

Using Survey123 and Microsoft Flows to Report Potholes

Presenter
Christy Powell, GISP
PDS/LINK-GIS

LINK-GIS Partnership

- **Founding in 1985**
- **PDS is managing partner**

LINK-GIS
A Northern Kentucky Geographic Information System



Partners

Planning and Development Services
Kenton County Fiscal Court
Sanitation District No. 1
Northern Kentucky Water District
Campbell County Fiscal Court
Campbell County PVA
Pendleton County Fiscal Court
Pendleton County PVA

Contributors

City of Covington
City of Cold Spring
Walton Fire District
Campbell County School District
Tri-ED Corporation
Northern Kentucky Health District

Business Clients

Fischer Development Group
Erpenbeck Engineers
Cardinal Engineers

Data Clients

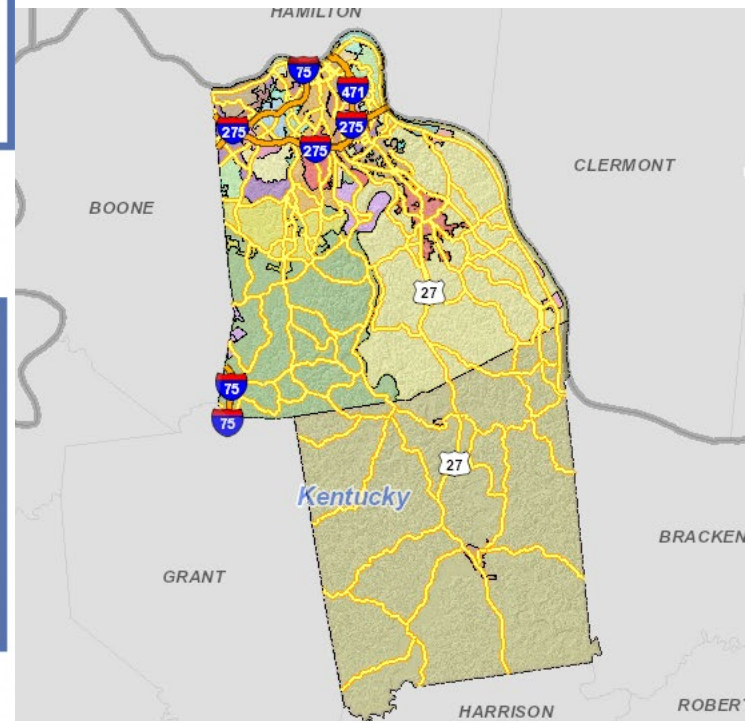
City of Covington*	City of Ludlow *
City of Crescent Springs *	City of Park Hills *
City of Crestview Hills *	City of Ryland Heights *
City of Edgewood *	City of Taylor Mill *
City of Elsmere *	City of Villa Hills *
City of Erlanger	City of Walton *
City of Fort Mitchell *	City of Alexandria
City of Fort Wright *	City of Bellevue
City of Independence *	City of Dayton
City of Kenton Vale *	City of Fort Thomas
City of Lakeside Park *	City of Newport

Northern Kentucky University-Center for Applied Ecology
University of Cincinnati-School of Planning
Thomas More College-Academic Affairs

* One Stop Shop Participant

In Kind Services

Campbell County Conservancy
Diocese of Covington
Kenton County Conservancy
Northern Kentucky Area Development District
OKI- Regional Council of Governments



