



Use this handout for new or replacement pool equipment, air conditioning equipment and heat pumps.

DEVELOPMENT STANDARDS

Updated August 2024

**1. Location Requirements**

- Outside of required front and side setback.
- Five feet or more from any property line<sup>†</sup>
- Outside required setbacks for watercourses and oceanfront bluffs and clear of storm drain and sewer line easements.

**2. Sound Attenuation Requirements**

- Two forms of sound attenuation are required for each A/C unit, such as: internal sound blanket, shock absorption pad, enclosure with sound attenuating insulation.
- A unit may not exceed the maximum noise level when measured at a shared property line.

**3. Maximum Allowed Mechanical Unit Noise Levels (Decibels) <sup>††</sup>**

Noise Zone I	All single, two and multiple-family residential properties: 50
Noise Zone II	All commercial properties outside of the downtown specific plan: 65
Noise Zone III	The residential portion of mixed use properties: 55
Noise Zone IV	Certain districts in downtown specific plan area—CBD1, CBD2, CBDVC, CBDCB and civic arts district: 70
Noise Zone V	All manufacturing or industrial properties and all other uses: 60

REQUIRED SUBMITTAL ITEMS

1. **Mechanical Equipment Analysis Worksheet and Site Plan** | Refer to pages 3 and 4.
2. **Manufacturer Specs Sheet** | Circle the model identification number, max noise level (decibels), and unit dimensions.
3. **Sound Attenuation** | A minimum of two forms of sound attenuation are required. If an acoustic material-lined enclosure is proposed, provide specifications for the acoustic material. The material must be designed to attenuate sound.

REVIEW & APPROVAL PROCESS

**1. Homeowners Associations Approval**

- Properties in Blue Lagoon or Lagunita must obtain HOA approval before zoning review.
- Properties in Three Arch Bay or Irvine Cove must obtain HOA approval after zoning review.

**2. Zoning Review**

- Over-the-Counter review of the required submittal requirements may be done if the proposed mechanical units are located on the ground, comply with allowed locations and noise limits, are not affected by property constraints, and if all required submittal items are provided.
- Zoning Plan Check (30-day review) is required if the mechanical units do not qualify for over-the-counter zoning review.

**3. Public Hearing**

- Administrative Design Review, Design Review Board or Planning Commission may be required for mechanical units that are more than 3 feet above grade or do not comply with the location requirements
- A Design Review Board or Planning Commission hearing will be required for variance requests.

**4. Building Review**

- After HOA, zoning review, and public hearings are completed, then the project must be submitted to the Building Division for Building Plan Check. After the project is approved by the Planning and Building Divisions, then a building permit may be issued for the AC unit(s).

NOTES

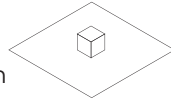
<sup>†</sup> **AC units in Multi-Family Complexes** | There is no setback requirement to the nearest shared wall, but (the) A/C unit(s) must comply with all other location requirements.

<sup>††</sup> **Designated Noise Zones** | Laguna Beach Municipal Code Section 7.25.030

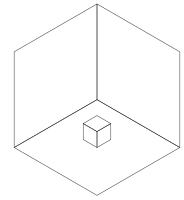


**LOCATION NOISE FACTOR** | This factor takes into consideration the effects of walls and other reflective surfaces adjacent to the A/C or mechanical equipment.

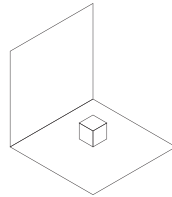
- (a) Mechanical equipment on the ground or roof or inside of building wall with no adjacent surface within 10 feet.  
NOISE FACTOR: 0 dB



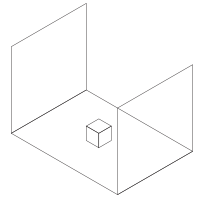
- (c) Mechanical equipment on the ground or roof or inside of building wall within 10 feet of two adjacent walls forming an inside corner to both surfaces.  
NOISE FACTOR: 6 dB



- (b) Mechanical equipment on the ground or roof or inside of building wall with a single adjacent reflective surface within 10 feet.  
NOISE FACTOR: 3 dB



