



City of Charleston

Resiliency & Sustainability Advisory Committee

Agenda

February 2, 2023, 11:00am – 12:00pm
2 George St, 1st Floor Public Meeting Room

1. Welcome, Moment of Silence Mayor John Tecklenburg

2. Resilience Status Updates: Dale Morris
 - Fill / Slab Policy in 100-year Floodplain
 - USACE CSRM Authorization
 - Comprehensive Integrated Water Plan progress
 - Zoning Ordinance Rewrite (Planning in lead)
 - Rosemont Resilience Plan
 - Flooding and Sea Level Strategy

3. Climate Action Plan Progress Report and 2023 Priorities Katie McKain

4. Review and Discuss Draft of Electric Vehicle Infrastructure Policy in New Construction Katie McKain and Aspen Caffee

5. Public Comment Period*

***Public Comment Instructions:** Please use **one** of the following methods to request to speak at the meeting or provide comments to the committee:

1. Attendees may speak live at the in-person meeting.
2. Sign-up to speak or leave comments for the Committee by completing the form at: <http://innovate.charleston-sc.gov/comments/> (due by 10am on meeting date)
3. Request to speak or submit a comment via voicemail at 843-724-3789 or email at mckaink@charleston-sc.gov. Please provide your name, phone number and address.

In accordance with the Americans with Disabilities Act, people who need alternative formats, ASL (American Sign Language) Interpretation or other accommodation please contact Janet Schumacher at (843) 577-1389 or email to schumacherj@charleston-sc.gov prior to the meeting.

CLIMATE ACTION PLAN

PROGRESS REPORT AS OF DECEMBER 31, 2022



TRANSPORTATION

- 63,185 TRIPS (119,561 MILES) IN BIKE SHARE PREVENTING 109,421 METRIC TONS OF CO₂E*
- \$7M LOWLINE GRANT TO SUPPORT UP TO 120M LESS VEHICLE MILES TRAVELLED (Lifetime of project)
- 25% OF LEAF BLOWER FLEET IS ELECTRIC, ELIMINATING 80 METRIC TONS OF CO₂E*
- 7,358 REMOTE STAFF WORK DAYS, ELIMINATING 90 METRIC TONS OF CO₂E FROM COMMUTE*



CARBON SINKS

- 37 RAIN GARDENS INSTALLED AND 750,000 GALLONS OF WATER INFILTRATED AND DIVERTED FROM STORMWATER SYSTEM (Total as of 12/31/2022)
- 102.7 ACRES OF LAND RESTORED AND PRESERVED AS PERMANENT GREEN SPACE ABSORBING WATER AND CARBON (Total as of 12/31/2022)
- 1,335 TREES PLANTED ON PUBLIC PROPERTY*
- 384 STORM DRAINS ADOPTED (Total as of 12/31/2022)



WASTE

- OVER 50 TONS OF FOOD SCRAPS COMPOSTED, 1,100 HOUSEHOLDS COMPOSTING, AND 100 METRIC TONS OF CO₂E ELIMINATED*
- 426 MATTRESSES RECYCLED DIVERTING 11 TONS FROM THE LANDFILL, 15,000 CUBIC FEET LANDFILL SPACE SAVED, 15 METRIC TONS OF CO₂E ELIMINATED (2021 Data)



BUILDINGS

- BOARD OF ARCHITECTURAL REVIEW ENCOURAGES SOLAR PERMITS WITH POLICY STATEMENT
- 2 NEW CAPITAL PROJECTS PLANNED TO HAVE SOLAR, AND ALL NEW CITY CONSTRUCTION PLANNED TO INCLUDE ELECTRIC VEHICLE READY INFRASTRUCTURE
- PROGRESS PLANNING TO EXPAND ELECTRIC VEHICLE INFRASTRUCTURE CITYWIDE



