

CHAPTER 4: PARKING MANAGEMENT TECHNIQUES

Introduction

The purpose of this Chapter is to prepare a review of the parking management techniques that are used in other parts of the Atlanta metro area and other parts of the country and to consider the “goodness of fit” with the Gwinnett Place CID area.

There are a wide variety of parking management techniques a jurisdiction can employ to ensure the proper use and management of parking. As part of this study the Atlanta Regional Commission requested specific parking management techniques to be examined for their feasibility within the GPCID area. In this chapter these techniques have been evaluated in addition to others that could also help the CID achieve its goals. These include:

- Parking Maximums
- Shared Parking
- Community Parking Facilities or Public Parking Decks
- Fee-in-Lieu Programs
- Tax Allocation Districts (TADS)
- On-street Parking
- Metered Parking
- Parking Pricing (Location-Based Rates)
- Alternative Commuter Financial Incentives and Preferential Parking for Carpool and Rideshare Vehicles
- Taxes on Parking Facilities
- Unbundle Parking from Building Leases or Purchases
- Overflow Parking Strategies
- Spillover Parking
- Parking Preferences for Short-Term over Long-Term Parking



The Problem with Surface Parking

Excessive surface parking is a major issue within the GPCID that several parking management techniques can address. A typical retail site provides 5 parking spaces per thousand square feet of building area. Assuming surface parking at an average of 325 square feet per space, there are 1,625 square feet of surface parking for every 1,000 square feet of building. Consequently, it is estimated that a majority of the buildable land area in the Gwinnett Place Mall area is comprised of parking lots. The opportunity cost associated with using so much land for parking is an issue as the price of land becomes dearer. According to Alan Wexler, President of DataBank, land for small commercial properties in Cobb County is routinely selling for \$400,000 to \$600,000 per acre, and so land for an average surface parking space would be worth about \$4,500.

The construction cost of surface parking is approximately \$2,000 per space, resulting in a total cost of \$6,500 per space, of which 70% is land cost. However, a 3-acre tract of land being redeveloped on South Cobb Parkway next to Cobb Galleria recently sold for \$2.9 million per acre. This equates to \$23,500 per space for each surface parking space. Meanwhile, a survey of 490 retail centers by the Urban Land Institute found that 43 percent of the centers did not need all of their parking spaces, even on the busiest days of the year between Thanksgiving and Christmas.

Besides the foregone opportunity cost of land, surface parking has five effects on the feasibility of redevelopment of retail centers:

1. Parking lots are easier to redevelop than buildings, so parking lots are the best candidates for infill commercial uses to make more intensive use of land as the value of land increases.
2. However, due to minimum parking requirements and setbacks, it is very difficult to increase density on small commercial sites when redeveloping. Small parcels have little space left to develop a large enough building envelope to make redevelopment feasible with surface parking.
3. Redevelopment of large parcels at higher density may be feasible with surface parking lots, but it results in even larger areas of surface parking that reinforce the domination of automobile traffic and deter pedestrian access.
4. From an environmental standpoint, surface parking is the number one source of stormwater runoff and greatest water quality problem in Gwinnett County. Surface parking lots also create heat islands in the summer time that are becoming a greater concern from the standpoint of environmental degradation as well as human comfort.
5. Lastly, surface parking lots deter pedestrian access and represent aesthetic issues to many consumers now. Large surface parking lots separate buildings from pedestrians and sidewalk-oriented activities associated with lifestyle retail and restaurant trade. Parking lots are hostile environments for pedestrians and deter them from walking even short distances between adjacent properties.

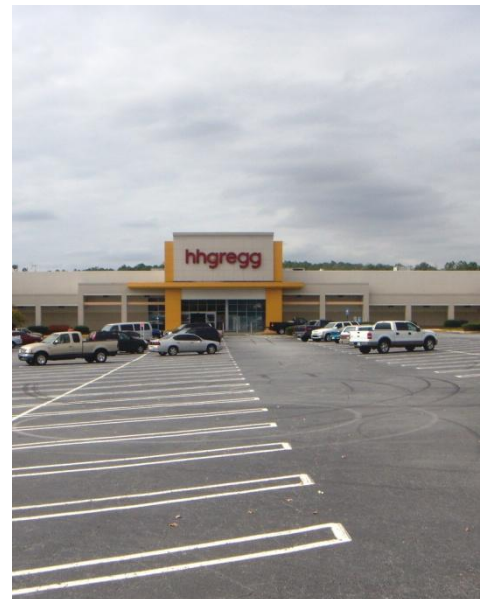
Parking Maximums

One technique to reduce excessive parking in an area includes establishing maximums on the number of spaces a developer can provide. The reasons for doing this may include:

- Reducing impervious surface and stormwater runoff, the major cause of urban and water pollution;
- Reducing “heat islands” caused by large expanses of pavement in the summer;
- Improving the aesthetics of commercial areas often visually impacted by expanses of asphalt;
- Reducing the cost of development in areas where land prices are increasing; and
- Encouraging the use of alternative modes such as walking, biking and public transportation.

Recently, parking maximums have been established in numerous city centers including Seattle, San Francisco, and Portland. In the past, some cities have created even more stringent limitations. For instance,

- In 1975, the City of Portland set an overall cap of approximately 40,000 parking spaces downtown, including existing and new parking facilities. The cap was increased to about 44,000 spaces by the 1980's and increased again in the 1990's. The City believes this policy has helped increase transit use from 20-25% in the early 1970's and to 48% in the mid-1990's. In addition, Portland sets maximum parking limits based on type of use, availability and frequency of transit service, and allows transfer of unused parking entitlements.
- San Francisco limits parking downtown to 7% of the building's floor area.
- Seattle allows a maximum of one parking space per 1,000 square feet of office space downtown, and is considering extending this limit to areas outside of downtown as well.
- Redmond, Washington, a suburban community, allows a minimum of 4 and a maximum of 5 spaces per 1,000 square feet of floor area for most uses in the Neighborhood, Retail, and General commercial zones.



