale. Since KY 1136 (New Glendale Road) travels north of Glendale to Elizabethtown and parallel to I-65, it was estimated that a high percentage of traffic would use KY 1136 (New

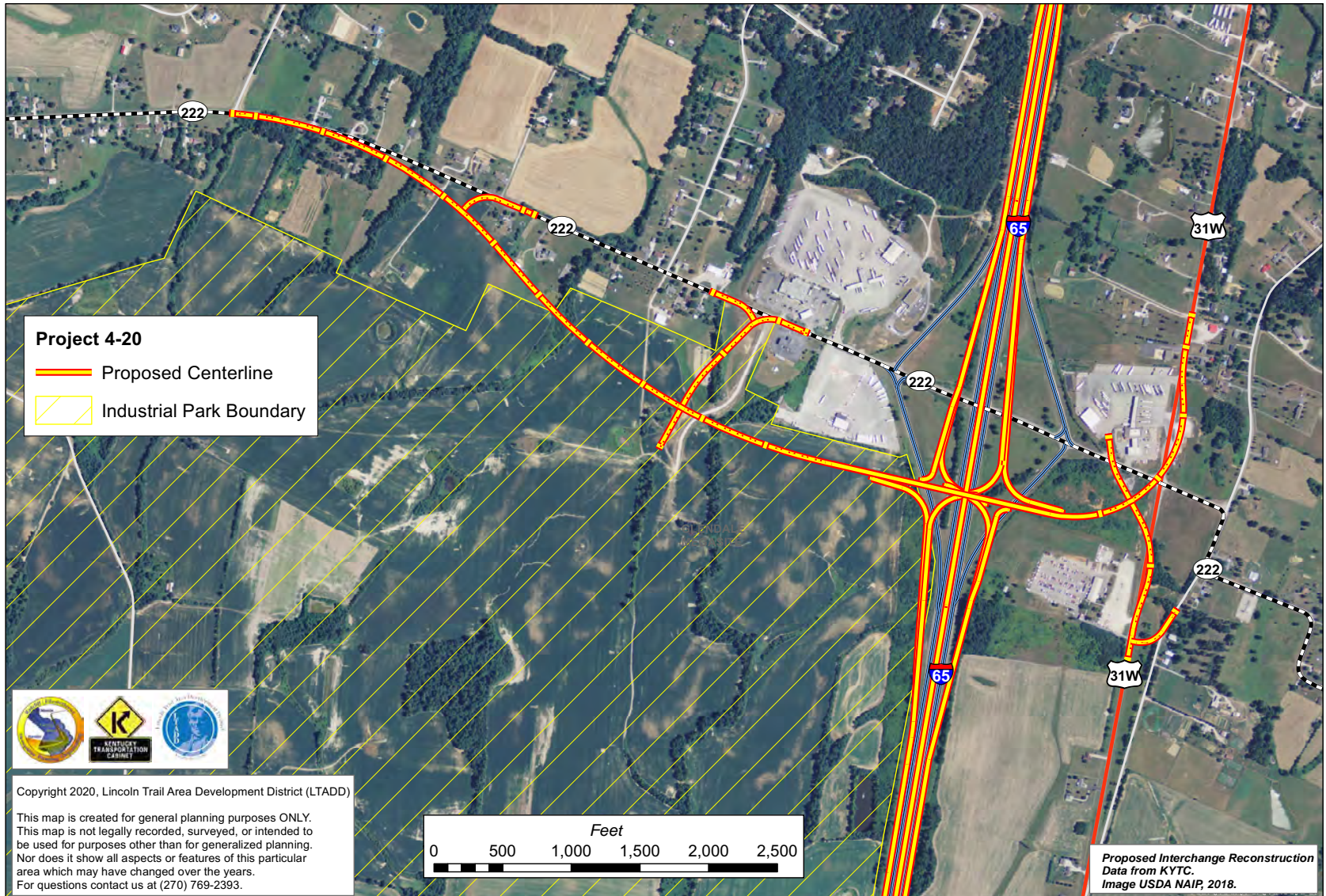
Glendale Road) to the north in lieu of using KY 222 to the west of Glendale. The partial bypass concept is shown as a T-intersection on existing KY 222 east of the Glendale Historic District and traverses the countryside northeast of Glendale to intersect KY 1136 (New Glendale Road) northeast of the CSX railroad crossing. In the event that the site grows to the ultimate 5,000 employee level, this alternate can be modified and extended to form a full bypass around Glendale, serving as the second step in the bypass plan.

This second step of the plan bridges both the CSX railroad tracks and KY 1136 (New Glendale Road) and ends at Smith Mill Road. This alternative would significantly impact a number of properties and require a substantial amount of earth work to create elevated approaches to a new railroad bridge. The bridge would be relatively long to span both KY 1136 (New Glendale Road) and the railroad, making this a costly alternative. In order for there to be an intersection between the bypass and KY 1136 (New Glendale Road), a “jug-handle” type design would have to be used. Without an intersection between the bypass and KY 1136 (New Glendale Road), all of the KY 1136 (New Glendale Road) traffic to the site and business zones will have to travel through Glendale to access KY 222, which is not considered a desirable situation.

