

## Michigan Static and Dynamic Wireless Charging Pilot

MICHELE MUELLER, PROJECT MANAGER FOR CAVE (MDOT)

# Electrifying Michigan: EV News & Trends



Picture: Gov. Gretchen Whitmer's first announcement of the nation's first wireless charging infrastructure pilot.

ELECTRIFY MICHIGAN



State officials project as many as 60k plug-in EVs on Michigan roads by 2024



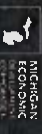
Ford boosts EV spending to \$50 billion, sets up new Model e unit

Source: <https://www.ford.com/press-and-public-relations/press-releases>



GM to increase electric vehicle investment to \$35B through 2025

Source: <https://www.gm.com/news/2023/03/23/gm-investing-35-billion-in-electric-vehicles-through-2025>



# Powering The Nation's First Electric Roadway

Prime Contractor

Sub Contractors

Invested Partners



Supporting Partners

Economic Development & Advocacy

WAYNE MICHIGAN

Goods Delivery

Moving People

OPTIMUS RIDE

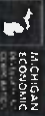
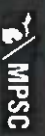
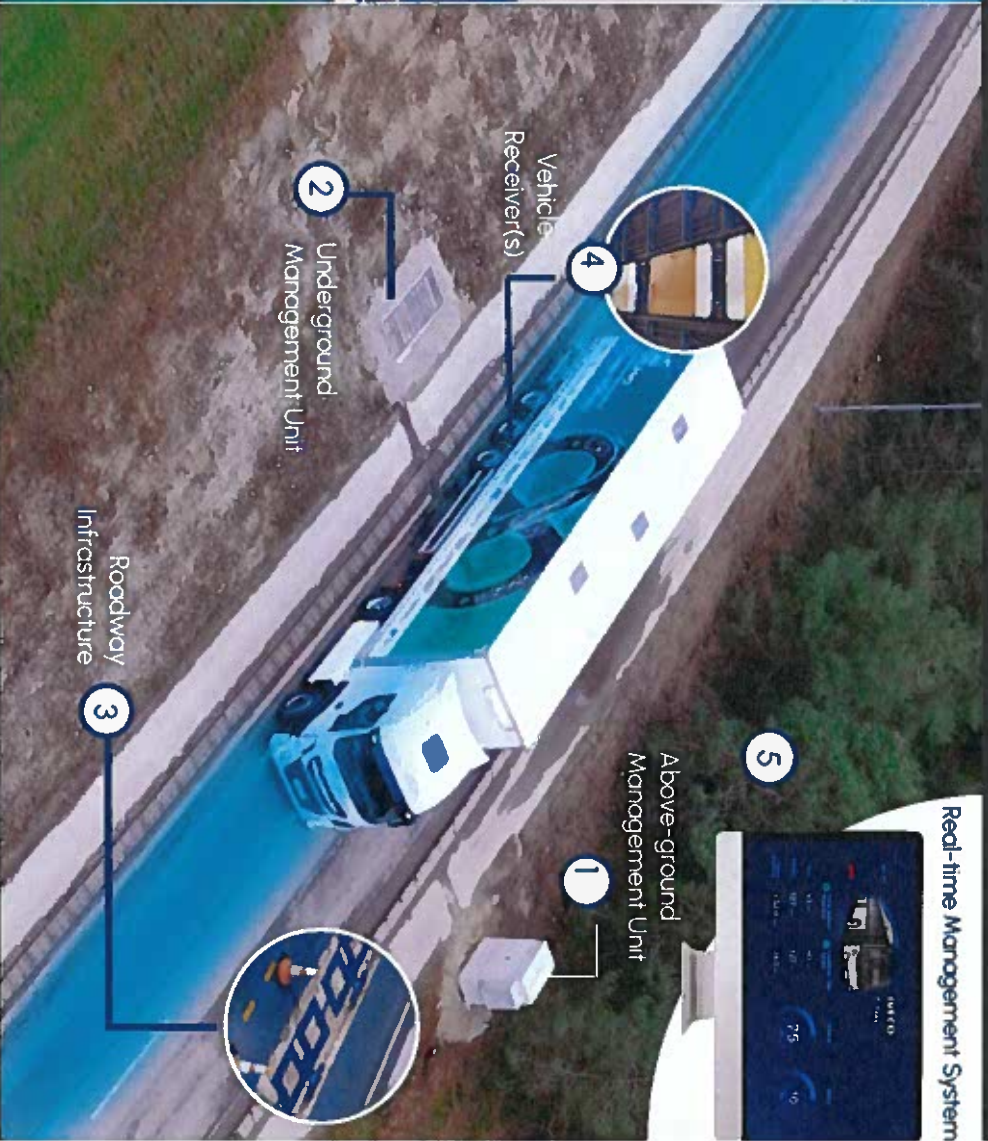
Shared Mobility

