



## VILLAGE OF RIVER FOREST SUSTAINABILITY COMMISSION

Tuesday, March 12, 2024 – 7:00 PM  
Village Hall – 400 Park Ave., River Forest, IL

You may submit your written public comments via email in advance of the meeting to: [sjansen@vrf.us](mailto:sjansen@vrf.us)  
You may listen to the meeting by participating in a Zoom conference call as follows: dial-in number: 312-626-6799 with meeting ID: 816 4491 8569 or by clicking [here](#). If you would like to speak during public comment, please email [sjansen@vrf.us](mailto:sjansen@vrf.us) by 4:00 PM on Tuesday, March 12, 2024.

### AGENDA

1. Call to Order/Roll Call
2. Public Comment
3. Adoption of Meeting Minutes for February 13, 2024
4. Electric Vehicle Readiness Cohort Update
  - a. Zoning Code Ordinance
5. Commissioner Updates
6. Working Group Reports
  - a. Continued Discussion on Sustainability Metrics
7. Communications
  - a. Webpage Review and Update
8. Other Business
  - a. UIC Planning Project
9. Schedule Next Meeting – April 9, 2024
10. Adjournment

# VILLAGE OF RIVER FOREST



Collection Period	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD TOTAL	AVG/MTH
Active Customers	2,890												0	2890
Compost Subscribers	525													525
Recycling Tons	90.92												90.92	90.92
Recycling lbs	181840												181840	181840
2024 Recy lbs/Cust	62.92	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		62.92
Organics Tons	26.33													26.33
Organics lbs	52660													52660
2024 Organics lbs/Cust	18.22	NA	NA	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		18.22
2024 Recycle & Organics Diversion %	36.33%	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Trash Tons	205.49												205.49	205.49
Trash lbs	410980												410980	410980
2024 Trash lbs/Cust	142.21	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		142.21
Total Tons	322.74													322.74
Total lbs	645480													645480
2024 Total lbs/Cust	223.35	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		223.35
2024 White Goods Count	0												0	0
2024 Stickers Sold	0												0	
2024 E-WASTE Event Tons	0												0	0
2024 E-Waste Participation	0												0	0
2024 HHW Event Tons	0												0	
2024 HHW Event Participation	0												0	

Yard Waste Facility	LRS MAYWOOD TRANSFER STATION (1201 Greenwood Ave, Maywood, IL 60153)
Recycling Facility	LRS MAYWOOD TRANSFER STATION ( 1201 Greenwood Ave, Maywood, IL 60153), LRS
RECYCLING PURCHASED BY	RESOURCED TO VARIOUS DOMESTIC BUYERS
Trash Facility	LRS MAYWOOD TRANSFER STATION ( 1201 Greenwood Ave, Maywood, IL 60153)



# Assure Station Metrics Monthly Reporting

Village of River Forest IL - Monthly Report - January 2024

Company Id  
153681

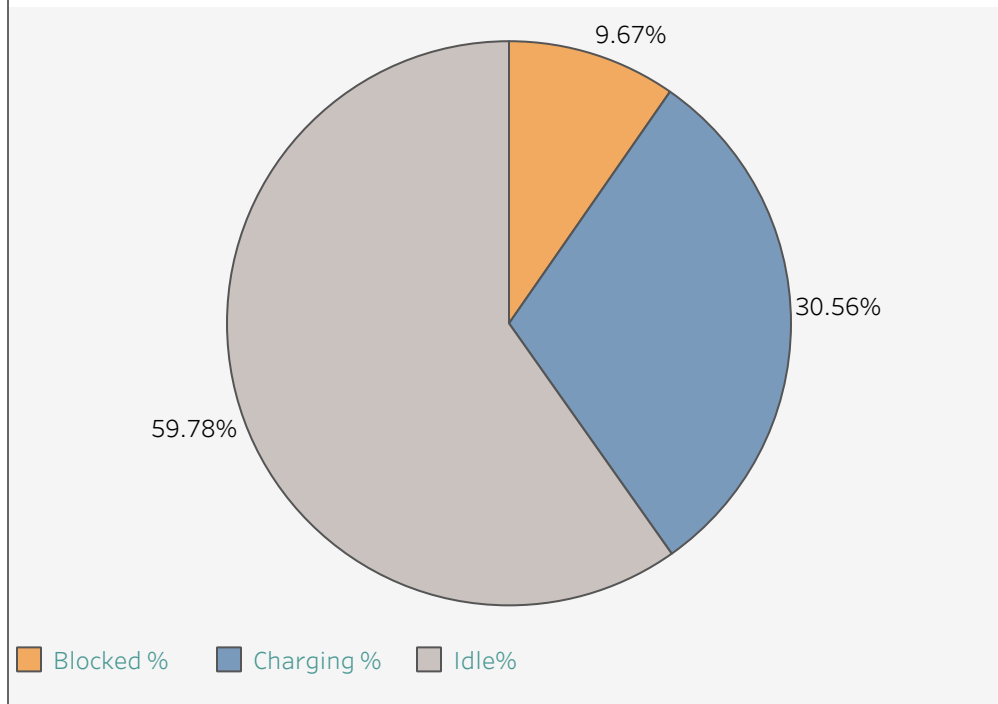
Port Level  
All

Organization Name  
All

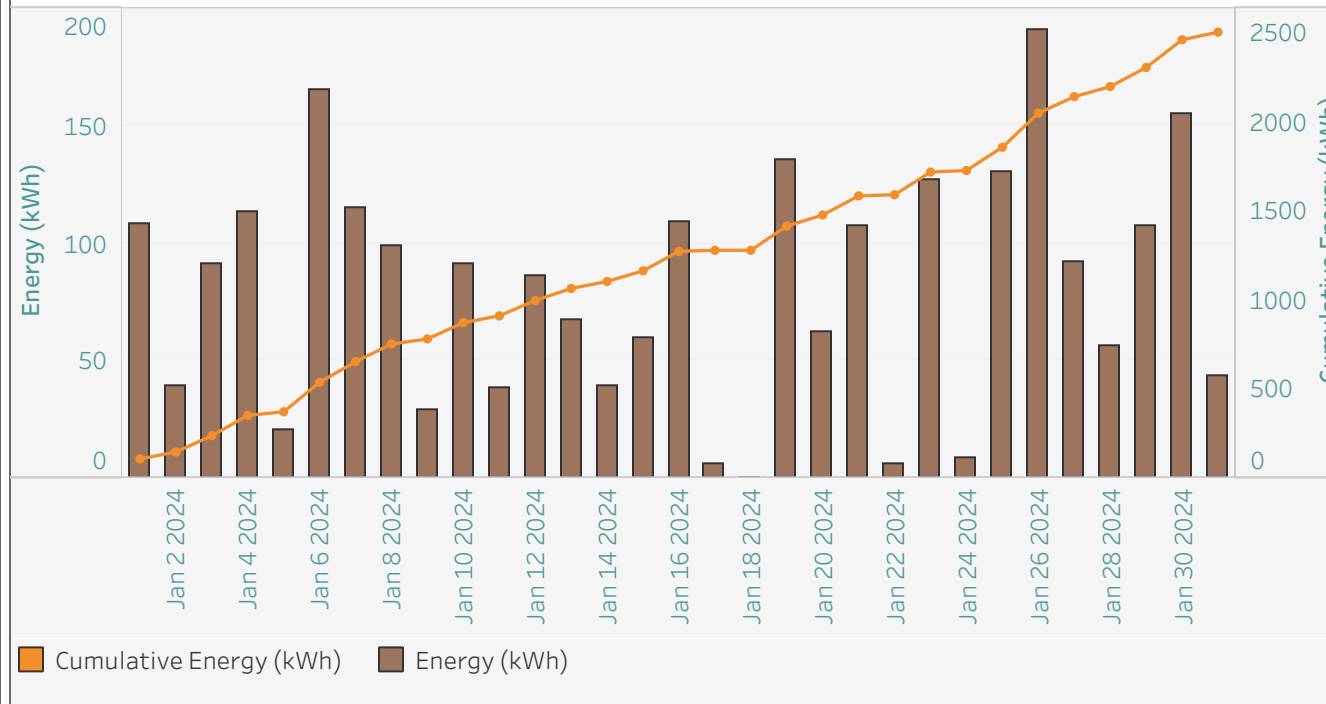
Month End Date  
1/31/2024

Port Count	Station Count	Total Revenue (\$)	Energy (kWh)	GHG Savings (kg)	Gasoline Saved (Gal)	Unique Driver	Session Count
2	1	0	2,502	1,051	314	23	113

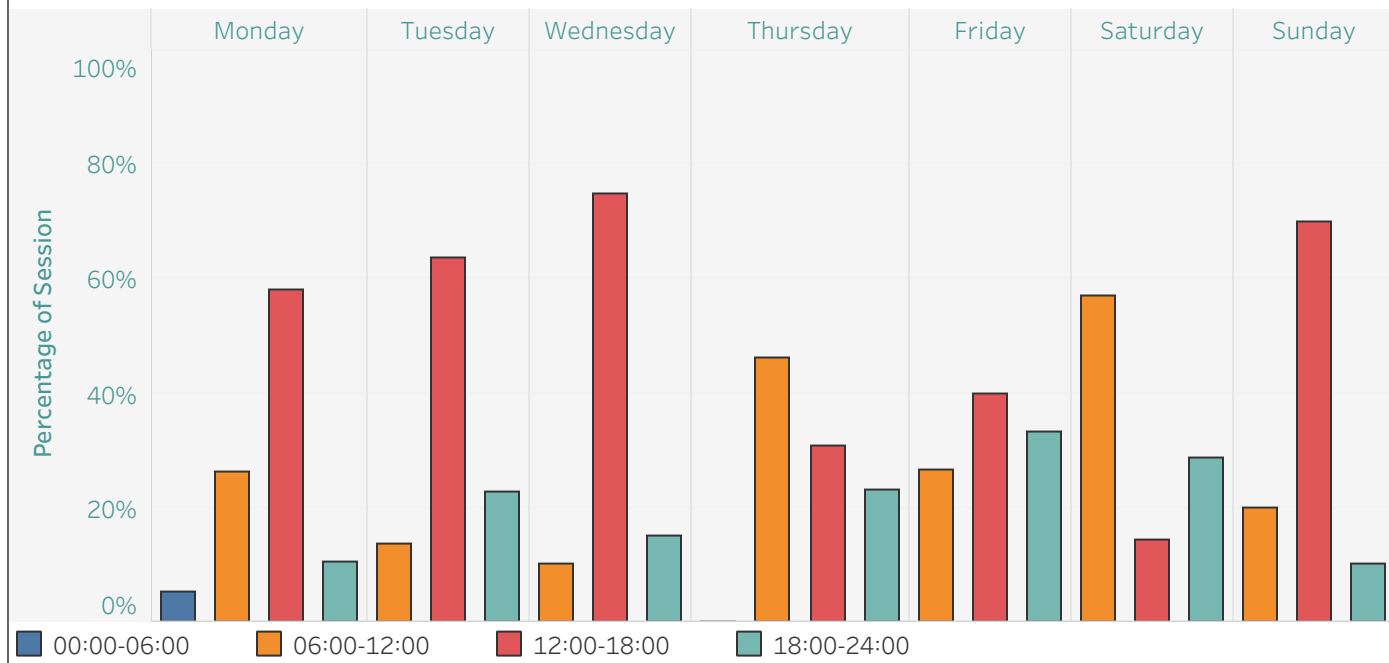
Port Utilization: 24 Hours



Energy Dispensed (kWh) by Day



Session Starts by Time of Day Month



Average Session Duration (Hours)	5.30
Average Session Charge Time (Hours)	4.02
Average Session Energy (kWh)	22.14
Average Session Revenue (\$)	0.00
Occupied Hours	598.5
Charging Hours	454.7



## Assure Station Metrics Reporting Appendix

**Port Utilization Chart:** This is a view of station utilization during common business hours.

You can use this information to determine if updates need to be made to pricing / access policies or if stations should be added.

