



ELECTRIC VEHICLE CHARGING PROGRAM

Community Board 3 TC Briefing
May 14th 2019

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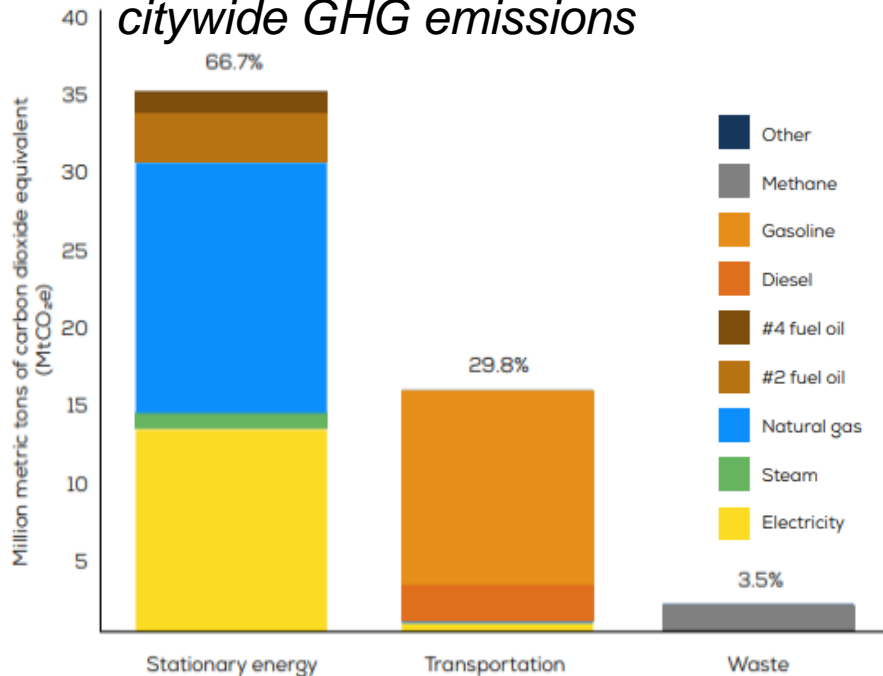


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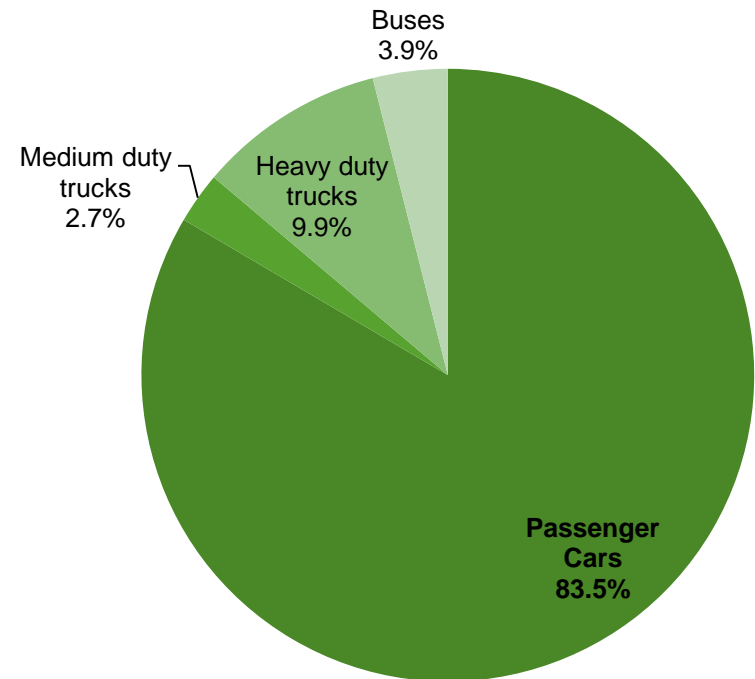
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CHALLENGE: PRIVATE CARS ARE A MAJOR SOURCE OF GHG EMISSIONS