- (d) Mechanical equipment on the ground or roof or inside of building wall and between two opposite reflecting surfaces less than 15 feet apart.  
NOISE FACTOR: 6 dB



**DISTANCE NOISE FACTOR** | Use the distance from the mechanical equipment to the nearest shared property line to find the Distance Factor. For mechanical equipment in multi-family complexes measure to nearest shared wall instead of property line.

feet	VALUE (dB)	feet	VALUE (dB)	feet	VALUE (dB)	feet	VALUE (dB)	feet	VALUE (dB)
5	11.5	12	19	19	23	30	27	100	37.5
6	13	13	19.5	20	23.5	40	29.5	125	39.5
7	14.5	14	20.5	21	24	50	31	150	41
8	15.5	15	21	22	24.5	60	33	175	42.5
9	16.5	16	21.5	23	24.5	70	34.5	200	43.5
10	17.5	17	22	24	25	80	35.5	400	49.5
11	18.5	18	22.5	25	25.5	90	36.5		

**BARRIER NOISE REDUCTION** | Barriers such as the corner of a building, the edge of a roof, or a heavy wall of masonry, etc., can provide substantial reductions in the sound level of the A/C unit or mechanical equipment. Fencing without insulation or landscaping are not sufficient to qualify for this reduction. The barrier noise reduction value is found using this formula: **B=(L1+L2)-D**. For mechanical equipment units in multi-family complexes measure to nearest shared wall instead of property line.

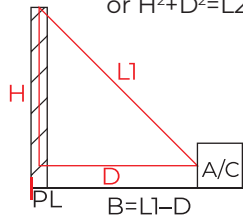
**Where:**

L1 = Distance from center of mechanical equipment to edge of barrier

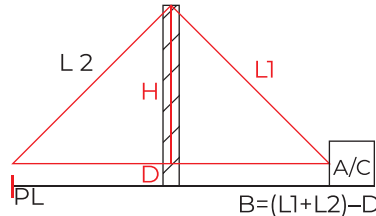
L2 = Distance from edge of barrier to nearest shared property line

D = Direct distance from mechanical equipment to the nearest shared property line

The height from center of the mechanical equipment to top of barrier, H, can be used to calculate L1 and L2 using  $H^2+D^2=L1^2$  or  $H^2+D^2=L2^2$

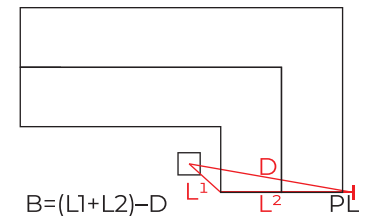


Example. 1: Heavy continuous wall at property line.



Example. 2: Heavy continuous wall between A/C and property line

B (feet)	VALUE (dB)	B (feet)	VALUE (dB)
0.5	4	3	12
1	7	6	15
2	10	12	17



Example 3 Corner of building (bird's eye view).

**MULTIPLE A/C UNITS NOISE FACTOR**

**Finding Combined Noise Level of Two (Loudest) Units:**

- Find difference of estimated noise levels for loudest two units (noise analysis step 6, pg 3)
- Refer to table (see right) to find corresponding noise factor.
- Add noise factor to louder of two units to find combined noise level of both units.

**Finding Combined Noise Level of Three or More Units**

- Find difference between combined noise level of loudest two units and next loudest unit.
- Refer to table (see right) to find corresponding noise factor.
- Find the combined noise level of the loudest three units by adding the noise factor to combined noise level of loudest two units.
- If there are more units, compare combined noise level of loudest three units with next loudest unit. Repeat method in prior steps for additional units.

Difference between est. noise levels (dB)	NOISE FACTOR (dB) to add to larger noise level
0.0 to 0.5	3
1.0 to 1.5	2
2.0 to 3.0	2.5
3.5 to 5.0	1.5
5.5 to 7.0	1
> 7.0	0

**Note:** If the difference between units is not shown, round up to the nearest value in the table.

# CITY OF LAGUNA BEACH MECHANICAL EQUIPMENT GUIDE



Address: \_\_\_\_\_

Zone or Specific Plan Area: \_\_\_\_\_ Homeowners Association: \_\_\_\_\_

PROPERTY CONSTRAINTS | Check off boxes if they are true for your property. Refer to the [Laguna Beach GIS Map Viewer](#).