**Session Start Distribution Chart:** This is a view (by day) of what times drivers start sessions.

You can use this information to fine tune time of day pricing policy rules.

**Station / Port Count:** In order to be counted, a station must have the "Assure" entitlement applied.

This is the number of stations / ports that currently have the "Assure" entitlement.

**Total Revenue:** This is the sum of session fees generated by your "Assure" stations minus the ChargePoint service fee (10%).

This is based on session dates (not transaction date which may differ). Your Flex Billing reports should be used for financial reporting.

**Energy (kWh):** All energy dispensed through your "Assure" stations.

This data point can be useful in reconciling station energy against energy bills.

**GHG Savings (kg):** All the green house gasses (95% CO2) that would have been released had the miles provided by your stations come from gasoline.

This data point can be useful in sustainability reporting.

**Unique Drivers:** The number of unique drivers that used your stations this month (a driver would be counted only once even if they used different RFID cards).

An understanding of the number of unique drivers visiting may be useful in creating station messaging / video ads.

**Gasoline (Gal) Saved:** All the gasoline that would have been burned had the miles provided by your stations come from gasoline.

This data point can be useful in sustainability reporting.

**Uptime:** Percentage of time that your ports were capable of dispensing power.

ChargePoint is committed to keeping your ports dispensing power 98% of the time or better.

**Sessions:** Total session count.

An understanding of the number of times your stations authorize a session can be useful creating station messaging / video ads.

**Average Session Duration:** Average amount of time drivers occupy your stations.

This data point can be useful in fine tuning length of stay pricing policy rules.

**Average Charging Time:** Average amount of time per session energy is flowing.

This data point can be useful in fine tuning length of stay pricing policy rules.

**Average Session Energy:** Average amount of energy dispensed.

This data point can be useful in fine tuning price per kW pricing policy rules.

**Average Session Revenue:** Average session fee - 10%.

This data point can be useful in fine tuning minimum & maximum values for pricing policy rules.

**Total Hours Occupied:** Sum of all session durations.

This is used in part to determine utilization.

**Total Hours Charging:** Sum of all session charging durations.

This is used in part to determine utilization.

**VILLAGE OF RIVER FOREST  
SUSTAINABILITY COMMISSION  
TUESDAY, FEBRUARY 13, 2024**

A regular meeting of the Village of River Forest Sustainability Commission was held on Tuesday, February 13, 2024 at 7:00 p.m. in the Community Room of Village Hall, 400 Park Avenue – River Forest, IL.

**1. CALL TO ORDER/ROLL CALL**

The meeting was called to order at 7:04 PM. Upon roll call, the following persons were:

Present: Commissioners Charrette, Drury, Hayley, Lennon, Mezzatesta, Student Commissioner Stierwalt and Student Commissioner Avalos.

Absent: Chairperson Simon, Commissioner Veazie

Also Present: Management Analyst Seth Jansen

**2. PUBLIC COMMENT**

The Commission introduced the new student Commissioner Manolo Avalos, a Senior at Oak Park River Forest High School who also serves as President of the OPRFHS Environmental Club. Manolo briefly introduced himself to the Commission.

One written comment was submitted from resident Caroline Loring concerning the River Forest Park District’s plan to install artificial turf at two park locations as part of their 2024 Master Plan. Mr. Jansen indicated it is generally the policy of the Village to defer the decisions of other taxing bodies to those respective elected boards but to ensure that all required ordinances and permits are being met in these instances. Commissioner Charrette provided background on the previous installation of turf at one of the parks and noted that the Sustainability Commission had discussed the environmental impact of that proposal at that time. Commissioner Charrette further noted that it is important that this has been brought to the Commission’s attention and that this is important to share with people who feel strongly about the matter. Commissioner Charrette also encouraged everyone to respond to the Park District’s survey. Commissioner Mezzatesta stated the Commission should object to the use of artificial turf at any location in the Village. Commissioner Charrette stated any action by the Commission would be a suggestion to the Village Board, and the Board would decide if they had any jurisdiction. Commissioner Charrette further indicated that the Commission could have the most impact by focusing on the sustainability aspects of such issues.

**3. ADOPTION OF MEETING MINUTES**

Commissioner Mezzatesta indicated one typo in the minutes that needs to be corrected. Commissioner Lennon made a motion, seconded by Commissioner Mezzatesta to approve the meeting minutes as corrected from January 9, 2024.

Roll Call:

Present: Commissioners Charrette, Drury, Hayley, Lennon, and Mezzatesta

Absent: Chairperson Simon, Commissioner Veazie

Nays: None

Motion Passes.

#### **4. PROPOSED EV CHARGING STATION OVERSTAY FEE ORDINANCE**

Mr. Jansen briefly summarized the previous month's discussion on the proposed charging station ordinance. Mr. Jansen indicated that the ChargePoint system cannot support a tiered fee system and that he instead put together a draft ordinance based on the alternate suggestion. Commissioner Charrette provided quick comment for those in attendance on what is trying to be accomplished by establishing a fee to encourage users to not leave their car parked at the charging station. Student Commissioner Avalos inquired about signage to ensure that it is only being used by electric vehicles. Mr. Jansen indicated that current signage indicates only electric vehicles can utilize the space and that the ordinance will provide further clarity, though the Village has authority to enforce the Illinois Vehicle Code, which states only electric vehicles can utilize charging spaces.

The Commission discussed the cap on the fee and ensuring any fee for overstaying at the charging station should be consistent with a parking violation in the Village. The Commission discussed what the hourly fee rate should be, indicating that it should be set at a rate to encourage people to move their vehicle. Mr. Jansen indicated most communities were \$1 or \$2 per hour but begin charging immediately, while one community charged a rate of \$20 per hour after three free hours to encourage people to move their vehicles. The Commission decided to establish the free charging time as a set time, rather than to full charge, to ensure all users have fair access to the charging station, and decided upon 2 hours, which can provide up to 50 miles of charge to a vehicle. Commissioner Mezzatesta indicated that EV owners should not be solely reliant on this charging station but that it should be able to give them enough charge to get to their next location. The Commission decided on two free hours followed by a fee of ten dollars per hour with a cap equal to the amount of a Village parking violation.

Commissioner Charrette made a motion, seconded by Commissioner Mezzatesta to recommend to the Village Board of Trustees to approve an ordinance establishing a fee for the Village's Electric Vehicle Charging Station.

Roll Call:

Present: Commissioners Charrette, Drury, Hayley, Lennon, and Mezzatesta

Absent: Chairperson Simon, Commissioner Veazie

Nays: None

Motion Passes.

#### **5. UIC PLANNING PROJECT**

Mr. Jansen indicated that he had shared the progress reports from the UIC student sections with the Commission and inquired if the Commission had any questions. Commissioner Lennon inquired about when the final report would be produced; Mr. Jansen indicated that would be April 30<sup>th</sup>. Mr. Jansen indicated a midterm presentation would be the evening of February 27<sup>th</sup> if any Commissioners were interested in attending virtually or in-person. The Commission indicated they would like to have the zoom link sent to the entire Commission.

One UIC student, Jake, in attendance provided brief comments about the on-going work of his group, as they are narrowing down their focus and action items. He indicated that he is open to any questions from the Commission. Commissioner Lennon indicated interest in electrification in general and not simply limited to electric vehicle charging. Commissioner Charrette indicated one of the progress reports discussed extension of the electric aggregation program and indicated hesitancy about the viability of the electric aggregation program after the current program ends. Mr. Jansen briefly outlined how that process will go following establishment of new Illinois Commerce Commission electric rates in May.

## **6. COMMUNICATIONS**

Commissioner Mezzatesta discussed her communication with the Wednesday Journal and that they would be open to a regular column or letter to the editor. Commissioner Mezzatesta indicated it would be great to also include the Village of Oak Park in the future. Commissioner Mezzatesta stated she wants to take a broad approach, taking some information shared in the newsletter but applying it so residents of any community can use the information. Mr. Jansen stated that, if articles are being submitted by the Sustainability Commission, that the Village communications consultant would need to review prior to submission. Commissioner Mezzatesta further discussed how she would like the tone and format of the articles to be. Student Commissioner Avalos stated it would be good to bring in resident contributions for both Village newsletters and the submissions to the Wednesday Journal. Commissioner Charrette stated that the Commission could use the backlog of articles previously published in the Village newsletter. The Commission further discussed the format and content of potential columns for the Wednesday Journal.

The Commission discussed the Village's social media accounts. Commissioner Drury indicated interest in having active links on the Instagram account. Student Commissioner Avalos indicated that short videos such as Instagram Reels and YouTube Shorts can be very engaging for younger social media users.

Commissioner Mezzatesta stated that the Village should publish relevant metrics in the newsletters and social media. The Commission specifically discussed Electric Vehicle ownership rates in the Village and to how best compile and share that information. The Commission further discussed compost and waste metrics, other electric vehicle metrics, and metrics relating to the ComEd and Nicor efficiency programs. Commissioner Charrette requested a further discussion of annual and quarterly metrics at next month's meeting. Commissioner Lennon discussed some of the energy metrics that he and Commissioner Veazie had previously discussed and noted that its important to discuss the actions being undertaken because some metrics can take years to be realized.

The Commission further discussed reorganizing the Sustainability information on the website and would like to continue discussing it at a future meeting. Mr. Jansen briefly outlined the upcoming planned newsletter and social media posts. Commissioner Charrette volunteered to submit the March monthly newsletter regarding recycling contamination and appropriate ways to dispose of items that cannot be recycled.

## **7. WORKING GROUP REPORTS**

Commissioner Hayley stated that she and Commissioner Drury had met with the River Forest Library about potentially expanding drop off battery recycling at the library. She also indicated that she had compiled several more general questions relating to sustainability and waste; Mr. Jansen stated those questions could be sent to him. The Commission further discussed promoting reuse and recycling of textiles and drop off facilities recycling plastic bags.

## **8. ELECTRIC VEHICLE READINESS COHORT**

Mr. Jansen explained that next month's meeting will discuss potential zoning changes relating to the EV Readiness Cohort and outlined the process for zoning code changes.

## **9. SCHEDULE NEXT MEETING – MARCH 12, 2024**

The Commission reached a consensus to hold its next meeting Tuesday, March 12, 2024.

## **10. ADJOURNMENT**

Commissioner Mezzatesta made a motion, seconded by Commissioner Lennon to adjourn the meeting at 8:35 PM.

Roll Call:

Present: Commissioners Charrette, Drury, Hayley, Lennon, and Mezzatesta

Absent: Chairperson Simon, Commissioner Veazie

Nays: None

Motion Passes.

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Seth Jansen, Secretary





**Village of River Forest**  
**Public Works and Development Services**

400 Park Avenue  
River Forest, IL 60305  
Tel: 708-366-8500

**MEMORANDUM**

Date: March 12, 2024

To: Sustainability Commission

From: Seth Jansen, Management Analyst

Subj: Electric Vehicle Readiness Cohort – Zoning Action Items

The Village of River Forest is continuing its participation in the Metropolitan Mayors Caucus' (MMC) Electric Vehicle ("EV") Readiness Program in order to prepare to meet the growing demand for EVs and EV charging infrastructure. The EV Readiness cohort follows a pathway toward EV Ready Bronze, Silver or Gold by completing a number of actions presented in the EV Readiness Checklist. Among the action items are several items concerning the topic of zoning. Currently, there two zoning items the Village must address to achieve Bronze designation and six additional items to receive Silver designation. Furthermore, there are two additional items outside of the zoning section of the EV Readiness Checklist, but which require changes to the Village zoning code, that are required to receive Gold designation, one concerning parking and one concerning new construction. Outlined below are the specific items, by which designation level for which they are required, and the action the Village would need to take to achieve the points for that item. This memo and attached documents outline the potential changes and actions required. The Commission's feedback and guidance are sought. It is recommended that a motion be made to the Village Board to begin this process. After action from the Board, the Zoning Board would need to hold two public hearings concerning proposed text amendments before it could formally go back to the board for adoption.