Establishing parking maximums helps avoid under-utilized parking spaces (**ABOVE**).

- Helena, Montana establishes maximum parking ratios as a percent above the minimum parking ratio (e.g. no more than 110% of the minimum for parking lots of more than 51 spaces).

Gwinnett County has established maximums based on land use type that are considerably less restrictive (**Figure 4-1**). It is the consensus of businesses owners and other stakeholders that the historic standards were excessive and have resulted in the glut of unused spaces. Because of this, variance requests to reduce the number of spaces required were frequently received by the county. A site visit conducted mid-day on a Saturday to a representative shopping center in the Gwinnett Place CID, indicated that even during peak shopping hours only 36% of the parking spaces were occupied. This survey was conducted at the Pleasant Hill Square Shopping Center which is a popular, well-leased, and more recently constructed center.

In 2005, Gwinnett County significantly updated their parking requirements.

They imposed parking maximums as well as minimums, while previously the requirements only stipulated minimums. The minimum number of parking spaces for many land uses was also greatly reduced. Historically 5 spaces were required for 1,000 sq. ft. of retail. The new requirements have reduced this considerably to the equivalent of 2 spaces per 1,000 sq. ft. Unfortunately the vast majority of development in the area was built prior to the end of 2005, when these requirements took effect. The positive effects of these changes will become more evident as redevelopment occurs.

The County is currently working on updating its parking ordinance again with the help of the Council for Quality Growth. There is a steering committee overseeing and evaluating these changes. As of December, 2008 a working draft has been made available but changes have not been adopted by the Board of Commissioners. The most recent draft shows no changes to the minimum and maximum space limits for the most prominent land uses in the area shown in **Figure 4-1**.

Figure 4-1: Existing Off-Street Parking Requirements

Use / Development Category	Minimum Parking Spaces	Maximum Parking Spaces
Commercial / Retail	1 per 500 sq. ft.	1 per 200 sq. ft.
Office / Professional	1 per 500 sq. ft.	1 per 300 sq. ft.
Medium Density Residential	2 per dwelling	6 per dwelling

Figure 4-2

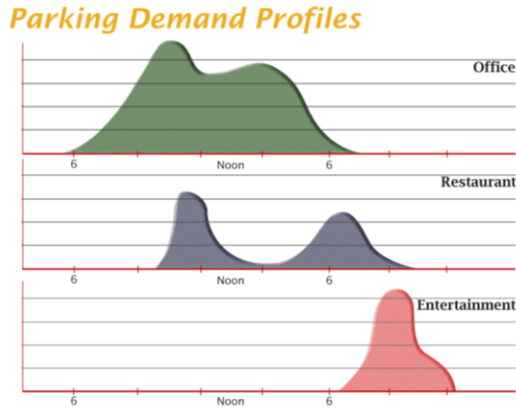


Figure 4-3

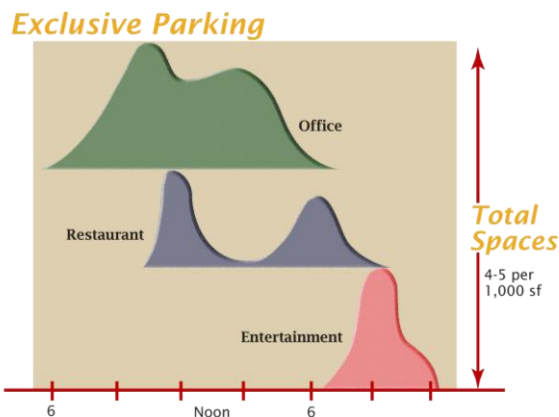
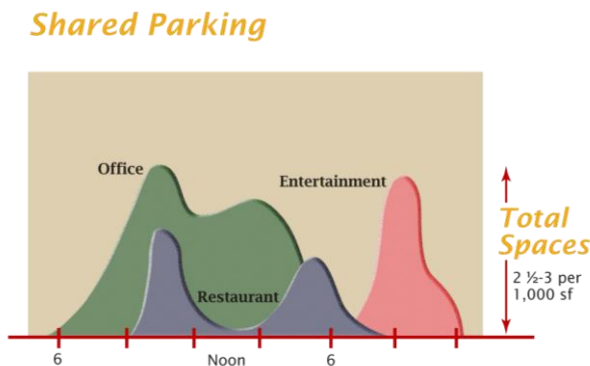


Figure 4-4



Figures 4-2, 4-3, and 4-4 show parking demands by land use type and how shared parking can reduce the total number of parking spaces needed.

Shared Parking

Shared parking is a tactic that can greatly reduce the number of parking spaces needed to adequately serve development. By using this technique, ordinances often allow a reduction in parking requirements by an average of 20 percent.

Shared parking works by allowing parkers to use spaces at another nearby land use if the two uses have different peak usage times. This can include different times of day, week or seasons. For example, an office building is used mostly during the day, and most office workers go home in the evenings, just as the peak parking demand is being felt for restaurants and entertainment uses.

If these uses were each required to meet their peak parking requirements, then a number of the parking spaces would be idle during some or all of the day. However, if they shared the same parking lot, the two uses would need fewer total spaces because many of the spaces could do 'double duty' – being used for office workers during the day and restaurant goes during the evening. This phenomenon extends to a wide variety of uses that are commonly found in mixed use development.

For shared parking to work effectively it must be physically shared. At no time can it be separated or reserved for a specific use. There also must be well-connected driveways and sidewalk connections to ensure that the supply of parking is equally accessible from a variety of uses by all the users.

