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Parking & Transportation

City of Bozeman
Downtown Strategic Parking Management Plan
White Paper – 85% Rule
January 18, 2019 (v2)

I. BACKGROUND

Bozeman's *2016 Downtown Strategic Parking Management Plan* resulted in implementation of a policy and organizational action strategy adopting "the 85% Rule as the standard for measuring performance of the parking supply and triggering specific management strategies and rate ranges."[1] The plan also approved Guiding Principles for "active capacity management" that calls for the "use [of] the 85% Rule as a parking occupancy standard to inform and guide decision-making."[2] Since approval of the 2016 Plan, City staff and downtown stakeholders have requested more information as to best practices related to the on-the-ground implementation of the 85% Rule.

This summary provides more detail and examples from other cities as to how the 85% Rule supports strategic parking management decision-making and active capacity management of varying types of parking supply.

II. "85% RULE" – WHAT DOES IT REALLY MEAN FOR YOUR PARKING "SUPPLY?"

Anyone who talks about parking these days will inevitably run across the phrase the "85% Rule." Though this standard for parking management has been a common tool within the parking industry for decades, the concept was elevated to wider public attention by UCLA Professor Donald Shoup, in his 2005 book, *The High Cost of Free Parking*.[3]

On-street parking

Shoup's focus is with on-street parking and suggests that any single block face that routinely exceeds 85% should be priced to ensure that there is always a 15% buffer of available parking "at the curb." As such, higher rates should be charged on block faces with high occupancies and a lower rate (or no rate) on block faces that have lower occupancies; a system called variable rate or performance-based pricing. According to Dr. Shoup, charging a higher, "fair market price" for parking at constrained curb spaces facilitates turnover (which is beneficial to business sales), reduces congestion, improves air quality and

[1] City of Bozeman, Downtown Strategic Parking Management Plan, Project Summary and Recommendations for Parking Management (July 5, 2016), page 11.
[2] Ibid. Guiding Principle 3(a), page 7.
[3] Donald Shoup (2005), *The High Cost of Free Parking*, Planners Press.

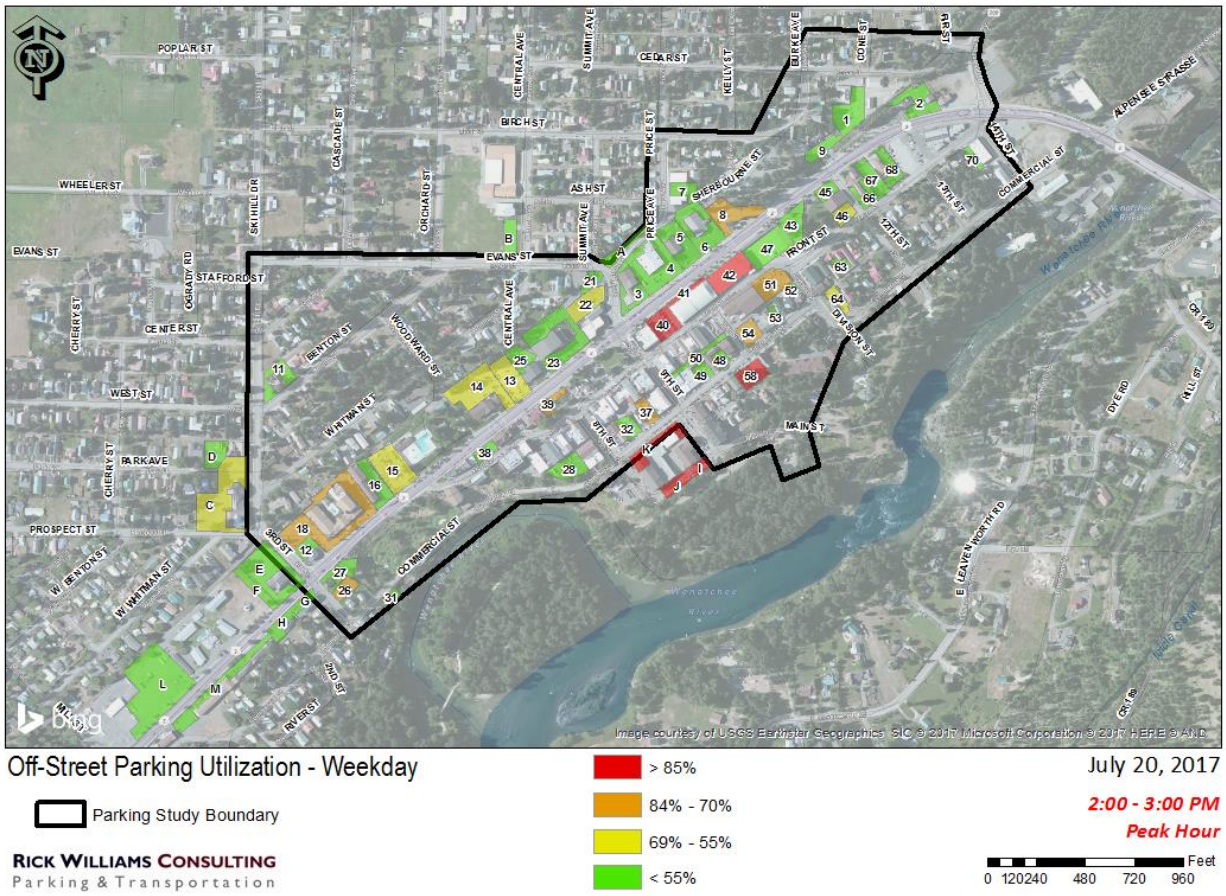
generates a revenue source for cities to re-invest back into the districts from which parking revenue is derived.

