

REVISED LEGAL NOTICE
SOUTH WINDSOR PLANNING & ZONING COMMISSION

Notice is hereby given that there will be a Public Hearing on Tuesday, January 12, 2021 at 7:00 PM held by way of an ONLINE Webex Conference Meeting to consider the following:

- 1. Appl. 20-55P, Johnstone Text Amendment** – request for a Zoning Text Amendment to modify Section 7.11 Home Occupations to add Section 7.11.3.12 under the “Major Home Occupation” criteria to require a minimum of 50% of product offered for sale must be made on the premises **(Continued from 12/8/20)**
- 2. Appl. 20-56P, UW Vintage Lane II, LLC** – request for a six (6) lot subdivision of 12.4 acres, including a Special Exception to Section 3.2.2 for one interior lot, on property known as 503 Barber Hill Road, located northerly of Vintage Lane and westerly side of Barber Hill Road, RR zone **(Continued from 12/8/20)**
- 3. WITHDRAWN ON 1/5/21: Appl. 20-54P, Robert Maffucci dba Vito’s Restaurant “Weddings on the Farm”** – request for a two year temporary and conditional permit to hold up to four (4) wedding and/or corporate events between June and October, on property located at 653 and 677 Rye Street and 5 Saxton Lane East Windsor, RR zone

To view this meeting, please tune into Channel 16 if your provider is Cox Cable, or Channel 6082 if your provider is Frontier, or go to: gmedia.swagit.com/live

To call in with comments to this meeting, please call Webex Conference Call-In Number: (855) 925-2801 Meeting Code Number to be provided on agenda

Copies of the application are on file in the office of the Town Clerk or/and Planning Department, and online at <https://www.southwindsor-ct.gov/planning-department/pages/planning-and-zoning-commission-applications>. At this hearing, interested persons may be heard by calling into the meeting, and written comments by the public will be received by mail or email to planningzoningcomments@southwindsor-ct.gov. Persons who may require an accommodation can contact staff at: (860) 644-2511, ext. 329.

Bart Pacekonis, Chairman

Section 7.11 Home Occupations

7.11.1 Purpose

The conduct of business in residential units may be beneficial under certain conditions. It is the intent of this section to:

1. Ensure the home occupation is clearly secondary to the use of the building for dwelling purposes.
2. Ensure the compatibility of home occupations with other permitted uses in the residential districts.
3. Maintain and preserve the residential character of the dwelling and the residential character of the neighborhood.
4. Guarantee to all residents freedom from excessive noise, excessive traffic, nuisances, fire hazards, offensive odors and pollutants, and other possible effects of commercial uses being conducted in residential areas.

7.11.2 Zones Permitted

- A. Minor home occupations are permitted in all single-family residential zones by right; and in the Multifamily Zone at the discretion of their respective Homeowners' Association. A letter from the association will be required at the time of application
- B. Major home occupations are allowed in single-family zones upon approval by the Commission. Upon approval, permits will be issued for up to a 5-year period and must be renewed at the expiration of the allowed period. Major home occupations are not permitted in multifamily zones or developments.

7.11.3 Performance Criteria

- A. Performance criteria for minor home occupations:
 1. No more than 25% of the dwelling unit floor area shall be used in connection with the home occupation. Floor area of a dwelling unit, in this case, shall include the floor of all heated and ventilated and thereby habitable rooms and areas within the dwelling unit including basements and habitable space. The home occupation shall be carried on wholly within the principal building. The activity inside cannot be visible from the outside (e.g., big windows, glass doors, etc.).
 2. No retail sales are allowed. No wholesale/mail-order sales are allowed that generate additional truck deliveries except for parcel services such as UPS or FedEx.
 3. Only 1 business-associated van/pick-up truck is allowed; outdoor storage/parking of the business vehicle is prohibited.
 4. All appropriate State and Federal licenses and permits shall be obtained by the owner/operator.
 5. Dwelling must retain the character of a single-family dwelling.
 6. No storage of hazardous materials, other than normal household materials, allowed.

7. No entrance or exit in the dwelling or on the premises shall be added solely for the conduct of the home occupation.
 8. The home occupation cannot cause interference with radio or television reception in the vicinity.
 9. Articles not made on the premises shall not be sold on the premises.
- B.** Performance criteria for major home occupations include all criteria for minor home occupations enumerated above as well as:
1. No more than 1 major home occupation shall be permitted within any single dwelling unit.
 2. Major home occupations can request use of accessory buildings, provided that there is no appearance of commercial activity, and is subject to Commission approval.
 3. No more than 1 employee not residing in the dwelling shall be employed in the performance of the occupation.
 4. No home occupation or any storage of goods, materials, or products connected with a home occupation shall be allowed in garages, attached or detached unless there is still adequate space for the storage of one vehicle. Also, there shall be no outdoor storage of material.
 5. The home occupation cannot create a volume of passenger or commercial traffic that is inconsistent with the normal level of traffic on the street on which the dwelling is located. No truck deliveries are allowed in connection with the home occupation except for parcel services such as UPS and FedEx.
 6. All parking needs must be met on-site. Any parking in excess of customary residential parking may be required to be screened from the street and from adjacent residential property by either:
 - a. Fencing of a type typically used in residential areas such as stockade fencing, not slatted chain-link fencing; or
 - b. Evergreen plantings of sufficient height and spacing to establish an adequate screen.
 7. No external effects that are incompatible with the character of residential zones are allowed (for example, increased noise, excessive lighting, and offensive odors).
 8. Provision shall be made for separate collection of business generated refuse and recyclables.
 9. When connected to a public sewer, approval of the WPCA shall be obtained prior to initiating the home occupation.
 10. Businesses that are prohibited include on-premises serving of food and/or beverages; overnight treatment of patients; overnight boarding of animals; landscaping contractor businesses; and similar uses.
 11. Where the criteria in the above list are less restrictive than the criteria enumerated for minor home occupations, the less restrictive criteria shall apply to major home occupations.
 - ~~12. At least 50% of articles offered for sale on the premises must be made on the premises.~~
 12. Home occupations offering articles made on the premises for sale are permitted to enhance their offering with product made off-site, provided a minimum of 50% of the product offered is made on-site. Maximum retail area allowed for this type of home occupation is 1,000 sf (regardless of size of existing house/accessory building).

13. Incidental sales of product associated with a major home occupation is permitted.

7.11.4 Procedure

A. Minor Home Occupation

The following shall be submitted to the Zoning Enforcement Officer for a Zoning Permit:

1. A detailed statement describing all pertinent aspects of the proposed activity and acknowledging the requirements of this Section; (It should be noted that additional information is required by the Town's Tax Assessor's Office and may be required by the Town Clerk's Office.)
2. An accurately drawn plot plan depicting property lines, structure locations, access drive(s), existing and proposed parking spaces with screening, and any other pertinent features;
3. An accurately drawn floor plan depicting the area to be utilized by the home occupation;
4. Architectural elevations for any additions being proposed; and
5. Sign design, if any. See Section 6.5.7 Residential Sign Requirements.

B. Major Home Occupation

Application for 5-year permit shall be made to the Commission and notification of abutters in accordance with Section 8.2.C. [A narrative of the proposed occupation and proposed hours of operation shall be submitted. Hours of operation are subject to Commission approval.](#) A public hearing may be required by the Planning and Zoning Commission. Renewals may be granted by the Commission and [hours of operation reviewed.](#) At time of renewal, a sign must be posted per Section 8.2.B and a public hearing may be required. The application for home occupation approval shall contain the same items and information required for a minor home occupation.

C. Permit Duration

1. Each Certificate of Zoning Compliance for a minor home occupation shall be valid for the duration of the applicant's residence and shall automatically terminate when the applicant no longer resides in the dwelling unit. Commission approval for major home occupations shall be valid for up to 5 years as specified by the Commission, except that approval shall automatically terminate when the applicant no longer resides in the dwelling unit.
2. The Commission may revoke any minor or major home occupation permit for noncompliance with permit requirements and conditions.

Applicant proposal 10/14/20;

Staff Revisions based on 12/8/20 public hearing Commission comments

APPROVAL CONDITIONS FOR ZONE TEXT AMENDMENT

PROJECT: Johnstone Text Amendment –
MHO retail sales modification

APPL. #20-55P

1. The Planning and Zoning Commission finds that the zone text amendment in conformance with the Town Plan of Conservation and Development.
2. The effective date of the zone text change is 1/31/2021.

Lipe, Michele

From: Daniel Rosow <daniel.rosow@gmail.com>
Sent: Monday, December 21, 2020 11:29 AM
To: Lipe, Michele
Subject: Vintage Ln

Hello, Michelle,

I hope you are doing well. Pls be advised that re the project abutting my property at 42 Vintage Ln, by Bob and Brad, I am not opposed to the project.

Thank you

Dan Rosow

Real Estate Advisory Group LLC

1131 Tolland Turnpike, Suite 260

Manchester, CT 06042

Phone 860-305-7466

Fax 860-783-5263

**STANDARD APPROVAL MODIFICATIONS FOR SUBDIVISIONS &
RESUBDIVISIONS**

PROJECT: Vintage Hills Resubdivision/Spec Exc

APPL #20-56P

ARCHITECT/ENGR: Design Professionals, Inc.

