



MEMORANDUM

DATE: April 6, 2010

TO: Chair Sheffels, Members of the Planning Commission

FROM: Catherine A. Drews, Legal Planner, Development Services Department

SUBJECT: FEMA Consistency Amendments, File No. 10-106986 AD
Electric Vehicle Charging Station Amendments, File No. 10-106986 AD

On April 14, 2010, the Planning Commission will hold a study session on suggested Land Use Code (LUC) amendments related to the City's floodplain regulations and use charts governing electric vehicle infrastructure. Following discussion on the suggested changes, staff requests Planning Commission direction on which, if any, of the changes to pursue. The Development Services Department (DSD) may initiate amendments to the Land Use Code with the concurrence of the Planning Commission. LUC 20.35.030.A.5. Staff seeks the Planning Commission's concurrence to proceed with the two proposed amendments.

I. Background

A. Consistency with FEMA Minimum Criteria for the National Flood Insurance Program.

The City participates in FEMA's National Flood Insurance Program (NFIP). The program was created in 1968 to offer an alternative to disaster assistance for properties facing flood damage. The NFIP provides flood insurance to residents in participating communities, and in return, participating communities agree to regulate development in the floodplain consistent with criteria set forth in the NFIP. Consistency with the NFIP minimum criteria is required to participate in the program. Except as discussed below, the City's Areas of Special Flood Hazard provisions, Chapter 20.25H, Section IX, LUC, satisfies FEMA's requirement to regulate development in floodplains.

Staff requested the Washington State Department of Ecology, who administers the state floodplain management program, to review the City's floodplain provisions to confirm they satisfy the NFIP minimum criteria and the State Floodplain Management Standards, Chapter 86.16 RCW. Ecology's review identified minor inconsistencies that the City must correct to maintain its standing in the NFIP program. Ecology also found that the City's floodplain program in many instances significantly improved on FEMA's minimum standards. Staff seeks Planning Commission concurrence to initiate these DSD proposed amendments to the Land Use Code to harmonize the City's floodplain regulations with FEMA requirements.

B. Consistency with SSHB 1481—Provisions for Electric Vehicle Infrastructure

The second proposal is to amend the LUC to allow electric vehicle infrastructure as a use in all areas except those zoned residential and critical areas as required under Second Substitute House Bill 1481 (SSHB 1481). Electric vehicle infrastructure includes battery charging stations, rapid charging stations, and battery exchange stations. SSHB passed in 2009 and its purpose is “to encourage the transition to electric vehicle use and to expedite the establishment of a convenient, cost-effective, electric vehicle infrastructure” to support the transition. SSHB 1481, Section 1. The bill supports the Electric Vehicle (EV) Project, the purpose of which is to build and study mature electric vehicle charging infrastructure in five regions, including Bellevue. During this project, Nissan will provide for sale to a selected group of interested parties, the Nissan Leaf, an all electric vehicle. As part of the project, Leaf owners agree to participate in a study of their use of electric vehicles.

The bill requires jurisdictions bordering regional freeways and meeting a population threshold to amend their development regulations to allow electric vehicle infrastructure as a use in all zones except in residential zones and critical areas. These amendments must be effective by July 1, 2010. The bill also amends corresponding municipal and planning provisions, such as the Growth Management Act, chapter 36.70A, and the Planning Enabling Act, chapter 36.70 RCW, to reflect these requirements.

SSHB 1481 also charges the Washington State Department of Commerce (formerly CTED) to prepare and distribute to local governments model ordinances, model development regulations, and guidance related to siting and installing electric vehicle infrastructure. Commerce has begun developing these documents, but it is unlikely they will be completed and distributed to local jurisdictions in time for jurisdictions to adopt the required codes before the July 1, 2010 deadline. Therefore, staff recommends that the City take action to comply with the July 1, 2010 deadline by amending the use charts and definitions consistent with the SSHB 1481, and seeks Planning Commission concurrence to initiate these DSD proposed amendments to the Land Use Code.

