

Active Rental Permits and Owners in Newark, DE

A GIS Application

Jay W. Hodny, Ph.D.

GIS Technician, City of Newark

Outline

- Background
 - ▶ 60 second resume
 - ► Newark's Geographic Information System (GIS)
- ► GIS Application Gallery
- Active Rental Permit Application
 - Background
 - Development
 - ► Final Product
- Questions



Background - Jay

- ▶ BS in Anthropology and Geography, University of North Dakota (1984)
 - ▶ Field archaeology in ND, Illinois, Delaware, Maryland, Pennsylvania
- ▶ MS in Geography, PhD in Climatology, University of Delaware (1992, 1998)
- ~25 years in private sector, W. L. Gore & Associates, Inc.
 - ▶ Product Specialist global site assessment service identify contaminated soil and groundwater
 - ▶ Used GIS to make maps of the types and distribution of the contaminants
- ~7 years in the public sector
 - ► Kent County, Dover, Public Works Department GIS
 - ► City of Newark, Public Works and Water Resources Department
 - ▶ <u>GIS Technician</u> Administer the ArcGIS platform (cloud, desktop, on-premise), develop field data collection applications, general GIS map and project support

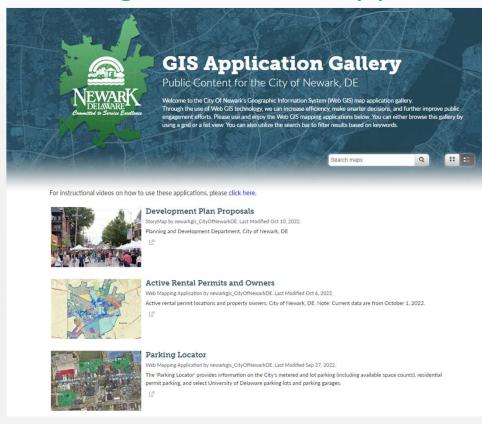


Background – Newark's GIS

- ► Esri's ArcGIS largest geographic information system platform available
 - ▶ Used by governments of all sizes, private, and academic sectors worldwide
- Limited ArcGIS use up until about seven years ago
 - Handful of individual licenses, no centralized geodatabase; stormwater assets, mapmaking in planning
- Invested in an enterprise ArcGIS platform (2015)
 - Server setup, centralized geodatabase (eliminates data duplication)
 - ► ArcGIS Online
 - ► Cloud-based, web GIS platform, public facing
 - ▶ Allows for efficient public sharing of information in map and table form
- ▶ In April 2020, significant upgrade adding ArcGIS for Enterprise
 - ▶ On-premise, web GIS, internal-facing
 - ► Field data collection GIS applications



Background – GIS Application Gallery



GIS Application Gallery (cityofnewarkde.us)

CITY MAPS

https://gis.cityofnewarkde.us/gis/gallery



Addresses, Parcels, Structures, Zoning and Land Use Information Lookup

Web Mapping Application by newarkgis_CityOfNewarkDE. Last Modified Jun 28, 2022.

'Addresses, Parcels, Structures, Zoning, and Land Use Information Lookup' provides parcel-based information.



Zoning District Information Lookup

Web Mapping Application by newarkgis_CityOfNewarkDE. Last Modified Jun 28, 2022.

'Zoning District Information Lookup' provides parcel-based zoning information.



City of Newark Election Polling Places and Council Districts

Web Mapping Application by newarkgis_CityOfNewarkDE. Last Modified Feb 14, 2022.

 ${\it City of Newark election polling places. Includes the Council Districts.}$

La .



Council Districts and Council Members

Web Mapping Application by newarkgis_CityOfNewarkDE. Last Modified Jan 13, 2022.

'Council Districts and Council Members' displays the council district boundaries and provides council member information.

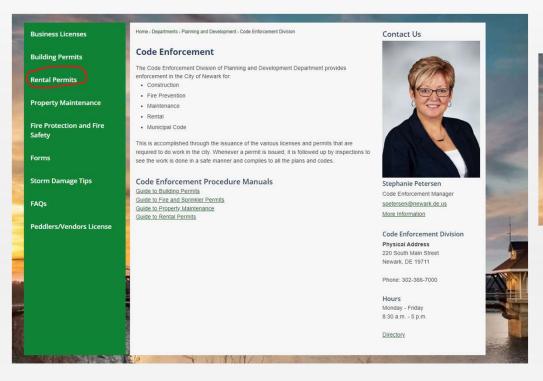
Ca.