Many shared parking ordinances allow a flat percentage reduction for sharing uses, or specific reductions for specific combinations of land uses. **Figure 4-5** below shows an example of how a reduction in total spaces can be achieved through an assessment of peak parking demand times for differing land uses.

While convenient, these methods may not be particularly accurate in specific situations. They either grossly overestimate or underestimate need. To guard against a feared shortage permitted reductions are often quite conservative frequently resulting in wasting resources through excess parking. Through a site specific shared parking study this factor of safety can be reduced greatly. A site specific shared parking study is the best way to accurately predict need from different uses. Shared parking ordinances should be written to allow such studies to inform allowable reductions.

The book *Shared Parking* published by the Urban Land Institute continues to be the industry standard for providing guidelines on this practice. An accompanying CD contains software that provides methods for accurately calculating shared parking effects without resorting to an inflexible formula. The cost of this software is expensive, but is small when compared to the construction costs of unnecessary parking spaces. In Atlanta surface parking spaces can be estimated at \$1,939 per space and structured parking spaces at \$15,077, prices not including land (JJG from data compiled by Carl Walker and Ohio State University).

**Figure 4-5. Example of Shared Parking Reduction
Calculations for Differing Land Uses**

% Parking Accumulation Factors by Time of Day		<u>Weekday</u>	<u>Weekday</u>	<u>Weekend</u>	<u>Weekend</u>	<u>Nighttime</u>
<u>Land/ Bldg Use</u>		<u>9AM-4PM</u>	<u>6PM-12AM</u>	<u>9AM-4PM</u>	<u>6PM-12AM</u>	<u>12AM-6AM</u>
Residential		100%	100%	100%	100%	100%
Office		100%	10%	10%	5%	5%
Retail		60%	90%	100%	70%	5%
Hotel		75%	100%	75%	100%	75%
Restaurant		50%	100%	100%	100%	10%
Entertainment/Re creation		40%	100%	80%	100%	10%

WORKSHEET		A	B	C	D	E	F
Comparison of Shared vs. Conventional Demand		<u>Conventional Parking Demand For Each Use (total # spaces)</u>	<u>Weekday</u>	<u>Weekday</u>	<u>Weekend</u>	<u>Weekend</u>	<u>Nighttime</u>
<u>Line</u>			<u>9AM-4PM</u>	<u>6PM-12AM</u>	<u>9AM-4PM</u>	<u>6PM-12AM</u>	<u>12AM-6AM</u>
1	Residential	100	100	100	100	100	100
2	Office	100	100	10	10	5	5
3	Retail	100	60	90	100	70	5
4	Hotel	100	75	100	75	100	75
5	Restaurant	100	50	100	100	100	10
6	<u>Entertainment/Re creation</u>	<u>100</u>	<u>40</u>	<u>100</u>	<u>80</u>	<u>100</u>	<u>10</u>
	<u>Total Parking Needed</u>	600	385	400	385	375	195
7	Conventional Demand =	600 spaces					
	Shared Parking Demand:						
	Use greatest value from						
8	the five columns (B-F) =	400 spaces					
9	Shared Parking Reduction	200 spaces					
10	% Reduction	33%					

Source: Weant and Levinson, Parking, 1990; Eno Foundation for Transportation; Westport, CN

While convenient, these methods may not be particularly accurate in specific situations. They either grossly overestimate or underestimate need. To guard against a feared shortage permitted reductions are often quite conservative frequently resulting in wasting resources through excess parking. Through a site specific shared parking study this factor of safety can be reduced greatly. A site specific shared parking study is the best way to accurately predict need from different uses. Shared parking ordinances should be written to allow such studies to inform allowable reductions.

Community Parking Facilities or Public Parking Decks

Parking structures or decks is one way to reduce the negative impacts of surface parking. However, parking structures are not economically feasible in most locations until land prices and rents are high enough to justify multi-story construction – often land values in excess of \$1 million per acre. The cost of a parking structure typically ranges from \$12,000 to over \$30,000 per space. Underground parking structures are the most expensive, not only because the cost of

excavation, but also the cost of ventilation and security.

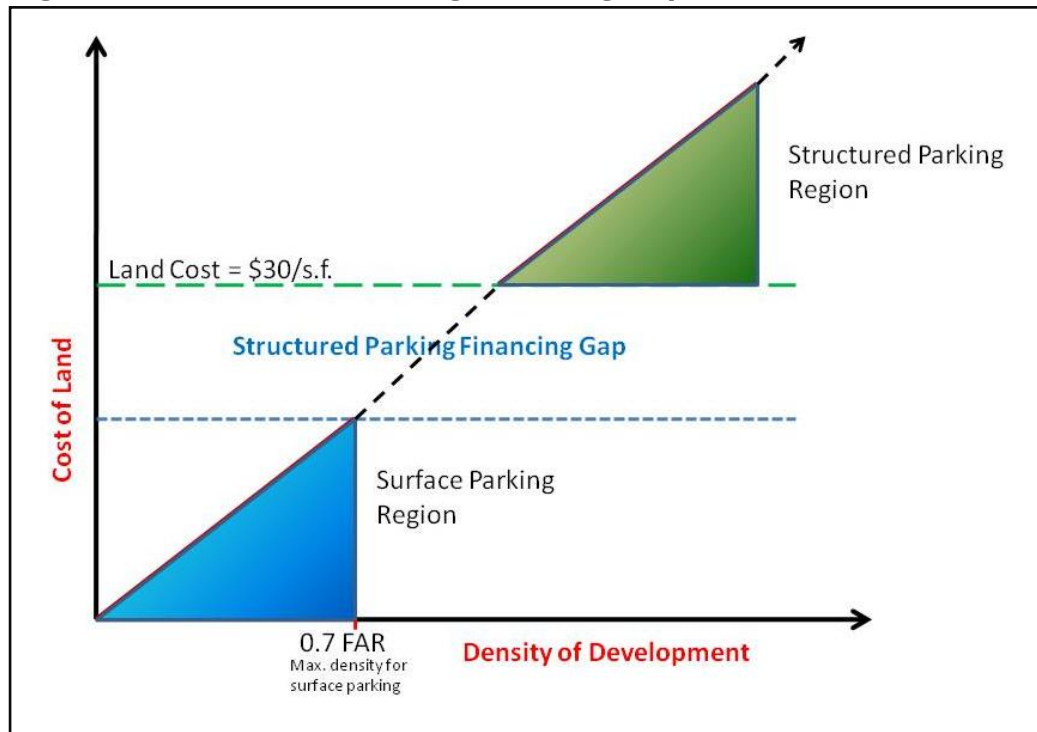
There is often a gap between where structured parking is desired and where it is economically feasible. In these situations partial public funding can be used to help fill in the gap and make its construction feasible. **Figure 4-6** shows the maximum densities that can be achieved with surface parking within existing parking regulations. These show Floor Area Ratios (FARs) of 0.5 and 1.0 for retail and office. For structured parking to be financially feasible land values need to be in upwards of \$30 per square foot. At this land price, the FAR often must exceed 1.5. **Figure 4-7** shows how public financing can help bridge the gap making this possible.