2. Recommended Amendments

A. FEMA Consistency

LUC Part 20.25H, Areas of Special Flood Hazards

1. 20.25H.175.A.2. Update reference of Flood Insurance Study from December 1978 to April 19, 2005.
2. 20.25H.180.C.2. The Executive Director of the Board of Registration for Professional Engineers and Land Surveyors has determined that only professionally licensed surveyors may complete elevation certificates. Therefore, the City must delete licensed engineers as persons who may complete elevation certificates.

3. 20.25H.180.C.2. Add record retention requirement consistent with 44 CFR 60.3(b)(5)(iii).
4. 20.25H.177. The following definitions must either be added or amended, and apply only to regulations for the area of special flood hazard:
 - Define development consistent with state and federal definition: “Development” means any man-made change to improved or unimproved real estate in the Regulatory Floodplain, including but not limited to building or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.
 - Correct code reference in definition of “Lowest Floor.”
 - Amend “Substantial Improvement” for consistency with NFIP by replacing “replacement value” with “market value.”

B. Electric Vehicle Infrastructure

1. Use Charts: LUC 20.10.440 and LUC 20.25D.070 (Bel-Red).

Both the general use charts (LUC 20.10.440) and the Bel-Red Land Use Charts require amendment. Staff has reviewed the use charts, the Standard Land Use Code Manual, and the North American Industry Classification System to determine the appropriate category for this new use—electric vehicle infrastructure. The most relevant category appears to be automotive services because the charging stations provide a necessary service—charging—while electric vehicles are parked. Although not settled yet, electric vehicle owners will pay to charge their vehicles at charging stations. That business model is under development and is outside the scope of these amendments.

Staff recommends amending the use charts for Services to include the standard land use classification number 6419, which allows Other Automobile Services, and including a footnote limiting the use to electric vehicle infrastructure and prohibiting the use in critical areas as defined in LUC Part 20.25H and in residential land use districts.

In the Bel-Red Land Use District, staff recommends including the use in all districts except Bel-Red Residential (BR-R) because the purpose of the EV project is to provide charging stations at common destinations, such as work, services, and retail locations. This position is consistent with the purpose and intent of the Bel-Red district to provide “environmental and community amenities that serve residents and employees in the area...” LUC 20.10.375. Likewise, staff recommends not allowing electric vehicle infrastructure in the Downtown Residential District (Downtown-R), while allowing the use in the remaining Downtown land use districts.

2. Definitions: Chapter 20.50 LUC

SSHB 1481 includes four new definitions¹ that staff recommends the LUC be amended to include:

A. “Battery charging station” means an electrical component assembly or cluster of component assemblies designed specifically to charge batteries within electric vehicles, which meet or exceed any standard, codes, and regulations set forth in Chapter 19.28 RCW and consistent with the rules adopted by the building code council for electric vehicle infrastructure requirements.

B. “Battery exchange station” means a fully automated facility that will enable an electric vehicle with an interchangeable battery to enter and exchange the depleted battery with a fully charged battery through a fully-automated process, which meet or exceed any standard, codes, and regulations set forth in Chapter 19.28 RCW and consistent with the rules adopted by the building code council for electric vehicle infrastructure requirements.

C. “Electric vehicle infrastructure,” means structures, machinery, and equipment necessary and integral to support an electric vehicle, including battery charging stations, rapid charging stations, and battery exchange stations.

D. “Rapid charging station” means an industrial grade electrical outlet that allows for faster recharging of electric vehicle batteries through higher power levels, which meet or exceed any standard, codes, and regulations set forth in Chapter 19.28 RCW and consistent with the rules adopted by the building code council for electric vehicle infrastructure requirements.

III. Conclusion

Following discussion, staff requests Planning Commission to validate that they concur with the DSD proposal to initiate amendments to the text of the Land Use Code, and to direct staff to proceed with the proposed amendments and set a public hearing on the proposed ordinances attached as Attachments A and B.

