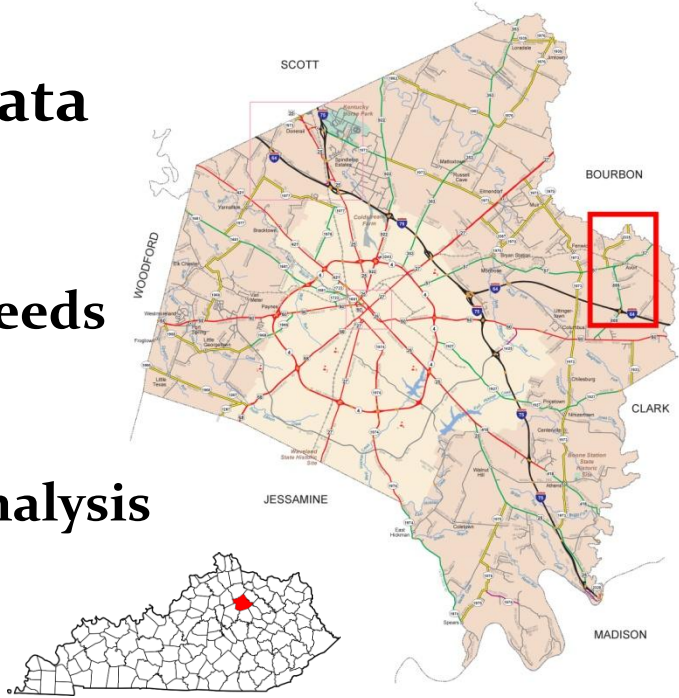


Data

Needs

Analysis



MP 2.100
End Project

Lexington Blue Grass Army Depot

MP 0.000
Begin Project

Fayette County, KY 2335
Houston Antioch Road / Ware Road
Item No. 7-415.00

Prepared by
KYTC District 7 Planning

November 5, 2015

I. PRELIMINARY PROJECT INFORMATION

County:	Fayette	Item No.:	7-415.00
Route Number(s):*	KY 2335	Road Name:	Ware Road
Program No.:		UPN:	(Function) 034 2335 000-002
Federal Project No.:	N/A	Type of Work:	Safety

2014 **Highway Plan Project Description:**

Improve roadway typical section and pavement on KY 2335 (Ware Road) from KY 57 (Briar Hill Road) to Northern Entrance to Lexington Blue Grass Army Depot.

Beginning MP:	0	Ending MP:	2.1	Project Length:	2.1
In TIP:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Reconcile Project Information in Clearview			
State Class.:	<input type="checkbox"/> Primary <input checked="" type="checkbox"/> Secondary	Route is on:	<input type="checkbox"/> NHS <input type="checkbox"/> NN <input type="checkbox"/> Ext Wt		
Functional Class.:	<input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural <input type="checkbox"/> Local	Truck Class.:	A	% Trucks:	
MPO Area:	Lexington	Terrain:	Rolling		
ADT (current):	1308 (0-0.691) [2014] 264 (0.691-2.1) [2013]		AA (0-0.578)		
Access Control:	<input type="checkbox"/> None <input checked="" type="checkbox"/> Permit <input type="checkbox"/> Fully Controlled <input type="checkbox"/> Partial Spacing: <input type="text"/>				
Median Type:	<input checked="" type="checkbox"/> Undivided <input type="checkbox"/> Divided (Type): <input type="text"/>				
Existing Bike Accommodations:	Shared Lane		Ped:	<input type="checkbox"/> Sidewalk	
Posted Speed:	<input type="checkbox"/> 35 mph <input type="checkbox"/> 45 mph <input type="checkbox"/> 55 mph <input checked="" type="checkbox"/> Other (Specify): Not Posted.				
KYTC Guidelines Preliminarily Based on :	30/40 MPH Proposed Design Speed				

COMMON GEOMETRIC PRACTICES**

Roadway Data***:	EXISTING	30 [264]***	40 [1308]	
No. of Lanes	2	2	2	Existing Rdwy. Plans available? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Year of Plans: <input type="text"/>
Lane Width	11' - 7'	9'	11'	
Shoulder Width	3'	2'	6'	<input type="checkbox"/> Traffic Forecast Requested Date Requested: <input type="text"/>
Max. Superelevation***	2.00%	8%	8%	
Minimum Radius***	380'	214'	444'	<input type="checkbox"/> Mapping/Survey Requested Date Requested: <input type="text"/>
Maximum Grade	13%	10%	10%	
Minimum Sight Dist.		200'	305'	Type: <input type="text"/>
Sidewalk Width(urban)	N/A	N/A	N/A	
Clear-zone [†]		7'	14'	

Project Notes/Design Exceptions?