Off-street parking

The same approach is taken for off-street parking facilities, using the 85% occupancy standard to calibrate rates for hourly, daily and monthly permit parking. Lots or garages that maintain high levels of occupancy, charge higher fees than those that maintain lower occupancies.

An example is illustrated in **Figure A** from Leavenworth, Washington. In Leavenworth, occupancy data from off-street facilities is compiled in a heat map format, which allows their parking managers and Advisory Committee to evaluate use and pricing from a demand perspective. Lots in excess of 85% will be priced accordingly in relationship to other facilities with lesser demands.

Figure A: Example of Using 85% Rule for Decision-making (Leavenworth, WA)



The City of Salem, Oregon also uses the 85% rule to trigger pricing decisions and manage monthly parking permits. When a facility routinely exceeds 85% peak hour occupancy, monthly rates at the facility are increased and/or the number of permits sold at the facility is reduced to ensure that visitor trips are not jeopardized. Salem further calibrates off-street rates against their highest occupied

garage. As such, if the highest rate charged for monthly parking at the most constrained facility is $100 per month, prices of permits at other garages with (for example) 60% peak occupancies will charge $60 per month for permits; at 40% occupancy permits will be $40. The purpose being to charge higher rates at high density "premium" garages, with lower rates at underused garages. The varied rates also serve as an incentive for users to seek out lower priced supply; spreading parking demand over all facilities in the Salem public system, as opposed to a system (as in some cities) where rates in all public facilities are the same – regardless of demand.

In both the Leavenworth and Salem examples, the 85% Rule serves as the trigger for initiating discussion and decision-making regarding rate increases and/or managing permit sales.

Residential Neighborhoods

The 85% Rule is also used in situations where spillover of visitor and employee parking from commercial corridors into residential neighborhoods that abut commercial corridors occurs. In these situations, the 85% Rule serves as an effective measure of constraint indicating that access to parking by residents is adversely impacted by non-residential users. This situation also occurs in areas where large institutions (e.g., hospitals, college campuses) abut or locate within an area that is primarily zoned for residential use. Cities that use an occupancy measure to trigger neighborhood parking management strategies include Boise, Idaho; Boulder, Colorado; Bend, Corvallis and Portland, Oregon; and Tacoma, Washington (to name only a few). In each of these cities, when the occupancy standard is exceeded, a policy framework has been established that allows a neighborhood association to request action, discussion and /or initiation of strategies to prioritize parking access on residential streets for residential users. The most common solution implemented is creation of a residential parking permit zone (RPPZ).