Two zoning changes are required in order for the Village to receive Bronze designation.

1. The item concerning accessory use states "When EV charging is not the primary use of the site, classify the EV charging station as an accessory use." The attached draft achieves this by adding Electric Vehicle Charging to the Accessory Uses section of the Land Use Chart as a Permitted Use in all zones.
2. The other item, concerning parking minimums, states "Where minimum parking requirements exist, flex the number of required parking spaces to accommodate Level 2 and DCFC EVCS". Because different parking minimums are established in four separate sections of the Code and because other sections reference back to those sections, it would be most beneficial to develop a new section in the Regulations of General Applicability chapter of the Zoning title, in order to have a uniform level of flexibility in parking counts in order to accommodate the installation of EVCS. Current draft language recommends counting all EV spaces toward parking minimums; further discussion may be required about flexing the

number of parking spaces so that EV designated spaces may be counted as multiple spaces toward the parking minimum.

Six additional actions are required in order to receive Silver designation:

1. Defining transportation electrification technologies (EVs, EVCSs) is achieved by incorporating MMC-provided definitions to the definitions section of the zoning code.
2. Silver designation also requires communities to “establish zoning regulations to facilitate EVCS installation, assuring it no more difficult to site EVCS than any other equipment or use, and clearly communicate rules”. No model clauses were provided for this provision. The Village intends to submit a memo to the MMC highlighting permitted use and the new section to the Zoning Regulations of General Applicability Chapter.
3. The Village must also establish regulations for the appearance of public EVCSs. Such regulations are added to the new section within the Zoning Regulations of General Applicability Chapter.
4. The Village is similarly required to establish new regulations or articulate existing regulations for content and appearance of advertisements on EVCSs and Electric Vehicle Supply Equipment (EVSE). A clause is added to the new section requiring compliance with any relevant regulations already existing within the Village Sign Code.
5. The Village must also establish new regulations or articulate existing regulations for whether and under what conditions EV charging stations are allowed in the right of way. An additional clause is added to the draft language requiring compliance with any relevant regulations already existing within the Village Code chapter on Standards for Construction of Facilities on the Public Right-Of-Way. This will further support the requirement that it be no more difficult to site EVCS than any other equipment or use, as it establishes standards consistent with that of installation of other equipment.
6. Lastly communities are required to “clearly and concisely communicate EVCS zoning regulations to the public”, which can be achieved through utilization of Village newsletters and the new EV Readiness landing page on the Village website.

In order to achieve Gold designation, an additional change concerning Parking Access is required. This requires the Village to “design parking rules to safely and equitably allow access, while matching charging type, physical space, land use, occupancy type, and type of parking.” No model clauses or community examples were provided for this item. I inquired with the MMC to seek further guidance on the issue and was provided the following:

Most communities in the first cohort chose not to complete this action, so we don't have good examples to share... We are interested in seeing what rules you have that apply to this Checklist item. For example, do the parking rules that you have let people park for longer at Level 2 stations vs. DC Fast Chargers, knowing that there can be a quicker turn-around at DC Fast Chargers? Or do the parking rules somehow consider time in other ways, such as shorter time limits for areas where people will not be staying long (running into a store) vs. longer dwell times at workplaces, where people may be charging for a few hours? For the “safely” allow access, are there any rules about the cord not being a trip hazard, being retractable, being a certain number of feet or in a certain location to minimize trip hazards? Are the parking rules for EV charging stations different for parallel, angled and perpendicular parking? For equitably allowing access, an example of this could be a charging station that only allows people to park there 2 hours during the day, but then does not have this limit at night, when multi-family dwelling residents may need to charge overnight. For

“equitably” allowing access to chargers, you could also provide information on accessibility rules that were followed.

To address this, several items are included in the new proposed section, including address trip hazards directly and requiring compliance to the existing language in the section on Off Street Parking Dimension Regulations within the same chapter on Zoning Regulations of General Applicability. The Village will further provide a memorandum further outlining our recently passed ordinance and the emphasis on equitable access to the existing charging station.

Finally, there are three interrelated items in the checklist section on New Construction which must be addressed to receive Silver and Gold designation. The two Silver-level items do not require code changes but the Gold item does. The establishment of targets and timelines for new construction can be achieved through an internal memorandum and the communication and enforcement of the Illinois Electric Vehicle Charging Act can be achieved through information on the Village website and social media and through existing enforcement authority. The Illinois Electric Vehicle Charging Act requires all new single-family construction and multifamily construction up to 4 units that have dedicated parking to provide at least one “EV-Capable” space per dwelling Unit. The Act requires larger multi-family construction to have every dedicated parking space be at least “EV-Capable”. No requirement is established for new commercial construction, which requires changes to the Village Code to make similar requirements. “EV-Capable” requires electrical panel capacity and space for a branch circuit that supports the EV parking space, including conduit to a junction box at the parking space. One step further is “EV-Ready” which requires wiring in the conduit and an EV Charging outlet. The highest level is “EV-Installed” which has all Electric Vehicle Supply Equipment installed at the charging space. The proposed draft language amends the Off-Street Park section for commercial zoning district C-1. All other sections of the code concerning Off-Street Park in commercially zoned districts refer back to this section. The draft language recommends having spaces be EV-Ready but does not specific the percentage of spaces; Commission input is sought on this matter.

**Recommendation:** Motion to make a recommendation to the Village Board of Trustees to proceed with a text amendment related to electric vehicle charging stations.

**Attachments:**

- Preliminary Draft Text Amendment
- MMC EV Readiness Checklist – Zoning and New Construction Items
- MMC EV Readiness Guidance Document Zoning Code Language: Recommended and Optional Model Language
- MMC Examples and Model Clauses

Action #	Objectives and Actions	Action Points				
		Bronze	Silver	Gold	Extra Points	Extra Points Only
ZP	<b>ZONING AND PLANNING</b>					
ZP-2	<b>Clearly classify EVCS in zoning regulations.</b>					
ZP-2A	When EV charging is not the primary use of the site, classify the EV charging station as an <b>accessory use</b> .	5				
ZP-2B	When EV charging is the <b>primary use</b> of the site, establish new classification of retail EV charging facility or articulate suitable existing classification.				5	5
ZP-3	<b>Establish zoning regulations to facilitate EVCS installation and clearly communicate rules.</b>					
ZP-3A	Define transportation electrification technologies (EVs, EVCSs) to be considered.		2		2	
ZP-3B	Establish zoning regulations to facilitate EVCS installation, assuring it no more difficult to site EVCS than any other equipment or use, and clearly communicate rules.		5		5	
ZP-3C	For EV charging stations that are the <b>primary use</b> of the site, update zoning code to allow these in most or all districts.				5	5
ZP-3D	Establish new or articulate existing regulations for content and appearance of advertising on EVSEs.		5		5	
ZP-3E	Establish new or articulate existing regulations for whether and under what conditions EV charging stations are allowed in the right of way.		5		5	
ZP-3F	Establish new or articulate existing regulations for the appearance of public EVCSs.		5		5	
ZP-3G	Clearly and concisely communicate EVCS zoning regulations to the public.		2		2	

ZP-4	Where minimum parking requirements exist, flex the number of required parking spaces to accommodate Level 2 and DCFC EVCS. ( <i>Conditional Points</i> )	5				
PK	<b>PARKING AND ACCESS</b>					
PK-4	Design parking rules to safely and equitably allow access, while matching charging type, physical space, land use, occupancy type, and type of parking.			5	5	
NC	<b>NEW CONSTRUCTION</b>					
NC-1	Establish targets and timelines for making all new construction EV Capable, EV Ready and/or EVSE Installed, as applicable. Tailor targets for single-family residential, multi-family residential and commercial construction.		5		5	
NC-2	Communicate/ enforce provisions of the Illinois Electric Vehicle Charging Act (Public Act 103-0053), which requires new construction projects for single-family and multi-family dwellings to be EV Capable and provides a right to charge for residents.		5		5	
NC-4C	for <b>commercial development</b> . Require a proportion of parking spaces to be EV Capable, EV Ready and/or EVSE Installed. Establish requirements for L2 and DCFCs, maximum electrical amperage for each parking space and power capacity for electrical panels.			10	10	

**Code Amendments.** That Section 1 (Definitions of Words and Terms) of Chapter 3 (Definitions) of Title 10 (Zoning) of the Village Code is hereby amended as follows, with additions underlined:

...

ELECTRIC VEHICLE: Any vehicle which stores electric energy in a rechargeable battery pack to be used for propulsion and has a conductive plug or inductive wireless connection for recharging the battery. The definition of Electric Vehicle includes Battery Electric Vehicles, which only use energy stored in rechargeable battery packs onboard the vehicle to propel the vehicle, and Plug-in Hybrid Electric Vehicles, which have both an electric motor and an internal combustion engine and can be powered with either. The definition of Electric Vehicle does not include Hybrid Electric Vehicles, which do not plug in and for which the primary source of energy is derived from fuel that powers an engine.

ELECTRIC VEHICLE CHARGING INFRASTRUCTURE: Any “make ready” electrical equipment necessary to delivery electrical power from a facility to Electric Vehicle Supply Equipment, including panels with circuit breakers, switchboards, transformers, conduit, wiring, junction boxes, conduit hangers and other interconnections.

ELECTRIC VEHICLE CHARGING STATION: Any equipment designed to safety supply and manage power into Plugin EVs. EV Charging Stations include hard-wired EV Charging Stations and EV Charging Stations that plug in to standard wall outlets and may also integrate communication, metering, GPS and other features that assist EV drivers and the host facility. The definition of Electric Vehicle Charging Station includes any stations which provide Level 1 Charging, Level 2 Charging, or Direct Current Fast Charging, as defined herein:

Level 1 Charging: Electric Vehicle battery charging that uses 110-to-120-volt Alternating Current supply power, with a power range from 0.88 kilowatts (kW) to 1.92 kW.

Level 2 Charging: Electric Vehicle battery charging that uses 208-to-240-volt Alternating Current supply power, with a power range from 3.3 kW to 19.2kW.

Direct Current Fast Charging: Electric Vehicle battery charging that uses Direct Current power to refuel Electric Vehicles at various amperage levels and voltage levels with power outputs ranging between 25kW and 175 kW.

ELECTRIC VEHICLE SUPPLY EQUIPMENT: Any conductors and electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

...

**Code Amendments.** That Chapter 7 (Regulations of General Applicability) of Title 10 (Zoning) of the Village Code is hereby amended to include a new Section 10-7-7, as follows:

## 10-7-7: Electric Vehicle Charging Station Standards

### A. Parking

1. In all zoning districts, electric vehicle charging stations, associated equipment, and make-ready parking spaces may be counted toward satisfying minimum off-street parking space requirements.
2. Any off-street parking spaces designated for electric vehicle charging shall comply with all relevant regulations as established in Section [10-7-4](#).

### B. Electric Vehicle Charging in the Public Right of Way

1. Electric vehicle charging stations and associated charging infrastructure and supply equipment may only be installed in the Public Right of Way immediately adjacent to striped on-street parking spaces.
2. The installation of any electric vehicle charging stations and associated charging infrastructure and supply equipment shall comply with all relevant regulations as established in Chapter [5-14](#).
3. The electric charging station and associated supply equipment may not block the public right-of-way for pedestrians where minimal unobstructed walkable sidewalks exist or be located in a place that obstructs or interferes with a driver's view of approaching, merging or intersecting traffic in and around the right-of-way.
4. Any electric vehicle utilizing an electric vehicle charging station within the public right of way shall comply with all relevant parking regulations established in Chapters [9-2](#) and [9-3](#).