EDUCATION AND COMMUNITY ENGAGEMENT

- 22 CLIMATE AMBASSADORS GAVE 43 PRESENTATIONS, INSPIRING 1,178 PEOPLE TO TAKE CLIMATE ACTION (Total as of 12/31/2022)
- 150 RESIDENTS AT ELECTRIC LAWN CARE EXPO TESTED EQUIPMENT AND PURCHASED OVER 50 PIECES OF BATTERY POWERED TOOLS (April 2022)
- 470 RESIDENTS REACHED ABOUT COMPOSTING AT WEST ASHLEY FARMERS MARKET (April - June, 2022)
- 12 MONTHLY COMMUNICATION CAMPAIGNS WITH HUNDREDS OF SOCIAL MEDIA POSTS*
- 100+ VOLUNTEERS

* = 2022 DATA
CO₂E = CARBON DIOXIDE EQUIVALENT

VISION

To substantially reduce carbon pollution in an equitable way and improve the health and quality of life of Charlestonians now and in the future.

TABLE 1: BUILDINGS ACTION PLAN

| ID | ACTIONS | STATUS | PROGRESS |
|--|--|-------------|---|
| STRATEGY: Increase energy efficiency and conservation | | | |
| B1 | Support efforts to strengthen the energy code at the state level and advocate for state building policies that align with carbon neutrality by 2050 and other initiatives in the SC Energy Efficiency Roadmap | Underway | Support continues for SC to adopt a more recent Energy Code (than 2009) and to realign its update with automatic building code updates. |
| B2 | Support state efforts and explore local equitable gap funding opportunities for energy efficiency in new construction and upgrades to existing construction | Coming Soon | |
| B3 | Consider expanding incentives for sustainable construction and renewable energy via the zoning code, such as building certification programs like Charleston RISES | Coming Soon | This action will be pursued as part of the City's zoning code rewrite. |
| B4 | Increase staff capacity and funding to conduct a Facilities Assessment Plan and continue improving energy efficiency of existing City buildings, and to ensure new City buildings lead by example by being energy efficient and pursuing industry best practices that align with carbon neutrality by 2050 | Underway | A Facilities Analyst position was approved in the budget to begin this process. New capital projects pursue energy efficient equipment. |
| B5 | Create mechanical, electrical and plumbing standards that include energy efficiency for City facilities | Coming Soon | Pending staff capacity and future Facilities Assessment Plan. |
| B6 | Consider creating stronger guidelines above minimum code for new City construction, include total cost of ownership standards and consideration of a tailored Charleston RISES certification | Underway | New City owned construction pursues LEED and Charleston RISES best practices. |
| B7 | Assess feasibility of expanding staff capacity and training to strengthen enforcement of energy code compliance | Coming Soon | Pending staff capacity. |
| B8 | Consider developing or adopting alternative standards that expand allowable construction method options to include those which are inherently more energy efficient and sustainable, such as rammed earth, etc. | Coming Soon | Pending staff capacity. |
| B9 | Explore opportunities to restart the Green Business Challenge | Coming Soon | A new Communication and Community Engagement Manager was approved in the 2023 budget and will pursue this. |
| B10 | Support state efforts for the disclosure of utility data by property sellers | Coming Soon | |

TABLE 1 (CONTINUED): BUILDINGS ACTION PLAN

| ID | ACTIONS | STATUS | PROGRESS |
|--|---|----------|---|
| STRATEGY: Promote and plan for renewable energy | | | |
| B11 | Support renewable energy projects including community solar and other initiatives, such as those in the SC Energy Efficiency Roadmap | Underway | Community education efforts about renewable energy will continue and research about potential community solar initiatives are underway. |
| B12 | Create design guidelines for renewable energy standards in the historic district | Complete | The Board of Architectural Review adopted a policy statement for solar to provide direction and encourage the use of solar in the historic district. |
| B13 | Investigate the feasibility of renewable energy and battery storage opportunities for City facilities and plan for future funding opportunities | Underway | New capital projects are considering solar energy in their design, including a new fire station on Johns Island and the new Public Service and Safety Operations Center. Electric vehicle ready infrastructure is now standard in new City construction. A solar feasibility assessment for existing structures is dependent upon the completion of a Facilities Assessment Plan that will inform proactive maintenance for City facilities, including a roof replacement schedule. |