Attachments:

- A. FEMA Proposed Amendments
- B. SSHB 1481 Consistency Amendments

¹ Staff has revised the definitions from the statute where necessary to enhance clarity without altering the substance of the definition.

Attachment A

Proposed Amendments to Floodplain Management LUC 20.25H Section IX Areas of Special Flood Hazard

IX. AREAS OF SPECIAL FLOOD HAZARD

20.25H.175 Designation of critical area.

A. Designation of Critical Area.

Areas of special flood hazard shall include:

1. Land Subject to One-Hundred-Year Flood. The land in the floodplain subject to the flood having a one percent chance or greater of being equaled or exceeded in any given year as determined by customary methods of statistical analysis defined in the Utility Code, Chapter 24.06 BCC. Also referred to as the 100-year flood.
2. Areas Identified on the Flood Insurance Rate Map(s). Those areas identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for Bellevue" dated ~~December 1978~~ April 19 2005, with an accompanying flood insurance map(s) and any revisions thereto. The Flood Insurance Study and accompanying map(s) are hereby adopted by reference, declared part of this part, and are available for public review at the City of Bellevue.

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20.25H.177 Definitions.

For purposes of the regulations for the area of special flood hazard, the following definitions apply:

"Base flood elevation (BFE)" means the flood having a one percent chance of being equaled or exceeded in any given year as determined by customary methods of statistical analysis defined in the Utility Code, Chapter 24.06 BCC. Also referred to as the 100-year flood.

"Basement" means any area of the building having its floor subgrade (below ground level) on all sides.

"Development" means any man-made change to improved or unimproved real estate in the Regulatory Floodplain, including but not limited to building or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

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“Lowest floor” means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking vehicles, building access or storage, in an area other than a basement area, is not considered a building’s lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of this part found in LUC 20.25H.180.[D.1.a.](#)

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“Substantial improvement” includes the following: Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the [replacement-market](#) value of the structure either (1) before the improvement or repair is started, or (2) if the structure has been damaged, and is being restored, before the damage occurred. For the purpose of this definition, “substantial improvement” is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either (1) any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions or (2) any alteration of a structure listed on the National Register of Historic Places.

20.25H.180 Development in the area of special flood hazard.

No use, development or activity may occur in an area of special flood hazard except as specifically allowed by this part. All use, development or activity which is allowed is subject to the performance standards of this subsection and shall not result in a rise in the BFE. The requirements of this section may not be modified through a critical areas report.

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C. General Performance Standards.

Where use or development is allowed pursuant to LUC 20.25H.055, the following general performance standards apply.

1. Intrusion Over the Area of Special Flood Hazard Allowed. Any structure may intrude over the area of special flood hazard if:
 - a. The intrusion is located above existing grade, and does not alter the configuration of the area of special flood hazard; and

b. The intrusion is at an elevation and orientation which maintains the existing vegetation of the area of special flood hazard in a healthy condition. Solar access to vegetation must be maintained at least 50 percent of daylight hours during the normal growing season.

Development not meeting the requirements of this subsection C.1 may be allowed pursuant to LUC 20.25H.055 and only in accordance with the requirements set forth in the remainder of this section C.

2. Elevation Certificate Following Construction. Following construction of a structure within the area of special flood hazard, where the base flood elevation is provided, the applicant shall obtain an elevation certificate. The elevation certificate shall be completed by a surveyor ~~or engineer~~ licensed in the state of Washington and shall be submitted to City of Bellevue, Utilities Department. The Director ~~of Planning and Community Development~~ shall obtain and transmit to the Director of the Utilities Department the elevation in relation to City of Bellevue vertical datum (NAVD 88) of the lowest floor, including basement, and attendant utilities of a new or substantially improved structure permitted by this part.

