



Equitable Electric Vehicle Ready Parking in Columbus

Roundtable #6

April 20, 2022

A few Zoom reminders for today

Roundtable attendees:

- **Please mute** when not speaking
- Please *also* use the chat function to react, ask questions, and comment!
- Please **rename yourself with name, org, and pronouns** by right clicking on the 3 dots on your image

Refresh: How we are working together

The role we hope you will play

1. Share how you are approaching the transition to electric vehicles
2. Work together to co-create an Equitable EV Ready Parking Ordinance

Suggested group norms

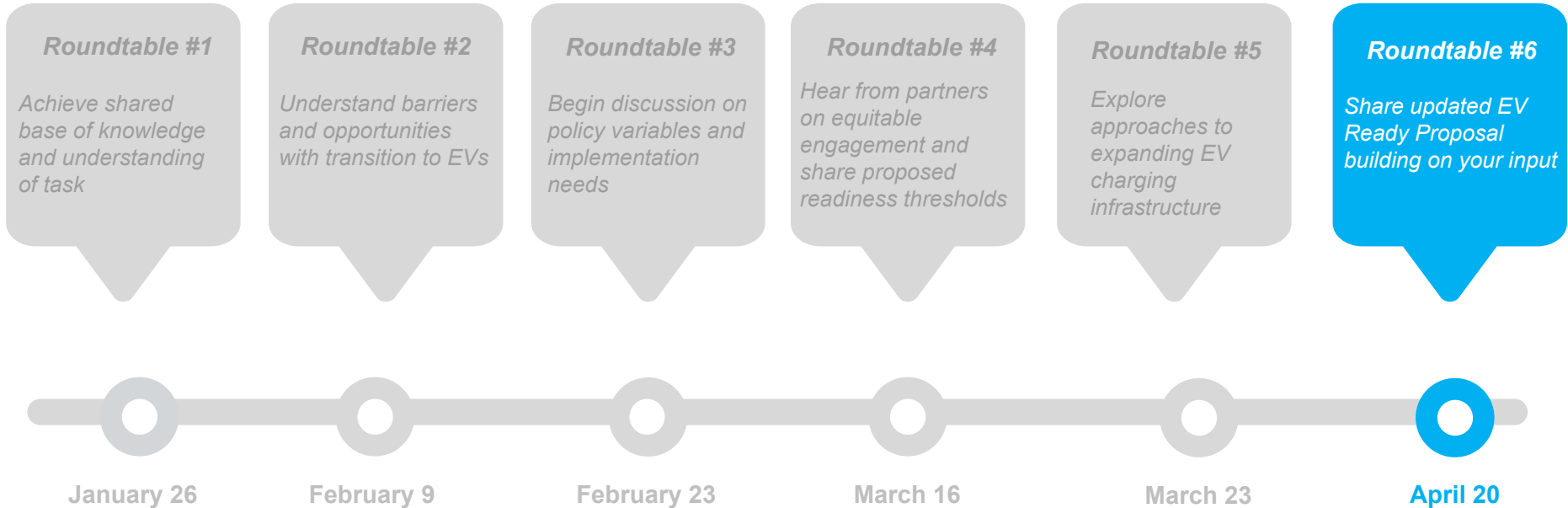
1. Use video whenever possible
2. Minimize distractions
3. Practice the democracy of time
4. Be respectful of opinions
5. *Anything else?*

Together, we hope to accomplish the following today

- Review the main components of the proposed EV Ready Parking Ordinance and Zoning Code amendment language
- Share example use cases applying the EV Ready thresholds
- Engage in self-selected breakout group discussions
- Share the public comment period engagement plan

This collaboration will advance a policy approach

Where we are in the process



Next step: Public comment period from April 25, 2022 to May 25, 2022

Agenda

- *Welcome and introduction*
- **Preview of Ordinance and Zoning Code language**
- Review example use cases
- Breakout group discussion
- Public comment period and next steps

Building on your input

Feedback we've received

Additional lead time is needed to incorporate EV ready standards into design of new projects.

Changing EV readiness thresholds in 2026 may be too soon and could cause uncertainty.

How can we ensure the EV requirements allow flexibility for rapidly changing technologies?

How is affordable housing defined?

How are supply chain delays being addressed?

How we've responded

Our current proposal sets an implementation date of **January 1, 2024** to ensure all developments have adequate time to adjust to the new standards.

Our current proposal sets EV readiness thresholds to begin in 2024 and remain constant through 2030 (at minimum).