TABLE 2: TRANSPORTATION ACTION PLAN

| ID | ACTIONS | STATUS | PROGRESS |
|--|---|-------------|---|
| STRATEGY: Increase use of public transit systems | | | |
| T1 | Require new large development projects located along existing or planned transit corridors to install bus stop shelters and transportation infrastructure like turnouts | Complete | This is now required in the zoning code as part of the Technical Review Committee's process. |
| STRATEGY: Increase employee commuter options | | | |
| T2 | Explore opportunities with CARTA to create an employer transit program for part-time City staff riders, such as charging fees based on use | Coming Soon | Discussions determined to wait for the new Lowcountry Rapid Transit. |
| T3 | Review existing temporary City telecommuting policy and adopt permanent policy | Ongoing | A telecommuting policy was made permanent in 2021. Expanding this program beyond two days remote will reduce staff commute pollution more. |
| STRATEGY: Embrace electric and other low or no emission motors | | | |
| T4 | Expand publicly-accessible electric vehicle charging infrastructure, especially at ride share, mobility hubs, on-street peninsula access and City parking facilities | Underway | Planning complete and funding requested to replace existing 8 charging stations in City garages with networked, dual port stations, doubling capacity. A regional planning effort began, it will inform EV infrastructure needs for all public parking, it will include City garages. |
| T5 | Create policy to require charging stations in new large commercial construction and consider EV ready requirements for smaller projects | Underway | Planning and research complete. An ordinance is being drafted for public comment. City is particularly interested in hearing more feedback from the development community in early 2023. |
| T6 | Create a plan to transition the City fleet and other small engines to alternative fuel vehicles, include vehicle replacement standards and charging infrastructure | Underway | Planning is in process to pilot our first electric vehicles and create a detailed plan to transition the entire fleet. Federal funding opportunities are being researched and considered. |
| T7 | Consider options to phase in alternatives to gas powered small inefficient engines | Ongoing | The City committed to replacing the fleet of 85 leaf blowers with alternatives. About 25% have been converted so far. The funding to convert the remainder was approved in the 2023 budget. Hosted Electric Lawn Care Expo April 2022 to raise awareness of alternatives available. |
| STRATEGY: Improve land use policy to reduce vehicle miles travelled | | | |
| T8 | Concentrate development in compact, walkable centers that are well connected to public transit and offer a mix of uses, services and housing options | Ongoing | The City's Comprehensive Plan and zoning code already address this, and it will remain a priority in the zoning code rewrite. |
| T9 | Right-size parking codes including implementing parking maximums and explore opportunities to allow developers to pay into a parking in-lieu fund | Coming Soon | This will be considered in the zoning code rewrite. |

TABLE 2 (CONTINUED): TRANSPORTATION ACTION PLAN

| ID | ACTIONS | STATUS | PROGRESS |
|---|---|-------------|--|
| STRATEGY: Increase bicycle and pedestrian activity | | | |
| T10 | Continue to work on the bike share program and provide micromobility services for all City employees | Ongoing | The City launched the new e-bike bike share program in spring 2022. Discussions continue on providing an incentive discount program for City employees. |
| T11 | Improve and expand bicycle and pedestrian facilities and infrastructure, such as intersection improvements, bicycle repair service stations and bicycle corridors identified in the People Pedal Plan | Coming Soon | It was determined additional staff are needed to implement the People Pedal Plan. The two new staff positions were approved in the 2023 budget and include a Transportation Planner and a Transp. Project Manager to assist with implementation of the plan. |
| T12 | Establish temporary and permanent car free areas such as rethinking curb spaces | Underway | Temporary car free areas were piloted during COVID. 2nd Sunday on King St continues to be successful. |
| T13 | Transition existing Complete Streets resolution into ordinance prioritizing pedestrians at key crossings | Coming Soon | Pending staff capacity. |
| T14 | Expand consistent wayfinding signage to increase safety and the user experience | Coming Soon | Pending staff capacity and resources. |
| STRATEGY: Reduce idling | | | |
| T15 | Explore creative options to improve enforcement of the City's existing anti-idling policy | Coming Soon | Pending staff capacity. (This ordinance is enforced by the Livability Department) |
| T16 | Improve traffic signals on the peninsula by synchronizing 88 of the traffic signals to benefit all modes | Underway | Some funding has been allocated by BCDCOG to have the traffic signals retimed on the peninsula. This is in coordination with SCDOT's Road Safety Audit. |
| T17 | Encourage virtual community meetings or those located along transit routes and near stops, as possible | Ongoing | Many committees now meet virtually or as a hybrid, such as: the Resiliency and Sustainability Advisory Committee, 3x3 Advisory Committee, Special Events Committee, City Council, Ad hoc Committees, Design Review Board, Design Review Committee, and more. |