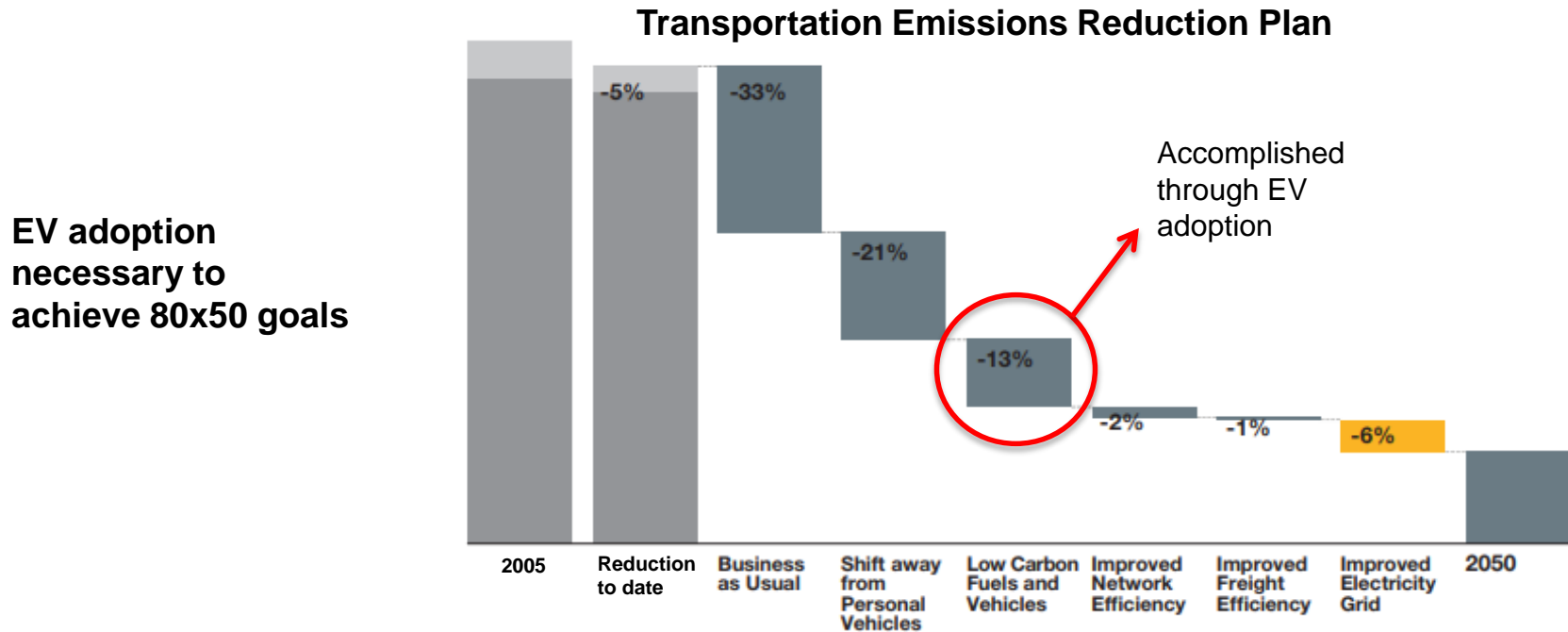
Transportation: constitute 30% of citywide GHG emissions



Passenger Cars: 83% of on-road transportation GHG emissions



INCREASING THE ADOPTION OF EVS IS KEY TO ACHIEVING CITY'S GHG GOALS



- **Goals of 80x50 plan and Paris Climate Agreement Executive Order 23:** requires electrification of most of the city's 1.8 M private light-duty vehicles.
- **Mayor's goal for 20% of new NYC vehicle registrations be EV by 2025:** requires more on- and off-street EV charging

OPPORTUNITY: STARS ARE ALIGNING FOR GROWTH IN EV ADOPTION

- Vehicle cost is falling, driven by cheaper batteries
- Range is increasing, models with 200+ miles per charge
- Model choice is expanding, 32 models on the U.S. market
- EV sales are growing, up 66% in NYC from 2017 to 2018



