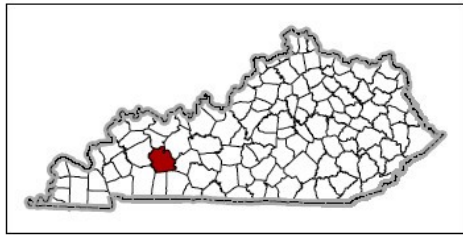
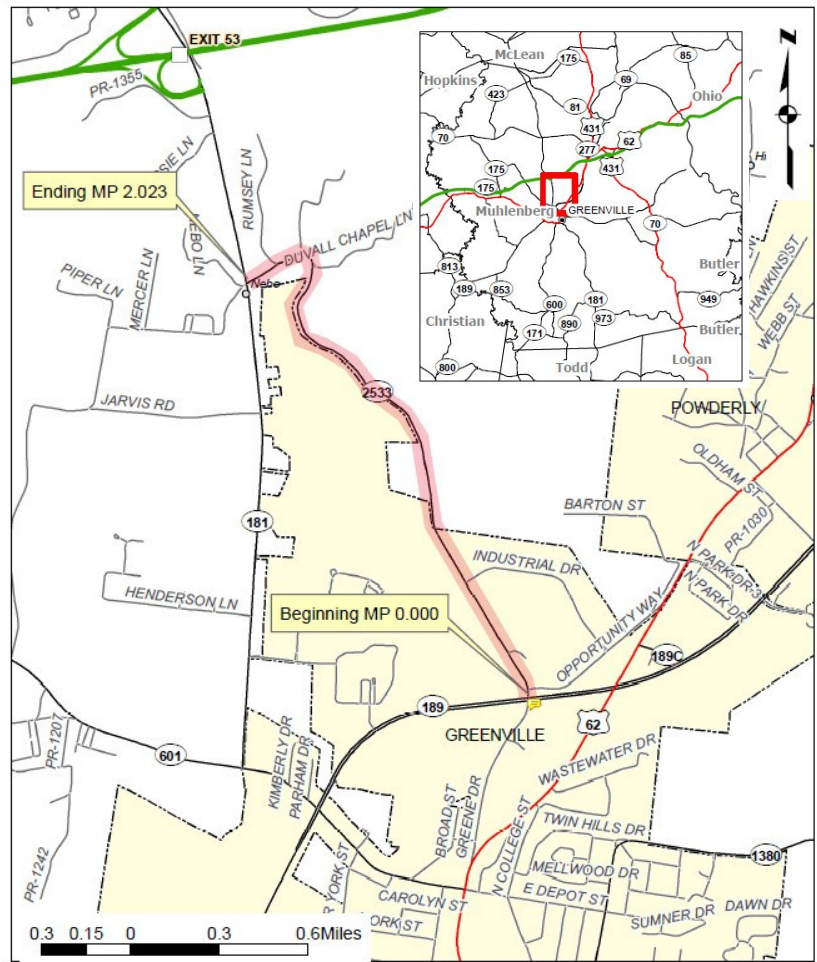


# Data Needs Analysis



## Scoping Study



Straighten Dean Rd (KY 2533) from the intersection with KY 189 north to the intersection with KY 181.