TABLE 3: WASTE ACTION PLAN

| ID | ACTIONS | STATUS | PROGRESS |
|--|---|-------------|--|
| STRATEGY: Reduce waste and consumption | | | |
| W1 | Continue supporting the elimination of single-use plastics | Ongoing | Provide support to businesses who request assistance to comply with single use plastic code or reduce plastic waste in general. Discussions to strengthen existing code are underway. |
| W2 | Perform a garbage can audit and use the data to evaluate and restructure the way garbage and trash are collected to incentivize recycling and composting | Underway | The audit started in 2022 and more funding has been allocated to continue it in 2023. |
| W3 | Promote zero waste office practices for City staff to reduce, reuse and recycle and consider establishing sustainable procurement standards for City operations | Ongoing | City Green Team created a reusable water bottle campaign to help reduce waste from single use water bottles. |
| W4 | Strengthen partnerships to enhance edible food recovery and donation, such as Food Rescue US | Ongoing | A partnership with Fields to Families donates edible unsold produce at City farmers markets to people in need. |
| W5 | Support the reuse, repair, recovery and refurbishment economy, including for construction waste | Coming Soon | The reuse industry is strongly supported. Seeking external partners to support more focused work on the repair, recovery and refurbishment economies, please contact us. |
| STRATEGY: Increase recycling and composting | | | |
| W6 | Explore ways to create more opportunities for community wide composting, such as drop centers | Ongoing | A residential compost drop site program was piloted and proven so successful regional partners joined and now host their own drop sites at minimal cost and capacity to them. Funding to make the program permanent and expand to more drop sites was approved in the 2023 budget. |
| W7 | Explore opportunities to make composting more available in City buildings, at City sponsored events such as Farmers Markets, and private events held on City property | Underway | Composting is being piloted in one City department's break room. Grant funding was secured to pilot composting at farmers markets in 2023. |
| W8 | Continue to add recycling bins next to garbage cans in public places and label them with consistent signage | Ongoing | Actions include recycle right education and purchasing of new signage to better label recycling cans in Parks that are frequently contaminated. |
| W9 | Support Charleston County's efforts to promote education for event and commercial recycling, and examine options to encourage businesses and events to recycle | Underway | Planning for the creation of a Sustainable Events Manual has begun, work commenced in early 2023. |
| W10 | Support mattress recycling | Ongoing | A new program was piloted but did not receive funding to continue. Partners were invited to join to reconsider this. Support for BedShred continues. |