Example: Hyundai Kona

Price: \$26,450 in NYS with tax incentives

Range: 258 miles



Example: Tesla Model 3

Price: \$28,750 in NYS with tax incentives

Range: 220 miles

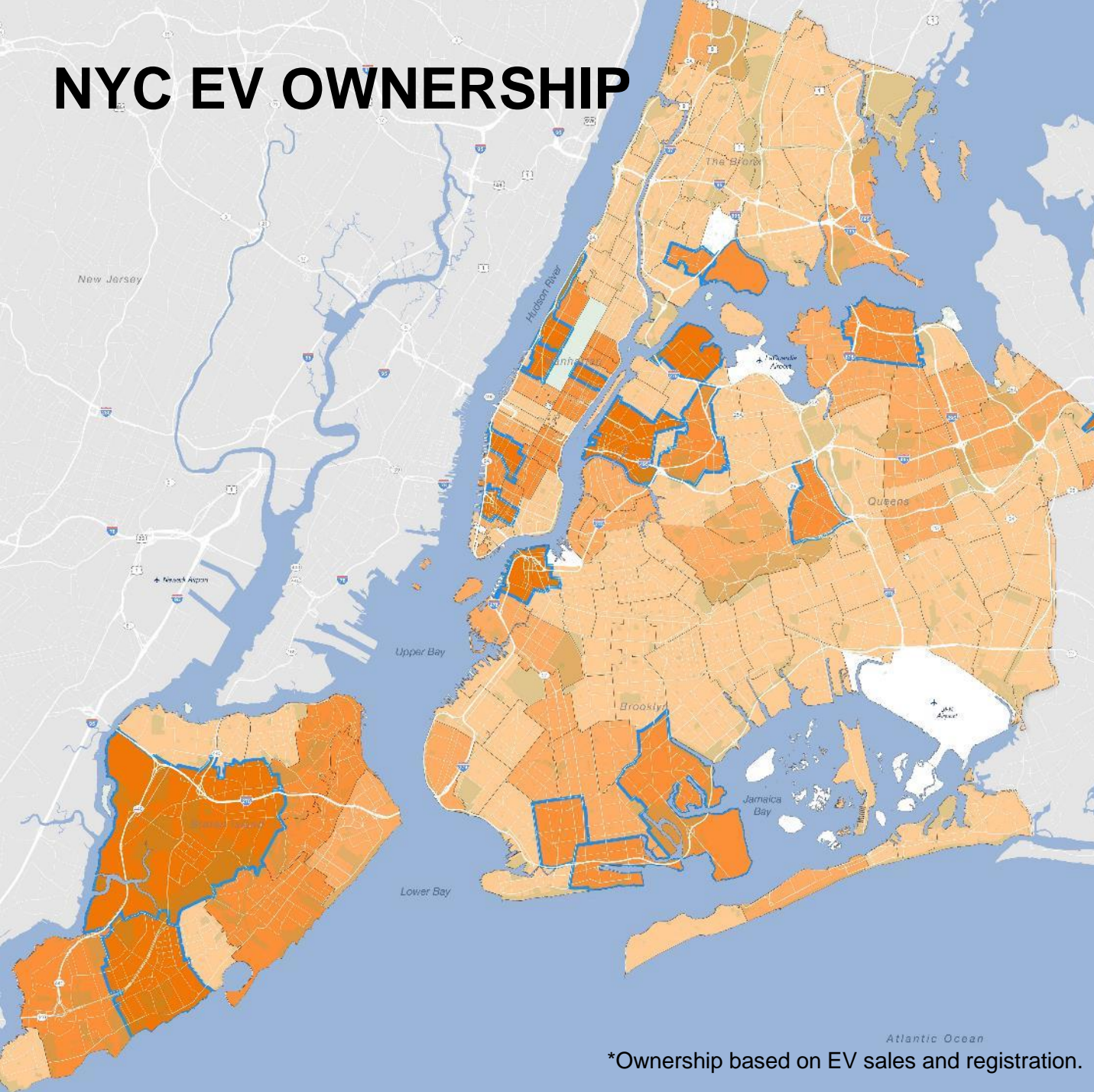
Public Access to charging remains a barrier, as 50% of New Yorkers store their cars on-street.

To increase EV adoption, NYC must expand its public charging network

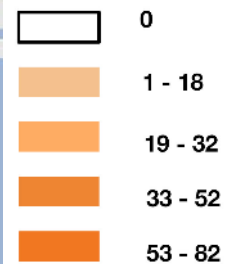
NYC EV OWNERSHIP

EV Registrations, by Boro (2011 – 2018):

- Bronx: 533
- Brooklyn: 1,882
- Manhattan: 2,971
- Queens: 3,219
- Staten Island: 924
- **Citywide: 9,529**