PROJ #4280

Submit mylars of sheets:V-2, Sp-1, Sp-2, C-GD2,

Special Exception form to go on file

1. This approval is for 6 lots, numbered 1-6.
2. Concrete sidewalks, built to Town specifications, shall be installed on both sides of the new streets.
3. Drainage and construction for this subdivision is subject to the approval of the Town Engineer.
4. Water shall be supplied to this subdivision by public water.
5. *This application is subject to the condition of approval of the Inland Wetlands Agency/Conservation Commission including bonds in the amounts \$25,000 for the establishment and maintenance of erosion controls; and a bond of \$20,000 for installation of stormwater structures. The bonds shall be posted prior to construction.*
6. Street lighting shall be installed on streets, at intersections, and on cul-de-sacs in accordance with the policy established by the Chief of Police. Street lighting is to be coordinated with the Chief of Police.
7. Street names and locations of fire hydrants are subject to the approval of the Fire Marshal of the Town of South Windsor. Street names and supporting posts shall be installed by the developer in conformance with the standards of the Town of South Windsor, at no expense to the Town.
8. A liability insurance policy shall be submitted to this Commission naming the Town of South Windsor as an insured, with a combined single limit for bodily injury and/or property damage in the amount of \$1,000,000.
9. Trees within the street trees easement and any other trees on land that is currently or will in the future become Town-owned land are to be planted in accordance with the enclosed Tree Planting Specifications.
10. Prior to commencement of any site work, a preconstruction meeting must be held with Town Staff.
11. All plans used in the field by the developer must bear the stamp and authorized signature of the Town of South Windsor.
12. All easements for conservation purposes, drainage or utilities, that may be required in connection with the approval of this subdivision, must be submitted on standard Town easement form where appropriate, to this Commission prior to filing the mylars and issuance of building permits. All deeds for open space, public improvements and roadways must be submitted prior to request for Town acceptance; all deeds must be in accordance with the policy for accepting deeds and must be approved by the Engineering Department and Town Attorney.

13. Footing drains are required for each house. Prior to the building of any structure on a lot, a topographic map, drawn to a scale of 1" = 40', shall be submitted for each lot in the subdivision, showing proposed contours, elevations and the location of the footing drains. No building permits will be issued until the proposed contours, floor elevations and location of footing drains have been approved by the Town Engineer.
14. Septic system and/or private well final design(s) must be submitted to and approved by the Environmental Health Officer prior to filing of mylars and issuance of building permits.
15. If, for any reason, finished grading and other individual lot site work is not completed, the Town Engineer shall determine the amount of a cash bond to ensure final grading and site work. This cash bond must be submitted prior to issuance of a Certificate of Occupancy.
16. Quantity estimates must be submitted to the Town Engineer (on the enclosed form) for the purpose of determining subdivision bonding. All bonds shall conform to the enclosed bond policy and shall be posted prior to filing the final plans in the Town Clerk's office.

If the developer chooses to submit a Letter of Credit for a one year term, said Letter of Credit must be renewed on a yearly basis until completion of the development. If a new Letter of Credit has not been received within 30 days before the expiration date, the Commission may, at its option, call the Letter it is holding.

17. In accordance with Section 5.C.1.c of the subdivision regulations, a fee in lieu of open space is required. The fee will be ten percent of the fair market value of the property prior to subdivision approval. This fee is payable on a per-lot basis, at the time of initial conveyance of each lot. The applicant must provide, with the Commission's agreement, an appraiser to determine the fair market value.
18. A drainage assessment fee in the amount of \$350.00 shall be submitted to this Commission.
19. No building permits will be issued until all modifications have been complied with, and the final plans have been filed in the Town Clerk's office.
20. *The Town Engineer's review comments dated December 1, 2020 must be incorporated in the final plans.*
21. *A quit claim deed shall be submitted to establish the street line on Barber Hill Road in front of the property.*
22. *The developer is responsible for preparing the deeds for the conveyance of the existing cul de sac wings to the abutting property owners and restoring the lawns.*
- 23.
- 24.
- 25.



Town of South Windsor

1540 SULLIVAN AVENUE • SOUTH WINDSOR, CT 06074-2786

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FAX 860/644-3781

OFFICE
OF THE
TOWN COUNCIL

December 22, 2020

Mr. Michael Maniscalco, Town Manager
Town of South Windsor
1540 Sullivan Avenue
South Windsor, CT 06074

Dear Mr. Maniscalco:

At its Regular Meeting of December 21, 2020, the South Windsor Town Council approved the following Resolution:

WHEREAS, the Town is interested in purchasing a property located at 1645 Ellington Road consisting of approximately 8.35 acres and a 31,170 square foot building in the amount of \$3,925,000; and

WHEREAS, the Town is considering this property for the housing of Town Offices, vital records, and to conduct Town business; and

WHEREAS, any plan to use Town funds to acquire property must be submitted to the South Windsor Planning & Zoning Commission for a report pursuant to Section 8-24 of the Connecticut General Statutes

NOW, THEREFORE, BE IT RESOLVED that the South Windsor Town Council hereby refers the purchase of property located at 1645 Ellington Road, consisting of approximately 8.35 acres to the Planning & Zoning Commission pursuant to Section 8-24 of the Connecticut General Statutes; and

BE IT FURTHER RESOLVED that the South Windsor Town Council hereby authorizes Town Manager Michael Maniscalco to sign and execute the purchase and sale agreement or documents necessary to carry out such purchase.

Respectfully submitted,

A handwritten signature in cursive script that reads "Deborah W. Reid".

Deborah W. Reid
Clerk of the Council

cc: Michele Lipe, Director of Planning
Bart Pacekonis, Chairperson, Planning & Zoning Commission

Memorandum

DATE: December 23, 2020

TO: South Windsor Planning & Zoning Commission

FROM: South Windsor Energy Committee

cc: South Windsor Town Council
South Windsor Economic Development Commission
South Windsor Board of Education
South Windsor Public Building Commission

SUBJECT: Recommended Zoning Regulation Text Changes for Electric Vehicle Supply Equipment

With this memo, the Energy Committee forwards to the Planning & Zoning Commission recommended text changes to the South Windsor Zoning Regulations. These changes are intended to accommodate and promote the ever-increasing adoption of electric vehicles (EVs) in our community.

Attachment 1 explains the proposed regulations and discusses technical and policy concepts for the benefit of readers who may not be familiar with electric vehicle charging.

Attachment 2 provides the proposed text changes to the South Windsor Zoning Regulations.

Thank you for your consideration.

Attachment 1

Electric Vehicle Charging Concepts and Recommendations

Executive Summary

This attachment forwards recommended text changes to the South Windsor Zoning Regulations. These changes are intended to accommodate and promote the ever-increasing adoption of electric vehicles (EVs) in our community.

The Energy Committee recognizes that EV charging involves numerous technical and policy details that need further explanation. Hence, this letter discusses these items and is copied to the Town Council, Economic Development Commission, Board of Education, and Public Building Commission.

The South Windsor Energy Committee delegated research and drafting of this proposal to the following subcommittee and approved its transmittal to the PZC on 12/11/2020.

Stephen Wagner, Energy Committee Chair and PZC Commissioner
Hank Cullinane, Energy Committee
Steve Lewis, Sierra Club

While there are a number of EVs on the road at this time, this is expected to increase dramatically over the next few years.

- As of June 30, 2020, there are 12,624 EVs registered in Connecticut. Of these, 5,645 were registered in the 18 months ending June 30.
- In support of the state's ambitious climate goals, the Department of Energy and Environmental Protection (DEEP) targets 125,000 to 150,000 EVs on the road by 2025 and 500,000 by 2030.

Achieving these goals as well as promoting and encouraging EV purchases requires a significant increase in EV charging stations (referred to as EV Supply Equipment or EVSE). Zoning regulations can play a role by ensuring that EV charging is a permitted use and by requiring a certain number of EVSE locations in various parking lots for new construction or major renovation.

Regulations should recognize that demand for EV charging is currently small but will grow dramatically over time by initially requiring sufficient wired parking spaces for the long term while requiring actual charging equipment needed for the near term. Wiring is significantly less expensive if done before parking lots are paved and hence would reduce the cost of providing the equipment when demand is larger.

Most EV charging will take place at the owners' homes or workplaces. To support this, DEEP and other sources recommend for new construction and substantial renovation:

- In single-family homes, the garage is the obvious location. Builders should install a circuit sized for a dryer outlet (known as EV Ready Level 2) to minimize the cost of the owner's eventual installation of a charger.
- For multi-unit housing developments, builders should provide EV Ready Level 2 circuits in all garages and 10% of outdoor parking spaces. Of these, 3% of outdoor parking should have EVSE installed. Note that the Energy Committee looked carefully at the various uses in the zoning regulations and, in some cases, recommends less than the 10% number.
- Recognizing that existing multi-unit housing developments and homes are not wired for EV charging, workplace charging will be important for many residents to be comfortable buying an EV. Builders should provide EV Ready Level 2 circuits in 10% of office parking spaces and 10% of other commercial, industrial, and school employee spaces. Of these, 3% of parking should have EVSE installed.
- Note that most retail parking supports customers who, except in restaurants, generally spend insufficient time to benefit from an EV charging service. On the other hand, employees could benefit from the service.
- As with other parking, a certain number of EV charging spaces will need to be ADA van accessible, with wheelchair access to the equipment itself.