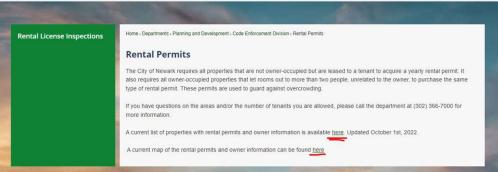


- Request from councilperson as to how many properties are rented in his district (February 2022)
- Static rental permit list available on Code Enforcement's web page
 - "Mine" the list to determine the number of rented properties by district
 - ► Labor intensive, not practical
- ► Can we use GIS to count rented properties in a/few/all districts, street, neighborhood, city-wide, etc.?
 - ▶ Yes! Count <u>and</u> location!
- Active rental permit data contained in Tyler Munis database
 - Used to create the static list
 - ► Export as a table ArcGIS can import
- Developed ArcGIS project to import, organize, and display permit data
 - ▶ Share (publish) results through a web GIS application on the City's GIS Gallery



▶ Static rental permit list available on Code Enforcement's web page





Newark, DE - Official Website | Official Website (newarkde.gov) https://www.newarkde.gov

<u>Code Enforcement | Newark, DE - Official Website (newarkde.gov)</u> https://www.newarkde.gov/24/Code-Enforcement-Division





ACTIVE RENTAL PERMITS AND OWNERS

.OC# SUFFIX	Parcel #	LOCATION STREET	UNIT#	OWNER NAME	OWNER ADDRESS	CITY	STATE	ZIP	PHONE #
118	1801400042	NORTH COLLEGE AVENUE		STONE TREE LLC	175 SOUTH MAIN STREET	NEWARK	DE	19711	
22	1801400243	ANNABELLE STREET		FROGTOWN LLC	1101 MILLSTONE DRIVE	NEWARK	DE	19711	
22	1802000214	CONTINENTAL AVENUE		FROGTOWN LLC	1101 MILLSTONE DRIVE	NEWARK	DE	19711	
32	1802000222	CONTINENTAL AVENUE		FROGTOWN LLC	1101 MILLSTONE DRIVE	NEWARK	DE	19711	
12	1802000222	WRIGHTSTOWNE LANE		FROGTOWN LLC	1101 MILLSTONE DRIVE	NEWARK	DE	19711	
26	1802000222	WRIGHTSTOWNE LANE		FROGTOWN LLC	1101 MILLSTONE DRIVE	NEWARK	DE	19711	
394	1803200027	SOUTH COLLEGE AVENUE		FROGTOWN LLC	1101 MILLSTONE DRIVE	NEWARK	DE	19711	
1	1802100098	CALDWELL PLACE		FROGTOWN LLC	1101 MILLSTONE DRIVE	NEWARK	DE	19711	
3	1802100098	CALDWELL PLACE		FROGTOWN LLC	1101 MILLSTONE DRIVE	NEWARK	DE	19711	

- 95 pages
- 1,500+ permit records
- Permit street address
- Parcel number
- Owner name, address, phone

GOAL:

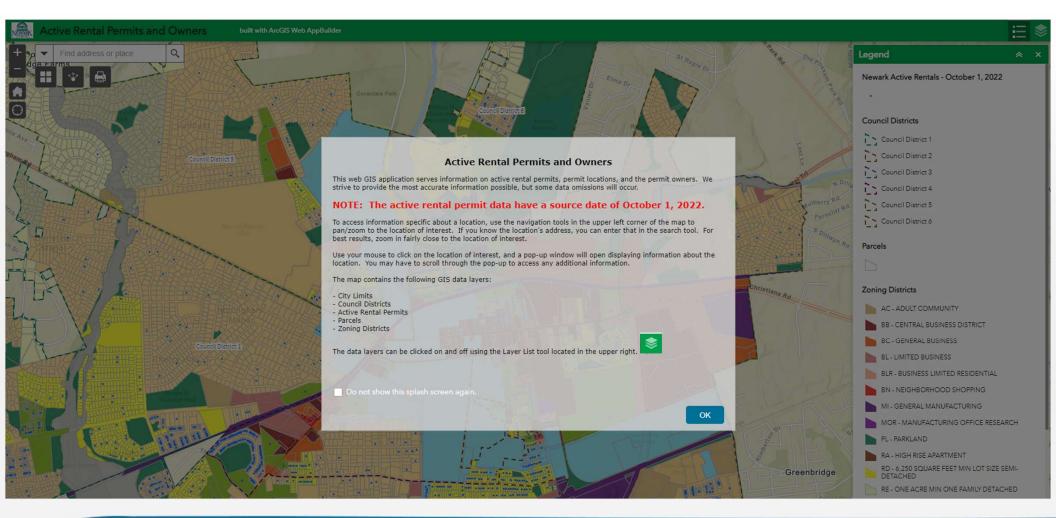
- Convert the list of information into map form
- Harness the spatial analysis capabilities of GIS