### C. Appearance:

1. Electric vehicle charging stations shall be protected by bollards, structures, or non-mountable curbs if located directly in a publicly accessible parking lot.
2. Electric vehicle supply equipment shall be mounted or include retractable cords so as to not impede pedestrian travel or create a trip hazard.
3. Adequate lighting shall be provided to any electric vehicle charging station which is publicly accessible during nighttime hours.
4. Any signage or advertisement appearing on electric vehicle charging stations and electric vehicle supply equipment shall comply with all relevant regulations as established in Chapter [4-5](#).
5. The installation of any electric vehicle charging stations and associated supply equipment shall consider design elements that can be integrated into the architectural concept. Whenever possible, electric vehicle charging stations and associated supply equipment materials shall be compatible with buildings, their scale shall fit the style of the host site, colors shall be in harmony with buildings, and surroundings shall be attractive and consistent with the surrounding area's aesthetic values. Standards and criteria should be considered guidelines, and flexibility should be allowed when alternatives can better achieve objectives.







# EV Readiness Guidance Document

## Zoning Code Language:

### Recommended and Optional Model Language

#### Background

The following language may be used in municipal zoning codes related to actions on the EV Readiness (EVR) Checklist Zoning Code Section. Actions on the EVR Checklist fall into two categories:

1. Where clear consensus has been reached on language, **Recommended Model Language** is provided.
2. Where options based on each municipality's preferences apply, **Optional Model Language** is provided. In additions, municipalities approach some of the zoning language differently. For the Appearance and Advertising sections, some language may be already covered by existing codes, in the Appearance and Advertising sections of their codes and/or elsewhere. Rather than repeating text, and because managing EV charging zoning codes is new, the idea of having a specific zoning code section for EV Charging Systems might be advised or a separate set of EV/ EV charging guidelines might be of interest. If existing codes relate to EV charging, such a guideline document could cross-reference relevant existing zoning requirements to facilitate review and approval of permits.
3. In some cases, the model language is offered as a single recommendation. These cases offer specific recommendations for language to be adopted in most of all codes to achieve points.
4. For some of the option text, not all listed items fit every community. The idea is for each community to review and consider what is suitable and what may be included.

Each section below presents the EV Readiness (EVR) Checklist action item, its EVR Checklist number and ideas for Zoning Codes. For each section, some references are provided at the end of this document.

#### Accessory Use

**EVR (ZP-2A, bronze): "When EV charging is not the primary use of the site, classify the EV charging station as an accessory use."**

#### Recommended Model Language

- Electric vehicle charging stations and electric vehicle charging infrastructure are permitted as accessory uses in all zoning districts.

#### **Additional Considerations:**

- In most cases, classify EV chargers as an accessory use to a site and as allowable in all zones.
- If charging stations are misclassified as traditional gas fueling stations, then a zoning official may conclude that a property is not zoned for hosting a charging station or that a zoning classification for a charging station does not even exist. This misclassification can trigger zoning reviews and result in delays that can add months to the lifetime of a project and increase its cost significantly.
- EV charger applications subjected to a conditional or special use permit process that requires zoning board approval and/or city council approval can add significant staff time to the project and result in delays and increased costs.



- The determination of primary and accessory (or subordinate) use is important because accessory uses are generally permitted by right. As such, EVSE that is defined as an accessory use is likely to experience little or no zoning-related delays for approval.

For more guidance on the topic, please see “Planning and Zoning Guidance for Electric Vehicle Charger Deployment,” a 2023 best practices document that was prepared by the Interstate Renewable Energy Council (IREC), the organization that leads the national SoSmart program; RMI; and the Sustainable Energy Action Committee (SEAC). This is found in the [Zoning and Planning – ZP – Resources folder](#).

## Right of Way

**EVR (ZP-3E, silver): “Establish new or articulate existing regulations for whether and under what conditions EV charging stations are allowed in the right of way.”**

### **Recommended EV Friendly Action – Municipal Example**

In March of 2023, the City of Portland and the Portland Bureau of Transportation decided to allow level 2 EV charger installations in the public right-of-way in designated areas of the City. Their goal was to make EV charging more affordable, convenient, and reliable, especially for residents who live in multi-unit dwellings with no access to charging.

The chargers must be installed on “Local Service Traffic Streets,” meaning around the corner from main streets. The EV chargers will be either mounted to an existing utility pole or installed on a pedestal the size of a parking meter. They are not expected to impact the pedestrian zone portion of the sidewalk.

At this time, only utilities and EV charging companies that meet City requirements will be allowed to install EV chargers in the public right-of-way, not adjacent businesses, private groups, or individual residents.

The Portland Bureau of Transportation (PBOT) wrapped up its public rulemaking process in November of 2023. PBOT staff are working on a contract and permit process for utilities and EV charging companies that are interested in installing EV chargers in the right of way.

In order to allow EV chargers in the public right of way, the City of Portland amended its code and transportation administrative rules, including:

- City Code Chapter 16.20, which governs Public Right-of-Way Parking, was updated with Section 16.20.290 to create Electric Vehicle Charging Zones.
- Transportation (TRN)-8.08-Encroachment Manual Section C.22 was updated to show that EV charging stations are an allowable encroachment in the public right-of-way.
- TRN-10.19-Utility Permits in the Right-of-Way was updated with a new section to enable the opening of the street for the installation of EV chargers.

For more information on what the City of Portland and PBOT are doing to allow charging in the public right of way, go to Portland’s [Electric Vehicle Charging in the Public Right-of-Way webpage](#) or [view the ordinance \(191187\)](#) that Portland passed in March of 2023 on the topic.

To summarize this, the following language may be considered for ZP-3A:



Level 2 EV Charging may be installed in the Right-of-Way to support EV owners that have limited access to EV Charging, such as multi-family dwellings and municipal business centers with limited parking for the following situations as further defined in the Municipal Code:

- Designated EV charging zones in the ROW (per Municipal Code XYZ)
- Allowable encroachments in the public way (per Municipal Code ABC)
- Street (curbside) EV Charging per Municipal Code DEF)
- For those departments responsible for Right of Way in these areas, rules for exceptions to existing ROW rules should be considered while still maintaining safety and function of the ROW as intended.

### Other Language to Address Right-of-Way Charging

- Electric charging station equipment may not block the public right-of-way for pedestrians where minimal unobstructed walkable sidewalks exist or be located in a place that obstructs or interferes with a driver's view of approaching, merging or intersecting traffic in and around the right-of-way.
- Electric vehicle charging equipment may not block the public right-of-way.

#### ***Additional Considerations:***

By 2030, 18.7 million passenger EVs will be on U.S. roads — and they will require an estimated 9.6 million charging stations to power up. Right-of-way charging will be vital to meet this demand and U.S. cities have a unique opportunity to lead the charge, according to Forth Mobility in its document "[Right-of-Way Charging: How Cities Can Lead the Way.](#)"

Parking spaces in the right-of-way — the area between neighboring properties, which can include street surfaces, curbs and sidewalks — are valuable and highly visible. These highly visible curbside chargers can provide charging in dense downtown areas where charging options are limited, and for residents without a garage or dedicated off-street parking.

When cities decide to install public charging equipment in these areas, it sends a clear, distinct signal of the city's desire to cut carbon and reduce emissions while simultaneously alleviating range anxiety for potential electric vehicle adopters. This is important because it will accelerate the adoption of electric transportation and advance equity.

#### **Two Use Cases to Consider**

Municipalities need to consider two primary on-street parking use cases. In commercial districts with limited off-street parking, daytime visitors may wish to charge. In residential areas with limited off-street parking, residents may wish to charge on-street overnight.

#### **Commercial Areas**

In more developed commercial areas, where demand for on-street charging is likely to be greatest, multiple authorities typically control curb access or construction on public property. These include public works, street departments, water/sewer authorities, utilities, and transit agencies. On-street charging requires close coordination among authorities and within departments because there can be many competing uses for the public right-of-way (curb) such as for commercial delivery, bike lanes, transit stops, and valet parking. In addition, there may be multiple buried utilities (e.g., water, sewerage, electricity, natural gas, communications cables) that are impacted by construction. Effective coordination among these many entities can lower costs and shorten the permitting process, which can better serve the charging public's needs.



Other factors may compound the challenge. For instance, in cities that require utility infrastructure to be underground, costly trenching to provide power for charging stations could be necessary. In addition, projects may face high electrical infrastructure costs that cannot be covered or rate-based by the utility. Where there is existing electrical infrastructure such as utility poles, streetlights, and adjacent transformers, on-street pole-mounted charging potentially can be installed at a lower cost than for comparable ground-mounted chargers.

### **Residential Areas**

Providing on-street charging for residents who do not have dedicated off-street parking is among the most challenging charging use cases. It is difficult in part because often it is as much a vehicle parking issue as it is a vehicle charging issue, particularly in the most populous areas of cities or in older cities that were laid out before the ubiquity of cars. Densely populated areas with limited parking may require more considerations than areas with plentiful parking do.

Some EV owners without off-street parking run an electric extension cord from a home 110 V (Level 1) outlet to charge their EV at the curb. This practice presents a hazard to pedestrians and other sidewalk users, because the cord must cross the sidewalk either on the ground or elevated above ground level. A few municipalities, including Seattle, Washington, and Portland, Oregon, have addressed this hazard by allowing residents to extend a 110 V extension cord across the sidewalk only while actively charging and using an ADA-compliant cord cover. Such regulations provide access to low-cost, convenient charging for many residents, including many low-income residents, who do not have off-street parking. There are concerns about compliance and enforcement. Cities may be concerned about liability if cords are not properly configured under the cord cover.

Sources:

- “Planning and Zoning Guidance for Electric Vehicle Charger Deployment,” a 2023 best practices document that was prepared by the Interstate Renewable Energy Council (IREC), the organization that leads the national SolSmart program; RMI; and the Sustainable Energy Action Committee (SEAC).
- “Right-of-Way Charging: How Cities Can Lead the Way,” by Forth Mobility.

These documents are in the [Zoning and Planning – ZP – Resources folder](#).

## Appearance

**EVR (ZP-3F, silver):** “Establish new or articulate existing regulations for the [appearance of public EVCSs](#).”

### **Recommendation**

EV charging system projects should be reviewed with a focus on health and safety. Although your community may have some aesthetic considerations, these should not outweigh the primary goals of health and safety when an EV charging system is installed. Please keep in mind that action ZP-1 asked your community to identify any barriers to safe, expedient EVCS development, so appearance guidelines should not create unreasonable barriers or unnecessarily long project timelines.

If your community does have aesthetic guidelines that you apply to all similar projects, not just EV charging systems, then make sure permit applicants receive this information up front to streamline the permitting process and avoid unnecessarily long delays in installing EVCS.



To earn points for this action, you could “articulate existing” aesthetic guidelines that are in your code. If you would like ideas of possible language to include related to appearance, please see the below “Optional Model Language” section.

### ***Additional Considerations and Recommendations:***

- Do not impose aesthetic requirements for surface parking with EV charging that exceed the aesthetic requirements for surface parking without EV charging. Ideally, EV charging projects should not trigger additional aesthetic and design requirements that are not related to the charging equipment itself.
- Provide clear, readily available guidelines on all design and aesthetic requirements that apply to EVSE, including illustrations of acceptable and unacceptable designs. This clarity is especially important in sensitive zoning areas, such as historic districts. Design and aesthetic guidance should not exceed the requirements for other amenities or infrastructure in such zones.
- Consider lighting and shelter to increase the safety, comfort, and convenience of those who are charging EVs.
- The location that is preferred by the local government for aesthetic considerations may differ from the most cost-efficient, optimal, and feasible EVSE locations:
  - EVSE at greater distances from the power source and interconnection results in higher costs, an additional permitting burden, and longer and more complicated construction timelines.
  - Communities should allow for EV chargers and supporting equipment (including transformers, switchboards, and power cabinets) within building, property, or landscaping setbacks to ensure that the equipment is in the optimal location on the property. Codes regarding electrical equipment setbacks often were developed prior to the advent of EV charger electrical support equipment, and thus they may need to be revised to appropriately address this specialized equipment.
- AHJ height limitations and screening requirements may make some EV charging projects unworkable.
- Design and sensitive zoning requirements may make proposed EV charging projects infeasible.
- Please keep in mind that some of the aesthetic requirements without a focus on health and safety are landscaping and screening requirements. However, if these requirements are important to your community, then please see some of the optional language to consider below.