Bridge No.: [‡]	(Bridge #1)	(Bridge #2)	
Sufficiency Rating			Existing Geotech Data Available? <input type="checkbox"/> Yes <input type="checkbox"/> No
Total Length			
Width, curb to curb			Detour Length(s): <input type="text"/>
Span Lengths			
Year Built			
Posted Weight Limit			
Structurally Deficient?			
Functionally Obsolete?			
Existing Bridge Type			

*If more than one road is included in the project, include additional sheets.
 **Based on proposed Design Speed
 ***AASHTO's A Policy on Geometric Design of Highways and Streets
 †AASHTO's Roadside Design Guide
 ‡If more than two bridges are located on the project, include additional sheets.

II. PROJECT PURPOSE AND NEED

A. Legislation

The following funding was listed in the 2014 General Assembly's Enacted Highway Plan. Funding available in the current biennium is for Design, Right of Way & Utilities.

<i>Funding</i>	<i>Phase</i>	<i>Year</i>	<i>Amount</i>
SPP	D	2014	\$1,500,000
SPP	R	2016	\$4,000,000
SPP	U	2016	\$1,000,000
SPP	C	2018	\$5,000,000

B. Project Status

This project was originally #20 on the 2011 District Transportation Plan (DTP), along with projects #18 & #19 in the same region for repair of the roadways supporting the Lexington Blue Grass Army Depot in advance of a major facility expansion by Lockheed Martin. This project was picked up in the 2012 Highway Plan and the other 2 projects were combined into one project (#23) in the 2013 DTP and also included in the 2015 DTP (#92). The Lockheed Martin facility expansion has not happened and is unlikely to happen in the near future. Regardless, there is still substantial truck traffic in this area and this project will be an enhancement for all users. Currently, all phases are estimated and have good funding sources. Design is scheduled to begin in 2016.

C. System Linkage

KY 2335 is federally Functionally Classified as Local on the Kentucky Rural Secondary System. It provides access to the northern entrance to the Lexington Blue Grass Army Depot and services several defense contractors, including Lockheed Martin. It is near the Bourbon County community of Clintonville. Bluegrass Station has been historically a federal facility housing computer facilities for the US Government, but is now utilized by several defense contractors.

D. Modal Interrelationships

As a local rural roadway, there is low intermodal interaction, with no LexTran bus service, no dedicated bicycle or pedestrian facilities & no known bicycle or pedestrian planning for this area. There is an at-grade rail crossing of a Class III railroad (RJ Corman's RJCC Line) at MP 0.482. Also, Bourbon County Schools traverse this area as part of their school bus routes.

E. Social Demands & Economic Development

There has not been any residential growth along this corridor, but its proximity to the nearby interstate & Blue Grass Station Army Depot increases the possibility of commercial growth. More job opportunities would be available if any of the defense contractors expanded their operations at Lexington Blue Grass Army Depot, as Lockheed Martin once considered, which led to the conception of this current project.

II. PROJECT PURPOSE AND NEED (cont.)

F. Transportation Demand

Recent traffic counts show an AADT of 1308 (2014) until MP 0.691, where it drops to an AADT of 264 (2013) until the Fayette/Bourbon County Line (MP 2.201). This section of road is approximately 4 miles from Interstate 64 via KY 859 (Haley Road) and KY 57 (Briar Hill Road). As a state secondary route, Briar Hill Road has a 9+ truck percentage and an AADT of 844. The last 20 years of AADT data shows that the low volume (AADT<400) portion of KY 2335 (MP 0.691-2.201) has remained steady with only low volume counts. The other portion of KY 2335 (MP 0 -0.691) had steady growth from 1994 to 2011, peaking at 1800, but has averaged out to 1308. The slow economy, reduction in military spending & higher fuel prices has kept expansion in check in this area. Therefore, traffic volumes are not expected to change drastically in the next few years.

G. Capacity

There are no capacity issues along this corridor with V/SF around 0.08.

H. Safety

The CRF (Critical Rate Factor) ranges from 0.748 near KY 57 & along the first mile of this segment to 1.614 along the second mile of the segment. There were 3 total collisions from October 1, 2012 until September 30, 2015 with none of them being injury or fatality crashes. 2 collisions were single vehicle crashes with animals; the other was a rear end collision. Please refer to Exhibit 2 for crash locations.