Entrepreneurial Support

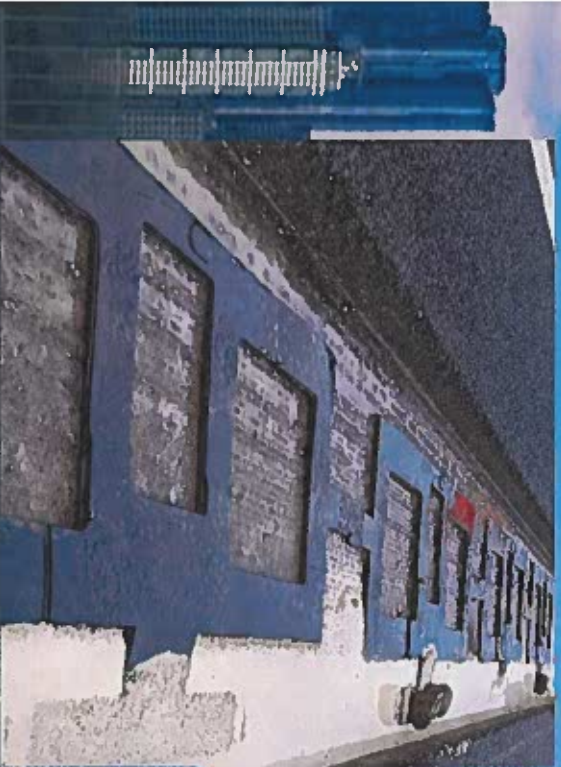
Future Mobility Technology

ARGO

# Electreon's Wireless Charging System



# Seamless Installation & Connectivity to DTE Grid



Asphalt removed

- 1.5m (50oz) mat of coils can be laid with asphalt and repaved in 1-2 days
- No change to the road surface



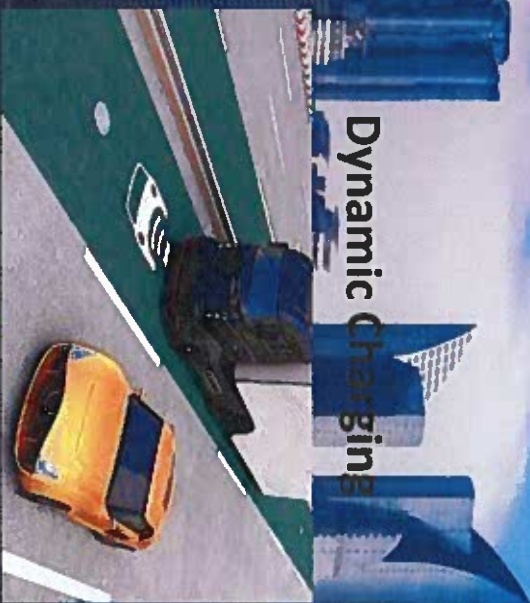
- Stationary fiber optic coils address Serviceability



ELECTRACON

# Electrification Methods

## Dynamic Charging



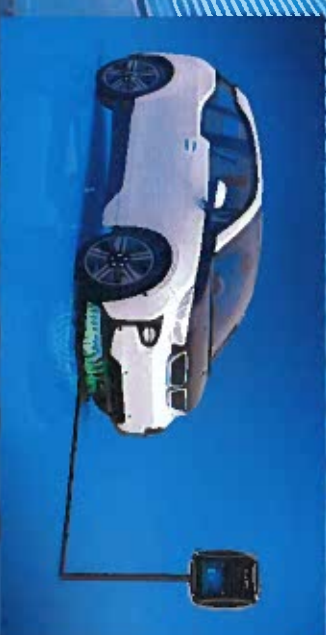
vehicles, motion  
daily routes, e.g. buses, delivery  
or P2P-trucks