### Sources:

- “Planning and Zoning Guidance for Electric Vehicle Charger Deployment,” a 2023 best practices document that was prepared by the Interstate Renewable Energy Council (IREC), the organization that leads the national SolSmart program; RMI; and the Sustainable Energy Action Committee (SEAC).
- “Electric Vehicle Charging Station Permitting Guidebook,” second edition, January 2023, California Governor’s Office of Business and Economic Development (GO-Biz)
- “[Connect the Watts](#), Best Practices for Charging Infrastructure Program Design: The EV Charging Ecosystem,” EVgo

## ***Optional Model Language***

### Safety and EVSEs

- Public EVSEs should require retractable cords to prevent trip hazards and for a cleaner look.
- EVSEs mounted on pedestals shall be designated and located so as not to impede pedestrian travel or create trip hazards on sidewalks.
- EVSE ports and connector devices shall be no less than 36 inches and no higher than 48 inches from the ground or pavement surface where mounted.



- Adequate lighting should be provided if a publicly accessible EVSE is used during nighttime hours.
- EV Charging Stations shall be protected by bollards, structures, or curb if located directly in a publicly accessible parking lot.

### Safety and Sites

- Consider traffic patterns in design, allowing for clean, clear and appropriate traffic flow for access to and egress from EVSEs.
- Make sure pedestrian pathways are considered when siting EVSEs by maintaining reasonable distances from EVSEs to pedestrian walkways.
- Provide adequate charging station equipment protection such as concrete-filled steel bollards, wheel stops or curbs.
- [Non-mountable curbing](#) may be used in lieu of bollards, if the charging station is setback a minimum of 24 inches from the face of the curb.
- In locations where plants will be susceptible to injury by pedestrian or motor traffic associated with EVSE locations, they shall be protected by appropriate curbs, tree guards or other devices.
- Where applicable, provide clear and clean access from EVSE(s) to building entrance(s), so that the EV charging events do not impede the normal flows into and out of the site host facility.

### Risk & Liability Limits

- The municipality is not liable or responsible for the failure of an publicly owned and publicly accessible EVSEs to properly operate or for any damage caused by an EVSE to persons or property.

### Quality of Life, Compatibility and Harmony

- For publicly accessible EVSEs, provide attractive spaces around the EVSEs, consistent with the community's aesthetic values.
- For publicly accessible EVSEs, when parking space striping and stenciling are provided, provide content and look that are consistent with the community's aesthetic values.

### Site appearance

- EV Charging System (EVCS) structures and components, whether located on private or public property, shall consider design elements that can be integrated into the architectural concept.
- EVCS materials shall be compatible with buildings, their scale shall fit the style of the host site, colors shall be in harmony with buildings and surroundings shall be attractive.
- Consider eliminating or minimizing visible electrical conduits and other appurtenances associated with EVCSs.
- Mechanical equipment or other utility hardware on a roof, ground or elevations shall, whenever possible, be located so as not to be visible from any public ways.
- If siting locations where EVSEs and EV Charging Infrastructure are not easily made non-visible, the facilities shall be screened from public view with materials in harmony with the building or grounds, such as fences, walls, enclosures, or landscaping. Wherever possible, natural landscaping shall be used for such screening.
- Aesthetic requirements that apply to surface parking without EV charging should also apply to surface parking that includes EV charging. EV charging should not trigger additional aesthetic requirements not related to the charging equipment itself.



- Standards and criteria should be considered guidelines and flexibility should be allowed when alternatives can better achieve objectives for provision of this service.

### Landscaping

- For EVSE sites, where landscaping is possible, provide attractive landscaping spaces around the EVSEs, consistent with the community's or site architectural aesthetic values.
- Minimum landscaping requirements for surface electric vehicle parking and charging station lots: (a) Where landscaping is possible, all parking shall be terminated with a landscape strip a minimum width of (five) feet and equal to the length of the parking bay and (b) all required landscaped areas shall be planted with groundcover or shrubs with a maximum mature height of (30) inches.

### Preservation

- EVCS installations shall consider the local historical character of the site, if applicable.

### Protect Value

- Require regular maintenance of EVSE and surrounding areas to maintain clean spaces that support the original aesthetic of the site.
- Provide assurances that all electrical connections and cables are fit for service at all times and do not pose a risk to persons or property.
- Assure addition of EVCS does not adversely affect the commercial value or interests of the surrounding area.

## Advertising

**EVR (ZP-3D, silver): “Establish new or articulate existing regulations for content and appearance of advertising on EVSEs.”**

### Background

EVSEs with integral illuminated electrically activated or changeable signs using static or dynamic digital media for advertising purposes may emit various levels and patterns of light and sound. Refer to discussions in Sign Section, below for definitions.

Advertising signs on EVSEs can take on the following forms:

1. Static branding / signage
2. Changeable fixed images
3. Changeable or animated images (some with audio)

This discussion does not consider lit or unlit images, static or dynamic, that provide instructions and information (e.g., pricing, usage, total bill) to the user of the EVSE when they are recharging their EV's battery.

Static branding and signage are managed as part of the general subject of signage.

Illuminated electrically activated or changeable signs include signs that present images that are not changed or are changed infrequently, typically with front and/or back lighting of images that can be changed remotely using digital communications between the advertisement and the sign. Changeable or animated images media signs



include signs that have streaming video and/or still images that regularly change can be changed remotely using digital communications between the digital advertisement and the sign or manually at the sign.

Some signs can distract vehicle drivers and create light and noise that may be undesirable for some who might see and hear the signs. Distractions relate to the brightness, readability/legibility, message transitions, and the content of the messages presented. Rules should consider the following ideas related to distraction and safety, to minimize noise and light pollution and be consistent with community values.

### **Optional Model Language**

General no use rule: “Illuminated electrically activated or changeable signs integral to EVSEs are not allowed”.

#### Sign Brightness

- No sign shall be of such intensity or brilliance as to impair the vision of a motor vehicle driver or to otherwise interfere with the driver’s operation of a motor vehicle.
- Digital signs shall never exceed a brightness level of greater than **xxx** footcandles (e.g. 2 to 3) above ambient light.
- Signage/advertising requirements shall vary based on normal vehicle travel speed, traffic volume, intersection dimensions, and traffic signal placement and any defined setbacks from buildings and roads to the EVSE.
- Define specific brightness limits for signs on EVSEs based upon line-of-sight distances and brightness at and near traffic lights or intersections. For those EVSE signs that are not in the line of sight of roadways, the reduced level of distraction may be considered in the code.
- Limit illuminated digital media signs to **non**-residential (mercantile, commercial, industrial) or highway business zones.
- Digital signs shall utilize automatic dimming technology, as certified by the manufacturer, to either blacken the screen or adjust the brightness of the sign relative to ambient light so that at no time shall a sign exceed a brightness level of 0.2 to 0.3 footcandles above ambient light.
- The electronic display must include a photocell to control brightness and must automatically dim at sunset.
- Any EVSE sign which involves direct or indirect illumination shall have the approval of the AHJ, prior to the issuance of a building permit or the erection of the sign.

#### Sign Noise

- Limit audio digital media to **non**-residential (mercantile, commercial, industrial) or highway business zones.
- [Noise levels](#) outputted from EVSEs shall not exceed 55 dB(A) at all times.
- Audio advertising shall not be allowed in any zones between the hours of A to B (e.g., 9:00 PM to 8:00AM).

#### Message Content and Readability

- For digital signs on EVSEs readable while driving, limit signs to minimal graphics and set a maximum number of words per signs.
- Digital signs on EVSEs shall be clear and easy to read without excessive text, colors, graphics or other features that reduce legibility.
- Messages on EVSEs should fit the character and values of the community and comply with Appearance Codes.





- Static branding on EVSEs related to an EVSE site owner's business is acceptable in any zones where signage is allowed.
- In locations where digital media can be seen from vehicles driving by, require clear and non-distracting transitions between sequential digital or static images on EVSEs.

### Message Hold Time

- Require any change of message on EVSEs be completed immediately and all parts of the message shall change simultaneously. Require a minimum time between screen changes (e.g., 8 seconds)

### Usage

- Limit the use of illuminated digital advertising on EVSEs during certain hours in certain zones (e.g. prohibit between 10:00 AM to 6:00 AM in allowed zones)

### Signs and Advertising

- Advertising messaging on EVSEs not allowed on the property of Single-Family Dwelling occupancy classified buildings (R-3).
- Static branding on EVSEs is allowed in all zones.
- Advertising messaging in Occupancy Classifications R-2, R-3 and R-4 and Conservation, Recreation and Education (CRE) - should be set at a minimum distance from and minimize any line of sight from these occupancy classification (e.g. 300 to 500 feet).
- Advertising messaging on EVSEs in non-residential districts should comply with existing zoning /sign rules for similar signage.
- Limit number of electrically activated changeable EVSE signs based on property /ownership type, zone, population, and population density.
- Limit the minimum distance of X feet (e.g. 400 feet) between electrically activated EVSEs. Changeable signs (or groups of such signs, such as multiple EVSEs)
- EV Space signs may be required to include time limits and hours of operation, depending on zoning.
- No more than x % (e.g. 30 to 50%) of the total square footage of any EVSE sign may be devoted to electrically activated changeable signs. Signs may be no more than X feet above grade and cannot take up more than Y square feet of advertising space.

## Parking Minimums

**EVR (ZP-4, bronze): "Where minimum parking requirements exist, flex the number of required parking spaces to accommodate Level 2 and DCFC EVCS."**

### **Recommended Model Language**

- Electric vehicle charging stations, associated equipment, and make-ready parking spaces may be counted toward satisfying minimum off-street parking space requirements.
- A parking space served by electric vehicle supply equipment or a parking space designated as a future electric vehicle charging space shall count as at least two (2) standard automobile parking spaces, up to a maximum reduction of X% percent of the total required parking.

### ***Additional Considerations:***

- The addition of EV charging spaces to existing parking may violate the minimum parking requirements.



- Permit approval is contingent on the parking minimum requirements and EVSE impact.
- Areas of parking scarcity may generate significant community opposition to EVSE.
- Allow stalls with EVSE and charger-ready parking spaces to count toward minimum parking mandates. Reduce the minimum parking count by the number of stalls that are used to accommodate the charging station and any associated equipment (if the equipment cannot be accommodated outside the parking area).
- To further incentivize EVs and charging, allow all EV Ready stalls (with or without chargers) to count as more than one space for minimum parking requirements. Allow accessible stalls to count as two spaces to account for the wider stall and required landing zone.

## Recommended Definitions for ZP-3A

VEHICLES: Required Definitions	
Abbreviation	Recommended Text
BEV	<b>Battery Electric Vehicle:</b> vehicle that only uses energy stored in rechargeable battery packs onboard the vehicle to propel the vehicle. BEV’s must be plugged into an external electricity source in order to recharge.
PHEV	<b>Plug-in Hybrid Electric Vehicles:</b> vehicles with an electric motor and an internal combustion engine (gasoline, diesel, or other fuel). PHEVs can be powered with either the electric motor or the gasoline engine.