- Sewer       Storm Drain       Oceanfront Bluff       Watercourse

REQUIRED SETBACKS | Identify your property's required setbacks below. Refer to [LBMC Title 25 Zoning](#).

Front(s): \_\_\_\_\_ Sides: \_\_\_\_\_ Rear or Bluff: \_\_\_\_\_

COMPLIANT LOCATIONS | Check off boxes if they are true for your proposed mechanical equipment location(s).

- Outside of required front setback       Outside of Required Storm Drain or Sewer Line Easement  
 Outside of required side setback       Outside of Required Watercourse Setback  
 5 feet or more from any property line       Outside of Required Bluff Setback

PROPOSED LOCATIONS | Check off boxes that apply to your proposed mechanical equipment location(s).

- On Ground       Roof       Deck       Wall-Mounted       Inside Enclosed Building       Other

PROPOSED SETBACKS | Identify the distance, in feet, from the proposed A/C unit(s) to the nearest two property lines.

For A/C units in multi-family complexes measure to nearest shared wall instead of property line.

	Unit 1	Unit 2	Unit 3	Unit 4
[Front, Rear, Side] Property Line	_____	_____	_____	_____
[Front, Rear, Side] Property Line	_____	_____	_____	_____
<b>MANUFACTURER INFORMATION</b>				
AC Unit Manufacturer Name	_____	_____	_____	_____
Model ID	_____	_____	_____	_____
Maximum Noise Level (dB)	_____	_____	_____	_____
Unit Dimensions (L x W x H)	_____	_____	_____	_____

SOUND ATTENUATION | A minimum of 2 types of sound attenuation are required per A/C unit. A shock absorption pad counts as one type, but does not count towards any sound reduction. An internal sound blanket is assumed to produce a noise reduction of 5 decibels. For other types of attenuation, provide manufacturer specification sheets that verify reductions indicated below.

Type of Sound Attenuation 1:	_____	_____	_____	_____
Minimum Noise Reduction (dB):	_____	_____	_____	_____
Type of Sound Attenuation 2:	_____	_____	_____	_____
Minimum Noise Reduction (dB):	_____	_____	_____	_____
Type of Sound Attenuation 3:	_____	_____	_____	_____
Minimum Noise Reduction (dB):	_____	_____	_____	_____
Type of Sound Attenuation 4:	_____	_____	_____	_____
Minimum Noise Reduction (dB):	_____	_____	_____	_____

MECHANICAL EQUIPMENT NOISE ANALYSIS | For each unit, calculate the estimated noise level at the nearest shared property line (step 6). For units in multi-family complexes measure to nearest shared wall instead of property line. Refer to the guide above and unit manufacturer and sound attenuation information above to determine the values below.

1) Maximum Noise Level	_____	_____	_____	_____
2) Location Noise Factor	+ _____	+ _____	+ _____	+ _____
3) Distance Noise Factor	- _____	- _____	- _____	- _____
4) Barrier Noise Reduction	- _____	- _____	- _____	- _____
5) Combined Sound Attenuation	- _____	- _____	- _____	- _____
6) <b>Total Estimated Noise (dB)</b>	= _____	= _____	= _____	= _____

### MULTIPLE UNIT NOISE ANALYSIS

7) Estimated Noise from Step 6 (List from loudest to quietest)	<b>Unit A</b> _____	<b>Unit B</b> _____	<b>Unit C</b> _____	<b>Unit D</b> _____
	<b>A &amp; B</b>	<b>A, B &amp; C</b>	<b>A, B, C &amp; D</b>	
8) Noise Factor (dB)	_____	_____	_____	
9) Combined Noise Level (dB)	_____	_____	_____	

CITY OF LAGUNA BEACH  
MECHANICAL EQUIPMENT GUIDE



**SITE PLAN** | Show the entire property below or provide on a separate paper (minimum size: 8.5x11 inches). Refer to City Maps GIS for reference. Check off boxes to confirm each requisite site plan element is shown.

Property Lines

Required Setbacks

Proposed Setbacks

A/C Unit Location(s)

Abutting Street(s) Labeled

A large, empty grid area for drawing the site plan. The grid consists of small squares, typical of graph paper used for technical drawings.