

Summary

Board Bill Number 162

Primary Sponsor: Alderwoman Heather Navarro

November 13, 2020

This bill will require that construction and renovations governed by the International Building Code, (**Ordinance 70794**) provide Electric Vehicle Ready electric supply (EV Ready) or Electric Vehicle Charging Equipment (EVSE) in amounts provided by the ordinance. In specific applications, the installation of electric vehicle supply equipment (EVSE) will be required. The definition of EV Ready for the purpose of this bill is defined as designing and constructing a building in a way that facilitates and optimizes the installation of electric vehicle supply equipment during construction and Level 3 alterations. The ordinance does not require the construction of parking beyond what is required by the Zoning Code. Physical requirements for an EV ready location consist of the following: an adequately sized electrical service supply, conduit and conductor from the electric service panel to a termination point and branch circuit capacity for a 208/240V 50A dual pole circuit breaker. In the scenario where EVSE is to be installed per the respective parking requirements, a list is provided for the required number of Level II ‘chargers’ to be installed in conjunction with the requirement for the number of spaces to EV ready for future expansion.

This bill will empower the City of St. Louis to prepare for the future of electric vehicles and the growing demand for electric vehicle charging as the electric vehicle fleet increases. Numerous positive benefits are an outcome of transportation electrification, such as reduced air pollution and carbon emissions, workforce development for electricians and reduced operating costs over the lifetime of the vehicle.

BOARD BILL NUMBER 162 INTRODUCED BY: ALDERWOMAN HEATHER B. NAVARRO/ ALDERWOMAN ANNIE RICE/ ALDERMAN DAN GUENTHER/ ALDERWOMAN CHRISTINE INGRASSIA/ ALDERWOMAN BETH MURPHY/ ALDERMAN JESSE TODD/ ALDERMAN BRET NARAYAN

1 An ordinance pertaining to electric vehicle charging stations, amending **Ordinance #70794** which
2 adopted the 2018 International Building Code, as amended, and codifying said changes in Chapter
3 25 of the Revised Code of the City of St. Louis; and containing a Severability Clause, Savings Clause
4 and an Effective date.

5 **WHEREAS**, The City of St. Louis has set an ambitious climate protection goal to reduce
6 greenhouse gas emissions (GHGs) 100% by 2050, and supporting cleaner vehicles results in fewer
7 greenhouse gas emissions, cleaner air, and improved public health; and

8 **WHEREAS**, 17% of St. Louis' greenhouse gas emissions are from transportation, and
9 electric vehicles (EVs) in Missouri currently emit 33% fewer greenhouse gases than gasoline
10 vehicles, and we can expect this number to improve as more solar and wind power replace fossil fuel
11 energy on the electric grid; and

12 **WHEREAS**, vehicles are a major contributor to air pollution in St. Louis and impact Black,
13 Indigenous, People of Color (BIPOC) and low-income communities disproportionately, and EVs
14 emit no harmful tailpipe air pollutants; and

15 **WHEREAS**, the air pollution levels in the City of St. Louis have not met the National
16 Ambient Air Quality Standard for ozone for the past twenty-eight (28) years and this harmful
17 pollution forms from vehicle exhaust and other industrial processes, and, according to the American
18 Lung Association, is responsible for respiratory harm, chronic obstructive pulmonary disease
19 (COPD) exacerbations, asthma attacks, heart attacks, strokes, and premature deaths; and

20 **WHEREAS**, EVs are projected to reach 10% of registered vehicles in St. Louis by 2030,
21 and could reach up to 30% of vehicles; and

1 **WHEREAS**, convenient access to EV charging is one of the most critical factors in people’s
2 decisions to purchase an electric vehicle; and

3 **WHEREAS**, parking garages and lots last for multiple decades, and investing in EV
4 readiness during building construction often results in at least 75% savings compared with
5 retrofitting later; and

