

Appendix A: Model Shared Parking Ordinance - Provisions

1. Shared Parking: Definition

Shared parking may be applied when land uses have different parking demand patterns and are able to use the same parking spaces/areas throughout the day. Shared parking is most effective when these land uses have significantly different peak parking characteristics that vary by time of day, day of week, and/or season of the year. In these situations, shared parking strategies will result in fewer total parking spaces needed when compared to the total number of spaces needed for each land use or business separately. Land uses often used in specific shared parking arrangements include office, restaurants, retail, colleges, churches, cinemas, and special event situations. Shared parking is often inherent in mixed-use developments, which include one or more businesses that are complementary, ancillary, or support other activities. General parking lots and/or on-street parking that is available for patrons of nearby businesses/commercial districts is another form of shared parking.

2. Intent of Ordinance

This section explains the regulatory background of federal, state and regional initiatives for reducing parking. This ordinance is designed to help cities and counties meet these objectives.

The State's Transportation Planning Rule requires reducing vehicle miles of travel and parking spaces per capita throughout the metropolitan area. It is a means as a means of responding to transportation and land use impacts of growth and providing other alternatives to auto oriented trips. The Metro Growth Concept calls for more compact development to encourage more efficient use of land, promote non-auto trips, and protect air quality by reducing vehicle trips per capita and parking spaces. Title 2 of the Urban Growth Management Functional Plan, which is the mechanism for early implementation of the Growth Concept, mandates new minimum and maximum parking ratios region wide. In addition, the Department of Environmental Quality's federally mandated Ozone Maintenance Plan contains the Employee Commute Options rule requiring a 10% reduction in employee vehicle trips for all employers with fifty or more employees at a worksite

One of the strategies to achieve these objectives is to have more compact urban development. This requires that each use of land be carefully reviewed for more efficient and complementary forms of development. Dedicated parking areas for individual uses, especially when provided in new developments, can result in less efficient land usage, lower floor to site area ratios, and more environmental/water quality impacts.

Excessive parking also has implications for other transportation modes. In areas where transit is provided or other non-auto modes (i.e. walking and biking) are convenient, less space devoted to parking allows better accessibility and mobility for all modes. Shared parking is a strategy that can significantly reduce the amount of land devoted to parking while providing a sufficient number of spaces and encouraging compact land development.

3. Application of Shared Parking

This section defines when shared parking requirements would apply. Specific criteria are proposed, which appear in bold, and it is intended that each jurisdiction consider what values would be appropriate..

- A. Applicants for new developments or **significant redevelopment*** of site(s) shall examine the feasibility of using shared parking arrangements . *(Significant redevelopment could be defined as increasing building size or land uses so that the site's trip generation and/or parking demand would increase by a certain percentage similar to (2) below.)*
- B. Shared parking arrangements shall be considered when the number of parking spaces requested by the developer/applicant is more than **10*** percent higher or more than **10*** spaces higher than the **minimum** number of parking spaces required by Code for a site, whichever is more.

Overall, jurisdictions may wish to consider the following:

- 1) In Central City, Town Centers, Regional Centers, Station Communities, and Main Streets, particularly in areas designated Zone "A" in Metro's Urban Growth Management Functional Plan, the requirements for shared parking should be more **stringent***. The intent is to maximize efficient and complimentary land uses in these zones.
- 2) In some situations, new land uses or redevelopment of sites could provide less than the minimum code requirements of dedicated parking. This should be allowed with the director's approval if they occur in business districts with adequate parking supply and/or when the development is an ancillary use to an adjacent major use where the patrons or users will be the same.

Factors evaluated to establish shared parking arrangements should include operating hours, seasonal/daily peaks in parking demand, the site's orientation, location of access driveways, transit service, accessibility to other nearby parking areas, pedestrian connections, distance to parking area, availability of parking spaces, cooperation of adjacent owners).