Muhlenberg County

Item No. **2-8803**

Prepared by

KYTC District 2 Planning

June 2021



I. PRELIMINARY PROJECT INFORMATION			
<b>County:</b>	Muhlenberg	<b>Item No.:</b>	2-8803.00
<b>Route Number(s):*</b>	KY 2533	<b>Road Name:</b>	Dean Road
<b>Program No.:</b>	135730	<b>UPN:</b>	FD52 089 2533 000-003
<b>Federal Project No.:</b>	STP 9031031	<b>Type of Work:</b>	Reconstruction
2020 Highway Plan Project Description:			
Straighten Dean Road intersection of KY 189 Bypass North near the intersection with the WKY Parkway, Wendell Ford National Guard Center, and Job Corp. (14CCN)(18CCN)(2020CCR)			
<b>Beginning MP:</b>	0	<b>Ending MP:</b>	2.023
		<b>Project Length:</b>	2.023
<b>In TIP:</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No		
<a href="#">Reconcile Project Information in Clearview</a>			
<b>State Class.:</b>	<input type="checkbox"/> Primary <input checked="" type="checkbox"/> Secondary	<b>Route is on:</b>	<input type="checkbox"/> NHS <input type="checkbox"/> NN <input type="checkbox"/> Ext Wt
<b>Functional Class.:</b>	<input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural <input type="checkbox"/> Local	<b>Truck Class.:</b>	A % Trucks: 0
<b>MPO Area:</b>	Not Applicable	<b>Terrain:</b>	Rolling
<b>ADT (current):</b>	1637 2019		
<b>Access Control:</b>	<input type="checkbox"/> None <input checked="" type="checkbox"/> Permit <input type="checkbox"/> Fully Controlled <input type="checkbox"/> Partial Spacing:		
<b>Median Type:</b>	<input checked="" type="checkbox"/> Undivided <input type="checkbox"/> Divided (Type):		
<b>Existing Bike Accommodations:</b>	Shared Lane	<b>Ped:</b>	<input type="checkbox"/> Sidewalk
<b>Posted Speed:</b>	<input type="checkbox"/> 35 mph <input type="checkbox"/> 45 mph <input checked="" type="checkbox"/> 55 mph <input type="checkbox"/> Other (Specify):		
<b>KYTC Guidelines Preliminarily Based on :</b> 40 MPH Proposed Design Speed			
COMMON GEOMETRIC			
<b>Roadway Data:</b>	EXISTING	PRACTICES**	
No. of Lanes	2	2	<a href="#">Existing Rdwy. Plans available?</a> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Year of Plans:
Lane Width	9ft	10'	
Shoulder Width	3ft	3	<input type="checkbox"/> <a href="#">Traffic Forecast Requested</a> Date Requested: NA
Max. Superelevation***		485	
Minimum Radius***		10%	<input type="checkbox"/> Mapping/Survey Requested Date Requested:
Maximum Grade		305	
Minimum Sight Dist.		25ft	Type:
Sidewalk Width(urban)			
Clear-zone <sup>†</sup>			
Project Notes/Design Exceptions?			
<b>Bridge No.:</b> <sup>‡</sup>	(Bridge #1)	(Bridge #2)	
Sufficiency Rating			<a href="#">Existing Geotech Data Available?</a> <input type="checkbox"/> Yes <input type="checkbox"/> No
Total Length			
Width, curb to curb			Detour Length(s):
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**

This project received funding in the 2020 Highway Plan.

<i>Funding</i>	<i>Phase</i>	<i>Year</i>	<i>Amount</i>
SPP	D	2021	\$780,000
SPP	R	2023	\$560,000
SPP	U	2023	\$850,000
SPP	C	2024	\$7,020,000

**B. Project Status**

Design funds have been requested. Project is expected to be advertised in August.

**C. System Linkage**

This route connects KY 181 near the Western Kentucky Parkway to KY 189 between Greenville and Central City.

**D. Modal Interrelationships**

This route does not provide direct access to a multimodal facility such as a riverport, airport or rail facility.

**E. Social Demands & Economic Development**

Ky 2533 carries primarily residential traffic but does serve 3 churches and some local businesses.

**II. PROJECT PURPOSE AND NEED (cont.)**

**F. Transportation Demand**

The last actual traffic count for this route was from CTS was 1637 in 2019. this was up slightly from the count in 2016 as shown in the tables and exhibits.

**G. Capacity**

This project would not increase capacity.

**H. Safety**

There were 43 collisions reported during the period of 6/18/2017-6/18/2021. Of these 43 collisions, 9 were shown as in a parking lot. Of the remaining 34 collisions, the majority of the collisions (65%) were single vehicle collisions. Sideswipes from the opposite direction made up 18%. There were 23 collisions that happened during the daylight, 9 at dark and 2 reported at dusk or dawn. Of the 9 that were listed as dark, 8 were on a non lighted section of roadway. Additional information is shown in the Tables and Exhibits section below.

**I. Roadway Deficiencies**

This route is a narrow two lane route with narrow shoulders. It has several sections of poor pavement condition along the route. There are several curves that are Class E( 14-27.9 degree) and Class F (>28 degree).