Technical Specifications will be promulgated through Rules and Regulations at the Director's discretion rather than established via Code.

Affordable housing will differ from multifamily when 50% or more of the units have income and/or rent restrictions that are monitored by a government agency.

By establishing an implementation date of January 2024, we expect to circumvent current supply chain delays, but we will continue to monitor the situation.

Proposed EV Ready Parking Zoning Code Amendment

- **Proposed code change**
 - Columbus Zoning Code, Title 33, [Chapter 3312](#) “OFF-STREET PARKING AND LOADING”
- **Purpose of Electric Vehicle Parking Requirements**
 - The requirements of this Section are intended to provide electric vehicle charging abilities distributed throughout the City to prepare for emerging electric vehicle technologies, improve air quality, and achieve City climate and equity goals.
- **Applicability**
 - The requirements of this Section shall apply only to any newly constructed parking lot or parking structure, **or the addition of 20** or more new parking spaces to an existing parking lot or parking structure.

Requirements established via Code

- **Definitions**

- EV Capable: Dedicated electrical panel capacity and conduit.
- EV Ready: Dedicated electrical panel capacity, conduit, and wiring installed with termination at an outlet or junction box.
- Electric Vehicle Supply Equipment (EVSE Installed): Dedicated electrical panel capacity, conduit run, and Level 2 charging station installed.

- **Number of spaces required**

- EV Capable, EV Ready, and EVSE Installed spaces count towards off-street parking minimums.

- **Accessibility**

- A minimum of one EVSE Installed space must be located adjacent to an ADA designated space to provide access to the charging station.
- The EVSE Installed accessible spaces must comply with ADA Guidelines.

Requirements established via Rules and Regulations

- The Director of the Department of Building and Zoning Service shall promulgate rules and regulations for the administration of the Technical Specifications of Zoning Code Chapter 3312 Sections 3312.55 through 3312.57.
- **Proposed Technical Specifications**
 - EV Ready:
 - Minimum 40A input service per space
 - Wiring can be terminated within a junction box, NEMA 6-50, or NEMA 14-50 outlet
 - Electric Vehicle Supply Equipment Installed (EVSE Installed):
 - Minimum 40A input service for 7.2 kW charging space per space
 - Installed per the requirements of the National Electric Code (NFPA 70)
 - One SAE J1772 charging port per space

Building categories included

Building Category	Building types included in category
1, 2, 3 family dwelling	Single family home, duplexes, and triplexes (<i>Zoning Code districts: R-rural, LRR, RRR, RR, SR, R-1, R-2, R-3, R-2F, R-4</i>)
4 or more family dwelling and office and workplace	Multifamily buildings, administrative offices, health care, financial offices, educational facilities, etc. (<i>Zoning Code districts: AR-12, ARLD, AR-1, AR-2, AR-3, AR-4, and C-2, including those in Special Parking Districts</i>)
All other commercial	Retail, grocery, restaurants, etc. (<i>Zoning Code districts: C-1, C-3, C-4, and standalone parking lots and garages, including those in Special Parking Districts</i>)
Affordable multifamily housing	Multifamily housing where 50% or more of the units have income and/or rent restrictions that are monitored by a government agency
City of Columbus	All parking constructed by the City of Columbus

Charging levels included

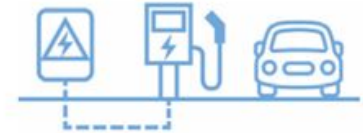
EV Capable



EV Ready



EVSE Installed



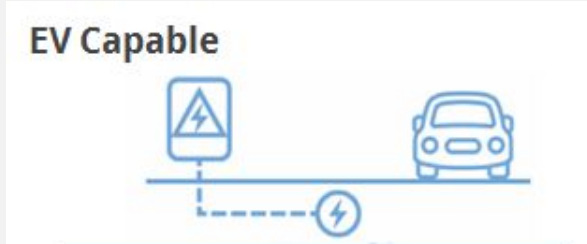
EV Capable threshold tracks with 2040 projected EV adoption rate of 30%

EV Ready threshold tracks with projected 2030 EV adoption rate of 20%

Level 2 installed chargers tracks with current and near-term projected EV adoption rate of 10%

EV Capable

Charging Level



- Lowest cost of readiness levels
- Long-term “insurance policy” to support cost-effective expansion of EV chargers

Elements Included



- Requires dedicated panel capacity and conduit run to parking spaces
- Estimated cost per space: \$500