*** Terms, values, and criteria that need to be defined by the jurisdiction are marked with an asterisk and are in bold text.**

4. Calculation of Parking Spaces Required with Shared Parking

This section presents a general description of determining the number of parking spaces required with shared parking as well as a detailed sample calculation. A jurisdiction may want to include the example in their ordinance or as a reference handout.

The minimum number of parking spaces for a mixed use development or where shared parking strategies are proposed shall be determined by a study prepared by the applicant following the procedures of the Urban Land Institute Shared Parking Report, ITE Shared Parking Guidelines, or other approved procedures. A formal parking study may be waived for small developments where there is established experience with the land use mix and its impact is expected to be minimal. The actual number of parking spaces required shall be based well-recognized sources of parking data such as the ULI or ITE reports. If standard rates are not available or limited, the applicant may collect data at similar sites to establish local parking demand rates. If the shared parking plan assumes use of an existing parking facility, then field surveys shall be conducted to determine actual parking accumulation. If possible, these surveys should consider the seasonal peak period for the combination of land uses involved.

The applicant shall determine the minimum number of parking spaces required for shared parking arrangements or mixed use developments by the following the following example procedures:

An example will follow each step based on a mixed-use development containing a 40,000 GSF Office Building and a 5,000 GSF Restaurant. For all base code requirements, Metro's adopted Minimum Parking Requirements, from Table 2 of the Growth Management Functional Plan are used. This example also relies on the hourly parking demand rates for these two uses published in the ULI Dimension of Parking Report.

Step 1. Determine the number of parking spaces that should be provided for each land use separately in parking codes by multiplying the park code requirements by the Gross Square Feet (GSF) of each individual use and then sum the results. That is, parking required = parking rate x GSF of development.

Example: Referring to Metro's rates, minimum parking requirement for offices is 2.7 spaces per 1,000 GSF, and for restaurants is 15.3 per 1,000 GSF.

<i>Parking for offices =</i>	<i>2.7 x 40,000/1,000 = 108 spaces</i>
<i>Parking for restaurant =</i>	<i>15.3 x 5,000/1,000 = 77 spaces</i>
Combined	108 + 77 = 185 spaces

Step 2. Based on the hourly variation in parking demand, determine the peak parking demand for the combined demand of all the uses in the development. Standardized data such as from the ULI Parking Report or the Study of Peak Parking Space Demand performed in the metro Portland area for the Oregon Department of Environmental Quality should be used to estimate hourly variations. Field studies can also be performed on similar land uses within the jurisdiction to establish the hourly variation patterns. This analysis may be needed for both weekdays and weekends, depending on the type of uses involved, and may need to consider seasonal peak periods.

Example: Table 1 shows the various hourly parking demand rates for offices and restaurants (columns 2 and 4) from ULI data. These rates were multiplied by GSF of each development to determine the number of parking spaces needed each hour during a typical weekday. The hourly parking demands for this example are shown in Figure 1. Below is the combined peak parking demands for several critical hours during the day:

Combined Demand for Office peak hour at 11AM:

Office= 3.0 spaces/1,000 GSF, Restaurant = 6.0/1,000 GSF

Combined Demand= (3.0 x 40) + (6.0 x 5) = 120 + 30=150 spaces

Combined Demand for Restaurant peak hour at 7PM:

Office= 0.2 spaces/1,000 GSF, Restaurant = 20.0/1,000 GSF

Combined Demand= (0.2 x 40) + (20.0 x 5) = 8+100=108 spaces

Peak Demand for Combined Uses at 1PM:

Office=2.7 spaces/1,000 GSF, Restaurant =14.0/1,000 GSF

Combined Demand= (2.7x 40) + (14.0 x 5)= 108 + 70 = 178 spaces

Peak Hour Parking Demand for Combination of Uses= 178 spaces

Table 1: Weekday Hourly Parking Demand Ratios for Office Buildings And Restaurants (Source: ULI, Shared Parking , 1983)