6 **WHEREAS**, an EV ordinance is critical to making cleaner vehicles more accessible to all,
7 particularly providing greater access to more affordable at-home charging; and

8 **WHEREAS**, this bill will ensure that electric vehicle charging stations will be installed as
9 set forth herein; and

10 **NOW, THEREFORE, BE IT ORDAINED BY THE CITY OF ST. LOUIS AS**
11 **FOLLOWS:**

12 **SECTION ONE.** Amendment to **Section One** of the 2018 International Building Code, as amended
13 and adopted by **Ordinance 70794**, and adding a Section **107.2.10**, as follows:

14 Section 107 Construction Documents.

15 Construction documents shall be in accordance with **107.2.1 through ~~107.2.9~~ 107.2.10**

16 **Section 107.2.10 Information for electric vehicle charging stations.**

17 **Construction documents shall include electric vehicle charging stations with system**
18 **installation requirements set forth in Section 406.2.7 of the International Building Code as**
19 **amended and adopted by the City of St. Louis, and the Electrical Code.**

20 **SECTION TWO.** Amendment to **Section 202**, of the 2018 International Building Code as amended,
21 and adopted by **Ordinance 70794**, as amended. **Section 202** is hereby amended by adding the

1 following definitions, to the listed Definitions in alphabetical order. The definitions to be added shall
2 read as follows:

3 **A. “Electric Vehicle Ready Space” is defined as a designated parking space**
4 **which is provided with one 50 ampere, 208/240 volt dedicated branch circuit for EVSE**
5 **servicing Electric Vehicles. The circuit shall terminate in a suitable termination point**
6 **such as a receptacle or junction box and be located in the close proximity to the**
7 **proposed location of the Electric Vehicle parking space.**

8 **B. “Electric Vehicle Supply Equipment (EVSE)” is defined as the conductors,**
9 **including the ungrounded, grounded, and equipment grounding conductors, and the**
10 **electric vehicle connectors, attachment plugs, and all other fittings, devices, power**
11 **outlets, or apparatus installed specifically for the purpose of transferring energy**
12 **between the premises wiring and the electric vehicle.**

13 **C. “EVSE Installed Space” is defined as a designated parking space which is**
14 **provided with EVSE installed.**

15 **SECTION THREE: Amendment to Chapter 4, Section 406.2. of the 2018 International**
16 **Building Code as amended and adopted by the City of St. Louis, by the amendment of Section**
17 **406.2.7, and the addition of Tables 406.2.7, 406.2.8, 406.2.9 and 406.2.10, which shall read as**
18 **follows:**

19 **Section 406.2.7. Electric vehicle charging stations. ~~Where provided~~ Shall be required, per**
20 **Tables 406.2.7, 406.2.8, 406.2.9, 406.2.10. Electric vehicle charging stations shall be installed in**
21 **accordance with NFPA 70. Electric vehicle charging system equipment shall be listed and labelled**
22 **in accordance with UL 2594. Accessibility to electric vehicle charging stations shall be provided**

1 in accordance with Chapter 11. **Where an EV Ready or EVSE Installed parking space is**
2 **required, at least one EV Ready or EV Installed parking space shall be installed adjacent to**
3 **an ADA accessible parking space, when an ADA accessible parking space is also required.**

4 **Where the calculation of percent served results in a fractional parking space, it shall be**
5 **rounded up to the next whole number if the fraction is .5 (1/2) of a parking space or greater.**
6 **This requirement does not apply to buildings without a designated parking space, nor does**
7 **this requirement apply to parking spaces located in the public right-of-way.**

8 **For the following Use Groups within Chapter 3 of the 2018 International Building Code, as**
9 **amended and adopted by the City of St. Louis new construction and Level 3 alterations shall**
10 **require installation of EV Ready Spaces and Electric Vehicle Supply Equipment (EVSE) in**
11 **accordance with Table 406.2.7 through Table 406.2.11:**