III. PRELIMINARY ENVIRONMENTAL OVERVIEW	
<b>A. Air Quality</b> Project is in: <input type="checkbox"/> Attainment area <input type="checkbox"/> Nonattainment or Maintenance Area <input type="checkbox"/> PM 2.5 County STIP Pg. #: <input type="text"/> TIP Pg. #: <input type="text"/> No STIP or TIP at this time	
<b>B. Archeology/Historic Resources</b> <input type="checkbox"/> Known Archeological or Historic Resources are present If road is straightened on the north end going up the hill, new ROW would be purchased and archaeology will have to investigated that area	
<b>C. Threatened and Endangered Species</b> Tree mitigation fees may apply and allowed dates of removal will have to be followed. Karst does not exist in area but the geology of the large hill is unknown regarding underground habitat	
<b>D. Hazardous Materials</b> <input type="checkbox"/> Potentially Contaminated Sites are present <input type="checkbox"/> Potential Bridge or Structure Demolition None known at this time. If the road is taken through the large area of forest on the north section, this site will need to be investigated for hazardous materials on that property.	
<b>E. Permitting</b> Check all that may apply: <input type="checkbox"/> Waters of the US <input type="checkbox"/> MS4 area <input type="checkbox"/> Floodplain Impacts <input type="checkbox"/> Navigable Waters of the US Impacts Are 401/404 Permits likely to be required? <input type="checkbox"/> Yes <input type="checkbox"/> No Impacts to: <input type="checkbox"/> Wetlands <input type="checkbox"/> Stream/Lake/Pond <input 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 None	
<b>F. Noise</b> Are existing or planned noise sensitive receptors adjacent to the proposed project? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Is this considered a "Type I Project" according to <a href="#">KYTC Noise Analysis and Abatement Policy?</a> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No No increase except temporary	
<b>G. Socioeconomic</b> Check all that may apply: <input type="checkbox"/> Low Income/Minority Populations <input type="checkbox"/> Relocations <input type="checkbox"/> Local Land Use Plan available No relocations at this time.	
<b>H. Section 4(f) or 6(f) Resources</b> The following are present on the project: <input type="checkbox"/> Section 4(f) Resources <input type="checkbox"/> Section 6(f) Resources None	
Anticipated Environmental Document:	<input type="text" value="CE Level 1"/> ▼

**IV. PROJECT NEED, PURPOSE & SCOPE**

**A. Need:**

This section of roadway connects KY 181 near the Western Ky Parkway to KY 189 near Greenville. KY 2533 is comprised of narrow lanes with little to no shoulder as well as several sharp curves. The pavement along this route is showing a lot of cracking. There are several sections of strip patching. This project is needed to provide a safe route for residential traffic as well those accessing local businesses and churches.

**B. Purpose:**

The purpose of this project is to improve safety and traffic flow by addressing geometric deficiencies and pavement concerns.

**C. Scope:**

To make necessary improvements to Dean Road (KY 2533) from the intersection with KY 189 Bypass north to the KY 181 intersection near the Western Kentucky Parkway. This would include widening, straightening some curves and repairing pavement.