TABLE 4: CARBON SINKS ACTION PLAN

| ID | ACTIONS | STATUS | PROGRESS |
|---|---|-------------|--|
| STRATEGY: Protect and promote natural ecosystems | | | Support and marketing for key partner led programs including oyster shell replanting and marsh grass planting is ongoing. Marsh restoration NFWF grant project happening in Oldtown Creek. |
| C1 | Collaborate with regional and state partners to increase preservation and restoration of saltwater ecosystems like our marshes and wetlands as these are key carbon sequestering assets | Ongoing | |
| C2 | Continue with opportunities to acquire flood damaged properties and convert the land use to natural conditions that capture carbon and water | Ongoing | Over 46 properties have been acquired so far resulting in 8.7 acres of new green space. Staff have plans for more as capacity allows. 94 acres at Oakville were preserved in a conservation easement with support from partners. |
| C3 | Examine land use policy to make room for existing marshes to migrate, such as adjusting zoning and developing more stringent marsh buffers | Underway | An analysis occurred as part of the Comprehensive Plan and the data will be used to inform the zoning code rewrite. |
| C4 | Continue to expand Charleston Rainproof and Adopt a Drain programs as ways to protect water quality and health of blue carbon | Ongoing | The 2022 Rainproof Mini Grant Program resulted in 19 new rain gardens. Adopt a Drain expanded to a regional program with partnership of Charleston County. |
| C5 | Pilot the application of super sink plants in appropriate public spaces, such as non-invasive native bamboo, and adapt practices to be pollinator friendly | Underway | Charleston is now a Bee City USA Affiliate. The pilot of super sink plants is pending staff capacity and resources, or support from a partner. Please contact us if interested. |
| STRATEGY: Plant and protect tree canopy | | | |
| C6 | Plant and prioritize tree plantings in areas that need it most, such as underserved communities with less overall canopy and communities with aging inventory | Underway | Pending Street Tree Inventory. Some general analysis has occurred and a new storymap shares the results publicly. |
| C7 | Consider strengthening tree protection regulations in zoning per recommendations in the Trees to Offset Stormwater project report | Underway | Planning is complete and this will be pursued in the complete zoning code rewrite. |
| C8 | Encourage tree plantings on private property | Ongoing | A new tree resource webpage was created to connect property owners to resources that will help them plant trees. There is a dedicated communication focus to supporting trees. |
| C9 | Continue the City's Street Tree Program planting trees in the ROW in partnership with residents | Ongoing | The program continues but is experiencing a lack of staff capacity to complete all requests and has a wait list. |
| C10 | Perform street tree inventory and use data to guide funding to maintain existing canopy and seek opportunities to grow canopy and diversify species | Coming Soon | Funding to perform a Street Tree Inventory has been requested. |
| C11 | Explore partnerships to create an urban forestry workforce training program with local school programs, such as Trident Tech horticulture program | Coming Soon | Seeking support from external partners, please contact us if interested. |

TAKE CLIMATE ACTION TODAY, CHARLESTON


CREATING A MORE RESILIENT
AND SUSTAINABLE FUTURE.

A CHECKLIST FOR CLIMATE ACTION AROUND YOUR HOME



You can make a difference by taking action in your home with small changes. Here are some suggestions of how you can help right now. The actions with the highest impact are marked .




SUSTAIN YOUR LIFESTYLE

- Consume foods which are grown locally and/ or are grown organically. Join a [farm share](#) and shop at [farmers' markets](#). Plant fruits and vegetables in your own garden or participate in a [community garden](#). Eat at restaurants that feature local and seasonal foods, including [seafood](#).
-  Eat a plant rich diet. [Reduce your consumption of meat and dairy](#). Try "meatless Mondays". Avoid food waste.
- Buy [local products](#).
- Support [environmentally-conscious businesses](#).
- Communicate with your elected officials regarding new and emerging solutions. Attend the City's [Resiliency and Sustainability Advisory Committee](#) public meetings.

PROTECT YOUR AIR, WATER AND CARBON SINKS

-  [Plant trees](#), especially where they'll provide shade for your house, and [native plants](#) for their resilience.
- Reduce pesticide and fertilizer use. Enrich your soil with compost. [Purchase compost](#) made locally.
- Properly dispose of waste including pet waste. It should not go down the storm drain.
-  Participate in marsh restoration programs like [SC Oyster Restoration](#) and [From Seeds to Shoreline](#) (at school).