I. Roadway Deficiencies

This section of roadway has not been upgraded except for 1" bituminous resurfacing in 2008 of the first 0.691 miles of the route. Due to very heavy truck traffic, the roadway surface has suffered extreme wear & tear along many portions of this route (IRI Roughness >200 in many sections of this route; latest maintenance report surface condition listed as POOR for entire route). This section was built with 11' [MP 0-0.691], 7' [MP 0.691-1.654] & 8' [MP 1.654-2.1] lanes with 3' earth/composition shoulders. KYTC's Common Geometric Practices for Rural Locals recommends 11' lanes with 6' shoulders (or, for low volume roads with AADT<400, 9' lanes with 2' shoulders). There are 6 deficient horizontal curves (Class D or worse), but no significant vertical curve (stopping sight distance) or drainage issues along this corridor. The section truck weight class is AA (62,000 lbs. limit) [MP 0-0.578] up to the rear gate of Blue Grass Army Depot, where it transitions to A (44,000 lbs.) [MP 0.578-2.1].

III. PRELIMINARY ENVIRONMENTAL OVERVIEW	
A. Air Quality	
Project is in: <input checked="" type="checkbox"/> Attainment area <input type="checkbox"/> Nonattainment or Maintenance Area <input type="checkbox"/> PM 2.5 County	
STIP Pg.#: N/A	TIP Pg.#:
Project is not in STIP as it is state funded. Fayette County is in attainment for all monitored pollutants.	
B. Archeology/Historic Resources	
<input type="checkbox"/> Known Archeological or Historic Resources are present	
If federal funding is used, Historic and Archaeology Checklist or Phase I survey will need to be completed in order to rule out any impacts to historic or archaeological sites. This may be done in house or contracted out, depending on time and available resources. If state funding remains, S106 clearances would only be needed in the jurisdictional permitted areas.	
C. Threatened and Endangered Species	
American Burying Beetle, Indiana Bat, Gray bat, Northern Long Eared bat, and running buffalo clover are listed as federally endangered in Fayette Co. Short's Bladderpod is considered a candidate. During a site visit in August 2014 potential bat foraging habitat was observed for the bat species in the project area; however a Habitat Assessment will need to be conducted to examine the habitat potential more closely. A Biological Assessment may also be needed. Indiana and NLEB bat summer roost trees may be impacted if trees are cut. A HA will be needed for RBC, however, the shading and disturbance regime needed for RBC did not appear present. American Burying Beetle is considered extirpated. Any impacts to threatened and endangered species must be mitigated for through coordination with USFWS. If state funding remains, S7 clearance would only be needed in the jurisdictional permitted areas.	
D. Hazardous Materials	
<input type="checkbox"/> Potentially Contaminated Sites are present <input checked="" type="checkbox"/> Potential Bridge or Structure Demolition	
No known or potentially contaminated sites were noted on the site visit.	
E. Permitting	
Check all that may apply: <input checked="" type="checkbox"/> Waters of the US <input type="checkbox"/> MS4 area <input checked="" type="checkbox"/> Floodplain Impacts <input type="checkbox"/> Navigable Waters of the US Impacts	
Are 401/404 Permits likely to be required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Impacts to: <input type="checkbox"/> Wetlands <input checked="" type="checkbox"/> Stream/Lake/Pond	
<input checked="" type="checkbox"/> ACE LON <input type="checkbox"/> ACE NW <input type="checkbox"/> ACE IP <input type="checkbox"/> DOW IWQC <input type="checkbox"/> Special Use Waters	
There appears to be one or two streams that potentially could be impacted. The need for permits will be addressed further in the design process.	
F. Noise	
Are existing or planned noise sensitive receptors adjacent to the proposed project? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is this considered a "Type I Project" according to the KYTC Noise Analysis and Abatement Policy? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If federal funding is used, the scope of the project may require noise analyses if additional lanes of traffic are planned for this project. However, the location was rural and receivers were not noted. The noise associated with construction and demolition will be temporary.	
G. Socioeconomic	
Check all that may apply: <input type="checkbox"/> Low Income/Minority Populations affected <input type="checkbox"/> Relocations <input checked="" type="checkbox"/> Local Land Use Plan available	
It is unknown at this time if there will be socioeconomic impacts. This will be addressed as the design progresses if a CE is needed for federal funding.	
H. Section 4(f) or 6(f) Resources	
The following are present on the project: <input type="checkbox"/> Section 4(f) Resources <input type="checkbox"/> Section 6(f) Resources	
There are no known 4(f) or 6(f) resources at this time, though there are possible historic structures in the viewshed.	
Anticipated Environmental Document:	None (Completely State funded) ▼