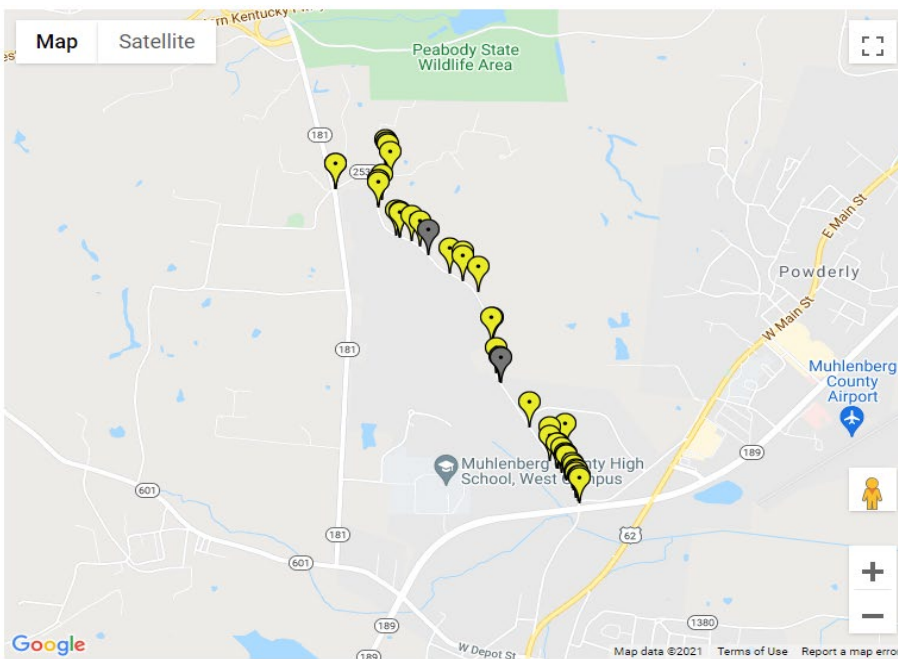
<b>V. PROJECT ESTIMATE &amp; METHODOLOGY</b>	
<b>Estimate Methodology:</b>	<b>Current Estimate</b>
The updated estimates from the CHAF database shown will require additional funds. The total cost is \$1,160,000 over what was shown in the 2020 highway plan.	<u>Phase</u>
	<u>Estimate</u>
	Planning
	Design
	R/W
	Utilities
	Const
<b>Total</b>	<b>10,370,000</b>

<b>VI. UTILITIES POTENTIALLY AFFECTED - CONTACT INFORMATION</b>
<p><b>Atmos Energy</b>                      Contact - Chase Downing                      3275 Highland Pointe Dr.                      (270) 685-8128</p> <p><b>Kentucky Utilities Company</b>                      Contact - Keith T. Marks                      195 Hubert Reid Drive                      Earlington, KY 42410                      Office 270-383-6000                      Cell 270-871-8709                      Fax 270-383-6004</p> <p><b>AT&amp;T</b>                      Contact - Scott Roche                      1340 E John Rowan Blvd.,                      Bardstown, KY 40004                      (502) 348-4528</p> <p><b>Spectrum</b>                      Contact - Justin Sturgeon                      250 Madison Square Dr                      Madisonville, KY 42431                      (812) 253-2767</p> <p><b>Muhlenberg County Water District</b>                      Contact - Kurt Sarnecke                      301 Dean Rd.                      Greenville, KY 42345                      Office: 270-338-1300                      Cell: 270-977-0307</p> <p><b>Muhlenberg County Water District #3</b>                      Contact - Ben Tooley                      4815 Main Street                      Bremen, KY 42325                      270-525-6333</p>