There are numerous ways to charge users for the service working through equipment providers. Thus, the cost of electricity and equipment maintenance does not need to be a burden to a facility owner or lessees.

Large destination EV charging facilities are scattered along major corridors and should be permitted in South Windsor.

Need for Electric Vehicle Service Equipment

Enacted in 2008, Connecticut's Global Warming Solution Act (GWSA) requires the state to achieve economy-wide greenhouse gas emissions (GHG) emission reductions of at least 10 percent below 1990 levels by 2020 and 80 percent below 2001 levels by 2050. In 2018, the GWSA was amended by Section 7 of Public Act 18-82, An Act Concerning Climate Change Planning and Resiliency, to include a mid-term GHG reduction target of 45 percent below 2001 levels by 2030. (References 2 and 3)

It is worthwhile to see the current situation. As required under state law, DMV updates its website every six months with the total number of electric vehicles registered in the State of Connecticut, including the total number registered in the state each year. As of July 1, 2020, there were (Reference1):

- Total number registered: 12,624
- Total number registered from 1/1/20 to 6/30/20: 1,525
- Total number registered in 2019: 4,120
- Total number registered from 1/1/19 to 6/30/19: 2,046
- Total number registered from 7/1/19 to 12/31/19: 2,074

From a zoning perspective, it is important to remember that buildings have a roughly 50-year lifetime before major renovation. Thus, zoning regulations should reflect anticipated conditions relatively far into the future. This is the perspective of the proposed changes to parking requirements to accommodate EV charging for new and renovated buildings. However, to avoid discouraging renovations of old, possibly abandoned buildings, the proposed regulations require EV charging for the addition of 10,000 square feet of floor area or 50 additional parking spaces.

The State of Connecticut has established ambitious goals for carbon emissions as part of its role in addressing climate change (Reference 2). A key part of these goals is reducing and ultimately eliminating carbon emissions from the transportation sector as well as from off-road equipment used in construction, farming, landscaping, and other activities. These goals include:

- Achieving 125,000 to 150,000 EVs on the road by 2025, as one of the several states signing onto the Zero-Emission Vehicle Memorandum of Understanding (ZEV MOU, Reference3).
- Ramping up to 22% of new vehicle sales from 2020 to 2025.
- Having 500,000 EVs on the road by 2030 to meet the state's greenhouse gas (GHG) emissions target.
- Scaling electric vehicle supply equipment (EVSE) deployment to reduce range anxiety and encourage higher EV penetration rates as consumers become more confident in charging accessibility. For the vehicle owner, this means that refueling for an EV should be a reliable and convenient as for an Internal Combustion Engine (gas, diesel) vehicle.

- While accounting for Tesla’s proprietary EVSE installations, ensuring sufficient brand-agnostic equipment available to the general public. Tesla’s equipment, such as the installation near Artisanal Burger Company, provides fast charging to Tesla models only.

Role of Zoning

Because EV charging requires more time than internal combustion engine (ICE) refueling, charging facilities will be widely distributed to allow vehicle operators to engage in other nearby activities such as home life, shopping, dining, or recreation while their EVs are being charged. Hence, permitting and requiring these facilities will affect virtually all zones of the Town.

Municipalities and the state can require and control installation of EVSE by three mechanisms:

- Building codes: In theory, building codes, if adopted by the state, can require EVSE in all new construction and major renovations. However, the changes in the proposed 2018 International Energy Conservation Code have been challenged on procedural grounds and withdrawn. Hence, building codes are not likely to be an effective mechanism for several years.
- Zoning: Planning and Zoning Commission site plan regulations:
 - Specifically, parking regulations can impose requirements for EVSE on Commercial, Industrial, Office, and Multi-Unit Dwelling sites.
 - PZCs cannot require EVSE or even the necessary wiring and raceways in single-family developments since subdivision layout does not affect the interior design of single-family dwellings.
- Town Council action: If the zoning approach is adopted, there are still areas that may require Council action:
 - Adopting an ordinance that new single and two-family houses provide a 40-Ampere, 220-Volt outlet in the garage. (This could be coupled with a requirement that wires from eventual rooftop solar installations can be easily connected to the panel and that panel space be reserved for solar. Depending on the location of the panel, this could require the installation of a spare conduit from the attic to the panel before drywall is installed and space near the panel for the added switching and metering gear.)
 - Requiring new EVSE in single- and two-family homes to have “smart” features that allow utility load management control.
 - Adopting an ordinance that residence associations may not forbid owners from installing EVSE.
 - Requiring the Building Department to use the universal charging permit proposed for statewide use and enter data in a statewide database.

Because parking regulations already exist, zoning is the natural way to implement EVSE requirements for all uses except internal wiring requirements of single- and two-family housing.

Types of EVSE

There are three categories of EVSE. This will be important when specifying equipment to be required in various types of development:

- AC Level 1: 20-Ampere, 110 to 120-Volt alternating current (AC) charging off a common electrical outlet, such as used for small kitchen appliances at 1.4-1.9 kW. This is extremely slow and is only necessary to serve some of the oldest EVs on the road. Some Level 2 EVSE provides a Level 1 outlet as an alternative to support these vehicles.
- AC Level 2: 208 to 240 Volts AC, typical in capacity to a clothes dryer outlet. These can charge most EVs overnight or during a work shift. They can also top off or extend the mileage on a partly discharged battery in a reasonable time.
- DC Fast Charging (DCFC), also known as Level 3: 208-480 volt direct current (DC) chargers that can fully load a typical EV in about an hour.

More detail about the three levels is provided by the following table from Reference 2, updated with more current data:

Type of EV Charger	Level 1	Level 2	DCFC
Electrical Specifications	110 – 120 Volts AC 12 – 16 Amps 20 Amp Circuit	208/240 Volts AC 32 Amps 40 Amp Circuit	208 – 480 Volts DC 70 – 125 Amps
Rate of Charge	1 kW	3 kW – 19.2 kW	20 kW +
Mileage Range Per Hour of Charging	5	25	250
Estimated Charger Cost	–	\$379 – \$999	\$25,000
Estimated Installation Costs	–	\$1,200 – \$2,000	\$75,000 – \$100,000
Primary Locations	Residential homes (mostly single-unit dwellings)	Residential homes (single- and multi-unit dwellings), workplaces, public chargers, destination charging locations	Highways, interstate transit corridors, destination charging locations

The great majority of installations are likely to be Level 2 equipment. That equipment meets the needs of users who can leave a depleted vehicle for several hours, as well as someone who simply needs to add miles to their battery.

On the other hand, customers might be drawn to a restaurant or coffee shop that offers a DCFC service that can fill up their car while they eat or shop or to a dedicated charging facility similar to a gas station. Such equipment would also be especially useful to EV owners whose apartment or condo development was built before chargers were required since they cannot charge their vehicles at home.

Permitted Use

EV Charging should be a permitted use in all zones. While requiring EVSE as an accessory use in commercial, industrial, and multi-unit housing developments, the zoning regulations should also allow public EVSE destination installations as a primary use.

DCFC Charging should be limited to non-residential zones and sites, with some flexibility in the case of rural residential zones by special exception. Special exception requirements allow the PZC to consider the impact on nearby properties, among other considerations.

Fleet and Farm Installations

Vehicle and equipment fleet and farm owners should be permitted to add EVSE infrastructure to their sites with site plan approval in accordance with business needs. Minimum EVSE count should be based on employee (e.g. office) parking requirements.

Phased Deployment

When the PZC requires EVSE in a new development, we also need to consider that the demand for this equipment will be less in the short term but increasing over time. While it would be unfair to require a business to install enough equipment to support the anticipated demand in 2030, a partial installation at the start can significantly reduce the cost of responding to increasing demand in later years. Similarly, restricting too many spaces for EV charging during the early years will unfairly impact drivers who do not need this service.

The industry recognizes three stages of installation, and any given site might employ all three:

- EV-Installed Parking Space: Electric Vehicle Supply Equipment or EVSE, either Level 2 or DCFC installed and operational with means to bill electrical usage and other operating costs that are appropriate to the situation.
- EV READY SPACE. A designated parking space with a dedicated branch circuit for EVSE servicing Electric Vehicles at 208/240-Volts at 40-Amperes (Level 2). The circuit should lead to a suitable termination point, such as a receptacle, junction box, or an EVSE, and be accessible to the proposed EV parking spaces. (While developers might contemplate DCFC EV Ready spaces, the high cost of such installations is likely to lead to an all (installed) or nothing approach.)

- EV CAPABLE SPACE. Electrical panel capacity and breaker space to support a minimum 40-ampere, 208/240-volt branch circuit for each EV parking space, and the installation of raceways (conduits).

Required Number of EVSE Spaces

DEEP recommends that the state building code require a minimum of 10 percent of required parking spaces in new commercial and multi-unit housing developments be pre-wired for Level 2 EVSE (Reference 2) as provided in the following table. Reference 2 seems to indicate that further legislation may be required for individual municipalities to impose these requirements as stretch goals in local building codes. However, zoning commissions can accomplish many of these objectives without further legislation.

Table 6: EV parking space pre-wiring requirements for new construction

Total Number of Parking Spaces	Number of Required Level 2 EV-Ready or Charging Spaces
1-9	1
10-25	2
26-50	4
51-75	6
76-100	9
101-150	12
151-200	17
201 and over	10 percent of total*

* The number of spaces has been rounded up to the nearest whole number.