Table 1: Recommended Definitions of Vehicle Types

CHARGING LEVELS: Required Definitions	
Abbreviation	Recommended Text
Level 1 EV Charging	<b>Level 1 EV Charging:</b> EV battery charging that uses 110 to 120 VAC supply power, with a power range from 880 Watts (0.88 kilowatts, kW) to 1,920 kW (1.92 kW) and provides 3 to 6 range miles per hour connected. Level 1 EV chargers are supplied with Alternating Current (AC) and in turn provide AC power to the EV through a standard connector.
Level 2 EV Charging	<b>Level 2 EV Charging:</b> EV battery charging that uses 208 to 240 VAC supply power, with a range from 3.3 kW to 19.2 kW, and provides 16 to 80 range miles per hour connected. Level 2 EV chargers are supplied with Alternating Current (AC) and in turn provide AC power to the EV through a standard connector.



<a href="#">DCFC (Level 3)</a>	<p><b>Direct Current Fast Charging (DCFC):</b> EV battery charging that uses DC power to refuel Battery Electric Vehicles (BEV) at various amperage levels and voltage levels, most commonly 480 VAC, with power outputs ranging between 25 and 175 kW of power and provides 50 to 500 range miles per hour connected. DCFCs convert Alternating Current (AC) from facility power and output Direct Current (DC) and Volts Direct Current (VDC), which then delivers DC power to the BEV through a standard connector. DCFCs are sometimes referred to as Level 3 EV Chargers.</p>
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Table 2: Recommended Definitions for EV Charging Levels

<b>CHARGING HARDWARE: Required Definitions</b>	
<b>Abbreviation</b>	<b>Recommended Text</b>
<b>EVSE</b>	<b>Electric Vehicle Supply Equipment:</b> The conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.
<b>EVCS</b>	<b>Electric Vehicle Charging Station:</b> equipment designed to safely supply and manage power into Plugin EVs. EV Charging Stations include hard-wired EV Charging Stations and EV Charging Stations that plug in to standard wall outlets and may also integrate communication, metering, GPS and other features that assist EV drivers and the host facility.
<b>EVCI</b>	<b>Electric Vehicle Charging Infrastructure:</b> "make ready" electrical equipment including panels with circuit breakers, switchboards, transformers, conduit, wiring, junction boxes, conduit hangers and other interconnections necessary to delivery electrical power from a facility to an EVSE.
<b>EVPTS<sup>1</sup></b>	<b>Electric Vehicle Power Transfer System (EVPTS)</b> - Electric power supply and management technology that 1) provides and manages power transferred from a power source to EVSEs, including power transformers, switchboards, panels, circuit breakers and interconnecting conduit and wiring (EVCI), 2) plus the EVSE(s).

Table 3: Recommended Definitions for EV Charging Technologies

<sup>1</sup> EVPTS is a term being newly used in the National Electric Code as a term to include the full spectrum of EV charging. NEC 625, formerly named "EV Charging and Supply Equipment" is now named "Electric Vehicle Power Transfer Systems", as the code now considers the standards and codes more thoroughly from the utility connection to the EV.



## Optional Definitions

VEHICLES: Optional Definitions	
Abbreviation	Recommended Text
EV	<b>Electric Vehicle (EVs):</b> vehicles that store electric energy to be used for propulsion. Commonly consider synonymous with PEV.
PEV	<b>Plug-in Electric Vehicles:</b> vehicles that have a conductive plug (or inductive wireless) connection for recharging the battery.
HEV	<b>Hybrid Electric Vehicle:</b> vehicle that uses a dual system of electric propulsion and an internal combustion engine, but the primary source of energy is derived from fuel that powers an engine (gasoline, diesel, and other fuels) and the electric portion comes from recovering energy which charges an on-board battery when the vehicle is decelerating. This stored battery power is used to increase the fuel efficiency of the vehicle, such as assisting in acceleration. HEVs do not plug in.
<a href="#">NEV</a>	<b>Neighborhood Electric Vehicle:</b> vehicle that uses electric power stored on board the vehicle to propel the vehicle and built to have a top speed of 25 miles per hour, and a maximum loaded weight of 3,000 lb.
EREV	<b>Extended-Range Electric Vehicle:</b> a vehicle with both an electric motor and an internal combustion engine (using gasoline, diesel, or other fuel). EREVs use a combustion engine as a generator to recharge the battery, with no connection between the engine and the drivetrain. In common use, the term PHEV is often applied to both PHEVs and EREVs.
ICEV	<b>Internal Combustion Engine Vehicle:</b> vehicle powered by and engine burning combustible fuels (gasoline, diesel, natural gas, propane, biofuels).

Table 4: Optional Definitions for Vehicle Types

CHARGING HARDWARE: Optional Definitions	
Abbreviation	Recommended Text
<a href="#">EMS</a>	<b>Energy Management System:</b> technologies that enable the sharing power between EV chargers or EV charging circuits, including panel sharing and circuit sharing. EMSs can be integral to the EVSE or can be managed at the panel or the facility level.

Table 5: Charging Hardware, Optional Definitions



<b>CHARGING CONNECTORS: Optional Definitions</b>	
<b>Abbreviation</b>	<b>Recommended Text</b>
<a href="#"><u>CCS</u></a>	<b>Combined Charging System:</b> Standard used globally for combined AC and DC charging.
<a href="#"><u>CHAdeMO</u></a>	<b>CHAdeMO:</b> Japanese automotive (EV) standard for DC Fast Charging up to 200 kW.
<a href="#"><u>SAE J1772</u></a>	<b>SAE J1772:</b> EV charging connector standard developed by the Society for Automotive Engineering (SAE) for the electrical connections between EVSE and Electric Vehicles when charging.
<a href="#"><u>NACS</u></a> <sup>2</sup>	<b>North American Charging Standard:</b> Standard being adopted by most EV manufacturer and EVCS manufacturers stating in 2025. Same as Tesla charging standard.

*Table 6: Optional Definitions for Types of Charging Connections*

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<sup>2</sup> NACS is expected to become the single charging standard in North America. Adaptors will be available to allow older EVs to use the new connectors and newer EVs to use the old connectors.

## Checklist

### Accessory Use ZP-2A (Bronze)

**When EV charging is not the primary use of the site, classify the EV charging station as an accessory use.**

## Model Clause

Electric vehicle charging stations and electric vehicle charging infrastructure are permitted as accessory uses in all zoning districts.

*Please also see the companion Word document, "Zoning Codes Recommended and Suggested Language and Definitions."*

Checklist: ZP-3A

Define transportation electrification technologies (EVs, EVCSs) to be considered. (Silver)

Useful Definitions for EV Readiness Checklist	
Abbrev.	Definition
<b>Vehicle Terms</b>	
BEV	<b>Battery Electric Vehicle:</b> vehicle that only uses energy stored in rechargeable battery packs
PHEV	<b>Plug-in Hybrid Electric Vehicles:</b> vehicles with an electric motor and an internal combustion engine (gasoline, diesel, or other fuel). PHEVs can be powered with either the electric motor or the gasoline engine.
EV	<b>Electric Vehicle (EVs):</b> vehicles that store electric energy to be used for propulsion. Commonly consider synonymous with PEV.
PEV	<b>Plugin Electric Vehicles:</b> vehicles that have a conductive plug (or inductive wireless) connection for recharging the battery.
HEV	<b>Hybrid Electric Vehicle:</b> vehicle that uses a dual system of electric propulsion and an internal combustion engine.
NEV	<b>Neighborhood Electric Vehicle:</b> vehicle that uses electric power stored on board the vehicle to travel short distances.
EREV	<b>Extended-Range Electric Vehicle:</b> a vehicle with both an electric motor and an internal combustion engine (using gasoline, diesel, or other fuel). EREVs use a combustion engine as a generator to recharge the battery, with no connection between the engine and the drivetrain.
ICEV	<b>Internal Combustion Engine Vehicle:</b> vehicle powered by and engine burning combustible fuels (gasoline, diesel, natural gas, propane, biofuels).
<b>Charging Levels</b>	
L1	<b>Level 1 EV Charging:</b> EV battery charging that uses 110 to 120 VAC supply power, with a power range from 880 Watts (0.88 kilowatts, kW) to 1,920 kW (1.92 kW) and provides 3 to 6 range miles per hour connected. Level 1 EV chargers are supplied with Alternating Current (AC) and in turn provide AC power to the EV through a standard connector.
L2	<b>Level 2 EV Charging:</b> EV battery charging that uses 208 to 240 VAC supply power, with a range from 3.3 kW to 19.2 kW, and provides 16 to 80 range miles per hour connected. Level 2 EV chargers are supplied with Alternating Current (AC) and in turn provide AC power to the EV through a standard connector.
DCFC <sup>1</sup>	<b>Direct Current Fast Charging:</b> EV battery charging that uses DC power to refuel Battery Electric Vehicles (BEV) at various amperage levels and voltage levels, most commonly 480 VAC, with power outputs ranging between 25 and 175 kW of power and provides 50 to 500 range miles per hour connected. DCFCs convert Alternating Current (AC) from facility power and output Direct Current (DC) and Volts Direct Current (VDC), which then delivers DC power to the BEV through a standard connector. DCFCs are sometimes referred to as Level 3 EV Chargers. <sup>1</sup>
<b>EV Charging Hardware Terms</b>	
EVSE	<b>Electric Vehicle Supply Equipment:</b> The conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

Abbrev.	Definition
<b>EVR Program Terms</b>	
EVR	<b>EV Readiness</b> - condition of a local government and/or region to support strategic and safe
EVRC	<b>EV Readiness Cohort Community</b> - a local unit of government seeking designation at EV Ready designation
EVRT	<b>EV Readiness Team</b> - the team of MMC and Green Ways 2Go providing support for the EV Readiness program
<b>Engineering Units</b>	
VAC	<b>Volts Alternating Current</b>
VDC	<b>Volts Direct Current</b>
kW	<b>Kilowatt</b> - measure of power = 1,000 Watt. Voltage x current = power.
kWh	<b>Kilowatt hour</b> - measure of energy = power x time. Analogous to gallons of gasoline for ICEVs.

EVCS	<b>Electric Vehicle Supply Equipment:</b> Equipment for plug-in power transfer including the ungrounded and grounded conductors and the electric vehicle connectors, attachment plugs, personnel protection system and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.
EVCI	<b>Electric Vehicle Charging Infrastructure:</b> "make ready" electrical equipment including panels with circuit breakers, switchboards, transformers, conduit, wiring, junction boxes, conduit hangers and other interconnections necessary to delivery electrical power from a facility to an EVSE.
EVPTS <sup>2</sup>	<b>Electric Vehicle Power Transfer System</b> - Electric power supply and management technology that 1) provides and manages power transferred from a power source to EVSEs, including power transformers, switchboards, panels, circuit breakers and interconnecting conduit and wiring (EVCI), 2) plus the EVSE(s).
<a href="#">EMS</a>	<b>Energy Management System:</b> technologies that enable the sharing power between EV chargers or EV charging circuits, including panel sharing and circuit sharing. EMSs can be integral to the EVSE or can be managed at the panel or the facility level.
<b>Charging Connection Standards</b>	
<a href="#">CCS</a>	<b>Combined Charging System:</b> Standard used globally for combined AC and DC charging.
<a href="#">CHAdeMO</a>	<b>CHAdeMO:</b> Japanese automotive (EV) standard for DC Fast Charging up to 200 kW.
<a href="#">SAE J1772</a>	<b>SAE J1772:</b> EV charging connector standard developed by the Society for Automotive Engineering (SAE) for the electrical connections between EVSE and Electric Vehicles when charging.
NACS <sup>3</sup>	<b>North American Charging Standard:</b> Standard being adopted by most EV manufacturer and EVCS manufacturers stating in 2025. Same as Tesla charging standard.
<b>Installation Completion Level Terms</b>	
	<b>EV Capable</b> - the condition of a facility having properly installed conduit, wiring, electrical service panels, and power capacity near current and/or future EV parking areas or spaces, terminated in outlets or junction boxes to meet future demand. EV CAPABLE plus EVSE installation becomes EV READY. EV CAPABLE may be defined to include only the conduit runs up to having the entire scope of supply except the EVSE.
	<b>EV Ready</b> - the condition of a facility having properly installed conduit, wiring, electrical service panels, power capacity and EVSEs to meet future demand. EV READY is a component of EV Readiness. EV READY is also the name of a future Metropolitan Mayors Caucus program that will help municipalities implement items on this checklist and will award communities for EV readiness achievements.
	<b>EVSE Installed</b> - EV Ready with EVSE connected to power and operational
<b>Notes</b>	



1. DCFC is sometimes call "Level 3" charging or "Level 3 DC" Charging. Per agreed upon standards, Level 3 technically refers to an *AC charger* that is reserved for high voltage AC charging, but is not in current use. DC Charging also has multiple levels, DCFC is up to 150 kW (or may be 200 kW) / High Powered (DC) Charging ("HPC"), up to 350 kW / and Megawatt Power Charging ("MPC"), up to 1,000 kW. These higher power standards are still in development. Use of the term DCFC is generally preferred unless the application exceeds 200 kW, where some of the high powered standards will apply. Like AC charging, the voltage and amperage have DC ranges and the connectors may involved different technologies.