Hour of Day	Office Parking Demand per 1,000 GSF	40,000 GSF Office	Restaurant Parking Demand per 1,000 GSF	5,000 GSF Restaurant	Total Spaces Needed to Meet Combined Demand
(1)	(2)	(3)	(4)	(5)	(6)
10 AM	3.0	120	4.0	20	140
11AM	3.0	120	6.0	30	150
12 noon	2.7	108	10.0	50	158
1 PM	2.7	108	14.0	70	178
2 PM	2.9	116	12.0	60	176
3 PM	2.3	92	12.0	60	152
4 PM	2.3	92	10.0	50	142
5 PM	1.4	56	14.0	70	126
6 PM	0.7	28	18.0	90	118
7 PM	0.2	8	20.0	100	108
8 PM	0.2	8	20.0	100	108

Step 3. Compare the calculations of the two steps above, and the lesser of the two peak parking demands shall be used as the minimum number of parking spaces that need to be provided.

Example:

Minimum Parking Required by Metro Title 2 rates from Independent calculations for two uses

185

spaces

Peak Hour Parking Needs with Shared Parking

178 spaces

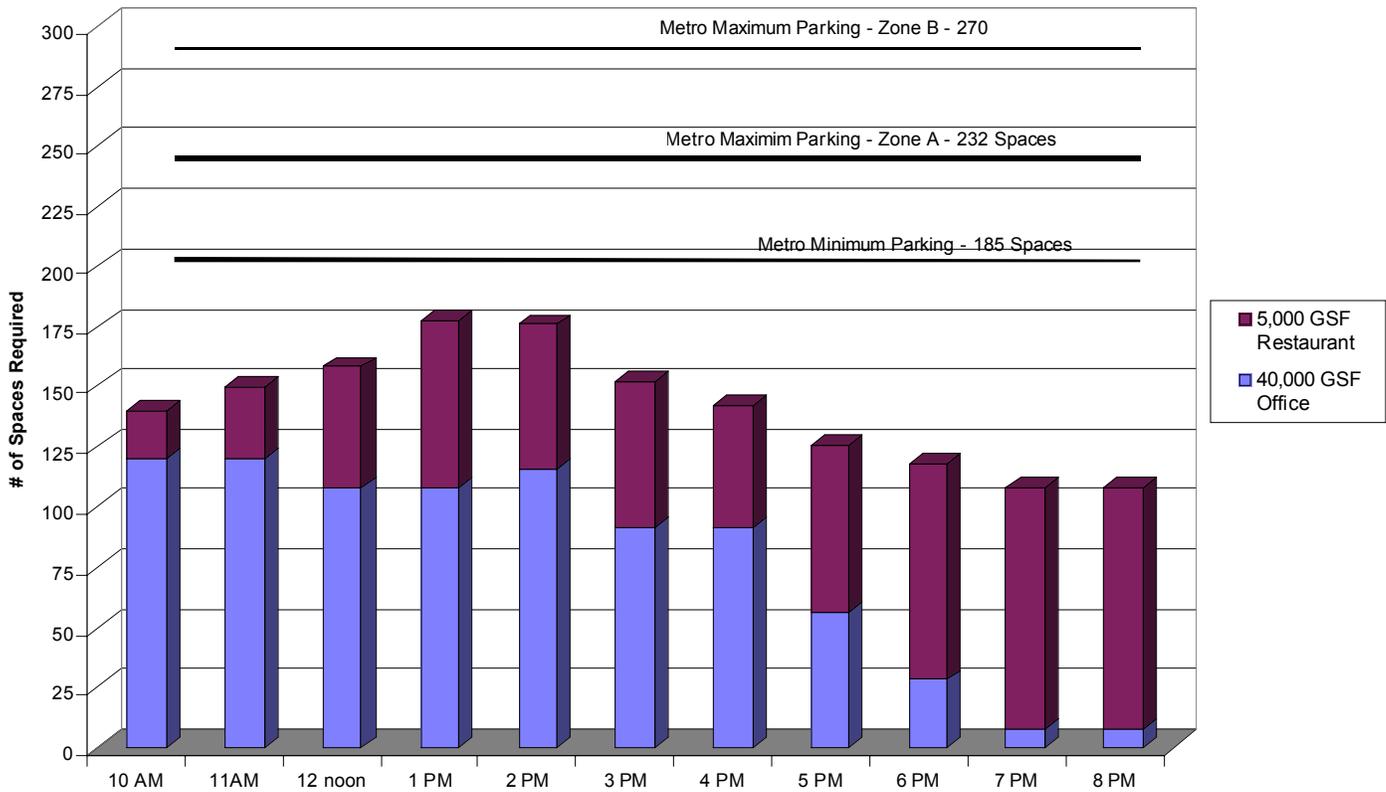
Net Savings 7 spaces

Table 2 shows the above comparison as well as comparing the number of spaces needed with shared parking with the number of spaces are allowed under Metro’s Functional Plan’s Maximum Parking ratios for Zone A and Zone B. This comparison reveals that a shared parking arrangement could save as many as 101 parking spaces. The effect of shared parking for this example is also shown in Figure 1.

Table 2 – Combined Parking Requirements from Metro, Urban Growth Management Functional Plan (11/96)

Metro Codes	Office Code Req.	40,000 GSF Office	Restaurant Code Req.	5,000 GSF Restaurant	Total Required	Total Demand	Net Savings
Minimum	2.7	108	15.3	77	185	178	7
Maximum - Zone A	3.4	136	19.1	96	232	178	54
Maximum - Zone B	4.1	164	23	115	279	178	101

Figure 1 - Parking Comparison – Shared Parking Demand versus Code Requirements



5. Distance to Parking Spaces and Pedestrian Connection Requirements

*This section describes the maximum distances between land uses and parking spaces that would make them eligible to be classified as shared parking spaces/areas.**

The closer shared spaces are to the land uses they serve, the more likely the arrangement will be a success. Shared spaces for residential units must be located within **300** feet of dwelling unit entrances they serve. Shared spaces at other uses must be located within **500** feet of the principal building entrances of all sharing uses. However, up to **20** percent of the spaces may be located greater than **500** feet but less than **1,000** feet from the principal entrances. Clear, safe pedestrian connections must be provided. Pedestrian should not be required to cross an arterial street except at a signalized intersection along the pedestrian pathway. Up to **50** percent of nonresidential spaces may be provided at greater distances if dedicated shuttle bus or van service is provided from a remote parking facility.

