



Union County Electric Vehicles Infrastructure Study

Technical Advisory Committee Meeting #2
December 13, 2022



Agenda

- Introductions
- Study Overview
- Survey Results
- **Evaluation Criteria – Focus**
- Work Plan and Schedule
- Discussion and Next Steps



Westfield Train Station

Study Background

“The increase in hybrid and electric vehicles will require more charging stations and may reduce gasoline consumption and emissions.”

- Union County Transportation Master Plan (2016)

- As electric vehicle ownership continues to grow, so will the infrastructure needed to support it.
- In Union County we are seeing more charging stations but not enough.

Study Goal

To support electric vehicle use in Union County by planning an equitable expansion of the network of electric vehicle supply equipment.

ucnj.org/ev-study



Role of Technical Advisory Committee

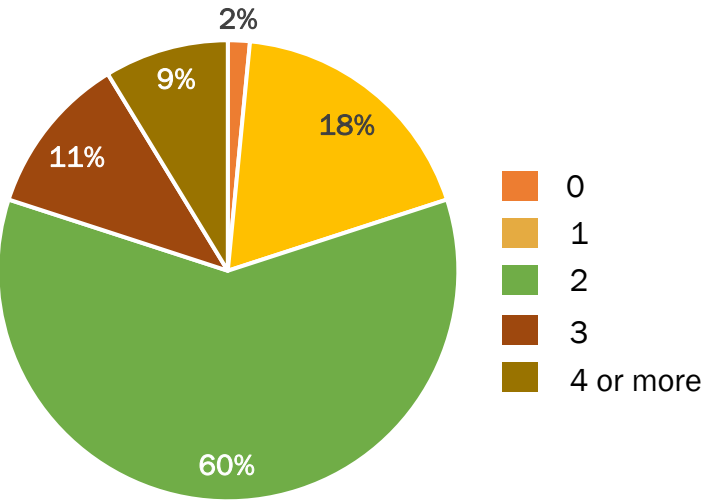
- Advise the Team
- Feedback
- Community Outreach



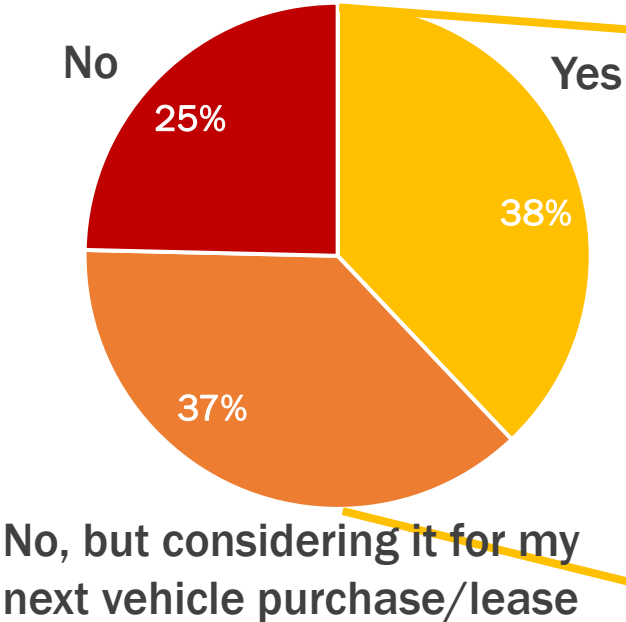
Survey Results

EV Ownership

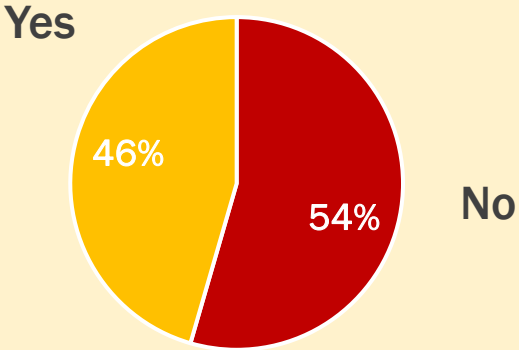
How many vehicles do you have in your household?
n=195



Do you or a member of your household currently own/lease a plug-in electric or plug-in hybrid vehicle? n=203



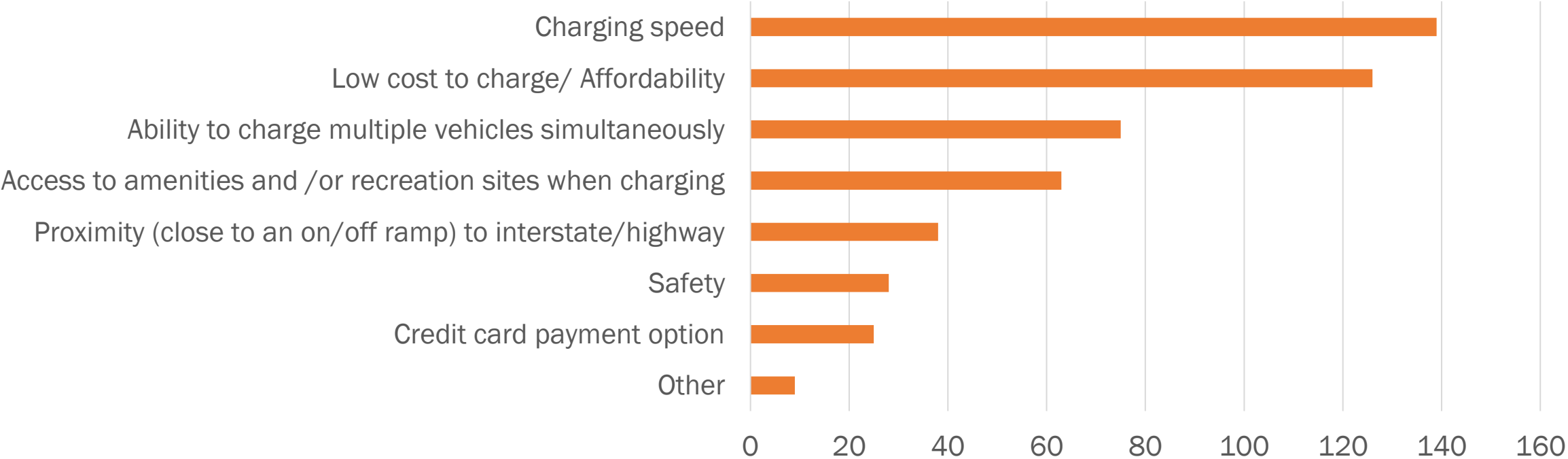
Do you have access to a home charging unit? n=145