Because of the high cost of parking structures, public agencies sometimes become involved in the development process. The cost of constructing a community parking facility, such as a centrally located public parking deck can be shared by several end users and has the potential to spur significant economic development in an area.

Figure 4-6. Maximum Densities Achievable with Surface Parking under Current Parking Regulations

<u>Land Use</u>	<u>Parking Requirement</u>	<u>Max Densities – Surface Pkg.</u>
Rental Apts.	1.5 spaces per unit	27–30 DU/Acre
Condominiums	1 space per bdrm.	25–28 DU/Acre
Retail	5 spaces/1,000 SF	0.33 FAR or 12,000 SF/acre
Retail	2 spaces/1,000 SF	0.50 FAR or 21,500 SF/acre
Office	3 spaces/1,000 SF	0.7 FAR or 36,500 SF/acre
Office	2 spaces/1,000 SF	1.0 FAR or 43,500 SF/acre
Hotel	1 space per room	0.7 FAR or 36,000 SF/acre

Figure 4-7. Structured Parking Financing Gap



A parking structure that serves multiple nearby businesses can replace vast amounts of land once used for surface parking by individual developments. Freeing up this land can provide considerable opportunities for redevelopment. Permitting developments to count parking in a shared deck towards the minimum spaces required allows developers to dedicate more land to revenue-producing building space. This incentive can help to attract development to an area and serve as a catalyst for additional growth.

Use of structured parking instead of surface parking can also provide significant urban design benefits to an area. Some benefits include increased walkability, and more available for landscaping, public greens, and plazas. If located in a central area parking decks would have the ability to create a 'park

once' environment. Visitors could park in one place leave their cars behind and have the ability to access a variety of uses and activities by foot. Pedestrians could visit multiple businesses by walking through an interconnected system of sidewalks and not expansive parking lots.

Parking structures also have drawbacks from an urban design point of view. We have all seen industrial-looking parking structures that are very unattractive. A large parking structure that stretches the length of entire block can be as offensive to the eye as a large asphalt parking lot.

Such parking lots can be a deterrent to pedestrians passing by on the adjacent sidewalk because they are a physical barrier that obstructs passage through the block. They

are also dark, smelly, and noisy. Lastly, the driveways spew vehicles across the sidewalk, cutting unexpectedly into the paths of pedestrians.

Therefore parking structures need to be carefully located and designed. Large parking decks need to be bisected with pedestrian arcades that not only provide for comfortable pedestrian entrances to access parked cars, but also provide for a mid-block cut through for

pedestrians heading to buildings or streets located behind the deck. The facades of parking decks can be well masked with tall landscaping and constructed of materials and with proportions that are virtually identical to adjacent office or residential buildings so they blend in well with the surrounding streetscape. Better yet the ground floor on the side of the parking deck that is adjacent to the sidewalk should be wrapped with a “liner” of convenient shops, restaurants, and places to window shop. Parking entrances and exits should be on the side street, not cutting across the shopping street façade.

For the GPCID area to redevelop as desired into a high-density, mixed-use, urban center structured parking is necessary. Structured parking is costly however (typically 750% more expensive than surface parking in the Atlanta area) and unless significant density is achieved it often proves to be cost-prohibitive. Ways of removing the burden of constructing structured parking from the individual developer should be explored.



Parking designed with attractive architectural features and lined with retail uses contributes to the public sphere and street life (**LEFT**).

If this is achieved the ability to save on parking costs would provide a large incentive for developers to redevelop in the area.

Some stakeholders in the area have expressed the opinion that future development will take care of its own parking needs. If decks are needed they will be provided through private development. The problem with this approach is that it would likely result in multiple small parking structures on sites far removed from each other. These decks would likely be restricted to the users of each individual site. This private development scenario would fail to provide the desired 'park once environment' and would offer no redevelopment incentives to developers. Within the GPCID area structured parking should be viewed as public infrastructure integral to quality redevelopment and not as a private real estate development.

Some stakeholders in the area have expressed the opinion that future development will take care of its own parking needs. If decks are needed they will be provided through private development. The problem with this approach is that it would likely result in multiple small parking structures on sites far removed from each other. These decks would likely be restricted to the users of each individual site. This private development scenario would fail to provide the desired 'park once environment' and would offer no redevelopment incentives to developers. Within the GPCID area structured parking should be viewed as public infrastructure integral to quality redevelopment and not as a private real estate development.