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**ATTACHMENT B:
Amendments to Land Use Code
Electric Vehicle Infrastructure**

1. Amendments to Land Use Charts (General)

Chart 20.10.440

Uses in land use districts

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Services – Residential Districts										
		R-1	R-1.8	R-2.5	R-3.5	R-4	R-5	R-7.5*	R-10	R-15	R-20	R-30
6	Services											
61	Finance, Insurance, Real Estate Services											
62	Personal Services: Laundry, Dry Cleaning, Barber and Beauty, Photography Studio and Shoe Repair											
6241	Funeral and Crematory Services											
6262	Cemeteries	C	C	C	C	C	C	C	C	C	C	C
629	Child Care Services (3,4)											
	Family Child Care Home in Residence	P	P	P	P	P	P	P	P	P	P	P
	Child Day Care Center								C	C	P	P
63	Business Services, Duplicating and Blue Printing, Steno, Advertising (Except Outdoor), Travel Agencies and Employment											
634	Building Maintenance and Pest Control Services											
637	Warehousing and Storage Services, Excluding Stockyards											
639	Rental and Leasing Services: Cars, Trucks, Trailers, Furniture and Tools											
641	Auto Repair and Washing Services											
6419	Other Automobile Services (except repair and wash) (26)											
649	Repair Services: Watch, TV, Electrical, Upholstery											
	Professional Services: Medical Clinics and Other Health Care Related Services											
	Professional Services: Other											

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Services – Nonresidential Districts

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Professi onal Office	Offi ce	Office/Lim ited Business	Light Indus try	General Commer cial	Neighborh ood Business	Communi ty Busines s	Facto ria Land Use Distri ct 1	Facto ria Land Use Distri ct 2	Facto ria Land Use Distri ct 3
		PO	O	OLB	LI	GC	NB (16)	CB	F1	F2	F3
6	Services										
61	Finance, Insurance, Real Estate Services	P	P	P	P 1	P	P	P	P	P	P
62	Personal Services: Laundry, Dry Cleaning, Barber and Beauty, Photography Studio and Shoe Repair			S	P 2	P	P	P	P	S	S
624 1	Funeral and Crematory Services	C	C	C						C	C
626 2	Cemeteries	C	C	C	C	C	C	C	C	C	C
629	Child Care Services (3,4)										
	Family Child Care Home in Residence	P	P	P	P	P	P	P	P	P	P
	Child Day Care Center	P	P	P	P	P	P	P	P	P	P
63	Business Services, Duplicating and Blue Printing, Steno, Advertising	P	P	P	P 5	P	P 17	P	P	P	P

	(Except Outdoor), Travel Agencies and Employment										
634	Building Maintenance and Pest Control Services				P	P		P	P		
637	Warehousing and Storage Services, Excluding Stockyards				P	P		S	S		
639	Rental and Leasing Services: Cars, Trucks, Trailers, Furniture and Tools		S		P 6	P	A 18	P 7	P 7	S	S
641	Auto Repair and Washing Services				P	P	A 19	P	P		
641 9	<u>Other Automobile Services (except repair and wash) (26)</u>	<u>P (26)</u>	<u>P (26)</u>	<u>P (26)</u>	<u>P (26)</u>	<u>P (26)</u>	<u>P (26)</u>	<u>P (26)</u>	<u>P (26)</u>	<u>P (26)</u>	<u>P (26)</u>
649	Repair Services: Watch, TV, Electrical, Upholstery				P	P	P	P	P		
										