REDUCE YOUR WASTE

- Buy only items that are necessary and that you are sure you will use. Focus on enduring purchases instead of disposable items.
- Avoid single-serving packaging, especially plastic. Buy in bulk with reusable bags or jars.
-  [Compost](#) your organic (food, yard) waste.
- Take your own reusable bags to the store.
- Donate unused clothes and electronics to charity.
- Opt-in for electronic catalogs and billing statements. [Try these 4 tips](#) to stop junk mail.
- Use extra paper as scrap paper and print double sided.
- Recycle. Find out [what can be recycled](#). View Charleston County's recycling [pick up schedule](#).



MAKE YOUR HOME MORE RESILIENT

- [Adopt a storm drain](#) to help maximize the amount of water that can flow into drains and protect water quality.
- Connect a [rain barrel](#) to your gutter system.
- [Rainproof](#) your home and install a rain garden, native plants, a green roof, or permeable pavement.
- Establish a household emergency plan and kit for storms, heat emergencies and other disasters.

LIGHTEN YOUR TRANSPORTATION FOOTPRINT

- Reduce single-destination and single-occupant trips.
-  Walk, [ride a bike](#), use public transit, or carpool. Use tools like [Lowcountry Go](#), or [plan your CARTA route](#) online or in the easy [Transit app](#).
- Use the most efficient vehicle when feasible.
- Avoid idling your vehicle, such as in the carpool pick up.
- Ride in a more efficient or alternative fuel car, such as a hybrid or electric vehicle.

USE ENERGY EFFICIENTLY AND RENEWABLY

- Get a free energy assessment from [Dominion](#) or [Berkeley Electric](#). Or use the [SC Energy Saver Tool](#).
-  Perform energy efficiency improvements, like insulation. Utilize free weatherization programs (if income qualified) such as [Energy Conservation Corps](#) and [Palmetto CAP](#).
-  Consider installing solar on your home. Do an [initial assessment](#). Get the facts about [how solar works](#) and understand [consumer information](#).
- Use CFL and LED bulbs, they save energy and last longer.
- Unplug electronics and turn off lights. Use power strips.
- Adjust your thermostat to save while asleep or away from home. Install a programmable thermostat.
- Replace refrigerators and other appliances with those labeled ENERGY STAR®.
- Only run the dishwasher, dryer and washer when full.
- Wash clothes in cold water and hang out to dry.
- Take shorter showers. Install a low-flow showerhead.

DRAFT FOR PUBLIC COMMENT

TO AMEND PROVISIONS OF CHAPTER 54 OF THE CODE OF THE CITY OF CHARLESTON (ZONING ORDINANCE) BY AMENDING ARTICLE 3, PART 4-OFF-STREET PARKING REQUIREMENTS, BY ADDING A NEW SECTION PERTAINING TO INFRASTRUCTURE FOR ELECTRIC VEHICLE PARKING.

BE IT ORDAINED BY THE MAYOR AND COUNCILMEMBERS OF CHARLESTON, IN CITY COUNCIL ASSEMBLED:

Section 1. Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) is hereby amended by adding to Article 3, Part 4 thereof a new Section 54-320.1 to be titled “Electric Vehicle Parking Requirements,” that shall read as follows:

Sec. 54-320.1 Electric Vehicle Parking Requirements

FINDINGS

There is a consistent rise in electric vehicle (EV) usage in the United States. The State of South Carolina lags in EV adoption, partially due to a lack of adequate EV charging infrastructure. The City of Charleston is a leader in the state and can encourage further EV adoption by increasing the access to charging through this EV parking code.

Encouragement of greater EV accessibility supports the City of Charleston’s Climate Action Plan. This EV parking code will ensure that the City of Charleston is prepared for EV mobility that will support the automotive, tourism, and workforce industries; along with national and global actions to reduce fossil fuel dependence.

PURPOSE

The requirements in this code are intended to prepare for and support a rapidly scaling EV industry by ensuring charging access in new parking projects. Integrating EV-Ready parking codes will support increased electric vehicle use and avoid high costs of retrofitting structures with electrical capacity as future electric vehicle charging needs expand.