#### Interchange Alternative

An important step in integrating the industrial site into the planning area is the reconstruction of the interchange of KY 222/I-65. The proposed project relocates KY 222 to the south and rebuilds the existing diamond interchange into a single-point urban interchange (“SPUI”). KY 222 is rebuilt on new alignment between a point approximately 0.75 miles west of I-65 eastward to US 31W. A map of this interchange plan is shown in Figure X.

Figure IX: KY 222/I-65 Interchange Reconstruction



## Other Improvements

Other alternatives considered in both the original 2008 study and this current update include improvements to existing roadways in the planning area including: US 31W, KY 222, and KY 1136 (both New Glendale Road and Gilead Church Road). The improvements range from minor widenings to potential major widenings to include 3 lanes (2 driving lanes with a center turn lane). Along with the potential widening of KY 1136 (Gilead Church Road), it will be crucial for the railroad crossing to be reconstructed.

The Recommended Transportation Plan in Chapter 6 outlines each of the proposed improvements.

## Chapter 6 - Recommended Transportation Plan

Through a combination of the bypass recommendations, the planned interchange reconstruction, and a series of short-, medium-, and long-range improvements to some of the other area roadways, the recommended transportation plan is outlined below. These recommendations were developed after discussion with the study's stakeholders and an analysis of traffic and safety-related data. See Figure XI below for a map of improvement locations.

### Short Range Highway Improvements

These five (5) improvements are strongly recommended by the Project Team to be in place on opening day of the new plant at the industrial site:

<b>ROUTE</b>	<b>DESCRIPTION</b>	<b>ESTIMATED COST</b>
I-65	IMPROVE THE SAFETY AND INCREASE THE CAPACITY OF THE I-65/KY 222 INTERCHANGE BASED ON EXISTING AND FUTURE OF THE AREA	\$33,000,000
KY 1136	WIDEN KY 1136 (GILEAD CHURCH ROAD) TO 3 LANES WITH SHOULDERS FROM THE PROPOSED SITE ENTRANCE AT JAGGERS ROAD TO US 31W.	TBD
NEW	PARTIAL GLENDALE BYPASS LINKING KY 222 EAST OF GLENDALE TO KY 1136 (NEW GLENDALE ROAD) NORTH OF GLENDALE. THIS WILL INCLUDE IMPROVEMENTS TO THE KY 222/MUD SPLASH ROAD INTERSECTION.	TBD
NEW	ACCESS ROAD TO KY 222 FROM THE NORTHWEST PORTION OF THE MEGA SITE.	TBD
KY 1136	IMPROVE KY 1136 (NEW GLENDALE ROAD) FROM PROPOSED GLENDALE BYPASS TO THE PROPOSED KY 3005 (RING ROAD) EXTENSION	TBD

[Medium Range Highway Improvements](#)

The following medium range improvements are recommended to be in place soon after the site is developed and open:

<b>ROUTE</b>	<b>DESCRIPTION</b>	<b>ESTIMATED COST</b>
NEW	EXTEND THE GLENDALE BYPASS ON THE WEST SIDE OF GLENDALE TO CONNECT TO KY 222	TBD
KY 222/1136	REVIEW TRAFFIC CONTROL MEASURES AND EVALUATE POTENTIAL INTERSECTION IMPROVEMENTS (INCLUDING LEFT TURN LANES) AT THE KY 222 & KY 1136 (NEW GLENDALE ROAD) INTERSECTION.	TBD