RPPZs allow parking management, usually through parking permits and time limits that give preference to residents and their guests when instances of constraint create conflicts between residential and commercial parking demands.[4] Those who live in the area may be provided or purchase a permit to allow parking beyond a posted visitor time limit within the residential parking permit zone.[5]

III. APPLYING THE 85% RULE STANDARD

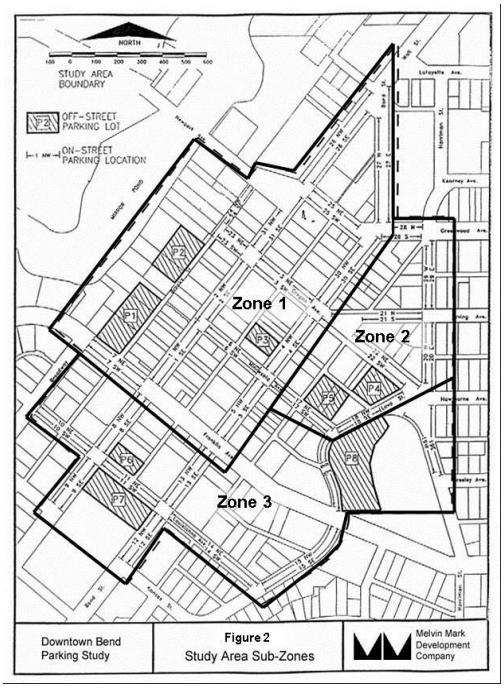
Whether in on-street, off-street or residential contexts; the "85% Rule" is truly a strategic and beneficial tool to include in any parking management plan, particularly as the use of this standard underscores

[4] In most cities requests are made through a community initiated petition.

[5] Provisions are made in some cities that allow for the sale of non-residential permits (e.g., employee permits from an adjacent commercial district) within RPPZs if there are demonstrated surpluses of parking within the zone that would allow for the sale of such permits without adverse impacts on access for residents and their guests.

and facilitates parking problem solving within an objective, measurable framework. Unfortunately, the national hype over *The High Cost of Free Parking* has led some cities to jump into strategy implementation before clearly developing a reason to do so. There can be several "problems" with a straight up Shoup-like approach to the 85% Rule, particularly in smaller cities that have traditionally operated with free supplies of parking.

The first issue to explore is the definition of "parking supply" that is driven by the 85% Rule. For Shoup, the definition of supply is the supply at any single block face. Others in the industry would broaden the supply of parking to a more identifiable use area, for instance a retail district, "Main Street" or defined parking management zone. For example, the City of Vancouver, Washington has identified five parking management zones in its downtown; Bend and Canby, Oregon have three unique zones and the City of Portland thirteen in its downtown. The City of Bend establishes residential parking permit zones for areas as small as 10 block faces or 1,500 lineal feet of curb space.



Bend, OR: Parking Management Zones (2002 Parking Management Plan)

Rather than managing to the block face with the 85% Rule, these cities manage to an identifiable, walkable area or zone that uses the Rule to ensure convenient access to parking spaces within the zone. These management areas are usually uniquely land use based (e.g., retail core, government district, university district, residential cluster, etc.) where the primary land uses (and the priority parker for those land uses) drive parking activity. Each is uniquely managed to the 85% Rule standard.

This is the approach that private operators of off-street garages have used for many years. It is rare that you experience different pricing on each floor of a garage; rather such pricing occurs when the entire facility (or zone) reaches 85%. Also, different facilities ("zones" or "districts") have different rates. For an on-street system, picture a parking management zone as levels of a garage spread over a manageable area. Intersections are elevator lobbies and sidewalks are stairwells.