Of these EV Ready Spaces, the following fraction should be required to have EVSE installed (rounded up to the nearest whole number):

Calendar year of site plan application	Fraction of EV Ready Spaces with installed EVSE
2020-2023	3% of parking
2024-2027	7% of parking
2028 and beyond	10% of parking

Note that the DEEP’s Reference 2 does not suggest EV Capable Spaces. It focuses only on EV Ready Spaces, with some of them installed. EV Capable Spaces could be an acceptable alternative when the PZC agrees to waive the full requirements for a given application.

Recognizing the ever-increasing capacity of EV batteries, installed EVSE should be sized at the high end of the capacity range for their level.

Without further incentives, the program relies on market forces to lead to the conversion of remaining EV Ready spaces to EV Installed spaces over time.

Tracking EV Penetration in South Windsor

A universal charging permit form proposed for statewide use is designed to support tracking of EVSE down to the municipal level. The Building Department should adopt this form.

Grid Capacity and the Eversource EV Make Ready Program

Massive penetration of EV charging in both residential and business areas has the potential to exceed the capacity of the local grid to supply the necessary power during peak periods. This can be mitigated if the utility is given the ability to remotely manage load from these facilities.

Eversource is developing an “Electric Vehicle Make Ready” program to address this need as well as provide incentives for existing multi-unit housing developments to install EVSE. This program is already in place in Massachusetts.

Load Sharing and Time of Day

Load sharing is a technical strategy that allows a site’s electrical capacity to be less than the sum of the individual charging station capacities. If multiple vehicles being charged demand more than the available capacity, individual stations reduce their output. This strategy reduces construction costs and demand-related charges from the utility. As a practical matter, this approach is unlikely to have a negative impact on users because vehicle battery size and state of charge will vary. This should be allowed within limits, such as minimum power level to each vehicle. Load sharing should be limited to office and multi-unit housing locations where users can more easily live with the resulting delays.

Time of day controls are used to schedule charging when other demands on the grid are low. These can also be coupled to time of day electric rates. While not presently available for single-family dwellings, time of day rates are likely to be available in the future. Time of day controls should be limited to housing and facilities that are occupied on a 24-hour basis.

Residents of multi-unit housing should be allowed to optionally defer charging to take advantage of time of day rates.

Existing Buildings (Alterations)

To bring facilities designed and built prior to the changes in EVSE zoning into conformance with the state's objectives for EV deployment, opportunities must be found to add this equipment. Buildings typically have a 50-year lifespan. They should be retrofitted with EVSE during additions, major building alterations, surface parking, and electrical system upgrades.

This could be tied to the concept of Level 3 Alterations: "where the work area exceeds 50 percent of the original building area, or more than ten parking spaces are substantially modified." (definition taken from Denver EV building code proposal). However, there is a concern that imposing EV charging on a project that merely revamps the interior, as might happen with a new occupant, could discourage bringing idle buildings back into service. The proposed regulations limit the requirement to 10,000 square foot additions to floor area or 50 new parking spaces.

Protection of Equipment

Charging equipment requires protection from vehicle impact. This can be in the form of curbs, concrete-filled bollards, or wheel stops. Additionally, EVSE installed on sidewalk areas must not impede use of the sidewalk and may therefore require increased sidewalk width. These accommodations may increase the area required for a given parking space beyond that needed for the vehicle and may also impact impervious coverage. For that reason, the commission may wish to waive required parking spaces consistent with the lost parking area. A ratio of 1 waived space for every 5 EV Ready Spaces is suggested.

Signage and Posted Pricing

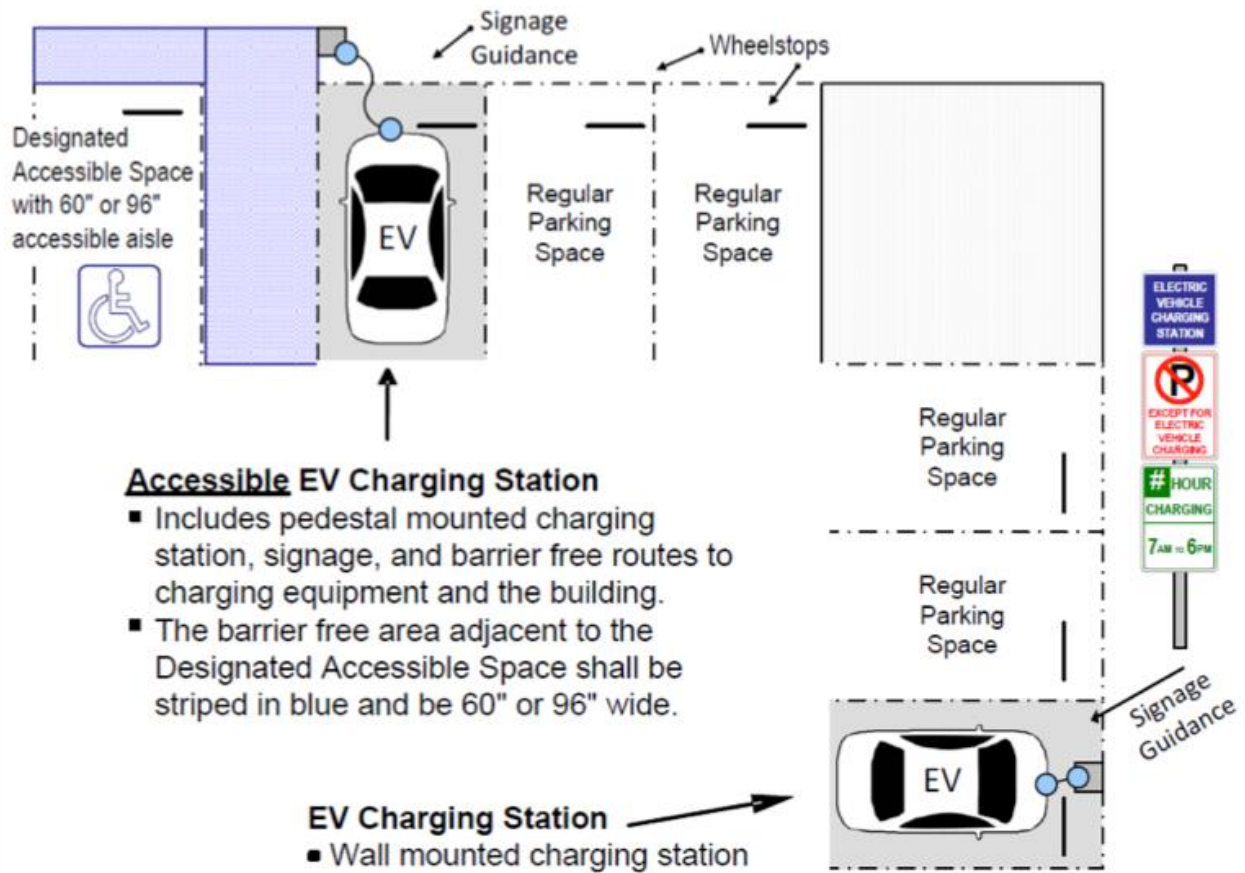
Signs limiting use of each installed EVSE parking space to EV charging, any time limits, applicable ADA restrictions, and any membership requirements (e.g. EVSE service provider, resident, gym, or store membership) should be required. In addition, in the vicinity of a set of EVSE spaces offered to the public, a digital pricing display, visible before entering the parking space, should be required.

Directional signage leading to public EVSE spaces should be permitted in addition to other signage.

ADA Spaces

There are currently no federal requirements for ADA compliant EV charging spaces. Nonetheless, it is important not to deny EV charging services to community members who meet ADA standards.

In Reference 5, the U.S. Department of Energy provides guidance for the design of ADA compliant EVSE parking spaces. The following figure illustrates some of the concepts discussed therein:



The following table from the 2019 California Building Code (Reference 6) illustrates how that state has set the minimum number of accessible EVSE spaces:

**TABLE 11B-228.3.2.1
ELECTRIC VEHICLE CHARGING STATIONS FOR PUBLIC USE AND COMMON USE**

TOTAL NUMBER OF EVCS AT A FACILITY ¹	MINIMUM NUMBER (by type) OF EVCS REQUIRED TO COMPLY WITH SECTION 11B-812 ¹		
	Van Accessible	Standard Accessible	Ambulatory
1 to 4	1	0	0
5 to 25	1	1	0
26 to 50	1	1	1
51 to 75	1	2	2
76 to 100	1	3	3
101 and over	1, plus 1 for each 300, or fraction thereof, over 100	3, plus 1 for each 60, or fraction thereof, over 100	3, plus 1 for each 50, or fraction thereof, over 100

1. Where an EV charger can simultaneously charge more than one vehicle, the number of EVCS provided shall be considered equivalent to the number of electric vehicles that can be simultaneously charged.

The proposed zoning regulations incorporate a simplified version of this table. When there are a small number of EVSE spaces (say 1 to 4), reserving one for ADA compliance may unfairly restrict access by non-ADA users. In these cases, it is desirable to require a design consistent with van accessible ADA requirements but not restricting the use of the space, assuming the required number of ADA parking spaces are provided elsewhere at the location.