2. EVPTS is a term being newly used in the National Electric Code as a term to include the full spectrum of EV charging. NEC 625, formerly named "EV Charging and Supply Equipment" is now named "Electric Vehicle Power Transfer Systems", as the code now considers the standards and codes more thoroughly from the utility connection to the EV.

3. NACS is expected to become the single charging standard in North America, starting in 2025. Adaptors will be available to allow older EVs to use the new connectors and newer EVs to use the old connectors.

**Advertising ZP-3D (Silver)**

**Optional Model Clauses**

Establish new or articulate existing regulations for content and appearance of advertising on EVSEs.					
<b>Signage/ Advertising: General</b>	Signage/advertising requirements shall vary based on normal vehicle travel speed, traffic volume, intersection dimensions, and traffic signal placement and any defined setbacks from buildings and roads.	Where video signs are allowed (such as for a drive-through restaurant), require them to be motion-sensor activated so they are only 'on' when a vehicle is present.	Limit use of video advertising during certain hours in certain zones	Limit number of digital signs based on zone. Set minimum distances between adjacent digital signs	
<b>Safety / Distraction</b>	Digital signs shall utilize automatic dimming technology, as certified by the manufacturer, to either black the screen or adjust the brightness of the sign relative to ambient light so that at no time shall a sign exceed a brightness level of 0.2 to 0.3 footcandles above ambient light	<a href="#">No sign shall be of such intensity or brilliance as to impair the vision of a motor vehicle driver or to otherwise interfere with the driver's operation of a motor vehicle.</a>	All digital signs shall contain a default mechanism that will cause the screen to revert immediately to black screen in the event of malfunction	Require minimum time between screen changes (e.g. 8 seconds minimum - (to reduce distraction))	Require clear and non-distracting transitions between images.
<b>Message Content</b>	For signs readable while driving, limit signs to minimal graphics and set a maximum number of words per sign	Messages should fit the character and values of the community and comply with Appearance Codes	Off-premise advertising is not allowed	Advertising messaging on EVSEs in Non-residential districts should comply with existing zoning rules for similar signage.	

*Please also see the companion Word document, "Zoning Codes Recommended and Suggested Language and Definitions."*

**ZP-3E ROW Use (Silver)**

Establish new or articulate existing regulations for whether and under what conditions EV charging stations are allowed in the right of way.

**EV Friendly Action - Municipal Example**

The City of Portland allows level 2 EV charger installations in the public right-of-way in designated areas of the City. Their goal was to make EV charging more affordable, convenient, and reliable, especially for residents who live in multi-unit dwellings with no access to charging. They amended code and transportation administrative rules, including:

- City Code Chapter 16.20, which governs Public Right-of-Way Parking, was updated with Section 16.20.290 to create EV Charging Zones.
- Transportation (TRN)-8.08-Encroachment Manual Section C.22 was updated to show that EV charging stations are an allowable encroachment in the public right-of-way.
- TRN-10.19-Utility Permits in the Right-of-Way was updated with a new section to enable the opening of the street for the installation of EV chargers.

To summarize this, the following language may be considered for ZP-3A:

Level 2 EV Charging may be installed in the Right-of-Way to support EV owners that have limited access to EV Charging, such as multi-family dwellings and municipal business centers with limited parking for the following situations as further defined in the Municipal Code:

- Designated EV charging zones in the ROW (per Municipal Code XYZ)
- Allowable encroachments in the public way (per Municipal Code ABC)
- Street (curbside) EV Charging per Municipal Code DEF)
- For those departments responsible for Right of Way in these areas, rules for exceptions to existing ROW rules should be considered while still maintaining safety and function of the ROW as intended.

*Please also see the companion Word document, "Zoning Codes Recommended and Suggested Language and Definitions."*

**Other Language to Address Right-of-Way Charging**

Electric charging station equipment may not block the public right-of-way for pedestrians where minimal unobstructed walkable sidewalks exist or be located in a place that obstructs or interferes with a driver's view of approaching, merging or intersecting traffic in and around the right-of-way.

**Other Language to Address Right-of-Way Charging**

Electric vehicle charging equipment may not block the public right-of-way.

**Checklist**                      **Model Clause/Recommendation**

**Appearance ZP-3F (Silver)**

Establish new or articulate existing regulations for the appearance of public EVCSs.

EV charging system projects should be reviewed with a focus on health and safety. Although your community may have some aesthetic considerations, these should not outweigh the primary goals of health and safety when an EV charging system is installed. Please keep in mind that action ZP-1 asked your community to identify any barriers to safe, expedient EVCS development, so appearance guidelines should not create unreasonable barriers or unnecessarily long project timelines.

If your community does have aesthetic guidelines that you apply to all similar projects, not just EV charging systems, then make sure permit applicants receive this information up front to streamline the permitting process and avoid unnecessarily long delays in installing EVCS.

To earn points for this action, you could “articulate existing” aesthetic guidelines that are in your code. If you would like ideas of possible language to include related to appearance, please see the below “Optional Language” section.

Optional Language and Considerations for Code					
	Example Clause 1	Example Clause 2	Example Clause 3	Example Clause 4	
<b>Safety and EVSEs</b>	Public EVSEs should require retractable cords to prevent trip hazards and for a cleaner look.	EVSEs mounted on pedestals shall be designated and located so as not to impede pedestrian travel or create trip hazards on sidewalks.	Adequate lighting should be provided if an EVSE is used during night time hours.	Provide assurances that all electrical connections and cables are fit for service at all times and do not pose a risk to persons or property.	
<b>Safety and Sites</b>	Where applicable, provide clear and clean access from EVSE(s) to building entrance(s), so that the EV charging events do not impede the normal flows into and out of the site host facility.	Make sure pedestrian pathways are considered when siting EVSEs. Maintain reasonable distances from EVSE to pedestrian walkways.	Provide adequate charging station equipment protection such as concrete-filled steel bollards, wheelstops or curbs.	<a href="#">Non-mountable curbing may be used in lieu of bollards, if the charging station is setback a minimum of 24 inches from the face of the curb</a>	In locations where plants will be susceptible to injury by pedestrian or motor traffic, they shall be protected by appropriate curbs, tree guards or other devices.
<b>Risk &amp; Liability</b>	The municipality is not liable or responsible for the failure to operate or for any damage caused by an electrical vehicle charging station.				
<b>Site appearance</b>	EVCS structures and EVSEs, whether located on private or public property shall consider design elements that can be integrated into the architectural concept. Standards and criteria should be considered guidelines, and flexibility should be allowed when alternatives can better achieve objectives.	EVCS materials shall be compatible with buildings, their scale shall fit the style of the host site, colors shall be in harmony with buildings, and surroundings shall be attractive and consistent with the community's aesthetic values..	Mechanical equipment or other utility hardware on a roof, ground or elevations shall, whenever possible, be located so as not to be visible from any public ways.		
<b>Landscaping</b>	If siting locations where EVSEs and EV Charging Infrastructure are not easily made non-visible, the facilities shall be screened from public view with materials in harmony with the building or grounds, such as fences, walls, enclosures, or landscaping. Wherever possible, natural landscaping shall be used for such screening.				
<b>Preservation</b>	EVCS installations shall consider the local historical character of the site, if applicable.				

**References**

[Summary of Best Practices in EV Charging Ordinances, Great Plains Institute \(2019\)](#)  
[Siting and Design Guidelines for Electric Vehicle Supply Equipment, prepared for New York State Energy and Research Development Authority \(NYSERDA\) and Transportation and Climate Initiative, Nov 201](#)  
[International Building Code 2021](#)

Please also see the companion Word document, "Zoning Codes Recommended and Suggested Language and Definitions."

## Checklist

### Parking Minimum ZP-4 (Bronze)

**Where minimum parking requirements exist, flex the number of required parking spaces to accommodate Level 2 and DCFC EVCS.**

## Model Clauses

Electric vehicle charging stations, associated equipment, and make-ready parking spaces may be counted toward satisfying minimum off-street parking space requirements.

A parking space served by electric vehicle supply equipment or a parking space designated as a future electric vehicle charging space shall count as at least two (2) standard automobile parking spaces, up to a maximum reduction of X% percent of the total required parking.

*Please also see the companion Word document, "Zoning Codes Recommended and Suggested Language and Definitions."*

# City of Darien – proposed zoning text amendments

(pending 11/20/23)

## (G) New Construction

1. Any new construction of a ***multi-unit residential building*** consisting of five or more dwelling units that includes parking ***shall specify the installation of electric vehicle supply equipment infrastructure to support the future*** installation of electric vehicle supply equipment for at least 20% of parking spaces.
2. Any new construction providing 50 or more parking spaces to serve ***nonresidential uses shall specify the installation of electric vehicle supply equipment infrastructure to support the future installation of electric vehicle supply equipment*** for at least 20% of parking.



# Village of Deer Park – proposed zoning text amendments

(pending 11/16/23)

## (D) QUANTITY AND LOCATION REQUIREMENTS:

(3) Nonresidential: In order to proactively plan for and accommodate the anticipated future growth in market demand for electric vehicles; ***all new and expanded nonresidential development parking areas be EV capable*** to provide the electrical capacity necessary to accommodate the future hardwire installation of level 2 charging stations. It is required that a parking lot shall provide at a minimum ratio of two percent (2%) of the total parking spaces prepared for such stations, but not less than one (1) space per parking lot



# Village of University Park

## Sec. 804-17.4. Quantity and Location Requirements.

(1) Residential: In order to proactively plan for and accommodate the anticipated growth in market demand for electric vehicles, ***it is strongly encouraged, but not required***, that all new Dwellings, one-family and Dwellings, multiple-family with garages be constructed to provide a ***220-240 volt/40-amp outlet on a dedicated circuit*** in close proximity to designated vehicle parking to accommodate the potential future hardwire installation of a private charging station.

(2) Nonresidential: In order to proactively plan for and accommodate the anticipated future growth in market demand for electric vehicles, ***it is strongly encouraged, but not required***, that all new and expanded nonresidential development parking areas ***provide the electrical capacity*** necessary to accommodate the future hardwire installation of charging stations. It is recommended that a typical parking lot (e.g., one thousand (1,000) or fewer parking spaces) have a minimum ratio of two percent (2%) of the total parking spaces prepared for such stations





# Village of Oak Park

## Residential:

- A building shall contain at least 1 Level 2 EV charging station (**EVSE Installed**) at one parking location if a building contains a parking space/garage.

## Commercial/multi-family:

- A minimum of 1 Level 2 EV charging station (**EVSE Installed**) at each onsite parking area shall be installed for every 5 parking spaces. One charging station may serve an adjacent pair of spaces.