Survey Results

Charging Location Priorities

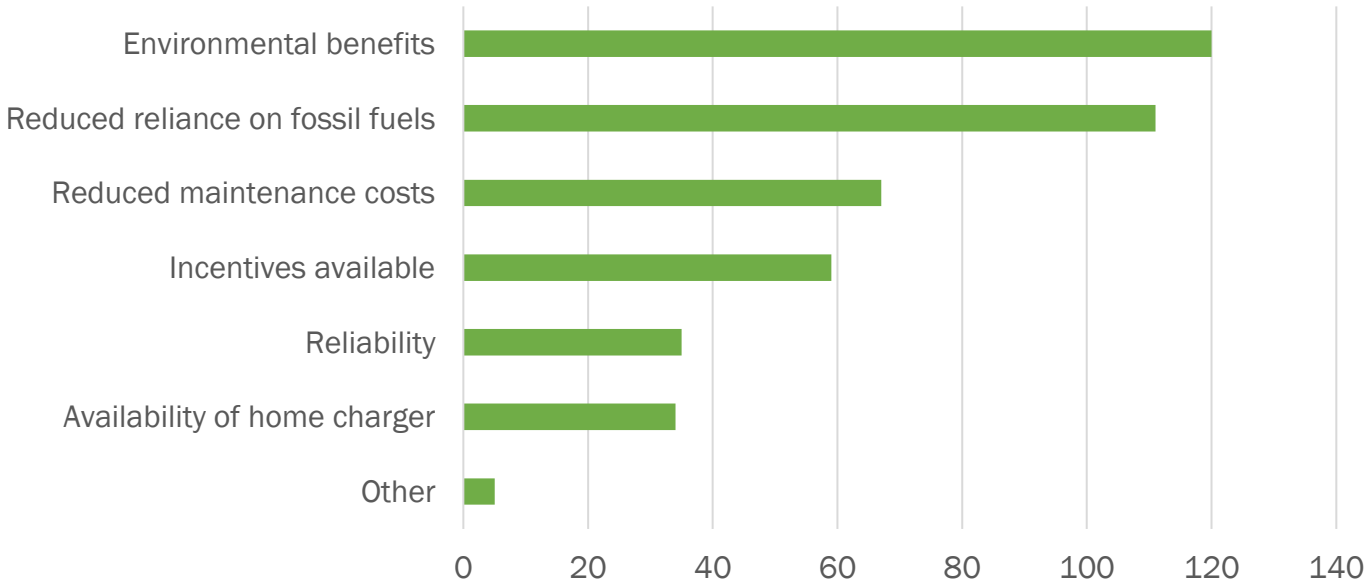
In your opinion, what are the three most important parameters for Union County to consider for the placement of EV Charging Stations? n=180



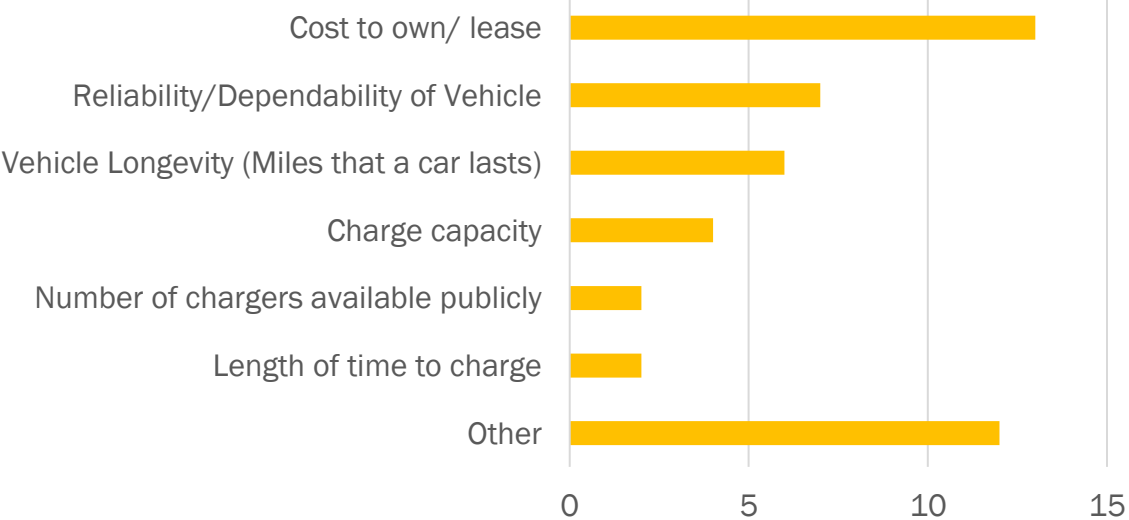
Survey Results

Top Priorities for Union County residents

What is the main reason you chose an electric vehicle? n=144



What is the main reason you do not own an EV? n=34



Number of selections across all responses; participants could select multiple responses.