VII. TABLES AND EXHIBITS

Collision Data 6/18/2017- 6/18/2021  
43 Total Collisions

IncidentID	County	RoadNumber	Street	RoadwayName	StreetRt	Weather	RoadConditionCode	DescriptionCode	Maneuver/Condition	LightCondition
26242600	MUHENBERG	KY2533	300	DEAN	RD	CLEAR	DRY	COLLISION IN PARKING LOT	BACHING	DAYLIGHT
26137008	MUHENBERG	KY2533		DEAN	RD	CLOUDY	DRY	COLLISION IN PARKING LOT	BACHING	DAYLIGHT
26253388	MUHENBERG	KY2533	575	KY2533		CLOUDY	DRY	SIDEWIFE COLLISION - OPPOSITE DIRECTION	SIDEWIFE-OPPOSITE DIRECTION	DAYLIGHT
26025373	MUHENBERG	KY2533	275	DEAN	RD	RAINING	WET	RAN OFF ROADWAY (I VEHICLE WITH/EARTH EMBANKMENT/DITCH)	SINGLE VEHICLE	DAYLIGHT
26011866	MUHENBERG	KY2533		DEAN	RD	CLOUDY	DRY	COLLISION WITH FKED OBJECT NON - INTERSECTION - FIRST EVENT COLLISION 09 - 32 EXCLUDING 36	SINGLE VEHICLE	DARK-HWY NOT LIGHTED
27564430	MUHENBERG	KY2533		DEAN	RD	RAINING	WATER (STANDING OR MOVING)	RAN OFF ROADWAY (I VEHICLE WITH/EARTH EMBANKMENT/DITCH)	SINGLE VEHICLE	DARK-HWY NOT LIGHTED
27943757	MUHENBERG	KY2533		DEAN	RD	SEVERE CROSSWINDS	DRY	SIDEWIFE COLLISION - OPPOSITE DIRECTION	SIDEWIFE-OPPOSITE DIRECTION	DAYLIGHT
26005069	MUHENBERG	KY2533		DEAN	RD	SEVERE CROSSWINDS	DRY	SIDEWIFE COLLISION - OPPOSITE DIRECTION	SIDEWIFE-OPPOSITE DIRECTION	DAYLIGHT
27803465	MUHENBERG	KY2533		DEAN	RD	CLOUDY	WET	COLLISION IN PARKING LOT	BACHING	DAYLIGHT
27940227	MUHENBERG	KY2533	300	DEAN	RD	CLOUDY	DRY	COLLISION WITH FKED OBJECT NON - INTERSECTION - FIRST EVENT COLLISION 09 - 32 EXCLUDING 36	SINGLE VEHICLE	DAYLIGHT
27559317	MUHENBERG	KY2533	275	KY2533		CLEAR	DRY	COLLISION WITH ANIMAL NON INTERSECTION	SINGLE VEHICLE	DAYLIGHT
27245047	MUHENBERG	KY2533		DEAN	RD	RAINING	WET	COLLISION WITH FKED OBJECT NON - INTERSECTION - FIRST EVENT COLLISION 09 - 32 EXCLUDING 36	SINGLE VEHICLE	DAYLIGHT
27314616	MUHENBERG	KY2533		DEAN	RD	RAINING	WET	SIDEWIFE COLLISION - OPPOSITE DIRECTION	SIDEWIFE-OPPOSITE DIRECTION	DAYLIGHT
27200921	MUHENBERG	KY2533		DEAN	RD	RAINING	WET	HEAD-ON COLLISION	HEAD ON	DAYLIGHT
27091405	MUHENBERG	KY2533		DEAN	RD	RAINING	WET	I VEHICLE ENTERING/LEAVING ENTRANCE	ANGLE	DAYLIGHT
26653308	MUHENBERG	KY2533		DEAN	RD	RAINING	WET	COLLISION WITH ANIMAL NON INTERSECTION	SINGLE VEHICLE	DAYLIGHT
26703580	MUHENBERG	KY2533		DEAN	RD	RAINING	WET	RAN OFF ROADWAY (I VEHICLE WITH/EARTH EMBANKMENT/DITCH)	SINGLE VEHICLE	DAYLIGHT
26520710	MUHENBERG	KY2533		DEAN	RD	RAINING	WET	RAN OFF ROADWAY (I VEHICLE WITH/EARTH EMBANKMENT/DITCH)	SINGLE VEHICLE	DUEK
25914122	MUHENBERG	KY2533		DEAN	RD	RAINING	WET	OTHER ROADWAY OR MD-BLOCK COLLISION	REAR END	DAYLIGHT
25305389	MUHENBERG	KY2533		DEAN	RD	RAINING	WET	OTHER INTERSECTION COLLISION	REAR END	DAYLIGHT
25553485	MUHENBERG	KY2533	301	DEAN	RD	RAINING	WET	I VEHICLE PARKED POSITION (NOT PARKING LOT/DRIVEWAY)	BACHING	DAYLIGHT