Viewing parking structures as public infrastructure requires them to be treated as such through public financing and construction. Two possible mechanisms used to fund public parking decks include Fees-in-

Lieu programs and Tax Allocation Districts (TADs).

Fee-in-Lieu Program

In a Fees-in-lieu program developers pay into a fund used for the construction of parking facilities instead of building required parking spaces on-site. The costs associated with construction of individual spaces are pooled together to construct a central parking structure that serves nearby businesses. Over 20 cities in the United States employ this technique including Orlando, FL and Chapel Hill, NC, with the majority being used in California.

Advantages of these programs include:

- Increased flexibility. It gives an alternative to developers to supplying required parking in situations where it would be difficult or very expensive. An example is a one-acre commercial site with a high land cost because it is adjacent to a larger tract being developed at high density.
- Shared Parking. Replacement parking would be shared parking requiring fewer spots to serve the same number of developments.
- Improved Urban Design. Dead spaces or gaps resulting from parking lots along street frontages can be avoided. New parking structures created through this program can be required to include street-level retail along road frontages. Infill redevelopment is more likely to occur as developers are not required to provide all parking on small sites. Additionally this frees up more of the site for architects and landscape architects to design better buildings and grounds.
- Historic Preservation. Historic districts as in the Traditional City of Orlando can be rehabilitated in a manner that maintains

their original character without imposing modern parking requirements on them.

Disadvantages of these programs include:

- A lack of on-site parking. Lacking on-site, owner-controlled parking could reduce a development's attractiveness to potential tenants and customers. If this is a significant fear the developer may opt out of the program entirely or partially providing all or a portion of spaces on-site respectively.
- Location limitations. To work effectively each participating development must be within a realistic walking distance (1,000 feet) of the parking structure.
- Timing restraints. The timing relating to the provision of spaces can become an issue. These programs work well in situations where rapid and strong development is expected in a compact area. Problems have occurred where slow, small, or random development has taken place.

In this situation cash trickled into a fund that was not adequate to cost-effectively develop sufficient parking in a timely manner for each new development. Money sat in the fund for an extended period of time resulting in an undue burden to the first developers who paid in. To avoid this problem parking structures can be financed through bonds and constructed before development occurs to be paid through future development. This method involves taking a 'leap of faith' development will occur as anticipated, to pay back the bonds, and an inherent risk it will not.

This would require the 'leap of faith' however that development would follow. For this approach to work development in a given area would not be permitted to opt out of the program. If developments did this and provided their own surface parking this would

defeat the need for the deck and further contribute to the problem of excess surface parking within the CID. A minimum ratio (i.e. 75%) of required spaces in the county parking ordinance could be required to be transferred allowing the developer some flexibility in providing a small portion of parking on-site. To further ease potential resistance from developers a legally enforceable agreement should be provided to each participant developer ensuring access to the structure for their users.

There are two basic ways to orchestrate a jointly funded shared parking structure. The first would be for a private developer with a large tract of land who is going to build a parking structure anyway to build extra spaces and lease those spaces to adjacent property for a profit. These profits would only be forthcoming if there were a real building boom in a specific area and there were smaller parcels nearby that could not manage to construct their own parking decks because of their small lots or lack of good traffic access. The zoning ordinance could make this option attractive by allowing density bonuses for private developments in a given area to build excess parking in its deck for lease to off-site tenants.

The other way requires a public/private partnership. The CID, a parking authority or another agency with public powers could use public funds to buy land and construct a parking structure then pass on some or all of the cost to adjacent property owners and tenants. A public entity could issue below-market rate bonds for acquisition and construction costs. Sale and leaseback arrangements with a private development partner might allow the private entity to take advantage of private tax benefits to reduce the cost to the end users. Finally, a change in the zoning ordinance to allow developers or building tenants to pay a fee in lieu of



building their own off-street parking would attract investors to defray some of the cost of bonds issued for construction of the parking deck. This multi-tier financing approach may make structured parking attractive in situations that would otherwise not be feasible.

Tax Allocation Districts (TADS)

Tax Allocation Districts (TADS) are special taxing districts used in Georgia to catalyze redevelopment in areas that are blighted or underdeveloped. TADS are used to fund redevelopment costs in the present by tapping into the property tax revenue stream resulting from future development. When a TAD is established in an area its tax revenue is capped at the current year. This establishes a base level. As new development occurs the resulting additional tax revenue is placed in a separate fund to pay off the debts incurred in upfront redevelopment costs. Typical redevelopment costs that are funded include infrastructure improvements such as parking structures, underground utilities or road construction.

Typically TADS are used in areas that have numerous vacant commercial or residential properties and are considered blighted. In Georgia, unlike other states, an area is not required to be blighted to be designated as a TAD. It must merely be designated by the local government as an area in need of redevelopment.

TADS serve as an incentive for redevelopment by funding land costs and certain other redevelopment costs up front making projects work for developers that may otherwise not. For example TAD funds could be used to pay the cost of acquiring a parcel to be used for a shared parking structure and jointly for a mixed use development, making the construction of a larger parking structure more feasible, than it would be under normal circumstances. With the inclusion of land for a parking structure ‘free-of-charge’ a developer could use a larger percentage of a project site resulting in greater density, more revenue producing space and larger profits.

The increased profits could help draw redevelopment to the area and serve as a catalyst for future redevelopment.