APPLICABILITY

The requirements in this code apply to all new construction projects and all major external renovation projects on existing buildings that require parking modifications.

EXEMPTIONS

- a. Permanent Supportive Housing, as defined by the U.S. Department of Housing and Urban Development.
- b. Transitional Housing, as defined by the U.S. Department of Housing and Urban Development.
- c. Interior renovations to existing buildings.

DEFINITIONS

- a. *Electric Vehicle (EV)*: Any motor vehicle registered to operate on or off public roadways that operates partially or exclusively on electric energy.
- b. *Electric Vehicle Supply Equipment (EVSE)*: All necessary wiring, conduit, conductors, connectors, attachment plugs, power outlets, and other necessary equipment required to charge an electric vehicle.
- c. *Affordable housing*: Dwelling units used exclusively for residential uses, where occupants have, in the aggregate, household income of less than or equal to one hundred twenty (120) percent of median area income for owner occupied units, or eighty (80) percent of median area income for rental units.
- d. Electric capacity for EVs is measured in three levels as follow:
 1. *Level 1*: Known as trickle charging for its very slow rate of charging, has 120-volt charging capacity and uses alternating current (AC).
 2. *Level 2*: Standard for most projects and the minimum requirement for this ordinance, has 208-volt to 240-volt capacity, is either hardwired or uses an outlet, and uses alternating current (AC).
 3. *DC Fast Charging*: Rapid charging at or above 480-volt capacity using direct current (DC) rather than alternating current (AC).
- e. EV Readiness requirements support a minimum 40-ampere, 208/240-volt branch circuit for each EV parking space and are categorized in three levels as follows:
 1. *EV-Capable*: This parking space provides dedicated electrical panel capacity and conduit from the location of the panel to the EV-Capable parking space.
 2. *EV-Ready*: This parking space includes all EV-Capable requirements and additionally the wiring installed with a termination at a junction box or receptacle to the EV-Ready parking space.
 3. *EVSE-Installed*: This parking space includes all EV-Ready requirements and additionally provides Level 2 or DC Fast chargers fully connected and ready to charge an EV.

GENERAL REQUIREMENTS

- a. Number of spaces required. EV parking requirements for specific uses are determined by a quota of required EV-Ready, EV-Capable, and EVSE-Installed spaces, as laid out in Table 3.5: Electric Vehicle Parking Requirements Per Land Use.
 1. Mixed use projects shall cumulatively add up requirements per land use.
 2. All calculations resulting in a decimal, per land use, shall be rounded up to the nearest whole number.
 3. EV spaces are cumulative. EV- Capable, EV-Ready and EVSE-Installed requirements are separate requirements.
 4. EV-Capable, EV-Ready and EVSE-Installed spaces may be used to fulfill the minimum required parking spaces indicated in Sec 54-317 Required number of off-street parking spaces by land use. For clarity purposes, there is not an increase in the number of parking spaces required.
 5. Greater than the minimum requirements may be installed, but in no event shall EVSE-Installed spaces take up more than 30% of the spaces in a lot if the spaces are enforced as for EV use exclusively.
- b. EV equipment must meet the requirements defined as Level 2 charger with a minimum of 40-ampere, 208-volt capacity or DC Fast Chargers. Level 1 capacity is not sufficient to meet EV-Ready requirements.

