



Planning & Transportation Commission Supplemental Report

CITY OF
**PALO
ALTO**

From: Amy French, Chief Planning Official

Meeting Date: August 30, 2023

Item Number: 2

Report #:2307-1781

TITLE

LEGISLATIVE: Recommendation to City Council Regarding Proposed Amendments to Palo Alto Municipal Code (PAMC) Title 18 (Zoning) and Title 9 (Public Peace, Morals and Safety), Chapter 9.10 (Noise) to Facilitate the Installation of Electrification Equipment for Residential Development

RECOMMENDATION

Staff proposes revisions to the draft ordinance for consideration of the Planning and Transportation Commission (PTC) in its recommendation to the City Council.

BACKGROUND

Following the publication of the packet last Wednesday, staff received input from stakeholders and is proposing these adjustments:

- (1) Home Improvement Exception Limit #16

Staff proposes to trim the verbiage in the Home Improvement Exception limit #16, newly added for this ordinance to Section 18.12.120, to eliminate specificity regarding the level above ambient noise; it led to confusion in conjunction with reading the presumed compliance table:

- (c) Limits of Home Improvement Exception

A home improvement exception may be granted only for one or more of the following, not to exceed the specified limits:

[...]

(16) To allow electrification equipment to: (A) encroach further into the setbacks otherwise established in the district for accessory structures, as long as the equipment complies with the standards set forth in Table 1 of Section 9.10.030; and/or (B) exceed the noise ordinance standards set forth in Section 9.10.030(c) by two decibels (i.e. up to 8 dbA above local ambient level).

(2) Heat Pump Condenser Units

Staff proposes to remove the item (c)(i) in PAMC 9.10.030 that appeared in the packet ordinance, regarding heat pump condenser units, again because it was confusing to read as follows.

(c) In 40 to 50 dBA local ambient noise level environments, as defined in Section 9.10.020(d), electrification equipment, as defined in Title 18, shall be deemed to comply with this Section 9.10.030 if the equipment is placed at the setbacks established in Table 1 – Setback Requirements.

~~(i) Heat pump condenser units shall be allowed to emit noise at 8dB above the local ambient noise level if the unit(s) are set back at least 10 feet from a rear or interior side property line.~~

(i) Electrification equipment in areas with measured local ambient noise over 50 dBA shall be subject to generally applicable noise standards.

(3) Presumed Compliance Table

Staff added clarification at the top of Table 1 – Setback Requirements, regarding ‘less than’ and ‘more than’ relating to noise levels to ensure better understanding for the reader.

Table 1 – Setback Requirements

Equipment Sound Level (≤dBA) in 40 dBA Area	Equipment Sound Level (≤dBA) in 50 dBA Area	Minimum Setback from Receiving Property Line (≥ft.)
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The City’s consultant has prepared a revised table – below – for discussion of compliance at a three-foot setback and will be available to discuss these concepts during the PTC meeting.

Table 1 – Setback Requirements

Equipment Sound Level (dBA) in 40 dBA Limit Area	Equipment Sound Level (dBA) in 50 dBA Limit Area	Minimum Setback from Receiving Property Line (ft.)
39	49	3
40	50	3.2
41	51	3.5
42	52	4
43	53	4.5
44	54	5
45	55	6
46	56	6.5
47	57	7
48	58	8
49	59	9
50	60	10
51	61	11
51	61	12
52	62	13
53	63	14
53	63	15
54	64	16
54	64	17
55	65	18
55	65	19
56	66	20
56	66	21
57	67	22
57	67	23
57	67	24
58	68	25
58	67	26
58	68	27
59	69	28
59	69	29
59	69	30

ATTACHMENTS

Attachment A: Revised Draft Ordinance

APPROVED BY:

Amy French, Chief Planning Official

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Ordinance No. _____

Ordinance of the Council of the City of Palo Alto Amending Palo Alto Municipal Code (PAMC) Title 18 (Zoning), Chapters 18.04 (Definitions), 18.10 (Low-Density Residential), 18.12 (R-1, Single Family Residence District), 18.13 (Multifamily Residential Zones), 18.40 (General Standards and Exceptions), and 18.54 (Parking Facilities Design Standards) and Title 9 (Public Peace, Morals, and Safety), Chapter 9.10 (Noise) to Facilitate Adoption of Electrification Equipment Required by the 2022 Green Building Code and Local Amendments

The Council of the City of Palo Alto does ORDAIN as follows:

SECTION 1. Section 18.04.030 (Definitions) of Chapter 18.04 (Definitions) of Title 18 (Zoning) is amended to read as follows (additions underlined, deletions ~~struck-through~~, and omissions noted with bracketed ellipses):

18.04.030 Definitions

(a) Throughout this title the following words and phrases shall have the meanings ascribed in this section.