EV Ready

Charging Level



- Tracks with estimated 2030 EV adoption
- If wiring is terminated at an outlet, EV Ready enables charging with onboard vehicle charger

Elements Included



- Requires dedicated panel capacity, conduit, and wiring with termination
- Estimated cost per space: \$1,200

EVSE Installed

Charging Level



- Enables immediate EV charging to meet current and future demand

Elements Included



- Requires installation of a Level 2 EV charger
- Estimated cost per space: \$5,000

Proposed EV Readiness Thresholds

Applies to newly constructed parking or the addition of 20 or more parking spaces to existing parking beginning January 1, 2024:

Building Type	EV Capable ¹	EV Ready ²	Level 2 charger installed ²	Cumulative EV charging enabled
1, 2, 3 family dwelling	N/A	One EV ready space per dwelling unit	N/A	One EV ready space per dwelling unit
4 or more family dwelling, office, and workplace	20%	20%	10%	50%
All other commercial	15%	15%	5%	35%
Affordable multifamily	10%	10%	5% ³	25%
City of Columbus	60%	25%	15%	100%

1. EV Capable thresholds reflect the '2023' targets proposed during March 23 meeting
2. EV Ready and EV Installed thresholds reflect the '2026' targets proposed during March 23 meeting
3. Contingent on availability of City funding



- Menti Exercise -

*What is still on your mind
after seeing these specifics?
What do you want to continue
discussing?*

Agenda

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- **Preview of Ordinance and Zoning Code language**
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Example scenario: multifamily apartment parking

Project size: 116 apartments

Parking spaces constructed: 174 spaces

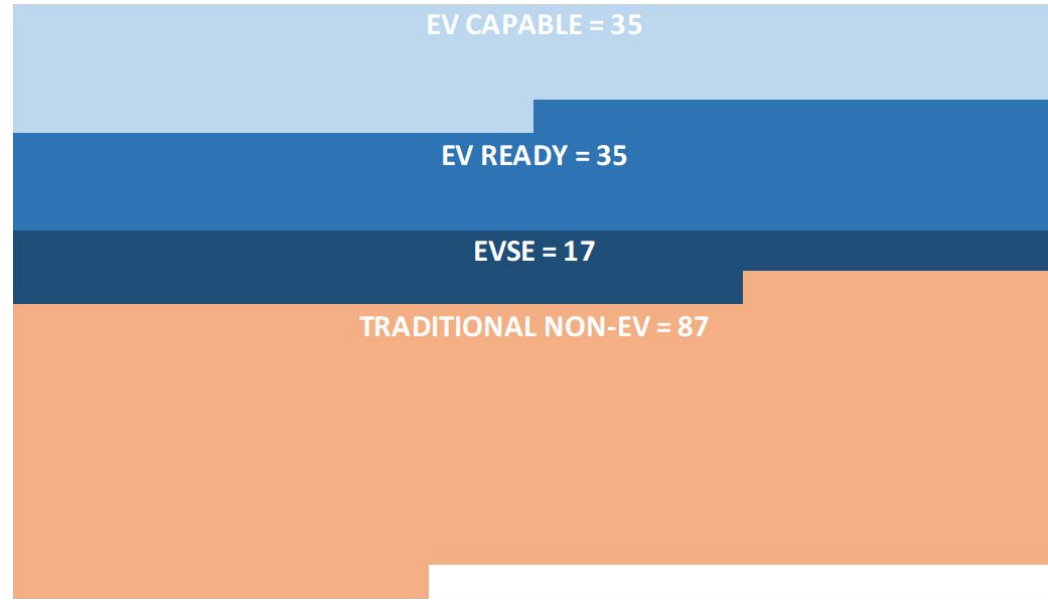
Readiness levels:

- 20% EV Capable: $35 \times \$500 = \$17,500$
- 20% EV Ready: $35 \times \$1,200 = \$42,000$
- 10% EV Installed: $17 \times \$5,000 = \$85,000$