The outcome is to manage a supply of parking to ensure that there are available parking stalls (a minimum of 15%) and a convenient time factor involved in getting a priority user parked and to their desired destination. For Main Street downtowns, it is not only important to ensure a convenient parking stall near destinations, but to reap the benefit of customers walking an area to experience other destination opportunities they may not have been aware of. In short, the 85% Rule is a *common standard*. How it is *applied* in different settings depends on how intensely a City wants to manage a unique supply. If the parking management area is too small (e.g., at the block face) "rules of use" of the parking in an area can be confusing to the user. If the area is too large, reaching 85% may never occur

and sub-zones of constraint within that larger supply may never receive problem solving attention or action.

Illustrating this dynamic is to use another example from Leavenworth, WA. **Figure B** provides a summary of on-street occupancy for parking in what is the downtown parking management district – comprised of 846 stalls. As the figure shows, peak occupancy reaches 59.3% weekdays and 72.6% weekends. If the 85% Rule were in play for the entire management district, one might argue that there is no need for immediate action.

Figure B: Hourly Occupancy for Downtown Parking Management District (Leavenworth, WA)

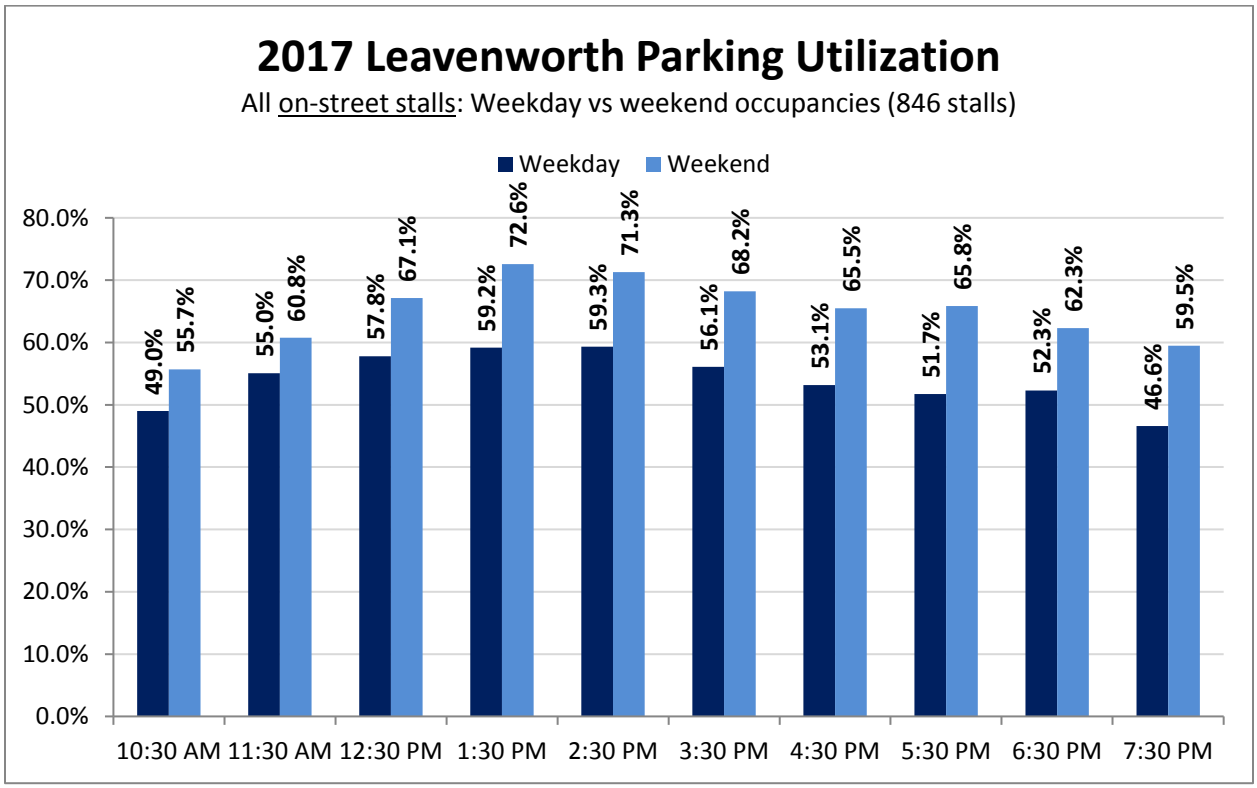


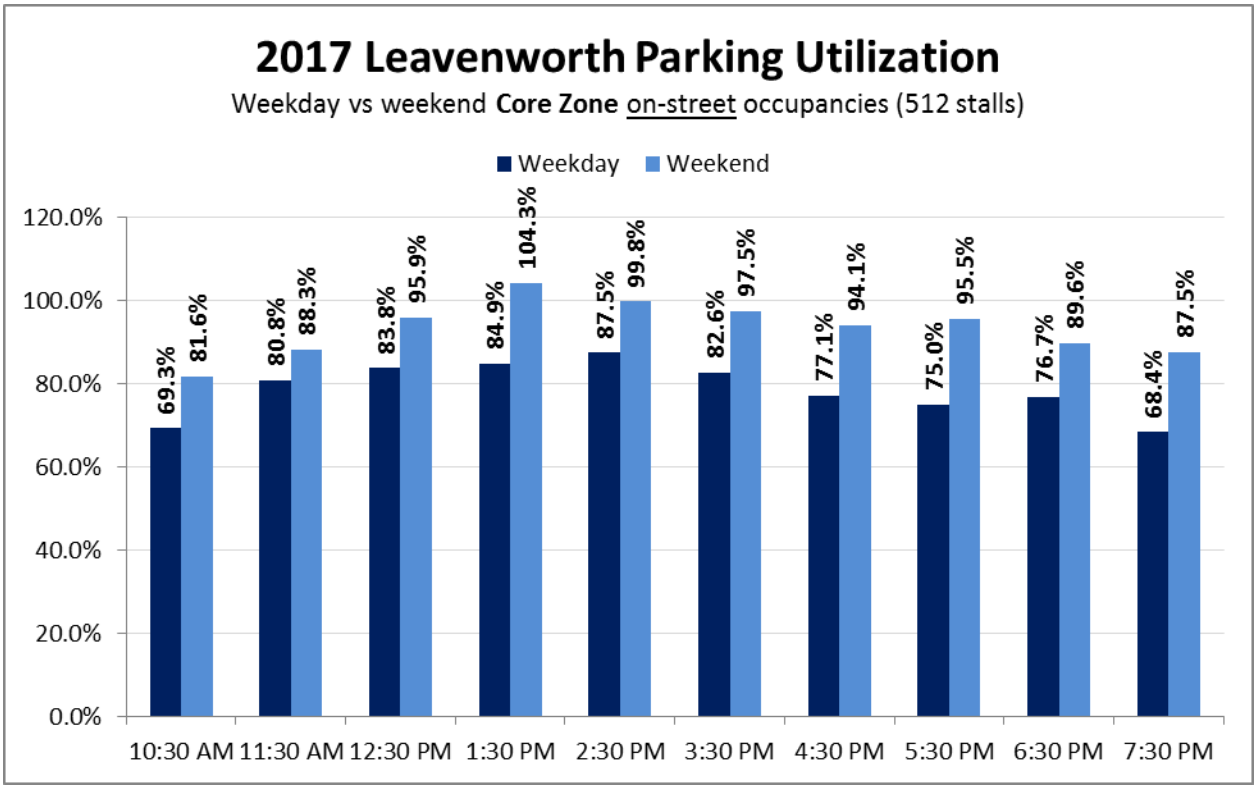
Figure C (next page) evaluates a more concentrated area of the larger parking management district identified as the Core Zone. For most in Leavenworth, the Core Zone clearly represents the historic downtown Main Street and highest concentration and cluster of businesses. This sub-zone is comprised of 512 on-street spaces.

As the Figure demonstrates, weekend occupancies exceed 85% occupancy in nine of the ten surveyed hours. In fact, occupancies are over 90% most hours and actually exceed 100% in one hour (signs of illegal parking activity). Weekday occupancy does exceed 85% in one hour and approaches 85% in three other hours. Within this sub-zone, the 85% Rule would suggest additional parking management strategies and actions are needed.