Number of EVs



 Top Areas of EV Ownership

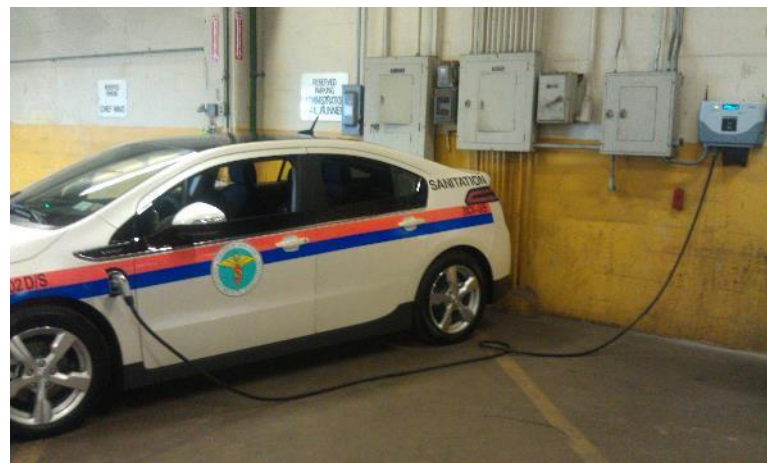
*Ownership based on EV sales and registration.

EV CHARGING: HOW IT WORKS

	Level 1 	Level 2 	DC Fast 
Power Requirements	120V (1-3 kW)	240V (3-10 kW)	480 Volts (25-150 kW)
Charging Speed	5 miles per hour, 12+ hours for a full charge	12-25 miles per hour, 4-6 hours for a full charge.	100-600 miles per hour, 30 minutes for a full charge
Location	Home garage	Home garage, on street or parking field	Commercial locations, short stops, near highways

NYC'S CURRENT EV EFFORTS

- **NYC Clean Fleet:** Mayoral commitment to create largest municipal EV fleet. A total of 1,750 EV purchased to date.
- **Chargers in DOT Lots and Garages:** pursuant to Local Law 160 of 2016, DOT has installed 39 level 2 EV chargers
- **Electric Vehicle Advisory Committee:** pursuant to Local Law 122 of 2013, group meets regularly to discuss EV strategies.
- **Curbside Level 2 Charging**
- **Fast Charging Stations**



Fast Charging Station Program

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PROJECT BACKGROUND

Fast Charging Stations

- Gas station model
- Charge in 30 mins or less
- Multiple chargers
- Supplements on-street, at home, and at-work charging



Mayor at EV Charging Announcement

Funding and Deployment

- Mayor committed to 50 fast charging sites by 2020
- City: \$10 million capital funding in FY18-20
- To complete rollout of stations, look to public/private partnerships
- DOT is focused on development of the first five stations

INITIAL FAST CHARGING SITES

 Proposed Fast Charging Site



Site	CB
White Plains Field	Bx 11
Court Square Garage	Qns 2
Essex St Garage	Mn 3
Bensonhurst #1 Field	Bk 11
New Dorp Lane Field	SI 2