Survey

Who did we
hear from?

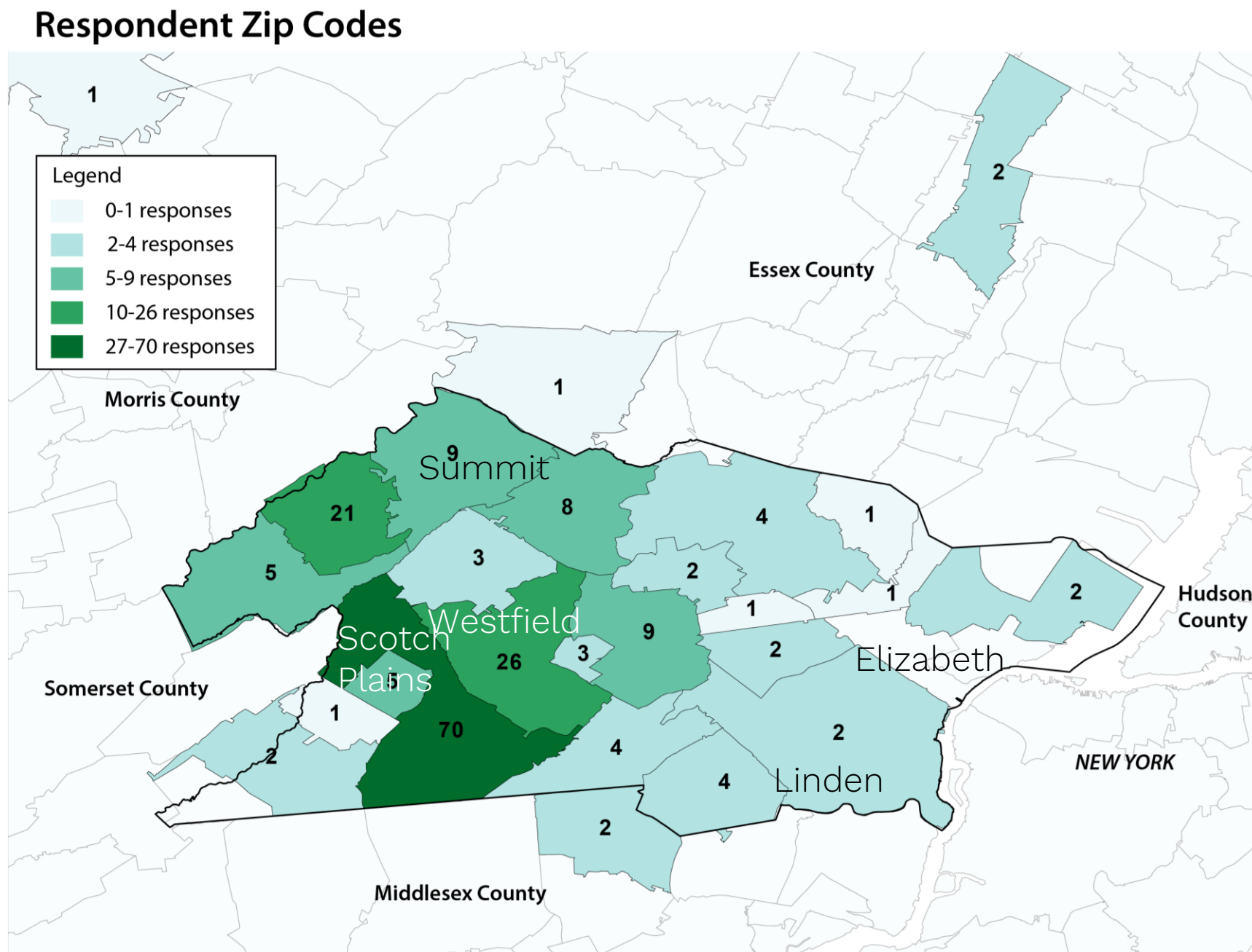
07076 (70)