IV. PROJECT SCOPING, NEEDS & PURPOSE

A. Scoping & Need:

KY 2335 is a Rural Local road bordering a federal facility utilized by Lockheed Martin & similar companies whose business is primarily contract defense purposes. It is necessary to upgrade the narrow two-lane rural secondary road to provide support to the existing truck traffic at the Blue Grass Army Depot in Avon, KY. Currently a typical rural road, it has only 7 to 11 ft lanes, 3 ft shoulders and an inadequate roadway section or pavement depth to sustain current & expected truck traffic servicing the facility. Primary need is to widen and improve both the section and structural pavement to meet the KY Geometric Design Standards for its expected use & enhance safety for all users.

B. Draft Project Purpose:

The purpose of this study is to address geometric deficiencies, improve mobility, safety and connectivity on KY 2335 (Ware Road) from KY 57 (Briar Hill Road) to the northern entrance to Lexington Blue Grass Army Depot. The need for the project is to upgrade the narrow inadequate roadway section and its pavement for its expected use and enhance safety for all users.

V. PROJECT ESTIMATE & METHODOLOGY		
Estimate Methodology:	Current Estimate	
The cost estimates are derived from similar projects within the district, assuming similar typical section and costs/mile.	<u>Phase</u>	<u>Estimate</u>
	Planning	
	Design	[2014] \$1,500,000
	R/W	[2016] \$4,000,000
	Utilities	[2016] \$1,000,000
	Const	[2018] \$5,000,000
	Total	\$11,500,000

VI. UTILITIES POTENTIALLY AFFECTED - CONTACT INFORMATION

Company Name -	Windstream KY East, Inc.
Contact -	Mr. Steve Johnson
Address -	130 W New Circle Rd, Ste 170, Lexington, KY
Phone No. -	859-357-6209
Company Name -	Time Warner Cable
Contact -	Ralph McDonie
Address -	2544 Palumbo Dr, Lexington, KY
Phone No. -	859-514-2417
Company Name -	Winchester Municipal Utilities
Contact -	
Address -	150 N Main St, Winchester, KY 40392
Phone No. -	859-744-5434
Company Name -	Deltan Natural Gas Company
Contact -	Mr. Craig Mitchell
Address -	3617, Lexington, KY 40391
Phone No. -	859-744-6171
Company Name -	KY American Water Company
Contact -	Mr. Adam Tilley
Address -	2300 Richmond Rd, Lexington, KY 40502
Phone No. -	859-335-3416
Company Name -	Judy Water
Contact -	Mr. Billy Ray Fawns
Address -	2010 Maysville Rd, PO Box 781, Mt. Sterling KY 40353
Phone No. -	859-498-4809
Company Name -	Clark Energy Cooperative
Contact -	Mr. Todd Peyton
Address -	2640 Iron Works Rd, PO Box 748, Winchester, KY 40392
Phone No. -	859-901-9236
Company Name -	AT&T Kentucky
Contact -	
Address -	894 E Main St, Georgetown, KY
Phone No. -	502-867-8240
Company Name -	Columbia Gas of KY, Inc.
Contact -	Mr. Mark McCullough
Address -	2001 Mercer Rd, Lexington, KY 40512
Phone No. -	
Company Name -	LGE/Kentucky Utilities Co.
Contact -	Mr. Greg Geiser
Address -	820 W Broadway, PO Box 32020, Louisville, KY 40202-2020
Phone No. -	