TAD financing can be used in conjunction with Fee-In-Lieu programs in order to ensure that parking can be developed in a timely manner and public financing can be secured at least in part or in totality by anticipated tax income. There is however the risk that development will not occur as planned, resulting in reduced revenue stream. The simultaneous construction of a parking structure and redevelopment is the most advantageous situation. Through a public-private partnership this could be achieved. Careful scrutiny should be given to this ensuring only the minimum public funds are used to reach the “tipping point” in which private development will be made profitable. All projected costs and accounting books should be made available to ensure no developer profits unduly from such an arrangement. Through a public-private partnership the County could place restrictions on development ensuring it is of the type deemed most appropriate for the redevelopment of the area. It would provide a win-win situation in which a developer would be given incentives to build in the area in exchange for building development types most desired by county and CID officials.

TADS have been used in this manner to fund parking structures in several locations within the Atlanta metropolitan area. In Smyrna a TAD was used to help finance a 1,000-plus space underground parking garage as part of the Jonquil Village development. This development will replace an aging strip center built in 1959 with over 270 condominiums, 159,000 sq. ft. of retail and 20,000 sq. ft. of office space. In Midtown Atlanta 60 million in TAD funds were used to construct an 8,000-plus parking structure in the Atlantic Station development.

A study conducted by Bleakly Advisory Group in October, 2008, entitled “Redevelopment Plan for: Gwinnett Place Tax Allocation District #1” found that the GPCID area does qualify as an area eligible for a TAD. The study projects that through the use of a TAD the taxable value in the area could increase from \$122 million to \$602.1 million. It suggests \$41 million in TAD funds could be used to finance public infrastructure, including \$15 million for a structured parking deck. Recent elections have cleared the way for the full use of TADs in the area. On July 15, 2008 Gwinnett voters approved the use of TADs in unincorporated parts of the county and in the general election in November Georgia voters amended the state constitution to permit funds designated to schools to be used within TADs. The Gwinnett County Commission has postponed creating TADs for the time being leaving this decision to 2009, which means that the earliest a TAD could be implemented would be 2010.

On-Street Parking

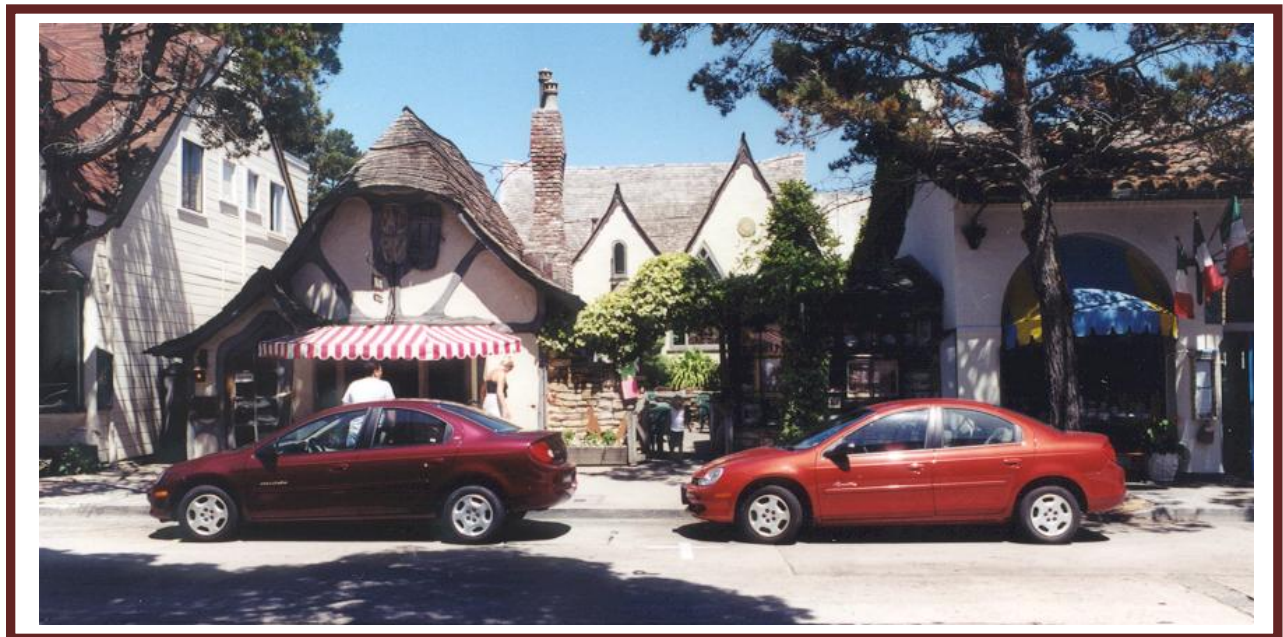
When planning for on-street or parallel parking in an area it is important to first classify roadways as either an Edge or a Seam. Edges are roadways that serve as barriers to pedestrian travel because of high travel speeds and wide multi-lane expanses of asphalt. Seams are smaller streets that are comfortable to cross as a pedestrian because they feature moderate travel speeds and few travel lanes to traverse. A walkable urban fabric can be easily stitched across a Seam. This can be difficult or impossible to achieve across an Edge.

Edges in a community should be accepted as the barrier they are and planned for accordingly. Trying to achieve an active connected pedestrian environment on both sides these roads should not be a major goal. The quick and efficient movement of vehicles should be the top priority for these roadways. On-street parking on these roads is not appropriate as it results in reduced traffic capacity and causes safety issues. On-street parking on Seam streets is a traffic calming influence that can help promote an inviting pedestrian environment.

Within the GPCID there are clear Edge roadways, these being Pleasant Hill Road and Satellite Boulevard. These roads are not conducive to on-street parking because of high travel speeds and congestion levels. Since traffic is already a major issue all travel lanes on these major roads should be reserved for the quick and efficient movement of vehicles.