The point here is that the 85% Rule should be used strategically within a framework that uses the rule to reasonably measure the impact of parking – constraints and/or surpluses – within defined and

recognizable impact zones. The purpose is to set a standard that *encourages decision-making* when problems arise. The industry has found that the 85% Rule is an objective measure of constraint and for targeting problems within a parking system. The Rule is understandable to stakeholders and allows what might be difficult decisions to be made where they might otherwise be avoided.

Figure C: Hourly Occupancy for Downtown Parking Management Sub-zone (Leavenworth, WA)



IV. BEING COST EFFECTIVE

The second issue related to the 85% Rule is the potential costs associated with its implementation at the level described by Shoup. Cities that already have parking revenue collection equipment (meters and/or pay stations) are better equipped to initiate programs that stratify rates by demand, whether at the block face (as in San Francisco) or by zone (as in Bend and

Whether at the block face or zone level, the 85% Rule is a powerful management tool and trigger for decision-making that supports the unique parking and economic development priorities of a downtown or sub-district. The 85% Rule should be a key decision-making and action trigger, intended to initiate tailored parking management strategies based on demand (85% Rule) and supportive of area plans and visions.

Portland, OR).[6] However, in many smaller towns and cities, the cost of equipment necessary to implement parking rates might be too costly to cover the expense of installing and managing flexible rates, particularly in downtowns that have pockets of high demand surrounded by underutilized supply. To this end, the first step toward effective use of the 85% Rule begins with calibrating time stays to the needs of priority users, desired turnover levels and appropriate enforcement. Also, as a parking zone or management district reaches 85% occupancy, the economics of demand (and equipment costs) make it easier to transition that area to paid parking (meter or permit zone), as opposed to an approach that is simply block by block.

V. INTEGRATED PARKING MANAGEMENT

The third issue is the relationship of on and off-street parking and the 85% Rule, particularly for commercial districts. There is an adage in the parking industry that states "on-street parking is a finite supply?" Theoretically, an *on-street* supply could reach a point where the entire supply exceeds 85% occupancy (see above example of Leavenworth, WA). It is at this point that a parking management plan needs to ensure that in implementing strategies to create a 15% buffer within the supply (e.g., reducing time stays, enhanced enforcement and/or pricing) that the overall number of trips to the commercial area is not reduced. It would be counterproductive to price parking to maintain a specific "buffer" only to find that fewer customers are coming downtown.

To achieve this, the 85% Rule is most powerful when applied to an "integrated access system" that grows trip capacity in a downtown through maximizing turnover on-street (based on customer need), adding more customer trips into the off-street system and enhancing other access options (transit, bike, walk and rideshare) for employees and customers. To achieve this, downtowns must integrate management of their off-street supplies into the overall parking management equation. Where cities own off-street supply (lots and garages), this may be easier. In cities that have little control of the off-street system, then partnerships and shared use arrangements with private stakeholders is critical.

A 2006 paper on parking guidance systems noted that any successful strategy for effective parking management needs to understand that:

- Increased rates on-street should be correlated to lower cost options off-street.
- If higher and variable "premium" rates on-street are employed to manage supply availability, then options must be in place off-street or in other modes for customers who won't or can't afford the on-street premium.[7]

VI. SUMMARY

[6] In Portland different parking districts have different hourly rates because of occupancy/demand variations between districts (e.g., Downtown = $1.60/hr., Central Eastside = $1.25/hr. and Lloyd District = $1.00 /hr.).
[7] See: Ingenieurgruppe IVV GmbH & Co. KG, *Parking Guidance System for Downtown Seattle, Conceptual Framework (October 2006)*, page 5.

The 85% Rule is an operating principle and industry-based best practices management tool for coordinating a parking supply and increasing trip capacity (within the supply itself or in tandem with other modes). When occupancies routinely reach 85% in the peak hour, more *intensive and aggressive* parking management strategies are called for to assist patrons in finding available parking. The 85% Rule standard will facilitate a City's and community's ability to make reasonable and effective decisions regarding time stays, enforcement and other decisions related to capacity management. The 85% Rule is an objective standard that supports priorities for parking – getting the right car to the right space.