



Parking Zoning Standards Update

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by IBI Group
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1 PURPOSE AND OBJECTIVES

The City of Orange is seeking to update its parking ordinance in an effort to ensure that its parking standards are effective and accurately meet the parking demands of the variety of land uses and development contexts across the City. IBI Group was retained by the City to provide recommendations for the City's Parking Ordinance update with the goal of ensuring that the new standards are "right sized" and provide adequate onsite parking with sufficient flexibility to accommodate and encourage reinvestment and revitalization of underutilized properties. The purpose of this effort is to provide the City with the information based on modern-day industry standards and empirical research to streamline their development review process, simplify the codes, and update existing standards to reflect best practices.

The City's parking ordinance was last updated as part of a comprehensive Zoning Code update in 1995. In an effort to make the Zoning Code more user-friendly, the City has reorganized their various land use types into a single Master Land Use Matrix to establish consistencies in the treatment of similar land use types. This parking requirements study reflects these reorganized land use types, and provides an analysis of the existing components in Chapter 17.34 (Off-Street Parking and Loading) of the City's Code. The City has already modified the Zoning Code's multiple-family residential parking standards, and as such, this land use type is not included in this analysis.

This report provides recommended parking standards for all land use types across 18 different categories. These recommendations for the City of Orange's Zoning Standards Update are derived from analytical review of observed parking demand, the City's current parking standards, parking standards of peer municipalities, and industry demand rates from the Institute of Transportation Engineers (ITE).

Additionally, the report provides guidance on the components of the Off-Street Parking and Loading section of the Code where updates are recommended. These include parking area dimensions & locations, maintenance and operation of permanent and temporary parking areas, loading areas, tandem parking, and shared parking.

2 METHODOLOGY/APPROACH

In order to recommend appropriate parking standards for each of the land use types within the City, this report evaluates parking ratios based on observed demand from field surveys, parking standards from peer cities, and industry standards/empirical data.

Survey Sites

Seven sample sites, chosen in coordination with City staff, were surveyed to identify a variety of typical/common commercial, office, and industrial land uses throughout the City of Orange. The observational off-street parking field surveys were conducted hourly on one weekday and one weekend day in 2018 from 8:00 am to 7:00 pm. Table 2.1 details the seven sites chosen for observational field surveys in this study, including land use type, building square footage, occupied square footage, existing parking supply, and weekday peak occupancy.¹

It should be noted that the observed parking demand ratios from the survey sites were not the only source in recommending parking standards for those particular uses. The observed parking demand was compared against peer city rates and industry standards and in some cases the recommended standard reflects a combination of all three sources, tailoring recommendations specifically to the City of Orange.

Figure 2.1 shows the location of each of the seven survey sites.

¹ Weekend occupancy was also observed during field surveys. However, Weekday Peak Occupancy is generally higher than Weekend Peak Occupancy for these land uses and was used in this study for comparative purposes.

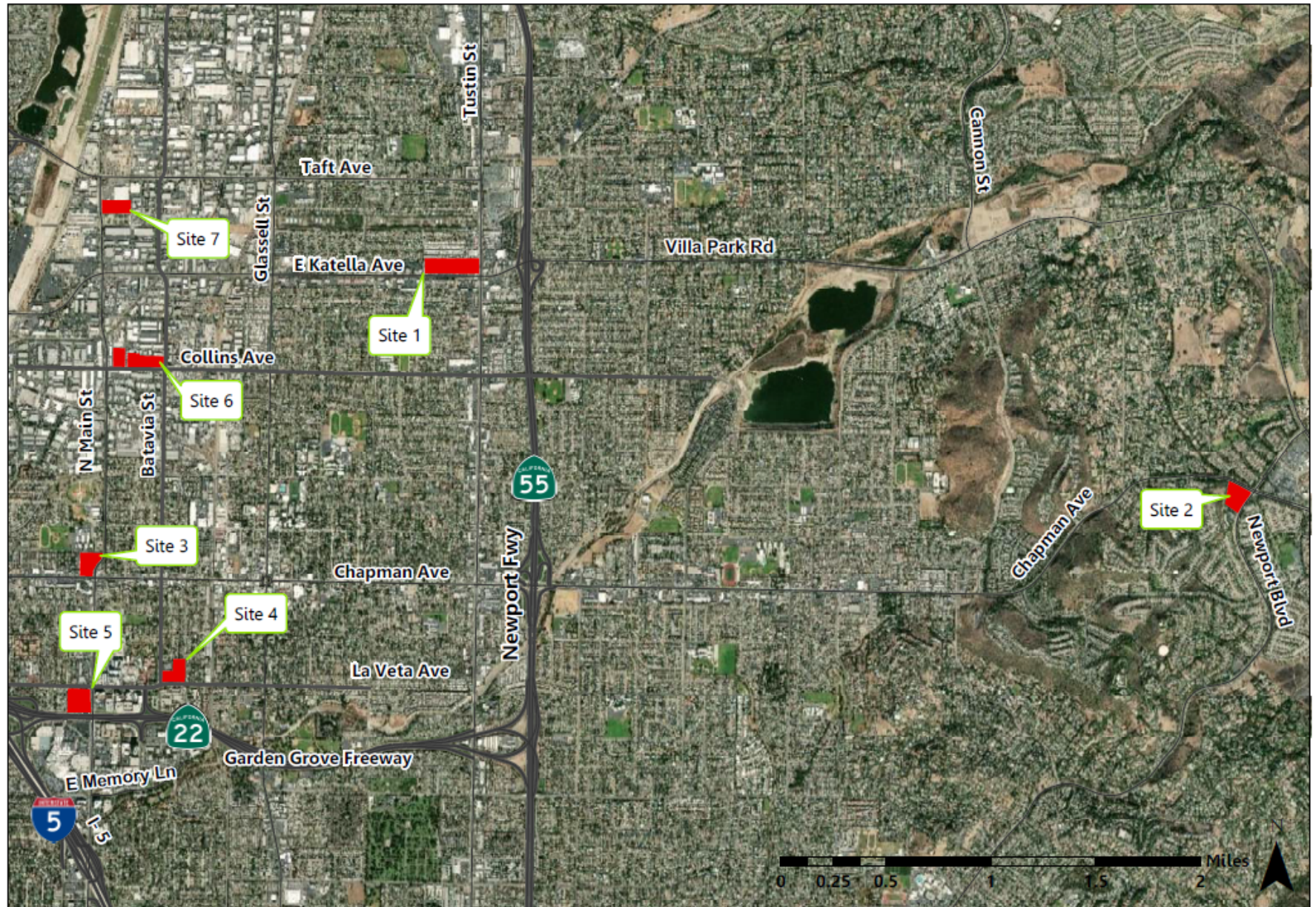


Figure 2.1: Field Survey Study Site Locations

TABLE 2.1 SURVEY SITES

Site	Land Use	Description	Building Sq. Ft.	5 Yr. Average Vacancy Rate	Sq. Ft. Occupied (% occupied)	Parking Supply	Weekday Peak Occupancy	Observed Demand Rate	City of Orange Required Parking Rate
Site 1	Commercial	Tuskatella Center	151,123	3.6%	145,682 (96.4%)	654	529 (81%)	3.63	5 spaces per 1,000
Site 2	Commercial	Chapman and Newport	71,509	3.6%	68,934 (96.4%)	336	263 (78%)	3.82	5 spaces per 1,000
Site 3	Commercial	Chapman and Main	78,636	3.6%	75,805 (96.4%)	303	201 (66%)	2.65	5 spaces per 1,000
Site 4	Office	La Veta and Parker	124,029	9.3%	112,494 (90.7%)	359	371 (100%) ²	3.3	4 spaces per 1,000
Site 5	Office	500-550 S. Main St.	525,495	9.3%	476,623 (90.7%)	1452	809 (56%)	1.7	4 spaces per 1,000
Site 6	Industrial	Collins and Batavia	147,669	1.7%	145,158 (98.3%)	334	171 (51%)	1.18	2 spaces per 1,000
Site 7	Industrial	Main and Yale	91,173	1.7%	89,623 (98.3%)	226	194 (86%)	2.16	2 spaces per 1,000

Detailed descriptions of the land uses at these sites are as follows:

- **Site 1 (Commercial) – Tuskatella Center:** Shopping center with various retail, service, and food-oriented uses including Smart and Final, CVS, TJMaxx, FedEx, Papa John's, Five Guys, Jersey Mike's, Pollo Loco, Chase Bank, and the Vitamin Shoppe.
- **Site 2 (Commercial) – Chapman and Newport:** Shopping center with various retail, service, and food-oriented uses including Pacific Ranch Market, Wise Guys Pizzeria, Orange Hill Liquor, Tru Bru Coffee, Cyrano's Caffe, Da Bianca, Curves, Massage Envy, a Dentistry, and Heritage Christian Fellowship.
- **Site 3 (Commercial) – Chapman and Main:** a shopping center anchored by a Ralph's, including a Marshall's, Dollar Tree, and additional uses including UPS, Nutrishop, Sprint, a Credit Union, Philly's Cheesesteaks, and a dentist.
- **Site 4 (Office) – La Veta and Parker:** a medical office site including the Batavia Woods Medical Center, UCI Medical Center, and Women's Imaging Center.
- **Site 5 (Office) – 500-550 Main Street:** a professional office site including the offices of the Orange County Transportation Authority.
- **Site 6 (Industrial) – Collins and Batavia:** industrial and commercial uses including a variety of automotive part sales and lawn mower equipment.
- **Site 7 (Industrial) – Main and Yale:** industrial and commercial uses including wholesale and merchandising uses.

² Parking occupancy counts included vehicles parked in unmarked spaces. This site experienced 100% occupancy accompanied by overflow, noted by a higher occupancy count over supply.

The Observed Demand Rate is found by dividing the Weekday Peak Occupancy by the Occupied Square Footage per 1,000 sf. For Site 1, for example:

Weekday Peak Occupancy (529) divided by Occupied Square Footage per 1,000 sf. (145.682)

Equals the Observed Demand Rate (3.63)

While the observed demand rate from these study sites provide useful data in determining a parking rate for a similar recommended land use type, this data is only used in part to determine the recommended rates provided below within Section 3 Analysis and Recommendations. In a number of recommended land use types, the observed demand rate from these study sites might deviate from the recommended parking rate for a number of reasons, including more uniform peer city data, consistency with other recommended parking rates, and the potential influence of shared parking for these larger sites, compared to a whole site delegated for a specific use.

For comparative purposes, the City Required Parking Rate is shown next to the Observed Demand Rate in Table 2.1. All sites, except for Site 7, show the Observed Demand Rate lower than the City Required Parking Rate.

Comparable Cities

The cities of Fullerton, Costa Mesa, Anaheim, Santa Ana, Tustin, and Pasadena were chosen for comparative purposes, based on similar land use types, size, and geographic location. The City of Pasadena was included as they are considered to be progressive in the area of parking management and modified parking standards. The standards used for comparison were chosen based on applicable parking standards in each city's corresponding zoning code according to the most appropriate land use type. Where no data was present for the comparable cities, additional research was conducted (where applicable) for other municipalities outside of the peer cities to provide guidance.

ITE Parking Generation Rates

Lastly, parking standards referenced from the nationally-recognized *ITE Parking Generation Manual (4th Edition)* were also utilized in determining the appropriateness of various parking ratios. ITE parking demand rates are based on empirical data from survey sample sites across the United States and represent industry-wide standards where data is not available through other sources.

3 ANALYSIS AND RECOMMENDATIONS

IBI has categorized every land use in the City of Orange with a corresponding right-sized parking standard. Each land use is allocated into one of 18 categories implemented by the City of Orange, depending on their general use. Each land use, within their category, is shown in a table with a designation number. The designation number is solely for organizational purposes only.

Each designation number represents a unique parking standard, shown in a table following each land use category. A designation number marked “Removed” does not receive a parking standard, as that specific use does not warrant a justified parking rate (no data, antiquated, accessory, or redundant). All other land uses will have either one or multiple designation numbers associated with that land use. A land use with one designation number means that that use is associated with that parking standard. A land use with multiple designation numbers means specificity was needed, and that use can be broken down into numerous parking standards when implemented, depending on how the land use is implemented. There are instances where multiple land uses receive the same designation number. In most cases, this was used to reduce redundancy or to pair similar uses with similar parking rates.

The parking standard table accompanying each land use shows the designation number, the associated parking standard, the parking rate for each standard, and justification for the parking rate. Following this table is more description on why land uses were either combined or separated, with additional justification.

This section of the memorandum discusses the analysis and resulting recommendations for each of the 18 categories of land use types. For simplicity, the section is broken down by land use type. The comprehensive table found in Appendix A details every land use currently in the City’s Master Land Use Table as well as every associated land use for every peer city, where applicable. The columns next to each land use provide, if applicable, the minimum parking requirement currently in place in the City of Orange, comparable cities, the demand rate as stated by ITE,³ and any applicable results from the field survey.⁴ Based on this information, the last column in the table includes recommended parking rates. Each subsection provides detailed discussion regarding the approach taken to arrive at the recommended parking standards.

A majority of uses and their rates are established by their gross floor area (GFA). In general, GFA is defined as the sum of all floor space within a building. In a few instances, GFA cannot be applied, such as at a skate park or contractor’s yard. For those specialty uses where GFA cannot be directly applied, the rate justification will explain the specific method on how the rate is to be applied.

3.1 ACCESSORY USES

None of the accessory uses listed in the Master Land Use table provided by the City require parking. As such, there are no recommended parking rates for this category.

3.2 AGRICULTURE/HORTICULTURE

Current Agriculture/Horticulture land uses in the City of Orange are shown in Table 3.1. This table details how land uses have been designated pertaining to recommended parking standards. Land use types have either been: removed as they do not warrant a standard, kept if they warrant a parking standard, or revised either due to redundancy, consistency, clarity, or need for additional specificity. All land uses, parking standards, and designations are justified following the tables.

³ The Institute of Transportation Engineers, *Parking Generation*, 4th Edition (2010).

⁴ Demand rates are based on occupied square footage at each site.

Table 3.1: Agriculture/Horticulture Land Use Designations

Agriculture/Horticulture Land Use Types	Designation Number
Agriculture/Horticulture	AG.1
Commercial Nursery with Seasonal Sales	AG.2
Greenhouse	Removed
Plant Nurseries, retail	AG.2
Row Crops	AG.1
Tree and Shrub Farms	AG.1
Tree Crops and Orchards	AG.1

All land uses in Table 3.1 above have a designation number to show which parking standard applies to that particular use. For consolidation purposes, IBI recommends combining and revising the non-removed uses, shown in Table 3.2:

Table 3.2: Agriculture/Horticulture Parking Rates and Justification

Designation Number	Recommended Agriculture/Horticulture Land Use Types	Recommended Parking Rate	Recommendation Justification
AG.1	Agriculture/Horticulture (Row crops, Tree and Shrub Farms, Tree crops and orchards)	1 space per 2 acres	-Fits in line with peer city Anaheim -No established ITE rate -No other peer city provides parking data for agriculture use
AG.2	Commercial Plant nurseries, retail or seasonal sales	1 space per 1,000 sq. ft. of GFA, plus 1 space per 1,000 sq. ft. of outdoor display	-Based on research of six peer cities with highly variable parking standards, current City of Orange standard is adequate.

AG.1 – Row crops, tree and shrub farms, and tree crops and orchards, have been combined with agriculture and horticulture as these land uses are similar and their parking standard is not anticipated to vary. Only the City of Anaheim provides a rate for this land use type. With no additional data points from ITE or other peer municipalities, IBI recommends matching the Anaheim rate.

AG.2 – Commercial plant nurseries for either retail or seasonal sales have been combined as these land uses are similar and their parking standard is not anticipated to vary. For outdoor sales such as nurseries, the City of Orange requires providing 1 space per 1,000 square feet of indoor gross floor area (GFA) and 1 space per 1,000 sq. ft. of outdoor retail area. All peer cities show higher rates for this use. Costa Mesa shows a rate for indoor area at 4 spaces per 1,000, plus 2 spaces per 1,000 outdoor area. Anaheim shows a rate of 4 spaces per 1,000 for indoor area, plus 0.4 spaces per 1,000 for outdoor area. Santa Ana provides a rate at 2 spaces per 1,000 for indoor and outdoor areas, plus 4 spaces per 1,000 of office area. Tustin's rate is 4 spaces per 1,000 plus a rate of 1 space per 1,000 for outdoor area. Pasadena's rate does not distinguish between indoor and outdoor, but gives a rate of 2.5 spaces per 1,000. ITE does not provide rates for a comparable use. Due to the wide variation in parking standards, no changes to the City's current requirement for nursery sales are recommended. The city's outdoor rate is in line with peer city rates. Additionally, indoor uses within this land use type are generally limited, so the lower city rate would appear to be adequate.

3.3 ANIMAL-ORIENTED USES

Current Animal-Oriented land use types permitted in the City of Orange are shown in Table 3.3. This table details how land uses have been designated pertaining to recommended parking standards. Land uses have either been: removed as they do not warrant a parking standard, kept if they warrant a land use standard, or revised either due to redundancy, consistency, clarity, or additional specificity. Justification for all land uses, parking standards, and designations follow each of the tables.

Table 3.3: Animal-Orientated Land Use Designations

Animal-Oriented Land Use Types	Designation Number
Animal Keeping	Removed ⁵
Animal Raising and Keeping in excess of specified limits	Removed
Animal Raising—Large Animals	Removed
Animal Raising—Small Animals	Removed
Animal Raising—Wild Animals	Removed
Apiary	Removed
Dairy, commercial	Removed
Dog and cat grooming w/o boarding	AN.1
Dog and cat grooming with boarding	AN.2
Egg ranch and farm, commercial	Removed
Fishing pond or stream	Removed
Hatcheries	Removed
Hog and livestock feeding ranch (including feeding of garbage or offal)	Removed
Hog and livestock feeding ranch (not including feeding of garbage or offal)	Removed
Keeping of Horses and Livestock	Removed
Kennels, Dog	AN.3
Stables	AN.3
Veterinary clinic, animal hospital (boarding permitted only as part of medical treatment)	AN.4
Veterinary clinic, animal hospital with boarding	AN.4
Veterinary clinics and livestock animal hospitals	AN.4
Zoo	AN.5

All land uses in Table 3.3 above have a designation number to show which parking standard applies to each particular use. For consolidation purposes, IBI recommends combining and revising the non-removed uses, shown in Table 3.4:

⁵ A majority of animal-oriented land uses have been removed per discussion with city staff. These uses are typically antiquated and uncommon, and therefore do not warrant a standalone parking standard in the City of Orange. If a removed use where to develop with the City, the parking standard for that use would be subject to City of Orange discretion.

Table 3.4: Animal-Orientated Parking Rates and Justification

Designation Number	Recommended Animal-Oriented Land Use Types	Recommended Parking Rate	Recommendation Justification
AN.1	Dog and cat grooming w/o boarding	4 spaces per 1,000 sq. ft. of GFA	-Without boarding, related to service use (see SR.4 General Services) -Reduction justified by four lower data points (Anaheim, Tustin, Pasadena, and ITE)
AN.2	Dog and cat grooming with boarding	4 spaces per 1,000 sq. ft. of GFA, plus 1 space per 10 boarded pets	-Similar service as above, gets same rate, plus an additional increase for adding boarding as service -Only Anaheim shows a distinction between grooming w/ or w/o boarding
AN.3	Kennels and Stables	3 spaces per 1,000 sq. ft. of GFA	-Not enough data points to justify solely on code -Rate established through analysis of 5 existing kennels and stables throughout Northern Orange County
AN.4	Veterinary clinic/hospital, with or without boarding, including or not including livestock animals	5 spaces per 1,000 sq. ft. of GFA	-No distinction in any data point (6 peer cities and ITE rate) between varying vet uses, so a combination is recommended -5/1,000, as medical use demands higher rate than general service -medical rate avg. at 5 per 1,000 sq. ft. among all data points (See MD.4)
AN.5	Zoo	12 spaces per 1 acre	-Only one data point (ITE)

AN.1 and AN.2 – Dog boarding without grooming is separated from grooming with boarding as they exhibit different parking profiles. Grooming without boarding is related to a service use, specified in more detail in Section 3.16 Service Uses. Grooming with boarding receives the same parking rate per area, but has an additional requirement for the additional boarding service. Of the six peer cities, only Anaheim separates the two categories in their parking standards. IBI recommends to provide the same rate for the additional boarding that Anaheim provides, at 1 space per 10 boarded pets.

AN.3 – Kennels and Stables were combined because they exhibit similar parking profiles based on research of existing kennels and stables throughout Northern Orange County. Limited data is provided by the peer cities and no rate exists within ITE. Given the lack of data available, it is recommended that the rate be based on an average of the rates identified from existing kennels and stables. Furthermore, the rate recommended is in line with the peer City of Tustin.