Any reduction in travel capacity along these roadways would result in a detriment to the area. On-street parking reduces capacity on roadways through three mechanisms. First it preempts lanes that could be used for the movement of automobiles. Second, parking and unparking maneuvers impede traffic in moving lanes. Third it causes motorists to voluntarily reduce their speed to guard against collisions with car doors, pedestrians, and vehicles moving in and out of parking spots.

On-street parking will be feasible in the future on many secondary or Seam roadways within the CID. These include Mall Boulevard, Market Street, and Ring Road. Appropriate streets for future on-street parking are shown on **Figure 4-8**.



The same factors that make on-street parking undesirable for major roadways make it desirable for smaller streets. It reduces travel speeds, provides convenient access to street front retail, and increases pedestrian comfort. On-street parking provides a buffer of parked cars between passing vehicles and the sidewalk resulting in a more relaxed environment for walkers, outdoor diners, and individuals resting on benches. This form of parking could be integral in creating the more urban, walkable mixed-use environment that is desired within the CID. Making the surroundings more enjoyable for pedestrians would encourage leisurely strolls and window shopping resulting in more time and money spent in the area.

On-street parking is currently not feasible because of roadway design and existing streetcapes. It is also not needed as ample parking is available in front of businesses. As the area redevelops this type of parking should be incorporated in new street designs.

Where right-of-way is available the streetscapes of secondary roads could be retrofitted to permit on-street parking without requiring the loss of a travel lane. “Bulbouts” or “Neckdowns” at intersections should be used to channelize traffic in the travel lanes and help delineate areas used for parallel parking. These “Bulbouts” are desirable at intersections with a large number of pedestrians as they reduce crosswalk distances, increase sidewalk space and provide room for additional street furniture and other pedestrian amenities.

Figure 4-9. Bulbout at Intersection (BELOW).



Metered Parking

The principal disadvantage of “hourly paid” parking is that most lots or decks must have enough customers to warrant a cashier. This labor is an expense that adds to the cost of parking. Exiting through a cashier also adds delay and a line at the entrance of a pay lot or deck that can create traffic problems.

By comparison, on-street parking provides a convenient way for visitors to access street-front retail and restaurants. On-street parking spaces should be reserved for short-term parkers and restricted from long-term parkers, such as employees. Using curbside signs to establish time limits is the typical means used to promote desired turnover. Two hour limits are often used in retail and dining areas. If restrictions like these are not put into place users of parallel parking spots tend to ‘hog’ them coming early and staying late.

An effective way to ensure time limits are followed and encourage turnover is through the use of metered parking. Parking meters can be set to accept only the maximum amount of time permitted (2 hours for example) at one time. The red expired flag helps signal to parkers that they have exceeded the time limit. Studies have shown that short-term parking meters even with low to moderate enforcement levels are effective in achieving turnover (Weant and Levinson, Parking, 1990; Eno Foundation for Transportation; Westport, CN, Pg 253).

Without parking meters or costly video surveillance high levels of officer enforcement are needed to discourage long-term parkers. In this situation officers would be required to record license plate numbers at multiple times and/or chalk-mark vehicles tires.

With the use of short-term parking meters there are two violations that could take place, a

parkers could park for “free” by not putting any or sufficient change in the meter or they could exceed the 2 hour time period and “feed the meter” never letting the meter expire. The parker could also achieve a double violation by parking longer than two hours and having an expired meter. The first violation is much easier to catch by parking officers and is easily ticketed. The second violation would require higher enforcement levels with multiple observations and the chalk-marking of tires.

In addition to just controlling long-term parkers, parking meters also generate revenue. These revenues could be used to off-set costs associated with installation, operation, and maintenance of meters. Additional revenues could be used for other public improvements in the area.

The City of Decatur is experimenting with a novel approach to parking meters. As parking meter fees are often more than “small change” many shoppers complained about not having enough pocket change to pay the meter. The new plan uses a private company that allows shoppers to establish an on-line parking meter account that they can access by cell phone. When they park at meters in Decatur they can call an 800 number, then key in their account number and the serial number of the parking meter and can pay their parking meter fees on line.

Parking Pricing (Location-based rates)

This technique is used to allocate parking spaces more efficiently. It charges higher rates for spots that are in prime more convenient locations. Fringe parking areas are set at lower prices to attract long-term all-day parkers. This technique works well in urban centers where users are accustomed and willing to pay for parking. In a modified form this technique is appropriate within the GPCID with regards to on-street parking.

High access, high convenience parking should be reserved for short-term parkers through the use of meters. All other parking for local restaurants, office and retail should remain free to maintain competitiveness with other shopping centers. The area is already at a competitive disadvantage because of its perception as an older 'tired' center without the newer 'bells and whistles' of competing developments such as the Mall of Georgia and the Forum. Charging for parking would add insult to injury driving visitors away to other areas.

Alternative Commuter Financial Incentives and Preferential Parking for Carpool and Rideshare Vehicles

Parking strategies can be designed to include incentives that encourage alternative modes of travel such as transit and carpooling in order to reduce the demand for parking. Financial incentives for the use of alternative travel modes to the single-occupancy vehicle (SOV) are already available within the GPCID area. The Clean Air Campaign (CAC), a non-profit organization funded by local corporations provides numerous incentives to commuters in the Atlanta region who use alternative modes. These currently include paying commuters who switch from SOV travel to an alternative mode \$3 per day up to a maximum amount of \$180 over a 90-day period. Commuters who continually use an alternative mode can log their commutes to enter drawings for \$25 gift cards. Carpoolers are also eligible to receive \$40 or \$60 dollar gas cards depending on the size of their carpools.

