



City of Long Beach

Working Together to Serve

**Memorandum
3rd Council District**

R-12

Date: April 12, 2011

To: Honorable Mayor Foster and Members of the City Council

From: Robert Garcia, Councilmember, 1st District *RG*
Suja Lowenthal, Vice Mayor, 2nd District *S*
Gary DeLong, Councilmember, 3rd District *GD*
Rae Gabelich, Councilmember, 8th District *RG*

Subject: Automated Parking

The City's current parking regulations provide standards for the construction of parking lots and structures where motorists drive directly into and out of individual parking spaces. These regulations do not recognize the evolving technology of automated parking where motorists drive into loading bays, exit their vehicles and have their vehicles parked by a variety of automated processes.

Automated parking offers several potential benefits for the City.

1. A given number of vehicles can be parked in structures with significantly smaller footprints and significantly smaller volumes than conventional parking structures.
2. Automated parking structures are potentially less costly to build than conventional parking structures.
3. Automated parking structures are less costly to operate than conventional structures because they require less energy, and because they require no human operators.
4. Automated parking structures reduce environmental impacts because a) vehicle emissions generated by drivers searching for parking places in a conventional structure are eliminated, and b) as a result such emissions do not have to be discharged into the area surrounding the parking structure; in addition c) the elimination of high powered electrical ventilators and high lighting levels reduce energy consumption.

Suggested revisions to the Municipal Code are attached as well as an example from Los Angeles.

Recommended Action: Refer the matter to the Planning Commission and Planning Staff for a study and recommendation related to amending Chapter 21.41 of the Municipal Code in order to facilitate the use of automated parking in the City.

Suggested Revisions to Long Beach Parking Regulations Needed to Accommodate Automated Parking

The City of Long Beach's parking regulations are set forth in Chapter 21.41, of the Long Beach Municipal Code. Currently, the Code does not recognize automated parking, and it imposes specific parking stall dimensions, drive aisle widths and other geometric requirements which make construction of automated parking facilities virtually impossible.

The Code severely restricts tandem parking (Sec. 21.41.233 and 21.41.235). Since tandem parking is one of the features that make automated parking so efficient, these sections should be revised to allow the automated use of double and triple tandem parking without the restrictions that they currently contain.

Table 41-2 (referenced in Sec. 21.41.231) defines parking space dimensions for compact, standard and handicapped vehicles. Such dimensions assume that vehicles will be driven into parking spaces and will require substantial additional width to enable passengers to open doors and exit the vehicles. Since automated parking does not need such additional width, Table 41-2 should be revised to reflect realistic parking space dimensions required by an automated system.

Similarly, aisle widths described in Figures 41-1A, 41-1B, 41-1C and 41-1D (referenced in Sec. 21.41.231 and 21.41.243) should be revised to reflect the fact that automated parking does not require traditional drive aisles.

Minimum turning radius standards are also not relevant to automated parking. Accordingly, Table 41-3 and Figure 41-1E should be revised to eliminate turning radius as a design criterion for automated parking structures.

Parking lot layout standards set forth in Sec. 21.41.243 should be revised to allow designers to maximize the efficiency of automated parking structures.

Sec. 21.41.246 requires that all parking spaces be individually accessible. Like the limitations on tandem parking, this section is entirely contrary to the concept of automated parking.

The Code also specifies a variety of parking area improvements that are designed for conventional parking and not for automated parking structures. Each of the following sections requires revision in order to accommodate automated parking: Sec. 21.41.251 (driveways and curb cuts), Sec. 21.41.253 (curb cut spacing), Sec. 21.41.256 (landscaping), Sec. 21.41.257 (landscaping in IG and IP zones), Sec. 21.41.259 (lighting), Sec. 21.41.261 (striping), Sec. 21.41.263 (paving), Sec. 21.41.266 (screening) and Sec. 21.41.269 and Figure 41.2 (wheel stops).

Los Angeles Ordinance Re: Automated Parking

Sec. 12.21 A 5(m)

(m) **Mechanical Automobile Lifts and Robotic Parking Structures.** The stacking of two or more automobiles via a mechanical car lift or computerized parking structure is permitted in all zones. The platform of the mechanical lift on which the automobile is first placed shall be individually and easily accessible and shall be placed so that the location of the platform and vehicular access to the platform meet the requirements of paragraphs (a), (b), and (i) of this subdivision. The lift equipment or computerized parking structure shall meet any applicable building, mechanical and electrical code requirements as approved by the Department of Building and Safety. **(Added by Ord. No. 179,191, Eff. 11/5/07.)**