Chart 20.10.440

Uses in land use districts

Services – Downtown Districts

**STD
LAND
USE
CODE**

Downtown Office District 1	Downtown Office District 2	Downtown Mixed Use District	Downtown Residential District	Downtown Old Bellevue District	Downtown Office and Limited
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REF	LAND USE CLASSIFICATION	DNTN	DNTN	DNTN	DNTN	DNTN	Business
		O-1	O-2	MU	R	OB	District
6	Services						
61	Finance, Insurance, Real Estate Services	P 13	P 13	P	P 11, 12	P	P
62	Personal Services: Laundry, Dry Cleaning, Barber and Beauty, Photography Studio and Shoe Repair	P	P	P	P 11, 12	P	P 11, 20
6241	Funeral and Crematory Services						
6262	Cemeteries						
629	Child Care Services (3,4)						
	Family Child Care Home in Residence	P	P	P	P	P	P
	Child Day Care Center	P	P	P	P	P	P
63	Business Services, Duplicating and Blue Printing, Steno, Advertising (Except Outdoor), Travel Agencies and Employment	P	P	P	P 11, 12	P	P
634	Building Maintenance and Pest Control Services						
637	Warehousing and Storage Services, Excluding Stockyards						
639	Rental and Leasing Services: Cars, Trucks, Trailers, Furniture and Tools			P			S
641	Auto Repair and Washing Services			P 8			
6419	<u>Other Automobile Services (except repair and wash) (26)</u>	<u>P (26)</u>	<u>P (26)</u>	<u>P (26)</u>		<u>P (26)</u>	<u>P (26)</u>
649	Repair Services: Watch, TV, Electrical, Upholstery	P	P	P		P	

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Notes: Uses in land use districts – Services

(1) Finance, insurance, real estate services are permitted only if commercially or industrially related in LI Districts.

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(26) Other Automotive Services is limited to only electric vehicle infrastructure as defined in LUC 20.25.018. Electric vehicle infrastructure is not allowed in Residential Land Use Districts (R-1, R-1.8, R-

2.5, R-3.5, R-4, R-7.5, R-10, R-15, R-20, R-30 and DNTN-R), or critical areas as defined in LUC Part 20.25H. This provision is not intended to preclude charging stations for individual use.

2. Proposed Amendments to Bel-Red Definitions

20.25D.020 Definitions Specific to Bel-Red.

A. Bel-Red Definitions.

The following definitions are specific to the Bel-Red land use districts and shall have the following meanings:

Average Finished Grade Along Facade. Proposed grade after development as measured along a building facade from perpendicular wall to perpendicular wall including offsets, bays, and other minor modulating treatments not more than five feet deep.

Battery charging station. An electrical component assembly or cluster of component assemblies designed specifically to charge batteries within electric vehicles, which meet or exceed any standard, codes, and regulations set forth in Chapter 19.28 RCW and consistent with the rules adopted by the building code council for electric vehicle infrastructure requirements.

Battery exchange station. A fully automated facility that will enable an electric vehicle with an interchangeable battery to enter and exchange the depleted battery with a fully charged battery through a fully-automated process, which meet or exceed any standard, codes, and regulations set forth in Chapter 19.28 RCW and consistent with the rules adopted by the building code council for electric vehicle infrastructure requirements.

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Electric vehicle infrastructure, Structures, machinery, and equipment necessary and integral to support an electric vehicle, including battery charging stations, rapid charging stations, and battery exchange stations.

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Rapid charging station. An industrial grade electrical outlet that allows for faster recharging of electric vehicle batteries through higher power levels, which meet or exceed any standard, codes, and regulations set forth in Chapter 19.28 RCW and consistent with the rules adopted by the building code council for electric vehicle infrastructure requirements.

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B. General Definitions Not Applicable to Bel-Red.

General definitions not applicable to Bel-Red are noted in the text of the general definitions contained in Chapter 20.50 LUC. (Ord. 5874, 5-18-09, § 1)

3. Proposed Amendments to Bel-Red Land Use Charts

20.25D.070 Land Use Charts.

The following charts apply to Bel-Red. The use charts contained in LUC [20.10.440](#) do not apply within the Bel-Red land use districts.

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Chart 20.25D.070

Services Uses in Bel-Red Land Use Districts.