25027394	MUHENBERG	KY2533	1301	KY2533		RAINING	WET	COLLISION WITH FKED OBJECT NON - INTERSECTION - FIRST EVENT COLLISION 09 - 32 EXCLUDING 36	SINGLE VEHICLE	DAYLIGHT
24994004	MUHENBERG	KY2533		DEAN	RD	RAINING	WET	OTHER COLLISION OTHER COLLISION	SINGLE VEHICLE	DARK-HWY NOT LIGHTED
24892304	MUHENBERG	KY2533	300	DEAN	RD	RAINING	WET	COLLISION IN PARKING LOT	BACHING	DAYLIGHT
24848540	MUHENBERG	KY2533		DEAN	RD	RAINING	WET	COLLISION IN PARKING LOT	BACHING	DAYLIGHT
24555022	MUHENBERG	KY2533		DEAN	RD	RAINING	WET	COLLISION WITH FKED OBJECT NON - INTERSECTION - FIRST EVENT COLLISION 09 - 32 EXCLUDING 36	SINGLE VEHICLE	DAYLIGHT
24555095	MUHENBERG	KY2533	975	KY2533		RAINING	WET	COLLISION WITH FKED OBJECT NON - INTERSECTION - FIRST EVENT COLLISION 09 - 32 EXCLUDING 36	SINGLE VEHICLE	DARK-HWY NOT LIGHTED
24487976	MUHENBERG	KY2533	1301	KY2533		RAINING	WET	COLLISION WITH ANIMAL NON INTERSECTION	SINGLE VEHICLE	DARK-HWY NOT LIGHTED
24417440	MUHENBERG	KY2533		DEAN	RD	CLOUDY	WET	RAN OFF ROADWAY (I VEHICLE WITH/EARTH EMBANKMENT/DITCH)	SINGLE VEHICLE	DAYLIGHT
24216074	MUHENBERG	KY2533		DEAN	RD	RAINING	WET	SIDEWIFE COLLISION - OPPOSITE DIRECTION	SIDEWIFE-OPPOSITE DIRECTION	DAYLIGHT
24172251	MUHENBERG	KY2533		DEAN	RD	RAINING	WET	SIDEWIFE COLLISION - OPPOSITE DIRECTION	SIDEWIFE-OPPOSITE DIRECTION	DAYLIGHT
24183083	MUHENBERG	KY2533	1350	KY2533		RAINING	WET	COLLISION WITH ANIMAL NON INTERSECTION	SINGLE VEHICLE	DARK-HWY NOT LIGHTED
24196630	MUHENBERG	KY2533		DEAN	RD	RAINING	WET	OTHER COLLISION OTHER COLLISION	SINGLE VEHICLE	DARK-HWY NOT LIGHTED
23960044	MUHENBERG	KY2533	1301	KY2533		RAINING	WET	COLLISION WITH FKED OBJECT NON - INTERSECTION - FIRST EVENT COLLISION 09 - 32 EXCLUDING 36	SINGLE VEHICLE	DAYLIGHT
23935385	MUHENBERG	KY2533		DEAN	RD	RAINING	WET	COLLISION IN PARKING LOT	BACHING	DAYLIGHT
23402130	MUHENBERG	KY2533		DEAN	RD	RAINING	WET	RAN OFF ROADWAY (I VEHICLE WITH/EARTH EMBANKMENT/DITCH)	SINGLE VEHICLE	DAYLIGHT
23405000	MUHENBERG	KY2533		DEAN	RD	RAINING	WET	VEHICLE BACKING NON INTERSECTION	BACHING	DAYLIGHT
23336379	MUHENBERG	KY2533	605	KY2533		RAINING	WET	COLLISION WITH ANIMAL NON INTERSECTION	SINGLE VEHICLE	DARK-HWY NOT LIGHTED
22139125	MUHENBERG	KY2533		DEAN	RD	RAINING	WET	COLLISION WITH FKED OBJECT NON - INTERSECTION - FIRST EVENT COLLISION 09 - 32 EXCLUDING 36	SINGLE VEHICLE	DAYLIGHT
22002713	MUHENBERG	KY2533	300	DEAN	RD	RAINING	WET	COLLISION IN PARKING LOT	BACHING	DAYLIGHT
22035212	MUHENBERG	KY2533	200	DEAN	RD	RAINING	WET	COLLISION WITH FKED OBJECT NON - INTERSECTION - FIRST EVENT COLLISION 09 - 32 EXCLUDING 36	SINGLE VEHICLE	DAWN
20924740	MUHENBERG	KY2533	300	DEAN	RD	RAINING	WET	COLLISION IN PARKING LOT	BACHING	DAYLIGHT
20882796	MUHENBERG	KY2533	1	KY2533		RAINING	WET	REAR END IN TRAFFIC LANE BOTH VEHICLES MOVING	REAR END	DARK-HWY NOT LIGHTED



Collision Categories:

- Injured 
- Property Damage 



VII. TABLES AND EXHIBITS (cont.)