[. . .]

(49) ~~(reserved)~~ “Electrification Equipment” means one or more devices that use electric energy to serve a dwelling unit’s needs for heating and cooling, water heating, cooking, and electric vehicle charging. In addition, ancillary equipment such as an electric panel, photovoltaic equipment, and energy storage systems that are deployed to support such devices shall be considered Electrification Equipment.

[. . .]

SECTION 2. Section 18.10.040 (Site Development Standards) of Chapter 18.10 (RE, R2, RMD Low-Density Residential District) of Title 18 (Zoning) of the PAMC is amended to read as follows (additions underlined, deletions ~~struck-through~~, and omissions noted with bracketed ellipses):

18.10.040 Development Standards

[. . .]

(h) Location of Noise-Producing Equipment and Electrification Equipment

(1) Electrification equipment and any associated housing, screening, insulation, or bollards necessary to enable compliance with the applicable regulations, including Chapter 9.10 of this Code, shall provide a minimum three foot interior side and rear yard setback and a minimum ten foot street sideyard

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setback. Except as otherwise provided in this Title EVSE and energy storage systems, electrification equipment shall not be located in the required front yard setback and shall at all times provide sufficient clearance for fire safety purposes. All other noise-producing equipment, such as air conditioners, pool equipment, gas powered generators, commercial kitchen fans, and similar service equipment shall be located outside of the front, rear and side yard setbacks. Such equipment may, however, be located up to 6 feet into the street sideyard setback. All such noise-producing equipment, including electrification equipment, shall be insulated and housed, except that the Planning Director may permit installation without housing and insulation, ~~provided the equipment is located within the building envelope and where~~ that a combination of technical noise specifications, location of equipment, and/or other screening or buffering will assure compliance with the City's Noise Ordinance at the nearest property line. ~~Any replacement of such equipment shall conform to this section where feasible; replacement of equipment for which permits were obtained prior to these restrictions is allowable in the same location, provided the replacement equipment complies with the City's noise ordinance.~~ All service equipment must meet the City Noise Ordinance in [Chapter 9.10](#) of this code.

- (2) Where existing improvements comply with front setback requirements, EVSE may encroach up to four feet into the required front setback. Where existing improvements do not comply with front setback requirements, EVSE may encroach into the otherwise required front setback by two feet beyond the existing improvement. EVSE and energy storage systems and associated equipment and safety bollards may be located within required on-site parking spaces, as further described in PAMC Chapter 18.54 Section 18.54.020.
- (3) The Planning Director may publish administrative regulations to further implement this subsection (h), including a list of equipment or technologies that may presumptively be installed without housing and insulation due to noise generation below applicable maximums.

[...]

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SECTION 3. Sections 18.12.040 (Site Development Standards), 18.12.050 (Permitted Encroachments, Projections, and Exceptions), and Section 18.12.120 (Home Improvement Exception) of Chapter 18.12 (R-1 Single-Family Residential District) of Title 18 (Zoning) of the PAMC are amended to read as follows (additions underlined, deletions ~~struck through~~, and omissions noted with bracketed ellipses):

18.12.040 Site Development Standards

[. . .]

(l) Location of Noise-Producing Equipment and Electrification Equipment

(1) Electrification equipment and any associated housing, screening, insulation, or bollards necessary to enable compliance with the applicable regulations, including Chapter 9.10 of this Code, shall provide a minimum three foot interior side and rear yard setback and a minimum ten foot street sideyard setback. Except as otherwise provided in this Title for EVSE and energy storage systems, electrification equipment shall not be located in the required front yard setback and shall at all times provide sufficient clearance for fire safety purposes. All other noise-producing equipment, such as air conditioners, pool equipment, gas powered generators, commercial kitchen fans, and similar service equipment shall be located outside of the front, rear and side yard setbacks. Such equipment may, however, be located up to 6 feet into the street sideyard setback. All ~~such noise-producing~~ equipment, including electrification equipment, shall be insulated and housed, except that the Planning Director may permit installation without housing and insulation, provided ~~the equipment is located within the building envelope and where~~ that a combination of technical noise specifications, location of equipment, and/or other screening or buffering will assure compliance with the City's Noise Ordinance at the nearest property line. ~~Any replacement of such equipment shall conform to this section where feasible, except the Director may allow replacement of existing equipment in a non-complying location, if such equipment had prior building permit(s), with equipment that meets the City's Noise Ordinance.~~ All service equipment must meet the City Noise Ordinance in [Chapter 9.10](#) of this code.