AN.4 – All veterinary uses are combined into one land use type and corresponding parking rate. None of the peer cities differentiates between the multiple distinctions in veterinary uses. For consistency, IBI recommends using the same rate as MD.4 (Medical Clinic) and OF.3 (Medical Office). Among all peer cities, the range rate is between 4 spaces per 1,000 (Tustin) and 6 spaces per 1,000 (Costa Mesa). Rates required by the Cities of Fullerton and Anaheim are also slightly higher at 5.49 and 5.5 spaces, respectively, while other cities analyzed show similar rates to Orange. The demand rate specified by ITE is lower at 2.30 spaces. As the ITE rate is significantly lower than the cities' rates, which are similar in comparison with one another, we recommend considering the local context and maintaining the City's current rate for these uses.

AN.5 – Zoos are not currently included in any of the peer cities parking standards, but the demand rate as reported by ITE is 0.28 spaces per 1,000 square feet, or 12 spaces per acre. As such, it is recommended that the City utilize this rate for the Zoo land use type.

3.4 AUTOMOTIVE USES

Current Automotive land uses in the City of Orange are shown in Table 3.5. This table details how land uses have been designated pertaining to recommended parking standards. Land uses have either been: removed as they do not warrant a standard, kept if they warrant a parking standard, or revised either due to redundancy, consistency, clarity, or additional specificity. All land uses, parking standards, and designations are justified following the tables.

Table 3.5: Automotive Land Use Designations

Automotive Land Use Types	Designation Number
Auto Accessories - sales, service or, installation (such as automobile alarm, phone or stereo installation, tires, batteries)	AT.1, AT.2
Automobile Accessories, Sale of Services Related to the Retail Merchandising of Auto Accessories in the Commercial Recreation (CR) Zone.	AT.1, AT.2
Automobile body shop	AT.2
Automobile broker—retail sales	AT.7
Automobile broker—wholesale sales	AT.7
Automobile parts and supplies, Assembly	AT.10
Automobile Rental Agency (with on-site auto storage)	AT.7
Automobile repair—major	AT.2
Automobile repair—minor, on properties adjacent to residential districts	AT.2
Automobile repair—minor, on properties not adjacent to residential districts	AT.2
Automobile repair—Vehicles of historic value (per California Vehicle Code)	AT.2
Automobile sales and related service activities	AT.1, AT.2, AT.3, AT.4
Automobile sales—Vehicles of historic value (per California Vehicle Code)	AT.1, AT.2, AT.3, AT.4
Automobile service stations or gas station ⁶	AT.2, AT.11
Automobile wrecking, salvage and storage	AT.6
Boat sales and service	AT.1, AT.2, AT.3, AT.4
Car wash/auto detailing	AT.12, AT.13, AT.14, AT.15
Motorcycle sales and service	AT.5
Overnight truck trailer stop	Removed
Parking structure	Removed
Parking lot/structure, private (stand-alone)	Removed
Recreational vehicle sales and service	AT.1, AT.2, AT.3, AT.4
Recreational Vehicle Storage Facility	AT.6
Tire sales and installation	AT.1, AT.2
Truck Repair (more than 1 ton capacity)	AT.2
Truck terminals	Removed
Truck wash	Removed
Used car sales (with no service facilities)	AT.3, AT.4

⁶ This singular use, taken from City code, will be broken into two separate uses. Automobile service stations will receive the AT.2 Vehicle repair, modification, and service rate. Automobile gas stations will receive the AT.11 Vehicle gas station rate.

All land uses in Table 3.5 above have a designation number to show which parking standard applies to each particular use. For consolidation purposes, IBI recommends combining and revising the non-removed uses, shown in Table 3.6:

Table 3.6: Automotive Parking Rates and Justification

Designation Number	Recommended Automotive Land Use Types	Recommended Parking Rate	Recommendation Justification
AT.1	Vehicle parts sales	4 spaces per 1,000 sq. ft. of GFA	-Standard retail rate (see RT.4 General Retail)
AT.2	Vehicle repair, modification, and service	3.5 spaces per 1,000 sq. ft. of GFA	-3.5 per 1,000 sq. ft. is Anaheim standard for repair, and avg. of all repair uses among data points -3.5 per 1,000 sq. ft. is equivalent to 3 spaces per bay, but retains consistency
AT.3	Vehicle sales, showroom	2.5 spaces per 1,000 sq. ft. of GFA	-2.5 per 1,000 sq. ft. is Anaheim standard for showroom -No ITE rate for this use -No other specific data points for showroom
AT.4	Vehicle sales, outdoor display	0.33 spaces per 1,000 sq. ft. of GFA, excluding drive aisles	-Rate determined through research for the Cities of Westminster and Fontana -Existing site analysis at Selman Chevrolet was also determined to fall in line with this rate
AT.5	Motorcycle dealership	2 spaces per 1,000 sq. ft. of motorcycle display	-Rate in line with peer cities Santa Ana and Westminster
AT.6	Vehicle wrecking, salvage, or storage (including recreational vehicles)	0.5 spaces per 1,000 sq. ft. of area or 5 spaces minimum	-Rate is consistent with peer cities Fullerton, Tustin and Pasadena -5 space minimum for smaller yards
AT.7	Automobile rental agency	4 spaces per 1,000 sq. ft. of GFA, plus 1 space per fleet vehicle	-Standard retail rate -No data points from any peer city or ITE -Remains consistent with current Orange standard
AT.8	Wholesale Auto Brokers	3 spaces per 1,000 sq. ft. of GFA	-Same as office rate (OF.1)
AT.9	Retail Auto Brokers	3 spaces per 1,000 sq. ft. of GFA. A maximum of 2 of the required spaces shall be used for vehicle display. Where office GFA requires less than 3 spaces, a minimum of 3 spaces shall be required.	-Consistent with existing recently approved City rate
AT.10	Vehicle parts and supplies, assembly	2 spaces per 1,000 sq. ft. of GFA	-Assembly use receives the production rate (see PW.1 General Manufacturing)

Designation Number	Recommended Automotive Land Use Types	Recommended Parking Rate	Recommendation Justification
AT.11	Vehicle gas station	<p><i>If standalone:</i> 2 spaces, not including pump island stalls</p> <p><i>With Convenience:</i> 5 spaces per 1,000 sq. ft. of convenience GFA, with 50% of pump islands counted as parking stalls</p> <p><i>For Service Bays:</i> Use AT.2 (3.5 spaces per 1,000 sq. ft. of service bay GFA)</p> <p><i>For office area:</i> absorbed as an accessory use</p>	<p>-For standalone, 2 spaces is consistent with 2 data points and the current Orange standard</p> <p>-With Convenience, rate aligns with previous IBI study on gas station parking demand</p> <p>-Rate is consistent with peer cities Anaheim and Santa Ana</p> <p>-50% clause due to pump users parking in pump stalls to shop at convenience store</p> <p>-Rate for gas stations with service bays is consistent with IBI parking studies for these types of uses.</p>
AT.12	Car Wash- Automatic (in bay – typical to gas stations)	1 space per facility, plus 3 car stacking for each wash stall, plus a 10 ft. x 20 ft. area for every air/water/vacuum facility	<p>-Only one space required, as parking is rare for this use (also typically in conjunction to a convenience store)</p> <p>-1 space per facility in line with two peer cities Santa Ana and Tustin</p> <p>-3 car stacking as typical length for such facilities</p> <p>-3 car stacking in line with peer city Pasadena</p> <p>-Required 10 x 20 zone for self-maintenance auto care when applicable</p>
AT.13	Car Wash- Automatic (tunnel)	2.5 vacuum bays/ wipe down bays per every 20 feet of car wash tunnel, plus 3 spaces per 1,000 sq. ft. of office and break room uses	<p>-Similar to City of Irvine</p> <p>-In line with Rapids Express Car Wash</p> <p>-3 spaces per 1,000 is consistent with the OF.1 Office rate</p>
AT.14	Car Wash- Full Service	0.5 spaces per employee, plus 5 spaces per car length of internal car wash tunnel, 2/3 of which for drying, 1/3 for stacking. Drying spaces may be tandem and informally arranged.	<p>-0.5 spaces is at a rate similar to Santa Ana and Tustin</p> <p>-5 spaces per car length of internal tunnel is same rate as current Orange standard, but recommendation provides specificity to where parking is designated</p>
AT.15	Car Wash- Self Service (hand-spray operated)	2.5 spaces per wash bay	<p>-Rate is in line with peer cities Santa Ana and Tustin</p> <p>-Higher rate of parking compared to automatic due to higher rate of users staying to clean car interior</p>

IBI recommends a significant revision to Automobile related uses that follow the services provided, not the actual land uses. For Automobile related uses, parking ratios should be calculated based on each of these services separately, then combined for each specific land use. This change was requested by City staff and is consistent with peer cities. The relevant services, as mentioned above and are shown in AT.1, AT.2, and AT.3 are 1) Auto part sales, 2) Services, installation, repairs, modification, and 3) Auto showroom.

As an example, land use “Auto Accessories - sales, service or, installation (such as automobile alarm, phone or stereo installation, tires, batteries)” would require 4 spaces per 1,000 per AT.1 applied for all sales floor area, and 3.5 space per 1,000 applied for service and repair area per AT.2.

AT.1 – 4 spaces per 1,000 is chosen for sales floor as the standard retail rate. For more information see RT.4 General Retail.

AT.2 – 3.5 spaces per 1,000 is chosen as a comparable standard to a typical 3 spaces per bay, but uses the same sq. ft. ratio as its related uses. This rate is also similar to the ITE rate and multiple peer municipalities Anaheim, Santa Ana, and Pasadena. This rate includes service bay area at car dealerships.

AT.3 – 2.5 spaces is taken from Anaheim code, and is the only peer city that provides a rate for showroom use. ITE also does not provide a showroom use rate.

AT.4 – 0.33 spaces per 1,000 square feet, excluding drive aisles is in line with peer city code from Fontana and Westminster, and also is in line with an existing site analysis at Selman Chevrolet in Orange. Drive aisles are excluded because they do not warrant additional parking.

AT.5 – A rate for motorcycle dealerships is set at 2.0 spaces per 1,000 sq. ft. of motorcycle display is consistent to the rates at the peer cities of Santa Ana and Westminster. Motorcycle display is worded to include all area used for indoor (motorcycle showroom) and outdoor sales display. Any service or ancillary uses would receive those applicable rates separately.

AT.6 – Applies for both salvage, wrecking and storage including RV storage facilities. This combination is justified as both uses would have the same parking rate. The rate itself is taken from peer municipalities, and most closely aligns with Tustin at a rate of 0.5 spaces per 1,000, for the minimum requirement.

AT.7 – Rental agencies were determined, through analysis of peer city code and the ITE rate, to merit a standard retail rate (RT.4 General Retail), explained further in Section 3.14. Additional parking is included to account for fleet vehicles.

AT.8 – Wholesale and retail auto broker uses shall utilize an office space rate (3 spaces/1,000 sq. ft. GFA).

AT.9 – Retail auto broker uses shall continue to require a maximum of 2 of the required spaces for vehicle display. Where office GFA requires less than 3 spaces, a minimum of 3 spaces shall be required. This is consistent with recently adopted City code, except the office space reduction from 4 to 3/1,000 sq. ft. GFA.

AT.10 – Uses for assembly of automobile parts and supplies typically follow general manufacturing and processing uses. As such, IBI recommends requiring a rate of 2 spaces per 1,000 sq. ft. GFA for this use which is consistent with PW.1 General Manufacturing and Processing mentioned in Section 3.12.

AT.11 – Standalone gas stations, although rare, receive a rate of 2 spaces per lot. No additional parking requirement is needed as patrons typically park at the fuel pump location. For gas stations with convenience stores and gas stations with convenience stores and service bays, rates were researched from multiple parking studies conducted for this type of use, including analysis of peer cities. The rate provided is an average of all data sources.

AT.12/AT.13/AT.14/AT.15 – All stem from one car wash land use, and are broken into four categories due to the varying types of car washes. In coordination with City staff, these four categories were defined to be: automatic in-bay, automatic with tunnel, full service, and self service.

AT.12 – Automatic car washes, is described as a car wash typically found with service stations and convenience stores, where one car parks in a bay, and the car wash washes, cleans, and dries the entire car without user assistance. Usually only one bay are found at a service station facilities, if any. Through analysis of specific sites and peer city regulations, IBI recommends 1 (additional) parking space for the entire facility, plus 3 car stacking for the bay, plus an area for self-service auto maintenance.

AT.13 – Automatic tunnel car washes are described as a car wash where the user may remain in their car for the entirety of the tunnel washing process, and then have the opportunity to park their car at a vacuum/drying bay and self-dry their car. The rate applied is meant to include the proper number of vacuum bays for the type of car wash use.

AT.14 – Full service car washes, typically include a tunnel, where different areas of the tunnel wash, clean, and blow dry the car, and then employees hand dry and vacuum the interior and exterior of the car, respectively. IBI recommendation is consistent with the current Orange regulation of 5 spaces per car length, but provides specificity regarding where the 5 parking spaces are designated (2/3 go for drying, while 1/3 go for stacking). Drying spaces may be in tandem arrangement and informally arranged.

AT.15 – Self service car washes, typically have car wash equipment present in a bay, where users clean their cars themselves. Most users also clean their interiors after using the bay, which justifies the higher rate of parking. IBI recommends no change from its current rate, as it is in line with other peer cities.

3.5 CARE FACILITY USES

Current Care Facility land use types in the City of Orange are shown in Table 3.7. This table details how land uses have been designated pertaining to recommended parking standards. Land uses have either been: removed as they do not warrant a standard, kept if they warrant a parking standard, or revised either due to redundancy, consistency, clarity, or additional specificity. All land uses, parking standards, and designations are justified following the tables.

Table 3.7: Care Facility Land Use Designations

Care Facility Land Use Types	Designation Number
Child Care Center	CR.1
Child Care Center in conjunction with a church or school or other similar institutional use	Removed
Community Care Facility	CR.2
Day care, child or elderly	CR.1
Family Day Care Homes-Large (7 to 12 children)	CR.2
Large Family Day Care Homes	CR.2
Family Day Care, Large 9-14 children	CR.2
Family Day Care, Small 8 or fewer children	CR.2

All land uses in Table 3.7 above have a designation number to show which parking standard applies to each particular use. For consolidation purposes, IBI recommends combining and revising the non-removed uses, shown in Table 3.8:

Table 3.8: Care Facility Parking Rates and Justification

Designation Number	Recommended Care Facility Land Use Types	Parking Rate	Recommendation Justification
CR.1	Day care, child or elderly	1 space per employee, plus 1 space per 8 individuals, plus 1 loading/unloading zone	-1 space per employee consistent with peer cities Anaheim, Santa Ana, and Tustin -1 space per 8 individuals an avg. of same three cities
CR.2	Family Care or Community Care	2 spaces	-Rate identical to Santa Ana -Uses in residential zones do not demand much parking, as these are primarily drop-off uses
CR.3	Assisted Living, including memory care	1 space per 3 beds ⁷	-Rate per bed, consistent with peer cities Santa Ana, Tustin, and Anaheim -Rate an avg. of the three cities and is identical to Santa Ana -Ratio accounts for long-term visitors and employees
CR.4	Independent Living Facility	1 enclosed or covered space per unit, plus 1 space per 10 units for guests	-Rate determined through research of existing independent living facilities and analysis of non-peer city code -Rate is in line with ITE at 1.3 spaces per dwelling
CR.5	Sober Living Facility	1 space per 3 tenants	-Per discussion with city staff, this is the regulated parking rate

CR.1 – Anaheim, Santa Ana, and Tustin and ITE all provide a rate based on employees. IBI recommends that Orange continue using this format, but add a provision for the number of care users. The 1 space per 8 individuals is an average of these three peer rates. In addition, a loading area (see discussion on loading zones, Section 4.3) is necessary for a use where users cannot drive (children being dropped off), and where drivers do not stay for long periods of time.

CR.2 – This rate is generally very low as this use is typically found in residential areas. The recommended rate identical to Santa Ana and is only two spaces for the care provider and primarily drop-off uses.

CR.3 – This use receives a rate per bed, consistent with peer cities Santa Ana, Tustin, and Anaheim. This rate is an average of the three cities and is identical to Santa Ana. This ratio accounts for long-term visitors and employees. Overflow parking arrangements for special events can be made through a Council Use Permit.

CR.4 – Independent Living Facilities receive a different rate from Assisted Living as their uses vary. This rate is determined through research of existing independent living facilities in Orange County, and analysis of non-peer city code. The rate is in line with ITE at 1.3 spaces per dwelling. The type of space, enclosed or covered, can be made by City discretion.

CR.5 – Per discussion with city staff, 1 space per 3 tenants is the regulated parking rate of the existing Orange Municipal Code. Per State Law, sober living facilities of six or fewer tenants, plus a house manager, must be considered the same as a residence.

⁷ An Overflow Parking Plan may be required as part of a Conditional Use Permit.

3.6 ENTERTAINMENT USES

Current Entertainment land use types in the City of Orange are shown in Table 3.9. This table details how land uses have been designated pertaining to recommended parking standards. Land uses have either been: removed as they do not warrant a standard, kept if they warrant a parking standard, or revised either due to redundancy, consistency, clarity, or additional specificity. All land uses, parking standards, and designations are justified following the tables.

Table 3.9: Entertainment Land Use Designations

Entertainment Land Use Types	Designation Number
Amusement Arcade	EN.1
Amusement devices, including, but not limited to, video games, pinball machines, pool tables, computers and similar devices (three or fewer)	EN.1
Amusement Park	EN.2
Archery Range	EN.3
Auditorium	EN.4
Billiard Parlor	EN.5
Bingo Games	EN.6
Boating	Removed
Commercial Recreation Facility	EN.2
Commercial Sports Facility	EN.8
Dance floor as accessory use	Removed
Dance floor or hall as primary use	EN.9
Dance hall	EN.9
Entertainment establishment	EN.10
Fortunetelling	EN.11
Miniature golf course	EN.12
Sexually Oriented/Adult Businesses	Removed
Skateboard park	EN.13
Skating rink	EN.14
Stadium; grandstand, other arena	EN.4
Theater, drive in	Removed
Theater, walk in movie or performance	EN.4, EN.15

All land use types in Table 3.9 above have a designation number to show which parking standard applies to each particular use. For consolidation purposes, IBI recommends combining and revising the non-removed uses, shown in Table 3.10:

Table 3.10: Entertainment Parking Rates and Justification

Designation Number	Recommended Entertainment Land Use Types	Recommended Parking Rate	Recommendation Justification
EN.1	Amusement Arcade and non-live entertainment venue	5 spaces per 1,000 sq. ft. of GFA	-5 spaces is identical to peer city Tustin -No change from current code
EN.2	Amusement Park or Commercial Recreation Facility	Parking Needs Assessment	-Lack of sufficient data points -Uncommon use with substantial variation in application -Would be inaccurate to provide single rate
EN.3	Archery Range	1.2 spaces per target	-No data points available -Recommended rate provides one space per archer (assuming all drive), and additional spaces for those waiting to shoot.
EN.4	Live Entertainment Assembly	1 spaces per 3 fixed seats ⁸ , plus 33 spaces per 1,000 sq. ft. of assembly GFA	-Assembly uses receive assembly rate -33 is avg. rate of peer cities Costa Mesa (35), Santa Ana (35.7), and Tustin (28.5) -Rounded for clarity -1 space for 3 seats is consistent with Costa Mesa, Santa Ana, Tustin, and Anaheim
EN.5	Billiard Parlor	2 spaces per table, plus ancillary calculated separately	-Rate is consistent with Anaheim, Santa Ana, and Tustin -Ancillary spaces required for additional uses within the parlor -ITE ratio from only one study
EN.6	Bingo Games	1 space per 3 seats, plus ancillary uses calculated separately	-Ratio based from previous 1 per 3 seats ratio for assembly (EN.4)
EN.7	Bowling Alley	3.5 spaces per lane, plus ancillary uses calculated separately	-Anaheim, Tustin and ITE show higher rates -Costa Mesa and Santa Ana show identical rates to Orange -An avg. of all rates justifies 3.5, not including additional uses, which is calculated separately
EN.8	Commercial Sports Facility	1 spaces per 4 fixed seats ⁸ , plus 33 spaces per 1,000 sq. ft. of assembly GFA	-Ratio based initially from 1 per 3 seats ratio, but receives a slight reduction due to higher average vehicle occupancy for sport-related uses -Assembly rate as needed for facilities without fixed seats
EN.9	Dance hall	1 space for every 7 sq. ft. of dance floor area, plus ancillary uses calculated separately	-Data points vary widely -Compact nature of use demands higher rate -Current rate is consistent with multiple peer cities -Add ancillary if necessary if a bar or similar use is present

⁸ For bleacher or bench seating, 26 inches of bleacher or bench equals one seat.

