

# Empower Community Boards

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# Project Background

Our project aimed to empower NYC Community Boards through data science to better cater to community needs.

Community Boards are the smallest level of government in the city and have volunteer boards and professional staff. They function as a bridge between local communities and broader city-wide efforts.

We worked with CB 4 (Bushwick) and CB 14 (Flatbush, Midwood & Kensington) and they plan use the products as a basis for other community districts.

Our project has two main parts:

- Budget Dashboard
  - Create a dashboard to inform the community about different **budget processes and funding**
- Mapping Tool
  - Create a layered map for CB 4 to **identify community needs**. Specific goals are to gauge community **outreach** and **engagement**; start broader conversations about assessments and needs within the community.

# Data & Tools: Budget

## District Needs Requests

Budget requests from each community board, categorized by agency and project purpose

## Capital Projects Funding

Fundings toward projects that aim to maintain or expand NYC's infrastructure

## Expense Budget

Budget going toward government services and operating expenses.

## Council Discretionary Funding

Funds that are allocated to eligible not-for-profit organizations by the City Council or a Member of the Council.

# Data & Tools: Map

## Defining Boundaries

Using a community district shapefile from the Department of City Planning, a CB4 specific layer was clipped.

**After Feedback:** All Brooklyn community districts were included.

## Community Engagement Data

Newsletter subscription data was received as non-standardized addresses, which were geocoded using Python and Google Maps API. This was then imported as a point layer and aggregated by census tract to create a choropleth layer.

**After Feedback:** Subscriptions were aggregated by census block instead to facilitate targeted on the ground sign-up efforts.

## Infrastructure Data

Infrastructure datasets were sourced from NYC Open Data via API. Once imported to ArcGIS, they were filtered geographically using SQL.

**After Feedback:** Additional infrastructure was added from static datasets that weren't available from NYC Open Data.

## User Experience

Originally, the map was going to be built using an open source library such as Leaflet. Due to time constraints, we chose to prioritize the owner's needs and user experience by using ArcGIS. This allows both district managers and residents to get the most use from the tool, while still providing a prototype for a more permanent solution in the future. We included interactive features such as a search bar, pop-ups, layer control, and more.

## Feedback

The mapping tool was presented to the project owners at two different stages, allowing them to provide feedback and requests for additional data.

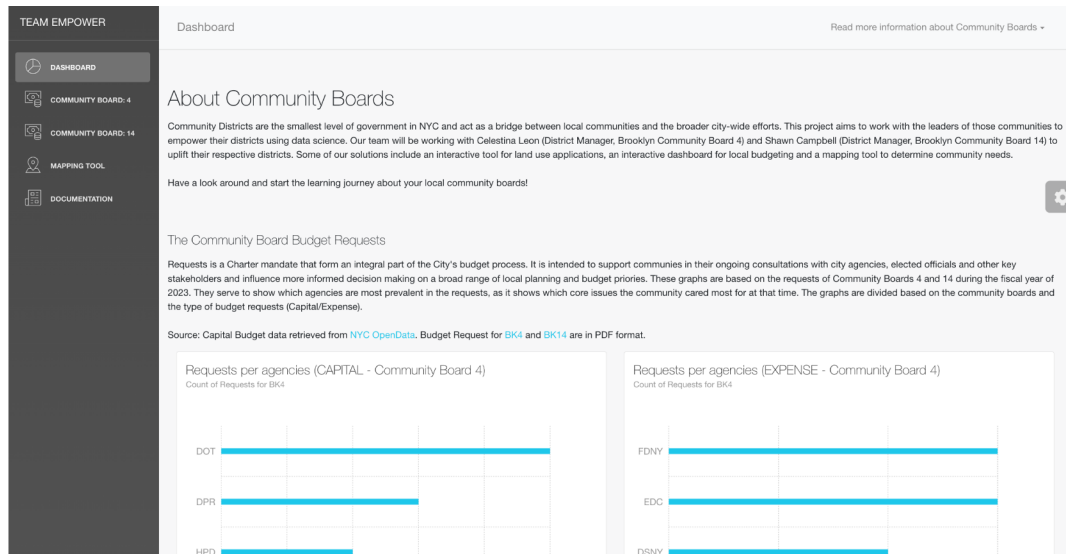
# The Discovery Process

**ReactJS** - Frontend Library with reusable components, better than Vanilla JavaScript

**CreativeTim.com** - React Bootstrap Template Resource for building dashboard components

## ISSUES...

- Chart designs
- Styling concerns
- JSON file rendering
- Mapping tool, choosing a platform (Leaflet vs Mapbox vs ArcGIS)



# Product Demo

<https://team-empower.netlify.app>