(2) Where existing improvements comply with front setback requirements, EVSE may encroach up to four feet into the required front setback. Where existing improvements do not comply with front setback requirements, EVSE may encroach into the otherwise required front setback by two feet beyond the

existing improvement. EVSE and energy storage systems and associated equipment and safety bollards may be located within required on-site parking spaces, as further described in PAMC Chapter 18.54 Section 18.54.020.

(3) The Planning Director may publish administrative regulations to further implement this subsection (l), including a list of equipment or technologies that may presumptively be installed without housing and insulation due to noise generation below applicable maximums.

[...]

18.12.050 Permitted Encroachments, Projections and Exceptions

[...]

(a) Setback/Yard Encroachments and Projections

[...]

(3) Allowed Projections

[...]

(F) Pools, Spas, and Hot Tubs and Associated Electrification Equipment

(i) Pools, spas, and hot tubs may extend into a required rear yard a distance not to exceed fourteen feet, provided that a minimum setback of six feet from the property line shall be maintained.

(ii) No swimming pool, hot tub, spa, or similar accessory facility shall be located in any portion of a required front or street side yard.

(iii) Electrification equipment for pools, spas, hot tubs, and swimming pools subject to meeting the standards for set forth in Table 1 of Section 9.10.030.

[...]

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18.12.120 Home Improvement Exceptions

[. . .]

(b) Applicability

A home improvement exception may be granted as part of a proposed improvement or addition to an existing single-family or two-family structure, or accessory structure, or both, in the RE, R-1, RMD, or R-2 district, as limited in subsection (c). A home improvement exception may be granted as described in subsections (1) through ~~(14)~~ (16) of subsection (c), but may not exceed the limits set forth in those subsections. In order to qualify for a home improvement exception, the project must retain at least 75% of the existing exterior walls, including exterior finishes such as siding or cladding.

(c) Limits of Home Improvement Exception

A home improvement exception may be granted only for one or more of the following, not to exceed the specified limits:

[. . .]

(16) To allow electrification equipment to: (A) encroach further into the setbacks otherwise established in the district for accessory structures, as long as the equipment complies with the standards set forth in Table 1 of Section 9.10.030; and/or (B) exceed the noise ordinance standards set forth in Section 9.10.030(c) by two decibels (i.e. up to 8 dbA above local ambient level).

[. . .]

SECTION 4. Section 18.13.040 (Development Standards) of Chapter 18.13 (Multiple Family Residential Zones – RM20, RM30, RM40) of Title 18 (Zoning) of the PAMC is amended to read as follows (additions underlined, ~~deletions struck through~~, and omissions noted with bracketed ellipses):

18.13.040 Development Standards

[. . .]

(b) Setbacks, Daylight Planes and Height - Additional Requirements and Exceptions

(1) Setbacks

(A) Required parking spaces shall not be located in a required front yard, nor in the first ten feet (10') adjoining the street property line of a required street side yard.

- (B) Projections into yards are permitted only to the extent allowed by Section 18.40.070 of this code.
- (C) Electrification equipment and any associated housing, screening, insulation, or bollards necessary to enable compliance with the applicable regulations, including Chapter 9.10 of this Code, shall provide a minimum three foot interior side and rear yard setback and a minimum ten foot street sideyard setback. Except as otherwise provided in this Title for EVSE and energy storage systems, electrification equipment shall not be located in the required front yard setback and shall at all times provide sufficient clearance for fire safety purposes. All electrification equipment must meet the City Noise Ordinance in Chapter 9.10 of this code.
- (D) Where existing improvements comply with front setback requirements, EVSE may encroach up to four feet into the required front setback. Where existing improvements do not comply with front setback requirements, EVSE may encroach into the otherwise required front setback by two feet beyond the existing improvement.
- (E) The Planning Director may publish administrative regulations to further implement subsection (b)(1)(C), including a list of equipment or technologies that may presumptively be installed within setbacks without housing and insulation due to noise generation below applicable maximums.

[. . .]

SECTION 5. Sections 18.40.060 (Permitted Uses and Facilities in Required Yards) of Chapter 18.40 (General Standards and Exceptions) of Title 18 (Zoning) of PAMC is amended to read as follows (additions underlined, deletions ~~struck through~~, and omissions noted with bracketed ellipses):

18.40.060 Permitted Uses and Facilities in Required Yards

Except as otherwise prescribed by district regulations or other provisions of this title, use and development of required yards shall be limited to the following:

[. . .]