Billing for EVSE use

While billing is not the purview of the PZC, commissioners should be aware that there are ways to pay for the installation, maintenance, and operation of public and shared EVSE equipment that minimize or eliminate the burden on facility owners. Examples include:

- Charging users by credit card, membership card, key fob, occupant ID card, or similar mechanism. A third party collecting data at the equipment can rely on a common utility account that serves multiple parking spaces.
- In multi-unit housing, the charges can be directed onto the occupant’s electric bill. If a garage is physically adjacent to the dwelling, this would be accomplished by wiring through the dwelling’s panel.
- Ownership of the equipment by a third party who charges users based on electric usage takes the bookkeeping burden off the site owner. The third party’s profit incentive and market perception would drive installation of equipment above the minimums, provided EV Ready Spaces are available.
- In condominiums where a garage is attached to the unit, the electric usage can come directly off the owner’s meter. The owner would be required to rent or purchase the charging equipment.
- Facility owners could operate the charging facilities as profit centers. This could provide an additional revenue stream to, say, a restaurant that provides Level 2 or DCFC EVSE.

- Regulations could require credit card access in public situations, though further research is required to ensure that such a regulation would eliminate too many competitive equipment suppliers.

References:

1. <https://portal.ct.gov/DMV/News-and-Publications/News-and-Publications/Electric-vehicle-stats>
2. “Electric Vehicle Roadmap for Connecticut, A Policy Framework to Accelerate Electric Vehicle Adoption,” Connecticut Department of Energy and Environmental Protection, 2020.
3. State Zero-Emission Vehicle Programs—Memorandum of Understanding. NESCAUM. Signed October 24, 2013. Retrieved March 3, 2020 from <https://www.nescaum.org/documents/zev-mou-10-governors-signed-20191120.pdf/>.
4. Conn. Gen. Stat. § 22a-200a.
5. “ADA Requirements for Workplace Charging Installation: Americans with Disabilities Act Requirements to Consider for Workplace Charging Installation”, U.S. Department of Energy, WPCComplyingwithADArequirements_1114.pdf, 2014.
6. 2019 California Building Code, Title 24, Part 2, Volume 1, Chapter 11B. <https://codes.iccsafe.org/content/CABCV12019/chapter-11b-accessibility-to-public-buildings-public-accommodations-commercial-buildings-and-public-housing>

Abbreviations	
	GWSA – Global Warming Solutions Act
	HOV – high occupancy vehicle
While not all of these abbreviations are used in the present document, readers may find them elsewhere	ICC – International Code Council
	ICE – internal combustion engine
	IECC – International Energy Conservation Code
AC – alternating current	kWh – kilowatt-hour
ACT – Advanced Clean Trucks Regulations	LED – light-emitting diode
ADA – Americans with Disabilities Act	LMI – low- and moderate-income
AFLEET – Alternative Fuel Life-Cycle Environmental and Economic Transportation	Low-No – Low- or No-Emission Grant program
ATV – alternative technology vehicle	MOR-EV – Massachusetts Offers Rebates for EVs
BAU – business as usual	MSRP – manufacturer suggested retail price
BESH – Basic Electric Service Hourly	MUD – multi-unit dwelling
BEV – battery electric vehicle	MY – model year
BNEF – Bloomberg New Energy Finance	NAAQS – National Ambient Air Quality Standards
CAA – Clean Air Act	NDEW – National Drive Electric Week
CAFE – Corporate Average Fuel Economy	NESCAUM – Northeast States for Coordinated Air Use Management
CALGreen – California Green Building Standards Code	NHEC – New Hampshire Electric Co-op
CARA – Connecticut Automotive Retailers Association	NHTSA – National Highway Traffic Safety Administration
CARB – California Air Resources Board	NOx – nitrogen oxides
CHEAPR – Connecticut Hydrogen and Electric Automobile Purchase Rebate	NREL – National Renewable Energy Laboratory
CO ₂ – carbon dioxide	NYSERDA – New York State Energy Research and Development Authority
C-PACE – Commercial Property Assessed Clean Energy	O&M – operation and maintenance
CSE – Center for Sustainable Energy	OCPI – Open Charge Point Interface
CT – Connecticut	OCPP – Open Charge Point Protocol
CVRP – California Clean Vehicle Rebate Project	OEM – original equipment manufacturer
DAS – Connecticut Department of Administrative Services	Open ADR – Open Automated Demand Response
DCDE – Drive Change. Drive Electric	OSCP – Open Smart Charge Protocol
DCFC – direct current fast charger/charging	PG&E – Pacific Gas and Electric Company
DEEP – Connecticut Department of Energy and Environmental Protection	PHEV – plug-in hybrid electric vehicle
DER – distributed energy resource	PM-2.5 – particulate matter 2.5
DMV – Connecticut Department of Motor Vehicles	PUC – public utility commission
DOE – U.S. Department of Energy	PURA – Public Utilities Regulatory Authority
DOT – Connecticut Department of Transportation	RMI – Rocky Mountain Institute
EDC – electric distribution company	SDG&E – San Diego Gas and Electric Company
EPA – U.S. Environmental Protection Agency	SIR – Savings-to-investment ratio
EV – electric vehicle	SO ₂ – sulfur dioxide
EVSE – electric vehicle supply equipment	SUV – sport utility vehicle
FCEV – fuel cell electric vehicle	TOD – transit-oriented development
FHWA – Federal Highway Administration	TCI – Transportation and Climate Initiative
FTA – Federal Transit Administration	TOU – time-of-use
GBTA – Greater Bridgeport Transit Authority	UC Davis – University of California Davis
GC3 – Governor’s Council on Climate Change	V2B – vehicle-to-building
GHG – greenhouse gas	V2G – vehicle-to-grid
GIS – geographic information system	VIN – vehicle identification number
GMP – Green Mountain Power	VOC – volatile organic compound
GPS – global positioning system	VMT – vehicle miles traveled
GREET – Greenhouse gases, Regulation Emissions, and Energy use in Transportation	VW – Volkswagen
	ZEV – zero-emission vehicle
	ZEV MOU – Zero-Emission Vehicle Memorandum of Understanding

Attachment 2

Proposed Text changes to the South Windsor Zoning Regulations

3.1 Residential Zone Requirements

3.1.2.I [New] Electric Vehicle Supply Equipment (EVSE) is permitted as an accessory use. See Appendix H Electric Vehicle Supply Equipment.

3.2 Residential Zones (RR, AA and A)

3.2.1.H [New] Electric Vehicle Supply Equipment (EVSE) is permitted as an accessory use. See Appendix H Electric Vehicle Supply Equipment.

3.4 Multifamily Residential Zone (MF-A or MF-AA)

3.4.2.B [New] Electric Vehicle Supply Equipment (EVSE) is permitted as an accessory use. See Appendix H Electric Vehicle Supply Equipment.

3.4.7.G [New] EVSE Ready Spaces and EV Installed Spaces shall be provided as described in 6.4.10. Minimum Number of EVSE Parking Spaces and Appendix H Electric Vehicle Supply Equipment. All garages and assigned covered spaces shall be wired as EV Ready Spaces.

4.1 Commercial and Industrial Use Regulations

4.1.3 [Add text] Electric Vehicle Supply Equipment (EVSE) is permitted as an accessory use; see Appendix H Electric Vehicle Supply Equipment.

4.2 Buckland Road Gateway Development Zone

4.2.5.F [New] Electric Vehicle Supply Equipment (EVSE) is permitted as an accessory use. See Appendix H Electric Vehicle Supply Equipment. EVSE is permitted as a primary use by Special Exception.

4.2.15.A.2.h [Add text] EVSE Ready Spaces and EV Installed Spaces shall be provided as described in 6.4.10. Minimum Number of EVSE Parking Spaces and Appendix H Electric Vehicle Supply Equipment. All garages shall be wired as EV Ready Spaces.

4.2.11.C.2.e. [New] EVSE Ready Spaces and EV Installed Spaces shall be provided as described in 6.4.10. Minimum Number of EVSE Parking Spaces and Appendix H Electric Vehicle Supply Equipment.

Section 4.6 Route 5 Travel Zone (TS)

4.6.3 Specific Design Standards & Use Restriction/Guidelines

9. ... motor vehicle refueling/re-energizing (e.g. Electric Vehicle Supply Equipment) ...

5.6 Center Core Overlay Zone

5.6.9.C.6 [New] EVSE Ready Spaces and EV Installed Spaces shall be provided as described in 6.4.10. Minimum Number of EVSE Parking Spaces and Appendix H Electric Vehicle Supply Equipment. Equipment locations shall be similar to the location for streetlights illustrated in Section 5.6.9.B. In addition, all streetlights shall have EV Level 1 outlets on the pole.

5.10.2.B.22 [New or add to 5.10.2.B.15] EVSE Ready Spaces and EV Installed Spaces shall be provided as described in 6.4.10. Minimum Number of EVSE Parking Spaces and Appendix H Electric Vehicle Supply Equipment. All garages and assigned covered spaces shall be wired as EV Ready Spaces.

ARTICLE 3 RESIDENTIAL ZONES

Section 3.1 Residential Zone Requirements

3.1.1 Permitted Uses, Impervious Coverage and Other Provisions

Uses within residential zones shall be governed by Table 3.1.1A. For uses requiring a Special Exception, see Section 8.4 Special Exception Standards and Procedures.