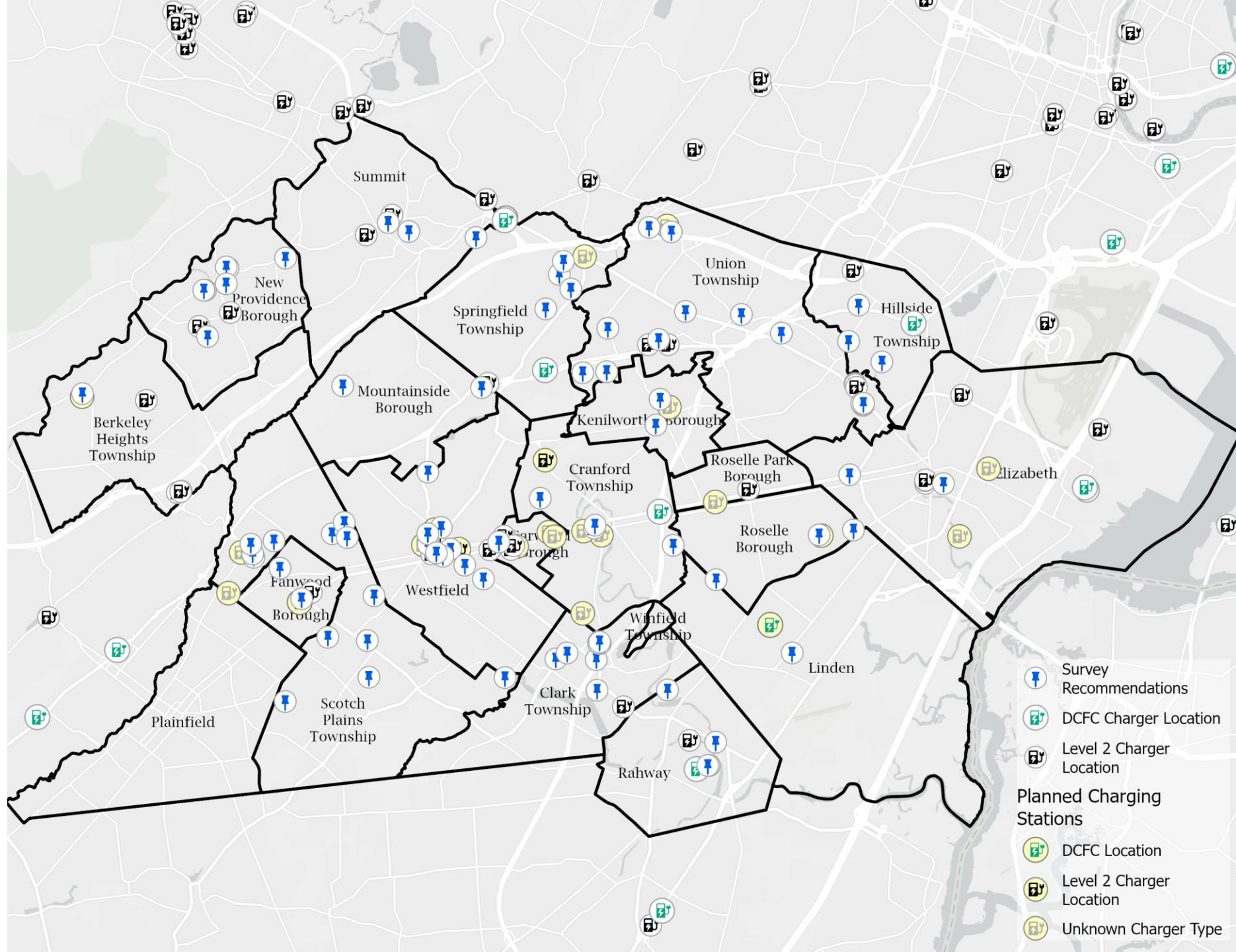
07090 (27)

07974 (21)

n=201

30 additional zipcodes of less
than 10 participants each





Data Collection, Analysis & Mapping

- Equity Assessment
- [Mapping](#)
- Evaluation Criteria
 - a. Equity Criteria
 - b. Zoning/Location Type
 - c. Population Density
 - d. Traffic Volume
 - e. Destination Type
 - f. Dwell Time/Trip Duration
 - g. Safety
 - h. Proximity to Major Roadways
 - i. Gap in EV Charging Infrastructure
 - j. Power Supply
 - k. Recommended by Public