Designation Number	Recommended Entertainment Land Use Types	Recommended Parking Rate	Recommendation Justification
EN.10	Entertainment Establishment	33 spaces per 1,000 sq. ft. of assembly GFA	-A live performance use receives the assembly rate (EN.4) -Nearly all data points use the general assembly rate for this type use.
EN.11	Fortunetelling	4 spaces per 1,000 sq. ft. of GFA	-This use utilizes the service rate (see SR.4 General Services)
EN.12	Miniature Golf Course	2 spaces per hole, plus ancillary uses calculated separately	-This rate is an average of peer city data points, Orange, Anaheim, Santa Ana, and Tustin -Add ancillary if necessary if an additional use is present such as arcade or bowling
EN.13	Skateboard Park	0.25 spaces per 1,000 sq. ft. of skate park area	-No data points from any peer cities -ITE rate matched analysis of 5 existing skateboard parks throughout Orange County
EN.14	Skating Rink	33 spaces per 1,000 sq. ft. of rink area, or 1 space per 4 fixed rink seats ⁸ , whichever is greater	-This rate covers both sports based rinks or entertainment rinks with rate based off either fixed seats or rink area
EN.15	Multiple Screen Cinemas	1 space per 3 fixed seats	-A fixed seat use receives the fixed seat rate, consistent with peer cities and ITE
EN.16	Tennis/ racquetball courts, public or private	3 spaces per court, plus ancillary calculated separately	-Rate is line with peer cities Costa Mesa, Santa Ana, and Pasadena -Anaheim and ITE have slightly higher rates, but additional demand will be covered with ancillary use rate
EN.17	Equestrian Riding Arena	<i>Commercial:</i> 1 space per 3 stalls, or 1 space per 4 fixed seats ⁸ , whichever is greater, plus adequate loading/unloading zone <i>Residential, subdivision, or HOA:</i> 1 space per 5 stalls	-San Juan Capistrano and Huntington Beach were analyzed for their respective equestrian rates -IBI Group analyzed Peacock Hill Equestrian Riding Facility and Yucaipa Equestrian Center -Rate factors the greater use of either AN.3 for stalls, or EN.8 for commercial sports facility -Residential rate comes from Ranch Palos Verdes

EN.1 – An amusement arcade and amusement devices are combined as their parking profiles are similar. The rate provided is justified by peer cities, including Tustin, and a slight increase to the service rate SR.4, due to high volumes of users during peak times. Orange currently has a rate of 5 spaces per 1,000, matching Tustin, while Costa Mesa provides a rate of 10 spaces per 1,000. There is no ITE rate for this use.

EN.2 – Due to the lack of sufficient data to justify a single parking rate for Amusement Park/Commercial Recreational Facility, IBI recommends requiring a parking needs assessment for these types of uses.

EN.3 – Archery Ranges did not have any parking standards in any of the peer cities or in the ITE. Existing archery ranges are typically an ancillary use and not standalone. However, the rate provided is based on the number of targets provided and a provision for shooters who are waiting in the event all targets are occupied.

EN.4 – Live Entertainment Assembly includes Auditoriums, Stadiums, and Live performance theatres which share the same parking ratio. The general assembly rate is implemented in most peer cities, including Fullerton, Costa Mesa, Santa Ana, and Tustin, which range from 28 to 35 spaces per 1,000 sq. ft. An average of peer cities puts the rate near 33 spaces per 1,000 sq. ft., which is in line with the current rate used by the City of Orange. IBI recommends using 33 spaces per 1,000 sq. ft. as the assembly rate, indicating little change with current code. In addition, this rate is also based off of fixed seats, which is widely accepted at 1 space per 3 fixed seats among all peer cities and ITE.

EN.5 – Billiard uses follow a rate per pool table in most peer cities, which show a rate at 2 spaces per pool table. IBI also recommends calculating ancillary uses separately (such as a bar), which would provide additional parking requirements.

EN.6 – Bingo Games do not need to deviate from the general assembly rate for fixed seats as described for EN.4.

EN.7 – Bowling Alleys, the review of peer cities and ITE show that the parking rates vary widely from 3 to 6 spaces per lane. An average shows a rate near 3.5 on the lower end, but does not include ancillary uses, which should be calculated separately.

EN.8 – Review of Commercial Sports Facility parking studies show that sports fixed seats ratios receive a slight reduction in spaces per seats due to a higher average vehicle occupancy (AVO) for these uses. If fixed seats are not provided for these facilities, the assembly rate, justified in EN.4, should be used.

EN.9 – Data points vary widely, so averaging a rate would be inaccurate. Due to the compact nature of dance floors/halls, a high rate is needed. IBI recommends keeping the current rate, as it is in line with Tustin's current code and provides opportunity for additional parking if ancillary uses are present.

EN.10 – Entertainment establishment, as described as an adult cabaret and the like by city land use descriptions, receive the assembly rate, as justified in EN.4.

EN.11 – Fortunetelling should utilize the service rate, as detailed in SR.4.

EN.12 – The spaces per hole ratio was taken as an average from all peer cities, along with the documented ITE rate. In addition, ancillary uses should be calculated separately, as multiple uses are common with mini golf courses.

EN.13 – No data from peer cities or ITE was available. As such, the rate provided is based upon an average of the current requirements for skateboard parks in Orange County (outside of the peer cities). Skateboard park area includes the enclosed, gated, or logical boundary of skateboard use.

EN.14 - This rate accounts for sports-based rinks or entertainment-based rinks by using an 'or' clause, depending on fixed seats, or when seats are not present, the assembly rate. The sports based fixed seats ratio is justified in EN.7 and the assembly rate is justified in EN.4. ITE specifies a demand rate of 4.85 spaces/1,000 sq. ft.⁹

EN.15 – Cinemas fixed seat ratio is justified in EN.4.

EN.16 – IBI recommends no change for tennis/racquetball court rates. 3 peer cities either give the same or similar rates from Orange's current standard of 3 spaces per 1,000. The additional clause for ancillary would cover additional uses at the court use.

EN.17 – San Juan Capistrano and Huntington Beach were analyzed for their respective equestrian rates. IBI Group analyzed Peacock Hill Equestrian Riding Facility and Yucaipa Equestrian Center. The final rate factors the greater use of either AN.3 for stables, or EN.8 for commercial sports facility. The rate for residential stalls came from the City of Rancho Palos Verdes.

⁹ This rate is an average of the demand rates specified for Roller Skating Rinks and Ice Skating Rinks in the ITE handbook.

3.7 FOOD AND/OR ALCOHOL USES

Current Food and/or Alcohol land uses in the City of Orange are shown in Table 3.11. This table details how land uses have been designated pertaining to recommended parking standards. Land uses have either been: removed as they do not warrant a standard, kept if they warrant a land use standard, or revised either due to redundancy, consistency, clarity, or additional specificity. All land uses, parking standards, and designations are justified following the tables.

Table 3.11: Food and/or Alcohol Land Use Designations

Food and/or Alcohol Land Use Types	Designation Number
Alcohol distillation; brewery or winery	FD.1
Bars	FD.2
Cottage Food Operation	Removed
Drive-in dairy	RT.4
Hot Dog Vending Carts	Removed
Liquor store	FD.3
Packaging and processing, food	FD.4
Packing plant for whole agricultural products	FD.4
Restaurants or Other Businesses with Drive-Through Services in the Commercial Recreation (CR) Zone	Reorganized FD.5- FD.12
Restaurants w/alcoholic beverages sales	Reorganized FD.5- FD.12
Restaurants w/drive thru or take out window	Reorganized FD.5- FD.12
Restaurants w/o alcoholic beverage sales	Reorganized FD.5- FD.12
Restaurants w/on-site brewing and sale of beer or wine	Reorganized FD.5- FD.12
Restaurants w/walk-up take out window	Reorganized FD.5- FD.12
Sale of alcoholic beverages	Removed
Sandwich shop	Reorganized FD.5- FD.12
Wine tasting	FD.1

All land uses in Table 3.11 above have a designation number to show which parking standard applies to each particular use. For consolidation purposes, IBI recommends combining and revising the non-removed uses, shown in Table 3.12:

Table 3.12: Food and/or Alcohol Parking Rates and Justification

Designation Number	Recommended Food and/or Alcohol Land Use Types	Recommended Parking Rate	Recommendation Justification
FD.1	Alcohol distillation; brewery or winery	<p><i>Without Tasting Room:</i> 2 spaces per 1,000 sq. ft. of GFA</p> <p><i>With Tasting Room:</i> 2 spaces per 1,000 sq. ft. if tasting room areas are equal to or less than 25% of GFA, or 10 spaces per 1,000 sq. ft. of tasting room area if tasting room areas are in excess of 25% of total GFA</p>	<p>-Anaheim is the only data point for this use</p> <p>-Anaheim provides a format of: production rate for floor area and assembly rate for tasting area</p> <p>-This rate follows this format but rate justifications from PW.1 General Manufacturing and Processing and EN.4 Assembly.</p>
FD.2	Bars	33 spaces per 1,000 sq. ft. of assembly GFA	<p>-Bars receive the assembly rate due to their high peak usage, similar to entertainment establishments</p> <p>-Bars with dance floors receive the dance floor rate for that area</p> <p>-Other cities follow the same format</p> <p>-No ITE rate for bars</p>
FD.3	Liquor Store	4 spaces per 1,000 sq. ft. of GFA	<p>-A liquor store receives the retail rate (see RT.4 General Retail)</p> <p>-Peer cities give liquor stores their respective retail rate</p>
FD.4	Packing and processing, food and agricultural	2 spaces per 1,000 sq. ft. of GFA	<p>-A packing and processing use receives the processing rate (see PW.1 General Manufacturing and Processing)</p>
FD.5	Restaurant (Stand Alone)- Full Service or Counter Service ¹⁰	10 spaces per 1,000 sq. ft.	<p>-This use demands the highest rate among all restaurants based on other parking studies</p> <p>-Peer city of Anaheim has the same starting rate for this category</p> <p>-Similar to existing City of Orange code</p>
FD.6	Restaurant (when greater than 30% of Commercial Center is devoted to restaurant)- Full Service	10 spaces per 1,000 sq. ft.	<p>-This use in a restaurant-dominated commercial center can share its demand for parking, keeping the same rate from FD.5</p> <p>-This rate is consistent from what Anaheim uses</p>
FD.7	Restaurant (when greater than 30% of Commercial Center is devoted to	8 spaces per 1,000 sq. ft.	<p>-This use receives a slight reduction in parking requirement</p>

¹⁰ Coffee/ Bagel/ Donut Shops, Cafés, or the like to be included as counter service. The rate for these uses is dependent on counter service type (FD.5, FD.7, or FD.9).

Designation Number	Recommended Food and/or Alcohol Land Use Types	Recommended Parking Rate	Recommendation Justification
	restaurant)- Counter Service ¹⁰		from FD.6 due to higher turnover of users
FD.8	Restaurant (when less than 30% of Commercial Center is devoted to restaurant)- Full Service	5 spaces per 1,000 sq. ft. of GFA	-This use demands less parking because of the opportunity for shared parking when commercial is the primary use -This ratio is the same as Anaheim for the same category
FD.9	Restaurant (when less than 30% of Commercial Center is devoted to restaurant)- Counter Service ¹⁰	4 spaces per 1,000 sq. ft. of GFA	-This use demands less parking because of the opportunity for shared parking when commercial is the primary use -The ratio is the same as Anaheim for the same category
FD.10	Restaurant- 20 seats ⁸ or fewer, or primary method is takeout	5 spaces per 1,000 sq. ft. of GFA	-These uses are rarely standalone. ITE rate is similar to this rate. This use demands a higher rate compared to other restaurants in a commercial center due increased number of users driving to takeout.
FD.11	Restaurant- With drive through window	13 spaces per 1,000 sq. ft. of restaurant GFA exclusive of kitchen, storage, and restroom uses, plus appropriate stacking	-Most peer cities require reasonable stacking per drive-through -ITE does show differing rates for drive-through restaurants, however, ITE categories do not align to the most detailed restaurant code in peer cities -This rate is reflective of a standard restaurant rate, but bases the GFA on seating area and not total area
FD.12	Restaurant- Outdoor seating	<i>Restaurants in mixed-use zones:</i> No additional parking for sidewalk-oriented outdoor area equivalent to the first 30% of enclosed restaurant area, plus base associated restaurant rate of sidewalk-oriented outdoor area in excess of 30% of enclosed restaurant area <i>Restaurants with 20 seats or fewer in mixed-use zones:</i> No additional parking for	-Three peer cities Anaheim, Santa Ana, and Pasadena extend their GFA calculations to include outdoor seating -Rate is in line with peer cities Newport Beach and Westminster

Designation Number	Recommended Food and/or Alcohol Land Use Types	Recommended Parking Rate	Recommendation Justification
		<p>the first 2,000 sq. ft. of outdoor area, with 5 spaces per 1,000 sq. ft. of outdoor area thereafter</p> <p><i>Other restaurants:</i> No additional parking for outdoor area equivalent to the first 25% of enclosed restaurant area, plus base associated restaurant rate of outdoor area in excess of 25% of enclosed restaurant area</p>	

FD.1 - This use lacked sufficient data points, except from Anaheim. Their rate was the production rate for GFA, plus the assembly rate for tasting area. Research of breweries in the City of Costa Mesa showed that the parking requirements were separated out based on individual uses, as stated in the recommended standard for this use.

FD.2 – Bars follow the assembly rate due to high use during peak hours, as well as the dance floor rate if necessary. Most data points follow the same rates for bars, and nightclubs, including Costa Mesa, Anaheim, Santa Ana, and Tustin.

FD.3 – Liquor stores typically receive the general retail rate. See RT.4 for more detail. Peer cities give the same retail rate to liquor stores. This rate deviates from ITE at 7.2, but fits in line with peer cities. ITE rate based on one data point from over 30 years ago.

FD.4 – Food processing receives the production rate at 2, justified at PW.1 General Manufacturing and Processing.

FD.5 through FD.12 – Categorical change of parking standards, deviating from current Orange land uses. All restaurant uses are mutually exclusive and exhaustive from FD.5 to FD.13. They vary based on two major criteria: the type of service provided, and whether they are located in a commercial center or stand-alone. Other variations include whether they operate like a café or a takeout restaurant. FD.12 provides provisions for drive-through windows (if applicable) for FD.5 to FD.11.

Type of service provided is important because the higher the quality of restaurant typically equates to longer turnover of spaces. Restaurants with counter service (with the exception of coffee shops) have a quicker turnover of customer times. The second criteria is based on percentage restaurant GFA in a commercial center. If a restaurant is stand-alone, a higher parking rate is necessary compared to a restaurant that shares parking with a commercial center. If restaurant use is less than 30% of the commercial center, restaurants are not typically the primary reason for users, (shared parking), and therefore demand less parking than shopping complexes where restaurants are the primary use. The most detailed peer cities, including Anaheim and Tustin, divide their restaurant uses in a similar way. ITE rates were not the most reliable as the criteria did not exactly match the new category descriptions. Field Survey observations were considered for the recommended rates, but like ITE, could not be directly applied as the studied sites do not categorically match the recommended land use types.

FD.5 – Standalone, full-service restaurants and counter service restaurants demand a rate of 10 spaces per 1,000 sq. ft. Peer city Anaheim has the same starting rate for this category, and represents the only

peer city that provides a specific rate. This rate is in line with existing code from the City of Orange and does not need any major revisions.

FD.6 – Restaurant-dominated commercial centers have opportunities for shared parking. This would keep the rate the same from FD.5, which is consistent to what peer city Anaheim provides.

FD.7 – Use that receives a slight reduction in parking requirement from FD.6 due to higher turnover of uses based on studies of restaurants within a commercial center that provide counter service.

FD.8 and FD. 9 – Uses that demand less parking from FD.6 and FD.7, as the primary use for this commercial center is typically not the restaurant. Shared parking opportunities essentially reduce the parking requirement for these types of restaurants where commercial retail is the primary use. In addition, this ratio is the same as Anaheim for the same category.

FD.10 – Rarely a standalone use. ITE rate is similar to the recommended rate. This use demands a higher rate compared to other restaurants in a commercial center due to the increased number of users driving to takeout. The 20 seat threshold was established and is consistent with peer city Anaheim.

FD.11 – Most peer cities require reasonable stacking per drive-through. ITE does show differing rates for drive-through restaurants, however ITE categories do not align to the most detailed restaurant code in peer cities. The rate presented is reflective of a growing trend to assign parking requirement to restaurant seating area as opposed to the total building GFA. The resulting rate is provides a more accurate parking standard from restaurant to another regardless of kitchen size or total size.

FD.12 – This rate is broken down in three sections to incorporate additional parking for outdoor areas for all types of restaurants. The three sections are mixed-use restaurants, restaurants with less than 10 seats, and all other restaurants. For almost all restaurants there will be no additional parking for outdoor areas up to 25% of the enclosed restaurant GFA. However, all outdoor area in excess of 25% of the enclosed restaurant GFA will apply their base restaurant rate for every additional 1,000 sf. Mixed-use restaurants gets a discounted rate that puts the threshold at 30%. This rate is in line with Westminster and Newport Beach. For restaurants with less than 10 seats regardless of zoning, a rate was established with discussion with staff to disallow a parking standard for the first 10 seats outside.

3.8 HOUSING USES

Current Housing land uses in the City of Orange are shown in Table 3.13. This table details how land uses have been designated pertaining to recommended parking standards. Land uses have either been: removed as they do not warrant a standard, kept if they warrant a land use standard, or revised either due to redundancy, consistency, clarity, or additional specificity. All land uses, parking standards, and designations are justified following the tables.

Table 3.13: Housing Land Use Designations

Housing Land Use Types	Designation Number
Accessory Dwelling Unit	N/A ¹¹
Bed and Breakfast Inn	HS.3 ¹²
Boarding and Lodging Houses	HS.3
Caretaker residence/Caretaker mobile home	N/A
Condominiums	HS.4
Congregate Care (assisted living) Home Health Facility (6 or fewer persons)	N/A
Convalescent facility, skilled nursing facility	HS.9
Convalescent hospital	HS.9
Conversion of multi-family units (condominium conversion)	HS.4
Duplex	HS.1
Fraternity, sorority	HS.5
Guest house	N/A
Home for Elderly, or mentally, or physically disabled persons (6 or fewer persons)	N/A
Homeless shelter	N/A
Hotels	HS.10
Motels	HS.10
Housing Related to Church, College or Hospital	HS.5, N/A
Live/work units	HS.4
Mixed use development	HS.4
Mobile Home Park	HS.6
Mobile Home, Modular, or Manufactured Housing Unit with permanent foundation	HS.6
Mobile Home, Modular, or Manufactured Housing Unit without permanent foundation	HS.6
Multi-family housing as a standalone development not in conjunction with a mixed use development	HS.4
Multi-family housing in conjunction with a mixed use development	HS.4

¹¹ All Housing land use types receiving an N/A designation are either not in the scope of work and do not have a parking rate provided by City of Orange in the Ordinance Code Section 17.34.060.

¹² All designation numbers given, except Duplex (HS.1) and Single-Family Dwelling (HS.2) have recently been updated in the Zoning Code's multiple-family residential parking standards and the rates for these uses are showing in Table 3.14.