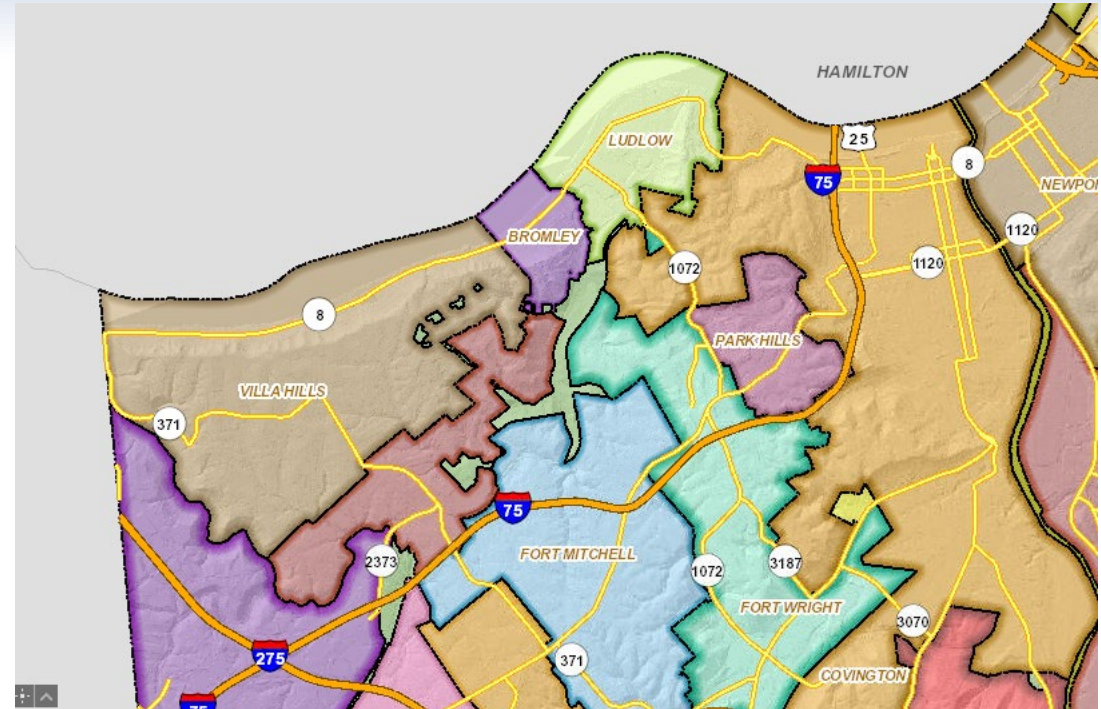
Our Partnership

- **LINK-GIS**
 - **Partnership**
 - **Provides services to cities**
- **Jessica**
 - **Hired by Fiscal Court 2 years ago**
 - **Has background in GIS (not a programmer)**
 - **Looked for opportunities to utilize LINK-GIS**
- **Christy**
 - **Hired by PDS a long time ago**
 - **Is a GIS programmer**
 - **Looks for opportunities to make LINK-GIS useful**

“If you’ll do the programming, I’ll do the politics.”

Kenton County

- 20 cities, state, private and county roads
- Fragmented jurisdictions



Beginning

- **Public Works Director for County request for online reporting**
- **Model from state**

Complications

- Residents don't know who maintains which roads
- Some jurisdictions already have reporting apps
- Ease of use is important since people will be using mobile
- Getting 20 jurisdictions to work together

Discussion Chats Announcements Photos



Terri Lentz

Tuesday at 6:00 PM · 📍

OMG, What is up with the huge pothole on Orphanage Rd. right when you turn off of Dixie? It's right where the semis used to pull in to unload at Remke's and it is a monster. I just noticed it this weekend. It's awful. People swerving all over the place.

👍👎 13

12 Comments



Search in Fort Mitchell KY Nei...



Discussion Chats Announcements Photos



Shayna Blüemlein

March 17 at 3:06 PM · 📍

So legitimate question is there a way to contact the city about damage to your car caused by a pothole?? I hit the one just south of Heritage Bank and it caused a bulge in my tire and now I have a leak in my tire and it needs to be replaced

👍 2

16 Comments

Ownership Map

Public Works

Search... **GO**

- > Fleet Maintenance
- > Solid Waste Management
- > Encroachment Permit
- > Appliance Pickup
- > Projects
- > Road Maintenance

ROAD MAINTENANCE

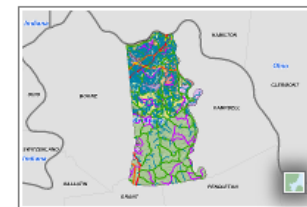
The Planning and Development Services of Kenton County created a Kenton County map that has each road in the County listed with contact information for the municipality responsible for its maintenance.

You are able to zoom in to a desired location or search a specific road using the search bar in the top right corner of the map. Simply click on the road to find out who maintains the route with the proper number to call for any questions regarding the roadway.

Please note: several state roads that have been maintained by Kenton County Public Works for the past several years have now been taken back by the state and are no longer maintained by County Forces.

Street: Royal
 CONTACT NAME: FT. MITCHELL
 CONTACT INFO: 859-331-1212

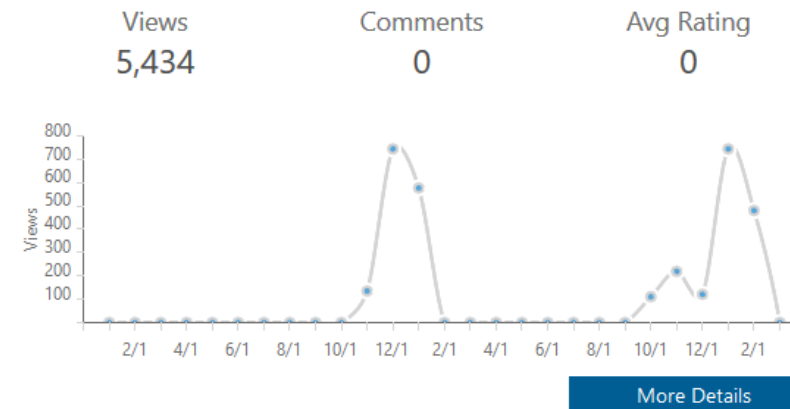
KPCW Road Maintenance



royaldrive
 Created: 2/15/2017
 Modified on: 9/18/2017
 Shared: Public

Item Snippet: map that has each road in the County listed with contact information for the municipality responsible for its maintenance.