Table 3.1.1A - Permitted Uses, Impervious Coverage and Other Provisions						
Use	Zones				Impervious Coverage	Additional Provisions
	RR	AA-30	A	MF		
	P = Permitted SE = Special Exception Blank = Not Permitted					
	RR = Rural Residential AA-30 = Limited Residential A = A-40, A-30, & A-20 Residential MF = Multifamily					

Residential

Accessory Apartments	SE	SE	SE			See Article 7 Special Regulations.
Agri-Tourism	SE		SE*			*Limited to A-40 zones. See Section 5.9
Assisted Living Facilities	SE	SE	SE	SE		See Article 7 Special Regulations.
Bed and Breakfast (for not more than 6 guests)	SE		SE		10%	Provided that such use is served by public sewer and water facilities. Meals served shall be limited to breakfast.
Elderly Housing	SE	SE	SE		40%	See Article 7 Special Regulations.
Household Pets	P	P	P	P		Excludes kennels
Horses and ponies for personal use, to include large domestic animal pets (3 or fewer)	P	P	P			See Article 7 Special Regulations.
Horses and ponies for personal use, to include large domestic animal pets (more than 3)	SE	SE	SE			See Article 7 Special Regulations.
In-Law Apartment	P	P	P			See Article 7 Special Regulations. A Special Exception is required in the event that any waiver is requested relative to the criteria of 7.1.3.A.
Multifamily Dwelling				SE		Accessory uses to dwellings as determined and approved by the Commission and which are intended and designed for the maintenance or operation of the property and/or the use of its residents are permitted.

Table 3.1.1A - Permitted Uses, Impervious Coverage and Other Provisions

Use	Zones				Impervious Coverage	Additional Provisions
	RR	AA-30	A	MF		
Multifamily Assisted Housing		SE				See Article 7 Special Regulations
Single-family Dwelling	P	P	P			Accessory uses to dwellings as determined and approved by the Commission and which are intended and designed for the maintenance and/or operation of the common interest community-owned land and/or the use of its residents are permitted.
Two Family Dwelling converted from single-family	SE		SE			<p>Provided that:</p> <p>The building shall have been constructed prior to 1940.</p> <p>The lot has an area of not less than 30,000 sq. ft., and sufficient area to provide for sub-surface disposal of additional sewage.</p> <p>The external appearance and general character of the building as a single-family dwelling shall be preserved.</p> <p>Family dwelling units shall conform to the minimum requirements listed in Table 3.1.2A Residential Area, Density and Dimensional Requirements.</p>

Public and Semipublic

Cemeteries	SE				50%	Provided that no activity shall be conducted which is hazardous or dangerous to persons or property outside of the lot on which the activity is conducted
Day Care Centers	SE					See Article 7 Special Regulations.
Educational Institution: For Profit	SE	SE	SE		35%	<p>Provided that:</p> <p>No activity shall be conducted that is hazardous or dangerous to persons or property outside of the lot on which the activity is conducted.</p> <p>No activity is carried on that results in objectionable noise audible off the premises.</p> <p>The external appearance and general character of the building as a single-family dwelling shall be preserved.</p>

Table 3.1.1A - Permitted Uses, Impervious Coverage and Other Provisions

P = Permitted SE = Special Exception Blank = Not Permitted	Zones				Impervious Coverage	Additional Provisions
	RR = Rural Residential	AA-30 = Limited Residential	A = A-40, A-30, & A-20 Residential	MF = Multifamily		
Use	RR	AA-30	A	MF		
Educational Institution: Non-Profit or Government	SE	SE	SE		RR-50% AA, A-35%	Operated by a duly incorporated non-profit body or government unit
Essential Community Services	SE	SE	SE	SE	50%	
Golf Courses	SE				10%	See Article 7 Special Regulations.
Hospitals, Sanitariums, Convalescent Homes	SE				50%	Except for contagious, mental, alcoholic, and drug cases Provided that: The lot area is not less than 1/10 acre for each person accommodated, including patients and employees. Such uses are served by the public sewer and water facilities.
Municipal Facilities and Uses	SE	SE	SE	SE	50%	
Public Utility Buildings and Structures, e.g., substations, transformers, water supply reservoirs, wells, water towers and water treatment facilities	SE	SE	SE		50%	Provided that: There is no service yard or outside storage of supplies. Buildings and/or grounds conform to the general character of the neighborhood.
Recreational Areas, Parks, Playgrounds operated by the Town of South Windsor	SE	SE	SE		50%	
Recreational Facilities, forest or wildlife reservation, park or playground not operated for profit	SE	SE	SE		50%	Operated by a duly incorporated non-profit body or government unit
Religious Institutions - churches, temples and other recognized places of worship	SE	SE	SE		RR-50% AA, A-35%	Operated by a duly incorporated non-profit body or government unit
Solar Energy, Roof Mounted	P	P	P	P		See Article 7, Special Regulations

Table 3.1.1A - Permitted Uses, Impervious Coverage and Other Provisions

Use	Zones				Impervious Coverage	Additional Provisions
	RR	AA-30	A	MF		
P = Permitted SE = Special Exception Blank = Not Permitted	RR = Rural Residential AA-30 = Limited Residential A = A-40, A-30, & A-20 Residential MF = Multifamily					

Commercial Uses

Agriculture, forestry, truck or nursery gardening, including green-houses incidental thereto	P					Not including veterinary hospitals, veterinary kennels, commercial kennels, animal boarding homes, livery or boarding stable. Excludes swine and animals raised for pelts except for domestic use. See Section 7.12 Horses/Ponies and Home Animal Agriculture for Home Animal Agriculture and Commercial Animal Agriculture regulations.
AC Level 1 and AC Level 2 Electric Vehicle Charging Equipment (EVSE)	SE					As a primary use (destination charging) for sale of EV Charging services to the public, similar in intent to internal combustion engine fueling (e.g. gasoline or diesel). See Appendix H – Electric Vehicle Supply Equipment
Farms	P		P			
Farm Stands	SE		SE			See Article 7 Special Regulations.
Home Occupations, Home Office, Professional Office (Major)	SE		SE			See Article 7 Special Regulations.
Home Occupations, Home Office, Professional Office (Minor)	P	P	P	P		See Article 7 Special Regulations.
Offices - professional, commercial and business	SE		SE		50%	See Article 5.3 Special Regulations.
Solar Energy System, Large	SE					See Article 7, Special Regulations
Solar Energy System, Small	SE		SE**		20%	See Article 7, Special Regulations
Stables, Barns, Riding Academies	SE		SE**		20%	See Article 7 Special Regulations.

ARTICLE 4 COMMERCIAL AND INDUSTRIAL ZONES

Section 4.1 Commercial and Industrial Use Regulations

4.1.1 Permitted Uses

Uses within Commercial and Industrial Zones shall be governed by Table 4.1.1A. See Section 4.2 for use provisions relating to the Buckland Road Gateway Development Zone (GD); Section 4.3 for the De- signed Commercial Zone (DC); and Section 4.4 for the I-291 Corridor Development Zone (CD).

Table 4.1.1A Permitted Commercial and Industrial Uses

Use	Zones						Additional Provisions
	DC	GC	I	RC	RO	TS	
	DC = Design Commercial GC = General Commercial I = Industrial RC = Restricted Commercial RO = Restricted Office TS = Route 5 Travel Services						
Residential		SP/SE*	SP/SE*	SP/SE*			A single residential dwelling by the owner of the facility is allowed in conjunction with a permitted commercial use. The residence may be either a dwelling unit contained within the commercial facility itself, or may be a separate free-standing single-family dwelling that otherwise meets all of the requirements of the underlying zone. * An owner can request either the business/residential use be a rental property for properties developed prior to 2019 provided the owner lives on site or operates the business. No more than 10% of properties within 1,000 feet can contain such rentals.
Assisted Living	SE	SE		SE	SE		See Article 7 Special Regulations.
Duplex		SE					See Article 7 Special Regulations.
Horses and ponies for personal use		SP		SP	SP		See Article 7 Special Regulations.
Multi-family residential		SE					See Section 5.10 – Specific Requirements for a Sullivan Avenue Mixed-Use Development in the GC
Public and Semipublic							
Hospitals, Sanitariums, Convalescent Homes		SE					Except for contagious, mental, alcoholic, and drug cases provided that: The lot area is not less than 1/10 acre for each person accommodated, including patients and employees; Such uses are served by the public sewer and water facilities; and 50% impervious coverage

Fraternal organizations and membership clubs operated as a nonprofit activity			SE				
Municipal Facilities and Uses	SE	SE	SE	SE	SE		

[Type here]