# Revamp of Sustainability Content on the Village River Forest Website

## Background

The location of sustainability content on the Village website is somewhat scattered. We do have some excellent content, but it is not organized in a “one-stop shopping” fashion. Some reorganization would be beneficial. Changes described in this document are broken up into two phases. The most critical changes which coincidentally require the least restructuring will be done first. These need to be done in conjunction with our strategy to broaden our communication channels to the public.

## Overview of Proposed Site Changes – PHASE 1

### Content

Reorganize all content under a sustainability hub. The current sustainability home page titled “Sustainable Living” can be used for this purpose. All related content should either be present on this page or reachable from this page. All content should flow from the home page. Whenever possible there should be two, or at most, three levels of content:

- Parent page – sustainability home page, the hub with links to other content
- Child page – content linked to from home page
- Grandchild page – content linked to from child page

### Navigation

When navigating down the chain of pages, the viewer should always be able to get back from their point of origin. Note: Currently there is no way to easily find the sustainability homepage when you enter the Village website. A link to the home page should be prominently placed on the Village’s home page. Ideally when you traverse downward, the content should be popped up on a separate page so that you do not “lose” the home page. This is considered best practice in web design.

## Sustainability Commission Page

Replace existing text shown below on the Commission page to read “The Mission of the Village Sustainability Commission and guide to sustainable living can be found **here**.” The bold text is the link to the Commission’s home page.



## Sustainability Commission

The Sustainability Commission's purpose is to enhance the quality of life of its residents through the study and promotion of sustainable practices that conserve natural resources and protect the environment. The Mission and Organization of the Village

Sustainability Commission can be found **here**. Review the guide [Sustainable Living](#).

### Sustainability Commission Members

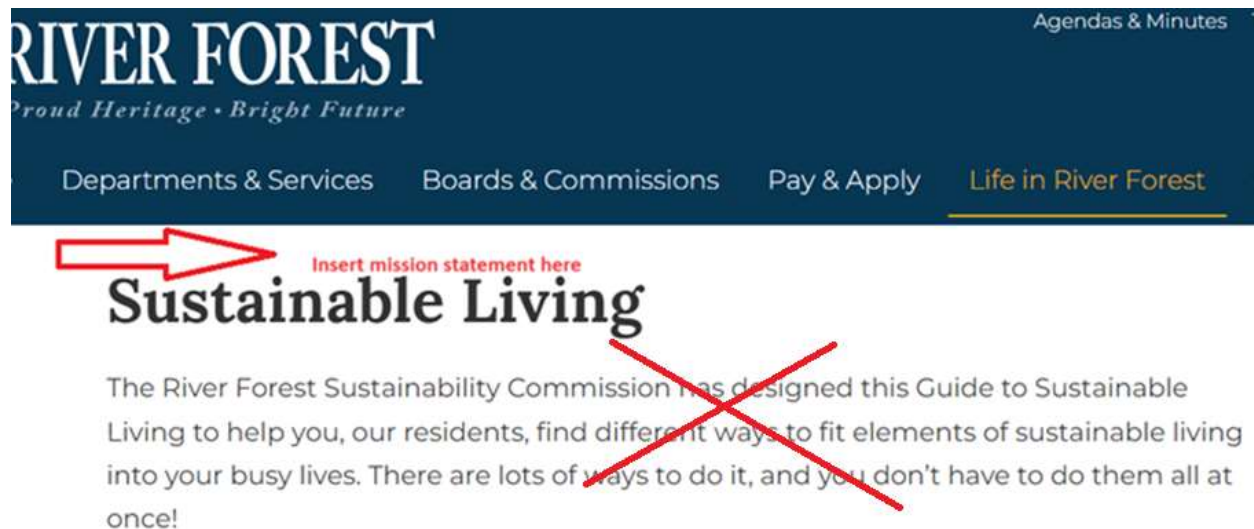
Member	Term Expires
Eric Simon, Chair	4/30/25 (Chair), 4/30/25 (Member)
Susan Charrette	4/30/25
Jeff Veazie	4/30/25
Jill Drury	4/30/27
Jamie Hayley	4/30/27

## Revamp of Sustainability Content on the Village River Forest Website

### Sustainability Home Page Changes

Insert the mission statement above the Sustainable Living title as shown in the screen shot below and insert a heading above it that reads “Our Mission”. (See Appendix for text of mission statement.)

Eliminate the verbiage below the “Sustainable Living” heading. It comes across as rather “soft” as if to say “if you don’t mind, if it isn’t too much trouble”. Let’s be more presumptive.



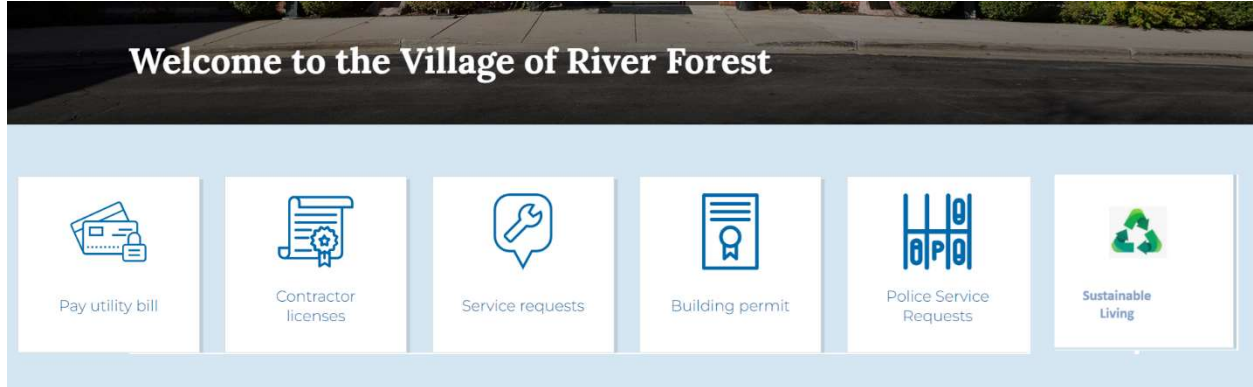
Eliminate the words “How to” from the links to make a stronger declarative statement. Eliminate the spaces between the bullet points to tighten up the page and reduce the amount of scrolling necessary to view content. Reduce the size of the icons and move them to the left of each blue boxed link as shown below, which will also tighten up the page. Eliminate “How to” on the corresponding right-hand menu items.



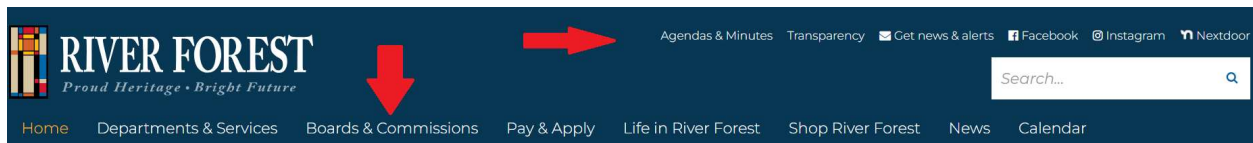
## Revamp of Sustainability Content on the Village River Forest Website

### Village Home Page Changes

Add a direct link to the sustainability home page. A link could be added along side the other short cuts under “Welcome to the Village of River Forest” with a suitable icon. (Icon shown here for positioning only.)



Alternatively, a menu item could be added to one of the two menus at the top of the Village home page.



Choice of preferred location on the page and location within whichever menu is chosen, to be determined. The decision may need to be deferred to whomever is the arbiter of Village website standards. Any location on the Village home page is acceptable as long as when clicked it takes the viewer directly to our home page.

## Revamp of Sustainability Content on the Village River Forest Website

### Additional Changes – PHASE 2

- Green calendar – Move the events and deadlines to a separate calendar page with a link on the sustainability home page located directly under the “Sustainable Living” heading. Either format using a calendar “object” or use the format that is used elsewhere on the site for the “Agendas & Minutes” page. Details to be determined as to how to include event descriptions, links to external sites, etc.
- More granular navigation – Make each topic under the main topics a clickable link. Using the example of “Reduce Your Carbon Footprint”, make “Switch to Renewable Resource”, “Reduce Energy Usage”, “Electrify” and “Village Initiatives” each a clickable link. Currently all of this content is on one page. Break it out onto separate pages so that each link takes you directly to the appropriate topic. Change the existing link to a heading.

#### How to Reduce Your Carbon Footprint

- Switch to Renewable Resource
- Reduce Energy Usage
- Electrify
- Village Initiatives

- 
- Provide an archive with links to related content that doesn’t fall under existing categories. Link to archive should be located on our home page.

## Revamp of Sustainability Content on the Village River Forest Website

### Appendix

#### *Mission*

- Enhance the quality of life of Village of River Forest residents through the study and promotion of sustainable practices that conserve natural resources and protect the environment. Toward this end, we employ seven strategies to enable the Village, residents and institutions to protect the environment and reduce the level of greenhouse gas emissions produced by the residents, institutions and government of the Village of River Forest and that are the source of Climate Change.
  1. Energy → Replace fossil fuel with renewable energy
  2. Transportation → Expand green transportation & mobility options
  3. Water → Protect water sources as well as reduce water consumption
  4. Waste → Reduce waste & increase waste diversion
  5. Green Ecosystems → Sequester carbon & enhance support for eco-systems
  6. Action → Motivate desired community behavior
  7. Impact → Measure our success

**TO:** Seth Jansen, Management Analyst at the Village of River Forest

**FROM:** Nebiyou Tilahun's Section for River Forest

**SUBJECT:** Village of River Forest's 2035 Climate Action Plan Update

**DATE:** March 7, 2024

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### **Progress Report**

Professor Tilahun's section Progress Report will summarize the accomplishments, challenges and next steps following the midterm presentation. We have concentrated our forces on compiling and incorporating feedback from the midterm presentation into our planning process for the second half of the semester. We want to ensure that our recommendations align with River Forests priorities and goals, and ultimately create a plan that is entirely coherent.

### **Project Management Team**

This team is now composed of three students, who will oversee the progress of the project. Planning for the final report entails creating a concise schedule and expectations of our newly minted teams. We have several weekly meetings to assess the overall project's workflow, and are utilizing the agile sprint model to guide progress on a week-to-week basis.

### **Topical Teams**

With the assistance of other group leaders, there has been extensive restructuring of our teams to ensure we maximize our efficiency. Teams were created based on survey results that organized team members based on a skills inventory and personal interests. There are now four topic areas; each team has members with Design, Data, and Writing specialties, to ensure proper coverage in the final deliverables.

The Teams:

- The Energy & Buildings team will be reviewing potential policy initiatives around electrifying home utilities, improving building insulation, and the improving the broader energy delivery system.
- The Transportation team will be developing options to reduce total vehicle miles traveled (VMT) through increased walking, biking, and transit modality, as well as through land use policies to develop complete communities.
- The Resiliency team will be focusing on actions to install green infrastructure on public land and right-of-way, as well as strategies for home retrofitting to reduce flood risk.
- The Outreach & Community team is prioritizing methods for building and mobilizing a community network of involved citizens, as well as strategizing for collaboration opportunities with institutional partners.

March 7, 2024

**Next Steps**

Each team will be responsible for the four elements of the plan that include creating alternatives, evaluation, implementation, and synthesis. Broken down, this means we will begin by identifying actions, research and analyze our actions, develop and execute evaluation of actions against the plan's criteria, and create a strategy for the Village to implement the actions. This process will be synthesized to build our final deliverables of a plan document, a presentation, and a poster.

Additionally, we will send one of our group members to sit-in at the upcoming Sustainability Commission meeting to identify any notable comments or concerns. If you have any questions in the meantime, please do not hesitate to reach out.

Best regards,

Professor Tilahun section 506

March 7, 2024