12 **TABLE 406.2.7 NON-RESIDENTIAL USE GROUPS INTERNATIONAL BUILDING**
13 **CODE, WITH EV READY AND EVSE INSTALLED REQUIREMENT PER TABLE**
14 **406.2.8**

Use Group	Applicability
A1	All
A2	Casinos uses only, excluding all other uses within A2 including restaurants
A3	All
A4	All
A5	All
B	All
E	Excluding daycare uses as defined by Section 305.2

I2	Hospital uses only as defined by Section 308.3.1.2, Condition 2
M	All
S2	Parking garages, open or enclosed only, excluding all other uses within S-2

1 **TABLE 406.2.8 EV READY AND EVSE INSTALLED SPACE REQUIREMENTS FOR**
2 **INTERNATIONAL BUILDING CODE NON-RESIDENTIAL USE GROUPS**

Total Number of Parking Spaces	Minimum Number of EV Ready Spaces	Minimum Number of EVSE Installed Spaces
10-30 spaces	1 space	0 spaces
31-49 spaces	2 spaces	1 space
50-99 spaces	5% of total parking spaces	2% of total parking spaces
100 spaces and greater	5% of total parking spaces	2% of total parking spaces

3 **TABLE 406.2.9 APPLICABLE RESIDENTIAL USE GROUPS INTERNATIONAL**
4 **BUILDING CODE WITH EV READY AND EVSE INSTALLED REQUIREMENT PER**
5 **TABLE 406.2.10**

Use Group	Applicability
R1	All
R2	All

6 **TABLE 406.2.10 EV READY AND EVSE INSTALLED SPACE REQUIREMENTS FOR**
7 **INTERNATIONAL BUILDING CODE RESIDENTIAL USE GROUPS, JANUARY 1, 2022**
8 **THROUGH JANUARY 1, 2025.**

Total Number of Parking Spaces	Minimum Number of EV Ready Spaces	Minimum Number of EVSE Installed Spaces
5-20 spaces	1 space	0 spaces
21-49 spaces	2 spaces	1 space
50-99 spaces	5% of total parking spaces	2% of total parking spaces

100 spaces and greater	5% of total parking spaces	2% of total parking spaces
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1 **TABLE 406.2.11 EV READY AND EVSE INSTALLED SPACE REQUIREMENTS FOR**
2 **INTERNATIONAL BUILDING CODE RESIDENTIAL USE GROUPS, JANUARY 1, 2025**
3 **AND AFTER**

Total Number of Parking Spaces	Minimum Number of EV Ready Spaces	Minimum Number of EVSE Installed Spaces
5-20 spaces	1 spaces	0 spaces
21-49 spaces	2 spaces	1 space
50-99 spaces	10% of total parking spaces	2% of total parking spaces
100 spaces and greater	10% of total parking spaces	2% of total parking spaces

4 **SECTION FOUR. Severability.** In the event any part or provision of this ordinance is held to be
5 illegal or void, this shall not have the effect of making void or illegal any other parts or provisions
6 thereof, which are determined to be legal; and it shall be presumed that this ordinance would have
7 been passed without such illegal parts or provisions. Any invalid part of this ordinance shall be
8 segregated from the remainder of this ordinance by the court holding such part invalid, and the
9 remainder shall remain effective.

10 **SECTION FIVE. Savings Clause.** Nothing in this ordinance hereby adopted shall be
11 construed to affect any suit or proceeding impending on any court, or any rights acquired, or any
12 cause or causes of action acquired or existing under any current act or ordinance; nor shall any just
13 or legal right or remedy of any character be lost, impaired or affected by this ordinance.