## Semi-dynamic Charging

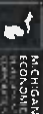
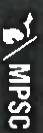


For slow-moving vehicles e.g. queuing tax  
waiting for passengers, entry to logistics  
hubs and ports, and traffic lights

## Static Charging

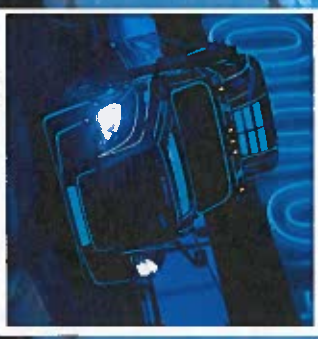


ELECTRION



# Enabling Smart, Electric, Connected, Shared, and Autonomous Urban Mobility

## Inductive Charging Corridor Use Cases for Smart, Urban Mobility



Last Mile Delivery

Shuttle

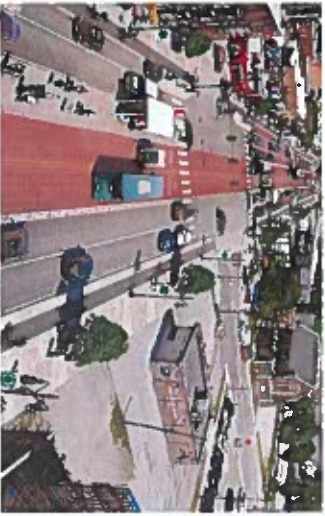
Delivery Vehicles

Freight

ELECTRIC

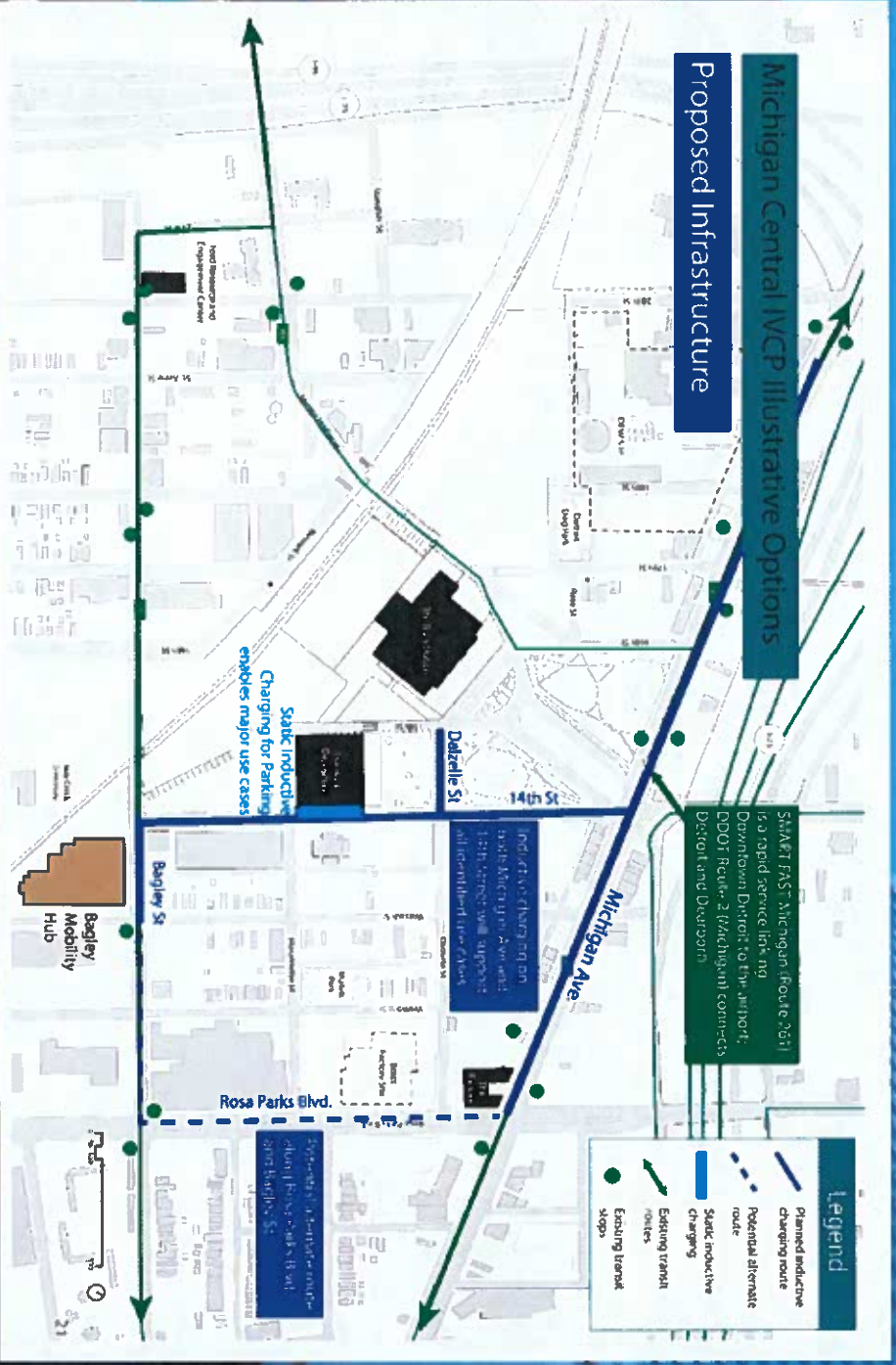
# Location: Michigan Avenue

Michigan Avenue: Mobility Corridor



## Michigan Central WCP Illustrative Options

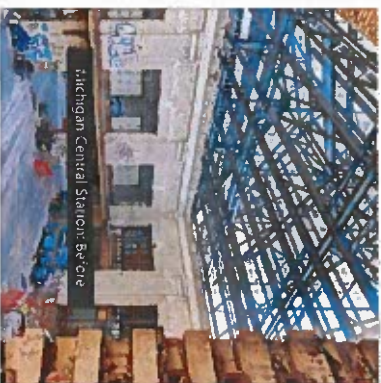
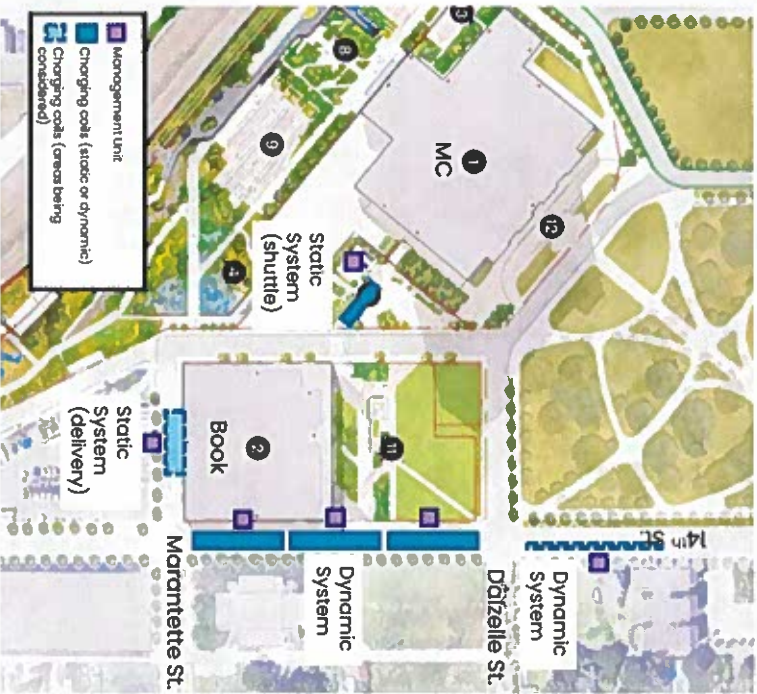
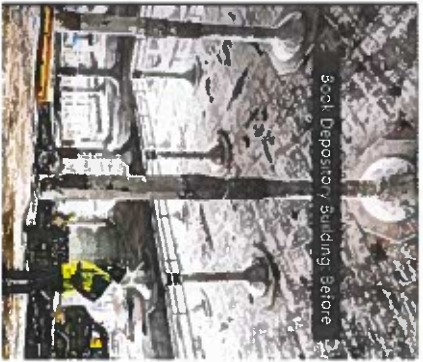
### Proposed Infrastructure