- (f) Electrification equipment for residential uses only: When installed in a required yard, electrification equipment and any associated housing, screening, insulation, or bollards necessary to enable compliance with the applicable regulations, including Chapter 9.10 of this Code, shall provide a minimum three foot interior side and rear yard setback and a minimum ten foot street sideyard setback. Except as otherwise provided in this Title for EVSE and energy storage systems, electrification equipment shall not be located in the required front yard setback and shall at all times provide sufficient

clearance for fire safety purposes. EVSE, energy storage systems, and safety bollards may encroach two feet into a 20-foot standard front setback.

SECTION 6. Section 18.40.260 (Visual Screening and Landscaping) of Chapter 18.40 (General Standards and Exceptions) of Title 18 (Zoning) of PAMC is amended to read as follows (additions underlined, deletions ~~struck through~~, and omissions noted with bracketed ellipses):

18.40.260 Visual Screening and Landscaping

[. . .]

(b) Requirements

[. . .]

(2) For all project types:

- (A) All areas not covered by structures, service yards, walkways, driveways, and parking spaces shall be landscaped with ground cover, shrubs, and/or trees.
- (B) Rooftop equipment shall be screened by a parapet or enclosure. Rooftop equipment or rooftop equipment enclosures shall be set back at least 20 feet from the building edge or a minimum of 100 feet from the property line, whichever is closer. Roof vents, flues and other protrusions through the roof of any building or structure shall be obscured from ground-level public view (when viewed from the sidewalk on the opposite side of a street), by a roof screen or proper placement. See Section [18.40.090](#) (height limit exceptions) for further restrictions.
- (C) A minimum ten-foot planting and screening strip shall be provided adjacent to any façade abutting a low density residential district (R-1, R-2, or RMD) or abutting railroad tracks.
- (D) All exterior mechanical and other types of equipment, whether installed on the ground or attached to a building roof or walls, shall be obscured from public view when viewed from the abutting opposite sidewalk, except for residentially used EVSE and energy storage systems and associated bollards.

[. . .]

SECTION 7. Section 18.54.020 (Vehicle Parking Facilities) of Chapter 18.54 (Parking) of Title 18 (Zoning) of PAMC is amended to read as follows (additions underlined, deletions ~~struck through~~, and omissions noted with bracketed ellipses):

18.54.020 Vehicle Parking Facilities

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(a) Parking Facility Design

Parking facilities shall be designed in accordance with the following regulations:

(1) Requirements for dimensions of parking facilities at, above, and below grade are contained in this section and in Figures [1-6](#) and Tables [3-6](#) of Section [18.54.070](#).

(2) Stalls and aisles shall be designed such that columns, walls, or other obstructions do not interfere with normal vehicle parking maneuvers. All required stall and aisle widths shall be designed to be clear of such obstructions except as otherwise provided in subsection (a)(4) below.

(3) The required stall widths shown in [Table 3](#) of Section [18.54.070](#) shall be increased by 0.5 foot for any stall located immediately adjacent to a wall, whether on one or both sides. The director may require that the required stall widths be increased by 0.5 foot for any stall located immediately adjacent to a post, where such post limits turning movements into or out of the stall.

(4) For property owners or tenants seeking to install EVSE, the required stall widths shown in [Table 3](#) of Section [18.54.070](#) may be reduced by no more than eighteen inches below the code-required minimum dimensions in order to accommodate EVSE or associated electrical utility equipment. For parking lots and garages other than for one- and two-family use, this reduction may be applied to 10% of the total required parking stalls, or two stalls, whichever is greater. The director may approve a reduction in width for a greater number of stalls through a director's adjustment pursuant to Section [18.52.050](#). For one- and two-family residential garages and carports, 18-inch reductions are allowed for both stall width and depth to enable electrification equipment and protective bollards, as long as (i) the reduced width is not continuous along the side of the stall, to provide a six-foot length near the middle of the stall for opening two vehicular side doors, and (ii) the proposed garage has an interior clearance depth of 20 feet in compliance with [18.54.020 \(b\)\(2\)](#) or an existing substandard garage has a depth of at least 19 feet-six inches. For a garage depth less than 19 feet-six inches but greater than 18 feet, such equipment may be installed on the back wall of the garage at a location at least four feet above the finished floor.

[. . .]

(b) Off-Street Parking Stalls

(1) Each off-street parking stall shall consist of a rectangular area not less than eight and one-half (8.5) feet wide by seventeen and one-half (17.5) feet long (uni-class stall), or as otherwise prescribed for angled parking by [Table 3](#) in Section [18.54.070](#).