Housing Land Use Types	Designation Number
Multiple-Family Dwelling	HS.4
Planned Unit Developments	N/A
Residential structure	N/A
Rest home	N/A
Sanitarium	N/A
Senior Citizen Housing Development	N/A
Senior Housing	N/A
Single-Family Dwelling	HS.2
Sober Living Facility	N/A
Supportive housing (6 or fewer persons)	HS.7
Supportive Housing (7 or more persons)	HS.7
Transitional housing (6 or fewer persons)	HS.7
Transitional housing (7 or more persons)	HS.7

All land uses in Table 3.13 above have a designation number to show which parking standard applies to each particular use. For consolidation purposes, IBI recommends combining and revising the non-removed uses, shown in Table 3.14:

Table 3.14: Housing Parking Rates and Justification

Designation Number	Recommended Housing Land Use Type	Recommended Parking Rate	Recommendation Justification
HS.1	Duplex	2 spaces minimum, 1 of which is enclosed, plus 1 additional space if dwelling greater than 4 bedrooms. A third space may be in tandem.	-Orange code currently fits in line with peer cities -This rate similar to current Orange code, but peer most cities specify minimum spaces first, then the number of enclosed spaces stemming from the minimum
HS.2	Single-Family Dwelling	2 enclosed spaces per units with 1, 2, and 3 bedrooms; 3 enclosed spaces, per units with 4 or more bedrooms, in which spaces may be in tandem	-Orange code fits in line with peer cities -This rate similar to current Orange code and peer cities Newport Beach, Irvine, and San Juan Capistrano
HS.3	Boarding house, bed and breakfast inns	1 space per rentable room, plus any other additional spaces required by the underlying zone	-No change proposed from current City of Orange Code
HS.4	Multifamily Residential (3 units or more)	Dependent on development size and shelter type of resident parking provided	-Recently updated in the City of Orange's Zoning Code
HS.5	Student housing (dormitory, fraternity, sorority)	0.5 spaces per student, plus 1 spaces per each resident staff person	-No change proposed from current City of Orange Code
HS.6	Trailer park, mobile home park	2 spaces per unit, plus 1 guest space per 3 trailers or mobile homes ¹³	-No change proposed from current City of Orange Code
HS.7	Supportive Housing, Transitional Housing	1 space per 3 tenants	-No change proposed from current City of Orange Code
HS.8	Homeless Shelters	1 space per 6 beds, plus 1 space per staff member	-As presented in Orange Municipal Code Section 17.12.0501.6
HS.9	Convalescent Hospital or Facility	1 space per 4 beds	-Existing rate is in line with Huntington Beach and Newport Beach, and Irvine
HS.10	Hotel or Motel	1 space per guest room, plus 10 spaces per 1,000 sq. ft. of banquet, assembly, meeting or restaurant seating area, plus 2.5 spaces per 1,000 sq. ft. of retail uses greater than 5,000 sq. ft. of GFA	-Base rate of 1 space per guest room consistent with current standard, City of Santa Ana, Tustin, and Pasadena. -All peer cities require additional parking for meeting, restaurant, retail, and other uses at a reduced rate due to a high occurrence of internal non-driving users -Rate follows Pasadena outline for auxiliary uses

¹³ With a continued allowance of tandem parking. See Section 4.4.

HS.1 and HS.2 – Orange code currently fits in line with peer cities. In addition, this recommended rate is similar to current Orange code. The rates presented are in line with peer cities Newport Beach, Irvine, and San Juan Capistrano.

HS.3 through HS.7 – These Housing land use types have been provided a rate in the City of Orange's residential parking standards.

HS.8 – This rate was taken from the Orange Municipal Code, Section 17.12.0501.6.

HS.9 – The rate provided for convalescent hospitals or facilities is the current rate for the City of Orange. The rate is in line with Huntington Beach, Newport Beach, and Irvine.

HS.10 – The base rate of 1 space per guest room consistent with current City of Orange standard, as well as the Cities of Santa Ana, Tustin, and Pasadena. All peer cities require additional parking for meeting, banquet, restaurant kitchen, retail, and other uses at a reduced rate due to a high occurrence of internal non-driving users. Some peer cities require parking for employees, but these cities have a lower hotel base rate (Costa Mesa: 1 space per 2 units; Anaheim: 0.8 spaces per guest room).

3.9 MEDICAL USES

Current Medical land uses in the City of Orange are shown in Table 3.15. This table details how land uses have been designated pertaining to recommended parking standards. Land uses have either been: removed as they do not warrant a standard, kept if they warrant a parking standard, or revised either due to redundancy, consistency, clarity, or additional specificity. All land uses, parking standards, and designations are justified following the tables.

Table 3.15: Medical Land Use Designations

Medical Land Use Types	Designation Number
Ambulance Service	MD.1
Hospital	MD.2
Medical clinic	MD.3, MD.4
Pharmaceuticals, production	MD.5
Pharmacy	MD.6

All land uses in Table 3.15 above have a designation number to show which parking standard applies to each particular use. For consolidation purposes, IBI recommends combining and revising the non-removed uses, shown in Table 3.16:

Table 3.16: Medical Parking Rates and Justification

Designation Number	Recommended Medical Land Use Type	Recommended Parking Rate	Recommendation Justification
MD.1	Ambulance Service	3 spaces per emergency vehicle	-Only two peer city data points (Anaheim/Santa Ana), and no ITE rate -No non-employee usage
MD.2	Hospital	Parking Demand Study ¹⁴	-Six data points, including ITE, avg. is similar to current Orange rate, but data points vary
MD.3	Medical Clinic, urgent	6 spaces per 1,000 sq. ft. of GFA	-Five data points, including ITE, show this rate for medical -Medical clinics typically see higher rates compared to typical service due to longer wait times and urgent nature of the use
MD.4	Medical Clinic, out-patient/ dialysis/ surgery center	5 spaces per 1,000 sq. ft. of GFA	-No peer cities differentiate between out-patient or urgent. This is not as sporadic in peak times, therefore receives a slightly lower rate than MD.3
MD.5	Pharmaceuticals, production	2 spaces per 1,000 sq. ft. of GFA	-This use receives the production rate (see PW.1 General Manufacturing and Processing)
MD.6	Pharmacy	4 spaces per 1,000 sq. ft. of GFA	-This use is a retail service, is typically found in a retail store, and receives the retail rate (RT.4 General Retail)

MD. 1 – Ambulance services would rarely see non-employee usage, so the rate provided gives spaces to employees who work in this use and a space for the vehicles they drive. Because of this, this rate provides two spaces for two employees occupying an emergency vehicle and one space for the vehicle itself. Two peer cities Anaheim and Santa Ana provide rates based off of 1,000 sq. ft. There is no ITE rate for this use.

MD.2 – Hospitals, with six data points to reference, ranged from 1 per bed in Fullerton to 3 per bed in Pasadena and 4.5 per bed from ITE. Due to variability of peer city code and hospitals themselves as parking demand study is warranted.

MD.3 and MD.4 – Broken out into two separate categories, per discussion with City staff, although the distinction between the two is not made by any other peer city. 5 of peer cities as well as ITE show a rate of 6 spaces per 1,000 sq. ft. for medical clinics. Out-patient centers receive a lower rate due the appointment-based nature of this use when compared to urgent care.

MD.5 – Pharmaceutical production is considered a manufacturing use. We recommend requiring a rate of 2 spaces per 1,000 sq. ft. GFA, which is justified in PW.1 General Manufacturing and Processing.

MD.6 – A pharmacy is most similar to a retail service and as such the retail rate (RT.4 General Retail) is recommended. Peer cities Fullerton and Costa Mesa utilize this parking standard. The ITE rate of 2.3 per 1,000 sq. ft. was deemed too low based on survey types and year of data collection. Most pharmacies are typically part of a larger retail use. Pharmacies as part of a hospital are already inherent to the parking standard for the hospital.

¹⁴ All uses ancillary to the hospital, including administrative offices, medical offices, clinics, pharmacies, urgent care, emergency rooms, and other related uses, will receive their accompanying rate established in Section 3.9 or elsewhere in the document in conjunction to the Parking Demand Study.

3.10 MISCELLANEOUS USES

Current Miscellaneous land uses in the City of Orange are shown in Table 3.17. This table details how land uses have been designated pertaining to recommended parking standards. Land uses have either been: removed as they do not warrant a standard, kept if they warrant a parking standard, or revised either due to redundancy, consistency, clarity, or additional specificity. All land uses, parking standards, and designations are justified following the tables.

Table 3.17: Miscellaneous Land Use Designations

Miscellaneous Land Use Types	Designation Number
Backfilling, with inert materials	Removed
Contractor's yards	MS.1
Conversion of a residential structure to a non-residential use	Removed
Creation of a lot without frontage on a public street	Removed
Highway maintenance yards and facilities	Removed
Integrated industrial or commercial complex	Removed
Laboratory; research and development	MS.2
Movie Production Studios	MS.3
Moving an existing structure or building	Removed
Outdoor uses within 300 feet of residential zones	Removed
Recording Studios	MS.3
Small buildings (200 sf or less)	Removed

All land uses in Table 3.17 above have a designation number to show which parking standard applies to each particular use. For consolidation purposes, IBI recommends combining and revising the non-removed uses, shown in Table 3.18:

Table 3.18: Miscellaneous Parking Rates and Justifications

Designation Number	Recommended Miscellaneous Land Use Types	Recommended Parking Rate	Recommendation Justification
MS.1	Contractor's yard	0.5 spaces per 1,000 sq. ft. of GFA, plus spaces designated for company fleet (1 space per vehicle and towable equipment)	-This rate matches peer city Santa Ana -ITE does not provide a rate -Ancillary clause will cover any additional use -A parking space minimum for company fleet ensures that contractor's yards will have parking spaces
MS.2	Laboratory; research and development	3 spaces per 1,000 sq. ft. of GFA	-This rate is an avg. among 3 peer cities Anaheim, Pasadena, and Tustin -No ITE rate for this use -This rate is in line with the current Orange rate
MS.3	Production and Recording Studios	3 spaces per 1,000 sq. ft. of GFA	-This rate is an approximate avg. of 2 peer cities Anaheim and Santa Ana -No ITE rate for this use

MS.1 – This rate matches peer city Santa Ana. ITE does not provide a contractor's yard rate. Ancillary clause will cover any additional use other than the main use. A parking space minimum for company fleet ensures that contractor's yards will have parking spaces.

MS.2 – Laboratory and research had a few data points. Anaheim was at 4 spaces and 3 spaces for smaller, Tustin at 2 spaces, and Pasadena at 3 spaces. An average puts the rate at 3. There is not current rate in ITE for this use, and as such the rate of 3 spaces per 1,000 sq. ft. is not recommended to change.

MS. 3 – This rate is an approximate average of 2 peer cities Anaheim at 2.5 and Santa Ana at 5. There is no ITE rate for this use. IBI recommends keeping consistent with MS.2 and staying at 3 spaces per 1,000 for a similar frequented use.

3.11 OFFICE USES

Current Office land uses in the City of Orange are shown in Table 3.19. This table details how land uses have been designated pertaining to recommended parking standards. Land uses have either been: removed as they do not warrant a standard, kept if they warrant a parking standard, or revised either due to redundancy, consistency, clarity, or additional specificity. All land uses, parking standards, and designations are justified following the tables.

Table 3.19: Office Land Use Designations

Office Land Use Types	Designation Number
Charitable Institutions	OF.1
Office, Administrative, comprising less than 25% gross sq. ft.	Removed
Office, Professional	OF.1
Medical Offices	OF.2
Real Estate Office, Temporary	OF.1
Stock or bond broker	OF.1

All land uses in Table 3.19 above have a designation number to show which parking standard applies to each particular use. For consolidation purposes, IBI recommends combining and revising the non-removed uses, shown in Table 3.20:

Table 3.20: Office Parking Rates and Justifications

Designation Number	Recommended Office Land Use Types	Recommended Parking Rate	Recommendation Justification
OF.1	Office, Professional	3 spaces per 1,000 sq. ft. of GFA	<ul style="list-style-type: none"> -Santa Ana and Pasadena show rate of 3 spaces per 1,000 -Peer cities Anaheim and Tustin show a reduction to 3/1,000 for a taller building or a building with greater GFA -ITE rate 2.84 and field survey 1.7 also lower -Costa Mesa and Fullerton show a rate of 4
OF.2	Medical Offices	5 spaces per 1,000 sq. ft. of GFA	<ul style="list-style-type: none"> -This rate is consistent with the medial clinic rate MD.4 -Two peer cities raise their rate for medical office from general office -ITE rate is slightly higher for medical office from general office

OF.1 – This new rate is a reduction from Orange’s current rate of 4 per 1,000. This rate is recommended from peer city evaluation in Santa Ana and Pasadena, field survey observations at two office sites (Site 4 and Site 5), and consideration from the ITE rate at 2.84. The ITE studied approximately 100 sites to determine their ratio. A lower ITE rate, paired with lower rates from Orange office site studies and lower code in peer cities justifies a lower rate for this use.

OF.2 – IBI recommends keeping the medical office rate at 5.00 spaces/1,000 sq. ft., as the rates for the Cities of Fullerton and Costa Mesa are slightly higher, the ITE and field survey demand rates are both lower than 5. All other peer cities, except Pasadena (who increased their rate to 4) do not show a distinction from office to medical office.

3.12 PRODUCTION AND/OR WHOLESALE USES

Current Production and/or Wholesale land uses in the City of Orange are shown in Table 3.21. This table details how land uses have been designated pertaining to recommended parking standards. Land uses have either been: removed as they do not warrant a standard, kept if they warrant a parking standard, or revised either due to redundancy, consistency, clarity, or additional specificity. All land uses, parking standards, and designations are justified following the tables.

Table 3.21: Production and/or Wholesale Use Designations

Production and/or Wholesale Land Use Types	Designation Number
Agricultural equipment	PW.1
Asphalt	PW.1
Bindings; rope and wire	PW.1
Blast Furnace; coke oven	PW.1
Bottling plant	PW.1
Brick; ceramic tile, precast concrete	PW.1
Building components (including assembly of windows, doors, etc.)	PW.1
Casting from refined materials	PW.1
Cement, lime, gypsum, or plaster	PW.1
Chemicals such as: Acetylene gas, Acid, Ammonia, Chlorine, Fertilizers	PW.1
Drop forge industries	PW.1
Electronics, Electrical parts and supplies	PW.1
Explosives	PW.1
Fertilizers	PW.1
Furniture	PW.1
Gasoline and other fuels	PW.1
Glass	PW.1
Hardware/Lumber	PW.1
Manufacture from raw materials extracted on site	PW.1
Manufacturing, processing, assembling and/or, warehousing of materials and products in conjunction with the retail sales and service or office functions related to such products	PW.1
Mechanical, Assembly	PW.1
Mining, quarrying, extraction, excavation and removal of rock, sand, gravel and similar materials. Storage of such materials is limited to outside the flood plain.	PW.1
Newspapers	PW.1
Oil or natural gas	PW.1
Plastic fabrication or lamination	PW.1
Plumbing parts and supplies	PW.1
Printing plant	PW.1
Refining raw materials (in copper, zinc or iron ores)	PW.1

Production and/or Wholesale Land Use Types	Designation Number
Rock crushing; treatment	PW.1
Rubber and its constituents	PW.1
Sales and supply (of fuels)	PW.1
Sheet metal fabrication	PW.1
Smelting	PW.1
Tar distillation	PW.1

All land uses in Table 3.21 above have a designation number to show which parking standard applies to each particular use. For consolidation purposes, IBI recommends combining and revising the non-removed uses, shown in Table 3.22:

Table 3.22: Production and/or Wholesale Parking Rates and Justifications

Designation Number	Recommended Production and/or Wholesale Land Use Type	Recommended Parking Rate	Recommendation Justification
PW.1	General Manufacturing and Processing	2 spaces per 1,000 sq. ft. of GFA	-All peer cities provide a rate between 1 and 2 -ITE rate at 1.15 -Field survey rate at 1.67 -Per previous comments, a rate of 2 is suggested

PW.1 – All cities show a rate below 2 spaces per 1,000 sq. ft. of GFA (Fullerton 1.25, Anaheim 1.55, Santa Ana 1, Tustin 1 but with 4 for office area, and Pasadena 2). ITE shows 1.15, and the field survey showed and observed rate of 1.67. Based on the review of all peer cities, coupled with the documented ITE and field survey rates, all Production and/or Wholesale uses were aggregated into a single land use type with a reduced parking standard of 2 spaces per 1,000 sq. ft.

3.13 PUBLIC, SOCIAL, OR INSTITUTIONAL USES

Current Public, Social and Institutional land uses in the City of Orange are shown in Table 3.23. This table details how land uses have been designated pertaining to recommended parking standards. Land uses have either been: removed as they do not warrant a standard, kept if they warrant a parking standard, or revised either due to redundancy, consistency, clarity, or additional specificity. All land uses, parking standards, and designations are justified following the tables.

Table 3.23: Public, Social, or Institutional Land Use Designations

Public, Social, or Institutional Land Use Types	Designation Number
Antennas, Wireless Communication	Removed
Art gallery	PS.1
Assembly uses (clubs, lodges, and similar uses)	PS.2
Cemetery (not including crematorium)	Removed
Church	PS.3
Community center	Removed
Convention center	PS.4
Country clubs, golf courses, tennis clubs and the like	PS.5
Crematorium	Removed
Department of Motor Vehicles office	Removed
Landfills	Removed
Libraries, private	PS.1
Mortuary (not including crematorium)	PS.6
County, and other government buildings	Removed
Museum	PS.1
Observatory	Removed
Parks and athletic fields, private	PS.7, PS.8
Private clubs and lodges	PS.2
Public utilities installation or substation	Removed
Public utility buildings , structures, and facilities (on less than one acre)	Removed
Public utility buildings, structures, and facilities (on one acre or more)	Removed
Recreation facilities such as campgrounds, playgrounds, fishing lakes, equestrian users, hunting clubs, trails, golf courses	Removed
Transit facilities	Removed

All land uses in Table 3.23 above have a designation number to show which parking standard applies to each particular use. For consolidation purposes, IBI recommends combining and revising the non-removed uses, shown in Table 3.24:

Table 3.24: Public, Social, and Institutional Parking Rates and Justifications

Designation Number	Recommended Public, Social, and Institutional Land Use Types	Recommended Parking Rate	Recommendation Justification
PS.1	Art Galleries, Museums, Private Libraries	4 spaces per 1,000 sq. ft. of GFA	-This rate is consistent with 3 peer cities Anaheim, Santa Ana, and Tustin -Orange rate currently consistent with other rates
PS.2	Assembly Uses (clubs and lodges)	33 spaces per 1,000 sq. ft. of assembly GFA	-Assembly uses receives the assembly rate (see EN.4 General Assembly)
PS.3	Religious Institution	1 space per 3 fixed seats ^a , or 33 spaces per 1,000 sq. ft. of assembly GFA, whichever is greater	-Assembly use receives the assembly rate, or could be determined by fixed seats (see EN.4 General Assembly) -Fits in line with previous IBI parking studies of religious institutions
PS.4	Convention Center	Parking Demand Study	-Lack of sufficient data points -Uncommon land use -Warrants parking demand study
PS.5	Country Clubs, golf courses, or driving range	<i>Full County Club:</i> 33 spaces per 1,000 sq. ft. of assembly GFA, plus 4 spaces per 1,000 sq. ft. of remaining GFA including pool and pool deck area, plus 6 spaces per hole <i>Standalone Golf Course:</i> 6 spaces per hole <i>Driving Range:</i> 0.5 spaces per every driving range tee box	-All data points provide the assembly rate -More specificity needed, due to the varying uses this site -Avg. of three peer city golf course ratios is approximately 6 per hole -Golf courses, when not combined with other uses, receive a slightly higher rate -All data points show 1 space per driving range tee box; Orange noted a lower rate to account for shared rides
PS.6	Mortuary (not including crematorium)	33 spaces per 1,000 sq. ft. of assembly GFA. Accessory uses such as flower shops parked separately.	-An assembly use receives the assembly rate (see EN.4 General Assembly)
PS.7	Athletic Fields, private	Parking Demand Study	-No data on spaces per field from peer cities -Fields vary per sport, so single rate may be inaccurate -ITE rate at 38 spaces per soccer field does not factor ancillary uses
PS.8	Parks, private	2.5 spaces per 1,000 sq. ft. of area	-Matches Pasadena rate and other cities outside of the peer cities

PS.1 – Art galleries, museums, and libraries are combined as they are similar uses that do not warrant differing parking demands. Their rate is based upon analysis of three peer cities Santa Ana, Tustin and Anaheim. Orange's current rate is similar to these peer city rates.

PS.2 – Assembly uses such as halls, lodges, and clubs require the assembly rate. See EN.4 Live Entertainment Assembly for more detail.

PS.3 – Religious institutions, (formerly Churches), also require the assembly rate justified in EN.4, but demand an additional ratio for fixed seats. The fixed seats ratio is also justified in EN.4. The recommended rates are in line with recent parking studies conducted by IBI for religious institutions.

PS. 4 and PS.7 – Convention centers or private athletic fields require a parking demand study as these uses would be inaccurate to provide a single parking ratio. These uses often include a variety of land uses, which require varying parking standards. In addition, there is a lack of data points that would justify using a single rate for these uses. Data from outside the peer cities and from ITE suggested a highly variable rate, depending on the mix of uses. Therefore, a parking study would be warranted for Convention Center and Athletic Field Uses.

PS.5 – Country Club parking standards have been expanded to include golf courses and driving ranges. Most peer cities, such as Fullerton and Costa Mesa, provide the assembly rate. Anaheim provides more detail, specifying between golf, assembly, and commercial space. The recommended rate most closely aligns with Anaheim's rate. For assembly space, the assembly rate at 33 spaces per 1,000 sq. ft. is given, justified in EN.4 General Assembly. For commercial space, the retail rate is given from RT.4 General Retail, and the golf rate is an average from analysis of multiple peer cities. When data is provided for driving ranges, the rate is 0.5 spaces per tee box.