Weighting Categories



- Equity



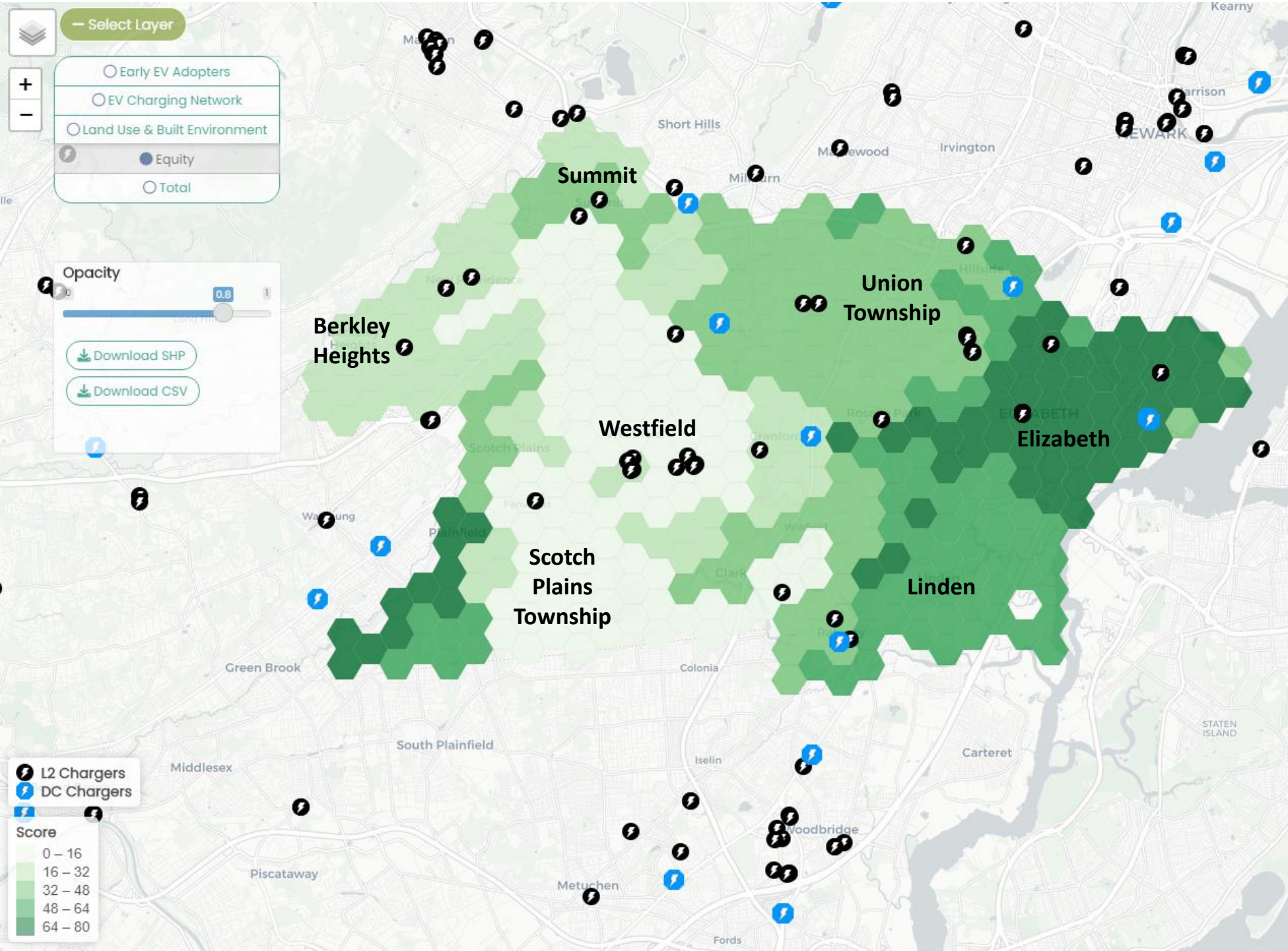
- EV Early Adopter



- Existing Land Use & Built Environment

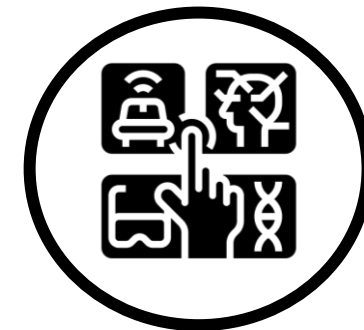
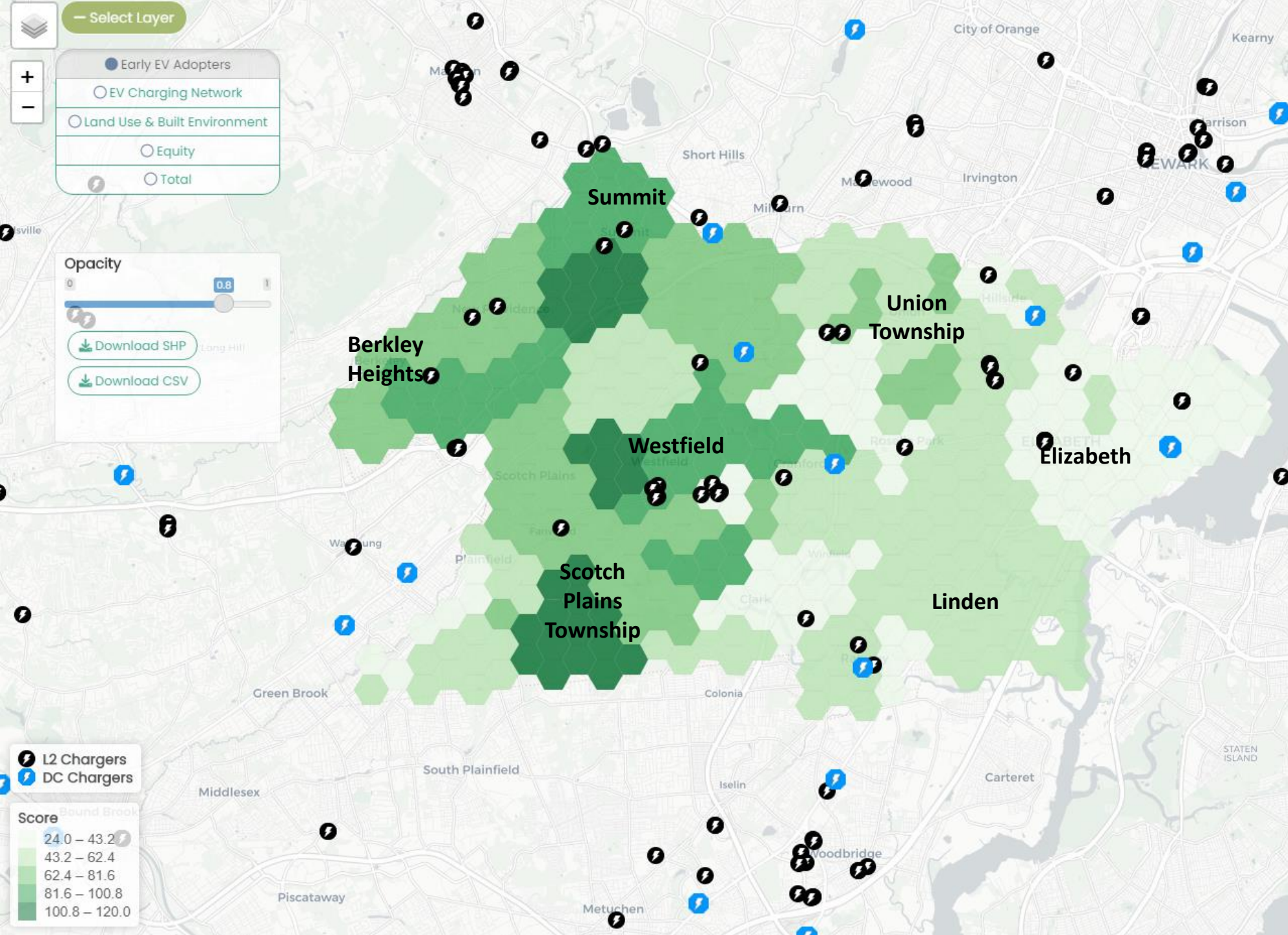