Table 4.1.1A Permitted Commercial and Industrial Uses

Use	Zones						Additional Provisions
	DC	GC	I	RC	RO	TS	
	DC = Design Commercial GC = General Commercial I = Industrial RC = Restricted Commercial RO = Restricted Office TS = Route 5 Travel Services						
Commercial Uses							
Agriculture (e.g. forestry operation, cultivated lands, animals)	P	P	P	P	P	P	Clearing of ½ acre of land requires PZC approval.
Adult-Oriented Businesses		SE					See Article 7 Special Regulations.
Alcoholic Liquor Stores	SP	SP		SP			
Alcoholic beverage sales for consumption on the premises of hotels, restaurants, taverns, grills and cafes	SP	SP	SE*	SP			*Industrial zone – accessory to a permitted recreational use or manufacturing use
Alcoholic liquor sales as part of a drug store or grocery store	SP	SP		SP			
Amusement - theaters, moving picture houses, assembly halls, billiard and pool rooms, bowling alleys, and similar amusement enterprises		SP	SE*				Excluding shooting galleries, freak shows, mechanical rides and similar enterprises * Industrial zone in conjunction with permitted indoor recreational use. See Article 7 Special Regulations
Automobile retail sales, new and used		SE	SE*				* Maximum cars offered for sale is four (4)
Automobile service and repair			SP				
Automobile wholesale		SE					
Automobile service stations, fuel and repair		SE					See Article 7 Special Regulations.
Automotive fuel	SP						Only when accessory to a retail sales and inventory directly related thereto facility that has a minimum gross floor area of 50,000 sq ft Commission may determine hours of operation.
Brewery / Distillery			SP				Accessory uses and incidental sales (e.g. tasting rooms) subject to criteria in Section 4.5.3 Accessory Uses. Parking is subject to PZC approval.
Beverage Stores, quick service; e.g. coffee shop						SP	
Building and landscape materials sales and storage including lumber yards and construction equipment			SE				Excluding the storage or fabricating of structural steel and heavy concrete products. Primary building shall be minimum 2,000 sq ft (excluding greenhouses). Except plant materials, outdoor storage/sales area shall not be visible from a public street.
Convenience Stores						SP	

[Type here]

Table 4.1.1A Permitted Commercial and Industrial Uses

Use	Zones						Additional Provisions
	DC	GC	I	RC	RO	TS	
Convention Facilities	SE						
Day Care Facilities	SE	SE	SE	SE	SE		See Article 7 Special Regulations.
Dog Grooming Facilities		SE	SE	SE			See Article 7 Special Regulations for Dog Grooming Facilities in the Industrial Zone
Dry cleaning, laundry, and dyeing establishments		SP					
AC Level 1, AC Level 2, and DC Fast Charging Electric Vehicle Charging Equipment (EVSE)	SE	SE	SE	SE	SE		As a primary use (destination charging) for sale of EV Charging services to the public, similar in intent to internal combustion engine fueling (e.g. gasoline or diesel). See Appendix H – Electric Vehicle Supply Equipment
Entertainment (live) at hotels and restaurants, taverns, grills and cafes	SP	SP	SE*				*Industrial zone in conjunction with permitted indoor recreational use. See Article 7 Special Regulations
Equipment sales, service and rentals, including farm equipment		SP	SE				
Financial Services, institutions and agencies	SP	SP	SP	SP		SP	
Fitness Facilities		SP	SE	SP		SP	See Article 7 Special Regulations for indoor recreational facilities
Freezer lockers and incidental processing of food for human consumption		SP					
Garages - public		SP		SE			
Hotels (and motels)	SP	SP		SP		SP	
Hotels, exclusive of entertainment		SP		SP			
Manufacture of bricks, cement products, tile and terra cotta			SE				
Manufacture, processing, packaging and assembly of components or goods			SP				
Microbrewery, Brewpub		SP		SE			No more than 15,000 barrels manufactured per year; wholesale and retail sales allowed; tasting rooms allowed; outside tasting allowed in conformance with Section 7.15 Outdoor Dining. Hours of operation may be determined by the PZC

Mobile Food Vendor	ZP	ZP	ZP	ZP	ZP	<p>Mobile food vendors are permitted in these zones without a permit provided that all of the following criteria are met:</p> <ol style="list-style-type: none"> 1. Written permission from the property owner; 2. Adequate room for vehicles to pull off safely; 3. A maximum of 12 sq. ft. of free-standing signage; 4. Vendors shall not be located within public rights of way;
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Table 4.1.1A Permitted Commercial and Industrial Uses

Use	Zones						Additional Provisions
	DC	GC	I	RC	RO	TS	
							<p>5. All facilities and equipment used by vendor must be portable and must be removed from the site by 9:00 p.m.</p> <p>6. Connections to external utilities are not permitted.</p> <p>7. Vendors must comply with health and safety regulations of the Town of South Windsor and the State of Connecticut.</p> <p>8. Vendors shall keep the area of operation free of debris and shall clean the area thoroughly upon ceasing operations each day. At least 1 trash container must be provided for use by patrons in conjunction with mobile food vendor.</p>
Mortuaries, funeral and internment services		SP		SP			May have living quarters containing a dwelling unit of at least 700 square feet of living space and at least 2 rooms, exclusive of the bathroom, to be occupied by a person, together with his family, who is the owner, manager, caretaker, or janitor, residing in the same building.
Multi-family residential		SE					See Section 5.10 – Specific Requirements for a Sullivan Avenue Mixed-Use Development in the GC zone
Motor vehicle refueling / re-energizing stations						SP	
Offices - professional, commercial, corporate and business	SP	SP	SP	SP	SP	SP	
Personal Services Shops	SP	SP		SP			Limited to barber shops, beauty shops, shoe repair shops, tailoring and dressmaking shops, tanning salons, clothes rental stores, and similar establishments. Tattoo parlors are not considered a personal service shop.
Pharmacy	SP	SP		SP		SP	Including pharmacy with drive thru.
Petroleum Product Bulk Storage			SE				
Plumbing, heating, electrical, mechanical industrial and general contracting establishments			SP				May include showrooms, storage and maintenance of heavy construction equipment
Printing and publishing, graphic arts processes, sign shop painting		SP	SP				
Radio and television studios and transmitters, communication towers, multi media stations		SP					

Table 4.1.1A Permitted Commercial and Industrial Uses

Use	Zones						Additional Provisions
	DC	GC	I	RC	RO	TS	
Recreational Activities - indoor	SP	SP	SE*				*See Article 7 Special Regulations.
Recreational Facilities – outdoor		SE	SE*				*See Article 7 Special Regulations
Research Laboratories			SP				
Restaurants, including fast food	SP	SP		SP		SP	
Restaurants, exclusive of entertainment		SP		SP			
Retail Establishments with high turnover (frequent customer arrivals / departures)						SP	
Retail sales and inventory directly related thereto	SP	SP		SP			<p>Retail sales and high-turnover uses with frequent customer arrivals and departures are prohibited.</p> <p>Retail sales associated with a club membership format are permitted and shall not be considered a wholesale sales use.</p> <p>Repairing and fabricating incidental to a retail store are permitted as an accessory use.</p> <p>Tire and battery repair and replacement as an accessory use to retail sales is permitted in the DC zone only.</p>
Riding Academies, Barns and Stables		SP					
Solar Energy, Roof Mounted	P	P	P	P	P	P	See Article 7, Special Regulations
Solar Energy System, Large		SE	SE				See Article 7, Special Regulations
Solar Energy System, Small		SP	SP				See Article 7, Special Regulations
Solid waste, recycling, transfer station facilities			SE				Including storage and maintenance of vehicles and refuse containers, but excluding dumping and/or disposal on-site of waste originating off-site
Training Facilities		SE	SE	SE			
Truck and Freight Terminals			SE				With the right to service, maintain and repair motor vehicles incidental to the afore- said use
Veterinary Hospitals and Boarding Kennels			SE				For the treatment and boarding of small animals, primarily cats and dogs, with all facilities housed inside a building with a limited outside fenced area for exercising and training with necessary office and service space

Table 4.1.1A Permitted Commercial and Industrial Uses

SE = Special Exception SP = Site Plan ZP = Zoning Permit Blank = Not Permitted	Zones DC = Design Commercial GC = General Commercial I = Industrial RC = Restricted Commercial RO = Restricted Office TS = Route 5 Travel Services						Additional Provisions
	DC	GC	I	RC	RO	TS	
Warehouses and Distribution Centers			SP				
Wholesale sales and inventory directly related thereto			SE				
Wholesale sales and inventory directly related thereto for the public		SP					
Note that in the GC Zone, buildings in excess of 40,000 square feet, parking areas in excess of 50 cars, and non-bank drive-in facilities require a special exception approval.							

Section 6.4 Parking and Access – Off-street Parking and Loading

Section 6.4 Parking and Access – Off Street Parking and Loading

6.4.10. Minimum Number of EVSE Parking Spaces

- a. In all districts, the minimum number of parking spaces shall be provided in accordance with the following tables and apply to new construction, an increase of 10,000 square feet of floor space, or expansion of 50 parking spaces. When a change of use is proposed that requires additional EVSE spaces, the Commission may consider the extent of renovations and new or additional construction in determining whether to require the additional spaces. See Appendix H for detailed requirements.
- b. EV Capable Spaces may be installed in addition to the required EV Ready and EV Installed spaces.
- c. For each five or more EV Ready Spaces at a site, the Commission may reduce total required parking by 1 space.
- d. Table 6.4.10A defines the generally required EV Ready Spaces in each site. Tables 6.4.10D and E establish the applicability of Table 6.4.10A to specific uses.
- e. Of these EV Ready Spaces, Table 6.4.10B determines the minimum number which shall be EV Installed Spaces.
- f. Handicapped Accessible vehicle charging stations shall be provided based on Table 6.4.10C. See Appendix H for information regarding Accessible EV Charging Station design.

Table 6.4.10A Level 2 EV Ready parking space wiring requirements

Total Number of Parking Spaces*	Number of Required Level 2 EV-Ready or Charging Spaces**
1-9	1
10-25	2
26-50	4
51-75	6
76-100	9
101-150	12
151-200	17
201 and over	10 percent of total
* Truck and equipment parking spaces are not included in the above calculation.	
** The number of spaces has been rounded up to the nearest whole number.	