* While each jurisdiction is responsible for defining and establishing their own criteria, the following values in bold reflect the values in the majority of the ordinances that were reviewed during this project.

6. Captive Market Parking Requirements

This section sets criteria for the special situation where a use is ancillary to an immediately adjacent larger business and is likely to generate little, if any, vehicle trips or parking demand on its own during the peak periods.

For uses that are considered ancillary to a larger business, no additional parking may be required. Examples of this case include a coffee or snack shop within an office or hotel development, a copy/package store within a business park or redevelopment of small retail uses in a large business district. Parking requirements for similar ancillary uses may be reduced to account for the likely cross patronage among the adjacent uses located within a maximum walking distance of **500*** feet. Parking requirements may be reduced up to **90*** percent as appropriate.

7. Agreement Between Sharing Property Owners

For large shared parking arrangements, jurisdictions are encouraged to require formal shared parking agreements that are recorded with the jurisdiction.

If a privately owned parking facility is to serve two or more separate properties, a legal agreement between property owners guaranteeing access to, use of, and management of designated spaces is highly recommended. (See Model Shared Parking Agreement)

8. Shared Parking Plan

A jurisdiction may require that a shared parking plan be submitted. This could be included in the site plan and landscaping plan information most jurisdictions already require for parking areas or as a separate document. If so, this shared parking plan could include one or more of the following:

- A. Site plan of parking spaces intended for shared parking and their proximity to land uses that they will serve.
- B. A signage plan that directs drivers to the most convenient parking areas for each particular use or group of uses (if such distinctions can be made).
- C. A pedestrian circulation plan that shows connections and walkways between parking areas and land uses. These paths should be as direct and short as possible.
- D. A safety and security plan that addresses lighting and maintenance of the parking areas.