- EV Network



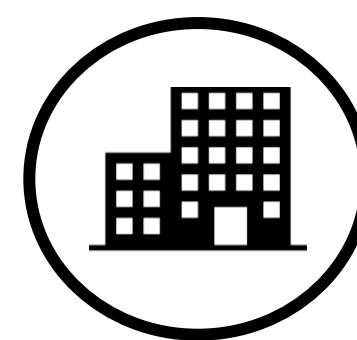
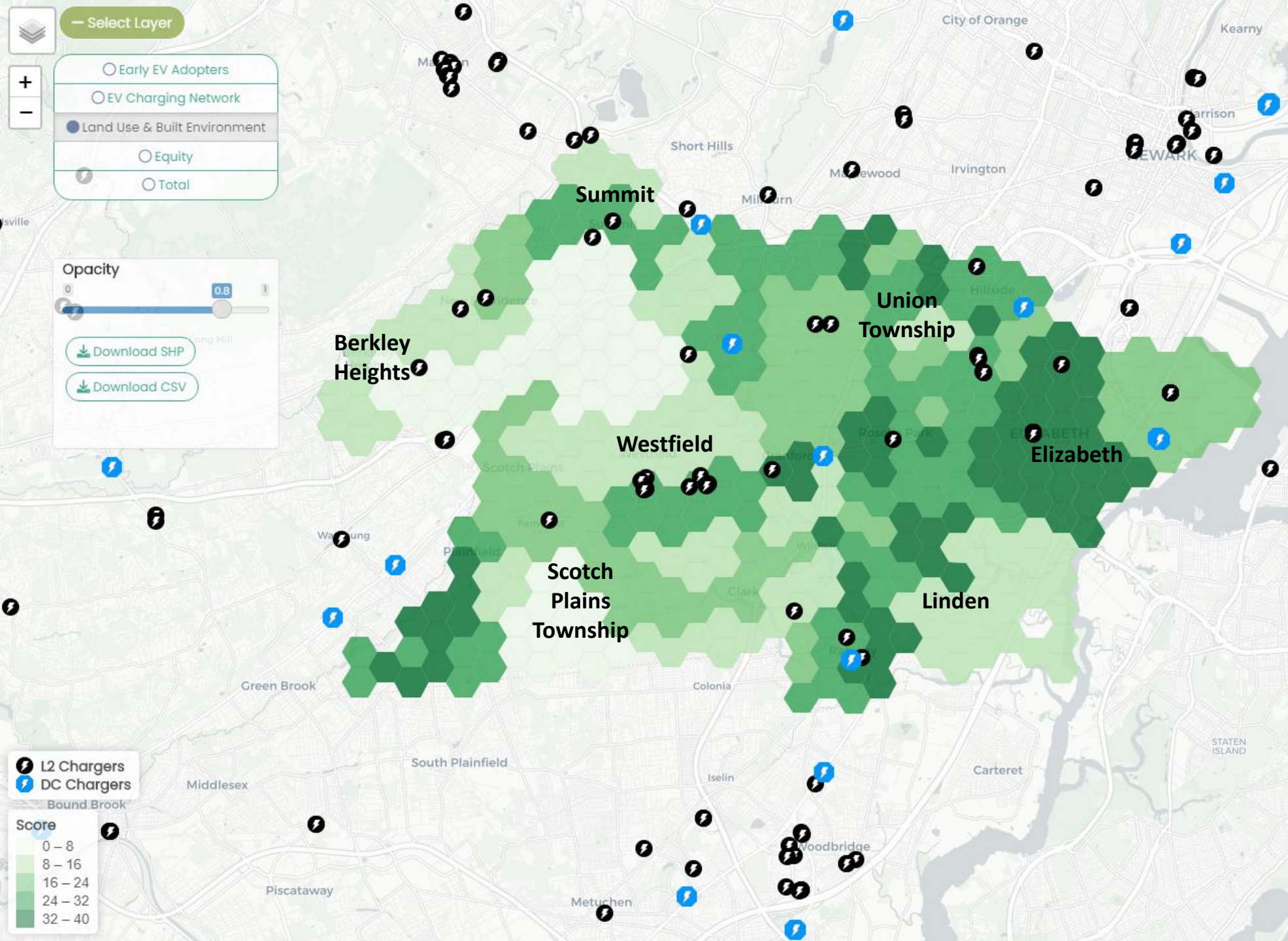
Equity