Item Usage



Big Picture

What we want...

- **A mobile friendly website**
- **Not-an app**
- **Geolocation available**
- **Low time to complete**
- **Super low-cost**
- **Jurisdictions maintain own contact info**

What we absolutely need...

- **Routed to correct jurisdiction automatically**
- **No knowledge of jurisdiction needed by user**
- **For the user, not government employees**

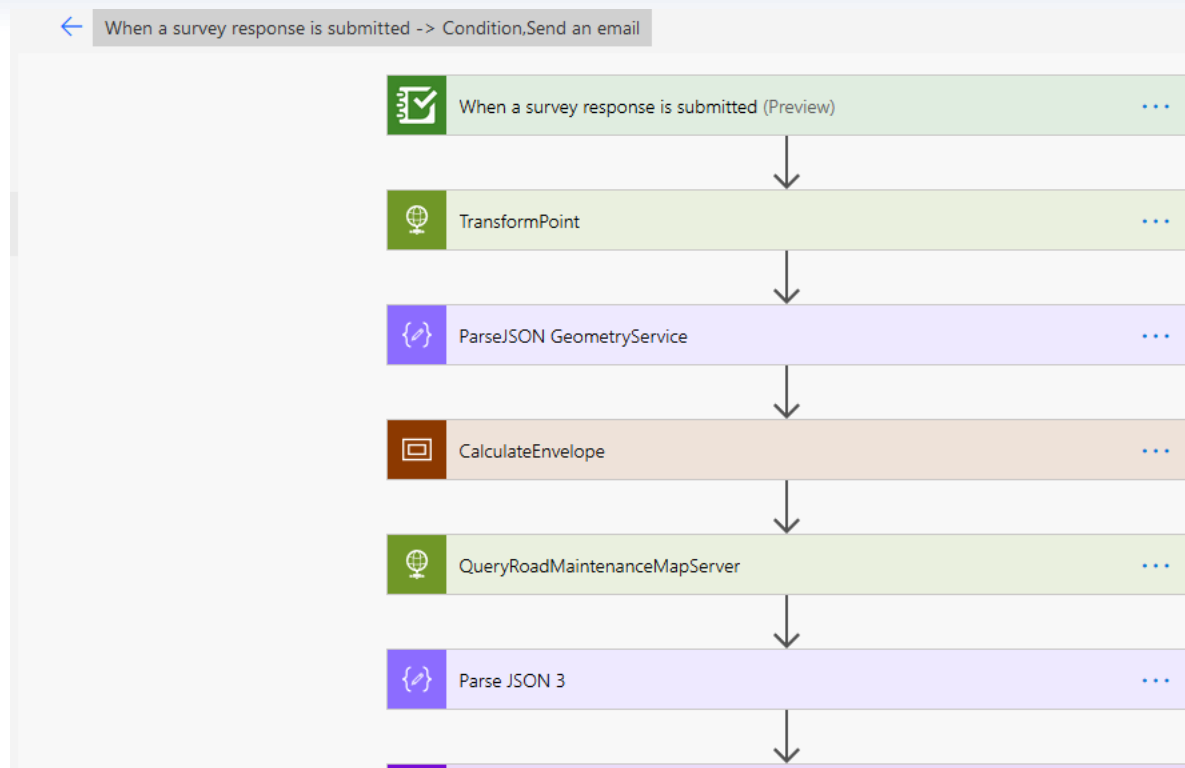
What we used...

- **Survey123 by Esri (end-user)**
- **Microsoft Flows (back-end)**
- **Google docs (contact info for jurisdictions)**

Survey



Flow



Regionalism

Now that the easy part was done...

- **Limit County responsibility**
- **Avoid overstepping**
- **Offer service to all citizens in county**
- **Provide communication channel one stop shop**
- **Identify contact for each jurisdiction**
- **Integrate with pre-existing reporting tools**
- **Avoid scope creep**

Improvements

- **Out of area notifications**
- **Reverse geocode**
- **Response email to submitter**
- **Webpage for information about project**
- **Street light routing**
- **Standing water routing**

Go Live Date: April 23rd (1 week from today)

Questions

cpowell@pdskc.org

PDS/LINK-GIS