PS.6 – Mortuaries require an assembly rate, which is similar to the peer cities Fullerton, Costa Mesa, and Anaheim. Ancillary uses such as flower shops and offices for funeral arrangements area parked separately.

PS.8 – A lack of substantial data points exist. Pasadena provides a rate of 2.5/1,000. Most data points show a need for a parking demand study for this use.

3.14 RECYCLING AND WASTE USES

Current Recycling and Waste land uses in the City of Orange are shown in Table 3.25. This table details how land uses have been designated pertaining to recommended parking standards. Land uses have either been: removed as they do not warrant a standard, kept if they warrant a parking standard, or revised either due to redundancy, consistency, clarity, or additional specificity. All land uses, parking standards, and designations are justified following the tables.

Table 3.25: Recycling and Waste Land Use Designations

Recycling and Waste Land Use Types	Designation Number
Collection facilities (recycling)	RW.1
Collection facilities, small (recycling)	RW.2
Collection facility	Removed
Hazardous waste facility	RW.3
Manure stockpiling or processing, commercial	Removed
Processing facility	RW.3
Ranches operating for disposal of garbage, sewage, rubbish or offal	Removed
Refuse transfer	RW.3
Reverse vending machines (recycling) inside a building	Removed
Reverse vending machines (recycling) outside a building	Removed
Storage of hazardous or toxic materials in a flood plain	Removed

All land uses in Table 3.25 above have a designation number to show which parking standard applies to each particular use. For consolidation purposes, IBI recommends combining and revising the non-removed uses, shown in Table 3.26:

Table 3.26: Recycling and Waste Parking Rates and Justifications

Designation Number	Recommended Recycling and Waste Land Use Types	Recommended Parking Rate	Recommendation Justification
RW.1	Collection facilities, large (recycling)	6 spaces	-Per OMC Section 17.18.070K
RW.2	Collection facilities, small (recycling)	0 spaces	-Per OMC Section 17.18.070K
RW.3	Waste, Processing, and Refuse Facilities	2 spaces per 1,000 sq. ft. of GFA, then 1.5 spaces per 1,000 sq. ft. of GFA over 50,000 sq. ft. of GFA	-Data from three peer cities Costa Mesa, Anaheim, and Santa Ana avg. at this rate -No ITE rate -Costa Mesa also shows a reduction based rate on sq. ft.

RW.1 and RW.2 – Rates are justified through Orange Municipal Code Section 17.18.070K, which outlines conditional use regulations for these types of facilities.

RW.3 – Waste Processing, and Refuse facilities were combined as their uses are similar and would receive the same rate. Data was analyzed from Costa Mesa, Anaheim and Santa Ana. While Anaheim shows a rate of 1.55, and Santa Ana's rate is 2, Costa Mesa shows a graduated rate from 3 to 2 to 1.5 depending on square footage. IBI recommends using a step down rate similar to Costa Mesa, while using a ratio that fits in line with all three data points. There is no ITE rate for these facilities.

3.15 RETAIL USES

Current Retail land uses in the City of Orange are shown in Table 3.27. This table details how land uses have been designated pertaining to recommended parking standards. Land uses have either been: removed as they do not warrant a standard, kept if they warrant a parking standard, or revised either due to redundancy, consistency, clarity, or additional specificity. All land uses, parking standards, and designations are justified following the tables.

Table 3.27: Retail Land Use Designations

Retail Land Use Types	Designation Number
Adult Enterprise	RT.4
Feed supply	RT.1
Newspaper and magazine shop	RT.4
Pawnshop	RT.4
Regional-Serving Retail Uses such as: bulk merchandise, design showrooms & sales, furniture stores, home improvement & garden centers, office & electrical equipment, retail outlets, etc.	RT.1
Retail within a building, except when otherwise noted	RT.4
Sale of agricultural goods grown on-site	AG.2

All land uses in Table 3.27 above have a designation number to show which parking standard applies to each particular use. For consolidation purposes, IBI recommends combining and revising the non-removed uses, shown in Table 3.28:

Table 3.28: Retail Parking Rates and Justifications

Designation Number	Recommended Retail Land Use Types	Recommended Parking Rate	Recommendation Justification
RT.1	Bulk Retail	2 spaces per 1,000 sq. ft. of GFA	-Anaheim, Santa Ana, and Tustin, who reduce their retail rate for bulk, average at 2 -No ITE rate for this use
RT.2	Commercial Centers- over 25,000 sq. ft.	4 spaces per 1,000 sq. ft. of retail GFA to 25,000 sq. ft. of total GFA, plus 3.5 spaces for each additional 1,000 sq. ft. of retail GFA over 25,000 sq. ft. of total GFA	-This rate is consistent with RT.4 until 25,000 sq. ft., but then receives a reduction for the remaining sq. ft. due to the shared parking likely occurring in the facility
RT.3	Commercial Centers- under 25,000 sq. ft.	Each use within the commercial center shall comply with the parking requirements for said use	-This code is consistent with two peer cities
RT.4	General Retail	4 spaces per 1,000 sq. ft. of GFA	-Three peer cities, Fullerton, Anaheim, and Tustin, show a rate of 4 spaces per 1,000 for general retail -Two peer cities, Costa Mesa and Santa Ana, show a rate of 5 spaces per 1,000 for general retail -Pasadena shows a rate of 3 spaces per 1,000 -ITE shows a rate of 5 spaces per 1,000 -Previous IBI site studies show that demand for parking at a rate of 4 spaces per 1,000 for general retail is adequate

RT.1 – The bulk retail rate is either reduced to 2 compared to general retail rate in Santa Ana and Tustin, 2.25 in Anaheim, or not specified to be separate from general retail in other peer cities. Using these 3 data points, IBI recommends to leave the current bulk rate of 2 per 1,000 sq. ft. as shown in the code.

RT.2 and RT.3 – These uses are additions that were not previously shown in the City's land use categories. These two categories are separated due to justification of reduced parking requirements when exceeding certain square footage to account for shared parking opportunities. For RT.3, all GFA is calculated separately then combined to create a rate for an entire shopping center. For RT.2, a standard rate of 4 spaces per 1,000 is used for the minimum size, then decreases to 3.5 per 1,000 for the remaining square footage. The rate of 4 per 1,000 is classified under RT.4. The rate of 3.5 per 1,000 is a rate that is based off on both peer and non-peer cities, previous IBI parking studies, and the previous Orange Code that used a sliding scale. This recommended rate is a modified sliding scale. The rate is reduced due to the ability to share parking of differing peak uses at the commercial center. This RT.2 rate applies to retail exclusively for a commercial center over 25,000 sq. ft. Restaurants are excluded from the RT.2 rate because they have specific parking requirements for commercial centers found in Section 3.7 of this document, from parking rates FD.5 to FD.12.

RT.4 – Three peer cities, Fullerton, Anaheim, and Tustin show rates of 4 per 1,000 sq. ft. Two peer cities, Costa Mesa and Santa Ana, show retail rates of 5 and Pasadena shows a rate of 3. ITE shows a rate of 5. Previous IBI parking studies show that a rate of 4 spaces per 1,000 is adequate for general retail uses. IBI field surveys in Sites 1, 2, and 3 are also in line with this rate, at just below 4 spaces per 1,000. IBI Group referenced the SANDAG Parking Strategies for Smart Growth study, which suggests a retail rate of 3.6

spaces per 1,000 sq. ft. The study also shows retail rates as low as 2 spaces per 1,000 sq. ft. of retail area in transit oriented development areas.

3.16 SCHOOL USES

Current School land uses in the City of Orange are shown in Table 3.29. This table details how land uses have been designated pertaining to recommended parking standards. Land uses have either been: removed as they do not warrant a standard, kept if they warrant a parking standard, or revised either due to redundancy, consistency, clarity, or additional specificity. All land uses, parking standards, and designations are justified following the tables.

Table 3.29: School Land Use Designations

School Land Use Types	Designation Number
Business colleges; trade and technical schools	SC.4
Instructional Use	SC.5
Juvenile or adult education	SC.5
School (private)	SC.1, SC.2, SC.3
School or College (public/private)	SC.6

All land uses in Table 3.29 above have a designation number to show which parking standard applies to each particular use. For consolidation purposes, IBI recommends combining and revising the non-removed uses, shown in Table 3.30:

Table 3.30: School Parking Rates and Justifications

Designation Number	Recommended School Land Use Types	Recommended Parking Rate	Recommendation Justification
SC.1	Preschool	2 spaces per employee, plus adequate loading/unloading zone ¹⁵	-Remains consistent with current Orange standard
SC.2	Kindergarten - 8 th Grade	1.8 spaces per classroom, plus adequate loading/unloading zone	-Four peer cities, Anaheim, Santa Ana, and Tustin, provide a rate per classroom -Remains consistent with current Orange standard -The rate has added specificity for loading and unloading
SC.3	High School	8 spaces per classroom, plus adequate loading/unloading zone	-Remains consistent with current Orange standard -The rate has added specificity for loading and unloading
SC.4	Business colleges; trade and technical schools	25 spaces per 1,000 sq. ft. of instructional GFA, plus 3 spaces per 1,000 sq. ft. of office GFA; or Conditional Use Permit with Parking Needs Assessment	-Four peer cities Anaheim, Santa Ana, Tustin, and Pasadena, provide rates by instructional GFA -Rate is an avg. of these peer cities and matches Santa Ana and Tustin -The rate has added specificity due to the complexity of this use -Conditional Use Permit justifies a different rate to accommodate various types of trade schools
SC.5	Instructional Use	1 space per employee, plus 4 spaces per 10 students based on maximum classroom capacity	-Remains consistent with current Orange standard
SC.6	College or University, private	Parking Demand Study via Conditional Use Permit	-Lack of sufficient data points -Uncommon land use -Would be inaccurate to provide single rate

SC.1 – This rate is based off of SC.2, but requires more parking per classroom due to more parking users and less drop off users. There are no data points for preschool among ITE and peer cities as no differentiates from kindergarten-8th to preschool. See Section 4.3 for guidance on loading zones.

SC.2 – Four peer cities, Anaheim, Santa Ana, and Tustin, and Pasadena provide a rate per classroom for this use. The recommended rate keeps the Orange existing rate and is consistent with peer cities. See Section 4.3 for guidance on loading zones.

SC.3 – Three peer cities, Anaheim, Tustin, and Pasadena provide a rate per student for this use. The recommended rate keeps the Orange existing rate and is consistent with peer cities. See Section 4.3 for guidance on loading zones.

SC.4 – Four peer cities Anaheim, Santa Ana, Tustin, and Pasadena, provide rates by instructional GFA for this use. The recommended rate is an average of these peer cities and matches Santa Ana and Tustin. The rate has added specificity due to the complexity of this use. The office rate follows the rate for office OF.1. The ITE rate is based off of students, not instructional GFA. Per City direction, a change in base use

¹⁵ For SC.1, SC.2, and SC.3, please see Section 4.3 for adequate loading zone requirements.

for business colleges or trade/ technical schools that changes parking demand may be submitted as a Conditional Use Permit.

SC.5 – Per discussion with the City, the rate remains the same from current Orange Parking Code.

SC.6 – A parking demand study is recommended because these uses as providing a single rate would be inaccurate. Different facilities for this use, even for the same category, can vary widely, which requires a more detailed study. In addition, there is a lack of data points that would justify a single rate.

3.17 SERVICE USES

Current Service land uses in the City of Orange are shown in Table 3.31. This table details how land uses have been designated pertaining to recommended parking standards. Land uses have either been: removed as they do not warrant a standard, kept if they warrant a land use standard, or revised either due to redundancy, consistency, clarity, or additional specificity. All land uses, parking standards, and designations are justified following the tables.

Table 3.31: Service Land Use Designations

Service Land Use Types	Designation Number
Appliance repair and service (portable appliances only)	SR.1
Appliance, equipment or furniture repair	SR.1
Banks and similar financial institutions	SR.2
Barber, beauty shop, manicure salon, or spa	SR.3
Bindery	Removed
Blacksmith	Removed
Check cashing, pay day loans	SR.2
Commercial laundry	SR.4
Driving school	Removed
Dry cleaners	SR.4
Dry cleaners w/o onsite cleaning	SR.4
Dry cleaning plant	SR.4
Equipment rental	SR.4
Health Clubs	SR.4
Janitorial supplies and service	SR.4
Job Centers	Removed
Laundromat	SR.5
Massage establishments	SR.3
Photocopy centers	SR.4
Photographic processing	SR.4
Private postal centers	SR.4
Public scales	Removed
Public service or use	Removed
Shoe repair	SR.4
Tailoring	SR.4
Tattoo parlor	SR.4
Upholstery Shop	SR.4
Vending carts (located on private property only)	Removed
Welding	Removed

All land uses in Table 3.31 above have a designation number to show which parking standard applies to each particular use. For consolidation purposes, IBI recommends combining and revising the non-removed uses, shown in Table 3.32:

Table 3.32: Service Parking Rates and Justifications

Designation Number	Recommended Service Land Use Types	Recommended Parking Rate	Recommendation Justification
SR.1	Appliance/equipment/furniture repair and service	2 spaces per 1,000 sq. ft. of GFA	-A common service but receives a rate lower than the general service rate
SR.2	Banks and financial institutions	4 spaces per 1,000 sq. ft. of GFA	-A common service receives the general service rate (see SR.4)
SR.3	Barber, beauty shop, salon, spa, or message establishments	5 spaces per 1,000 sq. ft. of GFA	-Service uses where users tend to stay for longer periods of time demand a higher ratio -Costa Mesa raises their rates for these uses -Santa Ana has a matching rate -ITE does not provide a rate
SR.4	General Services not specified elsewhere	4 spaces per 1,000 sq. ft. of GFA	-Services are similar to retail, but tend to have quicker turnaround than retail uses, so a similar or lower rate is justified -Peer cities Anaheim and Tustin have matching rates, Pasadena is typically lower -ITE does not provide a general rate
SR.5	Laundromat	1 space per 3 machines	-A use specific to machines can provide a ratio on machines -Tustin also uses a rate by machines

SR.1 and SR.2 – These uses are similar to general services, but receive a lower rate due to reduced parking demand for these types of uses.

SR.3 – A higher rate is required compared to SR.4 due to users that stay for longer periods of time than standard services, based on previous studies. Costa Mesa raises their rates to 6 for these uses, and Costa Mesa provides a similar rate. There is no ITE rate for these services.

SR.4 – Services in general are similar to retail, but tend to have quicker turnaround than retail uses, so a similar or lower rate is justified from the current 5 spaces per 1,000 standard for the City of Orange. Peer cities Anaheim and Tustin have matching rates, and Pasadena is even lower. ITE does not provide a general rate.

SR.5 – A laundromat should have its own rate due to the self-service nature of these facilities, and the greater specificity to provide a ratio of spaces to the number of machines provided. Tustin provides the same rate, and IBI recommends keeping this rate.

3.18 STORAGE OR WAREHOUSING USES

Current Storage or Warehousing land uses in the City of Orange are shown in Table 3.33. This table details how land uses have been designated pertaining to recommended parking standards. Land uses have either been: removed as they do not warrant a standard, kept if they warrant a land use standard, or revised either due to redundancy, consistency, clarity, or additional specificity. All land uses, parking standards, and designations are justified following the tables.

Table 3.33: Storage or Warehousing Land Use Designations

Storage or Warehousing Land Use Types	Designation Number
Cold or frozen goods, Storage	SW.1, SW.2
Construction Materials Storage Yard	SW.4
Mini-Warehouse/Self Storage Facility	SW.3
Outdoor storage	SW.4
Storage of floatable substances or materials in a flood plain overlay	SW.1, 2
Tank storage, Extraction, Manufacture And Refinery	SW.1, SW.2
Warehouse	SW.1, SW.2

All land uses in Table 3.33 above have a designation number to show which parking standard applies to each particular use. For consolidation purposes, IBI recommends combining and revising the non-removed uses, shown in Table 3.34:

Table 3.34: Storage or Warehousing Parking Rates and Justifications

Designation Number	Recommended Storage or Warehousing Land Use Types	Recommended Parking Rate	Recommendation Justification
SW.1	Indoor Warehousing under 10,000 sq. ft.	2 spaces per 1,000 sq. ft. of GFA	-All peer rates and ITE are between 0.5 and 2 -Smaller facilities should have a higher ratio than larger facilities
SW.2	Indoor Warehousing over 10,000 sq. ft.	0.5 spaces per 1,000 sq. ft. of GFA	-All peer rates and ITE are between 0.5 and 2 -Larger facilities should have a lower ratio than smaller facilities
SW.3	Mini-Warehousing/ Self-Storage	0.3 spaces per 1,000 sq. ft., or 5 spaces minimum, whichever is greater	-Data points vary widely for this use -Peer city Anaheim has a matching rate -ITE rate is similar to this rate
SW.4	Outdoor Storage	0.5 spaces per 1,000 sq. ft. of outdoor GFA, plus 1.5 spaces per 1,000 sq. ft. of GFA	-All peer rates and ITE are between 0.5 and 2 -Outdoor storage rate is in line with Anaheim, Tustin, Fullerton and ITE -Specificity is included for outdoor storage that may come with an indoor component

SW.1 – A rate of 2 is an average between all peer cities and ITE with a range from 0.5 to 2. Compared to SW.2, this rate should be higher due to the smaller facility size as smaller facilities tend to be more intensive. Anaheim's rate matches this rate.

SW.2 – A rate of 0.5 is an average between all peer cities and ITE with a range from 0.5 to 2. Compared to SW.1, this rate should be lower due to the larger facility size, which tends to have a lower intensity as the size increases. Anaheim's rate matches this rate.

SW.3 – Mini-storage warehouse uses do not require much parking at all, as storage is not a high peak use and users typically park in front of their storage unit. City of Orange currently requires 4 spaces per 1,000 sq. ft. or 3 spaces. The City of Fullerton requires 6 spaces per mini-storage warehouse, and the ITE specifies a much lower rate of 0.20 spaces per 1,000 sq. ft. GFA. Tustin and Anaheim provide similar rate to the recommendation. The minimum spaces provided is to provide a baseline rate for smaller facilities.

SW.4 – This rate is in line with justification from AT.4 Vehicle Wrecking and Salvage, and fits with all peer rates and ITE with a range from 0.5 to 2 for this use. In addition, specificity is included for outdoor storage that may come with an indoor component.

4 ADDITIONAL PARKING CONSIDERATIONS

In addition to the above recommendations, the City is interested in any updates recommended for the remainder of Orange Municipal Code Chapter 17.34 (Off-Street Parking and Loading). The following sections detail the analysis and any recommendations for updates to be made to sections 17.34.100 – 17.34.180, which include parking area dimensions, maintenance and operations of parking areas, loading areas, tandem parking, and shared parking.

4.1 PARKING AREA DIMENSIONS

Although adopted almost 20 years ago, the City of Costa Mesa parking design standards serves as a good example of a compact, uniform set of parking design standards. The minimum parking stall sizes for the City of Costa Mesa are 8.5-9 feet in width and 18 feet in length. The City of Fullerton minimum parking stall sizes are 9 feet in width 19 feet in length for commercial and residential areas. Angled and perpendicular parking design standards for the City of Orange are in line with the aforementioned design standards.

- **Section 17.34.110.B – Parallel Parking**
 - The current standard is a minimum width of 9 feet and length of 24 feet. A minimum width of 8 feet is observed in many cities, including some of the neighboring cities. The minimum length of 24 feet is appropriate for parallel parking spots connected sequentially. For parallel spots placed in pairs, the stall length has been observed to be 18 feet in the City of Costa Mesa which is in line with current City requirements – the required gap of 8 feet between sets of spaces is adequate.
- **Section 17.34.110.F.1 – Driveway Aisle Width**
 - For 30-degree stalls, the current minimum aisle width is 13 feet. A minimum of 12 feet has been observed in other neighboring cities. Keeping the same 13 foot width as the code currently states in Section 17.34.110.F.1 is recommended.
- **Section 17.34.110.F.3 – Driveway Aisle Width**
 - For 60-degree stalls, the current minimum aisle width is 19 feet. A minimum of 18 feet has been observed in other neighboring cities.

Based on the review of peer cities and industry-wide best practices, IBI does not recommend any modifications to the parking area dimensions include in the City's code.

4.2 MAINTENANCE AND OPERATIONS OF PARKING AREAS

Section 17.34.130 – Maintenance and Operation of Permanent Parking Areas, of the City's current Municipal Code, discusses requirements for both curbs and wheel stops. However, the section does not specify whether vehicle overhang over curbs is counted in part of the parking space dimension as it is for wheel stops.