Curbside EV Charging Pilot Program

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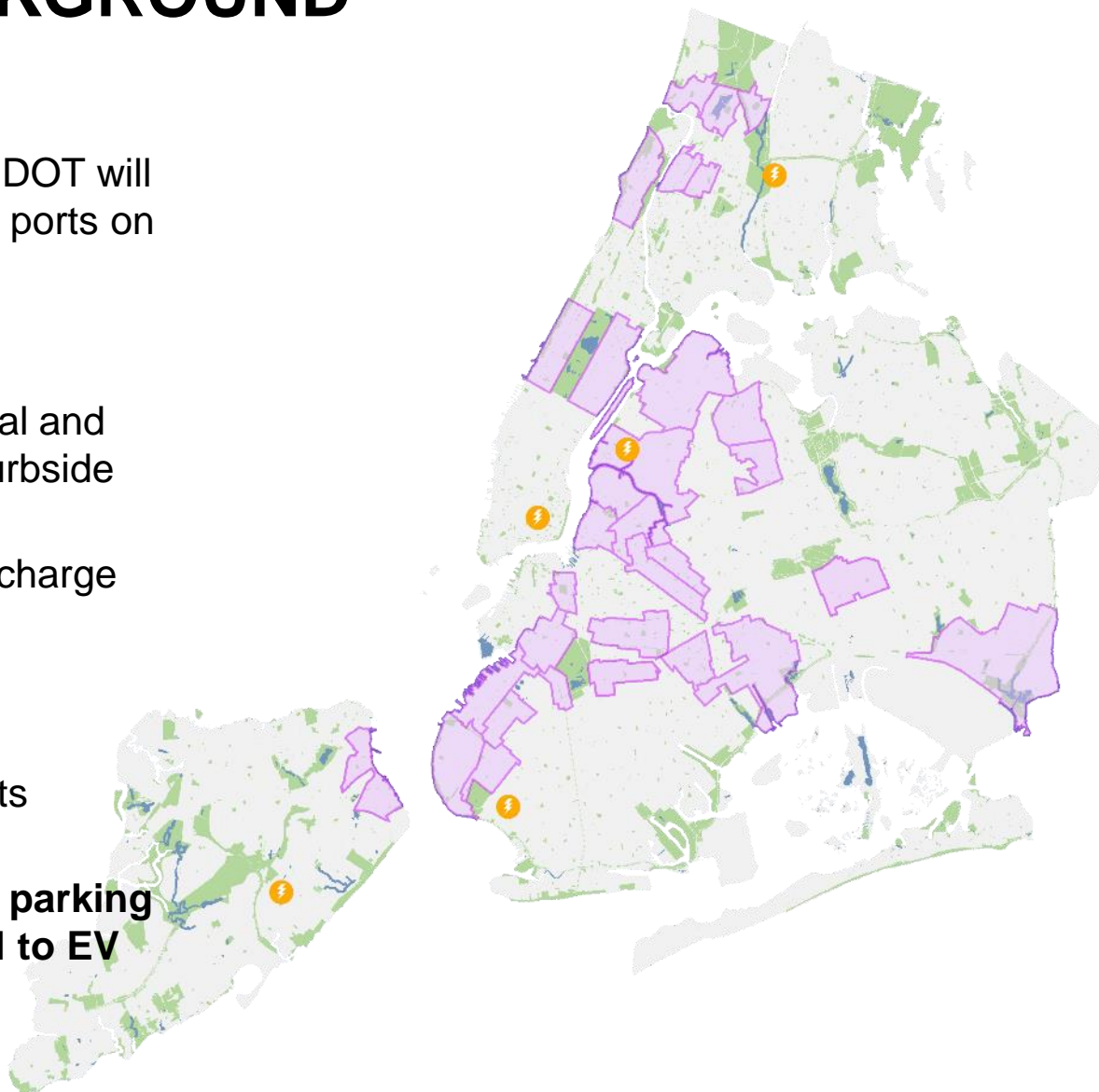
PROJECT BACKGROUND

Project Structure:

- **Partnership:** Con Ed and DOT will install 100 L2 EV charging ports on city streets for a four year demonstration.
- **Purpose:** Encourage EV ownership and test financial and operational feasibility of curbside EV charging.
- **User Cost:** Pay per hour, charge cost comparable to gas

Project Details:

- 100 curbside charging ports citywide for public use
- **In CB 3, a maximum of 4 parking spaces will be converted to EV parking**

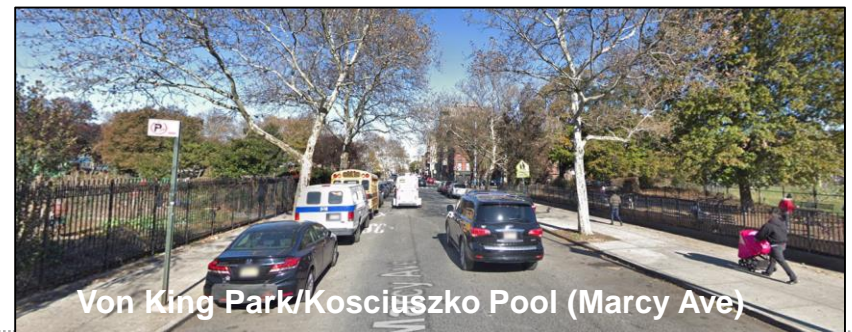
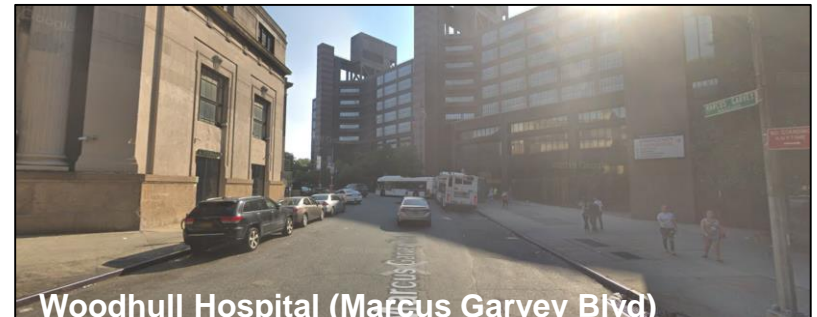
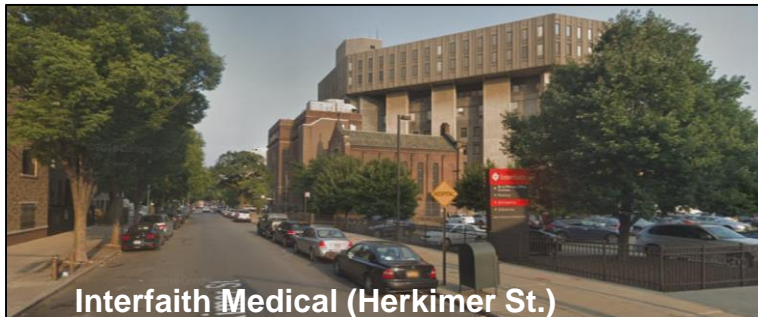