(2) Garages and carports for single-family and two-family development shall provide a minimum interior clearance of ten (10) feet wide by twenty (20) feet long for a single car and a minimum of twenty (20) feet wide by twenty (20) feet long for two cars to allow sufficient clearance, except as otherwise provided in subsection (a)(4) above.

SECTION 8. Section 9.10.020 (Definitions) of Chapter 9.10 (Noise) of Title 9 (Public Peace, Morals, and Safety) of the Palo Alto Municipal Code is amended to read as follows (additions underlined, deletions ~~struck through~~, and omissions noted with bracketed ellipses):

9.10.020 Definitions.

For the purposes of this chapter, certain terms are defined as follows:

[. . .]

(d) "Local ambient" means the lowest sound level repeating itself during a six-minute period as measured with a precision sound level meter, using slow response and "A" weighting. The minimum sound level shall be determined with the noise source at issue silent, and in the same location as the measurement of the noise level of the source or sources at issue. However, for purposes of this chapter, in no case shall the local ambient be considered or determined to be less than: (1) Thirty dBA for interior noise in Section 9.10.030(b); (2) Forty dBA in the Palo Alto Foothills areas; (3) Fifty dBA in all other sections. If a significant portion of the local ambient is produced by one or more individual identifiable sources which would otherwise be operating continuously during the six-minute measurement period and contributing significantly to the ambient sound level, determination of the local ambient shall be accomplished with these separate identifiable noise sources silent.

SECTION 9. Section 9.10.030 (Residential Property Noise Limits) of Chapter 9.10 (Noise) of Title 9 (Public Peace, Morals, and Safety) of the Palo Alto Municipal Code is amended to read as follows (additions underlined, deletions ~~struck through~~, and omissions noted with bracketed ellipses):

9.10.030 Residential property noise limits.

(a) No person shall produce, suffer or allow to be produced by any machine, animal or device, or any combination of same, on residential property, a noise level more than six dB above the local ambient at any point outside of the property plane, except as modified in (c) below.

(b) No person shall produce, suffer or allow to be produced by any machine, animal, or device, or any combination of same, on multi-family residential property, a noise level more than six dB above the local ambient three feet from any wall, floor, or ceiling inside any

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dwelling unit on the same property, when the windows and doors of the dwelling unit are closed, except within the dwelling unit in which the noise source or sources may be located.

(c) In 40 to 50 dBA local ambient noise level environments, as defined in Section 9.10.020(d), electrification equipment, as defined in Title 18, shall be deemed to comply with this Section 9.10.030 if the equipment is placed at the setbacks established in Table 1 – Setback Requirements.

- ~~(i) Heat pump condenser units shall be allowed to emit noise at 8dB above the local ambient noise level if the unit(s) are set back at least 10 feet from a rear or interior side property line.~~
- (i) Electrification equipment in areas with measured local ambient noise over 50 dBA shall be subject to generally applicable noise standards.

Table 1 – Setback Requirements

Equipment Sound Level (≤dBA) in 40 dBA Area	Equipment Sound Level (≤dBA) in 50 dBA Area	Minimum Setback from Receiving Property Line (≥ft.)
43	53	4
44	54	5
46	56	6
47	57	7
49	59	8
50	60	9
51	61	10
52	62	12
53	63	13
54	64	15
55	65	17
56	66	19
57	67	22
58	68	24
59	69	27
60	70	30

SECTION 10. If any section, subsection, sentence, clause, or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council hereby declares that it would have passed this Ordinance and each and every section, subsection, sentence, clause, or phrase not declared invalid or unconstitutional without regard to whether any portion of the ordinance would be subsequently declared invalid or unconstitutional.

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SECTION 11. The Council finds that the adoption of this ordinance is exempt from the provisions of the California Environmental Quality Act pursuant to CEQA Guideline sections 15061(b)(3) because it can be seen with certainty that the proposed modifications, which retain existing noise standards in Chapter 9.10, will not result in a significant impact on the physical environment. Additionally, the activity regulated by the ordinance is exempt under CEQA Guideline 15301 because it involves the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, and mechanical equipment, involving negligible or no expansion of existing or former uses.

SECTION 12. This ordinance shall be effective on the thirty-first date after the date of its adoption.

INTRODUCED:

PASSED:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

NOT PARTICIPATING:

ATTEST:

City Clerk

Mayor

APPROVED AS TO FORM:

APPROVED:

Senior Asst. City Attorney

City Manager

Director of Planning & Development
Services