In addition to incentives provided by the CAC, businesses in the area have the opportunity to encourage commute alternatives through the discounting of transit passes. Mass transit is currently available in the area in the form of local bus service and express bus service, although there is room for significant

improvement in its functionality. The possible future addition of MARTA rail to the area would greatly expand the opportunities for commuters to use transit in lieu of SOVs.

Another incentive that corporations can provide to encourage commute alternatives is to set aside prime parking spaces close to building entrances for use by carpoolers or rideshare vehicles. This provides an additional perk for carpoolers, but would likely not be a big enough incentive to alter travel behavior.

Alternative commuter financial incentives and designated parking spaces for carpoolers will likely have a negligible effect on overall parking needs. In the Atlanta region the overwhelming majority of commuters do so in SOV's (78% according to the US Census 2007 American Community Survey for the Atlanta Metropolitan Statistical Area). This statistic includes the significant number of commuters who travel to large employment centers already well served by transit. It is likely the percentage of SOV commuters is even greater in the GPCID area due to its poor transit service.

If transit service is improved in the area, in particular through the expansion of MARTA rail this issue should be revisited, but as it currently stands these incentives will have little effect on parking needs in the area. A reduction in spaces needed to serve office development may be warranted in the future if these developments are in locations readily accessible to efficient mass transit.

Taxes on Parking Facilities

At one level, parking is already subject to taxes because property taxes are collected against land that is used for parking. However, many urban jurisdictions in Canada and Australia, also tax businesses directly for the number of parking spaces they maintain.

This guards against the overbuilding of parking spaces in central business districts. By directly charging for each space businesses build and maintain only the number of spots they need.

In this country many cities such as Miami, Los Angeles, New Orleans, and Chicago tax commercial parking operators for the number of spots they maintain. This also serves to reduce demand for parking spaces in central businesses districts by making these spaces more expensive to users. In most instances the tax is passed directly on to consumers.

Land value taxation is another technique that can be used in central business districts to encourage redevelopment and discourage the use of land as surface parking. By taxing downtown land on its full market value and not its use as a low-intensity parking lot, it provides an incentive to develop land to its highest and best use. Where land is taxed on its use it provides incentives for landowners to use their land as a parking lot and wait for what they consider to be the most lucrative time for them to sell or develop. These techniques are most useful in city centers and are not readily applicable to the GPCID area.

Unbundle Parking from Building Leases or Purchases

In urban areas it is often the case that when tenants lease building space a set number of parking spaces are bundled with the lease. Similarly when building space is purchased it frequently includes deeded parking spaces. Unbundling parking spaces from leases or purchases can reduce the number of parking spaces needed by reducing demand. Fewer spaces would be needed since occupants would be less likely to use spaces if they had to pay for them directly. The additional cost would cause some users to forgo a parking space in favor of taking transit or carpooling. In this situation the true cost would be passed directly to the user and not disguised in the purchase or lease price of the building.

This technique results in a more efficient allocation of parking spaces since spaces would be used only by individuals willing to pay the true market rate for parking. In addition there would be fewer vacant spots since occupants would not be provided with spaces they may not need or use.

Currently and in the foreseeable future this technique is not applicable within the Gwinnett Place CID due to the suburban nature of the area since free parking is available on-site for each separate use. For this technique to be usable it would require an urban environment in which users pay directly for parking and have a variety of uses and activities available to them from the same space. If the area redevelops to include significant density in the form of multi-story office buildings and mixed-use development this technique may become relevant to reduce parking demand in the future.

Overflow Strategies

For the vast majority of the year a considerable portion of parking spaces in the GPCID area sit empty. The one exception would be the holiday shopping season, especially the day after Thanksgiving “Black Friday” and the weekends between Thanksgiving and Christmas. In these unique situations overflow parking strategies may be needed. If special events with a significant draw were held in the area there would also be a need for overflow parking strategies. Some strategies to be considered include:

- Shared parking arrangements between adjacent uses. For example when the mall parking lot is at capacity parking in neighboring shopping centers could be shared.
- Shuttle service could be provided from parking lots far removed from the mall or event space. Most beneficially across Pleasant Hill Road and Satellite Boulevard which serve as barriers for pedestrian travel.
- Valet parking can be used when overflow lots are available but are inconvenient to patrons.
- During peak times encouraging employee parking in fringe lots could also be a tactic.



Pleasant Hill Road serves as a barrier to pedestrian travel (**LEFT**). A shuttle service could provide safe pedestrian connections between satellite parking and final destinations.

Spillover Parking in Adjacent Neighborhoods

Due to the excess parking available in the GPCID, spillover in adjacent neighborhoods is not a major concern. Even with significant redevelopment and decreased parking glut in the future, spillover will likely never become an issue due to the considerable physical separation between commercial and residential areas. Patrons to the area will likely not be willing to walk the long distances from residential neighborhoods to commercial areas. Currently good pedestrian connections between neighboring subdivisions and the commercial heart of the area are poor or non-existent.

Parking Preferences for Short-Term over Long-Term Parking

Currently there is no distinction made between short-term and long-term parking within the majority of the GPCID. In the future as the area redevelops preference should be given to short-term parkers as opposed to long-term parkers in regards to prime parking locations. Retail and restaurants should have centrally located short-term parking available. All-day employee parking should be located on the periphery. On-street parking should be made available directly in-front of businesses and time restricted to accommodate the largest number of customers.

Pricing schemes can also influence the balance of short-term versus long-term parkers. For instance a parking lot that allows the first two hours of parking for free (or by validation) but charges \$2 per hour for each hour thereafter will encourage short-term parking and discourage long-term parking. Conversely, a parking rate of \$2 per hour or \$5 for all day (in before 9AM) will encourage all day employee parking and discourage hourly retail parkers because it costs more and the stores do not open until after 10AM.