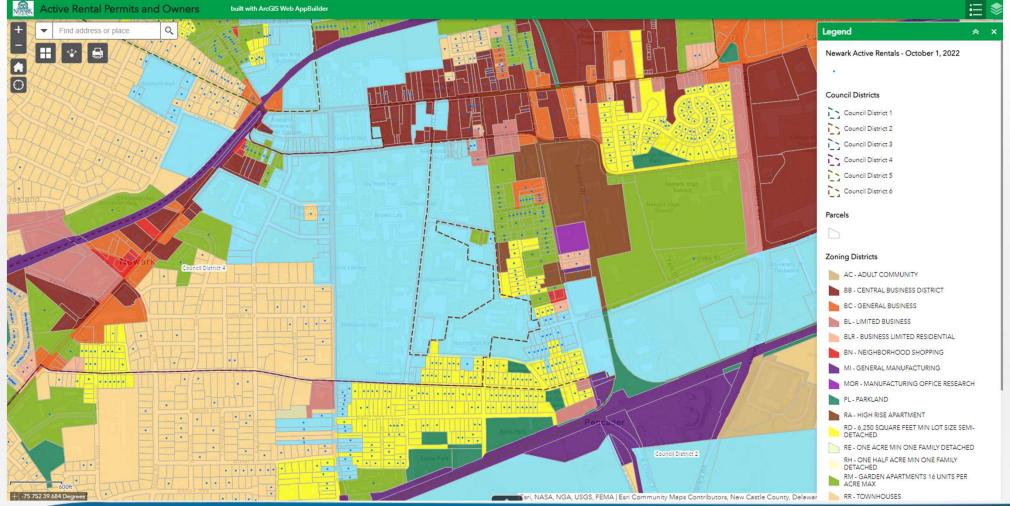
GIS side of things......

- Access Munis and export the permit list, format for import into ArcGIS
- Added other GIS layers to map for reference
 - ► City limits, zoning, council district, and parcel polygon layers
- Convert imported permit data into points on the map
 - Join imported permit table to the parcel layer
 - ▶ Parcel number (permit table) to parcel number (parcel layer)
- ▶ Build information "pop-ups" to deliver same information in the map, as seen in the static table
- Serve GIS map application on Newark's GIS Gallery
- Updated monthly

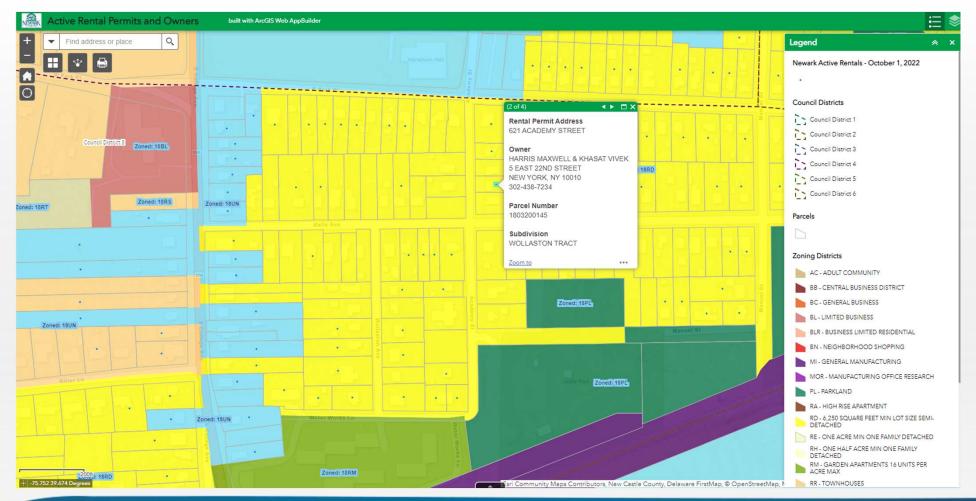














<u>Future</u>

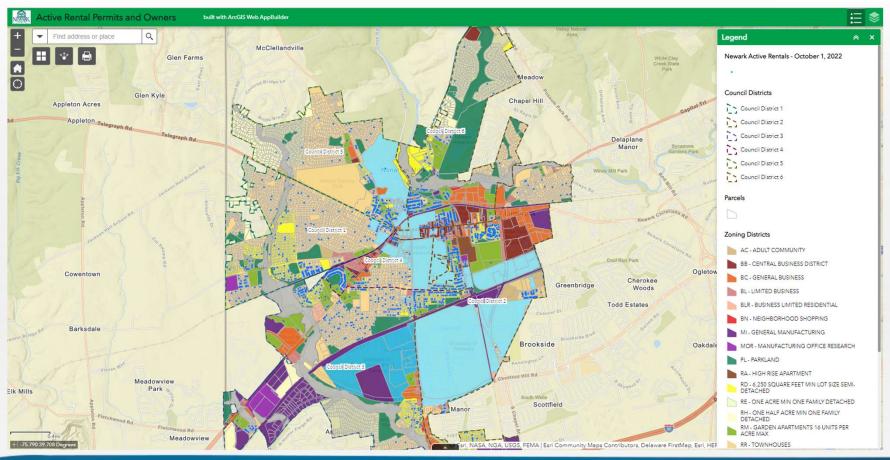
- Automate Link Tyler Munis and ArcGIS platforms "behind the scenes"
 - Create real-time spatial view of active rental permits
 - ▶ Eliminate static snapshot in time, manual export/import
 - Create GIS layer of 'days to permit expiration' and 'days since permit expiration'

Wilmington, DE

- ArcGIS platform
- ▶ Identify database containing rental permit records
- Export table, import to your GIS, develop map, and share
 - Automate



Questions





Bonus - Parking Locator