14 **SECTION SIX. Penalty Clause.** Any person who shall violate a provision of this ordinance
15 or shall fail to comply with any provision thereof, or who shall erect, construct, alter, extend, repair,
16 remove, demolish, use, or occupy any building, structure or premises, or equipment regulated by this

1 code in violation of an approved construction document or directive of the building official or the
2 Board of Building Appeals, or of a permit or certificate issued under the provisions adopted in this
3 ordinance, shall, upon conviction thereof, be punished by a fine or not more than \$500.00, or by
4 imprisonment not exceeding 90 days, or both such a fine and imprisonment. Each day that a violation
5 continues shall constitute a separate and distinct offence.

6 **SECTION SEVEN. Effective date.** After this bill is signed by the Mayor of the City of St.
7 Louis, this ordinance will become effective on January 1, 2022.

BOARD BILL NUMBER 162

FISCAL NOTE

Preparer's Name: **Scott Ogilvie**

Phone Number or Email Address: ogilvies@stlouis-mo.gov

Bill Sponsor: **Alderman Heather Navarro**

Bill Synopsis:	This legislation requires that new construction and level 3 renovations governed by the International Building Code (Ordinance 70794) to meet a minimum electric vehicle ready requirement, with exemptions and effective dates. The ordinance will be administered in the normal course of plan review by the Building Division.
Type of Impact:	Basic training for building inspectors and is part of the existing plan review process.
Agencies Affected:	Building Division

SECTION A

Does this bill authorize:

- An expansion of services which entails additional costs beyond that approved in the current adopted city budget? ___ ___ Yes _X_ No.
- An undertaking of a new service for which no funding is provided in the current adopted city budget? ___ Yes _X_ No.
- A commitment of city funding in the future under certain specified conditions? ___ Yes _X_ No.
- An issuance of bonds, notes and lease-purchase agreements which may require additional funding beyond that approved in the current adopted city budget? ___ Yes _X_ No.

- An execution or initiation of an activity as a result of federal or state mandates or requirements?

____Yes __X__No.

- A capital improvement project that increases operating costs over the current adopted city budget? ____Yes __X__No.

(09/2019)

- A capital improvement project that requires funding not approved in the current adopted city budget or that will require funding in future years? ____Yes __X__No.

If the answer is yes to any of the above questions, then a fiscal note must be attached to the board bill. Complete Section B of the form below.

SECTION B

- Does the bill require the construction of any new physical facilities? ____Yes __X__No.

- If yes, describe the facilities and provide the estimated cost:

- Is the bill estimated to have a direct fiscal impact on any city department or office?

____Yes __X__No.

- If yes, explain the impact and the estimated cost:

- Does the bill create a program or administrative subdivision? ____Yes __X__No.

- If yes, then is there a similar existing program or administrative subdivision?

___ Yes ___ No.

- If yes, explain how the proposed programs or administrative subdivisions may overlap:

- Describe the annual operating, equipment, and maintenance costs that would result from the proposed bill, as well as any funding sources:

Complete the chart below to list the total estimated expenditures required of the City resulting from the proposed board bill and any estimated savings or additional revenue.

Financial Estimate of Impact on General Fund			
Fiscal Impact	<u>Year 1 (current)</u>	<u>Year 2</u>	<u>Year 3</u>
Additional Expenditures	0	0	0
Additional Revenue	0	0	0
Net	0	0	0
Financial Estimate of Impact on Special Funds			
Fiscal Impact	<u>Year 1 (current)</u>	<u>Year 2</u>	<u>Year 3</u>
Additional Expenditures	0	0	0
Additional Revenue	0	0	0
Net	0	0	0

- Describe any assumptions used in preparing this fiscal note: The ordinance will be administered in the normal course of plan review by the Building Division.
 - List any sources of information (including any City officials, agencies, or departments) used in preparing this fiscal note: Frank Oswald, City of St. Louis Building

Commissioner, has informed the Office of the Mayor through this communication that a fiscal note is not necessary since there is no additional cost to the City of St. Louis, MO upon the passage of this legislation.

- Have the financial estimates of this bill been verified by the City Budget Division?
___Yes __X__No.
- If yes, by whom? _____ .