Table 6.4.10B Required EV Installed Spaces

Calendar year of site plan application	EV Ready Spaces with installed EVSE*
2021-2023	3% of required parking
2024-2027	7% of required parking
2028 and beyond	10% of required parking

* Rounded up to the nearest whole number.

Table 6.4.10C ADA Requirements for EV Charging

Total number of EVSE Spaces at site	Number of EV Spaces required to comply with ADA requirements	
	Van Accessible Restricted to EV Charging (Note 1)	Van Accessible Restricted to EV Charging and Handicapped Parking
1 to 4	1	0
5 to 25	1	1
26 to 50	0	2
51 to 75	0	3
76 to 100	0	4
101 or more		4 plus 1 for each 60 or fraction thereof over 100

Note 1: In order to ensure that all EV users have access to charging equipment if only 1 to 4 EVSE stations are installed, the van accessible space shall meet the van accessible design requirements, including wheelchair aisle and ramp providing access to EVSE, but not be restricted to handicapped parking, provided sufficient handicapped restricted spaces are provided in accordance with Paragraph 6.4.4.G.

Table 6.4.10D Minimum Required EVSE Parking Spaces – Residential Uses

Use – Residential	Minimum Required EV Charging Facilities
Multi-family Dwellings and Multi-family Dwellings / SAMUD-OZ	See Tables 6.4.10A, 6.4.10B, and 6.4.10C.
Assisted Living	All assigned covered or garage parking spaces shall be provided Level 2 EV Ready circuits and outlets. Remaining parking spaces are used in Tables 6.4.10A , 6.4.10B, and 6.4.10C to determine the shared EV Ready and EV Installed Spaces. [Needs further discussion with building department regarding garages.]
Elderly Housing	
Independent Living	
MUD management shall contract with an EVSE supplier to provide chargers and means for billing usage to residents.	
If garages are adjacent to the associated dwelling, connection may be through the dwelling panel and meter. MUD management may require the occupant to purchase or lease approved EVSE.	

Table 6.4.10E Minimum Required Parking Spaces – Commercial and Industrial Uses

Use	Minimum Required Parking Spaces
Bar, Nightclub, Lounge	See Tables 6.4.10A , 6.4.10B, and 6.4.10C.
Bowling Alley	
Business Offices	
Hotel, Motel, Tourist Home	
Hospital, Sanitarium, Convalescent or Nursing Home	
Industrial and Manufacturing	
Library	
Places of Assembly, Amusement, Recreation, and Education	
Research	
Restaurants, Taverns, Cocktail Lounges	
Theater	
Park and Ride Lots	See Tables 6.4.10A , 6.4.10B, and 6.4.10C. In addition, all light poles may have EV Level 1 outlets.
Charging Lots	None required. Allowed as an accessory use.
Municipal parks and recreation areas	Calculation based on employee parking estimated at the time of site plan application. See Tables 6.4.10A, 6.4.10B, and 6.4.10C.
Retail Stores	
Car Wash	
Fast Food	
Financial Institution	
Library	
Schools	
Medical and Dental Office	
Personal Service Shops	
Day Care and Pre-Schools	
Warehouse	Calculation based on sum of requirements for various uses therein (e.g. retail stores, restaurants, etc.) with rounding applied to sum. See Tables 6.4.10A , 6.4.10B, and 6.4.10C.
Shopping Center	
Church, Synagogue	Recommended. Calculations should consider anticipated parking lot occupancy when religious services are not taking place. See Tables 6.4.10A, 6.4.10B, and 6.4.10C.

Section 11.8 APPENDIX H Electric Vehicle Supply Equipment (EVSE)

11.8.1. Purpose

The purpose of this appendix is to provide for and promote the use of Electric Vehicles (EVs), subject to reasonable conditions that will protect the environment, public health, safety, and welfare. Because EV charging requires more time than internal combustion engine (ICE) refueling, charging facilities will be widely distributed to allow vehicle operators to engage in other nearby activities such as home life, shopping, dining, or recreation while their EVs are being charged.

11.8.2. Electric Vehicle Definitions [should these be in the definitions section?]

1. **ELECTRIC VEHICLE:** A motor vehicle capable of being driven by a battery powered electric motor.
2. **ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE) or EV CHARGING STATION:** The conductors, including the ungrounded, grounded, and equipment grounding 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.
 - a. **AC LEVEL 1 EVSE:** 110 to 120-Volt, alternating current (AC) EVSE connected to a 20 Ampere electrical outlet.
 - b. **AC LEVEL 2 EVSE:** 208 to 240 Volts AC EVSE connected to a 40 Ampere circuit.
 - c. **DC FAST CHARGING (DCFC) EVSE:** also known as **LEVEL 3 EVSE:** 208-480 Volt direct current (DC) chargers with 70 Ampere or higher capacity.
3. **ELECTRIC VEHICLE PARKING SPACES**
 - a. **EV INSTALLED SPACE:** A designated parking space with Electric Vehicle Supply Equipment (EVSE) installed and operational.
 - b. **EV READY SPACE:** A designated parking space which is provided with a minimum AC Level 2 EVSE or higher capacity sufficient to serve DC Rapid Charge EVSE.
 - c. **EV CAPABLE SPACE:** Electrical panel capacity, breaker space, and raceways or conduits to support eventual installation of AC Level 2 EVSE. .

11.8.3. Provisions

1. AC Level 1 and AC Level 2 Electric Vehicle Supply Equipment (EVSE) shall be permitted as an accessory use by right in all zoning districts and by Special Exception as primary use. Direct Current Fast Charging (DCFC or Level 3) EVSE are permitted as an accessory use and by Special Exception as primary use in all Commercial and Industrial Zones as defined in Article 4 of these regulations. Site plan approval is required for all uses except Single and Two-Family Dwellings.
2. The sale of electric energy through EVSE to the public or to appropriately restricted occupants, guests, customers, members, etc. is permitted in all zones except at one- and two-family dwellings. Any access restrictions shall be incorporated in the site plan and approved by the Commission.
3. EVSE connections shall meet current standards designed to be capable of serving all brands of EVs. Support of AC Level 1 at AC Level 2 stations is optional. Proprietary EVSE systems capable of serving only specific vehicle brands are permitted where otherwise allowed but may not be used to meet the minimum EV parking space requirements of Section 6.4.10.
4. The main electrical switchgear shall be installed with sufficient space and capacity to support 10%

of spaces whether EV Installed or EV Ready at 208/240V and 40A per space. In an EV Ready or EV Capable Space, the circuit shall terminate in a suitable termination point such as a receptacle, junction box, or an EVSE, and be located in close proximity to the proposed location of the EV parking spaces.

5. EV Load Management Systems are permitted with shared or publicly accessible Level 2 EVSE, provided a minimum of 20 Amperes are delivered to each connected vehicle.
6. EVSE may be wall or pole mounted. EVSE may be shared among two or more spaces.
7. Signage and parking space paint shall be consistent with applicable standards and shall clearly identify EV Installed Spaces as well as any restrictions regarding users and time limits. Where public or shared access is permitted, rates shall be posted with sufficient size and visibility to be read before entering the parking space. Directional signage leading to EV charging spaces is permitted in addition to any other directional signage.
8. Applicants may request a waiver or reduction of electric vehicle parking requirements from the Planning and Zoning Commission during site plan approval based specific site conditions or anticipated need over 10 year period.
9. Location and safety considerations:
 - a. The EVSEs shall be located in desirable and convenient parking locations that will serve as an incentive for the use of electric vehicles. Placement may consider separate needs of customer and employee parking areas. Appropriate sharing of parking among EV users, ADA users and others should be considered in allocating spaces.
 - b. Electric vehicle charging stations are not permitted within the Town or State right-of-way except at municipal sites and adjacent to designated on-street parking.
 - c. The installation of an EVSE shall not reduce the vehicle's parking area dimensions below the size and standards required for parking spaces under section 6.4.5. This applies to EV Installed Parking Spaces as well as EV Ready Parking Spaces and EV Capable Parking Spaces.
 - d. Equipment shall be protected by wheel stops or concrete-filled bollards. Curbing may be used in lieu of bollards and wheel stops if the battery charging station is set back a minimum of 24 inches from the face of the curb.
 - e. Equipment mounted on pedestals, lighting posts, bollards, or other devices shall be designed and located so as not to impede pedestrian travel or create injury hazards for pedestrians.
 - f. Cords shall be retractable or have a place to hang the connector and cord sufficiently above the pedestrian surface. Any cords connecting the charger to a vehicle shall be configured so that they do not cross a driveway, sidewalk, or passenger unloading area.
 - g. As established in Section 6.4, enough EV Charging Stations shall meet ADA Handicapped Accessible standards as defined in Paragraph 6.4.4.G Handicapped Parking. In addition to the usual requirements for Handicapped Parking, Accessible EV Charging Stations shall ensure access to equipment and cords. This is illustrated in Figure 11.8A.

Figure 11.8A – EV Charging Station Design, including Accessible EV Charging Stations

[Note: We should have graphics experts redraw this figure. The left-most Accessible space is probably not legal in CT. Also, I would like to show some EV spaces with bollards on the lower right side.