The City of Costa Mesa requires wheel stops or continuous curbing to be provided for each required parking space. A two-foot overhang above landscaped areas is permitted; overhang above a walkway is not mentioned. The two-foot overhang is taken to be a part of the 18-foot minimum length set in the standards for standard stalls (16-foot length for small car stalls).

The City of Fullerton allows for an overhang of two feet over a landscaped area or walkway which has a minimum width of six feet in commercial and residential zones.

Based on design standards of neighboring cities and professional judgement, it is recommended that a two-foot overhang be allowed over landscaped areas and walkways wider than six feet. If the walkway is bordered by a travel lane (non-parking) on the opposite side it is not recommended that an overhang be permitted, as this reduces the effective width of the walkway and causes pedestrians to walk closer to moving traffic. The two foot overhang should be included in the total minimum stall length (18 feet for standard and 16 feet for small car stalls). The inclusion of any overhang in parking stall length shall only apply to 90-degree parking.

4.3 LOADING AREAS

Regarding Section 17.34.160 - Loading Areas for Non-Residential Uses, it is recommended that the use of drive aisles or parking spaces during off-peak period for loading be provided on a per-case basis. For example, off-peak utilization of drive aisles or parking spaces is not recommended for a shared use facility where two or more land uses are operating at the same time because the loading may create unwanted congestion or a shortage of parking for land uses experiencing peak or higher-than-peak demand. Conversely, use of drive aisles or parking spaces during off-peak hours may be appropriate for parking facilities being utilized by a single land use, because use of the space comes solely at their discretion and convenience.

The chart below shows a brief summary on peer city code regarding Loading Zone requirements, along with a final recommendation for changes to current Orange code based off of analyzing peer city code. Loading zones are applicable to Care Facilities, Schools, and some Food Service uses, as described in each respective sections of the report. Based from peer city code, it is recommended to reduce the length requirement for loading zones from 10x40 feet to 10x30 feet for uses with 1-50 parking spaces, which is in line with peer city code. The remainder of the code remains consistent with current City code.

Table 4.1: Loading Zone Requirements and Recommendation

City	Summarized Loading Zone Requirements
City of Orange	10x40 area for 1-50 spaces of required parking; 10x60 area for 51-250 spaces of required parking; 10x80 area for 250+ spaces of required parking
City of Fullerton	N/A
City of Costa Mesa	N/A
City of Anaheim	12x20 area for sites 25,000 or smaller; alley loading requirements for larger
City of Santa Ana	10x25 loading zone every 10,000 sq. ft. of gross floor area
City of Tustin	Dimensions determined through Design Review, number of loading spaces (as many as 4) are dependent on land use and GFA
City of Pasadena	10x20 area for sites 3,000 sq. ft. or smaller, 12x30 area for sites 3,000 sq. ft. or larger; number of spaces varies depending on land use and GFA,
Recommendation	10x30 area loading for 1-50 spaces of required parking, 10x60 area for 51-250 spaces of required parking, 10x80 area for 250+ spaces of required parking

4.4 TANDEM PARKING

According to the City's current Municipal Code, tandem parking is currently only permitted in the Mobile Home District and in multi-family residential with a Minor Site Plan Review.

Tandem parking has the benefit of saving space within parking lots, allowing for more parking spaces. However, tandem parking does carry a limited application in terms of land use types, largely due to logistics during use and during the sale of a property (if spot is shared with another unit). A common, and appropriate, application for tandem parking is apartment/condominiums in which two parking spots are typically allotted to each unit. This works because the parking arrangement is handled by tenants of the same unit, and does not require coordination with the governing housing association and/or tenants of another unit. In this type of application, the two spots would need to be reserved, and therefore should not be on a first-come-first-served basis; additional first-come-first-served parking can be provided as on-street parking, for example. Reservation of the parking spots may be included with the apartment/condo unit (assigned), assigned via a waitlist, or deeded. Deeded tandem parking is phenomenon in areas where owners would like to profit from the extremely limited parking, such as in New York.

A key drawback in applying tandem parking to a wider range of land uses is the need for coordination of the users or the requirement of both users to have a key to each vehicle. However, this problem can be circumvented through the use of a valet service. Although valets aren't common in housing complexes, this opens the opportunity of applying tandem parking to select commercial land uses such as sit-down restaurants, hotels, and hand car washes. Tandem parking for commercial applications is typically operated by valet for employees only through a Conditional Use Permit that requires a full-time parking attendant be on duty at all times the parking facility is available for use. In Pasadena, they allow up to 75% of the total off-street parking spaces provided for incorporation of tandem parking upon approval of a Minor Conditional Use Permit.

Table 4.2 below shows a brief summary on peer city code regarding Tandem Parking requirements, along with a final recommendation for changes to current Orange code based off of analyzing peer city code.

Table 4.2: Tandem Parking Requirements and Recommendation

City	Summarized Tandem Parking Requirements
City of Orange	Allowed only in the Mobile Home District and in multi-family residential with a Minor Site Plan Review, where vertical parking is assigned to the same unit
City of Fullerton	Allowed in multi-family only, assigned to same unit, no more than 50% of parking provided shall be tandem
City of Costa Mesa	Allowed exclusively for two cars in tandem, and only for single-family dwellings with 5 bedrooms or more
City of Anaheim	Allowed only in multi-family, and no more than 2 vehicles deep. Can be accommodated by valet
City of Santa Ana	Allowed in single family, where non-enclosed spaces may be tandem. In a duplex, tandem is allowed only as they don't block other units
City of Tustin	Allowed for company vehicles, mobile homes, accessory dwellings, and valet
City of Pasadena	Allowed for the residential component of mixed use, day-car centers. Triple stack allowed for projects with over 100 parking spaces
Recommendation	Tandem is allowed for mobile homes, same unit assigned multi-family, company vehicles, and residential areas in the Local Old Towne Orange Historic District on a driveway but within the required setback. For other single family residential, the 3rd enclosed required space may be in tandem, where applicable. Tandem is allowed with a Conditional Use Permit for valet, non-residential uses, and stand-alone single tenant/ commercial use.

4.5 SHARED PARKING

For mixed-use occupancies, it is recommended that the requirements for shared parking facilities take into account the individual land uses and sum the demand. The requirement should assess the need for parking based on the individual/total peak demand as well as the time at which peak demands are observed. An ideal scenario would be one in which two land uses operate at mutually exclusive hours, and thus observed peak demands are offsets of one another – reducing the amount of parking required. In cases where two or more land uses are sharing a parking facility, a more detailed Shared Parking Analysis should be conducted specific to those uses. Refer to the Urban Land Institute's Shared Parking (2nd Edition) to determine which mix of uses warrant shared parking based on various time-of-day factors.

4.6 MOTORCYCLE PARKING AREA

City of Orange Municipal Code Section 17.34.110 – Parking Area Dimensions does not include guidance for standard space dimensions for motorcycle parking. However, in Section 17.34.080, there are minimum areas for motorcycles based on the required parking spaces (e.g., 50 sq. ft. for 10 to 50 spaces and 300 sq. ft. for 50 or more spaces). In Santa Ana, they require a 17 foot by 18 foot (~300 sq. ft.) area for the first 500 spaces and the same area for every 250 spaces thereafter, bordered by bumper guards or concrete curb to preclude automobile access. Industry standards from the Transportation Research Board and other accredited publications, a minimum area of 5 feet by 8.2 feet is typically required for motorcycle parking, which represents approximately 40 sq. ft. As such, no revisions to the City's parking area requirements are recommended as they provide a larger area than what is typically required.

4.7 MIXED-USE ZONES

As cities grow, new developments are commonly mixed-use, straying away from Euclidean single use zoning. Mixed-use zoning can be defined as any building, complex or community that combines residential, commercial and even industrial uses within a dense area. Mixed use properties stimulate more variety in design for single and multi-family housing, encourage dense, compact uses, create pedestrian-oriented environments, and reduce traffic and congestion as distances between living, working, and retail, are reduced.

Mixed-use zones have benefits for reducing parking demand, as a mix of uses supports a “park-once” philosophy. In a walkable mixed-use area, users can easily park once for many various uses, reducing the demand for parking that traditionally would have been required for every use individually. Due to mixed-use zoning, parking standards can be reduced as mixed-use developments have natural parking efficiencies.

Currently in the City of Orange, mixed-use developments must comply with Off-street Parking and Loading requirements but can apply for a reduction in standards by submitting a parking study for review and decision by the applicable reviewing body. Although mixed use zones have shown to reduce parking demand by up to 25%, mixed use zones vary too widely to establish a specific reduction percentage from standard code for every case. As such, it is recommended to keep the existing code as it stands. Table 4.3 below provides a brief summary of all peer city Mixed Use Zoning requirements, along with a final recommendation for any changes to current City of Orange Mixed-Use Zoning Code.

Table 4.3: Mixed-Use Zones Requirements and Recommendation

City	Summarized Mixed-Use Zones Parking Requirements
City of Orange	Parking for Mixed-Use Districts shall comply with Off-Street Parking and Loading requirements, though applicants can submit a parking study for review and decision by the applicable reviewing body
City of Fullerton	Total on-site parking required shall be equal to the sum of the spaces required if the uses were separate, though a Conditional Use Permit may be granted to reduce parking on appeal to the Planning Commission or City Council
City of Costa Mesa	The Zoning Administrator, by minor conditional use permit, may allow a reduction in amount of required parking when required parking for nonresidential land use can be shown to substantially exceed the demand
City of Anaheim	Vehicle parking requirements shall be determined as a part of the conditional use permit process by the Planning Services Manager of the Planning Department, based on a parking demand study.
City of Santa Ana	If two or more uses exist at the same site, the number of parking spaces required for each use shall be determined separately
City of Tustin	Whenever two or more uses exist on the same site, the number of parking spaces required of each separate space shall be determined separately at the rates established for each use
City of Pasadena	If more than one use is located on a site, the number of off-street parking and loading spaces to be provided shall be equal to the sum of the requirements for individual use, unless approved by the Zoning Administrator through a Minor Conditional Use Permit.
Recommendation	Parking for Mixed-Use Districts shall comply with Off-Street Parking and Loading requirements, though applicants can submit a parking study via a Conditional Use Permit process for review and decision by the applicable reviewing body (no change)

5 CONCLUSION

The resulting recommendations for parking requirements for the 18 categories in the City's Master Land Use table are largely based on the rates from our comparative sources (peer cities) and ITE parking demand rates, as well as demand observed during field surveys and empirical data from previous IBI parking studies for various land uses. IBI suggested that any land uses within those categories that did not have applicable comparative standards to either keep the existing parking rate, adopt a rate as specified by the ITE handbook, or to conduct a parking demand study. IBI also made recommendations regarding the City's land use types where applicable land use types have either been removed as they do not warrant a specific parking standard, kept if they warrant a specific land use standard, or revised (combined/reorganized) either due to redundancy, consistency, clarity, or additional specificity.

In summary, the proposed code is a streamlined version of the City's existing code, combining the requirements for some of the land uses into as many groups as applicable. The standards were recommended based on the practicality of right-sizing parking according to empirical data and modern day trends for redevelopment and new development opportunities. The recommendations serve as a starting point with which to begin to revise the City's Municipal Code with updated parking standards in line with the Orange Municipal Code format.

Appendix A

Category	Designation Number	Zoning	City of ORANGE	City of FULLERTON	City of COSTA MESA	City of ANAHEIM	City of SANTA ANA	City of TUSTIN	City of PASADENA	ITE Demand Rate	Field Survey	Recommendation	Recommendation Justification
Agriculture/ Horticulture	AG.1	Agriculture/ Horticulture (Row crops, Tree and Shrub Farms, Tree	N/A	N/A	N/A	1 space per 2 acres	N/A	N/A	N/A	N/A	N/A	1 space per 2 acres	Fits inline with peer City Anaheim. No established ITE rate. No other peer city provides parking data for agriculture use.
	AG.2	Commercial Plant nurseries, retail or seasonal sales	1/1,000 sq. ft. indoor GFA, plus 1/1,000 sq. ft. outdoor GFA	N/A	4/1,000 GFA, plus 2/1,000 outdoor display	4/1,000 buildingGFA, plus .4/1,000 outdoor (excluding parking/access ways	2/1,000 display/storage area, plus 4/1,000 office area	4/1,000 indoor display, plus 1/1,000 outdoor display	2.5/1,000	N/A	N/A	1 spaces per 1,000 sq. ft. of GFA, plus 1 space per every 1,000 sq. ft. of outdoor display	Based on research of six peer cities with highly variable parking standards, current City of Orange standard is adequate.
Animal Oriented Use	AN.1	Dog and cat grooming w/o boarding	5.00	5.49	N/A	4/1,000 GFA	N/A	2/1,000 GFA	2.5/1,000	2.30	N/A	4 spaces per 1,000 sq. ft. of GFA	Dog and cat grooming is related to a retail service. In addition, when compared to other peer cities and the ITE rate for this use, the City of Orange's standard are higher than most.
	AN.2	Dog and cat grooming with boarding	5	5.49	N/A	1 space per employee, plus 1 spaces per 10 pets	N/A	2/1,000 GFA	2.5/1,000	2.30	N/A	4 spaces per 1,000 sq. ft. of GFA plus 1 space per 10 boarded pets	No city, nor the ITE rate shows a distinction in parking regulations between grooming services with boarding and grooming services without boarding. Without any real distinction in parking demand between the two uses, the same rate for grooming is applied.
	AN.3	Kennels and Stables	N/A	N/A	N/A	1 space per employee, plus 1 spaces per 10 pets	N/A	2/1,000 GFA	Conditional Use Permit	N/A	N/A	3 spaces per 1,000 sq. ft. of GFA	Not enough data points to justify solely on code. Rate established through analysis of 5 existing kennels and stables throughout Northern Orange County.
	AN.4	Veterinary clinic/ hospital, with or without boarding, including or not	5	5.49	N/A	5.5/1,000 GFA, plus 4.5/1,000 for every 1,000 over 100,000	N/A	4/1,000 for first 4000, plus 6/1,000 after 4000	N/A	2.30	N/A	5 spaces per 1,000 sq. ft. of GFA	No distinction in any data point (6 peer cities and ITE rate) between varying vet uses, so a combination recommended. 5/1,000, as a medical use demands higher rate than general service. Medical rate avg. 5 per 1,000 sq. ft. among all data points.
	AN.5	Zoo	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12 spaces per 1 acre	N/A	12 spaces per 1 acre	Only one data point (ITE).
	AT.1	Vehicle parts sales	5.00 retail	N/A	N/A	4/1,000 for sales	5/1,000	2.5/1,000	4 per 1,000	4.17	N/A	4 spaces per 1,000 sq. ft. of GFA	Standard retail rate (see RT.4 General Retail).
	AT.2	Vehicle repair, modification, and service	3 spaces/ bay	N/A	N/A	3.5/1,000 or min 5	5/1,000	4 spaces/ bay	4 per 1,000	N/A	N/A	3.5 spaces per 1,000 sq. ft. of GFA	3.5 per 1,000 sq. ft. is Anaheim standard for repair, and avg. of all repair uses among data points. 3.5 per 1,000 sq. ft. is equivalent to 3 spaces per bay, but retains consistency.
	AT.3	Vehicle sales, showroom	N/A	N/A	N/A	2.5/1,000 GFA for interior showroom	For Auto Sales: 5/1,000 plus one space for every vehicle for sale on site	N/A	4 per 1,000	5.4	1.18	2.5 spaces per 1,000 sq. ft. of GFA	2.5 per 1,000 sq. ft. is Anaheim standard for showroom. No ITE rate for this use. No other specific data points for showroom.
	AT.4	Vehicle sales, outdoor display	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	.33 spaces per 1,000 sq. ft. of GFA, excluding drive aisles	Rate determined though research for the Cities of Westminster and Fontana. Existing site analysis at Selma Chevrolet was also determined to fall in line with this rate.
	AT.5	Motorcycle dealership	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2 spaces per 1,000 sq. ft. of motorcycle display	Rate in line with peer cities Santa Ana and Westminster.

Category	Designation Number	Zoning	City of ORANGE	City of FULLERTON	City of COSTA MESA	City of ANAHEIM	City of SANTA ANA	City of TUSTIN	City of PASADENA	ITE Demand Rate	Field Survey	Recommendation	Recommendation Justification
Automotive	AT.6	Vehicle wrecking, salvage, or storage (includes recreational vehicles)	N/A	6 spaces minimum	N/A	4/1,000 or 5 minimum	4/1,000	.5/1,000 building GFA, plus 2	2/1,000	N/A	N/A	0.5 spaces per 1,000 sq. ft. of area or 5 spaces minimum	Rate consistent with peer cities Fullerton, Tustin, and Pasadena. 5 space minimum for smaller yards.
	AT.7	Automobile rental agency	4/1,000 GFA	4/1,000	4/1,000	4/1,000 for parking vehicles to be sold.	5/1,000 plus 1 spaces for every rental vehicle on site	N/A	2.5/1,000	N/A	N/A	4 spaces per 1,000 sq. ft. of GFA, plus 1 space per fleet vehicle	Standard retail rate (See RT.4) plus 1 space per car in fleet. No data points from any peer cities or ITE. Remains consistent with current Orange standard.
	AT.8	Wholesale Auto Brokers	4/1,000 GFA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3 spaces per 1,000 sq. ft. of GFA	Same as Office (OF.1)
	AT.9	Retail Auto Brokers	4/1,000 GFA. A maximum of 2 of the required spaces shall be used for vehicle display. Where office GFA requires less than 3 spaces, a minimum of 3 spaces shall be required.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3 spaces per 1,000 sq. ft. of GFA. A maximum of 2 of the required spaces shall be used for vehicle display. Where office GFA requires less than 3 spaces, a minimum of 3 spaces shall be required.	Consistent with existing City rate
	AT.10	Vehicle parts and supplies, assembly	N/A	2/1,000	3/1,000 for first 25,000; 2/1,000 from 25,000 to 50,000; 1.5/1,000 over 50,000	1.55	5/1,000	2 per 1,000	4 per 1,000	N/A	1.67	1.75 spaces per 1,000 sq. ft. of GFA	Assembly use receives the production rate (See PW.1 General Manufacturing)
	AT.11	Vehicle gas station	2 spaces, plus 1.25/1,000 for convenience GFA, plus 3/bay for repair	N/A	N/A	2 spaces if stand-alone; (with convenience) 4/1,000 with 50% of pump islands counted as parking stalls	2 spaces if stand-alone; 5/1,000 with convenience	4/ service bay	1/1,000 GFA; plus 3.3/1,000 convenience store GFA, plus 5 car stacking for any car wash, plus 8 fueling stations may count as parking	N/A	N/A	If standalone : 2 spaces; not including pump island stalls. With Convenience : 5 spaces per 1,000 of convenience GFA, with maximum 50% of pump islands counted as parking stalls. For Service Bays : 3.5 spaces per 1,000 sq. ft. of service bay GFA. For office area: absorbed as an accessory use	For standalone, 2 spaces is consistent with 2 data points and the current Orange standard. With Convenience, rate aligns with previous IBI study on gas station parking demand. Rate is consistent with peer cities Anaheim and Santa Ana. 50% clause due to pump users parking in pump stalls to shop at convenience store. Rate for gas stations with service bays is consistent with IBI parking studies for three types of uses.
	AT.12	Car Wash - Automatic (in bay - typical to gas stations)	N/A	N/A	N/A	Parking demand study	2 spaces, 60 ft. stacking, 10x20 ft. area for air/water	1 space per facility	.5/1,000 GFA, plus 3.3/1,000 convenience GFA, plus 5 car stacking, minimum 3	N/A	N/A	1 space per facility, plus 3 car stacking for each wash stall, plus a 10 ft. x 20 ft. area for every air/water/vacuum facility	Only one space required, as parking is rare for this use (also typically in conjunction to a convenience store). 1 space per facility in line with two peer cities Santa Ana and Tustin. 3 car stacking as typical length for such facilities. 3 car stacking in line with peer city Pasadena. Required 10 x 20 zone for self-maintenance auto care when applicable.
	AT.13	Car Wash - Automatic (tunnel)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.5 vacuum bays/ wipe down bays per every 20 feet of car wash tunnel, plus 3 spaces per 1,000 sq. ft. of office and break room uses	Similar to City of Irvine. In line with Rapids Express Car Wash. 3 spaces per 1,000 is consistent with the OF.1 Office Rate