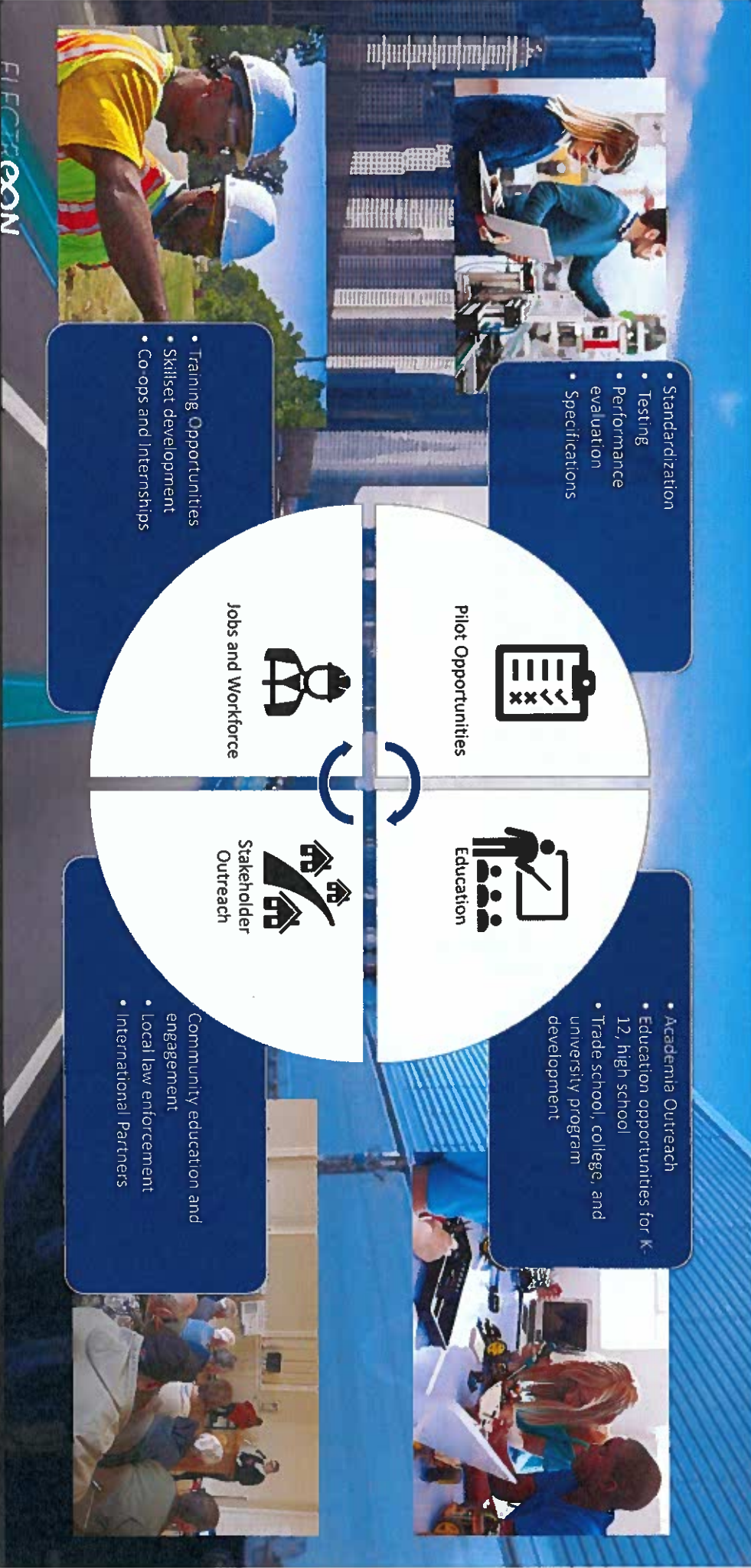


# Location: 14th Street

The locations of the charging coils and control units are identified below:



# Project Pillars



- Standardization
- Testing
- Performance evaluation
- Specifications

- Academia Outreach
- Education opportunities for K-12, high school
- Trade school, college, and university program development

- Training Opportunities
- Skillset development
- Co-ops and Internships

- Community education and engagement
- Local law enforcement
- International Partners

ELECTRIFICATION