- NJTPA Equity Factors Composite Score



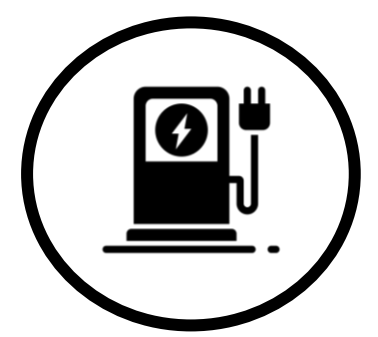
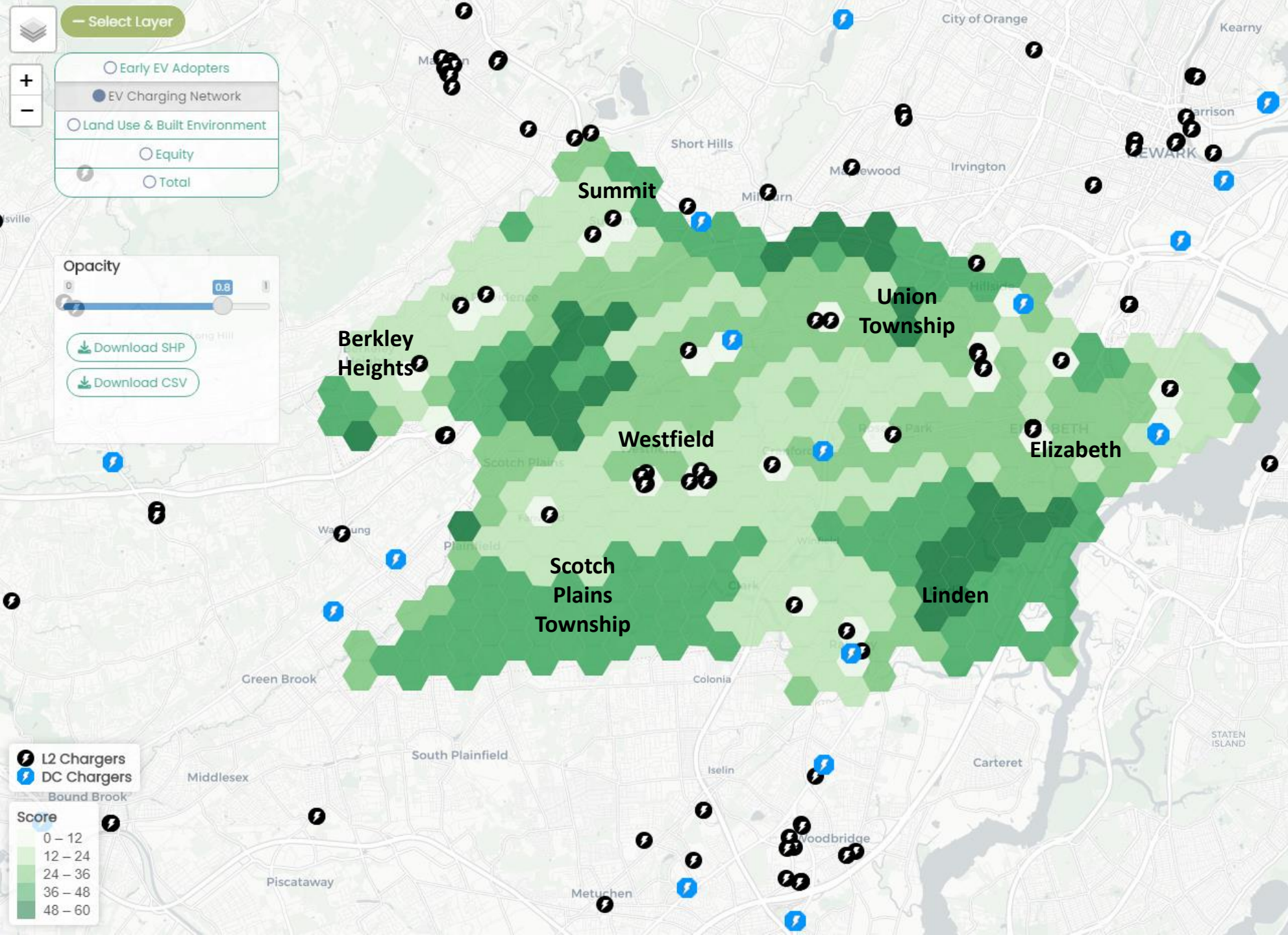
Early EV Adopters

- Median Household Income
- Environmental Concerns
- Car Ownership
- Higher Education Attainment
- Existing EV Ownership
- Urban Area