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	AT.14	Car Wash- Full Service	6 employee spaces, 5 spaces per car length of internal car wash tunnel	N/A	N/A	Parking demand study	5 spaces, 20 spaces minimum drying area, 120ft stacking entrance, 10x20 ft. area for air/water	10 spaces, plus 10 spaces for each wash lane, plus 5 vehicle stacking for each lane	1/1,000 GFA; plus 3.3/1,000 convenience store GFA, plus 5 car stacking	N/A	N/A	0.5 spaces per employee, plus 5 spaces per car length of internal car wash tunnel, 2/3 of which for drying, 1/3 for stacking. Drying spaces may be tandem and informally arranged.	0.5 spaces is at a rate similar to Santa Ana and Tustin. 5 spaces per car length of internal tunnel is same rate as current Orange standard, but recommendation provides specificity to where parking is designated.
	AT.15	Car Wash- Self Service (hand-spray operated)	2.5 per bay	N/A	N/A	Parking demand study	2 spaces per washing bay, 10x20 ft. air/water	2.5 spaces per washing stall	N/A	N/A	N/A	2.5 spaces per bay	Rate is in line with peer cities Santa Ana and Tustin. Higher rate of parking compared to automatic due to higher rate of users staying to clean car interior.
Care Facility	CR.1	Day Care, child or elderly	2 spaces/ employee	N/A	N/A	1 space per employee, plus 1 spaces per 10 children, plus 1 spaces loading/unloading	1 space per 8 individuals, plus 1 for each teacher/supervisor	1 space per employee, 1 spaces per 5 children, OR 1 spaces per employee, 1 space per 10 children with adequate drop-off	Conditional Use Permit for Child Day Care; 2/1,000 for adult day care	1.38/ employee	N/A	1 space per employee, plus 1 space per 8 individuals, plus 1 loading/unloading area	1 space per employee consistent with peer cities Anaheim, Santa Ana, and Tustin. 1 space per 8 individuals an avg. of same three cities.
	CR.2	Family Care or Community Care	2 spaces	N/A	N/A	N/A	2 spaces	1 space per each non-resident employee	1 space	N/A	N/A	2 spaces	Rate identical to Santa Ana. Uses in residential zones do not demand much parking, as these are primarily drop-off uses.
	CR.3	Assisted Living, including memory Care	2 spaces/ employee	N/A	N/A	.8 spaces/bed	1 space per 3 beds	1 space per 4 beds	Conditional Use Permit	.6 spaces per dwelling	N/A	1 space per 3 beds	Same rate as CR.1 for employees, but adds a higher rate of spaces per users to account for long-term visitors.
	CR.4	Independent Living Facility	N/A	N/A	N/A	N/A	N/A	N/A	Conditional Use Permit	1.3 spaces per dwelling	N/A	1 space per unit, plus 1 space per 10 units for guests	Rate determined through research of existing independent living facilities and analysis of non-peer city code. Rate is in line with ITE at 1.3 spaces per dwelling.
	CR.5	Sober Living Facility	1 space per 3 residents	N/A	N/A	N/A	N/A	N/A	Conditional Use Permit	N/A	N/A	1 space per 3 tenants	Per discussion with city staff, this is the regulated parking rate.
	EN.1	Amusement Arcade and non-live entertainment venues	5	N/A	10	2 spaces per billiard table; 6 spaces per bowling lane	1 space for 4 seats in bingo, 1 space for each video game, plus 2 spaces per each billiard table or gaming device	5/1,000	Conditional Use Permit	N/A	N/A	5 spaces per 1,000 sq. ft. of GFA	5 spaces is identical to peer city Tustin. No change from current code.
	EN.2	Amusement Park or Commercial Recreation Facility	N/A	N/A	N/A	Parking demand study	5/1,000 public sq. ft. plus 3/1,000 office	N/A	Conditional Use Permit	approx. 2/1,000	N/A	Parking Needs Assessment	Lack of sufficient data points. Uncommon use with substantial variation. Would be inaccurate to provide single rate.
	EN.3	Archery Range	N/A	N/A	N/A	N/A	N/A	N/A	Conditional Use Permit	N/A	N/A	1.2 spaces per target	No data points available. Recommended rate provides one space per archer (assuming all drive), and additional spaces for those waiting to shoot.
	EN.4	Live Entertainment Assembly	33.33	N/A	1 space per 3 fixed seats OR 1 space per 35sq. ft. non-fixed	.4 spaces per seat/patron, whichever is greater, plus .8 per employee	1 spaces per 3 fixed seats, plus 35.7/1,000 assembly GFA	1 space per 3 fixed seats, plus 28.5/1,000 assembly area	Conditional Use Permit	N/A	N/A	1 spaces per 3 fixed seats, plus 33 spaces per 1,000 sq. ft. of assembly GFA	Assembly use receives the assembly rate. 33 is avg. rate of peer cities Costa Mesa, Santa Ana, and Tustin. Rounded for clarity. 1 space for 3 seats is consistent with Costa Mesa, Santa Ana, Tustin, and Anaheim.
	EN.5	Billiard Parlor	N/A	N/A	N/A	2 spaces per billiard table	2 spaces per billiard table	2 spaces per table	Conditional Use Permit	6.56	N/A	2 spaces per table, plus ancillary calculated separately	Rate is consistent with Anaheim, Santa Ana, and Tustin, Ancillary spaces required ofr additional uses within the parlor. ITE ratio only from one study.

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Entertainment	EN.6	Bingo Games	N/A	N/A	N/A	17/1,000	1 space per 4 seats	N/A	Conditional Use Permit	N/A	N/A	1 space per 3 seats, plus ancillary uses calculated separately	Ratio based from 1 per 3 seats ratio for assembly (EN.4)
	EN.7	Bowling Alley	3/lane, plus auxiliary	N/A	3/lane	6/lane	3/alley	5/lane, plus ancillary	Conditional Use Permit	5.6/lane	N/A	3.5 spaces per lane, plus ancillary uses calculated separately	Anaheim, Tustin, and ITE show higher rates. Costa Mesa and Santa Ana show identical rates to Orange. An avg. of all rates justifies 3.5 not including additional uses, which is calculated separately
	EN.8	Commercial Sports Facility	N/A	N/A	N/A	N/A	1 spaces per 4 fixed seats, plus 35.7/1,000 assembly GFA	N/A	Conditional Use Permit	58.8 vehicles/ field	N/A	1 spaces per 4 fixed seats, plus 33 spaces per 1,000 sq. ft. of assembly GFA	Ratio based initially from 1 per 3 seats ratio, but receives a slight reduction due to higher average vehicle occupancy for sport-related uses. Assembly rate as needed for facilities without fixed seats.
	EN.9	Dance hall	1/7 dance floor area, plus auxiliary calculated separately	N/A	1 spaces for each of the first 100 persons, 1 spaces for every 2 persons 101-300, 1 space for 3 persons 300+	17/1,000 plus 29/1,000 of dance floor area	35.7/1,000	142.8/1,000 dance floor area, plus 28.57/1,000 GFA	1/3 fixed seats, or 28/1,000, plus 28/1,000 for dance floor	N/A	N/A	1 space for every 7 sq. ft. of dance floor area, plus ancillary uses calculated separately	Data points vary widely. Compact nature of use demands higher rate. Current rate is consistent with multiple peer cities. Add ancillary if necessary if a bar or similar use is present.
	EN.10	Entertainment Establishment	N/A	N/A	N/A	10/1,000	35.7/1,000	28.57/1,000	3/1,000	5.9/1,000	N/A	33 spaces per 1,000 sq. ft. of assembly GFA	A live performance use receives the assembly rate (see EN.4). Nearly all data points use their general assembly rate for this type of use.
	EN.11	Fortunetelling	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4 spaces per 1,000 sq. ft. of GFA	This use utilizes the service rate (see SR.4 General Services)
	EN.12	Miniature Golf Course	1.5 hole	N/A	N/A	20/course, plus 1 for each employee	3/hole	3/hole	N/A	N/A	N/A	2 spaces per hole, plus ancillary uses calculated separately	This rate is an average of peer city data points, Orange, Anaheim, Santa Ana, and Tustin. Add ancillary if necessary if an additional use is present such as arcade or bowling.
	EN.13	Skateboard Park	N/A	N/A	N/A	2.4	N/A	N/A	N/A	3.9	N/A	4 spaces per 1,000 sq. ft. of GFA	No data points from any peer cities. ITE rate matched analysis of 3 existing skateboard parks throughout Orange County.
	EN.14	Skating Rink	10	N/A	N/A	2.4/1,000	35.7/1,000, plus 1/4 fixed seats, plus loading	6/1,000 rink area, plus 4/1,000 non-rink area	1/5 fixed seats, or 28/1000 seating area, plus 4/1000 otherwise	4.85	N/A	33 spaces per 1,000 sq. ft. of rink area, or 1 space per 4 fixed rink seats, whichever is greater	This rate covers both sports based rinks or entertainment rinks with rate based off either fixed seats or rink area. Add ancillary if necessary if an additional use is present such as concessions or arcade.
	EN.15	Multiple Screen Cinemas	1 per 5 seats, plus 7 spaces for employees	1 space per 3 fixed seats OR 1 space per 35sq. ft. non-fixed	1 space per 3 fixed seats OR 1 space per 35sq. ft. non-fixed	.3 spaces per seat, plus 2 employee spaces per screen	1 spaces per 3 fixed seats, plus 35.7/1,000 assembly GFA	1/3 fixed seats	05-Jan	61 / screen	N/A	1 space per 3 fixed seats	A fixed seat use receives the fixed seat rate, consistent with peer cities and ITE.
	EN.16	Tennis/ racquetball courts	3/court, plus auxiliary	N/A	3/court	5/court	2.5/court	1.5/court, plus 4/1,000 indoor GFA excepting the court, plus ancillary	4/court	6/court	N/A	3 spaces per court, plus ancillary calculated separately	Rate is line with peer cities Costa Mesa, Santa Ana, and Pasadena. Anaheim and ITE have slightly higher rates, but additional demand will be covered with ancillary use rate.
	EN.17	Equestrian Riding Arena	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Commercial: 1 space per 3 stalls, or 1 space per 4 fixed seats, whichever is greater, plus adequate loading/unloading zone Residential: 1 space per 5 stalls	San Juan Capistrano and Huntington Beach were analyzed for their respective equestrian rates.-IBI Group analyzed Peacock Hill Equestrian Riding Facility and Yucaipa Equestrian Center. Rate factors the greater use of either AN.3 for stalls, or EN.8 for commercial sports facility. Residential rate comes from Ranch Palos Verdes
	FD.1	Alcohol distillation; brewery or winery	N/A	N/A	N/A	1.55/1,000 with max. 10% office, IF exceeds 10% office, 4/1,000 office GFA in excess of the 10%	N/A	N/A	N/A	N/A	N/A	Without Tasting Room: 2 spaces per 1,000 sq. ft. of GFA. With Tasting Room: 2 spaces per 1,000 sq. ft. if tasting room areas are equal to or less than 25% of GFA, or 10 spaces per 1,000 sq. ft. of tasting room area if tasting room areas are in excess of 25% of GFA	Anaheim is the only data point for this use. Anaheim provides a format of: production rate for floor area and assembly rate for tasting area. This rate follows this format but rate justifications from PW.1 General Manufacturing and Processing and EN.4 Assembly.

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Food and/or Alcohol Oriented Use	FD.2	Bars	N/A	10	10/1,000 for first 3,000, plus 12/1,000 for every 1,000 over 3000	29/1,000 dance floor area, plus 17/1,000 GFA	35.7/1,000	142.8/1,000 dance floor area, plus 28.57/1,000 GFA	10/1000	N/A	N/A	33 spaces per 1,000 sq. ft. of assembly GFA	Bars receive the assembly rate due to their high peak usage, similar to entertainment establishments. Bars with dance floors receive the dance floor rate for that area. Other cities follow the same format. No ITE rate for bars.
	FD.3	Liquor store	N/A	N/A	N/A	4/1,000	5/1,000	4/1,000	4/1000	7.2	N/A	4 spaces per 1,000 sq. ft. of GFA	A liquor store receives the retail rate (see RT.4 General Retail). Peer cities give liquor stores their respective retail rate.
	FD.4	Packaging and processing, food and agricultural	N/A	N/A	N/A	1.55/1,000 GFA, plus 4/1,000 office GFA in excess of 10%	2/1,000	2/1,000	N/A	N/A	N/A	2 spaces per 1,000 sq. ft. of GFA	A packing and processing use receives the processing rate (see PW.1 General Manufacturing and Processing).
	FD.5	Restaurant (Stand-Alone)- Full Service or Counter Service	10/1,000, then 14.2/1,000 over 4000	10/1,000	10/1,000	15/1,000	10/1,000	10/1,000	10	20.2/1,000 or 14.3/1,000	N/A	10 spaces per 1,000 sq. ft.	This use demands the highest rate among all restaurants based on other parking studies. Peer city of Anaheim has the same starting rate for this category. Similar to existing City of Orange code. This use demands the highest rate among all restaurants based on other parking studies. Peer city of Anaheim has the same starting rate for this category. Similar to existing City of Orange code.
	FD.6	Restaurant (when greater than 30% of Commercial Center GFA is devoted to restaurant)- Full Service	10/1,000, then 14.2/1,000 over 1,000 over 4000	10/1,000	10/1,000	8	10/1,000	10	10	N/A	N/A	10 spaces per 1,000 sq. ft.	This use in a restaurant-dominated commercial center can share its demand for parking, reducing the rate slightly from FD.5. This rate is slightly higher than what Anaheim uses.
	FD.7	Restaurant (when greater than 30% of Commercial Center GFA is devoted to restaurant)- Counter Service	10/1,000, then 14.2/1,000 over 1,000 over 4000	10/1,000	10/1,000	10	10/1,000	10	Dependent on GFA between 4/1000 for small and 10/1000 for large	N/A	N/A	8 spaces per 1,000 sq. ft.	This use receives a slight reduction in parking requirement from FD.7 due to higher turnover of users.
	FD.8	Restaurant- (when less than 30% of Commercial Center GFA is devoted to restaurant)- Full Service	10/1,000, then 14.2/1,000 over 1,000 over 4000	10/1,000	10/1,000	4	10/1,000	10	10	N/A	N/A	5 spaces per 1,000 sq. ft. of GFA	This use demands less parking because of the opportunity for shared parking when commercial is the primary use. This ratio is the same as Anaheim for the same category.
	FD.9	Restaurant- (when less than 30% of Commercial Center GFA is devoted to restaurant)- Counter Service	10/1,000, then 14.2/1,000 over 1,000 over 4000	10/1,000	10/1,000	4	10/1,000	10	Dependent on GFA between 4/1000 for small and 10/1000 for large	N/A	N/A	4 spaces per 1,000 sq. ft. of GFA	This use demands less parking because of the opportunity for shared parking when commercial is the primary use. This ratio is the same as Anaheim for the same category.
	FD.10	Restaurant- 20 seats or fewer, or primary method is takeout	10/1,000, then 14.2/1,000 over 1,000 over 4000	10/1,000	10/1,000	5.5	10/1,000	4	Dependent on GFA between 4/1000 for small and 10/1000 for large	5.5/1,000	N/A	5 spaces per 1,000 sq. ft. of GFA	These uses are rarely standalone. ITE rate is similar to this rate. This use demands a higher rate compared to other restaurants in a commercial center due increased number of users driving to takeout.
	FD.11	Restaurant- With drive through window	N/A	N/A	N/A	Adequate space for queuing	80 feet	7 car stacking minimum	5 car stacking minimum	N/A	N/A	13 spaces per 1,000 sq. ft. of restaurant GFA exclusive of kitchen, storage, and restroom uses, plus appropriate stacking	All peer cities do not require more parking for restaurants that have a drive through window vs. restaurants that do not. Most peer cities require reasonable stacking per drive-through. ITE does show differing rates for drive-through restaurants, however. ITE categories do not align to the most detailed restaurant code in peer cities.

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	FD.12	Restaurant- Outdoor seating	N/A	10/1,001	10/1,001	Outdoor GFA included in total GFA	Outdoor GFA included in total GFA	10 spaces per 1,000 only after outdoor seating area is greater than 50% of interior area	Outdoor GFA included in total GFA	N/A	N/A	<i>Restaurants in mixed-use zones:</i> No additional parking for sidewalk-oriented outdoor area equivalent to the first 30% of enclosed restaurant area, plus base associated restaurant rate of sidewalk-oriented outdoor area in excess of 30% of enclosed restaurant area <i>Restaurants with 20 seats or fewer in mixed-use zones:</i> No additional parking for the first 2,000 sq. ft. of outdoor area, with 5 spaces per 1,000 sq. ft. of outdoor area thereafter <i>Other restaurants:</i> No additional parking for outdoor area equivalent to the first 25% of enclosed restaurant area, plus base associated restaurant rate of outdoor area in excess of 25% of enclosed restaurant area	Three peer cities Anaheim, Santa Ana, and Pasadena extend their GFA calculations to include outdoor seating.Rate is in line with peer cities Newport Beach and Westminster.
Housing	HS.1	Duplex	2 spaces per unit, one of which is enclosed	N/A	N/A	N/A	3 spaces plus 1 additional space for each bedroom in excess of 2 bedrooms; two spaces in an enclosed garage	2 enclosed per unit, plus 1 space guest per 4 units	N/A	1.4	N/A	2 spaces minimum, 1 of which is enclosed, plus 1 additional space if dwelling greater than 4 bedrooms. A third space may be in tandem.	Orange code currently fits in line with peer cities. This rate similar to current Orange code, but peer most cities specify minimum spaces first, then the number of enclosed spaces stemming from the minimum.
	HS.2	Single-Family Dwelling	2 enclosed spaces up to 4 bedrooms; 1 additional bedroom for dwellings with 5 or more bedrooms	N/A	Total 4, 2 garage up to 4 bedrooms; Total 5, 3 garage if 5 or more bedrooms	4 total, 2 enclosed spaces with dwelling 6 bedrooms or fewer; 1 additional space per bedroom over 6	4 spaces for 5 bedrooms or fewer, 5 spaces for 6, 6 for 7, 7 for 8, 8 spaces for dwellings with 9 bedrooms; no less than half in an enclosed garage	2 enclosed for 4 or fewer bedrooms; 3 enclosed for 5+ bedrooms	2 covered within a garage/ carport	2	N/A	2 enclosed spaces per units with 1, 2, and 3 bedrooms; 3 enclosed spaces, per units with 4 or more bedrooms, in which spaces may be in tandem	Orange code fits in line with peer cities. This rate similar to current Orange code and peer cities Newport Beach, Irvine, and San Juan Capistrano
	HS.3 through HS.8	Housing Land Uses with Rates already established in City of Orange Code	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	HS.9	Convalescent Hospital or Facility	1 space per 4 beds	N/A	N/A	N/A	N/A	CUP	N/A	N/A	N/A	Varies 1 space per 4 beds	Recently updated in the City of Orange’s Zoning Code Existing rate in line with Huntington Beach, Newport Beach, and Irvine