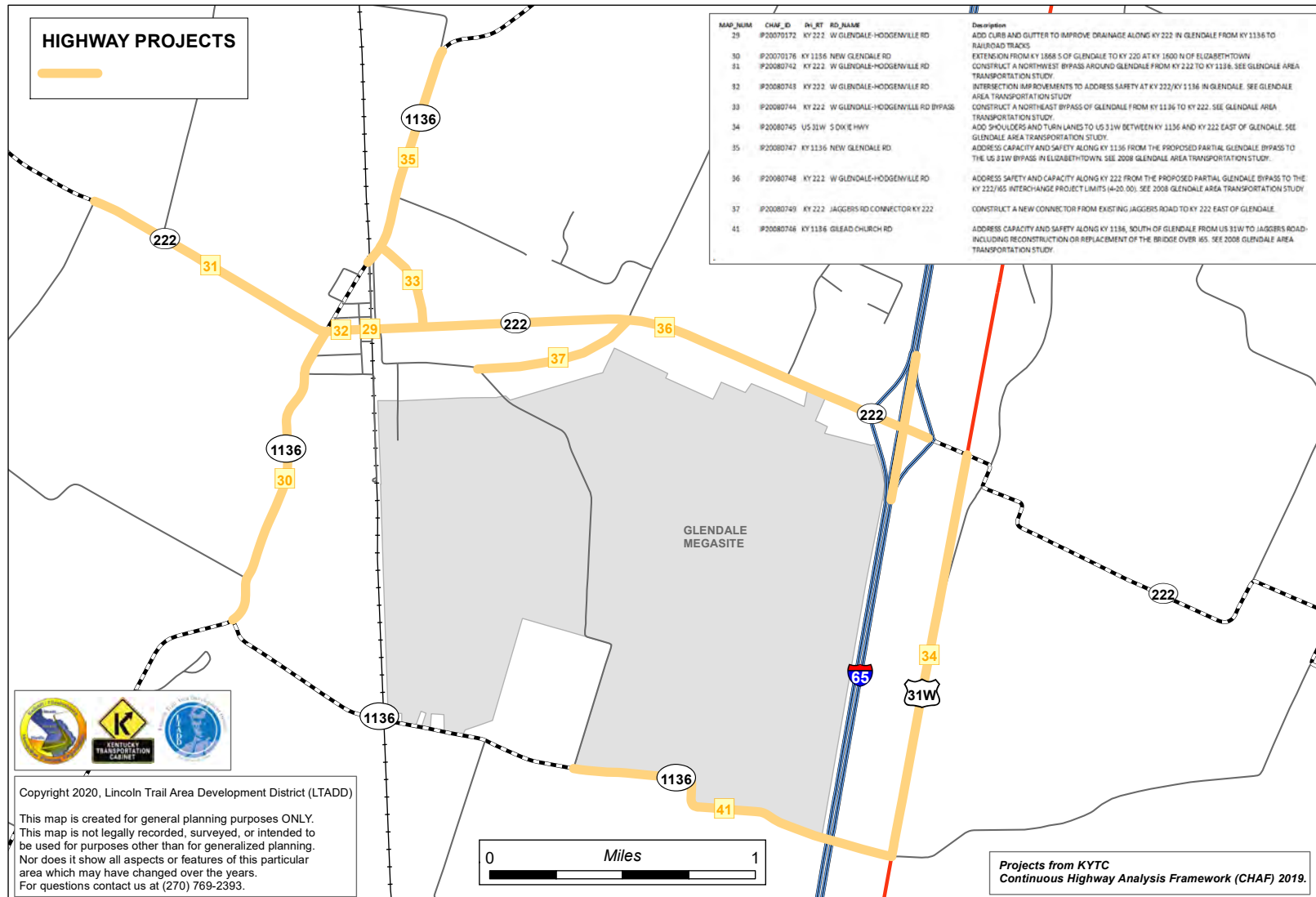
Long Range Highway Improvements

As the plant expands, additional development occurs, and employment increases, the roadway infrastructure will also need additional improvements:

ROUTE	DESCRIPTION	ESTIMATED COST
US 31W	IMPROVE/WIDEN US 31W FROM WESTERN KENTUCKY PARKWAY/LINCOLN PARKWAY INTERSECTION TO KY 222 IN GLENDALE	TBD
US 31W	IMPROVE/WIDEN US 31W FROM KY 222 TO GILEAD CHURCH ROAD	\$14,900,000
KY 1136	IMPROVE KY 1136 (GILEAD CHURCH ROAD) ALL THE WAY WEST TO NEW GLENDALE ROAD, INCLUDE RECONSTRUCTION OF THE CSX RAILROAD CROSSING	TBD
KY 1136	IMPROVE NEW GLENDALE ROAD FROM ITS INTERSECTION WITH KY222, SOUTH TO GILEAD CHURCH ROAD	TBD
KY 222	KY 222 IMPROVEMENTS FROM KY 1136 WEST TO US 62	TBD



Figure X: Highway Projects



GLENDALE AREA TRANSPORTATION STUDY - 2020 UPDATE

CHAF HIGHWAY PROJECTS

## Recommendations Outside of Study Area

When an industry is located on the mega site, the traffic generated will create a strong need for Ring Road in Elizabethtown to be extended to I-65, and ultimately to US 31W. At present time, Ring Road has been extended to the Western Kentucky (WK) Parkway. There are three corridors under evaluation by KYTC to continue the Ring Road extension to I-65. This extension will connect the existing industrial areas in Elizabethtown to the interstate as well as provide access for a reserved industrial corridor between the WK Parkway and I-65.

Further, the Ring Road Extension will increase the connectivity of the plant to the local roadway system, facilitating freight movement to and from the interstate. This improvement will also allow KY 1136 (New Glendale Road) to better serve as an alternate route to I-65 during incidents on the interstate.

## Conclusion

The south-central section of Hardin County has a tremendous asset in the Glendale Mega site. Strategically located in the I-65 corridor, the site is well suited to be a manufacturing, final point of assembly, or other facility that uses roadway and/or railway modes for shipping and receiving freight.

With the proper infrastructure in place, the site will better blend into the surrounding rural area without compromising area mobility. This report sets forth short-, medium-, and long-range projects that can be constructed over time to distribute costs, making the plan fiscally responsible, and scalable to grow as development grows.