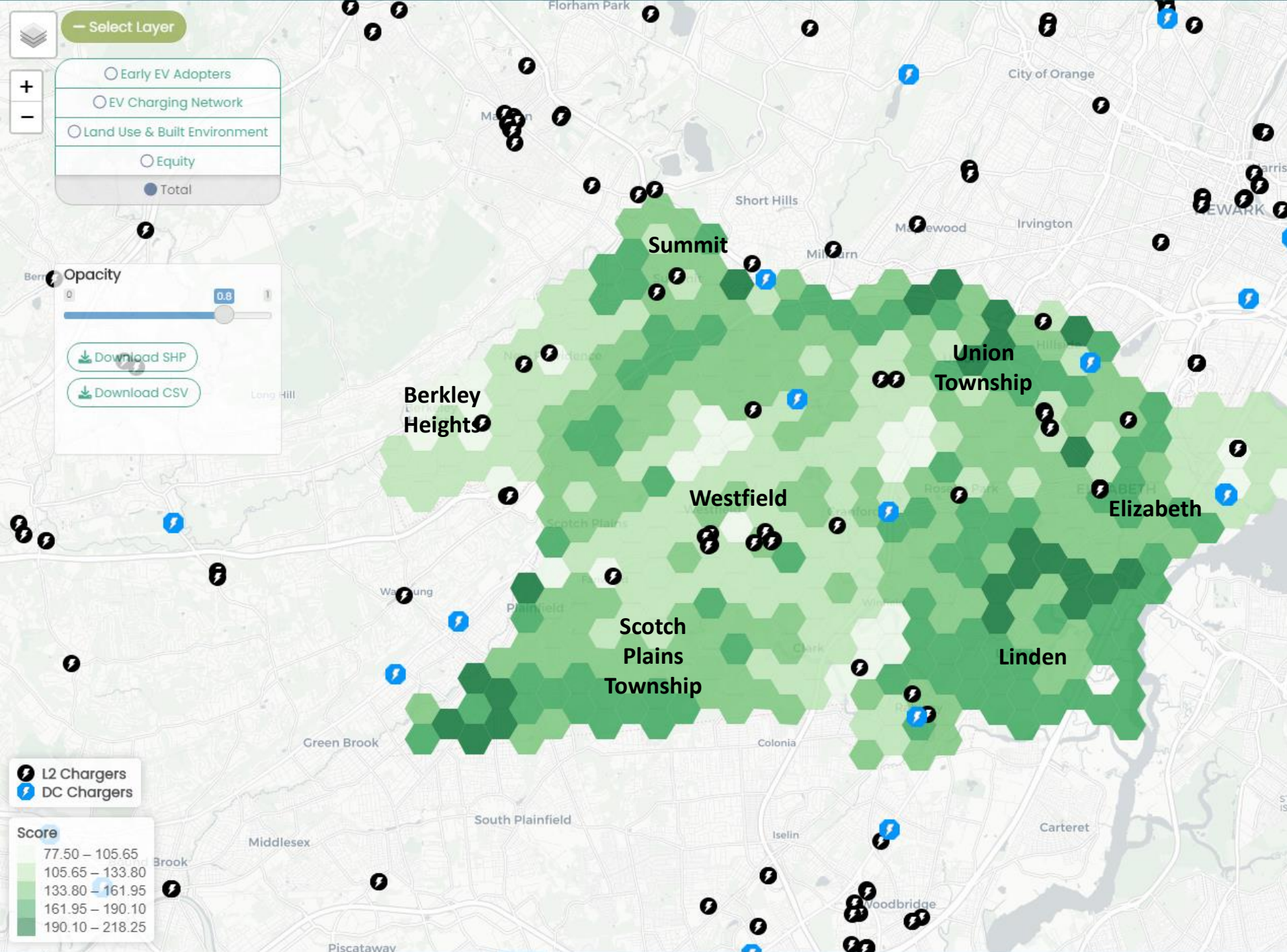
Land Use & Built Environment

- Multi-family Housing
- Zoning
- High Visit Locations
- Population Density



EV Charging Network

- Existing L2 Charging Infrastructure
- Existing DCFC Infrastructure
- Average Annual Daily Traffic



Total Score

- Equity
- Early EV Adopters
- Land Use & Built Environment
- EV Charging Network

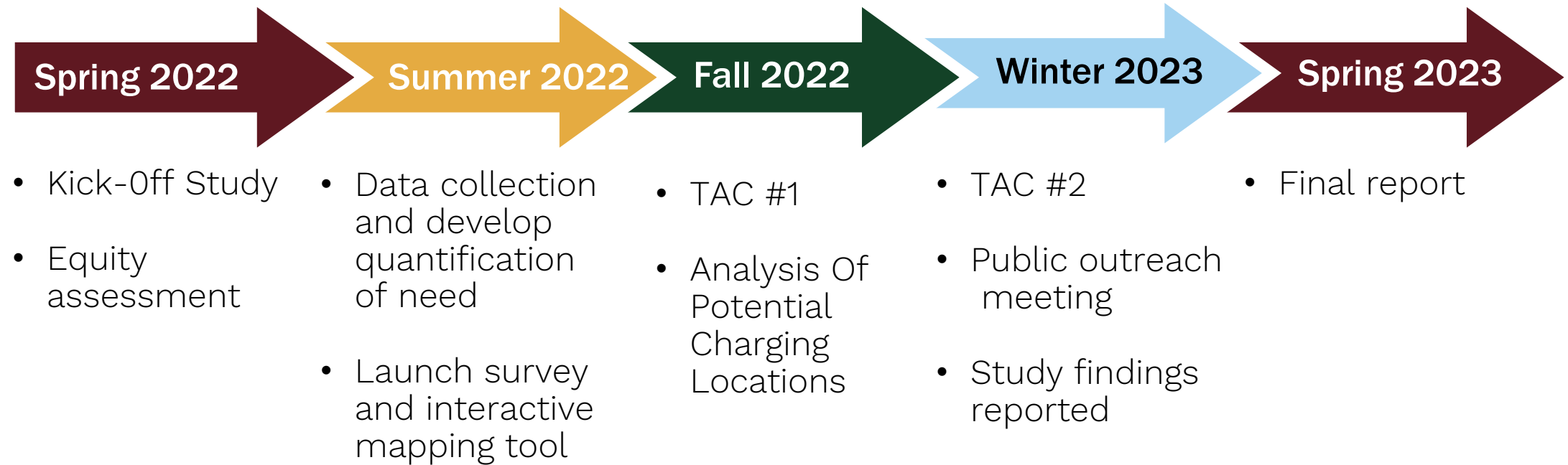
Poll Questions

Poll questions will pop-up for users of the Teams App.

If you do not see the pop-up, open the chat icon in Teams, poll questions will appear there too.

We will do 1 question for practice first.

Work Plan & Schedule



Discussion

Any additional comments, thoughts, guidance for the study team?



Next Steps

- Public Outreach Meeting
- Analysis of potential charging locations
- Contact

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Thank you!

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