CB 3 SITE SELECTION AND SITES

Site Selection:

- Near major institutions, educational institutes and medical centers, commercial activity – high visibility, turnover, and utilization

Possible Location(s):

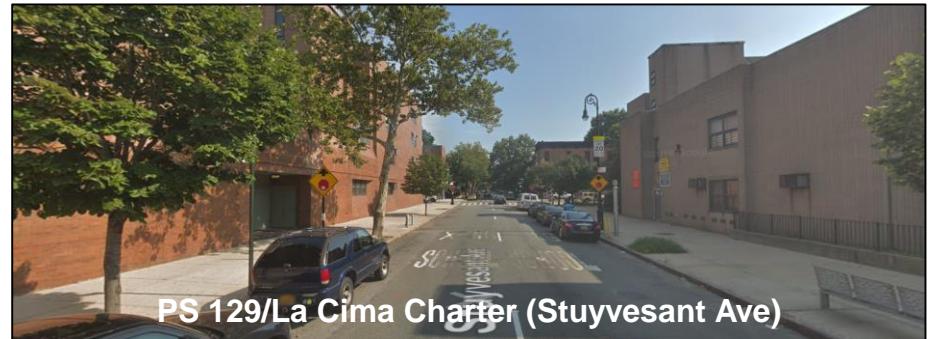


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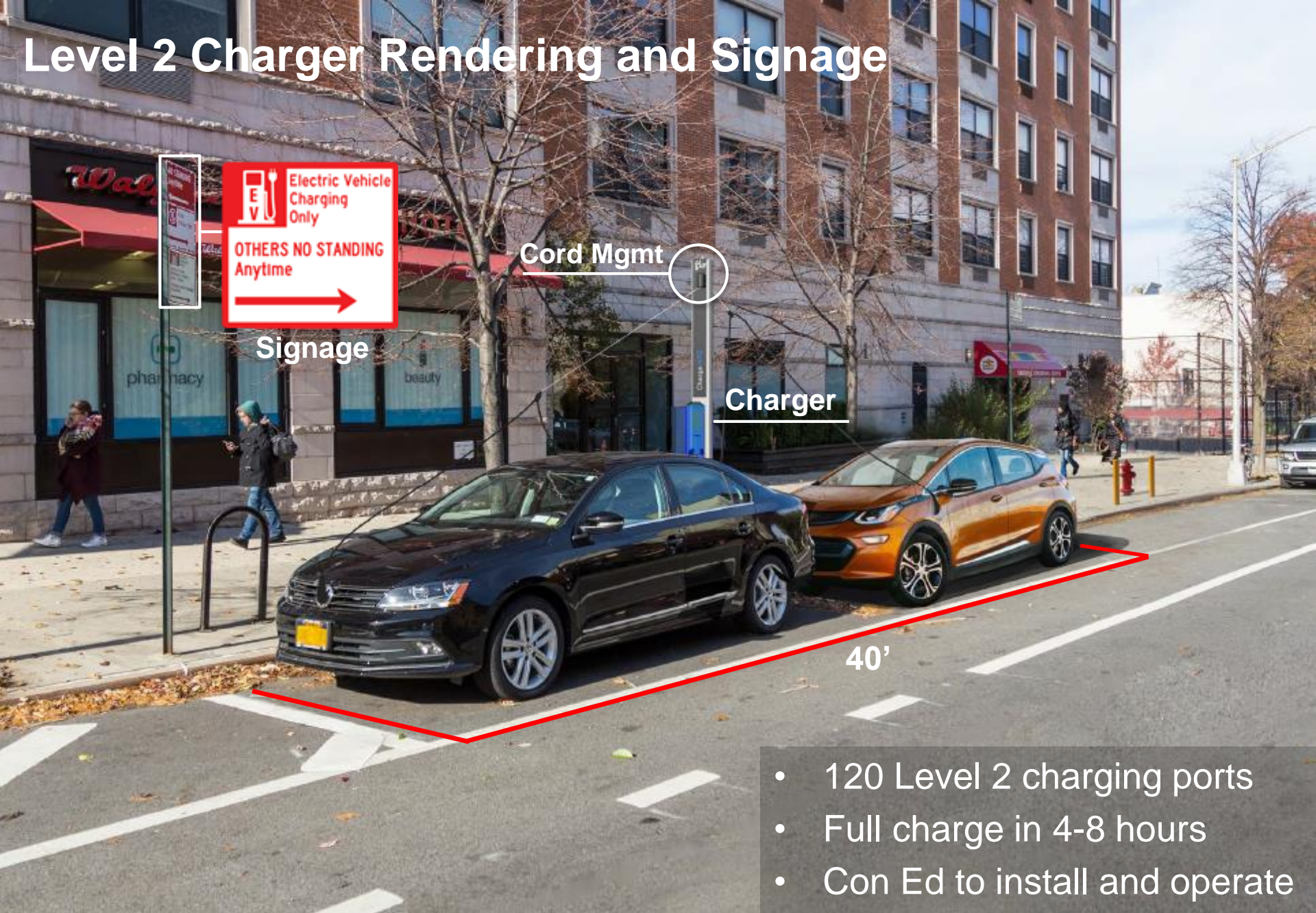
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Possible Location(s):



Level 2 Charger Rendering and Signage



Electric Vehicle Charging Only
OTHERS NO STANDING Anytime

Signage

Cord Mgmt

Charger

40'

- 120 Level 2 charging ports
- Full charge in 4-8 hours
- Con Ed to install and operate

OUTREACH PROCESS

Outreach

- Brooklyn District Managers briefing in February 2019
- CM Cumbo briefing in February 2019
- CM Ampry-Samuel briefing in February 2019
- CM Cornegy briefing in February 2019
- Sen Myrie briefing on May 16, 2019

Public Feedback

- Launch public feedback portal where public can provide feedback on where DOT should or shouldn't locate chargers

Pilot Zones

- Notify elected officials and community boards where pilot neighborhoods are chosen, offer and conduct briefings on the program and feedback on suggested locations.

CB Engagement

- Outreach to Community Boards and offer presentations and feedback on suggested locations.

Installation

- Fall 2019 for Authorized Parking for City Fleet, followed by installation of curbside public chargers.

THANK YOU!

Visit the NYC DOT Public Portal for FAQs on EV and to add a location for EV:

www.nyc.gov/charge

The screenshot shows the NYC DOT Public Portal for Curbside Level 2 Electric Vehicle Charging. The page features a green header with the project title and a sub-header "PLANNING". A navigation sidebar on the left includes links for Project Home, Overview, Where Should DOT Install Curbside EV Chargers?, Accessibility, and Request an EV Charger Outside Your Business. The main content area displays a "PROJECT UPDATES" section with a post dated Thursday, August 30, 2016, at 10:53. The update text reads: "Where would you like to see curbside EV chargers? Show us! NYC DOT thanks you for your interest in curbside level 2 electric vehicle charging. Your feedback will help inform planners as they site 100 level 2 EV chargers across New York City." A photograph of a white electric vehicle with its charging port open is also visible.



QUESTIONS?

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CURBSIDE CHARGER: HOW IT WORKS

RGBW LED Status Lights



Flashing white: The charger is waiting for the user to start a charge event.

To start a Charge Event:

Once the user authentication is completed and the status light is flashing white

- 1 Open the flip-up door
- 2 Remove the connector from its holster
- 3 Open the vehicle charge port
- 4 Insert the connector into the vehicle charge port