VII. TABLES AND EXHIBITS

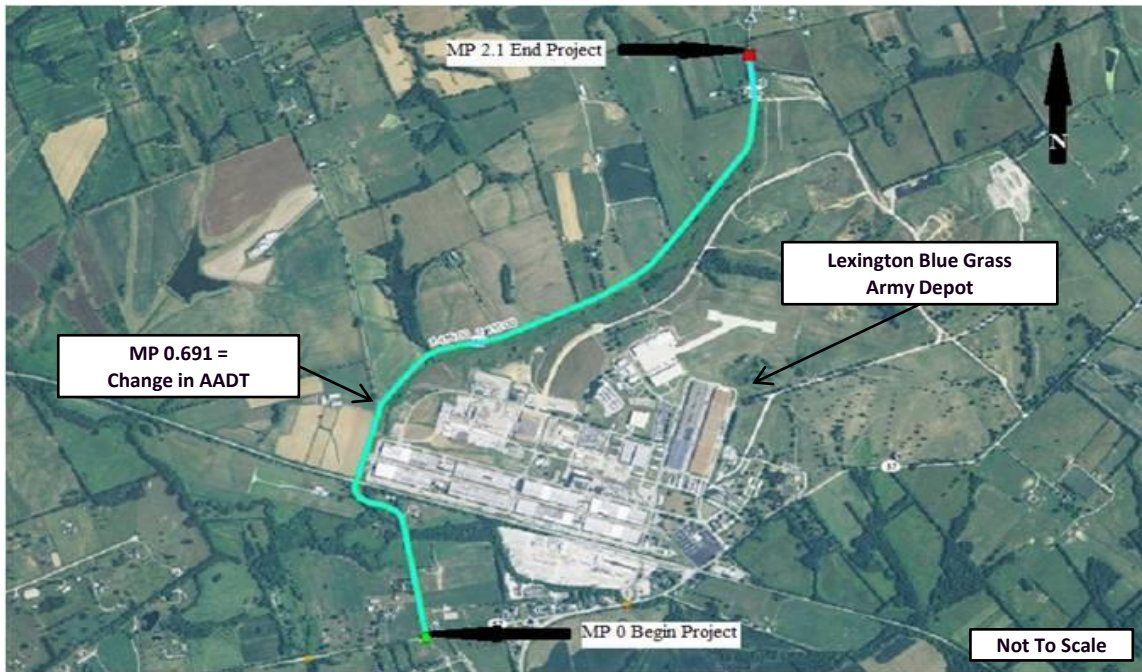


Exhibit 1: PROJECT LOCATION MAP

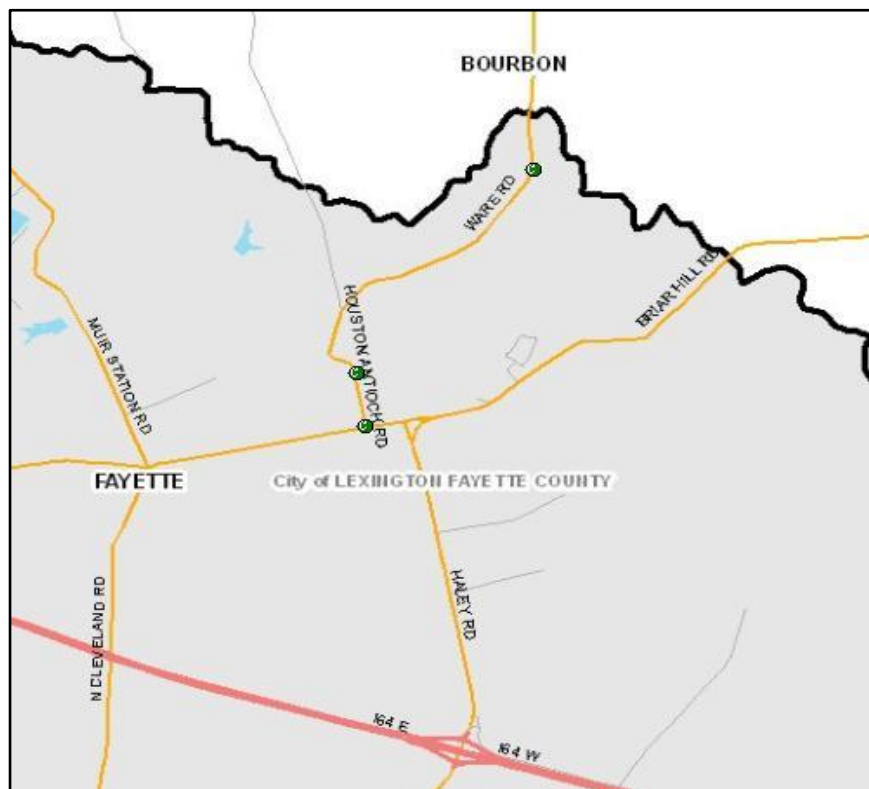


Exhibit 2: CRASH LOCATIONS (Oct 2012 – Sep 2015) MAP

VII. TABLES AND EXHIBITS (cont.)



Exhibit 3: ADDITIONAL PROJECT SITE PHOTOS