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	HS.10	Hotel or Motel	1 space per guest room, plus additional parking as required for auxiliary uses	N/A	1 space per 2 units plus 10 spaces per 1,000 sf for the first 3,000 sf, and 20 spaces per 1,000 sf for each additional 1,000 sf above the first 3,000 sf for restaurant, banquet, meeting room and kitchen spaces	0.8 space per guest room, plus 8 spaces per 1,000 sf of GFA for meeting room, plus 8 spaces per 1,000 sf for restaurant, plus 5.5 spaces per 1,000 sf of GFA for take-out restaurants, plus 1 space per 1,000 sf of retail space plus 0.25 space for each employee working in guest room areas	1 space for each guest room, plus 1 space for each 10 rooms, plus 2 spaces for a manager's unit	1 space for each guest room, plus 1 space for each 2 employees on largest shift, plus requirements for other accessory uses	1 space per guest room; plus 10 spaces per 1,000 sq. ft. of banquet, assembly, meeting or restaurant seating area or 1 space per 8 fixed seats. Accessory retail uses greater than 5,000 sq. ft. gross: 2.5 spaces per 1,000 sq. ft.	1 space per room	N/A	1 space per guest room, plus 10 spaces per 1,000 sq. ft. of banquet, assembly, meeting or restaurant seating area, plus 2.5 spaces per 1,000 sq. ft. of retail uses greater than 5,000 sq. ft. of GFA	Base rate of 1 space per guest room consistent with current standard, City of Santa Ana, Tustin, and Pasadena. -All peer cities require additional parking for meeting, restaurant, retail, and other uses at a reduced rate due to a high occurrence of internal non-driving users -Rate follows Pasadena outline for auxiliary uses
Medical	MD.1	Ambulance Service	N/A	N/A	N/A	4/1,000 plus parking for emergency vehicles	5/1,000	N/A	N/A	N/A	N/A	3 spaces per emergency vehicle	Only two peer city data points (Anaheim/Santa Ana), and no ITE rate. No non-employee usage.
	MD.2	Hospital	1.5/bed	1/bed	N/A	Parking demand study	2/bed	2/bed	3/bed	4.49/bed	N/A	Parking Demand Study	Six data points, including ITE, avg. is similar to current Orange rate
	MD.3	Medical clinic, urgent	N/A	.2/bed	6/1,000	6/1,000	6/1,000	4/1,000 if under 4000 GFA, 6/1,000 if over 4000 GFA	N/A	6.4	N/A	6 spaces per 1,000 sq. ft. of GFA	Five data points, including ITE, show this rate for medical. Medical clinics typically see higher rates compare to typical service due to longer wait times and urgent nature of the use
	MD.4	Medical Clinic, out-patient/ dialysis/ surgery center	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.67	N/A	5 spaces per 1,000 sq. ft. of GFA	No peer cities differentiate between out-patient or urgent. This is not as sporadic in peak times, therefore receives a slightly lower rate than MD.3.
	MD.5	Pharmaceuticals, production	2	1.25	Graduated rate	N/A	N/A	N/A	N/A	1.02	N/A	2 spaces per 1,000 sq. ft. of GFA	This use receives the production rate (see PW.1 General Manufacturing and Processing)
	MD.6	Pharmacy	5	4	4	N/A	N/A	N/A	N/A	2.3	N/A	4 spaces per 1,000 sq. ft. of GFA	This use is a retail service, is typically found in a retail store, and receives the retail rate (RT.4 General Retail)
Miscellaneous	MS.1	Contractor's yards	N/A	N/A	N/A	4/1,000	1/1,000	N/A	N/A	N/A	N/A	0.5 spaces per 1,000 sq. ft. of GFA, plus spaces designated for company fleet (1 space per vehicle and towable equipment)	This rate matches peer city Santa Ana. ITE does not provide a rate. Ancillary clause will cover any additional use
	MS.2	Laboratory; research and development	3.3	N/A	N/A	4/1,000 for building 3 stories or lower, 3/1,000 for taller	N/A	2/1,000	3/1,000	N/A	N/A	3 spaces per 1,000 sq. ft. of GFA	This rate is an avg. among 3 peer cities Anaheim, Pasadena, and Tustin. No ITE rate for this use. This rate is in line with the current Orange rate
	MS.3	Production and Recording Studios	N/A	N/A	N/A	2.5/1,000	5/1,000	N/A	N/A	N/A	N/A	3 spaces per 1,000 sq. ft. of GFA	This rate is an approximate avg. of 2 peer cities Anaheim and Santa Ana. No ITE rate for this use.
Office	OF.1	Office, Professional	4/1,000 for first 250,000 GFA, then 3/1,000 for remaining GFA	4	4	4/1,000 for building 3 stories or lower, 3/1,000 for taller	3	4/1,000 for first 25,000; 3.33 for every 1,000 after	3	2.84	1.7	3 spaces per 1,000 sq. ft. of GFA	Santa Ana and Pasadena show rate of 3 spaces per 1,000. Peer cities Anaheim and Tustin show a reduction to 3/1,000 for a taller building or a building with greater GFA. ITE rate 2.84 and field survey 1.7 also lower. Costa Mesa and Fullerton show a rate of 4
	OF.2	Medical Offices	5	5.49	6	4/1,000 for building 3 stories or lower, 3/1,000 for taller	3	4/1,000 for first 25,000; 3.33 for every 1,000 after	4	3.2	3.3	5 spaces per 1,000 sq. ft. of GFA	This rate is consistent with the medial clinic rate MD.4. Two peer cities raise their rate for medical office from general office. ITE rate is slightly higher for medical office from general office

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Production and/or Wholesale	PW.1	General Manufacturing and Processing	2	1.25	Graduated rate	1.55 for buildings 100,000 or less; 1/1,000 for greater	1	1 for wholesale/production area, 4/1,000 for office area	N/A	1.15	1.67	2 spaces per 1,000 sq. ft. of GFA	All peer cities provide a rate between 1 and 2 -ITE rate at 1.15 -Field survey rate at 1.67 -Per previous comments, a rate of 2 is suggested
Public, Social, or Institutional Use	PS.1	Art galleries, Mueseums, Private Libraries	4	N/A	N/A	3.33	5/1,000 assembly, 3/1,000 office	3.33	N/A	N/A	N/A	4 spaces per 1,000 sq. ft. of GFA	This rate is consistent with 3 peer cities Anaheim, Santa Ana, and Tustin. Orange rate currently consistent with other rates
	PS.2	Assembly uses (club and lodges)	33.33 of assembly	28.57	1/3 fixed seats OR 28.57	Parking demand study	35.7	1 per 3 fixed seats, 1 spaces per 28.57 assembly GFA	10	3.2	N/A	33 spaces per 1,000 sq. ft. of assembly GFA	Assembly uses receives the assembly rate (see EN.4 General Assembly)
	PS.3	Religious institution	1 per 4 seats, or 33.33/1,000 assembly area	1/3 fixed seats, plus 47.6/1,000 for non-fixed assembly	1/3 fixed seats OR 28.57	Parking demand study	35.7	1 per 3 fixed seats, 1 spaces per 28.57 assembly GFA	1/4 fixed, or 20/1000 in Residential PS; OR 1/8 or 14/1000 in Commercial	8.37	N/A	1 space per 3 fixed seats, or 33 spaces per 1,000 sq. ft. of assembly GFA, whichever is greater	Assembly use receives the assembly rate, or could be determined by fixed seats (see EN.4 General Assembly). Fits in line with previous IBI parking studies of religious institutions
	PS.4	Convention center	N/A	1/3 fixed seats, plus 47.6/1,000 for non-fixed assembly	1/3 fixed seats OR 28.57	Parking demand study	1 per 4 fixed seats, plus 35.7/1,000 assembly	1 per 3 fixed seats, 1 spaces per 28.57 assembly GFA	Conditional Use Permit		N/A	Parking Demand Study	Lack of sufficient data points. Uncommon use with substantial variation. Would be inaccurate to provide single rate.
	PS.5	Country Clubs, golf courses, or driving range	33.33; 9 spaces per hole	28.57; no data per hole	28.57; no data per hole	10 per hole, 28.5/1,000 for assembly, and 4/1,000 for other commercial	Standalone Golf: 3 spaces per hole	Standalone Golf: 6 spaces per hole	10 per hole	3.56 per hole	N/A	Full County Club: 33 spaces per 1,000 sq. ft. of assembly GFA, plus 4 spaces per 1,000 sq. ft. of remaining GFA including pool and pool deck area, plus 6 spaces per hole Standalone Golf Course: 6 spaces per hole Driving Range: 0.5 spaces per every driving range tee box	All data points provide the assembly rate. More specificity needed, due to the varying uses this site. Avg. of three peer city golf course ratios is approximately 6 per hole. Golf courses, when not combined with other uses, receive a slightly higher rate. All data points show 1 space per driving range tee box
	PS.6	Mortuary (not including crematorium)	1 per 4 seats, or 33.33/1,000 assembly area	28.57	28.57	Parking demand study	1/4 fixed seats, plus 28.57/1,000 for seating area without fixed seats, plus 1 for each business vehicle	N/A	1/5 fixed, or 28/1000	N/A	N/A	33 spaces per 1,000 sq. ft. of assembly GFA. Accessory uses such as flower shops parked separately.	An assembly use receives the assembly rate (see EN.4 General Assembly)
	PS.7	Athletic fields, private	N/A	N/A	N/A	N/A	N/A	N/A	N/A	38/field; 5.1 acre for large park	N/A	Parking Demand Study	No data on spaces per field from peer cities. Fields vary per sport, so single rate may be inaccurate. ITE rate at 38 spaces per soccer field does not factor ancillary uses.
	PS.8	Parks	N/A	N/A	N/A	N/A	N/A	N/A	2.5/1000	N/A	N/A	2.5 spaces per 1,000 sq. ft. of area	Matches Pasadena rate and other cities outside of the peer cities.
Recycling and Waste	RW.1	Collection facilities, large (recycling)	6 total spaces	N/A	3/1,000 for first 25,000; 2/1,000 from 25,000 to 50,000; 1.5/1,000 over 50,000	1.55	2	N/A	2/1000 or 1 space per bin	N/A	N/A	6 spaces	Per OMC Section 17.18.070K
	RW.2	Collection facilities, small (recycling)	0	N/A	3/1,000 for first 25,000; 2/1,000 from 25,000 to 50,000; 1.5/1,000 over 50,000	1.55	2	N/A	2/1000 or 1 space per bin	N/A	N/A	0 spaces	Per OMC Section 17.18.070K
	RW.3	Waste, Processing, and Refuse Facilities	N/A	N/A	3/1,000 for first 25,000; 2/1,000 from 25,000 to 50,000; 1.5/1,000 over 50,000	1.55	2	N/A	N/A	N/A	N/A	2 spaces per 1,000 sq. ft. of GFA, then 1.5 spaces per 1,000 sq. ft. of GFA over 50,000 sq. ft. of GFA	Data from three peer cities Costa Mesa, Anaheim, and Santa Ana avg. at this rate. No ITE rate. Costa Mesa also shows a reduction based rate on sq. ft.
	RT.1	Bulk Retail	2	4	5	2.25	2	2	3	N/A	N/A	2 spaces per 1,000 sq. ft. of GFA	Anaheim, Santa Ana, and Tustin, who reduce their retail rate for bulk, average at 2. No ITE rate for this use.

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Retail	RT.2	Commercial Centers-over 25,000 sq. ft.	Sliding scale	N/A	5	4	N/A	4.5	N/A	Strip-4.1; Neighborhood 4.7; Community 4.9; Regional 5.5; Super Regional 5.1	N/A	4 spaces per 1,000 sq. ft. of retail GFA to 25,000 sq. ft. of total GFA, plus 3.5 spaces for each additional 1,000 sq. ft. of retail GFA over 25,000 sq. ft. of total GFA	This rate is consistent with RT.4 until 25,000 sq. ft., but then receives a reduction for the remaining sq. ft. due to the shared parking likely occurring in the facility.
	RT.3	Commercial Centers-under 25,000 sq. ft.	5 per 1000	N/A	N/A	Each use within the commercial center shall comply with the parking requirements for said use	N/A	The parking required will be the sum of parking requirements for the individual uses as specified in this Table	N/A	N/A	N/A	Each use within the commercial center shall comply with the parking requirements for said use	This code is consistent with two peer cities
	RT.4	General Retail	5	4	5	4	5	4	3	N/A	N/A	4 spaces per 1,000 sq. ft. of GFA	Three peer cities, Fullerton, Anaheim, and Tustin, show a rate of 4 spaces per 1,000 for general retail. Two peer cities, Costa Mesa and Santa Ana, show a rate of 5 spaces per 1,000 for general retail. Pasadena shows a rate of 3 spaces per 1,000. ITE shows a rate of 5 spaces per 1,000. Previous IBI studies show that demand for parking at a rate of 4 spaces per 1,000 for general retail is adequate.
School	SC.1	Preschool	1.8/ classroom	With Minor Site Plan	N/A	1/classroom, plus 1 per non-office employee, plus 4/1,000 office GFA, plus additional for auditoriums	1.5/ classroom, plus 3/1,000 office GFA	2 spaces per classroom, plus adequate drop-off	1.5 per classroom, plus 1 space per 2 employees/faculty	.2/student	N/A	2 spaces per employee, plus adequate loading /unloading zone	Remains consistent with Orange standard
	SC.2	Kindergarten-8th Grade	1.8/ classroom	With Minor Site Plan	N/A	1/classroom, plus 1 per non-office employee, plus 4/1,000 office GFA, plus additional for auditoriums	1.5/ classroom, plus 3/1,000 office GFA	2 spaces per classroom, plus adequate drop-off	1.5 per classroom, plus 1 space per 2 employees/ faculty	.2/student	N/A	1.8 spaces per classroom, plus adequate loading/unloading zone	Four peer Cities, Anaheim, Santa Ana, and Tustin, provide a Rate per classroom -Remains consistent with current Orange standard -the Rate has added specificity for loading and unloading -Four peer Cities, Anaheim, Santa Ana, and Tustin, provide a Rate per classroom -Remains consistent with current Orange standard -the Rate has added specificity for loading and unloading
	SC.3	High School	8/ classroom	With Minor Site Plan	N/A	1/ 6 students, plus 1 per non-office employee, plus 4/1,000 office GFA, plus additional for auditoriums	6.66/ 1,000 classroom GFA, plus 3/1,000 office	1 per 3 students, plus adequate drop off	1 space per 5 students, plus 1 space per 2 employees/ faculty	.5 spaces per student	N/A	8 spaces per classroom, plus adequate loading/ unloading zone	Remains consistent with Orange standard
	SC.4	Business colleges; trade and technical schools	28.57 of instructional GFA	With Minor Site Plan	N/A	0.82/ student, or 20 spaces per 1,000 instructional GFA whichever is greater, plus 4/ 1,000 office GFA	25 spaces per 1,000 sq. ft., plus 3 spaces per 1,000 office GFA	25 spaces per 1,000 sq. ft., plus 3 spaces per 1,000 office GFA	3.5/1000 plus 2 drop off	N/A	N/A	25 spaces per 1,000 sq. ft. of instructional GFA, plus 3 spaces per 1,000 sq. ft. of office GFAI or CUP with Parking Needs Assessment	Four peer cities Anaheim, Santa Ana, Tustin, and Pasadena, provide rates by instructional GFA -Rate is an avg. of these peer cities and matches Santa Ana and Tustin -The rate has added specificity due to the complexity of this use -Conditional Use Permit justifies a different rate to accommodate various types of trade schools
	SC.5	Instructional Use	1/ employee, plus 4 per 10 students	With Minor Site Plan	N/A	0.82/ student, or 20 spaces per 1,000 instructional GFA whichever is greater, plus 4/ 1,000 office GFA	25 spaces per 1,000 sq. ft., plus 3 spaces per 1,000 office GFA	25 spaces per 1,000 sq. ft., plus 3 spaces per 1,000 office GFA	3.5/1000 plus 2 drop off	N/A	N/A	1 space per employee, plus 4 spaces per 10 students based on maximum classroom capacity	Remains consistent with Orange standard
	SC.6	College or University (public/private)	1/ employee, plus 4 per 10 students	With Minor Site Plan	N/A	N/A	N/A	1/ 3 students	N/A	student, plus 3/ 1,000	N/A	Parking Demand Study via CUP	Lack of sufficient data points. Uncommon use with substantial variation. Would be inaccurate to provide single rate.
	SR.1	Appliance/ equipment/ furniture repair and service	N/A	N/A	N/A	5.5/1,000 for first 1,00000, 4.5/1,000 over 1,00000	5/1,000	N/A	3	N/A	N/A	2 spaces per 1,000 sq. ft. of GFA	A common service receives the general service rate (see SR.4)

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Service	SR.2	Banks and similar financial institutions (1)(4)	5	N/A	5	4	5	4	3	8.4	N/A	4 spaces per 1,000 sq. ft. of GFA	A common service receives the general service rate (see SR.4)
	SR.3	Barber, beauty shop, manicure salon, spa or massage establsihments	N/A	N/A	6	4	5	4	3	N/A	N/A	5 spaces per 1,000 sq. ft. of GFA	Service uses where users tend to stay for longer periods of time demand a higher ratio. Costa Mesa raises their rates for these uses. Santa Ana has a matching rate. ITE does not provide a rate.
	SR.4	General Services not specified elsewhere	N/A	N/A	5	4	5	4	3	N/A	N/A	4 spaces per 1,000 sq. ft. of GFA	Services are similar to retail, but tend to have quicker turnaround than retail uses, so a similar or lower rate is justified. Peer cities Anaheim and Tustin have matching rates, Pasadena is typically lower. ITE does not provide a general rate.
	SR.5	Laundromat	1 for every 3 machines	N/A	5	4	5	1 for every 3 machines	3	N/A	N/A	1 space per 3 machines	A use specific to machines can provide a ratio on machines. Tustin also uses a rate by machines.
Storage or Warehousing	SW.1	Indoor Warehousing under 10,000 sq. ft.	0.5	0.5	N/A	1.55 for buildings 100,000 or less; 1/1,000 for greater	1	1/1,000 for first 20,000; .5/1,000 after that	2	0 and 1 for each em	N/A	2 spaces per 1,000 sq. ft. of GFA	All peer rates and ITE are between 0.5 and 2. Smaller facilities should have a higher ratio that larger facilities. Peer city Anaheim has a matching rate.
	SW.2	Indoor Warehousing over 10,000 sq. ft.	0.5	0.5	N/A	1.55 for buildings 100,000 or less; 1/1,000 for greater	1	1/1,000 for first 20,000; .5/1,000 after that	2	0 and 1 for each em	N/A	0.5 spaces per 1,000 sq. ft. of GFA	All peer rates and ITE are between 0.5 and 2. Larger facilities should have a lower ratio than smaller facilities. Peer city Anaheim has a matching rate.
	SW.3	Mini-Warehouse/Self Storage Facility	4 spaces/ 1,000 sq. ft. of office or 3 spaces	6 spaces minimum	N/A	.27/ 1,000	1 space per 150 units until 900; after 900 1 space per 300 units	.5/1,000, plus 2	2	0.2	N/A	0.3 spaces per 1,000 sq. ft., or 5 spaces minimum, whichever is greater	Data points vary widely for this use. Peer city Anaheim has a matching rate. ITE is similar to this rate.
	SW.4	Outdoor storage	0.5	0.5	N/A	4/1,000 or 4 spaces, plus spaces for service vehicles	1	1/100 for first 20,000; .5/1,000 after that	2	0 and 1 for each em	N/A	0.5 spaces per 1,000 sq. ft. of outdoor GFA, plus 1.5 spaces per 1,000 sq. ft. of GFA	All peer rates and ITE are between 0.5 and 2. Outdoor storage rate is in line with Anaheim, Tustin, Fullerton and ITE. Specificity is included for outdoor storage that may come with an indoor component.
Additional Parking Considerations	Section 4.3	Loading Zones	10x40 for 1-50 required parking; 10x60 for 51-250 required parking; 10x80 for 250+ required parking	N/A	N/A	12x20 for site 25,000 or less; alley loading requirements for larger	10x25 loading zone every 10,000 sq. ft. floor area	Dimensions determined through Design Review, number of loading spaces vary 1-4 depending on land use and GFA	10x20 area for sites 3,000 sq. ft. or smaller, 12x30 area for sites 3,000 sq. ft. or larger; number of spaces varies depending on land use and GFA,	N/A	N/A	10x30 area loading for 1-50 spaces of required parking, 10x60 area for 51-250 spaces of required parking, 10x80 area for 250+ spaces of required parking	See Section 4.3 Loading Areas.
	Section 4.4	Tandem Parking	Allowed only in the Mobile Home District, where vertical parking are assigned to the same unit	Multi-family only, assigned to same unit, no more than 50% of parking provided shall be tandem	Exclusively two, and for single-family with 5 bedrooms or more	Only multi-family, no more than 2 vehicles deep. Can be accommodated by valet	In single family, non-enclosed spaces may be tandem. In duplex, tandem allowed only as they don't block other units	Company vehicles, mobile homes, accessory dwellings, valet	Allowed for the residential component of mixed use, day-car centers. Triple stack allowed for projects with over 100 parking spaces	N/A	N/A	Tandem is allowed for mobile homes, same unit assigned multi-family, company vehicles, and residential areas in the Local Old Towne Orange Historic District on a driveway but within the required setback. For other single family residential, the 3rd enclosed required space may be in tandem, where applicable. Tandem is allowed with a Conditional Use Permit for valet, non-residential uses, and stand-alone single tenant/ commercial use.	See Section 4.4 Tandem Parking.

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	Section 4.7	Mixed-Use Zones Parking	Parking for Mixed-Use Districts shall comply with Off-Street Parking and Loading requirements, though applicants can submit a parking study for review and decision by the applicable reviewing body	Total on-site parking required shall be equal to the sum of the spaces required if the uses were separate, though a Conditional Use Permit may be granted to reduce parking on appeal to the Planning Commission or City Council	The Zoning Administrator, by minor conditional use permit, may allow a reduction in amount of required parking when required parking for nonresidential land use can be shown to substantially exceed the demand	Vehicle parking requirements shall be determined as a part of the conditional use permit process by the Planning Services Manager of the Planning Department, based on a parking demand study.	If two or more uses exist at the same site, the number of parking spaces required for each use shall be determined separately	Whenever two or more uses exist on the same site, the number of parking spaces required of each separate space shall be determined separately at the rates established for each use	If more than one use is located on a site, the number of off-street parking and loading spaces to be provided shall be equal to the sum of the requirements for individual use, unless approved by the Zoning Administrator though a Minor Conditional Use Permit.	N/A	N/A	Parking for Mixed-Use Districts shall comply with Off-Street Parking and Loading requirements, though applicants can submit a parking study via a Conditional Use Permit process for review and decision by the applicable reviewing body (no change)	See Section 4.7 Mixed-Use Zones