Table 3.5: Electric Vehicle Parking Requirements Per Land Use

| Land Use | Required EV-Capable spaces | Required EV-Ready spaces | Required EVSE-Installed spaces |
|--|----------------------------|---------------------------|--------------------------------|
| <p>1 or 2 dwelling units: One (1) family detached dwelling, one (1) family attached dwelling, two (2) family dwelling, Small efficiency dwelling unit (micro-unit); includes affordable housing</p> | n/a | 1 space per dwelling unit | n/a |
| <p>3 or more dwelling units: Multiple (3 or more) dwellings, small efficiency dwelling unit (micro-unit), dwellings within commercial and mixed-use buildings, (except affordable housing)</p> | n/a | 1 space per 8 spaces | 1 space per 25 spaces |
| <p>3 or more dwelling units of Affordable Housing: Multiple (3 or more) dwellings, small efficiency dwelling unit (micro-unit), dwellings within commercial and mixed-use buildings</p> | 1 space per 4 spaces | n/a | n/a |
| <p>Office and workplace: Office, professional and public buildings, bank (with greater than 25 required parking spaces)</p> | n/a | 1 space per 10 spaces | 1 space per 40 spaces |
| <p>Retail: Retail and personal service establishments, food stores, shopping centers (with greater than 25 required parking spaces)</p> | n/a | 1 space per 10 spaces | 1 space per 50 spaces |
| <p>Accommodations: Accommodations uses, hotels, bed and breakfasts (except for short-term rentals)</p> | n/a | 1 space per 15 spaces | 1 space per 25 spaces |
| <p>Public parking facilities: Parking garages and standalone parking lots that allow for public parking which are separate from a facility parking.</p> | 1 space per 10 spaces | 2 spaces per 10 spaces | 1 space per 30 spaces |

DESIGN

- a. Charging equipment must be mounted on the wall or on a structure adjacent to the EV parking space. No charging devices may be placed within the dimensions of a space or in the public right of way. There must be adequate room to install EVSE equipment without breaching the parking space.
- b. When cords and connectors are not in use, cable retraction devices or locations for storage shall be located sufficiently above the pedestrian surface and the parking lot as to reduce conflicts with pedestrians and vehicle maneuvering, but not in conflict with ADA guidelines on height and accessibility.
- c. Cords, cables, and connector equipment shall not extend across the path of travel in any sidewalk.
- d. Equipment mounted on structures such as pedestals, lighting posts, bollards, or other devices shall be located in a manner that does not impede pedestrian, bicycle, or transit travel.
- e. EVSE-Installed parking spaces shall:
 - a. Display approved signage in accordance with the signage requirements in Article 4 Sign Regulations and include information indicating that the space is intended for EV use.
 - b. Each include pavement markings indicating that the space is intended for EV use.
 - c. The following information shall be visibly available, either on a sign in accordance with the signage requirements in Article 4 Sign Regulations, on the unit itself such as the screen, or within a networked app:
 - i. Hours of operation if time limits, fines or tow-away provisions are to be enforced by the property owner.
 - ii. Cost to utilize the station, if applicable.
 - iii. Contact information for reporting faulty equipment or other problems.
 - iv. Safety information.
- f. Signage and pavement markings provided by and in accordance with the South Carolina Energy Office's Plug in SC initiative, are considered pre-approved.

ACCESSIBILITY

- a. A minimum of one (1) EV-Ready space must be located adjacent to or in an Americans with Disabilities Act (ADA) Accessibility designated space. If the EV space is located adjacent to the ADA Accessible space, the EVSE equipment or future equipment must be able to extend into the accessible space to provide for a car in the ADA Accessible space to receive charging.
- b. Under no circumstances shall an EV-Capable, EV-Ready or EVSE-Installed space be marked and enforced as an EV-exclusive space if it is also an ADA Accessible parking space.
- c. EVSE-Installed accessible spaces shall have all relevant parts located within accessible reach, and planning integrated with an accessible path of travel for the user to move freely between the EVSE and the EV.
- d. The EV-Ready or EVSE-Installed accessible spaces must comply with ADA Guidelines in accordance with the Building Code and Federal regulations.
- e. Notwithstanding the above, any EV-Capable, EV-Ready, or EV Installed space must satisfy minimum requirements of the ADA.

ENFORCEMENT

- a. The owner shall retain exclusive authority to enact and enforce reasonable rules governing access to and use of EVSE-Installed parking space(s) not in the public right of way, including the use of a fee to mitigate costs of charging station operation.
- b. The owner shall have the right to enforce EV parking restrictions and reserve the use of EV spaces for residents, employees, and patrons, or for exclusive use by electric vehicles, unless otherwise required by local, state, or federal rules, regulations, or laws.