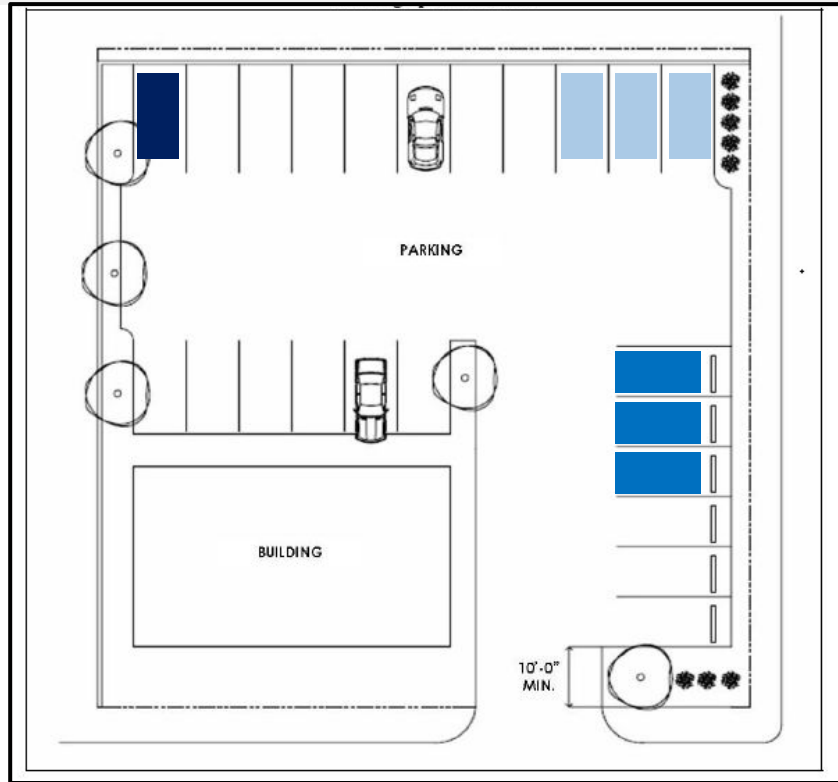
EV enabled spaces: 87

Traditional spaces: 87

Total EV readiness costs: \$144,500



Example scenario: retail parking lot



Retail Parking Lot

Parking spaces constructed: 23 spaces

- 15% EV capable = 3 spaces x \$500/space = \$1,500
- 15% EV ready = 3 spaces x \$1,200/space = \$3,600
- 5% EV installed = 1 space x \$5,000/space = \$5,000

Total EV Readiness costs: \$10,100



- Menti Exercise -

What reactions do you have to the use cases?

Agenda

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Breakout group discussions

Self-selected breakout group topics

1. **Proposed policy discussion**
 - a. **Group 1** - multifamily, office, and workplace
 - b. **Group 2** - 1-3 unit dwelling, affordable multifamily, and other commercial
2. **General discussion and questions**

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Proposed Ordinance - public comment period

- Public comment period open from April 25, 2022 to May 25, 2022
- Draft Ordinance and **Ordinance Feedback Form** will be posted on the EV Ready Parking [website](#)
- All feedback must be submitted through the public comment forum to support an equitable and transparent process
- Feedback will help inform a final draft Ordinance to present to City Council
- In addition to collecting feedback on the proposed Ordinance, we're continue to collect input from community on their needs in the electric vehicle transition. A **Community Impacts Survey** will be open during the public comment period
- Please share widely with your networks!

Upcoming engagement opportunities

- **Two webinars:**
 - 30 minute presentation on EV Ready Parking Ordinance
 - Content will be the same at each meeting
 - First session will be recorded and posted online
 - Q&A will not be held live
 - Looking at first and third weeks of May
 - WebEx meeting links to be posted on our website
- **Two virtual office hours sessions:**
 - Open meeting for Q&A on proposed Ordinance
 - Looking at second and fourth weeks of May
- Details will be finalized, shared with this group, and posted on our [website](#)

Amplifying public input tools

- **Ordinance Feedback Form**

- Audience: developers and others responsible for ensuring EV ready standards are incorporated into developments
- Distribution methods: EV Roundtable network distribution, Sustainable Columbus partners, Smart Columbus members, social media

- **Community Impacts Survey**

- Audience: residents, community groups, community-based organizations
- Distribution methods: Community Advocates, Sustainable Columbus partners, social media

Open question: What tools, networks, and channels do you all have that can be used to amplify and distribute these feedback forms?

Questions / Open Dialogue

THANK YOU!

Our contact information

- Bryan Clark (BMClark@columbus.gov)
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- Kristy Meyer (KRM@smartcolumbus.com)
- Matt Stephens-Rich (mstephensrich@electrificationcoalition.org)

Additional Resources

- **Equitable EV Ready Parking [Website](#):**
 - Process overview
 - One-pager to download
 - Frequently Asked Questions document
- Examples of how other cities have approached EV Ready:

<https://www.swenergy.org/transportation/electric-vehicles/building-codes#who>