STD LAN D USE COD E REF	LAND USE CLASSIFICATI ON	Services – Bel-Red Districts						
		Bel-Red Medical Office/No de	Bel-Red Office Residential/No des	Bel-Red Residenti al Commerci al Nodes	Bel-Red Residenti al	Bel-Red General Commerci al	Bel-Red Commerci al Residenti al	Bel-Red Office Residenti al Transitio n
		BR-MO/ MO-1	BR-OR/ OR-1 OR-2	BR- RC-1 RC- 2 RC-3	BR-R	BR-GC	BR-CR	BR-ORT
6	Services							
61	Finance, Insurance, Real Estate Services (10)	P 9/P 9	P/P	P	P 1, 11, 12	P	P	P
62	Personal Services: Laundry, Dry Cleaning, Barber and Beauty, Photography Studio and Shoe Repair	P/P	P/P	P	P1, 11, 12	P	P	P
6241	Funeral and Crematory Services	C/C				C		
6262	Cemeteries							

629	Child Care Services (2, 3)							
	Family Child Care Home in Single-Family Residence	P/			P	P	P	P
	Child Day Care Center	P/P	P/P	P	A 1	P	P	
	Adult Day Care	P/P	P/P	P	A 1	P	P	
63	Business Services, Duplicating and Blue Printing, Steno, Advertising (Except Outdoor), Travel Agencies and Employment (10)	P/P	P/P	P		P	P	P
634	Building Maintenance and Pest Control Services					P	P	
637	Warehousing and Storage Services, Excluding Stockyards		P/			P		
639	Rental and Leasing Services: Cars, Trucks, Trailers, Furniture and Tools (4)					P		
641	Auto Repair and Washing Services		P/P 5	P 5		P	P	
6419	<u>Other Automobile Services (except repair and wash) (13)</u>	<u>P (13)</u>	<u>P(13)</u>	<u>P (13)</u>		<u>P (13)</u>	<u>P (13)</u>	<u>P (13)</u>
649	Repair Services: Watch, TV, Electrical, Computer, Upholstery					P	P 6	

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Notes: Uses in land use districts – Services.

(1) All permitted retail, service, and recreation uses combined shall not exceed 10,000 square feet, except as provided for in Notes (11) and (12) below.

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(13) Other Automotive Services is limited to allowing only electric vehicle infrastructure as defined in LUC 20.25D.020. Electric vehicle infrastructure is not permitted in the Bel-Red Residential Land Use District (BR-R) or critical areas as defined in LUC Part 20.25H. This provision is not intended to preclude charging stations for individual use.

4. Proposed Amendments to Chapter 20.50 (Definitions)

20.50.012 B definitions.

Basement. That portion of a story partly or totally underground and having at least one-half of its height more than five feet below the adjoining finished grade.

Battery charging station. An electrical component assembly or cluster of component assemblies designed specifically to charge batteries within electric vehicles, which meet or exceed any standard, codes, and regulations set forth in Chapter 19.28 RCW and consistent with the rules adopted by the building code council for electric vehicle infrastructure requirements.

Battery exchange station. A fully automated facility that will enable an electric vehicle with an interchangeable battery to enter and exchange the depleted battery with a fully charged battery through a fully-automated process, which meet or exceed any standard, codes, and regulations set forth in Chapter 19.28 RCW and consistent with the rules adopted by the building code council for electric vehicle infrastructure requirements.

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20.50.018 E definitions.

Easement. A grant or authorization by a property owner of the use of any designated portion of land by the public generally or by a corporation, or persons for specified purposes. (Ord. 3937, 7-18-88, § 5)

Electric vehicle infrastructure, Structures, machinery, and equipment necessary and integral to support an electric vehicle, including battery charging stations, rapid charging stations, and battery exchange stations.

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20.50.044 R definitions.

Rapid charging station. An industrial grade electrical outlet that allows for faster recharging of electric vehicle batteries through higher power levels, which meet or exceed any standard, codes, and regulations set forth in Chapter 19.28 RCW and consistent with the rules adopted by the building code council for electric vehicle infrastructure requirements.

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